
Appendix A

Detailed Modeling Results

FORGESOLAR GLARE ANALYSIS

Project: **March Air Reserve Base Cumulative Analysis North A**

Site configuration: **North A Overhead and Rwy 12_30 with ATCT 90DegView**

Created 10 Jul, 2023

Updated 13 Sep, 2023

Time-step 1 minute

Timezone offset UTC-8

Minimum sun altitude 0.0 deg

DNI peaks at 1,000.0 W/m²

Category 10 MW to 100 MW

Site ID 95003.16309

Ocular transmission coefficient 0.5

Pupil diameter 0.002 m

Eye focal length 0.017 m

Sun subtended angle 9.3 mrad

PV analysis methodology V2



Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt °	Orient °	Annual Green Glare		Annual Yellow Glare		Energy kWh
			min	hr	min	hr	
PV1314_01	10.0	180.0	17,422	290.4	0	0.0	-
PV1314_02	10.0	180.0	17,998	300.0	0	0.0	-
PV1314_03	10.0	180.0	17,260	287.7	0	0.0	-
PV1314_04	10.0	180.0	18,867	314.4	0	0.0	-
PV1314_05	10.0	180.0	18,909	315.1	0	0.0	-
PV1314_06	10.0	180.0	17,457	290.9	0	0.0	-
PV1314_07	10.0	180.0	16,209	270.1	0	0.0	-
PV1411_01	10.0	270.0	6,859	114.3	0	0.0	-
PV1411_02	10.0	90.0	18,744	312.4	0	0.0	-
PV1458_01	10.0	182.0	15,303	255.1	0	0.0	-
PV1462_01	5.0	180.0	17,878	298.0	0	0.0	-
PV1509_01	10.0	194.0	9,464	157.7	0	0.0	-
PV1558_01	10.0	180.0	7,861	131.0	0	0.0	-
PV1558_02	10.0	180.0	7,829	130.5	0	0.0	-
PV1558_03	10.0	180.0	7,900	131.7	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP01	0	0.0	0	0.0
FP02	39,036	650.6	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP03	95,339	1,589.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	18,304	305.1	0	0.0
FP08	0	0.0	0	0.0
FP09	56,801	946.7	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	2,855	47.6	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	2,784	46.4	0	0.0
FP16	841	14.0	0	0.0
1-ATCT	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV1314_01
Axis tracking: Fixed (no rotation)
Tilt: 10.0°
Orientation: 180.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.910592	-117.268042	1556.38	13.80	1570.18
2	33.910596	-117.267551	1554.48	13.80	1568.28
3	33.910495	-117.267549	1554.97	13.80	1568.77
4	33.910494	-117.268044	1555.81	13.80	1569.61

Name: PV1314_02
Axis tracking: Fixed (no rotation)
Tilt: 10.0°
Orientation: 180.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.910390	-117.268149	1555.96	13.80	1569.76
2	33.910388	-117.267446	1557.75	13.80	1571.55
3	33.910427	-117.267448	1557.30	13.80	1571.10
4	33.910428	-117.268150	1555.95	13.80	1569.75

Name: PV1314_03

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

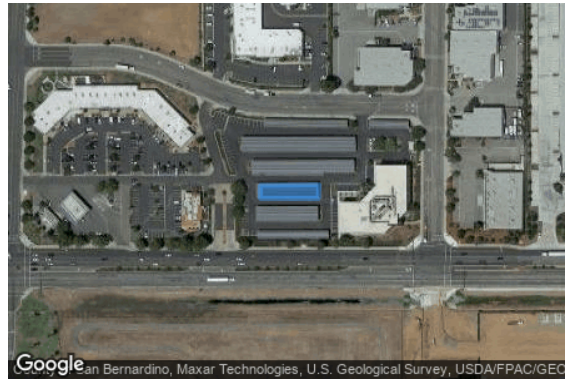
Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.910752	-117.268044	1556.64	13.80	1570.44
2	33.910756	-117.267542	1553.65	13.80	1567.45
3	33.910659	-117.267547	1553.77	13.80	1567.57
4	33.910660	-117.268045	1556.99	13.80	1570.79

Name: PV1314_04

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

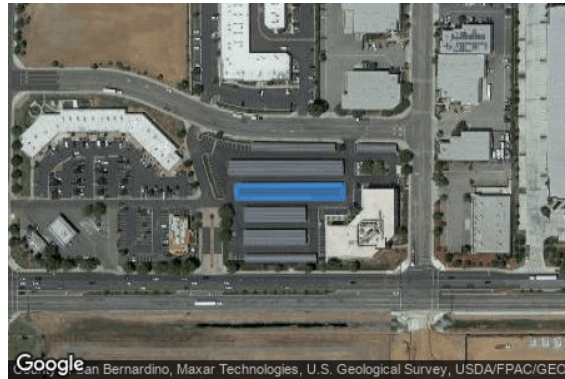
Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.910919	-117.268153	1556.64	13.80	1570.44
2	33.910923	-117.267232	1555.97	13.80	1569.77
3	33.910822	-117.267233	1554.20	13.80	1568.00
4	33.910822	-117.268150	1556.68	13.80	1570.48

Name: PV1314_05

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

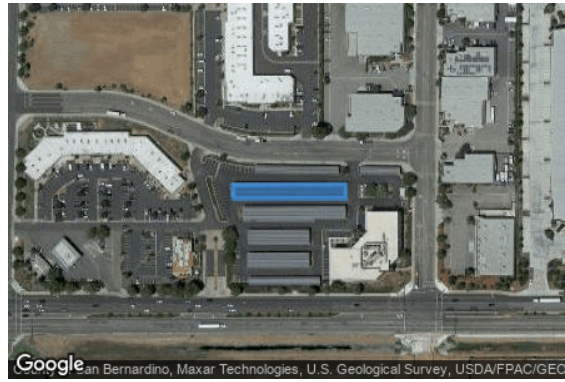
Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.911084	-117.268214	1555.15	13.80	1568.95
2	33.911088	-117.267239	1554.48	13.80	1568.28
3	33.910988	-117.267242	1556.24	13.80	1570.04
4	33.910985	-117.268209	1555.54	13.80	1569.34

Name: PV1314_06

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

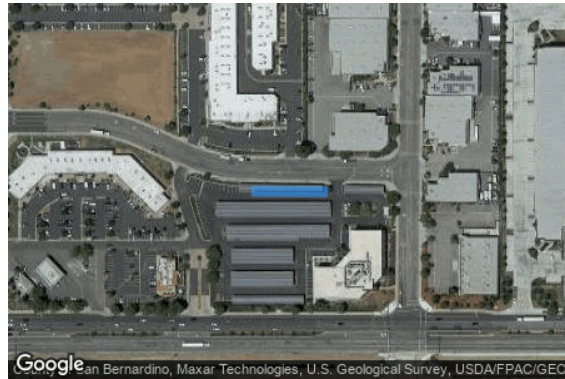
Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.911193	-117.267892	1551.70	13.80	1565.50
2	33.911189	-117.267267	1553.26	13.80	1567.06
3	33.911143	-117.267269	1553.62	13.80	1567.42
4	33.911148	-117.267893	1552.93	13.80	1566.73

Name: PV1314_07

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

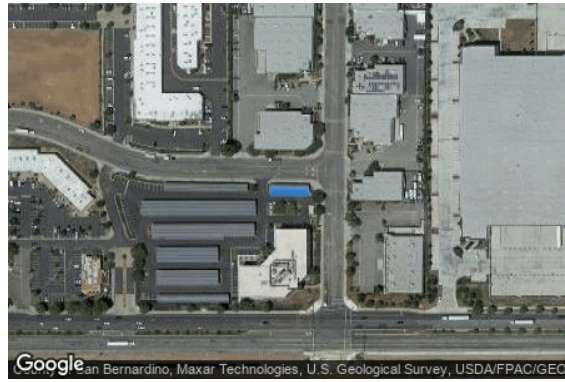
Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.911186	-117.267097	1552.39	13.80	1566.19
2	33.911183	-117.266793	1552.99	13.80	1566.79
3	33.911145	-117.266793	1553.17	13.80	1566.97
4	33.911147	-117.267096	1552.76	13.80	1566.56

Name: PV1411_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 270.0°

Rated power: -

Panel material: Light textured glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.912377	-117.294424	1564.28	50.00	1614.28
2	33.913062	-117.293051	1551.96	50.00	1601.96
3	33.911477	-117.291903	1557.50	50.00	1607.50
4	33.910836	-117.293384	1567.13	50.00	1617.13

Name: PV1411_02

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 90.0°

Rated power: -

Panel material: Light textured glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.912377	-117.294424	1564.28	50.00	1614.28
2	33.913062	-117.293051	1551.96	50.00	1601.96
3	33.911477	-117.291903	1557.50	50.00	1607.50
4	33.910836	-117.293384	1567.13	50.00	1617.13

Name: PV1458_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 182.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.915051	-117.272082	1561.10	29.00	1590.10
2	33.915049	-117.271659	1561.34	28.76	1590.10
3	33.914635	-117.271672	1562.85	27.25	1590.10
4	33.914636	-117.272088	1560.08	30.02	1590.10

Name: PV1462_01

Axis tracking: Fixed (no rotation)

Tilt: 5.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.910885	-117.275868	1554.38	20.00	1574.38
2	33.910888	-117.275551	1555.98	20.00	1575.98
3	33.910450	-117.275550	1557.88	20.00	1577.88
4	33.910451	-117.275873	1556.08	20.00	1576.08

Name: PV1509_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 194.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.892686	-117.279556	1560.93	0.00	1560.93
2	33.892704	-117.278215	1559.74	0.00	1559.74
3	33.891145	-117.278225	1558.97	0.00	1558.97
4	33.891145	-117.279523	1566.81	0.00	1566.81

Name: PV1558_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.914502	-117.291257	1546.32	23.95	1570.27
2	33.914503	-117.291154	1545.98	23.95	1569.93
3	33.914390	-117.291158	1546.08	23.95	1570.03
4	33.914392	-117.291259	1545.55	23.95	1569.50

Name: PV1558_02

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.914498	-117.291123	1545.75	23.95	1569.70
2	33.914496	-117.291054	1545.24	23.95	1569.19
3	33.914419	-117.291055	1545.22	23.95	1569.17
4	33.914416	-117.291133	1545.80	23.95	1569.75

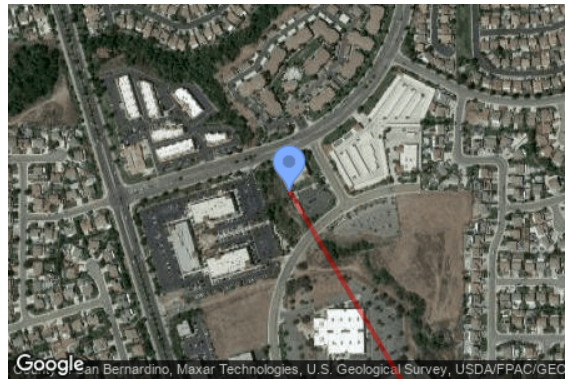
Name: PV1558_03
Axis tracking: Fixed (no rotation)
Tilt: 10.0°
Orientation: 180.0°
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.914363	-117.291217	1546.10	23.95	1570.05
2	33.914365	-117.291099	1545.73	23.95	1569.68
3	33.914314	-117.291098	1546.02	23.95	1569.97
4	33.914316	-117.291216	1546.07	23.95	1570.02

Flight Path Receptors

Name: FP01
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.908131	-117.325528	0.00	3500.00	3500.00
Two-mile	33.863564	-117.293808	0.00	3500.00	3500.00

Name: FP02
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896431	-117.270636	0.00	1550.00	1550.00
Two-mile	33.925156	-117.291061	0.00	3500.00	3500.00

Name: FP03
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.880706	-117.259453	0.00	3500.00	3500.00
Two-mile	33.968036	-117.322128	0.00	3500.00	3500.00

Name: FP04
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.819225	-117.262269	0.00	3500.00	3500.00
Two-mile	33.863564	-117.293808	0.00	3500.00	3500.00

Name: FP05
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.864994	-117.248281	0.00	1550.00	1550.00
Two-mile	33.836269	-117.227869	0.00	3500.00	3500.00

Name: FP06
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



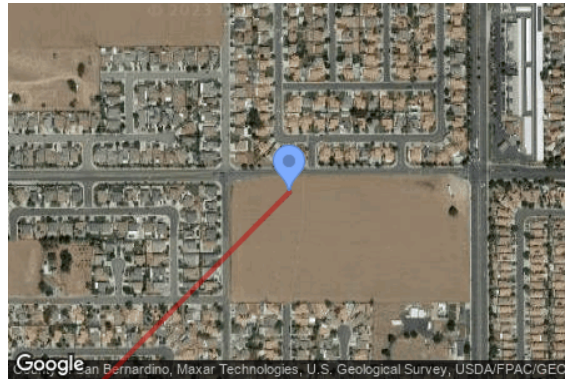
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.880706	-117.259453	0.00	3500.00	3500.00
Two-mile	33.793375	-117.196878	0.00	3500.00	3500.00

Name: FP07
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.905592	-117.270622	0.00	2800.00	2800.00
Two-mile	33.910322	-117.264967	0.00	2800.00	2800.00

Name: FP08
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.880814	-117.229467	0.00	2800.00	2800.00
Two-mile	33.876081	-117.235119	0.00	2800.00	2800.00

Name: FP09
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.910333	-117.256469	0.00	2800.00	2800.00
Two-mile	33.887897	-117.229483	0.00	2800.00	2800.00

Name: FP10
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.890258	-117.260681	0.00	1550.00	1550.00
Two-mile	33.898508	-117.270608	0.00	2800.00	2800.00

Name: FP11
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



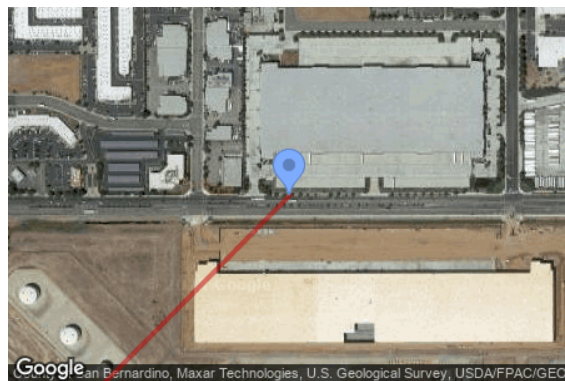
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.876069	-117.243611	0.00	2800.00	2800.00
Two-mile	33.884319	-117.253536	0.00	1550.00	1550.00

Name: FP12
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.876081	-117.235119	0.00	2800.00	2800.00
Two-mile	33.880814	-117.229467	0.00	2800.00	2800.00

Name: FP13
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.910322	-117.264967	0.00	2800.00	2800.00
Two-mile	33.905592	-117.270622	0.00	2800.00	2800.00

Name: FP14
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.887897	-117.229483	0.00	2800.00	2800.00
Two-mile	33.910333	-117.256469	0.00	2800.00	2800.00

Name: FP15
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.884319	-117.253536	0.00	1550.00	1550.00
Two-mile	33.876069	-117.243611	0.00	2800.00	2800.00

Name: FP16
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.898508	-117.270608	0.00	2800.00	2800.00
Two-mile	33.890258	-117.260681	0.00	1550.00	1550.00

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1510.00	118.00

Map image of 1-ATCT



Glare Analysis Results

Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV1314_01	10.0	180.0	17,422	290.4	0	0.0	-
PV1314_02	10.0	180.0	17,998	300.0	0	0.0	-
PV1314_03	10.0	180.0	17,260	287.7	0	0.0	-
PV1314_04	10.0	180.0	18,867	314.4	0	0.0	-
PV1314_05	10.0	180.0	18,909	315.1	0	0.0	-
PV1314_06	10.0	180.0	17,457	290.9	0	0.0	-
PV1314_07	10.0	180.0	16,209	270.1	0	0.0	-
PV1411_01	10.0	270.0	6,859	114.3	0	0.0	-
PV1411_02	10.0	90.0	18,744	312.4	0	0.0	-
PV1458_01	10.0	182.0	15,303	255.1	0	0.0	-
PV1462_01	5.0	180.0	17,878	298.0	0	0.0	-
PV1509_01	10.0	194.0	9,464	157.7	0	0.0	-
PV1558_01	10.0	180.0	7,861	131.0	0	0.0	-
PV1558_02	10.0	180.0	7,829	130.5	0	0.0	-
PV1558_03	10.0	180.0	7,900	131.7	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP01	0	0.0	0	0.0
FP02	39,036	650.6	0	0.0
FP03	95,339	1,589.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	18,304	305.1	0	0.0
FP08	0	0.0	0	0.0
FP09	56,801	946.7	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	2,855	47.6	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	2,784	46.4	0	0.0
FP16	841	14.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV: PV1314_01 low potential for temporary after-image

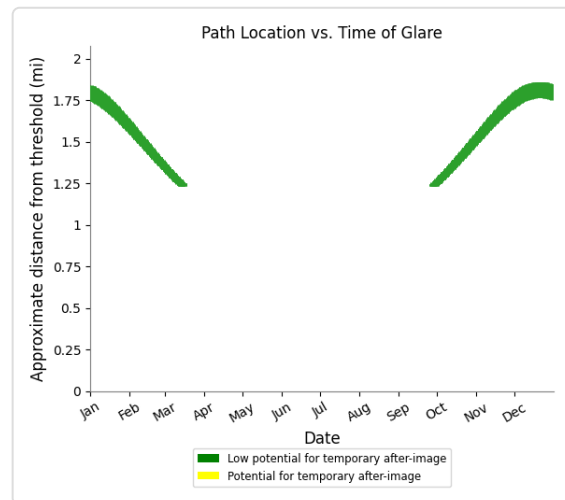
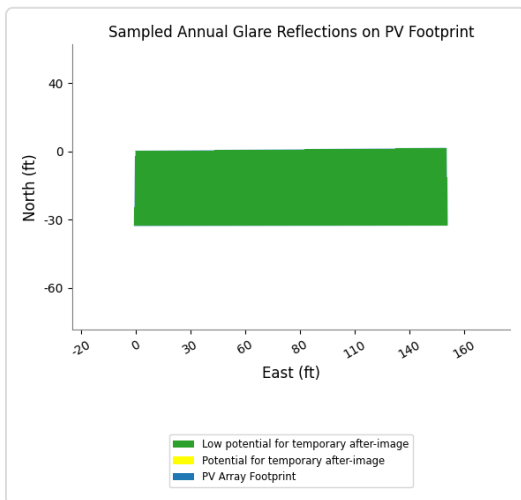
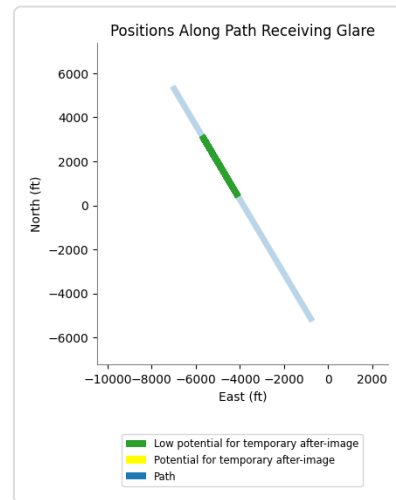
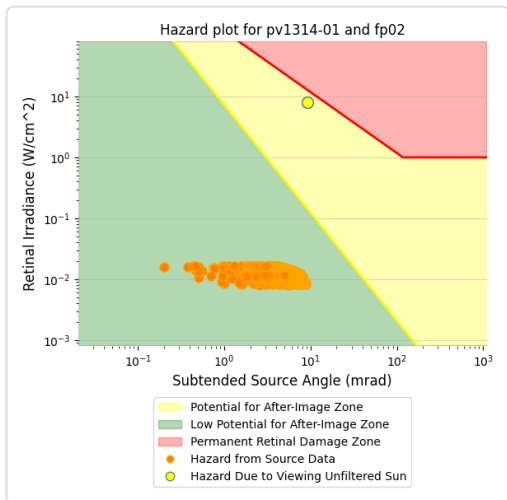
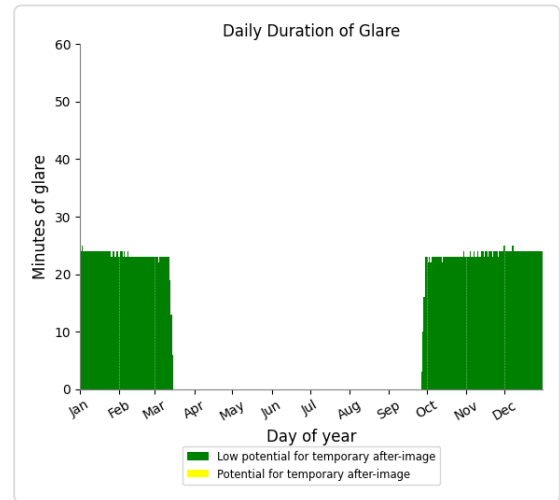
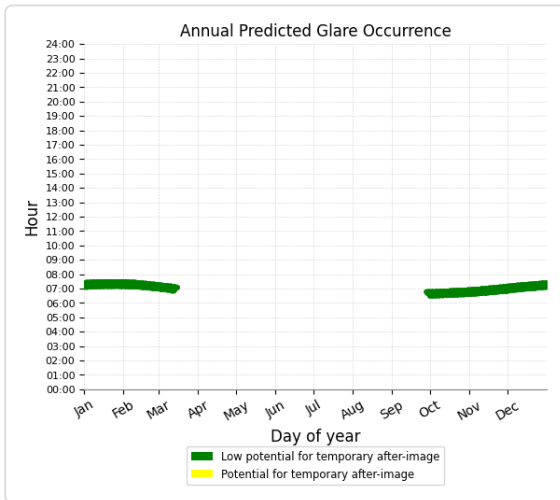
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP02	3,921	65.3	0	0.0
FP03	8,908	148.5	0	0.0
FP09	4,593	76.5	0	0.0
FP01	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1314_01 and FP: FP02

Yellow glare: none

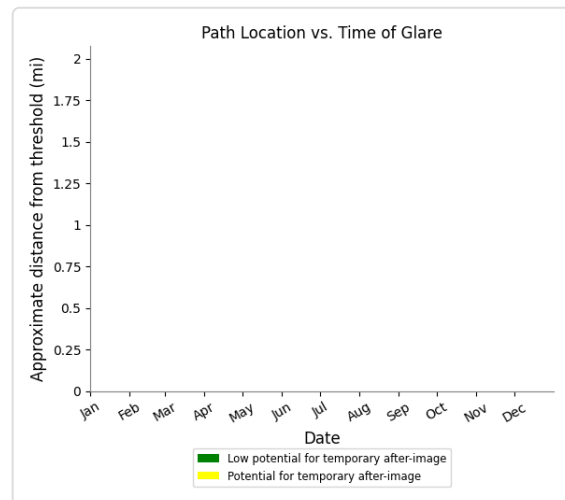
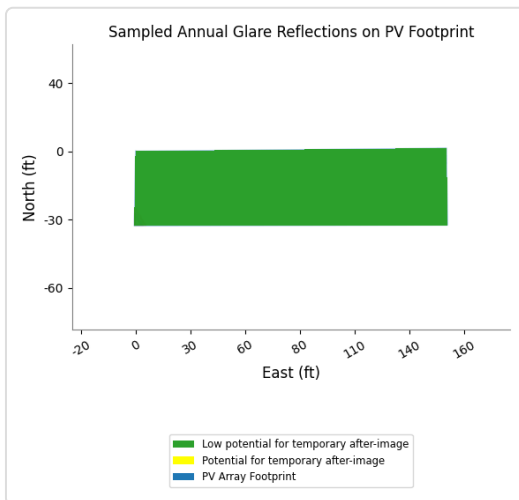
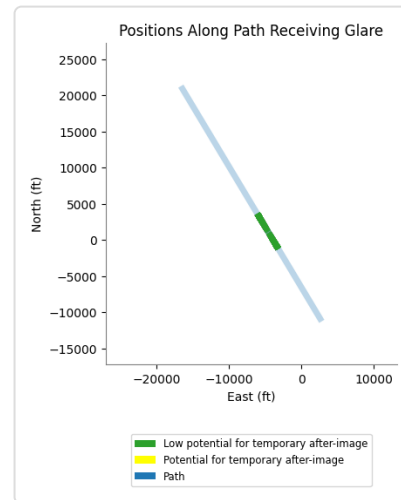
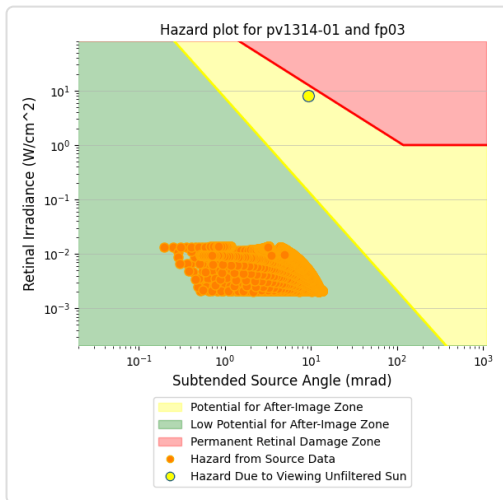
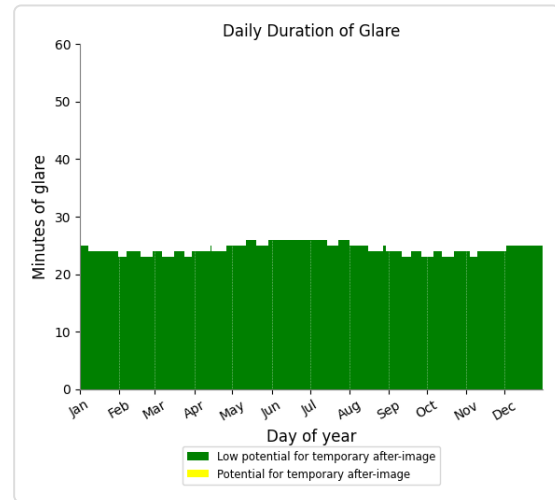
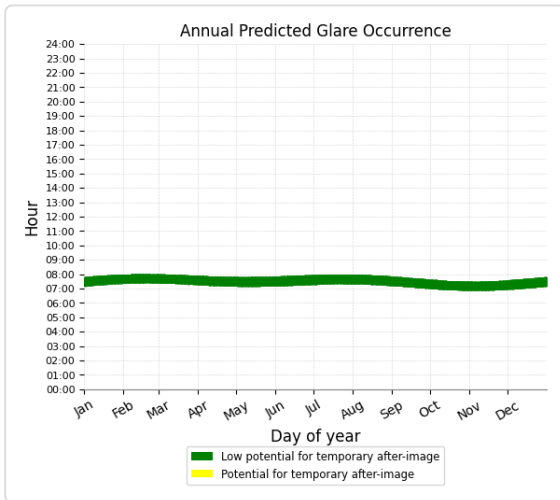
Green glare: 3,921 min.



PV1314_01 and FP: FP03

Yellow glare: none

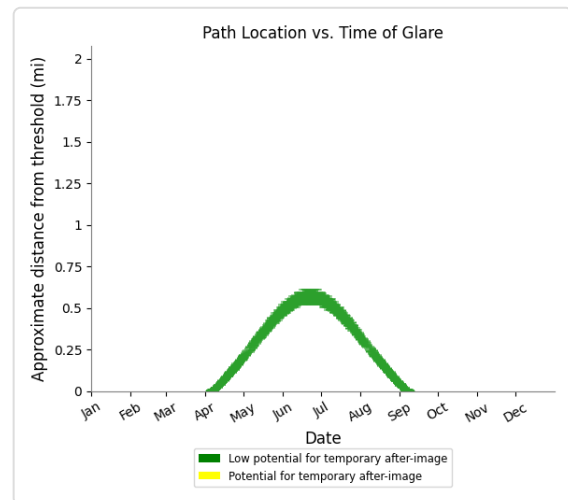
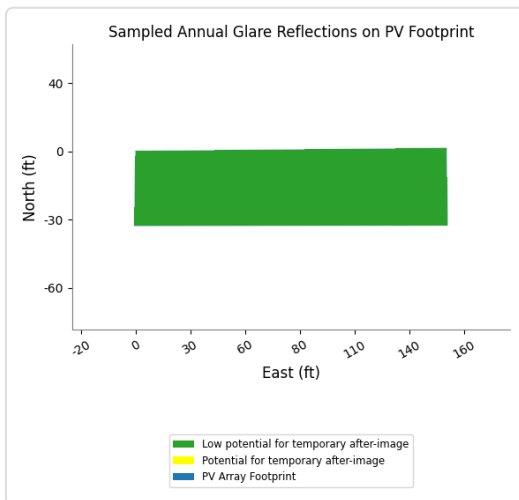
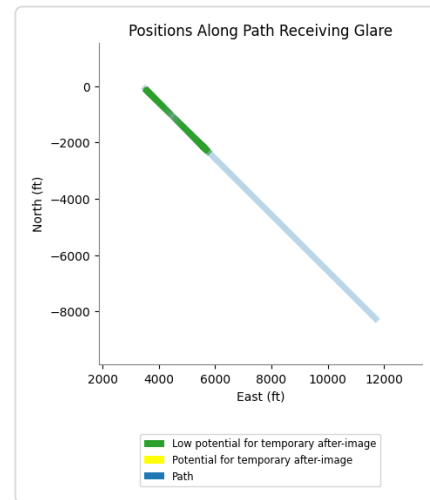
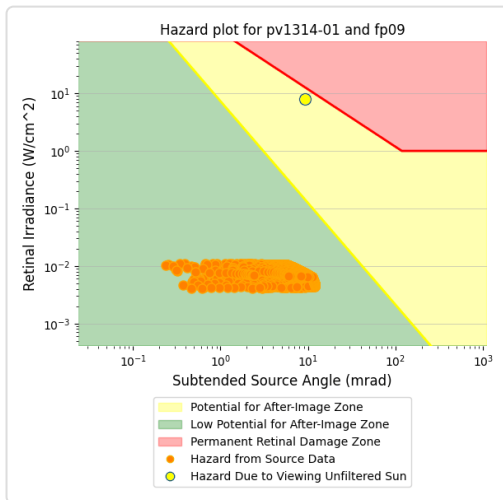
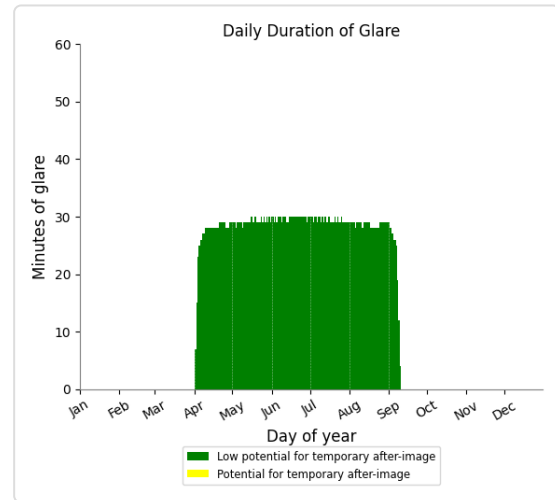
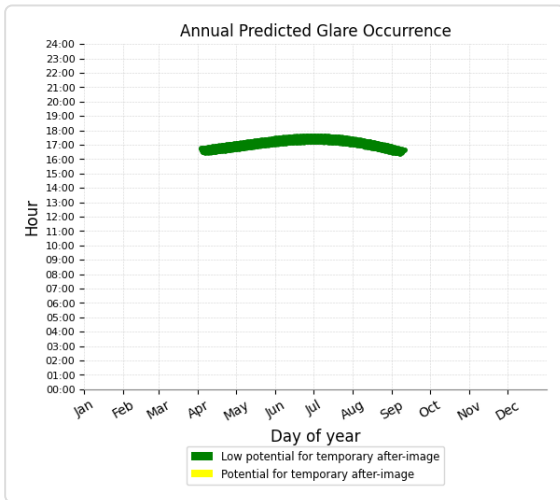
Green glare: 8,908 min.



PV1314_01 and FP: FP09

Yellow glare: none

Green glare: 4,593 min.



PV1314_01 and FP: FP01

No glare found

PV1314_01 and FP: FP04

No glare found

PV1314_01 and FP: FP05

No glare found

PV1314_01 and FP: FP06

No glare found

PV1314_01 and FP: FP07

No glare found

PV1314_01 and FP: FP08

No glare found

PV1314_01 and FP: FP10

No glare found

PV1314_01 and FP: FP11

No glare found

PV1314_01 and FP: FP12

No glare found

PV1314_01 and FP: FP13

No glare found

PV1314_01 and FP: FP14

No glare found

PV1314_01 and FP: FP15

No glare found

PV1314_01 and FP: FP16

No glare found

PV1314_01 and 1-ATCT

No glare found

PV: PV1314_02 low potential for temporary after-image

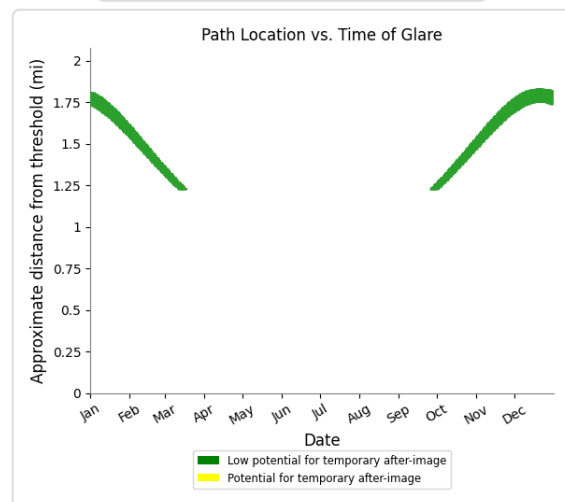
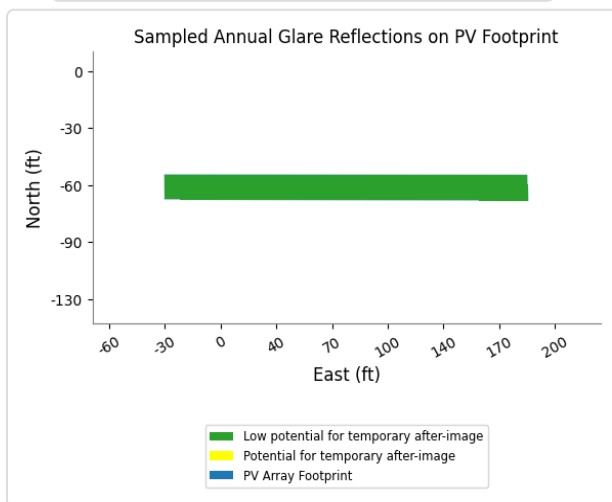
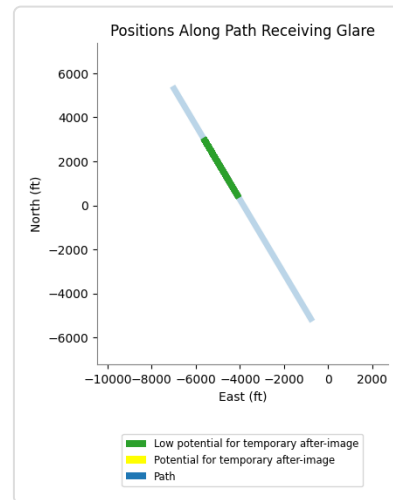
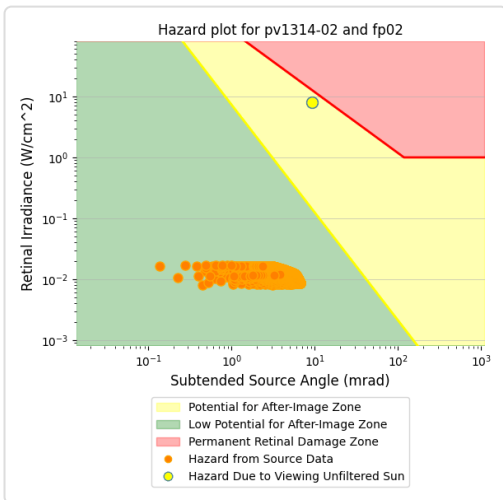
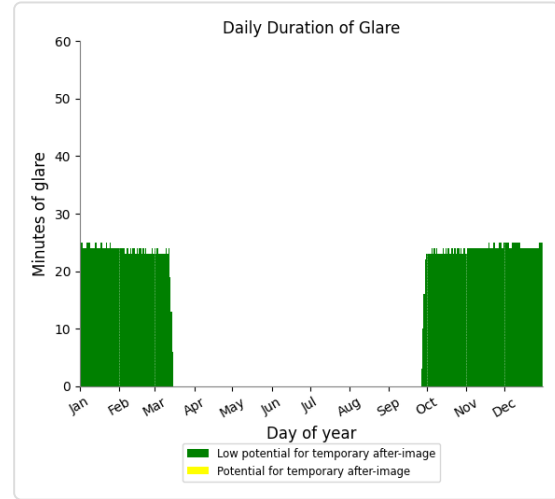
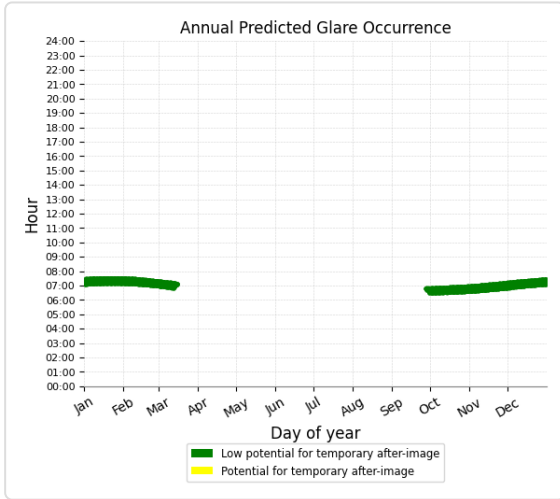
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP02	3,991	66.5	0	0.0
FP03	9,342	155.7	0	0.0
FP09	4,665	77.8	0	0.0
FP01	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1314_02 and FP: FP02

Yellow glare: none

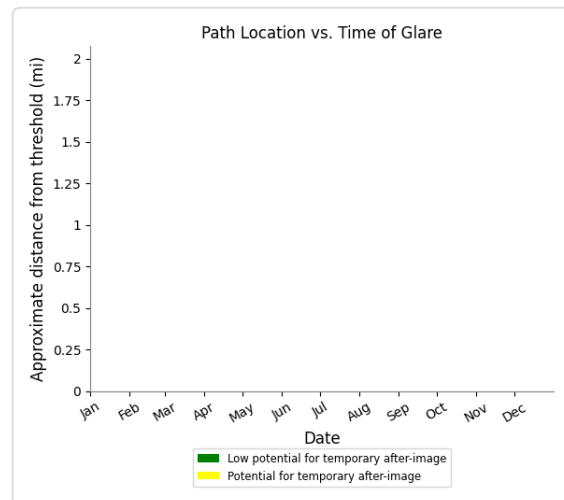
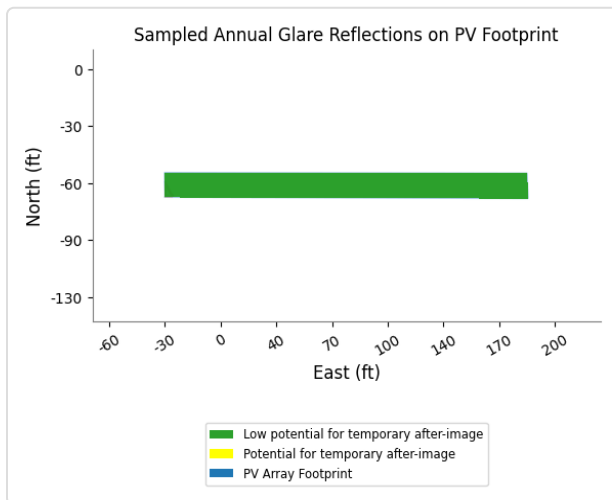
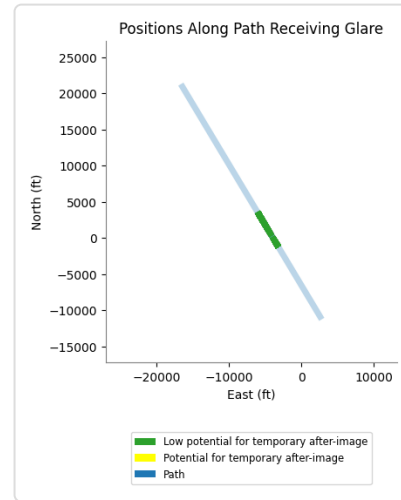
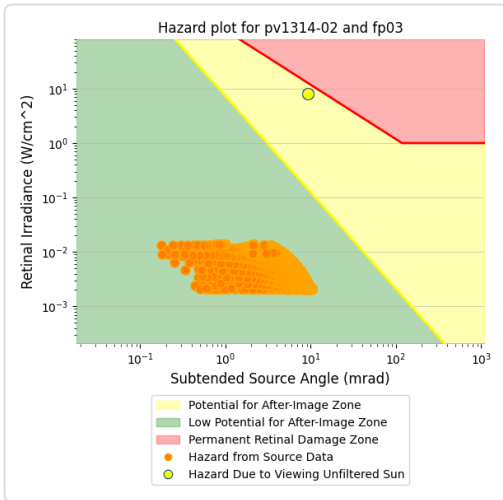
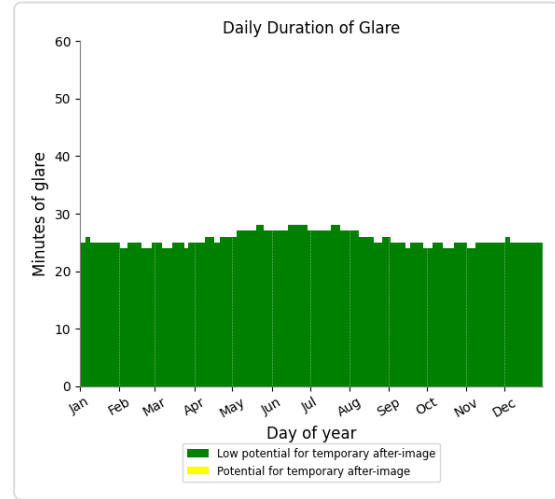
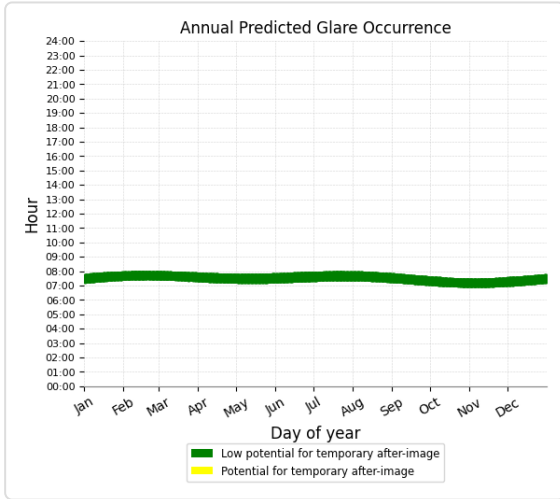
Green glare: 3,991 min.



PV1314_02 and FP: FP03

Yellow glare: none

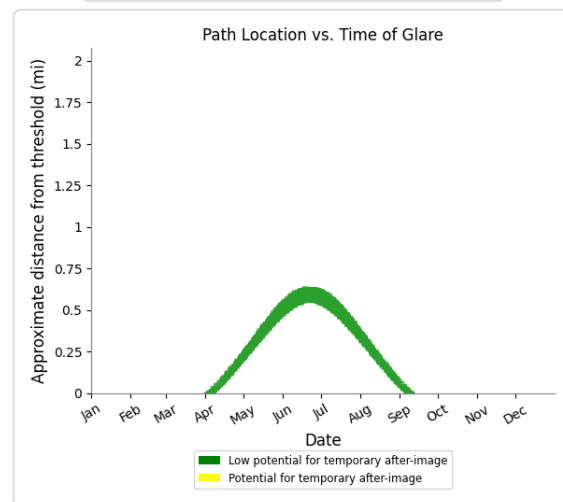
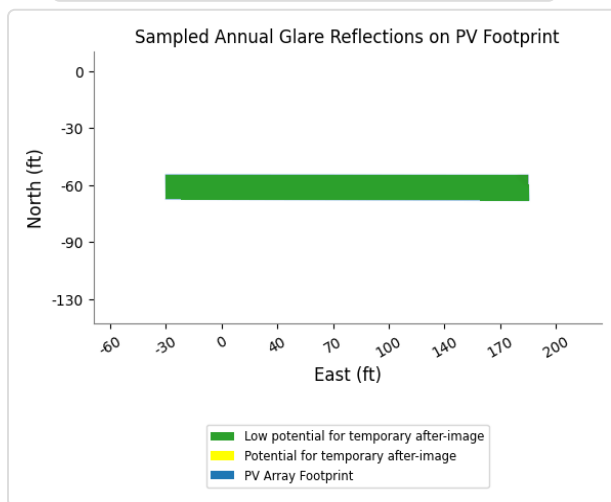
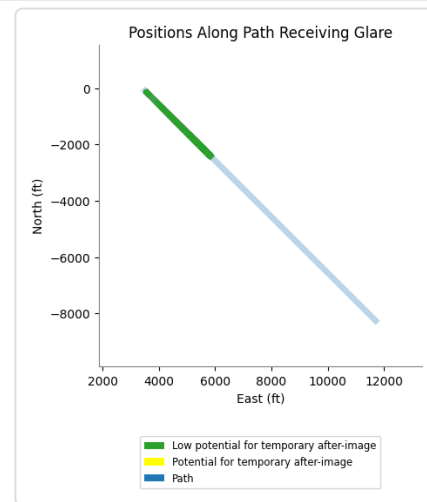
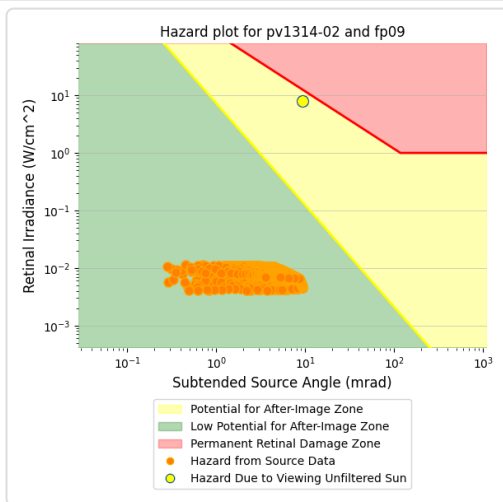
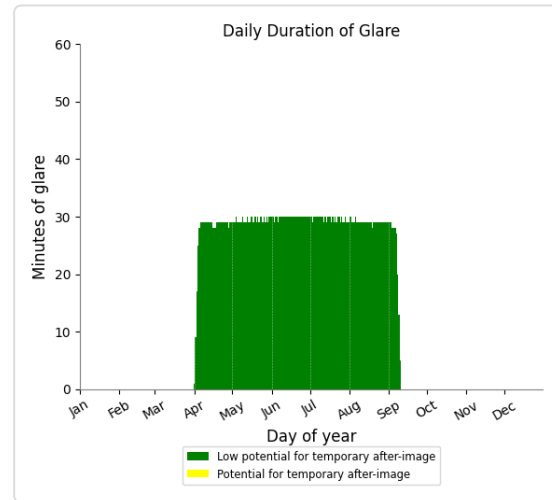
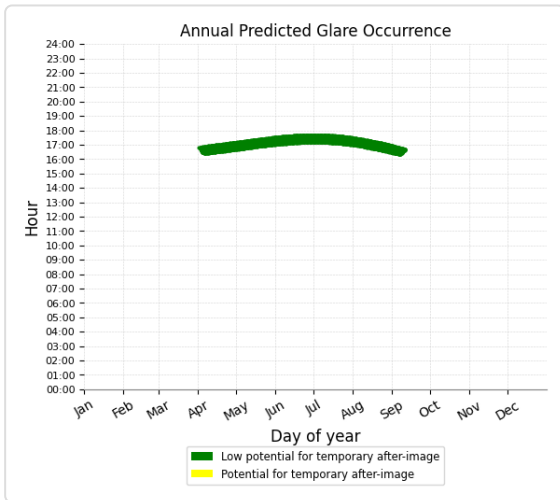
Green glare: 9,342 min.



PV1314_02 and FP: FP09

Yellow glare: none

Green glare: 4,665 min.



PV1314_02 and FP: FP01

No glare found

PV1314_02 and FP: FP04

No glare found

PV1314_02 and FP: FP05

No glare found

PV1314_02 and FP: FP06

No glare found

PV1314_02 and FP: FP07

No glare found

PV1314_02 and FP: FP08

No glare found

PV1314_02 and FP: FP10

No glare found

PV1314_02 and FP: FP11

No glare found

PV1314_02 and FP: FP12

No glare found

PV1314_02 and FP: FP13

No glare found

PV1314_02 and FP: FP14

No glare found

PV1314_02 and FP: FP15

No glare found

PV1314_02 and FP: FP16

No glare found

PV1314_02 and 1-ATCT

No glare found

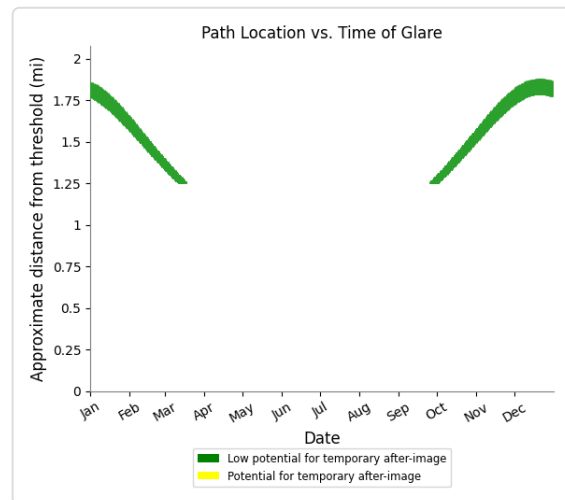
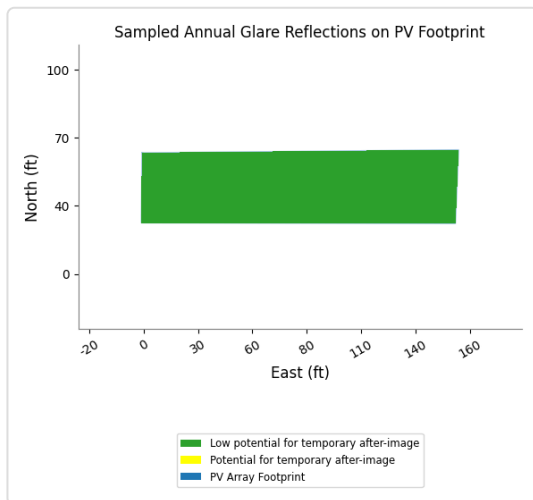
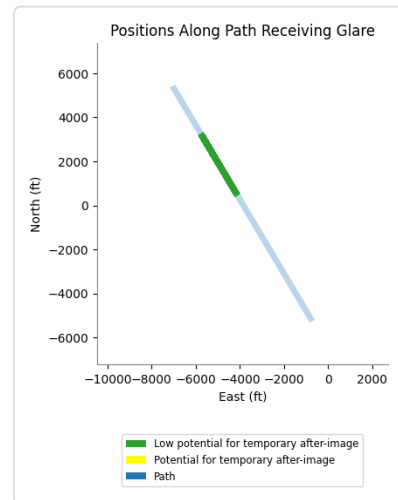
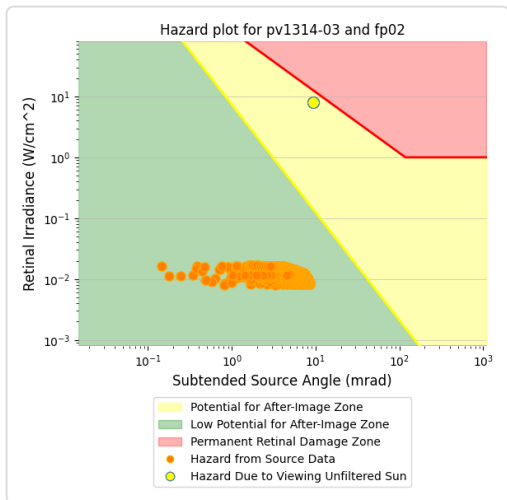
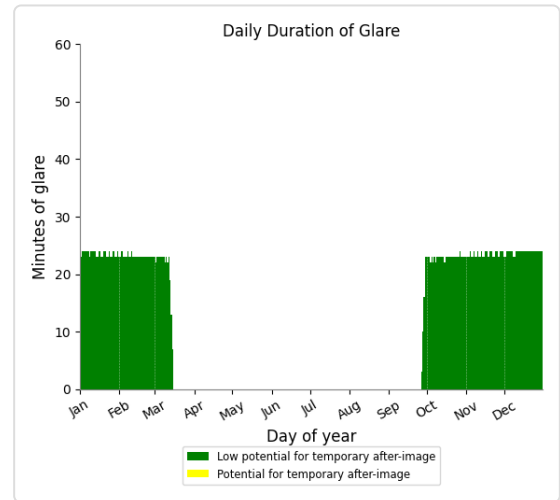
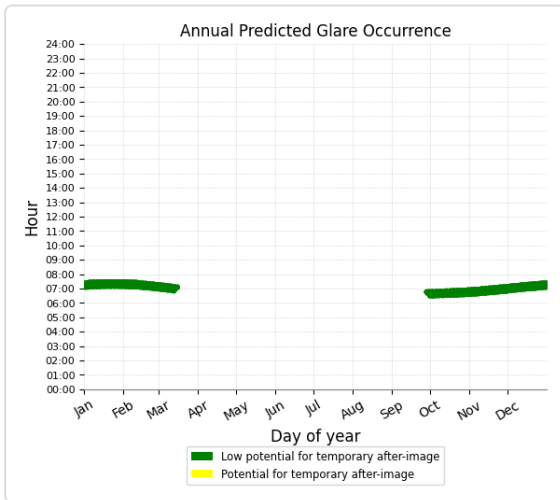
PV: PV1314_03 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP02	3,896	64.9	0	0.0
FP03	8,775	146.2	0	0.0
FP09	4,589	76.5	0	0.0
FP01	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1314_03 and FP: FP02

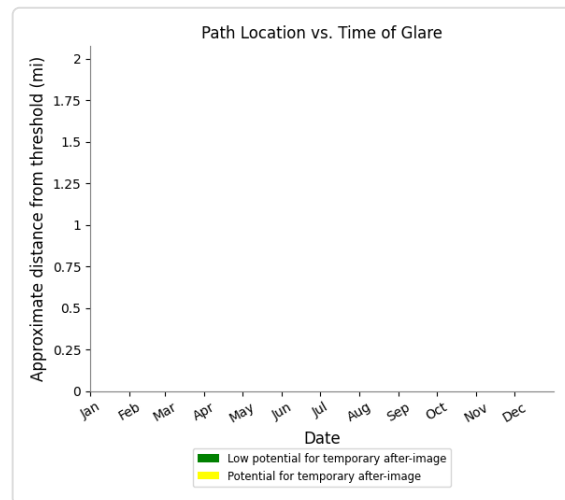
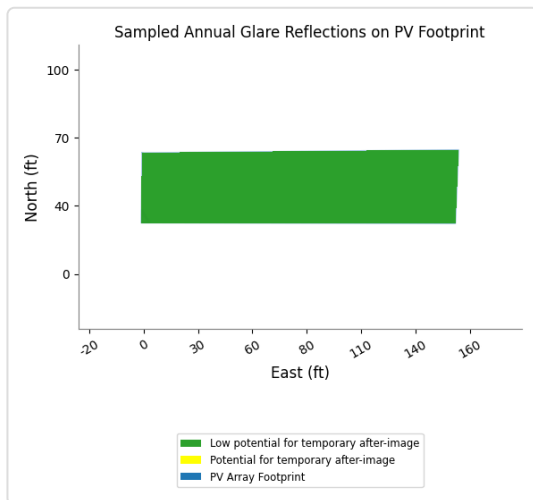
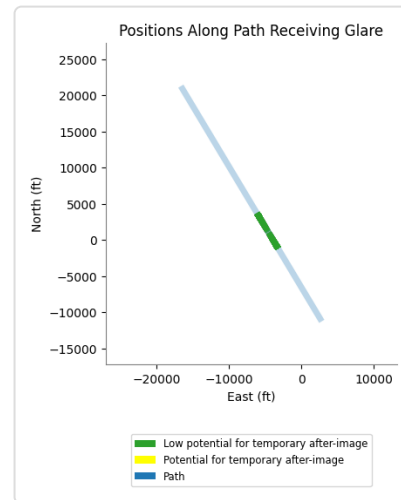
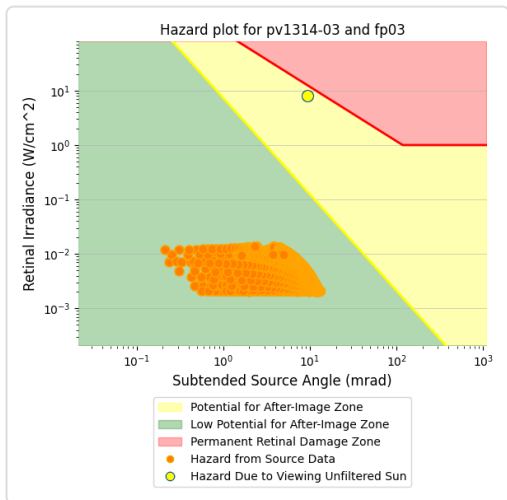
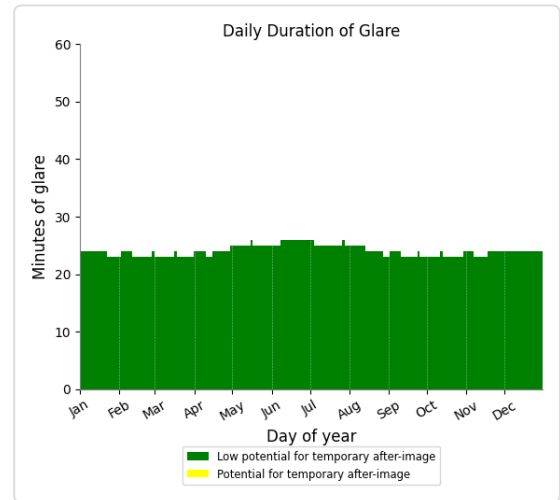
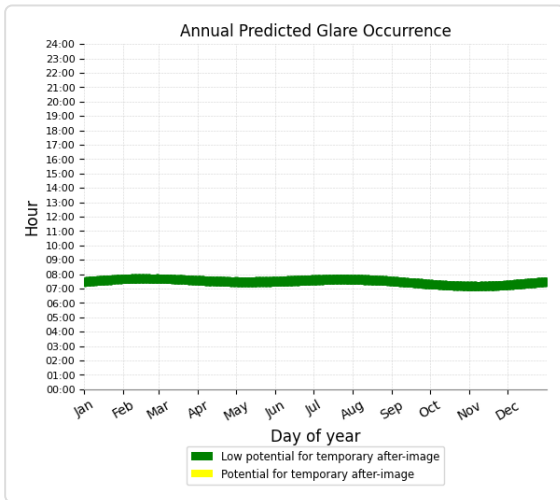
Yellow glare: none
 Green glare: 3,896 min.



PV1314_03 and FP: FP03

Yellow glare: none

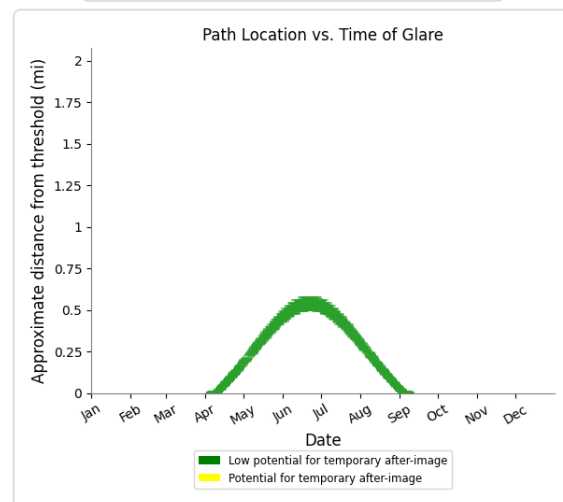
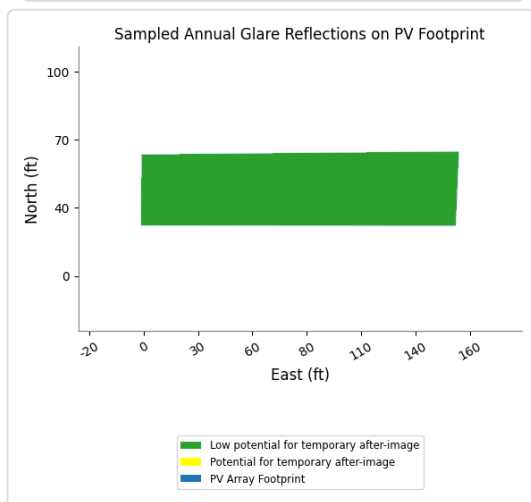
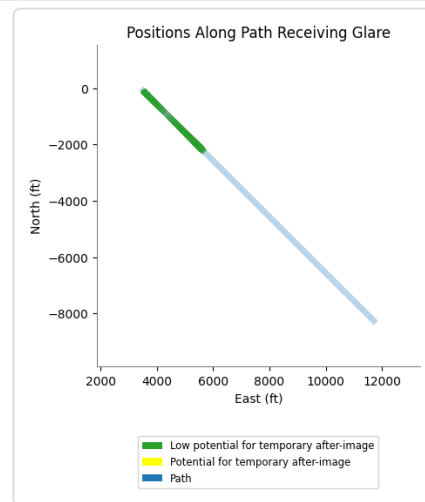
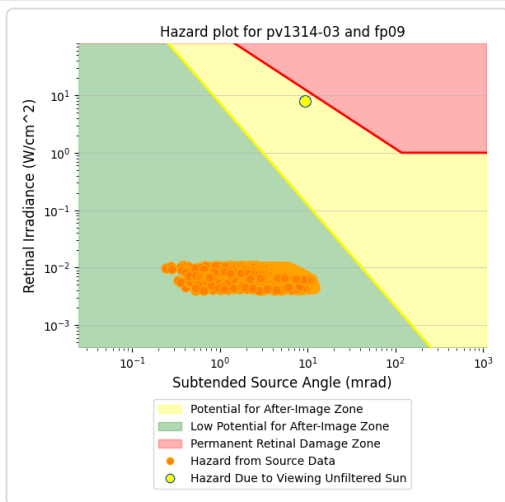
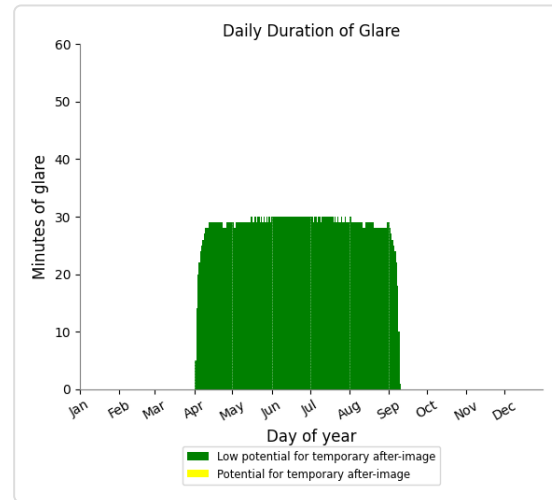
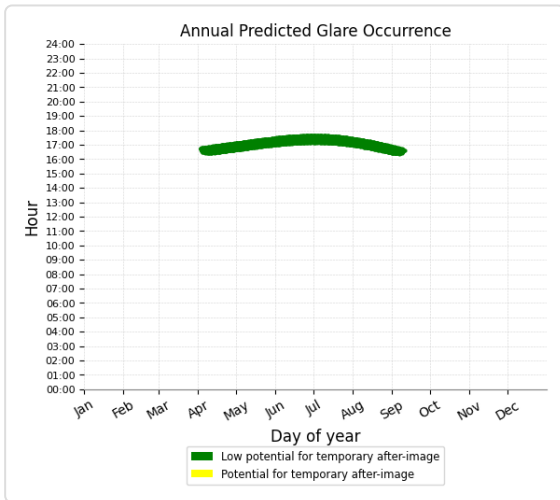
Green glare: 8,775 min.



PV1314_03 and FP: FP09

Yellow glare: none

Green glare: 4,589 min.



PV1314_03 and FP: FP01

No glare found

PV1314_03 and FP: FP04

No glare found

PV1314_03 and FP: FP05

No glare found

PV1314_03 and FP: FP06

No glare found

PV1314_03 and FP: FP07

No glare found

PV1314_03 and FP: FP08

No glare found

PV1314_03 and FP: FP10

No glare found

PV1314_03 and FP: FP11

No glare found

PV1314_03 and FP: FP12

No glare found

PV1314_03 and FP: FP13

No glare found

PV1314_03 and FP: FP14

No glare found

PV1314_03 and FP: FP15

No glare found

PV1314_03 and FP: FP16

No glare found

PV1314_03 and 1-ATCT

No glare found

PV: PV1314_04 low potential for temporary after-image

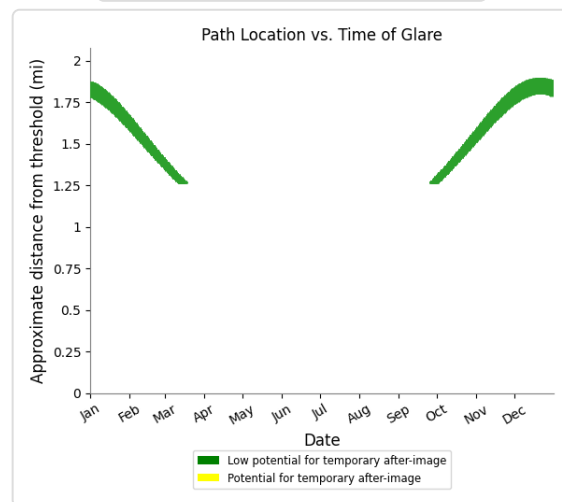
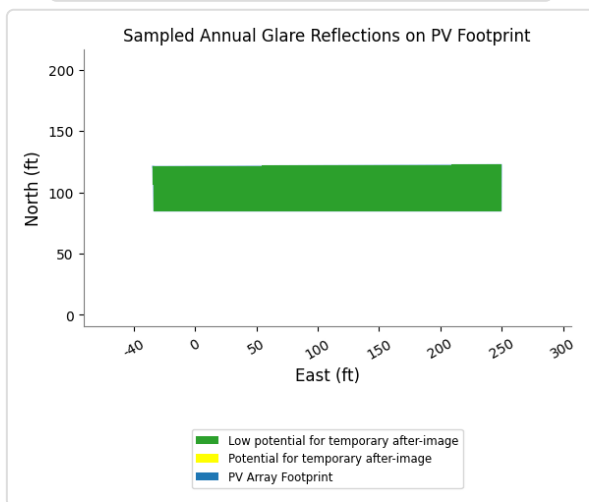
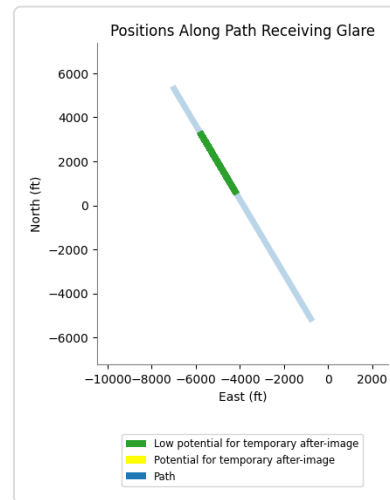
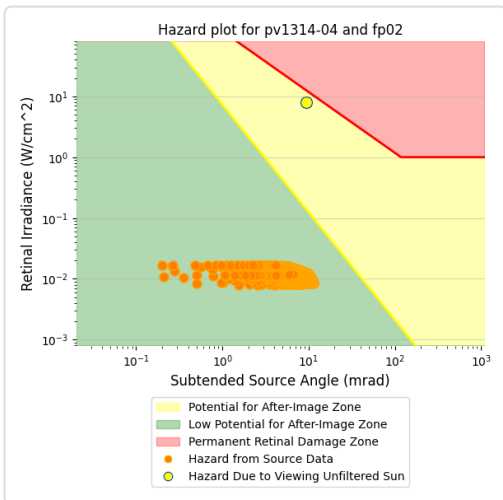
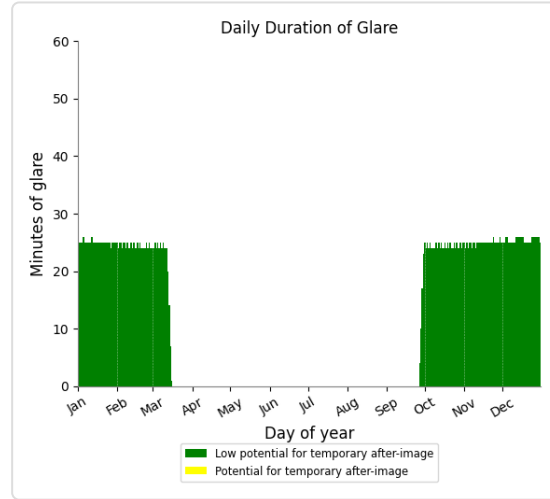
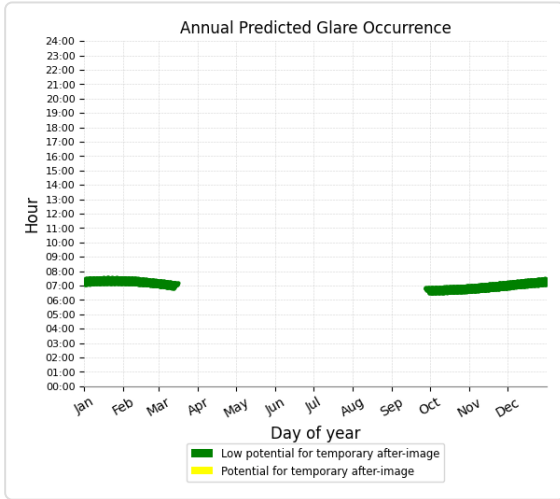
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP02	4,144	69.1	0	0.0
FP03	9,766	162.8	0	0.0
FP09	4,957	82.6	0	0.0
FP01	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1314_04 and FP: FP02

Yellow glare: none

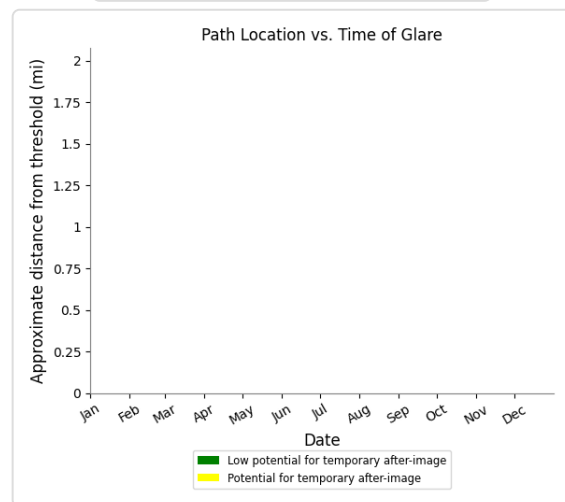
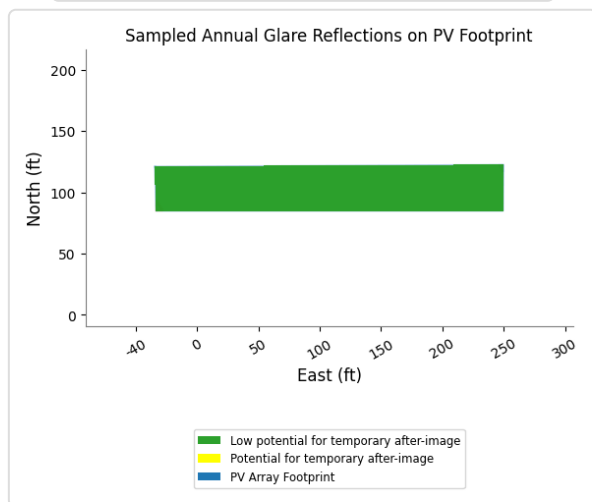
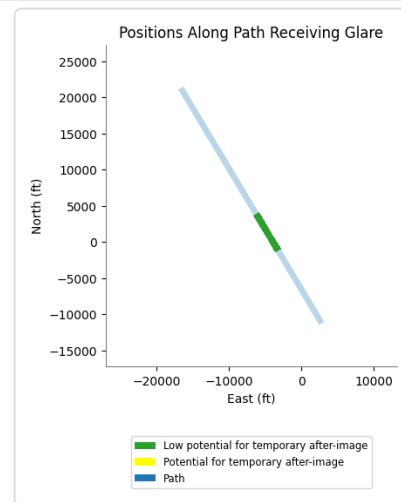
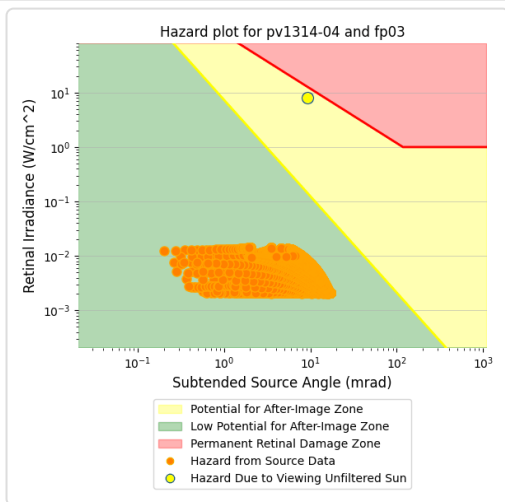
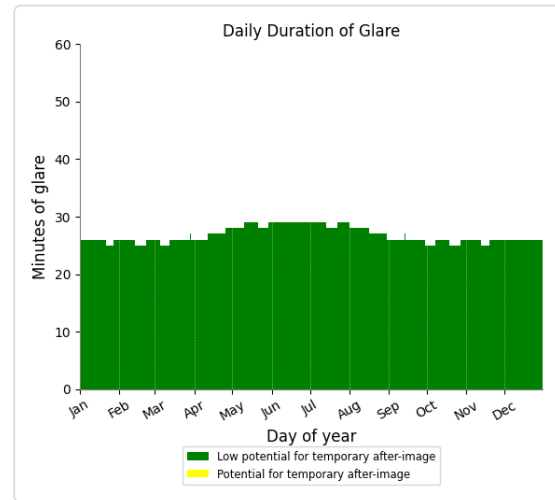
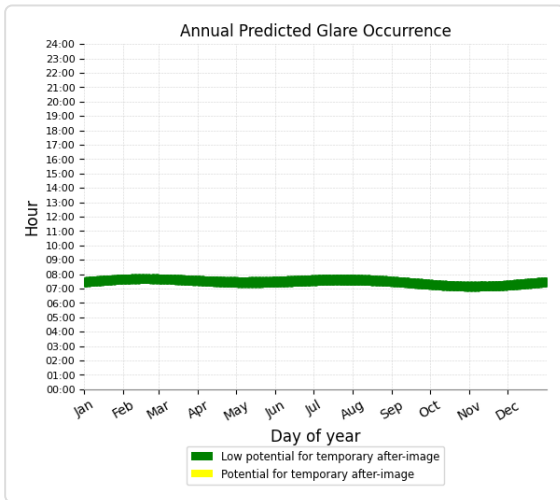
Green glare: 4,144 min.



PV1314_04 and FP: FP03

Yellow glare: none

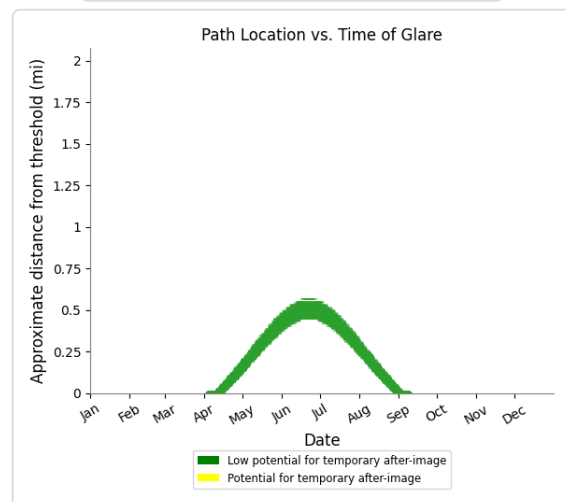
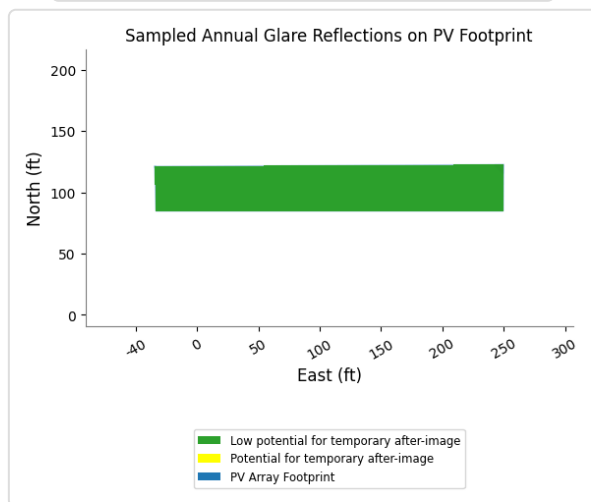
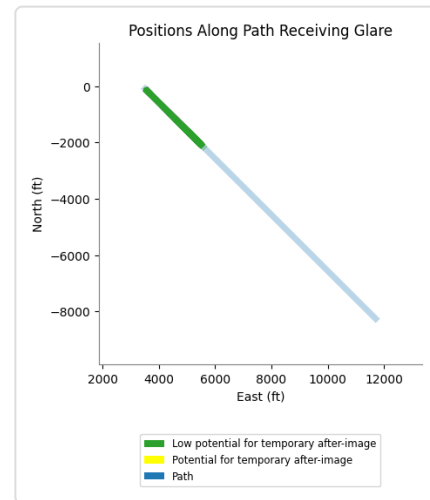
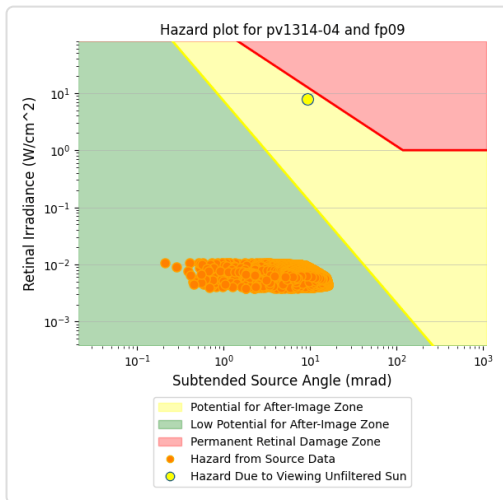
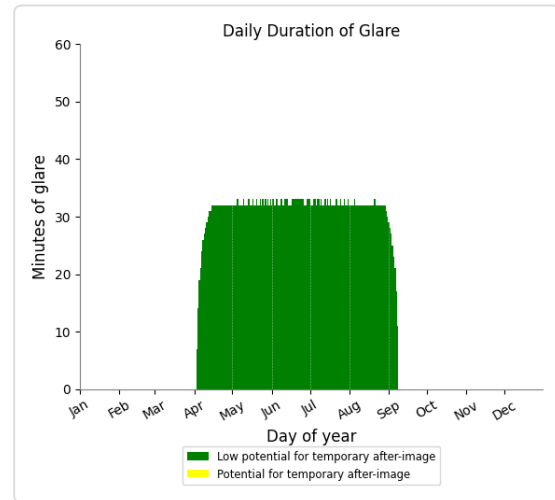
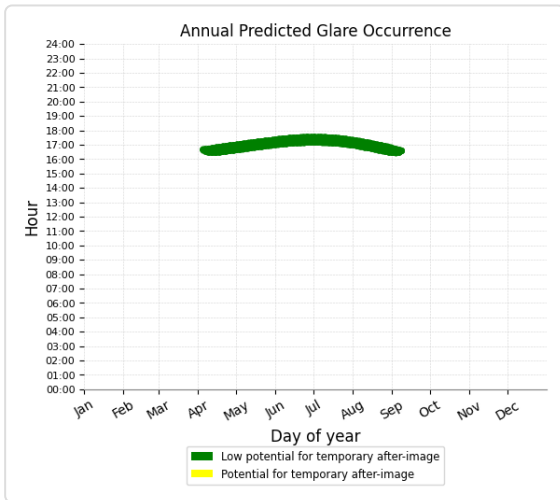
Green glare: 9,766 min.



PV1314_04 and FP: FP09

Yellow glare: none

Green glare: 4,957 min.



PV1314_04 and FP: FP01

No glare found

PV1314_04 and FP: FP04

No glare found

PV1314_04 and FP: FP05

No glare found

PV1314_04 and FP: FP06

No glare found

PV1314_04 and FP: FP07

No glare found

PV1314_04 and FP: FP08

No glare found

PV1314_04 and FP: FP10

No glare found

PV1314_04 and FP: FP11

No glare found

PV1314_04 and FP: FP12

No glare found

PV1314_04 and FP: FP13

No glare found

PV1314_04 and FP: FP14

No glare found

PV1314_04 and FP: FP15

No glare found

PV1314_04 and FP: FP16

No glare found

PV1314_04 and 1-ATCT

No glare found

PV: PV1314_05 low potential for temporary after-image

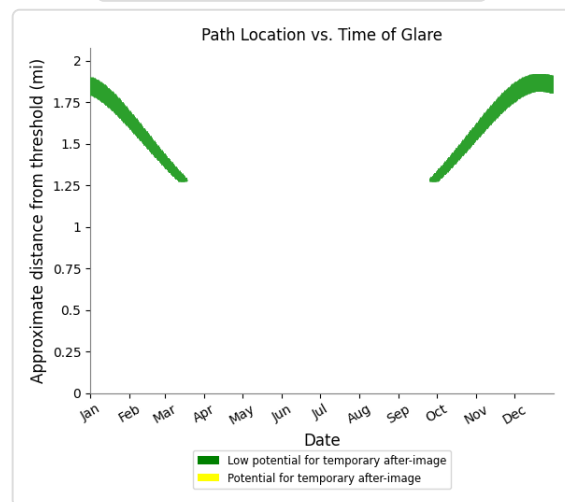
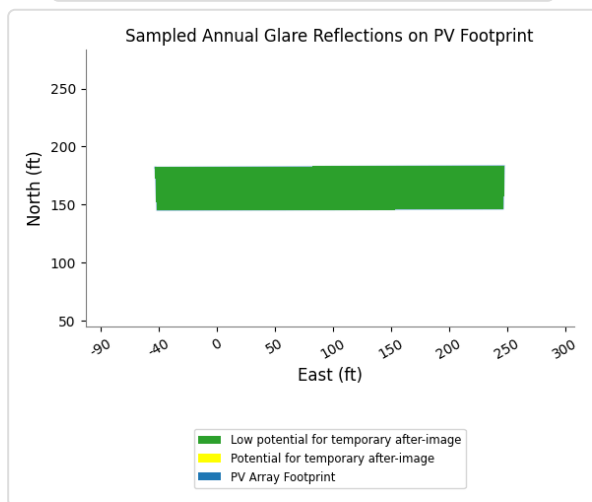
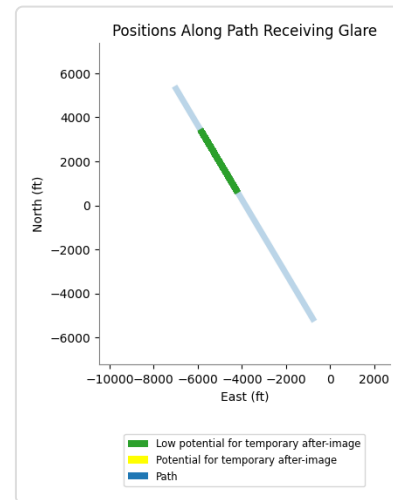
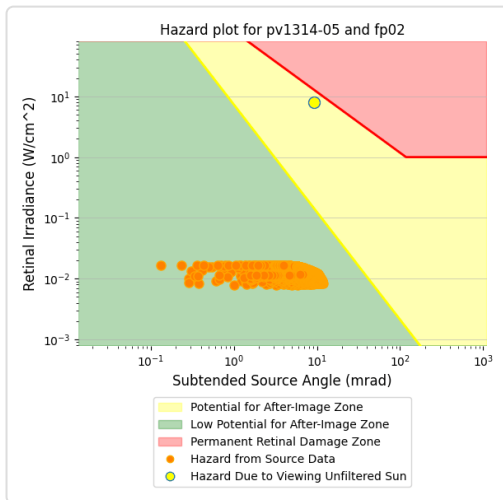
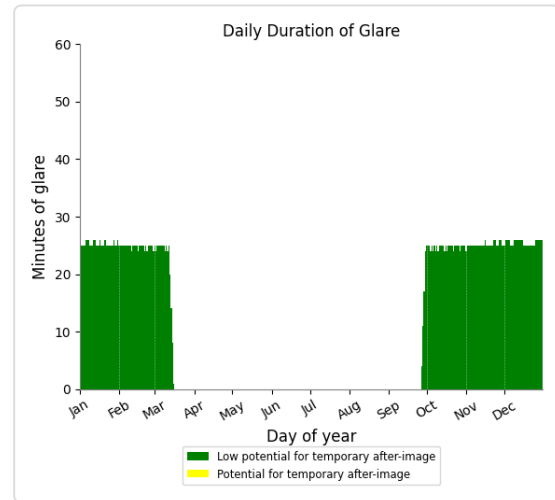
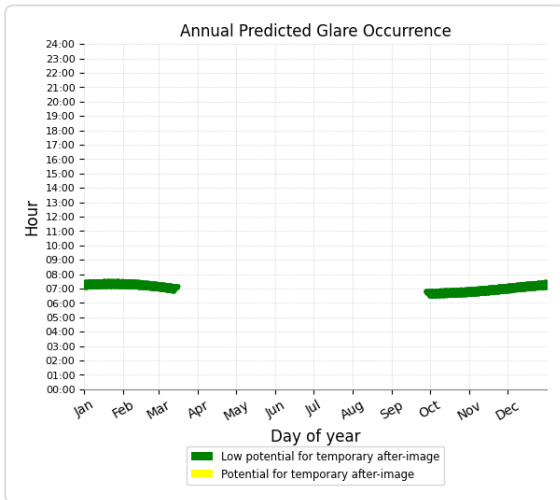
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP02	4,189	69.8	0	0.0
FP03	9,827	163.8	0	0.0
FP09	4,893	81.5	0	0.0
FP01	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1314_05 and FP: FP02

Yellow glare: none

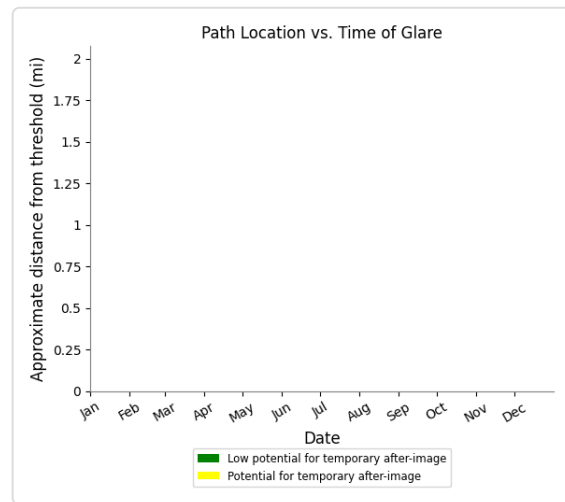
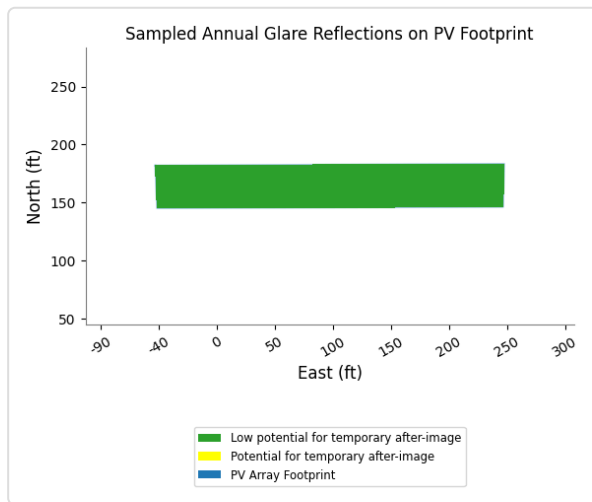
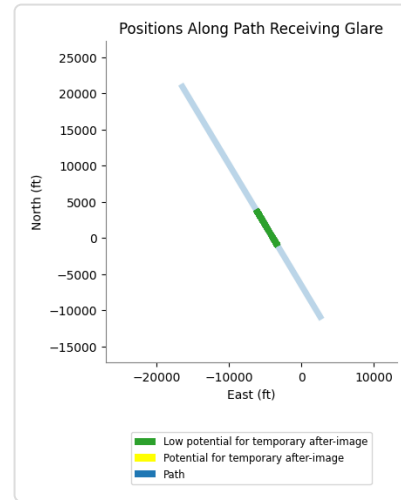
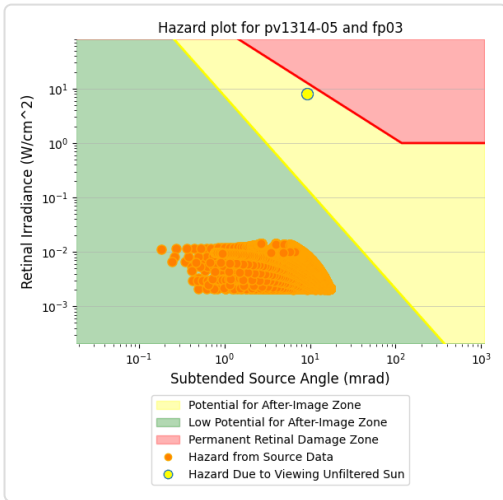
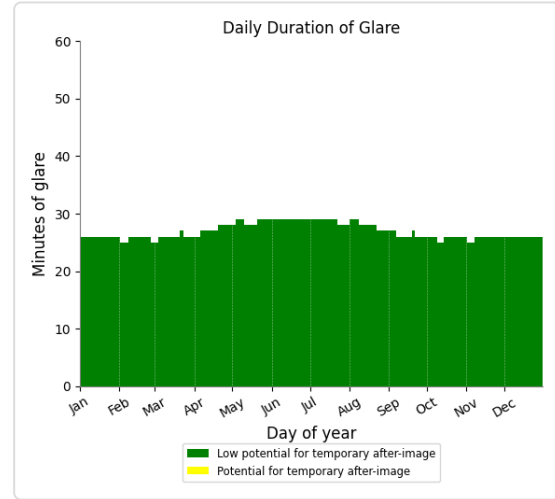
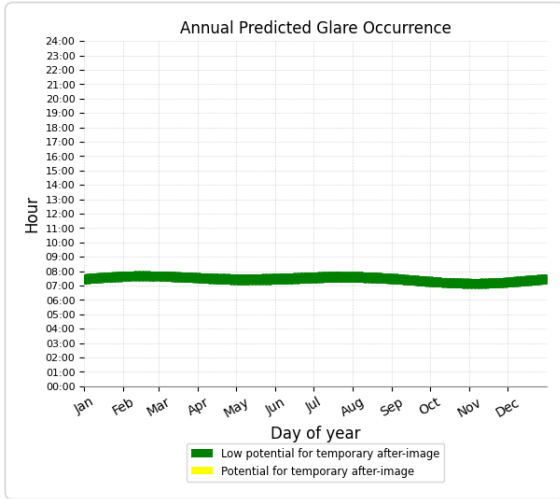
Green glare: 4,189 min.



PV1314_05 and FP: FP03

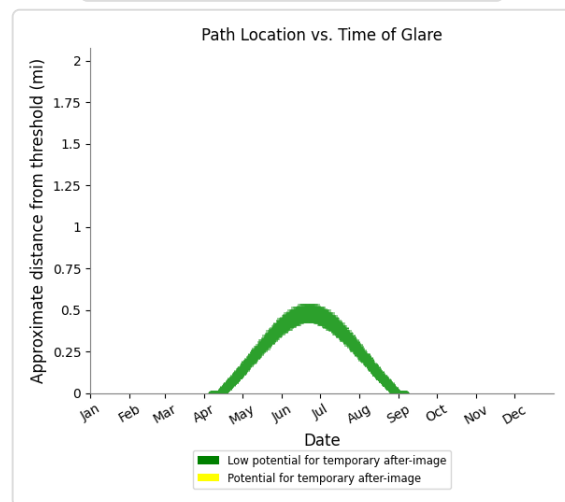
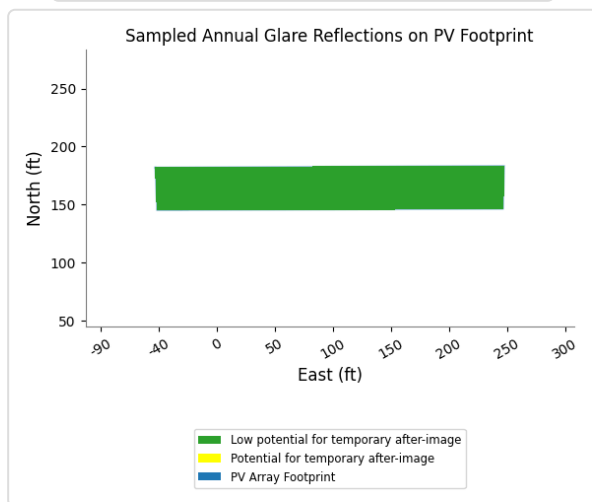
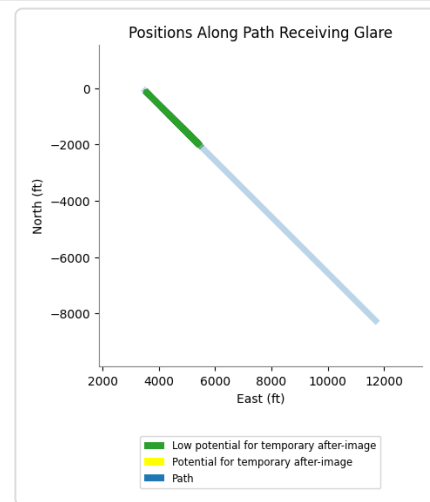
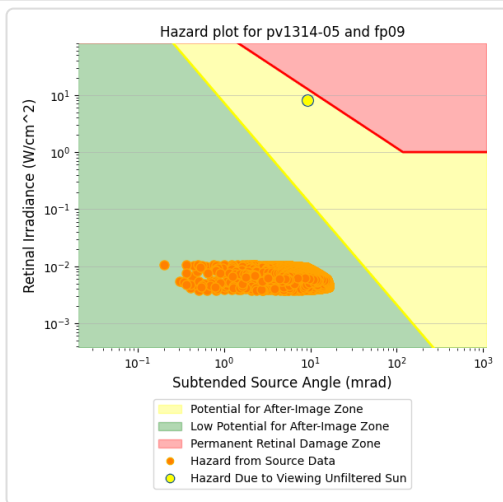
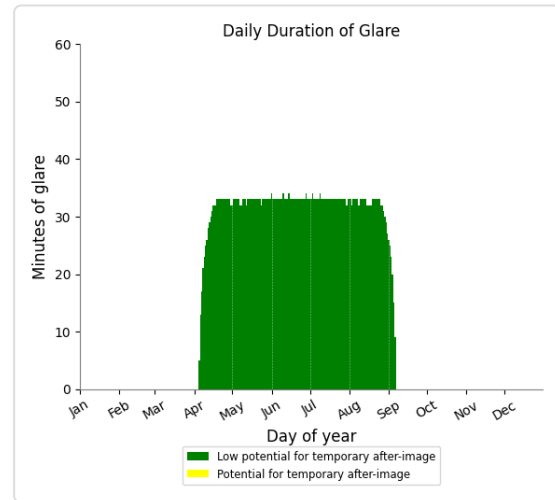
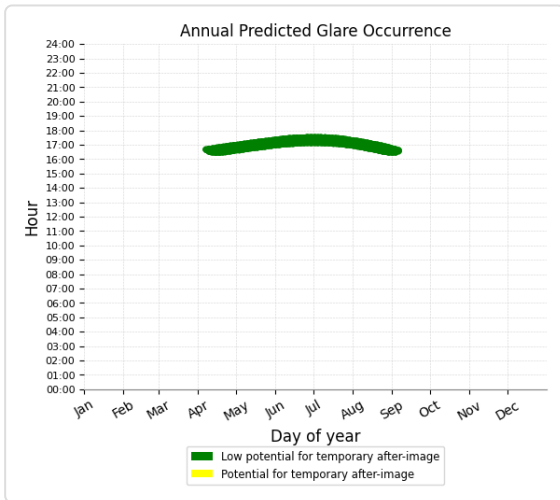
Yellow glare: none

Green glare: 9,827 min.



PV1314_05 and FP: FP09

Yellow glare: none
 Green glare: 4,893 min.



PV1314_05 and FP: FP01

No glare found

PV1314_05 and FP: FP04

No glare found

PV1314_05 and FP: FP05

No glare found

PV1314_05 and FP: FP06

No glare found

PV1314_05 and FP: FP07

No glare found

PV1314_05 and FP: FP08

No glare found

PV1314_05 and FP: FP10

No glare found

PV1314_05 and FP: FP11

No glare found

PV1314_05 and FP: FP12

No glare found

PV1314_05 and FP: FP13

No glare found

PV1314_05 and FP: FP14

No glare found

PV1314_05 and FP: FP15

No glare found

PV1314_05 and FP: FP16

No glare found

PV1314_05 and 1-ATCT

No glare found

PV: PV1314_06 low potential for temporary after-image

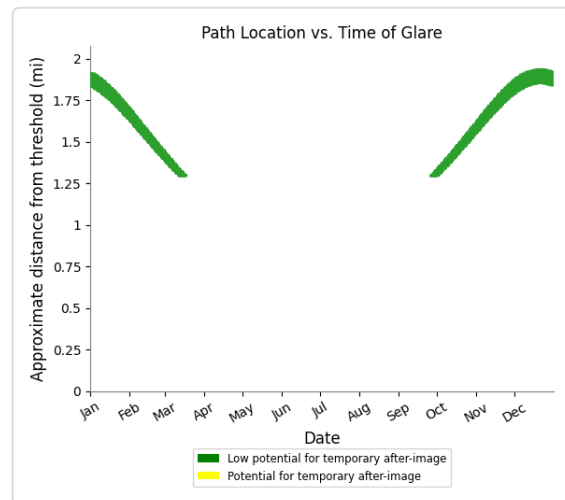
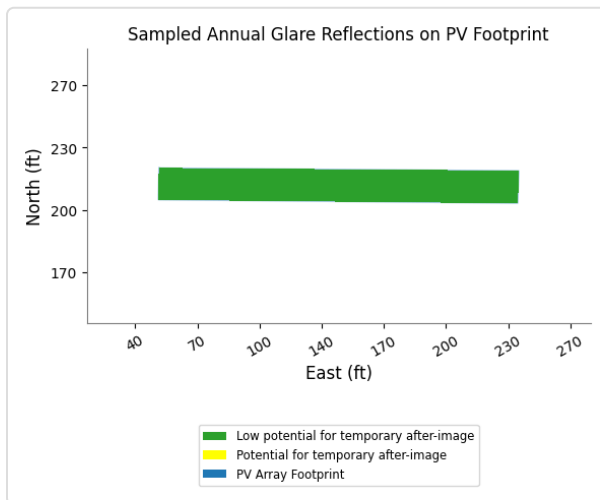
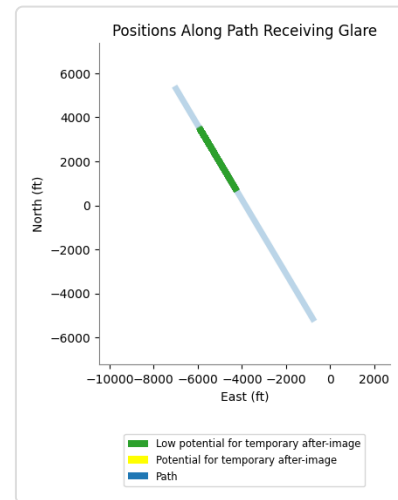
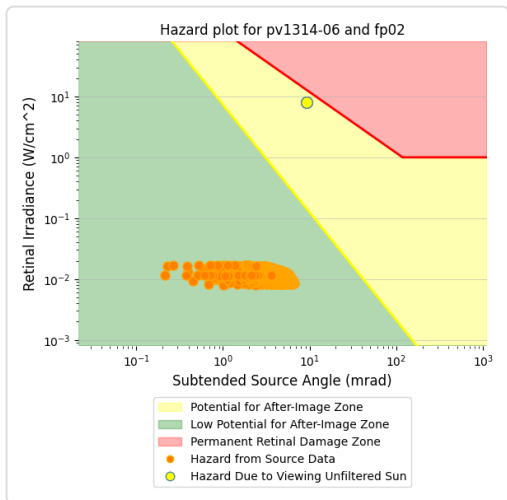
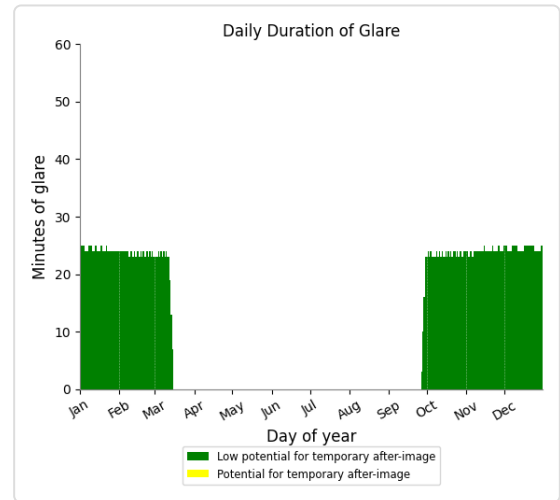
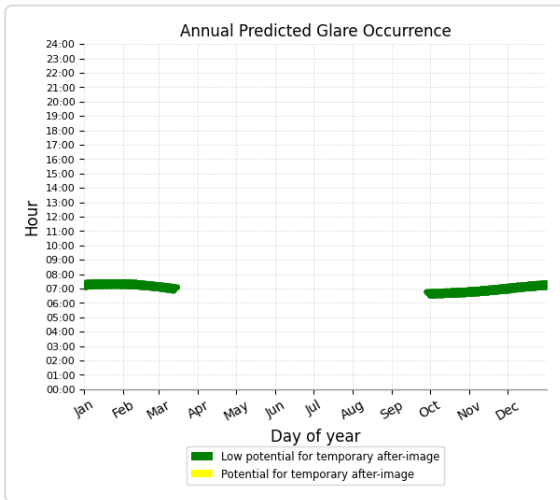
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP02	4,000	66.7	0	0.0
FP03	9,081	151.3	0	0.0
FP09	4,376	72.9	0	0.0
FP01	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1314_06 and FP: FP02

Yellow glare: none

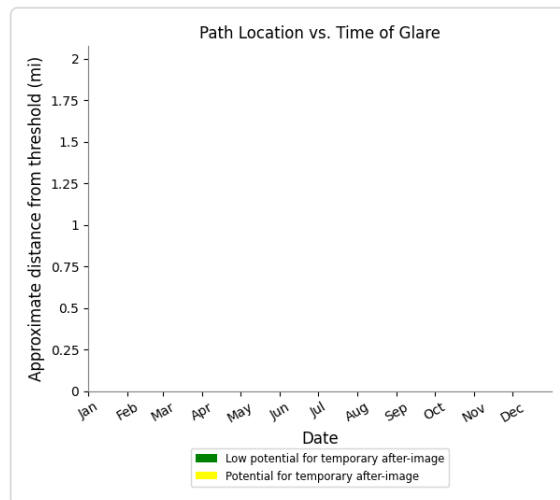
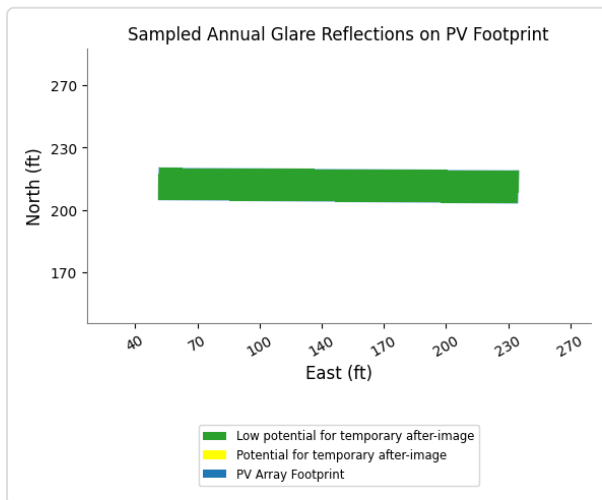
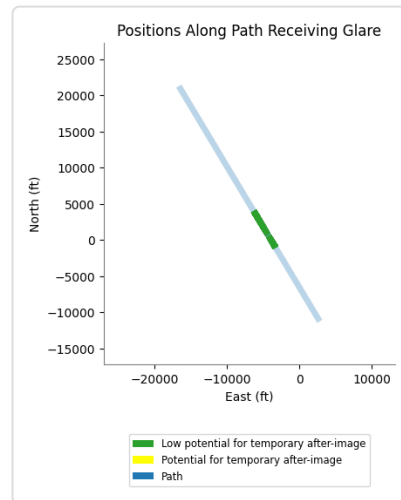
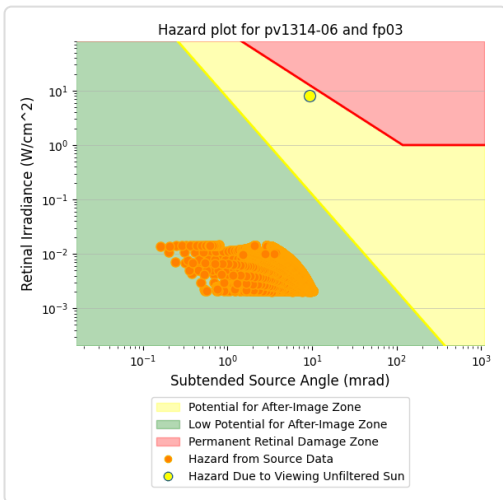
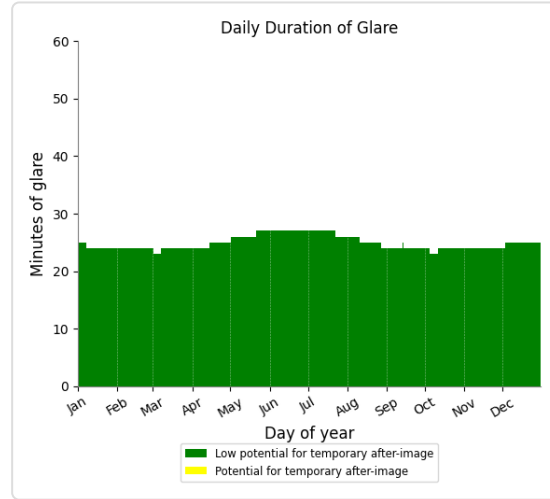
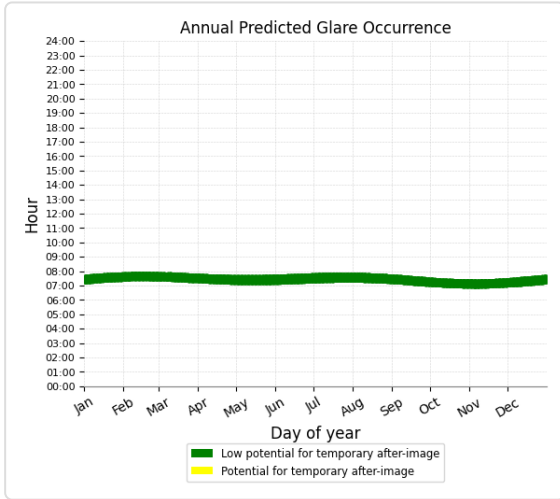
Green glare: 4,000 min.



PV1314_06 and FP: FP03

Yellow glare: none

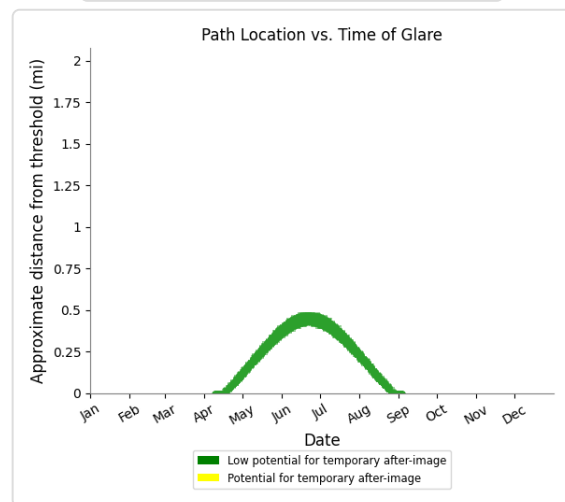
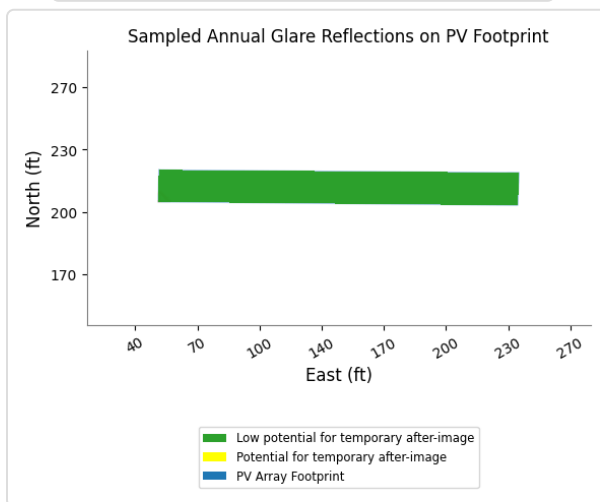
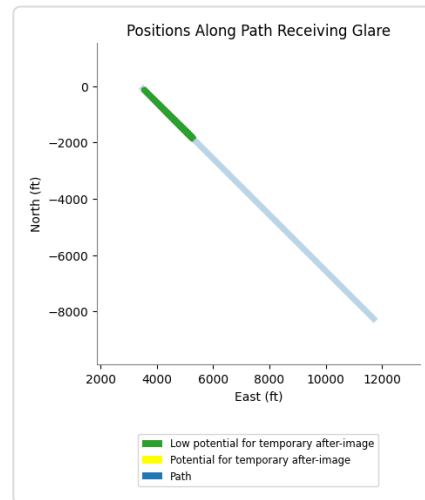
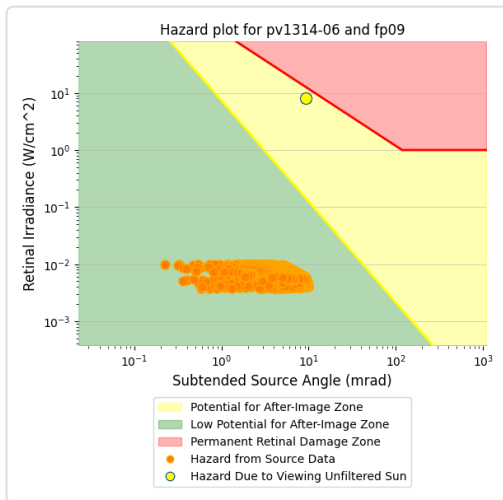
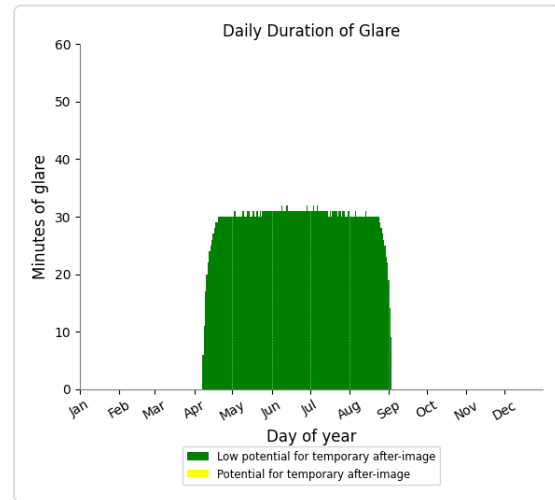
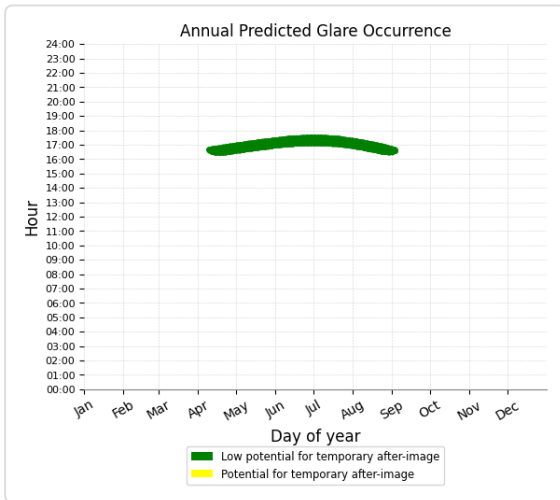
Green glare: 9,081 min.



PV1314_06 and FP: FP09

Yellow glare: none

Green glare: 4,376 min.



PV1314_06 and FP: FP01

No glare found

PV1314_06 and FP: FP04

No glare found

PV1314_06 and FP: FP05

No glare found

PV1314_06 and FP: FP06

No glare found

PV1314_06 and FP: FP07

No glare found

PV1314_06 and FP: FP08

No glare found

PV1314_06 and FP: FP10

No glare found

PV1314_06 and FP: FP11

No glare found

PV1314_06 and FP: FP12

No glare found

PV1314_06 and FP: FP13

No glare found

PV1314_06 and FP: FP14

No glare found

PV1314_06 and FP: FP15

No glare found

PV1314_06 and FP: FP16

No glare found

PV1314_06 and 1-ATCT

No glare found

PV: PV1314_07 low potential for temporary after-image

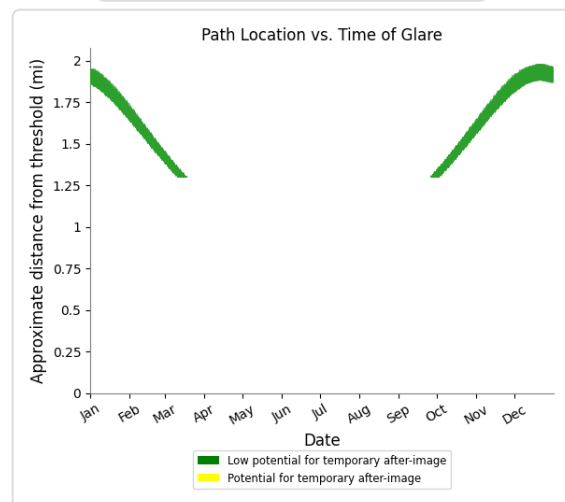
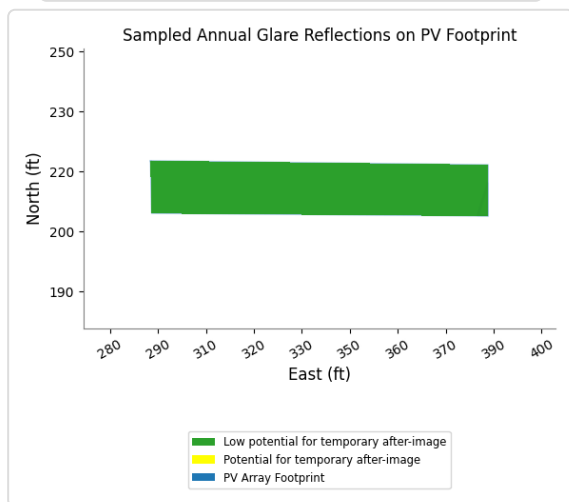
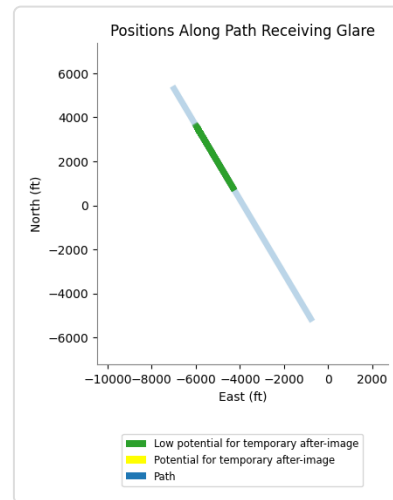
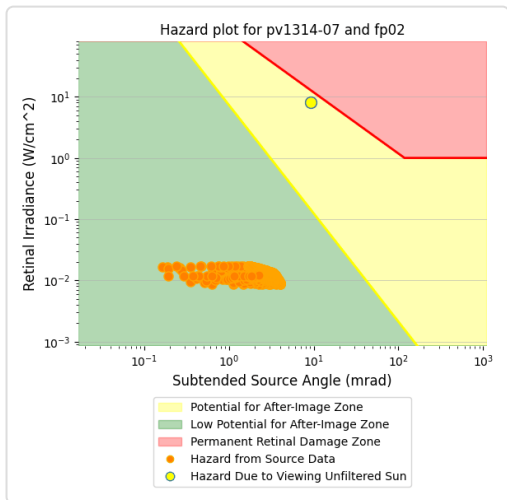
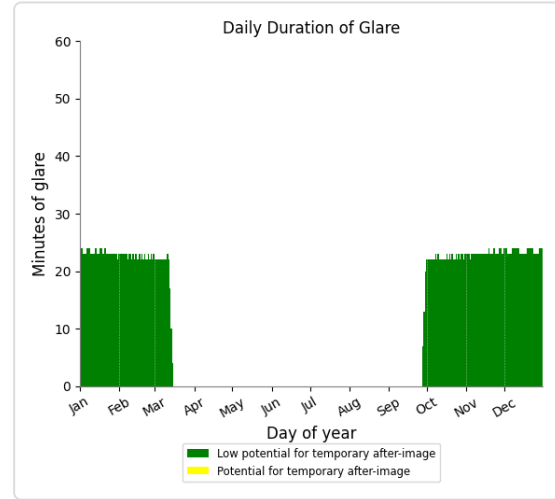
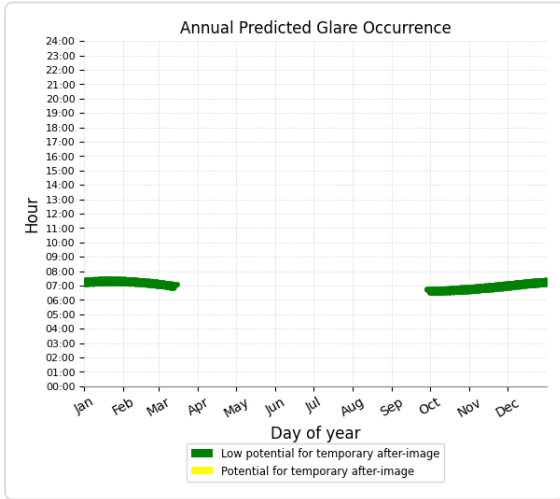
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP02	3,807	63.5	0	0.0
FP03	8,321	138.7	0	0.0
FP09	4,081	68.0	0	0.0
FP01	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1314_07 and FP: FP02

Yellow glare: none

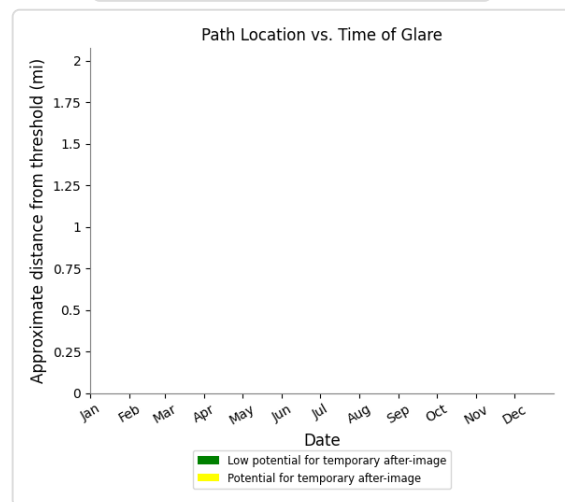
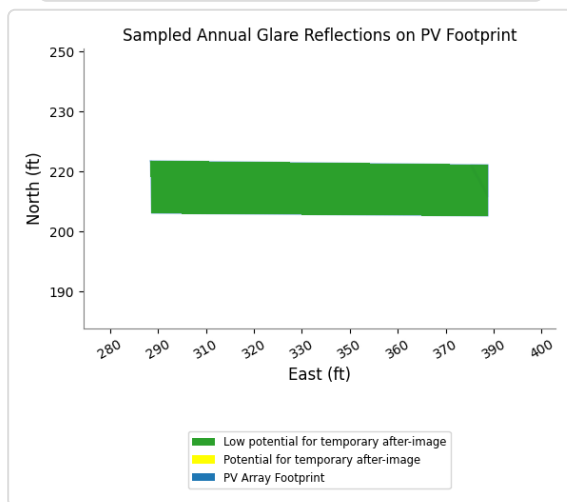
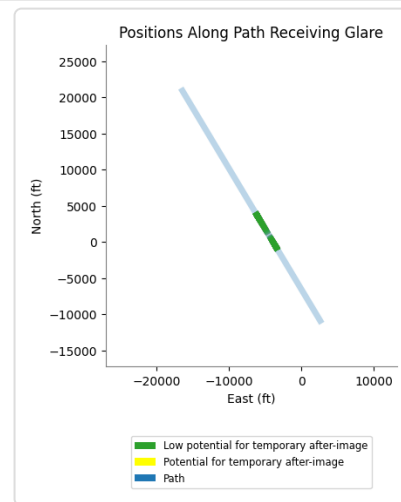
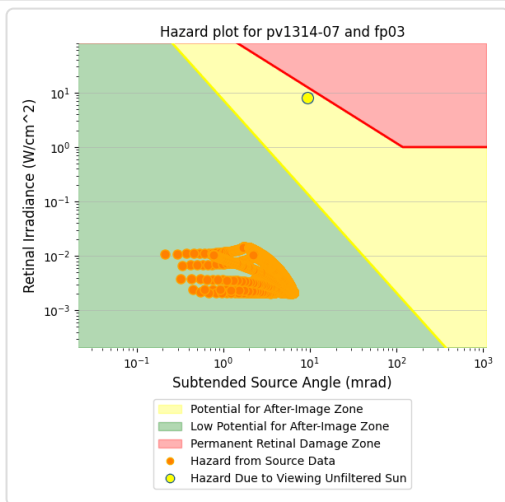
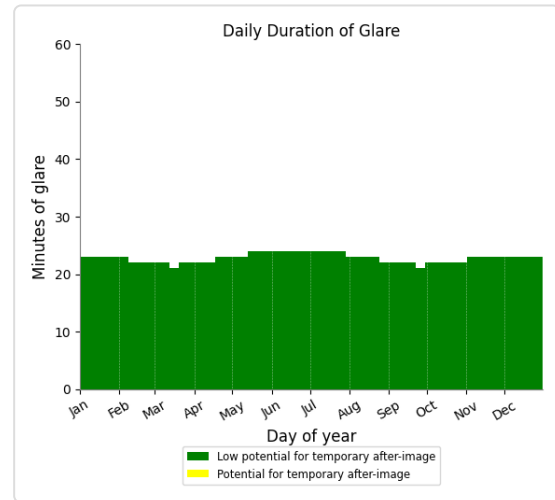
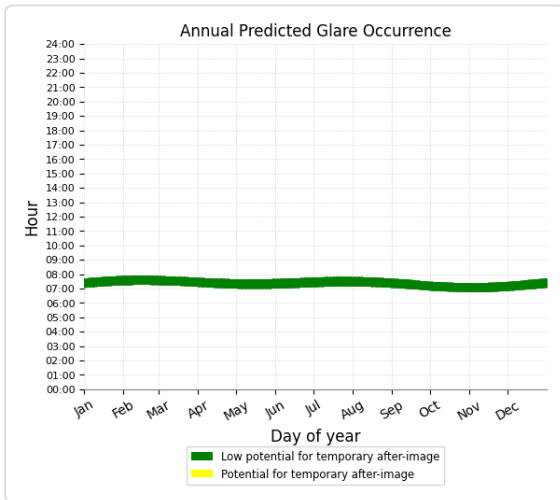
Green glare: 3,807 min.



PV1314_07 and FP: FP03

Yellow glare: none

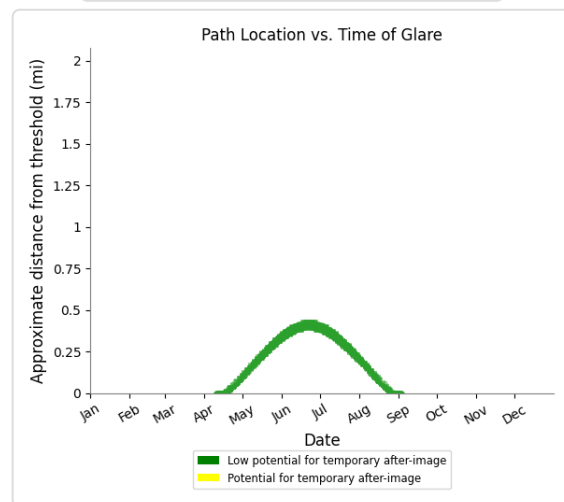
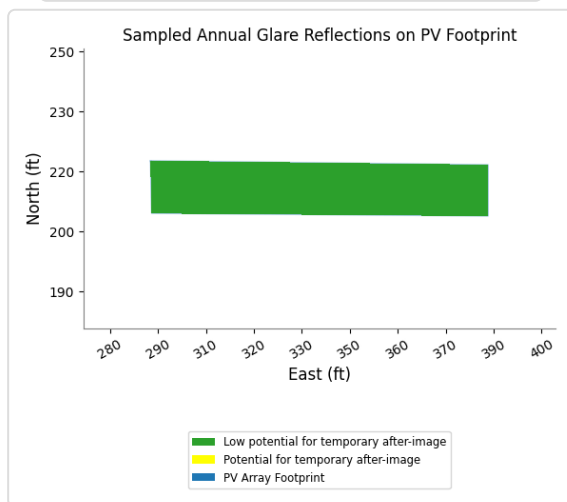
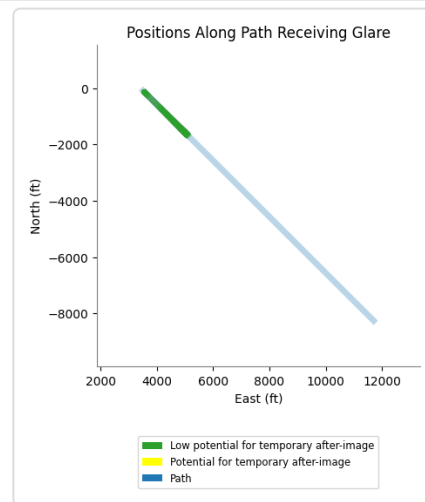
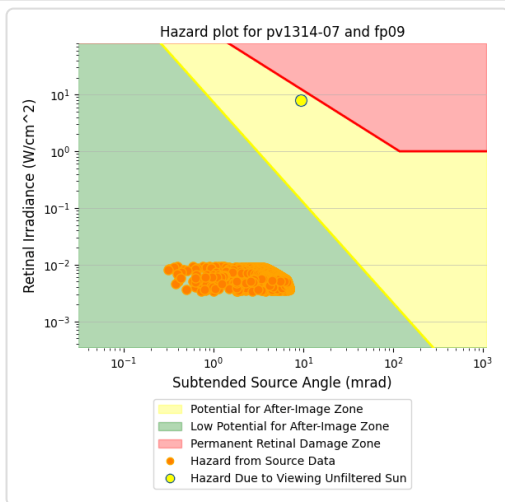
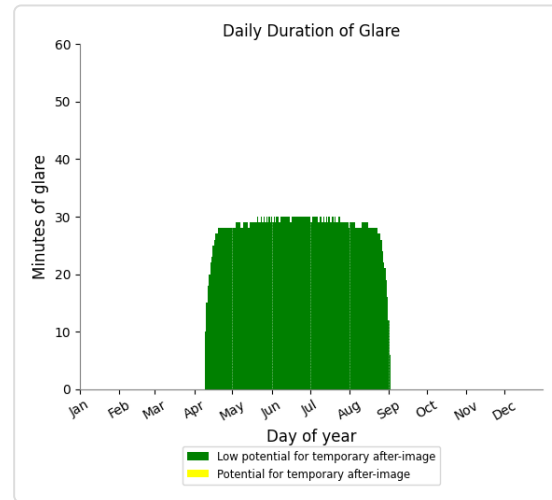
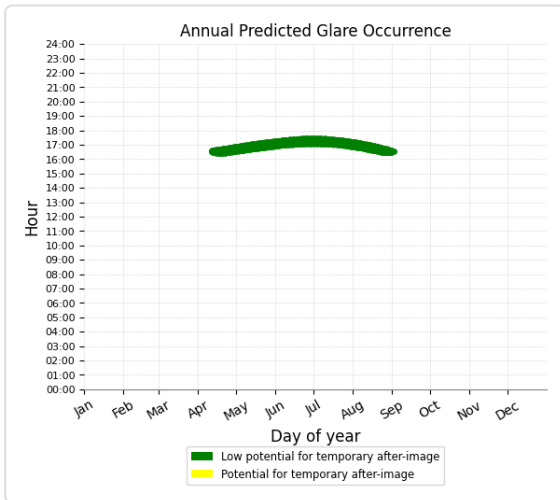
Green glare: 8,321 min.



PV1314_07 and FP: FP09

Yellow glare: none

Green glare: 4,081 min.



PV1314_07 and FP: FP01

No glare found

PV1314_07 and FP: FP04

No glare found

PV1314_07 and FP: FP05

No glare found

PV1314_07 and FP: FP06

No glare found

PV1314_07 and FP: FP07

No glare found

PV1314_07 and FP: FP08

No glare found

PV1314_07 and FP: FP10

No glare found

PV1314_07 and FP: FP11

No glare found

PV1314_07 and FP: FP12

No glare found

PV1314_07 and FP: FP13

No glare found

PV1314_07 and FP: FP14

No glare found

PV1314_07 and FP: FP15

No glare found

PV1314_07 and FP: FP16

No glare found

PV1314_07 and 1-ATCT

No glare found

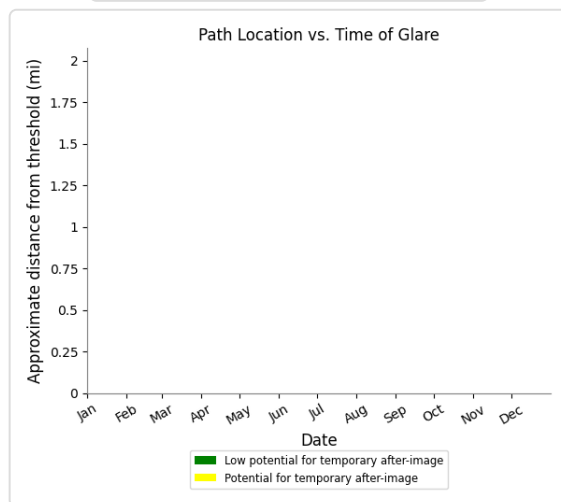
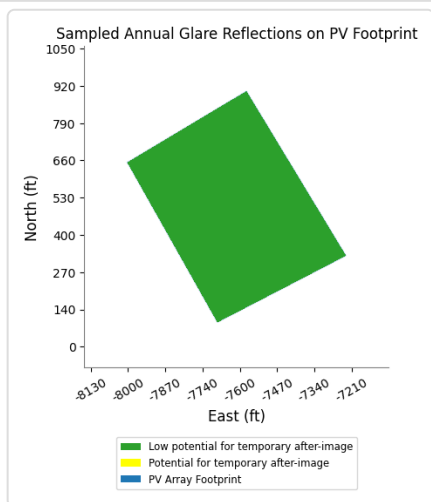
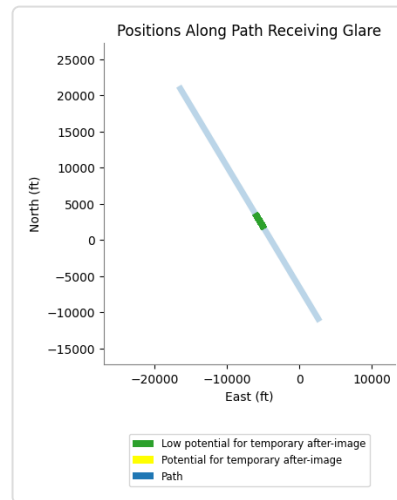
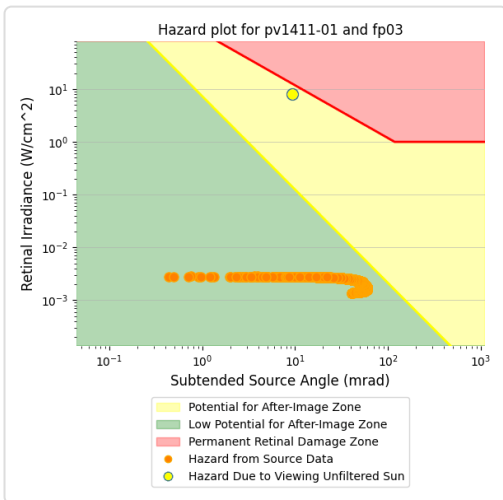
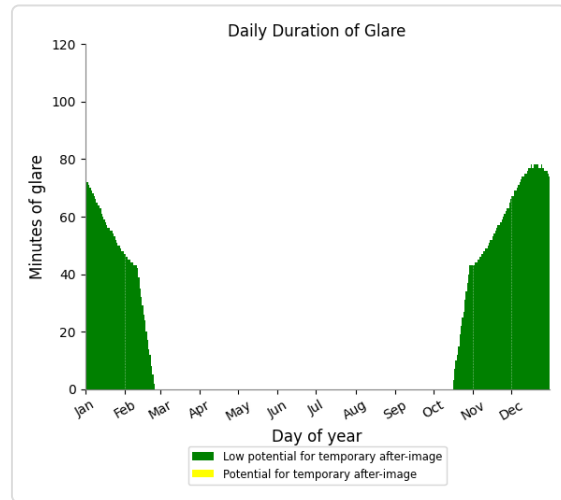
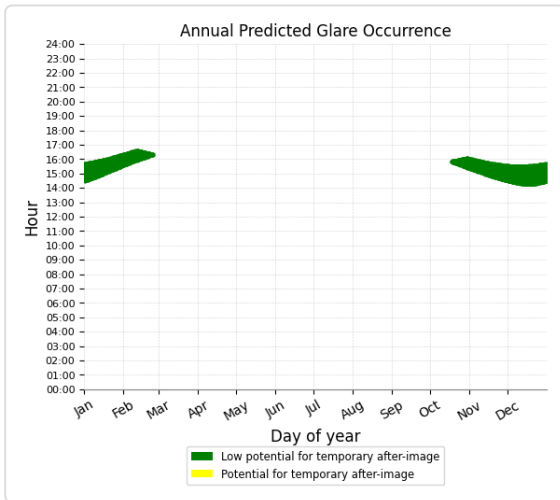
PV: PV1411_01 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP03	6,859	114.3	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1411_01 and FP: FP03

Yellow glare: none
 Green glare: 6,859 min.



PV1411_01 and FP: FP01

No glare found

PV1411_01 and FP: FP02

No glare found

PV1411_01 and FP: FP04

No glare found

PV1411_01 and FP: FP05

No glare found

PV1411_01 and FP: FP06

No glare found

PV1411_01 and FP: FP07

No glare found

PV1411_01 and FP: FP08

No glare found

PV1411_01 and FP: FP09

No glare found

PV1411_01 and FP: FP10

No glare found

PV1411_01 and FP: FP11

No glare found

PV1411_01 and FP: FP12

No glare found

PV1411_01 and FP: FP13

No glare found

PV1411_01 and FP: FP14

No glare found

PV1411_01 and FP: FP15

No glare found

PV1411_01 and FP: FP16

No glare found

PV1411_01 and 1-ATCT

No glare found

PV: PV1411_02 low potential for temporary after-image

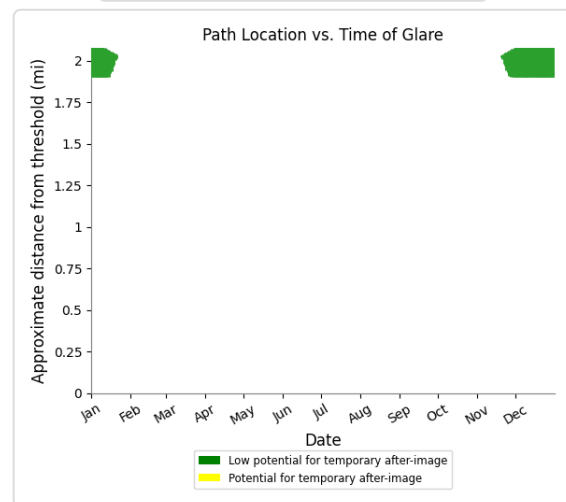
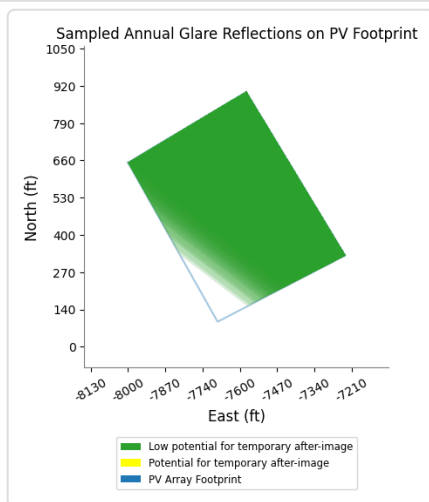
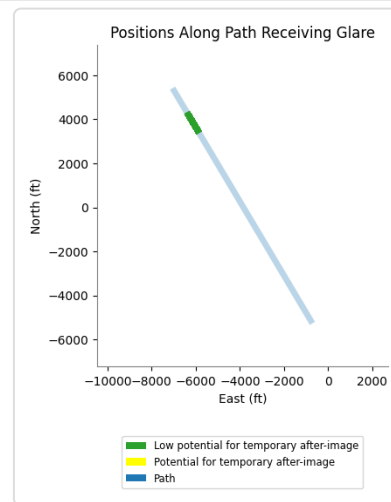
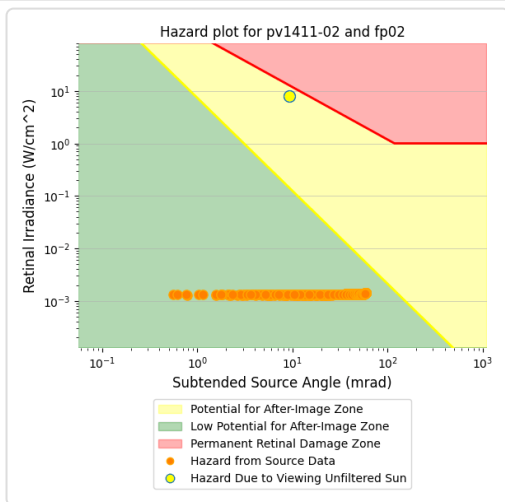
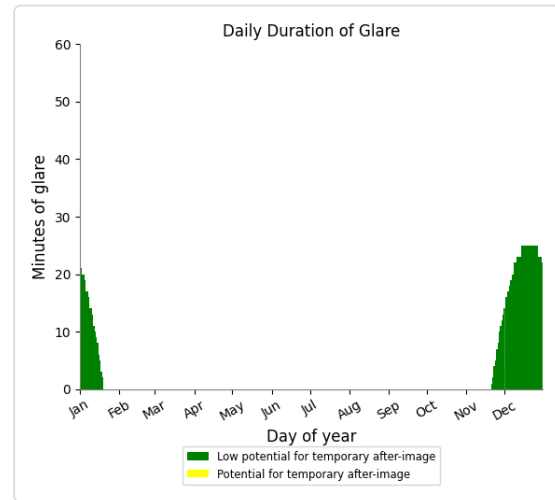
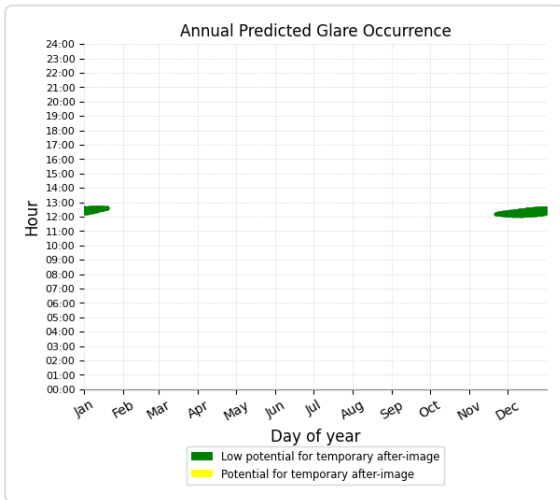
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP02	1,012	16.9	0	0.0
FP03	9,894	164.9	0	0.0
FP07	3,678	61.3	0	0.0
FP09	4,160	69.3	0	0.0
FP01	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1411_02 and FP: FP02

Yellow glare: none

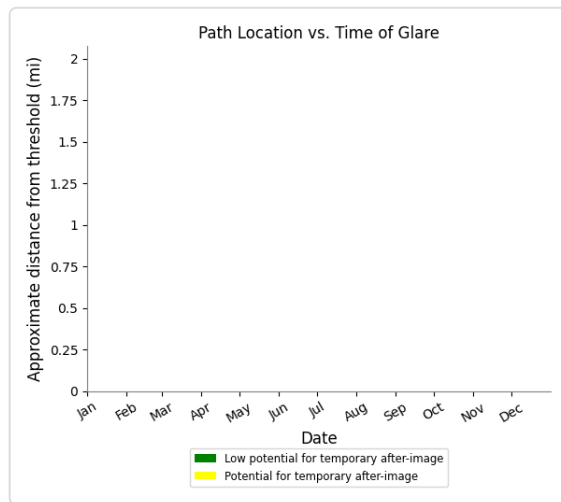
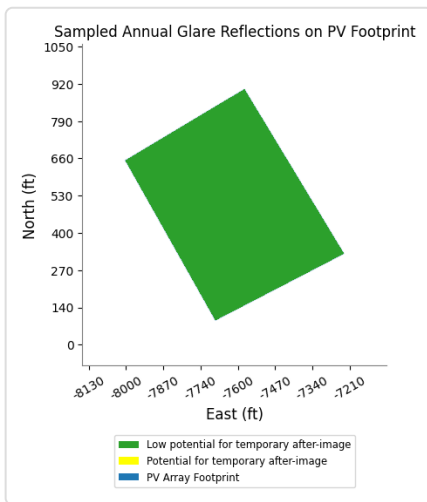
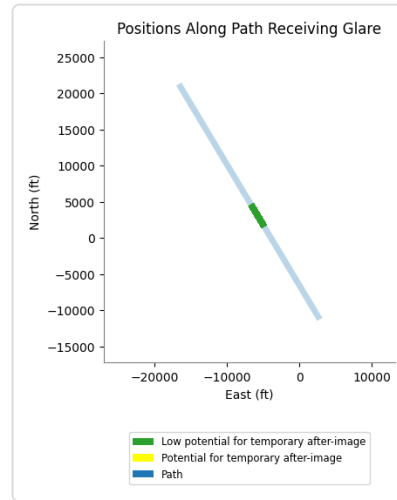
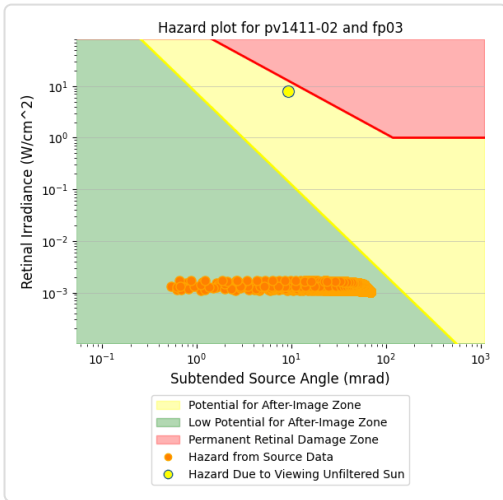
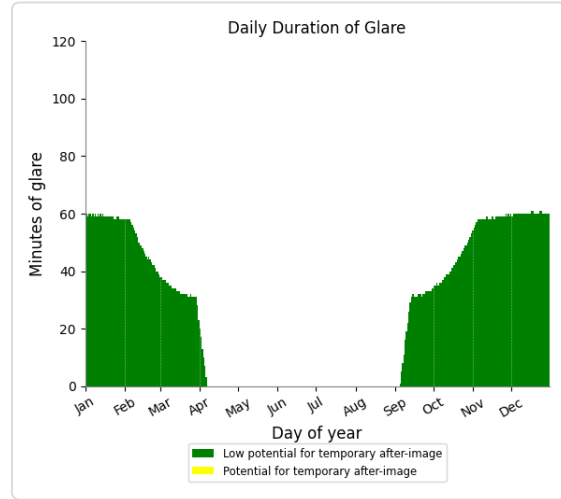
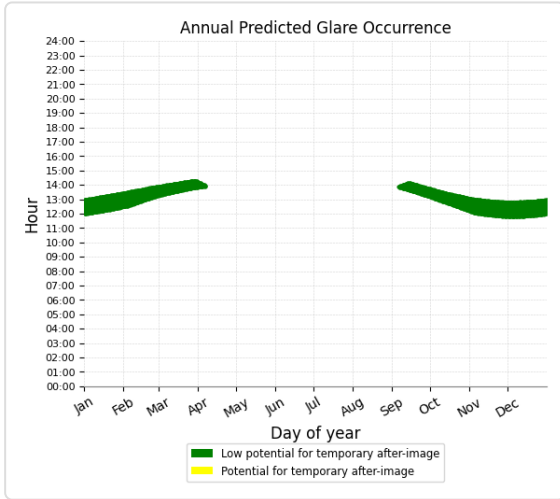
Green glare: 1,012 min.



PV1411_02 and FP: FP03

Yellow glare: none

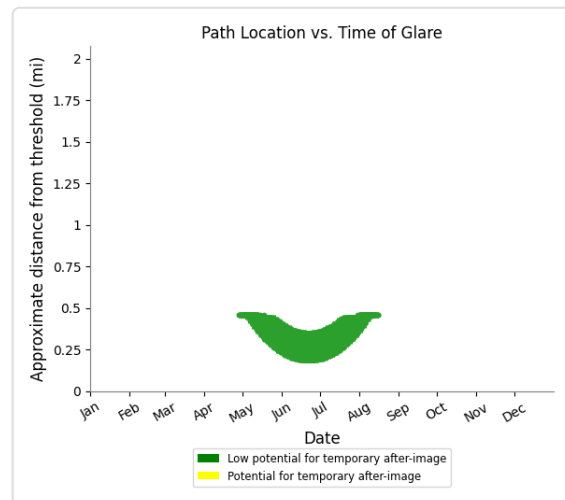
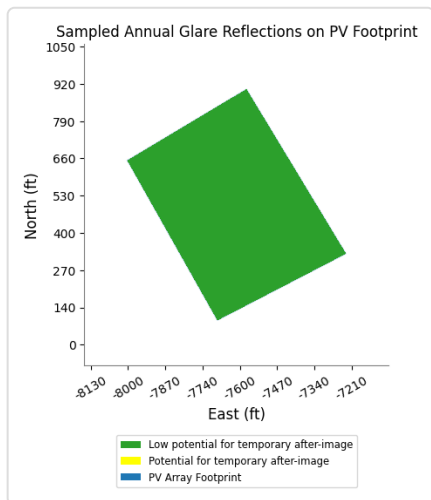
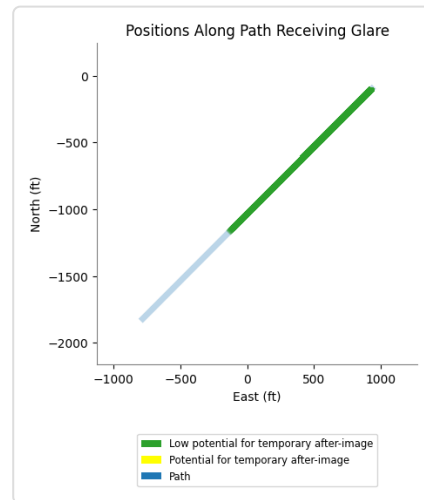
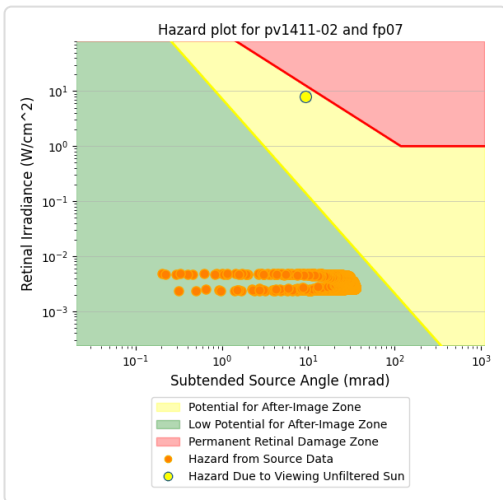
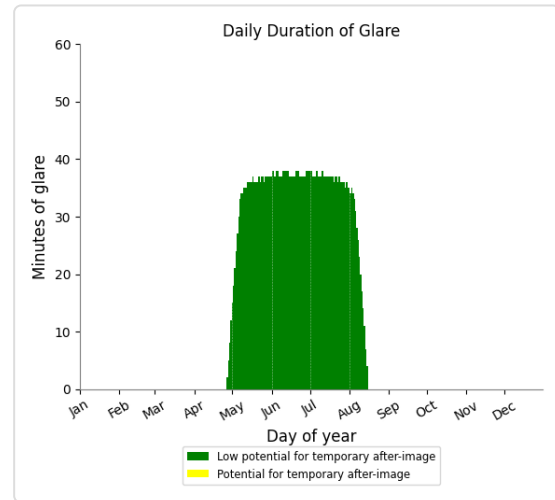
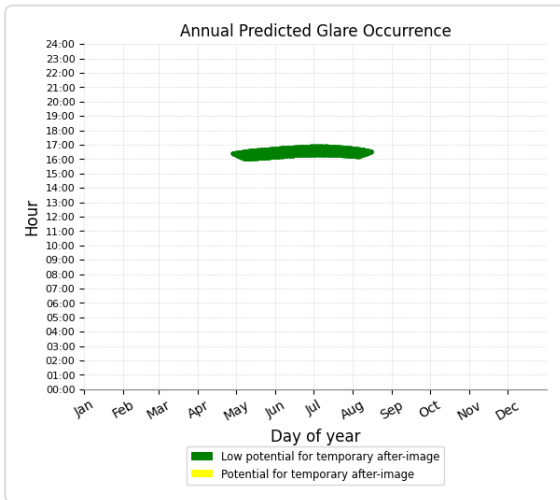
Green glare: 9,894 min.



PV1411_02 and FP: FP07

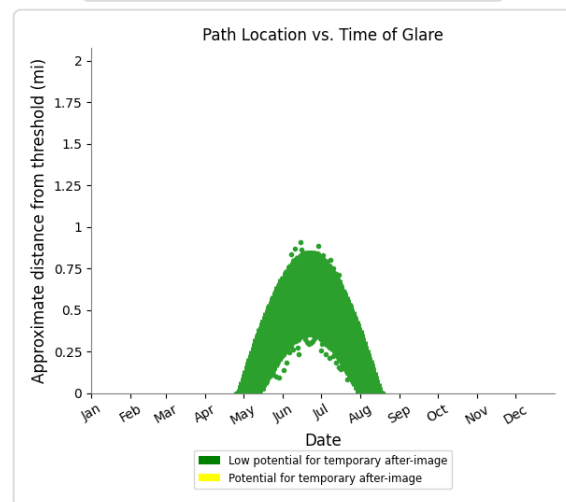
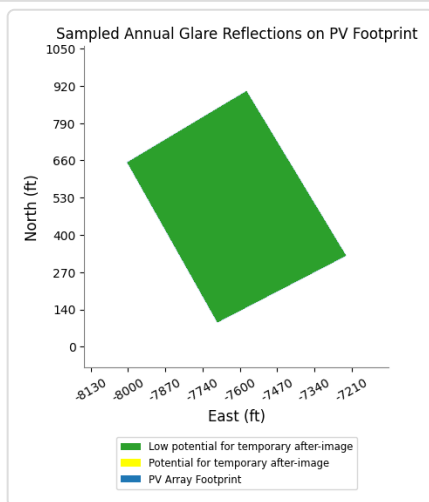
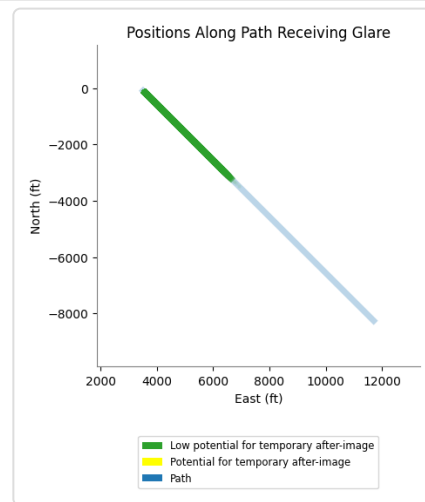
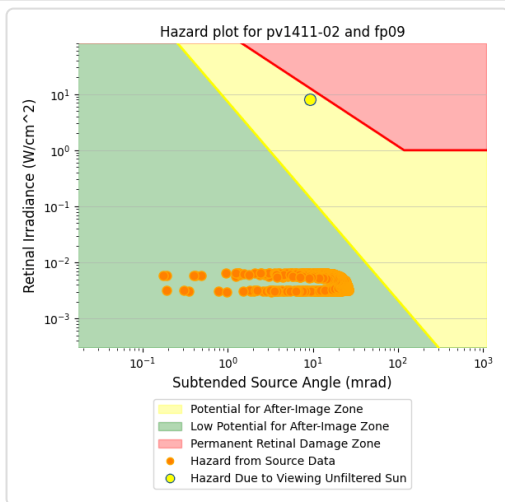
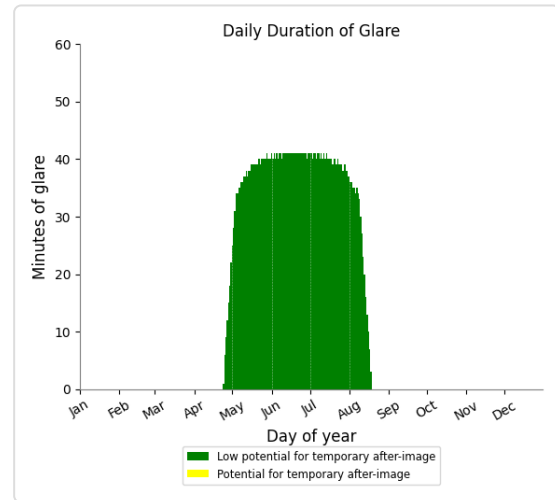
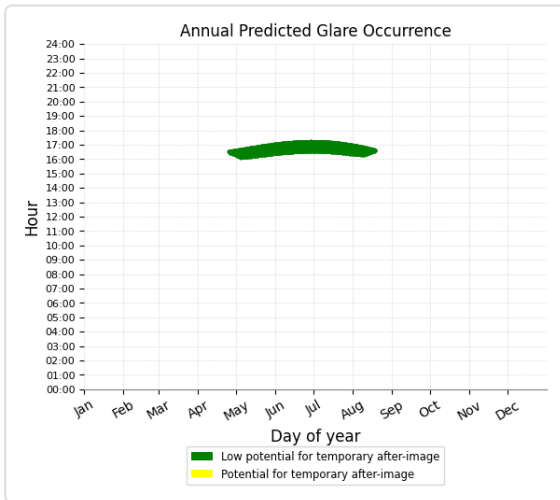
Yellow glare: none

Green glare: 3,678 min.



PV1411_02 and FP: FP09

Yellow glare: none
 Green glare: 4,160 min.



PV1411_02 and FP: FP01

No glare found

PV1411_02 and FP: FP04

No glare found

PV1411_02 and FP: FP05

No glare found

PV1411_02 and FP: FP06

No glare found

PV1411_02 and FP: FP08

No glare found

PV1411_02 and FP: FP10

No glare found

PV1411_02 and FP: FP11

No glare found

PV1411_02 and FP: FP12

No glare found

PV1411_02 and FP: FP13

No glare found

PV1411_02 and FP: FP14

No glare found

PV1411_02 and FP: FP15

No glare found

PV1411_02 and FP: FP16

No glare found

PV1411_02 and 1-ATCT

No glare found

PV: PV1458_01 low potential for temporary after-image

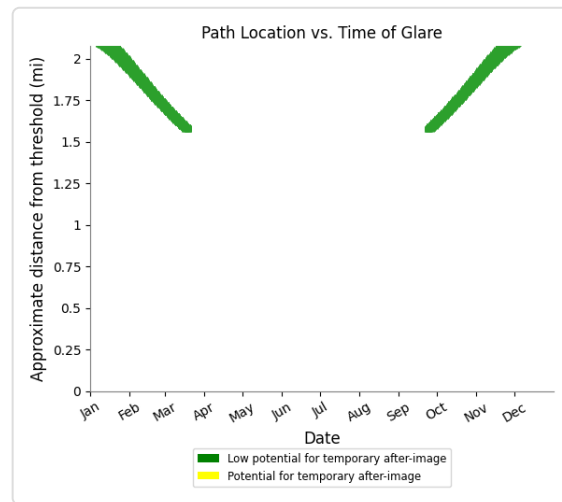
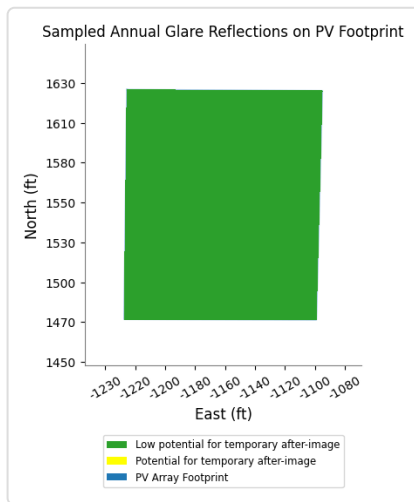
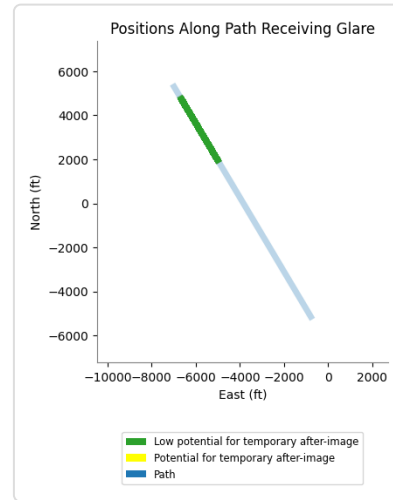
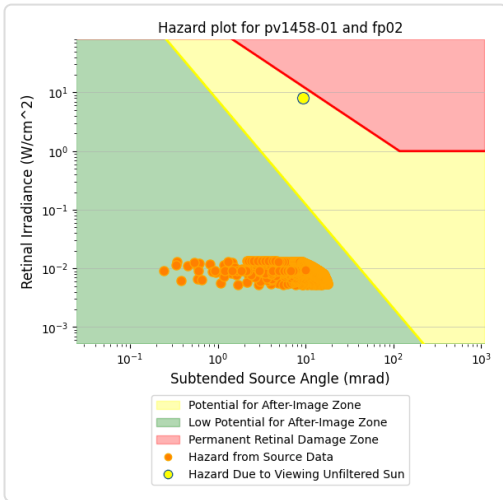
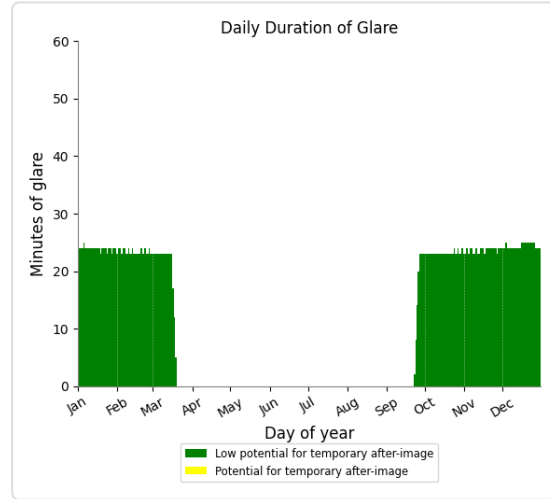
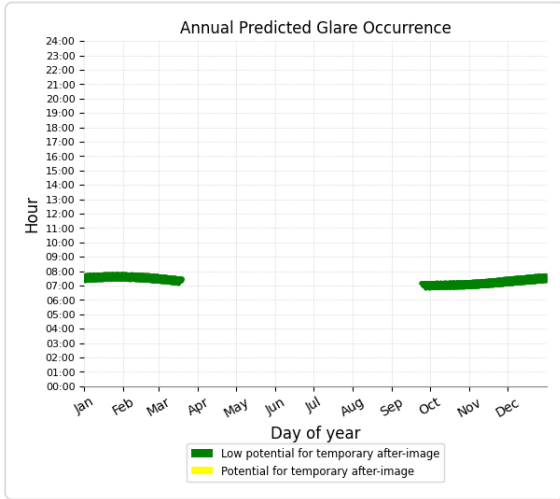
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP02	4,116	68.6	0	0.0
FP03	9,002	150.0	0	0.0
FP09	2,185	36.4	0	0.0
FP01	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1458_01 and FP: FP02

Yellow glare: none

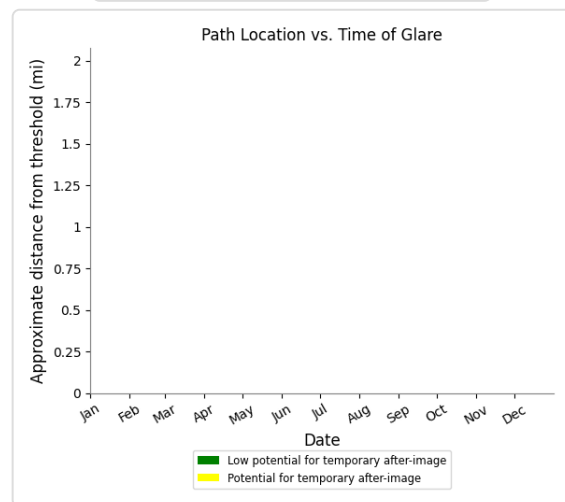
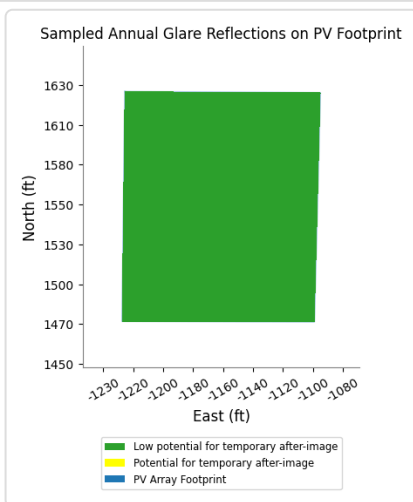
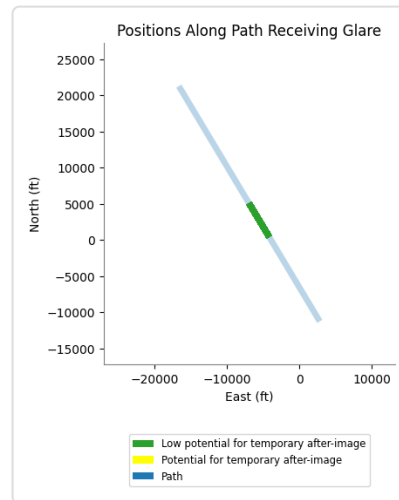
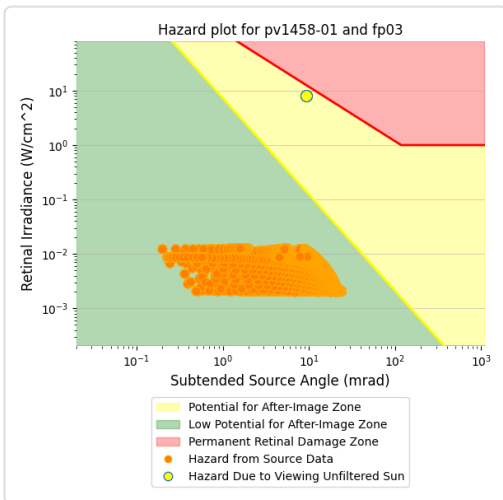
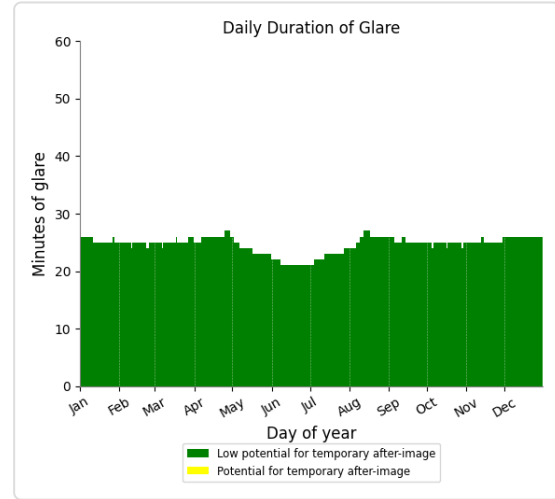
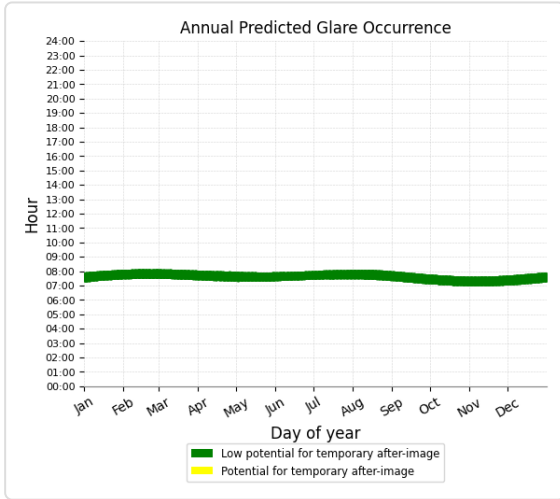
Green glare: 4,116 min.



PV1458_01 and FP: FP03

Yellow glare: none

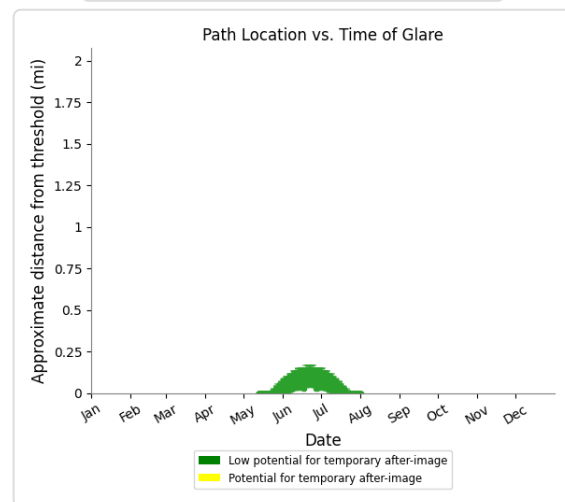
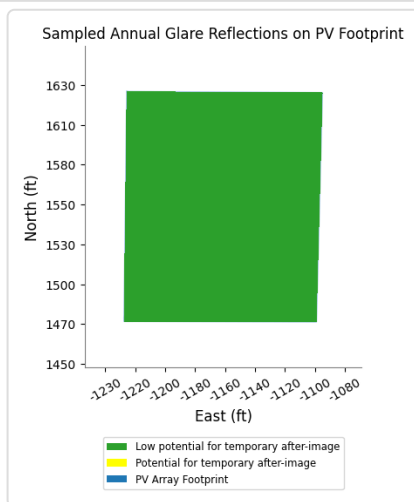
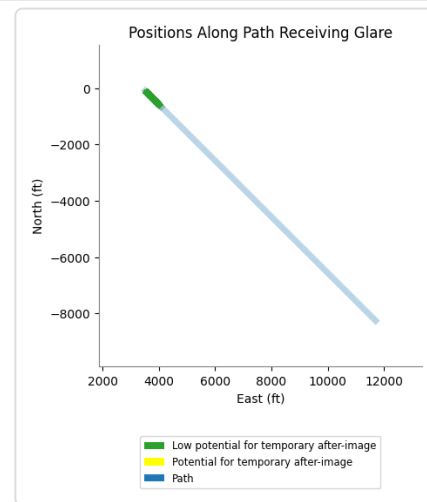
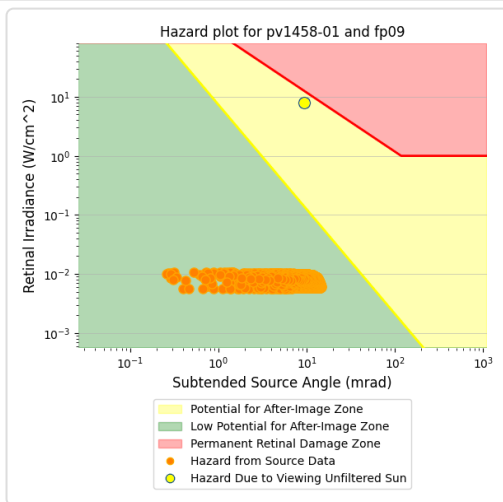
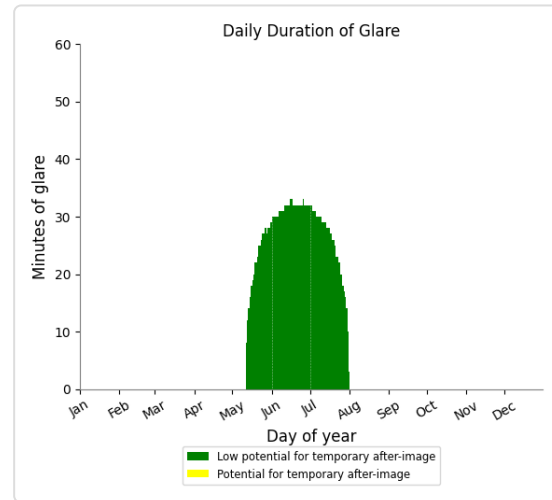
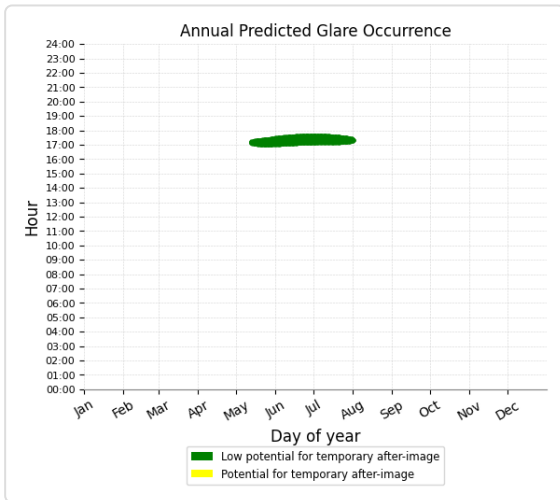
Green glare: 9,002 min.



PV1458_01 and FP: FP09

Yellow glare: none

Green glare: 2,185 min.



PV1458_01 and FP: FP01

No glare found

PV1458_01 and FP: FP04

No glare found

PV1458_01 and FP: FP05

No glare found

PV1458_01 and FP: FP06

No glare found

PV1458_01 and FP: FP07

No glare found

PV1458_01 and FP: FP08

No glare found

PV1458_01 and FP: FP10

No glare found

PV1458_01 and FP: FP11

No glare found

PV1458_01 and FP: FP12

No glare found

PV1458_01 and FP: FP13

No glare found

PV1458_01 and FP: FP14

No glare found

PV1458_01 and FP: FP15

No glare found

PV1458_01 and FP: FP16

No glare found

PV1458_01 and 1-ATCT

No glare found

PV: PV1462_01 low potential for temporary after-image

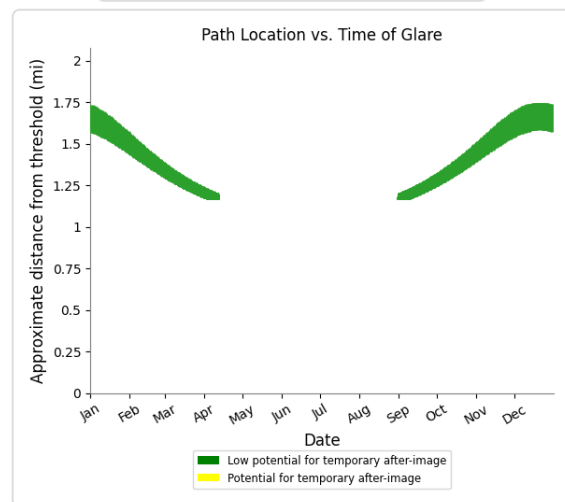
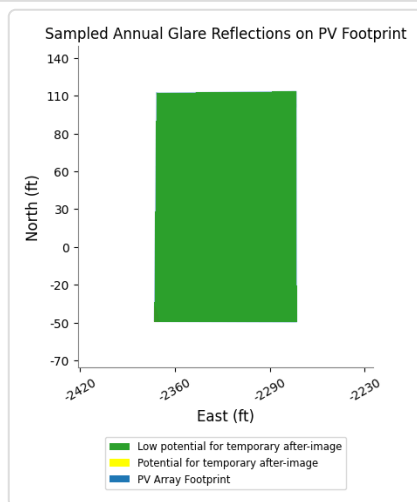
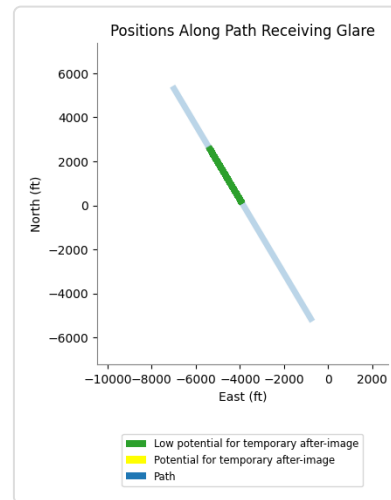
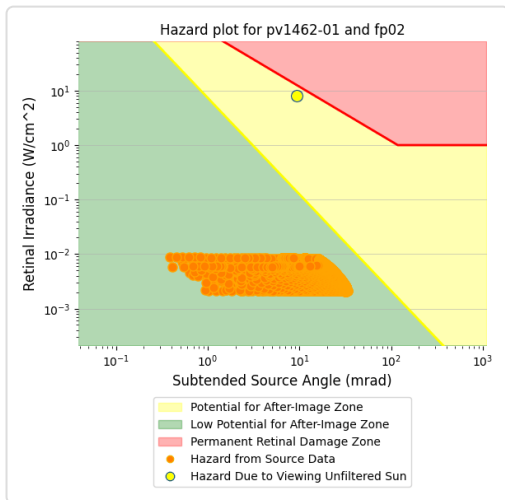
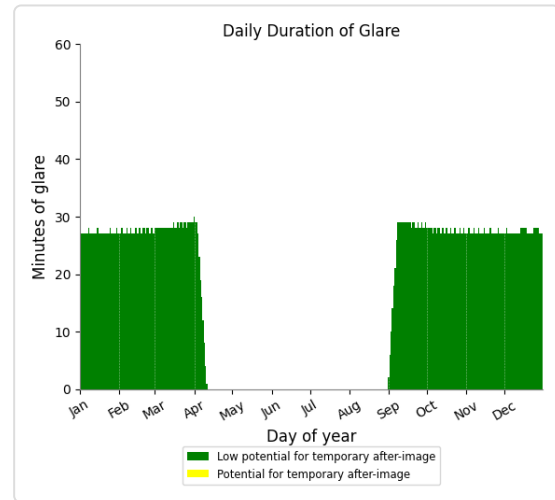
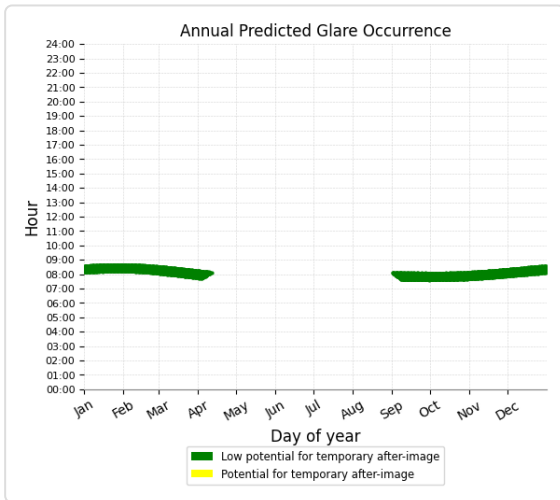
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP02	5,960	99.3	0	0.0
FP03	3,628	60.5	0	0.0
FP07	3,825	63.8	0	0.0
FP09	4,465	74.4	0	0.0
FP01	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1462_01 and FP: FP02

Yellow glare: none

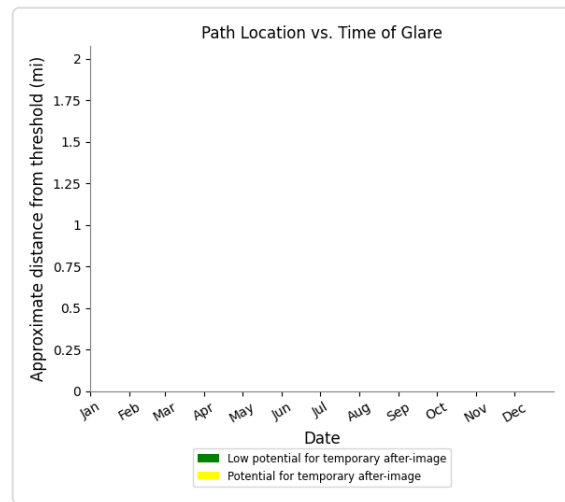
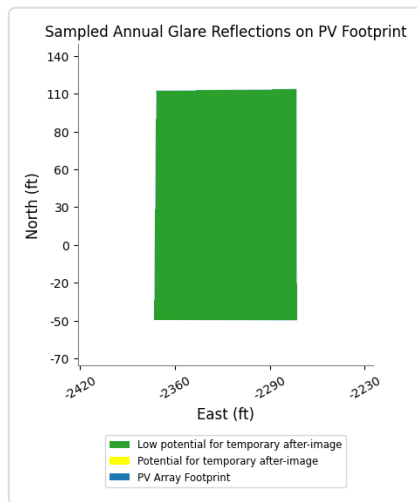
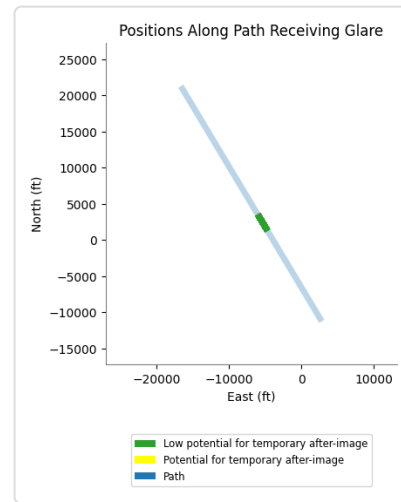
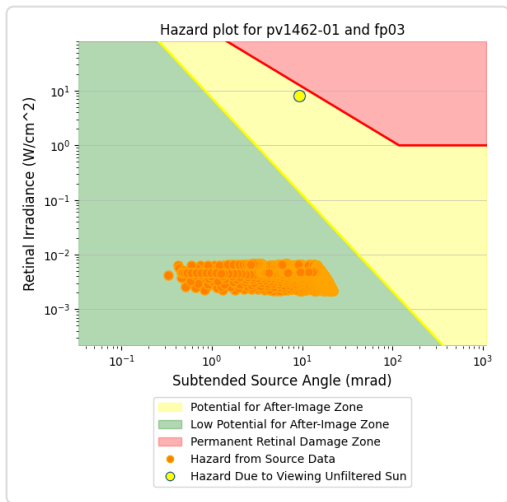
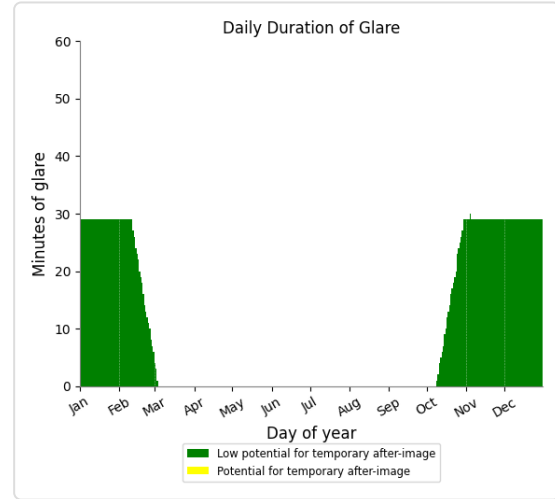
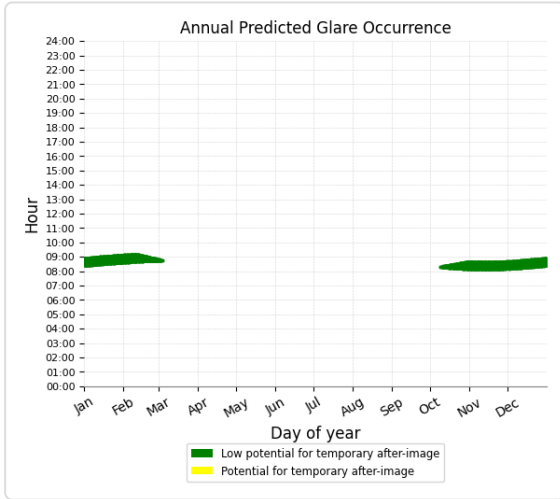
Green glare: 5,960 min.



PV1462_01 and FP: FP03

Yellow glare: none

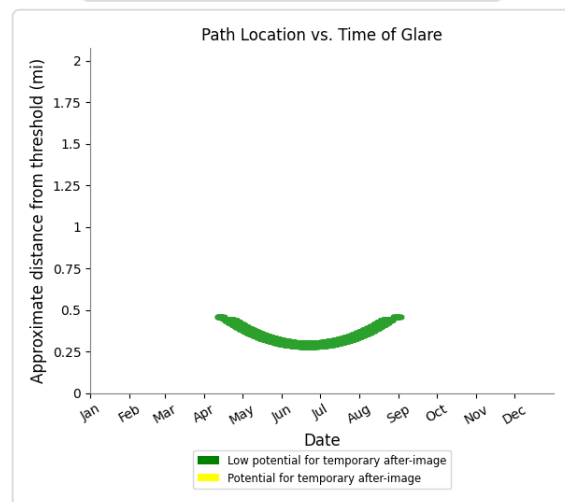
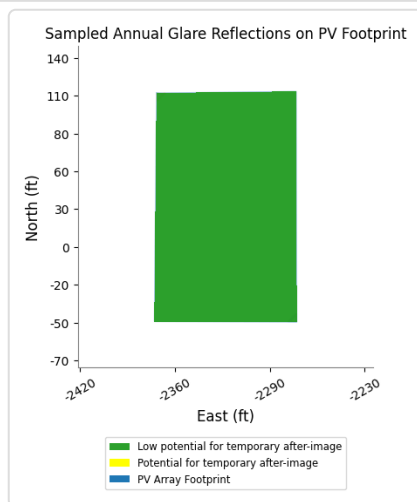
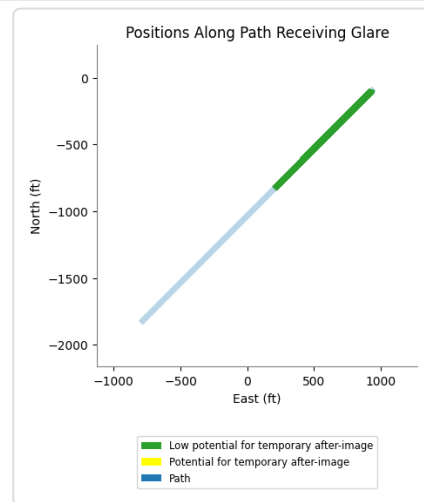
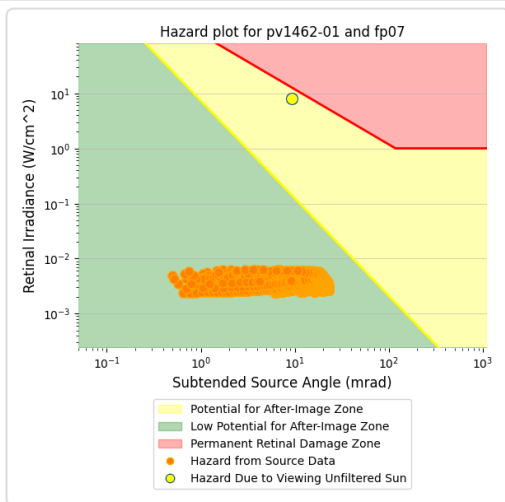
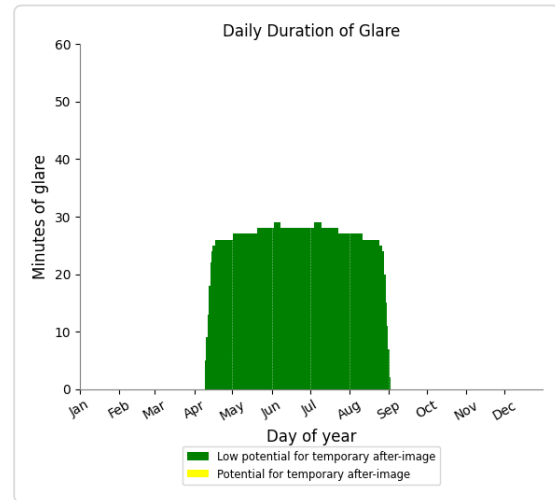
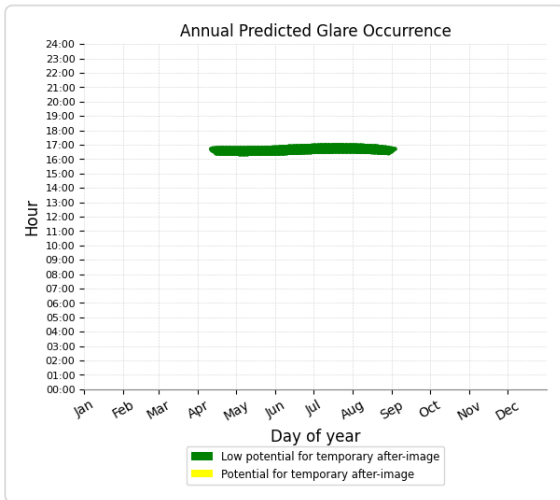
Green glare: 3,628 min.



PV1462_01 and FP: FP07

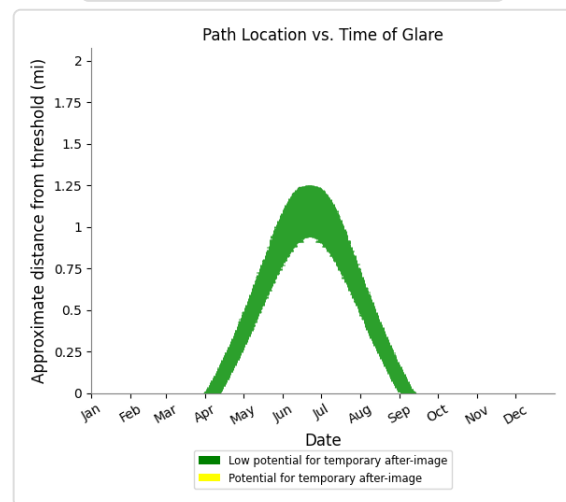
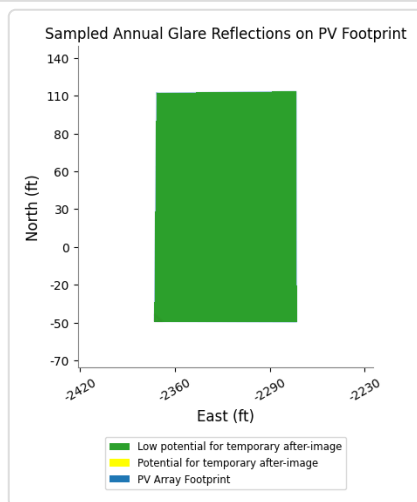
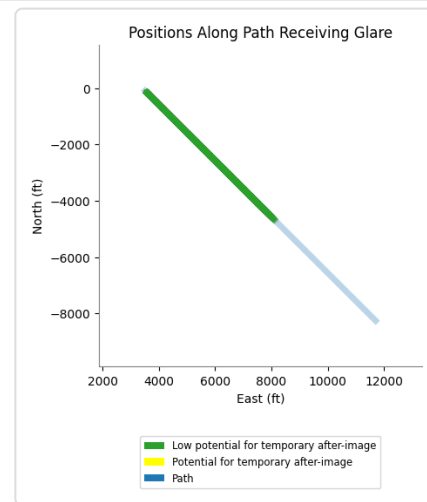
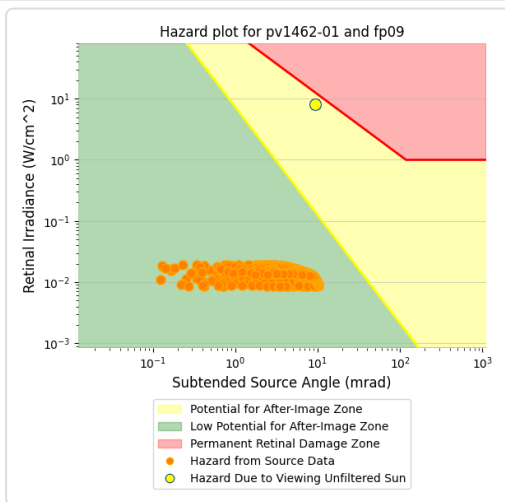
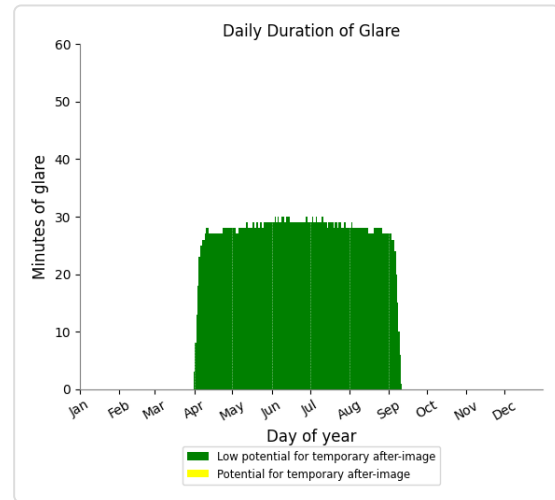
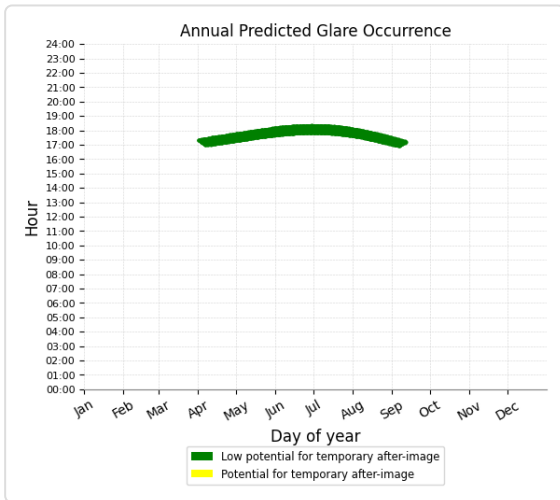
Yellow glare: none

Green glare: 3,825 min.



PV1462_01 and FP: FP09

Yellow glare: none
 Green glare: 4,465 min.



PV1462_01 and FP: FP01

No glare found

PV1462_01 and FP: FP04

No glare found

PV1462_01 and FP: FP05

No glare found

PV1462_01 and FP: FP06

No glare found

PV1462_01 and FP: FP08

No glare found

PV1462_01 and FP: FP10

No glare found

PV1462_01 and FP: FP11

No glare found

PV1462_01 and FP: FP12

No glare found

PV1462_01 and FP: FP13

No glare found

PV1462_01 and FP: FP14

No glare found

PV1462_01 and FP: FP15

No glare found

PV1462_01 and FP: FP16

No glare found

PV1462_01 and 1-ATCT

No glare found

PV: PV1509_01 low potential for temporary after-image

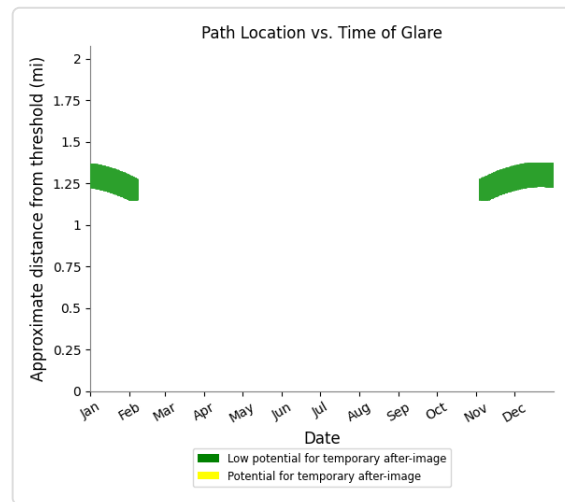
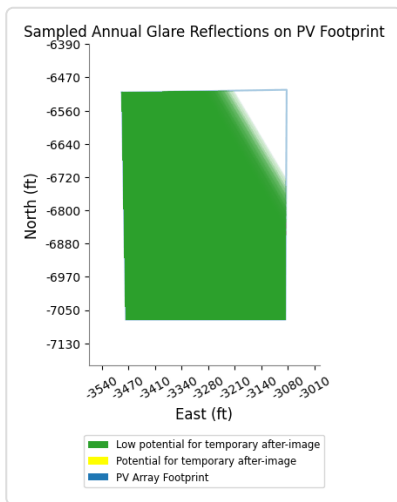
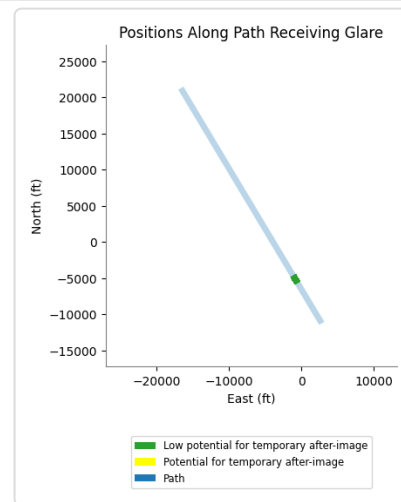
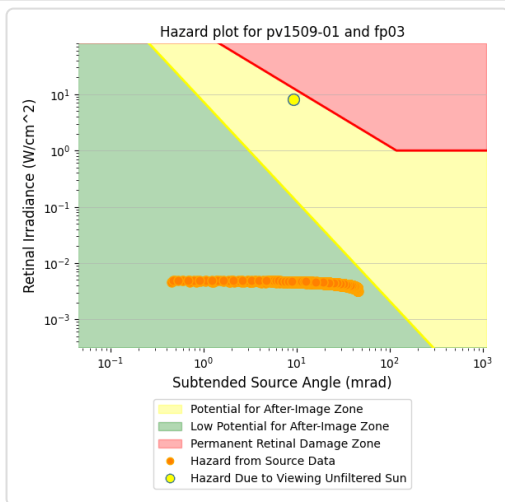
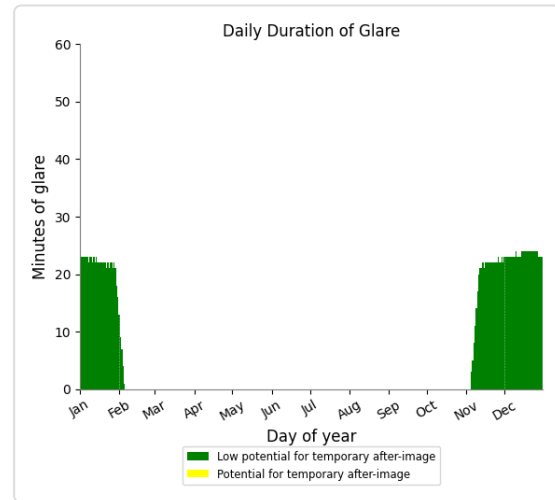
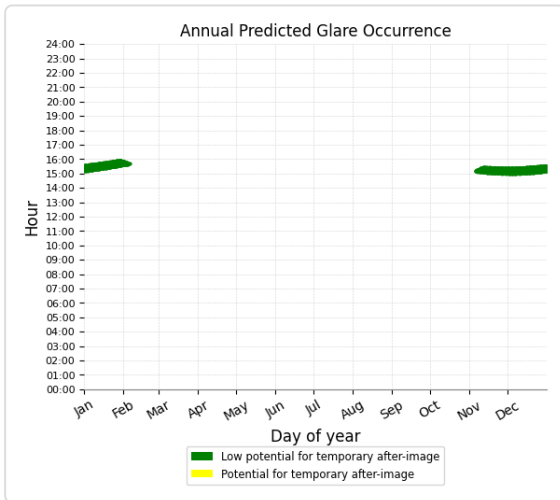
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP03	1,936	32.3	0	0.0
FP09	1,048	17.5	0	0.0
FP12	2,855	47.6	0	0.0
FP15	2,784	46.4	0	0.0
FP16	841	14.0	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1509_01 and FP: FP03

Yellow glare: none

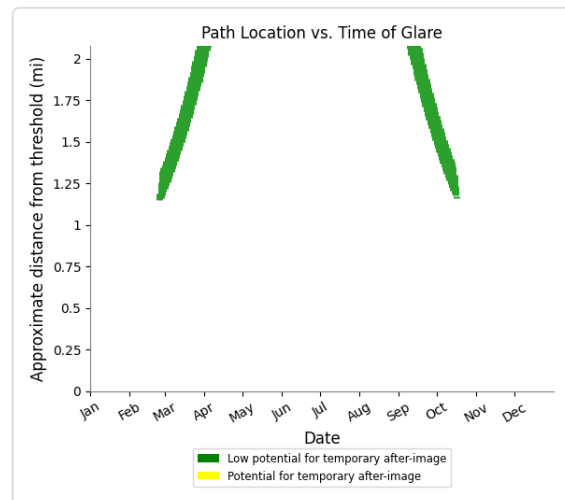
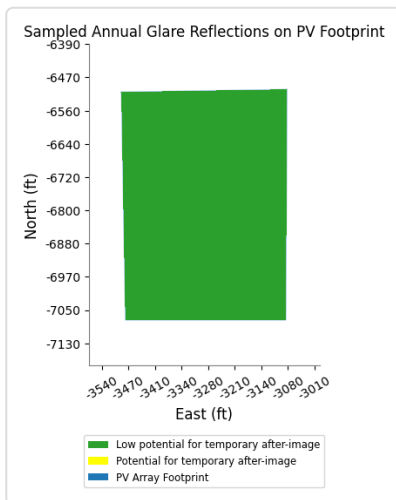
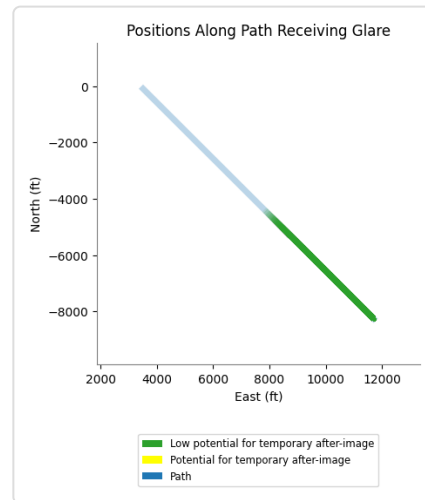
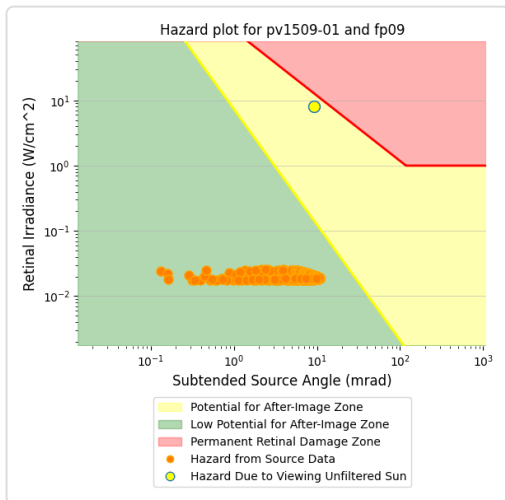
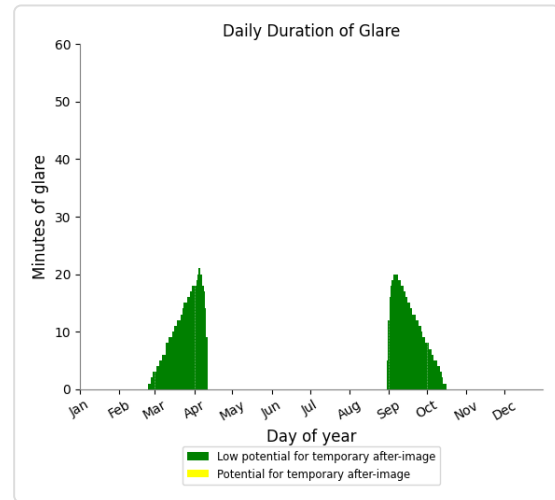
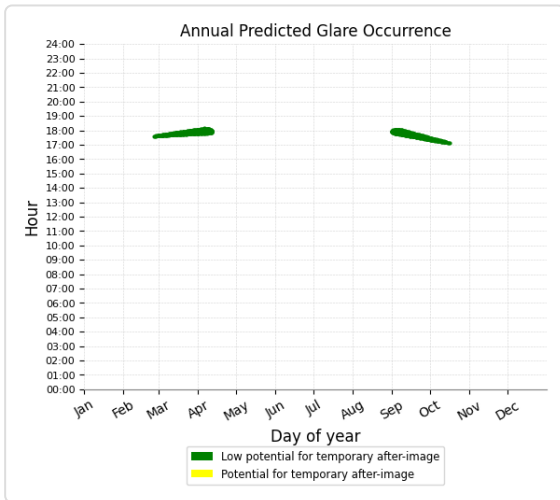
Green glare: 1,936 min.



PV1509_01 and FP: FP09

Yellow glare: none

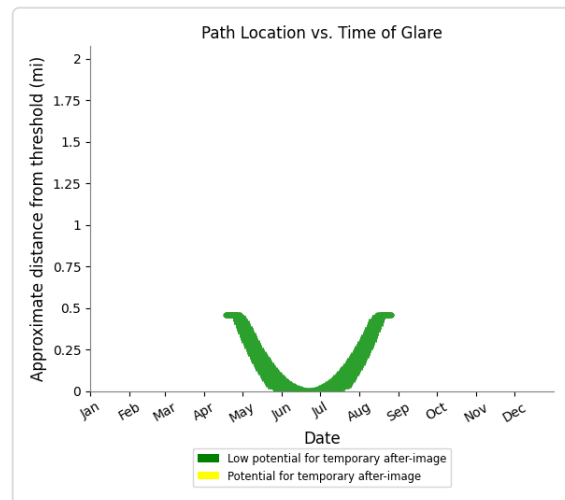
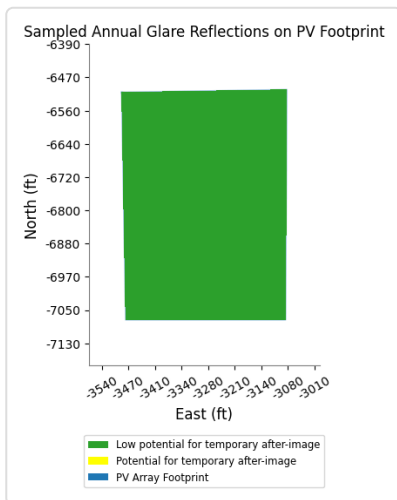
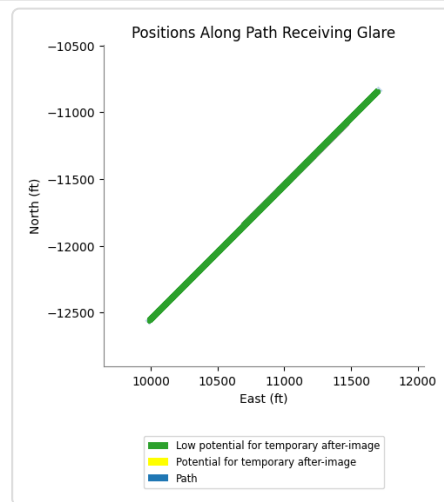
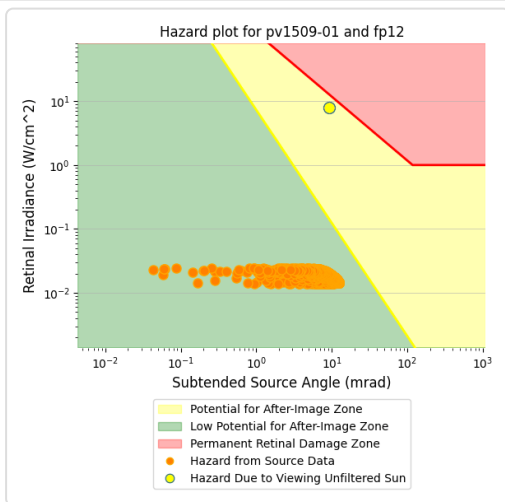
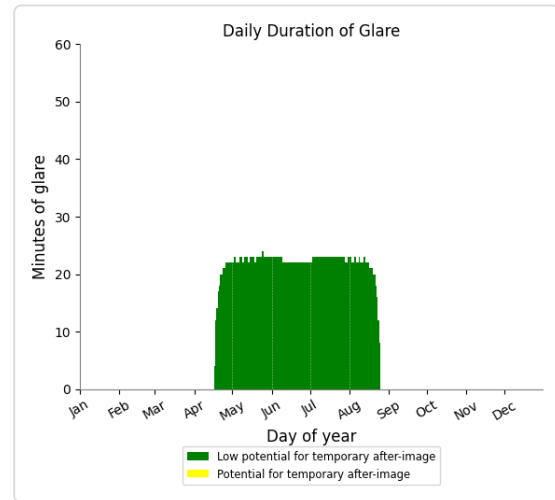
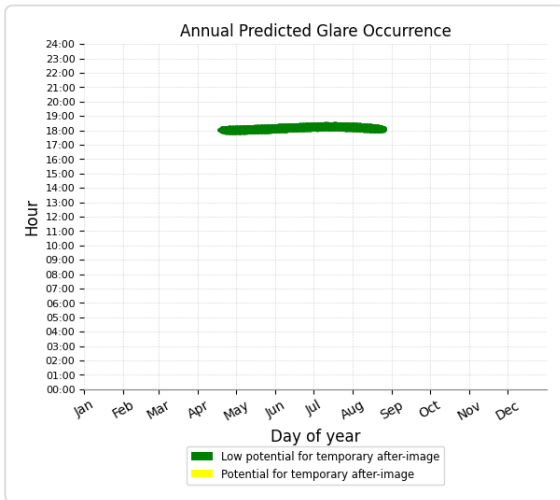
Green glare: 1,048 min.



PV1509_01 and FP: FP12

Yellow glare: none

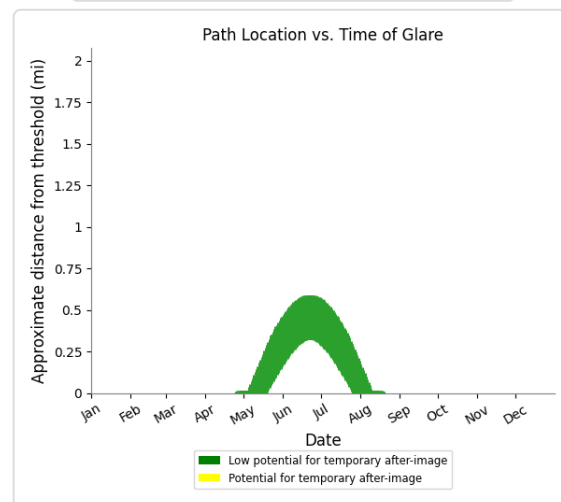
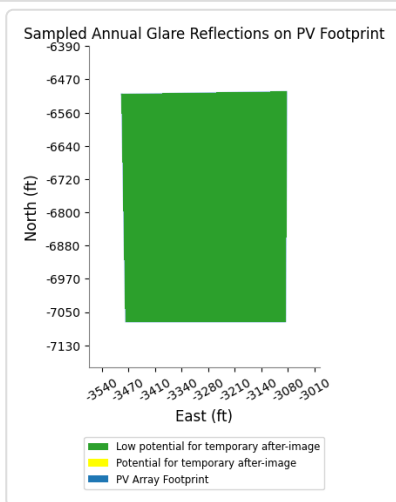
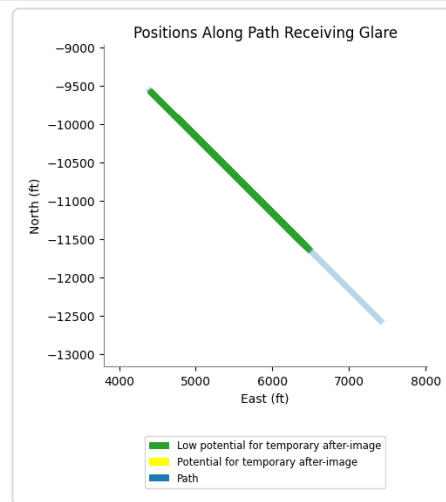
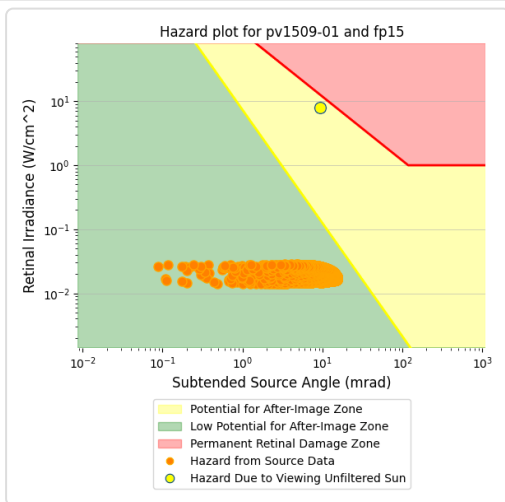
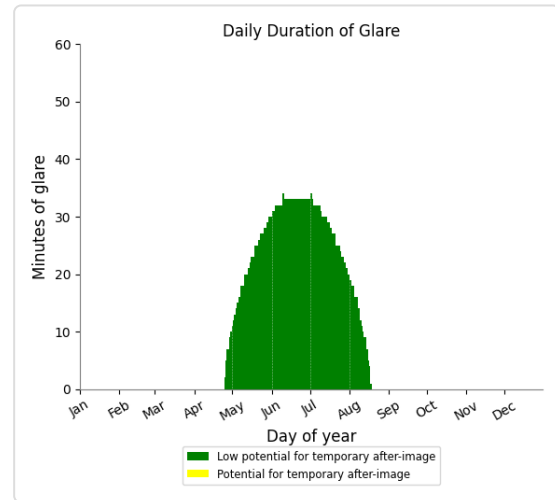
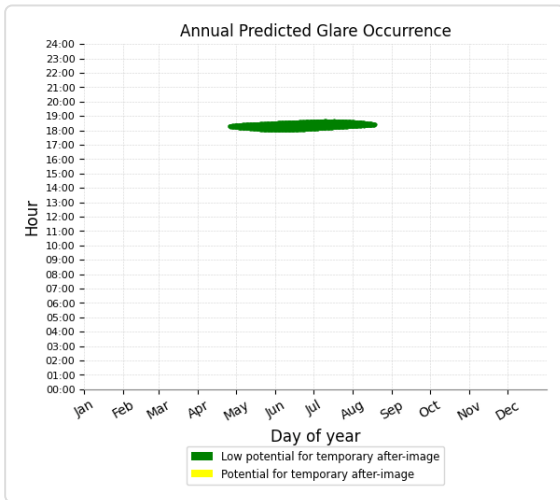
Green glare: 2,855 min.



PV1509_01 and FP: FP15

Yellow glare: none

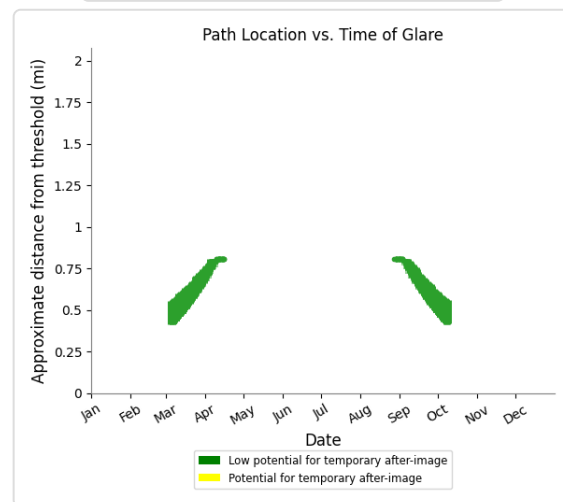
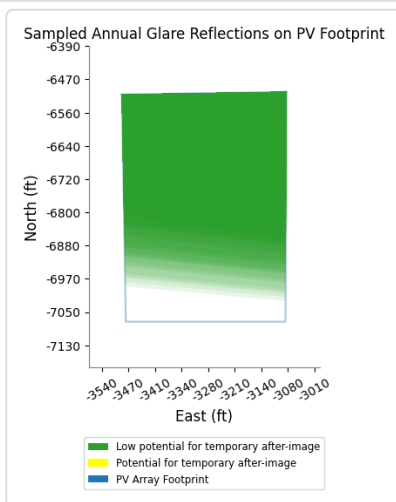
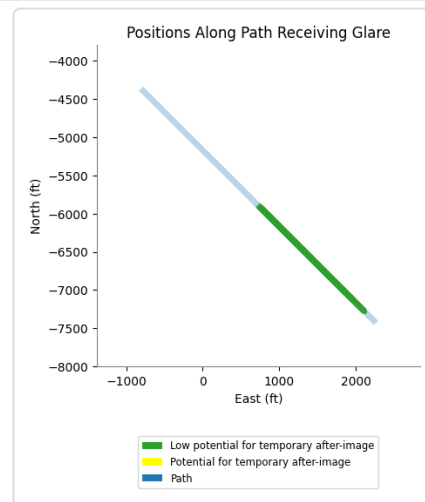
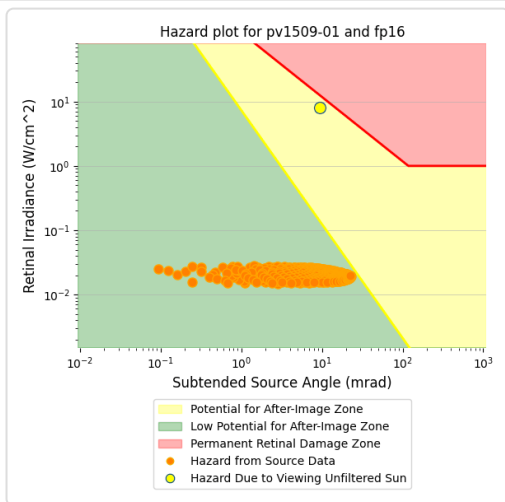
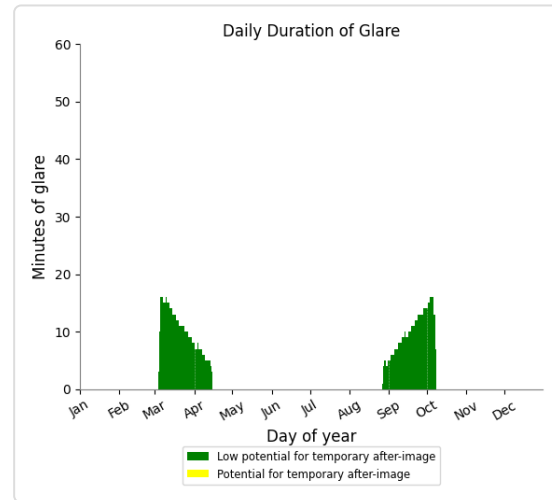
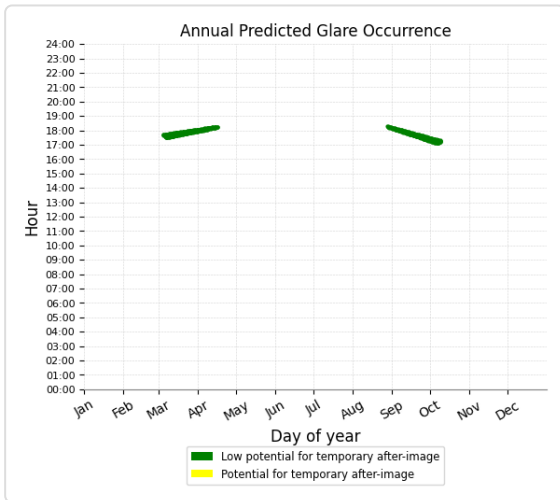
Green glare: 2,784 min.



PV1509_01 and FP: FP16

Yellow glare: none

Green glare: 841 min.



PV1509_01 and FP: FP01

No glare found

PV1509_01 and FP: FP02

No glare found

PV1509_01 and FP: FP04

No glare found

PV1509_01 and FP: FP05

No glare found

PV1509_01 and FP: FP06

No glare found

PV1509_01 and FP: FP07

No glare found

PV1509_01 and FP: FP08

No glare found

PV1509_01 and FP: FP10

No glare found

PV1509_01 and FP: FP11

No glare found

PV1509_01 and FP: FP13

No glare found

PV1509_01 and FP: FP14

No glare found

PV1509_01 and 1-ATCT

No glare found

PV: PV1558_01 low potential for temporary after-image

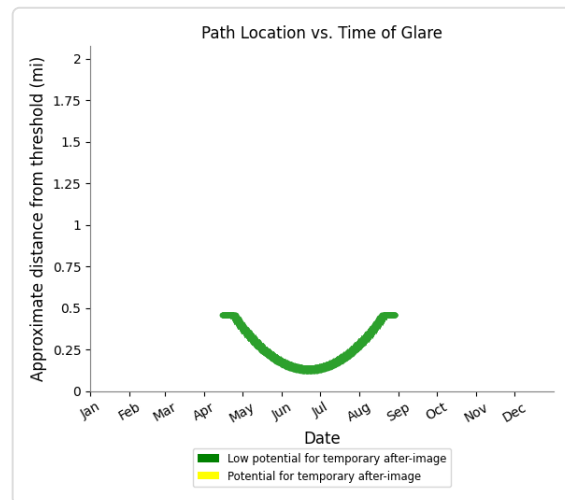
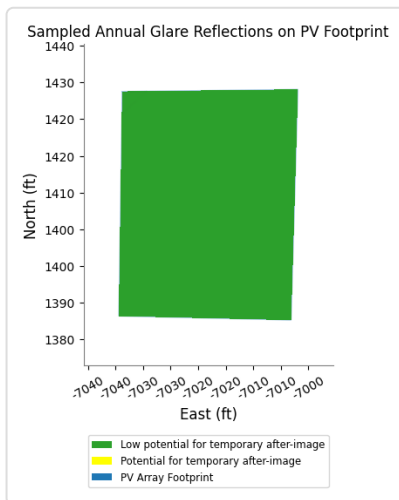
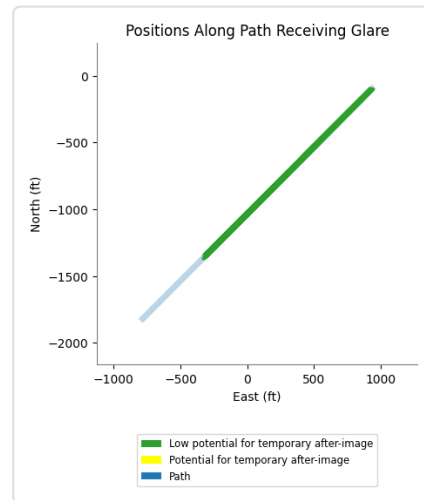
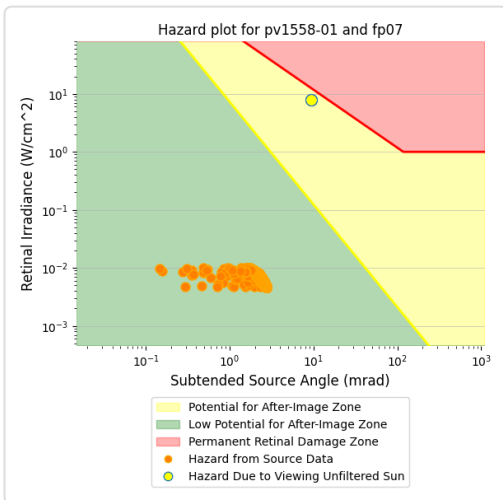
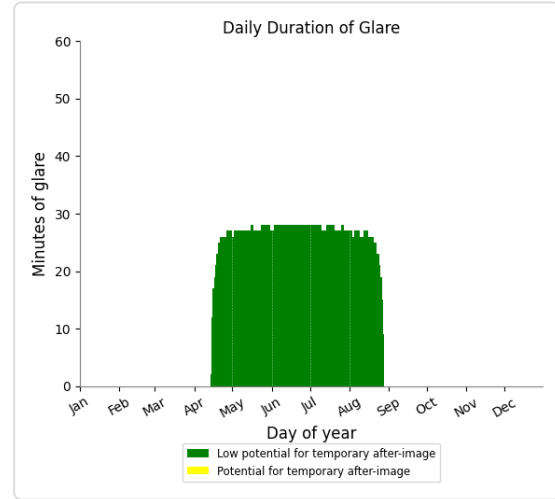
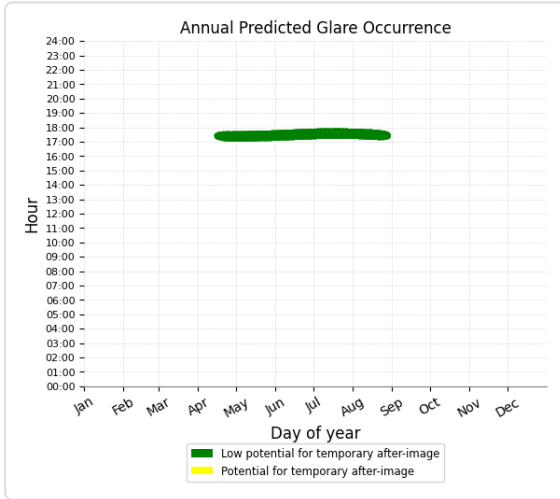
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP07	3,611	60.2	0	0.0
FP09	4,250	70.8	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1558_01 and FP: FP07

Yellow glare: none

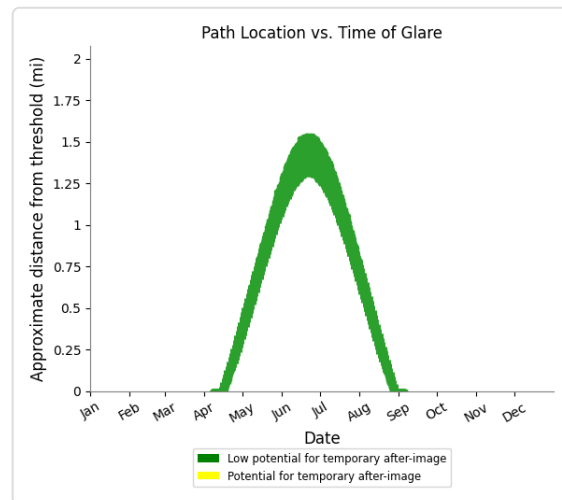
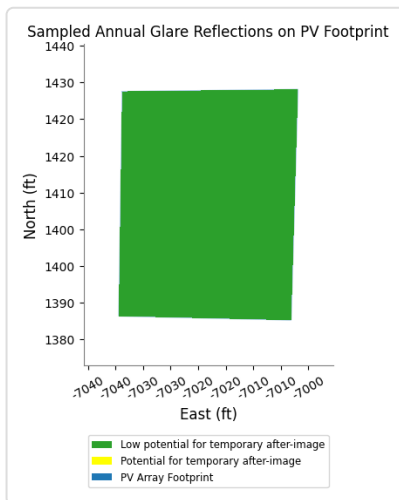
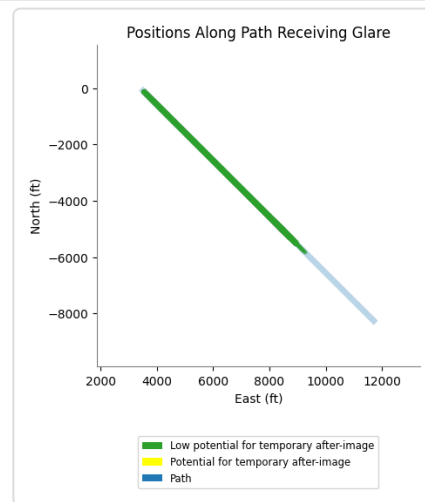
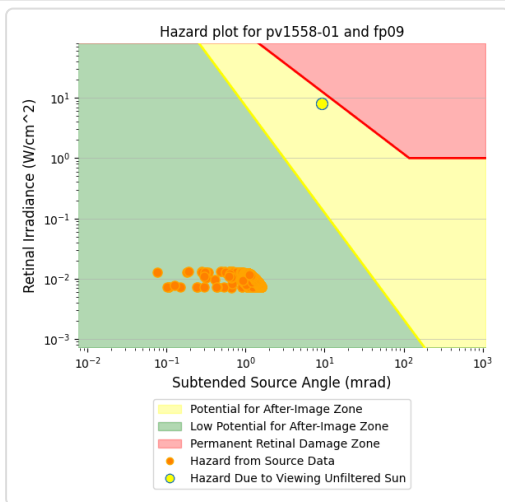
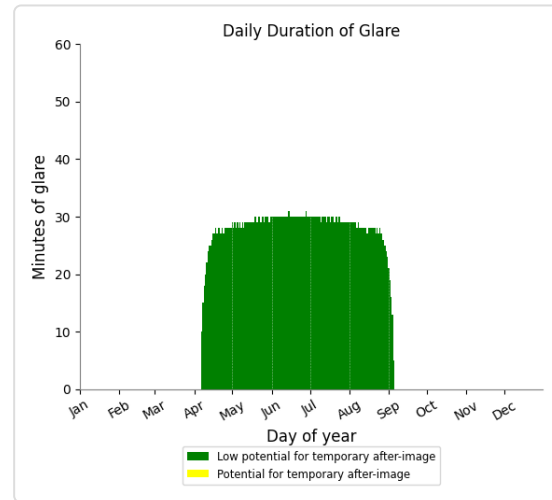
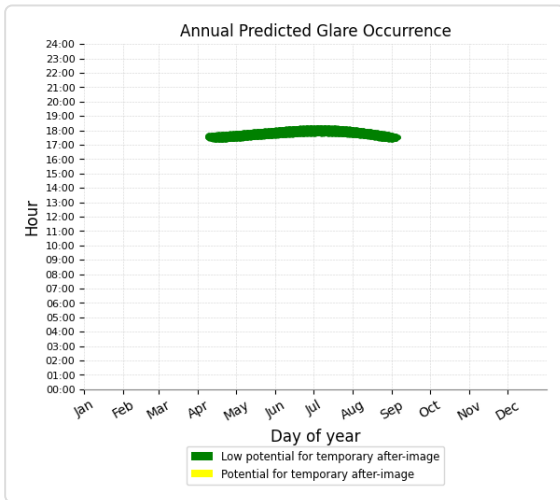
Green glare: 3,611 min.



PV1558_01 and FP: FP09

Yellow glare: none

Green glare: 4,250 min.



PV1558_01 and FP: FP01

No glare found

PV1558_01 and FP: FP02

No glare found

PV1558_01 and FP: FP03

No glare found

PV1558_01 and FP: FP04

No glare found

PV1558_01 and FP: FP05

No glare found

PV1558_01 and FP: FP06

No glare found

PV1558_01 and FP: FP08

No glare found

PV1558_01 and FP: FP10

No glare found

PV1558_01 and FP: FP11

No glare found

PV1558_01 and FP: FP12

No glare found

PV1558_01 and FP: FP13

No glare found

PV1558_01 and FP: FP14

No glare found

PV1558_01 and FP: FP15

No glare found

PV1558_01 and FP: FP16

No glare found

PV1558_01 and 1-ATCT

No glare found

PV: PV1558_02 low potential for temporary after-image

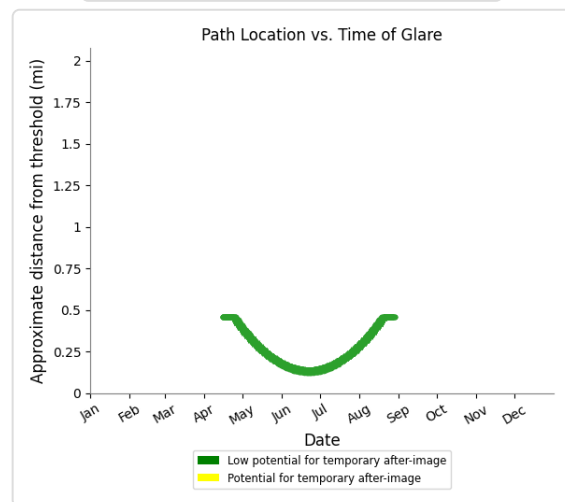
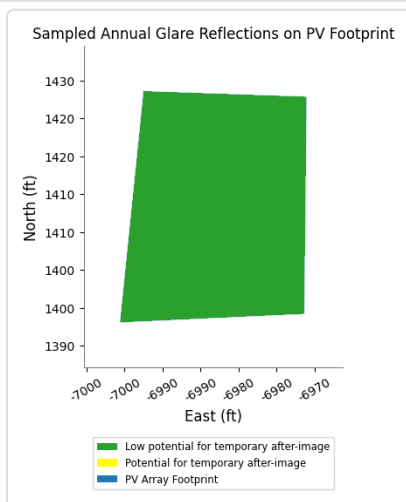
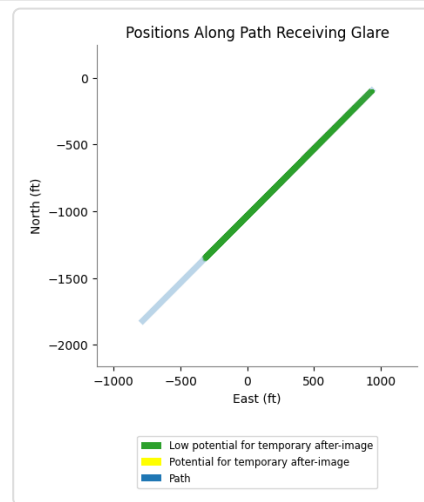
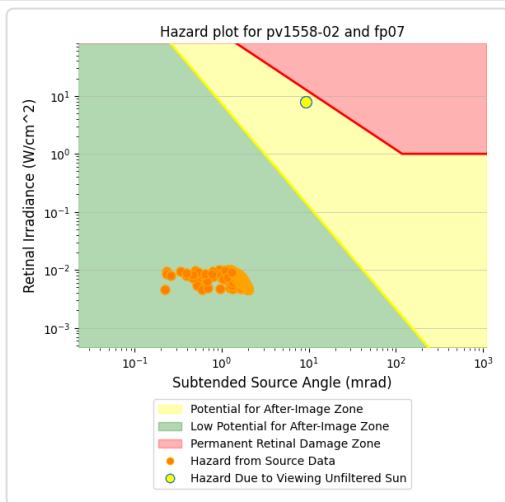
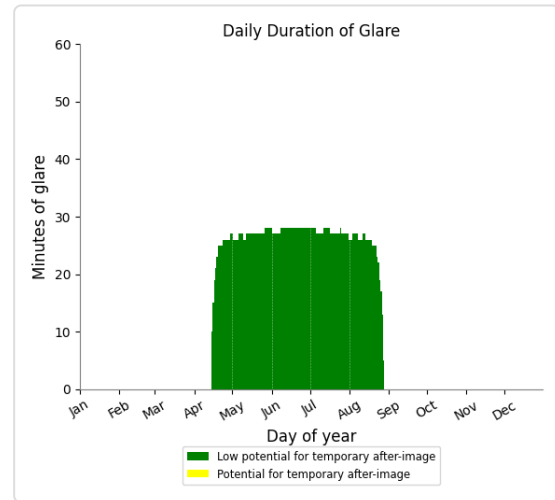
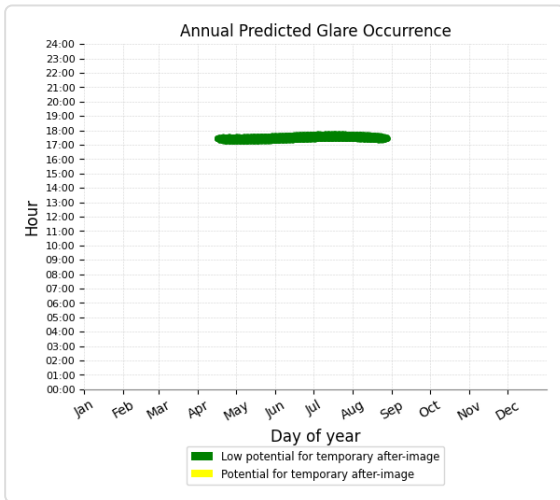
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP07	3,562	59.4	0	0.0
FP09	4,267	71.1	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1558_02 and FP: FP07

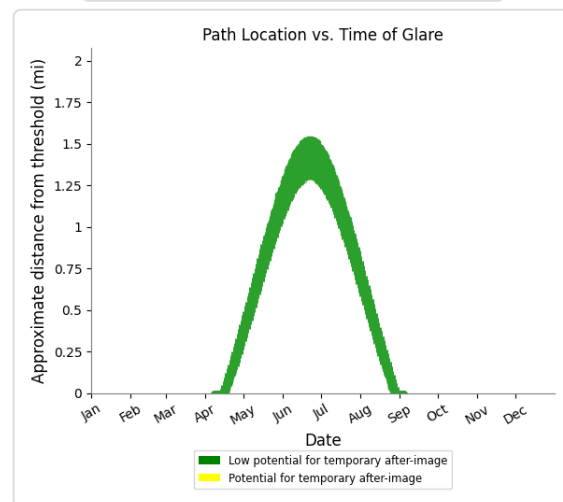
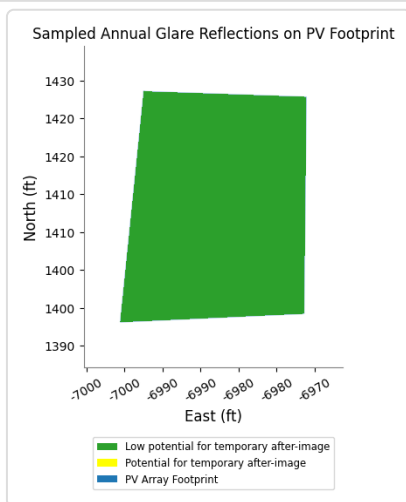
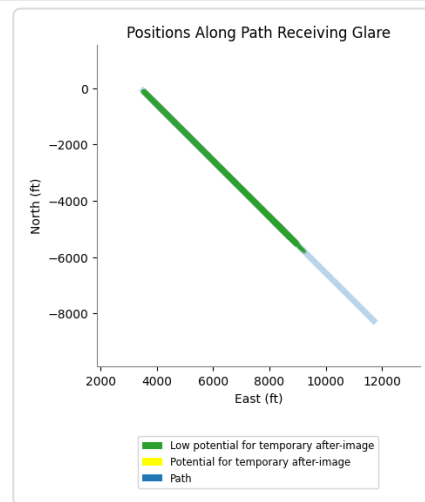
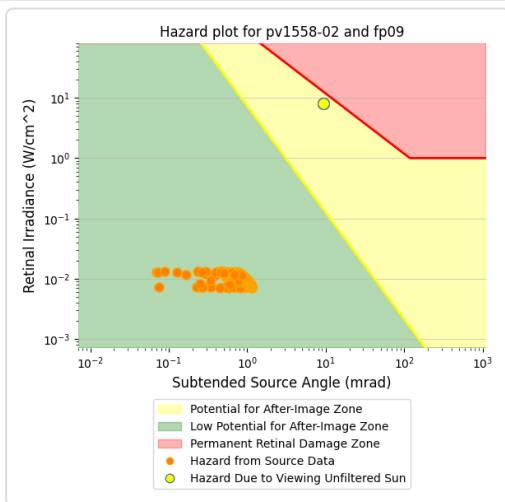
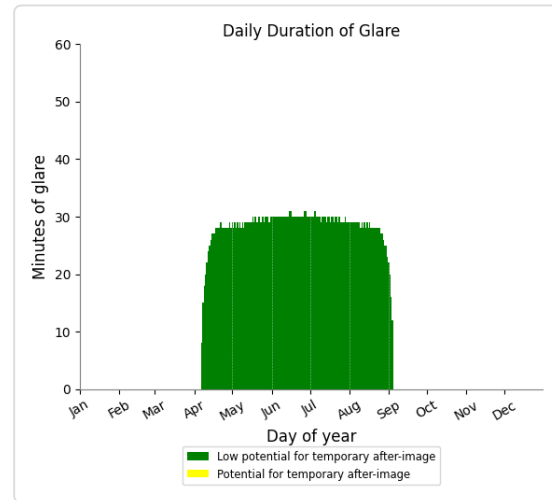
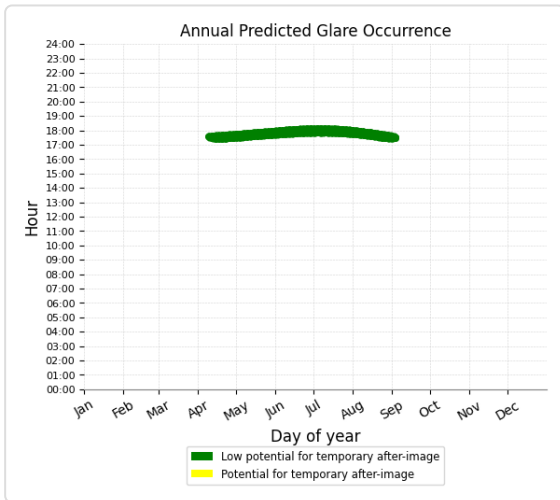
Yellow glare: none

Green glare: 3,562 min.



PV1558_02 and FP: FP09

Yellow glare: none
Green glare: 4,267 min.



PV1558_02 and FP: FP01

No glare found

PV1558_02 and FP: FP02

No glare found

PV1558_02 and FP: FP03

No glare found

PV1558_02 and FP: FP04

No glare found

PV1558_02 and FP: FP05

No glare found

PV1558_02 and FP: FP06

No glare found

PV1558_02 and FP: FP08

No glare found

PV1558_02 and FP: FP10

No glare found

PV1558_02 and FP: FP11

No glare found

PV1558_02 and FP: FP12

No glare found

PV1558_02 and FP: FP13

No glare found

PV1558_02 and FP: FP14

No glare found

PV1558_02 and FP: FP15

No glare found

PV1558_02 and FP: FP16

No glare found

PV1558_02 and 1-ATCT

No glare found

PV: PV1558_03 low potential for temporary after-image

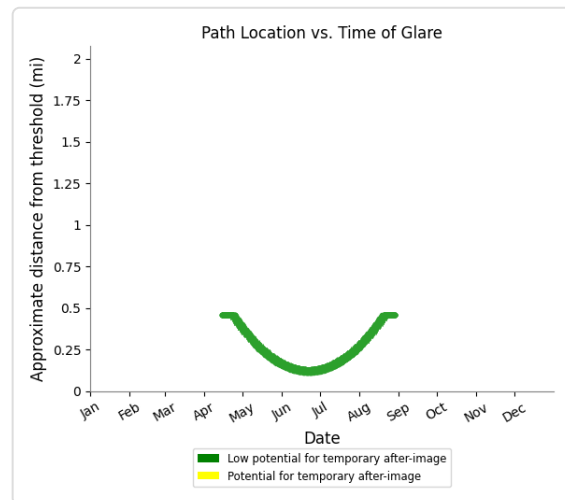
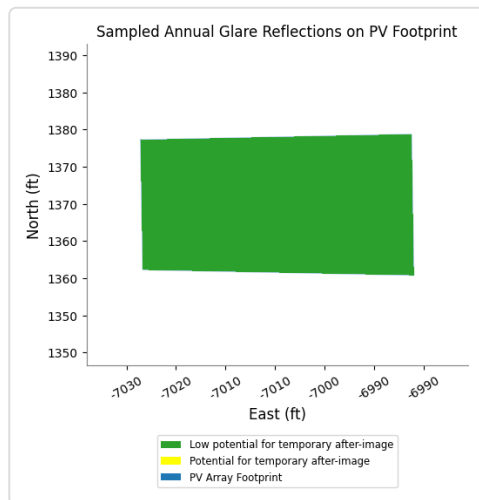
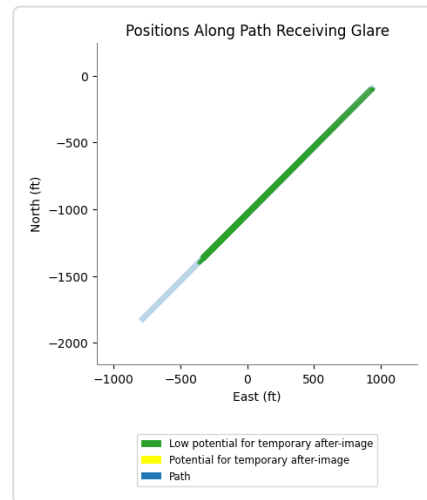
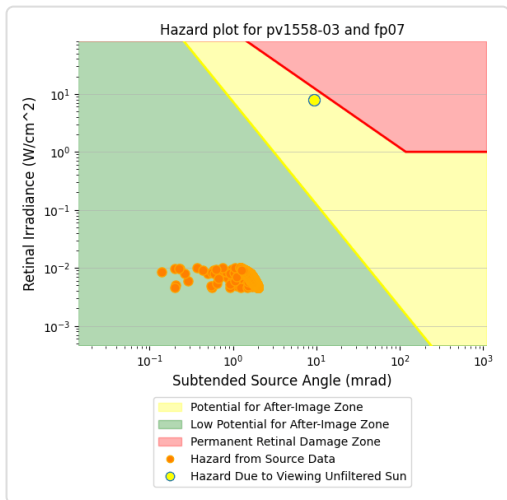
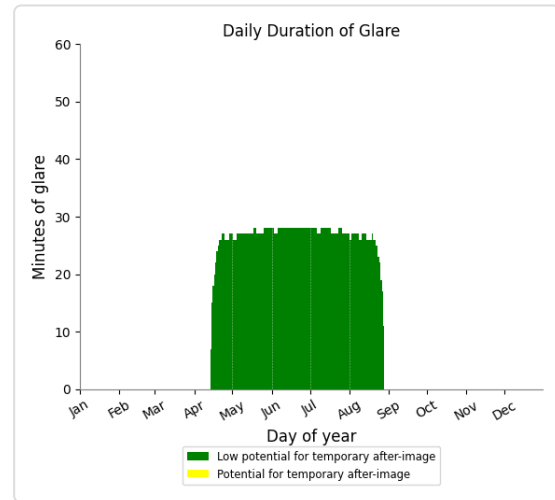
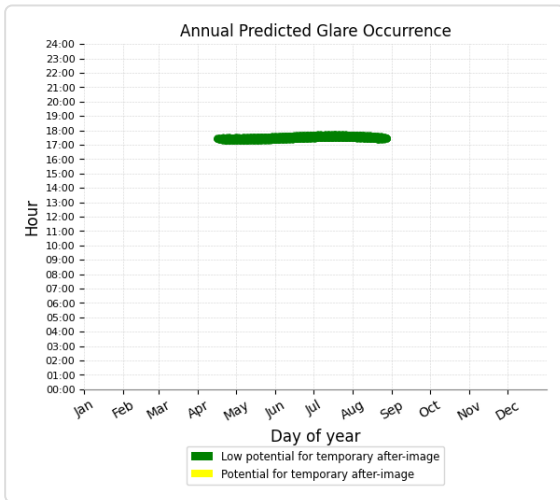
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP07	3,628	60.5	0	0.0
FP09	4,272	71.2	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1558_03 and FP: FP07

Yellow glare: none

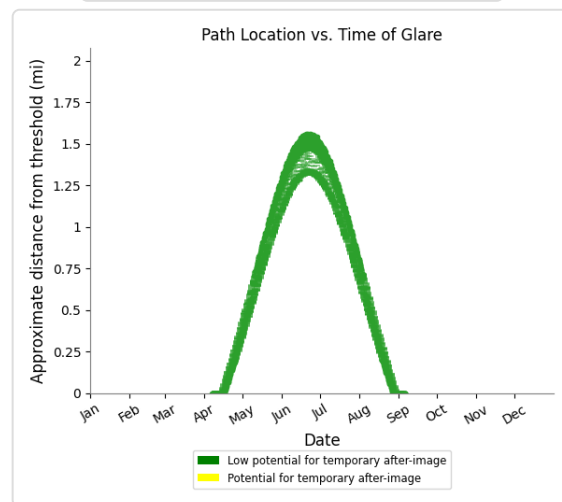
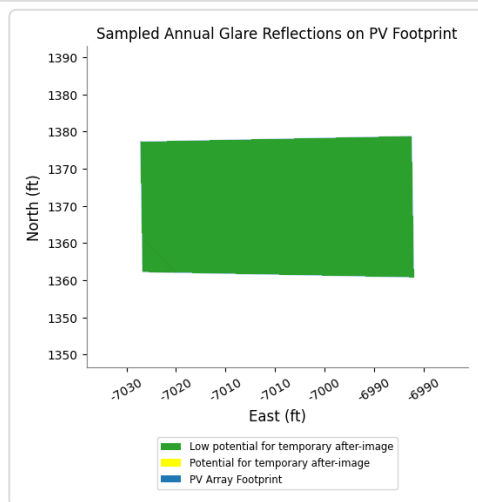
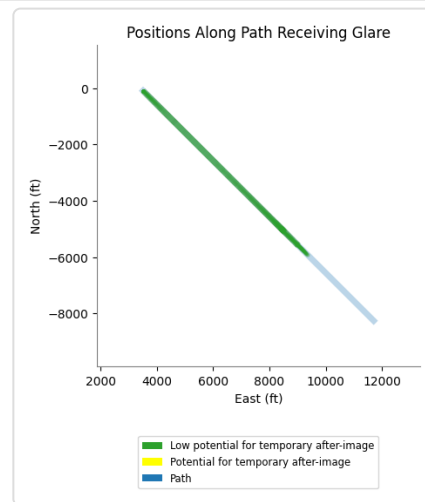
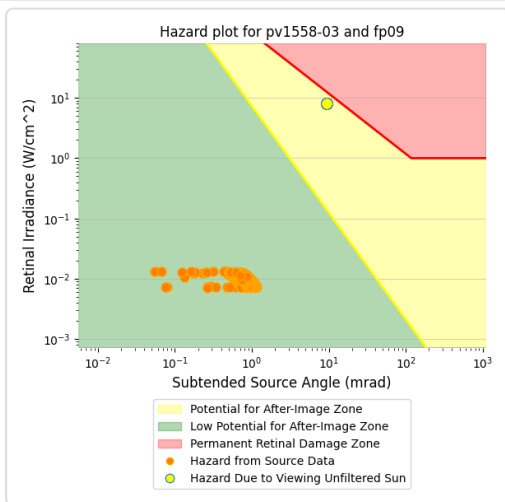
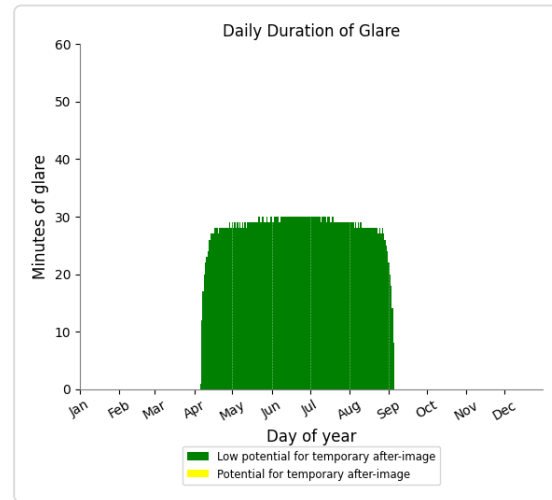
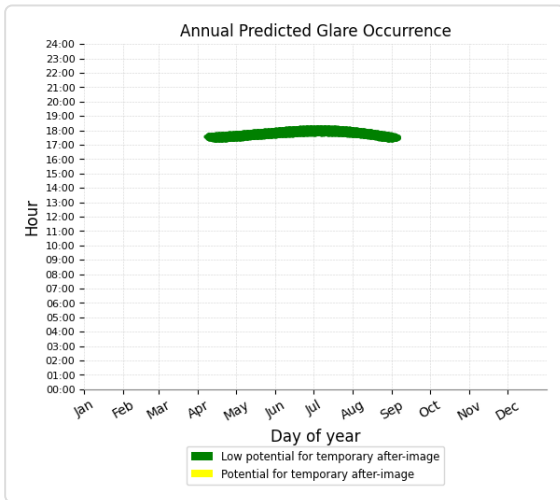
Green glare: 3,628 min.



PV1558_03 and FP: FP09

Yellow glare: none

Green glare: 4,272 min.



PV1558_03 and FP: FP01

No glare found

PV1558_03 and FP: FP02

No glare found

PV1558_03 and FP: FP03

No glare found

PV1558_03 and FP: FP04

No glare found

PV1558_03 and FP: FP05

No glare found

PV1558_03 and FP: FP06

No glare found

PV1558_03 and FP: FP08

No glare found

PV1558_03 and FP: FP10

No glare found

PV1558_03 and FP: FP11

No glare found

PV1558_03 and FP: FP12

No glare found

PV1558_03 and FP: FP13

No glare found

PV1558_03 and FP: FP14

No glare found

PV1558_03 and FP: FP15

No glare found

PV1558_03 and FP: FP16

No glare found

PV1558_03 and 1-ATCT

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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FORGESOLAR GLARE ANALYSIS

Project: **March Air Reserve Base Cumulative Analysis North A**

Site configuration: **North A Rwy 14_32 90DegView**

Created 10 Jul, 2023

Updated 13 Sep, 2023

Time-step 1 minute

Timezone offset UTC-8

Minimum sun altitude 0.0 deg

DNI peaks at 1,000.0 W/m²

Category 10 MW to 100 MW

Site ID 95005.16309

Ocular transmission coefficient 0.5

Pupil diameter 0.002 m

Eye focal length 0.017 m

Sun subtended angle 9.3 mrad

PV analysis methodology V2



Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt °	Orient °	Annual Green Glare		Annual Yellow Glare		Energy kWh
			min	hr	min	hr	
PV1314_01	10.0	180.0	9,084	151.4	0	0.0	-
PV1314_02	10.0	180.0	9,161	152.7	0	0.0	-
PV1314_03	10.0	180.0	9,100	151.7	0	0.0	-
PV1314_04	10.0	180.0	9,327	155.4	0	0.0	-
PV1314_05	10.0	180.0	9,446	157.4	0	0.0	-
PV1314_06	10.0	180.0	9,193	153.2	0	0.0	-
PV1314_07	10.0	180.0	8,745	145.8	0	0.0	-
PV1411_01	10.0	270.0	12,853	214.2	0	0.0	-
PV1411_02	10.0	90.0	2,879	48.0	0	0.0	-
PV1458_01	10.0	182.0	8,414	140.2	0	0.0	-
PV1462_01	5.0	180.0	15,833	263.9	0	0.0	-
PV1509_01	10.0	194.0	18,393	306.6	0	0.0	-
PV1558_01	10.0	180.0	10,091	168.2	0	0.0	-
PV1558_02	10.0	180.0	9,988	166.5	0	0.0	-
PV1558_03	10.0	180.0	9,867	164.4	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	20,679	344.6	0	0.0
FP18	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP19	0	0.0	0	0.0
FP20	32,243	537.4	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP24	53,145	885.8	0	0.0
FP25	0	0.0	0	0.0
FP26	16,185	269.8	0	0.0
FP27	16,395	273.2	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	2,523	42.0	0	0.0
FP34	11,204	186.7	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV1314_01
Axis tracking: Fixed (no rotation)
Tilt: 10.0°
Orientation: 180.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.910592	-117.268042	1556.38	13.80	1570.18
2	33.910596	-117.267551	1554.48	13.80	1568.28
3	33.910495	-117.267549	1554.97	13.80	1568.77
4	33.910494	-117.268044	1555.81	13.80	1569.61

Name: PV1314_02
Axis tracking: Fixed (no rotation)
Tilt: 10.0°
Orientation: 180.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.910390	-117.268149	1555.96	13.80	1569.76
2	33.910388	-117.267446	1557.75	13.80	1571.55
3	33.910427	-117.267448	1557.30	13.80	1571.10
4	33.910428	-117.268150	1555.95	13.80	1569.75

Name: PV1314_03

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

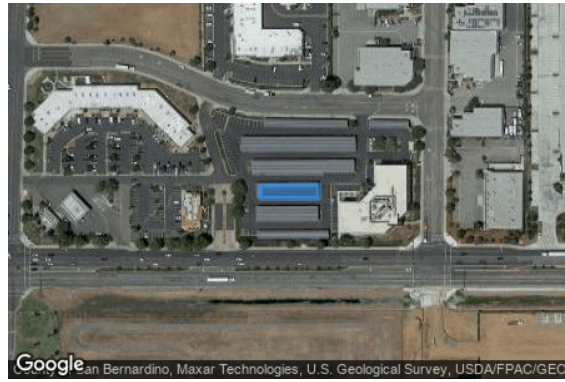
Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.910752	-117.268044	1556.64	13.80	1570.44
2	33.910756	-117.267542	1553.65	13.80	1567.45
3	33.910659	-117.267547	1553.77	13.80	1567.57
4	33.910660	-117.268045	1556.99	13.80	1570.79

Name: PV1314_04

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.910919	-117.268153	1556.64	13.80	1570.44
2	33.910923	-117.267232	1555.97	13.80	1569.77
3	33.910822	-117.267233	1554.20	13.80	1568.00
4	33.910822	-117.268150	1556.68	13.80	1570.48

Name: PV1314_05

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

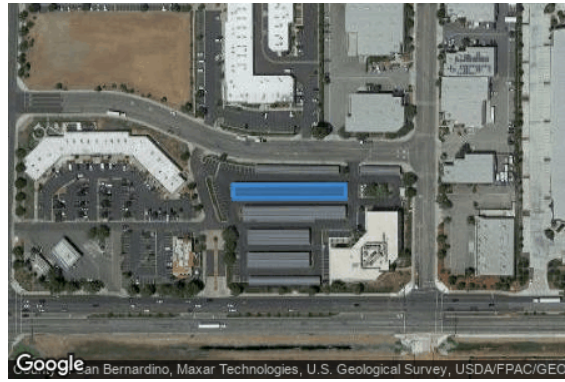
Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.911084	-117.268214	1555.15	13.80	1568.95
2	33.911088	-117.267239	1554.48	13.80	1568.28
3	33.910988	-117.267242	1556.24	13.80	1570.04
4	33.910985	-117.268209	1555.54	13.80	1569.34

Name: PV1314_06

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

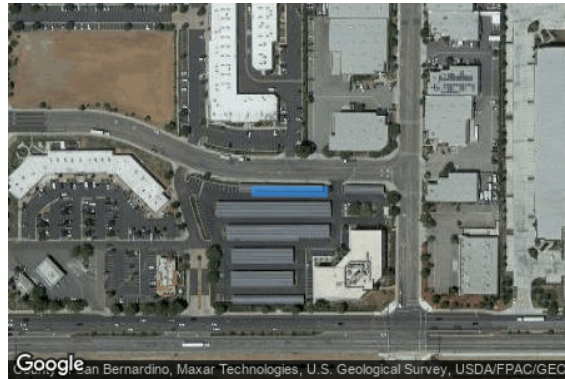
Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.911193	-117.267892	1551.70	13.80	1565.50
2	33.911189	-117.267267	1553.26	13.80	1567.06
3	33.911143	-117.267269	1553.62	13.80	1567.42
4	33.911148	-117.267893	1552.93	13.80	1566.73

Name: PV1314_07

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

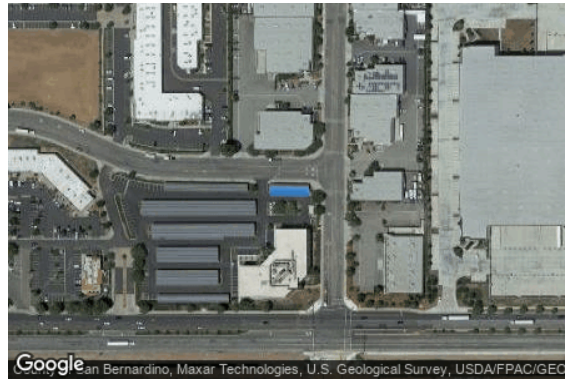
Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.911186	-117.267097	1552.39	13.80	1566.19
2	33.911183	-117.266793	1552.99	13.80	1566.79
3	33.911145	-117.266793	1553.17	13.80	1566.97
4	33.911147	-117.267096	1552.76	13.80	1566.56

Name: PV1411_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 270.0°

Rated power: -

Panel material: Light textured glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.912377	-117.294424	1564.28	50.00	1614.28
2	33.913062	-117.293051	1551.96	50.00	1601.96
3	33.911477	-117.291903	1557.50	50.00	1607.50
4	33.910836	-117.293384	1567.13	50.00	1617.13

Name: PV1411_02

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 90.0°

Rated power: -

Panel material: Light textured glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.912377	-117.294424	1564.28	50.00	1614.28
2	33.913062	-117.293051	1551.96	50.00	1601.96
3	33.911477	-117.291903	1557.50	50.00	1607.50
4	33.910836	-117.293384	1567.13	50.00	1617.13

Name: PV1458_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 182.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.915051	-117.272082	1561.10	29.00	1590.10
2	33.915049	-117.271659	1561.34	28.76	1590.10
3	33.914635	-117.271672	1562.85	27.25	1590.10
4	33.914636	-117.272088	1560.08	30.02	1590.10

Name: PV1462_01

Axis tracking: Fixed (no rotation)

Tilt: 5.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.910885	-117.275868	1554.38	20.00	1574.38
2	33.910888	-117.275551	1555.98	20.00	1575.98
3	33.910450	-117.275550	1557.88	20.00	1577.88
4	33.910451	-117.275873	1556.08	20.00	1576.08

Name: PV1509_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 194.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.892686	-117.279556	1560.93	0.00	1560.93
2	33.892704	-117.278215	1559.74	0.00	1559.74
3	33.891145	-117.278225	1558.97	0.00	1558.97
4	33.891145	-117.279523	1566.81	0.00	1566.81

Name: PV1558_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.914502	-117.291257	1546.32	23.95	1570.27
2	33.914503	-117.291154	1545.98	23.95	1569.93
3	33.914390	-117.291158	1546.08	23.95	1570.03
4	33.914392	-117.291259	1545.55	23.95	1569.50

Name: PV1558_02

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.914498	-117.291123	1545.75	23.95	1569.70
2	33.914496	-117.291054	1545.24	23.95	1569.19
3	33.914419	-117.291055	1545.22	23.95	1569.17
4	33.914416	-117.291133	1545.80	23.95	1569.75

Name: PV1558_03
Axis tracking: Fixed (no rotation)
Tilt: 10.0°
Orientation: 180.0°
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.914363	-117.291217	1546.10	23.95	1570.05
2	33.914365	-117.291099	1545.73	23.95	1569.68
3	33.914314	-117.291098	1546.02	23.95	1569.97
4	33.914316	-117.291216	1546.07	23.95	1570.02

Flight Path Receptors

Name: FP17
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



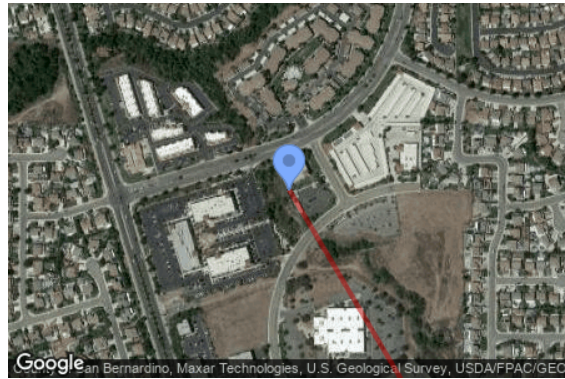
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.931244	-117.309014	0.00	3000.00	3000.00
Two-mile	33.922394	-117.325047	0.00	3000.00	3000.00

Name: FP18
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.813147	-117.244350	0.00	3000.00	3000.00
Two-mile	33.821961	-117.228367	0.00	3000.00	3000.00

Name: FP19
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.908131	-117.325528	0.00	3000.00	3000.00
Two-mile	33.819225	-117.262269	0.00	3000.00	3000.00

Name: FP20
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896431	-117.270636	0.00	1550.00	1550.00
Two-mile	33.925156	-117.291061	0.00	3000.00	3000.00

Name: FP21
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.836269	-117.227869	0.00	3000.00	3000.00
Two-mile	33.864994	-117.248281	0.00	1550.00	1550.00

Name: FP22
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.821961	-117.228367	0.00	3000.00	3000.00
Two-mile	33.813147	-117.244350	0.00	3000.00	3000.00

Name: FP23
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.922394	-117.325047	0.00	3000.00	3000.00
Two-mile	33.931244	-117.309014	0.00	3000.00	3000.00

Name: FP24
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.819225	-117.262269	0.00	3000.00	3000.00
Two-mile	33.908131	-117.325528	0.00	3000.00	3000.00

Name: FP25
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.864994	-117.248281	0.00	1550.00	1550.00
Two-mile	33.836269	-117.227869	0.00	3000.00	3000.00

Name: FP26
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.925156	-117.291061	0.00	3000.00	3000.00
Two-mile	33.896431	-117.270636	0.00	1550.00	1550.00

Name: FP27
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



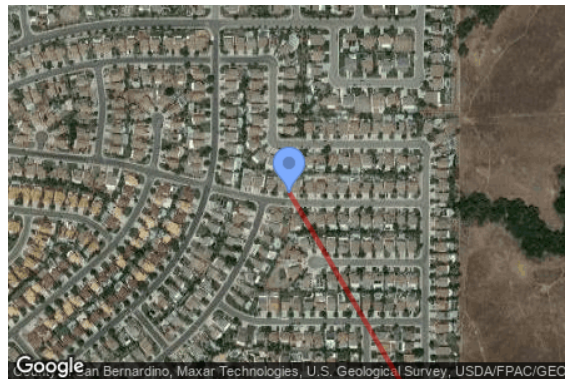
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.908242	-117.286017	0.00	3000.00	3000.00
Two-mile	33.904833	-117.292903	0.00	3000.00	3000.00

Name: FP28
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.844669	-117.250119	0.00	3000.00	3000.00
Two-mile	33.848078	-117.243236	0.00	3000.00	3000.00

Name: FP29
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.897972	-117.295011	0.00	3000.00	3000.00
Two-mile	33.846422	-117.258344	0.00	3000.00	3000.00

Name: FP30
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896431	-117.270636	0.00	1550.00	1550.00
Two-mile	33.906486	-117.277783	0.00	3000.00	3000.00

Name: FP31
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.854942	-117.241136	0.00	3000.00	3000.00
Two-mile	33.864994	-117.248281	0.00	1550.00	1550.00

Name: FP32
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.848078	-117.243236	0.00	3000.00	3000.00
Two-mile	33.844669	-117.250119	0.00	3000.00	3000.00

Name: FP33
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.904833	-117.292903	0.00	3000.00	3000.00
Two-mile	33.908242	-117.286017	0.00	3000.00	3000.00

Name: FP34
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.846422	-117.258344	0.00	3000.00	3000.00
Two-mile	33.897972	-117.295011	0.00	3000.00	3000.00

Name: FP35
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.864994	-117.248281	0.00	1550.00	1550.00
Two-mile	33.854942	-117.241136	0.00	3000.00	3000.00

Name: FP36
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.906486	-117.277783	0.00	3000.00	3000.00
Two-mile	33.896431	-117.270636	0.00	1550.00	1550.00

Glare Analysis Results

Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV1314_01	10.0	180.0	9,084	151.4	0	0.0	-
PV1314_02	10.0	180.0	9,161	152.7	0	0.0	-
PV1314_03	10.0	180.0	9,100	151.7	0	0.0	-
PV1314_04	10.0	180.0	9,327	155.4	0	0.0	-
PV1314_05	10.0	180.0	9,446	157.4	0	0.0	-
PV1314_06	10.0	180.0	9,193	153.2	0	0.0	-
PV1314_07	10.0	180.0	8,745	145.8	0	0.0	-
PV1411_01	10.0	270.0	12,853	214.2	0	0.0	-
PV1411_02	10.0	90.0	2,879	48.0	0	0.0	-
PV1458_01	10.0	182.0	8,414	140.2	0	0.0	-
PV1462_01	5.0	180.0	15,833	263.9	0	0.0	-
PV1509_01	10.0	194.0	18,393	306.6	0	0.0	-
PV1558_01	10.0	180.0	10,091	168.2	0	0.0	-
PV1558_02	10.0	180.0	9,988	166.5	0	0.0	-
PV1558_03	10.0	180.0	9,867	164.4	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	20,679	344.6	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	32,243	537.4	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP24	53,145	885.8	0	0.0
FP25	0	0.0	0	0.0
FP26	16,185	269.8	0	0.0
FP27	16,395	273.2	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	2,523	42.0	0	0.0
FP34	11,204	186.7	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV: PV1314_01 low potential for temporary after-image

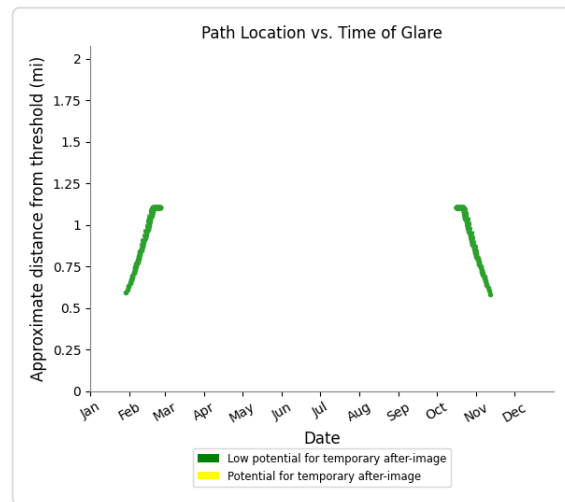
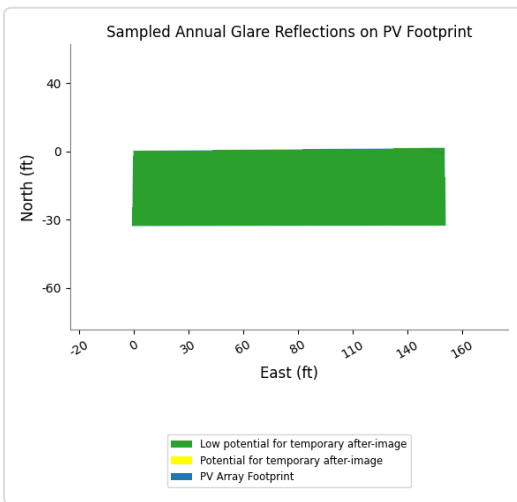
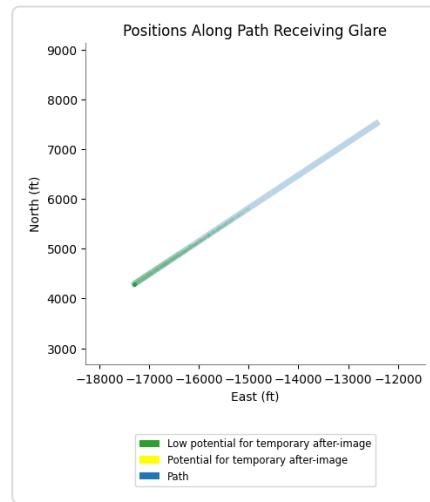
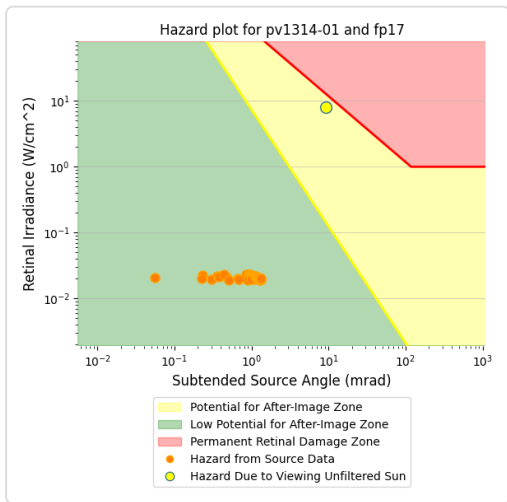
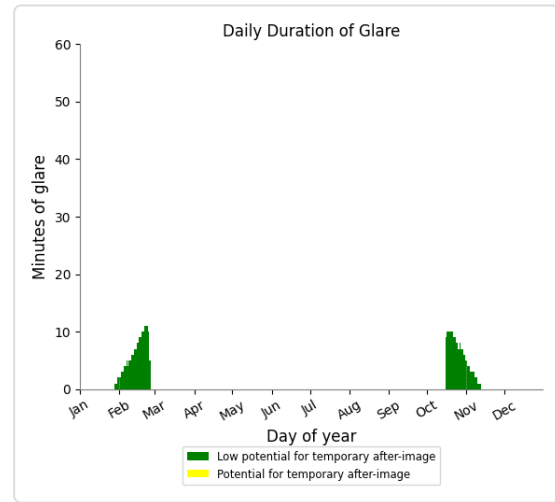
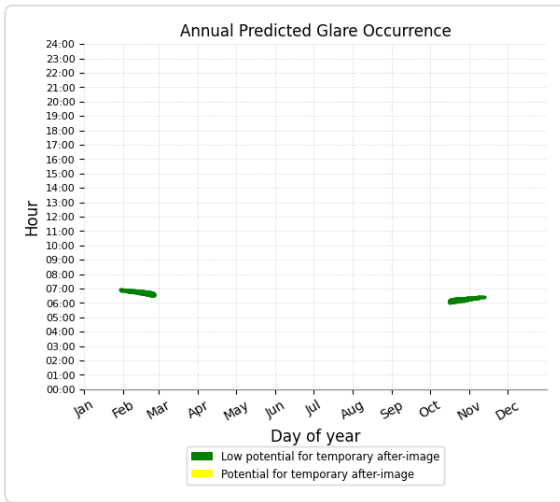
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	335	5.6	0	0.0
FP20	3,246	54.1	0	0.0
FP24	3,759	62.6	0	0.0
FP27	1,744	29.1	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1314_01 and FP: FP17

Yellow glare: none

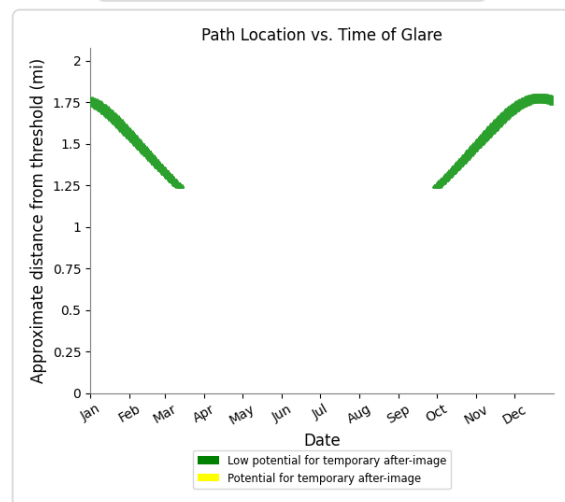
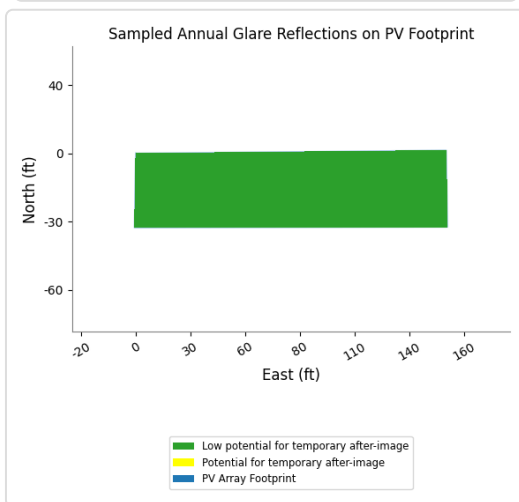
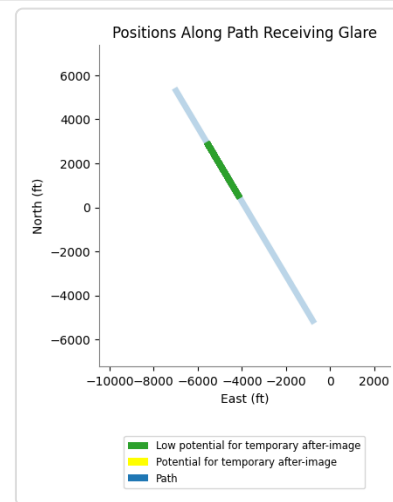
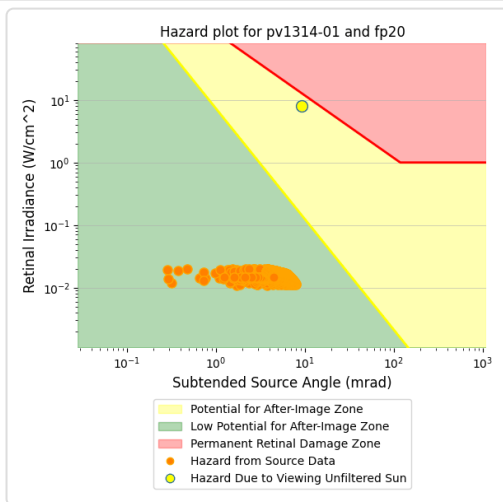
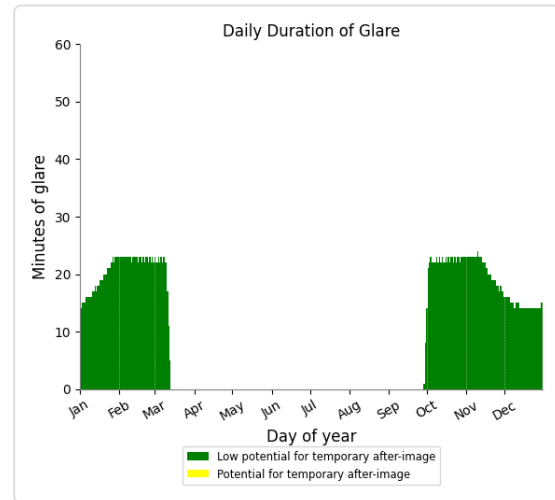
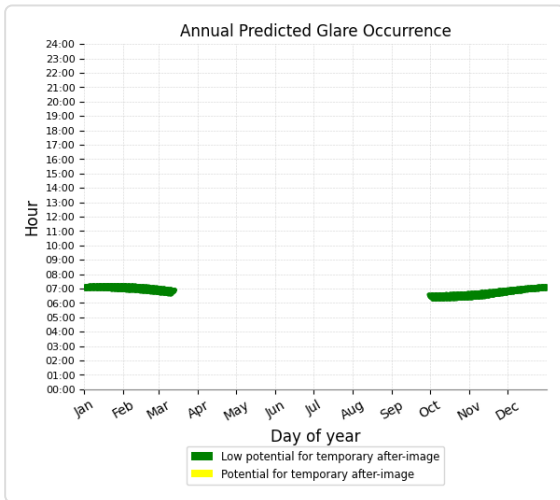
Green glare: 335 min.



PV1314_01 and FP: FP20

Yellow glare: none

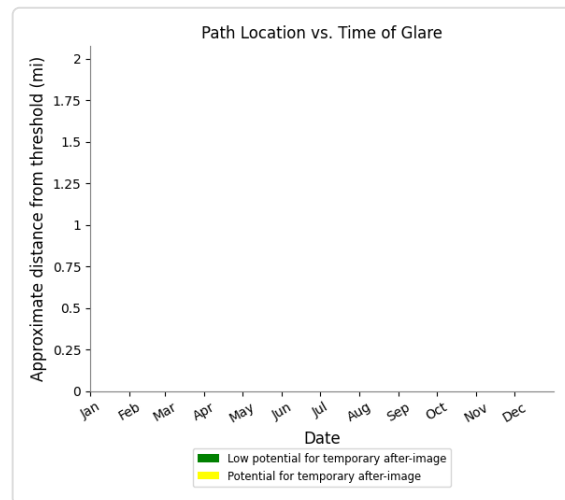
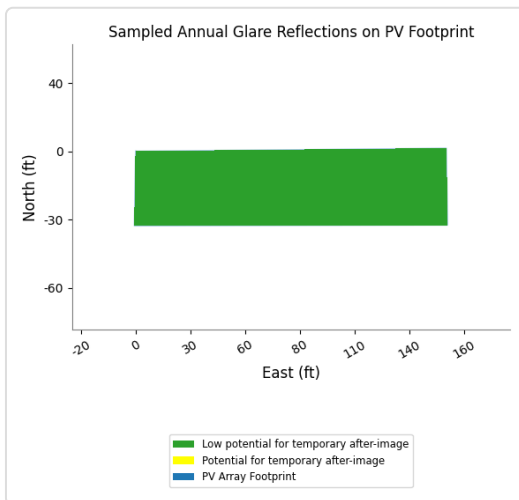
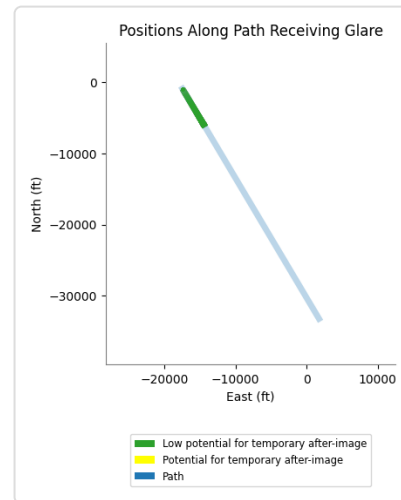
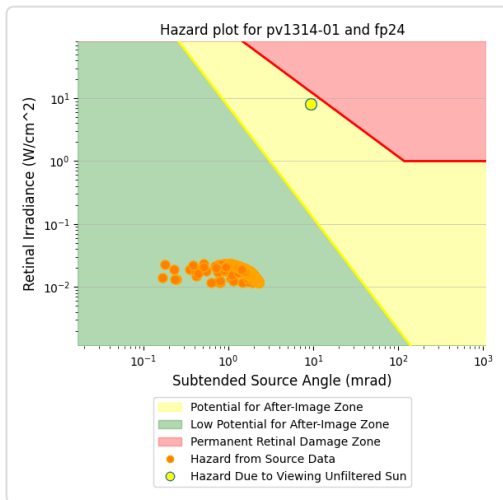
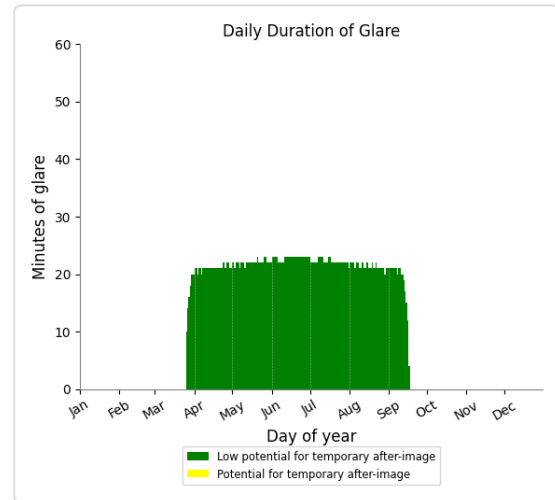
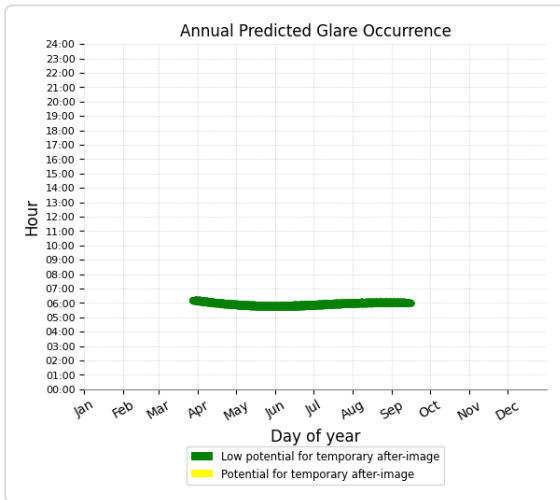
Green glare: 3,246 min.



PV1314_01 and FP: FP24

Yellow glare: none

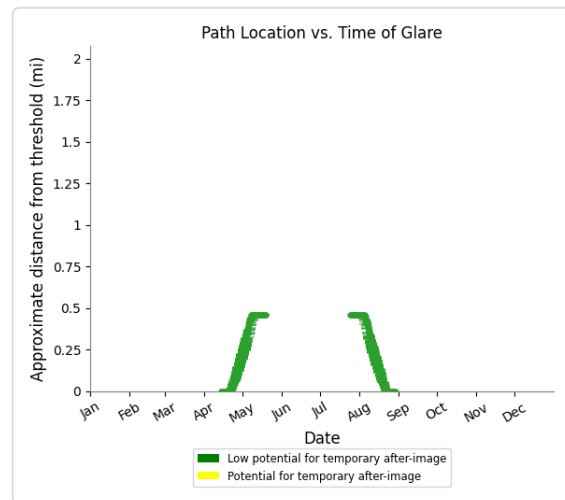
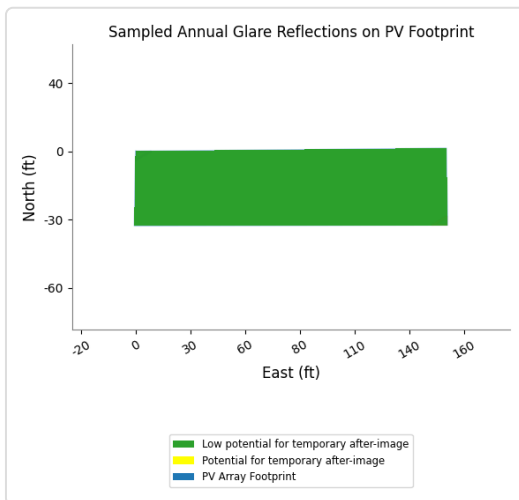
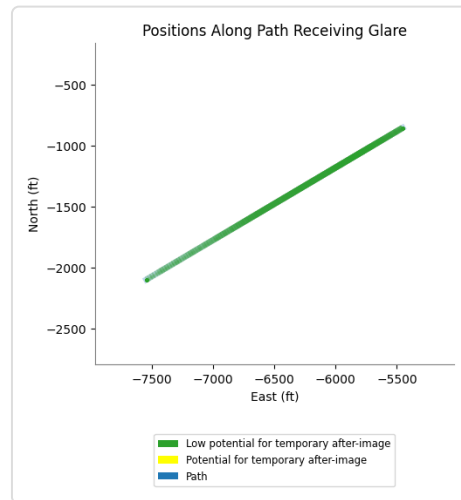
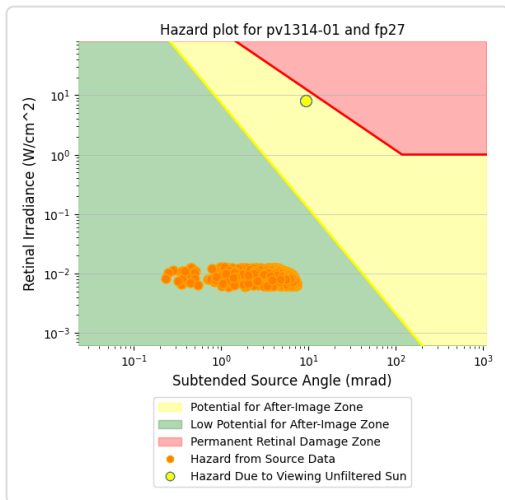
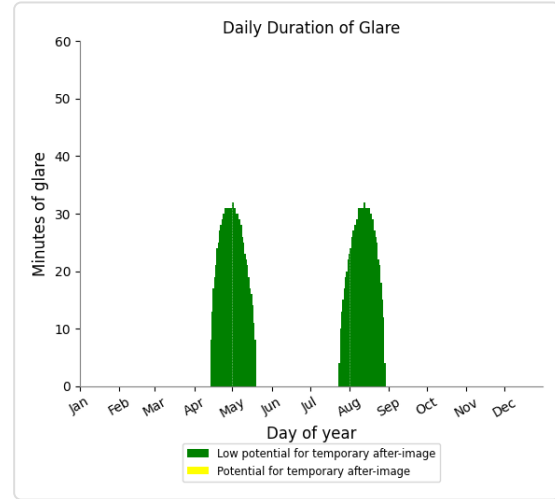
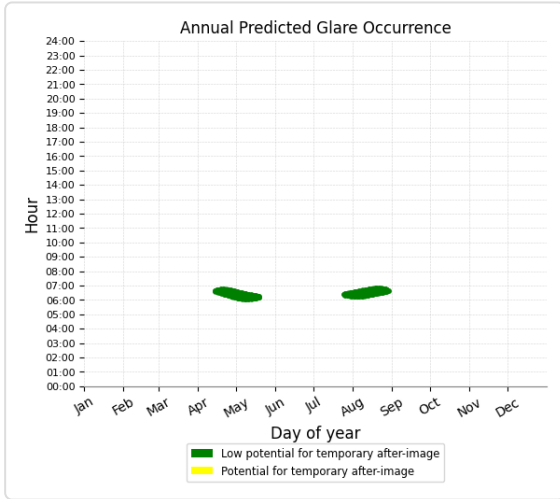
Green glare: 3,759 min.



PV1314_01 and FP: FP27

Yellow glare: none

Green glare: 1,744 min.



PV1314_01 and FP: FP18

No glare found

PV1314_01 and FP: FP19

No glare found

PV1314_01 and FP: FP21

No glare found

PV1314_01 and FP: FP22

No glare found

PV1314_01 and FP: FP23

No glare found

PV1314_01 and FP: FP25

No glare found

PV1314_01 and FP: FP26

No glare found

PV1314_01 and FP: FP28

No glare found

PV1314_01 and FP: FP29

No glare found

PV1314_01 and FP: FP30

No glare found

PV1314_01 and FP: FP31

No glare found

PV1314_01 and FP: FP32

No glare found

PV1314_01 and FP: FP33

No glare found

PV1314_01 and FP: FP34

No glare found

PV1314_01 and FP: FP35

No glare found

PV1314_01 and FP: FP36

No glare found

PV: PV1314_02 low potential for temporary after-image

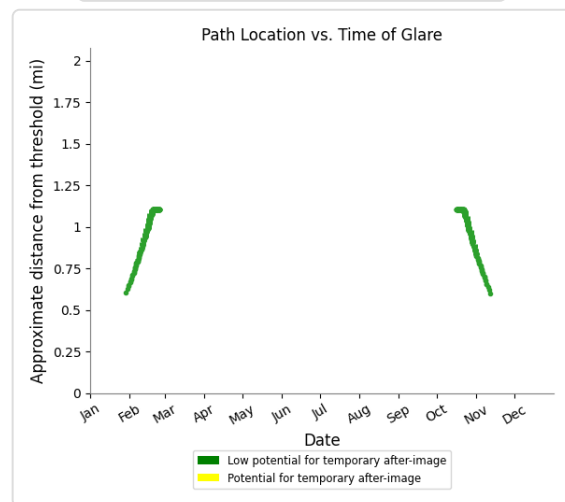
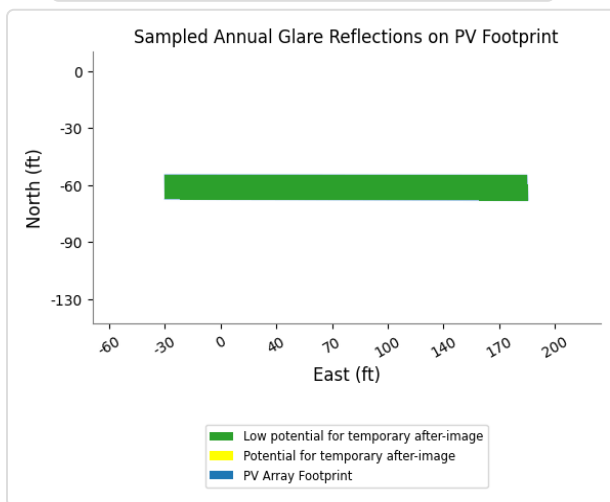
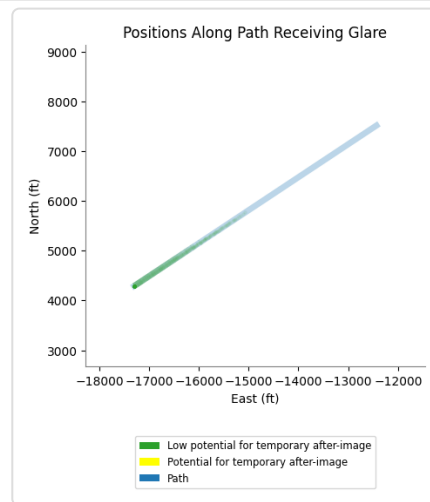
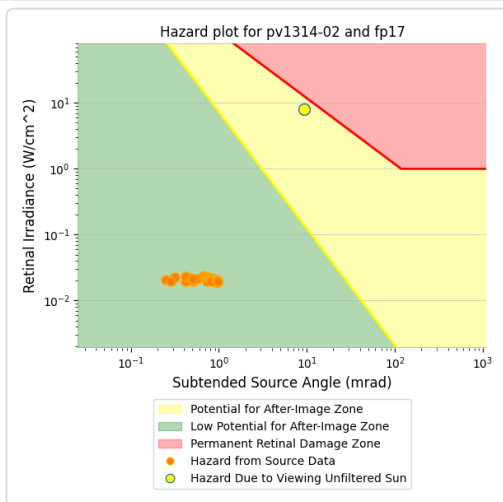
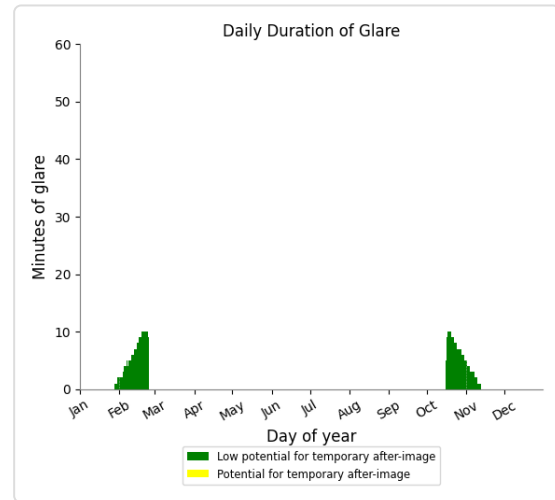
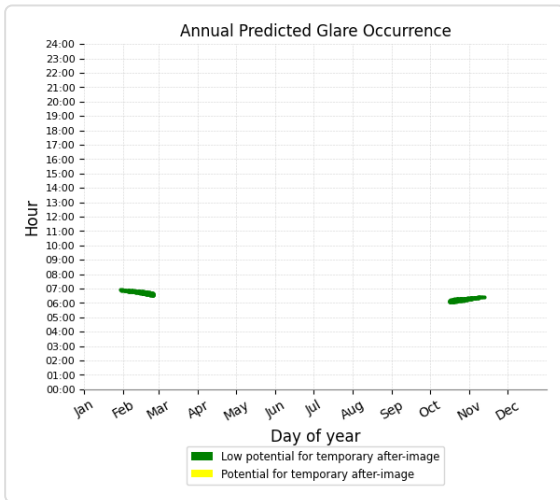
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	314	5.2	0	0.0
FP20	3,314	55.2	0	0.0
FP24	3,784	63.1	0	0.0
FP27	1,749	29.1	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1314_02 and FP: FP17

Yellow glare: none

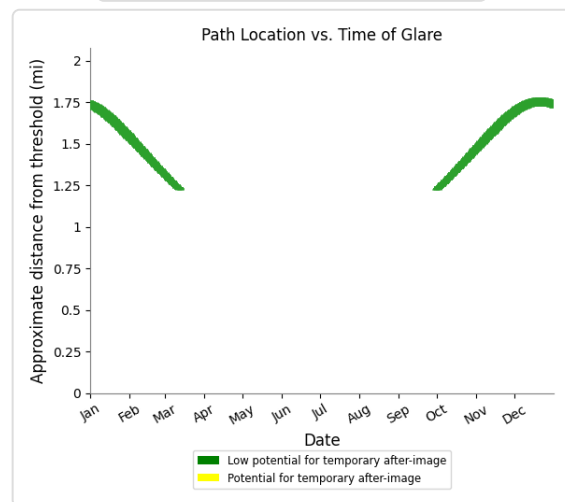
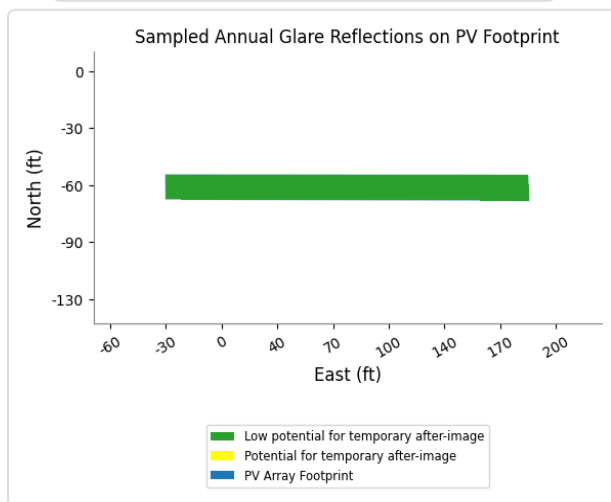
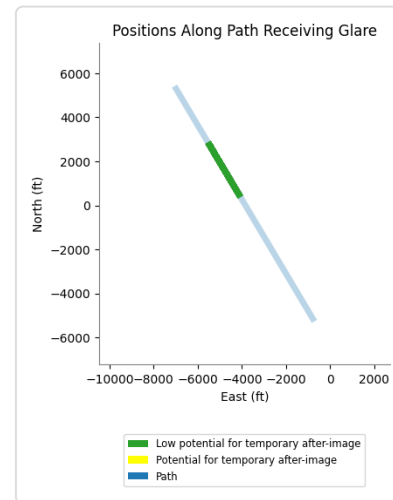
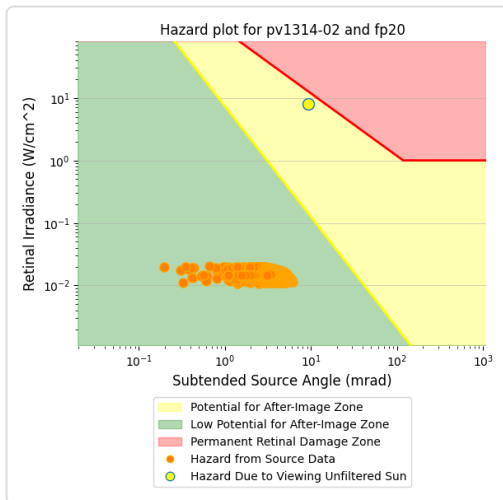
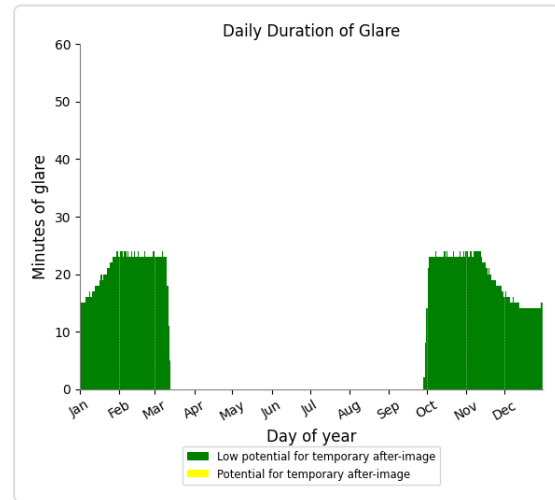
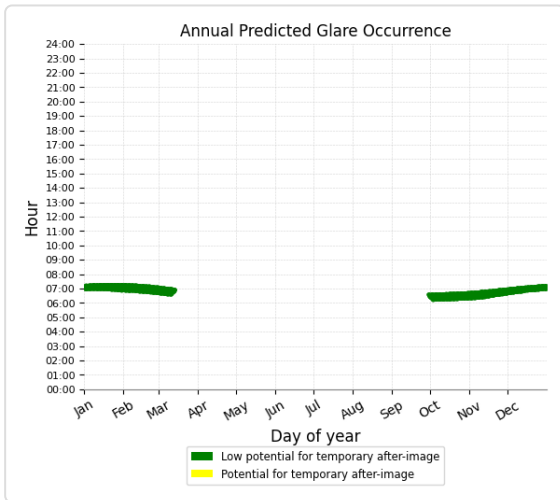
Green glare: 314 min.



PV1314_02 and FP: FP20

Yellow glare: none

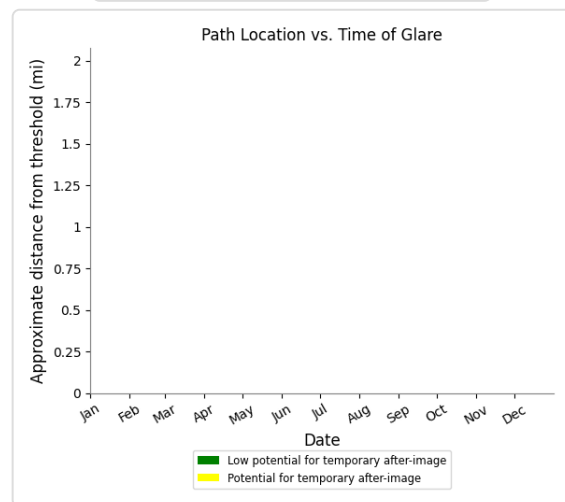
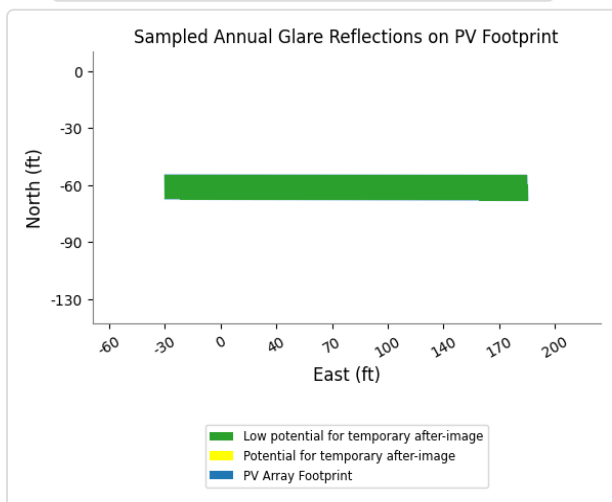
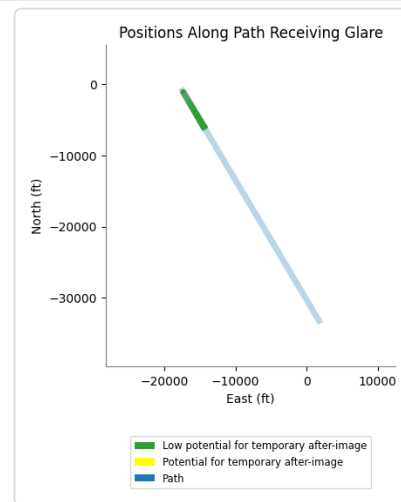
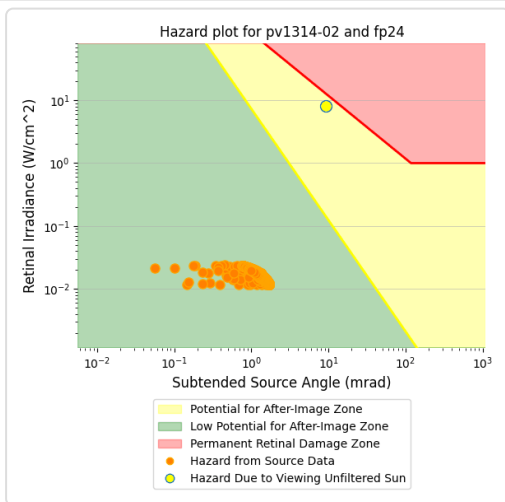
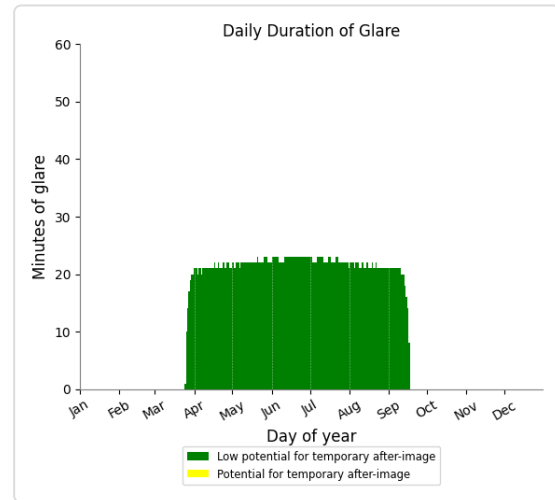
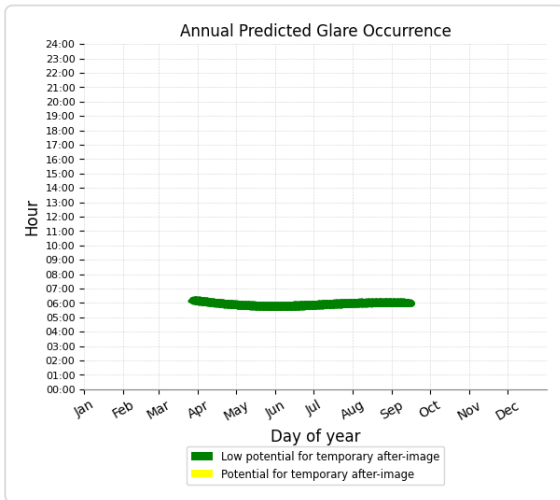
Green glare: 3,314 min.



PV1314_02 and FP: FP24

Yellow glare: none

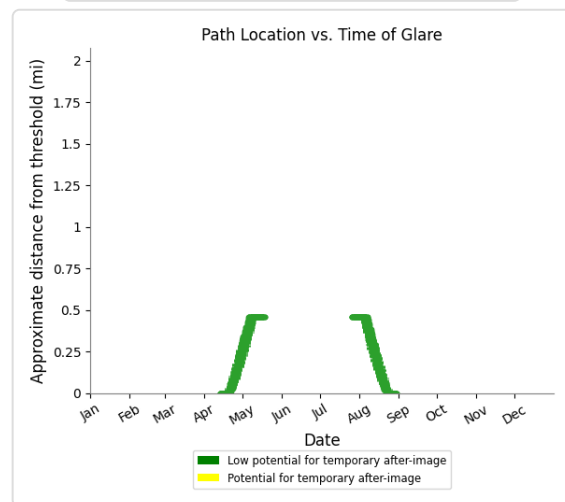
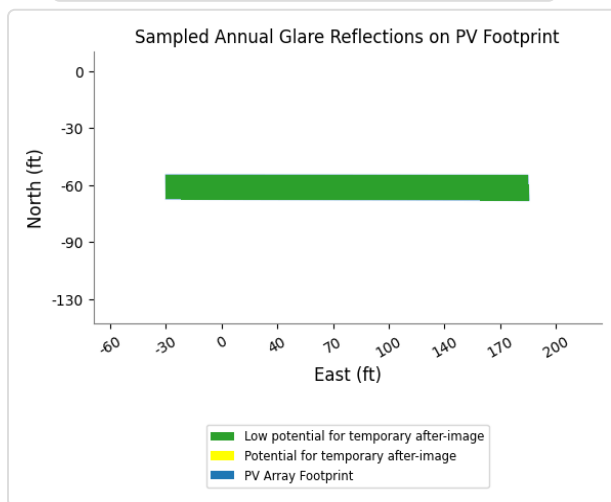
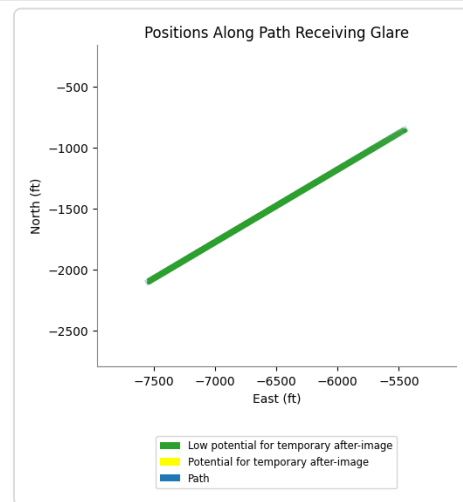
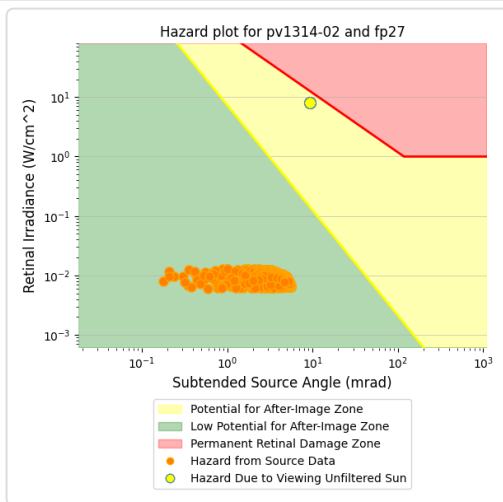
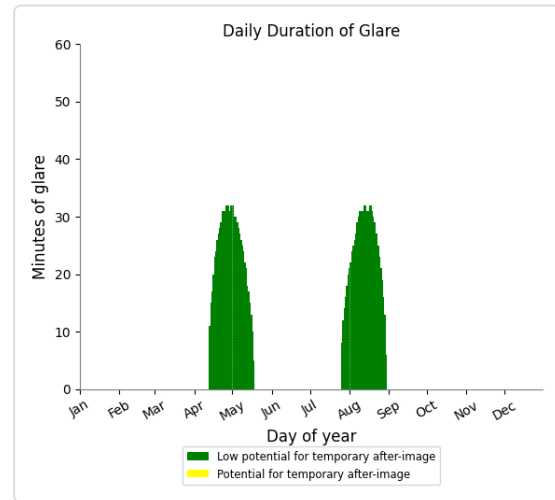
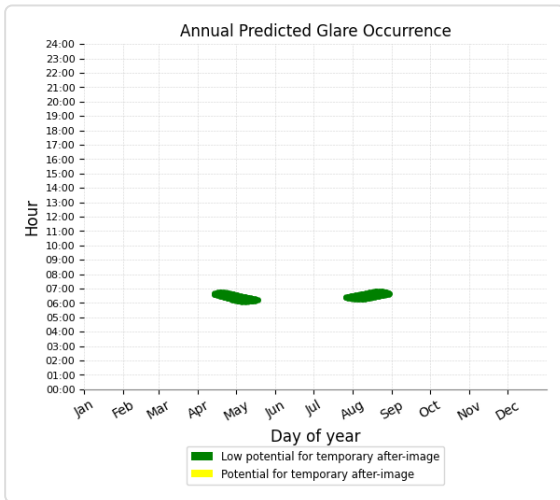
Green glare: 3,784 min.



PV1314_02 and FP: FP27

Yellow glare: none

Green glare: 1,749 min.



PV1314_02 and FP: FP18

No glare found

PV1314_02 and FP: FP19

No glare found

PV1314_02 and FP: FP21

No glare found

PV1314_02 and FP: FP22

No glare found

PV1314_02 and FP: FP23

No glare found

PV1314_02 and FP: FP25

No glare found

PV1314_02 and FP: FP26

No glare found

PV1314_02 and FP: FP28

No glare found

PV1314_02 and FP: FP29

No glare found

PV1314_02 and FP: FP30

No glare found

PV1314_02 and FP: FP31

No glare found

PV1314_02 and FP: FP32

No glare found

PV1314_02 and FP: FP33

No glare found

PV1314_02 and FP: FP34

No glare found

PV1314_02 and FP: FP35

No glare found

PV1314_02 and FP: FP36

No glare found

PV: PV1314_03 low potential for temporary after-image

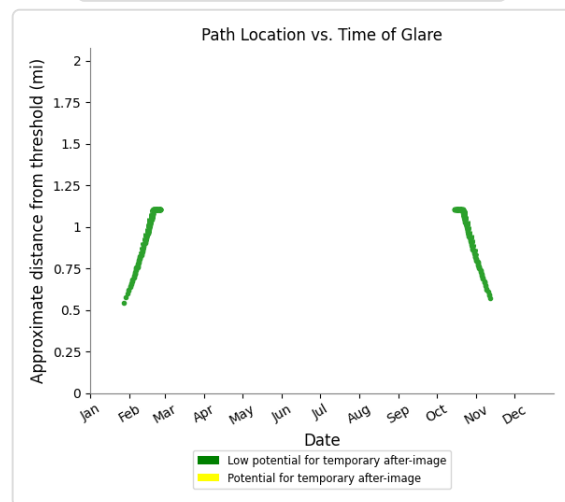
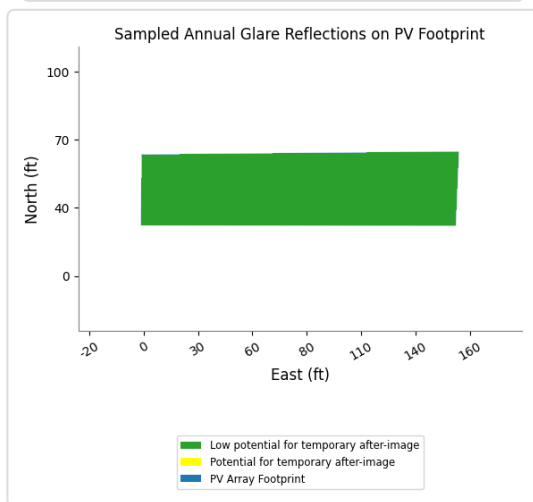
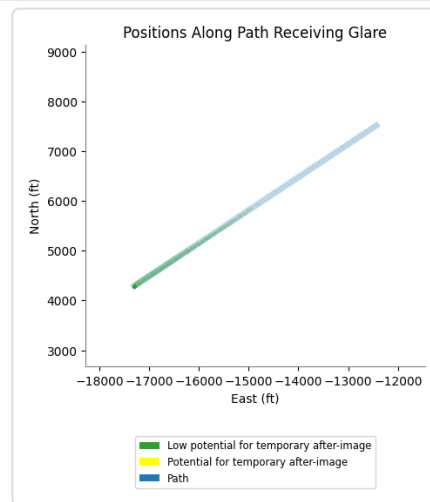
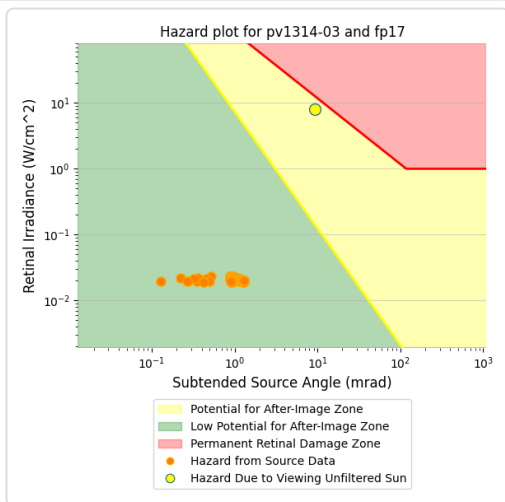
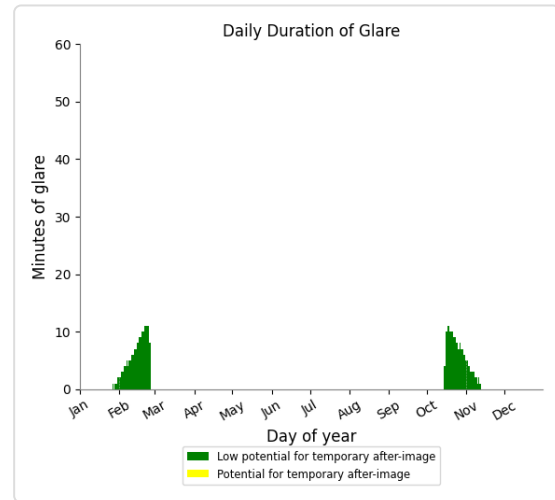
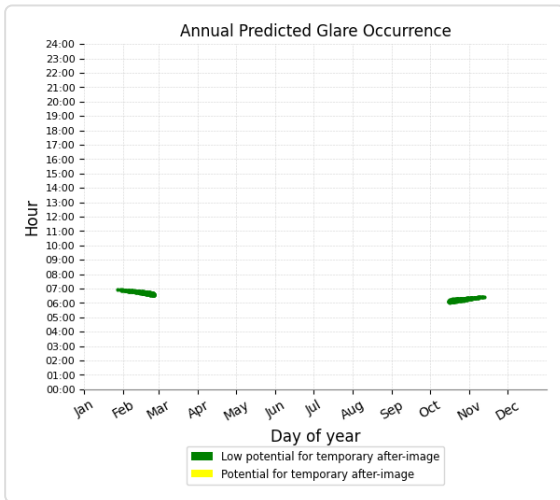
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	348	5.8	0	0.0
FP20	3,253	54.2	0	0.0
FP24	3,734	62.2	0	0.0
FP27	1,765	29.4	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1314_03 and FP: FP17

Yellow glare: none

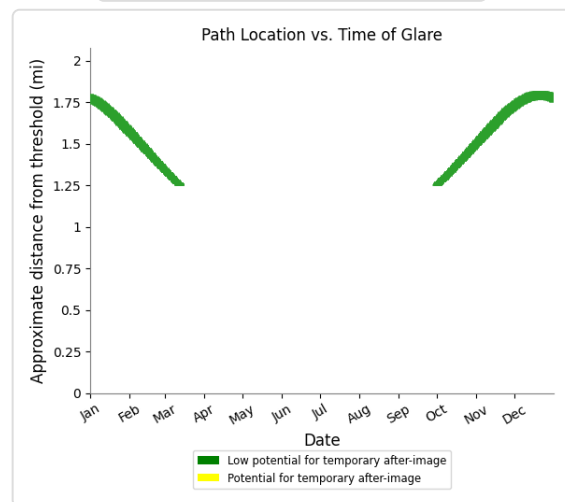
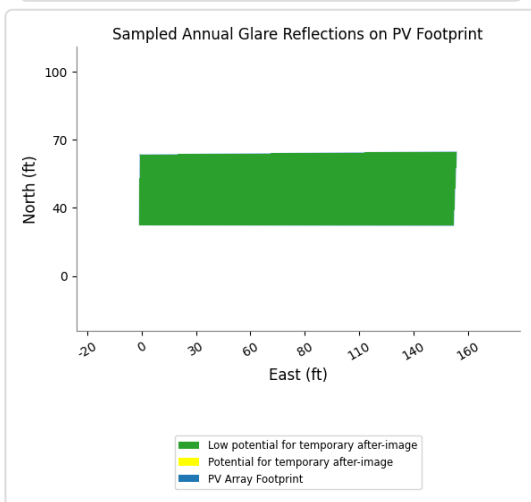
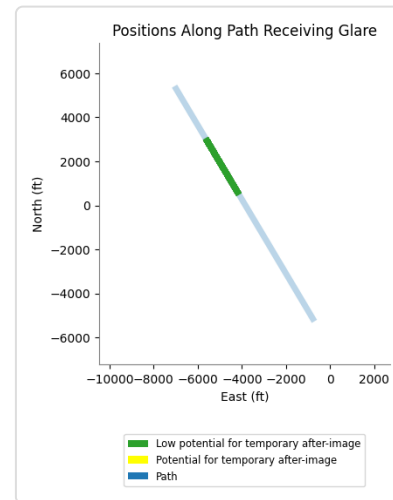
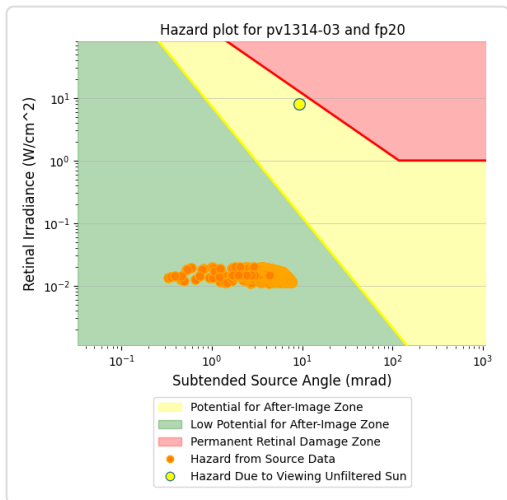
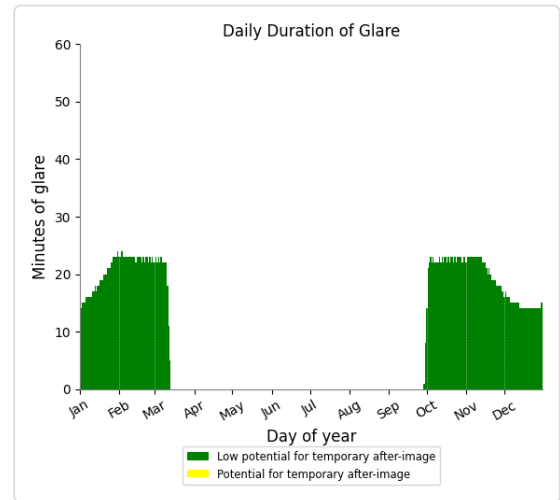
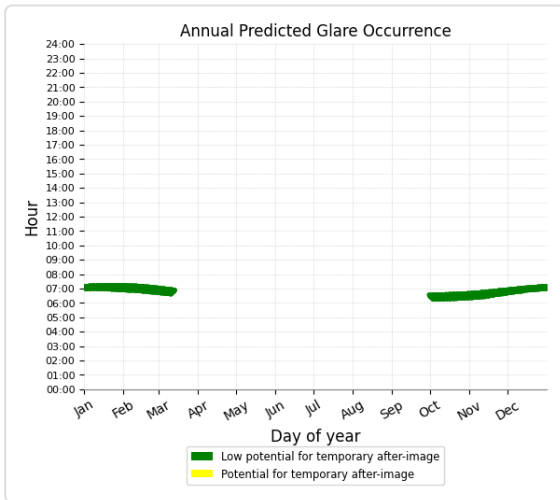
Green glare: 348 min.



PV1314_03 and FP: FP20

Yellow glare: none

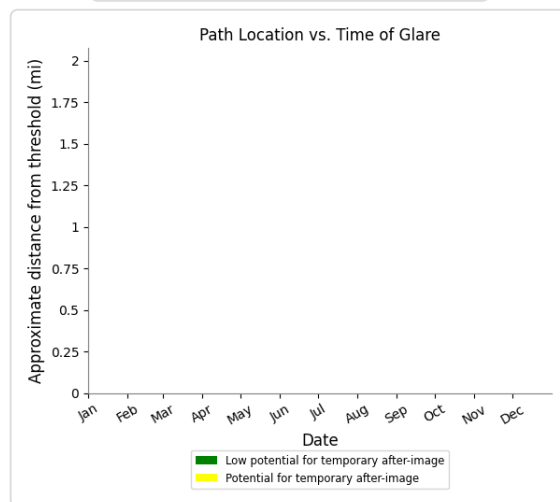
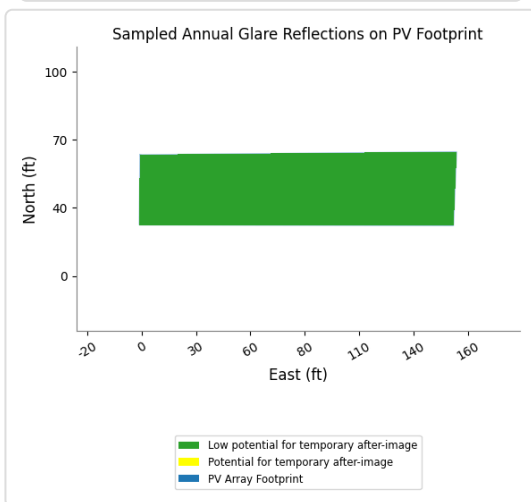
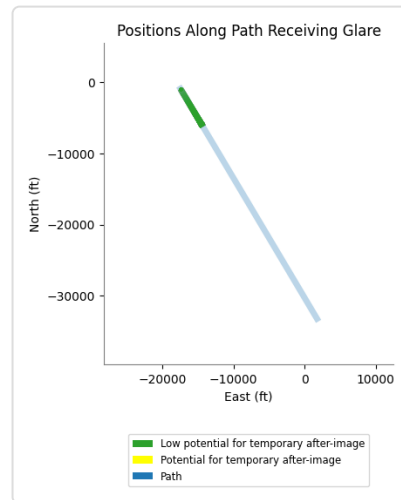
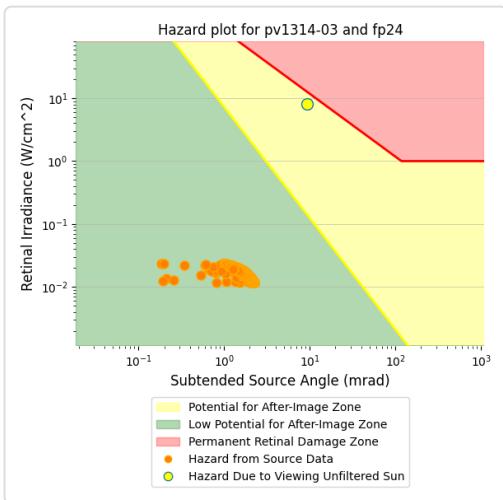
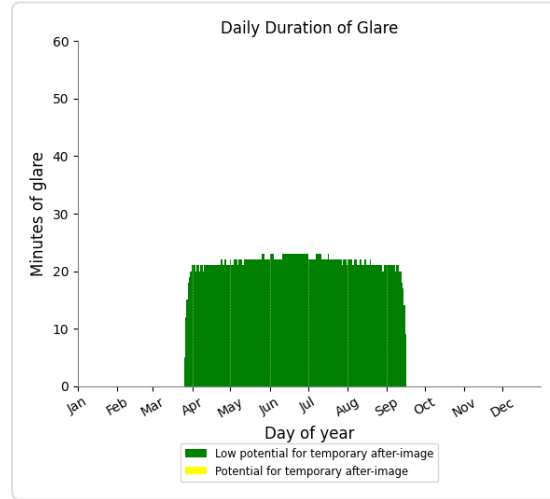
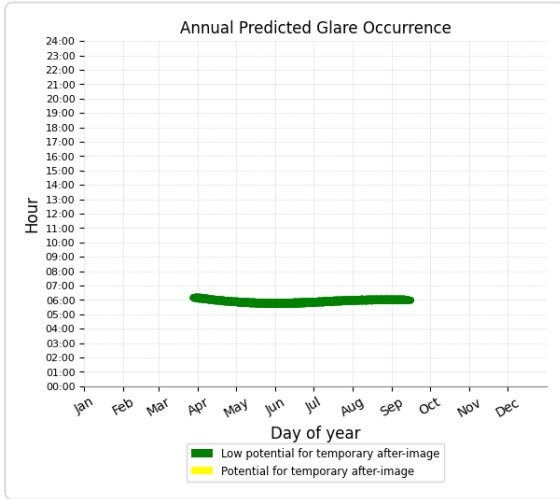
Green glare: 3,253 min.



PV1314_03 and FP: FP24

Yellow glare: none

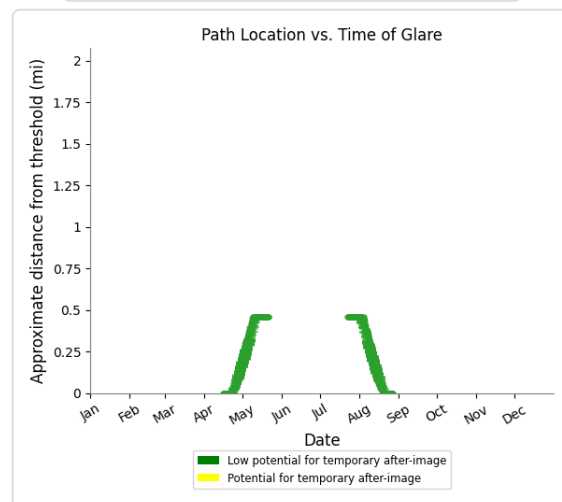
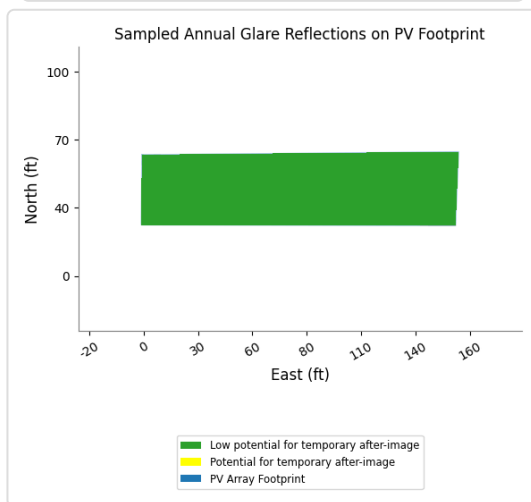
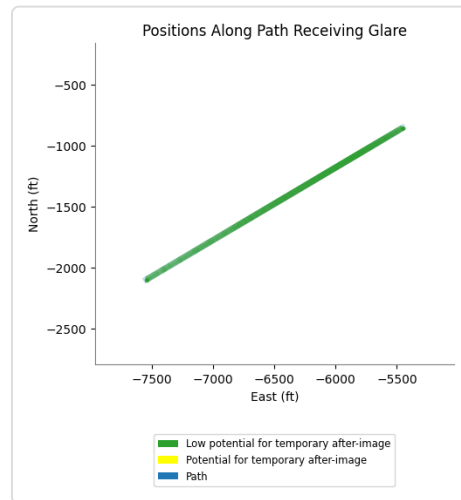
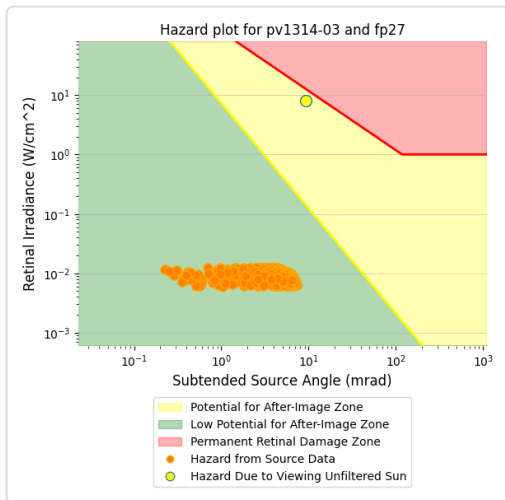
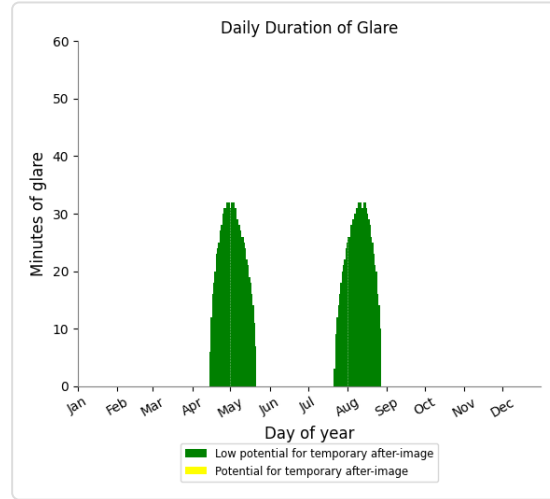
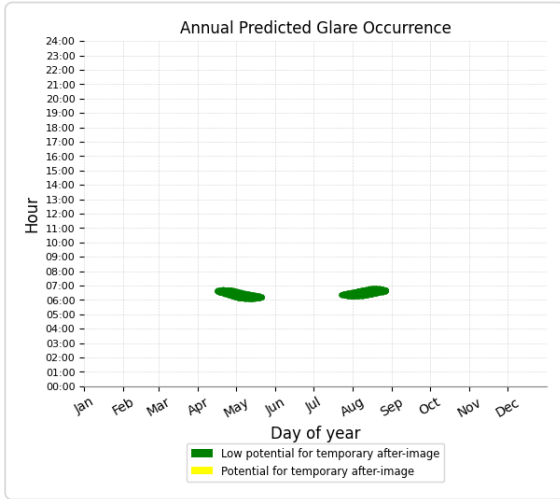
Green glare: 3,734 min.



PV1314_03 and FP: FP27

Yellow glare: none

Green glare: 1,765 min.



PV1314_03 and FP: FP18

No glare found

PV1314_03 and FP: FP19

No glare found

PV1314_03 and FP: FP21

No glare found

PV1314_03 and FP: FP22

No glare found

PV1314_03 and FP: FP23

No glare found

PV1314_03 and FP: FP25

No glare found

PV1314_03 and FP: FP26

No glare found

PV1314_03 and FP: FP28

No glare found

PV1314_03 and FP: FP29

No glare found

PV1314_03 and FP: FP30

No glare found

PV1314_03 and FP: FP31

No glare found

PV1314_03 and FP: FP32

No glare found

PV1314_03 and FP: FP33

No glare found

PV1314_03 and FP: FP34

No glare found

PV1314_03 and FP: FP35

No glare found

PV1314_03 and FP: FP36

No glare found

PV: PV1314_04 low potential for temporary after-image

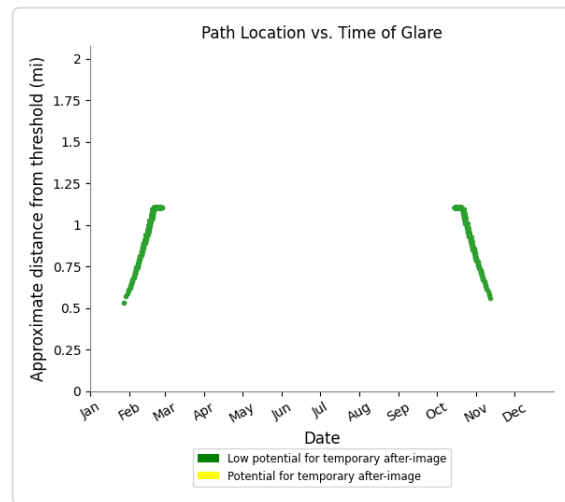
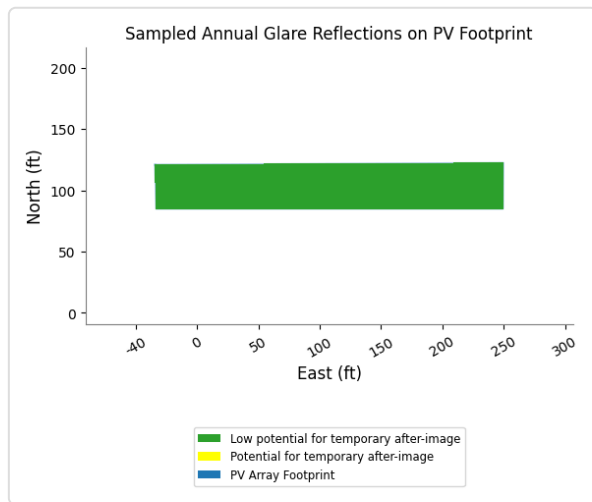
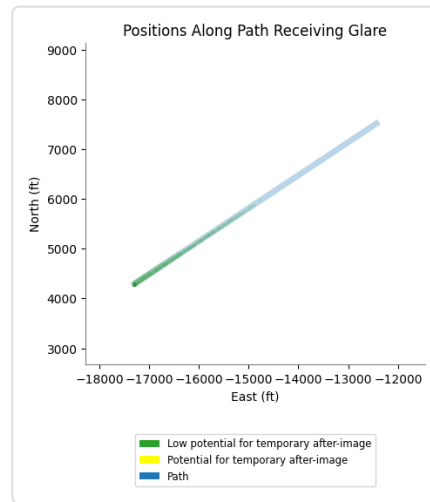
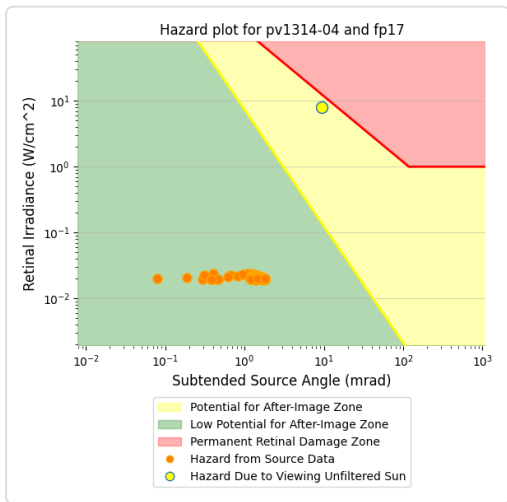
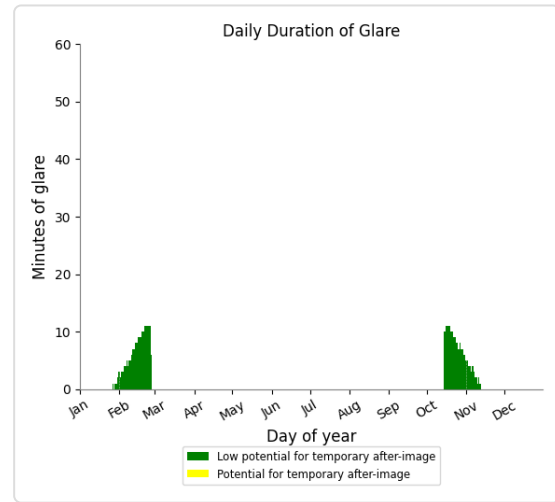
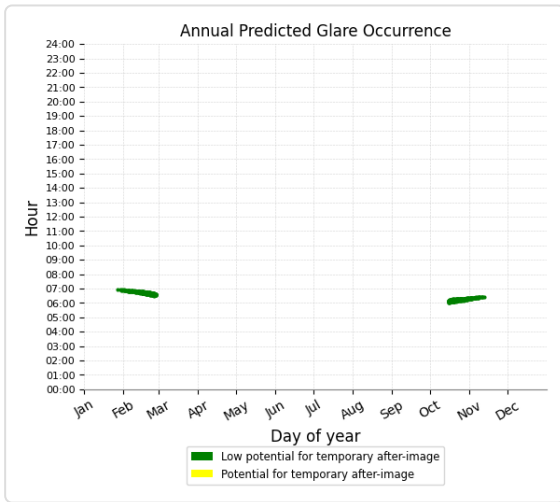
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	372	6.2	0	0.0
FP20	3,315	55.2	0	0.0
FP24	3,740	62.3	0	0.0
FP27	1,900	31.7	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1314_04 and FP: FP17

Yellow glare: none

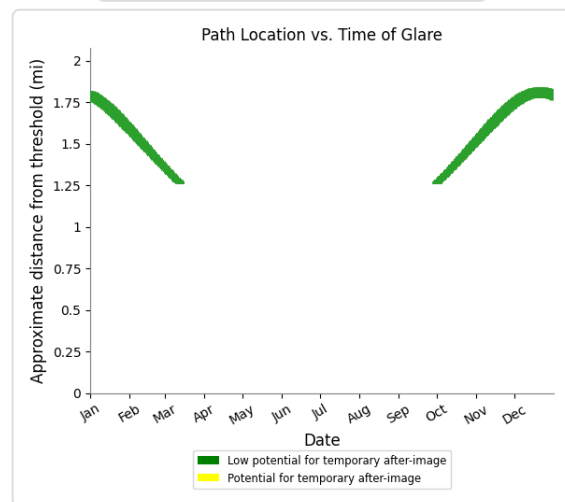
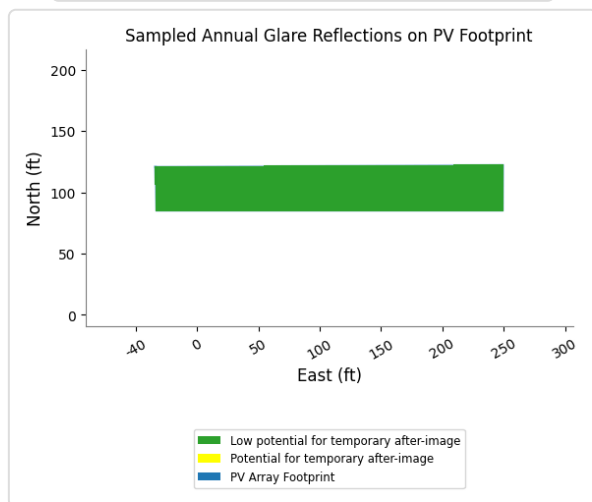
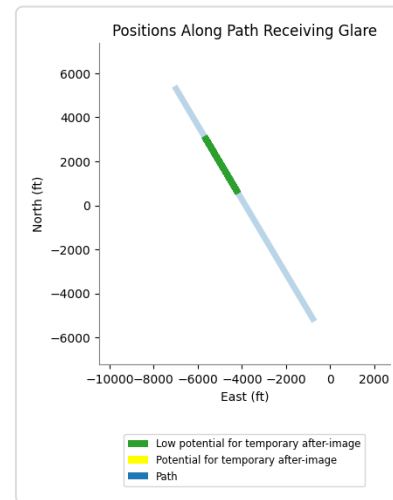
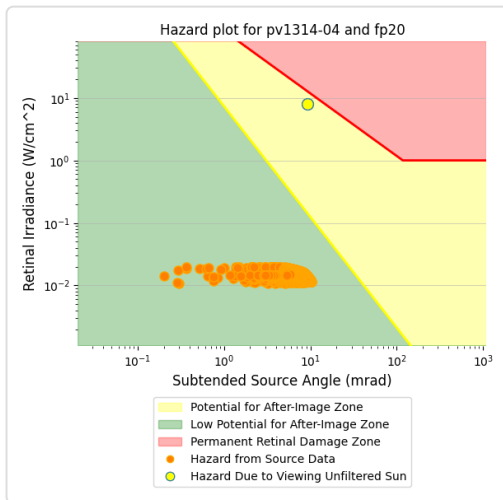
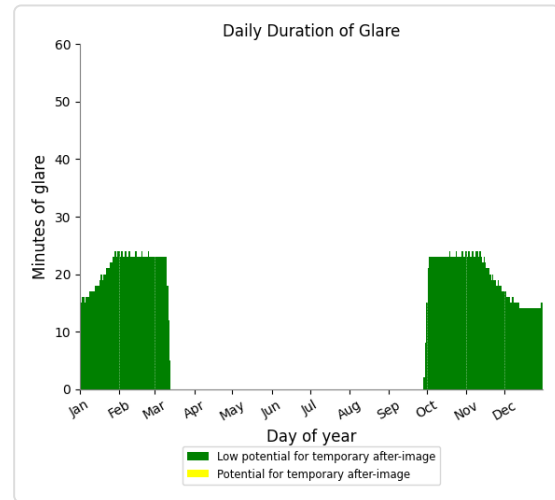
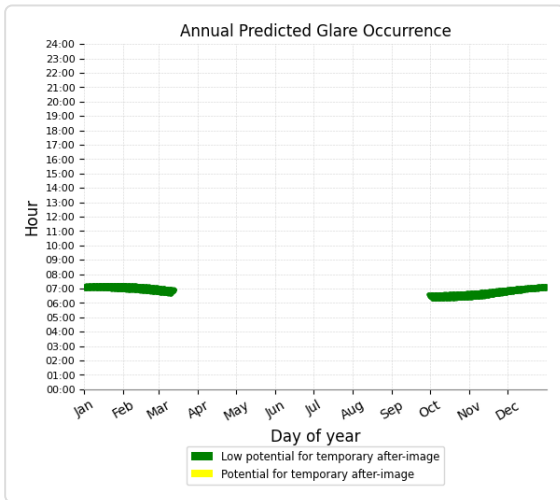
Green glare: 372 min.



PV1314_04 and FP: FP20

Yellow glare: none

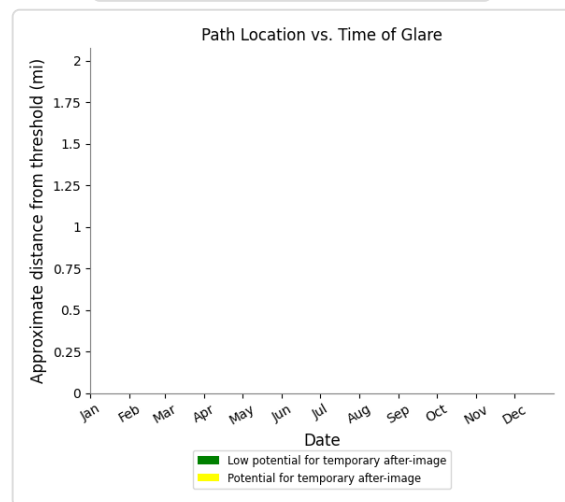
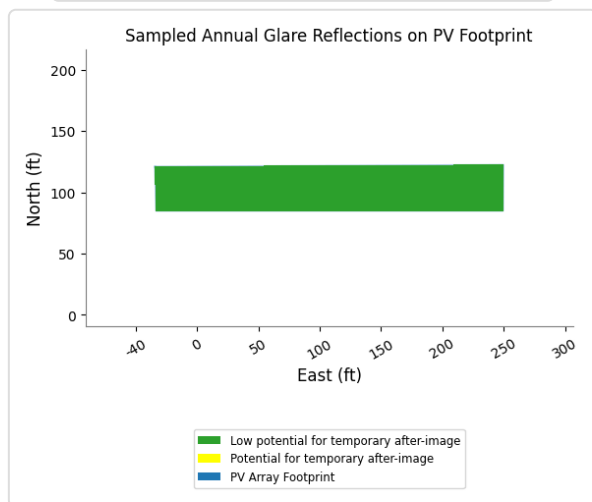
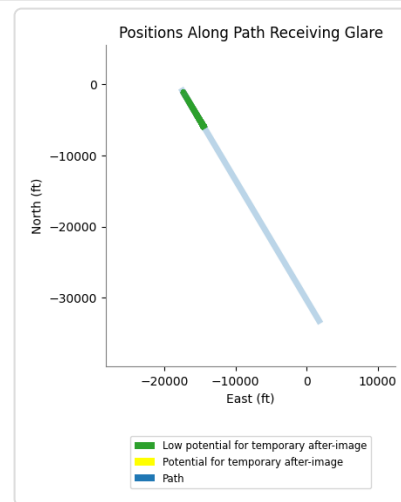
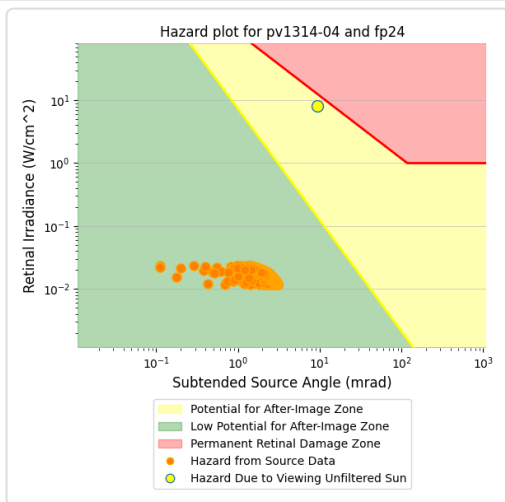
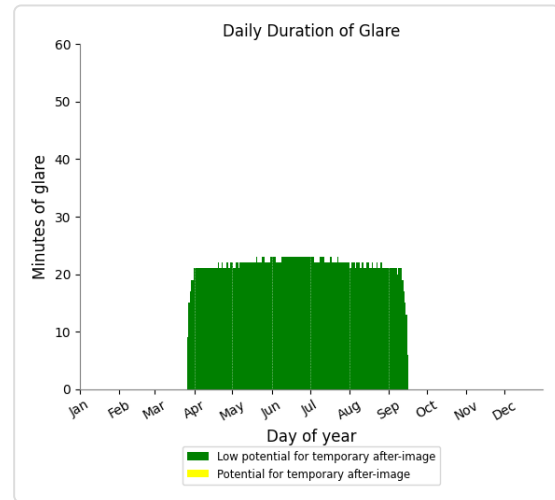
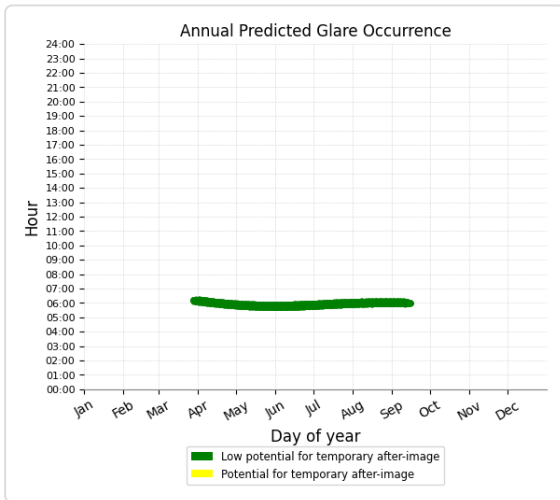
Green glare: 3,315 min.



PV1314_04 and FP: FP24

Yellow glare: none

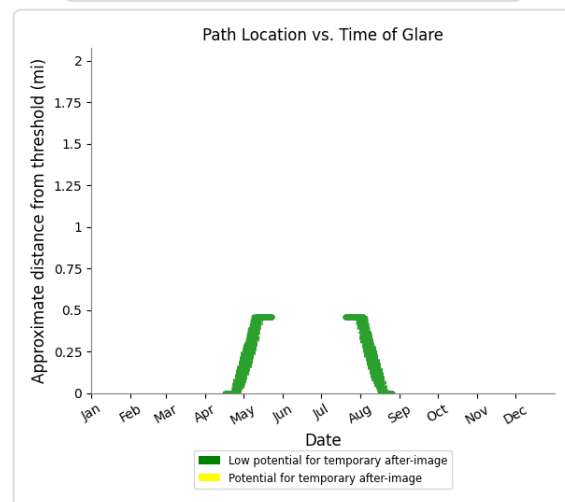
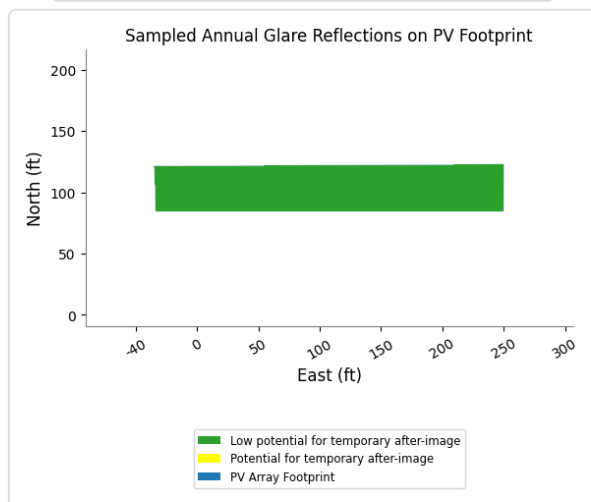
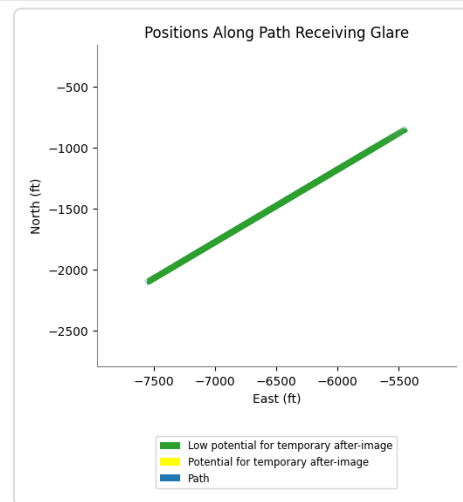
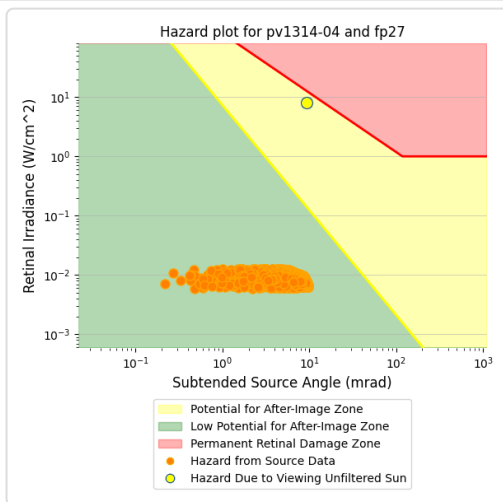
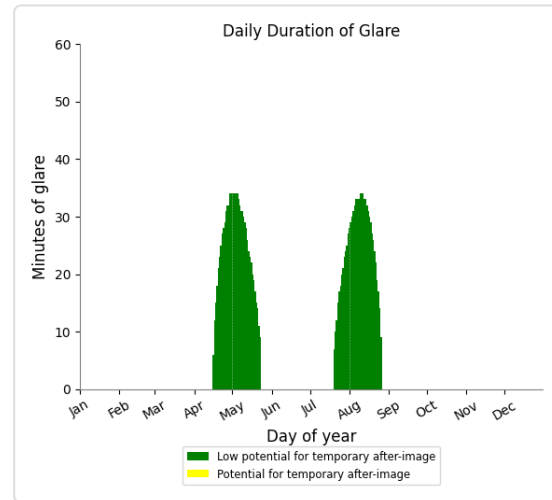
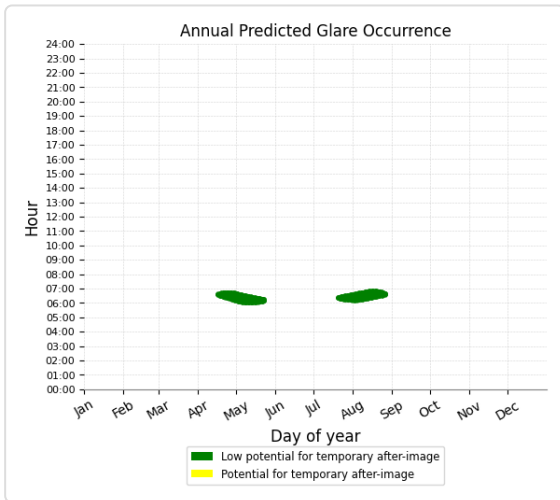
Green glare: 3,740 min.



PV1314_04 and FP: FP27

Yellow glare: none

Green glare: 1,900 min.



PV1314_04 and FP: FP18

No glare found

PV1314_04 and FP: FP19

No glare found

PV1314_04 and FP: FP21

No glare found

PV1314_04 and FP: FP22

No glare found

PV1314_04 and FP: FP23

No glare found

PV1314_04 and FP: FP25

No glare found

PV1314_04 and FP: FP26

No glare found

PV1314_04 and FP: FP28

No glare found

PV1314_04 and FP: FP29

No glare found

PV1314_04 and FP: FP30

No glare found

PV1314_04 and FP: FP31

No glare found

PV1314_04 and FP: FP32

No glare found

PV1314_04 and FP: FP33

No glare found

PV1314_04 and FP: FP34

No glare found

PV1314_04 and FP: FP35

No glare found

PV1314_04 and FP: FP36

No glare found

PV: PV1314_05 low potential for temporary after-image

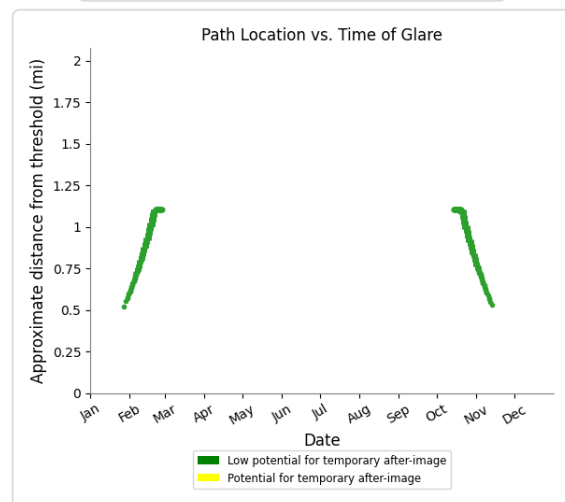
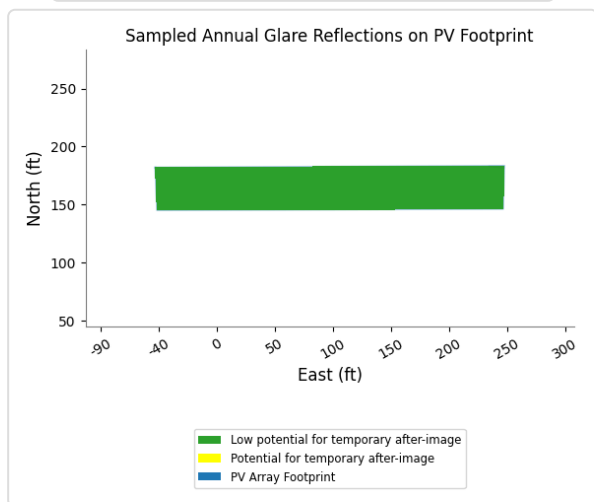
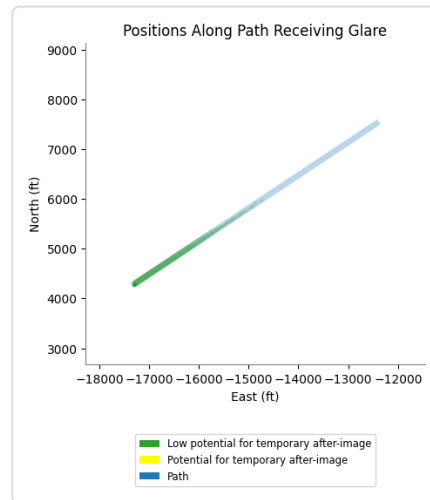
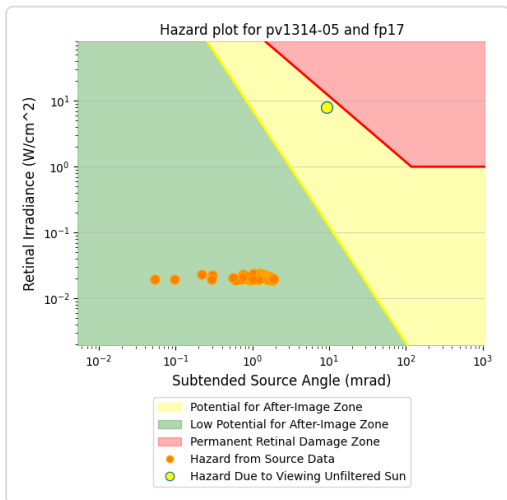
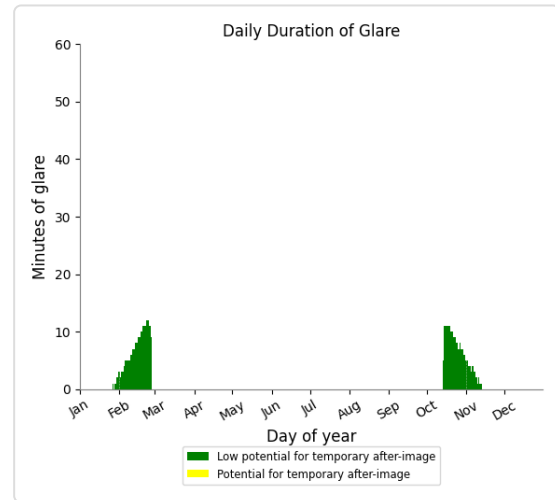
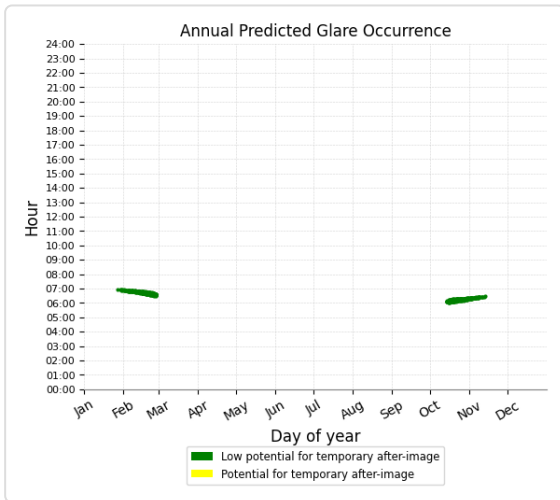
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	391	6.5	0	0.0
FP20	3,380	56.3	0	0.0
FP24	3,698	61.6	0	0.0
FP27	1,977	33.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1314_05 and FP: FP17

Yellow glare: none

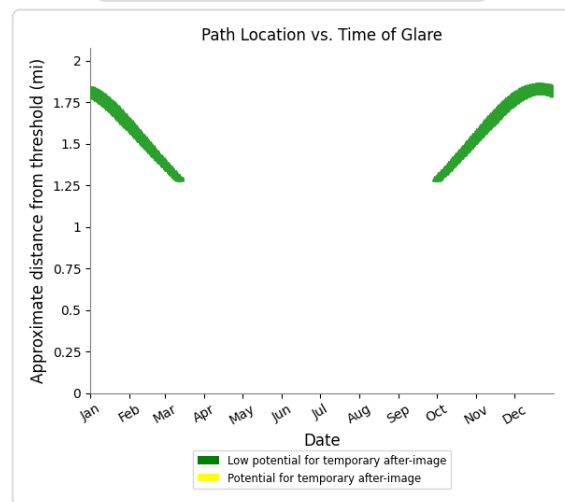
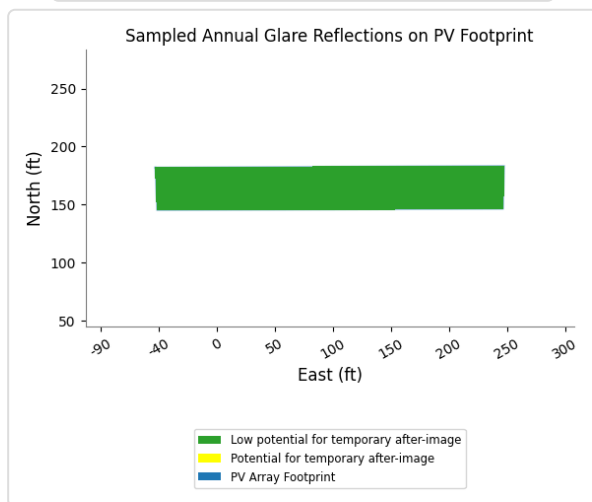
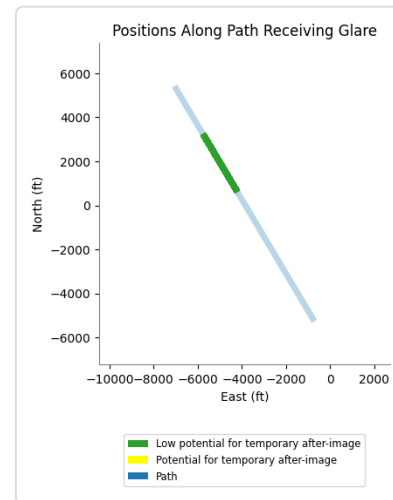
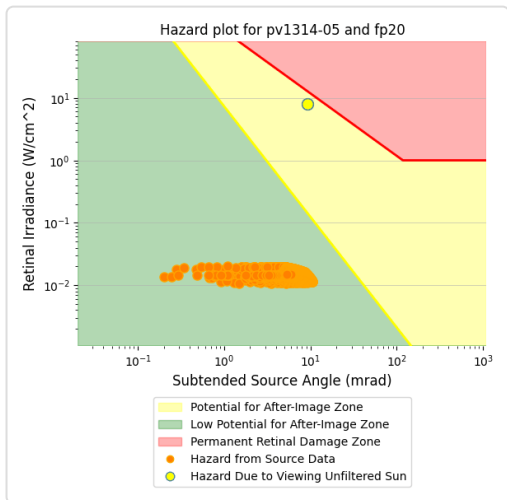
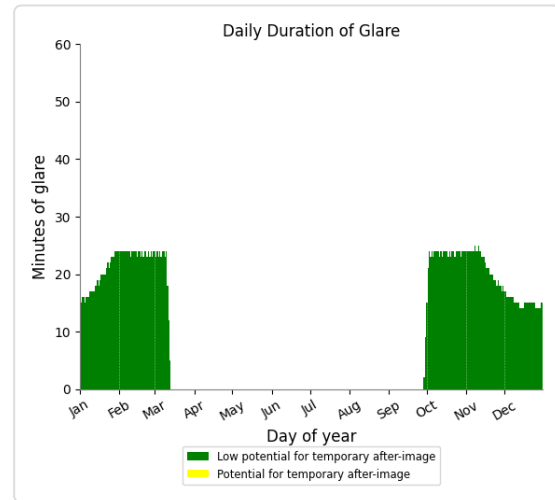
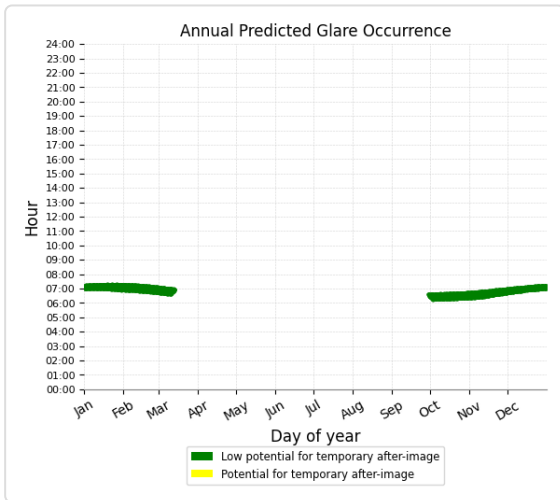
Green glare: 391 min.



PV1314_05 and FP: FP20

Yellow glare: none

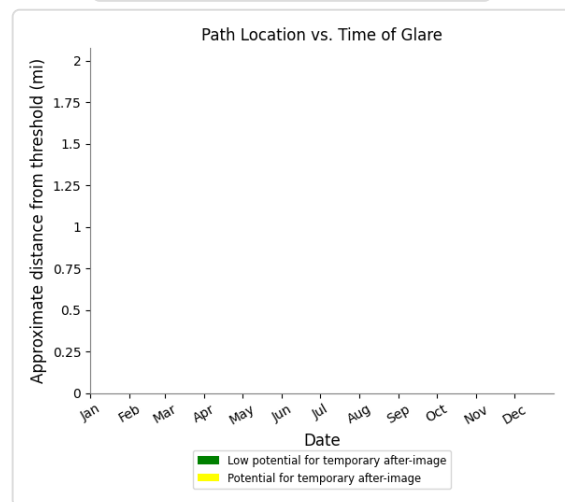
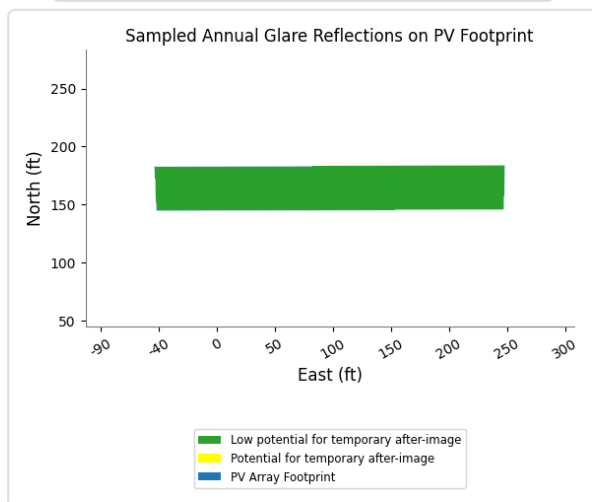
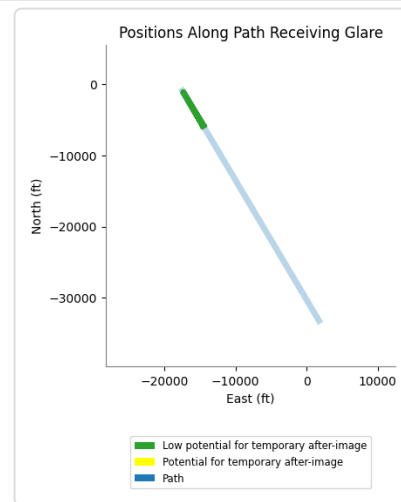
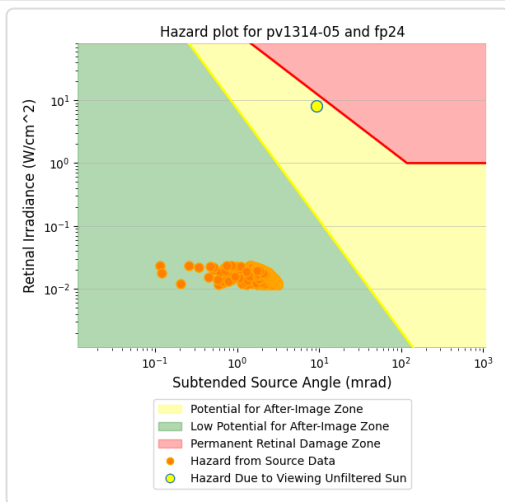
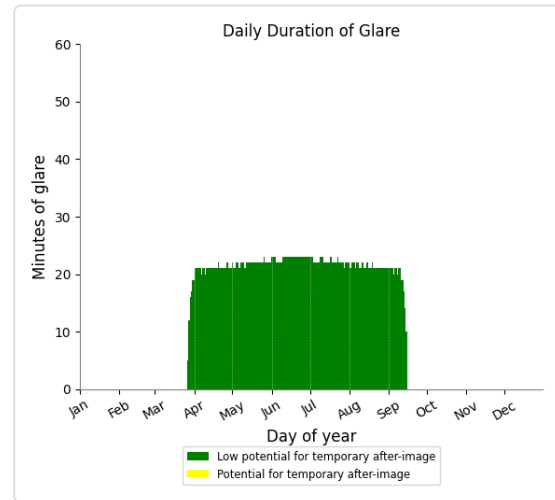
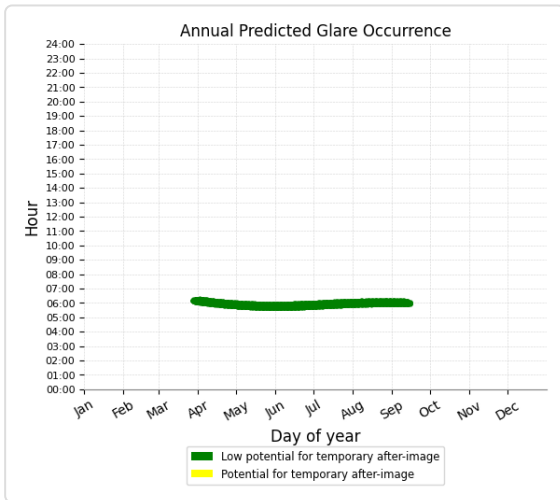
Green glare: 3,380 min.



PV1314_05 and FP: FP24

Yellow glare: none

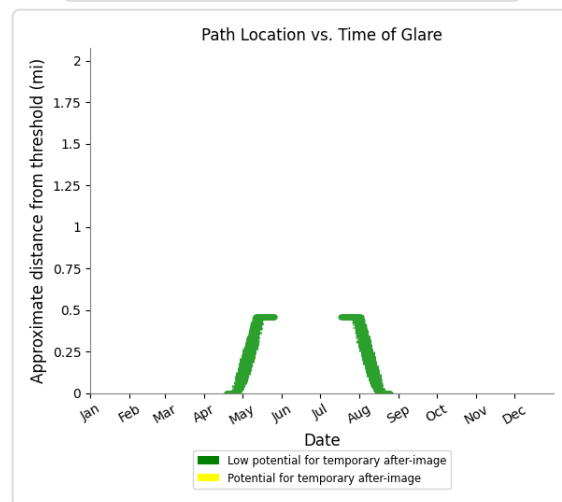
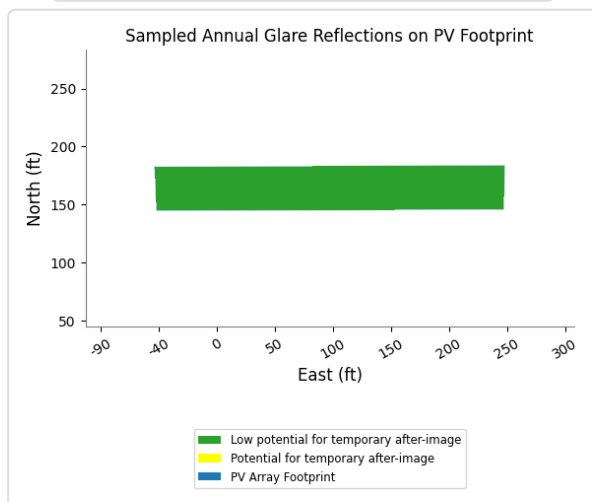
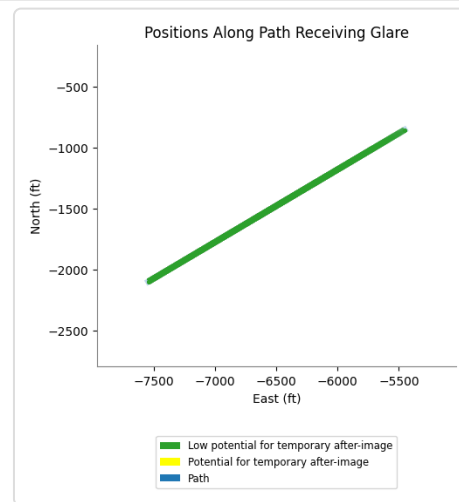
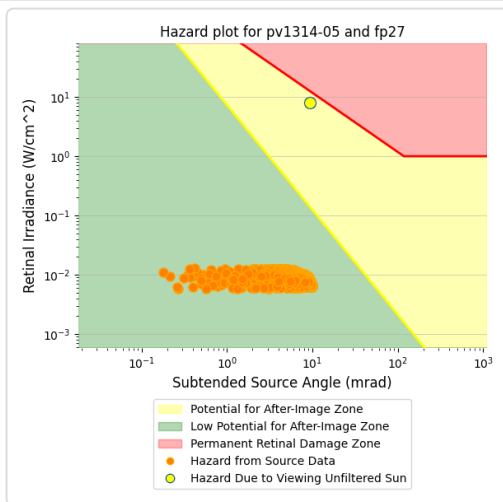
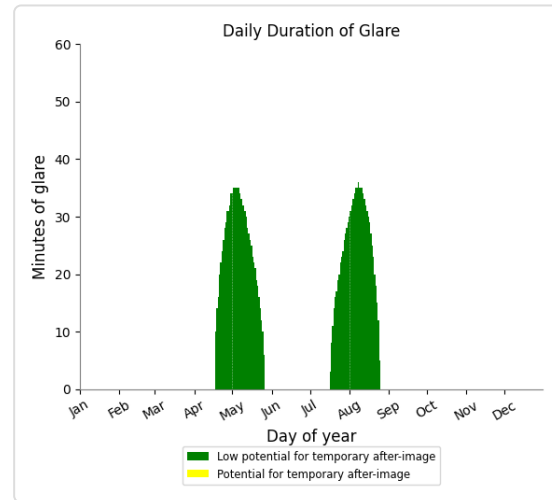
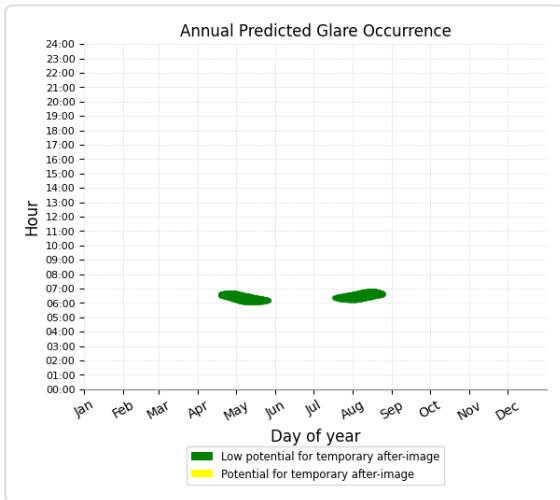
Green glare: 3,698 min.



PV1314_05 and FP: FP27

Yellow glare: none

Green glare: 1,977 min.



PV1314_05 and FP: FP18

No glare found

PV1314_05 and FP: FP19

No glare found

PV1314_05 and FP: FP21

No glare found

PV1314_05 and FP: FP22

No glare found

PV1314_05 and FP: FP23

No glare found

PV1314_05 and FP: FP25

No glare found

PV1314_05 and FP: FP26

No glare found

PV1314_05 and FP: FP28

No glare found

PV1314_05 and FP: FP29

No glare found

PV1314_05 and FP: FP30

No glare found

PV1314_05 and FP: FP31

No glare found

PV1314_05 and FP: FP32

No glare found

PV1314_05 and FP: FP33

No glare found

PV1314_05 and FP: FP34

No glare found

PV1314_05 and FP: FP35

No glare found

PV1314_05 and FP: FP36

No glare found

PV: PV1314_06 low potential for temporary after-image

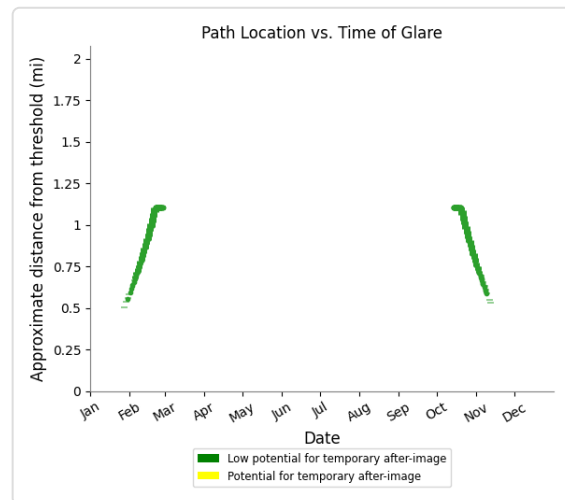
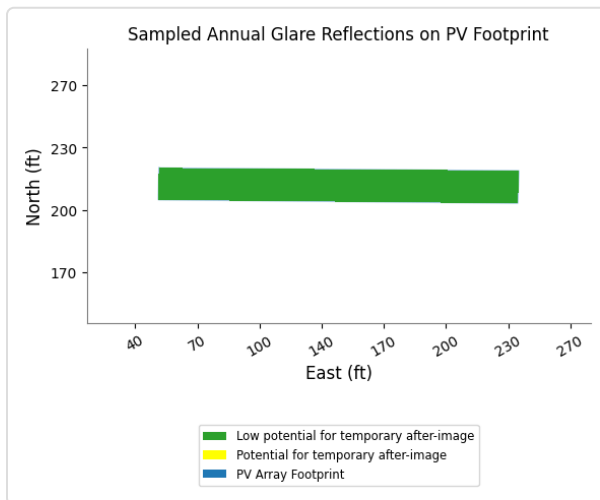
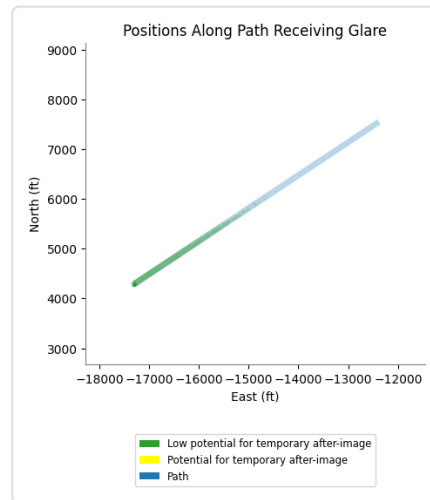
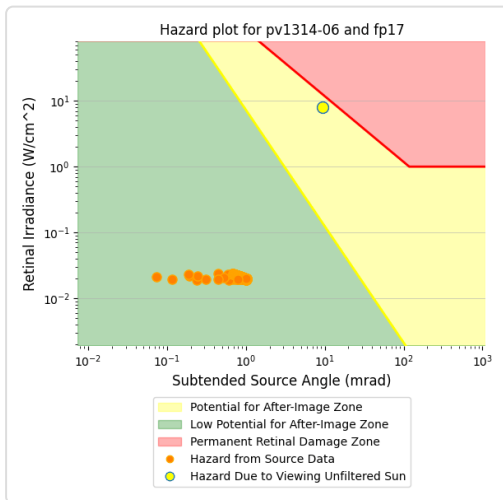
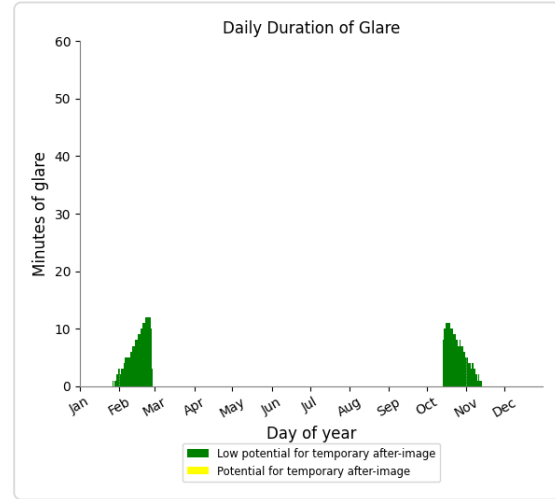
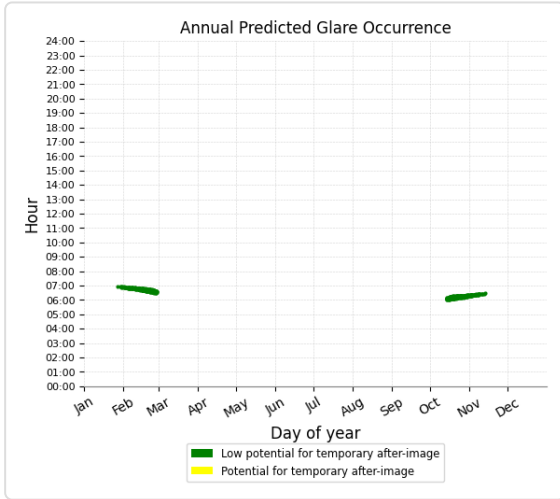
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	399	6.7	0	0.0
FP20	3,277	54.6	0	0.0
FP24	3,673	61.2	0	0.0
FP27	1,844	30.7	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1314_06 and FP: FP17

Yellow glare: none

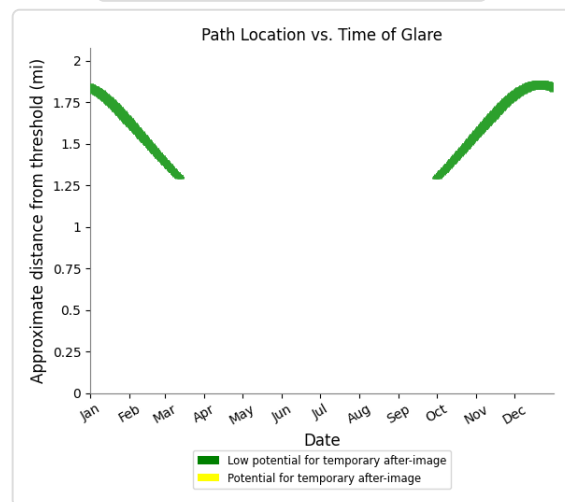
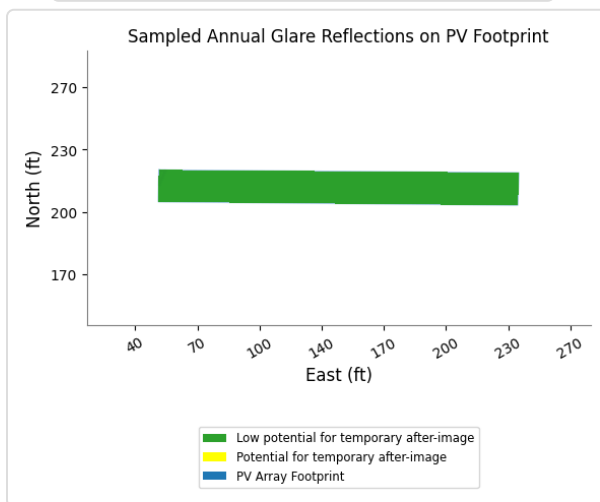
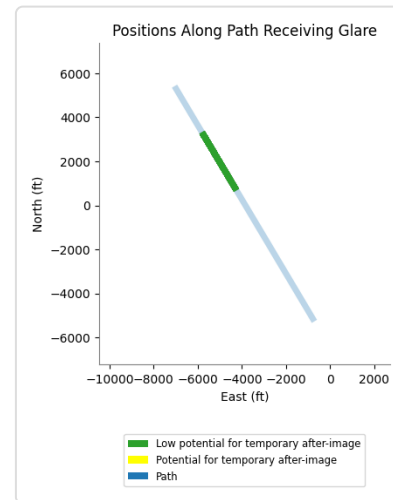
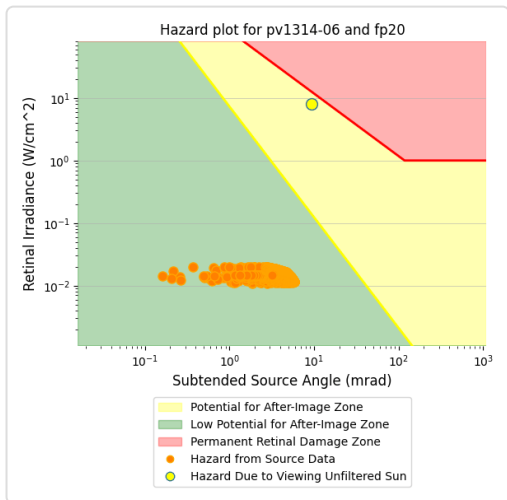
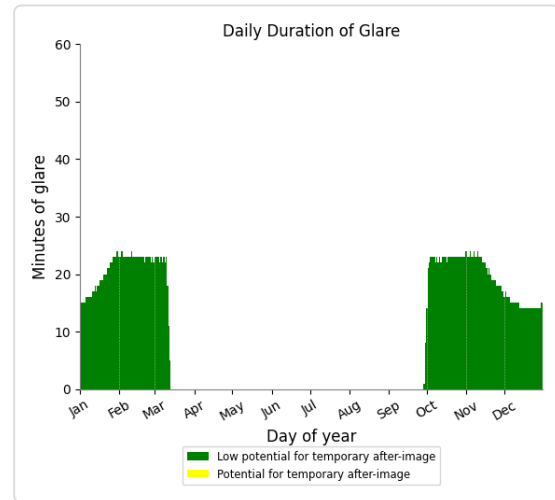
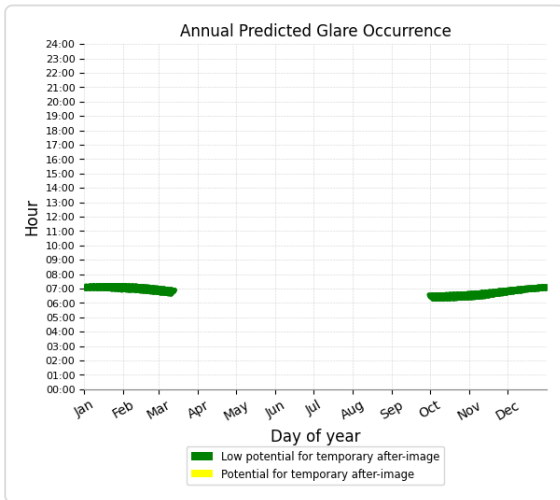
Green glare: 399 min.



PV1314_06 and FP: FP20

Yellow glare: none

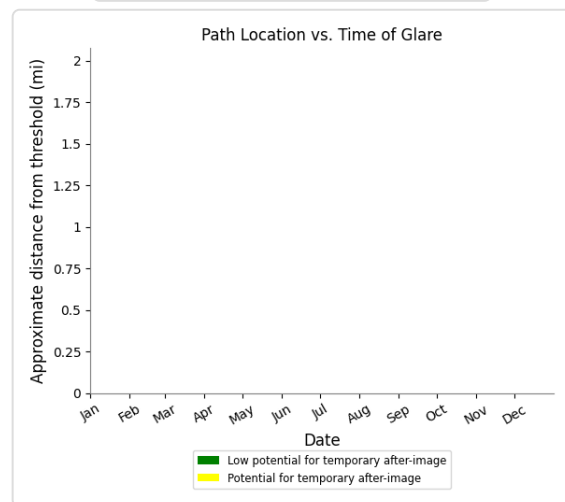
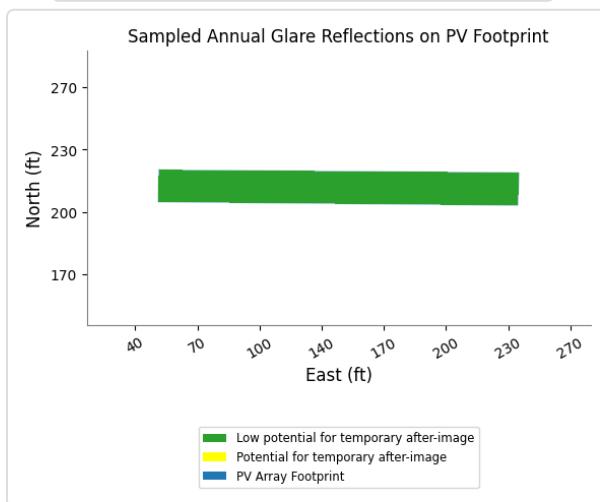
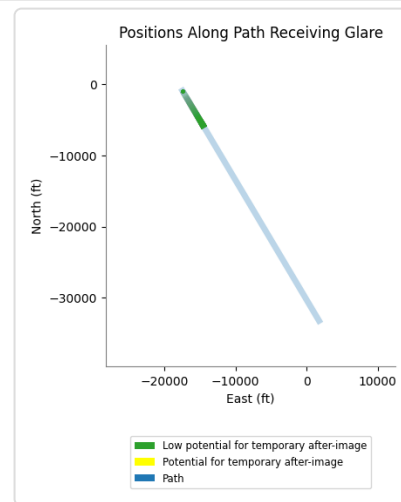
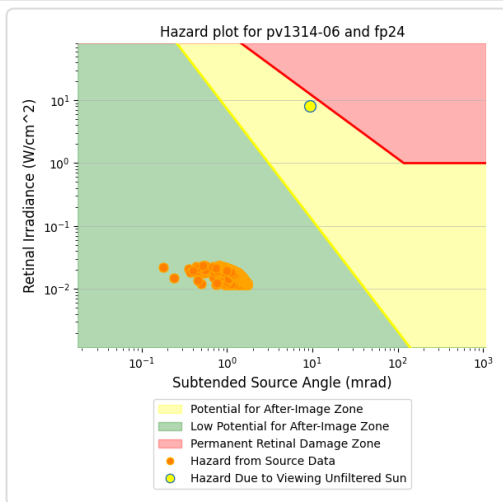
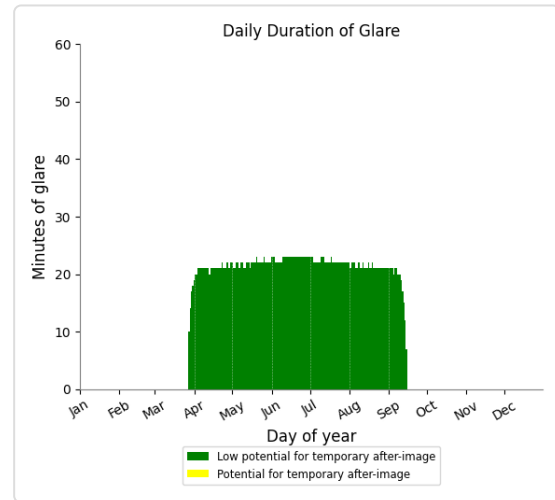
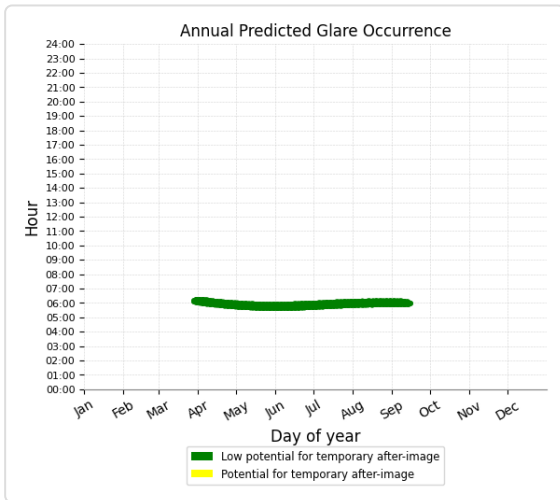
Green glare: 3,277 min.



PV1314_06 and FP: FP24

Yellow glare: none

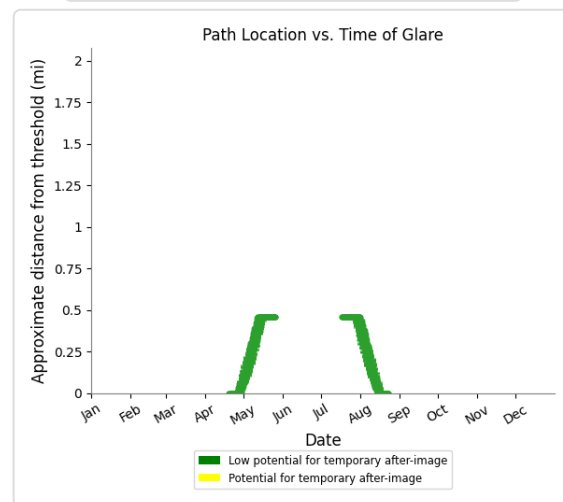
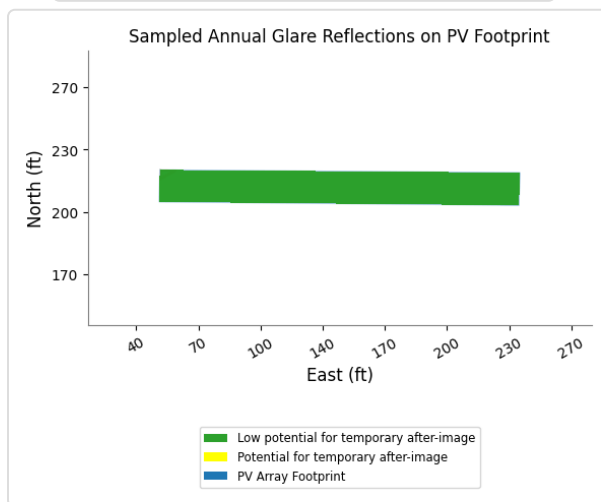
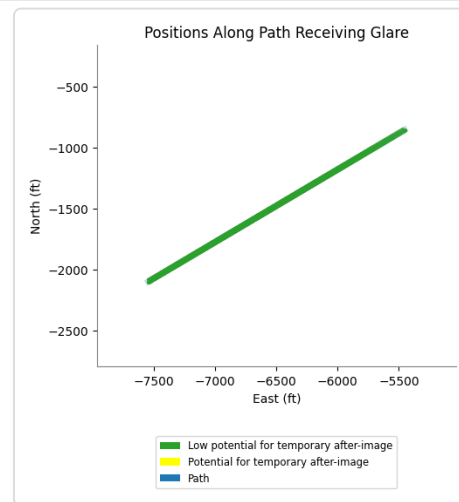
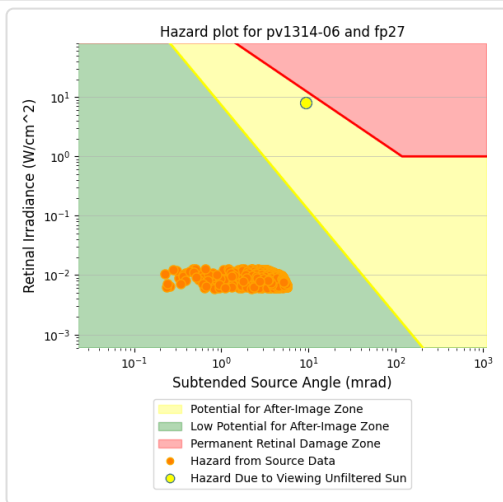
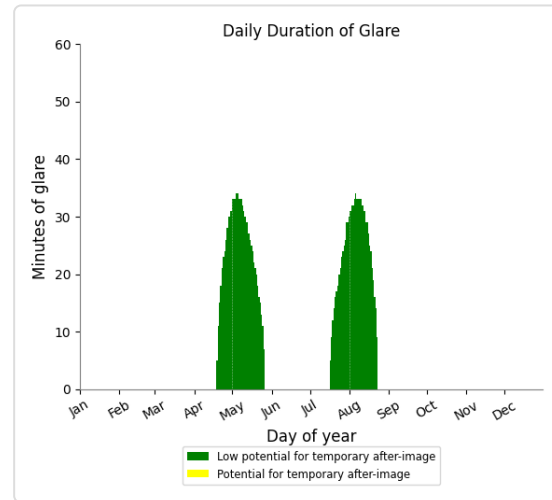
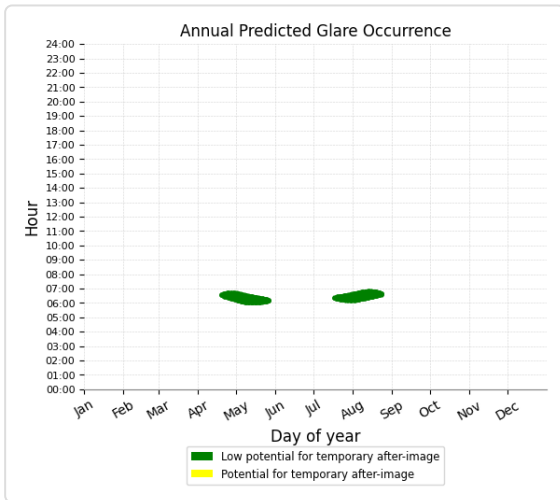
Green glare: 3,673 min.



PV1314_06 and FP: FP27

Yellow glare: none

Green glare: 1,844 min.



PV1314_06 and FP: FP18

No glare found

PV1314_06 and FP: FP19

No glare found

PV1314_06 and FP: FP21

No glare found

PV1314_06 and FP: FP22

No glare found

PV1314_06 and FP: FP23

No glare found

PV1314_06 and FP: FP25

No glare found

PV1314_06 and FP: FP26

No glare found

PV1314_06 and FP: FP28

No glare found

PV1314_06 and FP: FP29

No glare found

PV1314_06 and FP: FP30

No glare found

PV1314_06 and FP: FP31

No glare found

PV1314_06 and FP: FP32

No glare found

PV1314_06 and FP: FP33

No glare found

PV1314_06 and FP: FP34

No glare found

PV1314_06 and FP: FP35

No glare found

PV1314_06 and FP: FP36

No glare found

PV: PV1314_07 low potential for temporary after-image

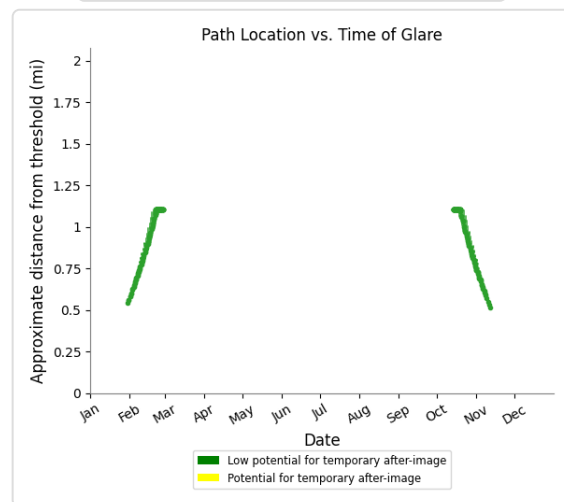
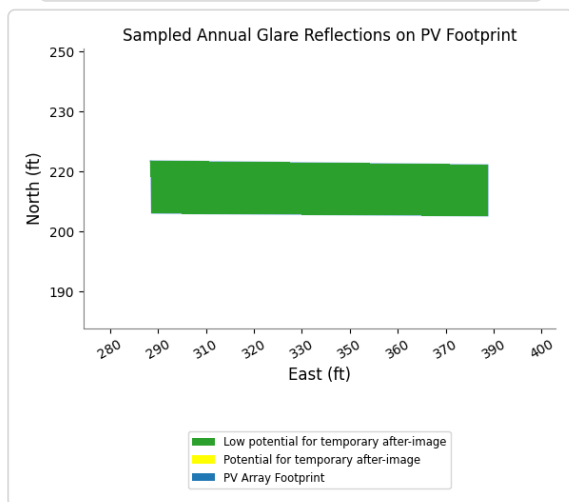
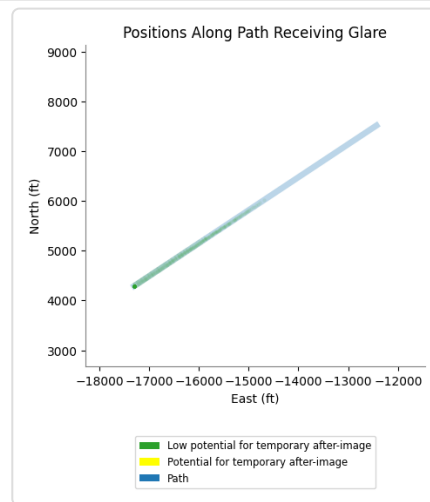
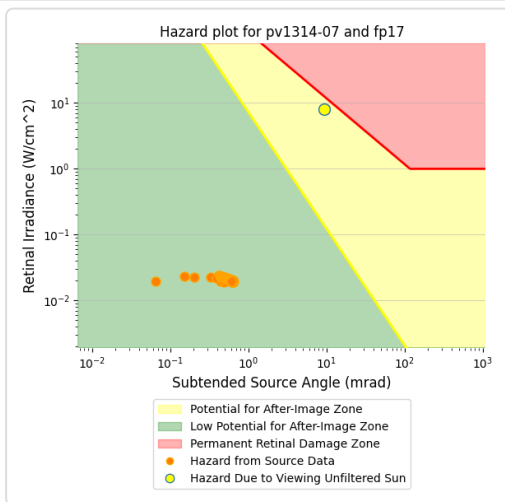
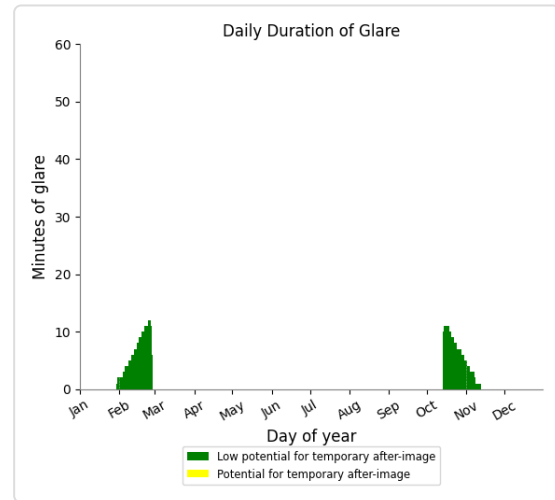
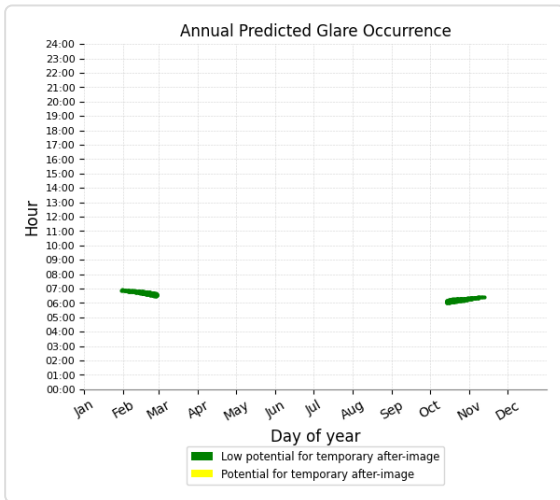
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	375	6.2	0	0.0
FP20	3,074	51.2	0	0.0
FP24	3,636	60.6	0	0.0
FP27	1,660	27.7	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1314_07 and FP: FP17

Yellow glare: none

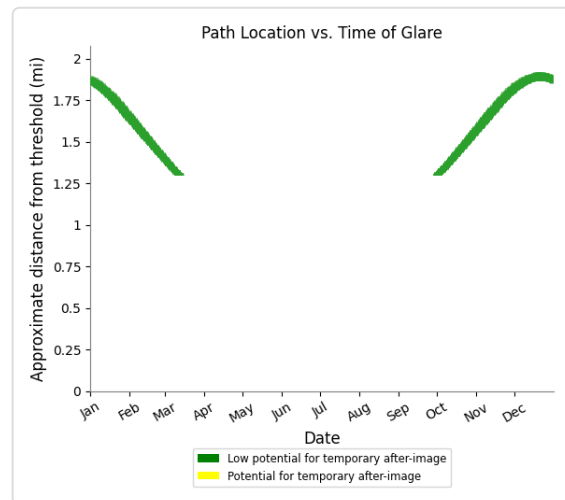
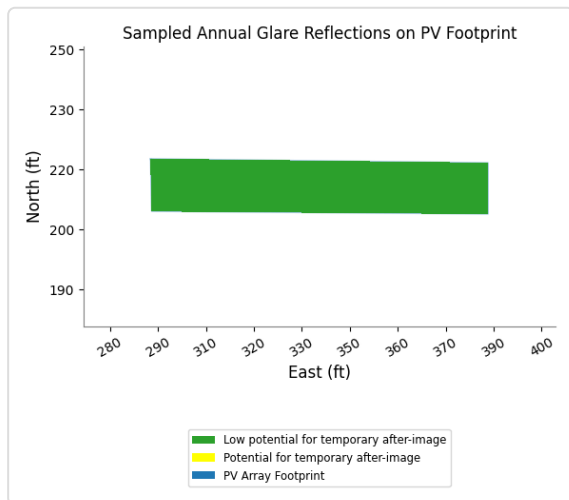
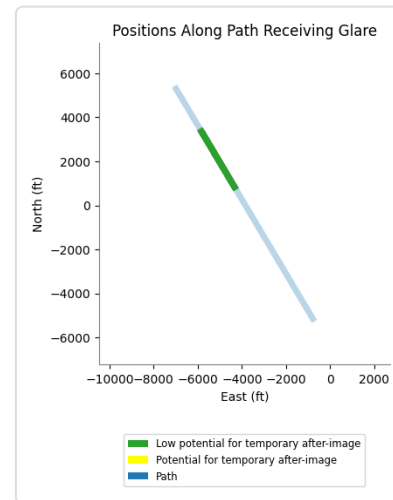
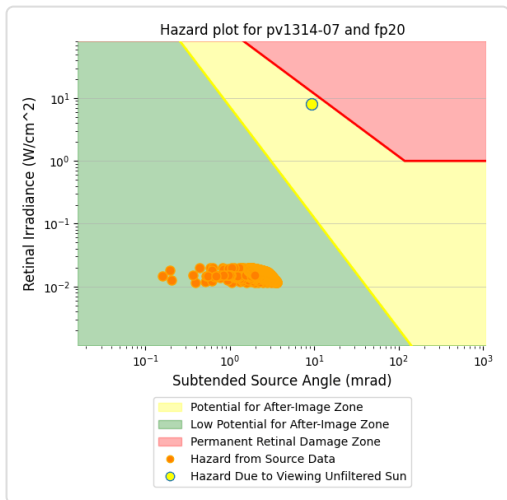
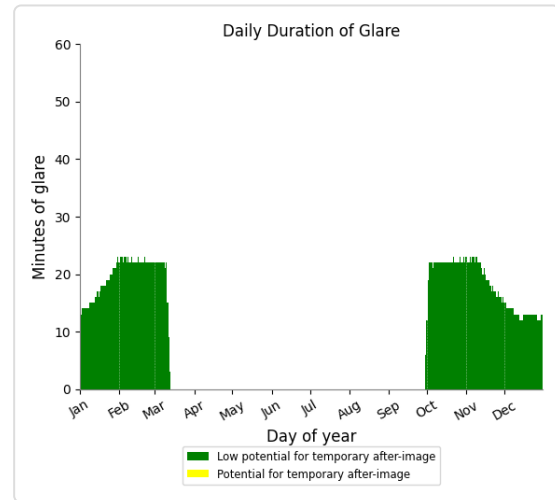
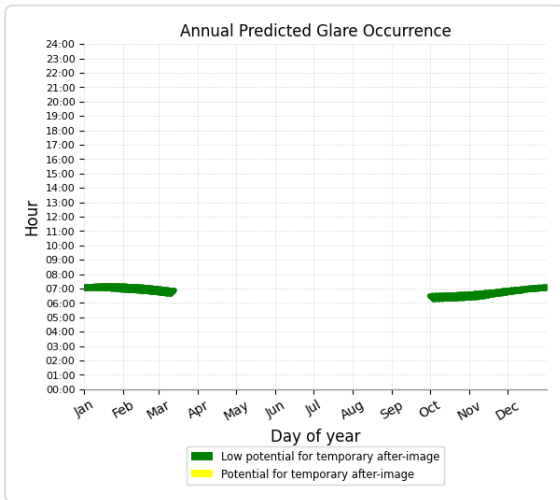
Green glare: 375 min.



PV1314_07 and FP: FP20

Yellow glare: none

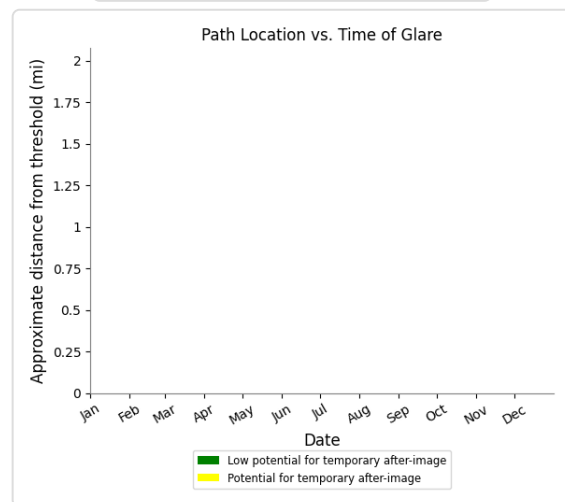
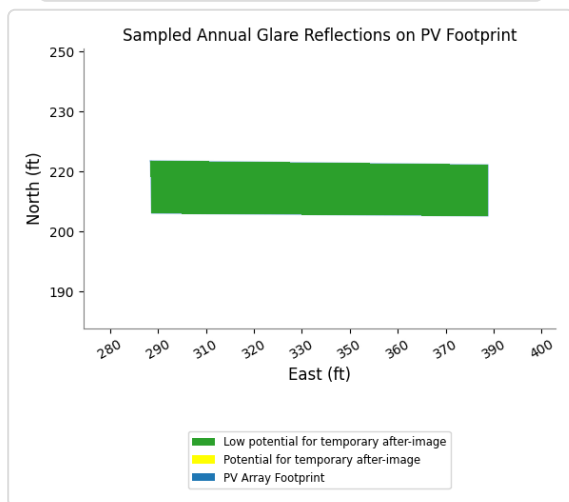
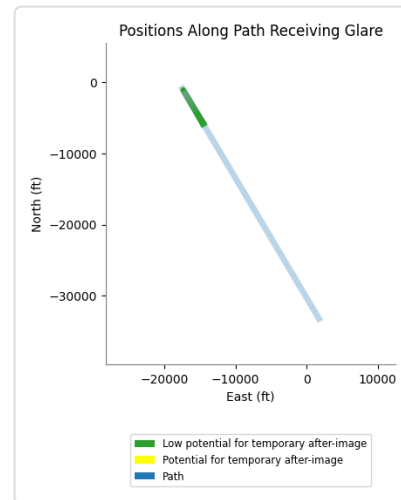
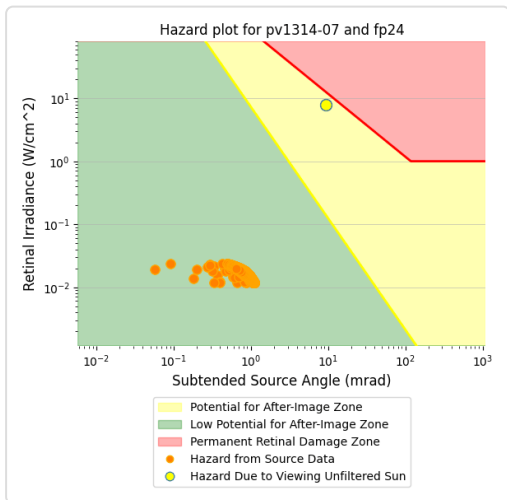
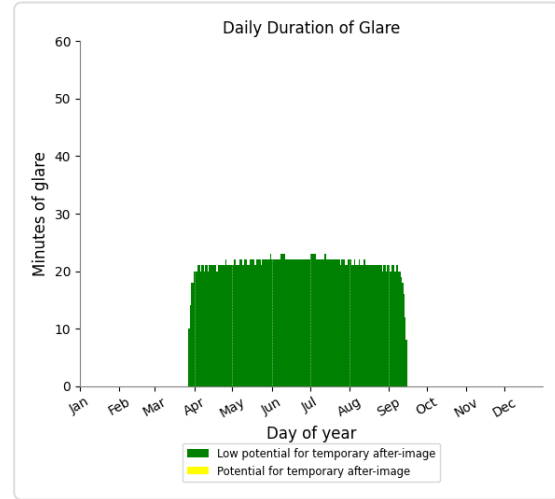
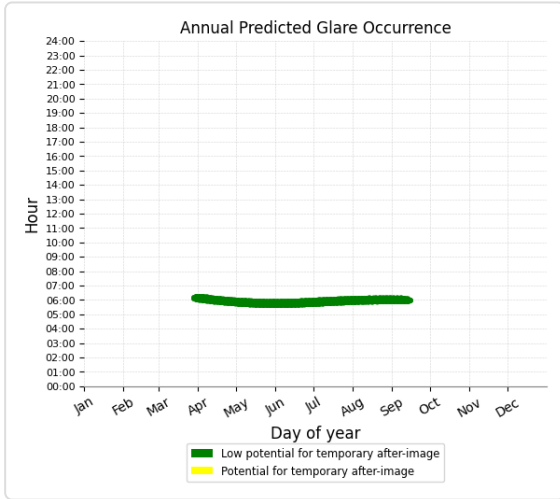
Green glare: 3,074 min.



PV1314_07 and FP: FP24

Yellow glare: none

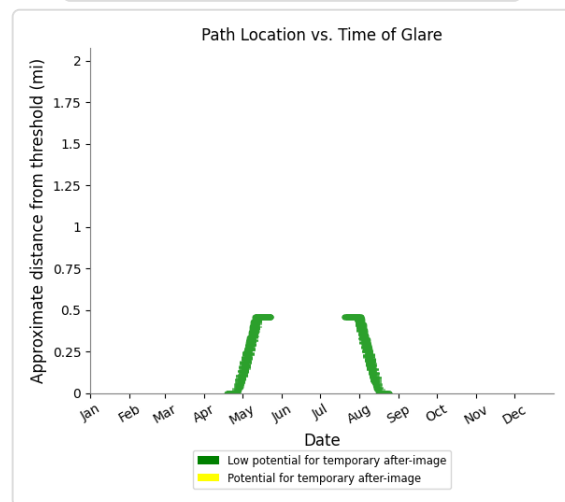
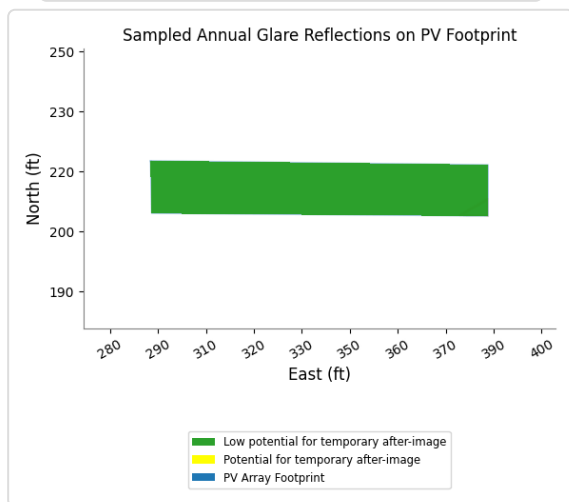
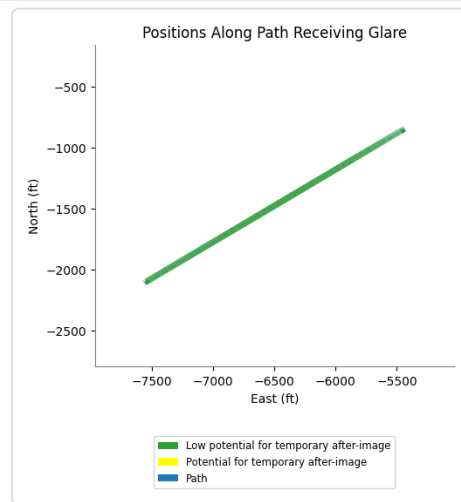
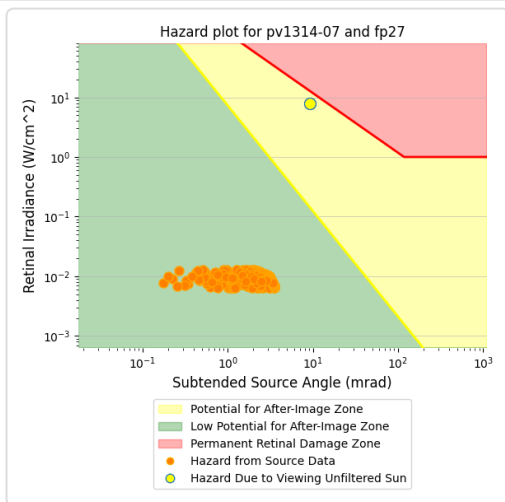
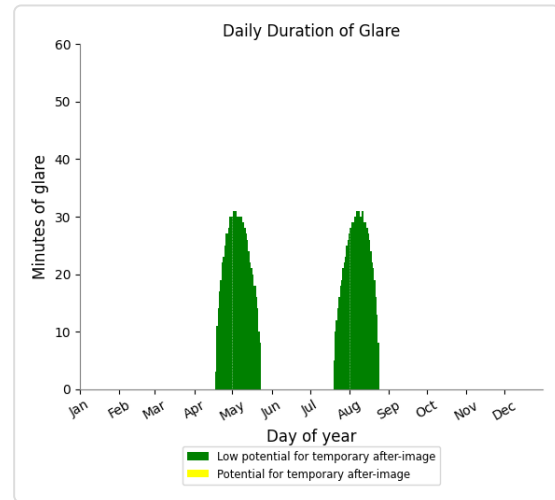
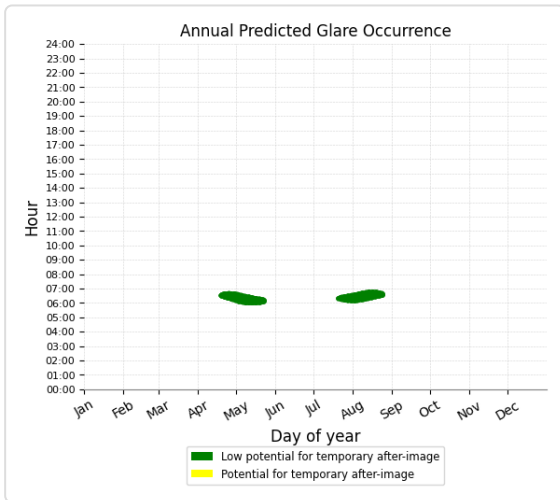
Green glare: 3,636 min.



PV1314_07 and FP: FP27

Yellow glare: none

Green glare: 1,660 min.



PV1314_07 and FP: FP18

No glare found

PV1314_07 and FP: FP19

No glare found

PV1314_07 and FP: FP21

No glare found

PV1314_07 and FP: FP22

No glare found

PV1314_07 and FP: FP23

No glare found

PV1314_07 and FP: FP25

No glare found

PV1314_07 and FP: FP26

No glare found

PV1314_07 and FP: FP28

No glare found

PV1314_07 and FP: FP29

No glare found

PV1314_07 and FP: FP30

No glare found

PV1314_07 and FP: FP31

No glare found

PV1314_07 and FP: FP32

No glare found

PV1314_07 and FP: FP33

No glare found

PV1314_07 and FP: FP34

No glare found

PV1314_07 and FP: FP35

No glare found

PV1314_07 and FP: FP36

No glare found

PV: PV1411_01 low potential for temporary after-image

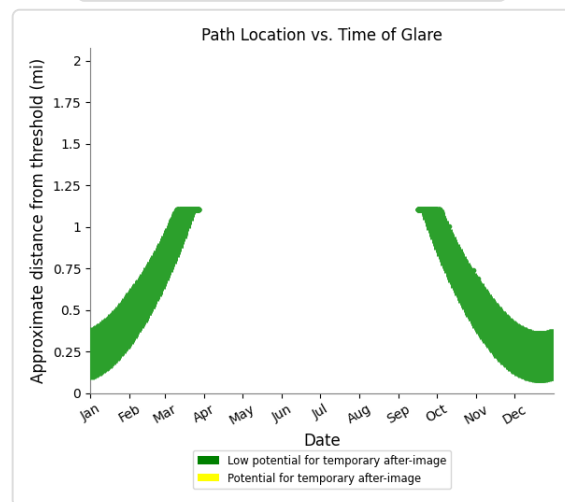
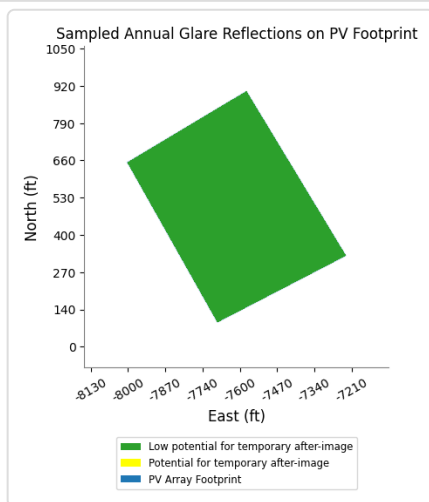
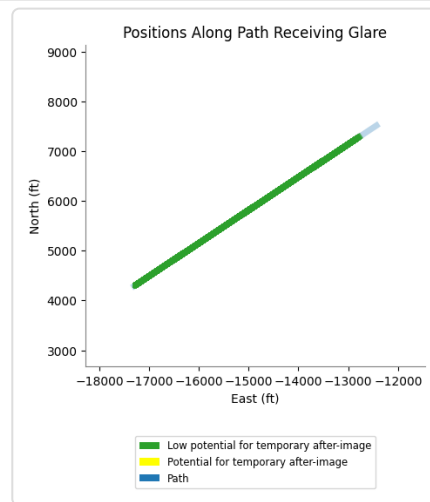
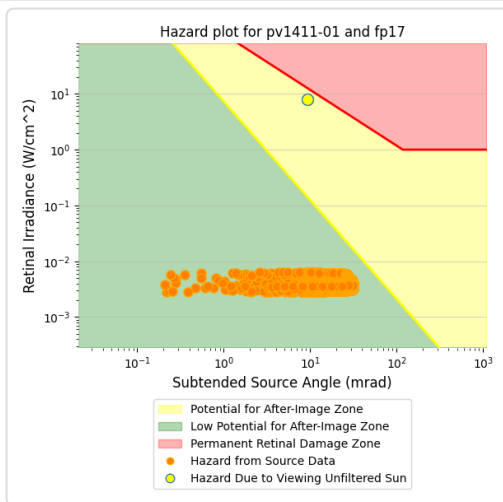
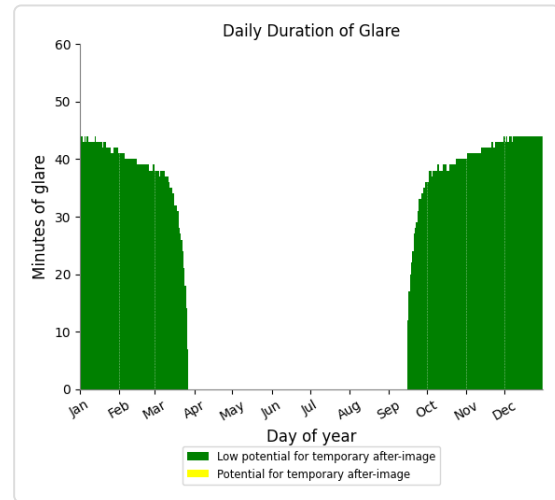
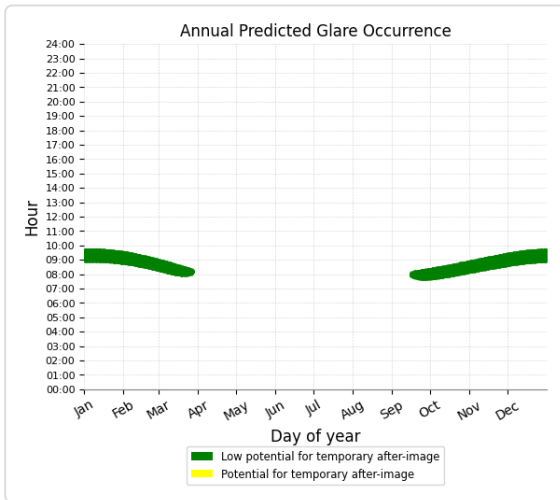
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	7,511	125.2	0	0.0
FP24	2,819	47.0	0	0.0
FP33	2,523	42.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1411_01 and FP: FP17

Yellow glare: none

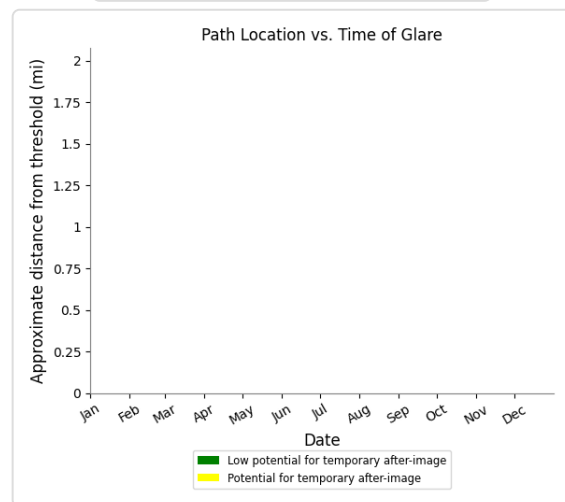
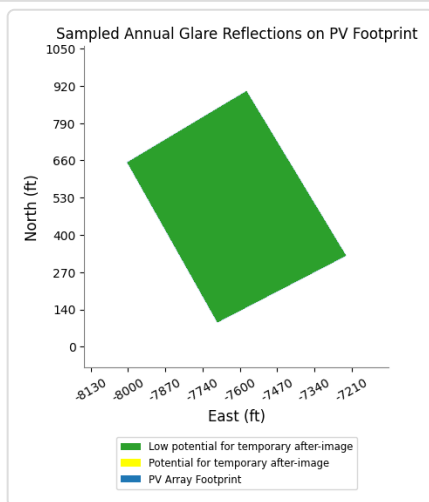
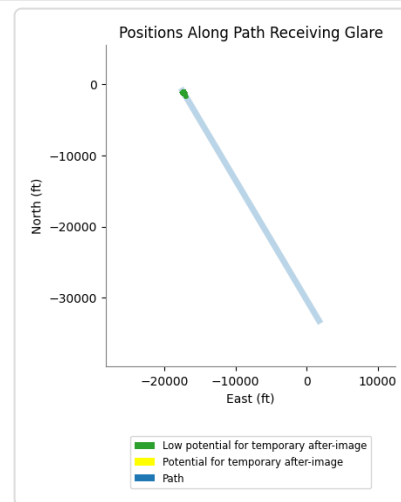
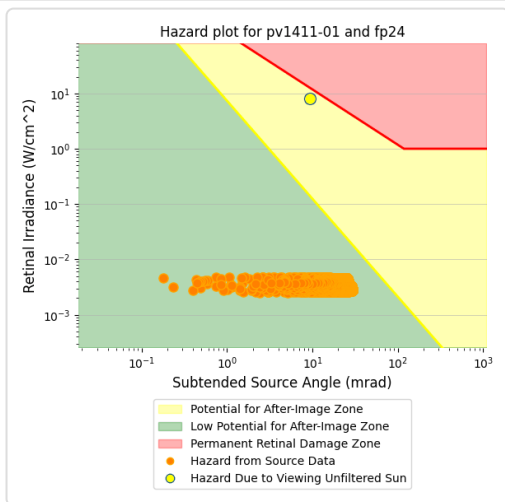
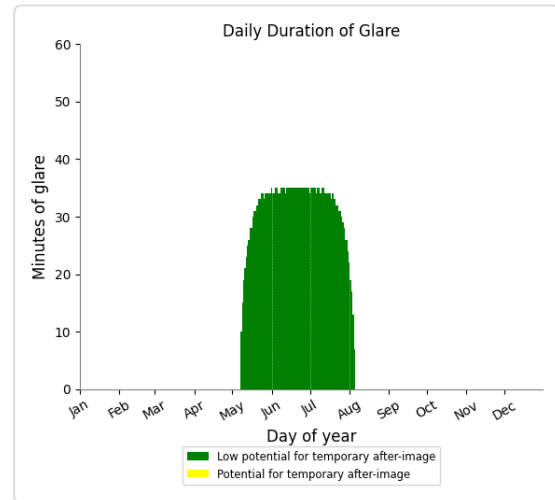
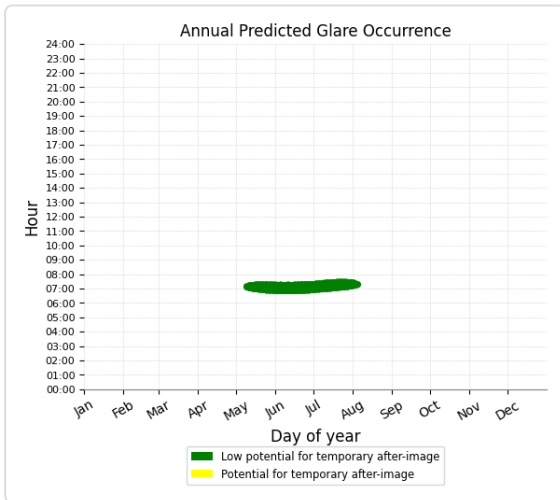
Green glare: 7,511 min.



PV1411_01 and FP: FP24

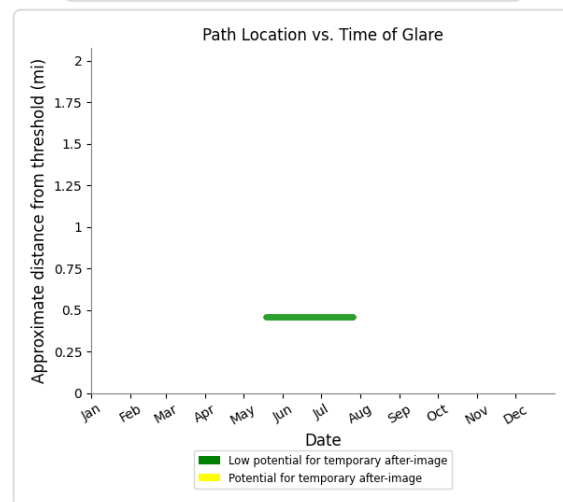
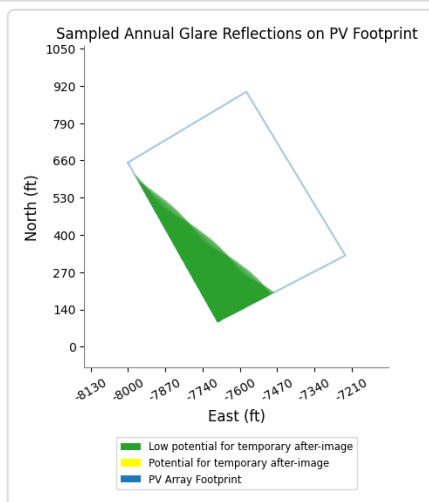
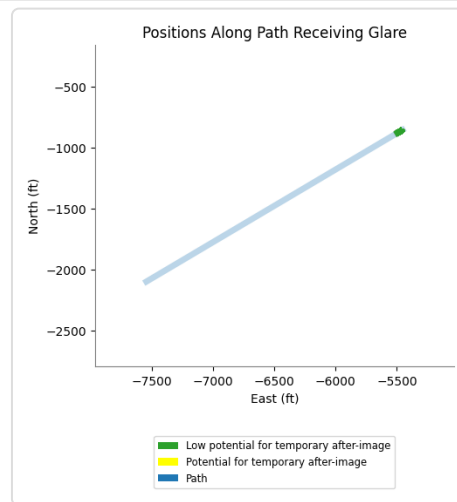
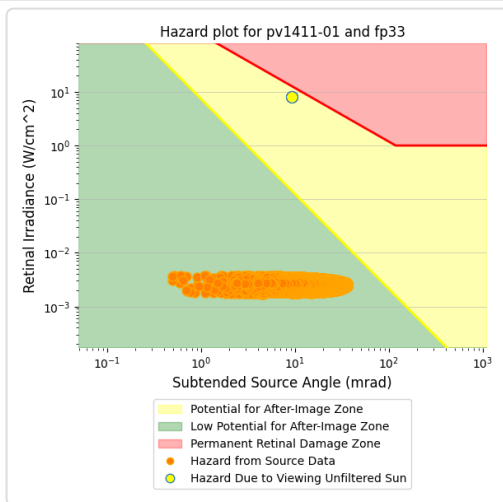
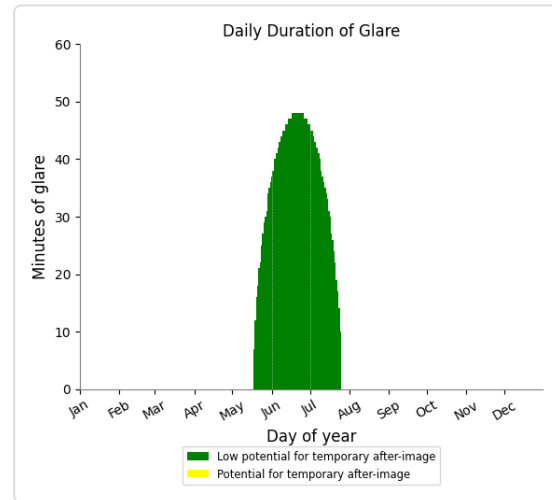
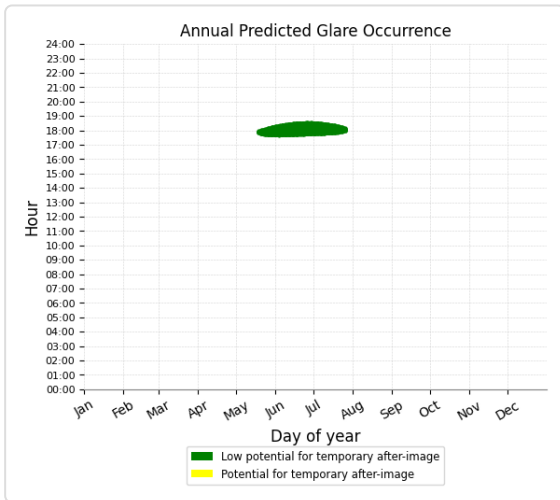
Yellow glare: none

Green glare: 2,819 min.



PV1411_01 and FP: FP33

Yellow glare: none
Green glare: 2,523 min.



PV1411_01 and FP: FP18

No glare found

PV1411_01 and FP: FP19

No glare found

PV1411_01 and FP: FP20

No glare found

PV1411_01 and FP: FP21

No glare found

PV1411_01 and FP: FP22

No glare found

PV1411_01 and FP: FP23

No glare found

PV1411_01 and FP: FP25

No glare found

PV1411_01 and FP: FP26

No glare found

PV1411_01 and FP: FP27

No glare found

PV1411_01 and FP: FP28

No glare found

PV1411_01 and FP: FP29

No glare found

PV1411_01 and FP: FP30

No glare found

PV1411_01 and FP: FP31

No glare found

PV1411_01 and FP: FP32

No glare found

PV1411_01 and FP: FP34

No glare found

PV1411_01 and FP: FP35

No glare found

PV1411_01 and FP: FP36

No glare found

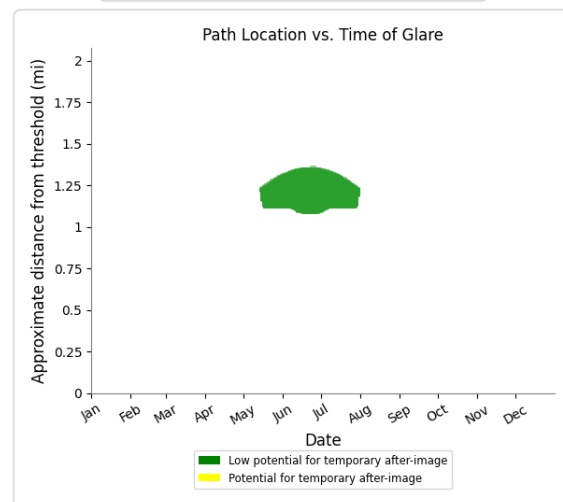
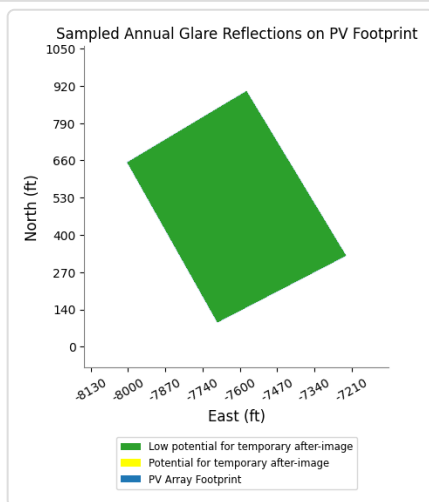
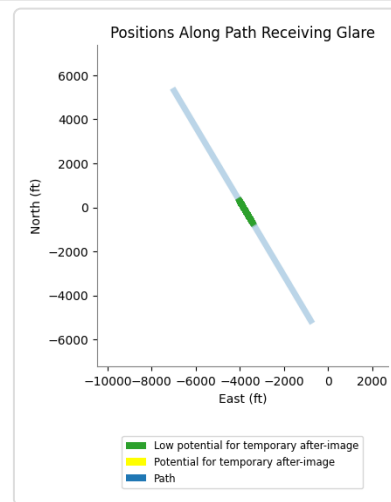
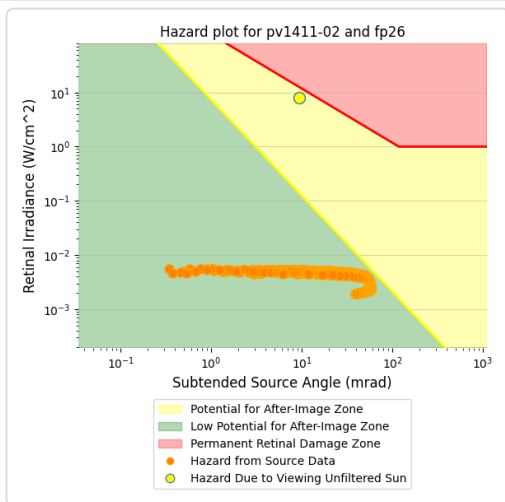
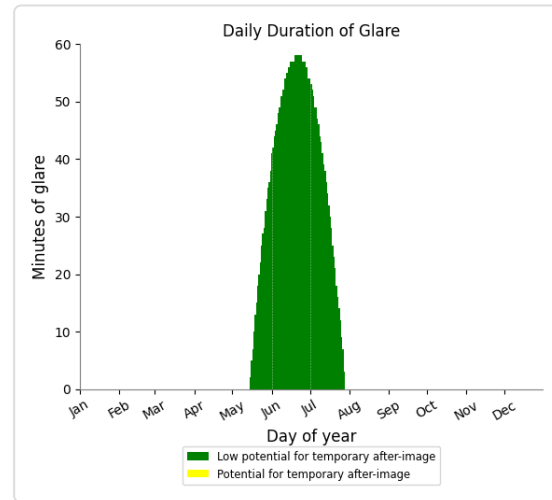
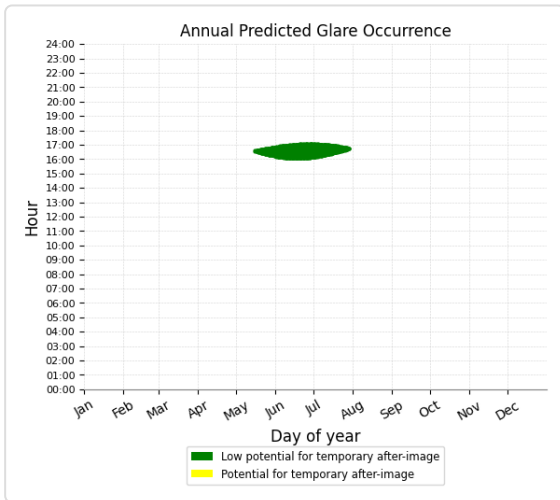
PV: PV1411_02 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP26	2,879	48.0	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP24	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1411_02 and FP: FP26

Yellow glare: none
Green glare: 2,879 min.



PV1411_02 and FP: FP17

No glare found

PV1411_02 and FP: FP18

No glare found

PV1411_02 and FP: FP19

No glare found

PV1411_02 and FP: FP20

No glare found

PV1411_02 and FP: FP21

No glare found

PV1411_02 and FP: FP22

No glare found

PV1411_02 and FP: FP23

No glare found

PV1411_02 and FP: FP24

No glare found

PV1411_02 and FP: FP25

No glare found

PV1411_02 and FP: FP27

No glare found

PV1411_02 and FP: FP28

No glare found

PV1411_02 and FP: FP29

No glare found

PV1411_02 and FP: FP30

No glare found

PV1411_02 and FP: FP31

No glare found

PV1411_02 and FP: FP32

No glare found

PV1411_02 and FP: FP33

No glare found

PV1411_02 and FP: FP34

No glare found

PV1411_02 and FP: FP35

No glare found

PV1411_02 and FP: FP36

No glare found

PV: PV1458_01 low potential for temporary after-image

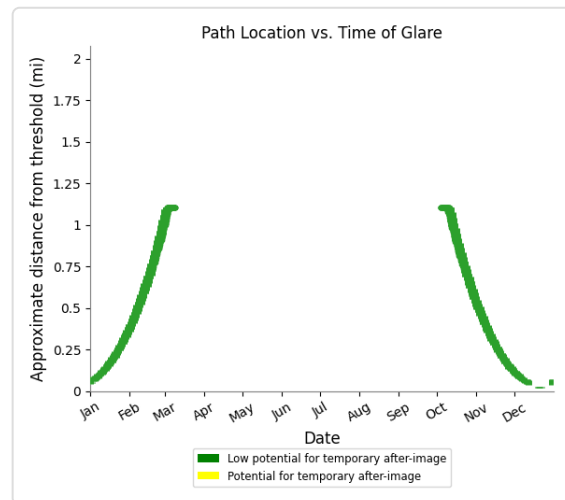
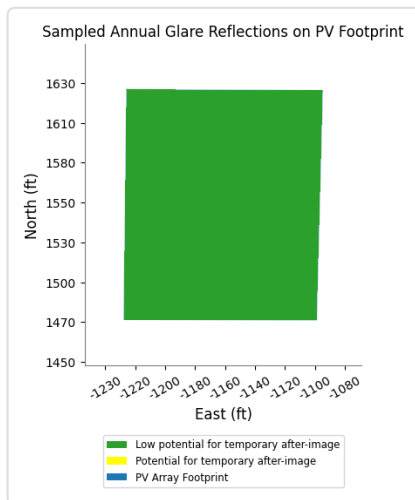
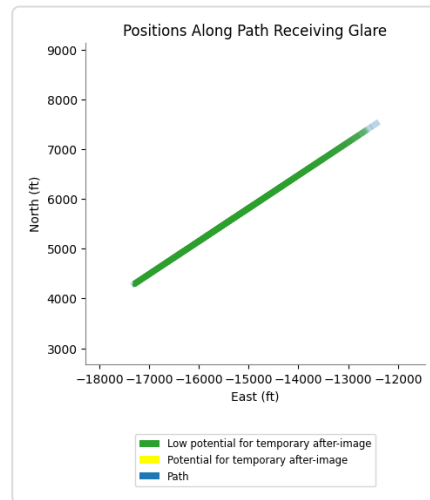
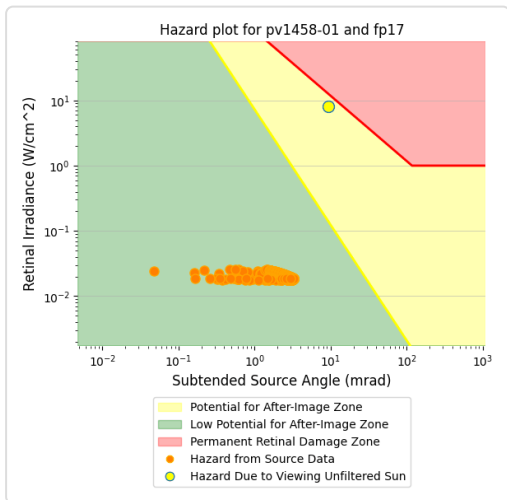
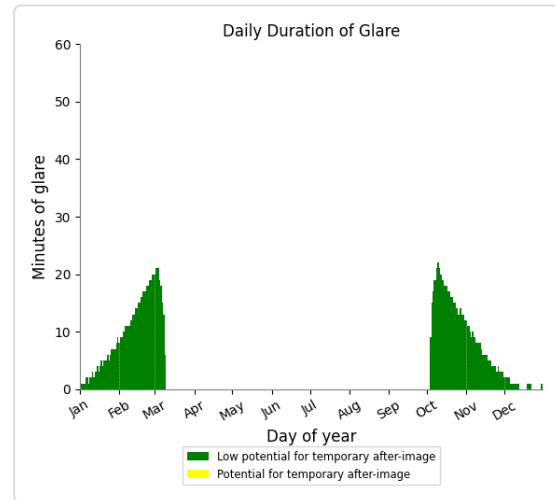
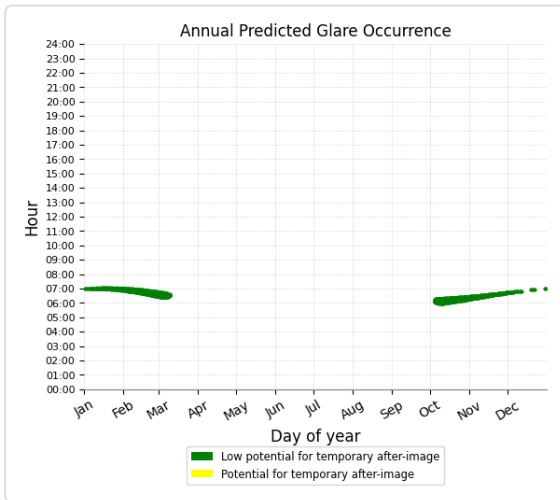
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	1,346	22.4	0	0.0
FP20	3,910	65.2	0	0.0
FP24	3,158	52.6	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1458_01 and FP: FP17

Yellow glare: none

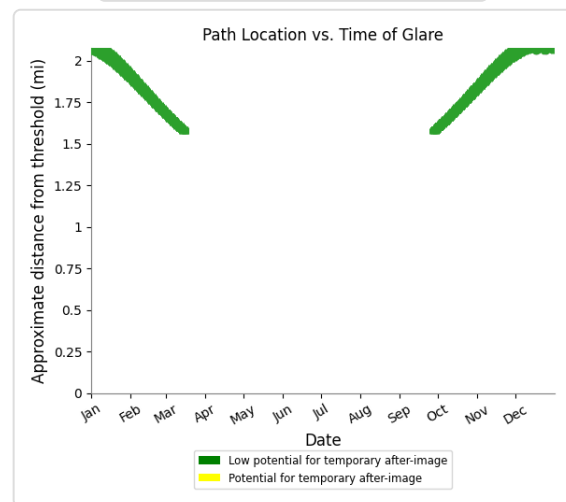
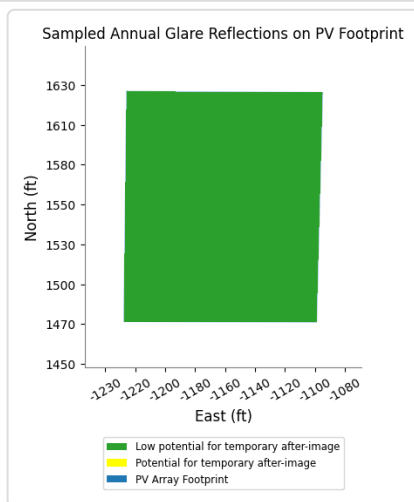
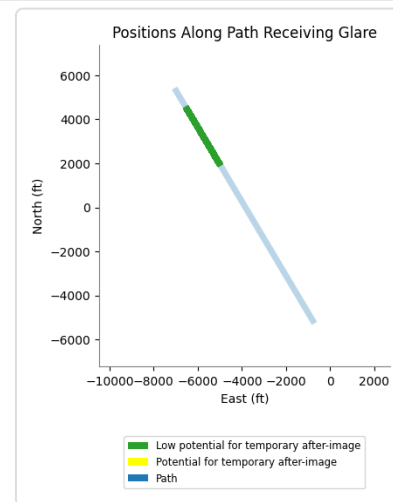
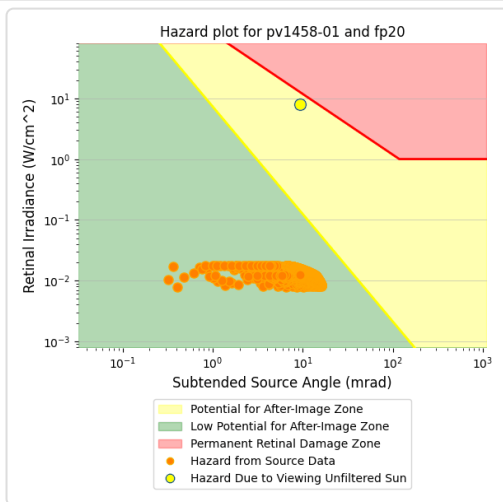
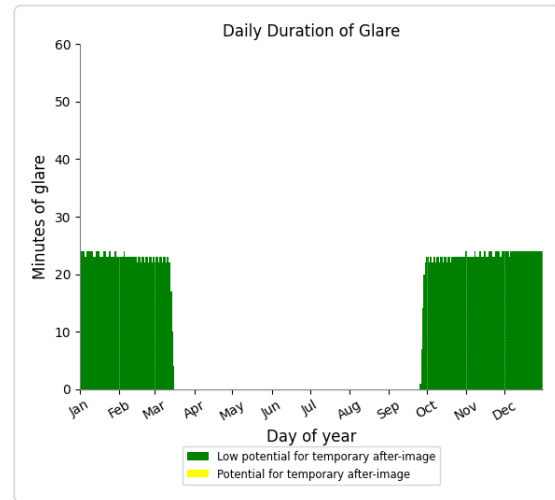
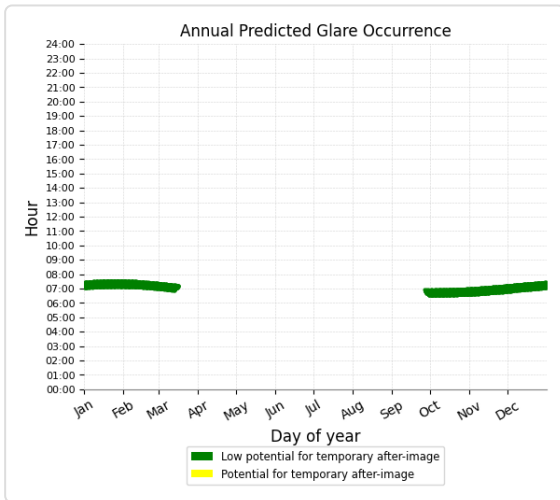
Green glare: 1,346 min.



PV1458_01 and FP: FP20

Yellow glare: none

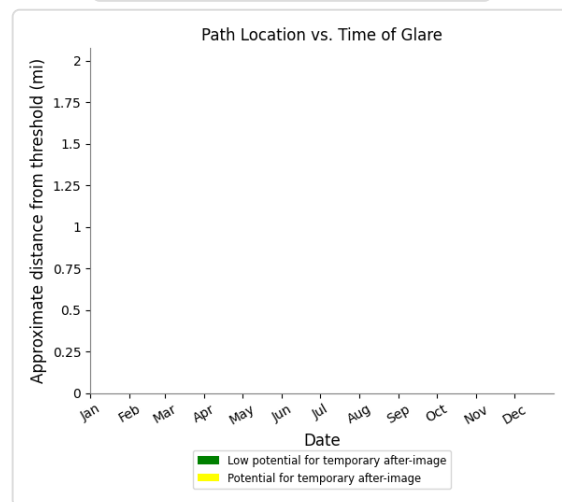
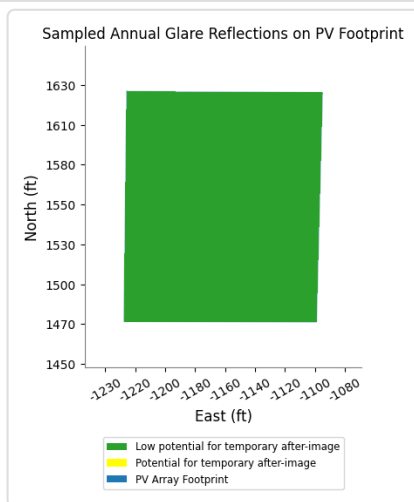
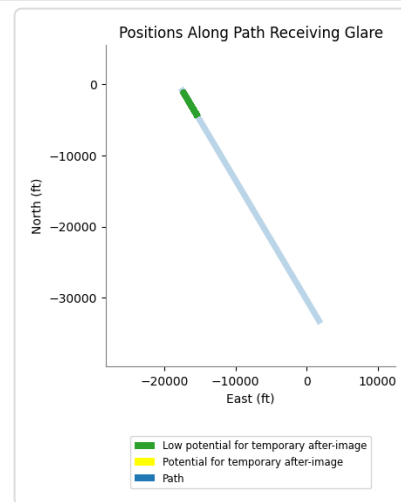
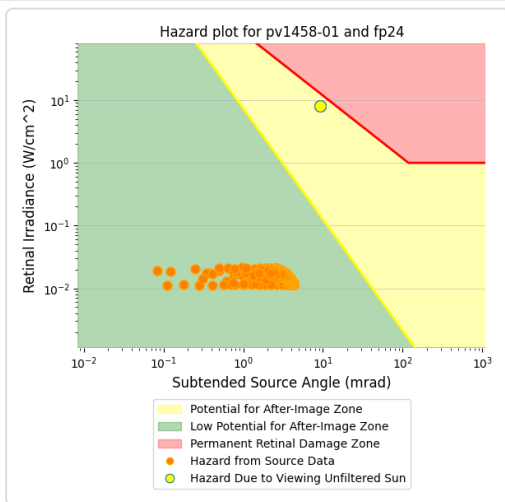
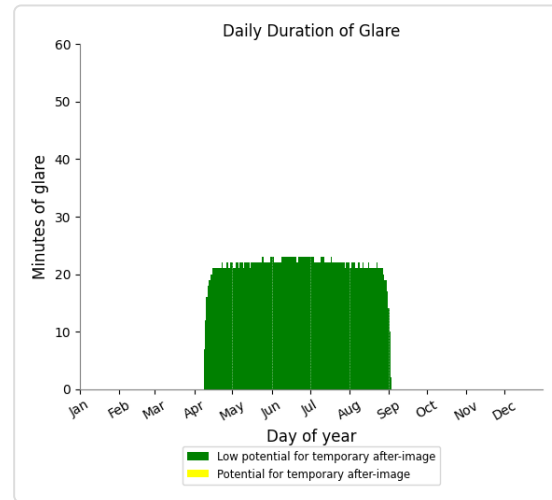
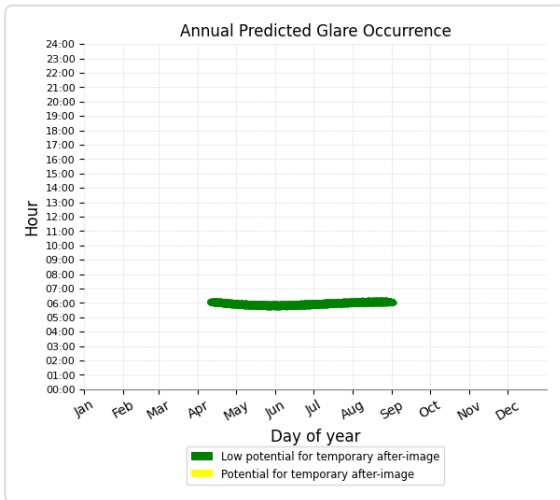
Green glare: 3,910 min.



PV1458_01 and FP: FP24

Yellow glare: none

Green glare: 3,158 min.



PV1458_01 and FP: FP18

No glare found

PV1458_01 and FP: FP19

No glare found

PV1458_01 and FP: FP21

No glare found

PV1458_01 and FP: FP22

No glare found

PV1458_01 and FP: FP23

No glare found

PV1458_01 and FP: FP25

No glare found

PV1458_01 and FP: FP26

No glare found

PV1458_01 and FP: FP27

No glare found

PV1458_01 and FP: FP28

No glare found

PV1458_01 and FP: FP29

No glare found

PV1458_01 and FP: FP30

No glare found

PV1458_01 and FP: FP31

No glare found

PV1458_01 and FP: FP32

No glare found

PV1458_01 and FP: FP33

No glare found

PV1458_01 and FP: FP34

No glare found

PV1458_01 and FP: FP35

No glare found

PV1458_01 and FP: FP36

No glare found

PV: PV1462_01 low potential for temporary after-image

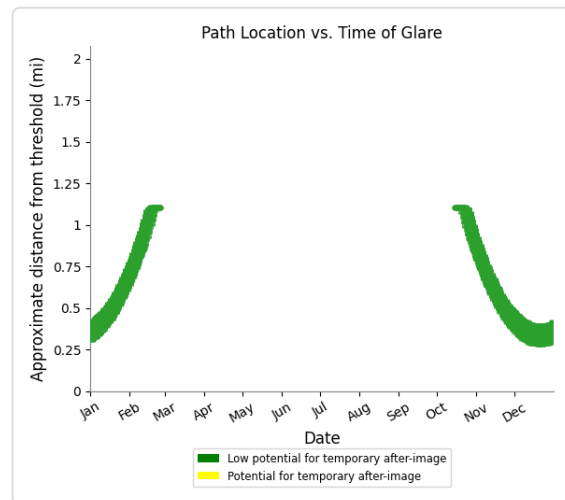
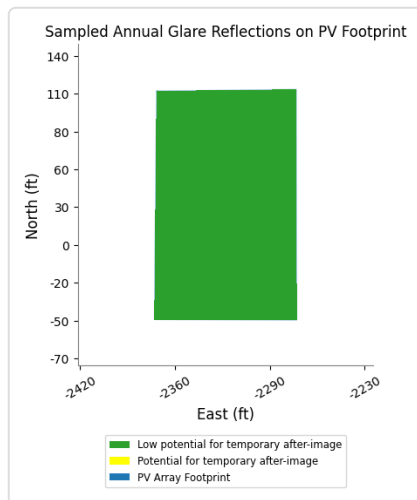
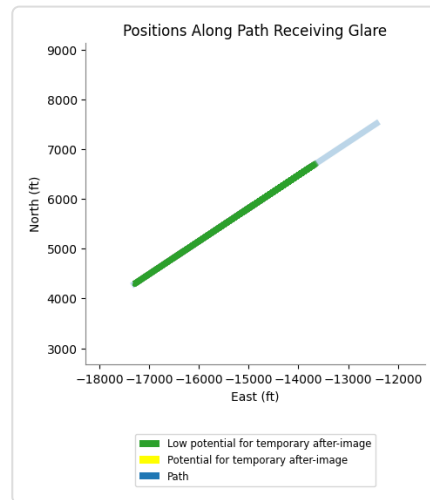
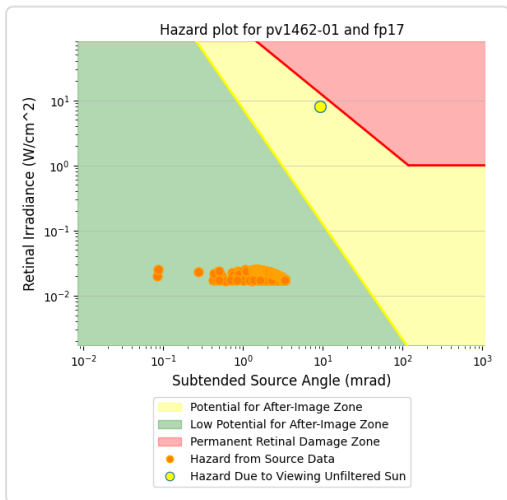
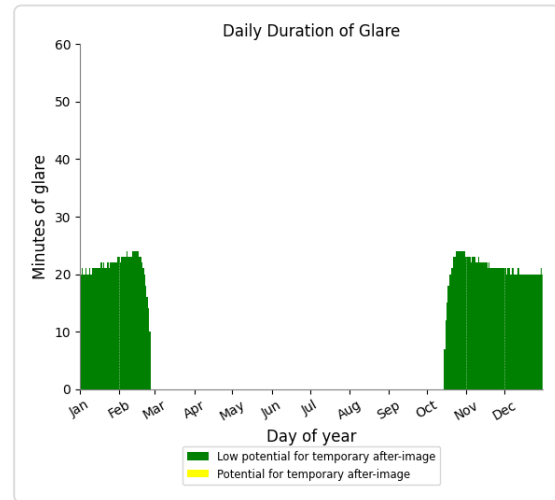
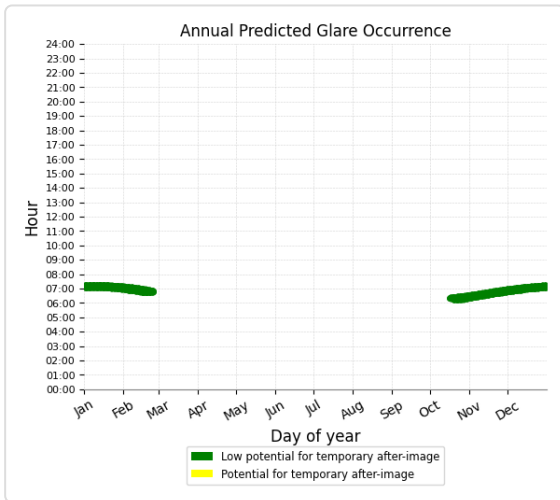
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	2,830	47.2	0	0.0
FP20	5,474	91.2	0	0.0
FP24	3,773	62.9	0	0.0
FP27	3,756	62.6	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1462_01 and FP: FP17

Yellow glare: none

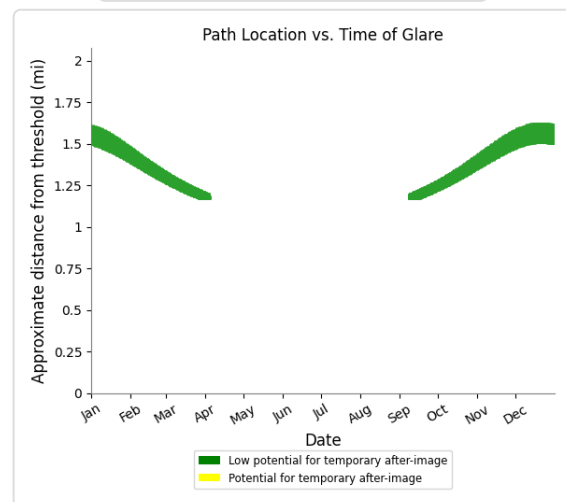
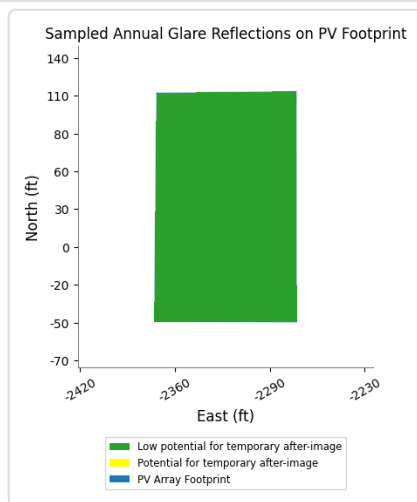
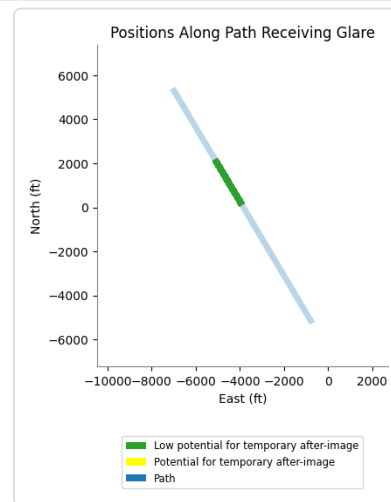
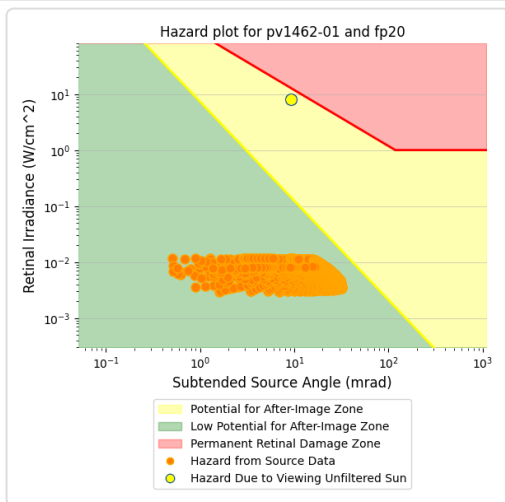
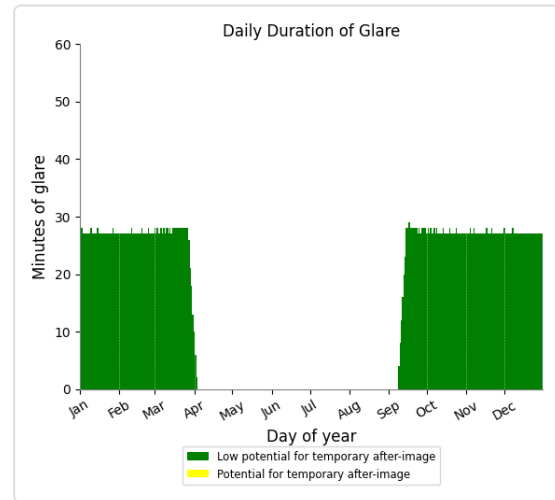
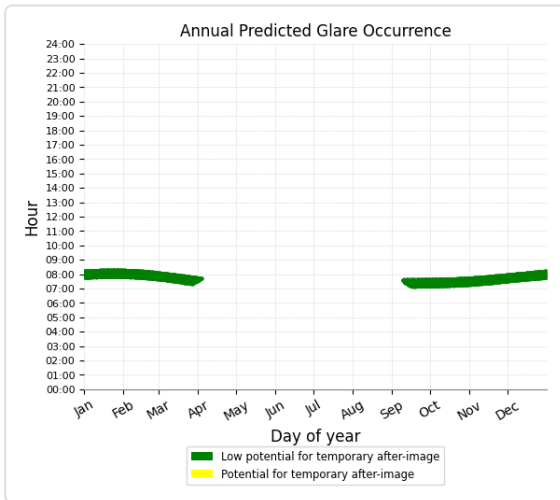
Green glare: 2,830 min.



PV1462_01 and FP: FP20

Yellow glare: none

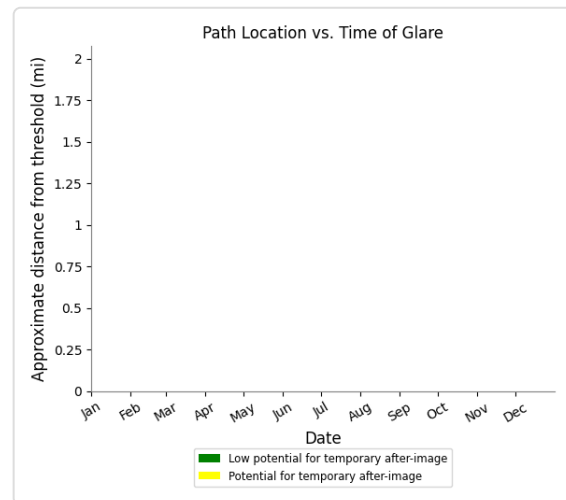
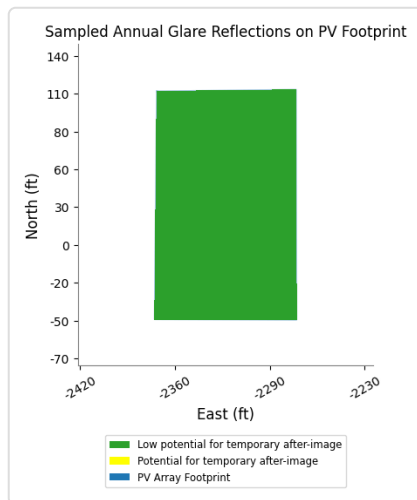
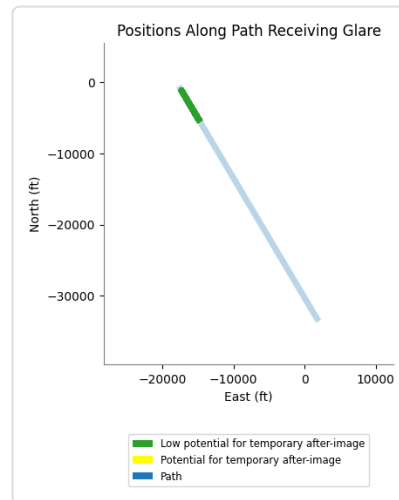
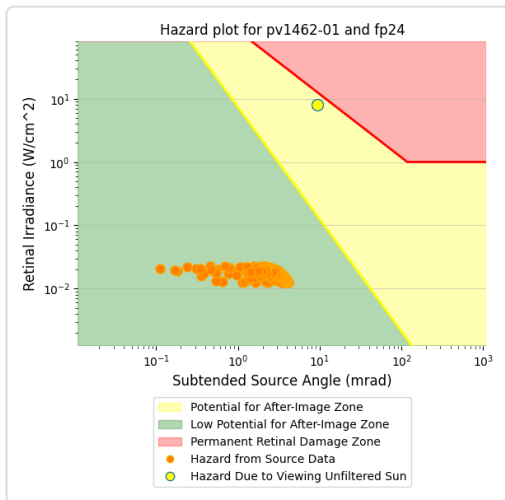
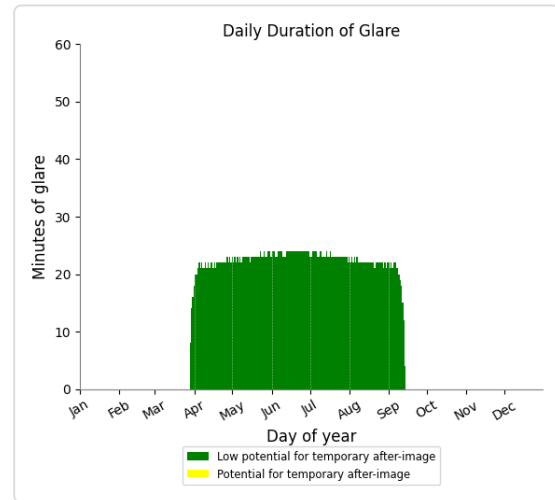
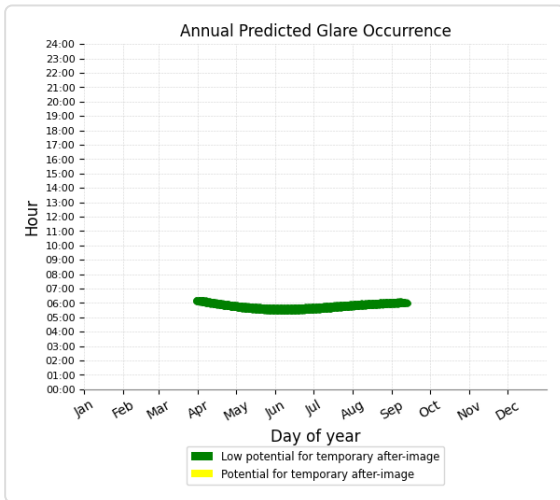
Green glare: 5,474 min.



PV1462_01 and FP: FP24

Yellow glare: none

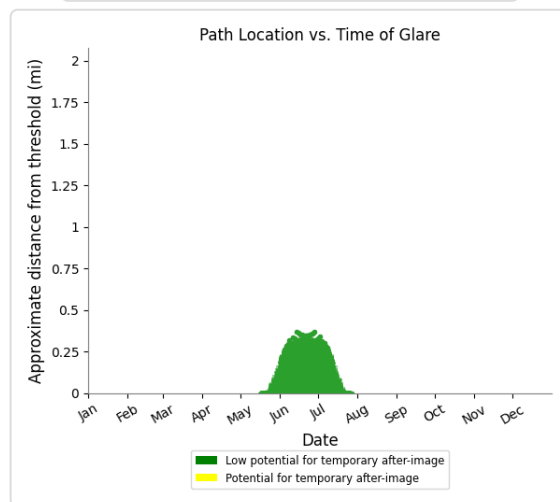
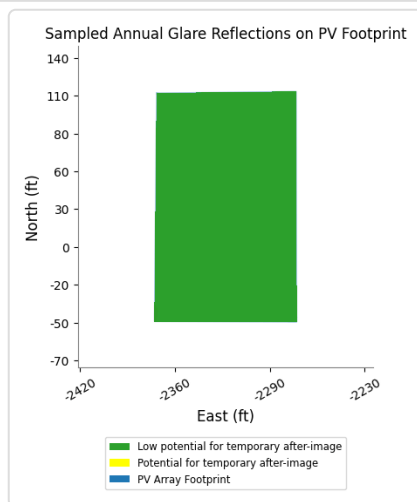
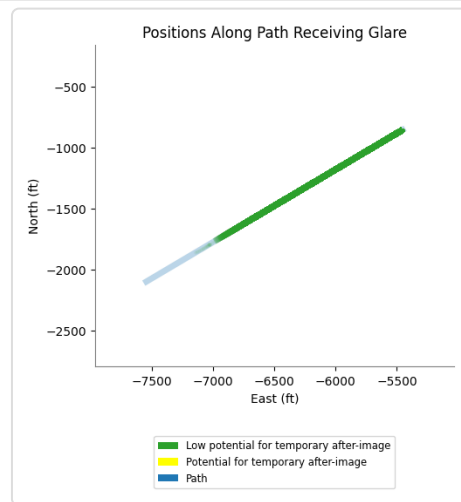
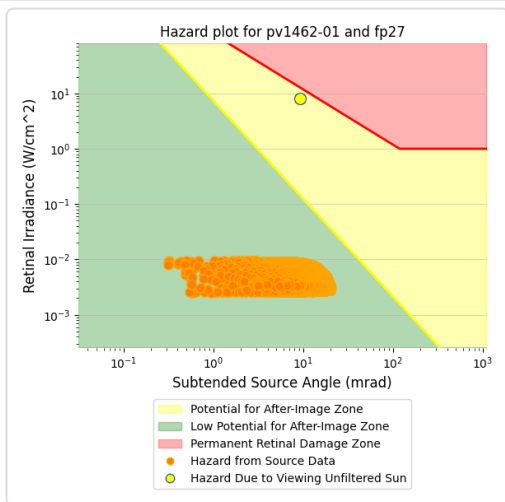
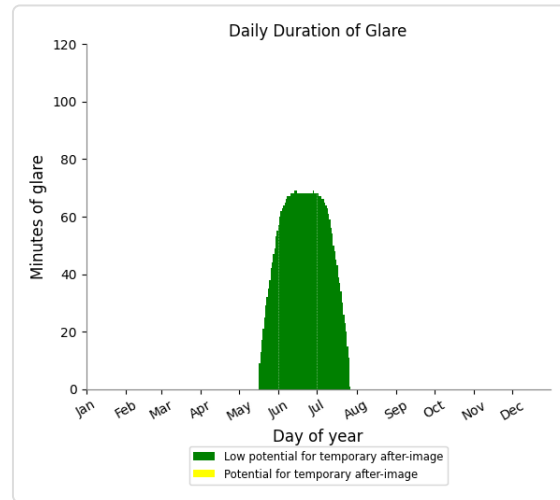
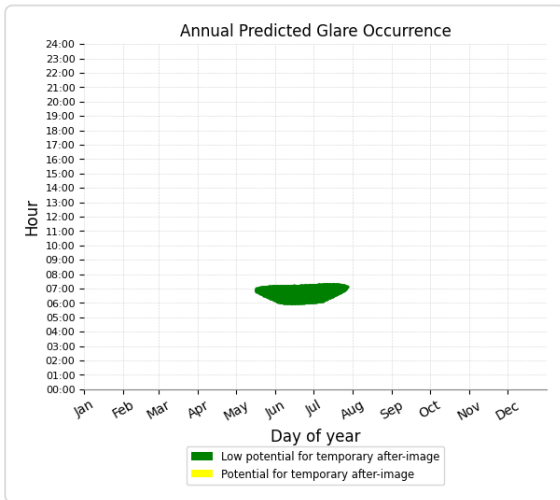
Green glare: 3,773 min.



PV1462_01 and FP: FP27

Yellow glare: none

Green glare: 3,756 min.



PV1462_01 and FP: FP18

No glare found

PV1462_01 and FP: FP19

No glare found

PV1462_01 and FP: FP21

No glare found

PV1462_01 and FP: FP22

No glare found

PV1462_01 and FP: FP23

No glare found

PV1462_01 and FP: FP25

No glare found

PV1462_01 and FP: FP26

No glare found

PV1462_01 and FP: FP28

No glare found

PV1462_01 and FP: FP29

No glare found

PV1462_01 and FP: FP30

No glare found

PV1462_01 and FP: FP31

No glare found

PV1462_01 and FP: FP32

No glare found

PV1462_01 and FP: FP33

No glare found

PV1462_01 and FP: FP34

No glare found

PV1462_01 and FP: FP35

No glare found

PV1462_01 and FP: FP36

No glare found

PV: PV1509_01 low potential for temporary after-image

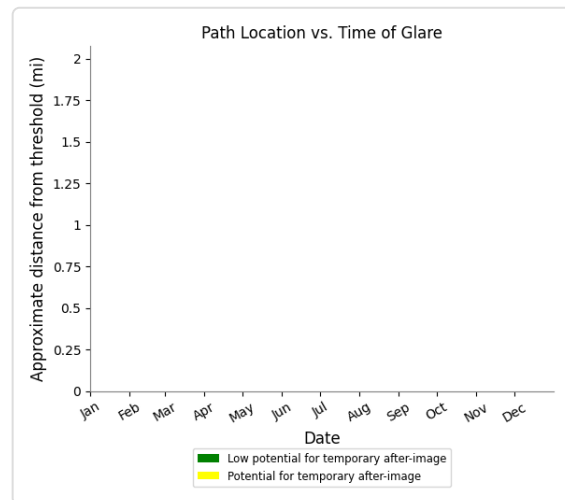
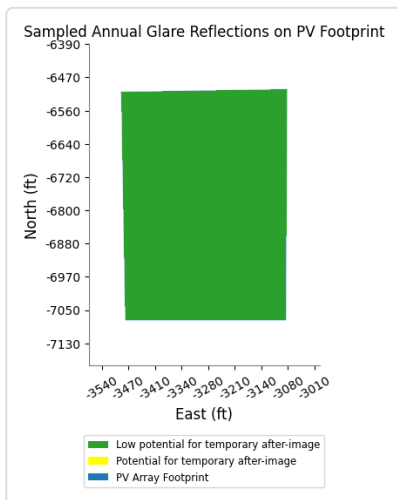
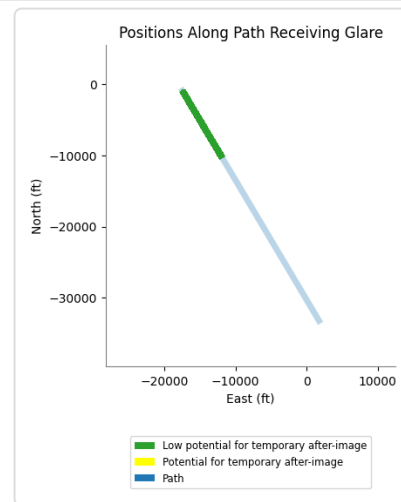
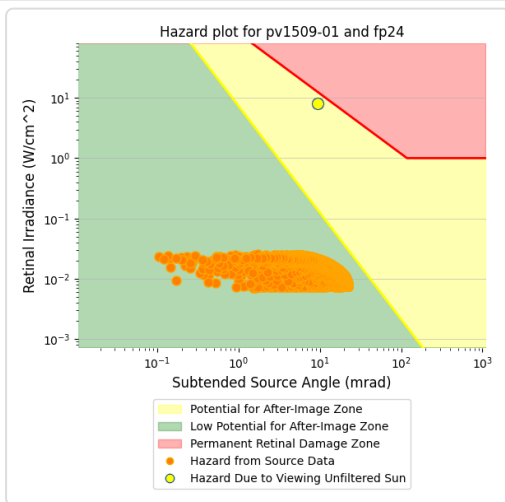
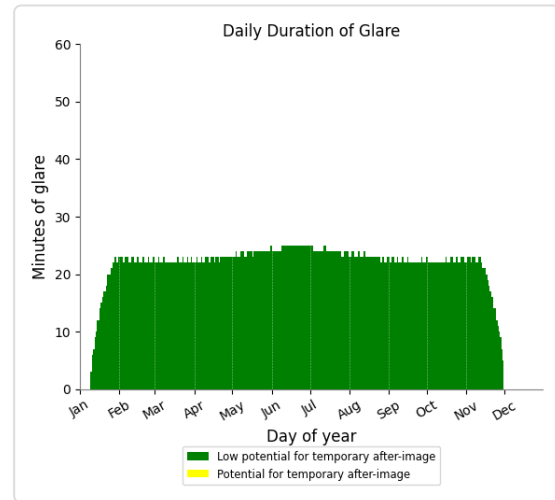
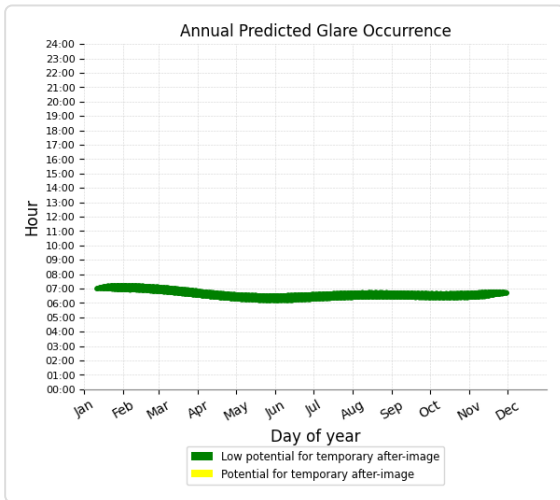
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	7,189	119.8	0	0.0
FP34	11,204	186.7	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1509_01 and FP: FP24

Yellow glare: none

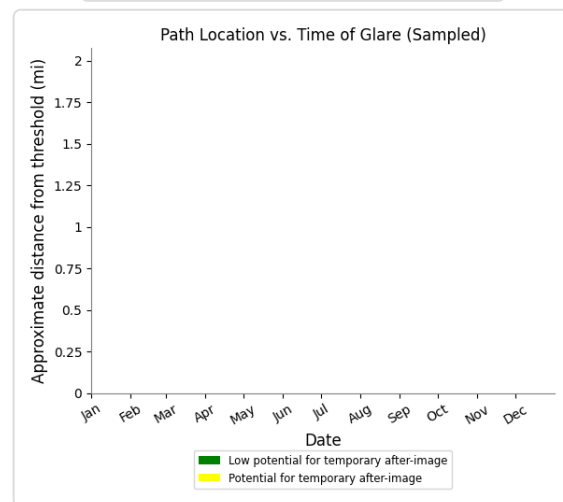
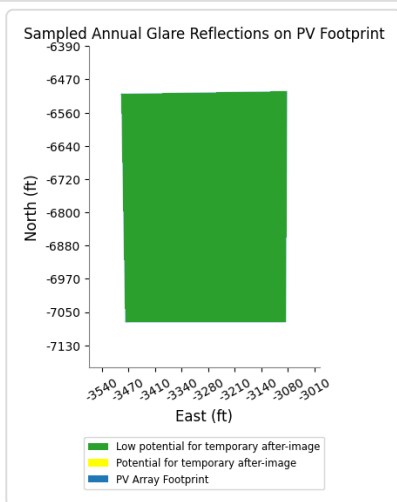
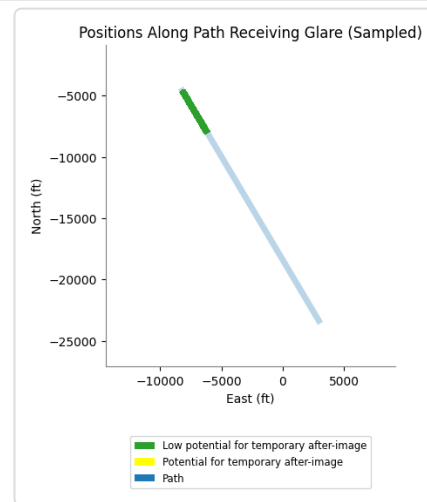
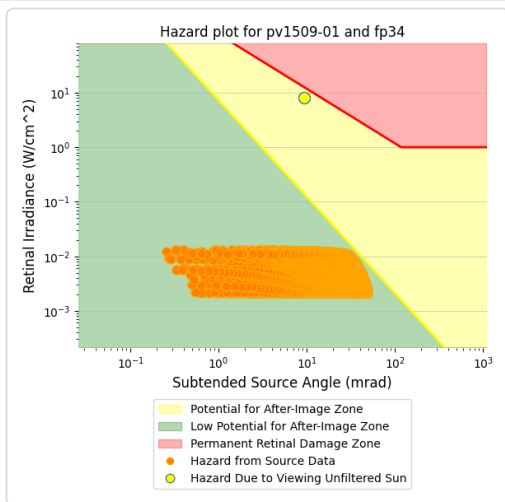
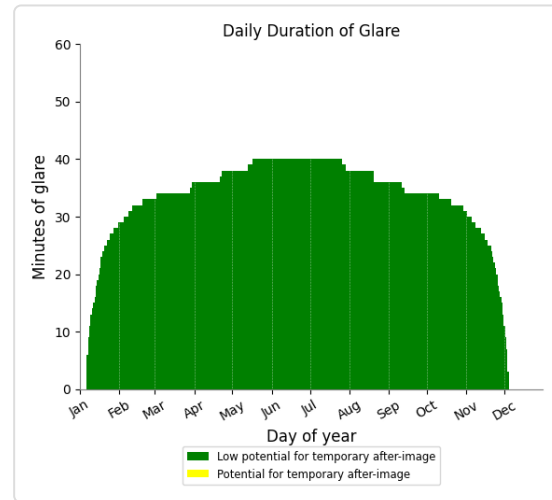
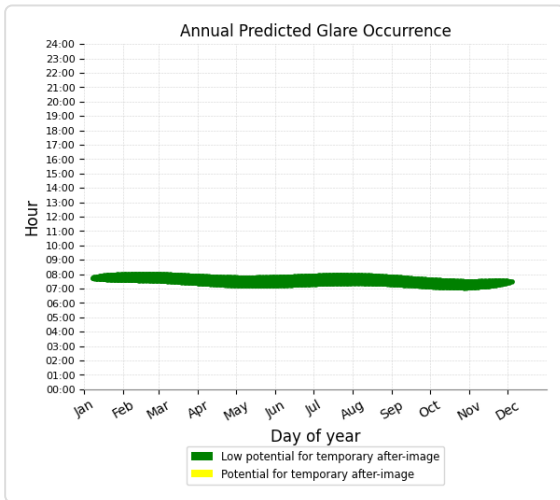
Green glare: 7,189 min.



PV1509_01 and FP: FP34

Yellow glare: none

Green glare: 11,204 min.



PV1509_01 and FP: FP17

No glare found

PV1509_01 and FP: FP18

No glare found

PV1509_01 and FP: FP19

No glare found

PV1509_01 and FP: FP20

No glare found

PV1509_01 and FP: FP21

No glare found

PV1509_01 and FP: FP22

No glare found

PV1509_01 and FP: FP23

No glare found

PV1509_01 and FP: FP25

No glare found

PV1509_01 and FP: FP26

No glare found

PV1509_01 and FP: FP27

No glare found

PV1509_01 and FP: FP28

No glare found

PV1509_01 and FP: FP29

No glare found

PV1509_01 and FP: FP30

No glare found

PV1509_01 and FP: FP31

No glare found

PV1509_01 and FP: FP32

No glare found

PV1509_01 and FP: FP33

No glare found

PV1509_01 and FP: FP35

No glare found

PV1509_01 and FP: FP36

No glare found

PV: PV1558_01 low potential for temporary after-image

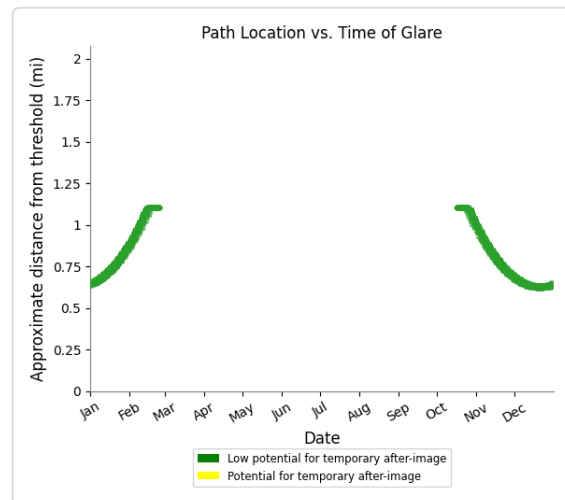
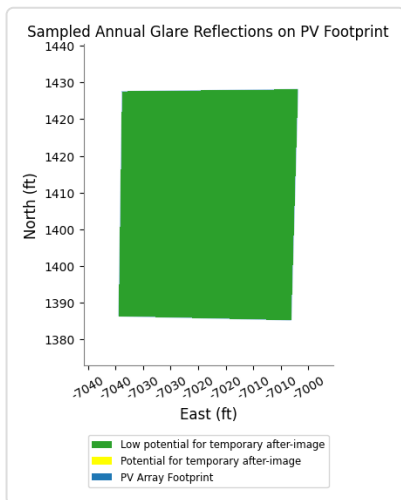
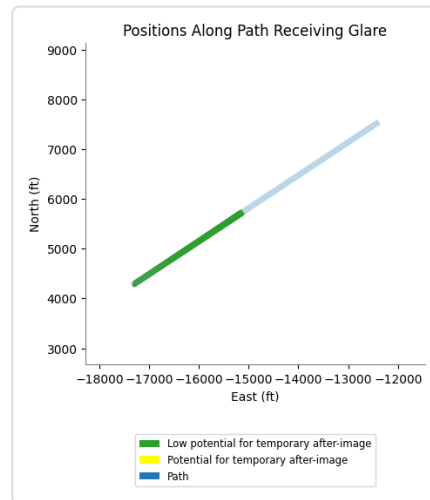
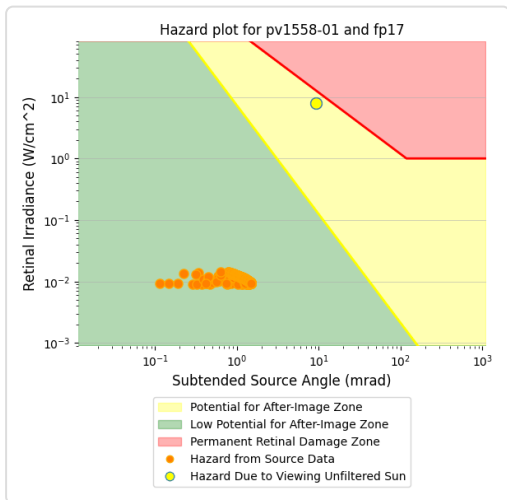
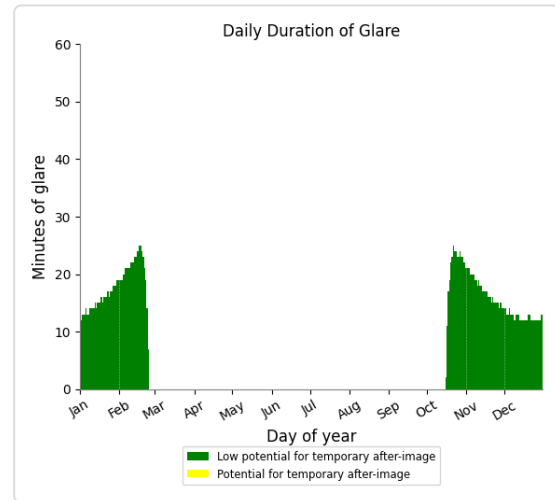
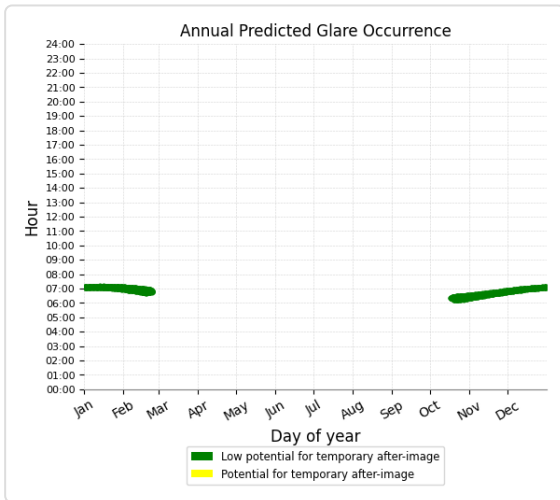
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	2,206	36.8	0	0.0
FP24	3,398	56.6	0	0.0
FP26	4,487	74.8	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1558_01 and FP: FP17

Yellow glare: none

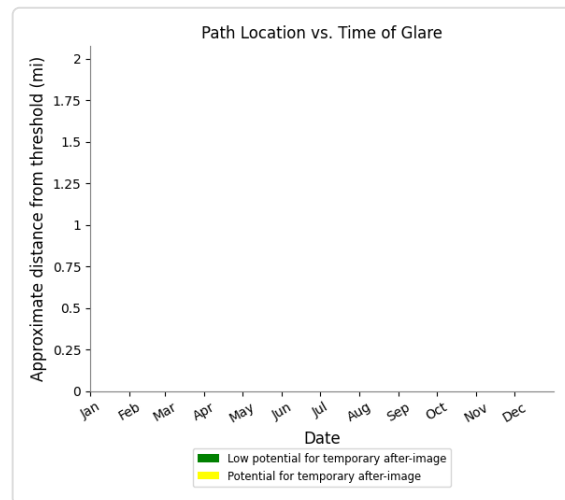
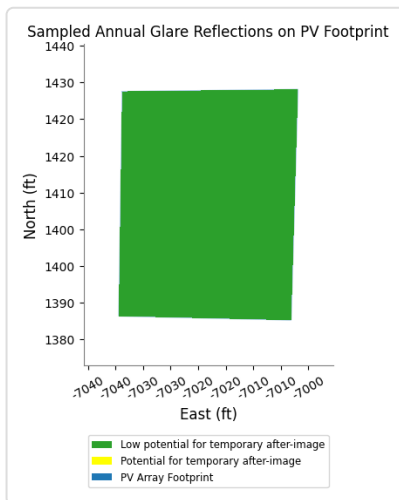
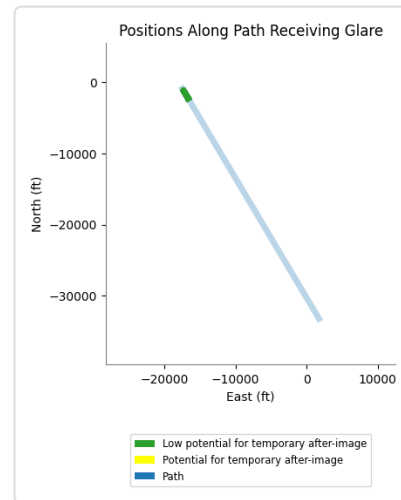
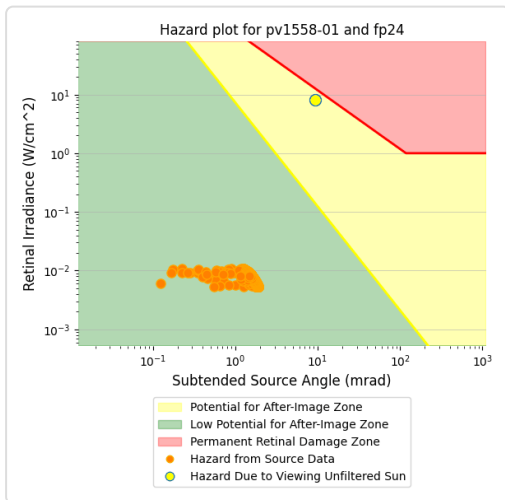
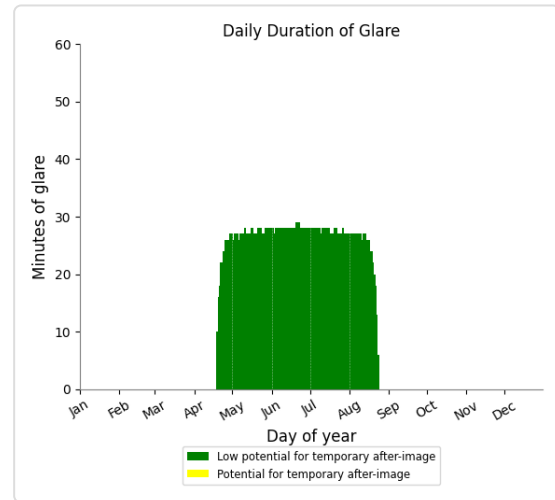
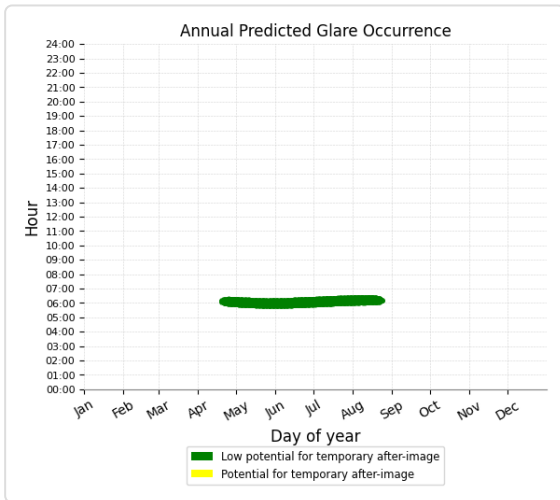
Green glare: 2,206 min.



PV1558_01 and FP: FP24

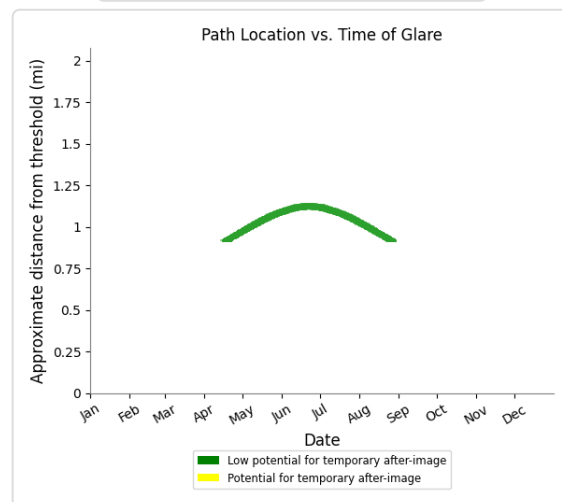
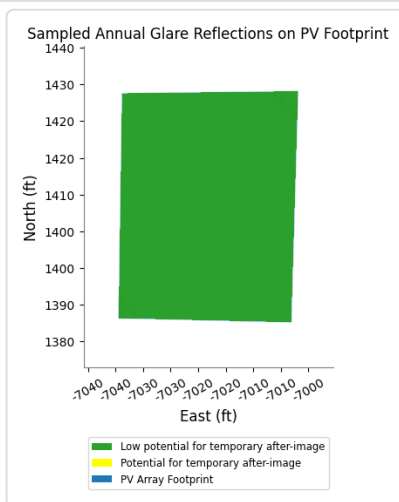
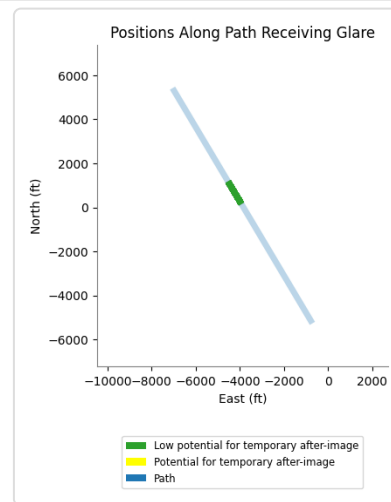
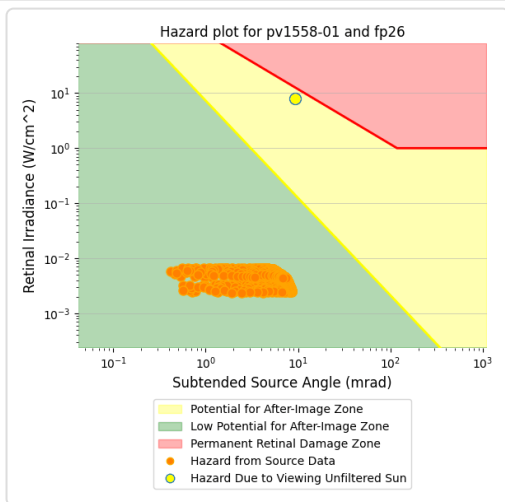
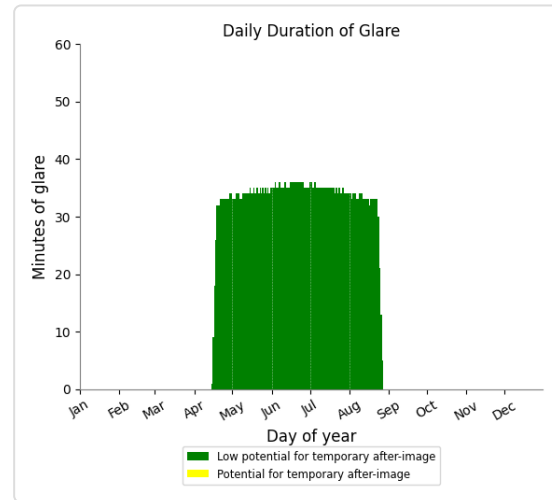
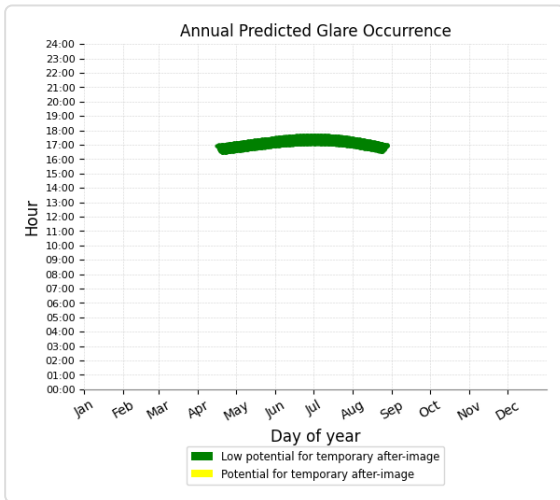
Yellow glare: none

Green glare: 3,398 min.



PV1558_01 and FP: FP26

Yellow glare: none
Green glare: 4,487 min.



PV1558_01 and FP: FP18

No glare found

PV1558_01 and FP: FP19

No glare found

PV1558_01 and FP: FP20

No glare found

PV1558_01 and FP: FP21

No glare found

PV1558_01 and FP: FP22

No glare found

PV1558_01 and FP: FP23

No glare found

PV1558_01 and FP: FP25

No glare found

PV1558_01 and FP: FP27

No glare found

PV1558_01 and FP: FP28

No glare found

PV1558_01 and FP: FP29

No glare found

PV1558_01 and FP: FP30

No glare found

PV1558_01 and FP: FP31

No glare found

PV1558_01 and FP: FP32

No glare found

PV1558_01 and FP: FP33

No glare found

PV1558_01 and FP: FP34

No glare found

PV1558_01 and FP: FP35

No glare found

PV1558_01 and FP: FP36

No glare found

PV: PV1558_02 low potential for temporary after-image

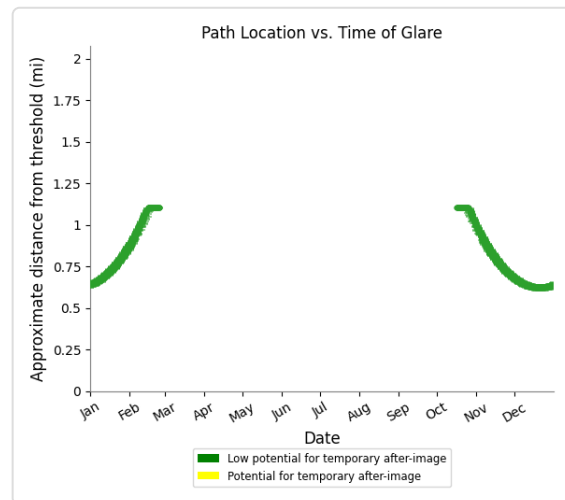
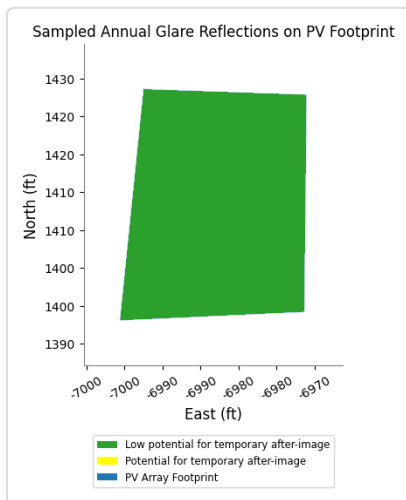
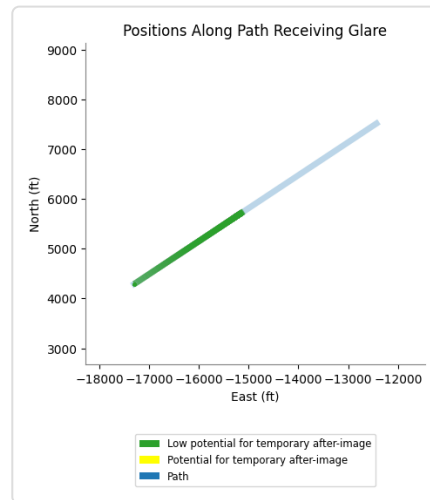
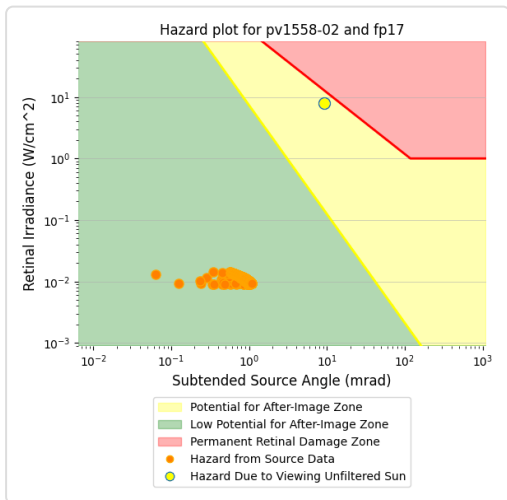
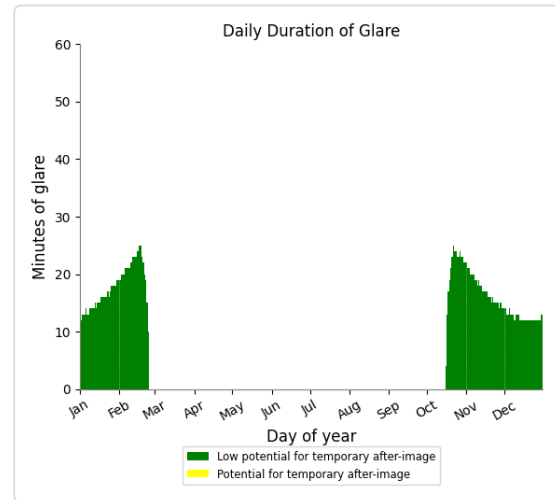
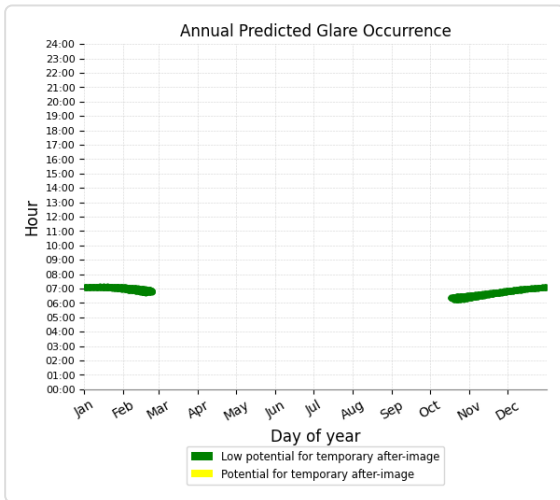
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	2,213	36.9	0	0.0
FP24	3,370	56.2	0	0.0
FP26	4,405	73.4	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1558_02 and FP: FP17

Yellow glare: none

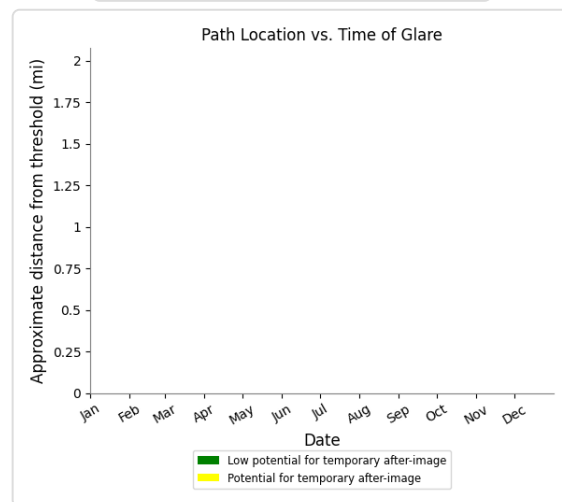
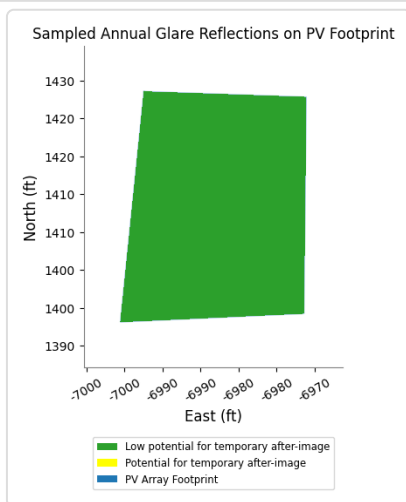
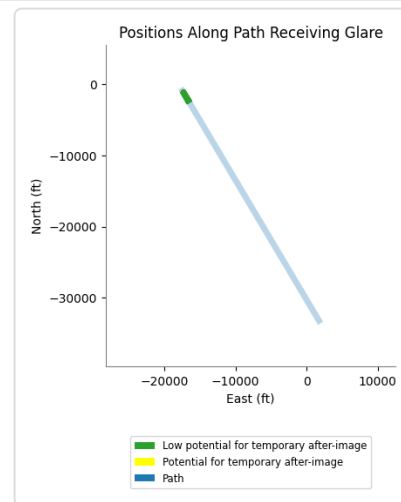
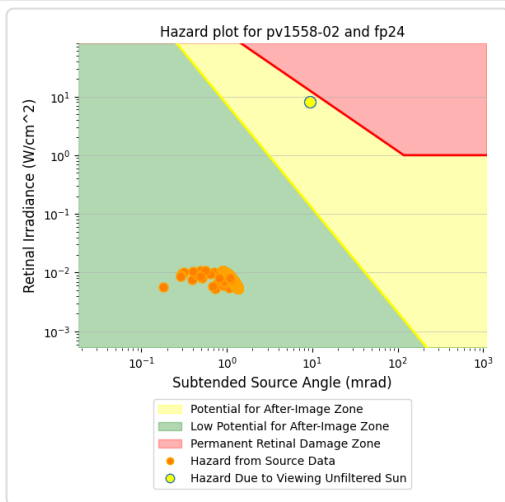
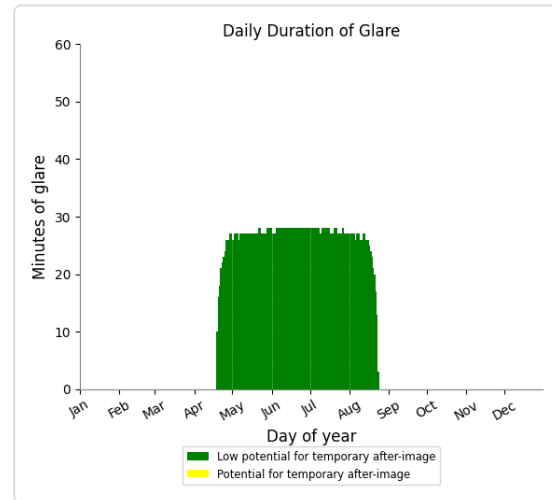
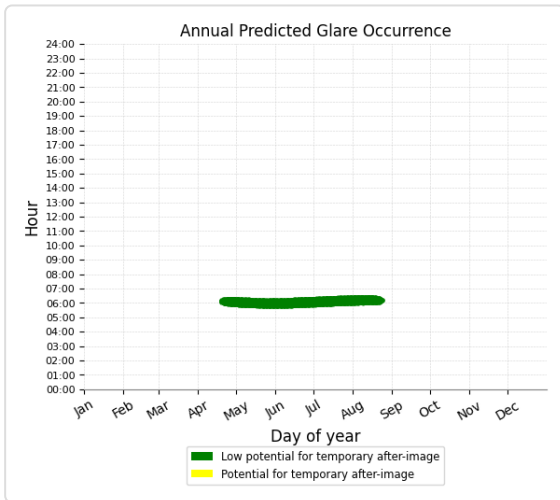
Green glare: 2,213 min.



PV1558_02 and FP: FP24

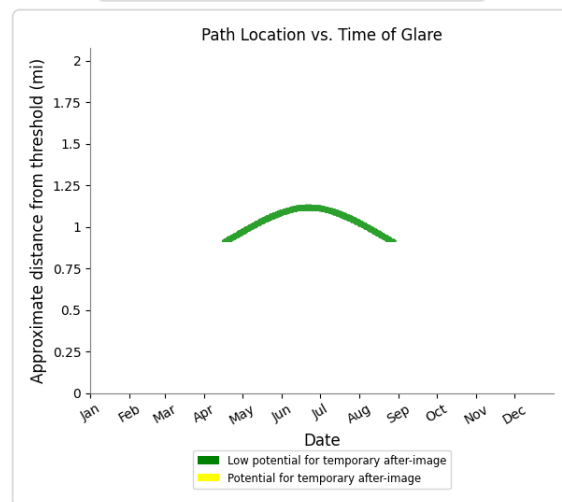
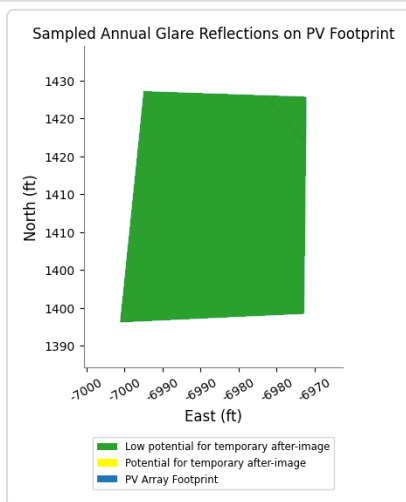
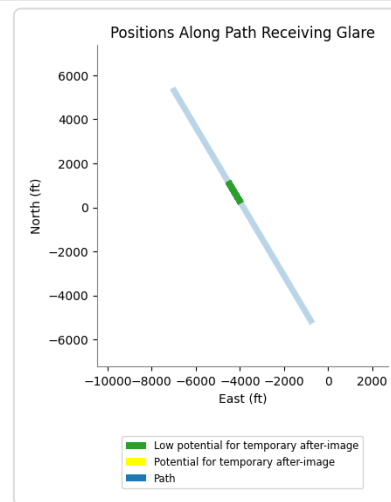
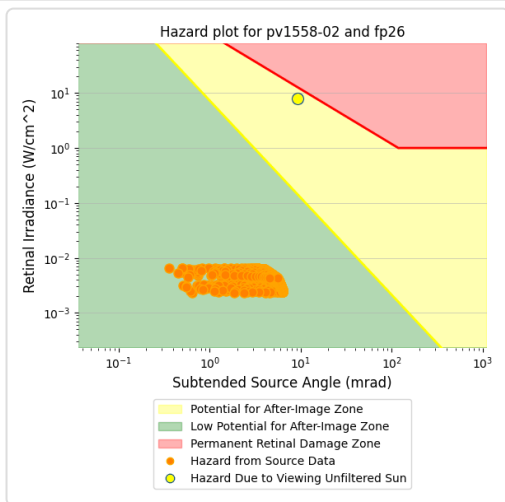
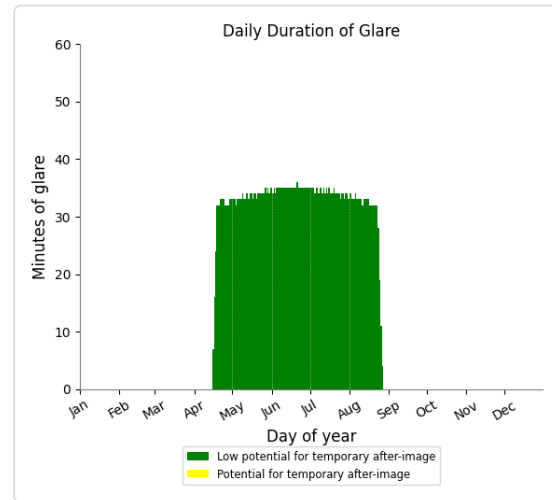
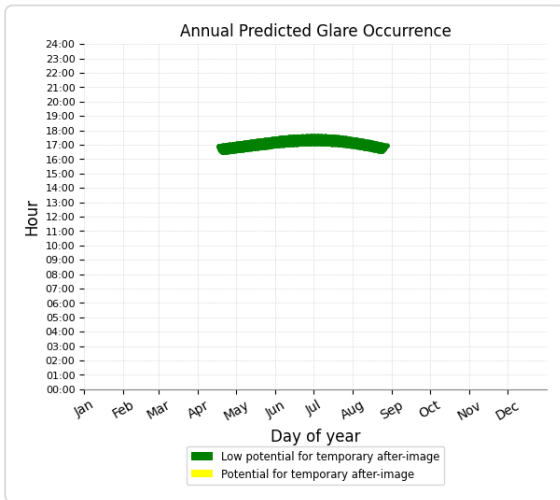
Yellow glare: none

Green glare: 3,370 min.



PV1558_02 and FP: FP26

Yellow glare: none
Green glare: 4,405 min.



PV1558_02 and FP: FP18

No glare found

PV1558_02 and FP: FP19

No glare found

PV1558_02 and FP: FP20

No glare found

PV1558_02 and FP: FP21

No glare found

PV1558_02 and FP: FP22

No glare found

PV1558_02 and FP: FP23

No glare found

PV1558_02 and FP: FP25

No glare found

PV1558_02 and FP: FP27

No glare found

PV1558_02 and FP: FP28

No glare found

PV1558_02 and FP: FP29

No glare found

PV1558_02 and FP: FP30

No glare found

PV1558_02 and FP: FP31

No glare found

PV1558_02 and FP: FP32

No glare found

PV1558_02 and FP: FP33

No glare found

PV1558_02 and FP: FP34

No glare found

PV1558_02 and FP: FP35

No glare found

PV1558_02 and FP: FP36

No glare found

PV: PV1558_03 low potential for temporary after-image

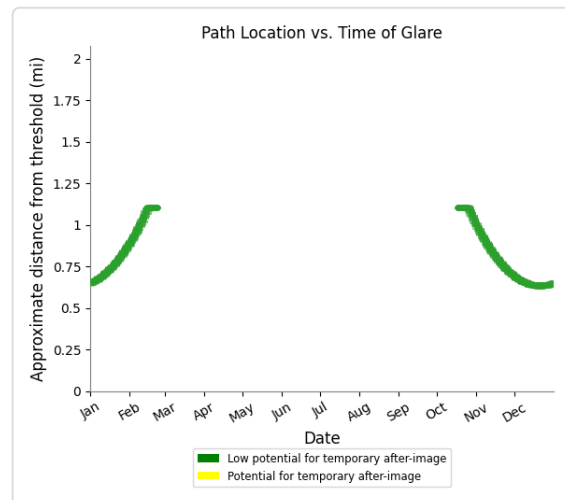
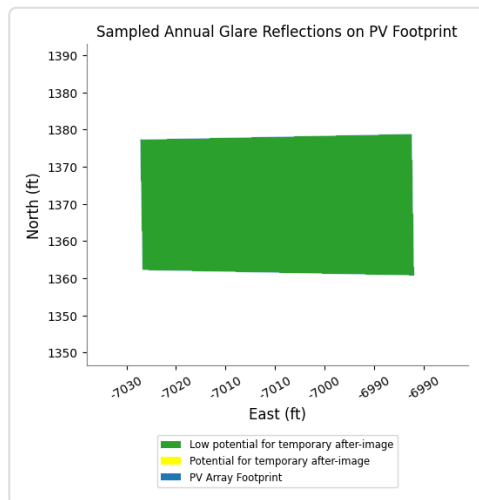
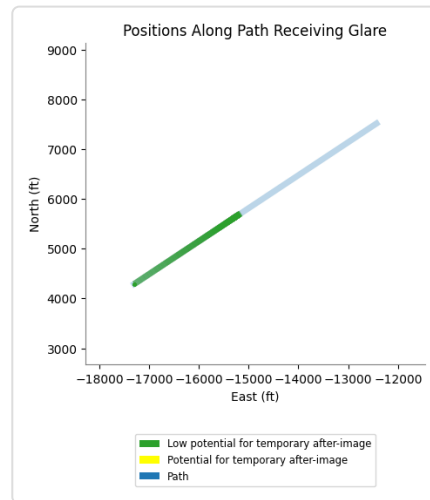
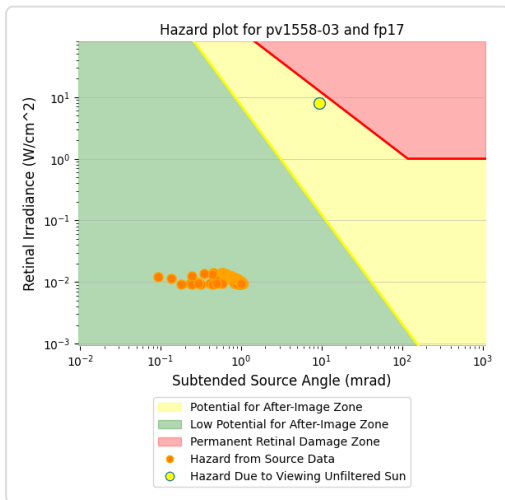
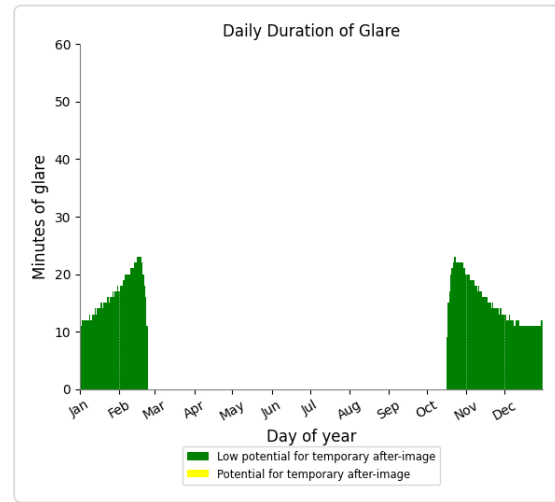
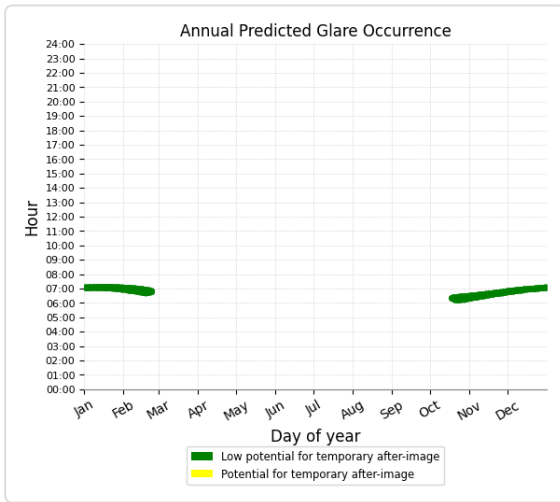
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	2,039	34.0	0	0.0
FP24	3,414	56.9	0	0.0
FP26	4,414	73.6	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1558_03 and FP: FP17

Yellow glare: none

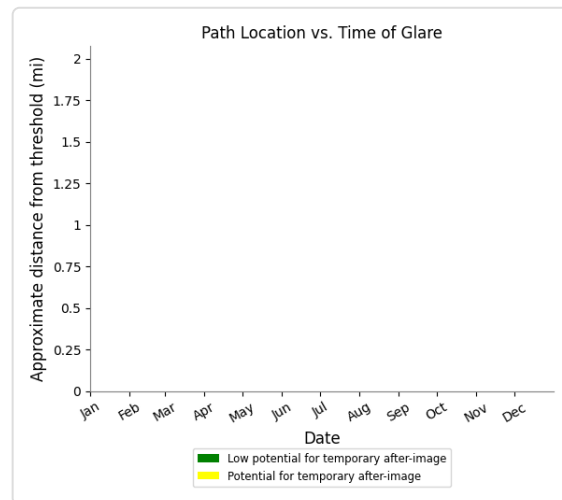
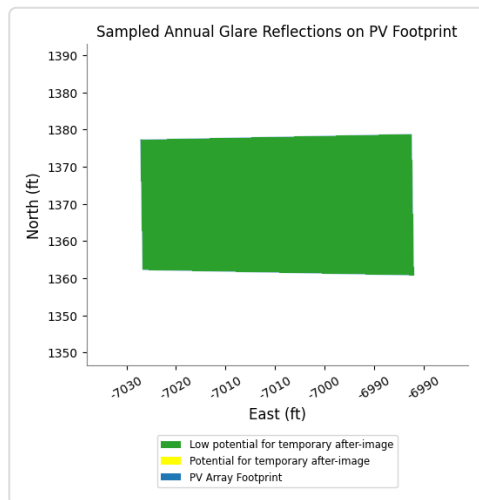
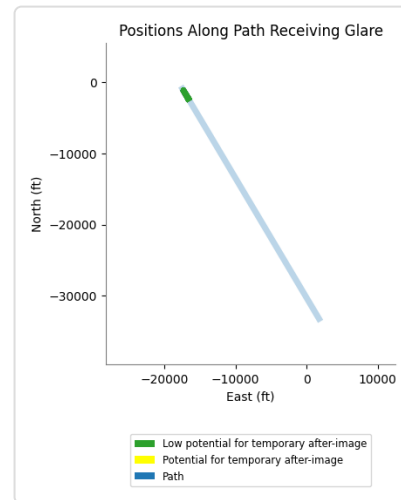
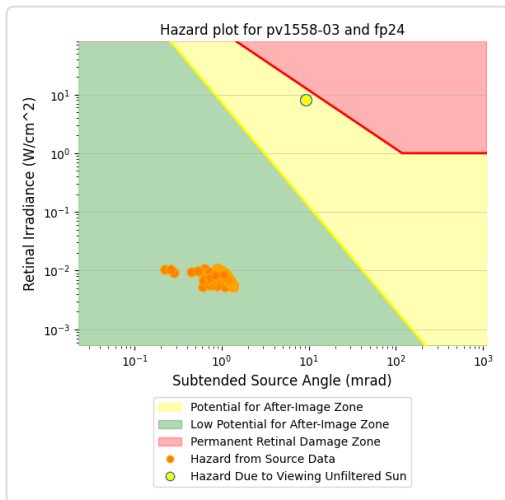
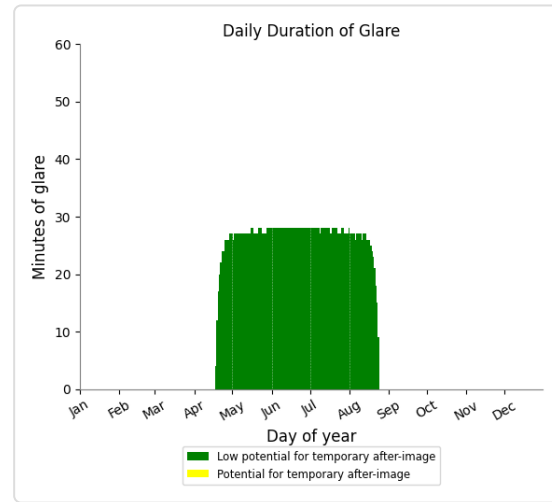
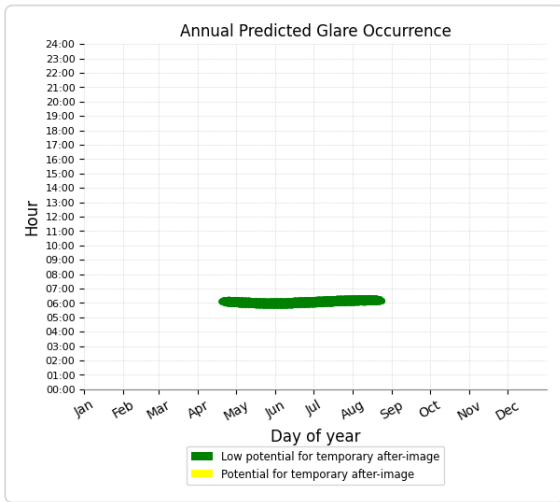
Green glare: 2,039 min.



PV1558_03 and FP: FP24

Yellow glare: none

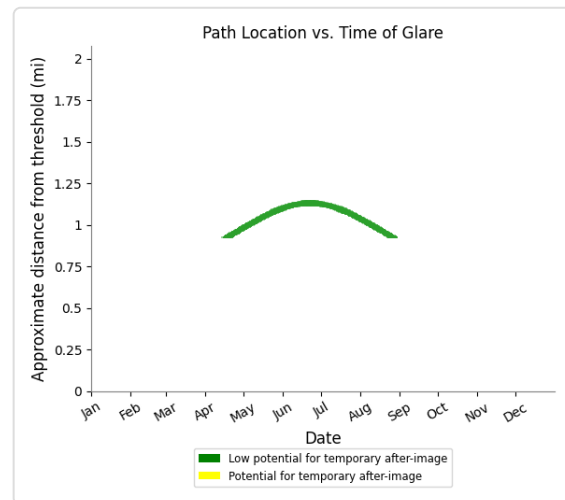
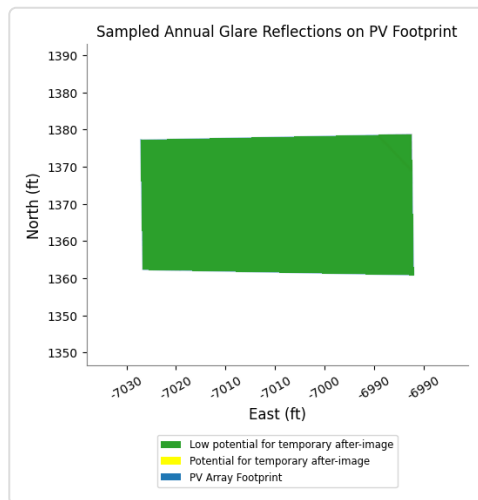
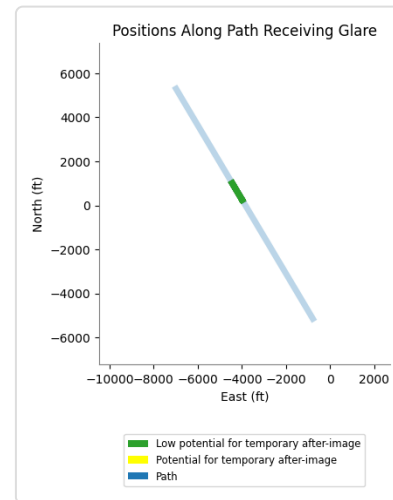
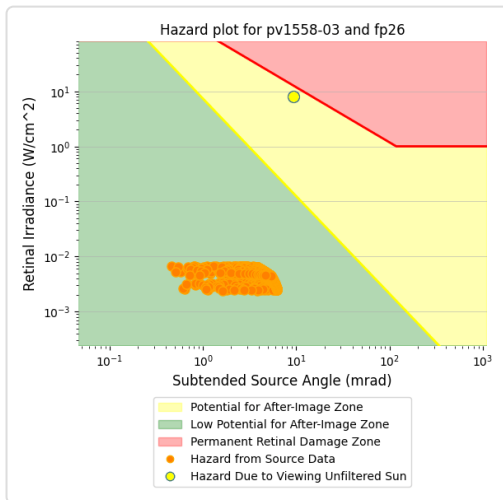
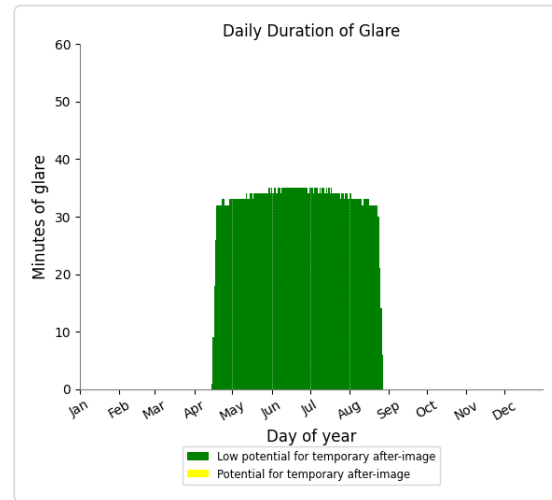
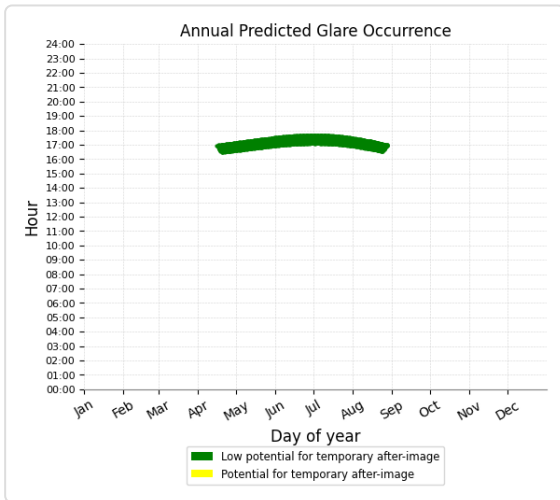
Green glare: 3,414 min.



PV1558_03 and FP: FP26

Yellow glare: none

Green glare: 4,414 min.



PV1558_03 and FP: FP18

No glare found

PV1558_03 and FP: FP19

No glare found

PV1558_03 and FP: FP20

No glare found

PV1558_03 and FP: FP21

No glare found

PV1558_03 and FP: FP22

No glare found

PV1558_03 and FP: FP23

No glare found

PV1558_03 and FP: FP25

No glare found

PV1558_03 and FP: FP27

No glare found

PV1558_03 and FP: FP28

No glare found

PV1558_03 and FP: FP29

No glare found

PV1558_03 and FP: FP30

No glare found

PV1558_03 and FP: FP31

No glare found

PV1558_03 and FP: FP32

No glare found

PV1558_03 and FP: FP33

No glare found

PV1558_03 and FP: FP34

No glare found

PV1558_03 and FP: FP35

No glare found

PV1558_03 and FP: FP36

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

FORGESOLAR GLARE ANALYSIS

Project: **March Air Reserve Base Cumulative Analysis Central A**

Site configuration: **Central A Overhead and Rwy 12_30 with ATCT 90View**

Created 10 Jul, 2023

Updated 13 Sep, 2023

Time-step 1 minute

Timezone offset UTC-8

Minimum sun altitude 0.0 deg

DNI peaks at 1,000.0 W/m²

Category 10 MW to 100 MW

Site ID 95006.16371

Ocular transmission coefficient 0.5

Pupil diameter 0.002 m

Eye focal length 0.017 m

Sun subtended angle 9.3 mrad

PV analysis methodology V2



Summary of Results

Glare with low potential for temporary after-image predicted

PV Array	Tilt °	Orient °	Annual Green Glare		Annual Yellow Glare		Energy kWh
			min	hr	min	hr	
PV1216_01	8.0	270.0	8,962	149.4	0	0.0	-
PV1216_02	8.0	90.0	202	3.4	0	0.0	-
PV1371_01	10.0	180.0	21,315	355.2	0	0.0	-
PV1371_02	10.0	180.0	19,878	331.3	0	0.0	-
PV1388_01	10.0	180.0	7,339	122.3	0	0.0	-
PV1388_02	10.0	180.0	6,212	103.5	0	0.0	-
PV1391_01	25.0	150.0	17,216	286.9	0	0.0	-
PV1391_02	10.0	180.0	16,159	269.3	0	0.0	-
PV1391_03	10.0	150.0	15,649	260.8	0	0.0	-
PV1391_04	10.0	150.0	14,920	248.7	0	0.0	-
PV1391_05	10.0	180.0	16,536	275.6	0	0.0	-
PV1391_06	10.0	150.0	14,178	236.3	0	0.0	-
PV1404_01	10.0	90.0	4,621	77.0	0	0.0	-
PV1488_01	10.0	160.0	22,602	376.7	0	0.0	-
PV1564_01	5.0	180.0	5,933	98.9	0	0.0	-
PV1566_01	10.0	180.0	6,051	100.8	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

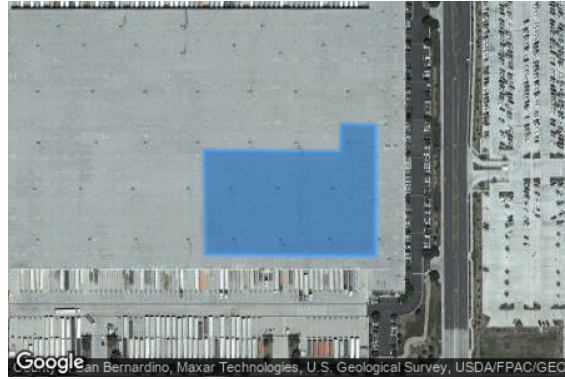
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP01	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP02	0	0.0	0	0.0
FP03	9,322	155.4	0	0.0
FP04	63,947	1,065.8	0	0.0
FP05	28,561	476.0	0	0.0
FP06	87,526	1,458.8	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	2,612	43.5	0	0.0
FP12	5,805	96.8	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

Component Data

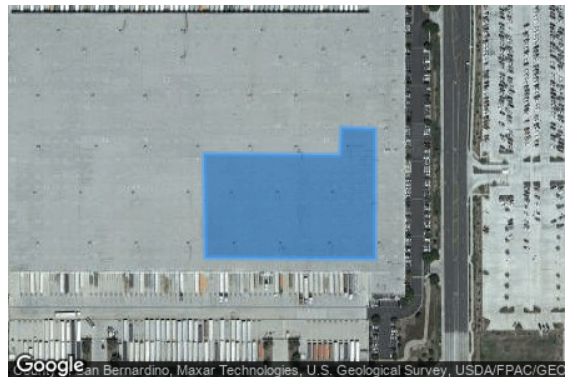
PV Arrays

Name: PV1216_01
Axis tracking: Fixed (no rotation)
Tilt: 8.0°
Orientation: 270.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.867474	-117.235526	1486.03	40.00	1526.03
2	33.867483	-117.236985	1481.42	40.00	1521.42
3	33.868223	-117.236996	1482.43	40.00	1522.43
4	33.868214	-117.235826	1484.09	40.00	1524.09
5	33.868410	-117.235816	1484.14	40.00	1524.14
6	33.868401	-117.235526	1485.23	40.00	1525.23

Name: PV1216_02
Axis tracking: Fixed (no rotation)
Tilt: 8.0°
Orientation: 90.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.867474	-117.235526	1486.03	40.00	1526.03
2	33.867483	-117.236985	1481.42	40.00	1521.42
3	33.868223	-117.236996	1482.43	40.00	1522.43
4	33.868214	-117.235826	1484.09	40.00	1524.09
5	33.868410	-117.235816	1484.14	40.00	1524.14
6	33.868401	-117.235526	1485.23	40.00	1525.23

Name: PV1371_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.861655	-117.271672	1617.08	48.00	1665.08
2	33.861644	-117.270914	1617.08	48.00	1665.08
3	33.861294	-117.270909	1617.08	48.00	1665.08
4	33.861293	-117.271675	1617.08	48.00	1665.08

Name: PV1371_02

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.865497	-117.271631	1597.08	48.00	1645.08
2	33.865494	-117.270857	1597.08	48.00	1645.08
3	33.865144	-117.270858	1597.08	48.00	1645.08
4	33.865148	-117.271642	1597.08	48.00	1645.08

Name: PV1388_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

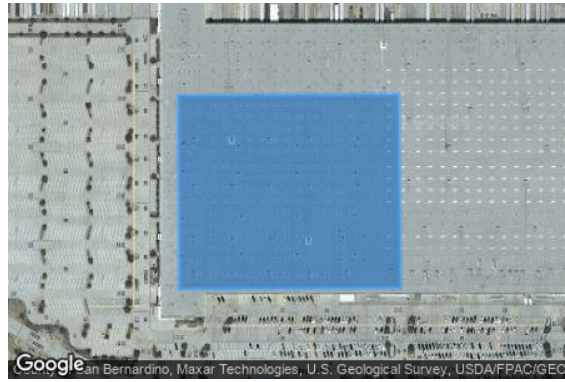
Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.872522	-117.240892	1472.07	42.00	1514.07
2	33.872531	-117.239001	1470.07	42.00	1512.07
3	33.871157	-117.238981	1474.07	42.00	1516.07
4	33.871148	-117.240882	1476.07	42.00	1518.07

Name: PV1388_02

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

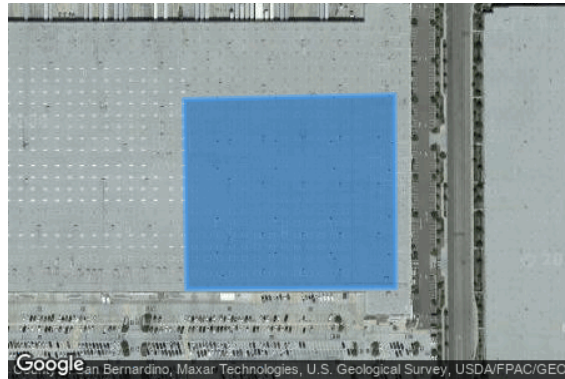
Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.872521	-117.235407	1476.07	42.00	1518.07
2	33.871147	-117.235397	1480.07	42.00	1522.07
3	33.871138	-117.237195	1475.07	42.00	1517.07
4	33.872487	-117.237216	1471.07	42.00	1513.07

Name: PV1391_01

Axis tracking: Fixed (no rotation)

Tilt: 25.0°

Orientation: 150.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.859286	-117.260781	1532.67	20.00	1552.67
2	33.861540	-117.262616	1532.67	20.00	1552.67
3	33.862010	-117.261788	1524.97	20.00	1544.97
4	33.859830	-117.259933	1525.27	20.00	1545.27

Name: PV1391_02

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.862140	-117.262160	1532.67	20.00	1552.67
2	33.862110	-117.262160	1532.67	19.00	1551.67
3	33.862100	-117.262700	1524.97	19.00	1543.97
4	33.862130	-117.262700	1525.27	20.00	1545.27

Name: PV1391_03

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 150.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.861990	-117.262440	1532.67	20.00	1552.67
2	33.861900	-117.262370	1532.67	17.00	1549.67
3	33.861680	-117.262780	1524.97	17.00	1541.97
4	33.861770	-117.262850	1525.27	20.00	1545.27

Name: PV1391_04

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 150.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.861580	-117.262950	1532.67	20.00	1552.67
2	33.860850	-117.262400	1532.67	20.00	1552.67
3	33.860830	-117.262440	1524.97	19.00	1543.97
4	33.861560	-117.262990	1525.27	19.00	1544.27

Name: PV1391_05

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.859500	-117.259530	1532.67	20.00	1552.67
2	33.859410	-117.259460	1532.67	17.00	1549.67
3	33.859190	-117.259870	1524.97	17.00	1541.97
4	33.859280	-117.259940	1525.27	20.00	1545.27

Name: PV1391_06

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 150.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.859100	-117.259820	1532.67	20.00	1552.67
2	33.859060	-117.259820	1532.67	19.00	1551.67
3	33.859060	-117.260200	1524.97	19.00	1543.97
4	33.859100	-117.260200	1525.27	20.00	1545.27

Name: PV1404_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

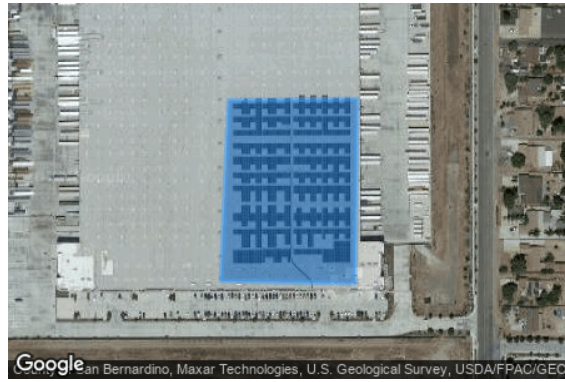
Orientation: 90.0°

Rated power: -

Panel material: Light textured glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.847374	-117.246103	1481.22	52.00	1533.22
2	33.847383	-117.244998	1479.53	52.00	1531.53
3	33.846073	-117.245019	1478.97	52.00	1530.97
4	33.846091	-117.246167	1483.22	52.00	1535.22

Name: PV1488_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 160.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.861300	-117.267300	1583.57	48.00	1631.57
2	33.862380	-117.267290	1563.72	48.00	1611.72
3	33.862380	-117.269890	1564.01	48.00	1612.01
4	33.861290	-117.269900	1583.27	48.00	1631.27

Name: PV1564_01

Axis tracking: Fixed (no rotation)

Tilt: 5.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.858429	-117.234492	1467.90	34.25	1502.15
2	33.858428	-117.234361	1467.24	34.25	1501.49
3	33.858417	-117.234362	1467.24	34.25	1501.49
4	33.858418	-117.234049	1465.68	34.25	1499.93
5	33.858627	-117.234047	1465.69	34.25	1499.94
6	33.858624	-117.233745	1464.44	34.25	1498.69
7	33.858724	-117.233743	1464.45	34.25	1498.70
8	33.858720	-117.234509	1468.06	34.25	1502.31
9	33.858517	-117.234510	1468.19	34.25	1502.44
10	33.858518	-117.234494	1468.05	34.25	1502.30

Name: PV1566_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

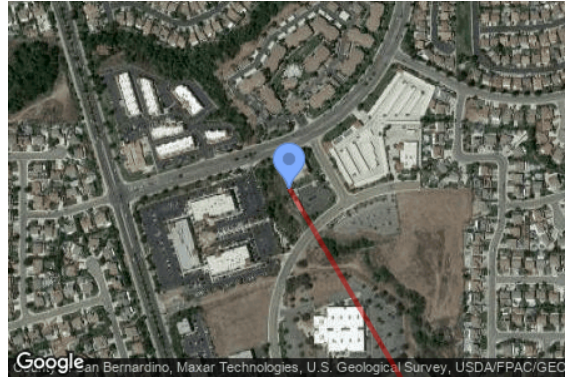
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.857000	-117.230100	1464.00	50.00	1514.00
2	33.857000	-117.229000	1462.00	50.00	1512.00
3	33.856700	-117.229000	1462.00	50.00	1512.00
4	33.856700	-117.230100	1464.00	50.00	1514.00

Flight Path Receptors

Name: FP01
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.908131	-117.325528	0.00	3500.00	3500.00
Two-mile	33.863564	-117.293808	0.00	3500.00	3500.00

Name: FP02
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896431	-117.270636	0.00	1550.00	1550.00
Two-mile	33.925156	-117.291061	0.00	3500.00	3500.00

Name: FP03
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Google Earth, San Bernardino, Maxar Technologies, U.S. Geological Survey, USDA/FPAC/GEO

Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.880706	-117.259453	0.00	3500.00	3500.00
Two-mile	33.968036	-117.322128	0.00	3500.00	3500.00

Name: FP04
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Google Earth, San Bernardino, Maxar Technologies, U.S. Geological Survey, USDA/FPAC/GEO

Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.819225	-117.262269	0.00	3500.00	3500.00
Two-mile	33.863564	-117.293808	0.00	3500.00	3500.00

Name: FP05
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Google Earth, San Bernardino, Maxar Technologies, U.S. Geological Survey, USDA/FPAC/GEO

Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.864994	-117.248281	0.00	1550.00	1550.00
Two-mile	33.836269	-117.227869	0.00	3500.00	3500.00

Name: FP06
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



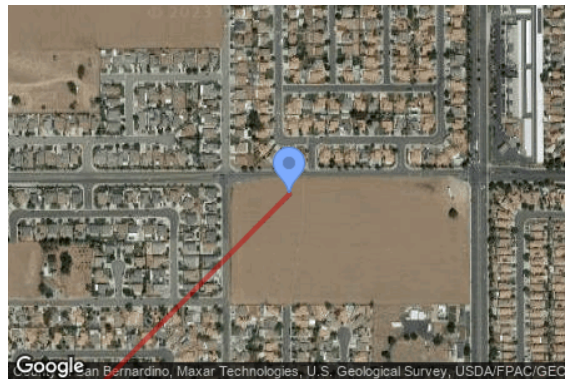
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.880706	-117.259453	0.00	3500.00	3500.00
Two-mile	33.793375	-117.196878	0.00	3500.00	3500.00

Name: FP07
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.905592	-117.270622	0.00	2800.00	2800.00
Two-mile	33.910322	-117.264967	0.00	2800.00	2800.00

Name: FP08
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.880814	-117.229467	0.00	2800.00	2800.00
Two-mile	33.876081	-117.235119	0.00	2800.00	2800.00

Name: FP09
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.910333	-117.256469	0.00	2800.00	2800.00
Two-mile	33.887897	-117.229483	0.00	2800.00	2800.00

Name: FP10
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



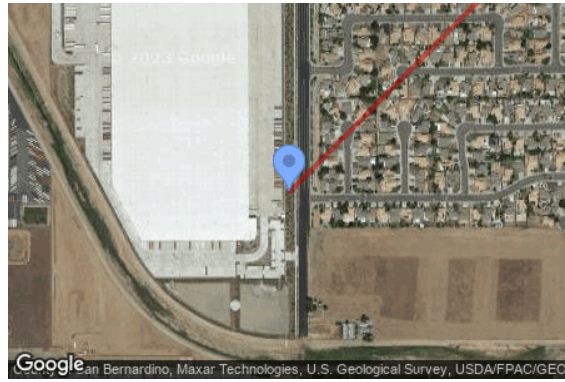
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.890258	-117.260681	0.00	1550.00	1550.00
Two-mile	33.898508	-117.270608	0.00	2800.00	2800.00

Name: FP11
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



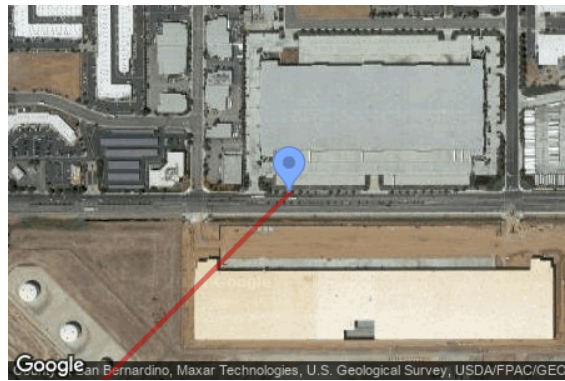
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.876069	-117.243611	0.00	2800.00	2800.00
Two-mile	33.884319	-117.253536	0.00	1550.00	1550.00

Name: FP12
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.876081	-117.235119	0.00	2800.00	2800.00
Two-mile	33.880814	-117.229467	0.00	2800.00	2800.00

Name: FP13
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.910322	-117.264967	0.00	2800.00	2800.00
Two-mile	33.905592	-117.270622	0.00	2800.00	2800.00

Name: FP14
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.887897	-117.229483	0.00	2800.00	2800.00
Two-mile	33.910333	-117.256469	0.00	2800.00	2800.00

Name: FP15
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.884319	-117.253536	0.00	1550.00	1550.00
Two-mile	33.876069	-117.243611	0.00	2800.00	2800.00

Name: FP16
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.898508	-117.270608	0.00	2800.00	2800.00
Two-mile	33.890258	-117.260681	0.00	1550.00	1550.00

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1510.00	118.00

Map image of 1-ATCT



Glare Analysis Results

Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV1216_01	8.0	270.0	8,962	149.4	0	0.0	-
PV1216_02	8.0	90.0	202	3.4	0	0.0	-
PV1371_01	10.0	180.0	21,315	355.2	0	0.0	-
PV1371_02	10.0	180.0	19,878	331.3	0	0.0	-
PV1388_01	10.0	180.0	7,339	122.3	0	0.0	-
PV1388_02	10.0	180.0	6,212	103.5	0	0.0	-
PV1391_01	25.0	150.0	17,216	286.9	0	0.0	-
PV1391_02	10.0	180.0	16,159	269.3	0	0.0	-
PV1391_03	10.0	150.0	15,649	260.8	0	0.0	-
PV1391_04	10.0	150.0	14,920	248.7	0	0.0	-
PV1391_05	10.0	180.0	16,536	275.6	0	0.0	-
PV1391_06	10.0	150.0	14,178	236.3	0	0.0	-
PV1404_01	10.0	90.0	4,621	77.0	0	0.0	-
PV1488_01	10.0	160.0	22,602	376.7	0	0.0	-
PV1564_01	5.0	180.0	5,933	98.9	0	0.0	-
PV1566_01	10.0	180.0	6,051	100.8	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	9,322	155.4	0	0.0
FP04	63,947	1,065.8	0	0.0
FP05	28,561	476.0	0	0.0
FP06	87,526	1,458.8	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	2,612	43.5	0	0.0
FP12	5,805	96.8	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV: PV1216_01 low potential for temporary after-image

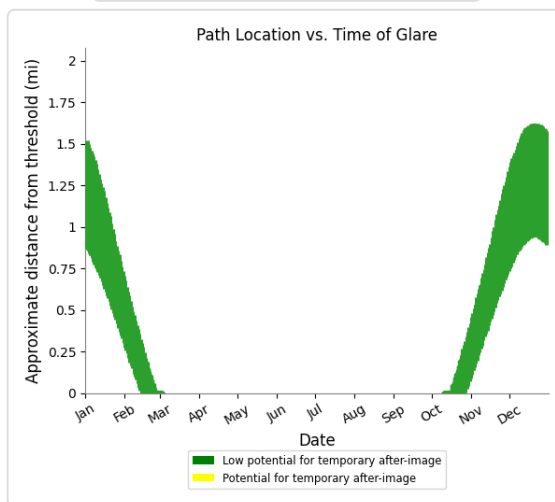
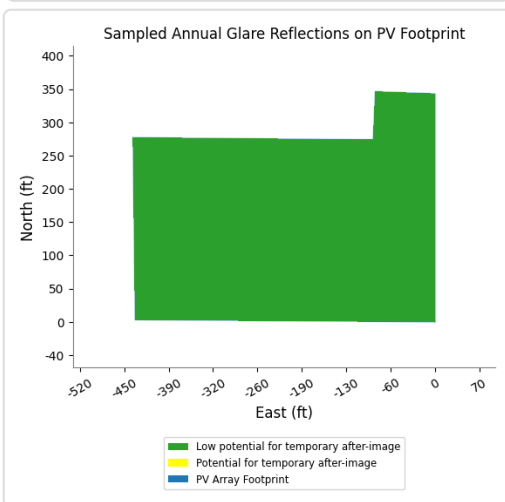
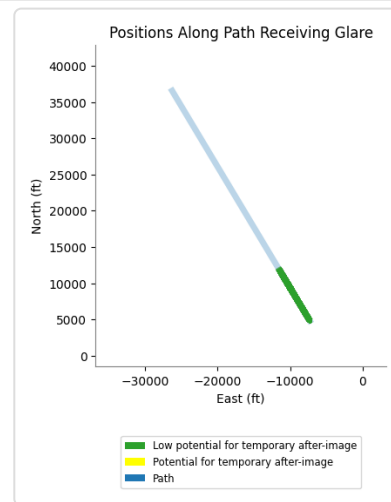
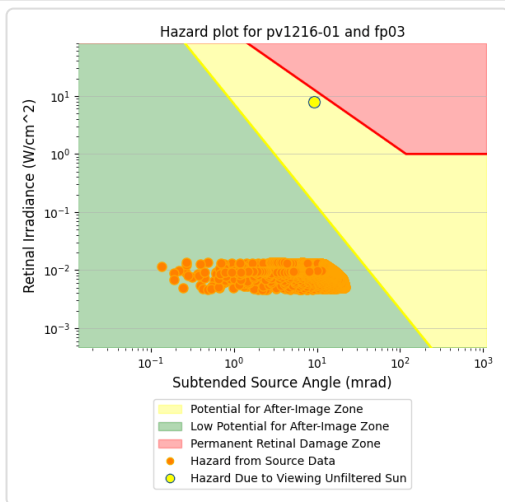
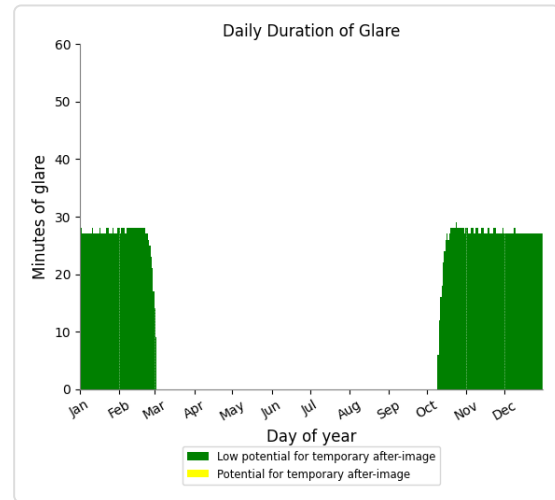
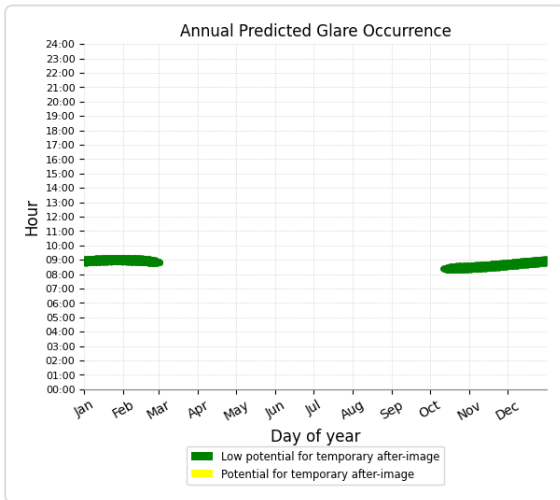
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP03	3,820	63.7	0	0.0
FP04	2,715	45.2	0	0.0
FP11	2,427	40.5	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1216_01 and FP: FP03

Yellow glare: none

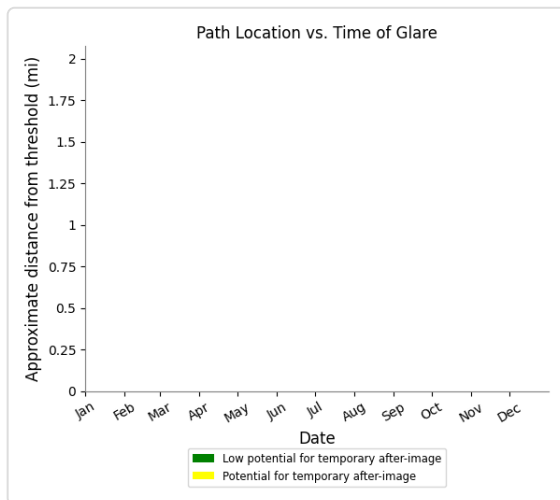
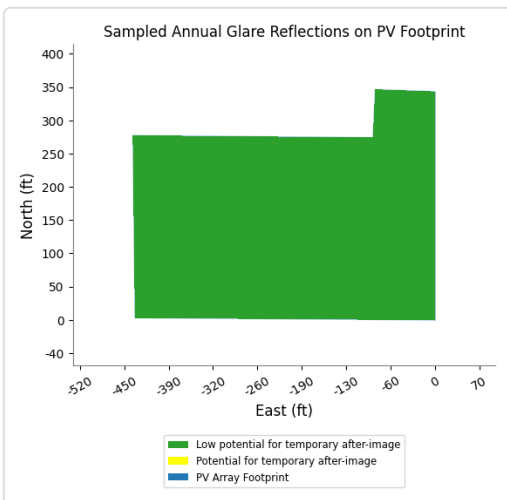
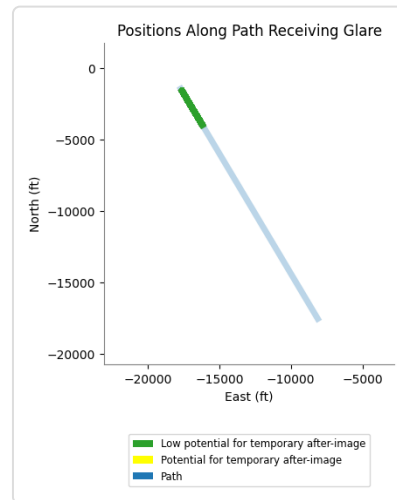
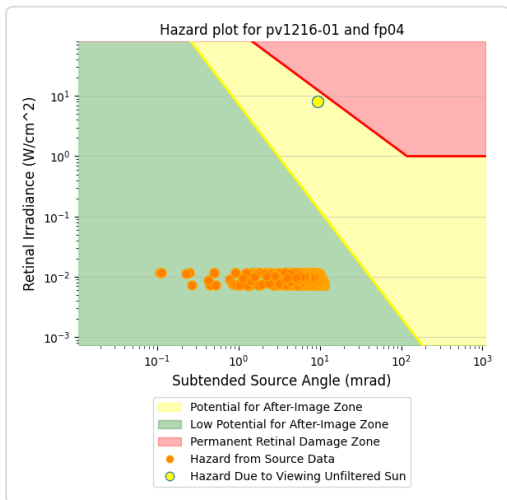
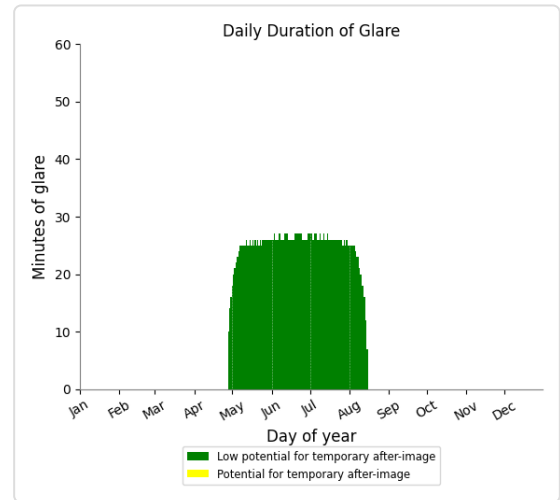
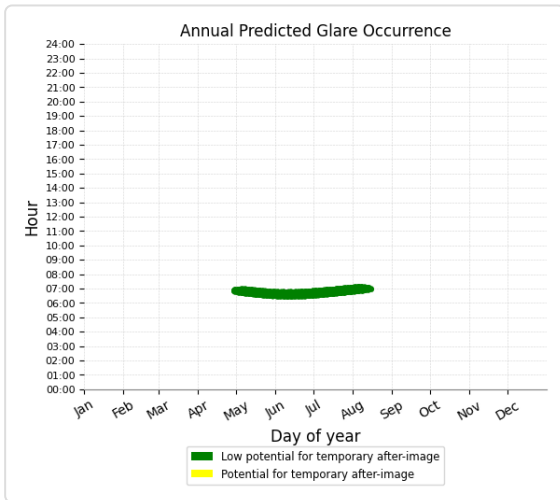
Green glare: 3,820 min.



PV1216_01 and FP: FP04

Yellow glare: none

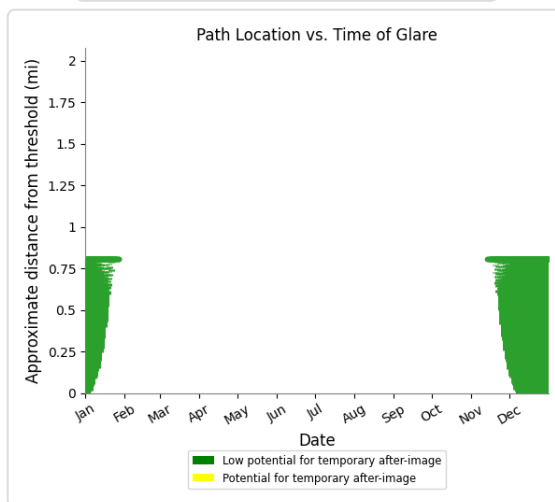
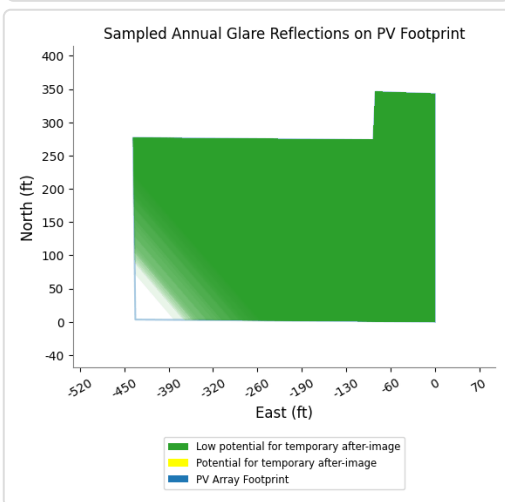
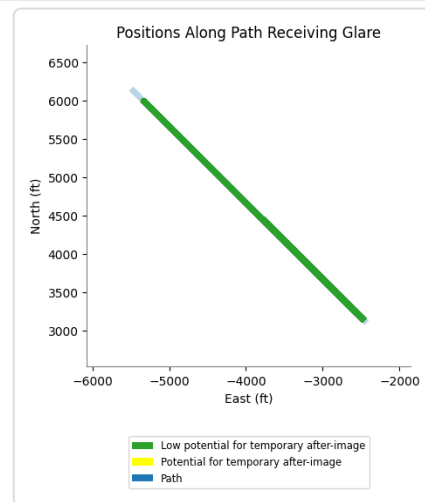
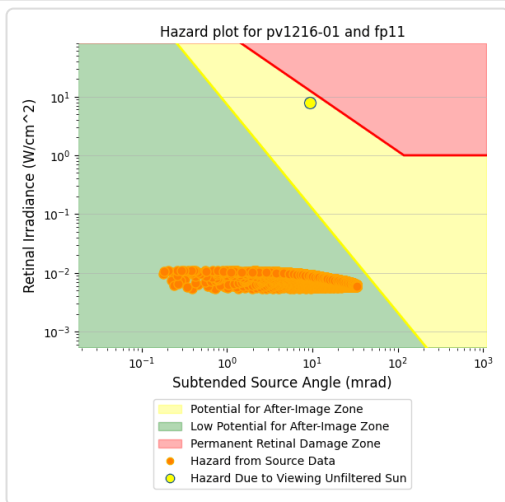
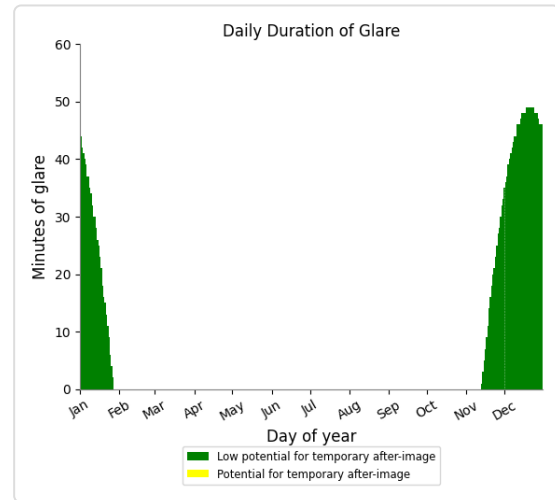
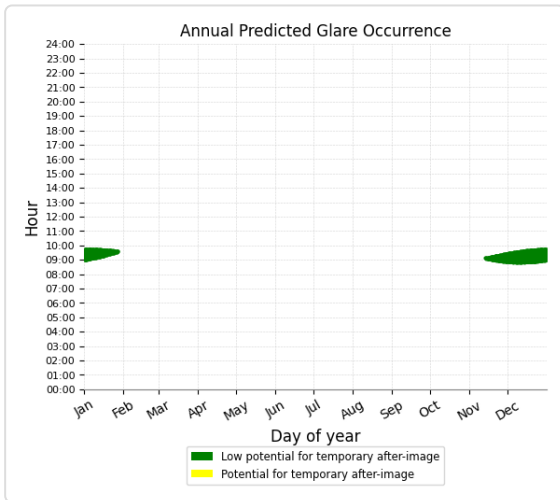
Green glare: 2,715 min.



PV1216_01 and FP: FP11

Yellow glare: none

Green glare: 2,427 min.



PV1216_01 and FP: FP01

No glare found

PV1216_01 and FP: FP02

No glare found

PV1216_01 and FP: FP05

No glare found

PV1216_01 and FP: FP06

No glare found

PV1216_01 and FP: FP07

No glare found

PV1216_01 and FP: FP08

No glare found

PV1216_01 and FP: FP09

No glare found

PV1216_01 and FP: FP10

No glare found

PV1216_01 and FP: FP12

No glare found

PV1216_01 and FP: FP13

No glare found

PV1216_01 and FP: FP14

No glare found

PV1216_01 and FP: FP15

No glare found

PV1216_01 and FP: FP16

No glare found

PV1216_01 and 1-ATCT

No glare found

PV: PV1216_02 low potential for temporary after-image

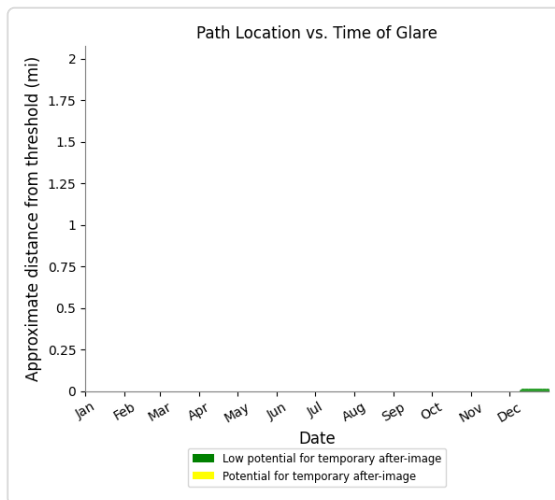
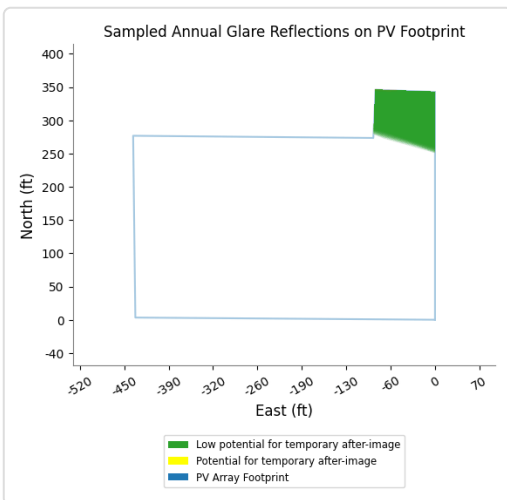
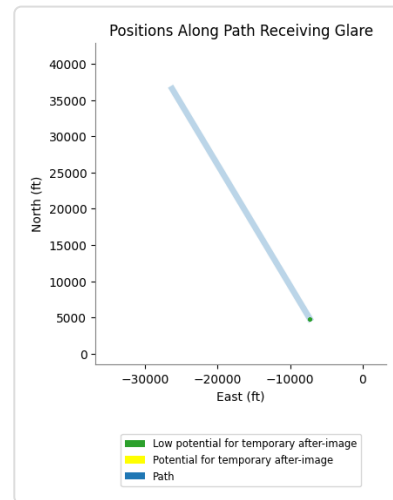
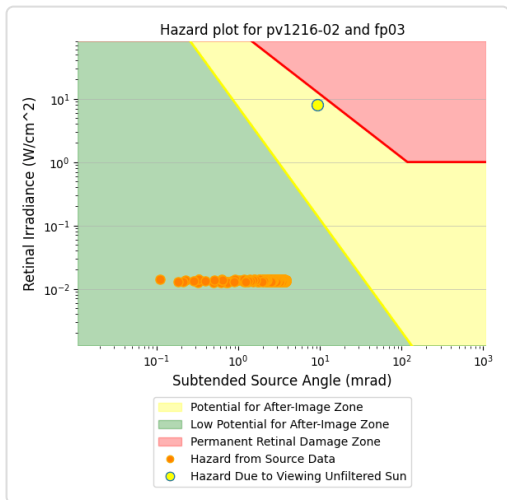
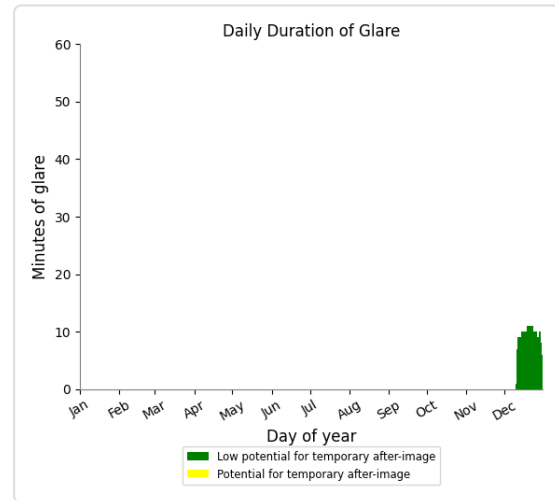
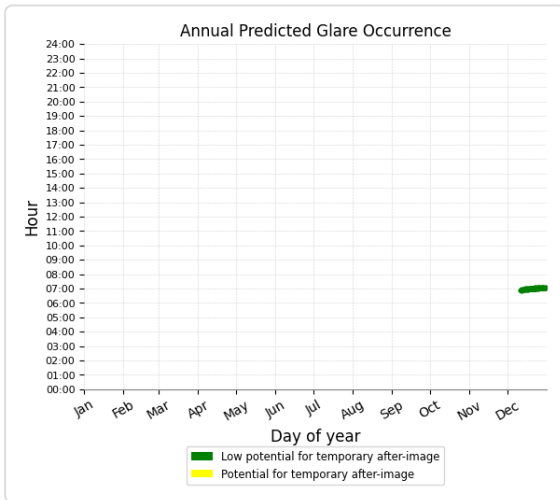
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP03	202	3.4	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1216_02 and FP: FP03

Yellow glare: none

Green glare: 202 min.



PV1216_02 and FP: FP01

No glare found

PV1216_02 and FP: FP02

No glare found

PV1216_02 and FP: FP04

No glare found

PV1216_02 and FP: FP05

No glare found

PV1216_02 and FP: FP06

No glare found

PV1216_02 and FP: FP07

No glare found

PV1216_02 and FP: FP08

No glare found

PV1216_02 and FP: FP09

No glare found

PV1216_02 and FP: FP10

No glare found

PV1216_02 and FP: FP11

No glare found

PV1216_02 and FP: FP12

No glare found

PV1216_02 and FP: FP13

No glare found

PV1216_02 and FP: FP14

No glare found

PV1216_02 and FP: FP15

No glare found

PV1216_02 and FP: FP16

No glare found

PV1216_02 and 1-ATCT

No glare found

PV: PV1371_01 low potential for temporary after-image

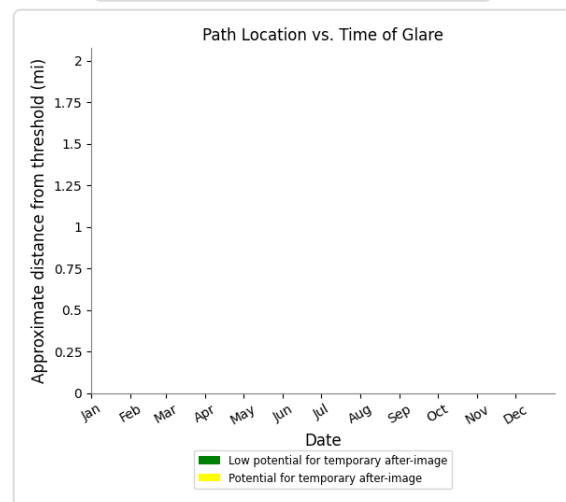
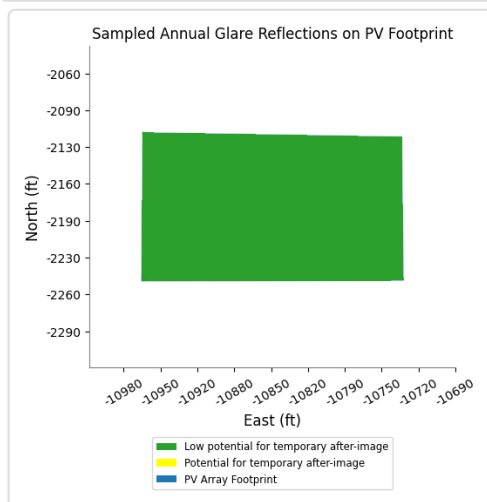
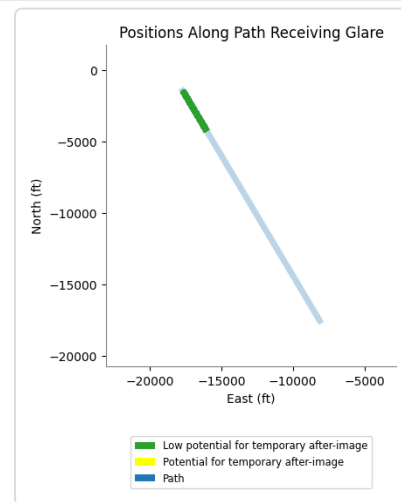
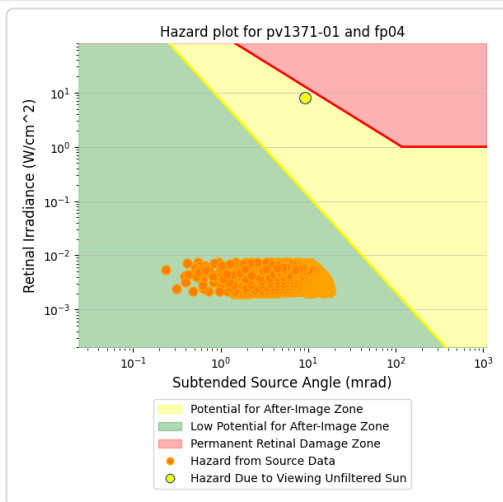
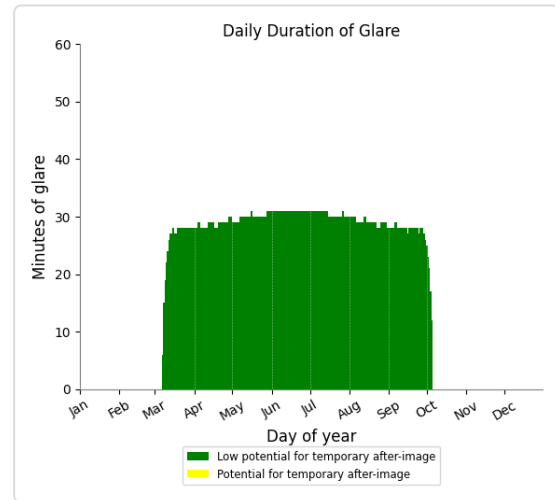
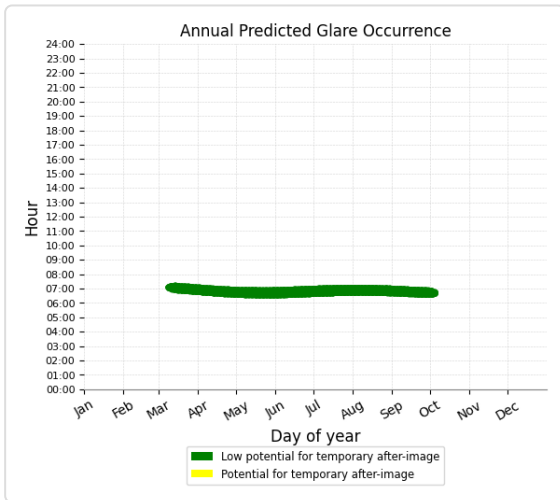
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	6,144	102.4	0	0.0
FP05	3,957	66.0	0	0.0
FP06	11,214	186.9	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1371_01 and FP: FP04

Yellow glare: none

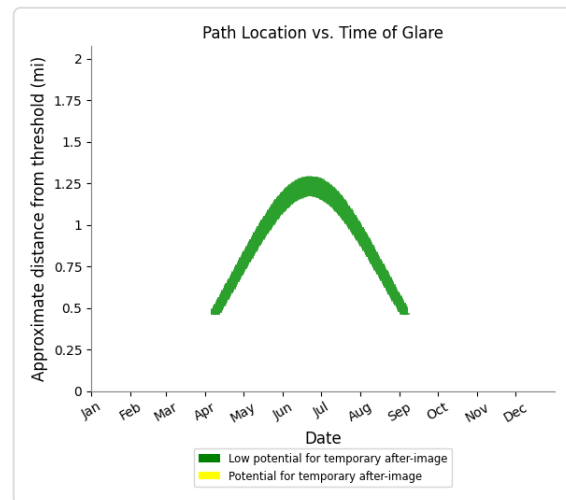
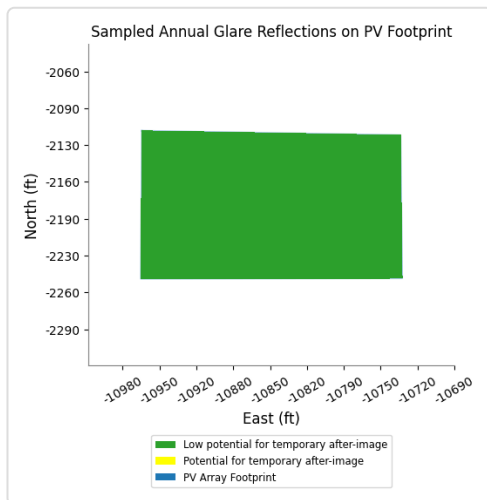
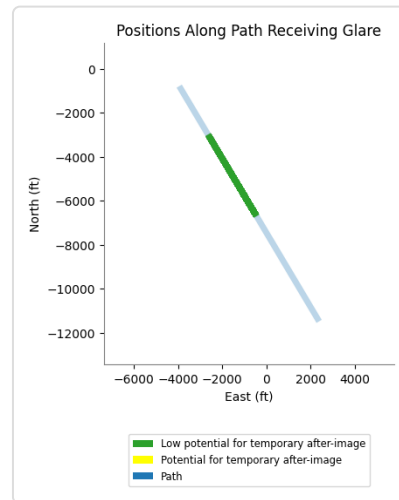
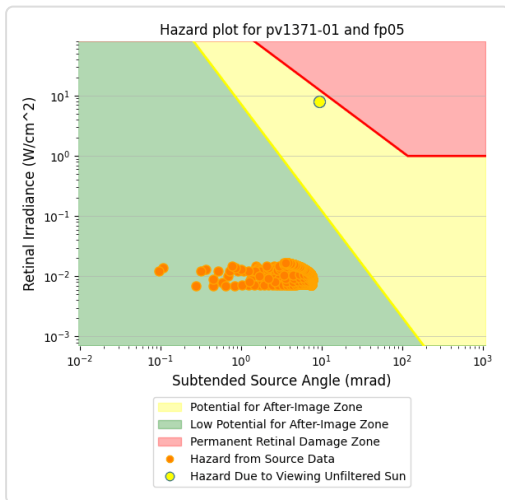
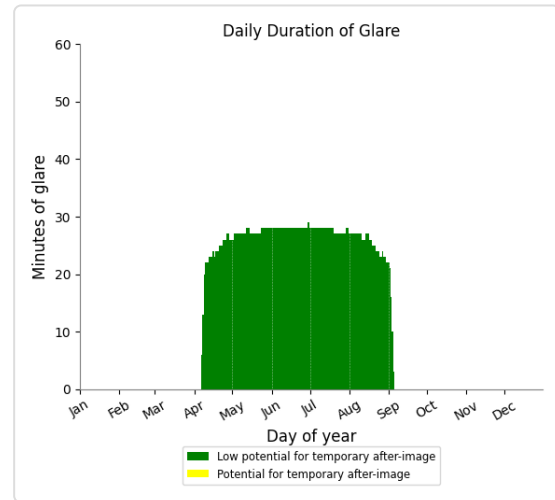
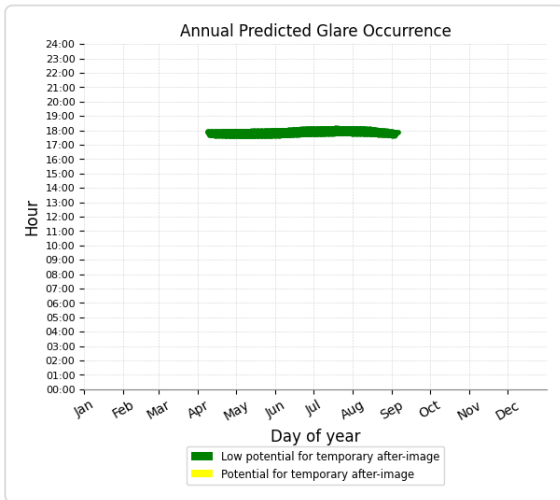
Green glare: 6,144 min.



PV1371_01 and FP: FP05

Yellow glare: none

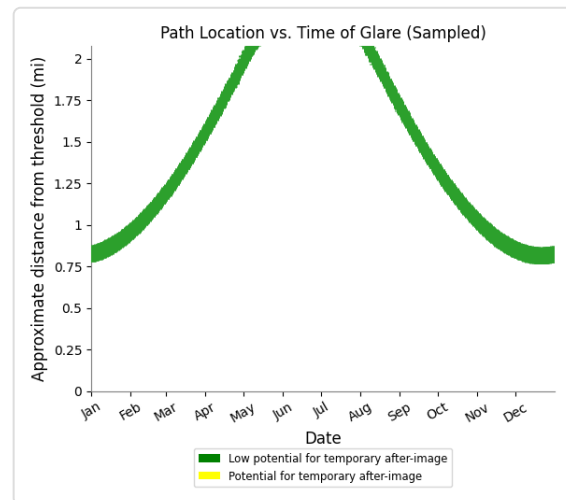
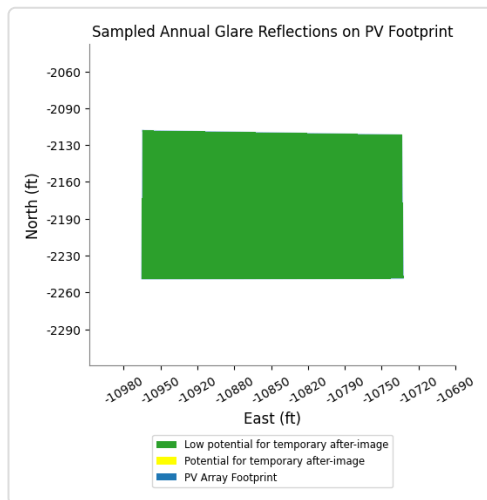
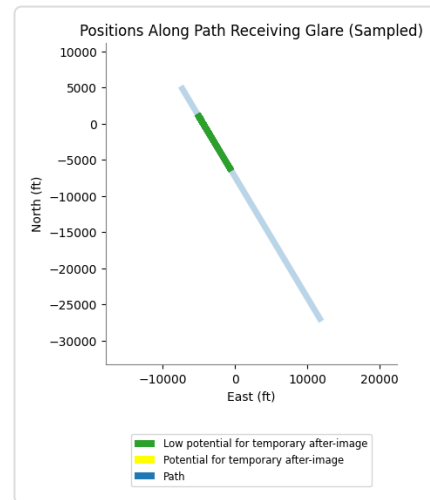
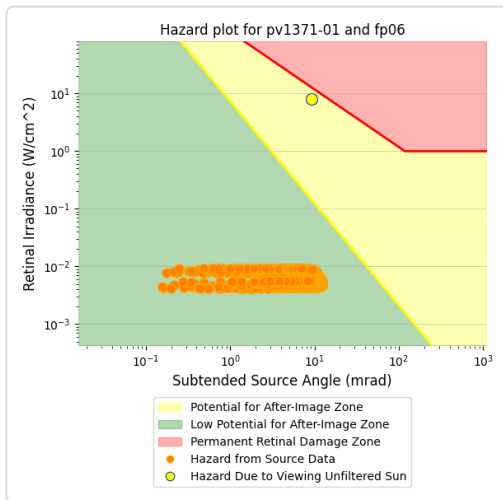
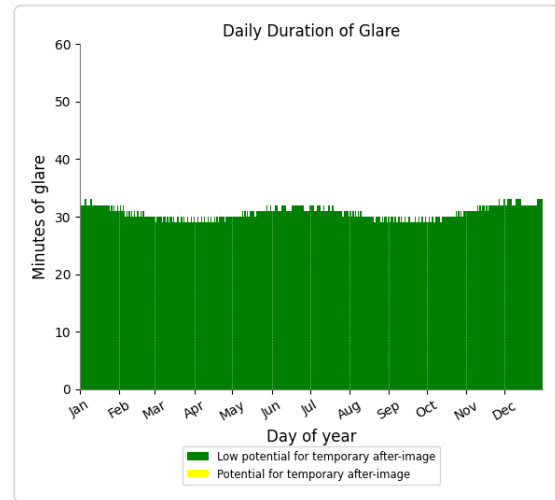
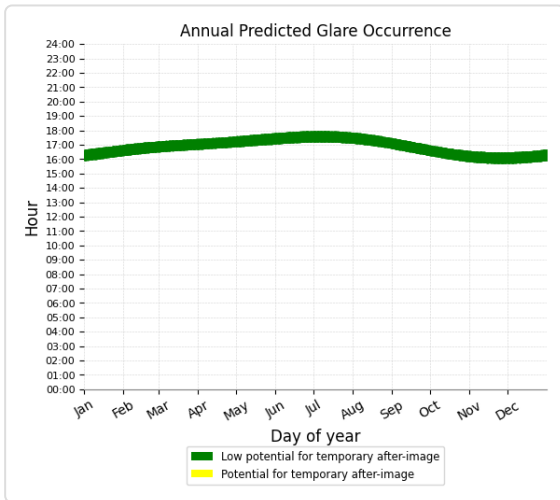
Green glare: 3,957 min.



PV1371_01 and FP: FP06

Yellow glare: none

Green glare: 11,214 min.



PV1371_01 and FP: FP01

No glare found

PV1371_01 and FP: FP02

No glare found

PV1371_01 and FP: FP03

No glare found

PV1371_01 and FP: FP07

No glare found

PV1371_01 and FP: FP08

No glare found

PV1371_01 and FP: FP09

No glare found

PV1371_01 and FP: FP10

No glare found

PV1371_01 and FP: FP11

No glare found

PV1371_01 and FP: FP12

No glare found

PV1371_01 and FP: FP13

No glare found

PV1371_01 and FP: FP14

No glare found

PV1371_01 and FP: FP15

No glare found

PV1371_01 and FP: FP16

No glare found

PV1371_01 and 1-ATCT

No glare found

PV: PV1371_02 low potential for temporary after-image

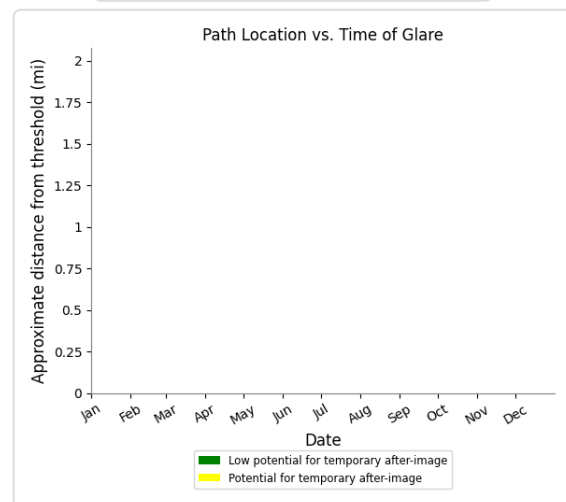
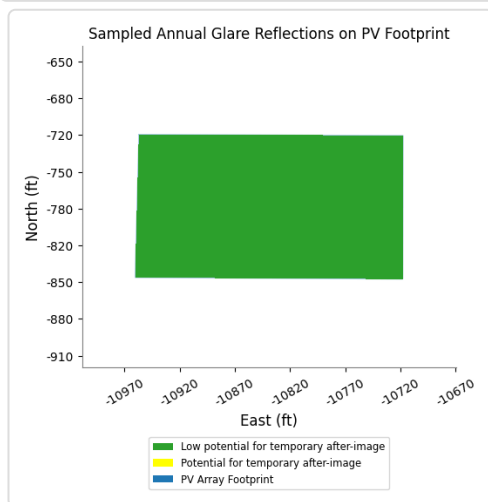
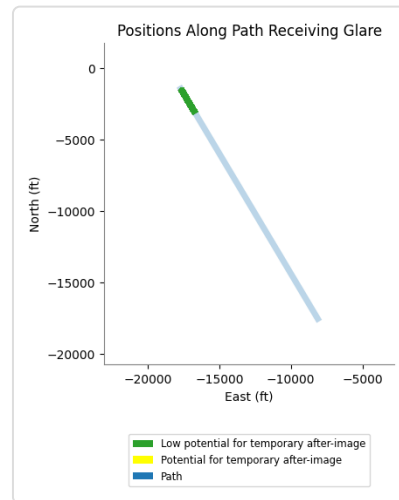
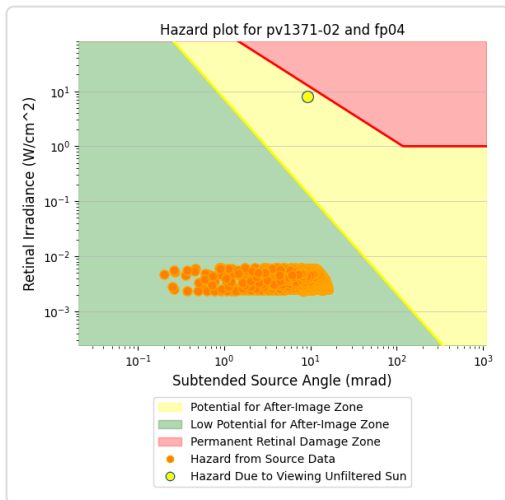
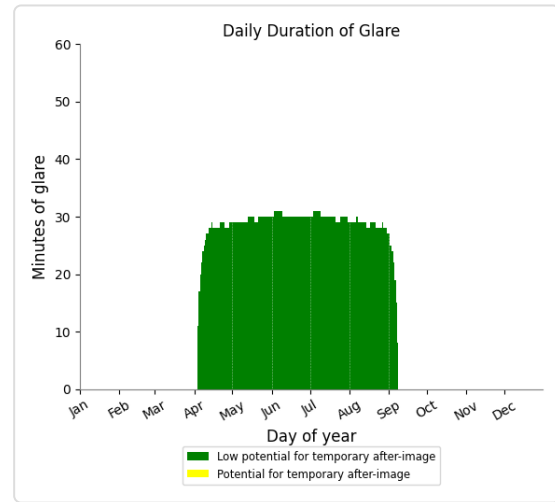
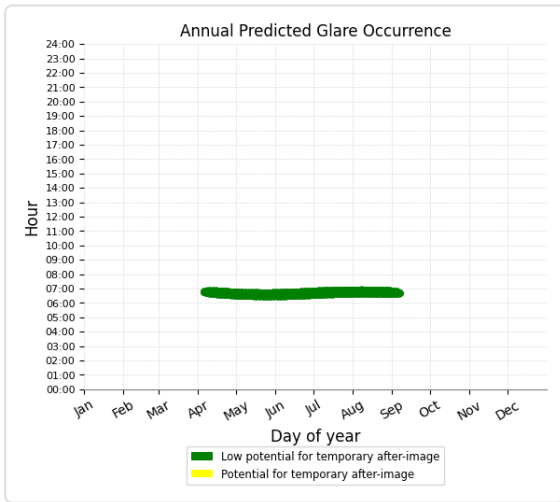
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	4,514	75.2	0	0.0
FP05	3,548	59.1	0	0.0
FP06	11,512	191.9	0	0.0
FP12	304	5.1	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1371_02 and FP: FP04

Yellow glare: none

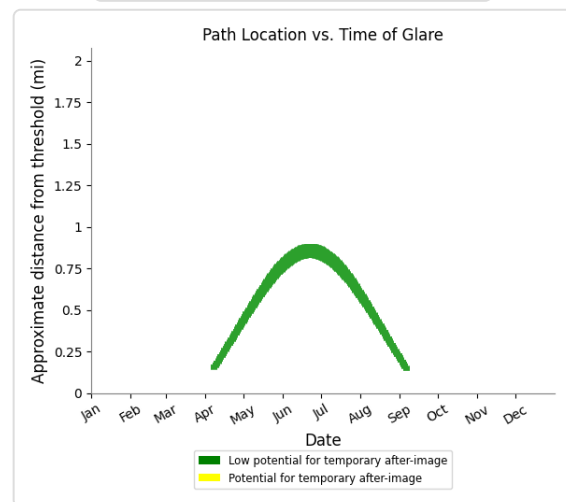
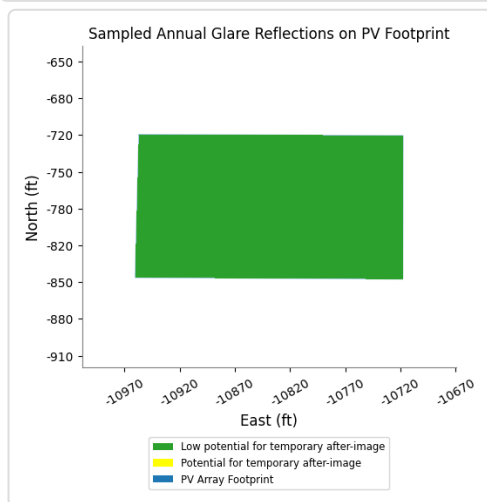
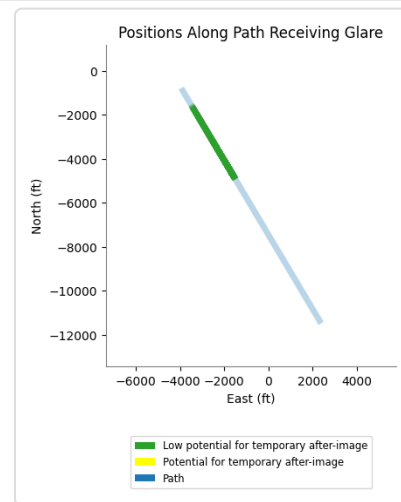
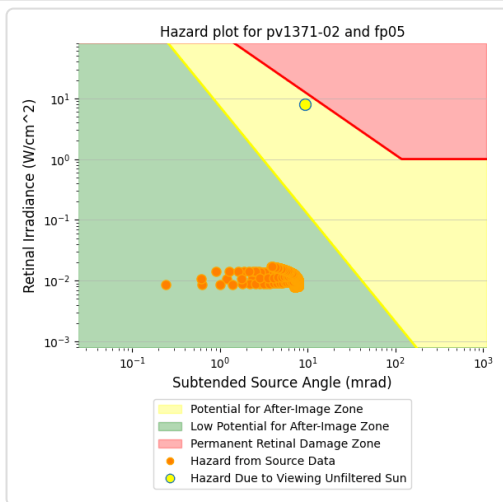
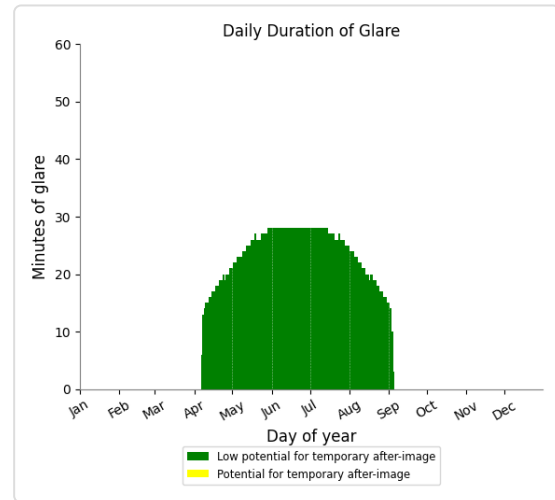
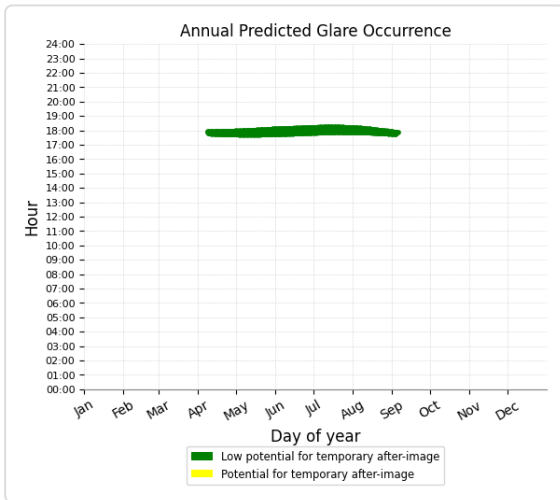
Green glare: 4,514 min.



PV1371_02 and FP: FP05

Yellow glare: none

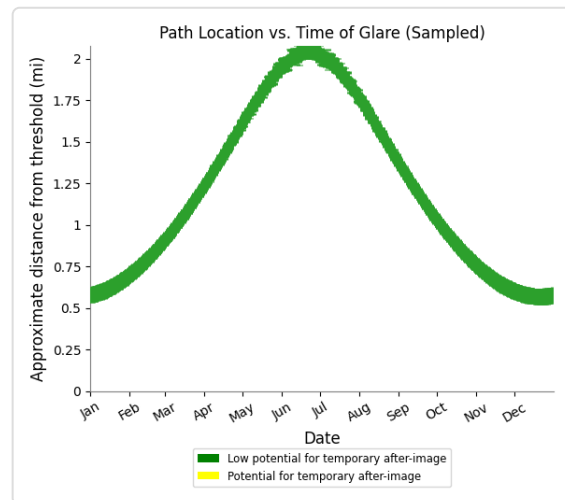
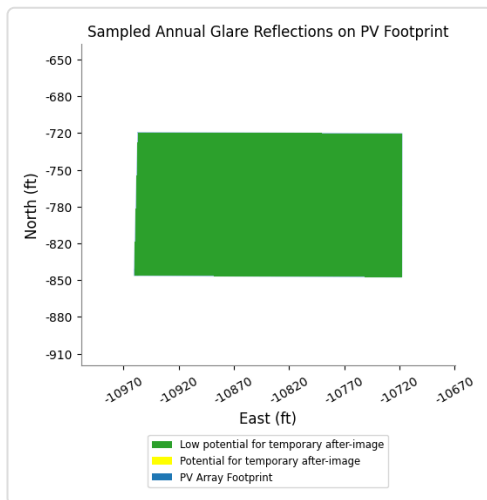
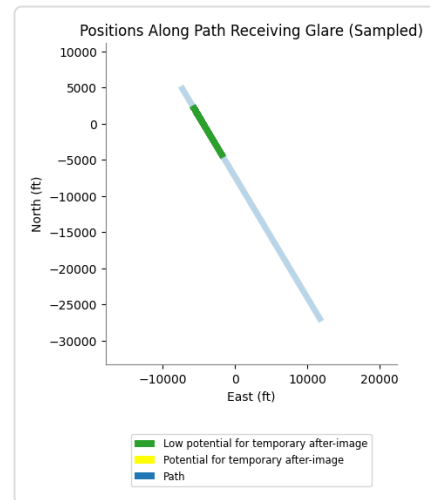
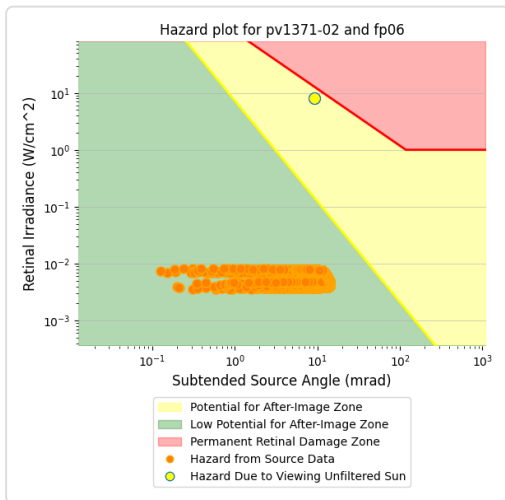
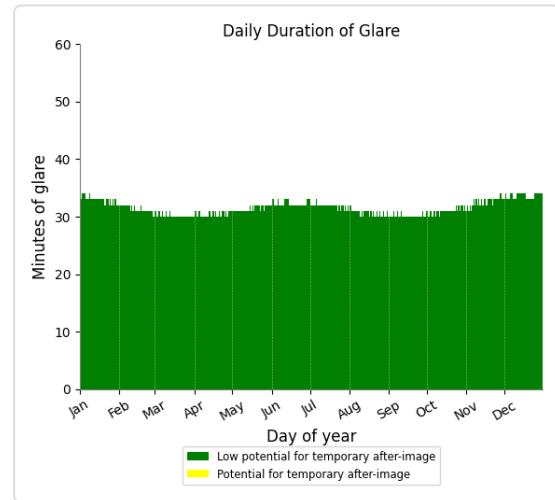
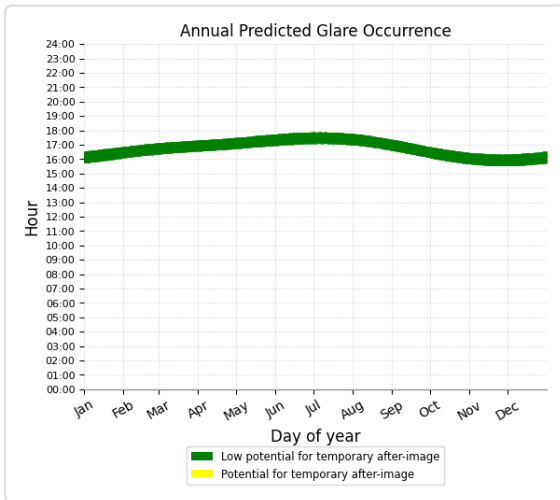
Green glare: 3,548 min.



PV1371_02 and FP: FP06

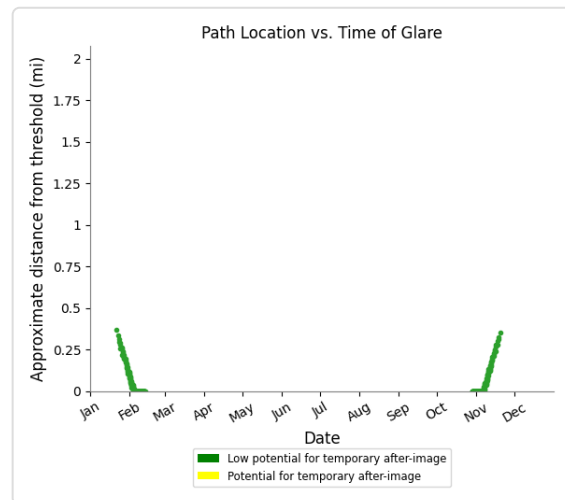
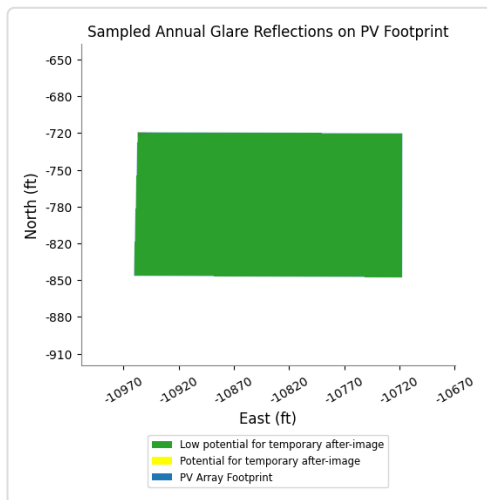
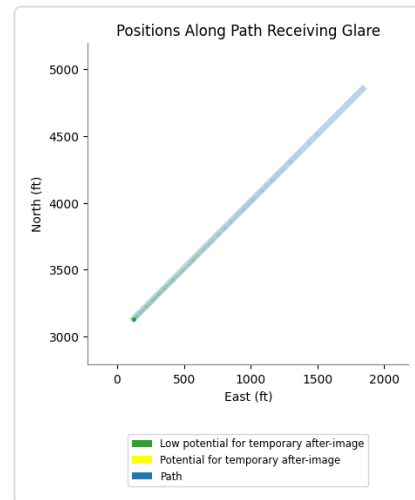
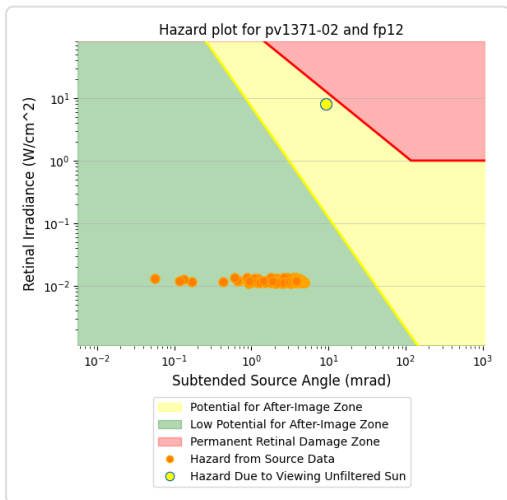
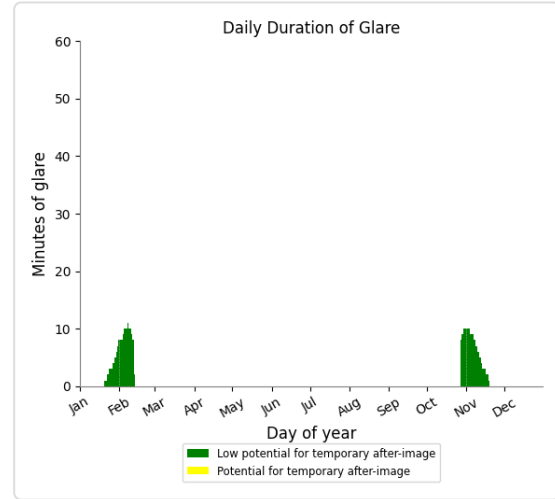
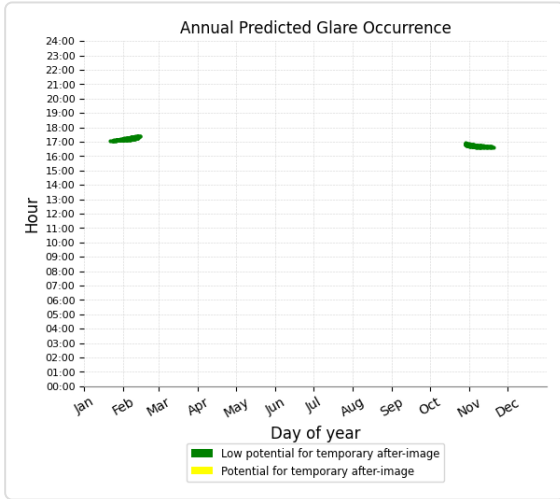
Yellow glare: none

Green glare: 11,512 min.



PV1371_02 and FP: FP12

Yellow glare: none
Green glare: 304 min.



PV1371_02 and FP: FP01

No glare found

PV1371_02 and FP: FP02

No glare found

PV1371_02 and FP: FP03

No glare found

PV1371_02 and FP: FP07

No glare found

PV1371_02 and FP: FP08

No glare found

PV1371_02 and FP: FP09

No glare found

PV1371_02 and FP: FP10

No glare found

PV1371_02 and FP: FP11

No glare found

PV1371_02 and FP: FP13

No glare found

PV1371_02 and FP: FP14

No glare found

PV1371_02 and FP: FP15

No glare found

PV1371_02 and FP: FP16

No glare found

PV1371_02 and 1-ATCT

No glare found

PV: PV1388_01 low potential for temporary after-image

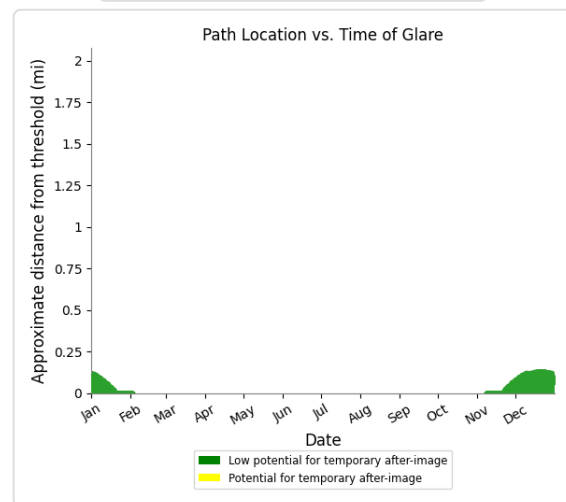
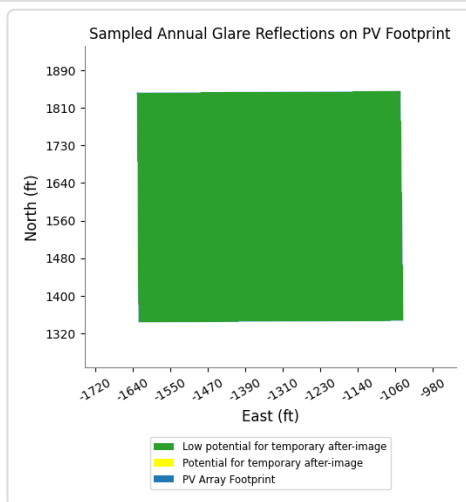
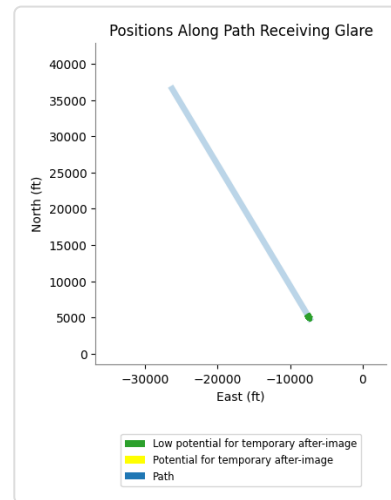
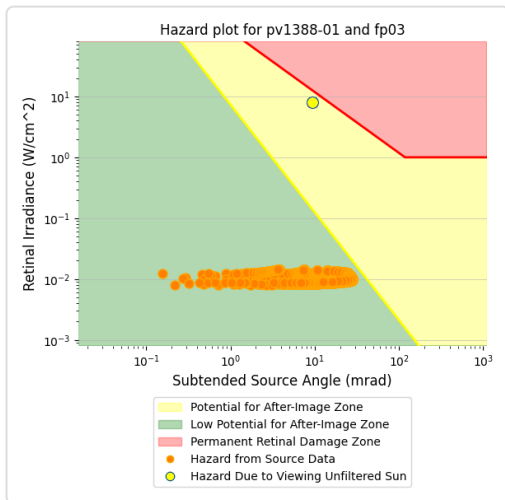
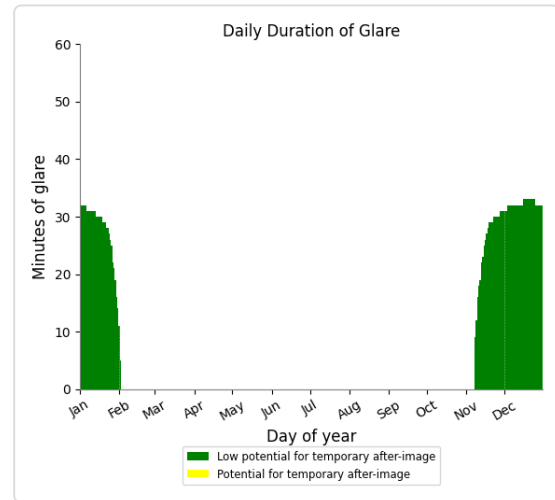
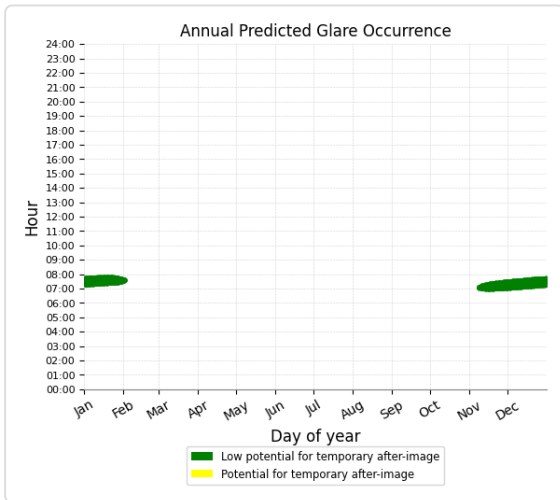
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP03	2,471	41.2	0	0.0
FP04	3,154	52.6	0	0.0
FP12	1,714	28.6	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1388_01 and FP: FP03

Yellow glare: none

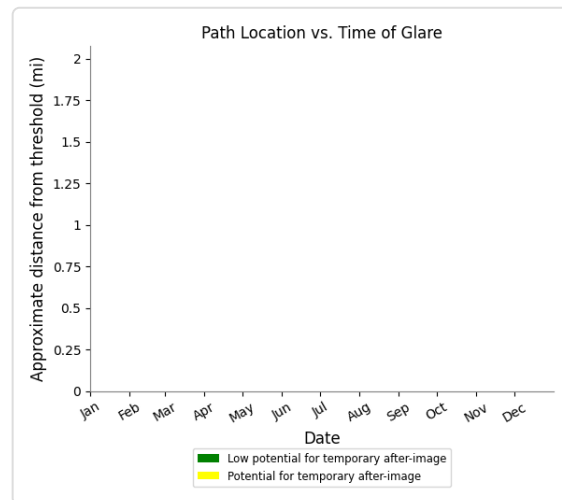
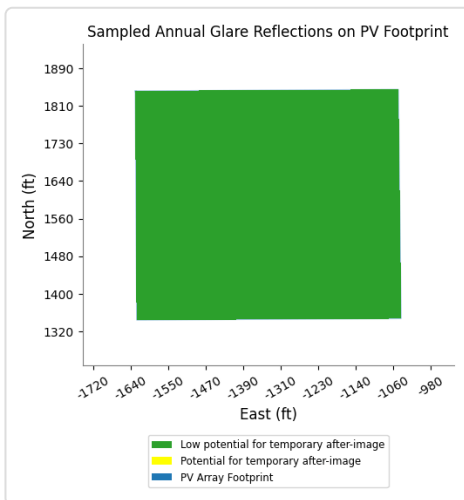
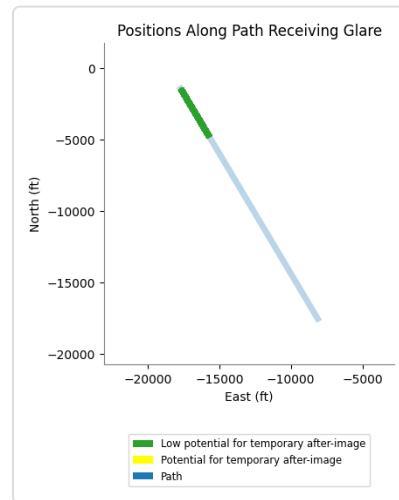
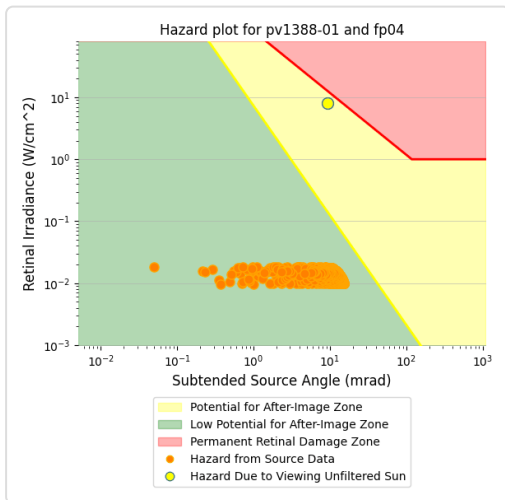
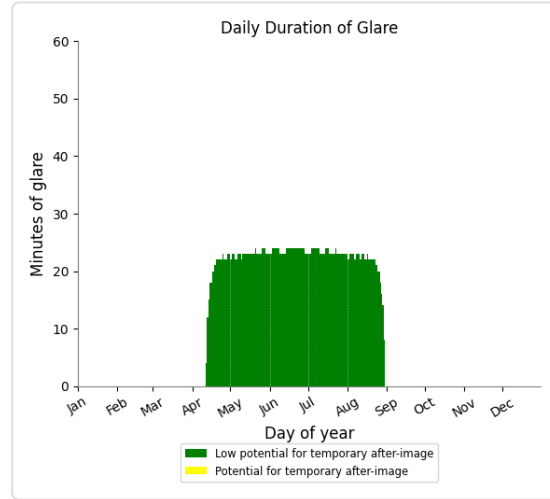
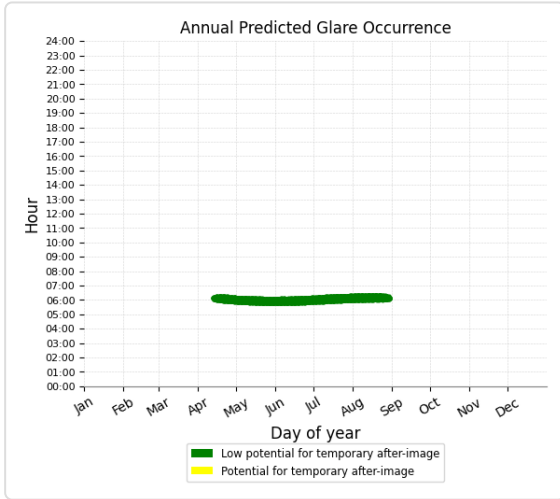
Green glare: 2,471 min.



PV1388_01 and FP: FP04

Yellow glare: none

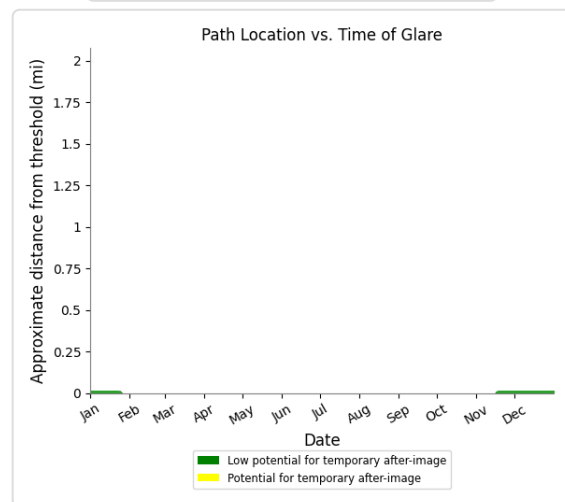
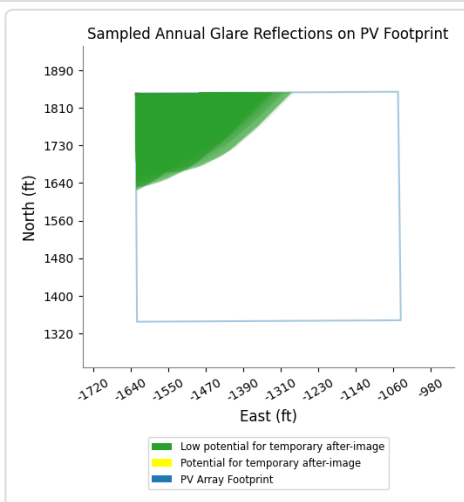
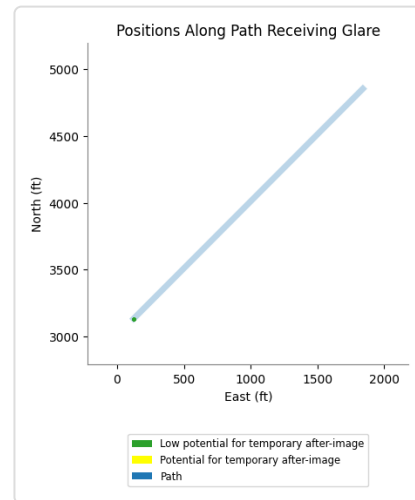
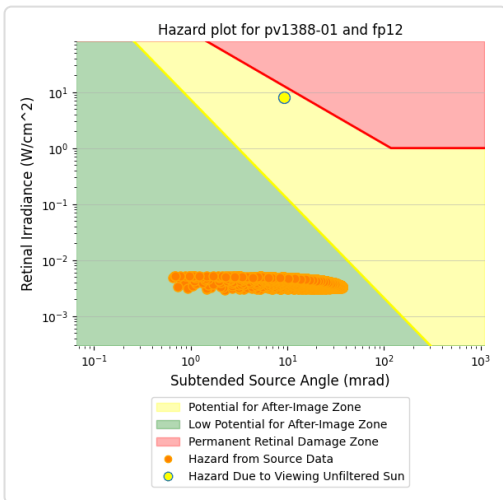
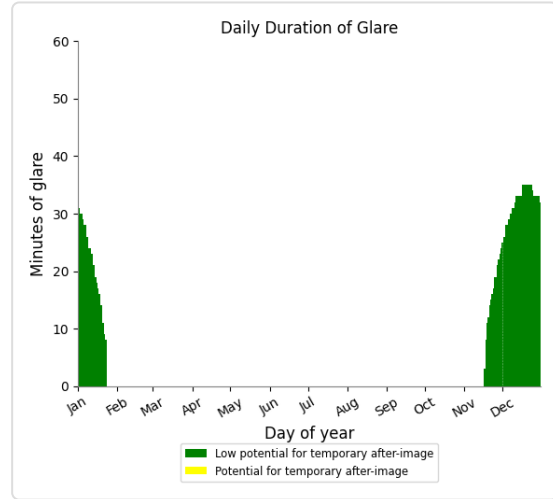
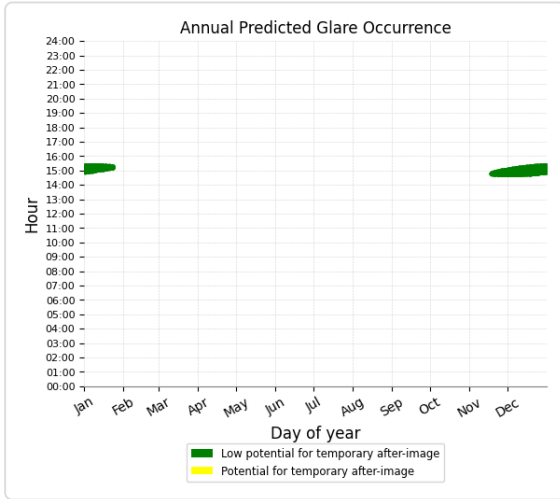
Green glare: 3,154 min.



PV1388_01 and FP: FP12

Yellow glare: none

Green glare: 1,714 min.



PV1388_01 and FP: FP01

No glare found

PV1388_01 and FP: FP02

No glare found

PV1388_01 and FP: FP05

No glare found

PV1388_01 and FP: FP06

No glare found

PV1388_01 and FP: FP07

No glare found

PV1388_01 and FP: FP08

No glare found

PV1388_01 and FP: FP09

No glare found

PV1388_01 and FP: FP10

No glare found

PV1388_01 and FP: FP11

No glare found

PV1388_01 and FP: FP13

No glare found

PV1388_01 and FP: FP14

No glare found

PV1388_01 and FP: FP15

No glare found

PV1388_01 and FP: FP16

No glare found

PV1388_01 and 1-ATCT

No glare found

PV: PV1388_02 low potential for temporary after-image

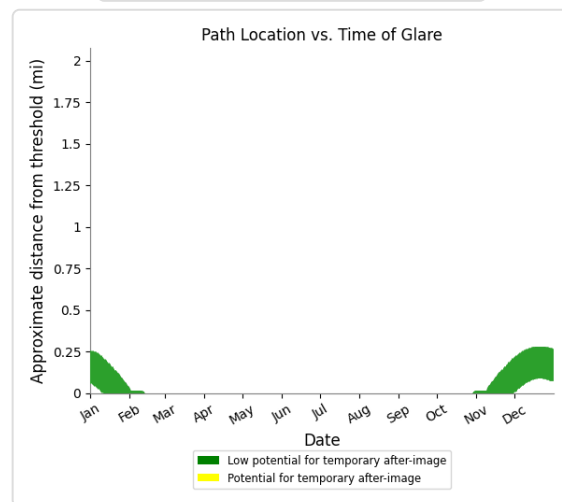
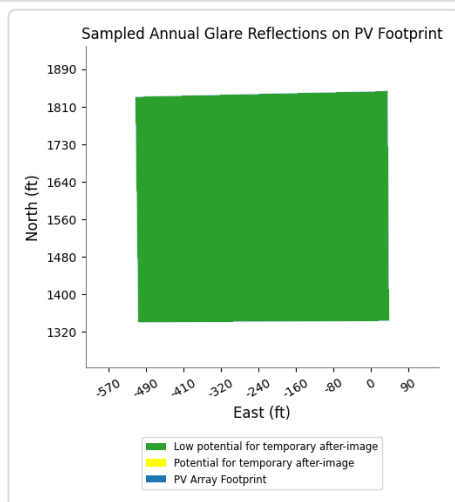
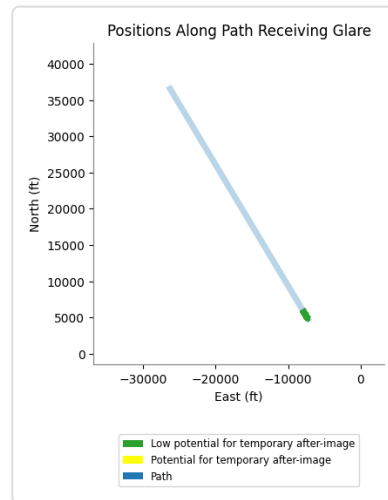
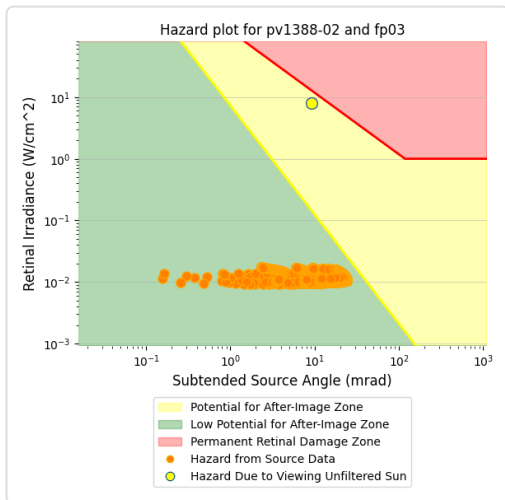
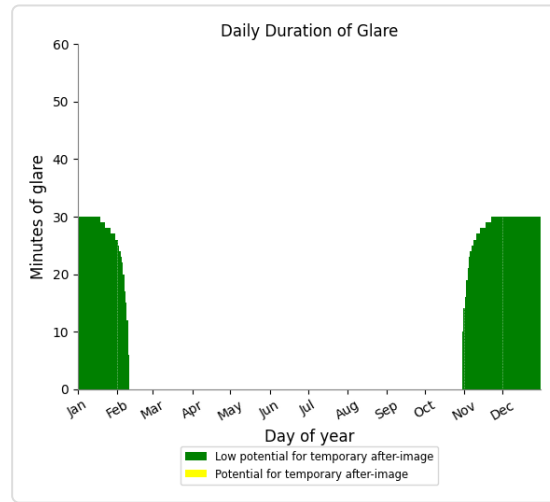
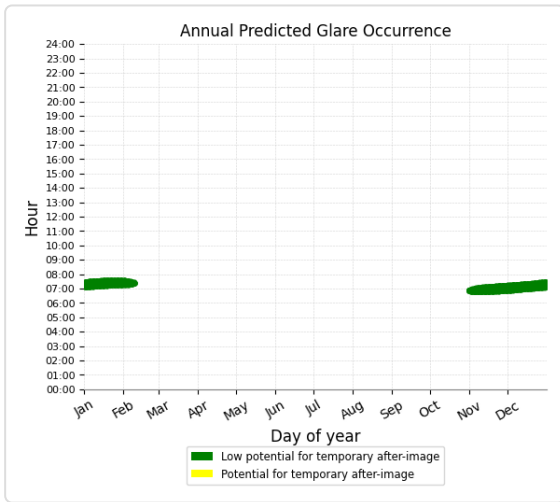
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP03	2,829	47.1	0	0.0
FP04	3,198	53.3	0	0.0
FP11	185	3.1	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1388_02 and FP: FP03

Yellow glare: none

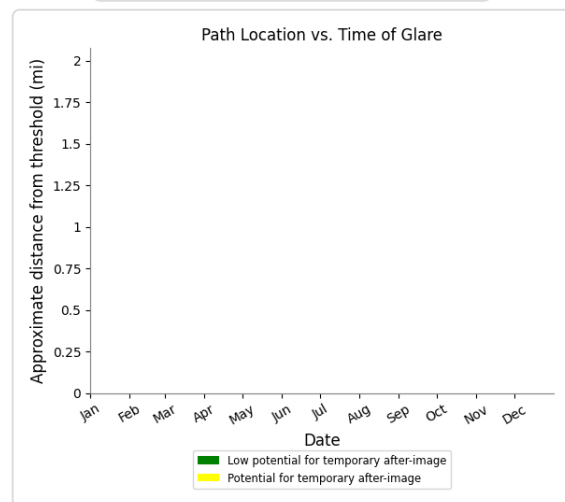
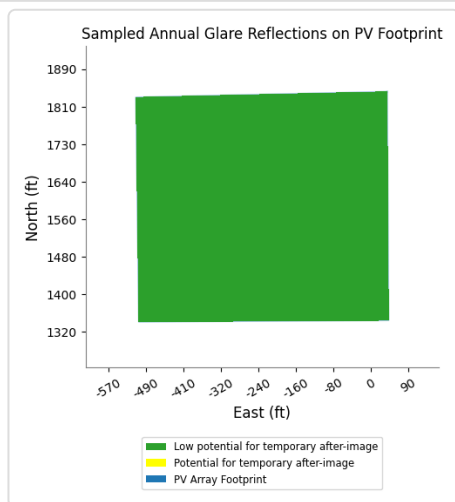
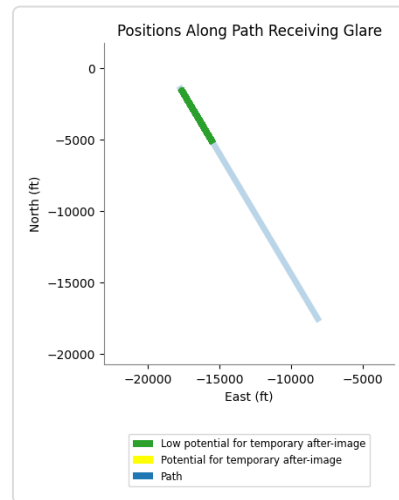
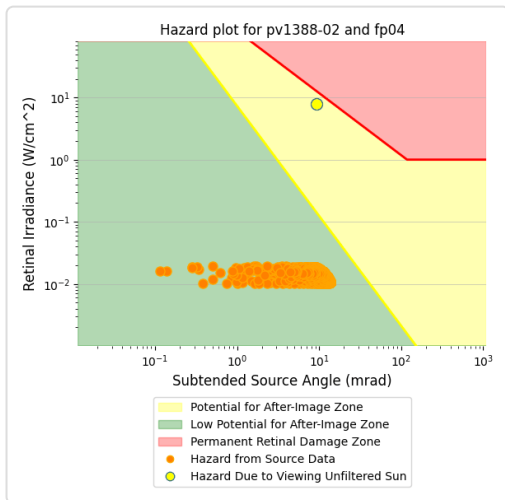
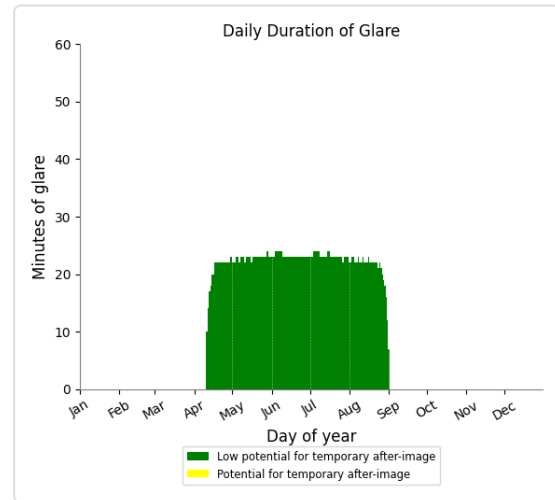
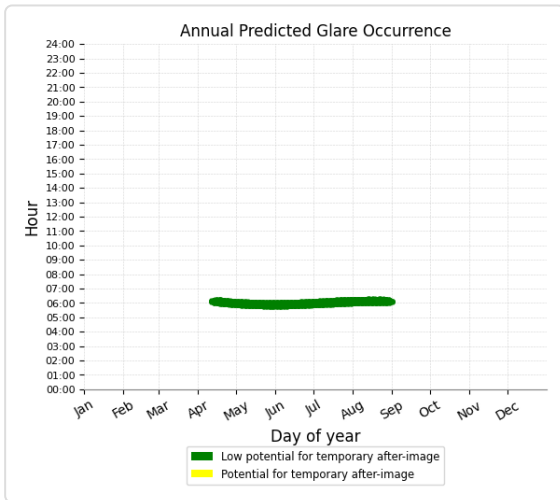
Green glare: 2,829 min.



PV1388_02 and FP: FP04

Yellow glare: none

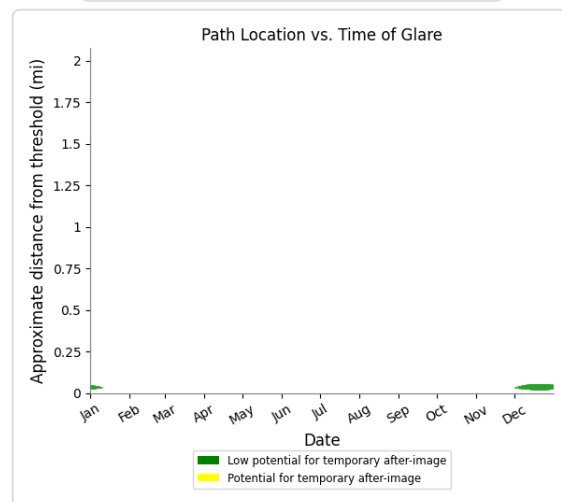
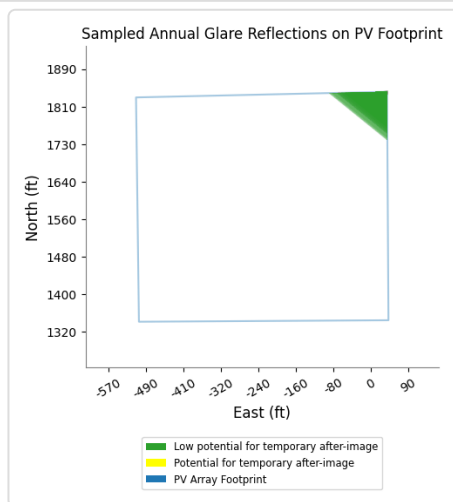
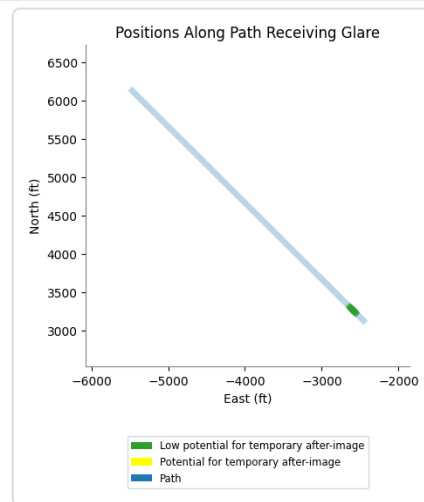
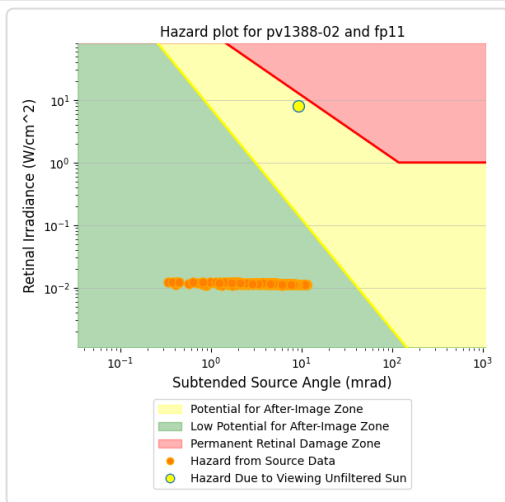
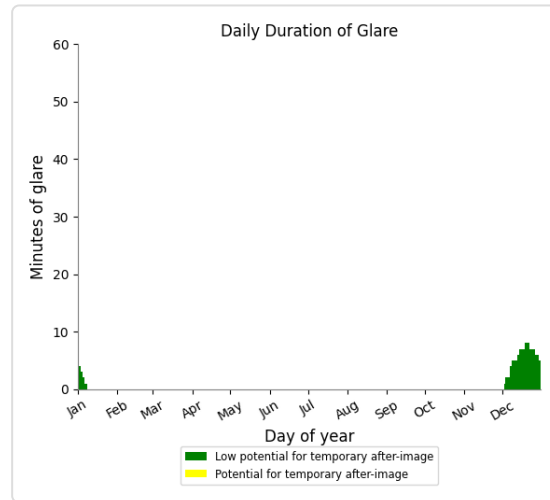
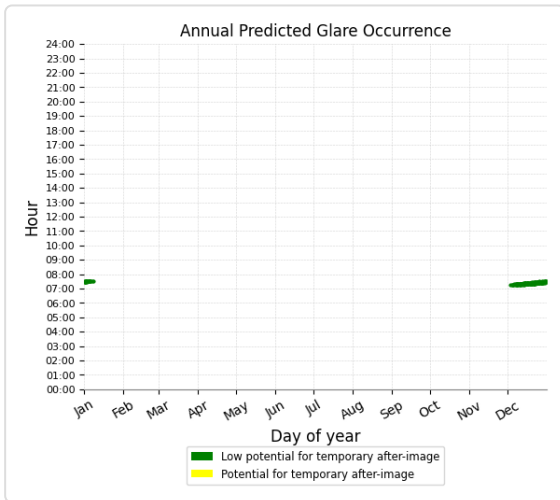
Green glare: 3,198 min.



PV1388_02 and FP: FP11

Yellow glare: none

Green glare: 185 min.



PV1388_02 and FP: FP01

No glare found

PV1388_02 and FP: FP02

No glare found

PV1388_02 and FP: FP05

No glare found

PV1388_02 and FP: FP06

No glare found

PV1388_02 and FP: FP07

No glare found

PV1388_02 and FP: FP08

No glare found

PV1388_02 and FP: FP09

No glare found

PV1388_02 and FP: FP10

No glare found

PV1388_02 and FP: FP12

No glare found

PV1388_02 and FP: FP13

No glare found

PV1388_02 and FP: FP14

No glare found

PV1388_02 and FP: FP15

No glare found

PV1388_02 and FP: FP16

No glare found

PV1388_02 and 1-ATCT

No glare found

PV: PV1391_01 low potential for temporary after-image

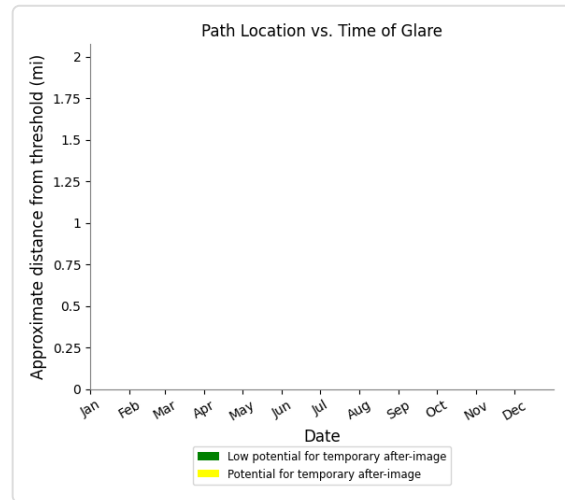
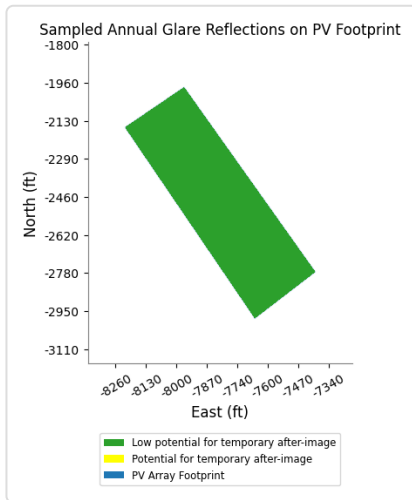
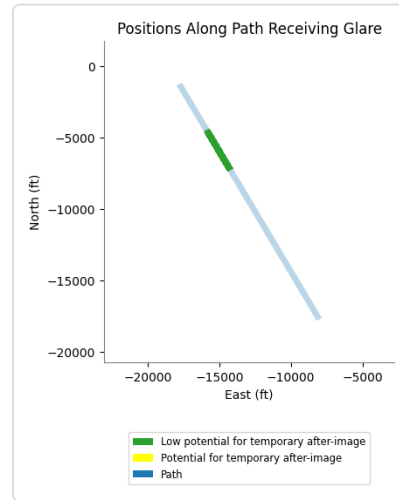
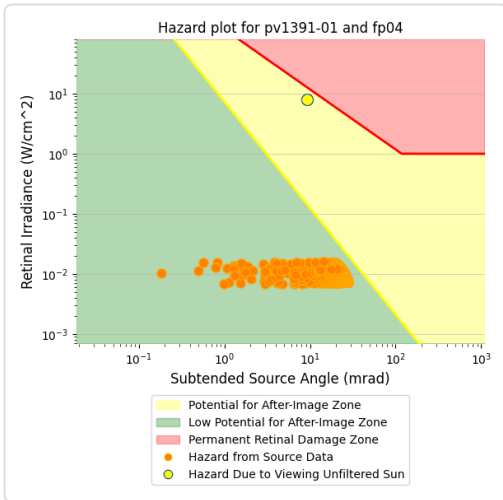
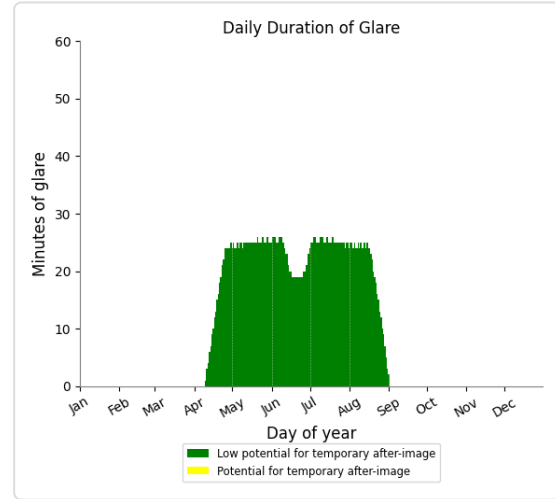
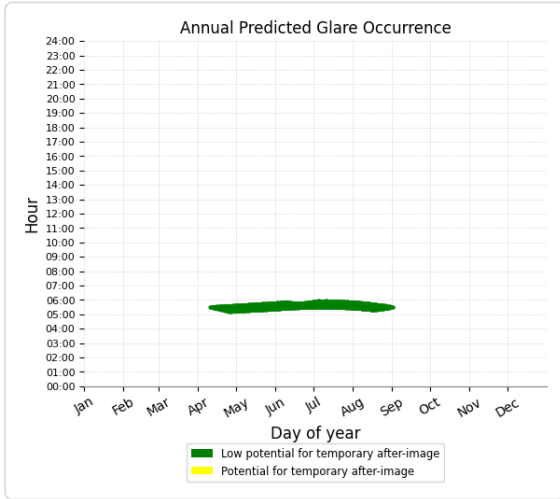
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	3,148	52.5	0	0.0
FP05	3,761	62.7	0	0.0
FP06	10,307	171.8	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1391_01 and FP: FP04

Yellow glare: none

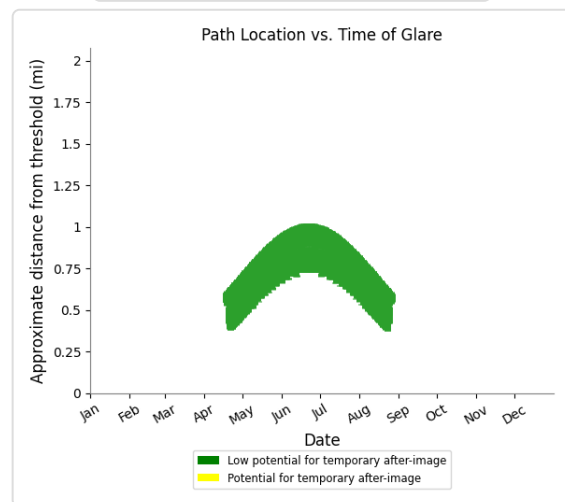
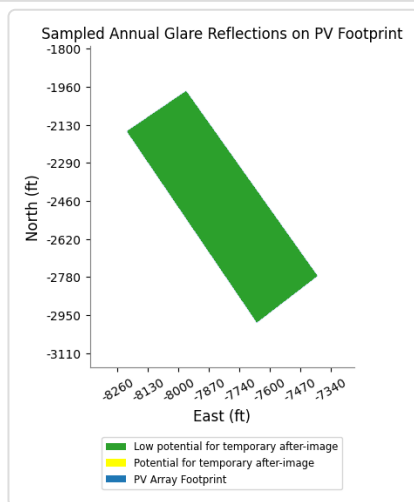
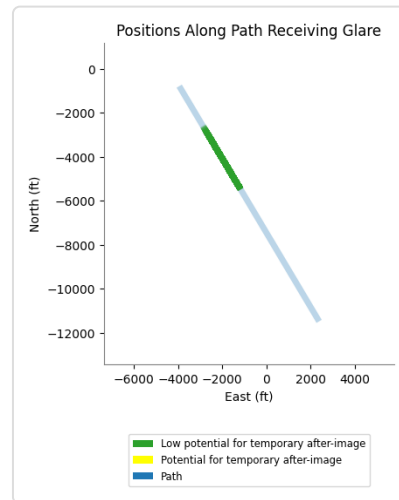
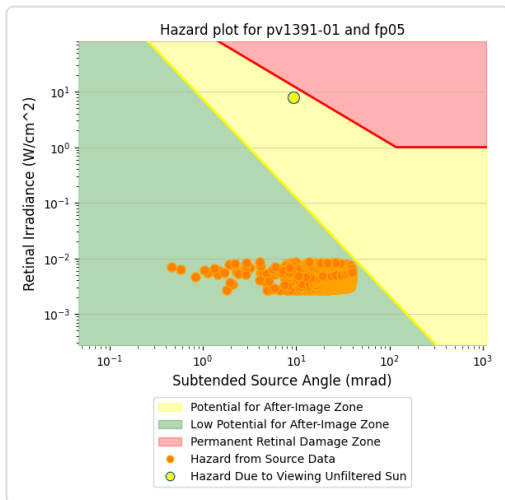
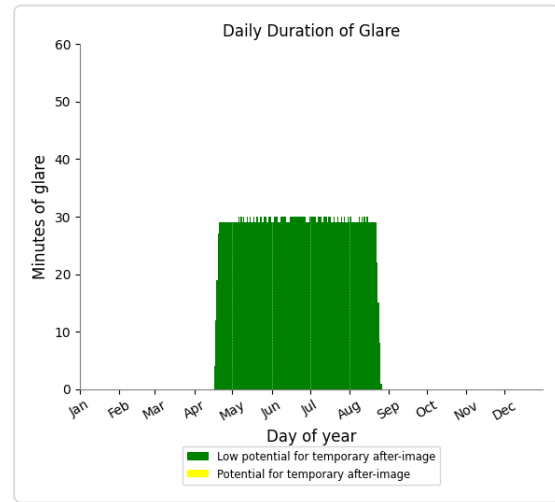
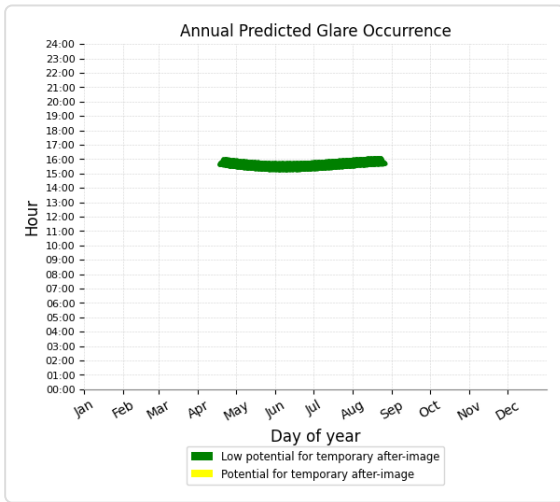
Green glare: 3,148 min.



PV1391_01 and FP: FP05

Yellow glare: none

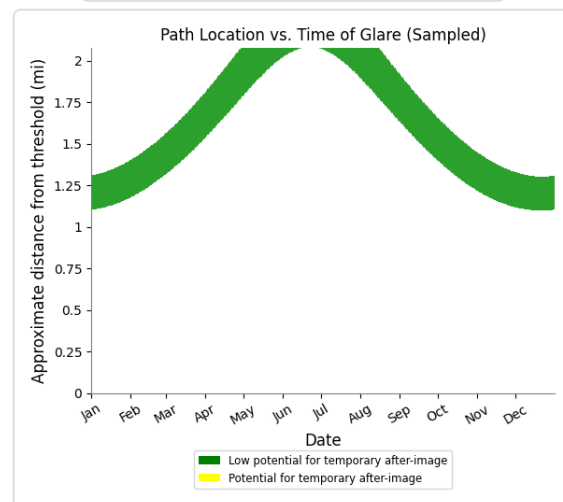
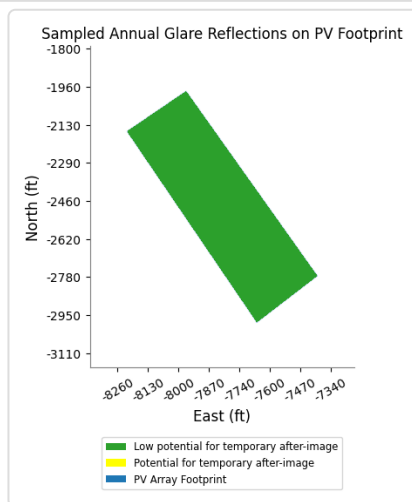
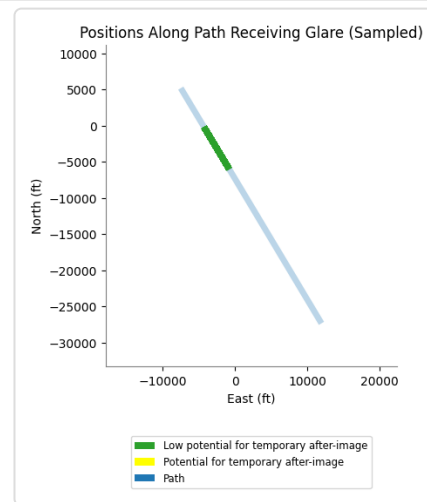
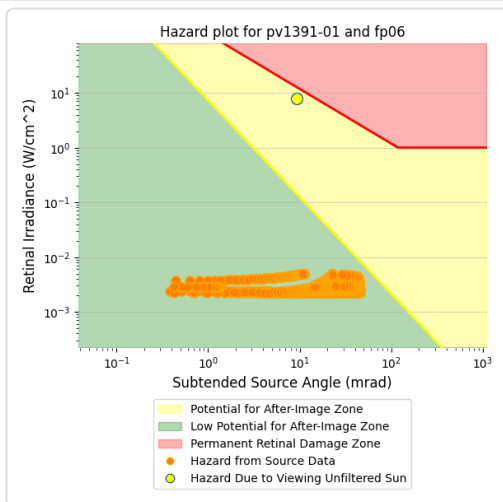
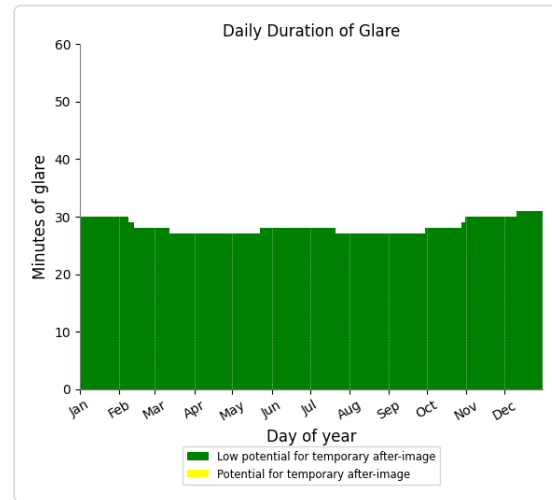
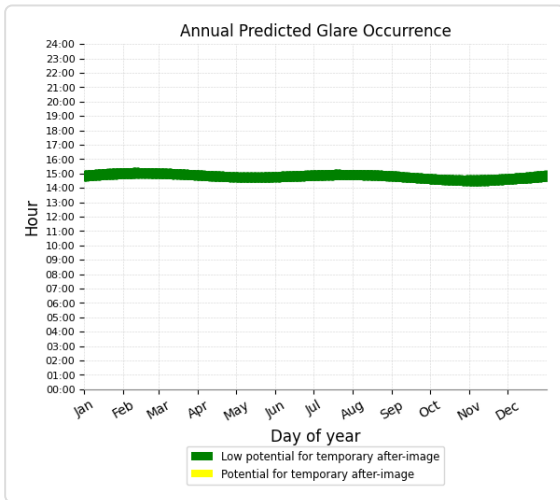
Green glare: 3,761 min.



PV1391_01 and FP: FP06

Yellow glare: none

Green glare: 10,307 min.



PV1391_01 and FP: FP01

No glare found

PV1391_01 and FP: FP02

No glare found

PV1391_01 and FP: FP03

No glare found

PV1391_01 and FP: FP07

No glare found

PV1391_01 and FP: FP08

No glare found

PV1391_01 and FP: FP09

No glare found

PV1391_01 and FP: FP10

No glare found

PV1391_01 and FP: FP11

No glare found

PV1391_01 and FP: FP12

No glare found

PV1391_01 and FP: FP13

No glare found

PV1391_01 and FP: FP14

No glare found

PV1391_01 and FP: FP15

No glare found

PV1391_01 and FP: FP16

No glare found

PV1391_01 and 1-ATCT

No glare found

PV: PV1391_02 low potential for temporary after-image

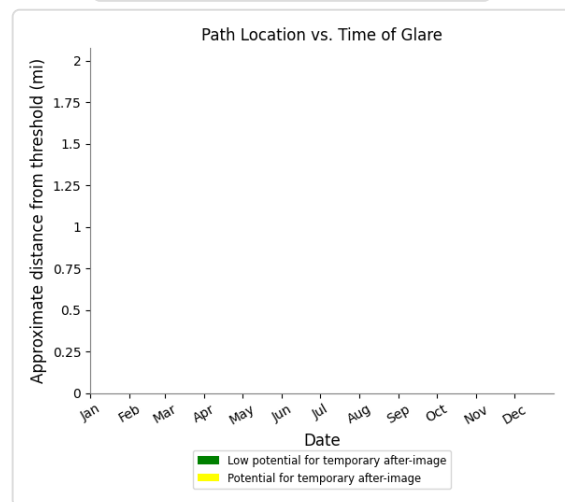
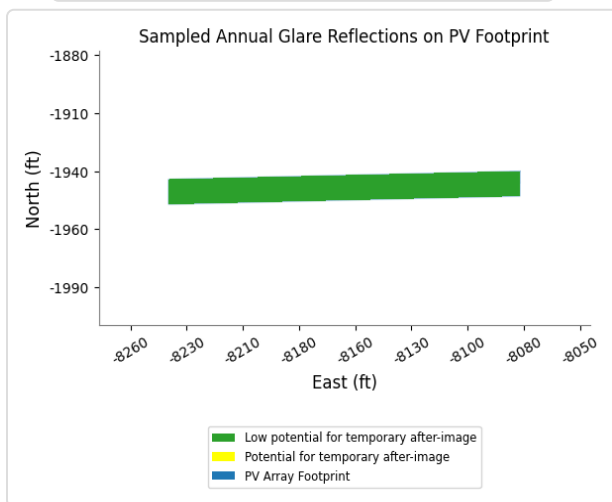
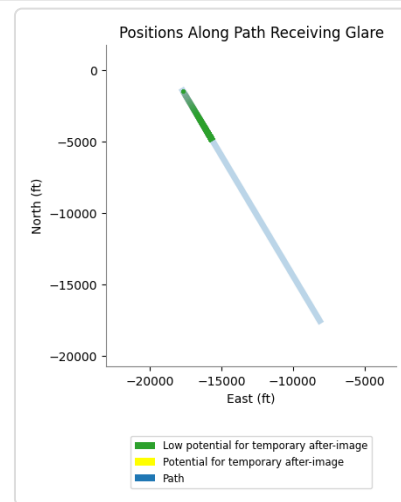
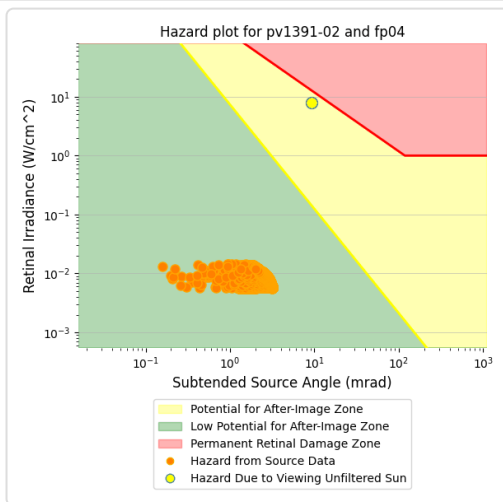
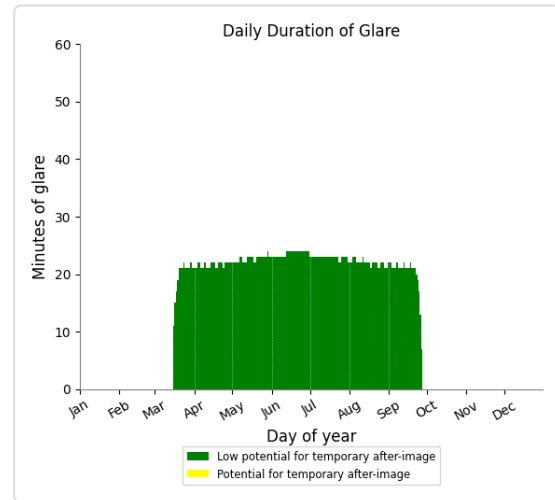
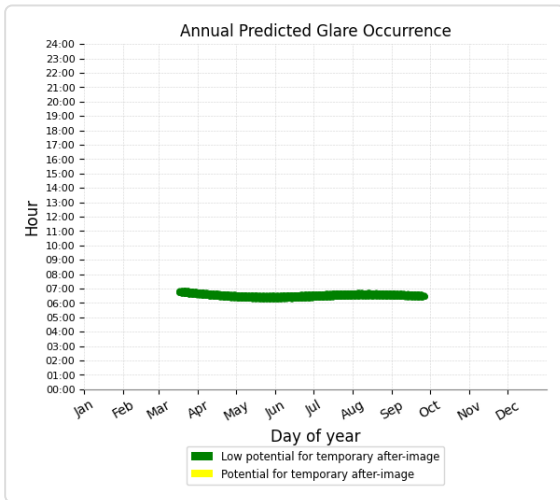
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	4,310	71.8	0	0.0
FP05	3,077	51.3	0	0.0
FP06	8,772	146.2	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1391_02 and FP: FP04

Yellow glare: none

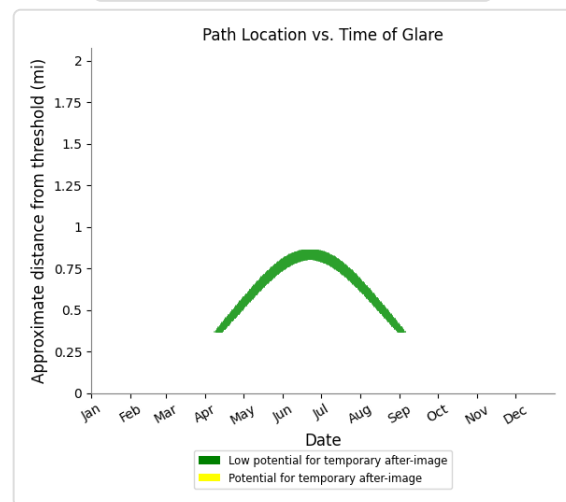
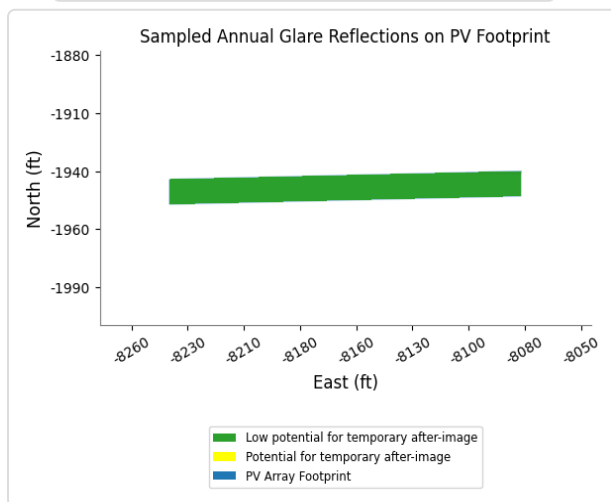
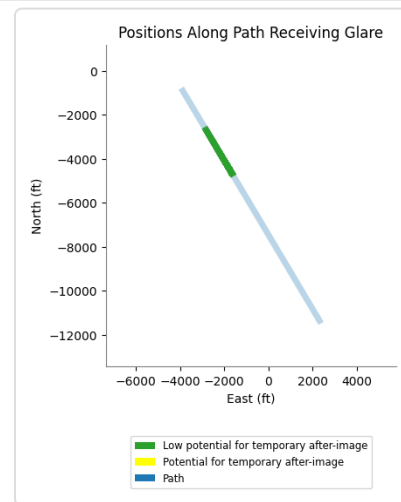
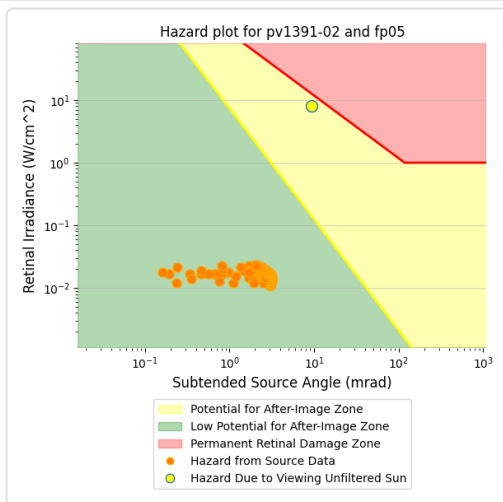
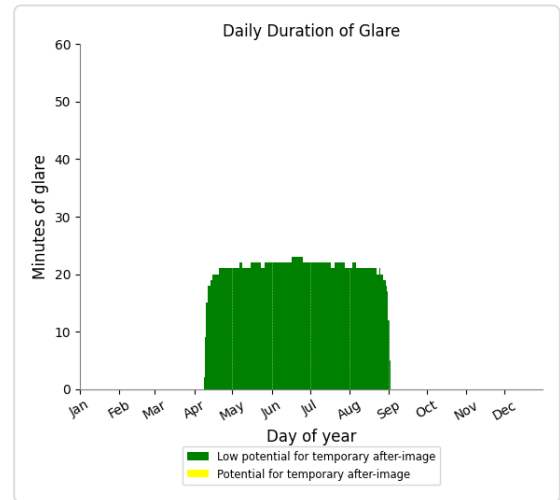
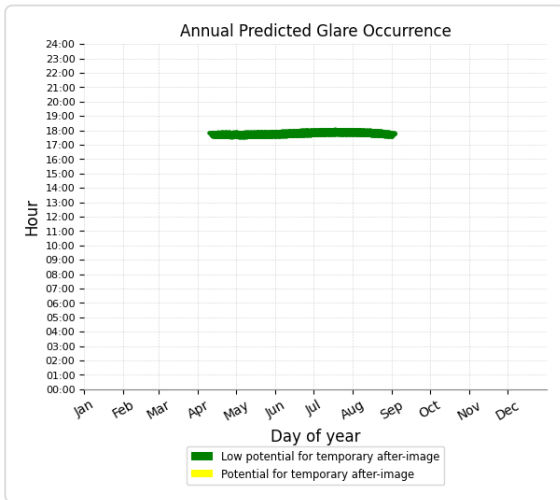
Green glare: 4,310 min.



PV1391_02 and FP: FP05

Yellow glare: none

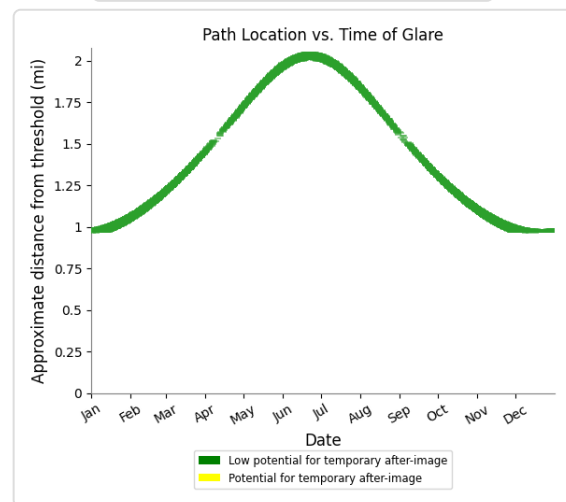
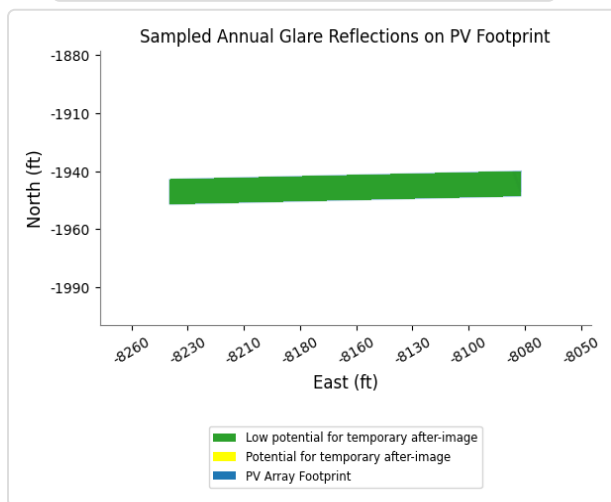
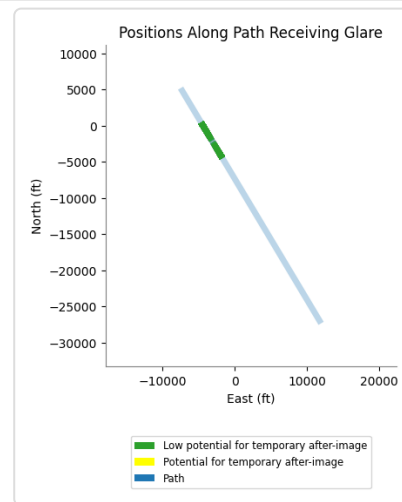
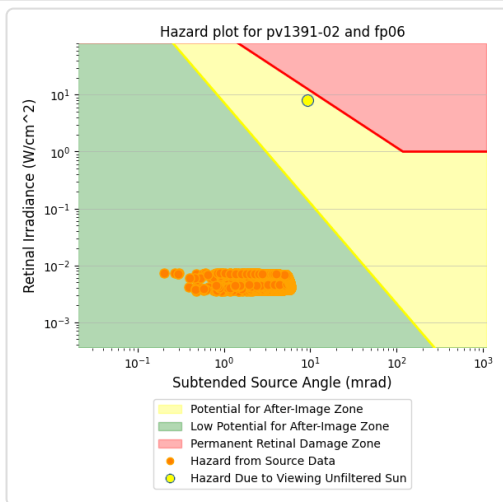
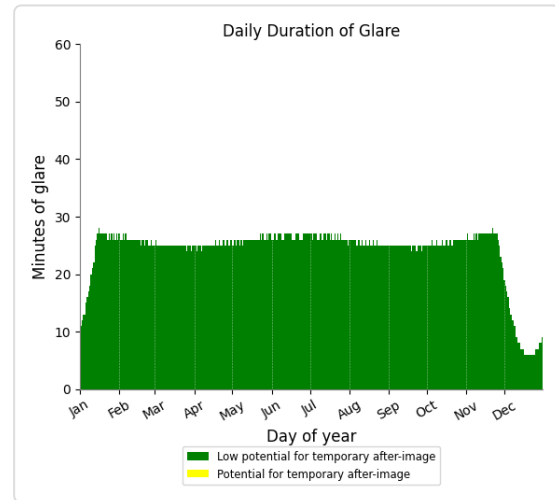
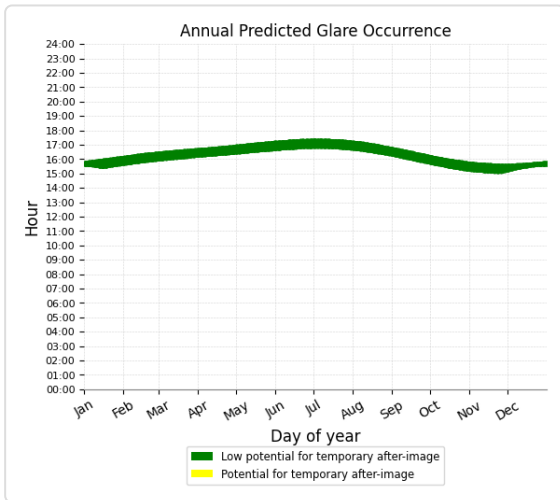
Green glare: 3,077 min.



PV1391_02 and FP: FP06

Yellow glare: none

Green glare: 8,772 min.



PV1391_02 and FP: FP01

No glare found

PV1391_02 and FP: FP02

No glare found

PV1391_02 and FP: FP03

No glare found

PV1391_02 and FP: FP07

No glare found

PV1391_02 and FP: FP08

No glare found

PV1391_02 and FP: FP09

No glare found

PV1391_02 and FP: FP10

No glare found

PV1391_02 and FP: FP11

No glare found

PV1391_02 and FP: FP12

No glare found

PV1391_02 and FP: FP13

No glare found

PV1391_02 and FP: FP14

No glare found

PV1391_02 and FP: FP15

No glare found

PV1391_02 and FP: FP16

No glare found

PV1391_02 and 1-ATCT

No glare found

PV: PV1391_03 low potential for temporary after-image

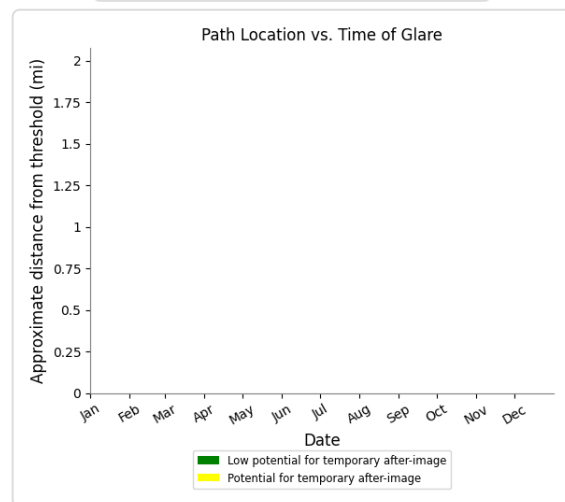
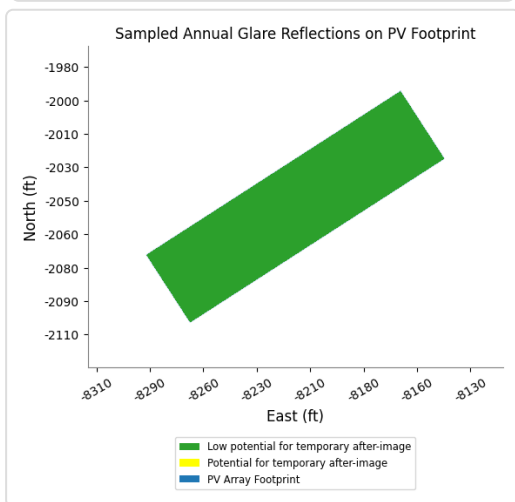
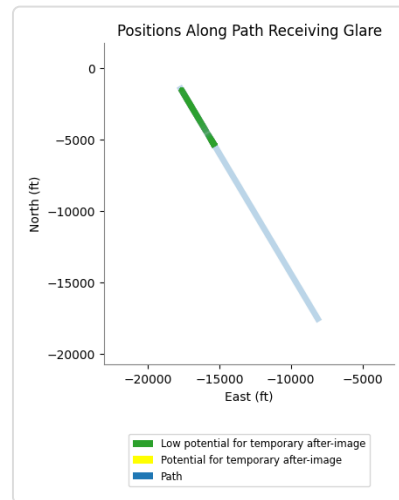
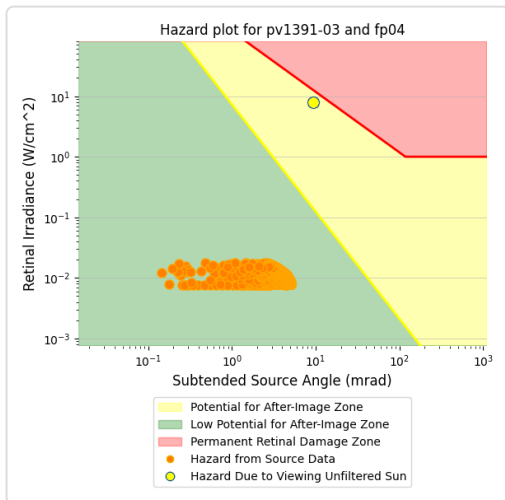
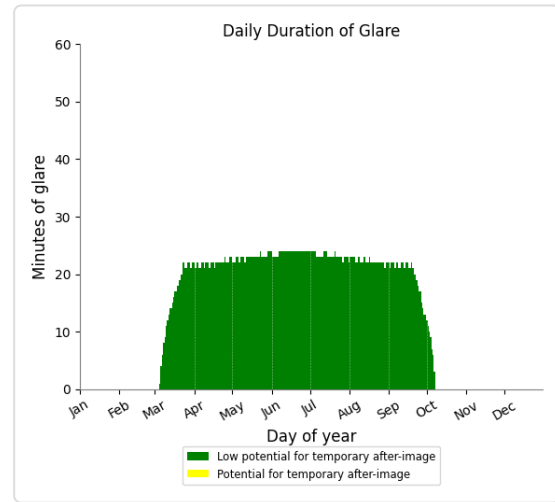
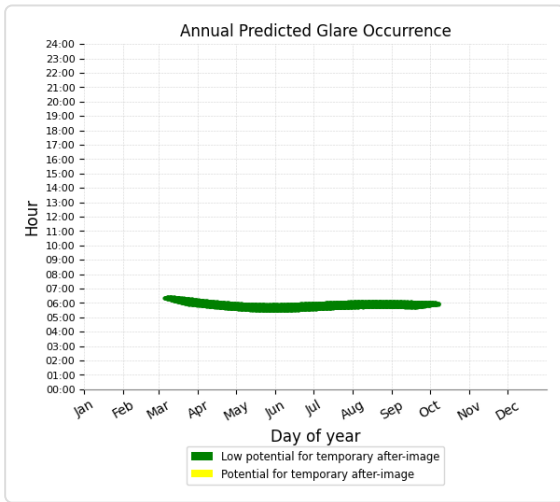
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	4,575	76.2	0	0.0
FP05	2,733	45.5	0	0.0
FP06	7,374	122.9	0	0.0
FP12	967	16.1	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1391_03 and FP: FP04

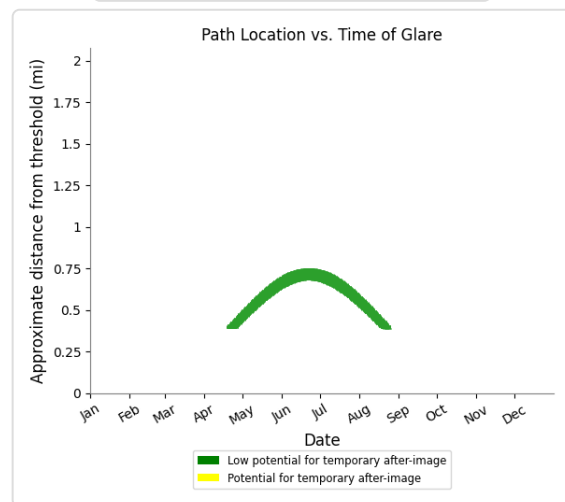
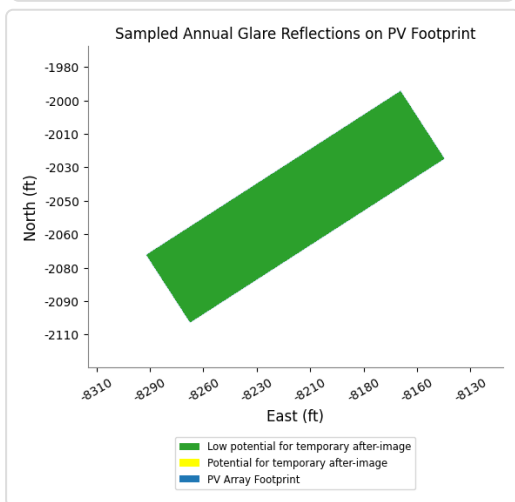
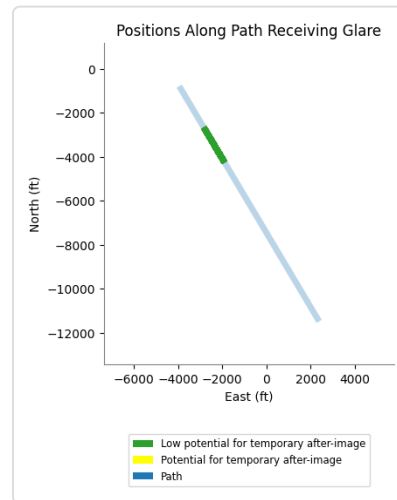
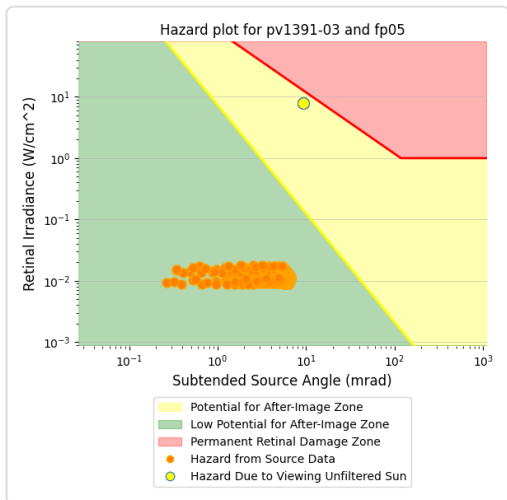
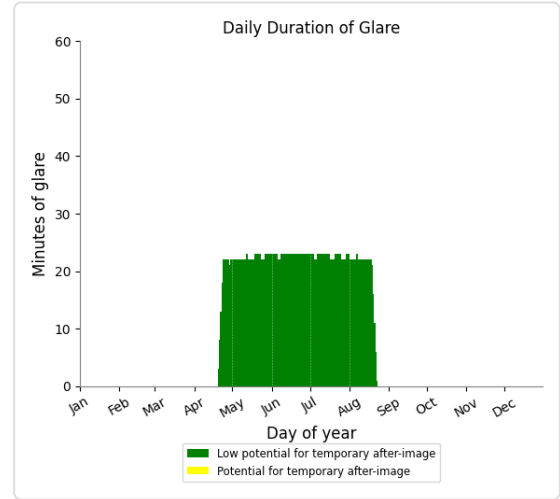
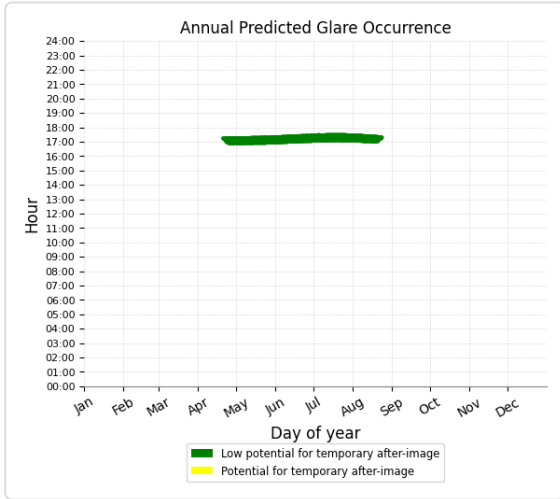
Yellow glare: none

Green glare: 4,575 min.



PV1391_03 and FP: FP05

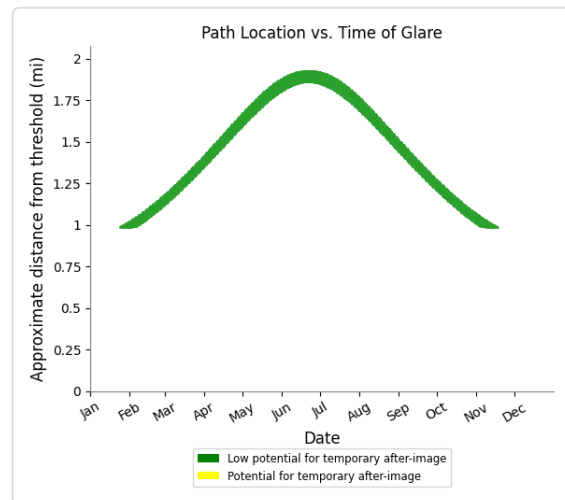
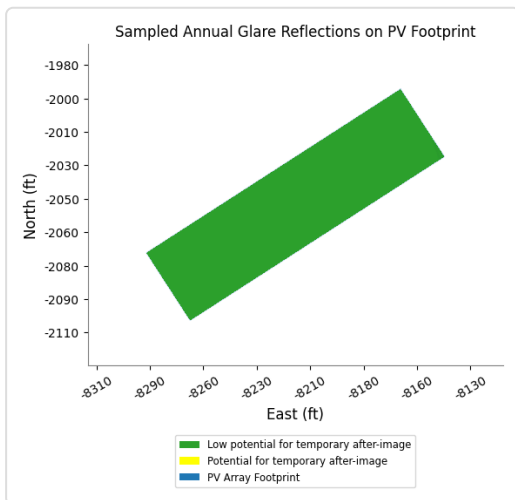
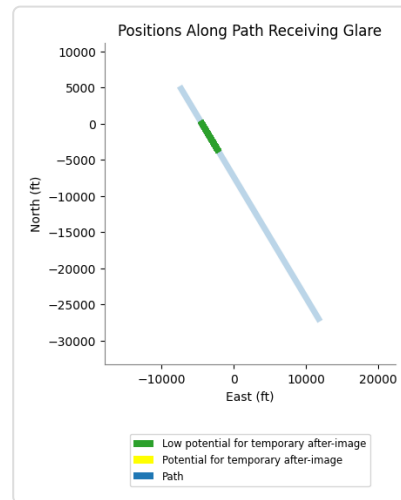
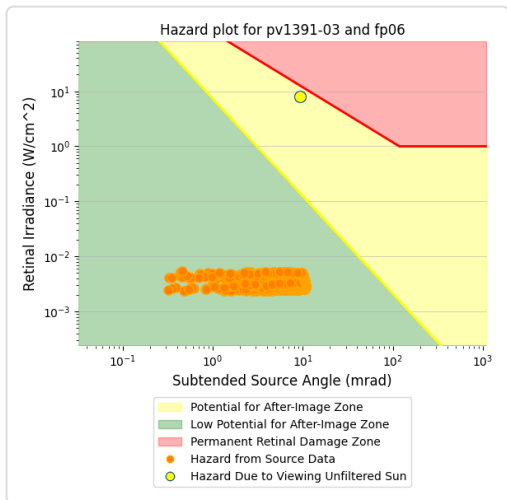
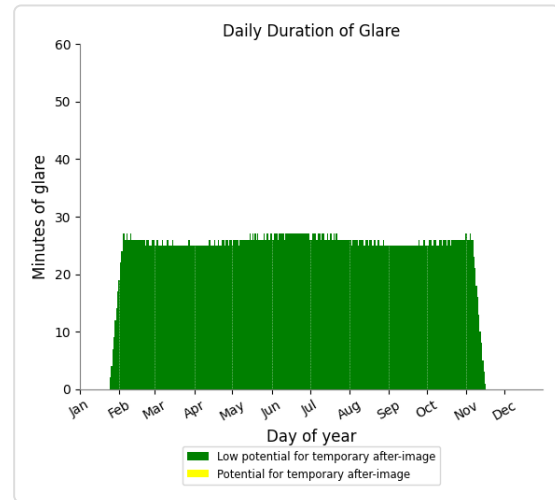
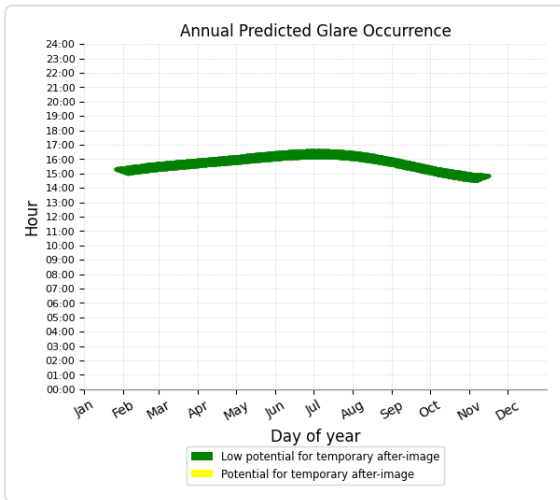
Yellow glare: none
 Green glare: 2,733 min.



PV1391_03 and FP: FP06

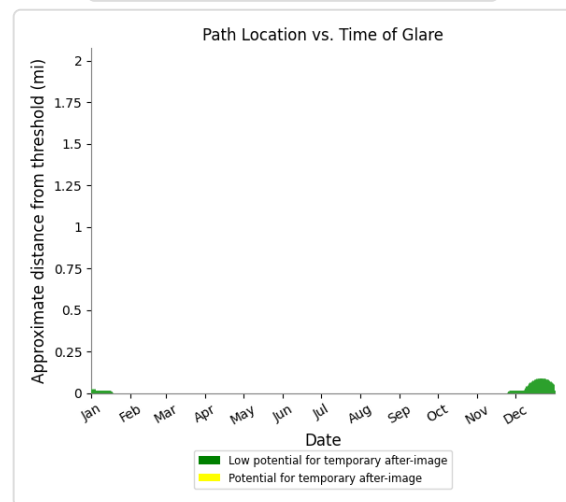
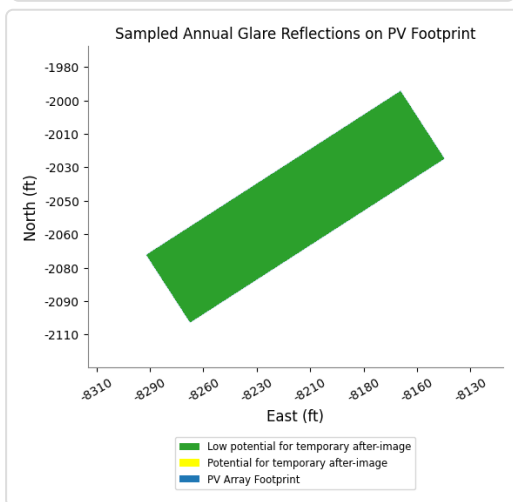
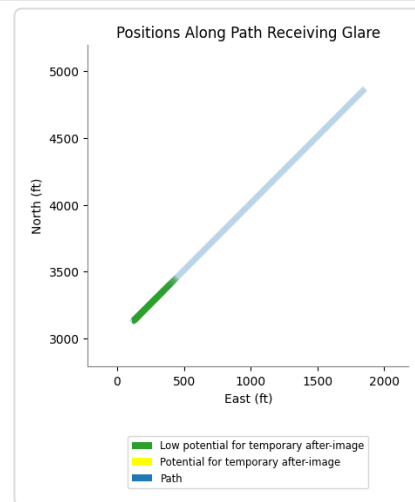
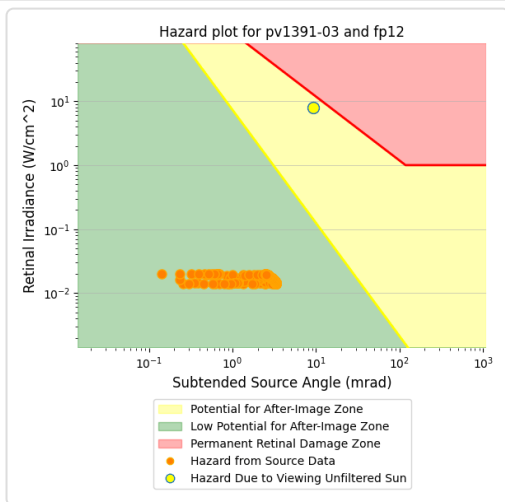
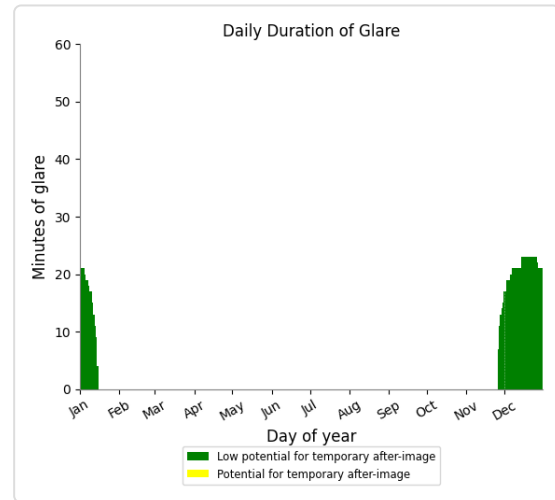
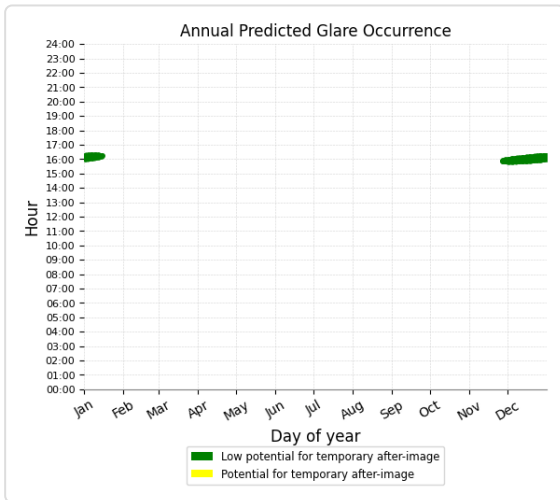
Yellow glare: none

Green glare: 7,374 min.



PV1391_03 and FP: FP12

Yellow glare: none
Green glare: 967 min.



PV1391_03 and FP: FP01

No glare found

PV1391_03 and FP: FP02

No glare found

PV1391_03 and FP: FP03

No glare found

PV1391_03 and FP: FP07

No glare found

PV1391_03 and FP: FP08

No glare found

PV1391_03 and FP: FP09

No glare found

PV1391_03 and FP: FP10

No glare found

PV1391_03 and FP: FP11

No glare found

PV1391_03 and FP: FP13

No glare found

PV1391_03 and FP: FP14

No glare found

PV1391_03 and FP: FP15

No glare found

PV1391_03 and FP: FP16

No glare found

PV1391_03 and 1-ATCT

No glare found

PV: PV1391_04 low potential for temporary after-image

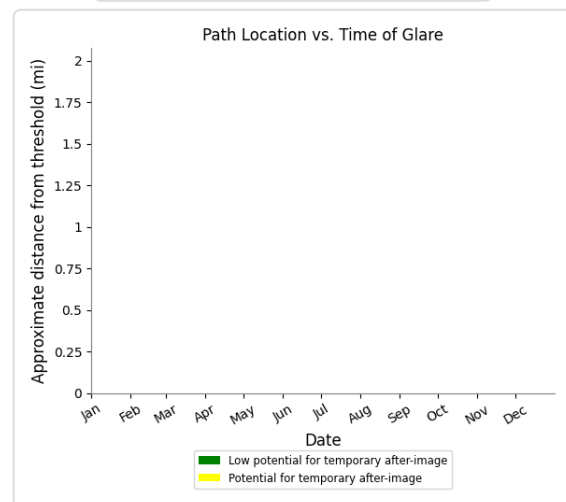
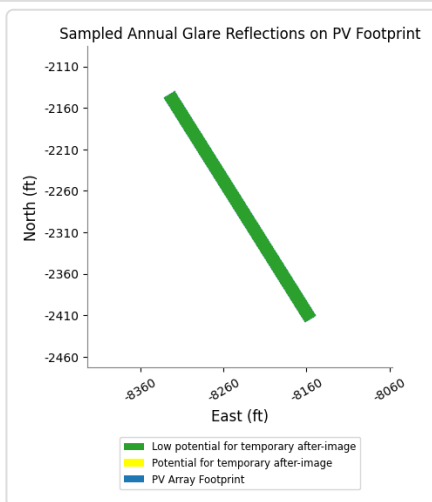
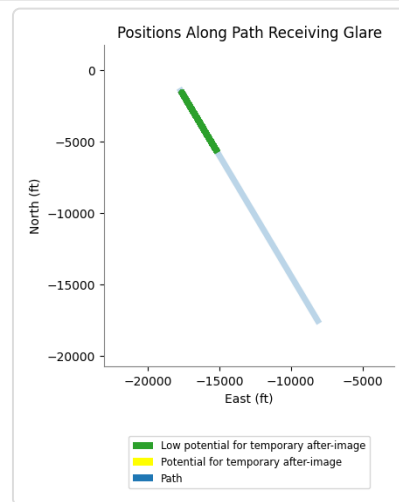
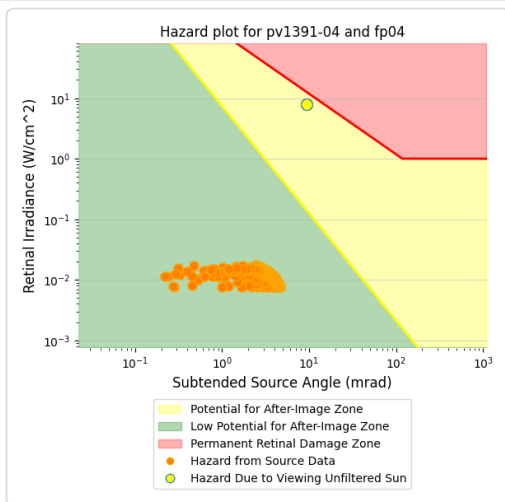
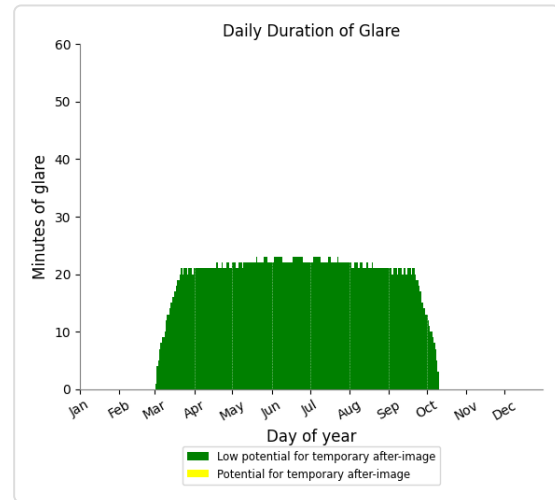
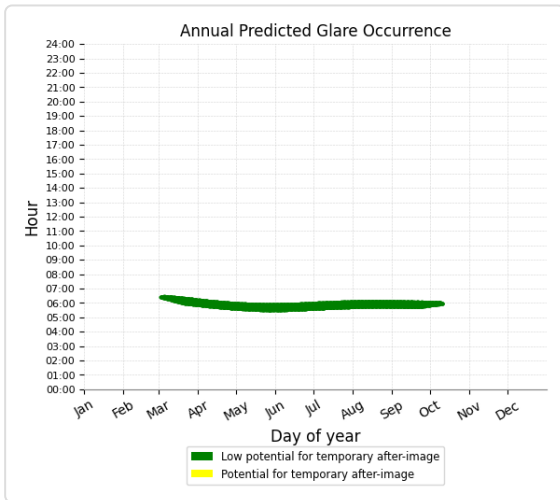
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	4,469	74.5	0	0.0
FP05	2,852	47.5	0	0.0
FP06	6,748	112.5	0	0.0
FP12	851	14.2	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1391_04 and FP: FP04

Yellow glare: none

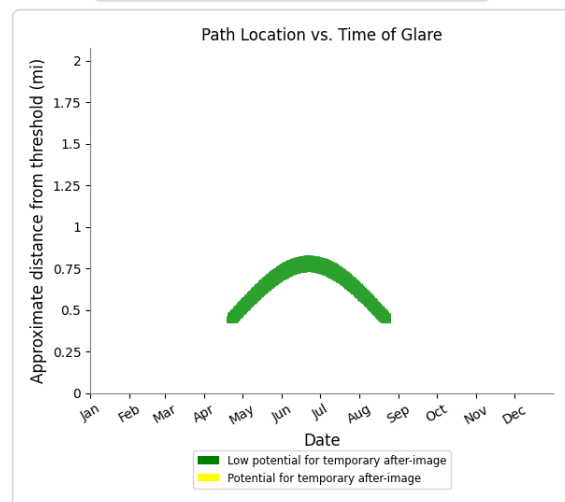
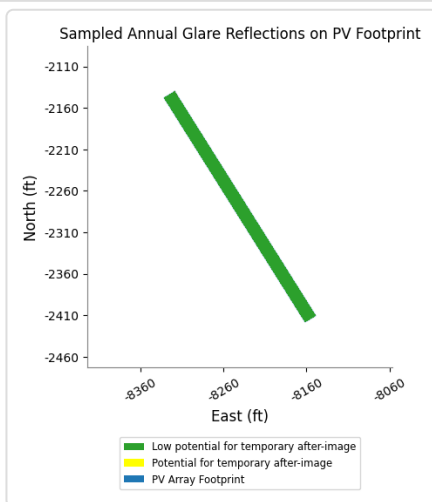
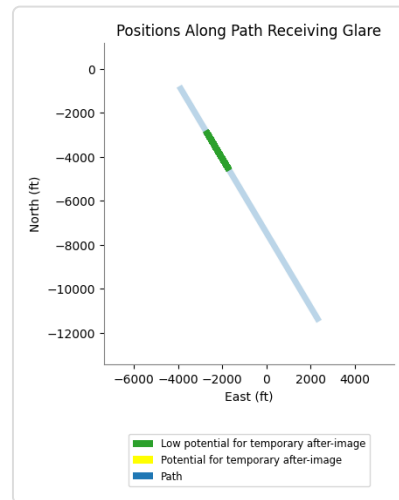
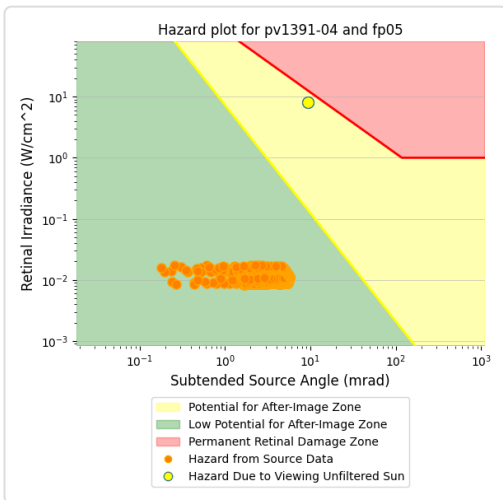
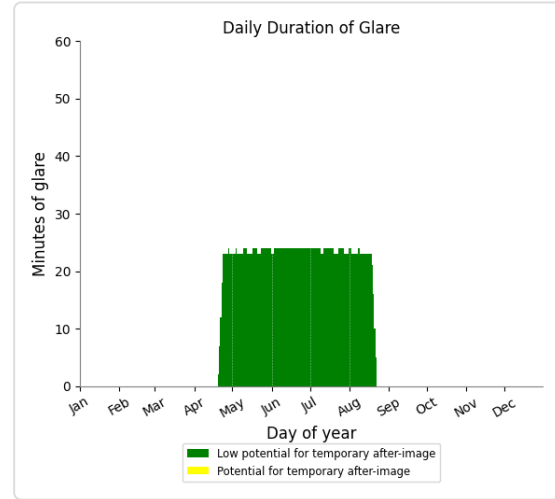
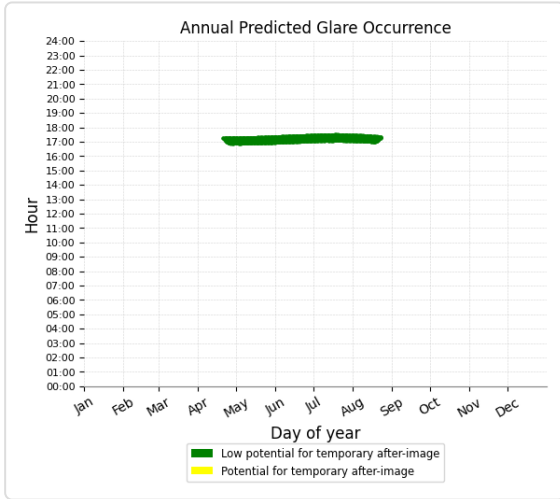
Green glare: 4,469 min.



PV1391_04 and FP: FP05

Yellow glare: none

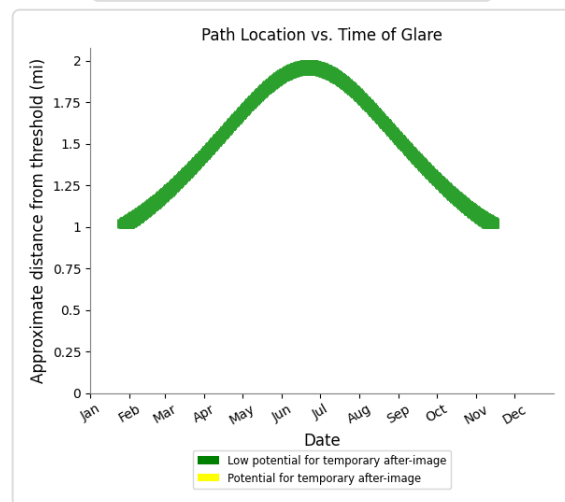
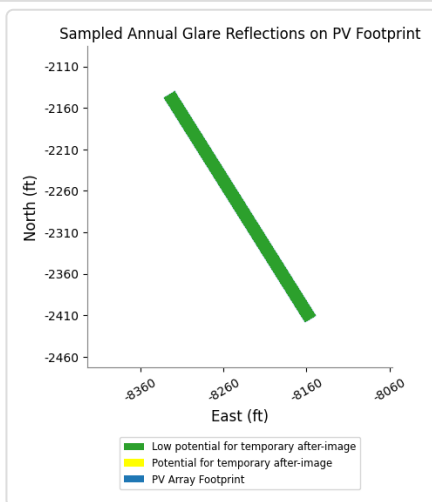
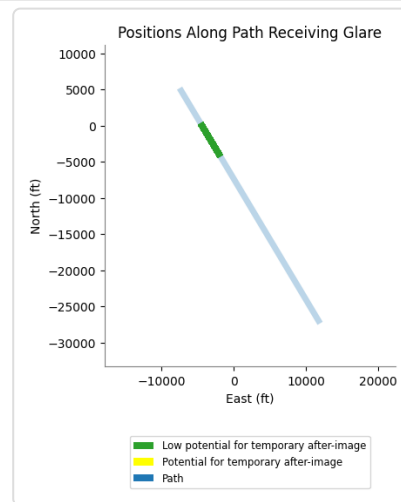
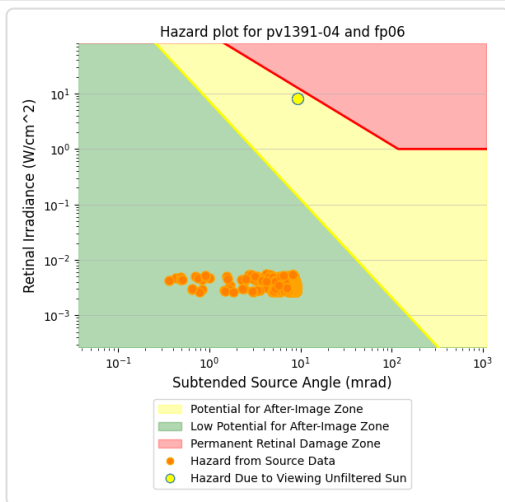
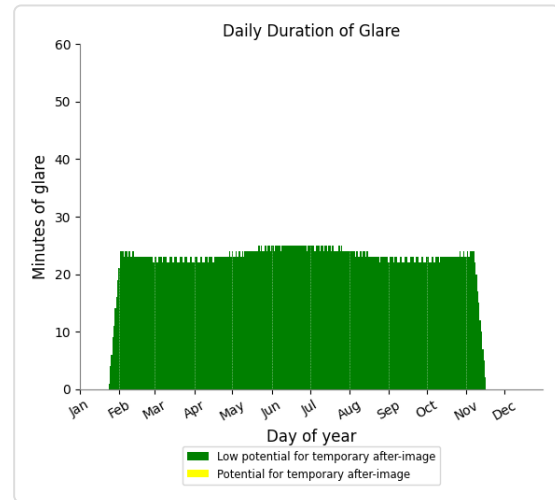
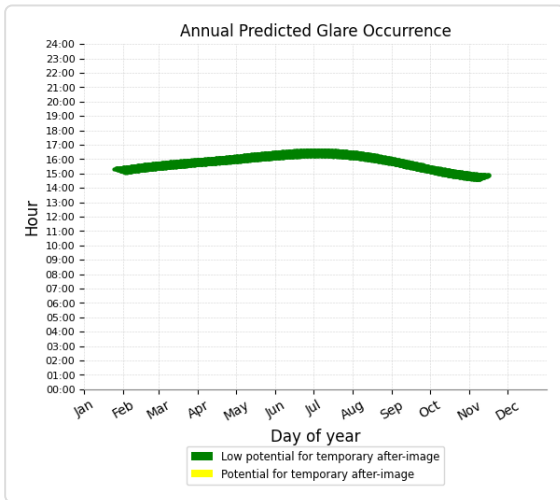
Green glare: 2,852 min.



PV1391_04 and FP: FP06

Yellow glare: none

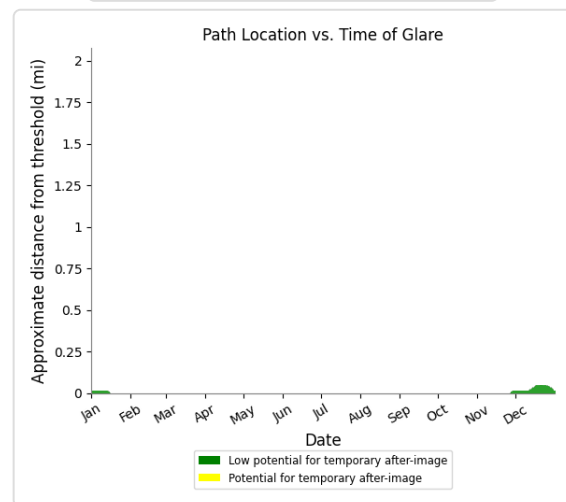
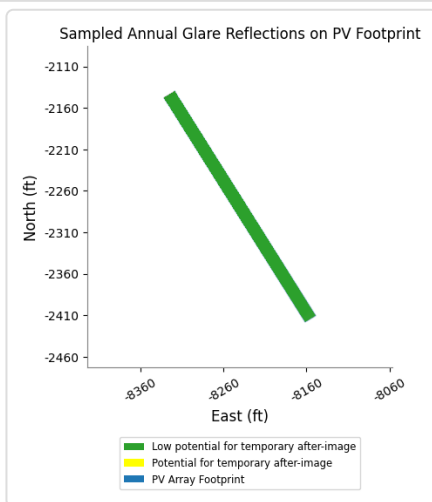
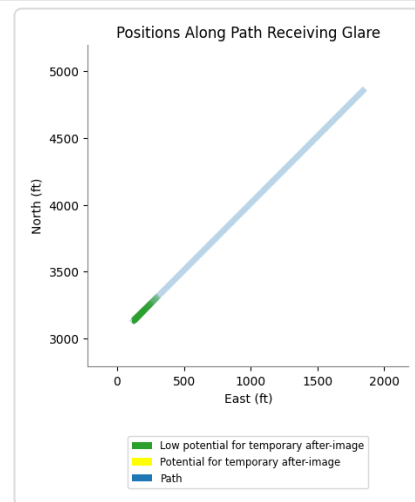
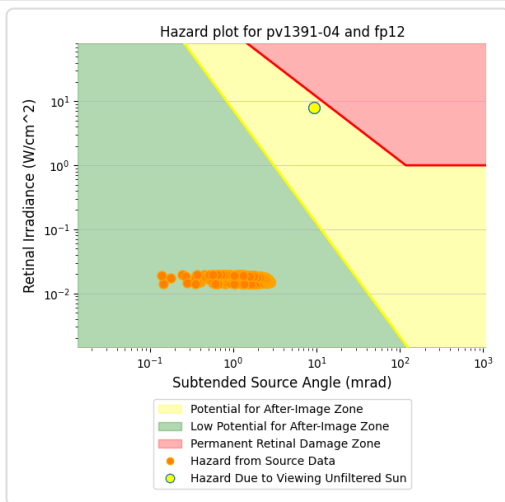
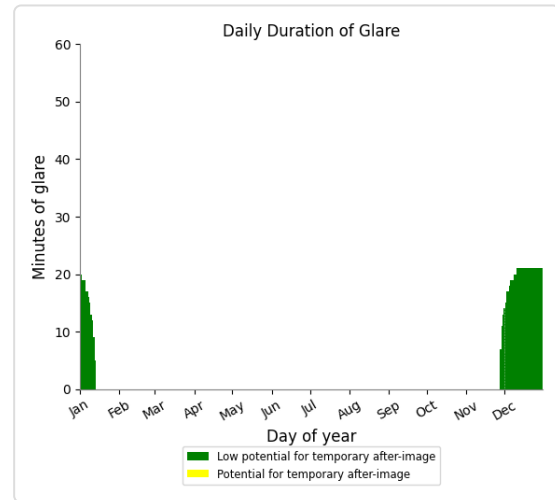
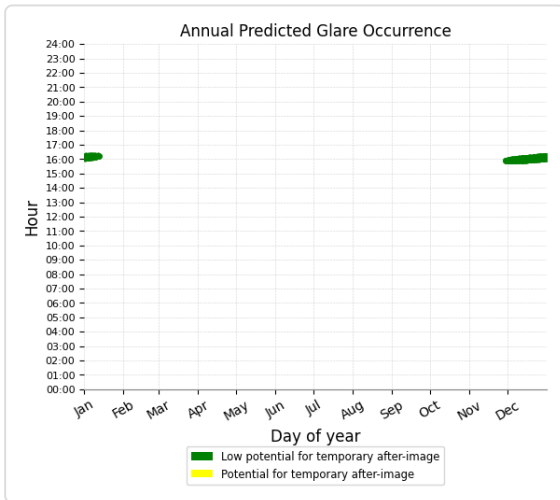
Green glare: 6,748 min.



PV1391_04 and FP: FP12

Yellow glare: none

Green glare: 851 min.



PV1391_04 and FP: FP01

No glare found

PV1391_04 and FP: FP02

No glare found

PV1391_04 and FP: FP03

No glare found

PV1391_04 and FP: FP07

No glare found

PV1391_04 and FP: FP08

No glare found

PV1391_04 and FP: FP09

No glare found

PV1391_04 and FP: FP10

No glare found

PV1391_04 and FP: FP11

No glare found

PV1391_04 and FP: FP13

No glare found

PV1391_04 and FP: FP14

No glare found

PV1391_04 and FP: FP15

No glare found

PV1391_04 and FP: FP16

No glare found

PV1391_04 and 1-ATCT

No glare found

PV: PV1391_05 low potential for temporary after-image

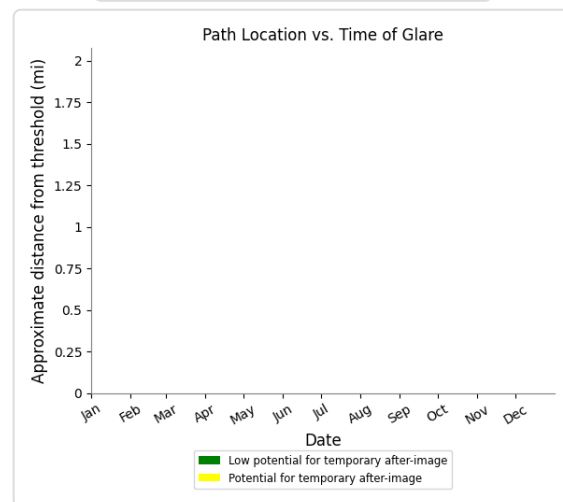
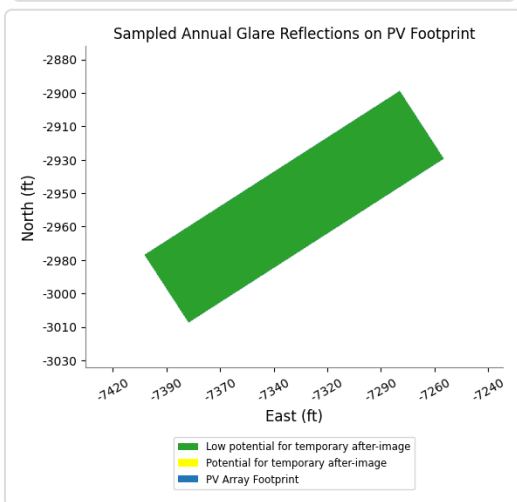
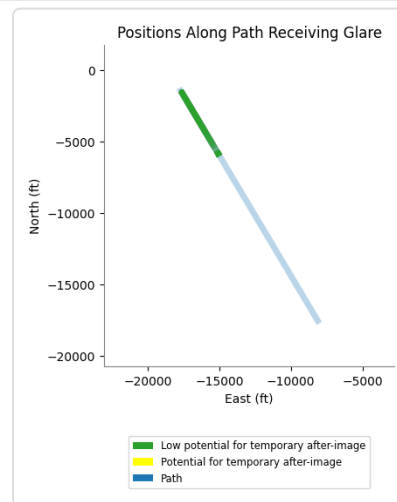
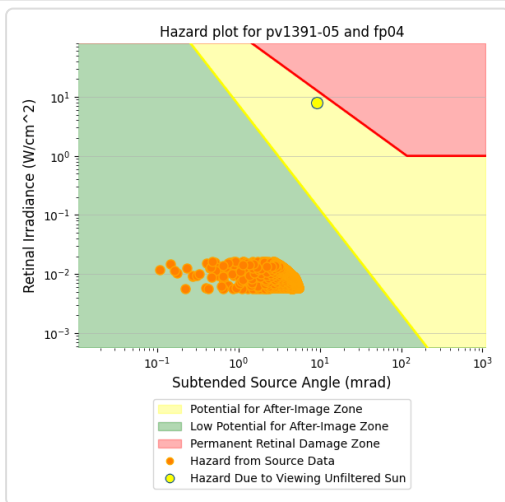
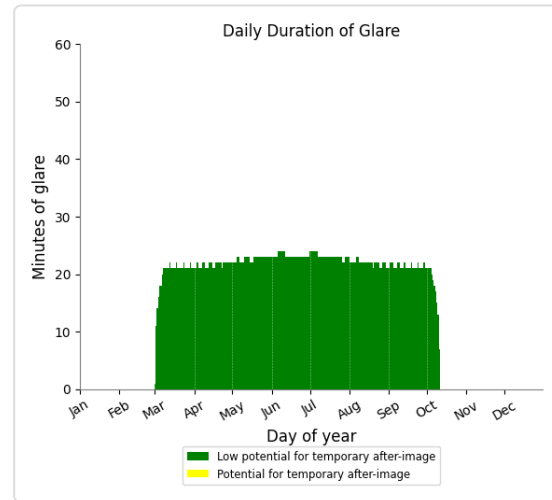
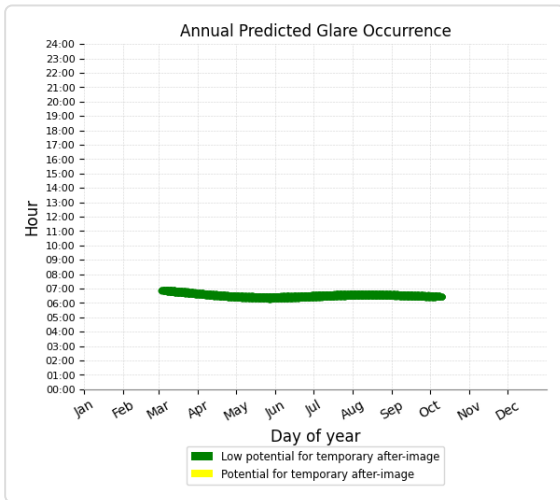
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	4,884	81.4	0	0.0
FP05	3,128	52.1	0	0.0
FP06	8,524	142.1	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1391_05 and FP: FP04

Yellow glare: none

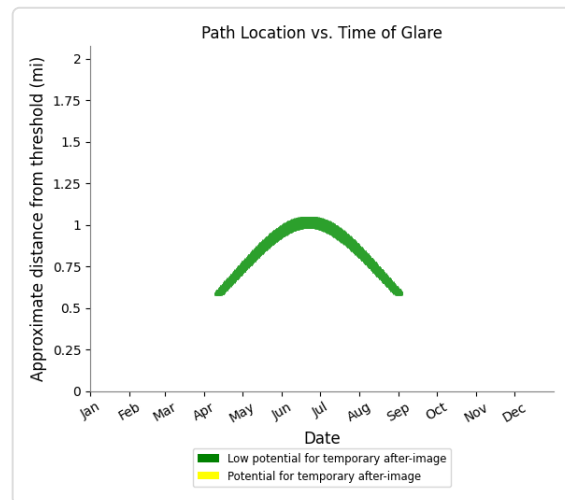
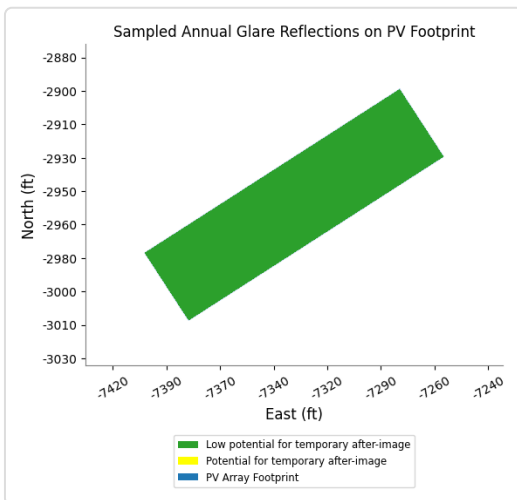
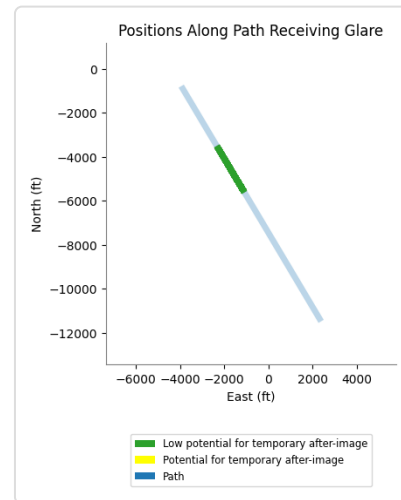
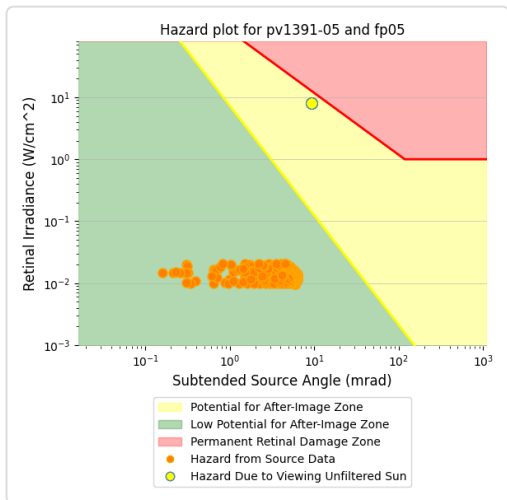
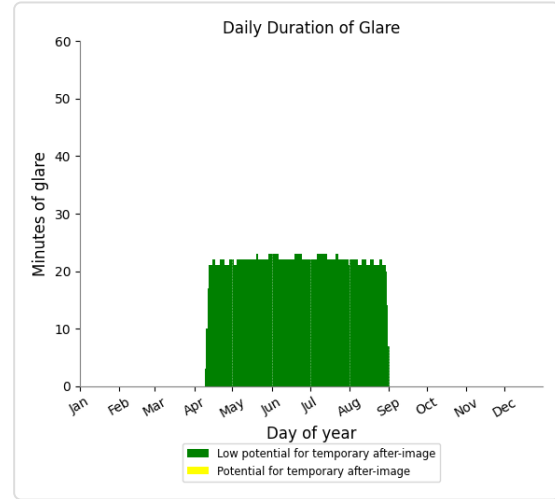
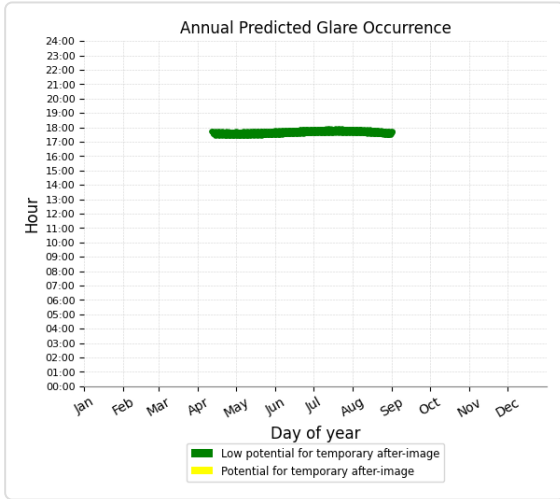
Green glare: 4,884 min.



PV1391_05 and FP: FP05

Yellow glare: none

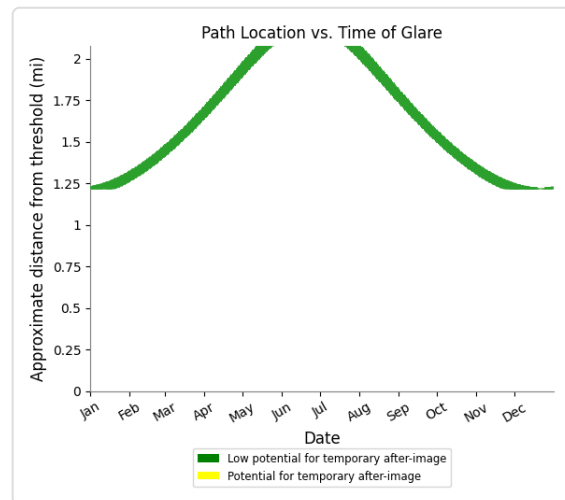
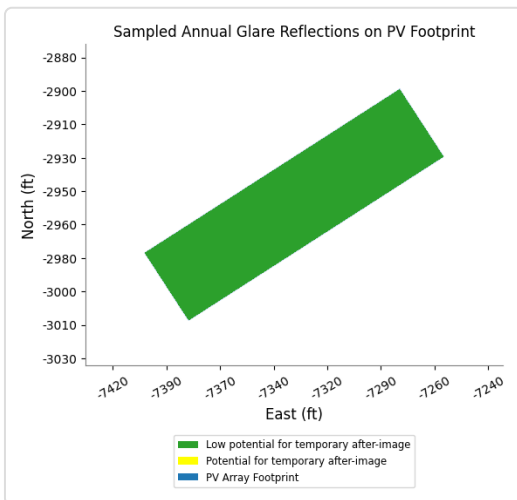
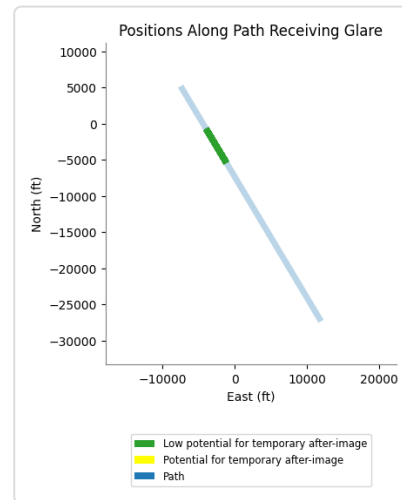
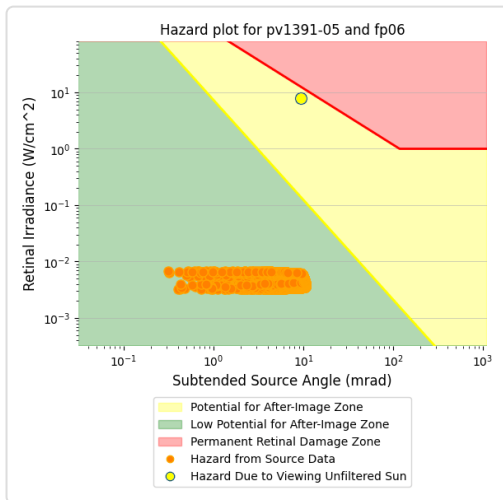
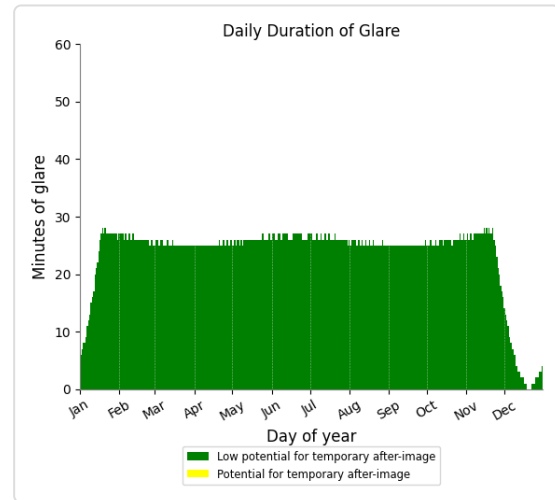
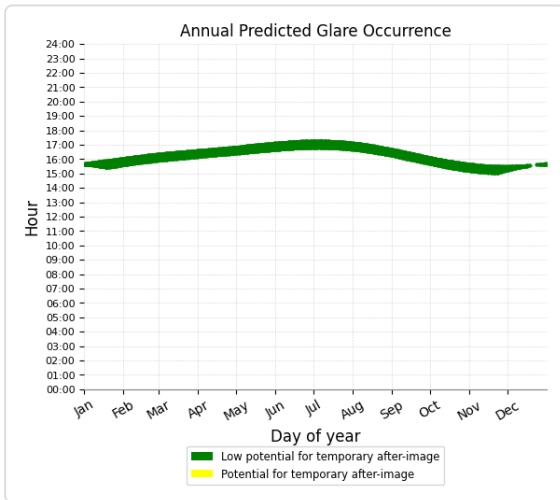
Green glare: 3,128 min.



PV1391_05 and FP: FP06

Yellow glare: none

Green glare: 8,524 min.



PV1391_05 and FP: FP01

No glare found

PV1391_05 and FP: FP02

No glare found

PV1391_05 and FP: FP03

No glare found

PV1391_05 and FP: FP07

No glare found

PV1391_05 and FP: FP08

No glare found

PV1391_05 and FP: FP09

No glare found

PV1391_05 and FP: FP10

No glare found

PV1391_05 and FP: FP11

No glare found

PV1391_05 and FP: FP12

No glare found

PV1391_05 and FP: FP13

No glare found

PV1391_05 and FP: FP14

No glare found

PV1391_05 and FP: FP15

No glare found

PV1391_05 and FP: FP16

No glare found

PV1391_05 and 1-ATCT

No glare found

PV: PV1391_06 low potential for temporary after-image

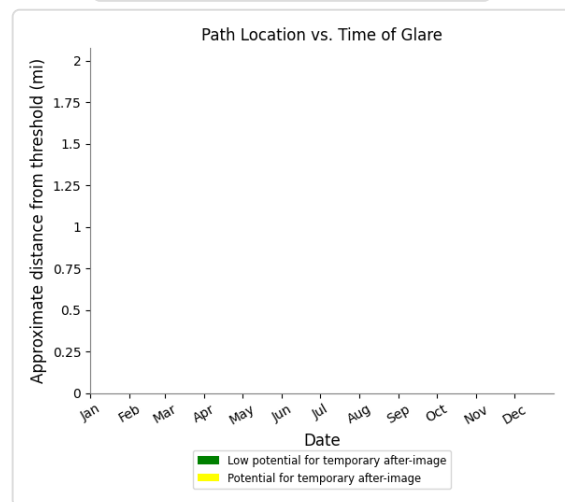
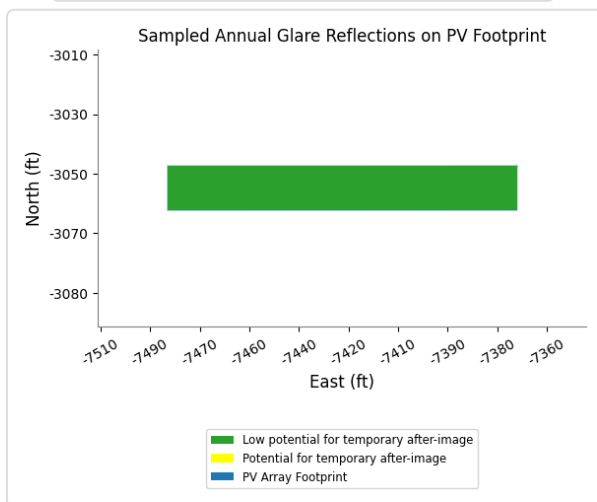
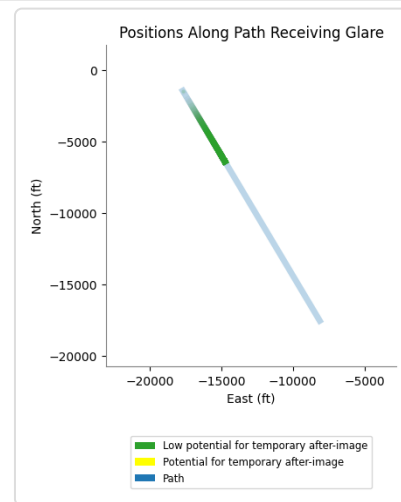
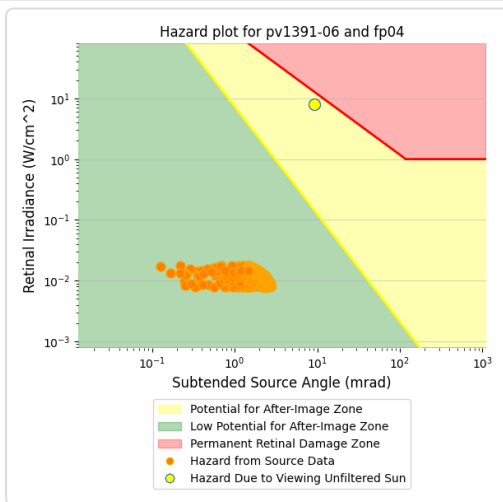
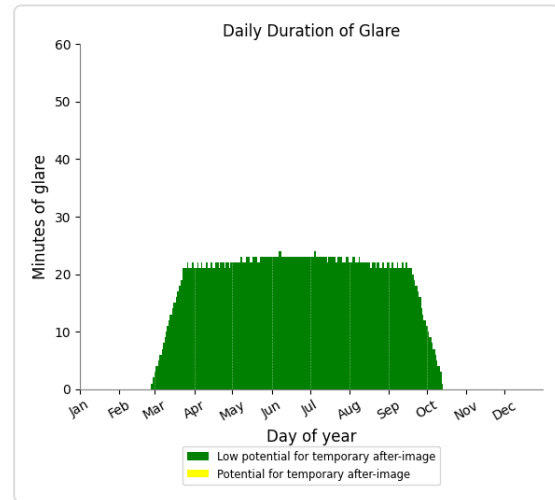
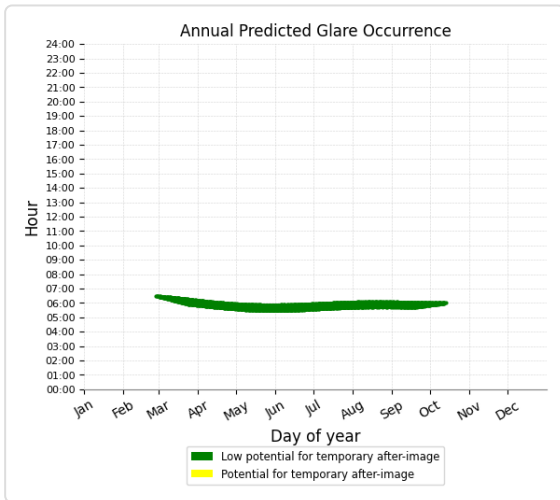
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	4,525	75.4	0	0.0
FP05	2,584	43.1	0	0.0
FP06	7,069	117.8	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1391_06 and FP: FP04

Yellow glare: none

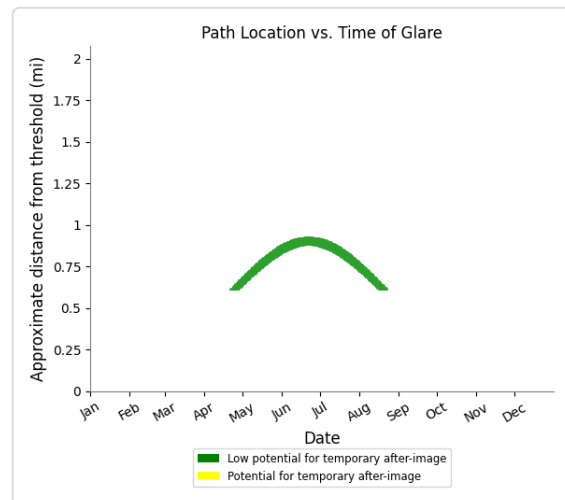
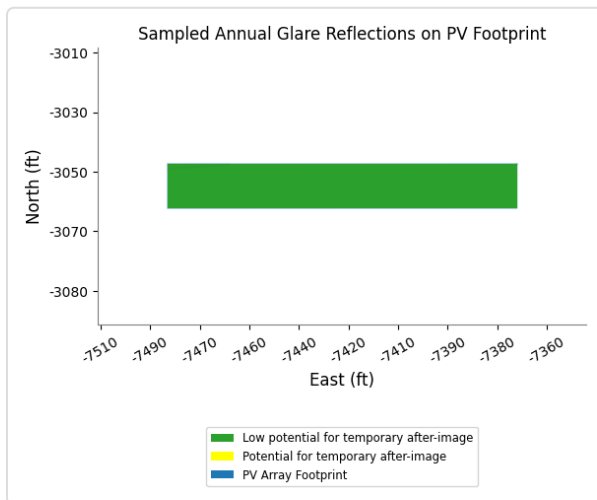
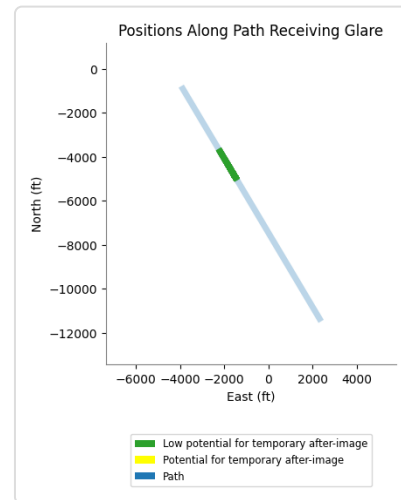
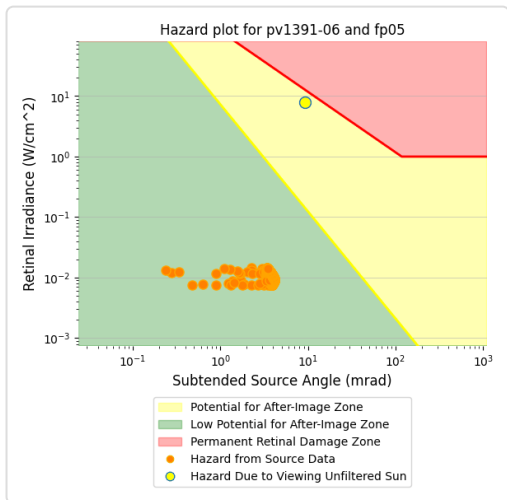
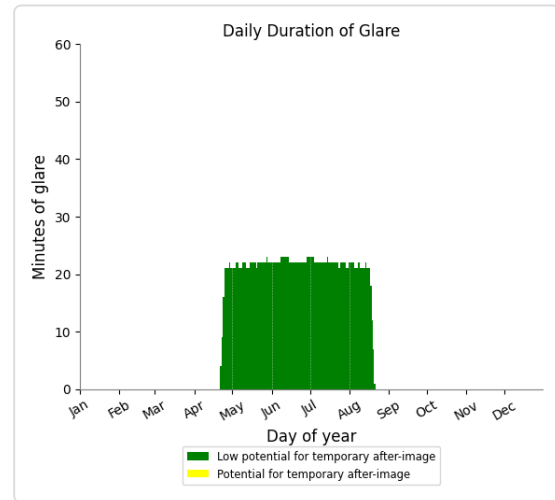
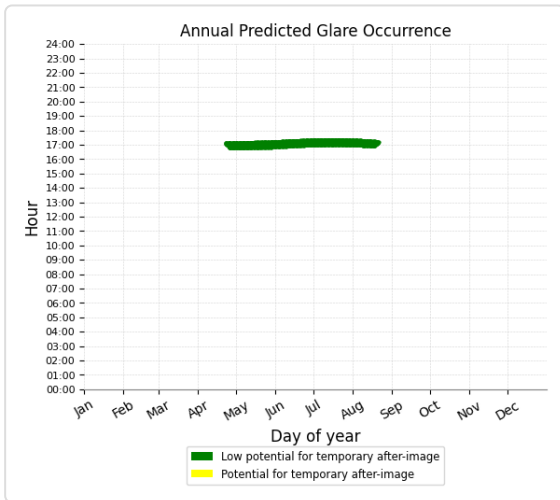
Green glare: 4,525 min.



PV1391_06 and FP: FP05

Yellow glare: none

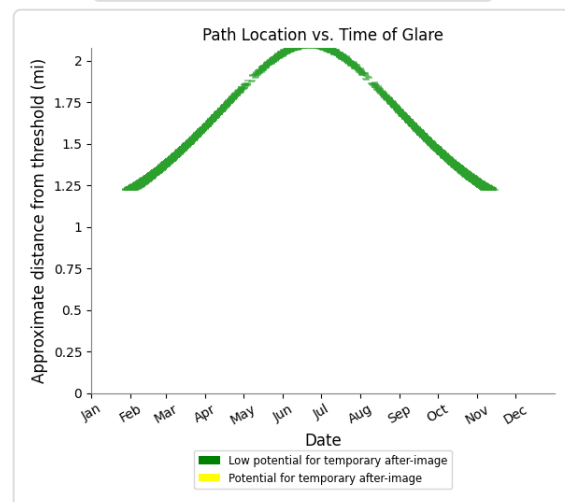
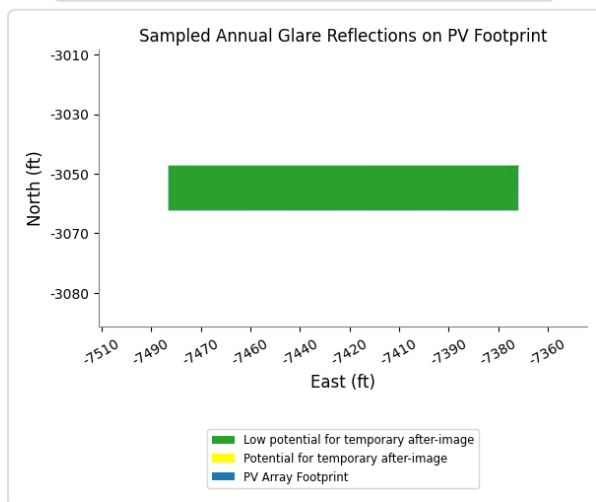
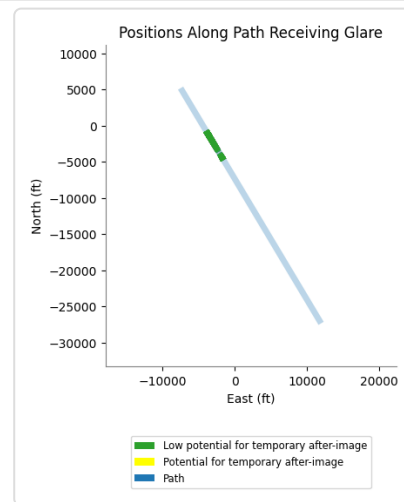
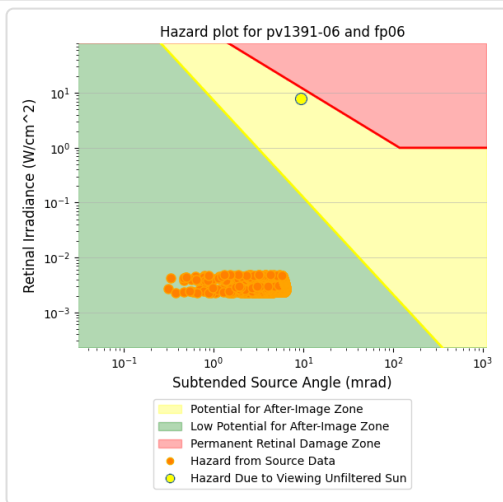
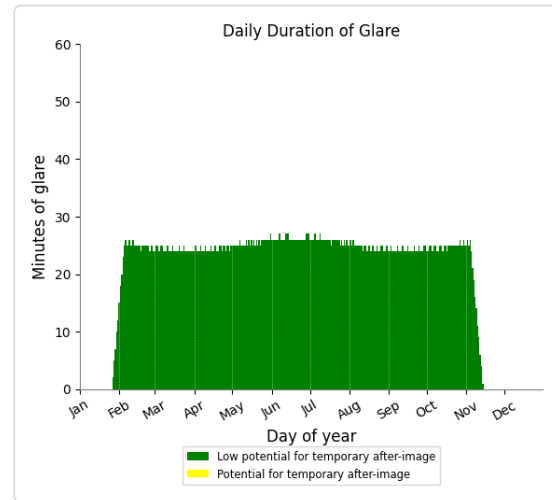
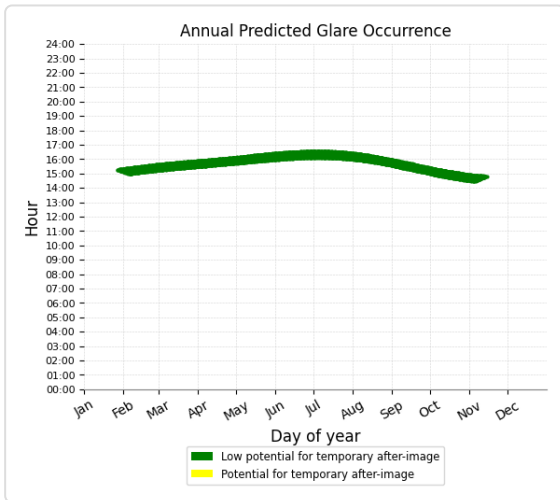
Green glare: 2,584 min.



PV1391_06 and FP: FP06

Yellow glare: none

Green glare: 7,069 min.



PV1391_06 and FP: FP01

No glare found

PV1391_06 and FP: FP02

No glare found

PV1391_06 and FP: FP03

No glare found

PV1391_06 and FP: FP07

No glare found

PV1391_06 and FP: FP08

No glare found

PV1391_06 and FP: FP09

No glare found

PV1391_06 and FP: FP10

No glare found

PV1391_06 and FP: FP11

No glare found

PV1391_06 and FP: FP12

No glare found

PV1391_06 and FP: FP13

No glare found

PV1391_06 and FP: FP14

No glare found

PV1391_06 and FP: FP15

No glare found

PV1391_06 and FP: FP16

No glare found

PV1391_06 and 1-ATCT

No glare found

PV: PV1404_01 low potential for temporary after-image

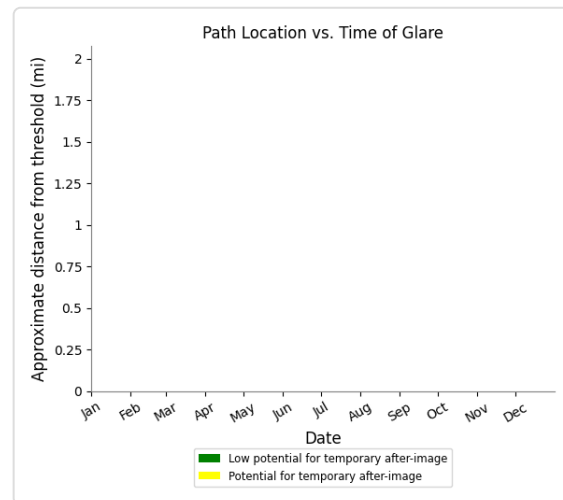
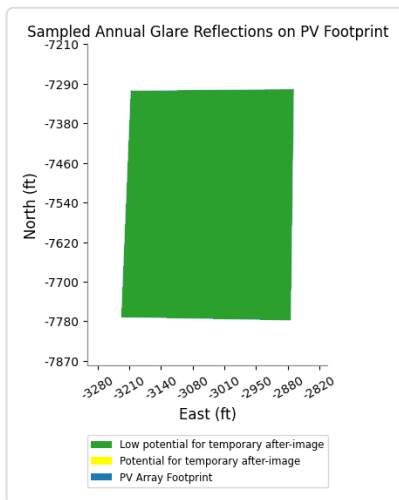
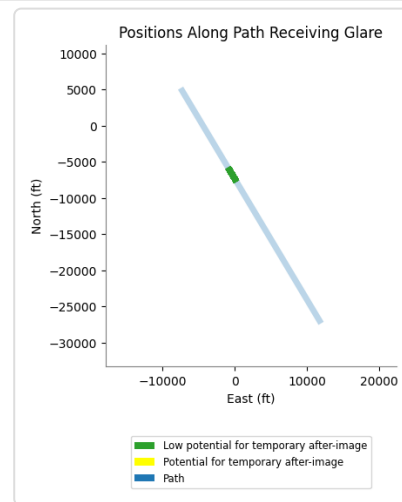
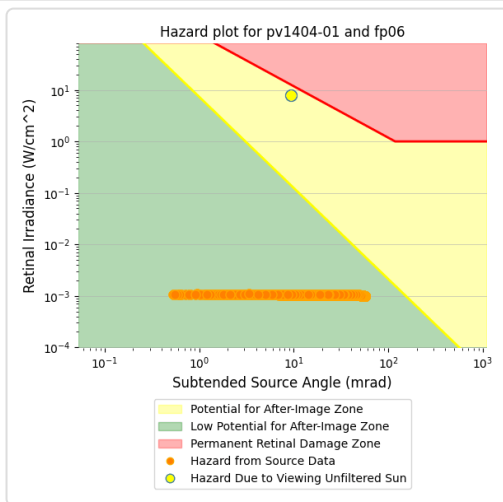
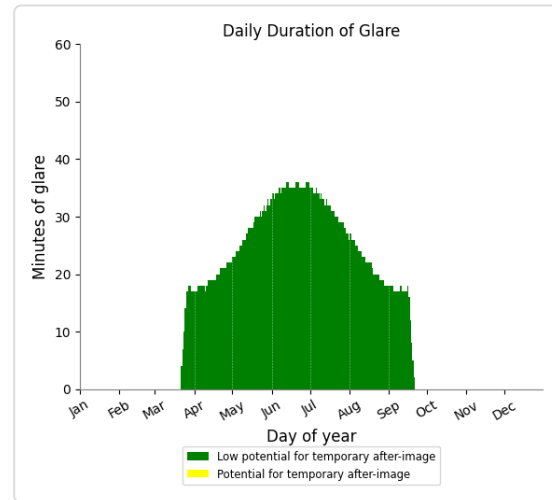
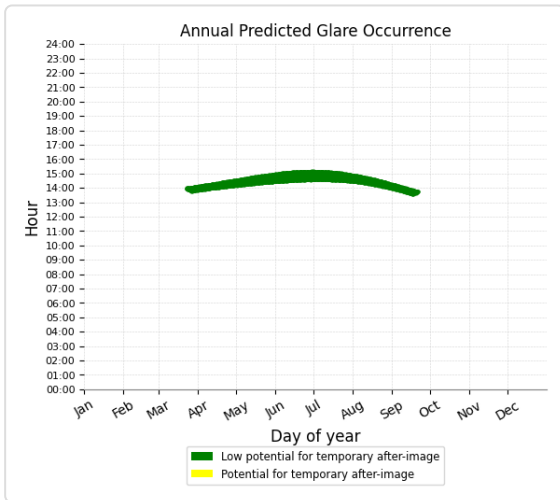
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP06	4,621	77.0	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP04	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1404_01 and FP: FP06

Yellow glare: none

Green glare: 4,621 min.



PV1404_01 and FP: FP01

No glare found

PV1404_01 and FP: FP02

No glare found

PV1404_01 and FP: FP03

No glare found

PV1404_01 and FP: FP04

No glare found

PV1404_01 and FP: FP05

No glare found

PV1404_01 and FP: FP07

No glare found

PV1404_01 and FP: FP08

No glare found

PV1404_01 and FP: FP09

No glare found

PV1404_01 and FP: FP10

No glare found

PV1404_01 and FP: FP11

No glare found

PV1404_01 and FP: FP12

No glare found

PV1404_01 and FP: FP13

No glare found

PV1404_01 and FP: FP14

No glare found

PV1404_01 and FP: FP15

No glare found

PV1404_01 and FP: FP16

No glare found

PV1404_01 and 1-ATCT

No glare found

PV: PV1488_01 low potential for temporary after-image

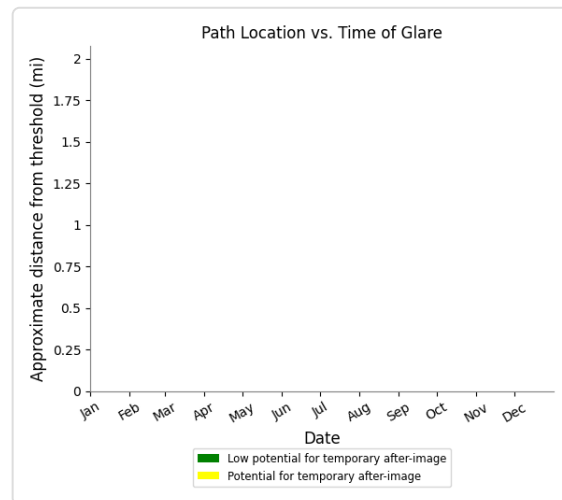
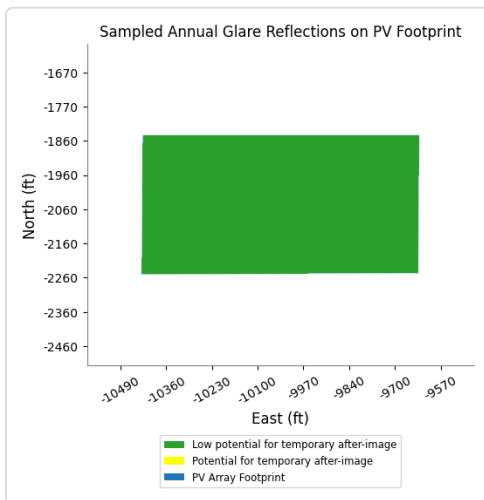
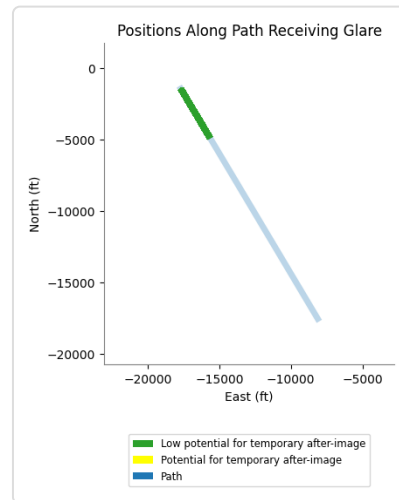
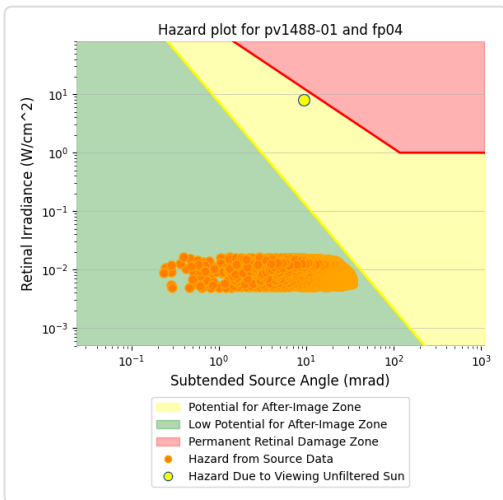
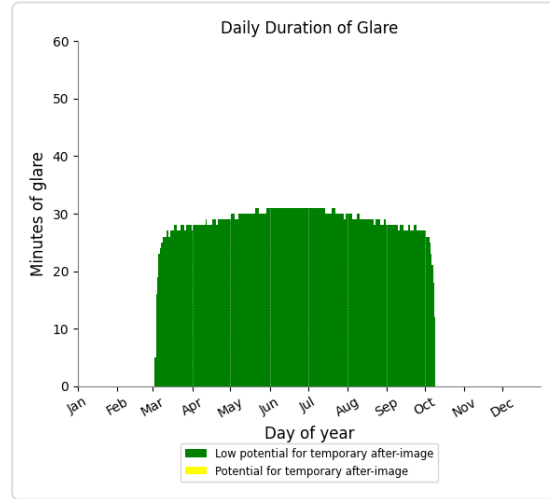
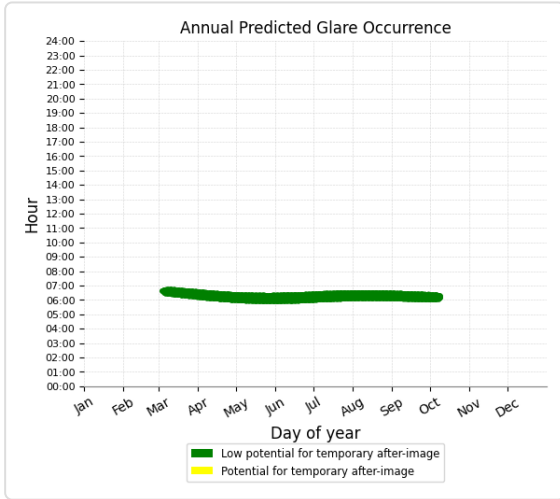
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	6,327	105.5	0	0.0
FP05	2,921	48.7	0	0.0
FP06	11,385	189.8	0	0.0
FP12	1,969	32.8	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1488_01 and FP: FP04

Yellow glare: none

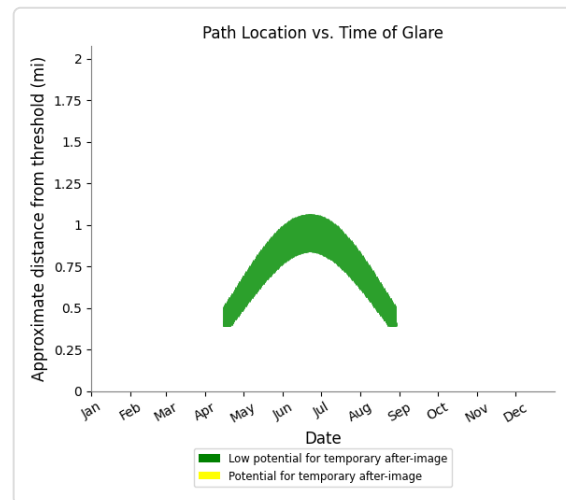
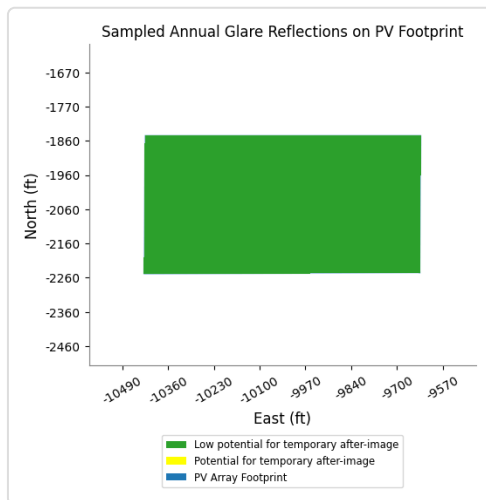
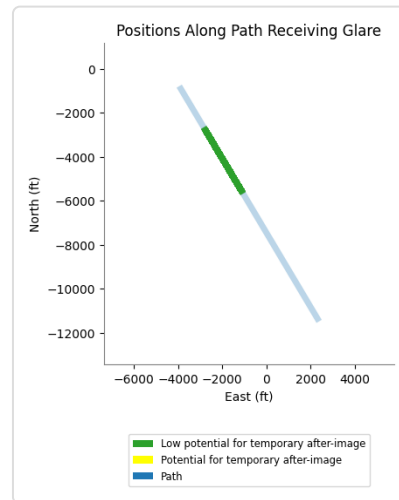
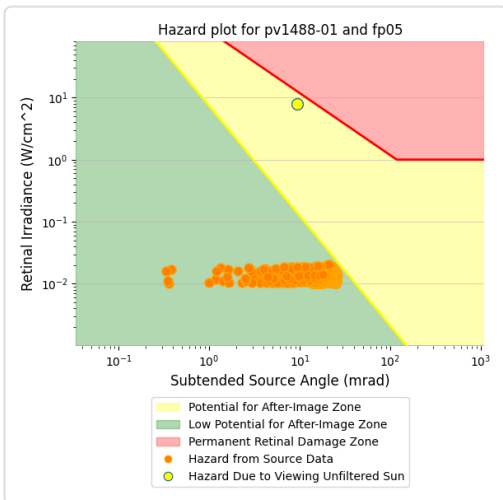
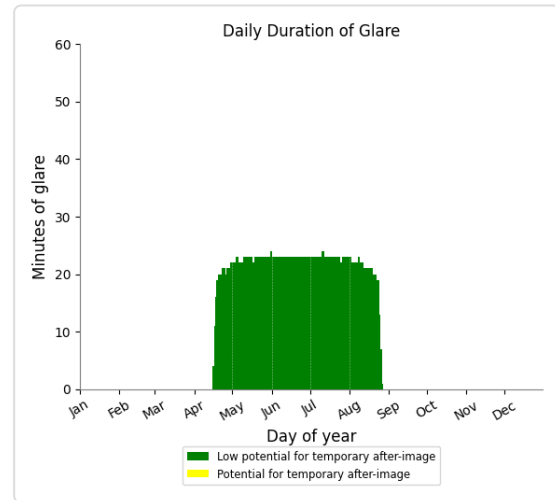
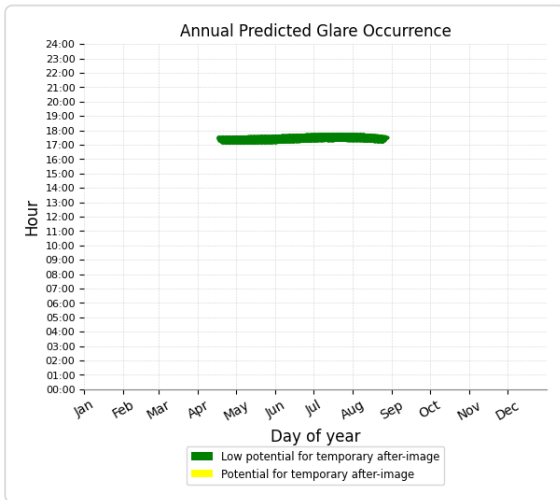
Green glare: 6,327 min.



PV1488_01 and FP: FP05

Yellow glare: none

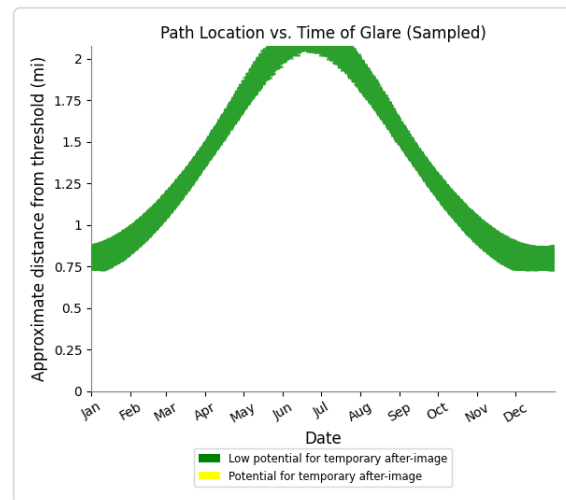
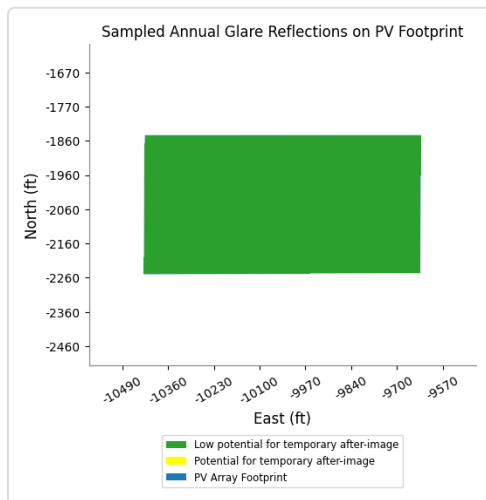
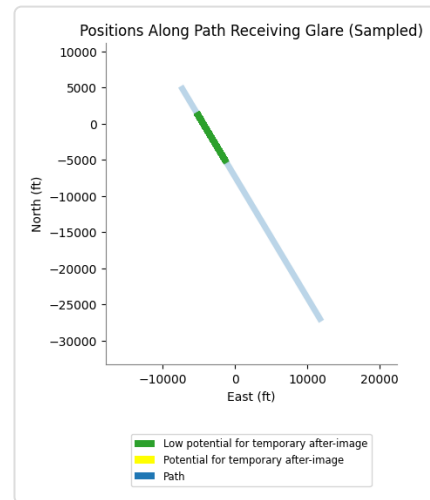
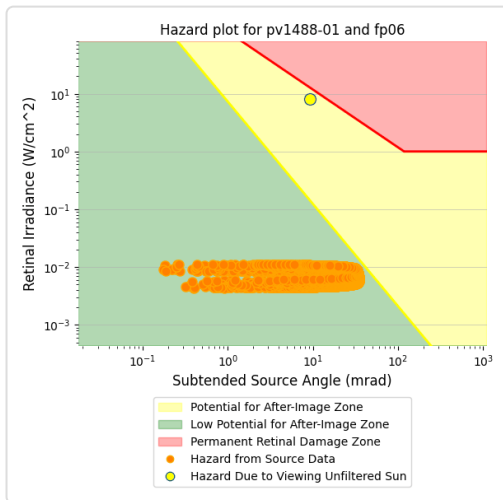
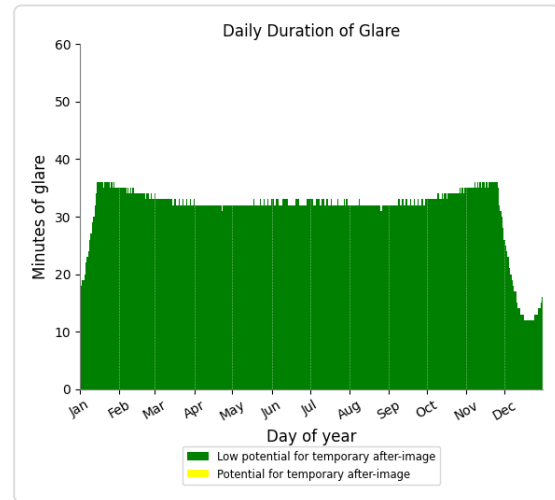
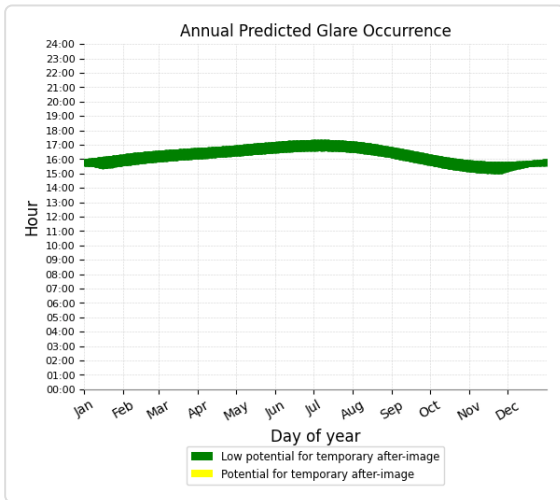
Green glare: 2,921 min.



PV1488_01 and FP: FP06

Yellow glare: none

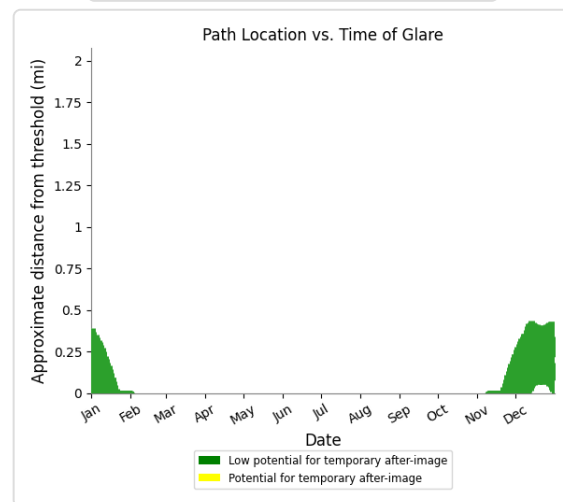
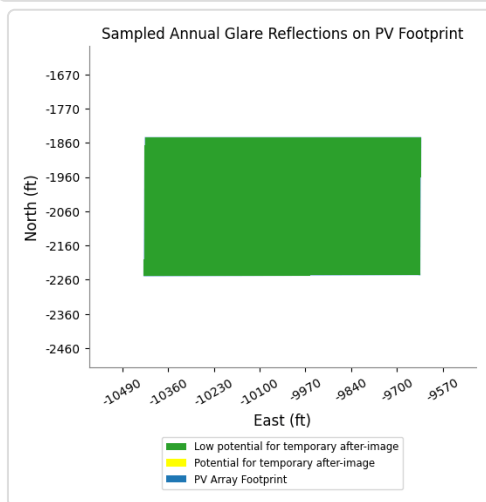
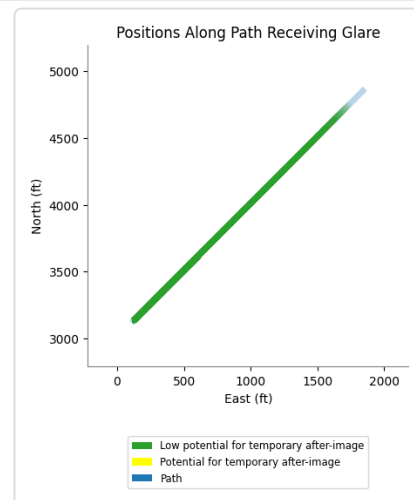
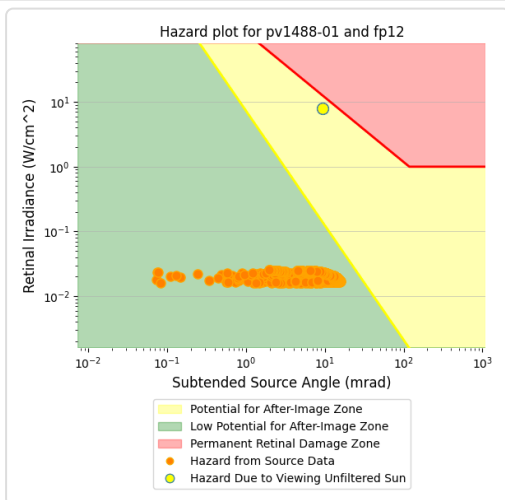
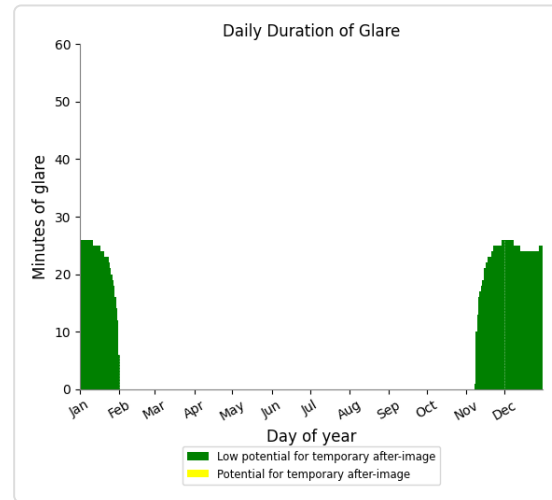
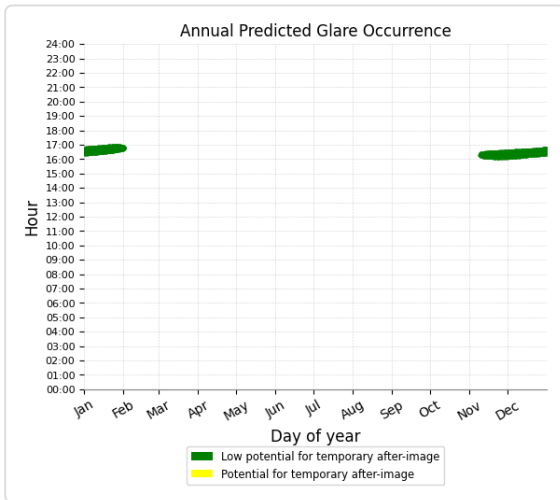
Green glare: 11,385 min.



PV1488_01 and FP: FP12

Yellow glare: none

Green glare: 1,969 min.



PV1488_01 and FP: FP01

No glare found

PV1488_01 and FP: FP02

No glare found

PV1488_01 and FP: FP03

No glare found

PV1488_01 and FP: FP07

No glare found

PV1488_01 and FP: FP08

No glare found

PV1488_01 and FP: FP09

No glare found

PV1488_01 and FP: FP10

No glare found

PV1488_01 and FP: FP11

No glare found

PV1488_01 and FP: FP13

No glare found

PV1488_01 and FP: FP14

No glare found

PV1488_01 and FP: FP15

No glare found

PV1488_01 and FP: FP16

No glare found

PV1488_01 and 1-ATCT

No glare found

PV: PV1564_01 low potential for temporary after-image

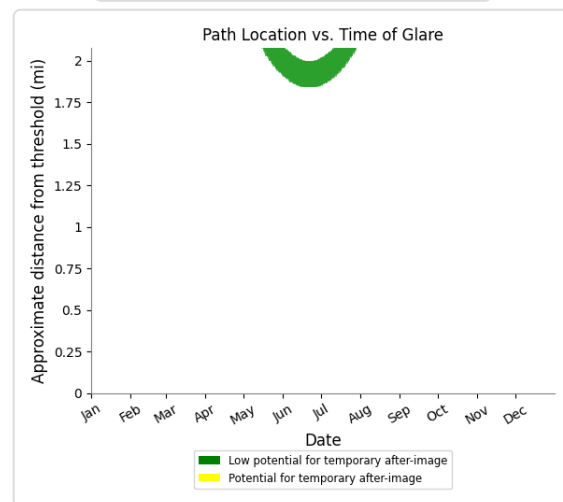
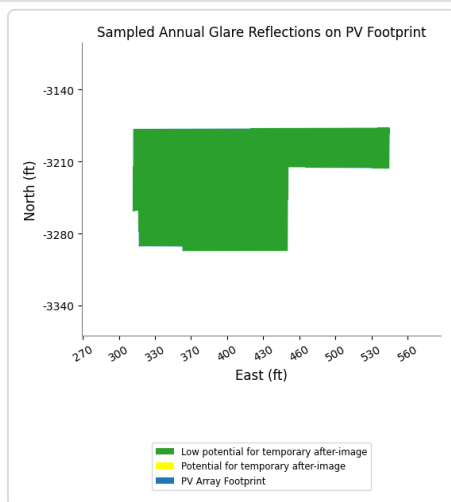
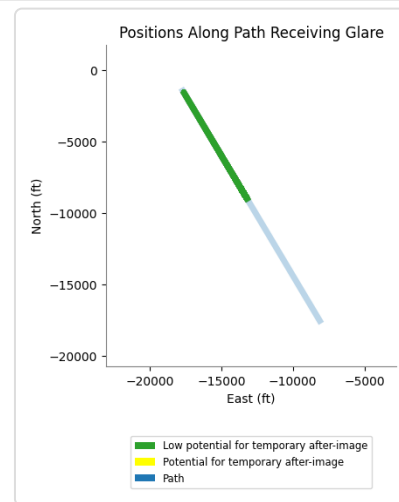
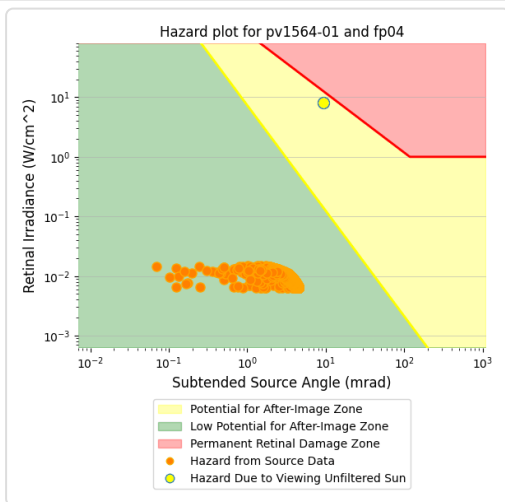
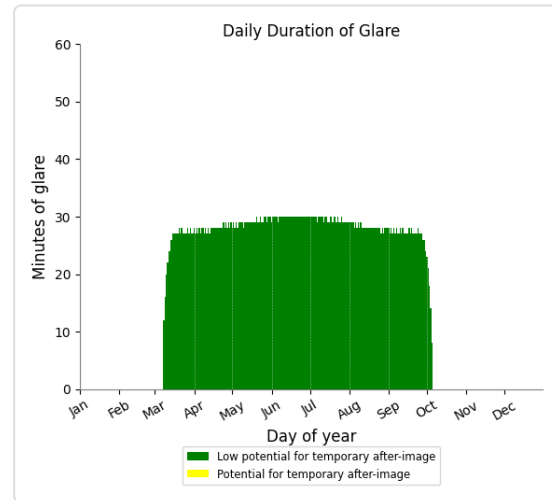
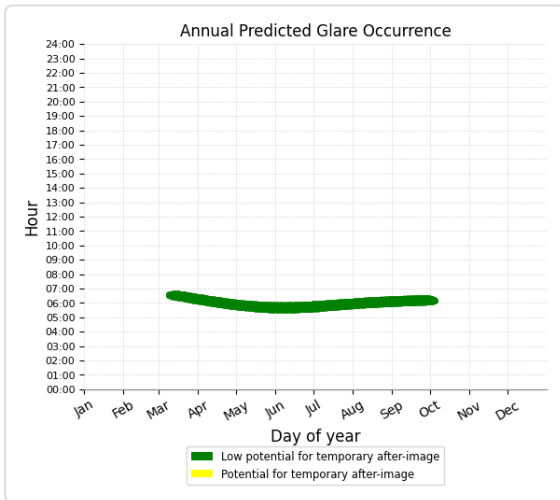
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	5,933	98.9	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1564_01 and FP: FP04

Yellow glare: none

Green glare: 5,933 min.



PV1564_01 and FP: FP01

No glare found

PV1564_01 and FP: FP02

No glare found

PV1564_01 and FP: FP03

No glare found

PV1564_01 and FP: FP05

No glare found

PV1564_01 and FP: FP06

No glare found

PV1564_01 and FP: FP07

No glare found

PV1564_01 and FP: FP08

No glare found

PV1564_01 and FP: FP09

No glare found

PV1564_01 and FP: FP10

No glare found

PV1564_01 and FP: FP11

No glare found

PV1564_01 and FP: FP12

No glare found

PV1564_01 and FP: FP13

No glare found

PV1564_01 and FP: FP14

No glare found

PV1564_01 and FP: FP15

No glare found

PV1564_01 and FP: FP16

No glare found

PV1564_01 and 1-ATCT

No glare found

PV: PV1566_01 low potential for temporary after-image

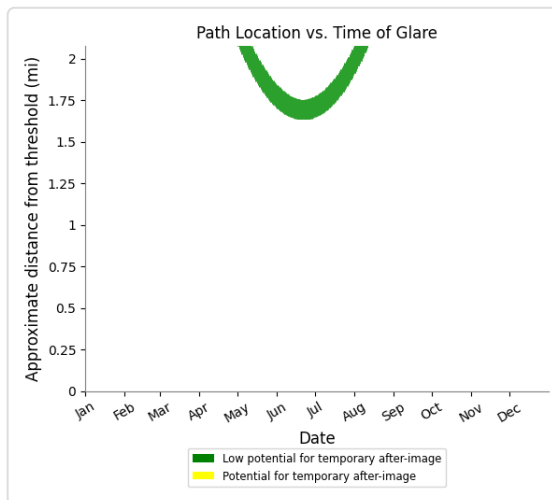
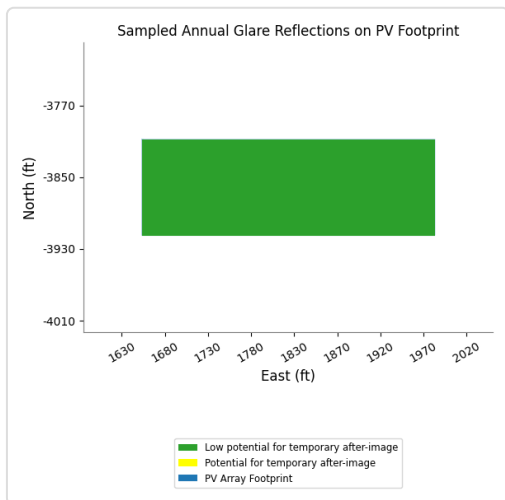
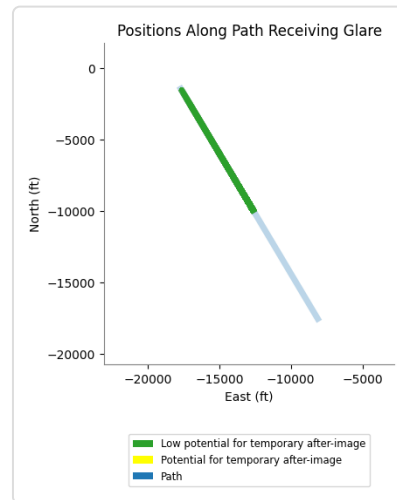
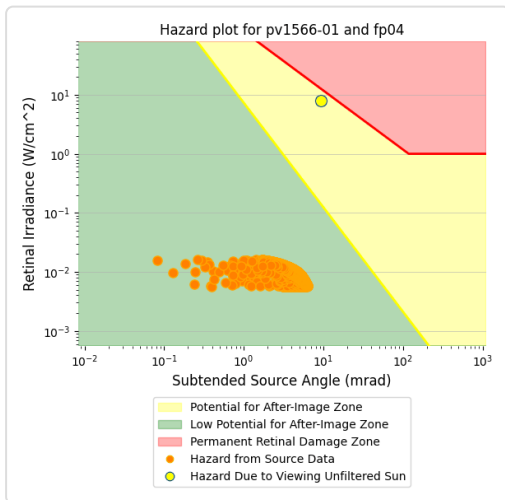
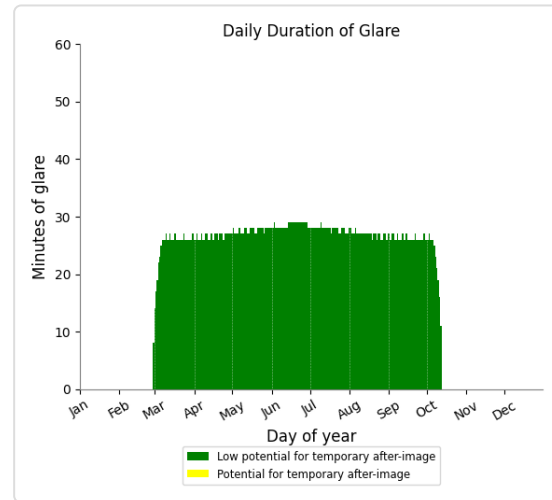
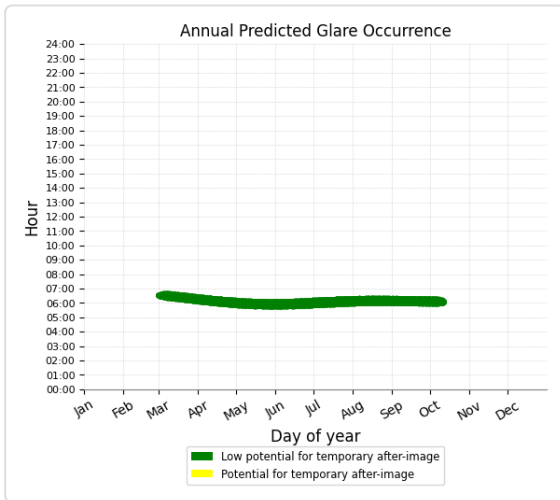
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	6,051	100.8	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP06	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1566_01 and FP: FP04

Yellow glare: none

Green glare: 6,051 min.



PV1566_01 and FP: FP01

No glare found

PV1566_01 and FP: FP02

No glare found

PV1566_01 and FP: FP03

No glare found

PV1566_01 and FP: FP05

No glare found

PV1566_01 and FP: FP06

No glare found

PV1566_01 and FP: FP07

No glare found

PV1566_01 and FP: FP08

No glare found

PV1566_01 and FP: FP09

No glare found

PV1566_01 and FP: FP10

No glare found

PV1566_01 and FP: FP11

No glare found

PV1566_01 and FP: FP12

No glare found

PV1566_01 and FP: FP13

No glare found

PV1566_01 and FP: FP14

No glare found

PV1566_01 and FP: FP15

No glare found

PV1566_01 and FP: FP16

No glare found

PV1566_01 and 1-ATCT

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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FORGESOLAR GLARE ANALYSIS

Project: **March Air Reserve Base Cumulative Analysis Central A**

Site configuration: **Central A Rwy 14_32 90DegView**

Created 10 Jul, 2023

Updated 13 Sep, 2023

Time-step 1 minute

Timezone offset UTC-8

Minimum sun altitude 0.0 deg

DNI peaks at 1,000.0 W/m²

Category 10 MW to 100 MW

Site ID 95007.16371

Ocular transmission coefficient 0.5

Pupil diameter 0.002 m

Eye focal length 0.017 m

Sun subtended angle 9.3 mrad

PV analysis methodology V2



Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt °	Orient °	Annual Green Glare		Annual Yellow Glare		Energy kWh
			min	hr	min	hr	
PV1216_01	8.0	270.0	17,955	299.2	0	0.0	-
PV1216_02	8.0	90.0	0	0.0	0	0.0	-
PV1371_01	10.0	180.0	14,624	243.7	0	0.0	-
PV1371_02	10.0	180.0	15,631	260.5	0	0.0	-
PV1388_01	10.0	180.0	11,345	189.1	0	0.0	-
PV1388_02	10.0	180.0	11,009	183.5	0	0.0	-
PV1391_01	25.0	150.0	12,822	213.7	0	0.0	-
PV1391_02	10.0	180.0	17,698	295.0	0	0.0	-
PV1391_03	10.0	150.0	14,239	237.3	0	0.0	-
PV1391_04	10.0	150.0	13,118	218.6	0	0.0	-
PV1391_05	10.0	180.0	18,062	301.0	0	0.0	-
PV1391_06	10.0	150.0	13,750	229.2	0	0.0	-
PV1404_01	10.0	90.0	2,547	42.5	0	0.0	-
PV1488_01	10.0	160.0	11,764	196.1	0	0.0	-
PV1564_01	5.0	180.0	23,399	390.0	0	0.0	-
PV1566_01	10.0	180.0	16,450	274.2	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

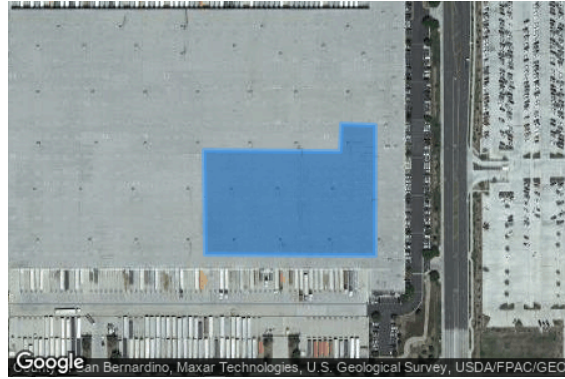
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	2,171	36.2	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP18	0	0.0	0	0.0
FP19	1,503	25.1	0	0.0
FP20	0	0.0	0	0.0
FP21	2,540	42.3	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP24	81,308	1,355.1	0	0.0
FP25	27,380	456.3	0	0.0
FP26	0	0.0	0	0.0
FP27	2,140	35.7	0	0.0
FP28	0	0.0	0	0.0
FP29	113	1.9	0	0.0
FP30	0	0.0	0	0.0
FP31	5,829	97.2	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	65,175	1,086.2	0	0.0
FP35	26,254	437.6	0	0.0
FP36	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV1216_01
Axis tracking: Fixed (no rotation)
Tilt: 8.0°
Orientation: 270.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.867474	-117.235526	1486.03	40.00	1526.03
2	33.867483	-117.236985	1481.42	40.00	1521.42
3	33.868223	-117.236996	1482.43	40.00	1522.43
4	33.868214	-117.235826	1484.09	40.00	1524.09
5	33.868410	-117.235816	1484.14	40.00	1524.14
6	33.868401	-117.235526	1485.23	40.00	1525.23

Name: PV1216_02
Axis tracking: Fixed (no rotation)
Tilt: 8.0°
Orientation: 90.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.867474	-117.235526	1486.03	40.00	1526.03
2	33.867483	-117.236985	1481.42	40.00	1521.42
3	33.868223	-117.236996	1482.43	40.00	1522.43
4	33.868214	-117.235826	1484.09	40.00	1524.09
5	33.868410	-117.235816	1484.14	40.00	1524.14
6	33.868401	-117.235526	1485.23	40.00	1525.23

Name: PV1371_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.861655	-117.271672	1617.08	48.00	1665.08
2	33.861644	-117.270914	1617.08	48.00	1665.08
3	33.861294	-117.270909	1617.08	48.00	1665.08
4	33.861293	-117.271675	1617.08	48.00	1665.08

Name: PV1371_02

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.865497	-117.271631	1597.08	48.00	1645.08
2	33.865494	-117.270857	1597.08	48.00	1645.08
3	33.865144	-117.270858	1597.08	48.00	1645.08
4	33.865148	-117.271642	1597.08	48.00	1645.08

Name: PV1388_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

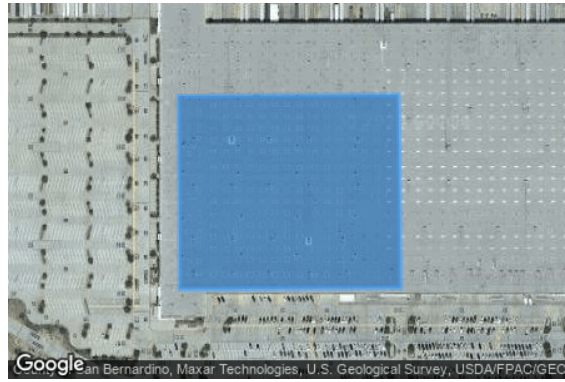
Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.872522	-117.240892	1472.07	42.00	1514.07
2	33.872531	-117.239001	1470.07	42.00	1512.07
3	33.871157	-117.238981	1474.07	42.00	1516.07
4	33.871148	-117.240882	1476.07	42.00	1518.07

Name: PV1388_02

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

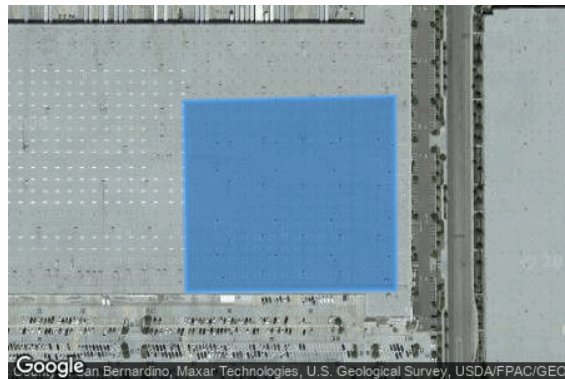
Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.872521	-117.235407	1476.07	42.00	1518.07
2	33.871147	-117.235397	1480.07	42.00	1522.07
3	33.871138	-117.237195	1475.07	42.00	1517.07
4	33.872487	-117.237216	1471.07	42.00	1513.07

Name: PV1391_01

Axis tracking: Fixed (no rotation)

Tilt: 25.0°

Orientation: 150.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.859286	-117.260781	1532.67	20.00	1552.67
2	33.861540	-117.262616	1532.67	20.00	1552.67
3	33.862010	-117.261788	1524.97	20.00	1544.97
4	33.859830	-117.259933	1525.27	20.00	1545.27

Name: PV1391_02

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.862140	-117.262160	1532.67	20.00	1552.67
2	33.862110	-117.262160	1532.67	19.00	1551.67
3	33.862100	-117.262700	1524.97	19.00	1543.97
4	33.862130	-117.262700	1525.27	20.00	1545.27

Name: PV1391_03

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 150.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.861990	-117.262440	1532.67	20.00	1552.67
2	33.861900	-117.262370	1532.67	17.00	1549.67
3	33.861680	-117.262780	1524.97	17.00	1541.97
4	33.861770	-117.262850	1525.27	20.00	1545.27

Name: PV1391_04

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 150.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.861580	-117.262950	1532.67	20.00	1552.67
2	33.860850	-117.262400	1532.67	20.00	1552.67
3	33.860830	-117.262440	1524.97	19.00	1543.97
4	33.861560	-117.262990	1525.27	19.00	1544.27

Name: PV1391_05

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.859500	-117.259530	1532.67	20.00	1552.67
2	33.859410	-117.259460	1532.67	17.00	1549.67
3	33.859190	-117.259870	1524.97	17.00	1541.97
4	33.859280	-117.259940	1525.27	20.00	1545.27

Name: PV1391_06

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 150.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.859100	-117.259820	1532.67	20.00	1552.67
2	33.859060	-117.259820	1532.67	19.00	1551.67
3	33.859060	-117.260200	1524.97	19.00	1543.97
4	33.859100	-117.260200	1525.27	20.00	1545.27

Name: PV1404_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

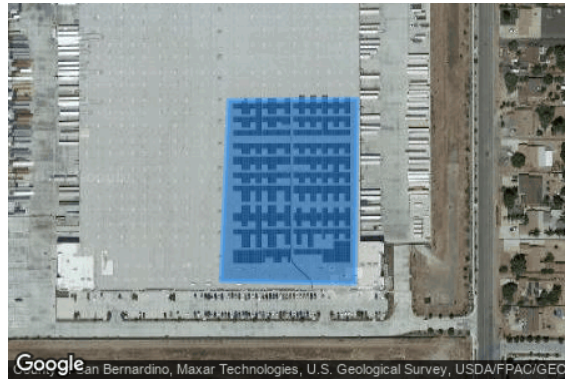
Orientation: 90.0°

Rated power: -

Panel material: Light textured glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.847374	-117.246103	1481.22	52.00	1533.22
2	33.847383	-117.244998	1479.53	52.00	1531.53
3	33.846073	-117.245019	1478.97	52.00	1530.97
4	33.846091	-117.246167	1483.22	52.00	1535.22

Name: PV1488_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 160.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.861300	-117.267300	1583.57	48.00	1631.57
2	33.862380	-117.267290	1563.72	48.00	1611.72
3	33.862380	-117.269890	1564.01	48.00	1612.01
4	33.861290	-117.269900	1583.27	48.00	1631.27

Name: PV1564_01

Axis tracking: Fixed (no rotation)

Tilt: 5.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.858429	-117.234492	1467.90	34.25	1502.15
2	33.858428	-117.234361	1467.24	34.25	1501.49
3	33.858417	-117.234362	1467.24	34.25	1501.49
4	33.858418	-117.234049	1465.68	34.25	1499.93
5	33.858627	-117.234047	1465.69	34.25	1499.94
6	33.858624	-117.233745	1464.44	34.25	1498.69
7	33.858724	-117.233743	1464.45	34.25	1498.70
8	33.858720	-117.234509	1468.06	34.25	1502.31
9	33.858517	-117.234510	1468.19	34.25	1502.44
10	33.858518	-117.234494	1468.05	34.25	1502.30

Name: PV1566_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.857000	-117.230100	1464.00	50.00	1514.00
2	33.857000	-117.229000	1462.00	50.00	1512.00
3	33.856700	-117.229000	1462.00	50.00	1512.00
4	33.856700	-117.230100	1464.00	50.00	1514.00

Flight Path Receptors

Name: FP17
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



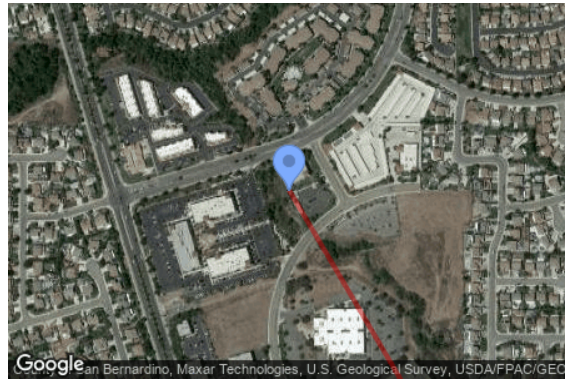
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.931244	-117.309014	0.00	3000.00	3000.00
Two-mile	33.922394	-117.325047	0.00	3000.00	3000.00

Name: FP18
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.813147	-117.244350	0.00	3000.00	3000.00
Two-mile	33.821961	-117.228367	0.00	3000.00	3000.00

Name: FP19
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.908131	-117.325528	0.00	3000.00	3000.00
Two-mile	33.819225	-117.262269	0.00	3000.00	3000.00

Name: FP20
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896431	-117.270636	0.00	1550.00	1550.00
Two-mile	33.925156	-117.291061	0.00	3000.00	3000.00

Name: FP21
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.836269	-117.227869	0.00	3000.00	3000.00
Two-mile	33.864994	-117.248281	0.00	1550.00	1550.00

Name: FP22
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.821961	-117.228367	0.00	3000.00	3000.00
Two-mile	33.813147	-117.244350	0.00	3000.00	3000.00

Name: FP23
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.922394	-117.325047	0.00	3000.00	3000.00
Two-mile	33.931244	-117.309014	0.00	3000.00	3000.00

Name: FP24
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.819225	-117.262269	0.00	3000.00	3000.00
Two-mile	33.908131	-117.325528	0.00	3000.00	3000.00

Name: FP25
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.864994	-117.248281	0.00	1550.00	1550.00
Two-mile	33.836269	-117.227869	0.00	3000.00	3000.00

Name: FP26
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.925156	-117.291061	0.00	3000.00	3000.00
Two-mile	33.896431	-117.270636	0.00	1550.00	1550.00

Name: FP27
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



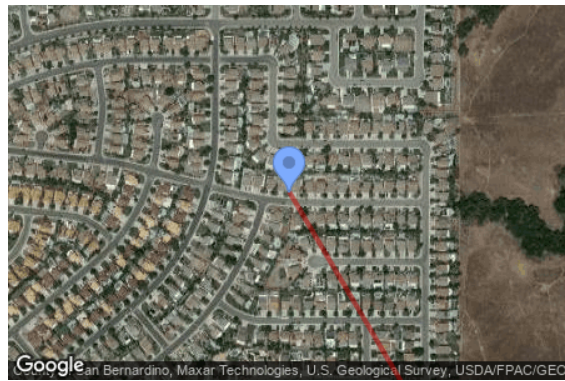
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.908242	-117.286017	0.00	3000.00	3000.00
Two-mile	33.904833	-117.292903	0.00	3000.00	3000.00

Name: FP28
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.844669	-117.250119	0.00	3000.00	3000.00
Two-mile	33.848078	-117.243236	0.00	3000.00	3000.00

Name: FP29
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.897972	-117.295011	0.00	3000.00	3000.00
Two-mile	33.846422	-117.258344	0.00	3000.00	3000.00

Name: FP30
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896431	-117.270636	0.00	1550.00	1550.00
Two-mile	33.906486	-117.277783	0.00	3000.00	3000.00

Name: FP31
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.854942	-117.241136	0.00	3000.00	3000.00
Two-mile	33.864994	-117.248281	0.00	1550.00	1550.00

Name: FP32
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.848078	-117.243236	0.00	3000.00	3000.00
Two-mile	33.844669	-117.250119	0.00	3000.00	3000.00

Name: FP33
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.904833	-117.292903	0.00	3000.00	3000.00
Two-mile	33.908242	-117.286017	0.00	3000.00	3000.00

Name: FP34
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.846422	-117.258344	0.00	3000.00	3000.00
Two-mile	33.897972	-117.295011	0.00	3000.00	3000.00

Name: FP35
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.864994	-117.248281	0.00	1550.00	1550.00
Two-mile	33.854942	-117.241136	0.00	3000.00	3000.00

Name: FP36
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.906486	-117.277783	0.00	3000.00	3000.00
Two-mile	33.896431	-117.270636	0.00	1550.00	1550.00

Glare Analysis Results

Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV1216_01	8.0	270.0	17,955	299.2	0	0.0	-
PV1216_02	8.0	90.0	0	0.0	0	0.0	-
PV1371_01	10.0	180.0	14,624	243.7	0	0.0	-
PV1371_02	10.0	180.0	15,631	260.5	0	0.0	-
PV1388_01	10.0	180.0	11,345	189.1	0	0.0	-
PV1388_02	10.0	180.0	11,009	183.5	0	0.0	-
PV1391_01	25.0	150.0	12,822	213.7	0	0.0	-
PV1391_02	10.0	180.0	17,698	295.0	0	0.0	-
PV1391_03	10.0	150.0	14,239	237.3	0	0.0	-
PV1391_04	10.0	150.0	13,118	218.6	0	0.0	-
PV1391_05	10.0	180.0	18,062	301.0	0	0.0	-
PV1391_06	10.0	150.0	13,750	229.2	0	0.0	-
PV1404_01	10.0	90.0	2,547	42.5	0	0.0	-
PV1488_01	10.0	160.0	11,764	196.1	0	0.0	-
PV1564_01	5.0	180.0	23,399	390.0	0	0.0	-
PV1566_01	10.0	180.0	16,450	274.2	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	2,171	36.2	0	0.0
FP18	0	0.0	0	0.0
FP19	1,503	25.1	0	0.0
FP20	0	0.0	0	0.0
FP21	2,540	42.3	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP24	81,308	1,355.1	0	0.0
FP25	27,380	456.3	0	0.0
FP26	0	0.0	0	0.0
FP27	2,140	35.7	0	0.0
FP28	0	0.0	0	0.0
FP29	113	1.9	0	0.0
FP30	0	0.0	0	0.0
FP31	5,829	97.2	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP34	65,175	1,086.2	0	0.0
FP35	26,254	437.6	0	0.0
FP36	0	0.0	0	0.0

PV: PV1216_01 low potential for temporary after-image

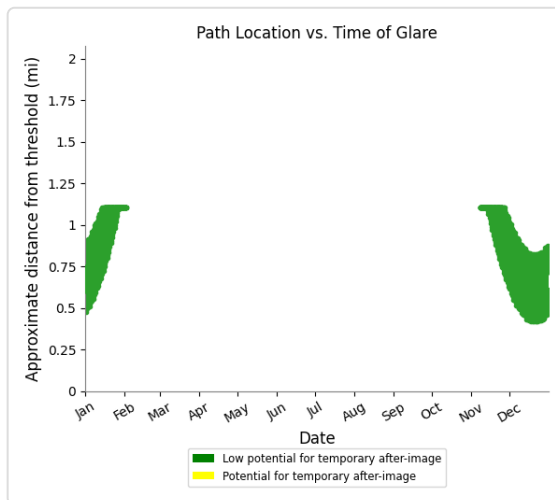
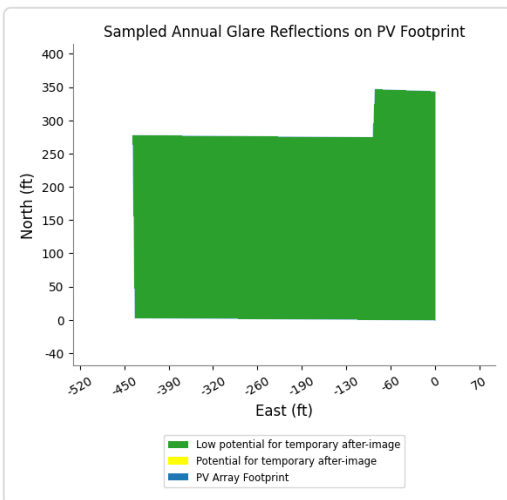
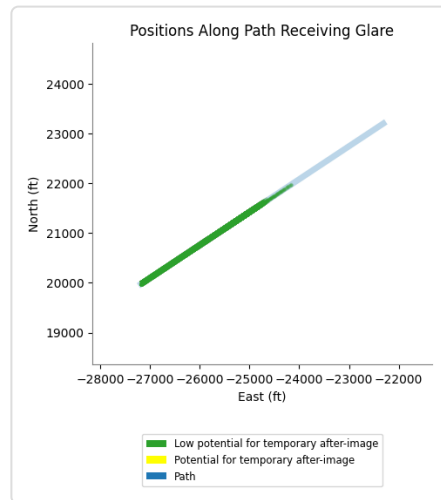
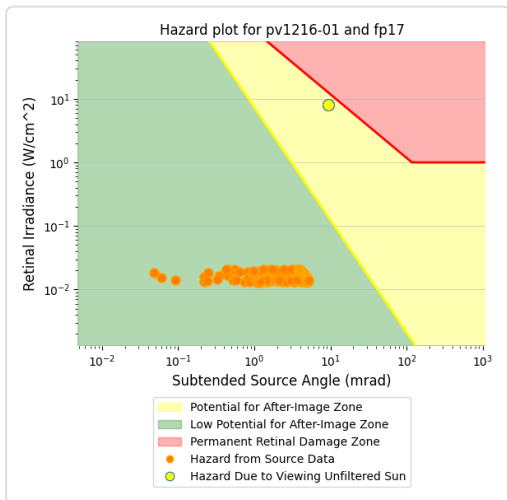
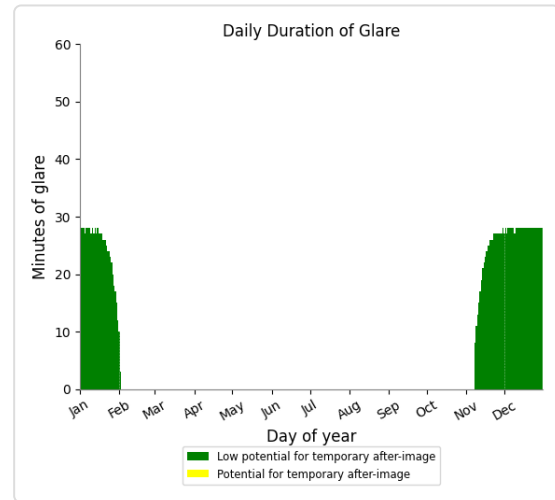
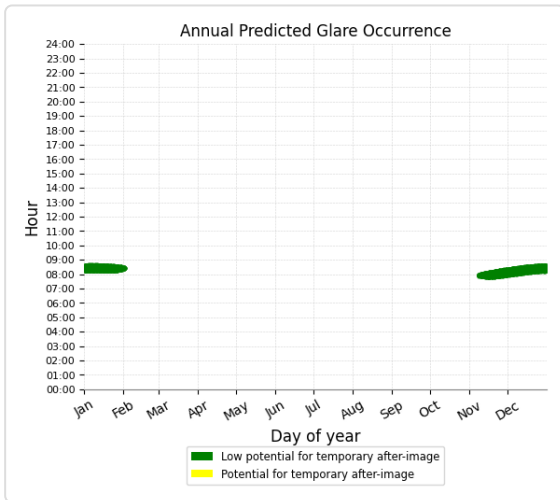
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	2,171	36.2	0	0.0
FP24	6,527	108.8	0	0.0
FP27	2,140	35.7	0	0.0
FP34	7,117	118.6	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1216_01 and FP: FP17

Yellow glare: none

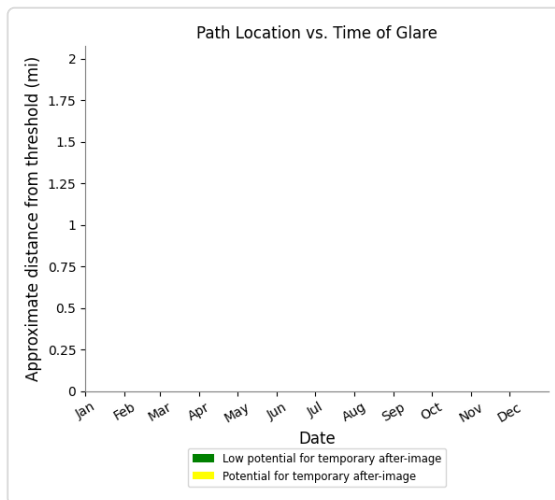
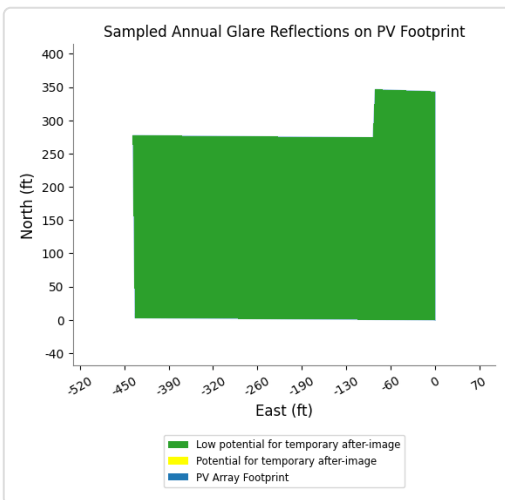
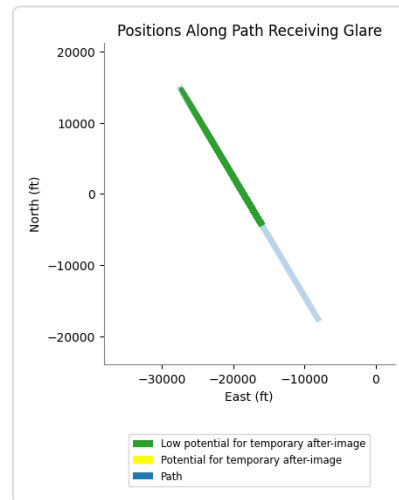
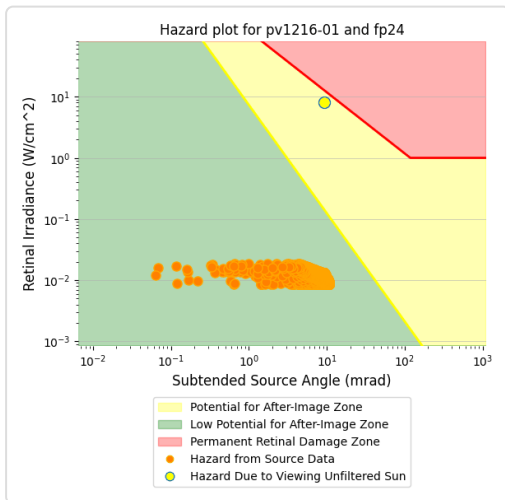
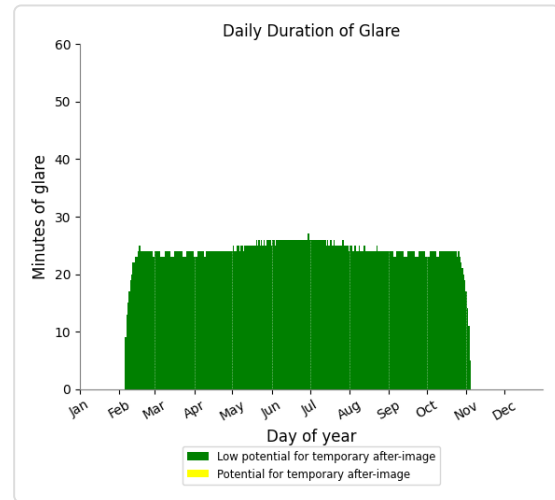
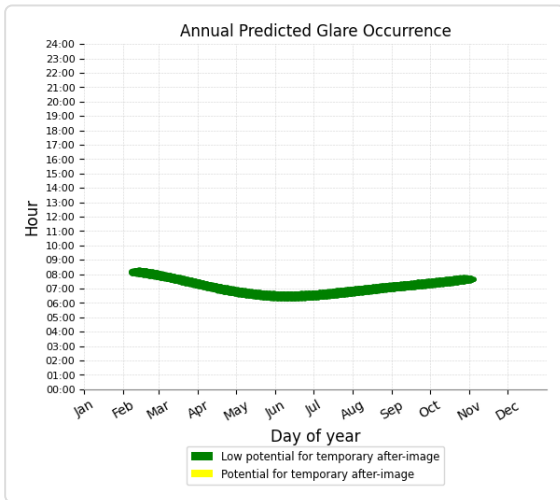
Green glare: 2,171 min.



PV1216_01 and FP: FP24

Yellow glare: none

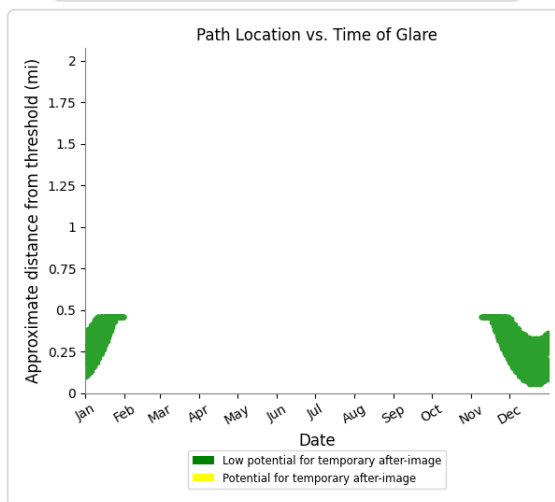
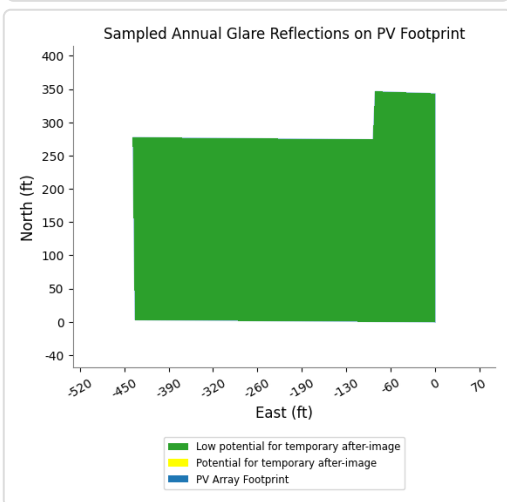
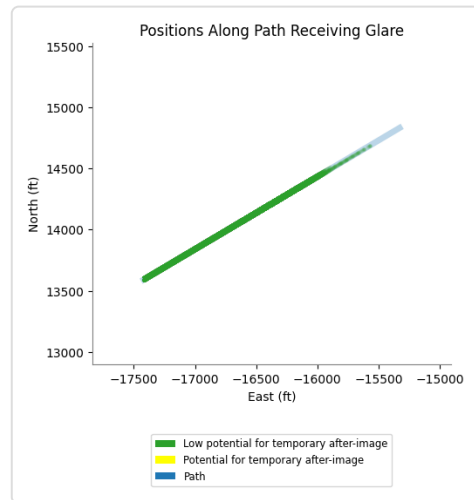
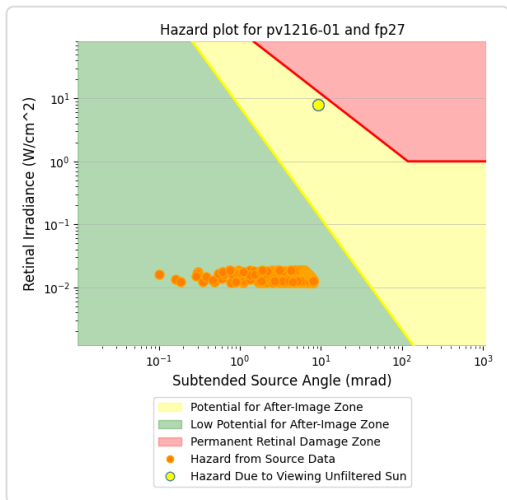
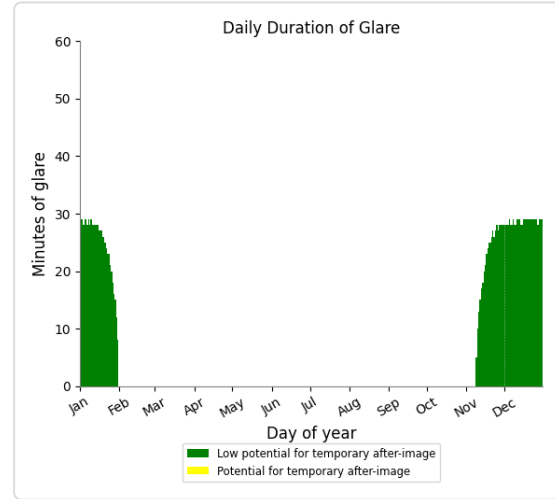
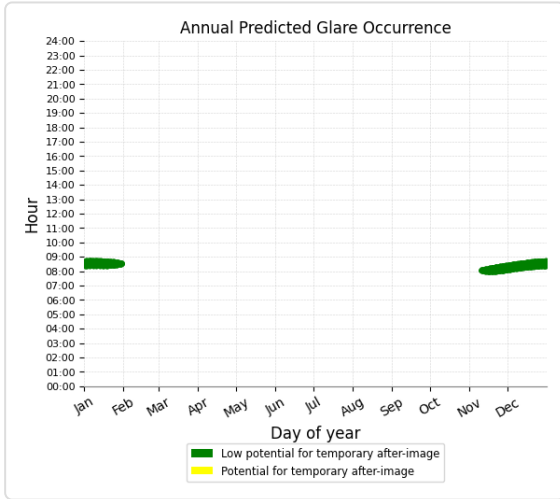
Green glare: 6,527 min.



PV1216_01 and FP: FP27

Yellow glare: none

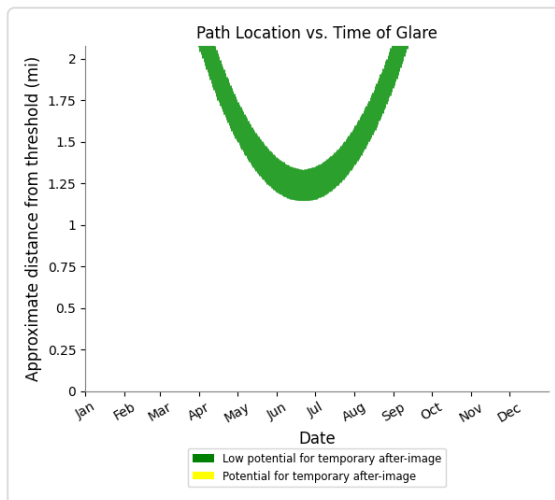
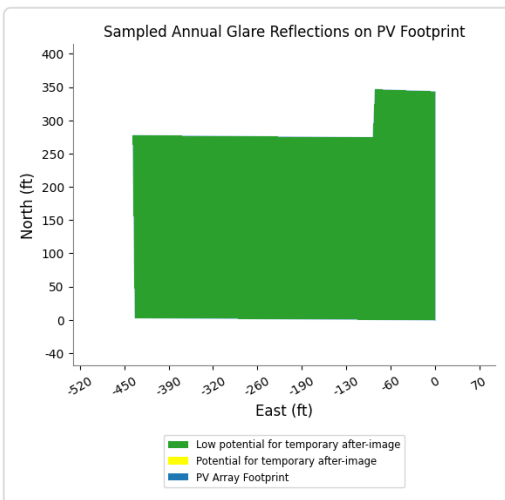
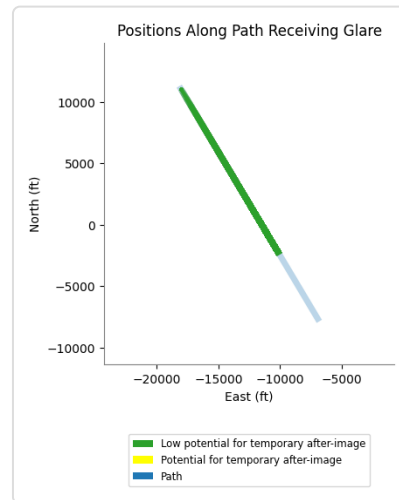
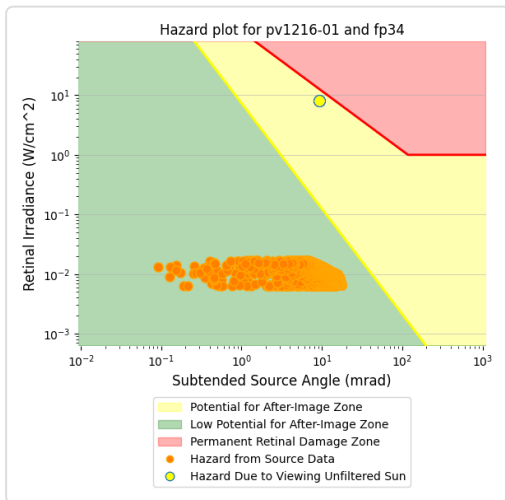
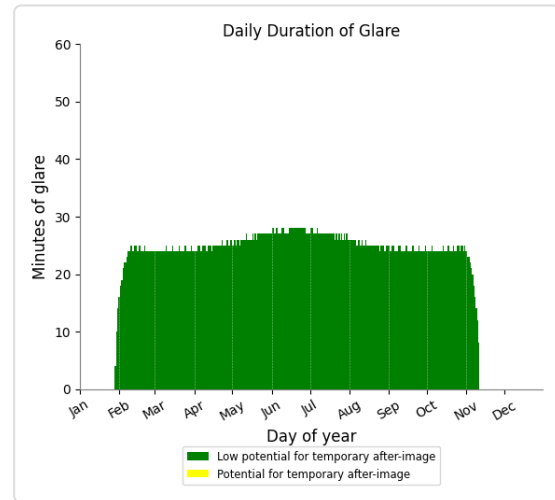
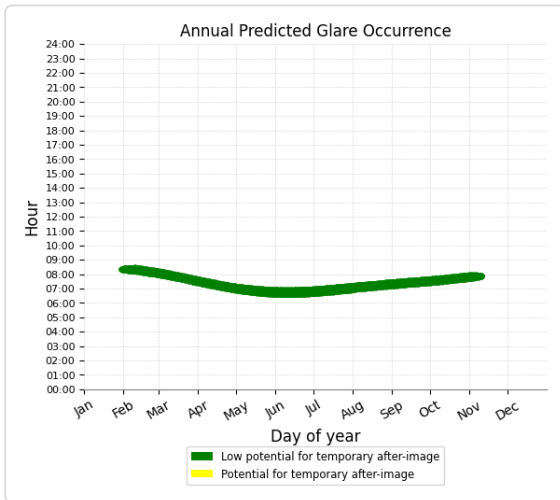
Green glare: 2,140 min.



PV1216_01 and FP: FP34

Yellow glare: none

Green glare: 7,117 min.



PV1216_01 and FP: FP18

No glare found

PV1216_01 and FP: FP19

No glare found

PV1216_01 and FP: FP20

No glare found

PV1216_01 and FP: FP21

No glare found

PV1216_01 and FP: FP22

No glare found

PV1216_01 and FP: FP23

No glare found

PV1216_01 and FP: FP25

No glare found

PV1216_01 and FP: FP26

No glare found

PV1216_01 and FP: FP28

No glare found

PV1216_01 and FP: FP29

No glare found

PV1216_01 and FP: FP30

No glare found

PV1216_01 and FP: FP31

No glare found

PV1216_01 and FP: FP32

No glare found

PV1216_01 and FP: FP33

No glare found

PV1216_01 and FP: FP35

No glare found

PV1216_01 and FP: FP36

No glare found

PV: PV1216_02 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP24	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1216_02 and FP: FP17

No glare found

PV1216_02 and FP: FP18

No glare found

PV1216_02 and FP: FP19

No glare found

PV1216_02 and FP: FP20

No glare found

PV1216_02 and FP: FP21

No glare found

PV1216_02 and FP: FP22

No glare found

PV1216_02 and FP: FP23

No glare found

PV1216_02 and FP: FP24

No glare found

PV1216_02 and FP: FP25

No glare found

PV1216_02 and FP: FP26

No glare found

PV1216_02 and FP: FP27

No glare found

PV1216_02 and FP: FP28

No glare found

PV1216_02 and FP: FP29

No glare found

PV1216_02 and FP: FP30

No glare found

PV1216_02 and FP: FP31

No glare found

PV1216_02 and FP: FP32

No glare found

PV1216_02 and FP: FP33

No glare found

PV1216_02 and FP: FP34

No glare found

PV1216_02 and FP: FP35

No glare found

PV1216_02 and FP: FP36

No glare found

PV: PV1371_01 low potential for temporary after-image

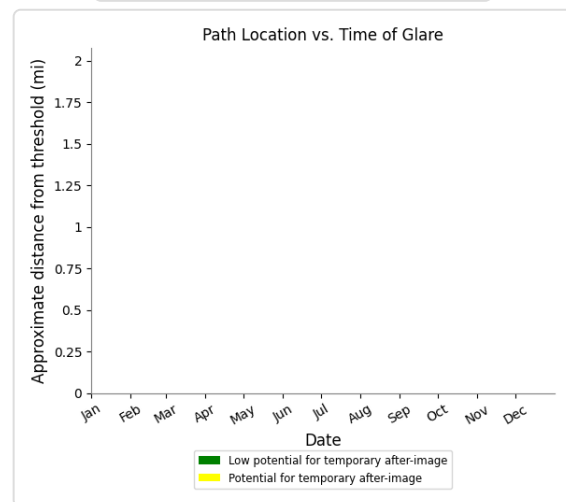
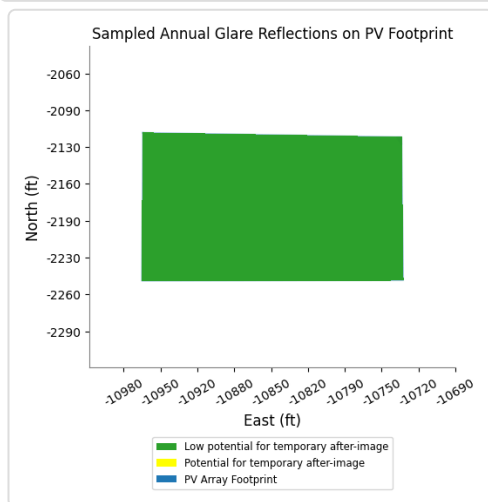
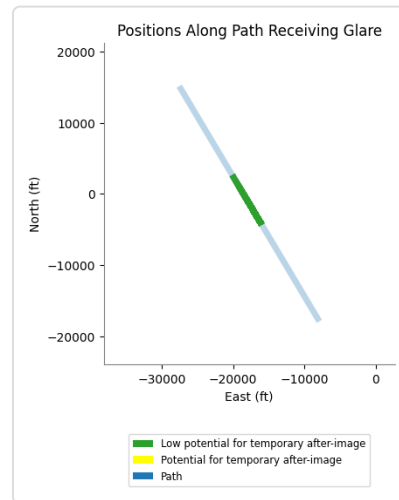
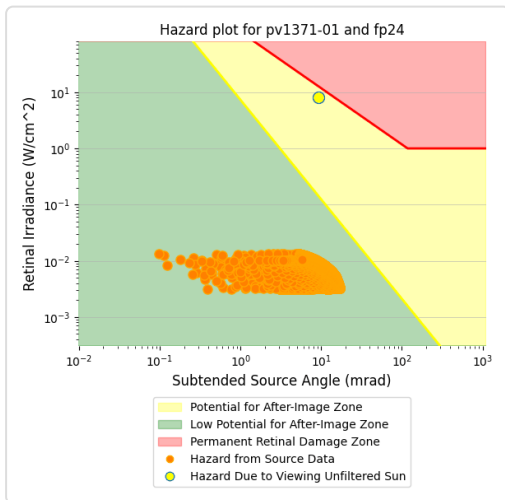
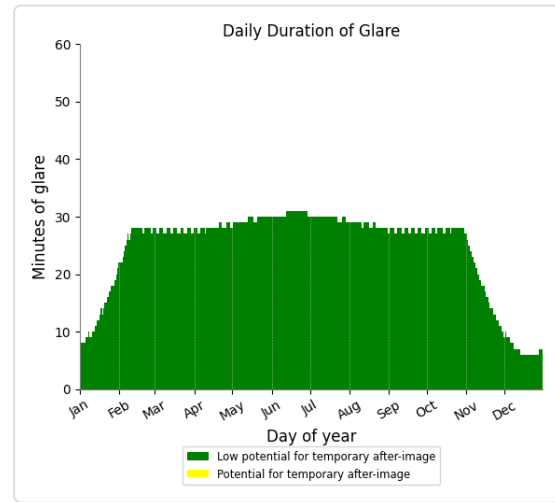
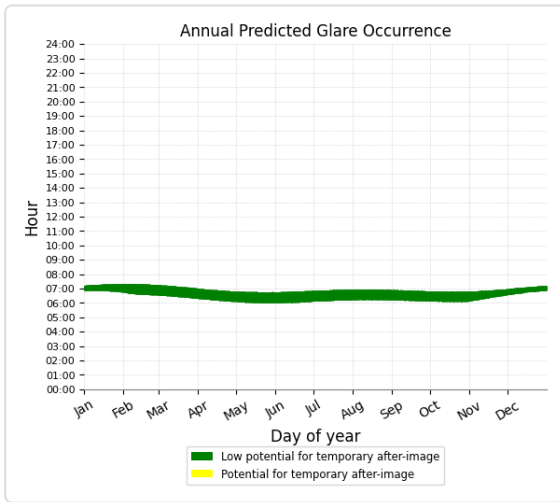
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	8,906	148.4	0	0.0
FP25	3,720	62.0	0	0.0
FP35	1,998	33.3	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1371_01 and FP: FP24

Yellow glare: none

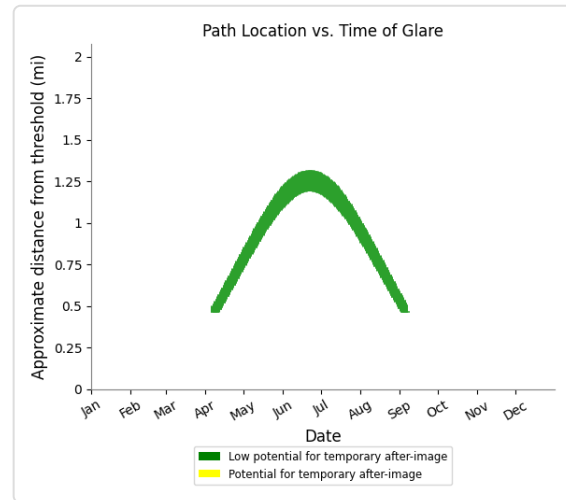
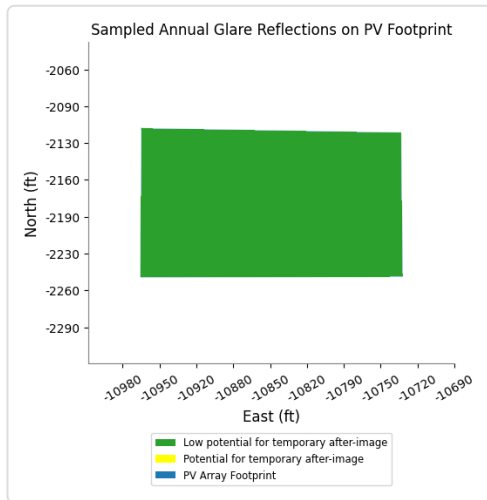
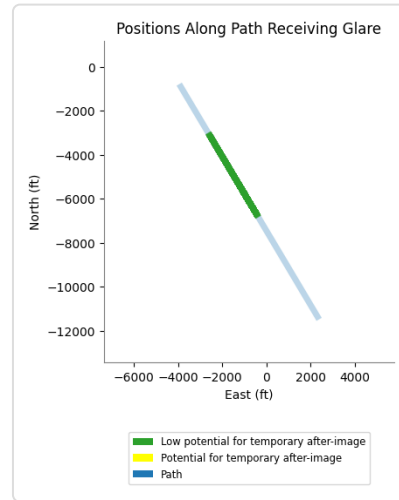
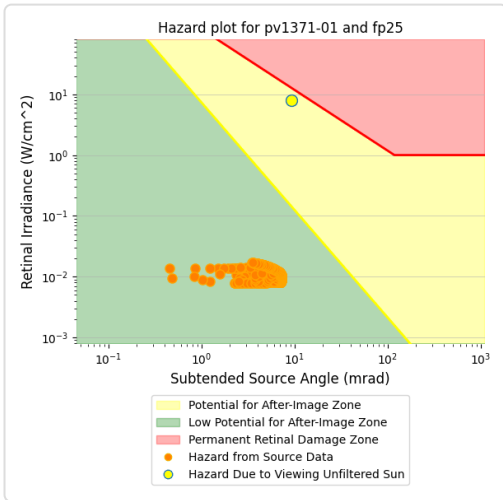
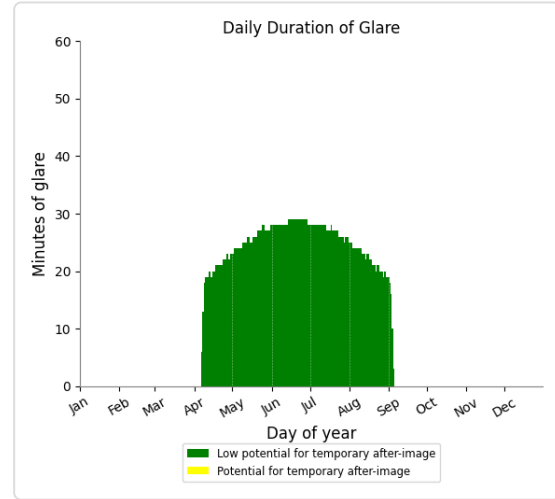
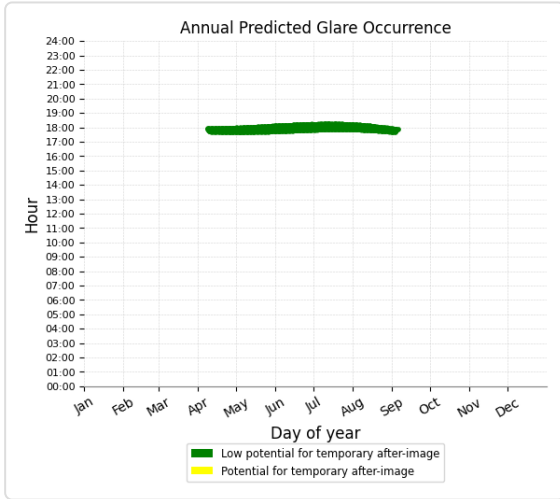
Green glare: 8,906 min.



PV1371_01 and FP: FP25

Yellow glare: none

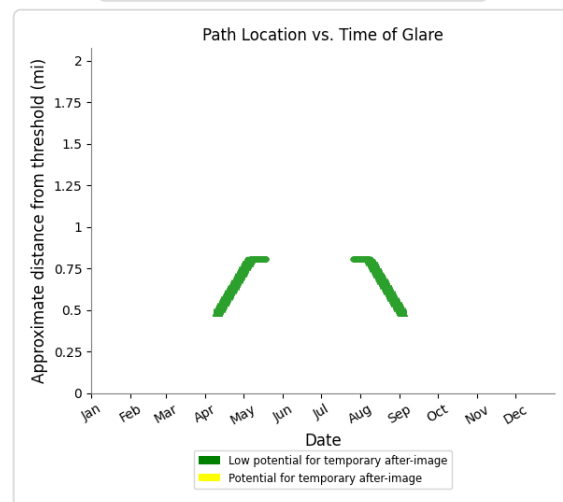
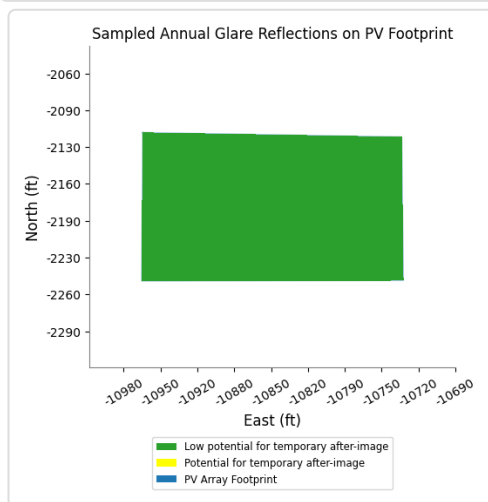
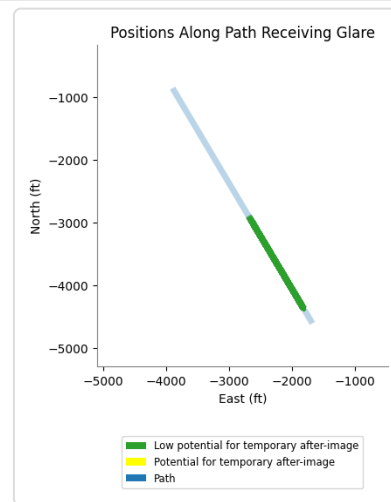
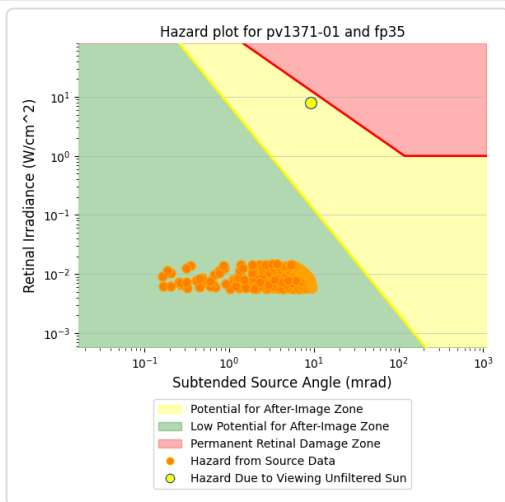
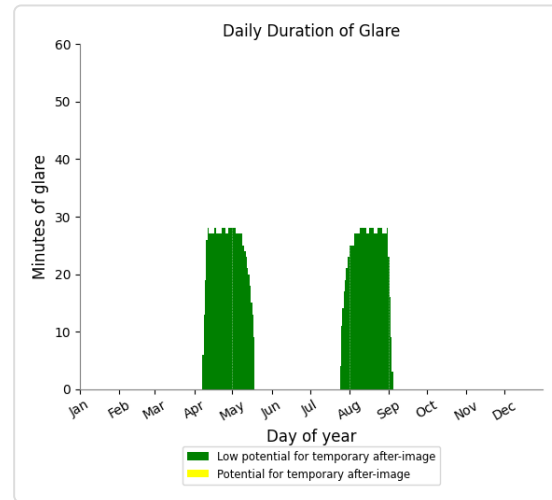
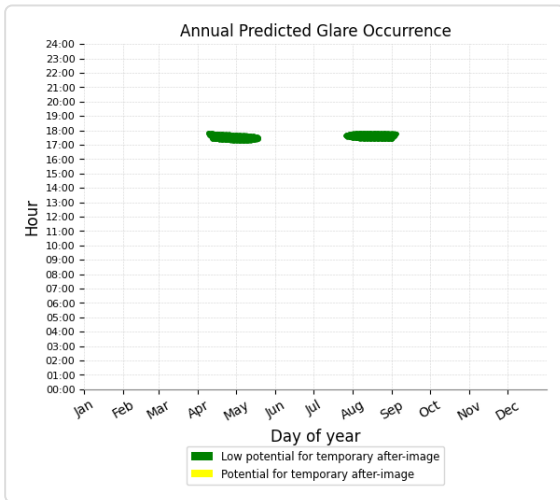
Green glare: 3,720 min.



PV1371_01 and FP: FP35

Yellow glare: none

Green glare: 1,998 min.



PV1371_01 and FP: FP17

No glare found

PV1371_01 and FP: FP18

No glare found

PV1371_01 and FP: FP19

No glare found

PV1371_01 and FP: FP20

No glare found

PV1371_01 and FP: FP21

No glare found

PV1371_01 and FP: FP22

No glare found

PV1371_01 and FP: FP23

No glare found

PV1371_01 and FP: FP26

No glare found

PV1371_01 and FP: FP27

No glare found

PV1371_01 and FP: FP28

No glare found

PV1371_01 and FP: FP29

No glare found

PV1371_01 and FP: FP30

No glare found

PV1371_01 and FP: FP31

No glare found

PV1371_01 and FP: FP32

No glare found

PV1371_01 and FP: FP33

No glare found

PV1371_01 and FP: FP34

No glare found

PV1371_01 and FP: FP36

No glare found

PV: PV1371_02 low potential for temporary after-image

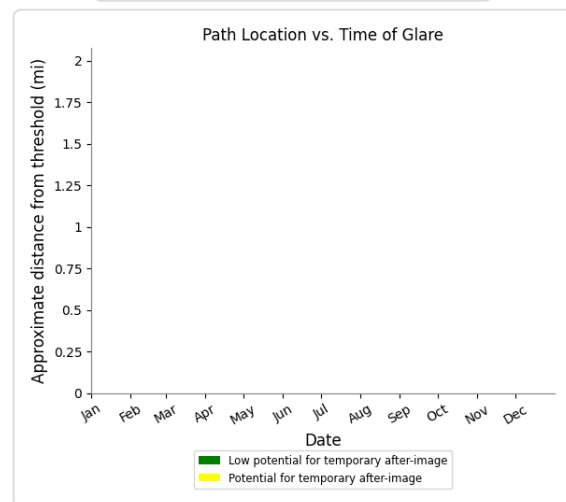
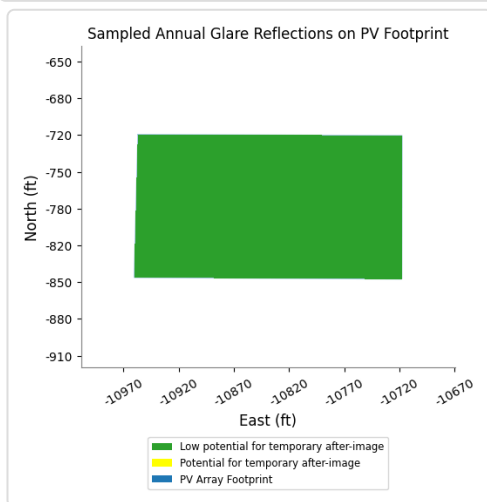
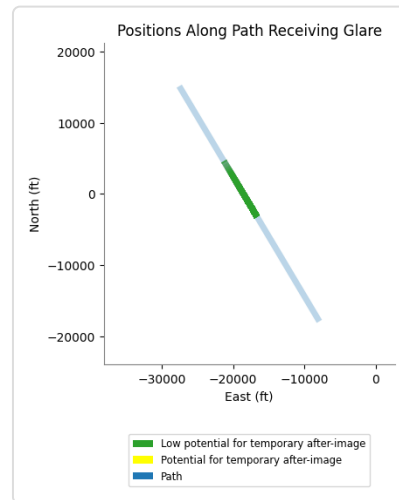
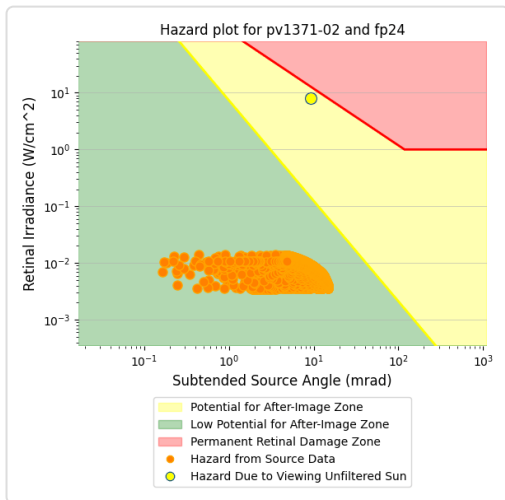
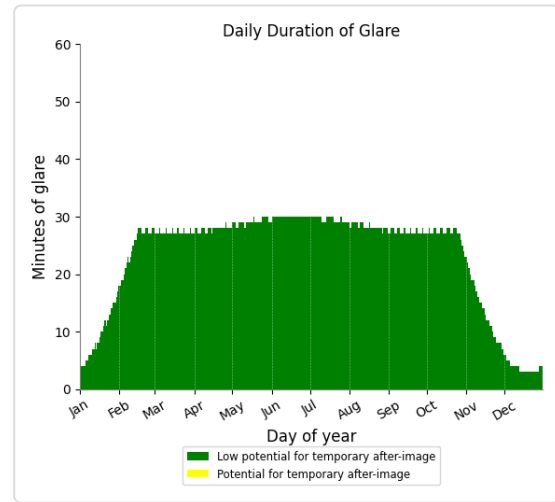
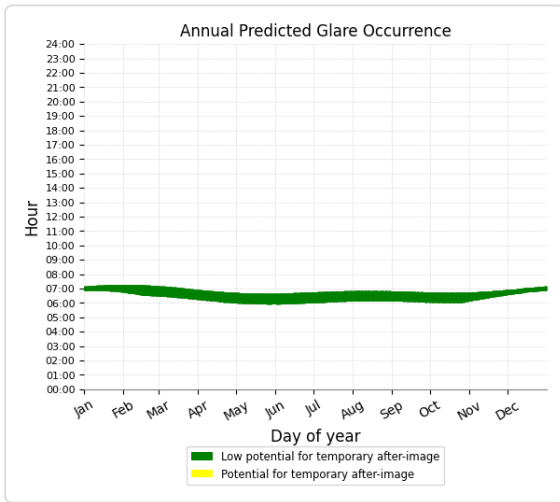
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	8,435	140.6	0	0.0
FP25	3,106	51.8	0	0.0
FP35	4,090	68.2	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1371_02 and FP: FP24

Yellow glare: none

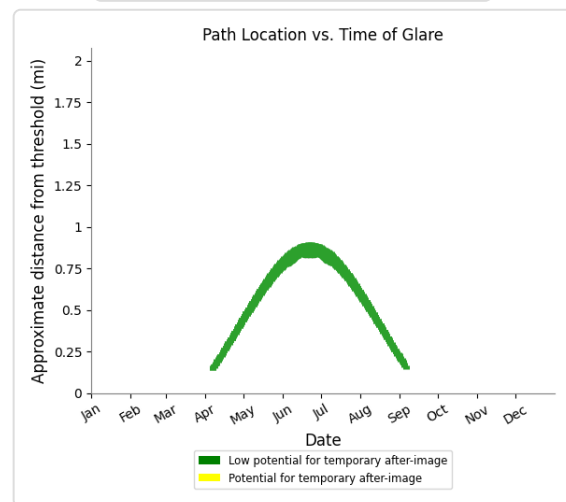
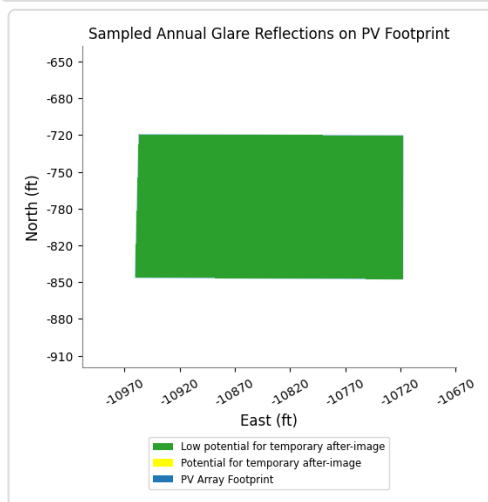
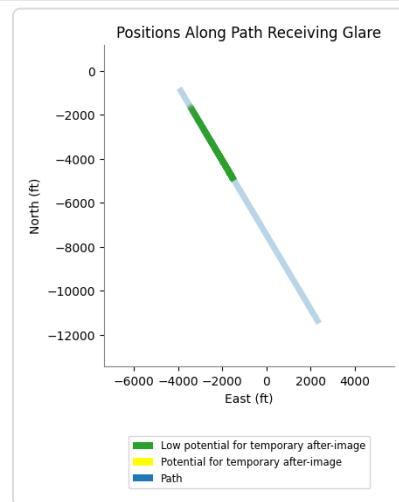
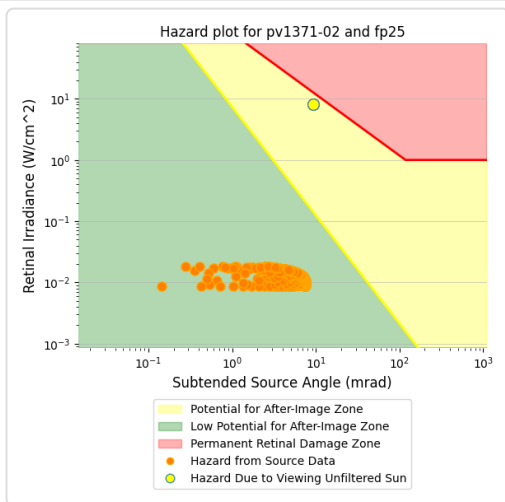
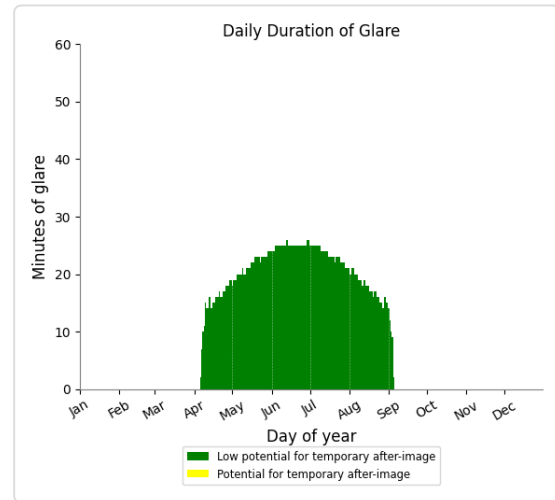
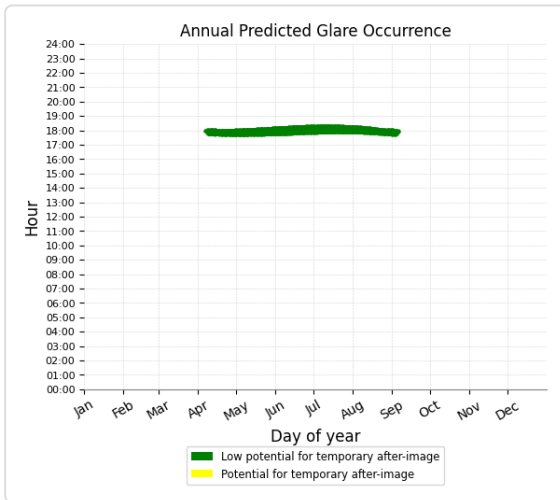
Green glare: 8,435 min.



PV1371_02 and FP: FP25

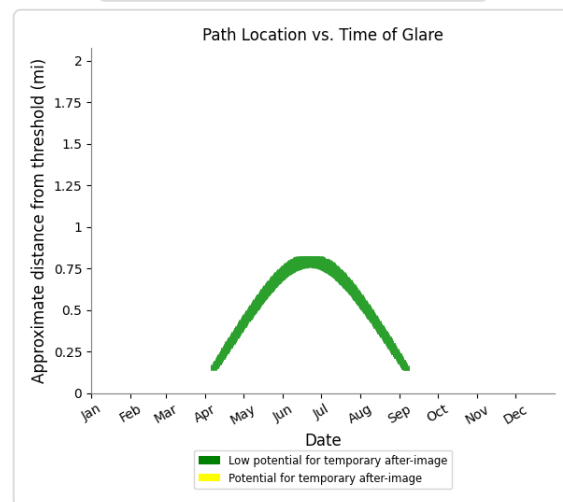
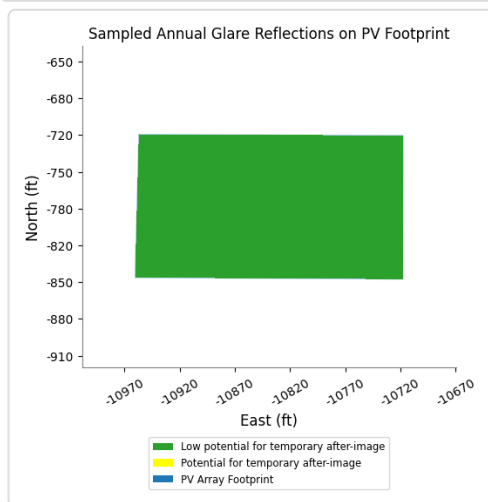
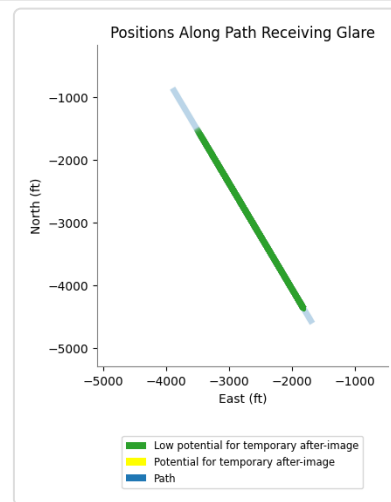
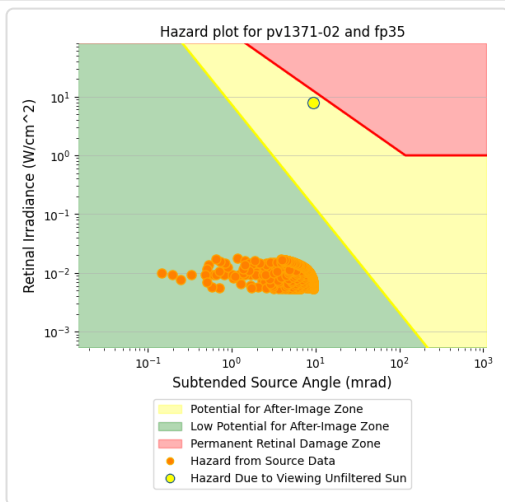
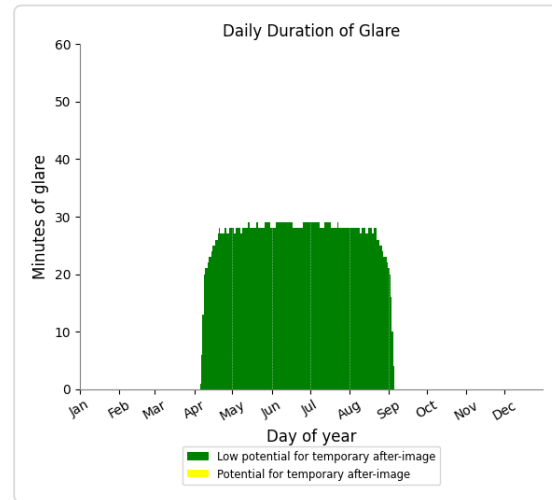
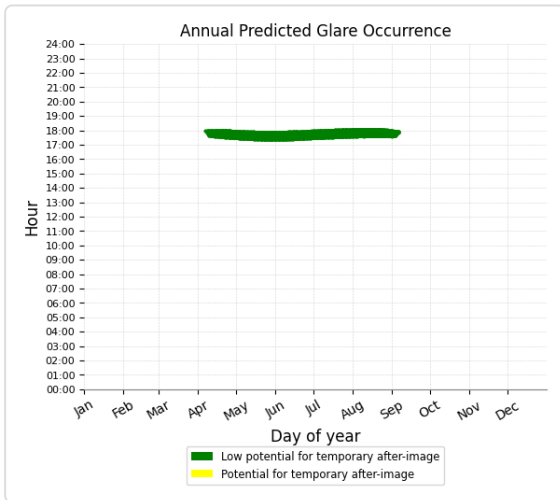
Yellow glare: none

Green glare: 3,106 min.



PV1371_02 and FP: FP35

Yellow glare: none
Green glare: 4,090 min.



PV1371_02 and FP: FP17

No glare found

PV1371_02 and FP: FP18

No glare found

PV1371_02 and FP: FP19

No glare found

PV1371_02 and FP: FP20

No glare found

PV1371_02 and FP: FP21

No glare found

PV1371_02 and FP: FP22

No glare found

PV1371_02 and FP: FP23

No glare found

PV1371_02 and FP: FP26

No glare found

PV1371_02 and FP: FP27

No glare found

PV1371_02 and FP: FP28

No glare found

PV1371_02 and FP: FP29

No glare found

PV1371_02 and FP: FP30

No glare found

PV1371_02 and FP: FP31

No glare found

PV1371_02 and FP: FP32

No glare found

PV1371_02 and FP: FP33

No glare found

PV1371_02 and FP: FP34

No glare found

PV1371_02 and FP: FP36

No glare found

PV: PV1388_01 low potential for temporary after-image

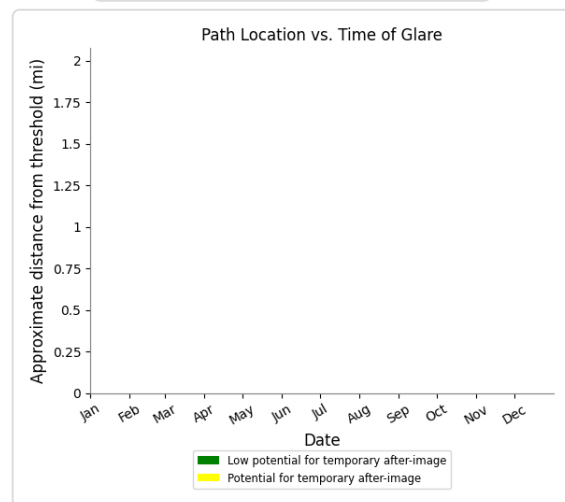
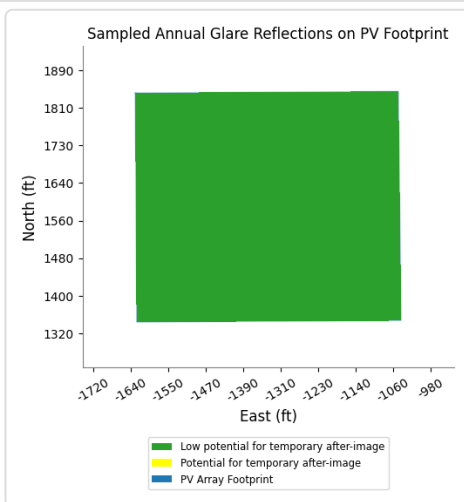
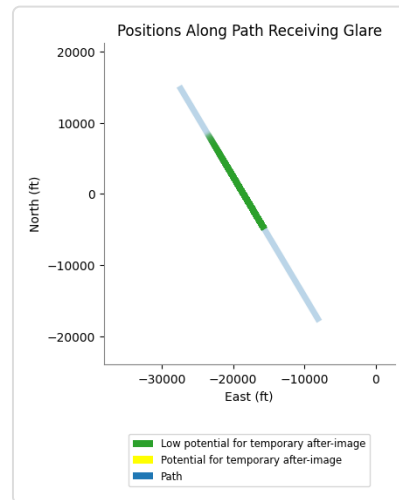
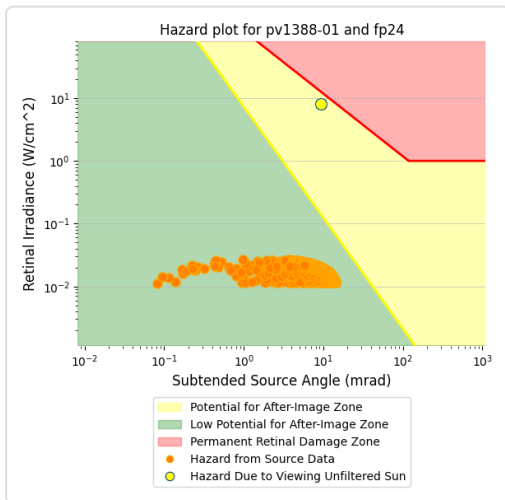
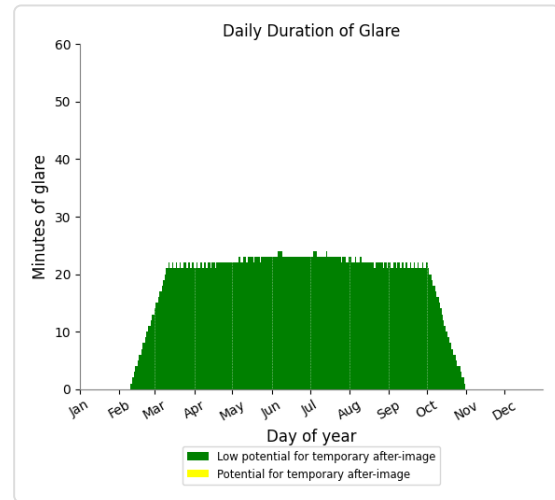
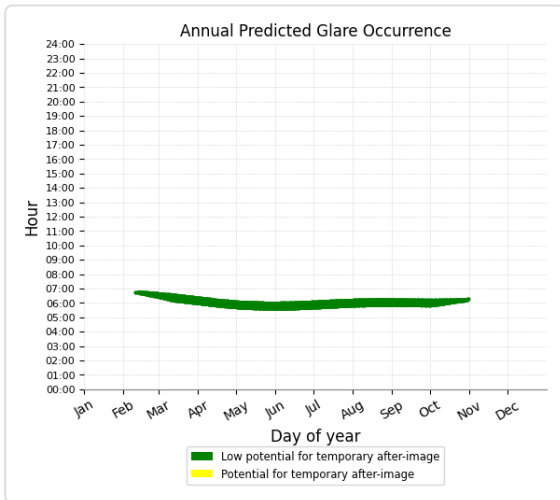
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	5,183	86.4	0	0.0
FP34	6,162	102.7	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1388_01 and FP: FP24

Yellow glare: none

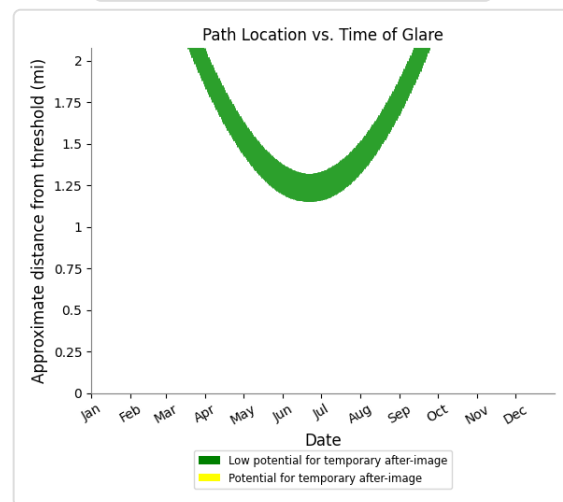
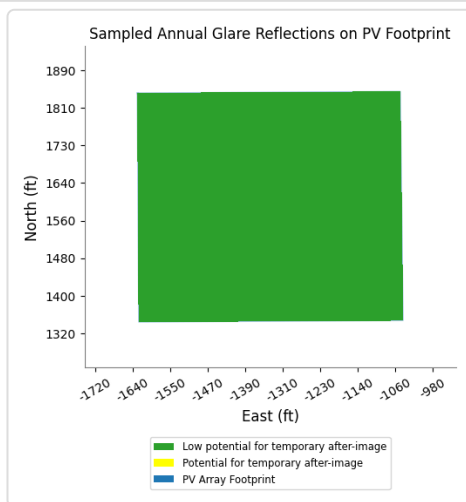
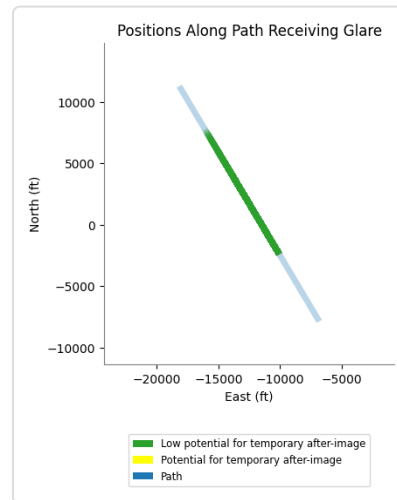
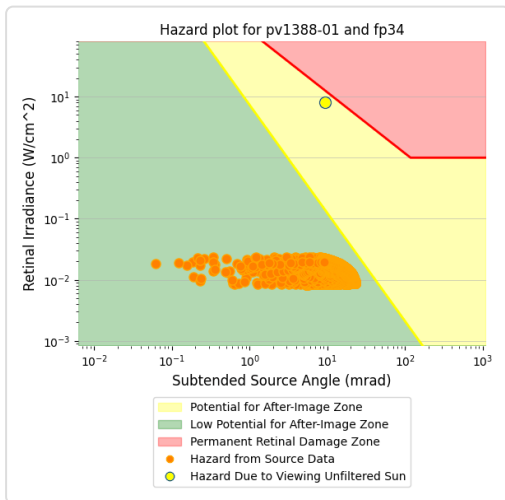
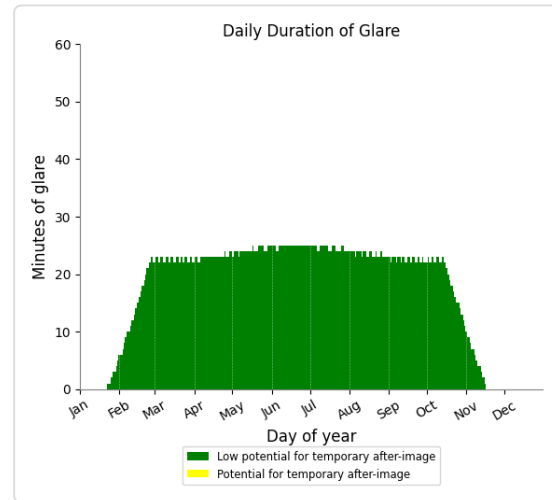
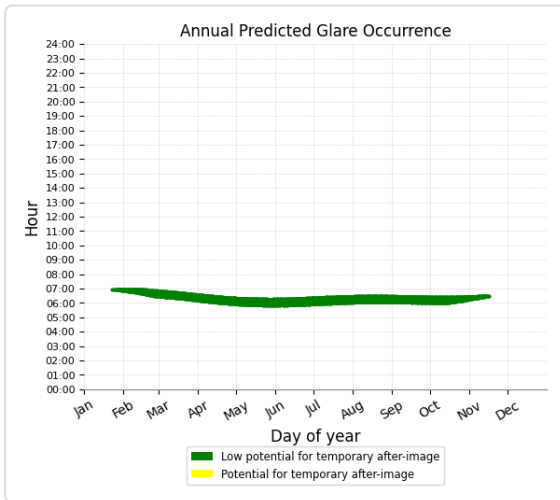
Green glare: 5,183 min.



PV1388_01 and FP: FP34

Yellow glare: none

Green glare: 6,162 min.



PV1388_01 and FP: FP17

No glare found

PV1388_01 and FP: FP18

No glare found

PV1388_01 and FP: FP19

No glare found

PV1388_01 and FP: FP20

No glare found

PV1388_01 and FP: FP21

No glare found

PV1388_01 and FP: FP22

No glare found

PV1388_01 and FP: FP23

No glare found

PV1388_01 and FP: FP25

No glare found

PV1388_01 and FP: FP26

No glare found

PV1388_01 and FP: FP27

No glare found

PV1388_01 and FP: FP28

No glare found

PV1388_01 and FP: FP29

No glare found

PV1388_01 and FP: FP30

No glare found

PV1388_01 and FP: FP31

No glare found

PV1388_01 and FP: FP32

No glare found

PV1388_01 and FP: FP33

No glare found

PV1388_01 and FP: FP35

No glare found

PV1388_01 and FP: FP36

No glare found

PV: PV1388_02 low potential for temporary after-image

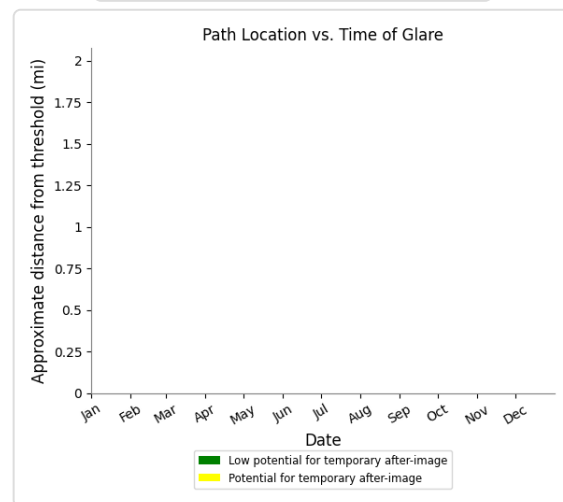
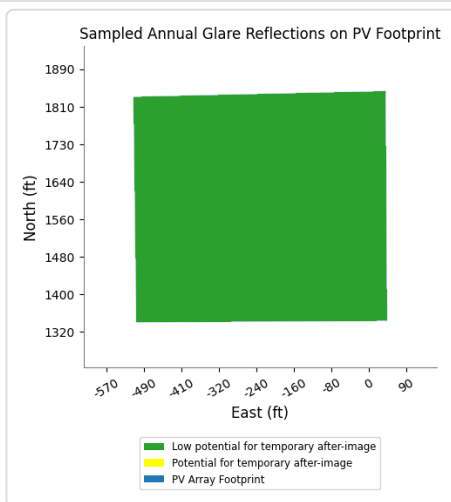
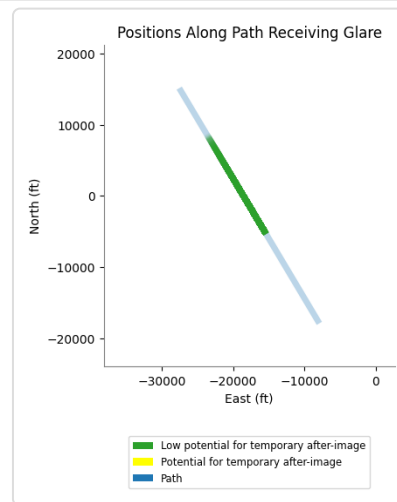
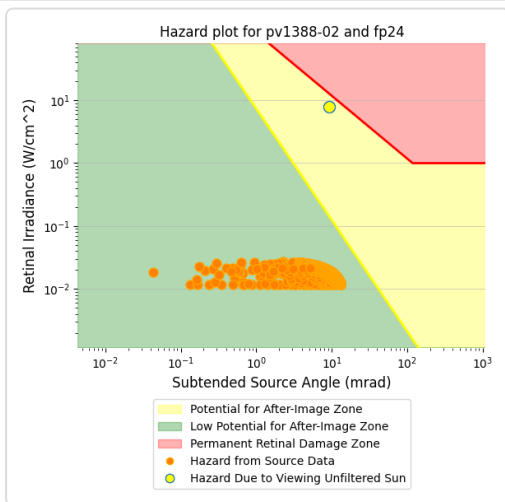
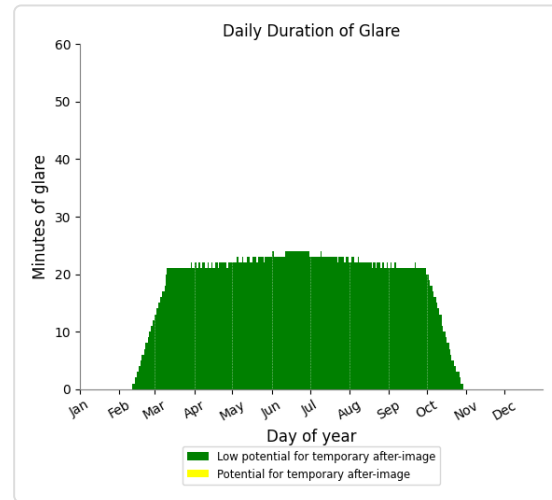
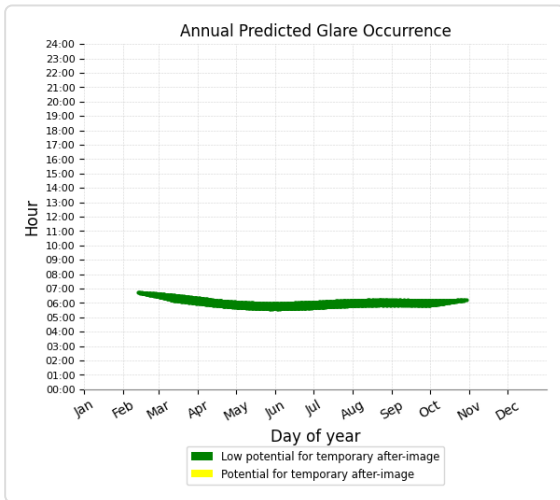
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	5,081	84.7	0	0.0
FP34	5,928	98.8	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1388_02 and FP: FP24

Yellow glare: none

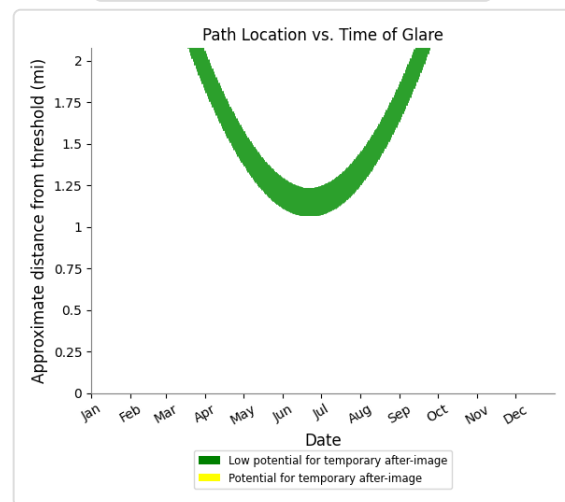
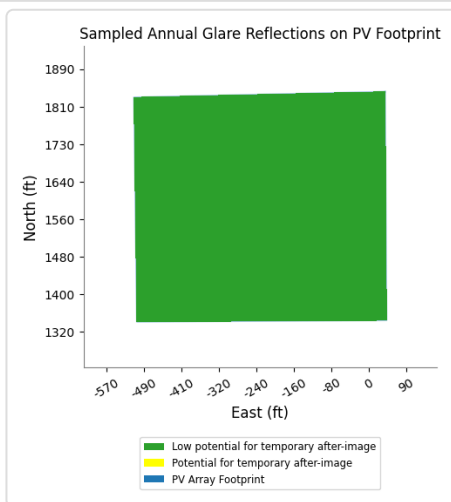
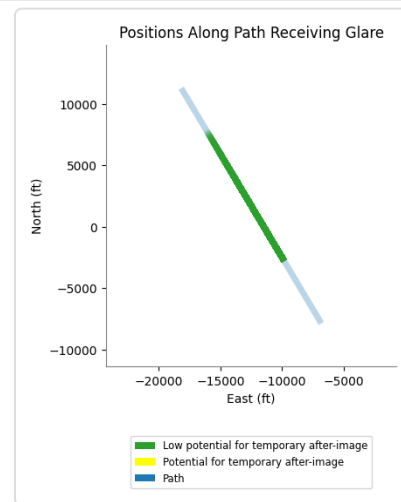
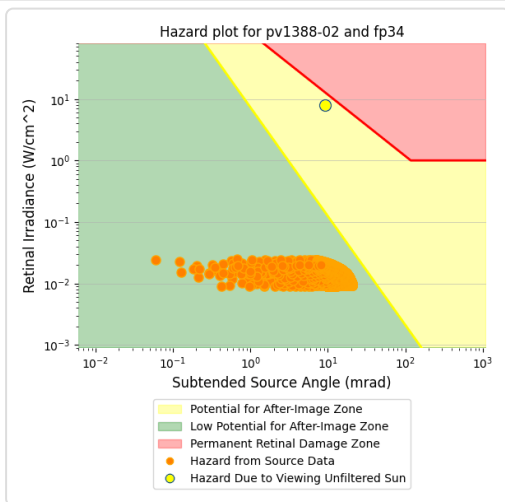
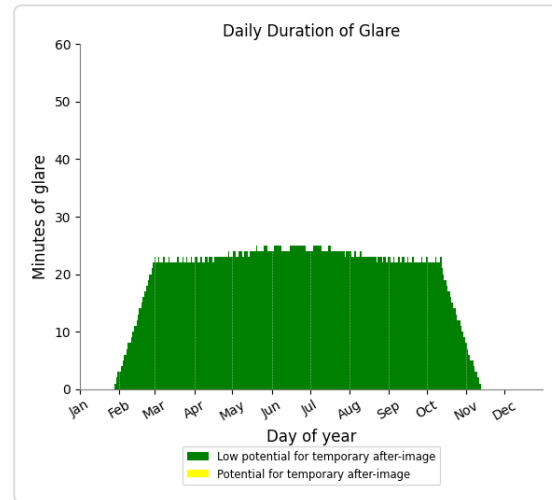
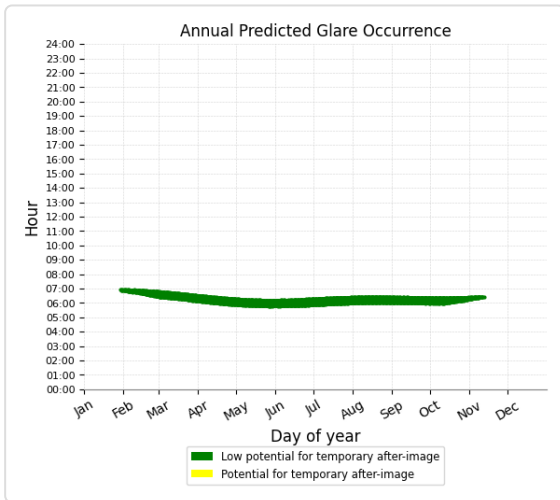
Green glare: 5,081 min.



PV1388_02 and FP: FP34

Yellow glare: none

Green glare: 5,928 min.



PV1388_02 and FP: FP17

No glare found

PV1388_02 and FP: FP18

No glare found

PV1388_02 and FP: FP19

No glare found

PV1388_02 and FP: FP20

No glare found

PV1388_02 and FP: FP21

No glare found

PV1388_02 and FP: FP22

No glare found

PV1388_02 and FP: FP23

No glare found

PV1388_02 and FP: FP25

No glare found

PV1388_02 and FP: FP26

No glare found

PV1388_02 and FP: FP27

No glare found

PV1388_02 and FP: FP28

No glare found

PV1388_02 and FP: FP29

No glare found

PV1388_02 and FP: FP30

No glare found

PV1388_02 and FP: FP31

No glare found

PV1388_02 and FP: FP32

No glare found

PV1388_02 and FP: FP33

No glare found

PV1388_02 and FP: FP35

No glare found

PV1388_02 and FP: FP36

No glare found

PV: PV1391_01 low potential for temporary after-image

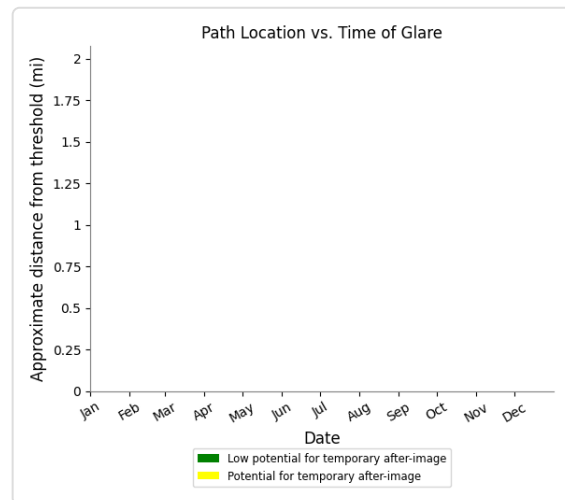
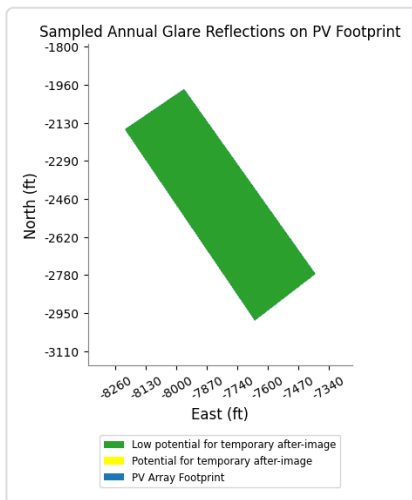
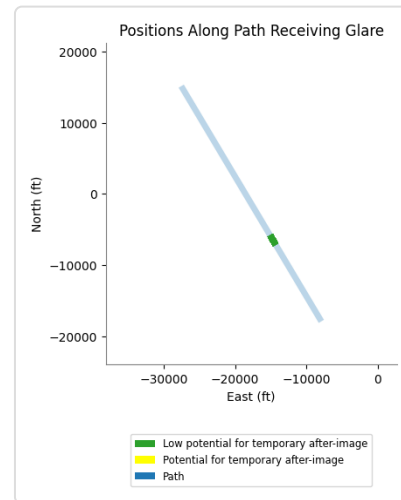
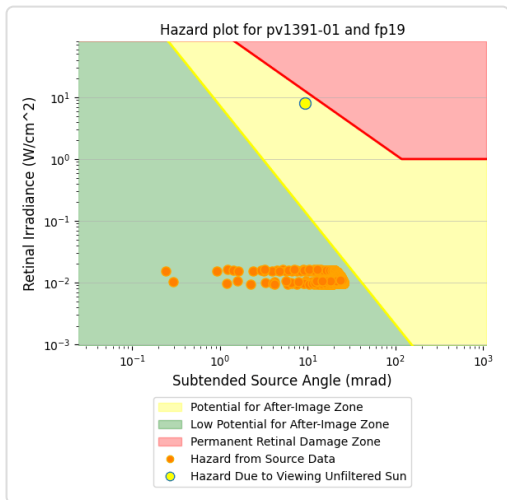
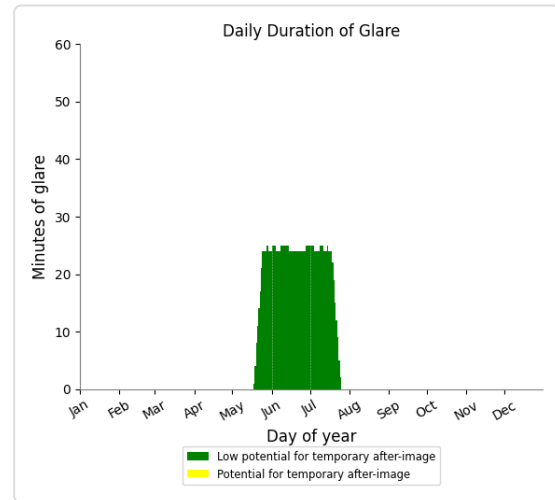
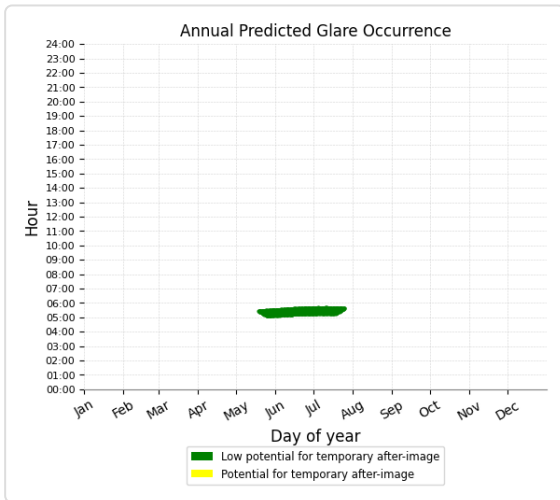
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP19	1,503	25.1	0	0.0
FP24	2,647	44.1	0	0.0
FP25	3,485	58.1	0	0.0
FP29	113	1.9	0	0.0
FP34	690	11.5	0	0.0
FP35	4,384	73.1	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1391_01 and FP: FP19

Yellow glare: none

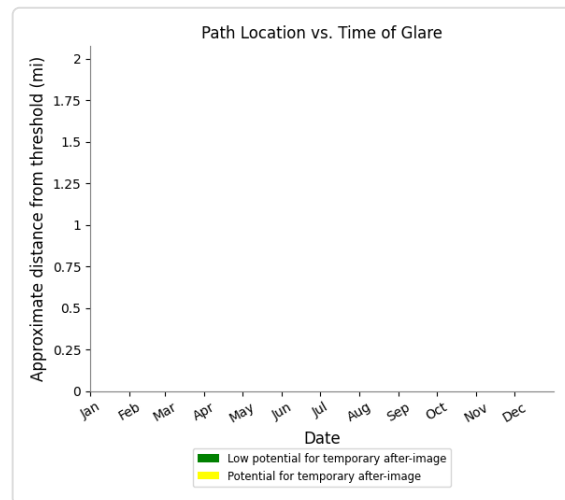
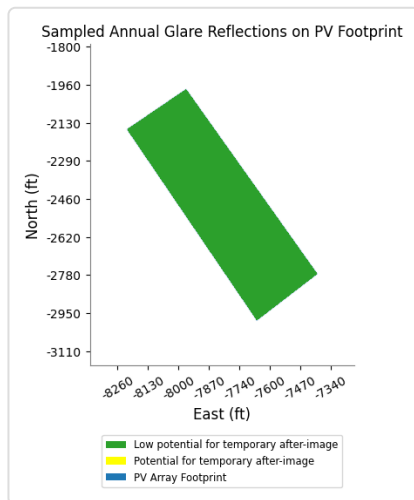
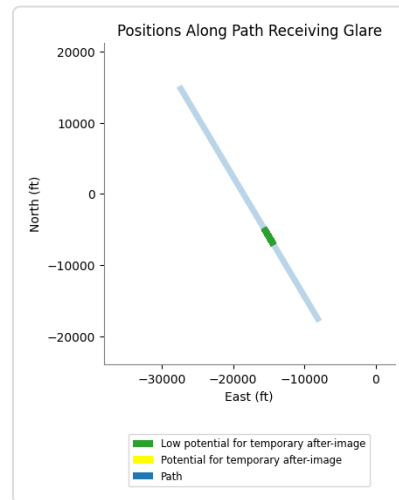
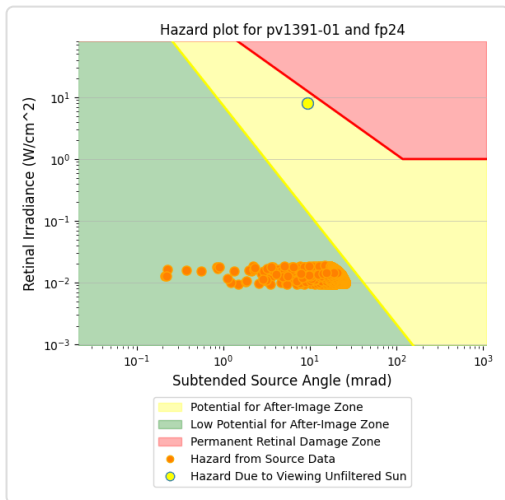
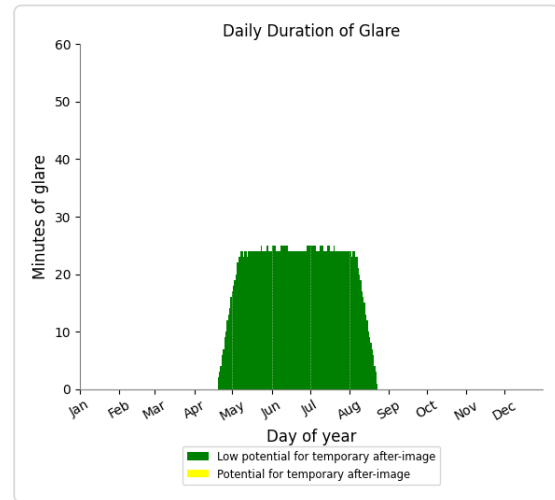
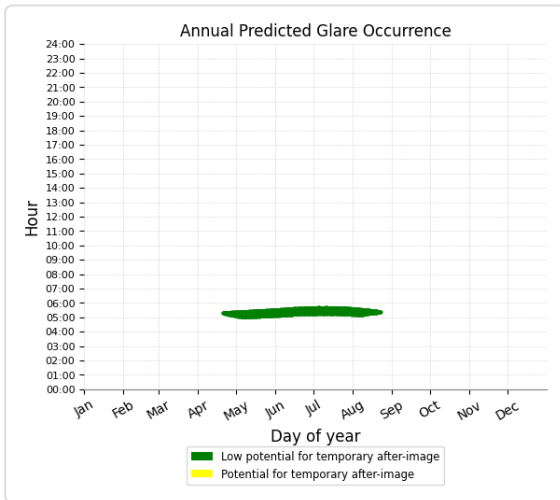
Green glare: 1,503 min.



PV1391_01 and FP: FP24

Yellow glare: none

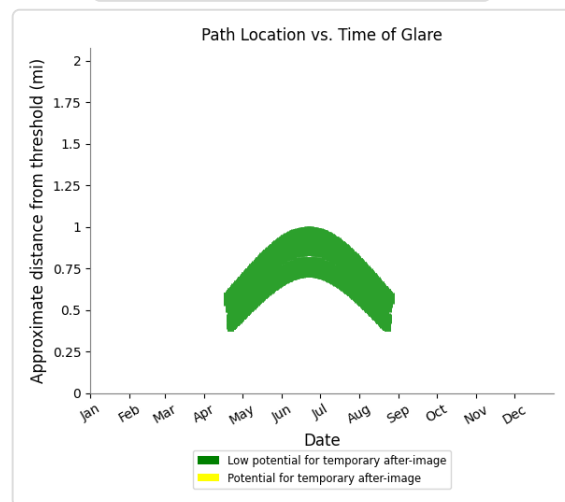
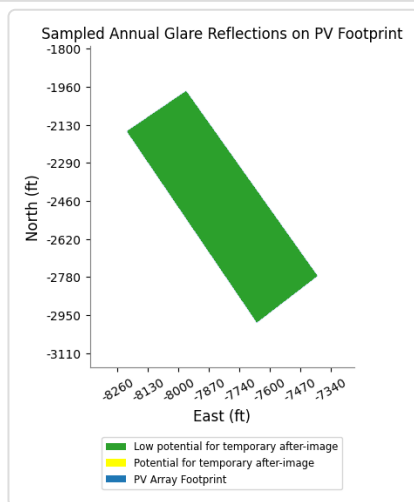
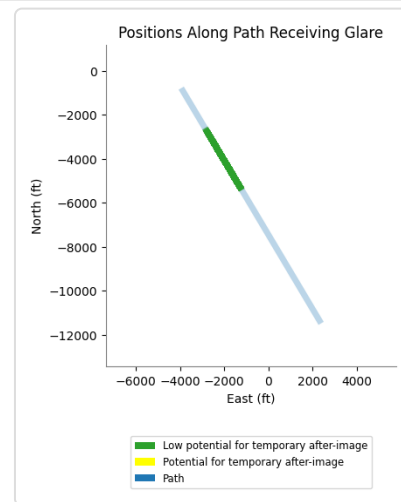
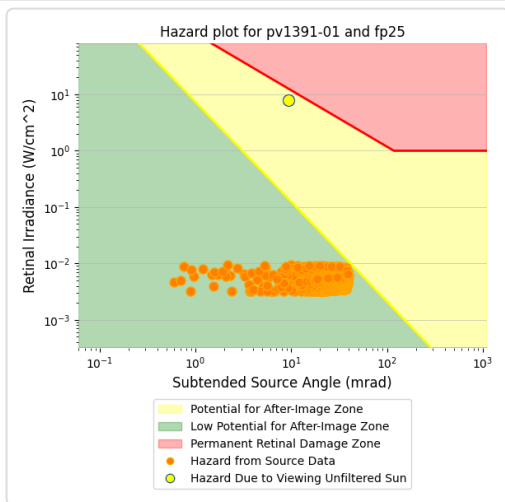
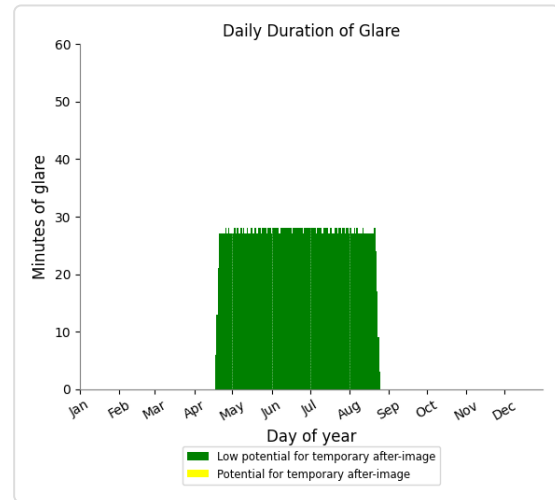
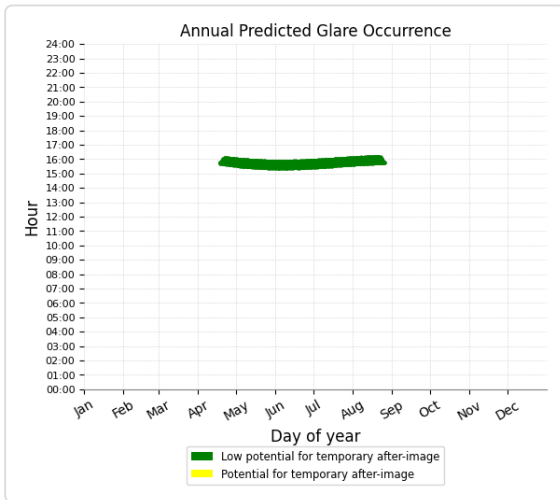
Green glare: 2,647 min.



PV1391_01 and FP: FP25

Yellow glare: none

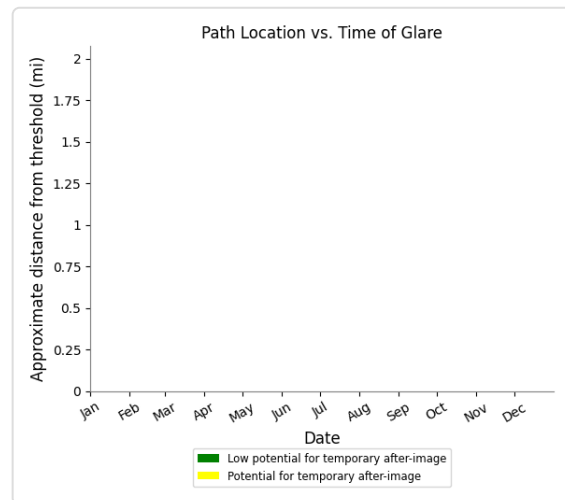
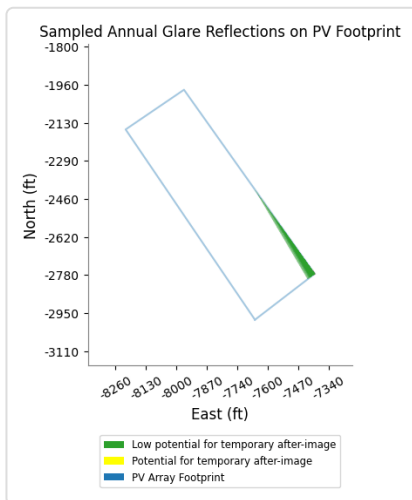
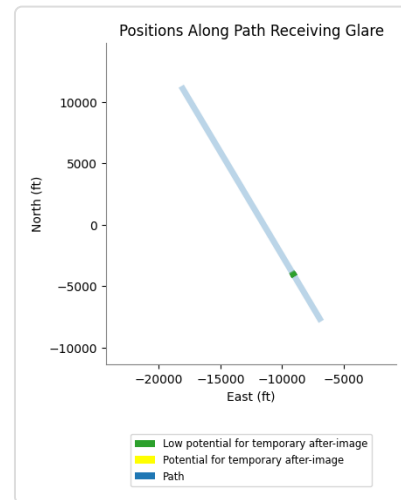
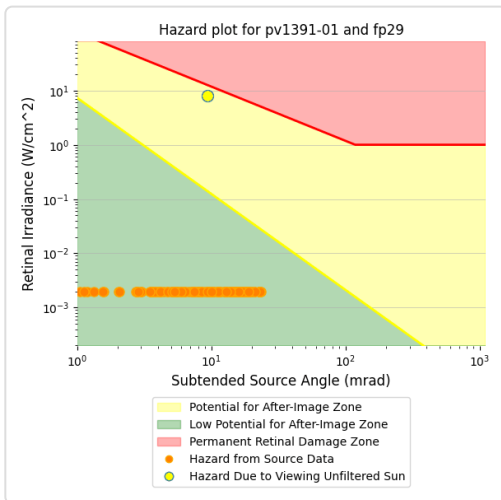
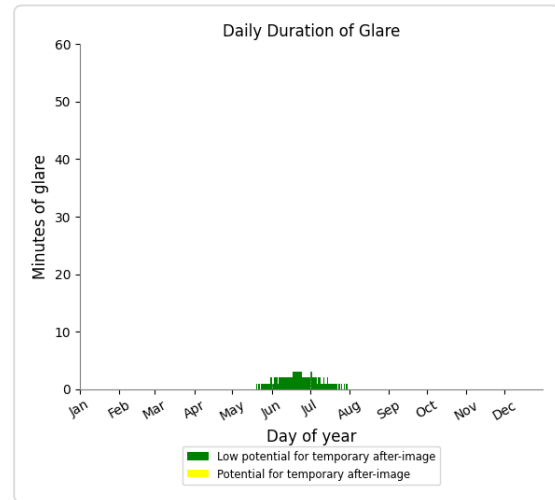
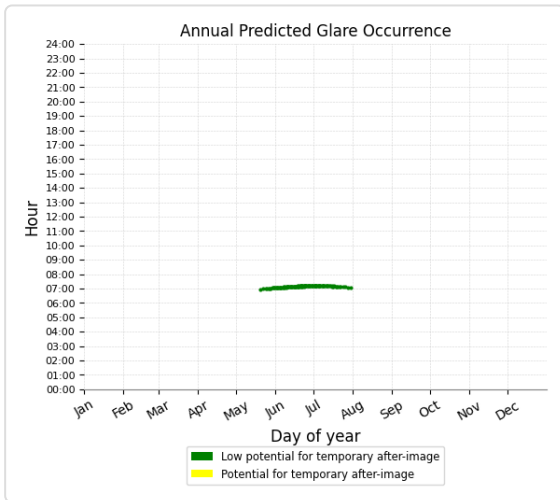
Green glare: 3,485 min.



PV1391_01 and FP: FP29

Yellow glare: none

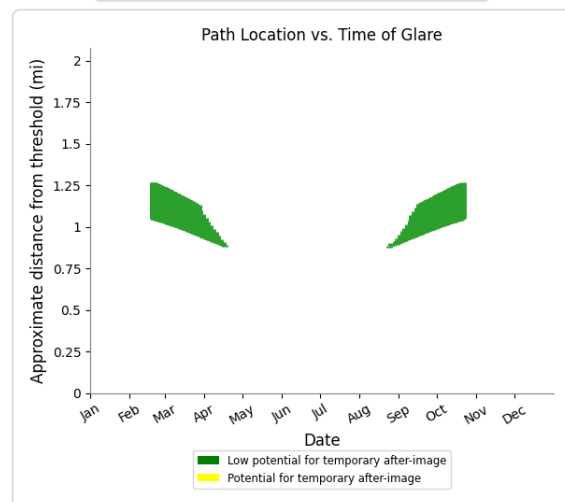
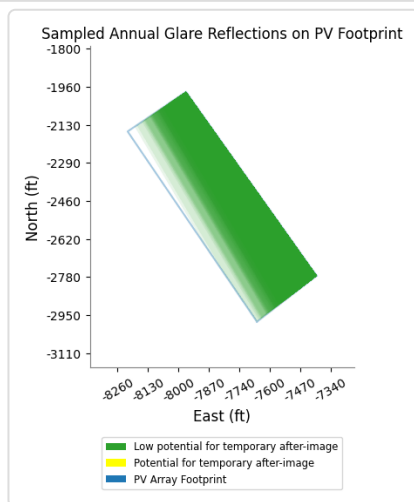
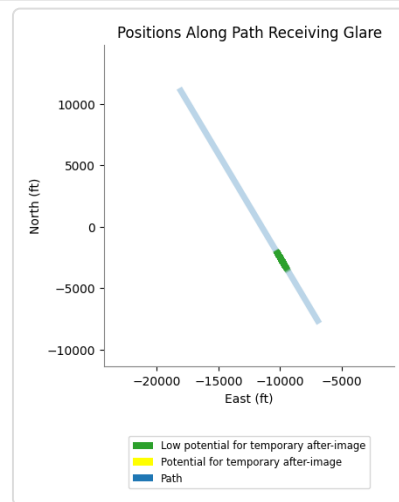
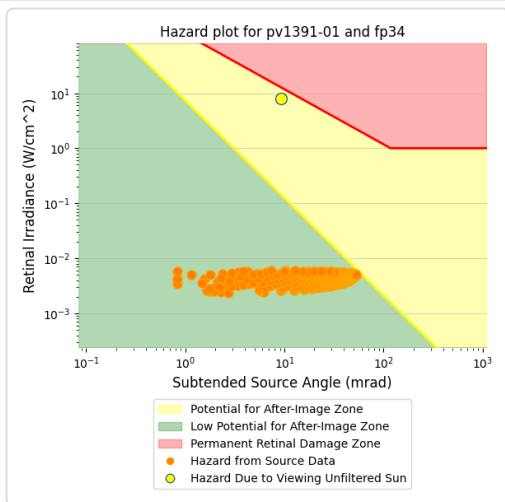
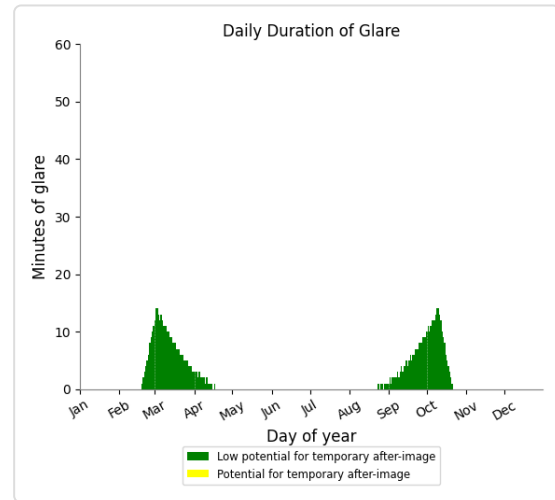
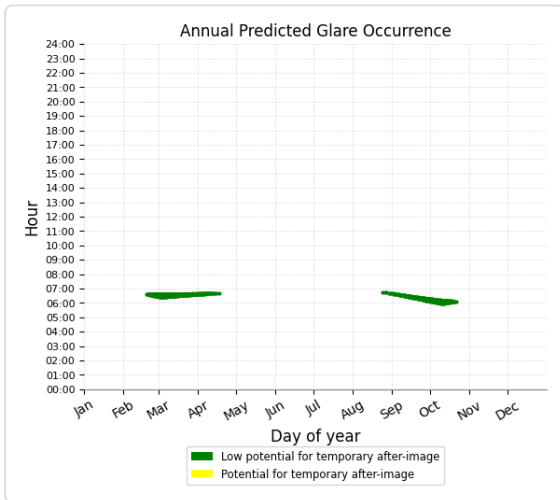
Green glare: 113 min.



PV1391_01 and FP: FP34

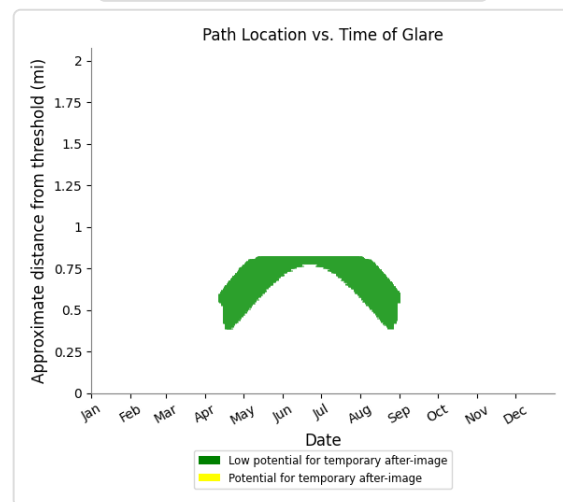
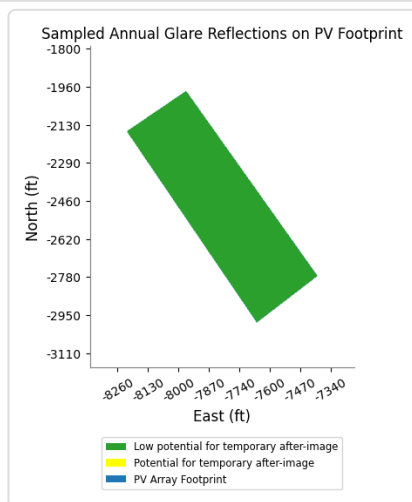
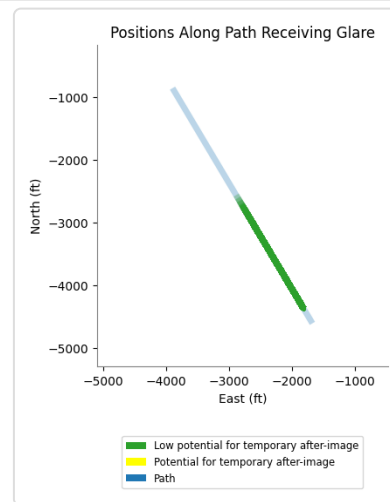
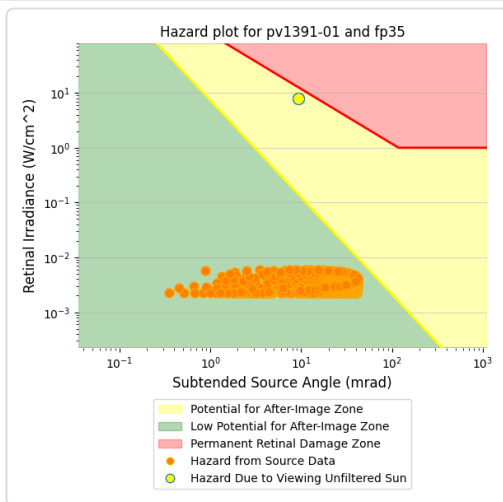
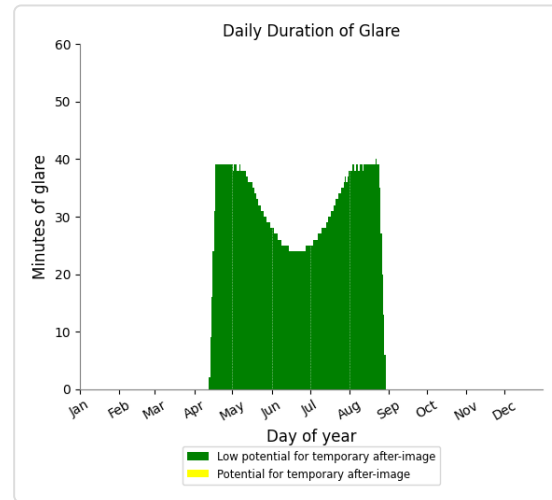
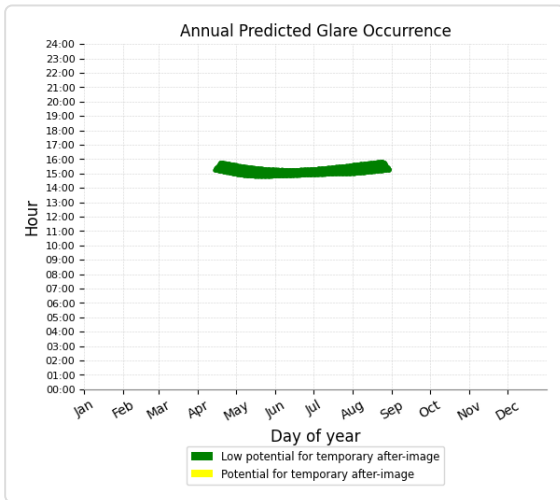
Yellow glare: none

Green glare: 690 min.



PV1391_01 and FP: FP35

Yellow glare: none
Green glare: 4,384 min.



PV1391_01 and FP: FP17

No glare found

PV1391_01 and FP: FP18

No glare found

PV1391_01 and FP: FP20

No glare found

PV1391_01 and FP: FP21

No glare found

PV1391_01 and FP: FP22

No glare found

PV1391_01 and FP: FP23

No glare found

PV1391_01 and FP: FP26

No glare found

PV1391_01 and FP: FP27

No glare found

PV1391_01 and FP: FP28

No glare found

PV1391_01 and FP: FP30

No glare found

PV1391_01 and FP: FP31

No glare found

PV1391_01 and FP: FP32

No glare found

PV1391_01 and FP: FP33

No glare found

PV1391_01 and FP: FP36

No glare found

PV: PV1391_02 low potential for temporary after-image

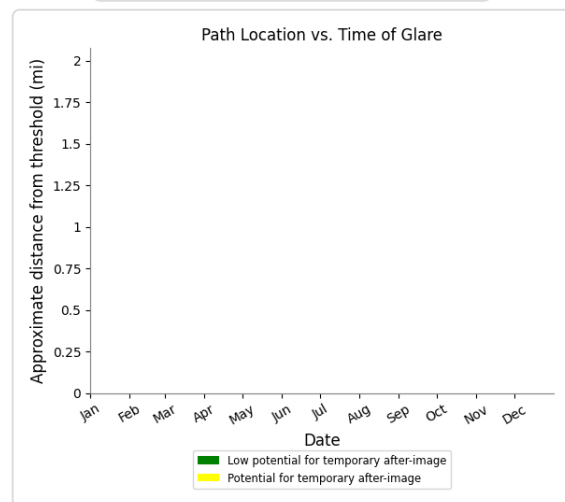
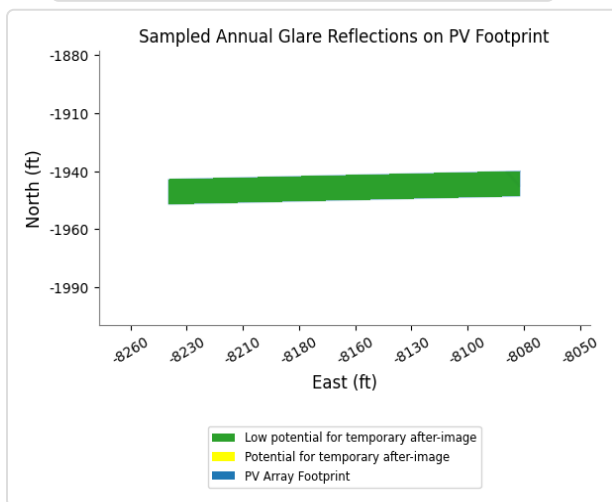
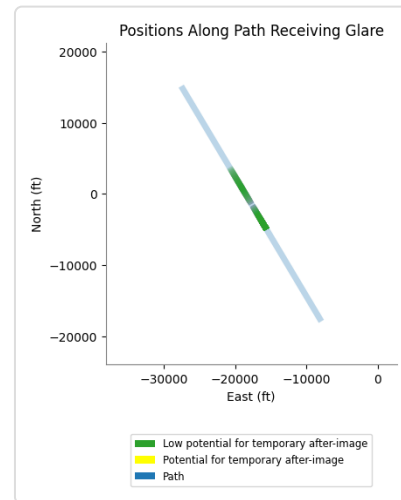
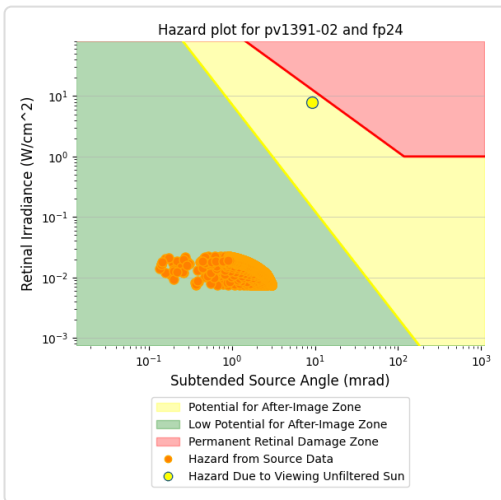
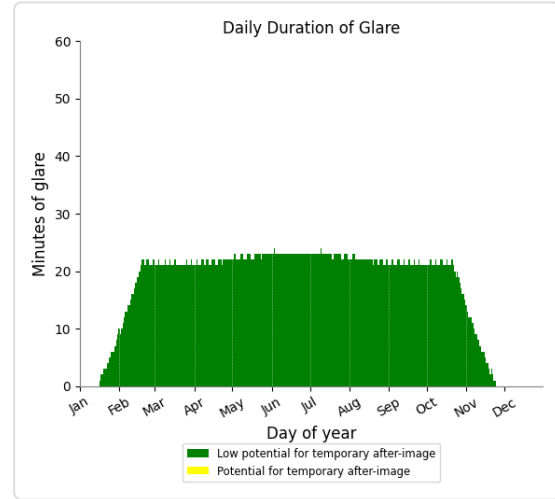
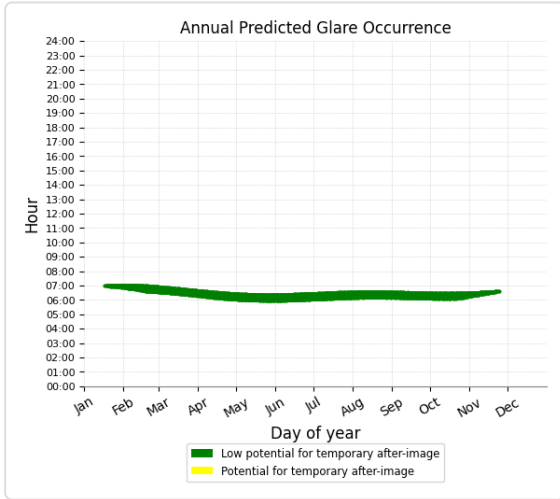
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	6,071	101.2	0	0.0
FP25	2,981	49.7	0	0.0
FP34	5,599	93.3	0	0.0
FP35	3,047	50.8	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1391_02 and FP: FP24

Yellow glare: none

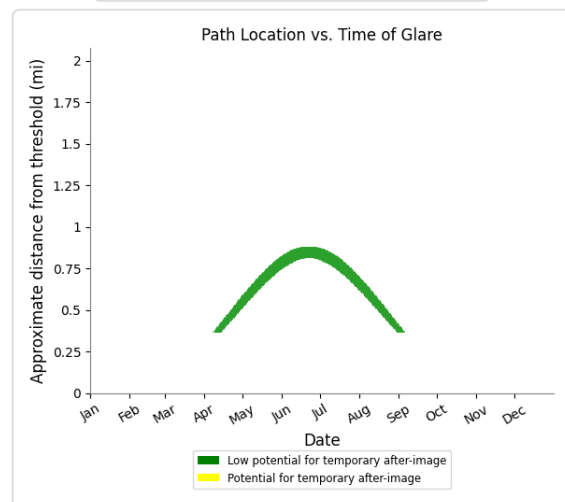
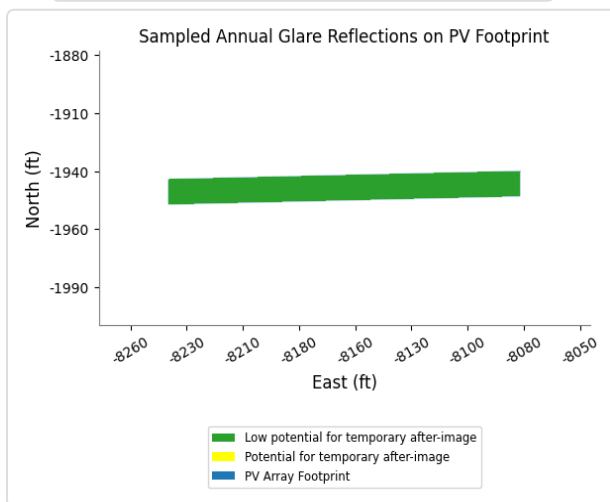
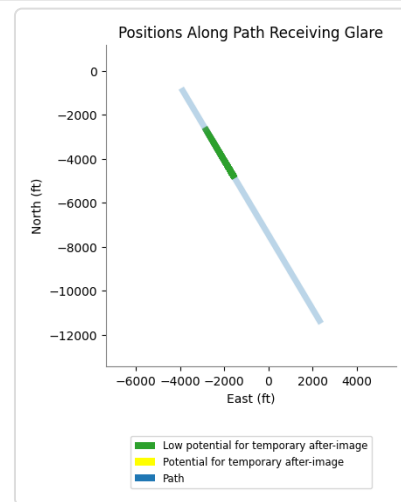
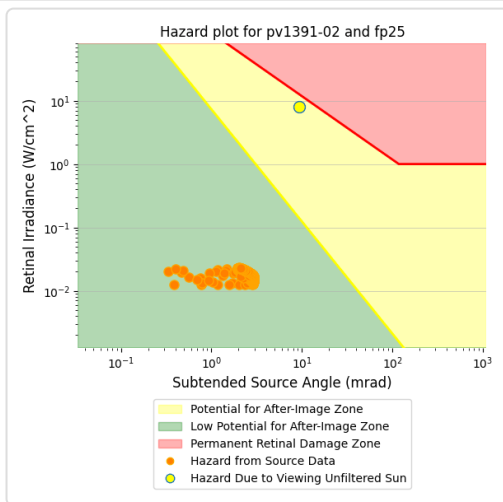
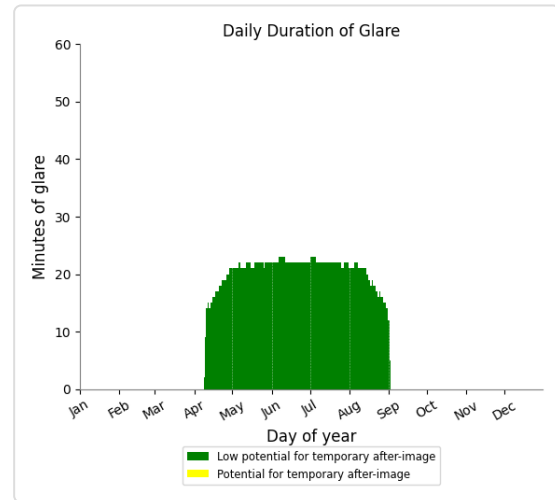
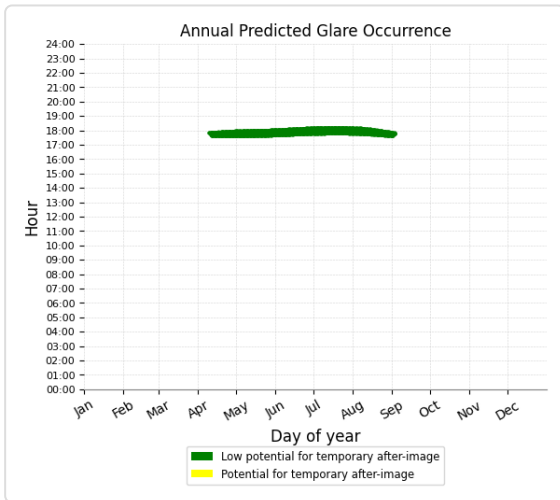
Green glare: 6,071 min.



PV1391_02 and FP: FP25

Yellow glare: none

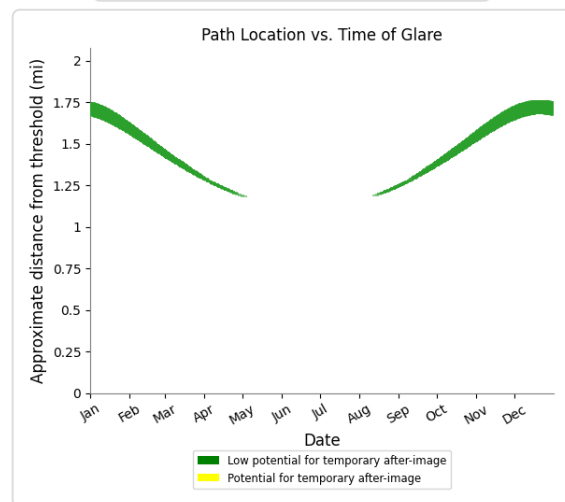
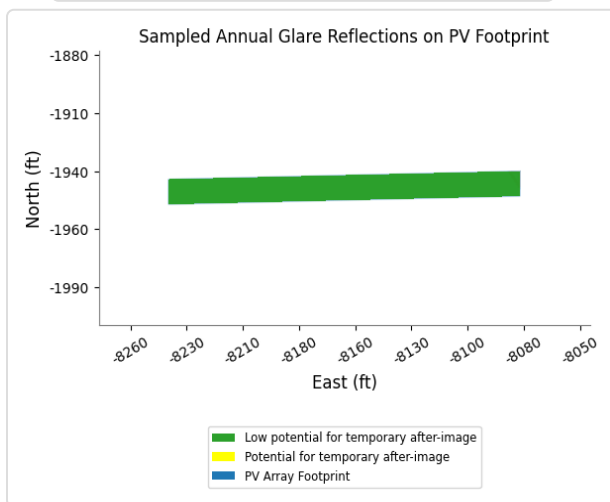
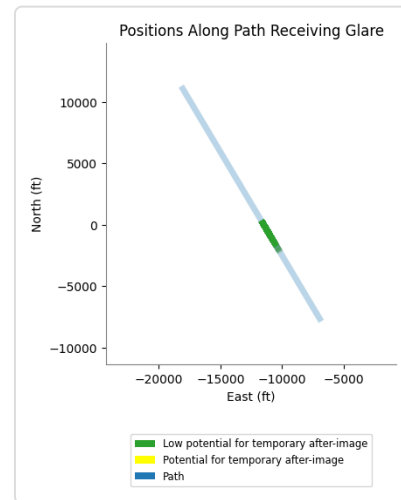
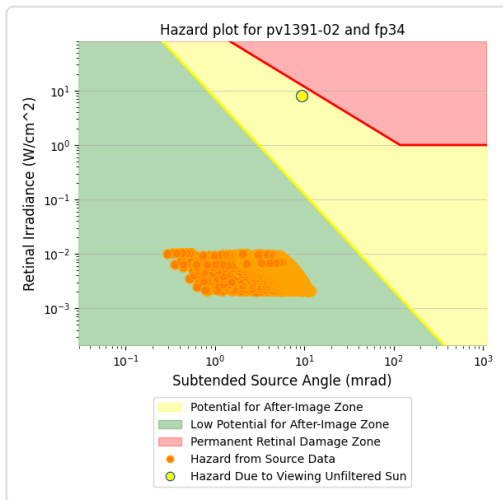
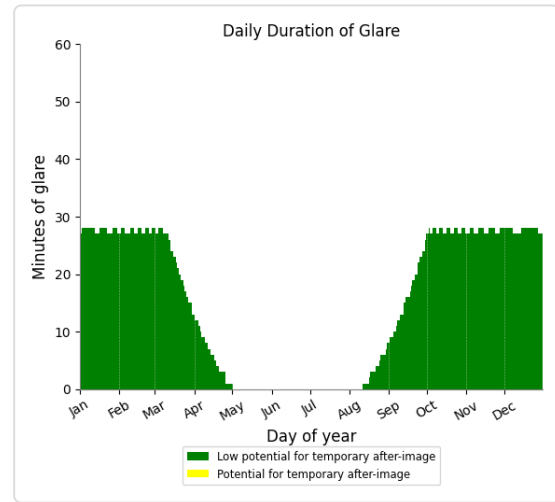
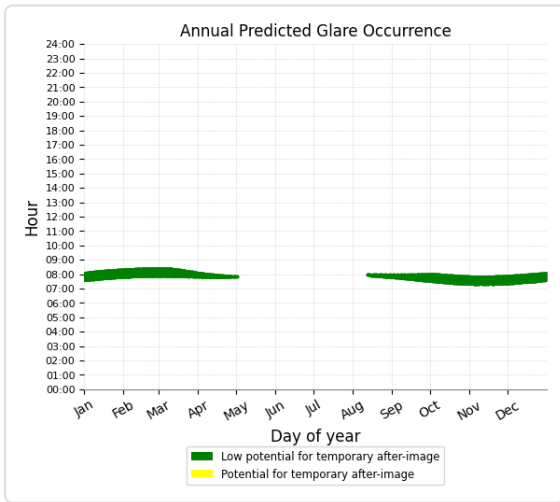
Green glare: 2,981 min.



PV1391_02 and FP: FP34

Yellow glare: none

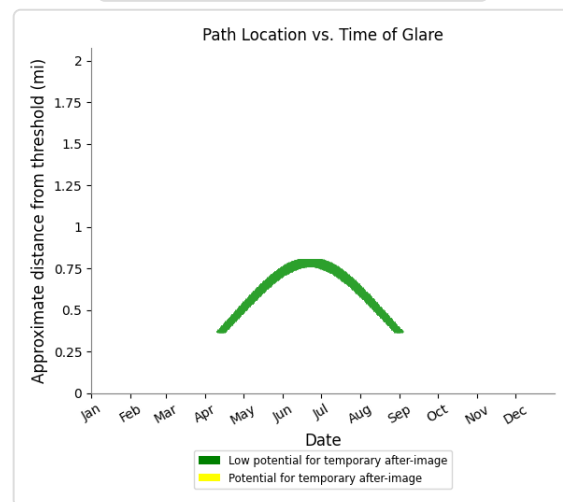
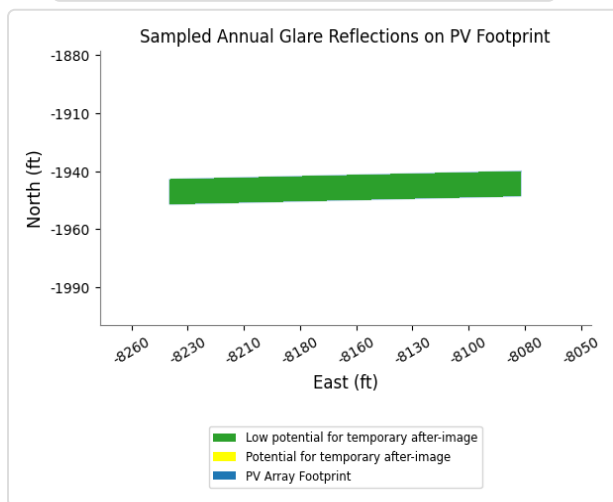
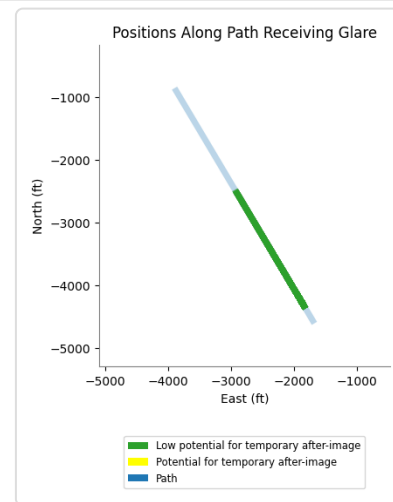
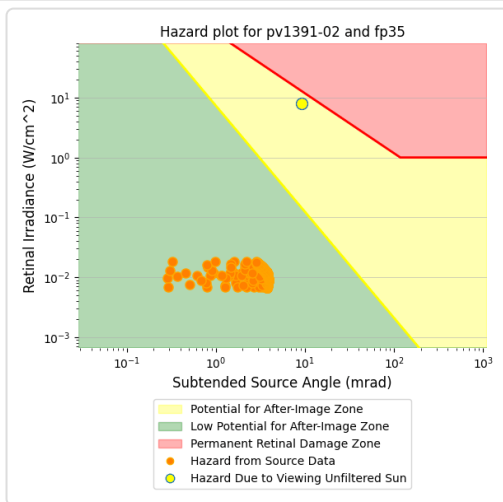
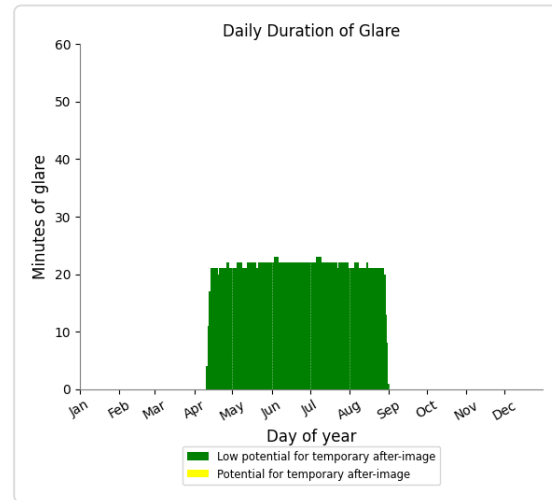
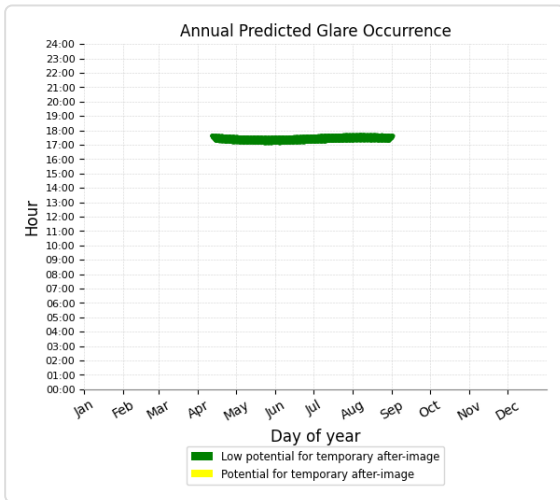
Green glare: 5,599 min.



PV1391_02 and FP: FP35

Yellow glare: none

Green glare: 3,047 min.



PV1391_02 and FP: FP17

No glare found

PV1391_02 and FP: FP18

No glare found

PV1391_02 and FP: FP19

No glare found

PV1391_02 and FP: FP20

No glare found

PV1391_02 and FP: FP21

No glare found

PV1391_02 and FP: FP22

No glare found

PV1391_02 and FP: FP23

No glare found

PV1391_02 and FP: FP26

No glare found

PV1391_02 and FP: FP27

No glare found

PV1391_02 and FP: FP28

No glare found

PV1391_02 and FP: FP29

No glare found

PV1391_02 and FP: FP30

No glare found

PV1391_02 and FP: FP31

No glare found

PV1391_02 and FP: FP32

No glare found

PV1391_02 and FP: FP33

No glare found

PV1391_02 and FP: FP36

No glare found

PV: PV1391_03 low potential for temporary after-image

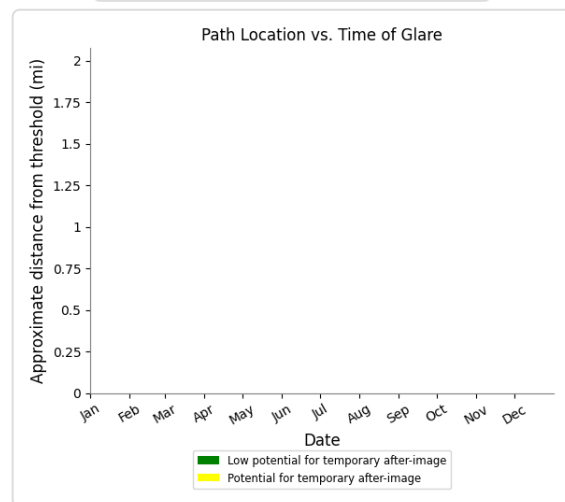
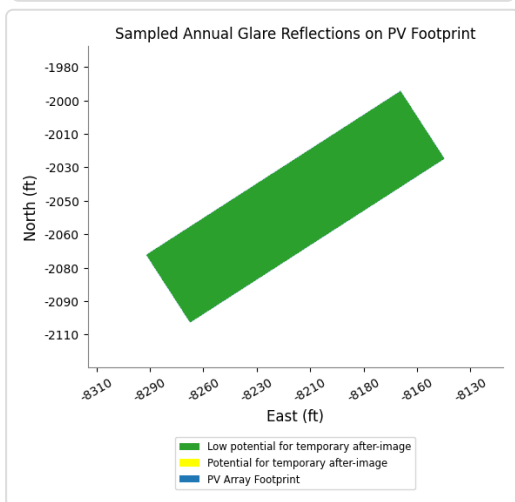
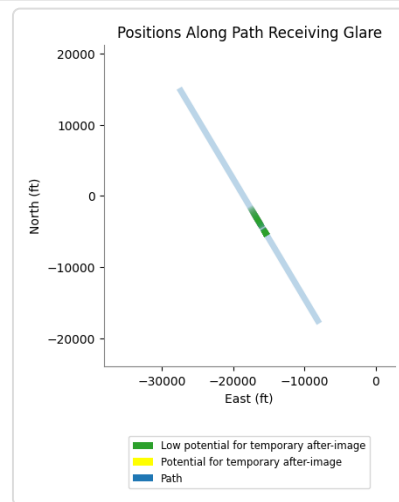
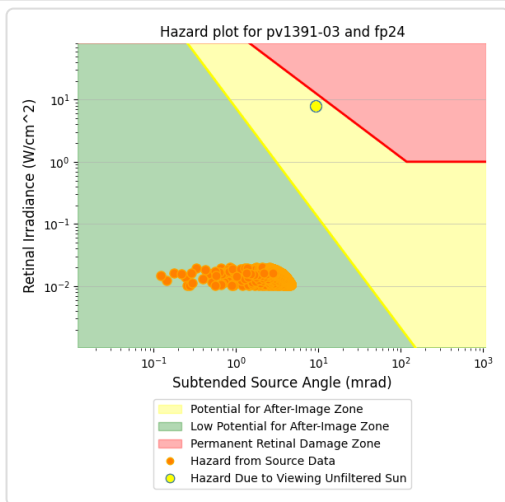
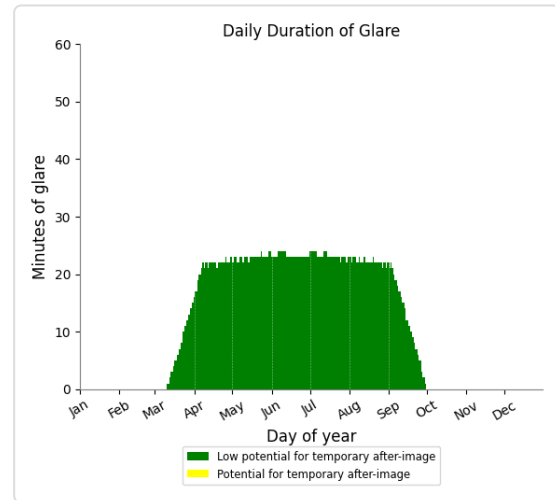
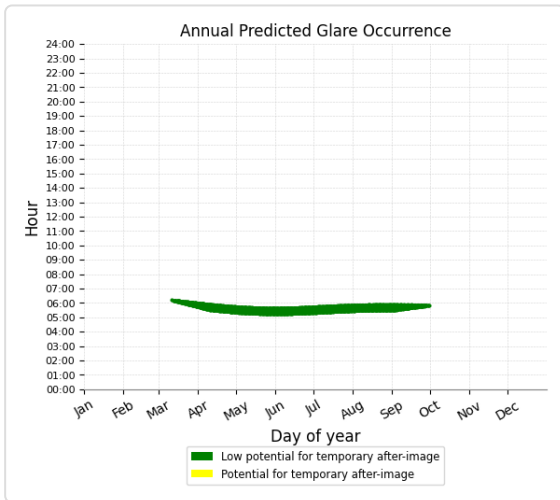
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	3,978	66.3	0	0.0
FP25	2,764	46.1	0	0.0
FP34	4,863	81.0	0	0.0
FP35	2,634	43.9	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1391_03 and FP: FP24

Yellow glare: none

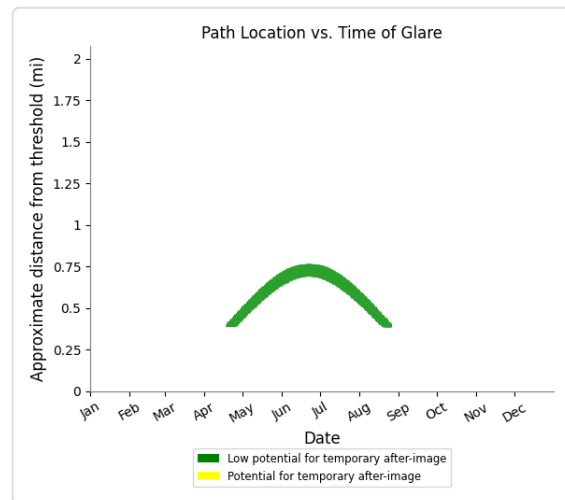
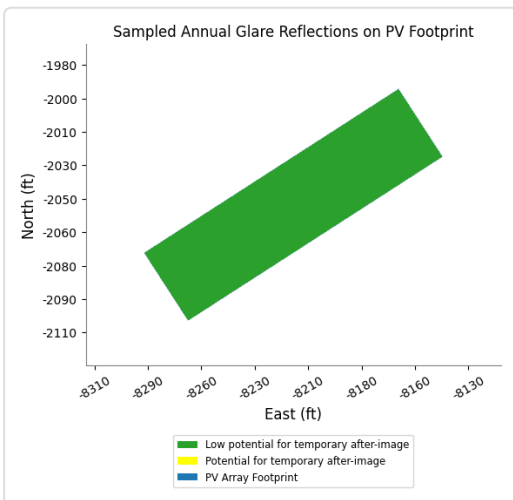
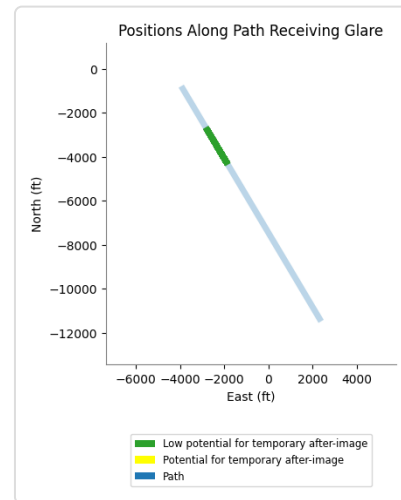
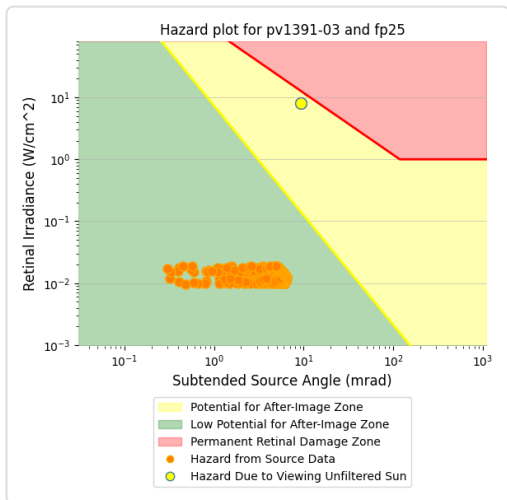
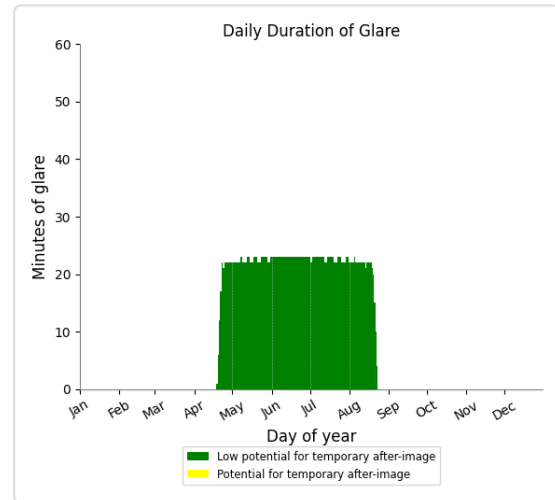
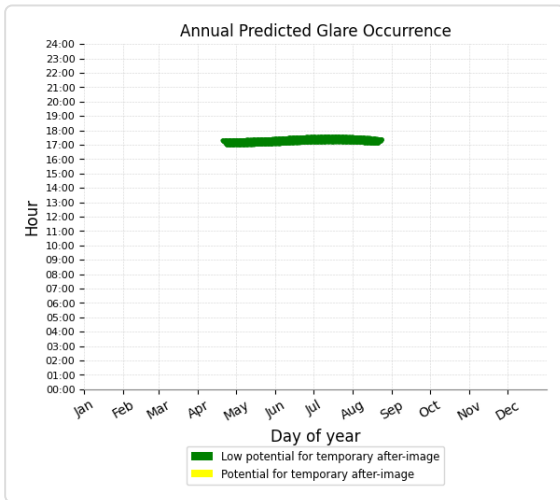
Green glare: 3,978 min.



PV1391_03 and FP: FP25

Yellow glare: none

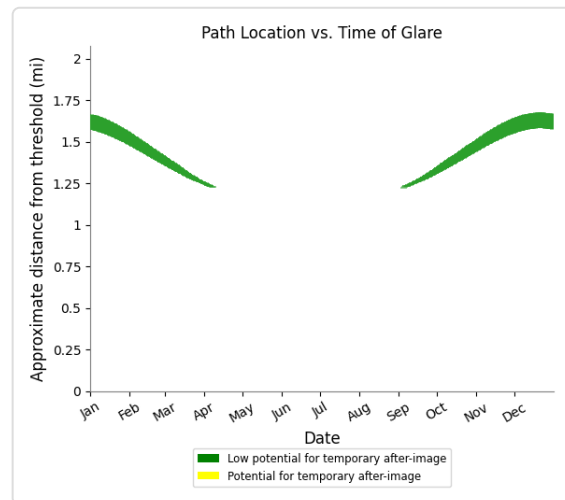
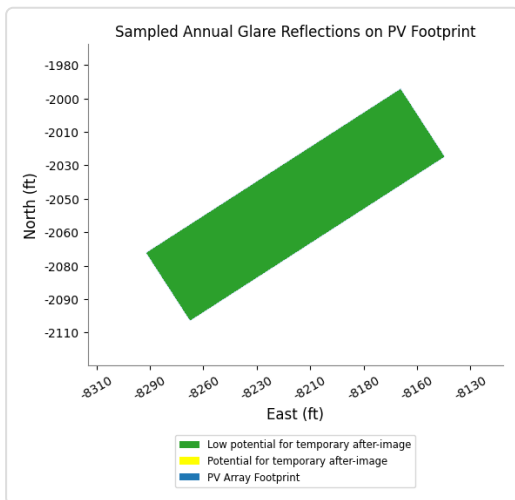
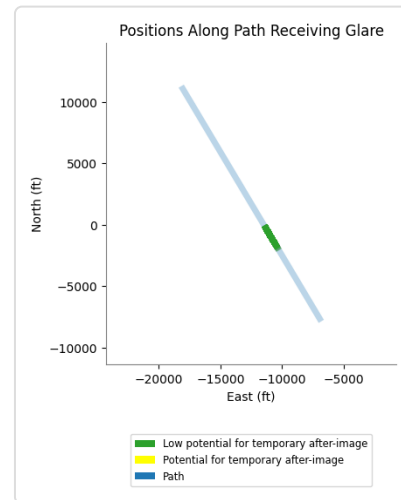
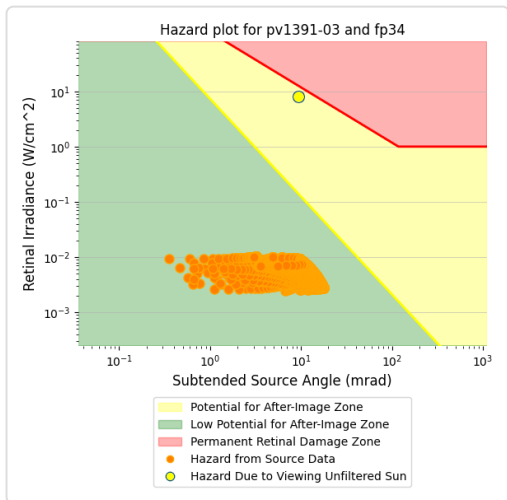
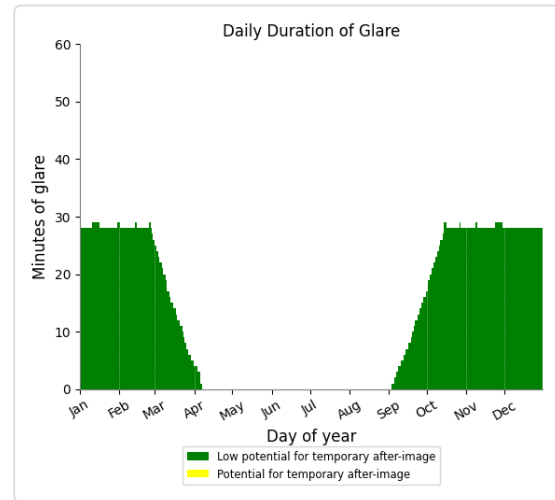
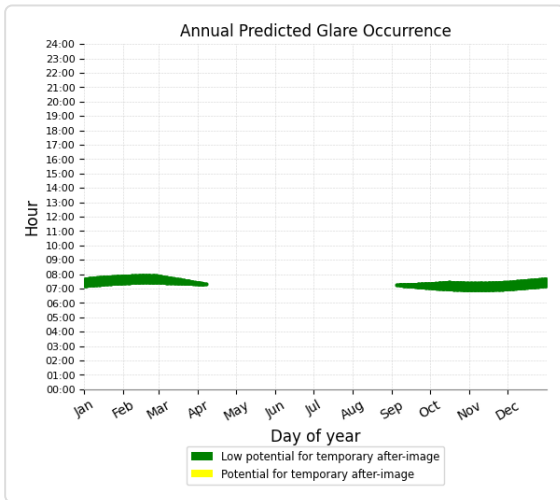
Green glare: 2,764 min.



PV1391_03 and FP: FP34

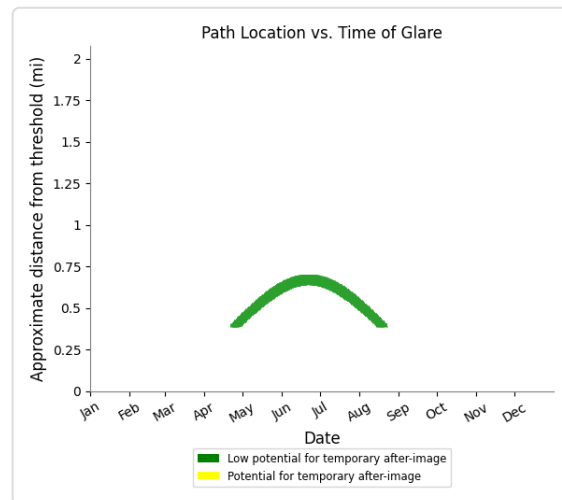
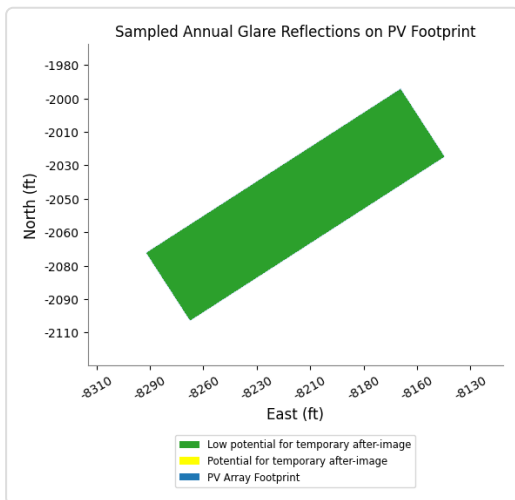
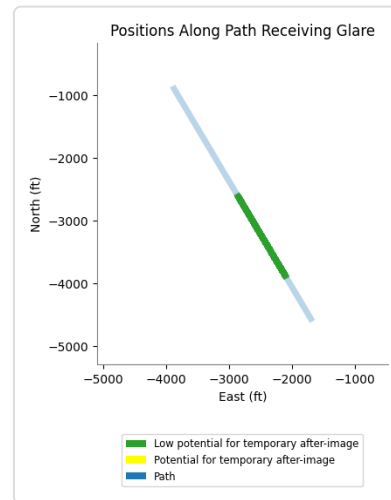
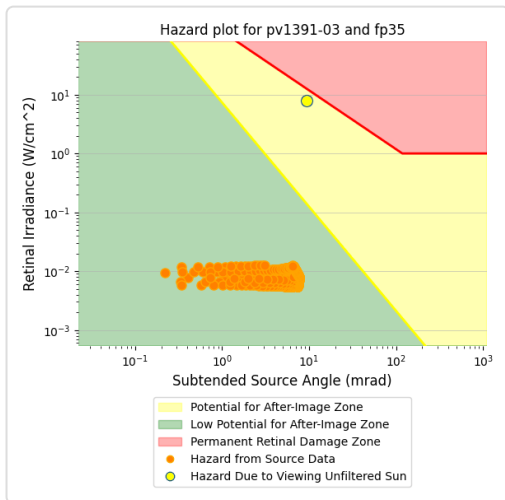
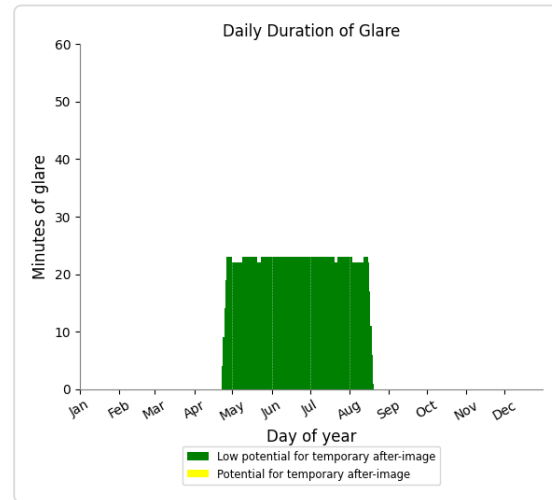
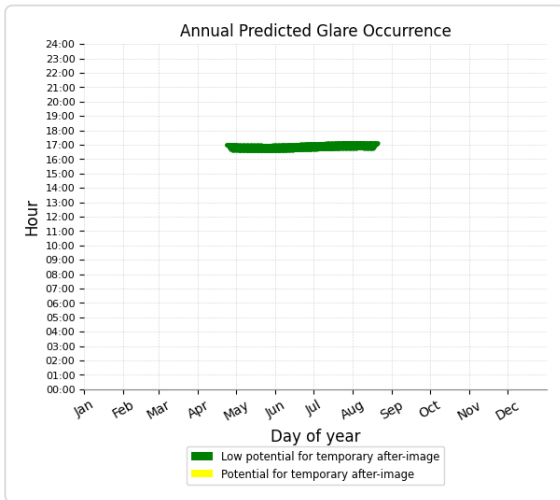
Yellow glare: none

Green glare: 4,863 min.



PV1391_03 and FP: FP35

Yellow glare: none
Green glare: 2,634 min.



PV1391_03 and FP: FP17

No glare found

PV1391_03 and FP: FP18

No glare found

PV1391_03 and FP: FP19

No glare found

PV1391_03 and FP: FP20

No glare found

PV1391_03 and FP: FP21

No glare found

PV1391_03 and FP: FP22

No glare found

PV1391_03 and FP: FP23

No glare found

PV1391_03 and FP: FP26

No glare found

PV1391_03 and FP: FP27

No glare found

PV1391_03 and FP: FP28

No glare found

PV1391_03 and FP: FP29

No glare found

PV1391_03 and FP: FP30

No glare found

PV1391_03 and FP: FP31

No glare found

PV1391_03 and FP: FP32

No glare found

PV1391_03 and FP: FP33

No glare found

PV1391_03 and FP: FP36

No glare found

PV: PV1391_04 low potential for temporary after-image

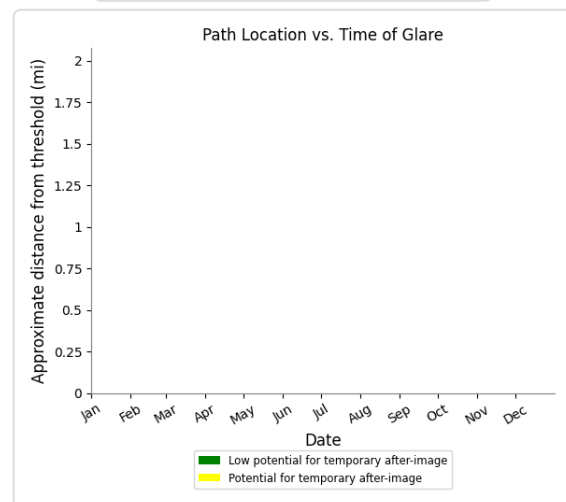
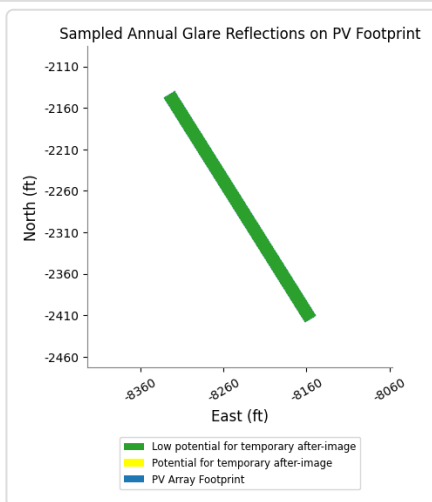
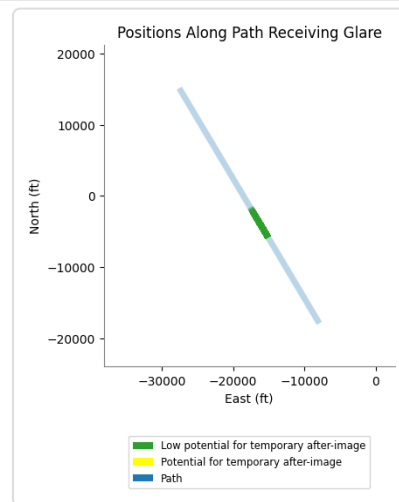
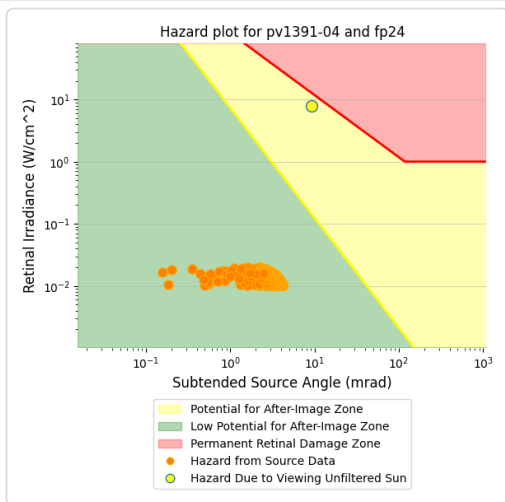
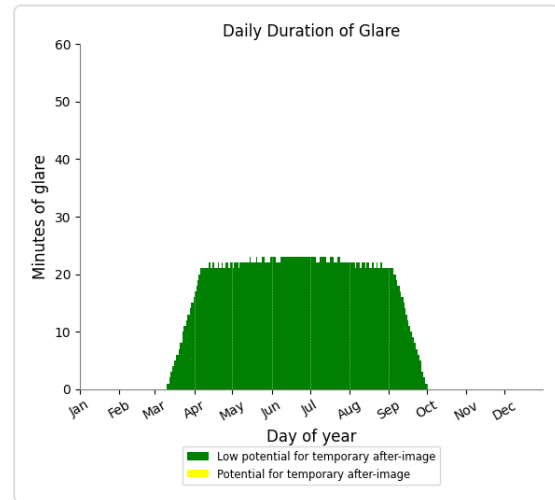
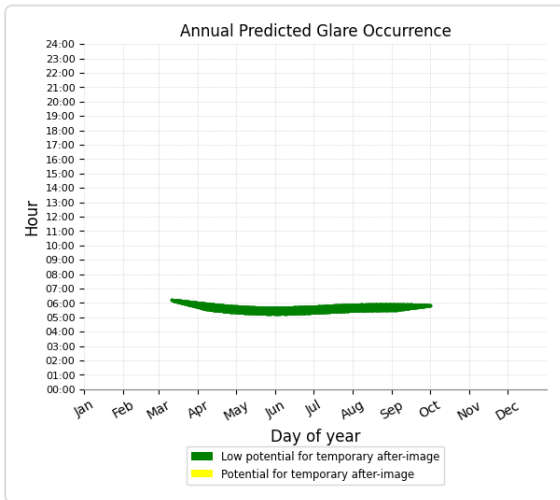
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	3,900	65.0	0	0.0
FP25	2,868	47.8	0	0.0
FP34	3,428	57.1	0	0.0
FP35	2,922	48.7	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1391_04 and FP: FP24

Yellow glare: none

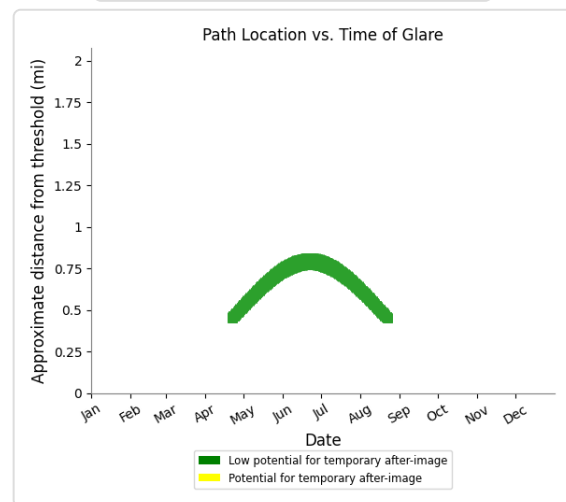
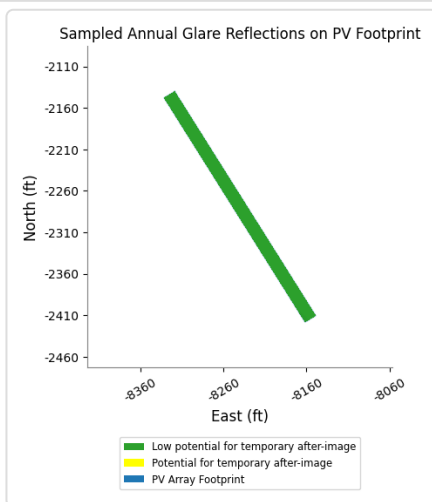
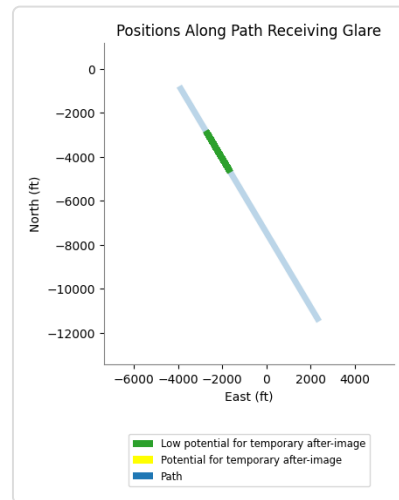
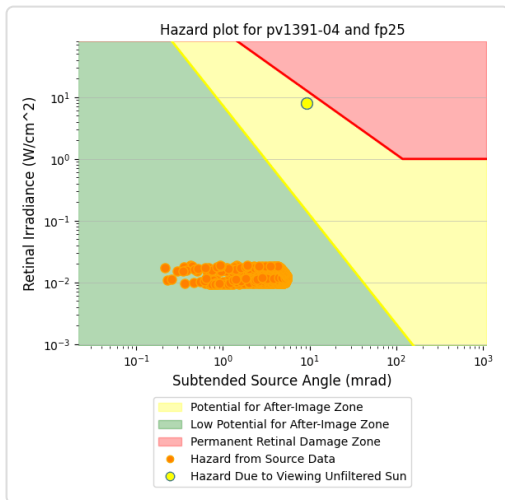
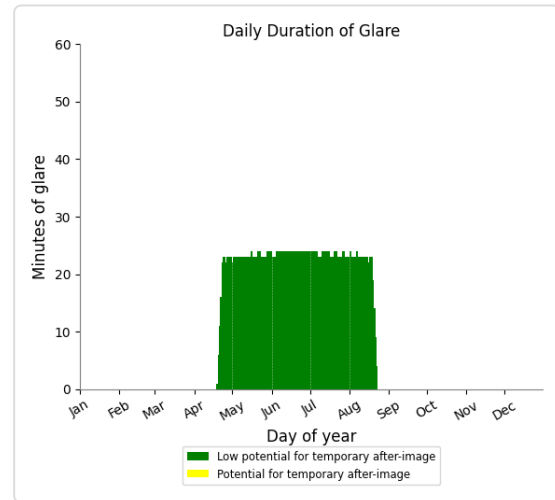
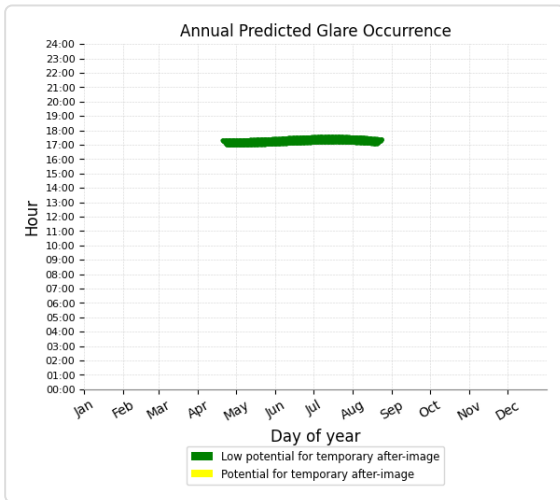
Green glare: 3,900 min.



PV1391_04 and FP: FP25

Yellow glare: none

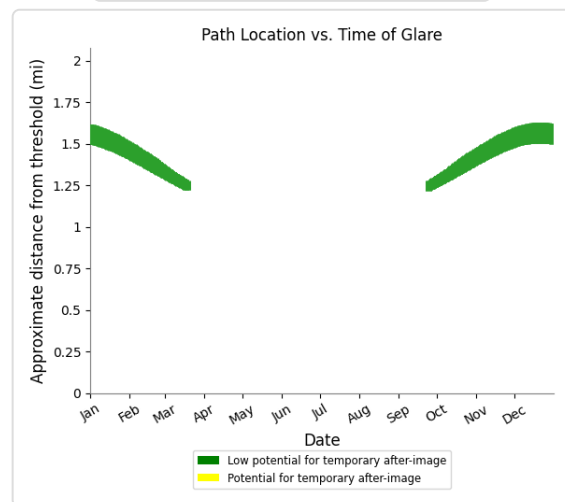
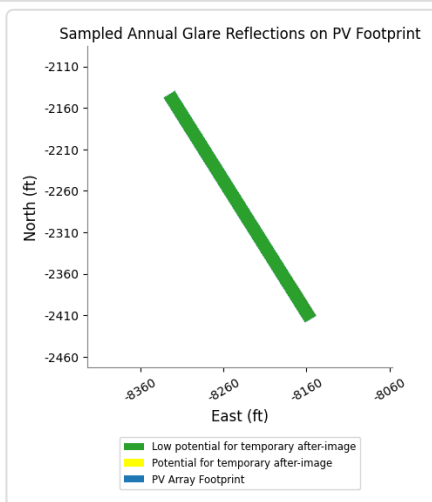
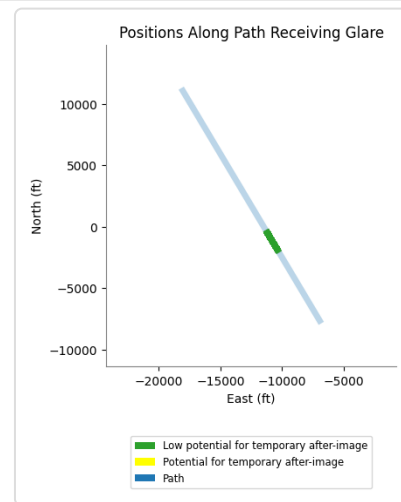
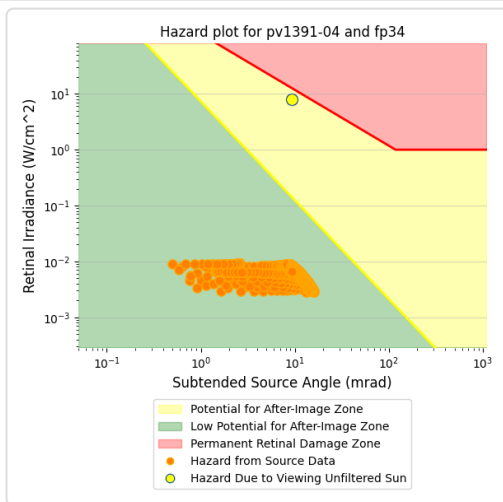
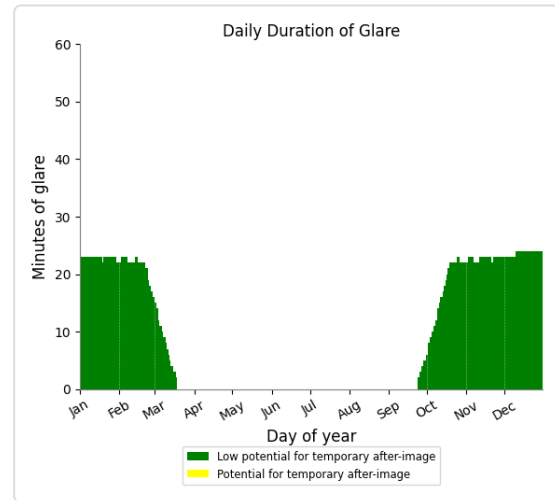
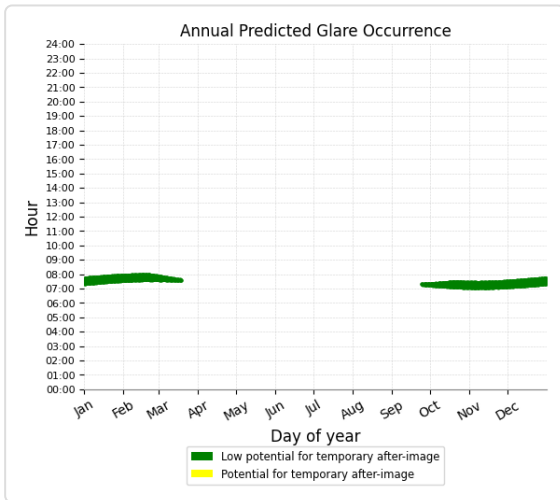
Green glare: 2,868 min.



PV1391_04 and FP: FP34

Yellow glare: none

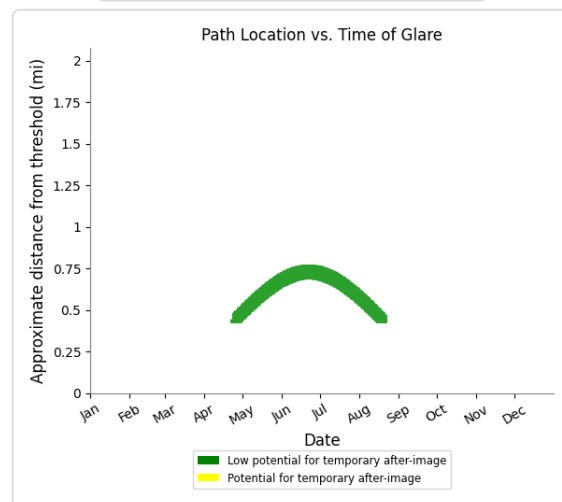
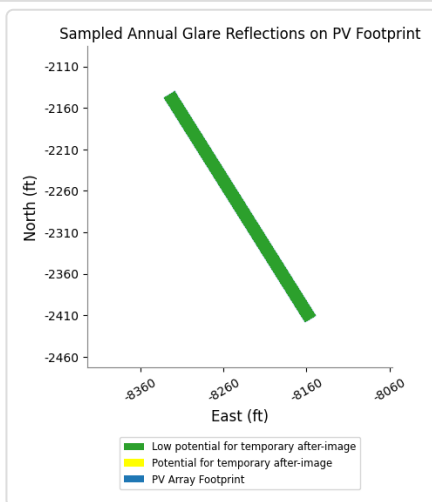
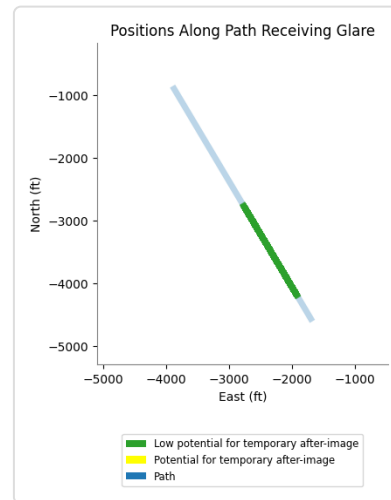
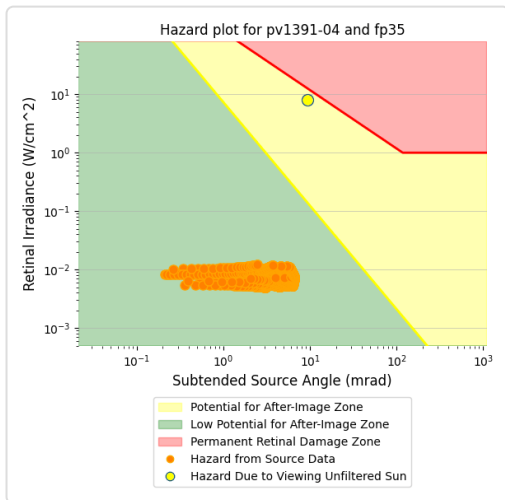
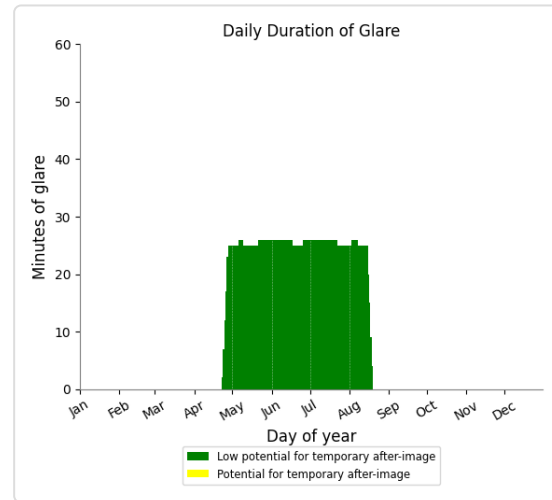
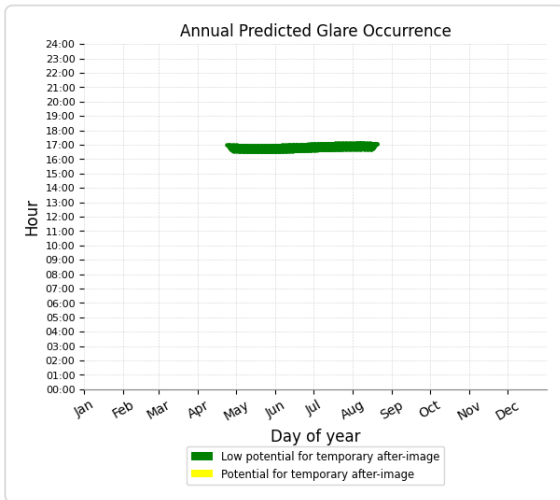
Green glare: 3,428 min.



PV1391_04 and FP: FP35

Yellow glare: none

Green glare: 2,922 min.



PV1391_04 and FP: FP17

No glare found

PV1391_04 and FP: FP18

No glare found

PV1391_04 and FP: FP19

No glare found

PV1391_04 and FP: FP20

No glare found

PV1391_04 and FP: FP21

No glare found

PV1391_04 and FP: FP22

No glare found

PV1391_04 and FP: FP23

No glare found

PV1391_04 and FP: FP26

No glare found

PV1391_04 and FP: FP27

No glare found

PV1391_04 and FP: FP28

No glare found

PV1391_04 and FP: FP29

No glare found

PV1391_04 and FP: FP30

No glare found

PV1391_04 and FP: FP31

No glare found

PV1391_04 and FP: FP32

No glare found

PV1391_04 and FP: FP33

No glare found

PV1391_04 and FP: FP36

No glare found

PV: PV1391_05 low potential for temporary after-image

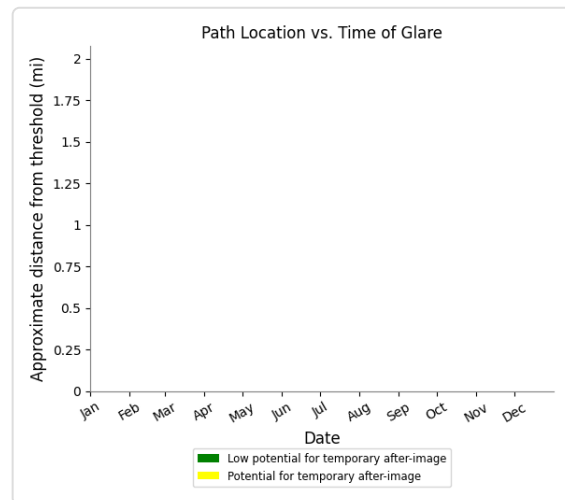
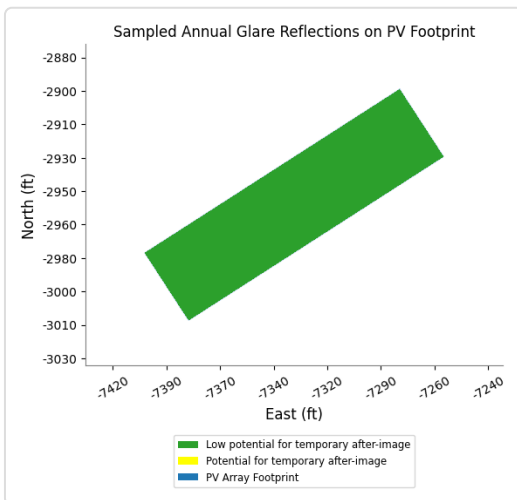
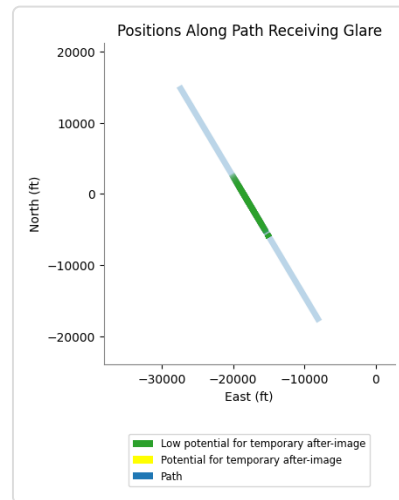
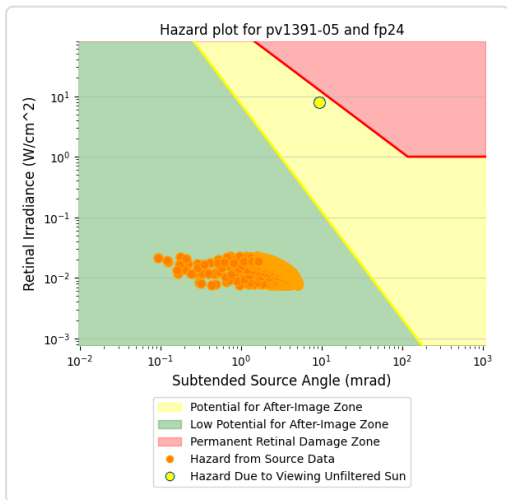
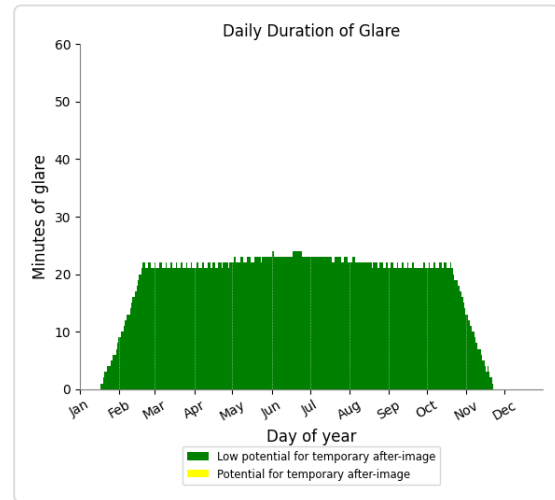
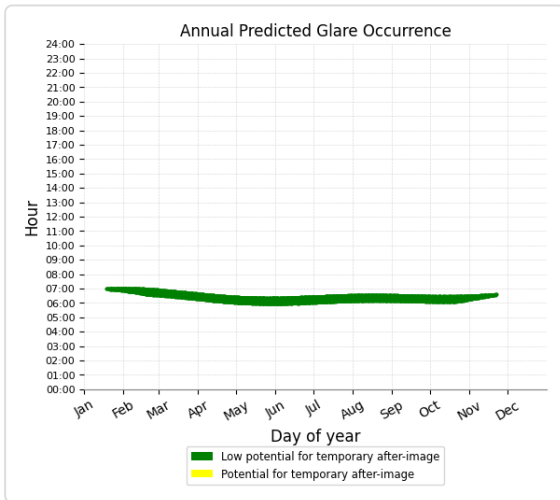
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	6,033	100.5	0	0.0
FP25	3,179	53.0	0	0.0
FP34	7,094	118.2	0	0.0
FP35	1,756	29.3	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1391_05 and FP: FP24

Yellow glare: none

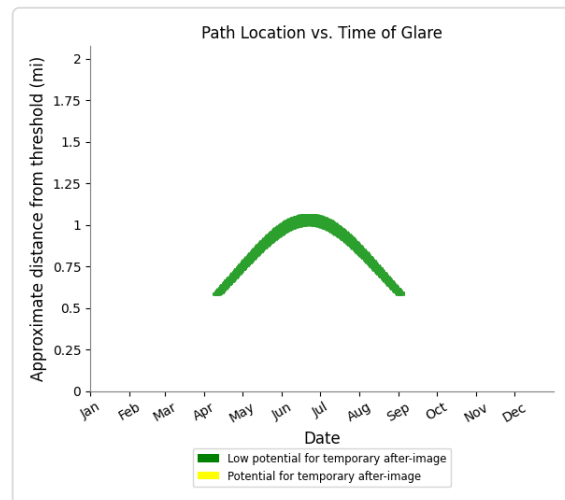
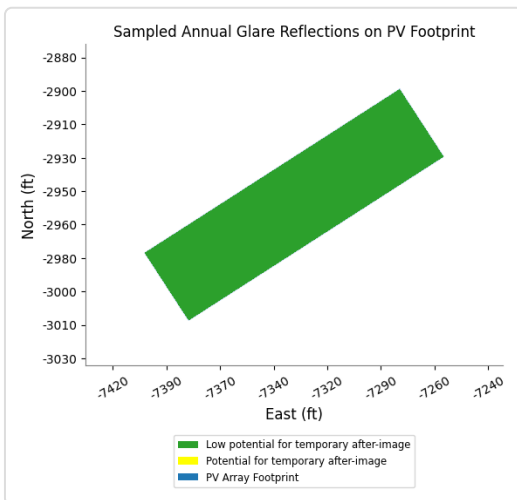
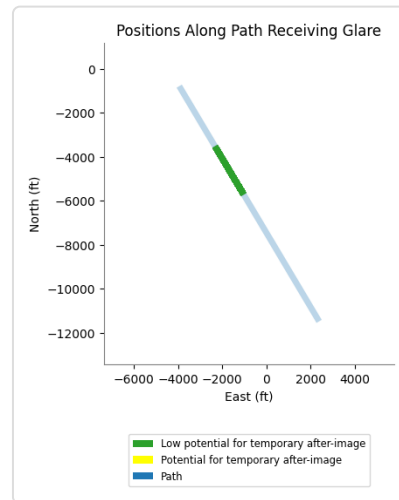
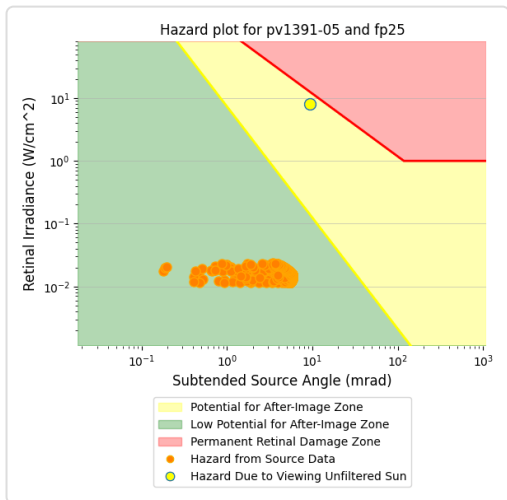
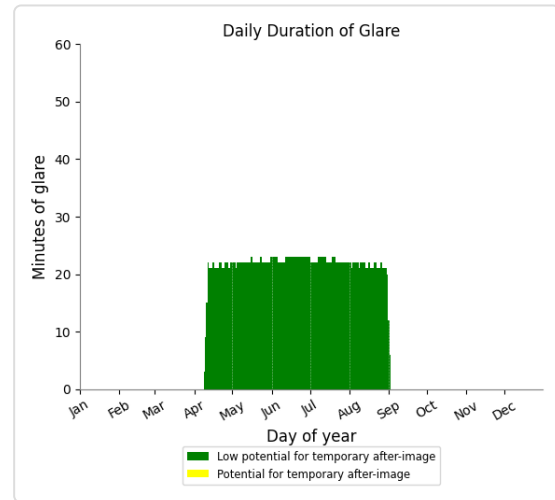
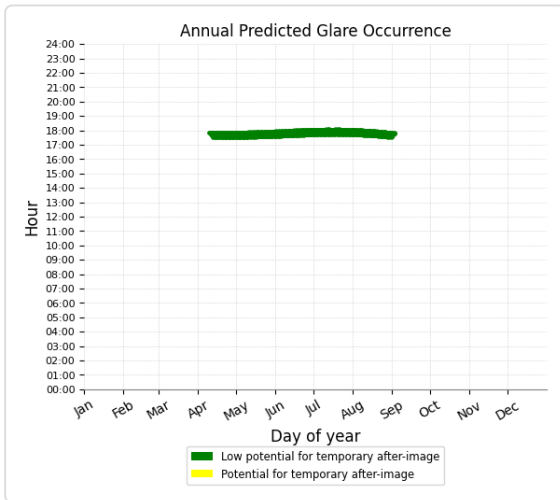
Green glare: 6,033 min.



PV1391_05 and FP: FP25

Yellow glare: none

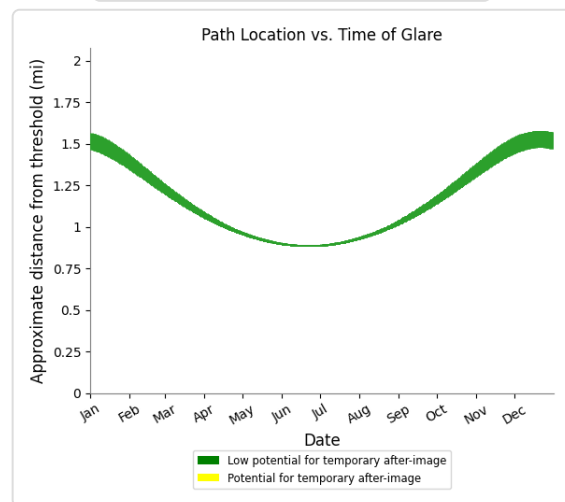
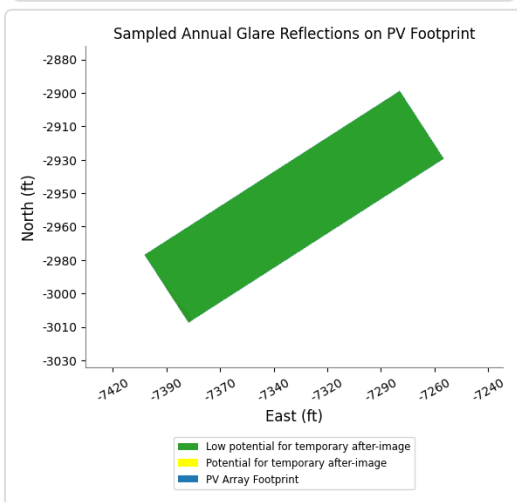
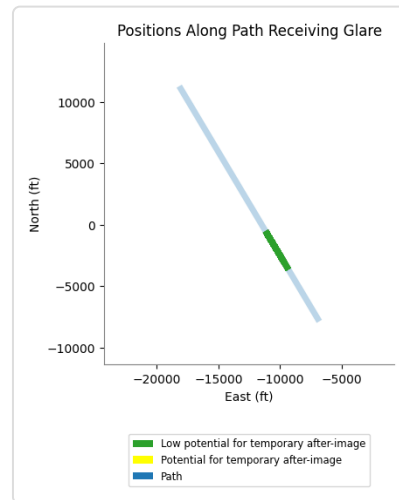
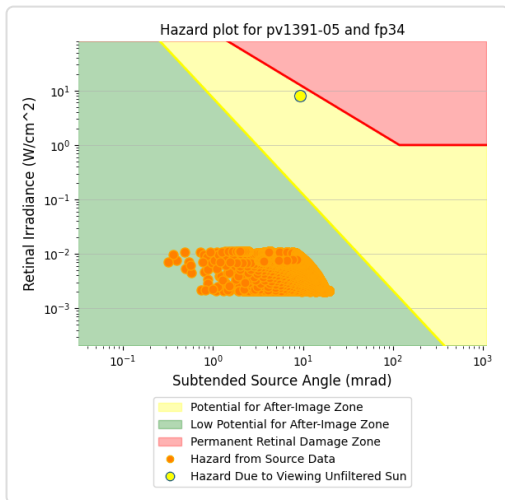
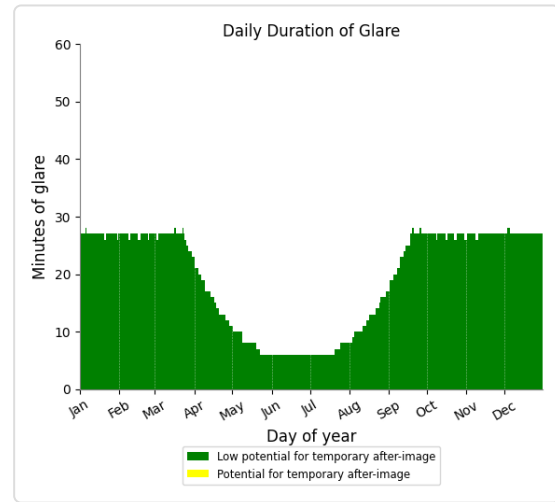
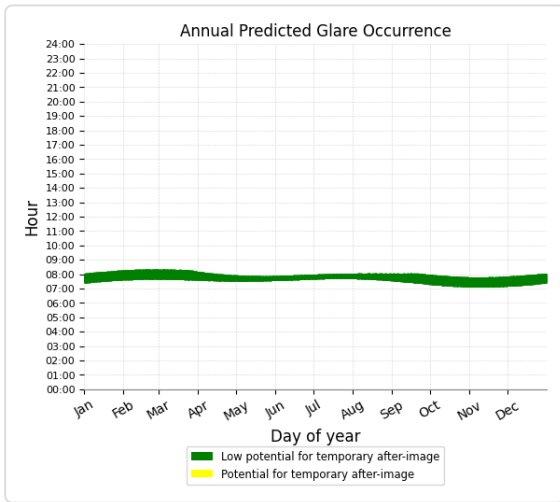
Green glare: 3,179 min.



PV1391_05 and FP: FP34

Yellow glare: none

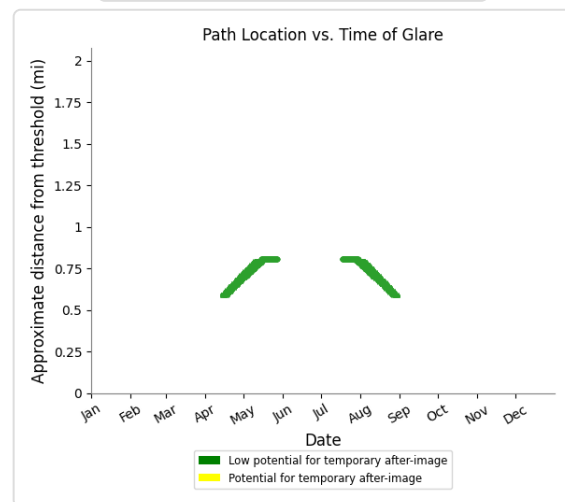
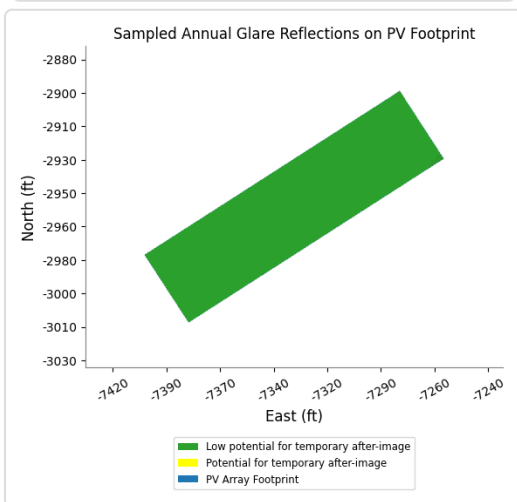
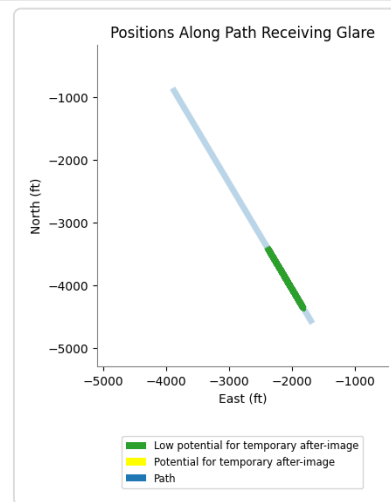
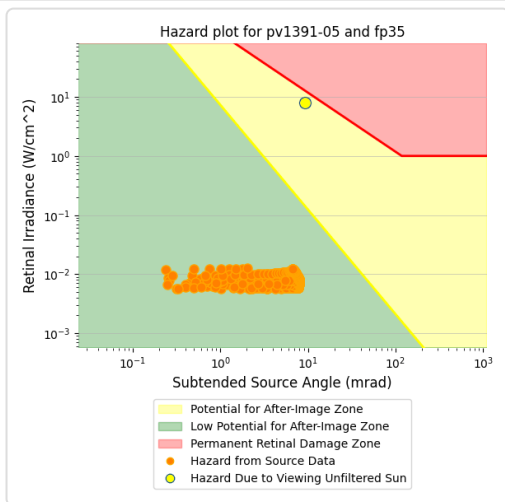
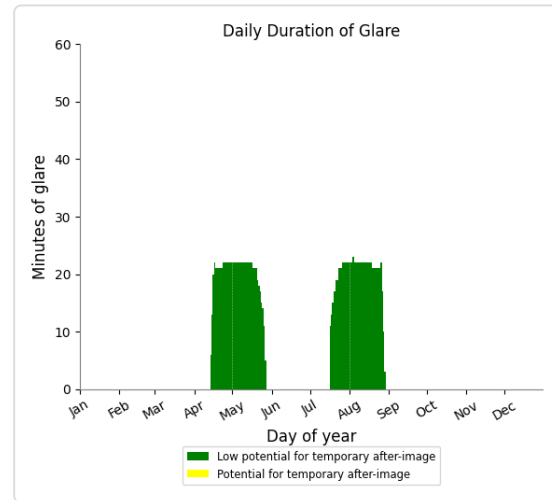
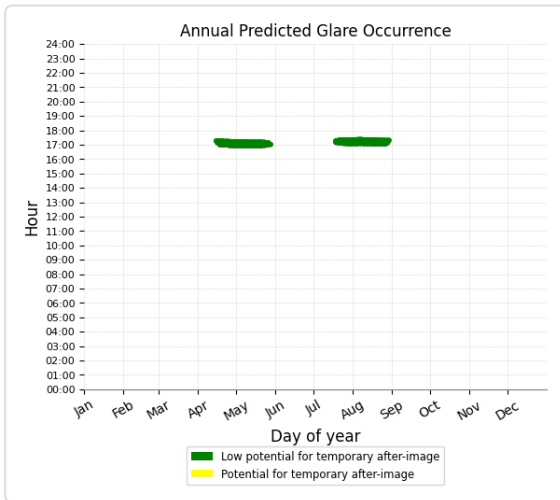
Green glare: 7,094 min.



PV1391_05 and FP: FP35

Yellow glare: none

Green glare: 1,756 min.



PV1391_05 and FP: FP17

No glare found

PV1391_05 and FP: FP18

No glare found

PV1391_05 and FP: FP19

No glare found

PV1391_05 and FP: FP20

No glare found

PV1391_05 and FP: FP21

No glare found

PV1391_05 and FP: FP22

No glare found

PV1391_05 and FP: FP23

No glare found

PV1391_05 and FP: FP26

No glare found

PV1391_05 and FP: FP27

No glare found

PV1391_05 and FP: FP28

No glare found

PV1391_05 and FP: FP29

No glare found

PV1391_05 and FP: FP30

No glare found

PV1391_05 and FP: FP31

No glare found

PV1391_05 and FP: FP32

No glare found

PV1391_05 and FP: FP33

No glare found

PV1391_05 and FP: FP36

No glare found

PV: PV1391_06 low potential for temporary after-image

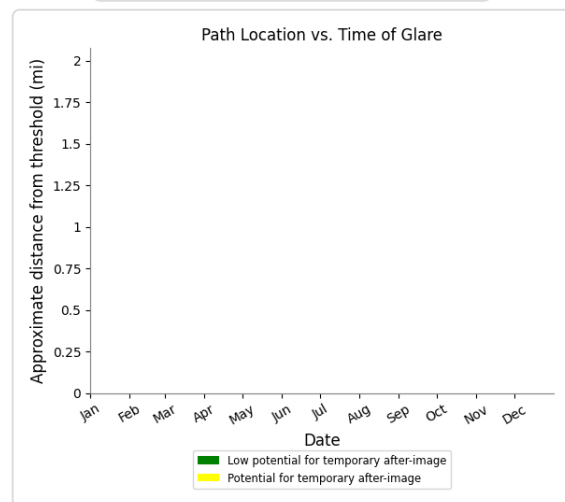
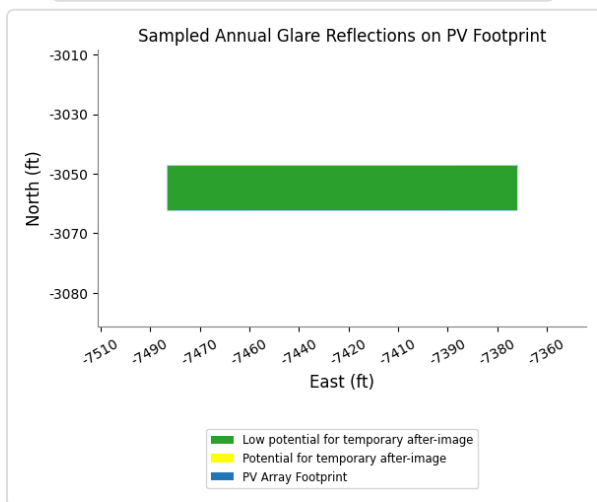
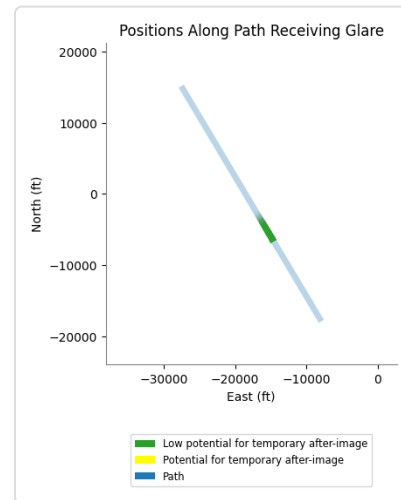
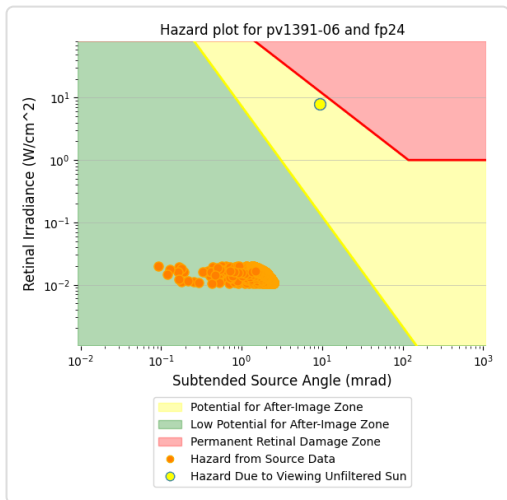
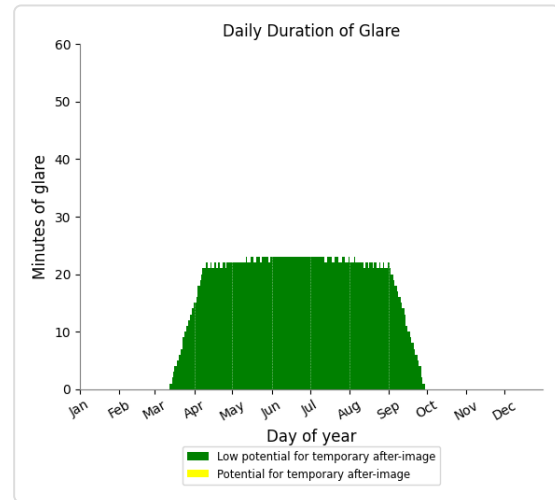
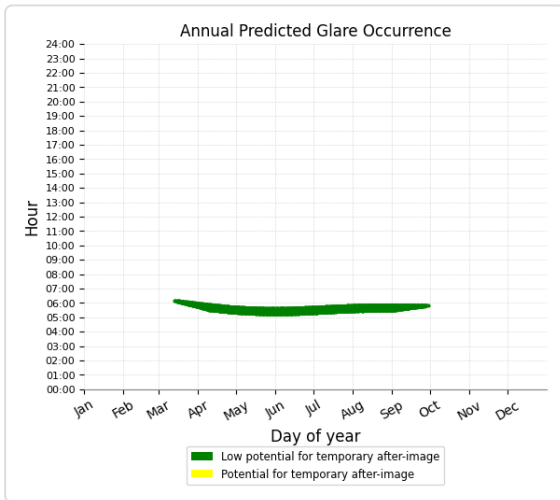
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	3,853	64.2	0	0.0
FP25	2,422	40.4	0	0.0
FP34	5,182	86.4	0	0.0
FP35	2,293	38.2	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1391_06 and FP: FP24

Yellow glare: none

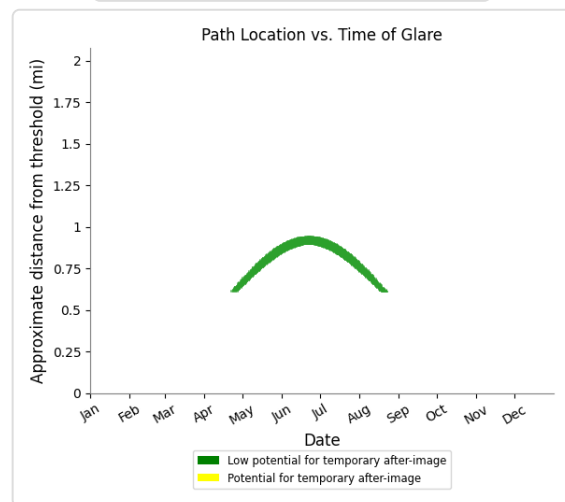
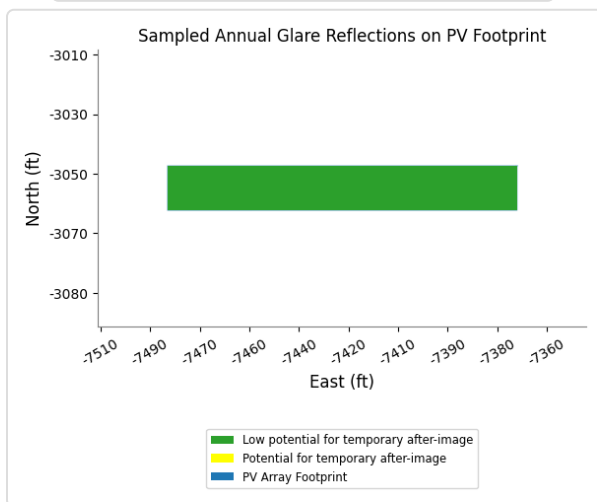
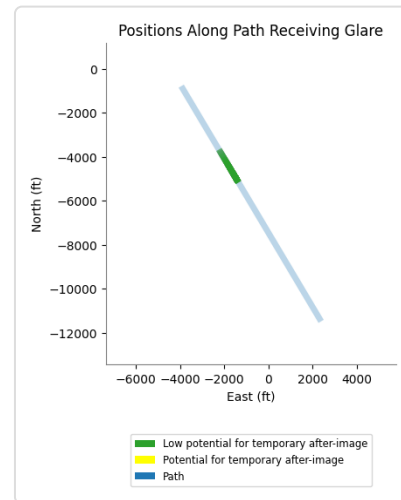
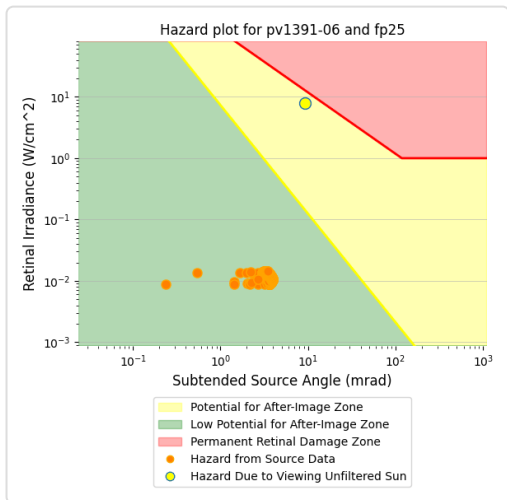
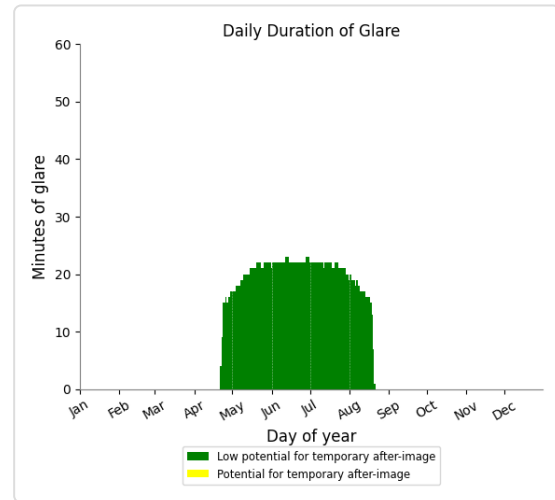
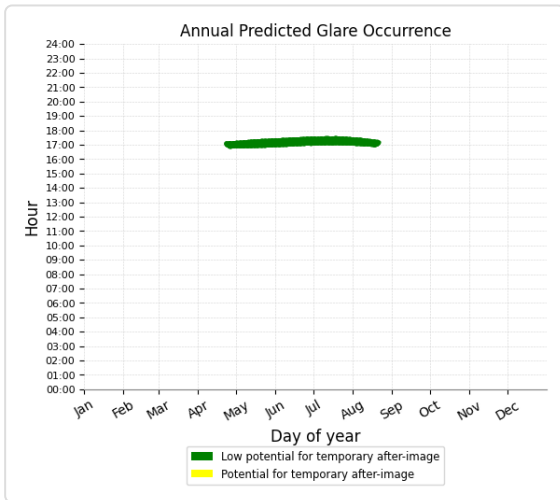
Green glare: 3,853 min.



PV1391_06 and FP: FP25

Yellow glare: none

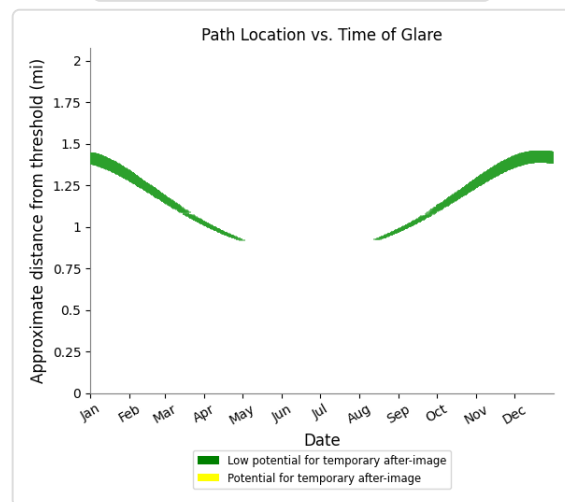
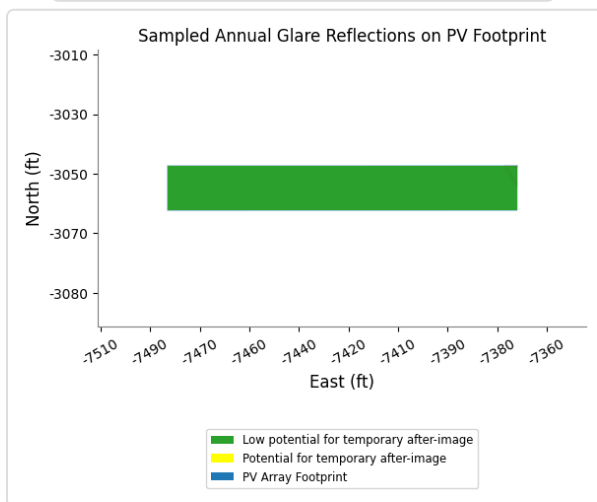
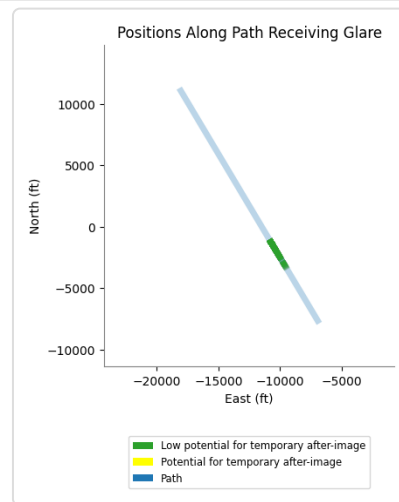
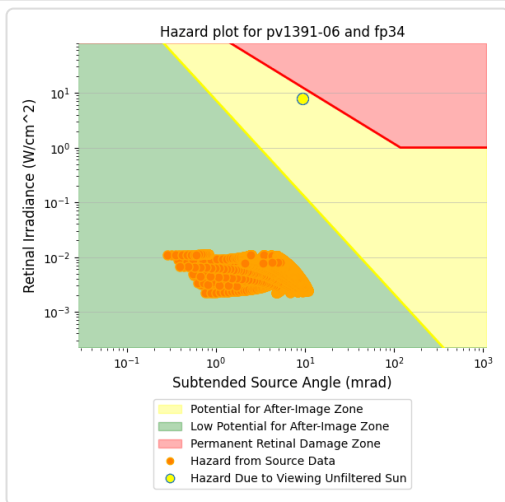
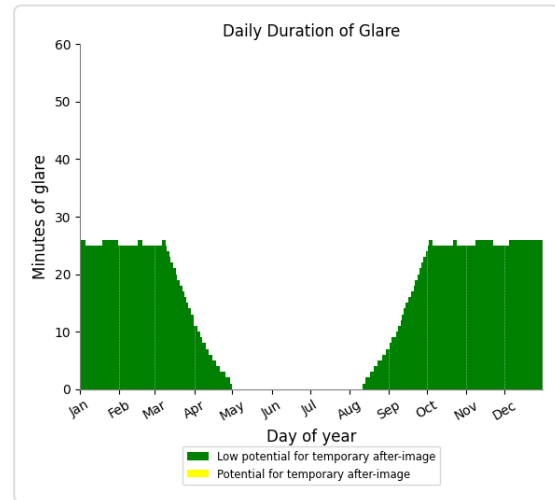
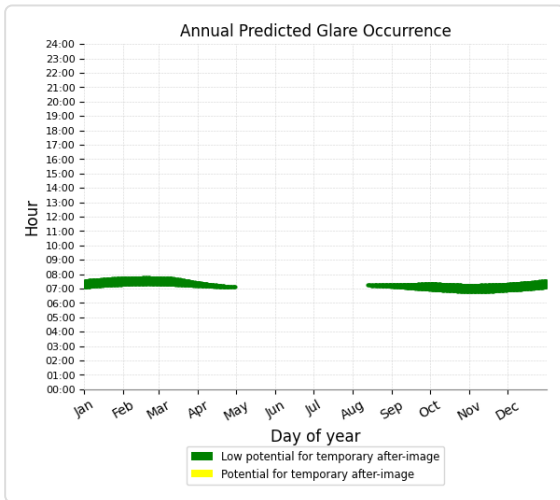
Green glare: 2,422 min.



PV1391_06 and FP: FP34

Yellow glare: none

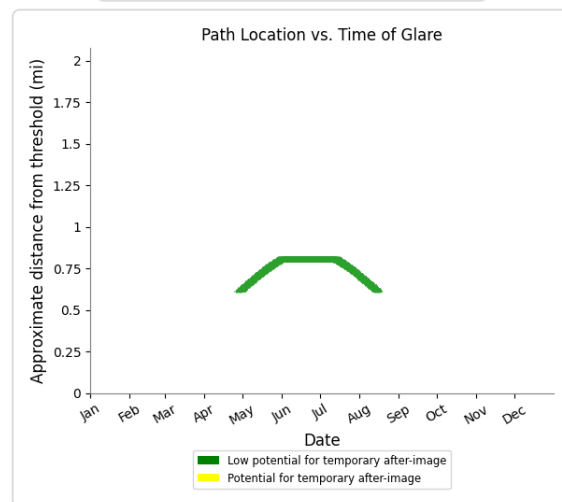
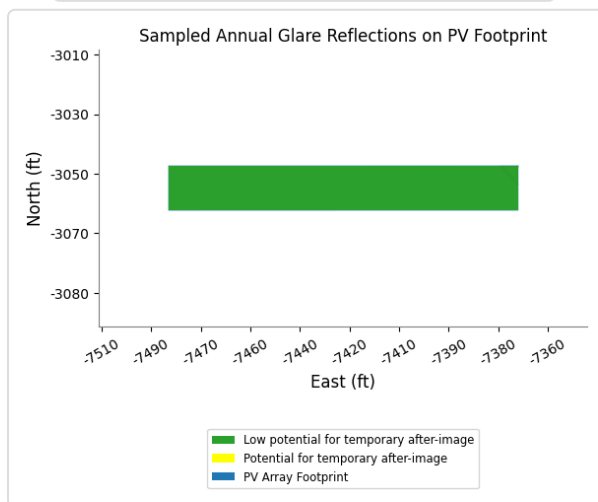
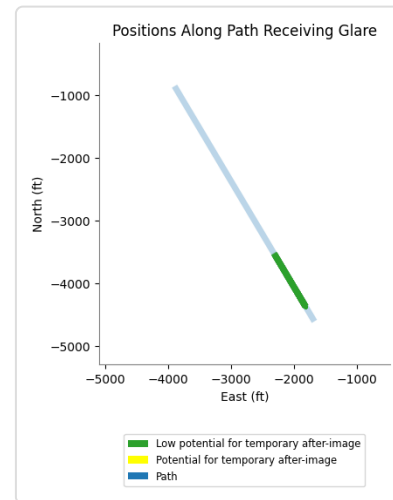
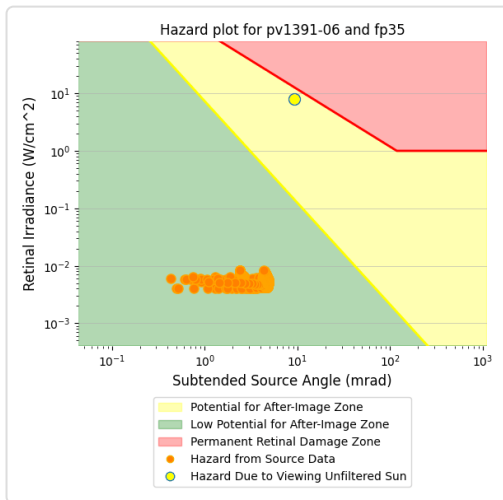
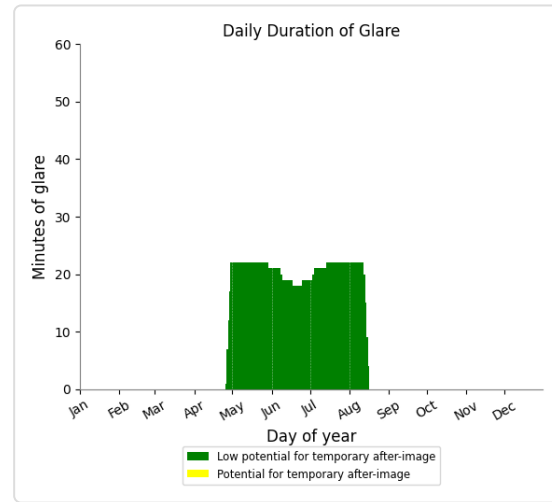
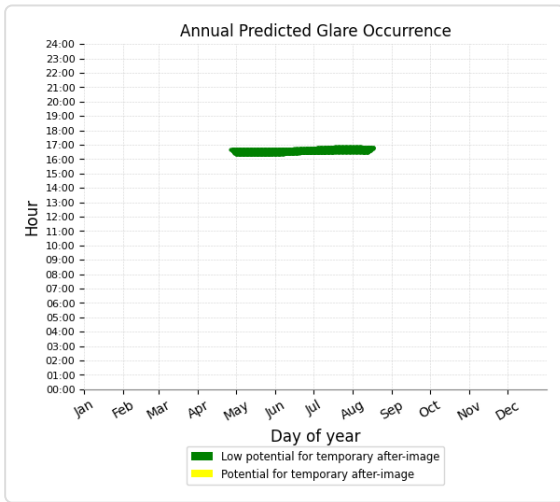
Green glare: 5,182 min.



PV1391_06 and FP: FP35

Yellow glare: none

Green glare: 2,293 min.



PV1391_06 and FP: FP17

No glare found

PV1391_06 and FP: FP18

No glare found

PV1391_06 and FP: FP19

No glare found

PV1391_06 and FP: FP20

No glare found

PV1391_06 and FP: FP21

No glare found

PV1391_06 and FP: FP22

No glare found

PV1391_06 and FP: FP23

No glare found

PV1391_06 and FP: FP26

No glare found

PV1391_06 and FP: FP27

No glare found

PV1391_06 and FP: FP28

No glare found

PV1391_06 and FP: FP29

No glare found

PV1391_06 and FP: FP30

No glare found

PV1391_06 and FP: FP31

No glare found

PV1391_06 and FP: FP32

No glare found

PV1391_06 and FP: FP33

No glare found

PV1391_06 and FP: FP36

No glare found

PV: PV1404_01 low potential for temporary after-image

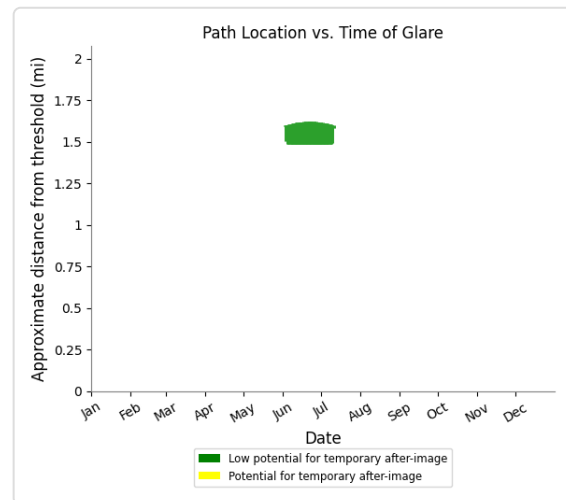
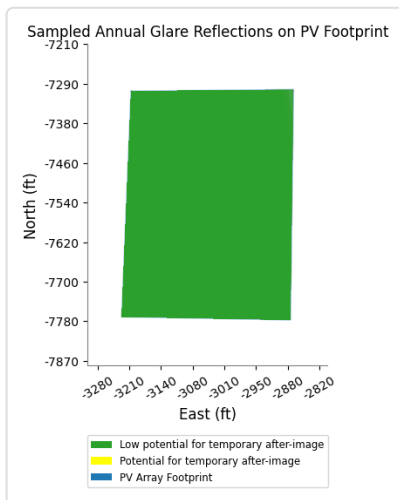
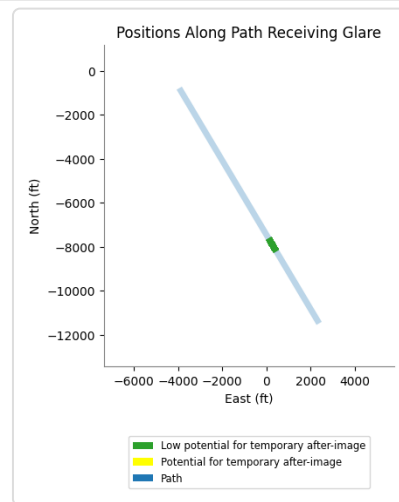
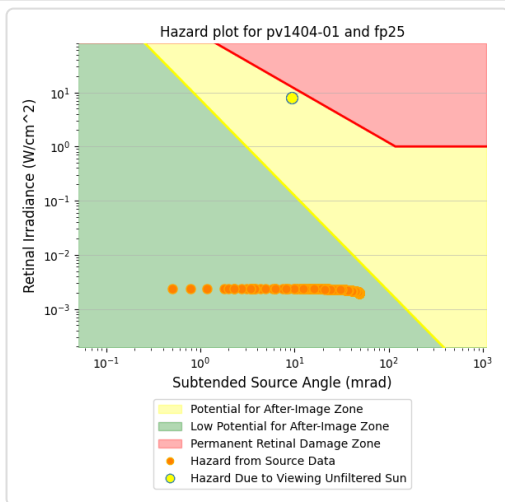
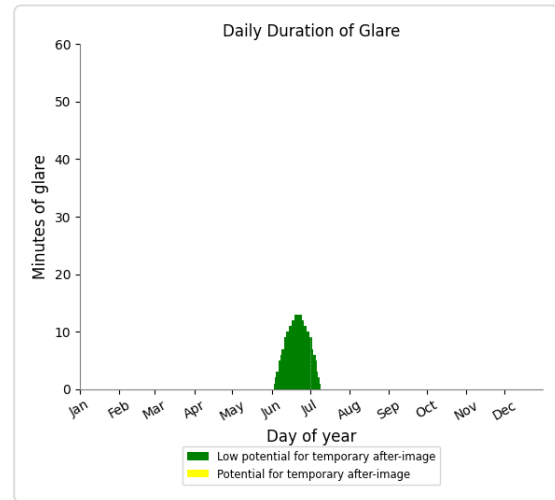
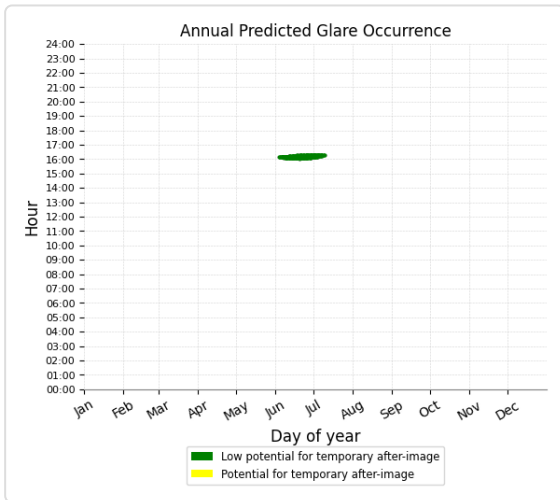
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP25	310	5.2	0	0.0
FP34	2,237	37.3	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP24	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1404_01 and FP: FP25

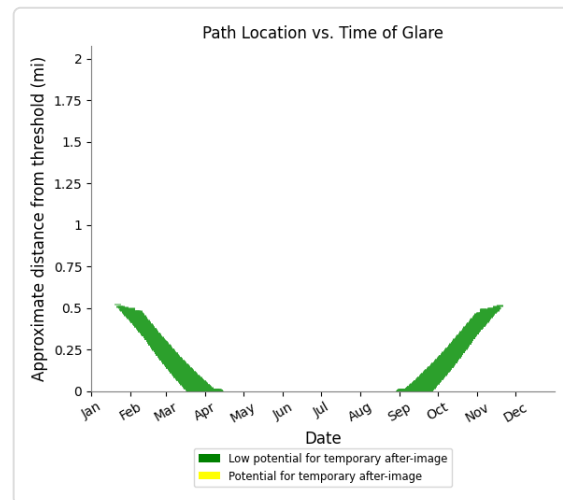
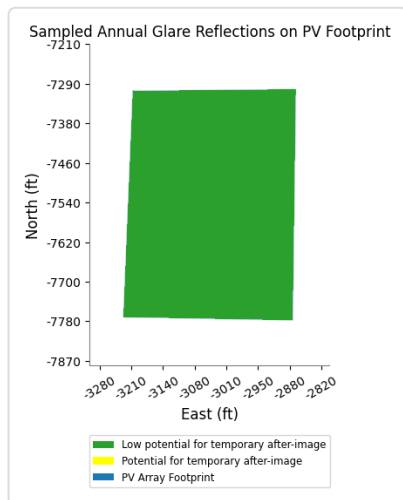
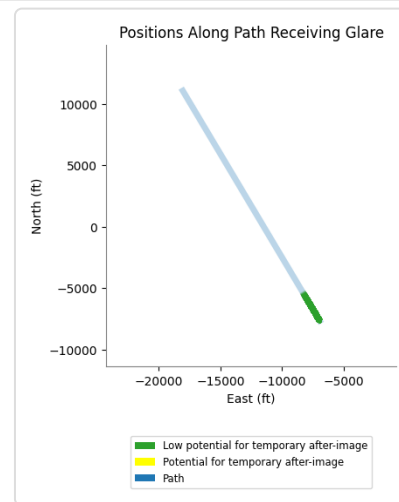
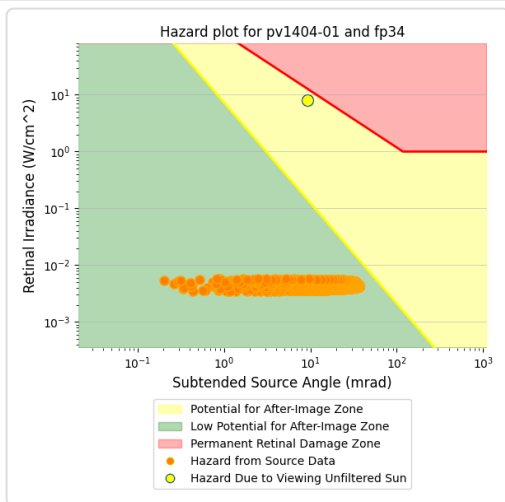
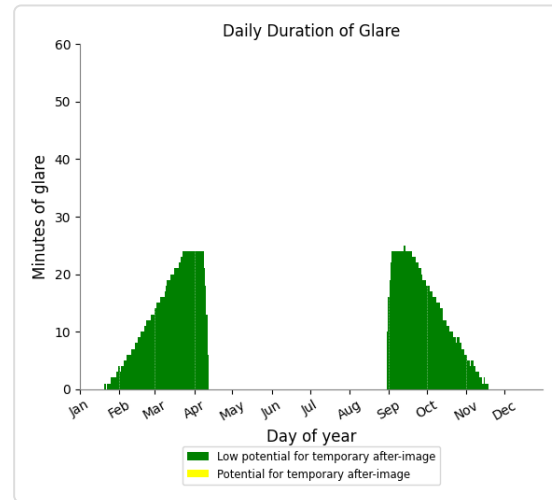
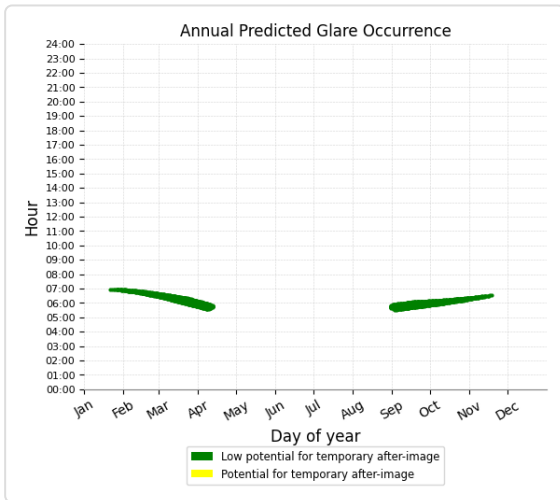
Yellow glare: none

Green glare: 310 min.



PV1404_01 and FP: FP34

Yellow glare: none
Green glare: 2,237 min.



PV1404_01 and FP: FP17

No glare found

PV1404_01 and FP: FP18

No glare found

PV1404_01 and FP: FP19

No glare found

PV1404_01 and FP: FP20

No glare found

PV1404_01 and FP: FP21

No glare found

PV1404_01 and FP: FP22

No glare found

PV1404_01 and FP: FP23

No glare found

PV1404_01 and FP: FP24

No glare found

PV1404_01 and FP: FP26

No glare found

PV1404_01 and FP: FP27

No glare found

PV1404_01 and FP: FP28

No glare found

PV1404_01 and FP: FP29

No glare found

PV1404_01 and FP: FP30

No glare found

PV1404_01 and FP: FP31

No glare found

PV1404_01 and FP: FP32

No glare found

PV1404_01 and FP: FP33

No glare found

PV1404_01 and FP: FP35

No glare found

PV1404_01 and FP: FP36

No glare found

PV: PV1488_01 low potential for temporary after-image

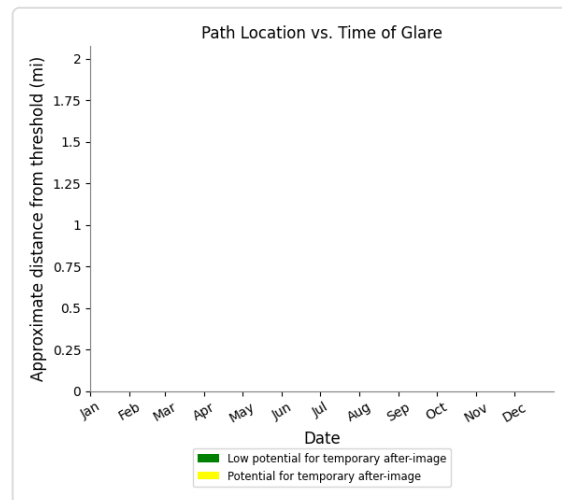
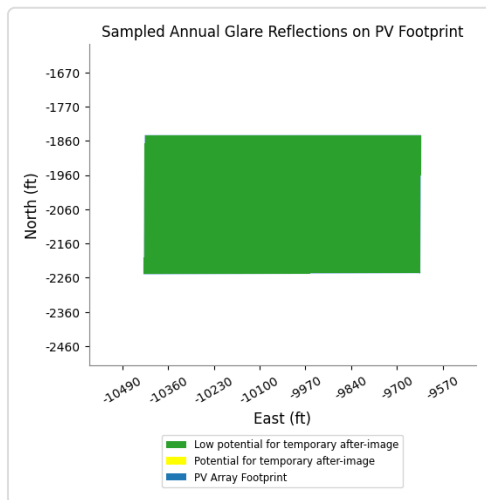
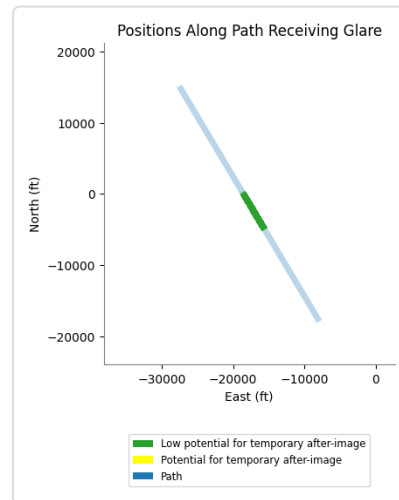
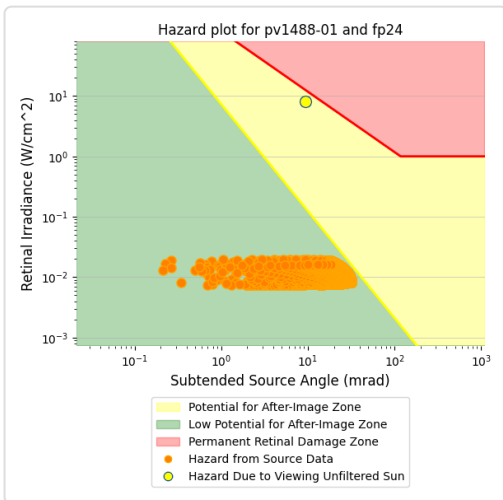
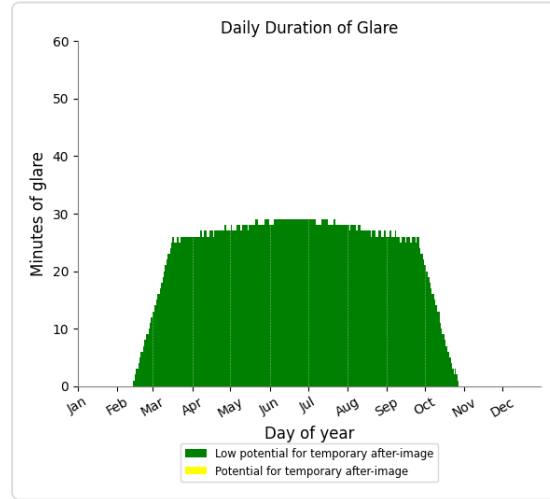
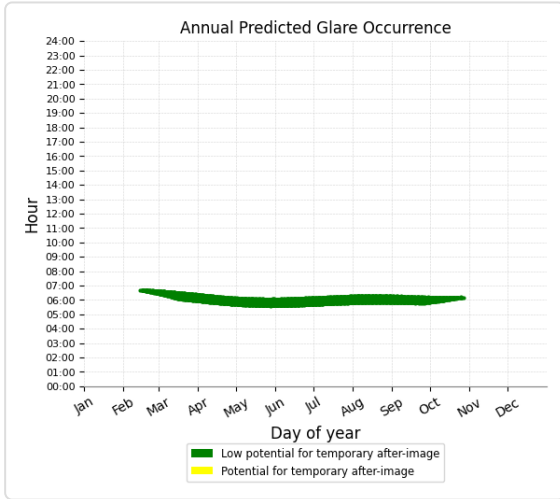
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	6,089	101.5	0	0.0
FP25	2,545	42.4	0	0.0
FP35	3,130	52.2	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1488_01 and FP: FP24

Yellow glare: none

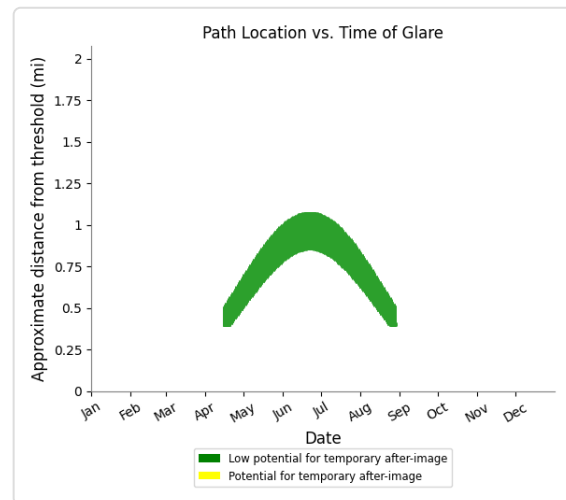
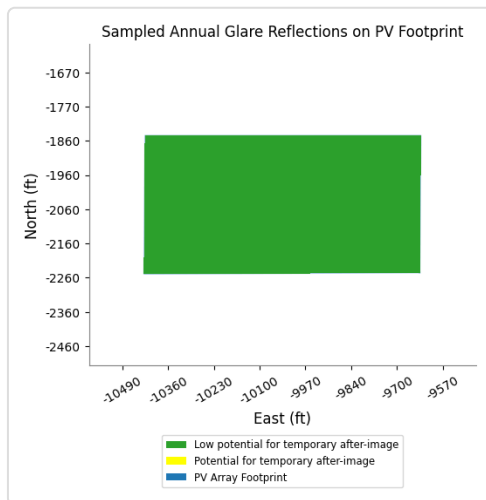
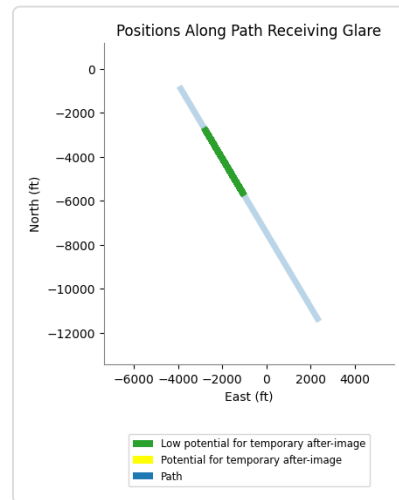
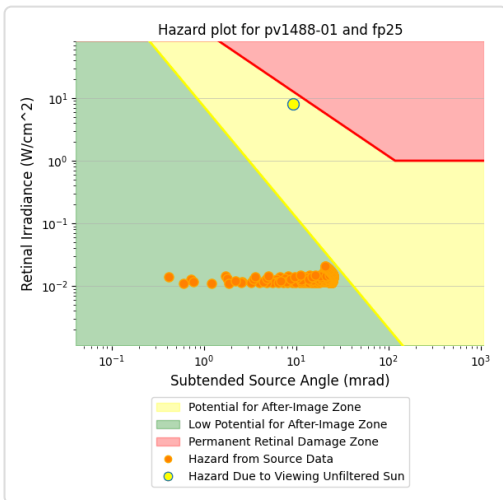
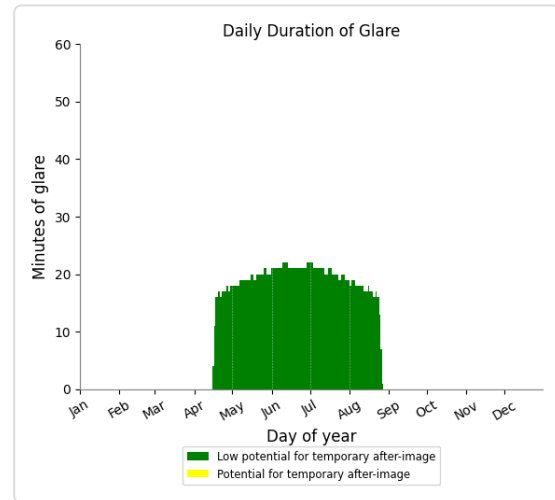
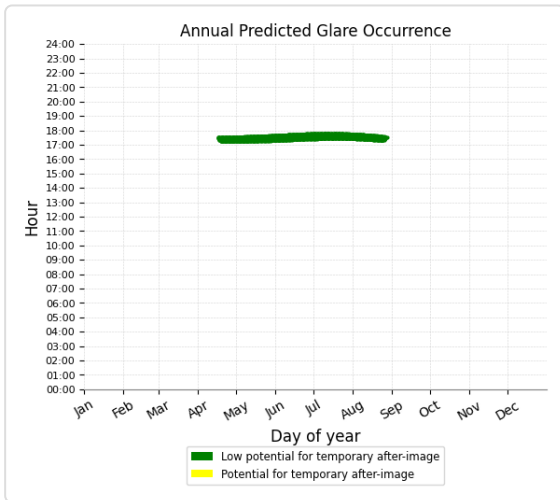
Green glare: 6,089 min.



PV1488_01 and FP: FP25

Yellow glare: none

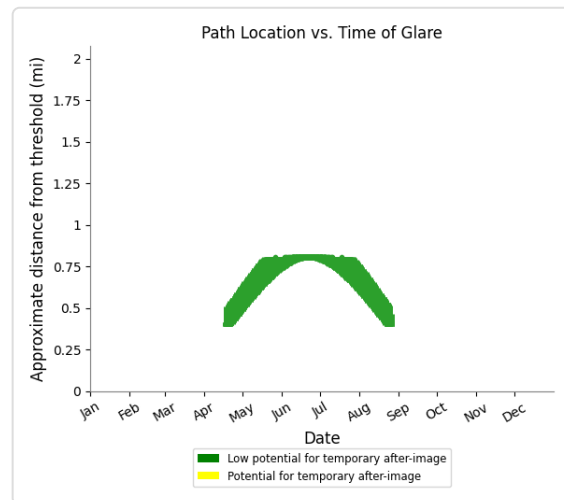
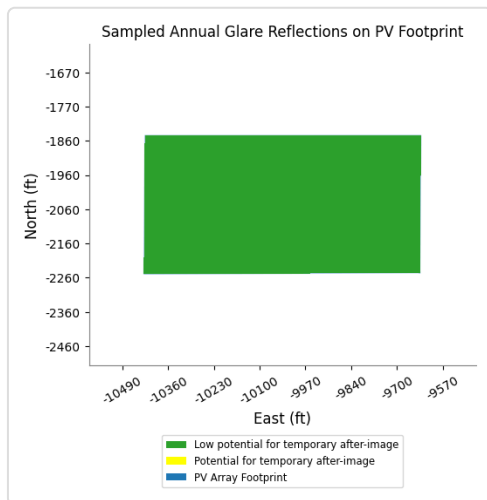
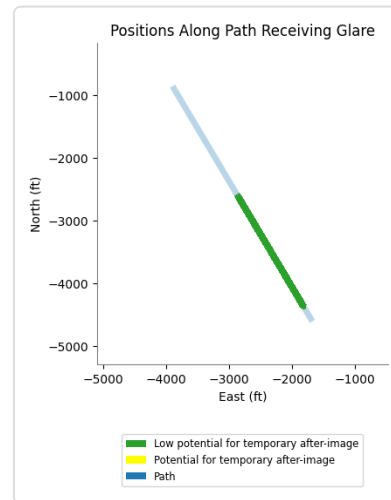
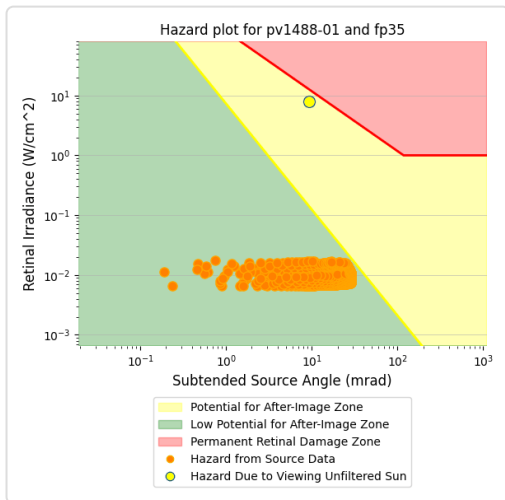
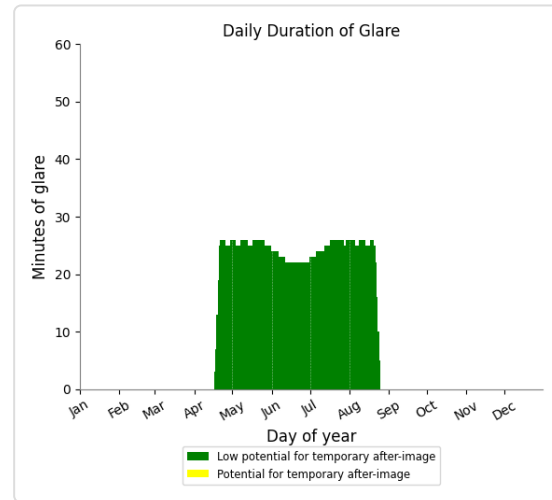
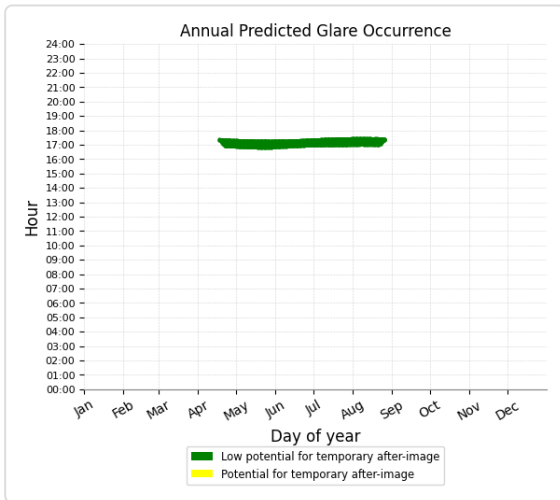
Green glare: 2,545 min.



PV1488_01 and FP: FP35

Yellow glare: none

Green glare: 3,130 min.



PV1488_01 and FP: FP17

No glare found

PV1488_01 and FP: FP18

No glare found

PV1488_01 and FP: FP19

No glare found

PV1488_01 and FP: FP20

No glare found

PV1488_01 and FP: FP21

No glare found

PV1488_01 and FP: FP22

No glare found

PV1488_01 and FP: FP23

No glare found

PV1488_01 and FP: FP26

No glare found

PV1488_01 and FP: FP27

No glare found

PV1488_01 and FP: FP28

No glare found

PV1488_01 and FP: FP29

No glare found

PV1488_01 and FP: FP30

No glare found

PV1488_01 and FP: FP31

No glare found

PV1488_01 and FP: FP32

No glare found

PV1488_01 and FP: FP33

No glare found

PV1488_01 and FP: FP34

No glare found

PV1488_01 and FP: FP36

No glare found

PV: PV1564_01 low potential for temporary after-image

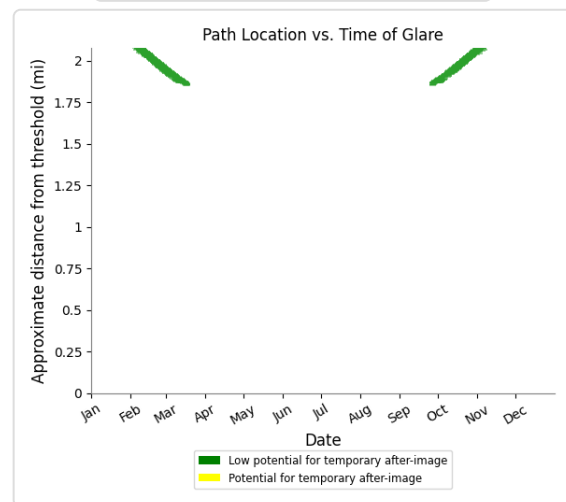
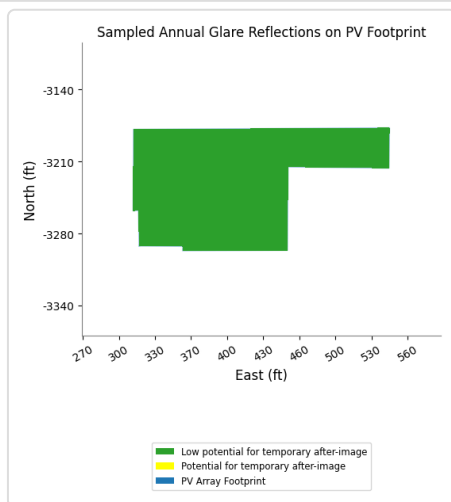
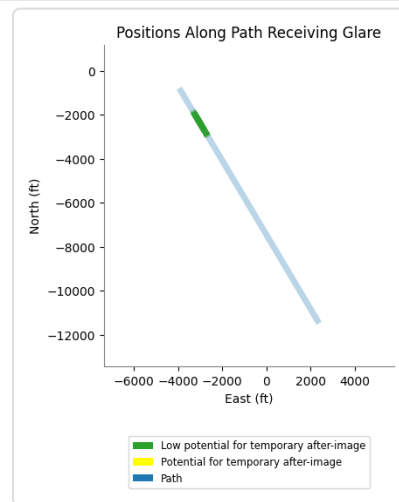
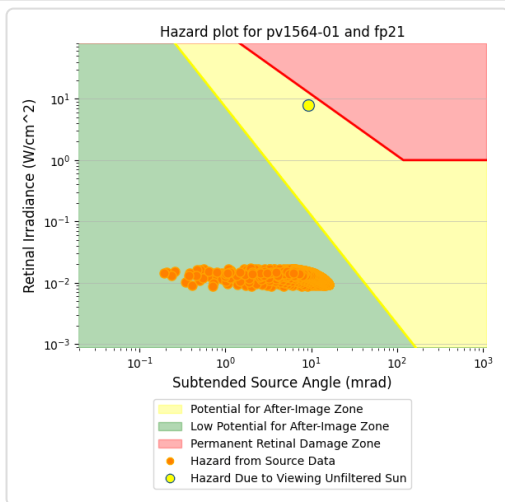
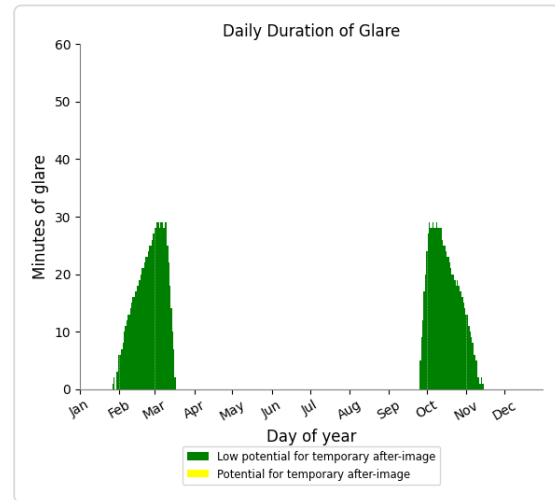
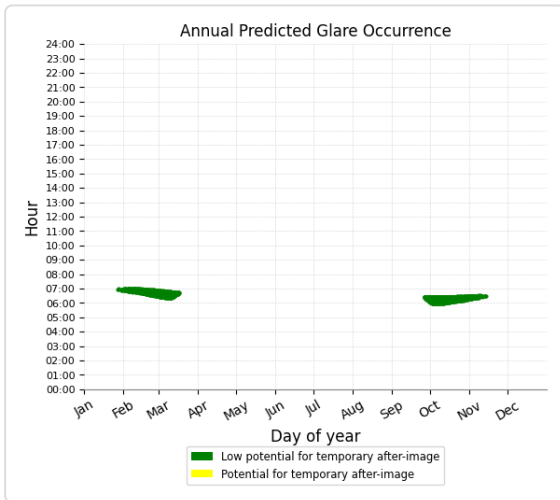
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP21	1,737	28.9	0	0.0
FP24	8,347	139.1	0	0.0
FP31	3,599	60.0	0	0.0
FP34	9,716	161.9	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1564_01 and FP: FP21

Yellow glare: none

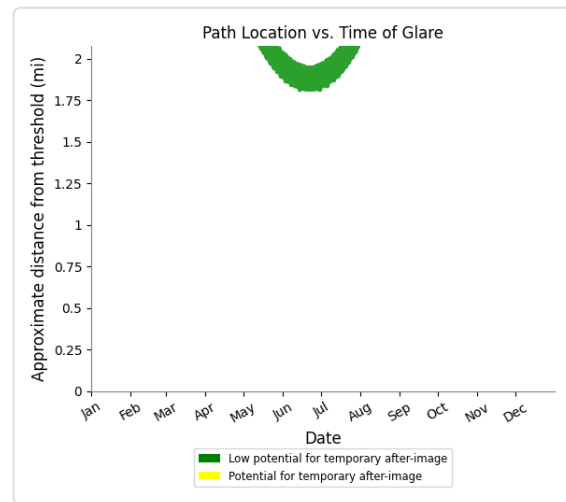
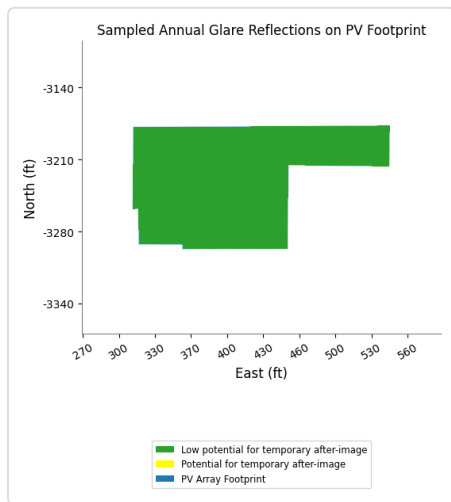
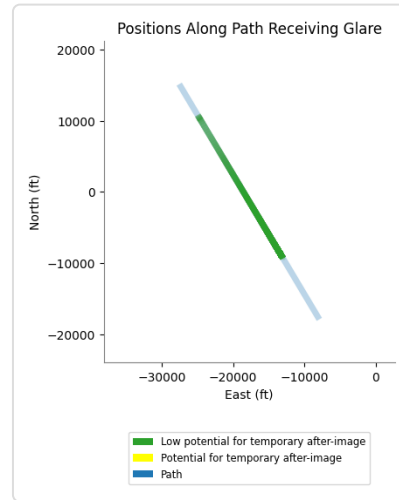
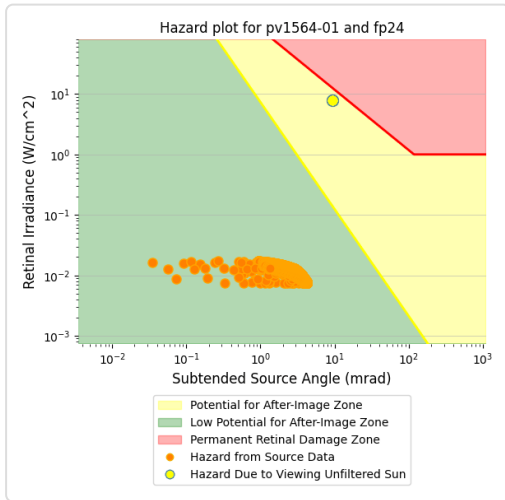
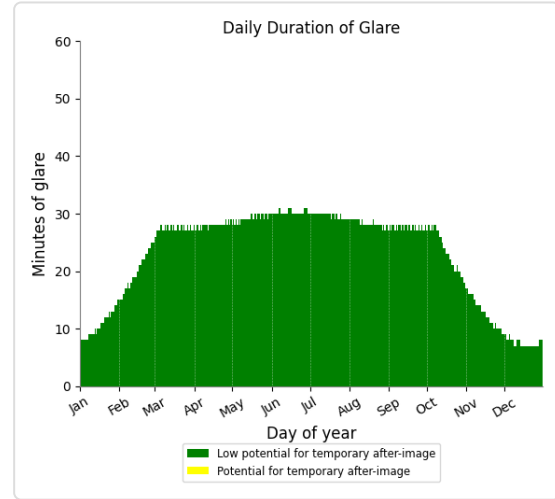
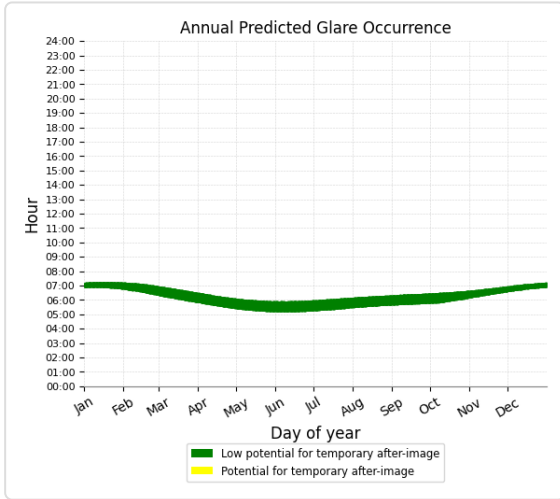
Green glare: 1,737 min.



PV1564_01 and FP: FP24

Yellow glare: none

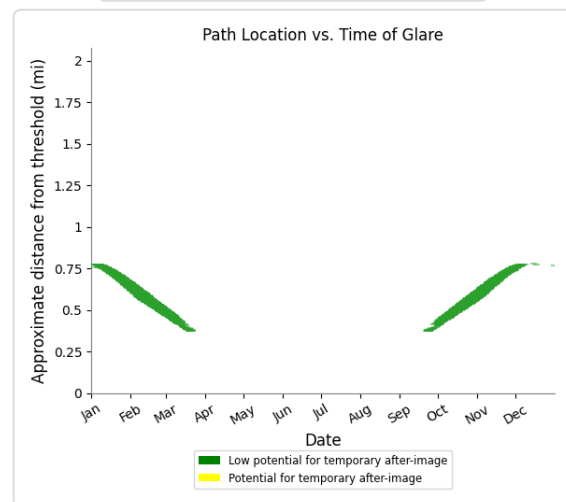
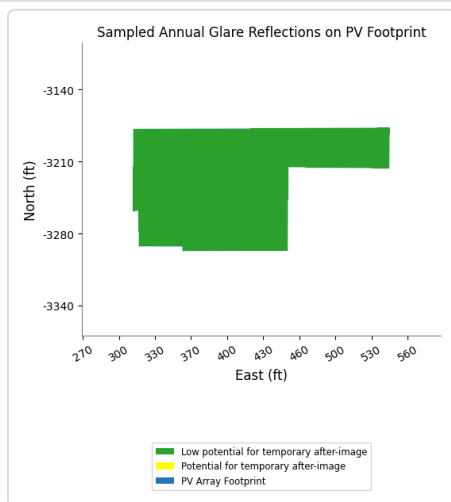
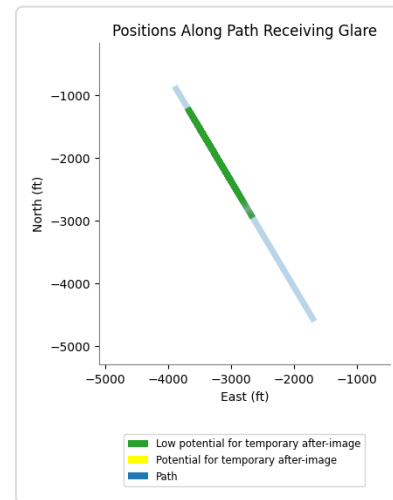
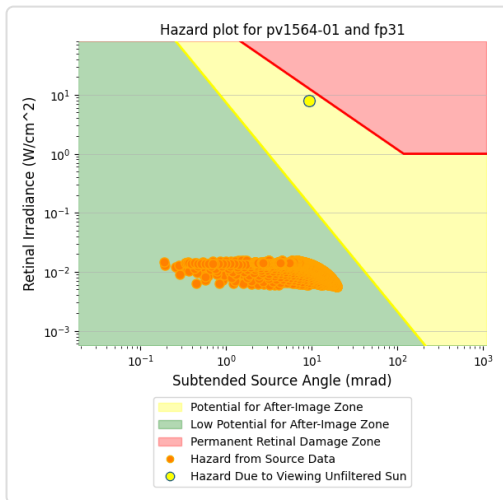
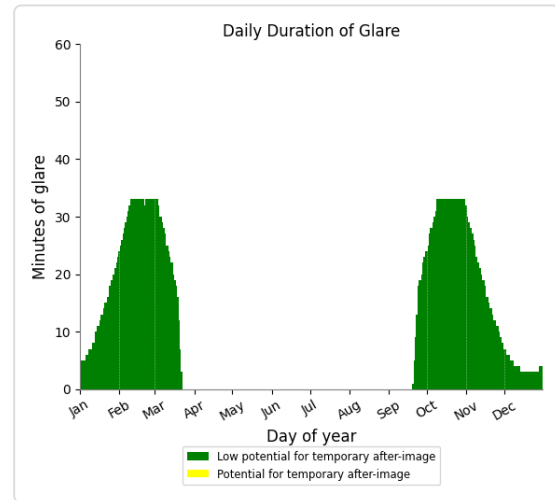
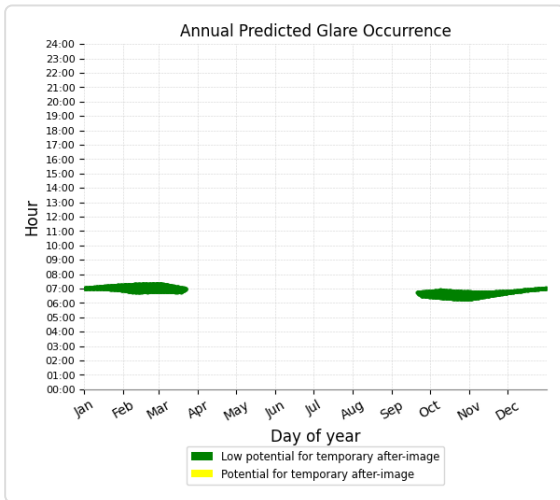
Green glare: 8,347 min.



PV1564_01 and FP: FP31

Yellow glare: none

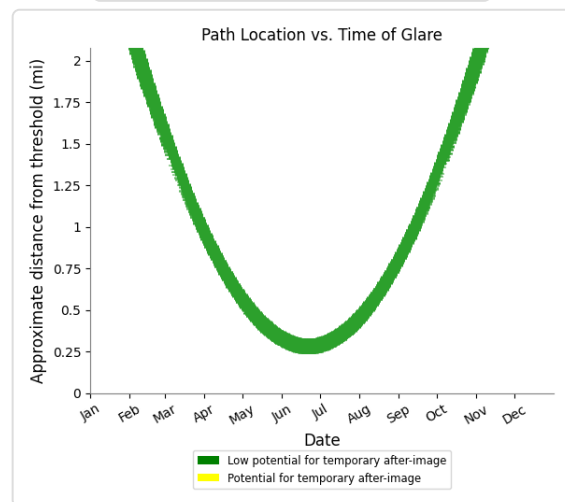
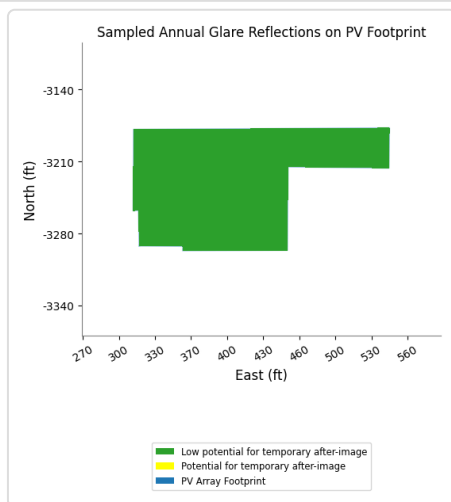
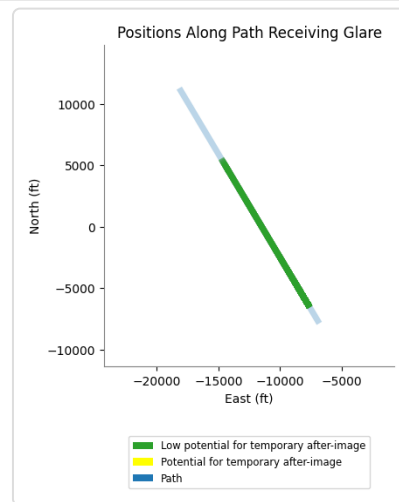
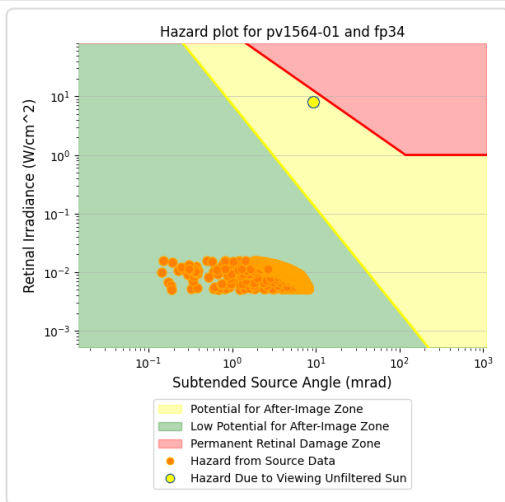
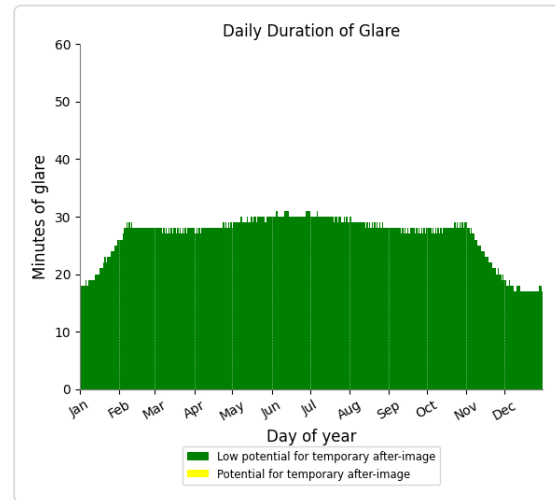
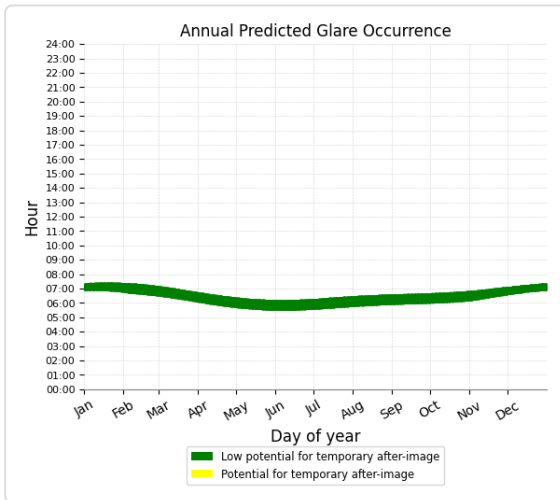
Green glare: 3,599 min.



PV1564_01 and FP: FP34

Yellow glare: none

Green glare: 9,716 min.



PV1564_01 and FP: FP17

No glare found

PV1564_01 and FP: FP18

No glare found

PV1564_01 and FP: FP19

No glare found

PV1564_01 and FP: FP20

No glare found

PV1564_01 and FP: FP22

No glare found

PV1564_01 and FP: FP23

No glare found

PV1564_01 and FP: FP25

No glare found

PV1564_01 and FP: FP26

No glare found

PV1564_01 and FP: FP27

No glare found

PV1564_01 and FP: FP28

No glare found

PV1564_01 and FP: FP29

No glare found

PV1564_01 and FP: FP30

No glare found

PV1564_01 and FP: FP32

No glare found

PV1564_01 and FP: FP33

No glare found

PV1564_01 and FP: FP35

No glare found

PV1564_01 and FP: FP36

No glare found

PV: PV1566_01 low potential for temporary after-image

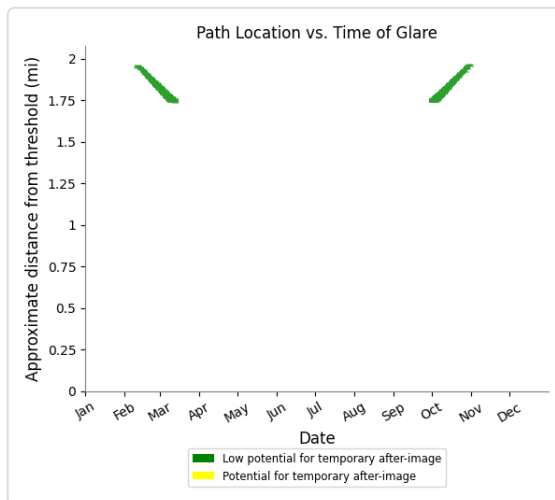
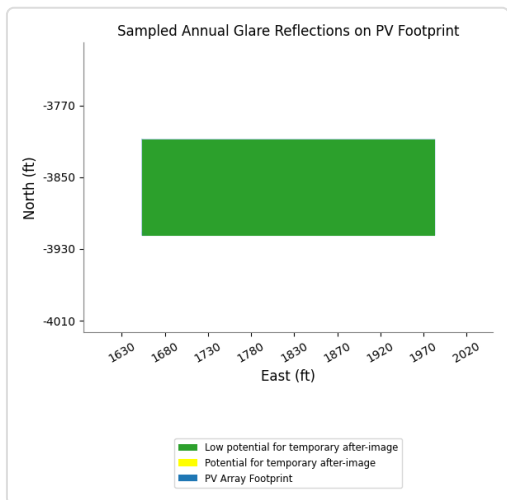
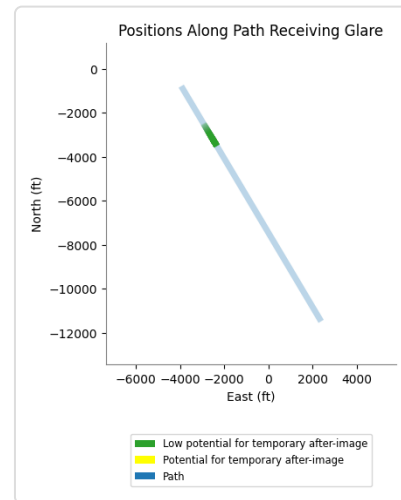
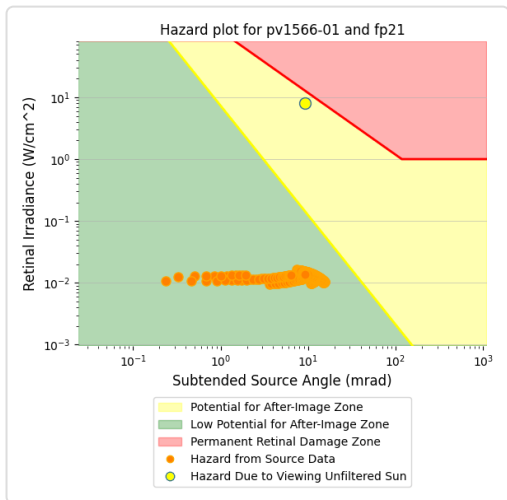
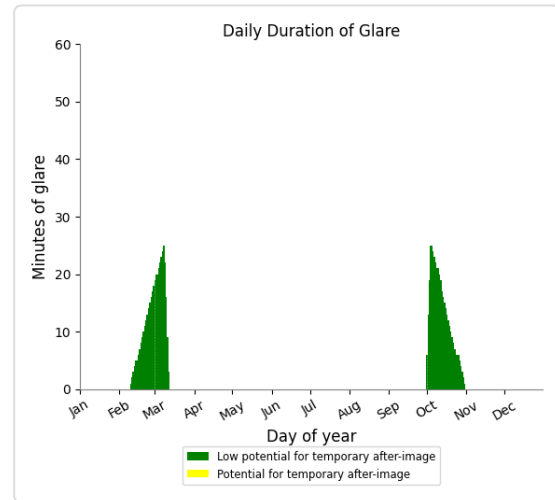
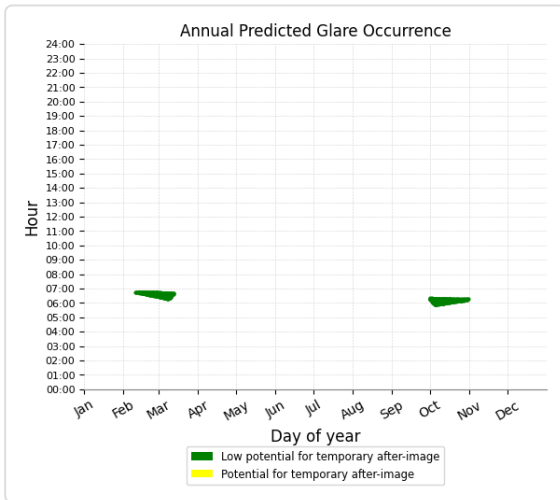
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP21	803	13.4	0	0.0
FP24	6,258	104.3	0	0.0
FP31	2,230	37.2	0	0.0
FP34	7,159	119.3	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1566_01 and FP: FP21

Yellow glare: none

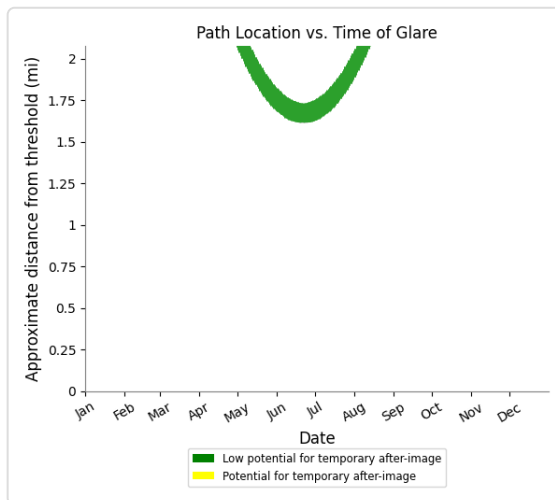
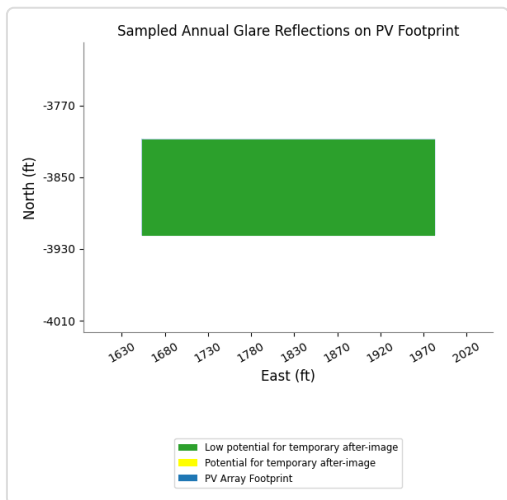
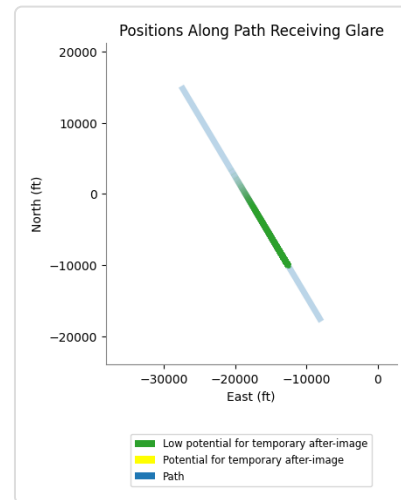
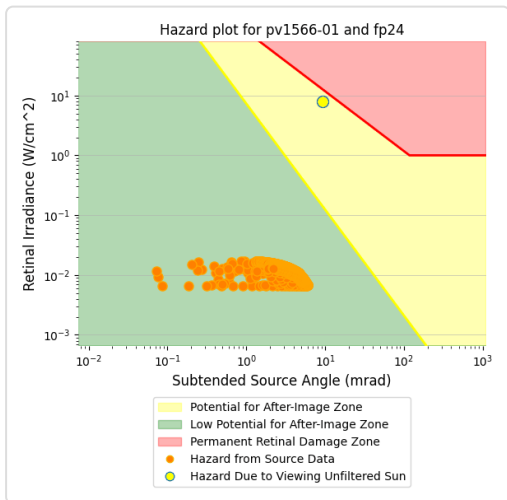
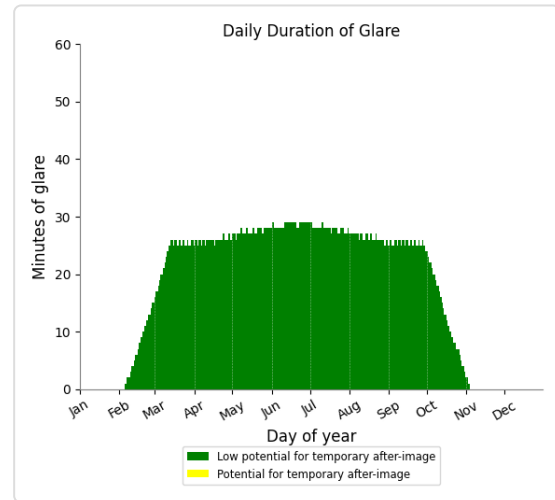
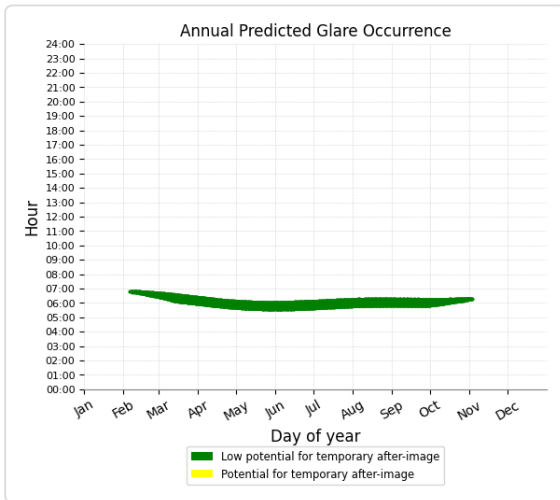
Green glare: 803 min.



PV1566_01 and FP: FP24

Yellow glare: none

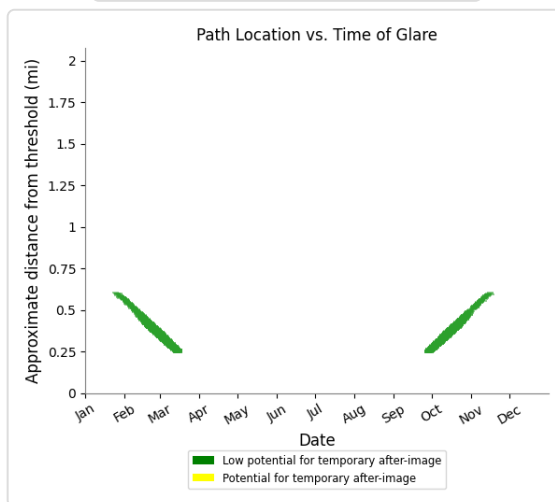
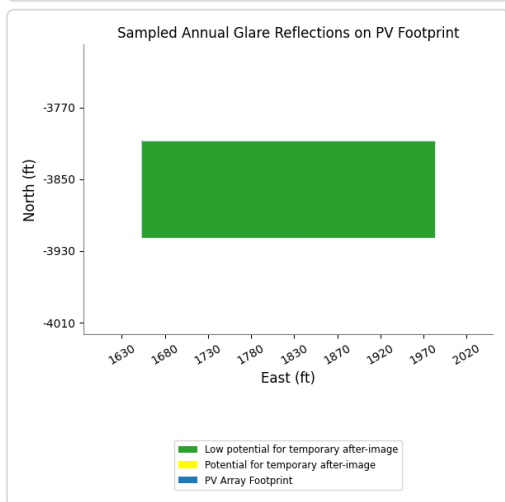
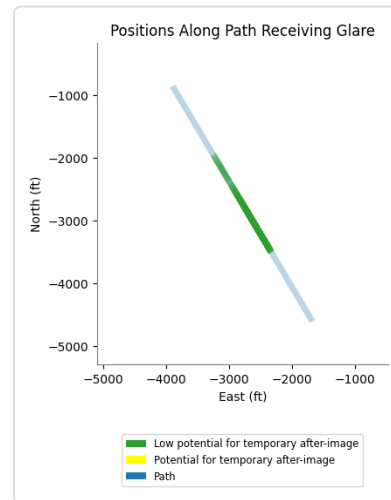
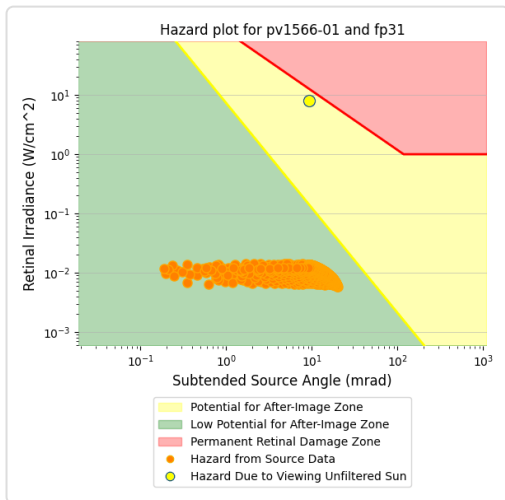
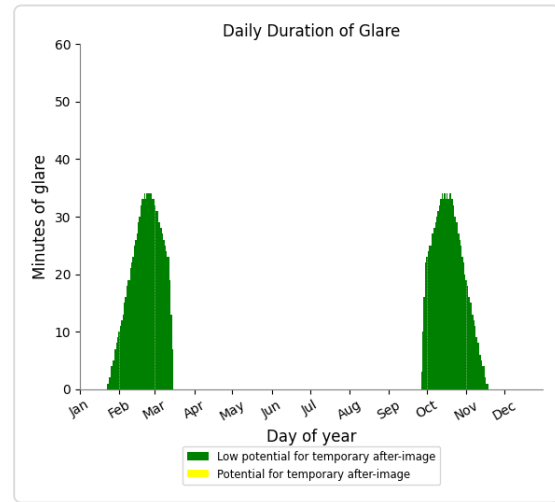
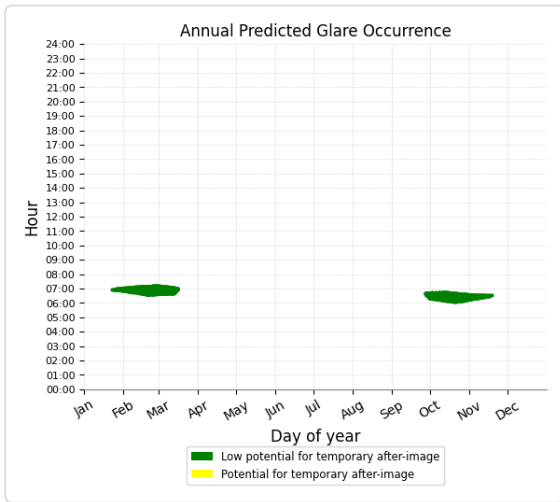
Green glare: 6,258 min.



PV1566_01 and FP: FP31

Yellow glare: none

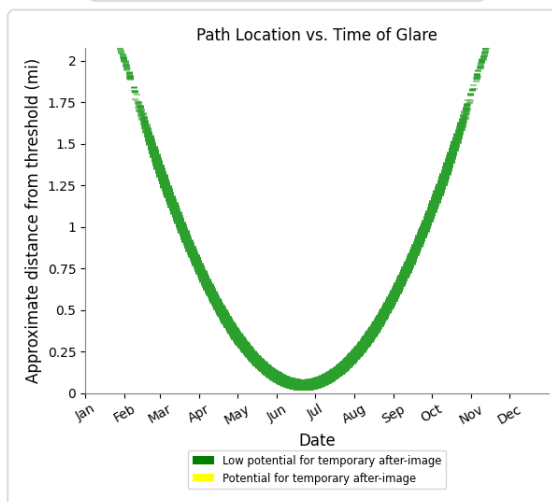
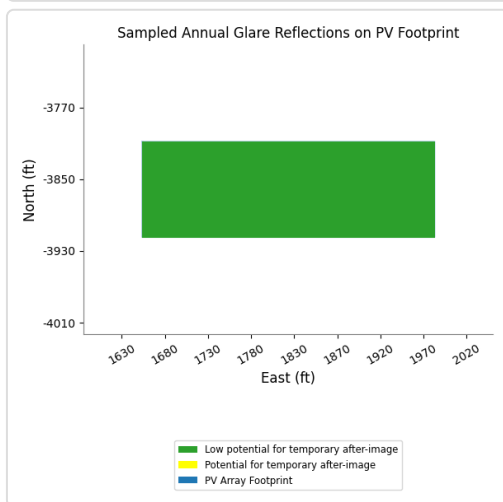
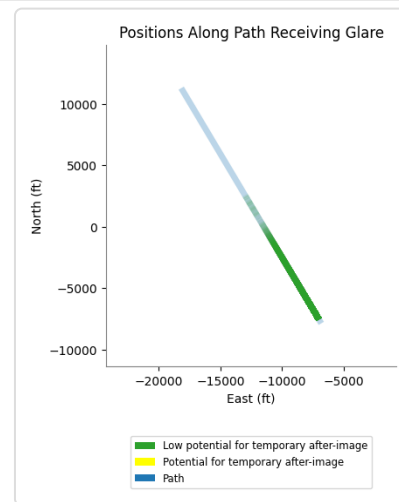
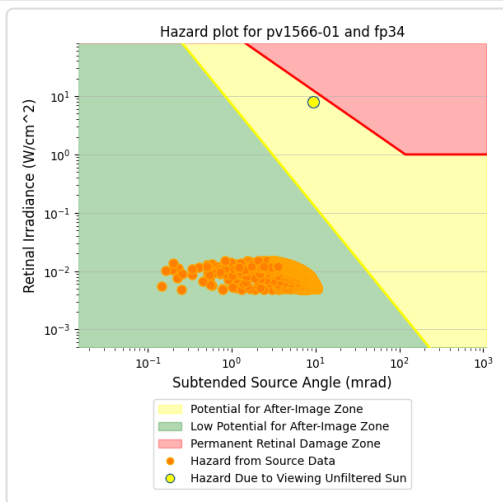
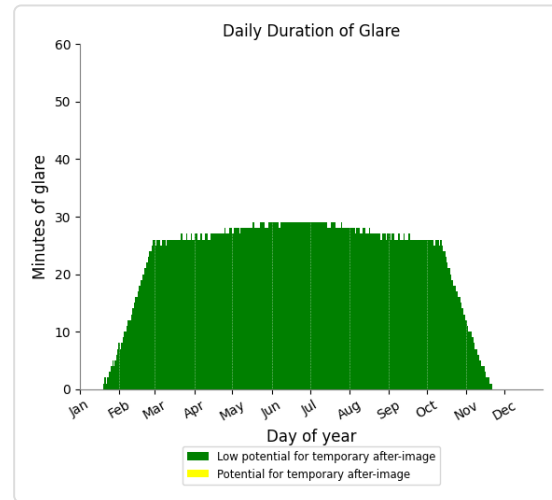
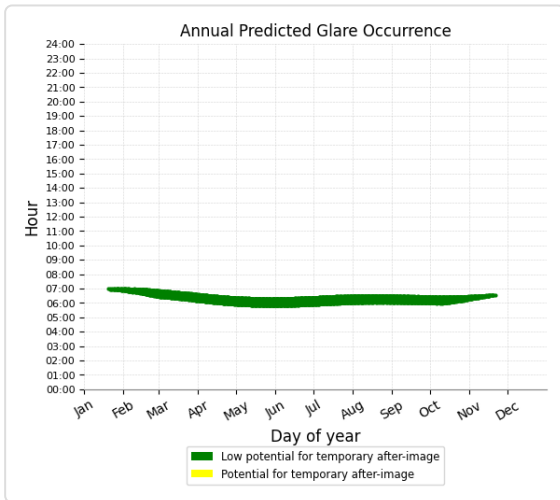
Green glare: 2,230 min.



PV1566_01 and FP: FP34

Yellow glare: none

Green glare: 7,159 min.



PV1566_01 and FP: FP17

No glare found

PV1566_01 and FP: FP18

No glare found

PV1566_01 and FP: FP19

No glare found

PV1566_01 and FP: FP20

No glare found

PV1566_01 and FP: FP22

No glare found

PV1566_01 and FP: FP23

No glare found

PV1566_01 and FP: FP25

No glare found

PV1566_01 and FP: FP26

No glare found

PV1566_01 and FP: FP27

No glare found

PV1566_01 and FP: FP28

No glare found

PV1566_01 and FP: FP29

No glare found

PV1566_01 and FP: FP30

No glare found

PV1566_01 and FP: FP32

No glare found

PV1566_01 and FP: FP33

No glare found

PV1566_01 and FP: FP35

No glare found

PV1566_01 and FP: FP36

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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FORGESOLAR GLARE ANALYSIS

Project: **March Air Reserve Base Cumulative Analysis South A**

Site configuration: **South A Overhead and Rwy 12_30 with ATCT 90DegView**

Created 10 Jul, 2023

Updated 13 Sep, 2023

Time-step 1 minute

Timezone offset UTC-8

Minimum sun altitude 0.0 deg

DNI peaks at 1,000.0 W/m²

Category 10 MW to 100 MW

Site ID 95008.16372

Ocular transmission coefficient 0.5

Pupil diameter 0.002 m

Eye focal length 0.017 m

Sun subtended angle 9.3 mrad

PV analysis methodology V2



Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt °	Orient °	Annual Green Glare		Annual Yellow Glare		Energy kWh
			min	hr	min	hr	
PV1302_01	5.0	252.0	24,278	404.6	0	0.0	-
PV1386_01	10.0	180.0	12,553	209.2	0	0.0	-
PV1396_01	10.0	180.0	22,822	380.4	0	0.0	-
PV1398_01	10.0	180.0	21,913	365.2	0	0.0	-
PV1400_01	10.0	180.0	22,125	368.8	0	0.0	-
PV1421_01	15.0	178.0	19,003	316.7	0	0.0	-
PV1425_01	15.0	180.0	11,631	193.8	0	0.0	-
PV1493_01	10.0	160.0	23,025	383.8	0	0.0	-
PV1517_01	33.0	160.0	15,744	262.4	0	0.0	-
PV1518_01	34.0	180.0	9,778	163.0	0	0.0	-
PV1535_01	10.0	180.0	23,399	390.0	0	0.0	-
PV1541_01	10.0	180.0	32,537	542.3	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP04	99,398	1,656.6	0	0.0
FP05	8,007	133.4	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP06	131,403	2,190.1	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV1302_01
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 252.0°
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.822560	-117.245420	1503.01	30.00	1533.01
2	33.822560	-117.245090	1500.52	30.00	1530.52
3	33.820010	-117.245090	1511.51	30.00	1541.51
4	33.820010	-117.245420	1513.69	30.00	1543.69

Name: PV1386_01
Axis tracking: Fixed (no rotation)
Tilt: 10.0°
Orientation: 180.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.811220	-117.242500	1506.47	20.00	1526.47
2	33.811224	-117.240400	1503.37	20.00	1523.37
3	33.810359	-117.240400	1502.47	20.00	1522.47
4	33.810360	-117.242500	1505.77	20.00	1525.77

Name: PV1396_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.824223	-117.251701	1545.08	48.00	1593.08
2	33.824239	-117.250952	1545.08	48.00	1593.08
3	33.823621	-117.250921	1545.08	48.00	1593.08
4	33.823617	-117.251679	1545.08	48.00	1593.08

Name: PV1398_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.830600	-117.252369	1524.87	20.00	1544.87
2	33.831300	-117.252374	1521.87	20.00	1541.87
3	33.831300	-117.249703	1508.57	20.00	1528.57
4	33.830600	-117.249700	1512.27	20.00	1532.27

Name: PV1400_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.823956	-117.248587	1523.07	48.00	1571.07
2	33.823969	-117.247880	1523.07	48.00	1571.07
3	33.823486	-117.247865	1523.07	48.00	1571.07
4	33.823472	-117.248582	1523.07	48.00	1571.07

Name: PV1421_01

Axis tracking: Fixed (no rotation)

Tilt: 15.0°

Orientation: 178.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.839115	-117.254663	1510.07	20.00	1530.07
2	33.839156	-117.252572	1510.07	20.00	1530.07
3	33.838233	-117.252554	1510.07	20.00	1530.07
4	33.838226	-117.254643	1510.07	20.00	1530.07

Name: PV1425_01

Axis tracking: Fixed (no rotation)

Tilt: 15.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.812595	-117.242087	1510.07	20.00	1530.07
2	33.812609	-117.239078	1510.07	20.00	1530.07
3	33.811920	-117.239078	1510.07	20.00	1530.07
4	33.811926	-117.242094	1510.07	20.00	1530.07

Name: PV1493_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 160.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.836738	-117.259788	1583.57	48.00	1631.57
2	33.836763	-117.261206	1563.72	48.00	1611.72
3	33.834701	-117.261207	1564.01	48.00	1612.01
4	33.834684	-117.259765	1583.27	48.00	1631.27

Name: PV1517_01

Axis tracking: Fixed (no rotation)

Tilt: 33.0°

Orientation: 160.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.838778	-117.251436	1504.01	43.50	1547.51
2	33.839072	-117.250438	1507.21	43.50	1550.71
3	33.838291	-117.250082	1505.93	43.50	1549.43
4	33.837972	-117.251079	1507.86	43.50	1551.36

Name: PV1518_01

Axis tracking: Fixed (no rotation)

Tilt: 34.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.816243	-117.247897	1534.07	52.00	1586.07
2	33.816242	-117.246780	1534.07	52.00	1586.07
3	33.819046	-117.246789	1534.07	52.00	1586.07
4	33.819048	-117.247899	1534.07	52.00	1586.07

Name: PV1535_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.843927	-117.259838	1540.08	50.00	1590.08
2	33.843920	-117.259342	1540.08	50.00	1590.08
3	33.843459	-117.259348	1540.08	50.00	1590.08
4	33.843463	-117.259843	1540.08	50.00	1590.08

Name: PV1541_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

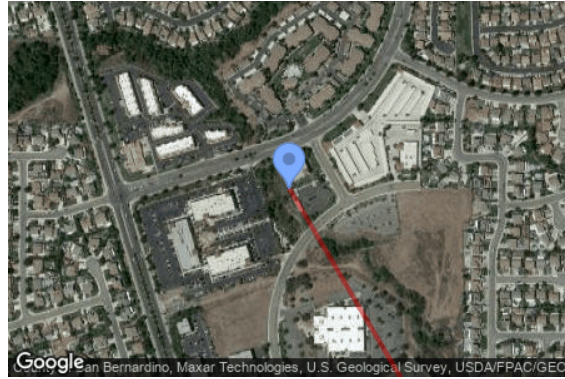
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.843184	-117.246923	1490.07	53.00	1543.07
2	33.843184	-117.245079	1490.07	53.00	1543.07
3	33.840133	-117.245079	1490.07	53.00	1543.07
4	33.840133	-117.246923	1490.07	53.00	1543.07

Flight Path Receptors

Name: FP01
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.908131	-117.325528	0.00	3500.00	3500.00
Two-mile	33.863564	-117.293808	0.00	3500.00	3500.00

Name: FP02
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896431	-117.270636	0.00	1550.00	1550.00
Two-mile	33.925156	-117.291061	0.00	3500.00	3500.00

Name: FP03
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.880706	-117.259453	0.00	3500.00	3500.00
Two-mile	33.968036	-117.322128	0.00	3500.00	3500.00

Name: FP04
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.819225	-117.262269	0.00	3500.00	3500.00
Two-mile	33.863564	-117.293808	0.00	3500.00	3500.00

Name: FP05
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.864994	-117.248281	0.00	1550.00	1550.00
Two-mile	33.836269	-117.227869	0.00	3500.00	3500.00

Name: FP06
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



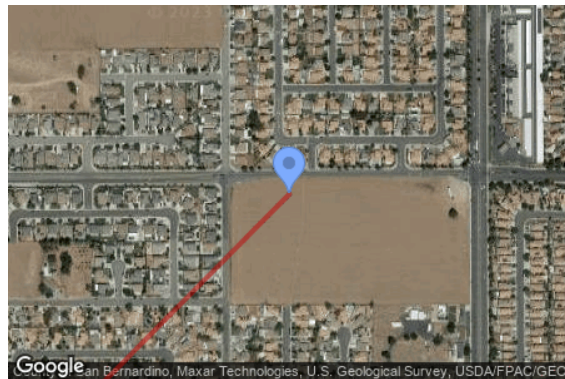
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.880706	-117.259453	0.00	3500.00	3500.00
Two-mile	33.793375	-117.196878	0.00	3500.00	3500.00

Name: FP07
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.905592	-117.270622	0.00	2800.00	2800.00
Two-mile	33.910322	-117.264967	0.00	2800.00	2800.00

Name: FP08
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.880814	-117.229467	0.00	2800.00	2800.00
Two-mile	33.876081	-117.235119	0.00	2800.00	2800.00

Name: FP09
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.910333	-117.256469	0.00	2800.00	2800.00
Two-mile	33.887897	-117.229483	0.00	2800.00	2800.00

Name: FP10
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



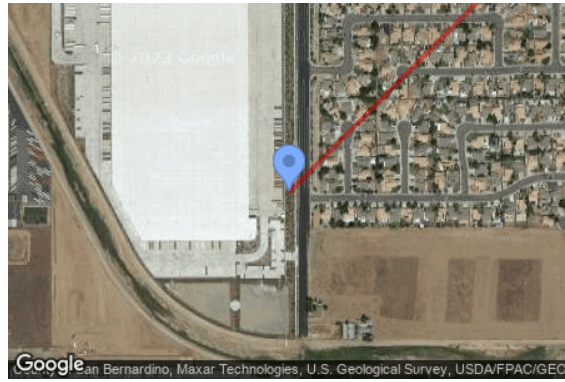
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.890258	-117.260681	0.00	1550.00	1550.00
Two-mile	33.898508	-117.270608	0.00	2800.00	2800.00

Name: FP11
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



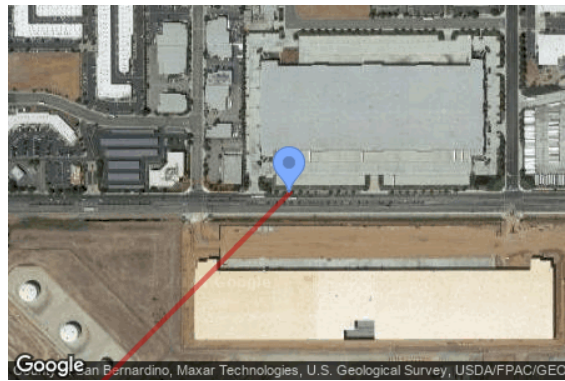
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.876069	-117.243611	0.00	2800.00	2800.00
Two-mile	33.884319	-117.253536	0.00	1550.00	1550.00

Name: FP12
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.876081	-117.235119	0.00	2800.00	2800.00
Two-mile	33.880814	-117.229467	0.00	2800.00	2800.00

Name: FP13
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.910322	-117.264967	0.00	2800.00	2800.00
Two-mile	33.905592	-117.270622	0.00	2800.00	2800.00

Name: FP14
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.887897	-117.229483	0.00	2800.00	2800.00
Two-mile	33.910333	-117.256469	0.00	2800.00	2800.00

Name: FP15
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.884319	-117.253536	0.00	1550.00	1550.00
Two-mile	33.876069	-117.243611	0.00	2800.00	2800.00

Name: FP16
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.898508	-117.270608	0.00	2800.00	2800.00
Two-mile	33.890258	-117.260681	0.00	1550.00	1550.00

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1510.00	118.00

Map image of 1-ATCT



Glare Analysis Results

Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV1302_01	5.0	252.0	24,278	404.6	0	0.0	-
PV1386_01	10.0	180.0	12,553	209.2	0	0.0	-
PV1396_01	10.0	180.0	22,822	380.4	0	0.0	-
PV1398_01	10.0	180.0	21,913	365.2	0	0.0	-
PV1400_01	10.0	180.0	22,125	368.8	0	0.0	-
PV1421_01	15.0	178.0	19,003	316.7	0	0.0	-
PV1425_01	15.0	180.0	11,631	193.8	0	0.0	-
PV1493_01	10.0	160.0	23,025	383.8	0	0.0	-
PV1517_01	33.0	160.0	15,744	262.4	0	0.0	-
PV1518_01	34.0	180.0	9,778	163.0	0	0.0	-
PV1535_01	10.0	180.0	23,399	390.0	0	0.0	-
PV1541_01	10.0	180.0	32,537	542.3	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP04	99,398	1,656.6	0	0.0
FP05	8,007	133.4	0	0.0
FP06	131,403	2,190.1	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

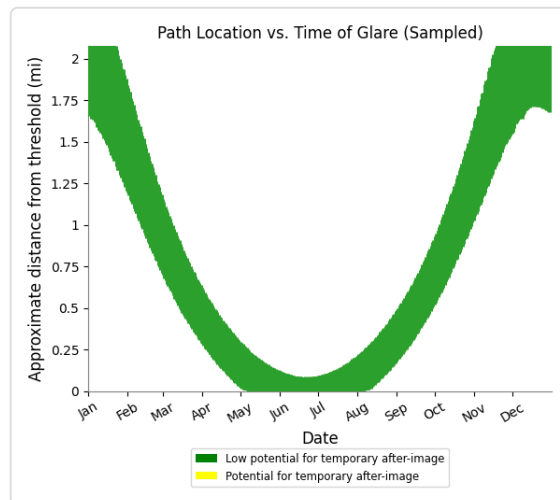
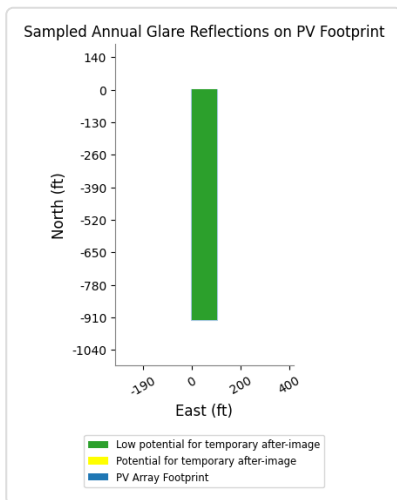
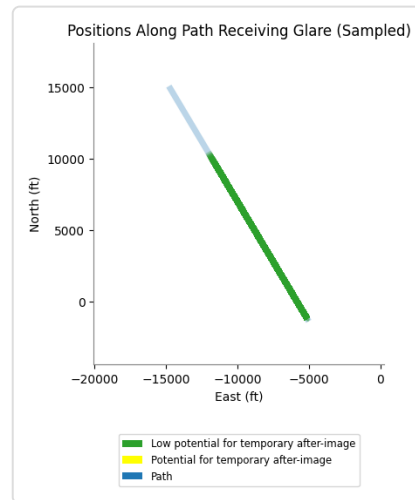
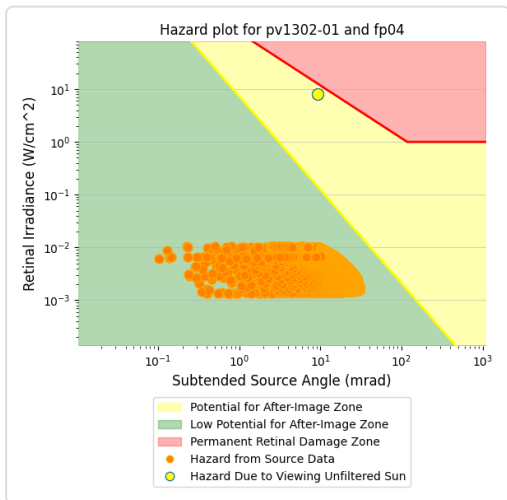
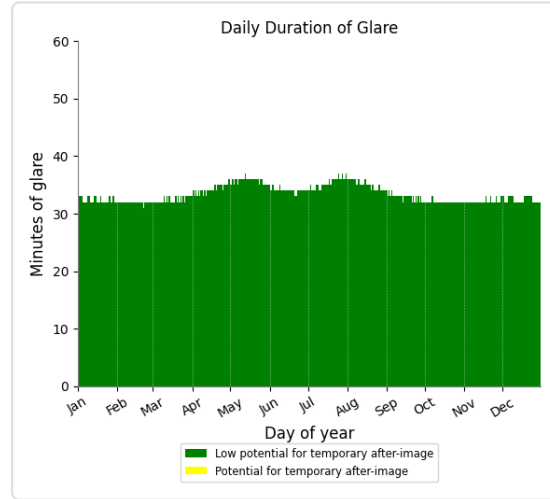
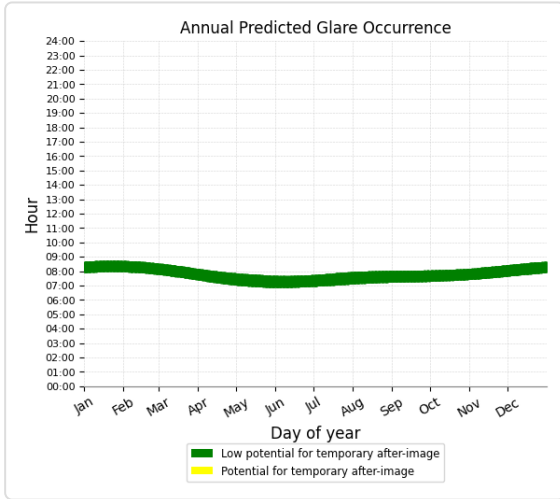
PV: PV1302_01 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	12,181	203.0	0	0.0
FP06	12,097	201.6	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1302_01 and FP: FP04

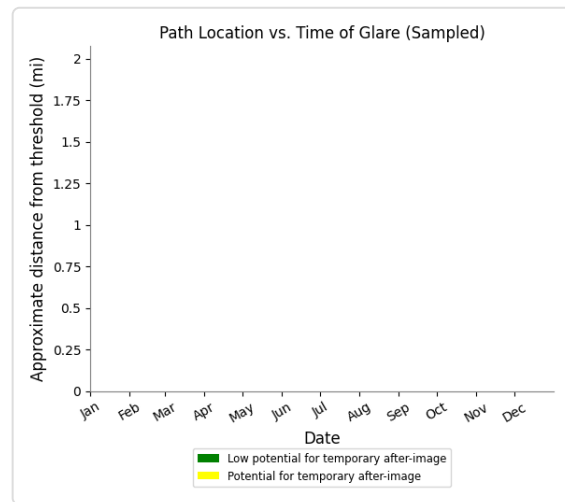
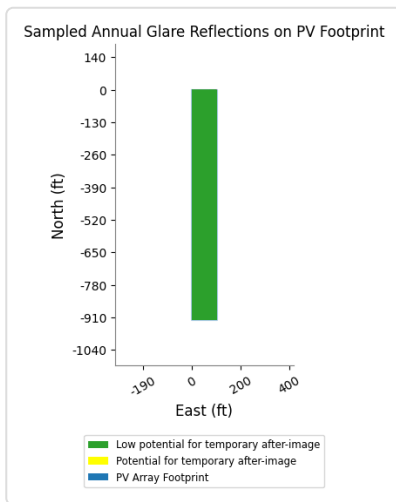
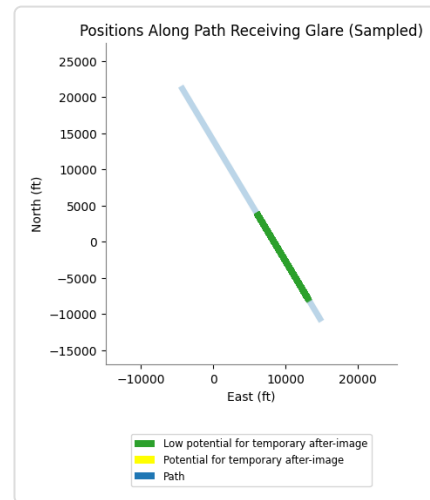
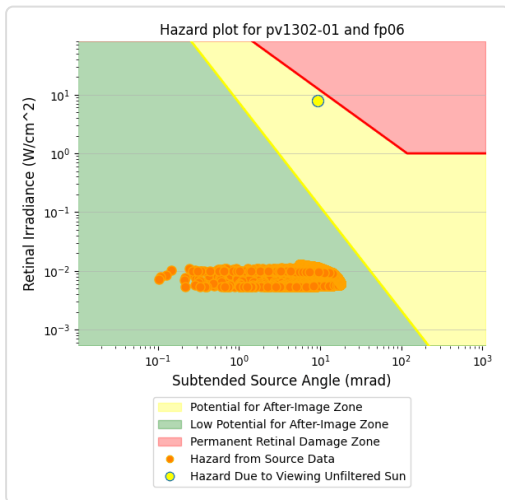
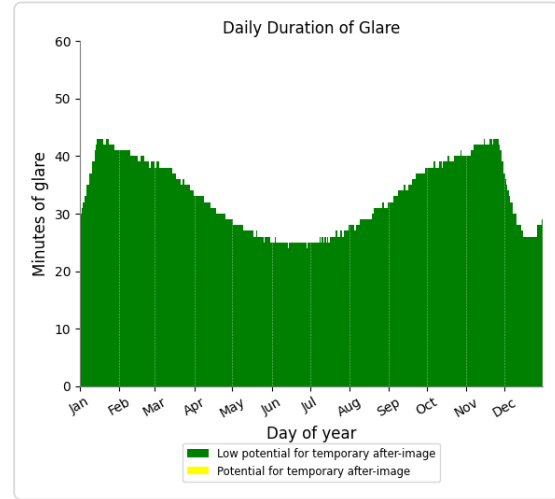
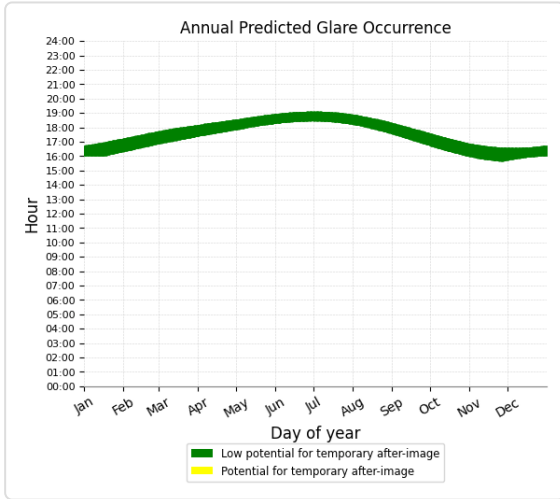
Yellow glare: none
 Green glare: 12,181 min.



PV1302_01 and FP: FP06

Yellow glare: none

Green glare: 12,097 min.



PV1302_01 and FP: FP01

No glare found

PV1302_01 and FP: FP02

No glare found

PV1302_01 and FP: FP03

No glare found

PV1302_01 and FP: FP05

No glare found

PV1302_01 and FP: FP07

No glare found

PV1302_01 and FP: FP08

No glare found

PV1302_01 and FP: FP09

No glare found

PV1302_01 and FP: FP10

No glare found

PV1302_01 and FP: FP11

No glare found

PV1302_01 and FP: FP12

No glare found

PV1302_01 and FP: FP13

No glare found

PV1302_01 and FP: FP14

No glare found

PV1302_01 and FP: FP15

No glare found

PV1302_01 and FP: FP16

No glare found

PV1302_01 and 1-ATCT

No glare found

PV: PV1386_01 low potential for temporary after-image

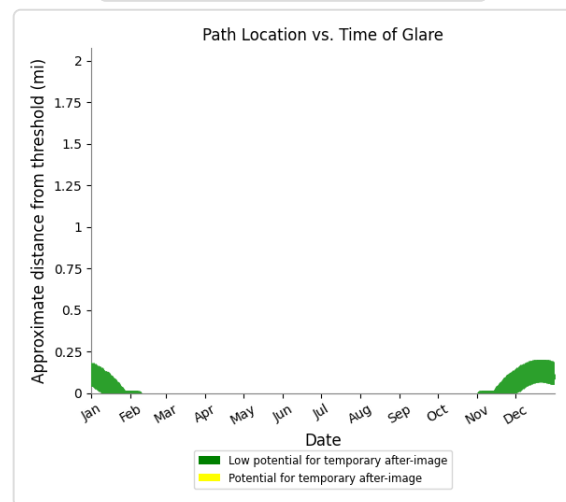
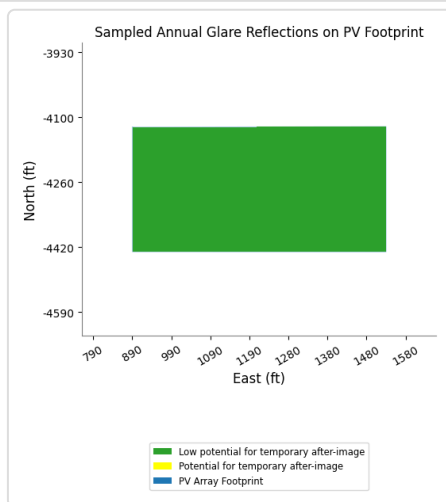
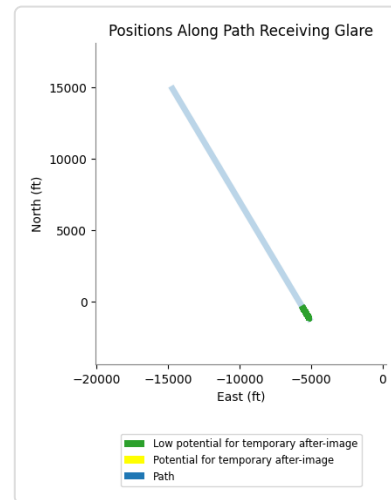
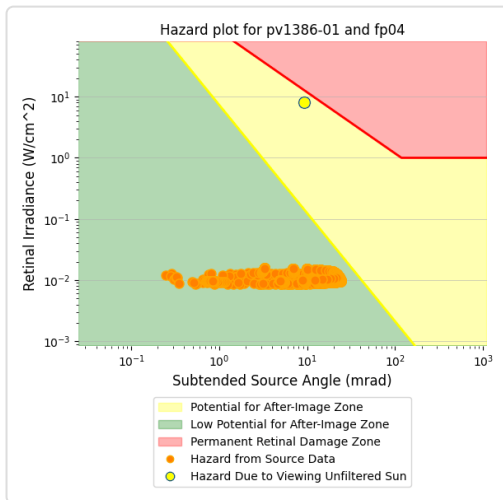
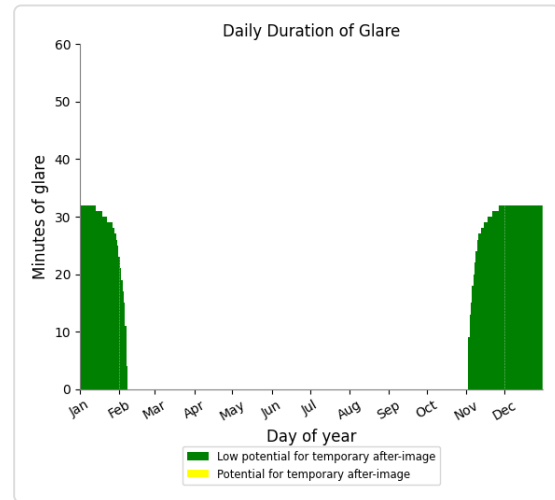
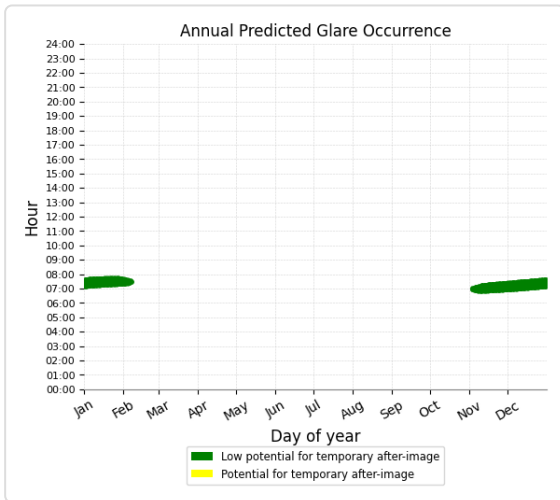
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	2,790	46.5	0	0.0
FP06	9,763	162.7	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1386_01 and FP: FP04

Yellow glare: none

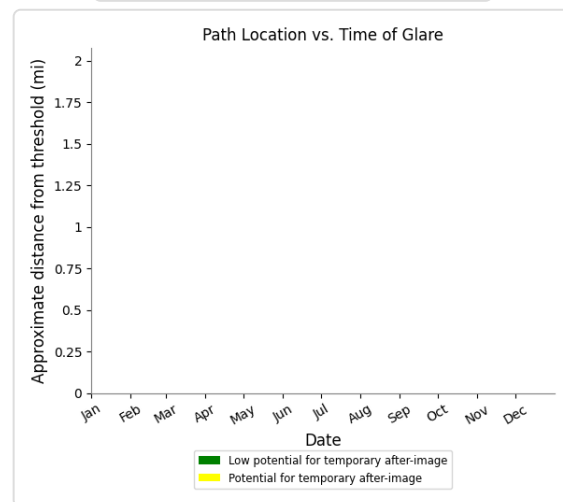
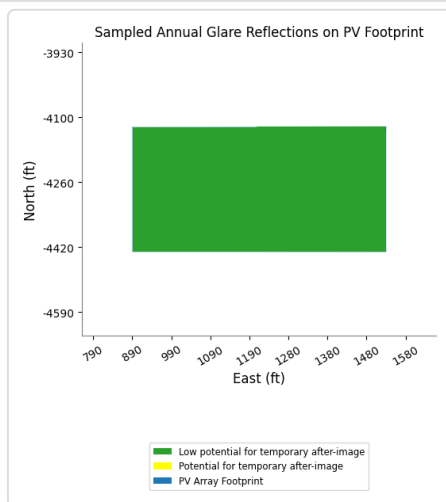
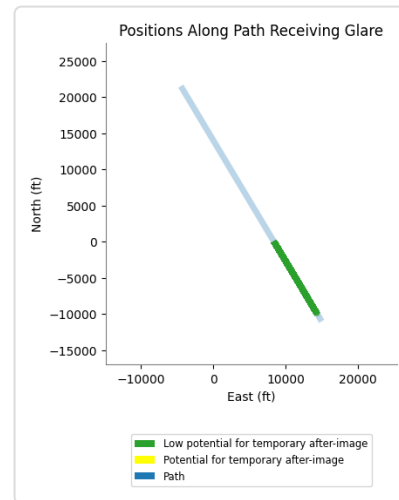
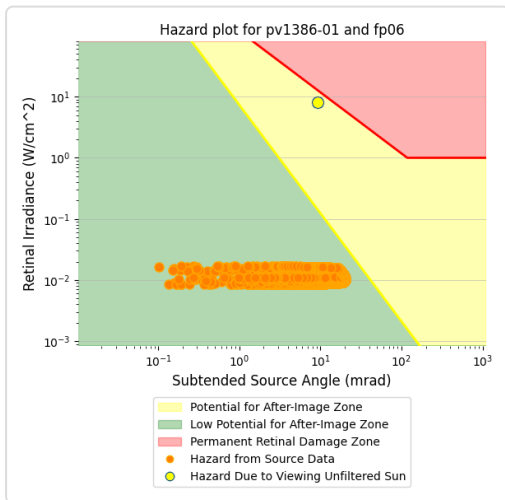
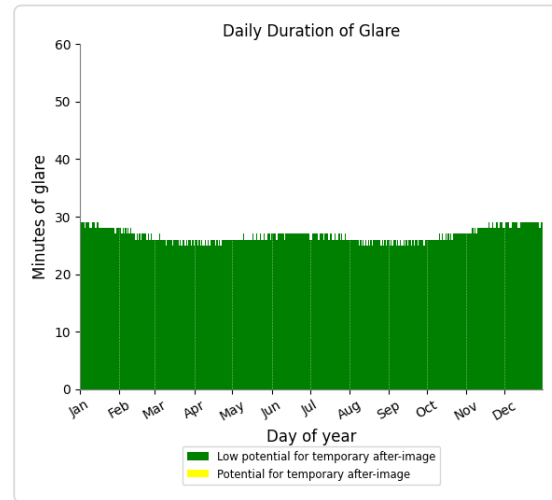
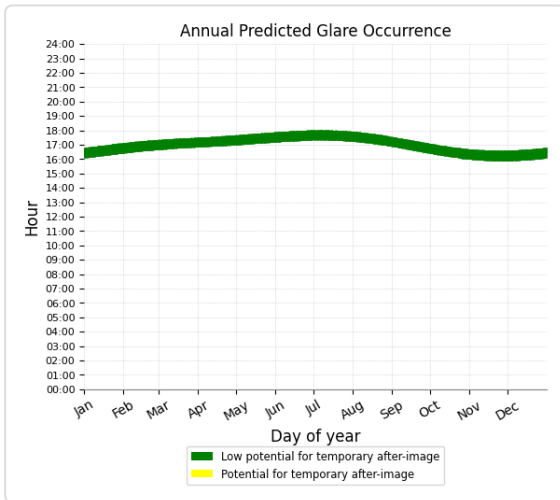
Green glare: 2,790 min.



PV1386_01 and FP: FP06

Yellow glare: none

Green glare: 9,763 min.



PV1386_01 and FP: FP01

No glare found

PV1386_01 and FP: FP02

No glare found

PV1386_01 and FP: FP03

No glare found

PV1386_01 and FP: FP05

No glare found

PV1386_01 and FP: FP07

No glare found

PV1386_01 and FP: FP08

No glare found

PV1386_01 and FP: FP09

No glare found

PV1386_01 and FP: FP10

No glare found

PV1386_01 and FP: FP11

No glare found

PV1386_01 and FP: FP12

No glare found

PV1386_01 and FP: FP13

No glare found

PV1386_01 and FP: FP14

No glare found

PV1386_01 and FP: FP15

No glare found

PV1386_01 and FP: FP16

No glare found

PV1386_01 and 1-ATCT

No glare found

PV: PV1396_01 low potential for temporary after-image

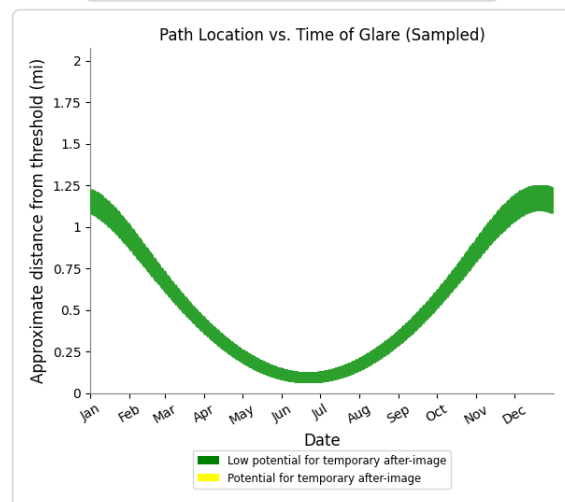
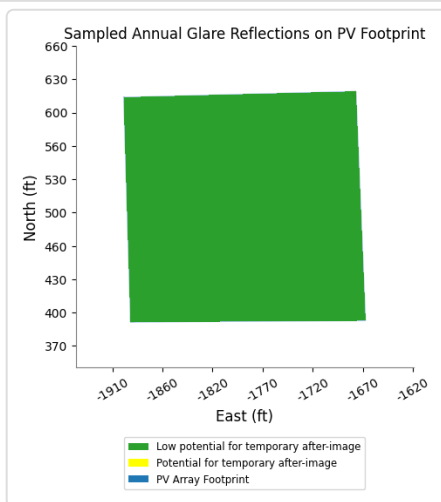
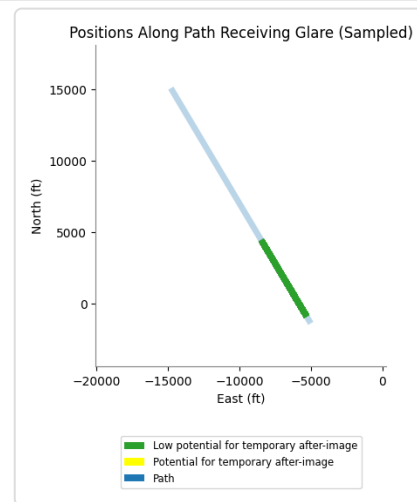
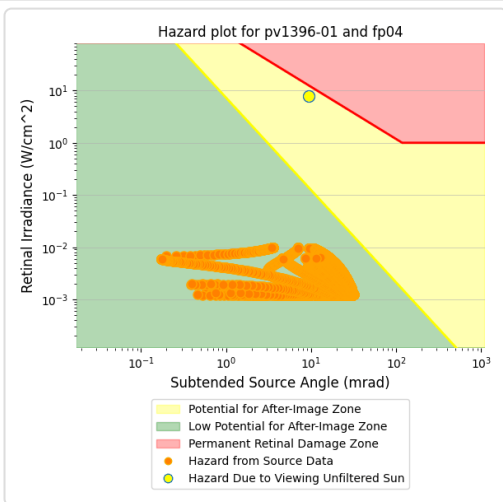
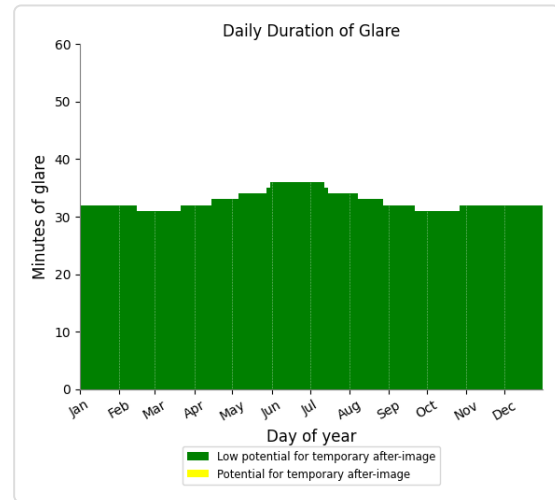
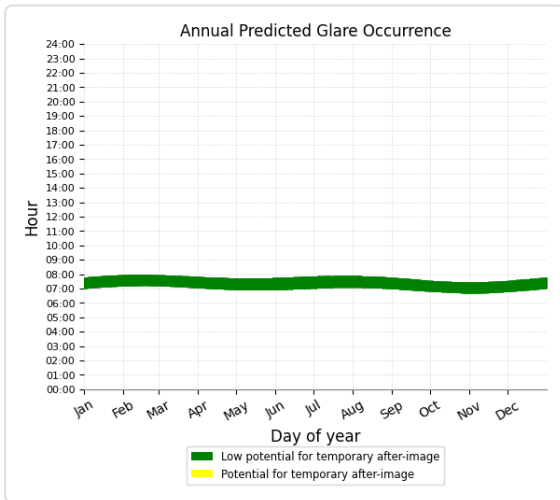
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	11,931	198.8	0	0.0
FP06	10,891	181.5	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1396_01 and FP: FP04

Yellow glare: none

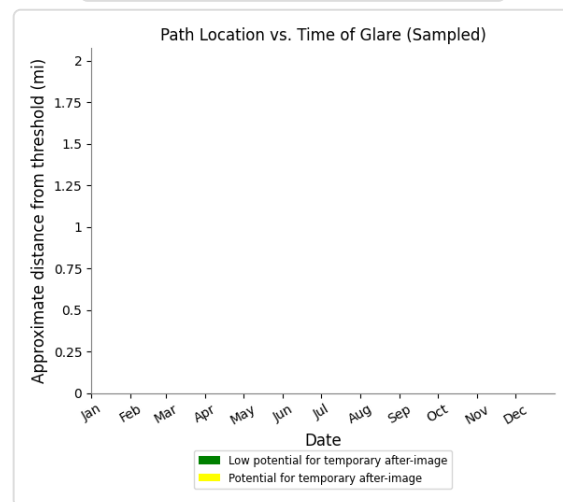
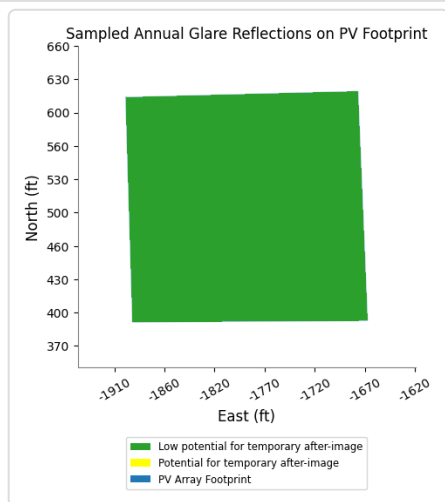
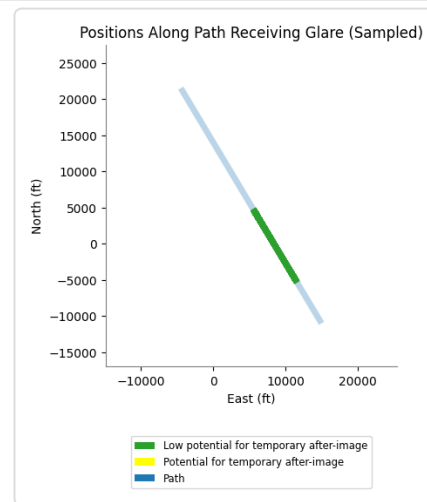
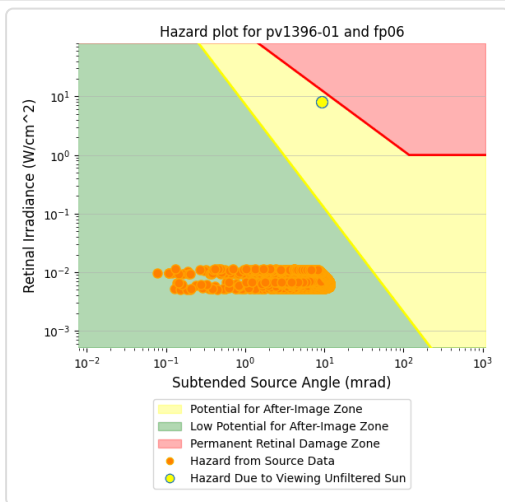
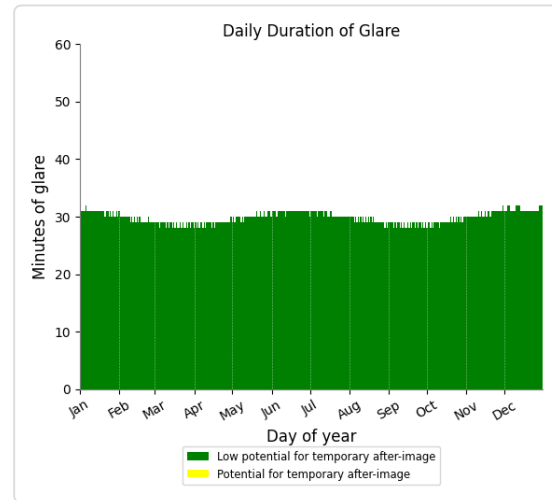
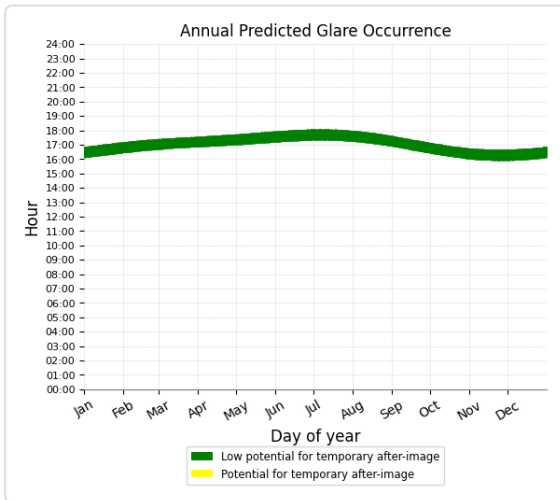
Green glare: 11,931 min.



PV1396_01 and FP: FP06

Yellow glare: none

Green glare: 10,891 min.



PV1396_01 and FP: FP01

No glare found

PV1396_01 and FP: FP02

No glare found

PV1396_01 and FP: FP03

No glare found

PV1396_01 and FP: FP05

No glare found

PV1396_01 and FP: FP07

No glare found

PV1396_01 and FP: FP08

No glare found

PV1396_01 and FP: FP09

No glare found

PV1396_01 and FP: FP10

No glare found

PV1396_01 and FP: FP11

No glare found

PV1396_01 and FP: FP12

No glare found

PV1396_01 and FP: FP13

No glare found

PV1396_01 and FP: FP14

No glare found

PV1396_01 and FP: FP15

No glare found

PV1396_01 and FP: FP16

No glare found

PV1396_01 and 1-ATCT

No glare found

PV: PV1398_01 low potential for temporary after-image

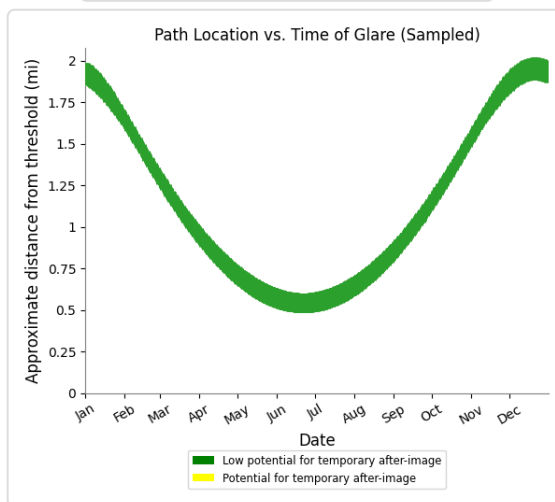
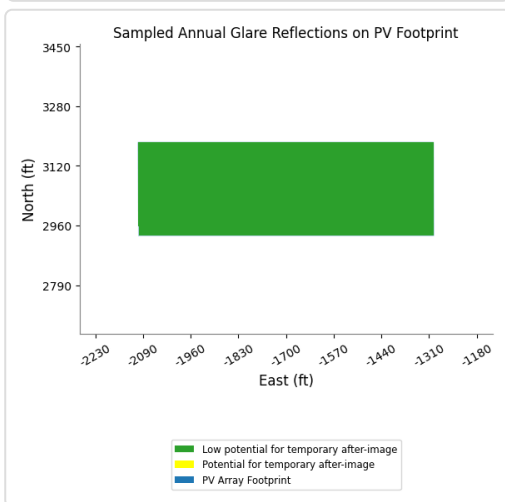
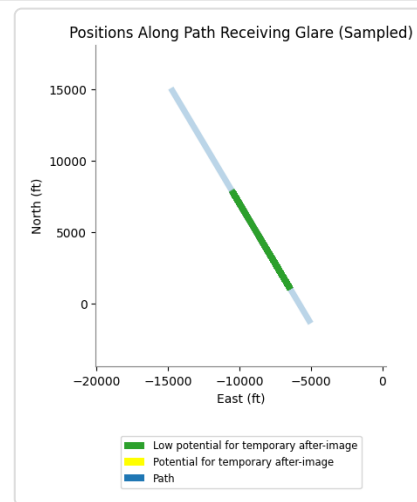
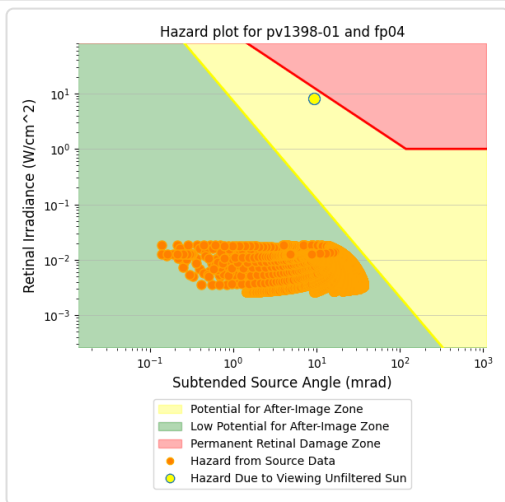
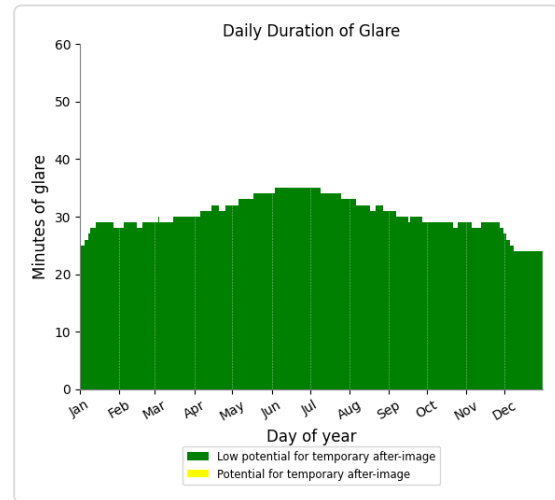
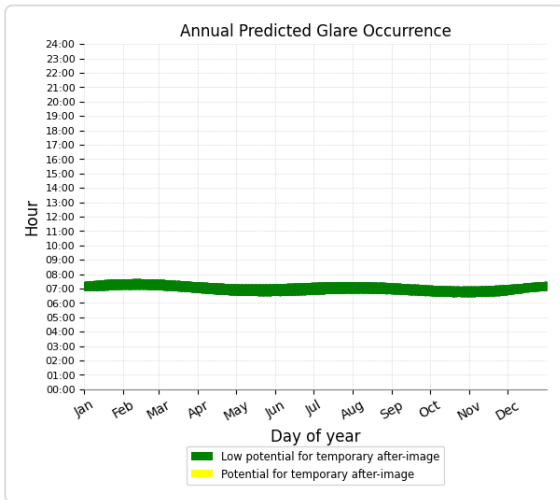
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	11,058	184.3	0	0.0
FP06	10,855	180.9	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1398_01 and FP: FP04

Yellow glare: none

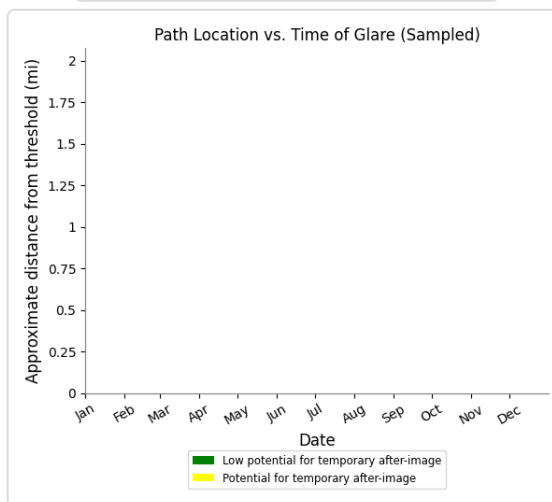
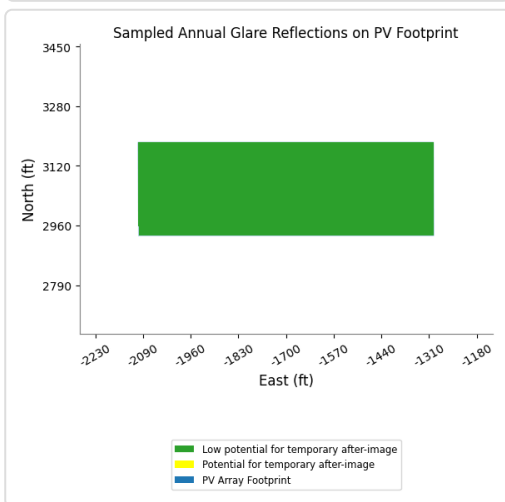
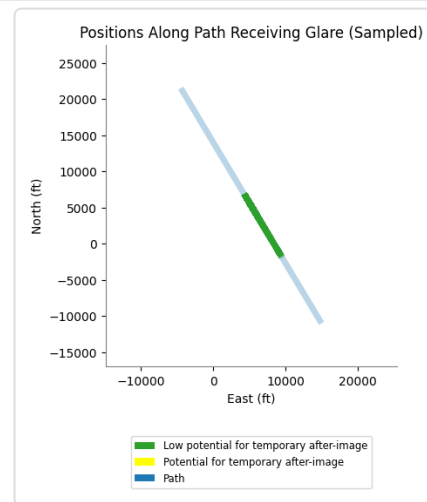
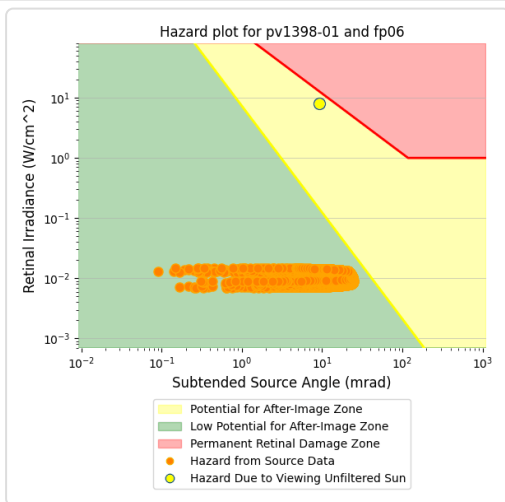
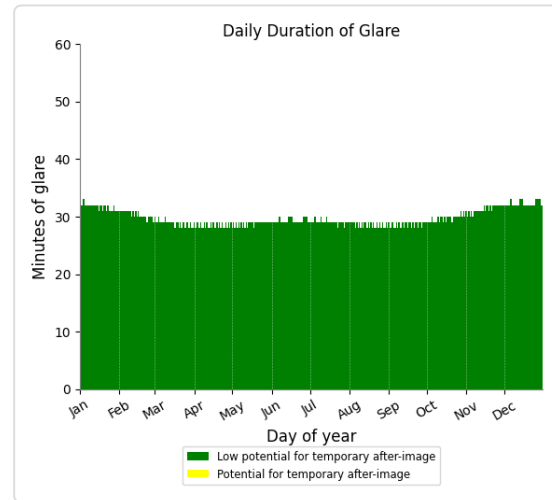
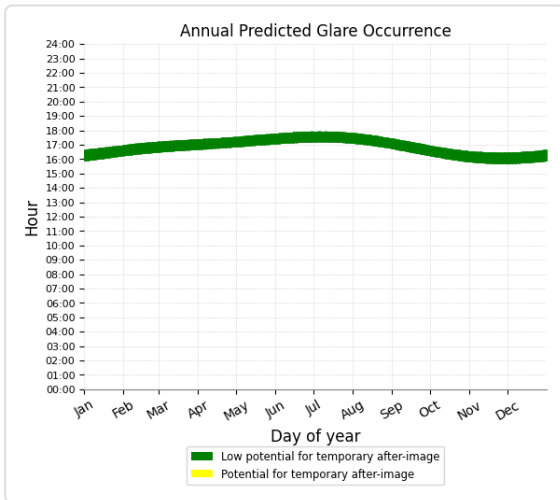
Green glare: 11,058 min.



PV1398_01 and FP: FP06

Yellow glare: none

Green glare: 10,855 min.



PV1398_01 and FP: FP01

No glare found

PV1398_01 and FP: FP02

No glare found

PV1398_01 and FP: FP03

No glare found

PV1398_01 and FP: FP05

No glare found

PV1398_01 and FP: FP07

No glare found

PV1398_01 and FP: FP08

No glare found

PV1398_01 and FP: FP09

No glare found

PV1398_01 and FP: FP10

No glare found

PV1398_01 and FP: FP11

No glare found

PV1398_01 and FP: FP12

No glare found

PV1398_01 and FP: FP13

No glare found

PV1398_01 and FP: FP14

No glare found

PV1398_01 and FP: FP15

No glare found

PV1398_01 and FP: FP16

No glare found

PV1398_01 and 1-ATCT

No glare found

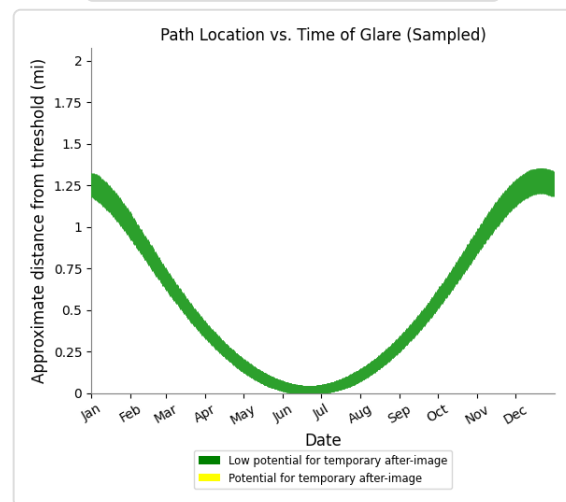
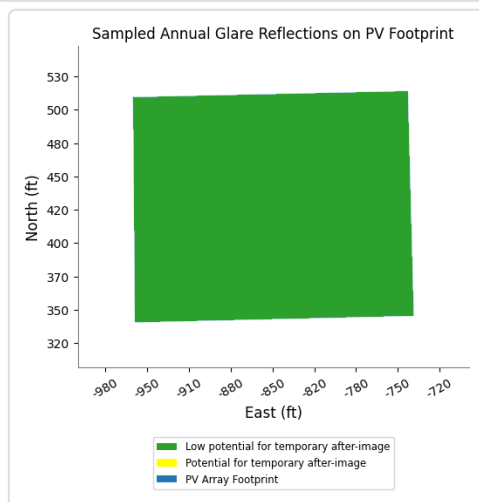
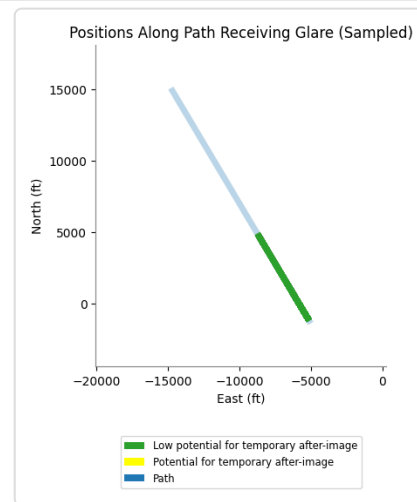
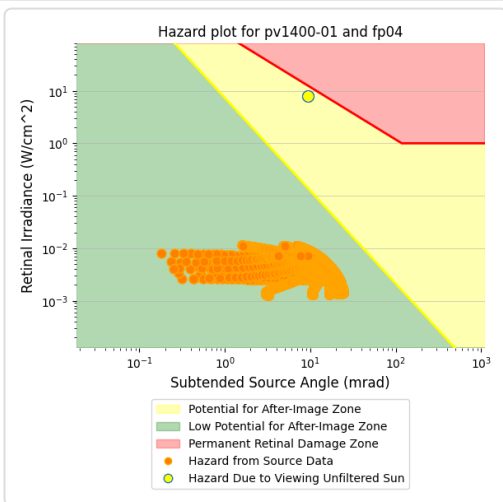
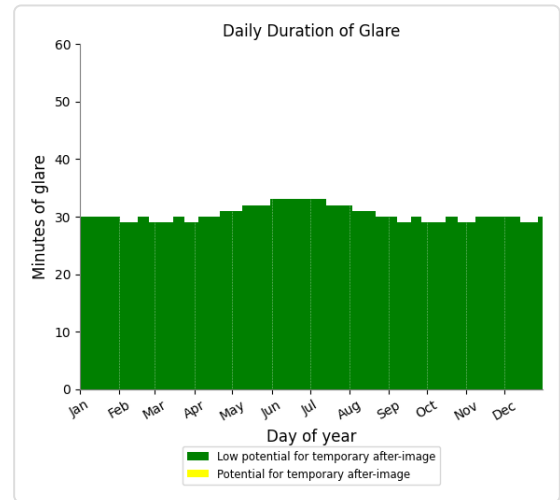
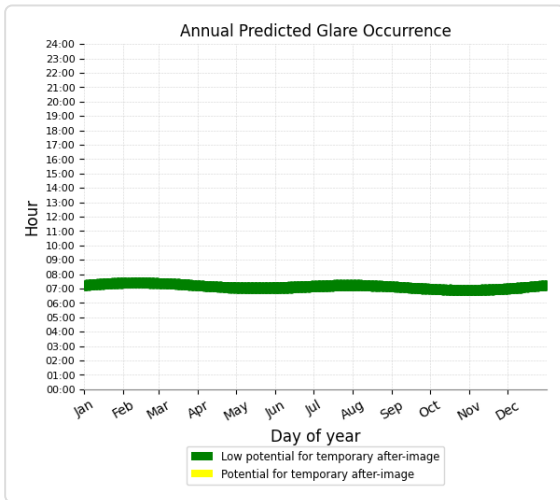
PV: PV1400_01 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	11,101	185.0	0	0.0
FP06	11,024	183.7	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

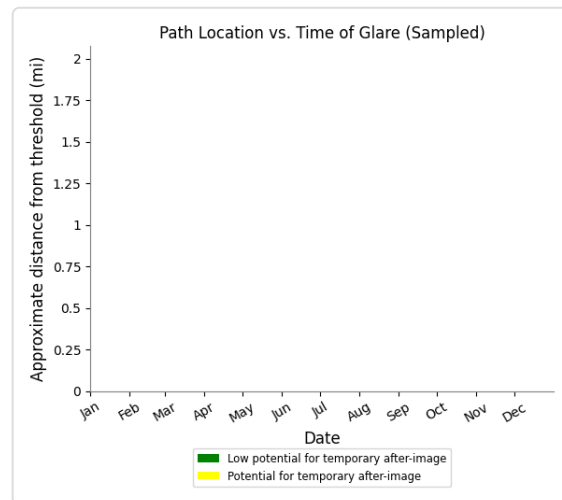
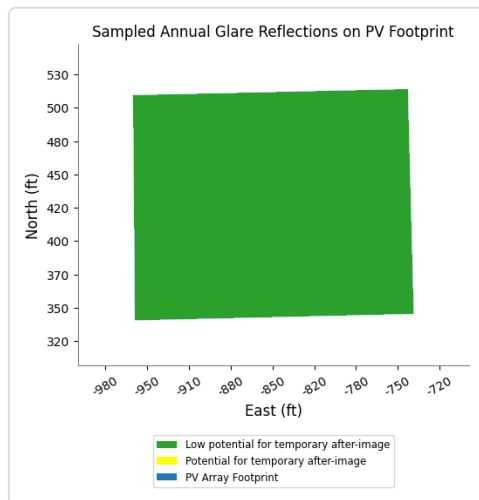
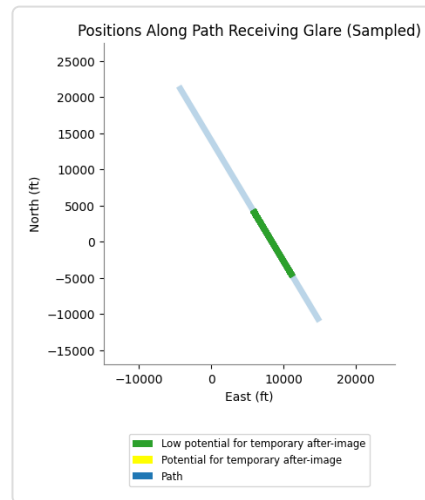
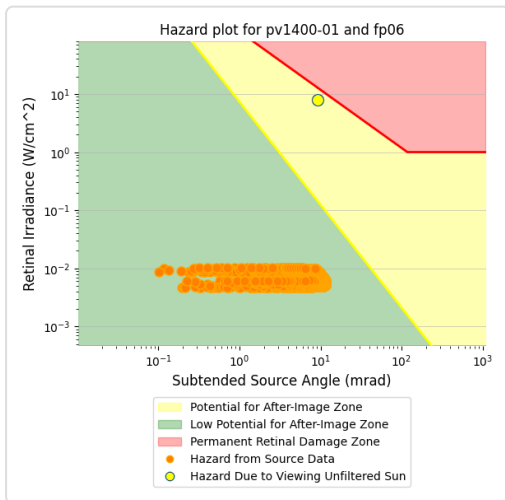
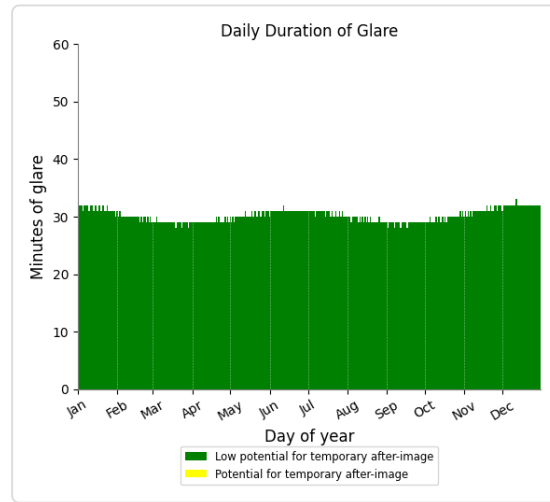
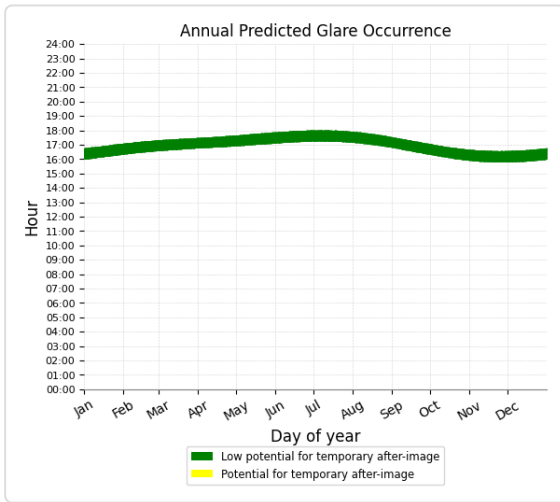
PV1400_01 and FP: FP04

Yellow glare: none
 Green glare: 11,101 min.



PV1400_01 and FP: FP06

Yellow glare: none
Green glare: 11,024 min.



PV1400_01 and FP: FP01

No glare found

PV1400_01 and FP: FP02

No glare found

PV1400_01 and FP: FP03

No glare found

PV1400_01 and FP: FP05

No glare found

PV1400_01 and FP: FP07

No glare found

PV1400_01 and FP: FP08

No glare found

PV1400_01 and FP: FP09

No glare found

PV1400_01 and FP: FP10

No glare found

PV1400_01 and FP: FP11

No glare found

PV1400_01 and FP: FP12

No glare found

PV1400_01 and FP: FP13

No glare found

PV1400_01 and FP: FP14

No glare found

PV1400_01 and FP: FP15

No glare found

PV1400_01 and FP: FP16

No glare found

PV1400_01 and 1-ATCT

No glare found

PV: PV1421_01 low potential for temporary after-image

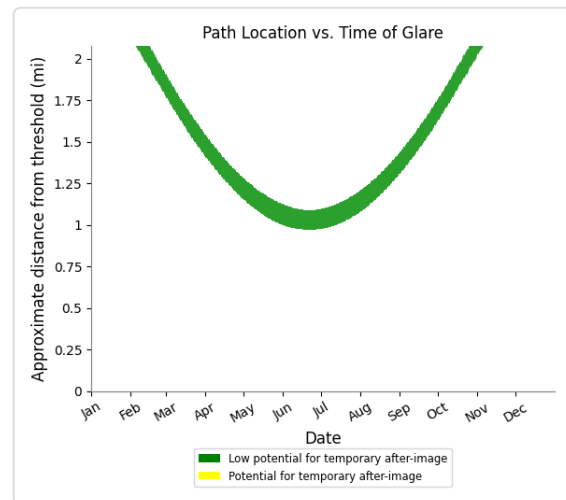
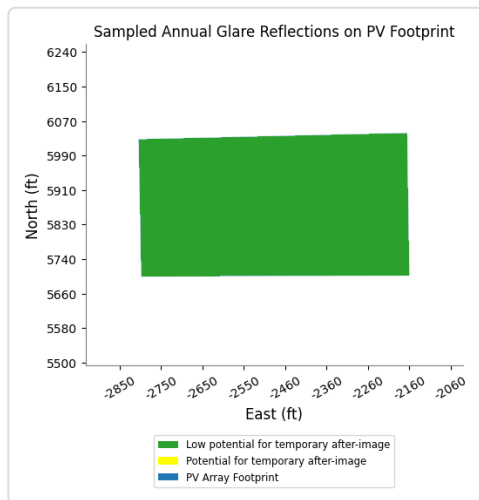
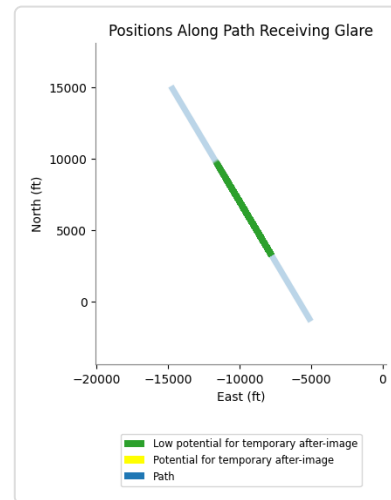
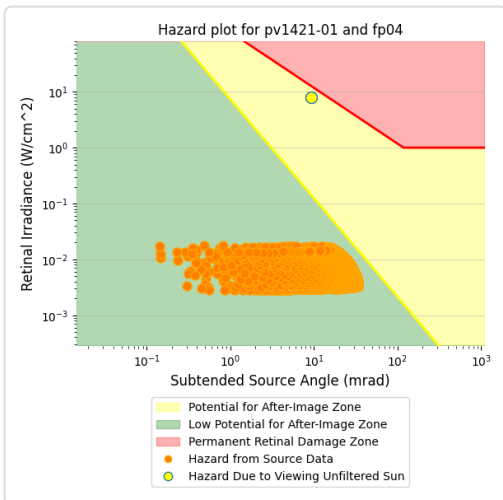
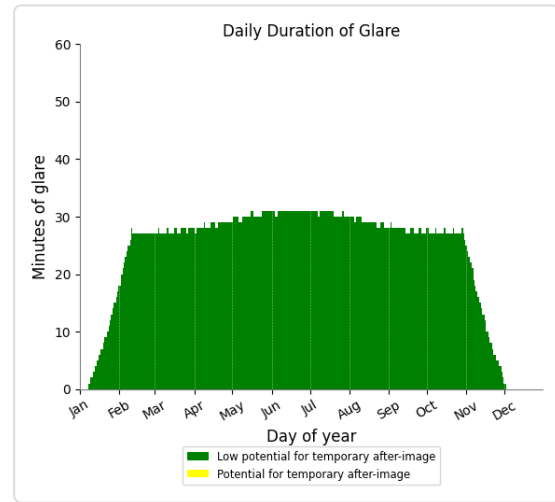
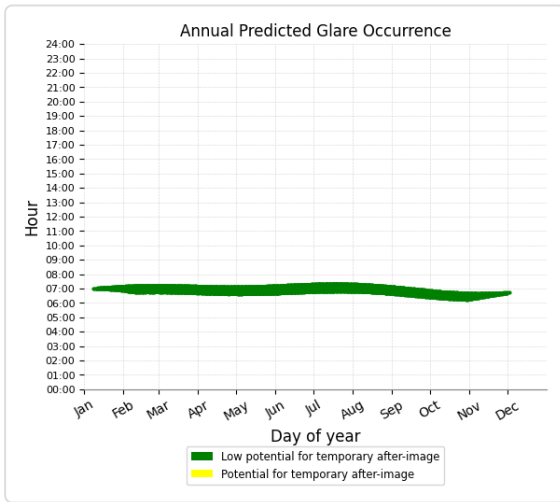
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	8,374	139.6	0	0.0
FP05	387	6.5	0	0.0
FP06	10,242	170.7	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1421_01 and FP: FP04

Yellow glare: none

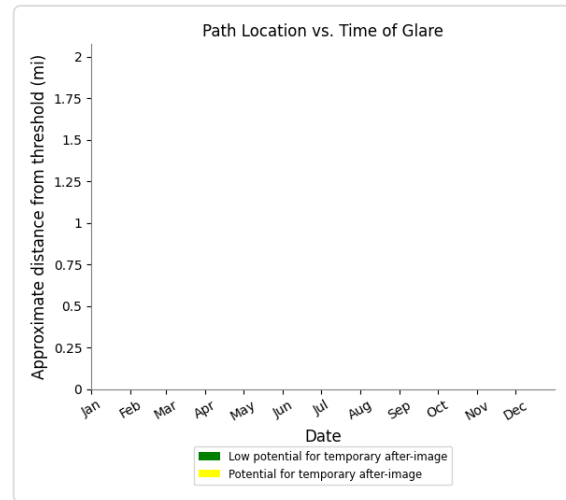
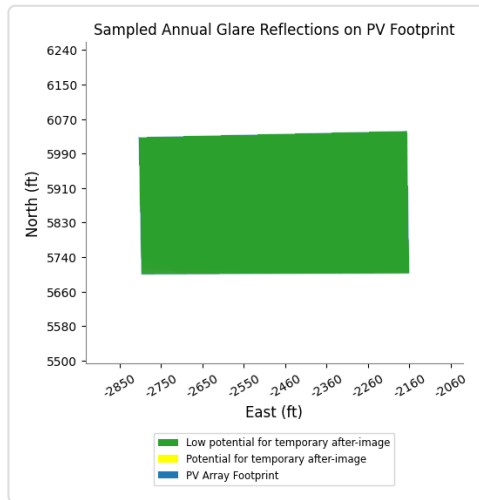
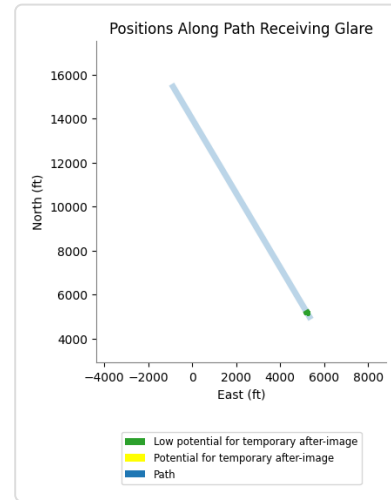
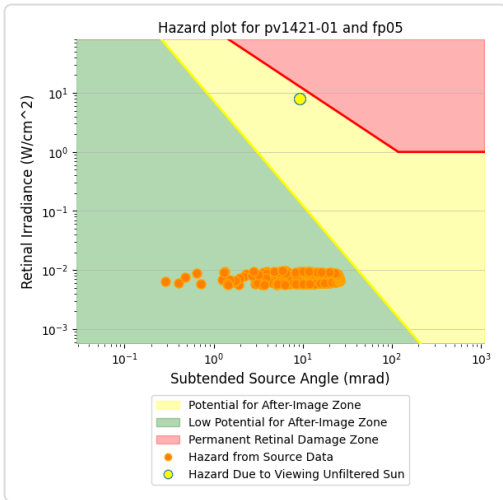
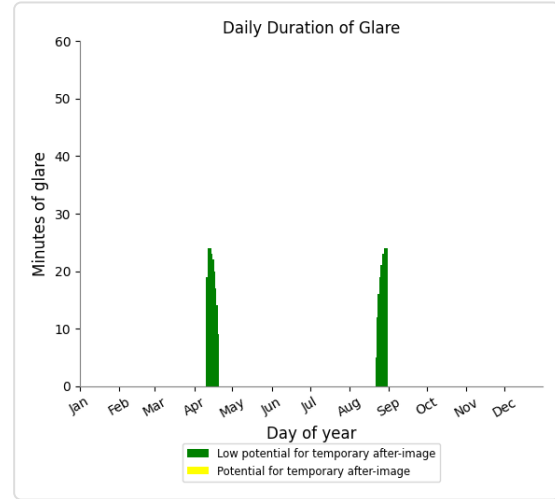
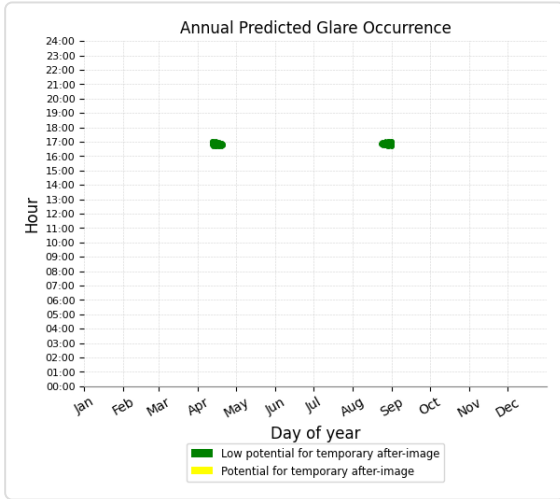
Green glare: 8,374 min.



PV1421_01 and FP: FP05

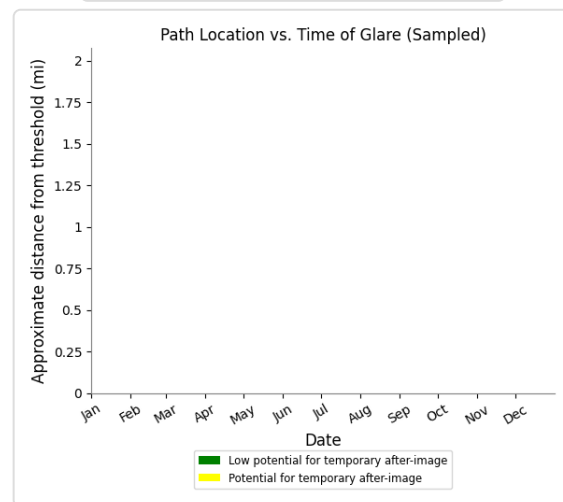
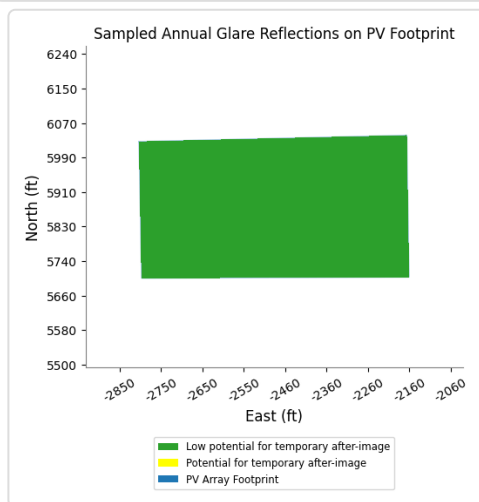
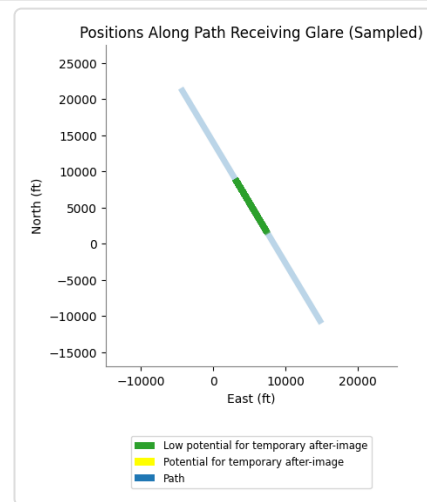
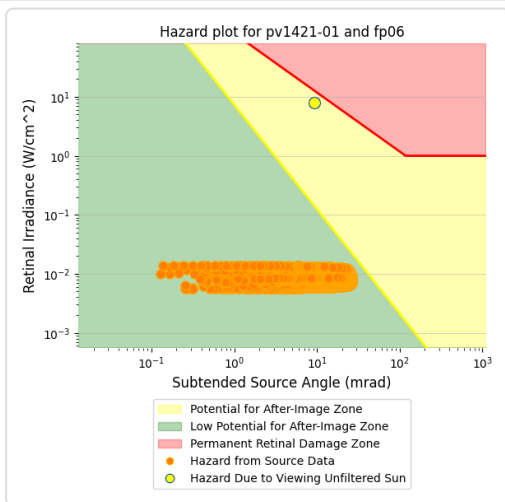
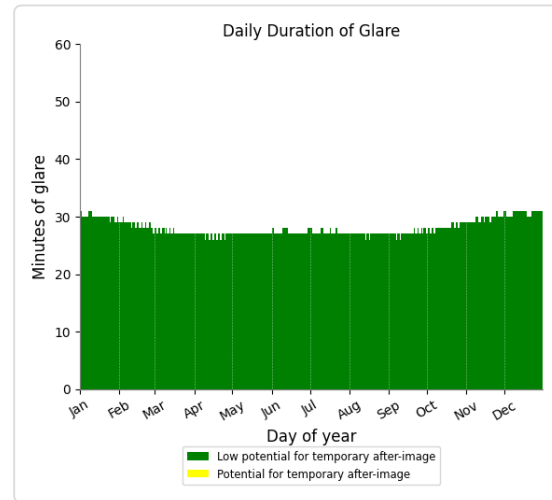
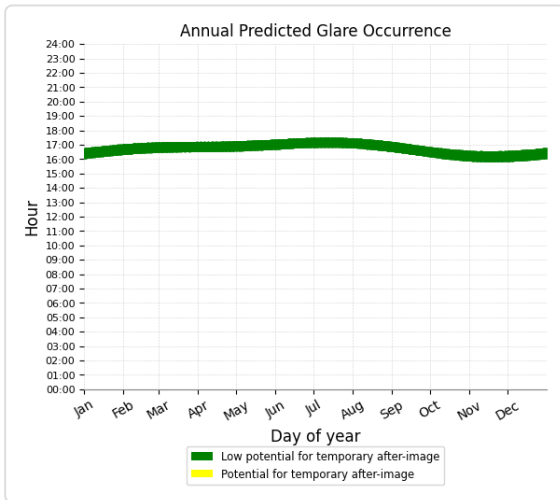
Yellow glare: none

Green glare: 387 min.



PV1421_01 and FP: FP06

Yellow glare: none
Green glare: 10,242 min.



PV1421_01 and FP: FP01

No glare found

PV1421_01 and FP: FP02

No glare found

PV1421_01 and FP: FP03

No glare found

PV1421_01 and FP: FP07

No glare found

PV1421_01 and FP: FP08

No glare found

PV1421_01 and FP: FP09

No glare found

PV1421_01 and FP: FP10

No glare found

PV1421_01 and FP: FP11

No glare found

PV1421_01 and FP: FP12

No glare found

PV1421_01 and FP: FP13

No glare found

PV1421_01 and FP: FP14

No glare found

PV1421_01 and FP: FP15

No glare found

PV1421_01 and FP: FP16

No glare found

PV1421_01 and 1-ATCT

No glare found

PV: PV1425_01 low potential for temporary after-image

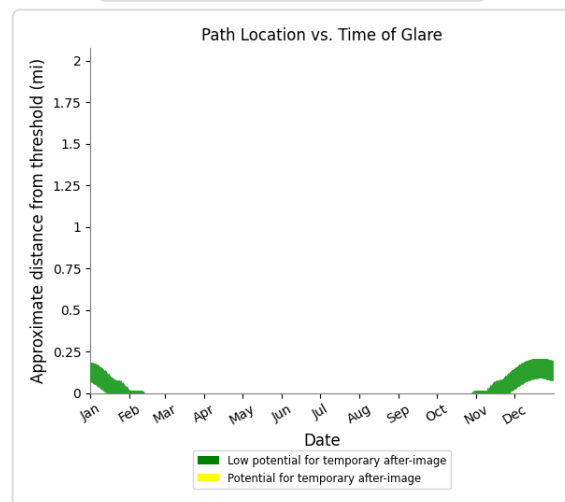
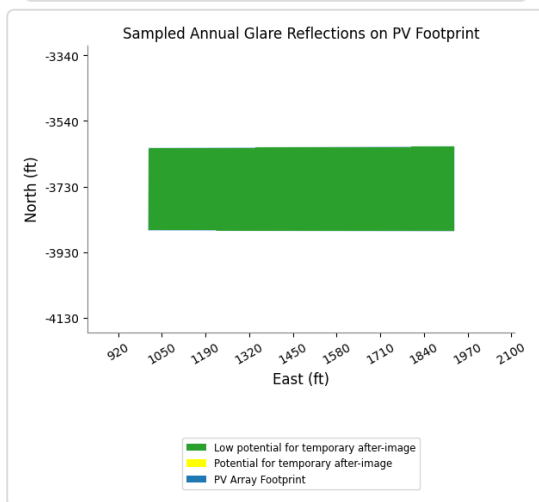
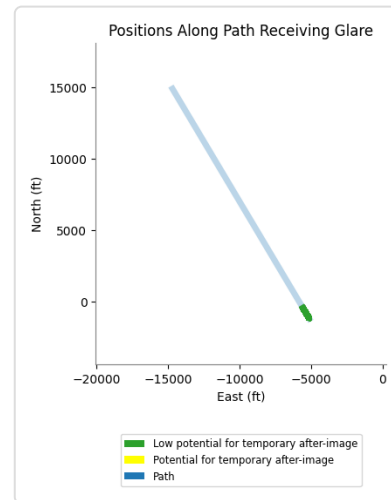
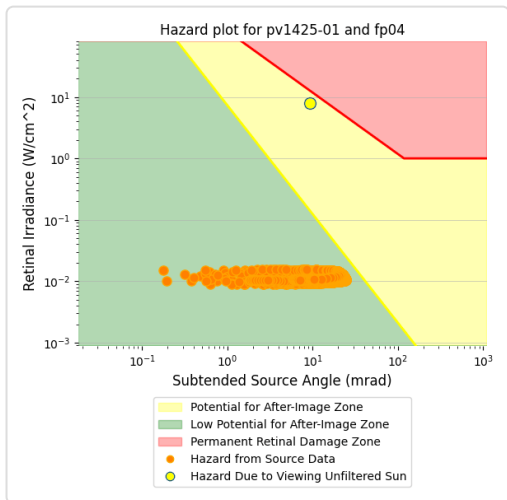
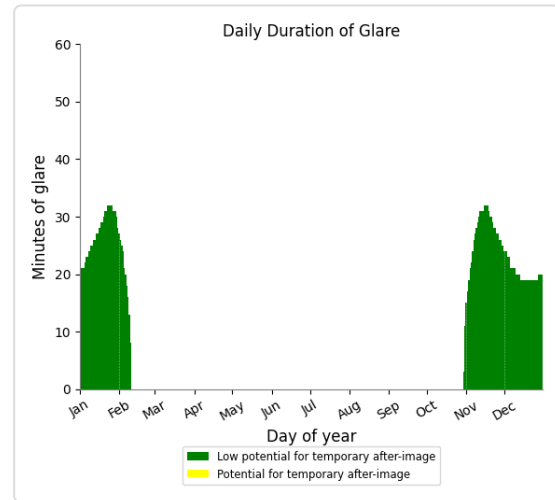
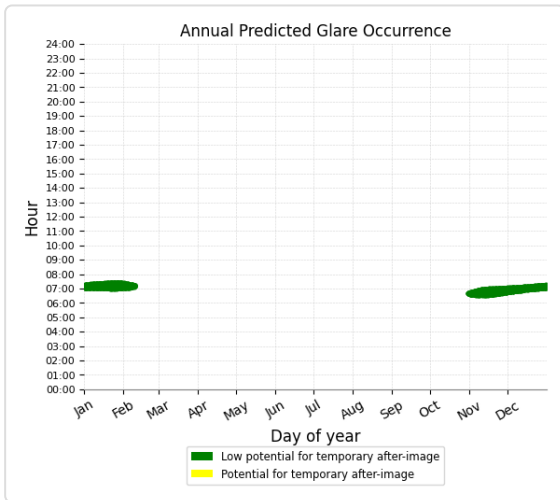
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	2,491	41.5	0	0.0
FP06	9,140	152.3	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1425_01 and FP: FP04

Yellow glare: none

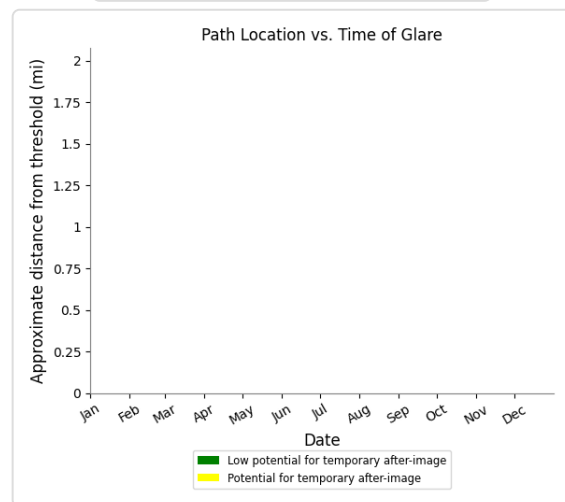
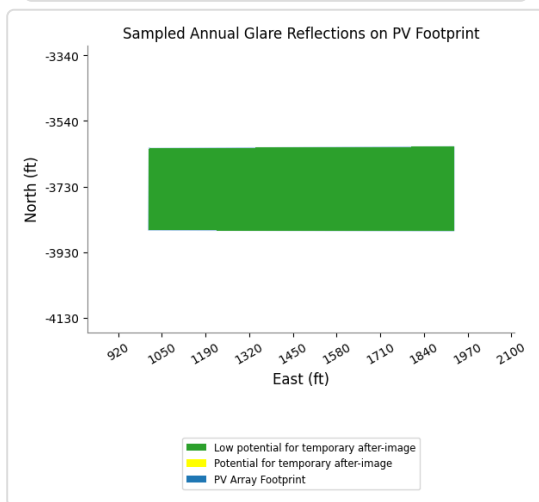
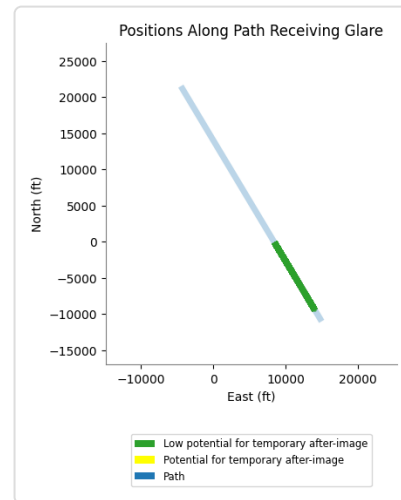
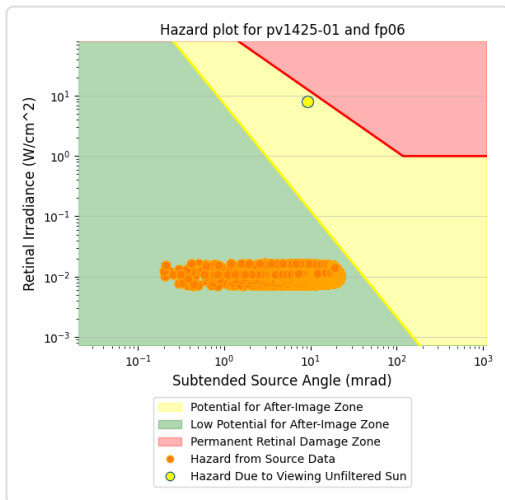
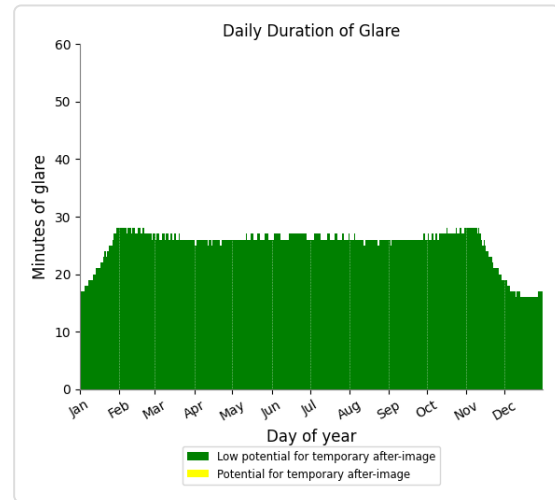
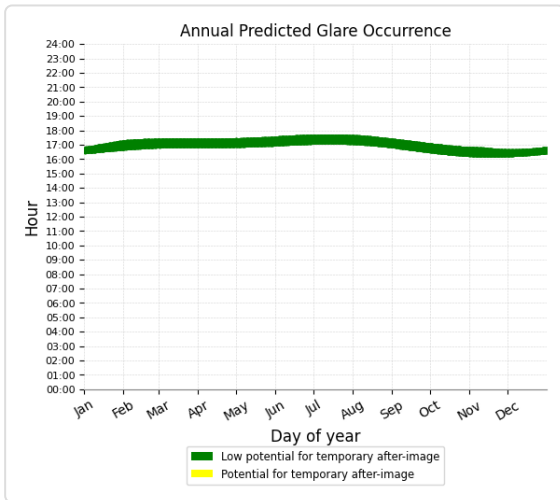
Green glare: 2,491 min.



PV1425_01 and FP: FP06

Yellow glare: none

Green glare: 9,140 min.



PV1425_01 and FP: FP01

No glare found

PV1425_01 and FP: FP02

No glare found

PV1425_01 and FP: FP03

No glare found

PV1425_01 and FP: FP05

No glare found

PV1425_01 and FP: FP07

No glare found

PV1425_01 and FP: FP08

No glare found

PV1425_01 and FP: FP09

No glare found

PV1425_01 and FP: FP10

No glare found

PV1425_01 and FP: FP11

No glare found

PV1425_01 and FP: FP12

No glare found

PV1425_01 and FP: FP13

No glare found

PV1425_01 and FP: FP14

No glare found

PV1425_01 and FP: FP15

No glare found

PV1425_01 and FP: FP16

No glare found

PV1425_01 and 1-ATCT

No glare found

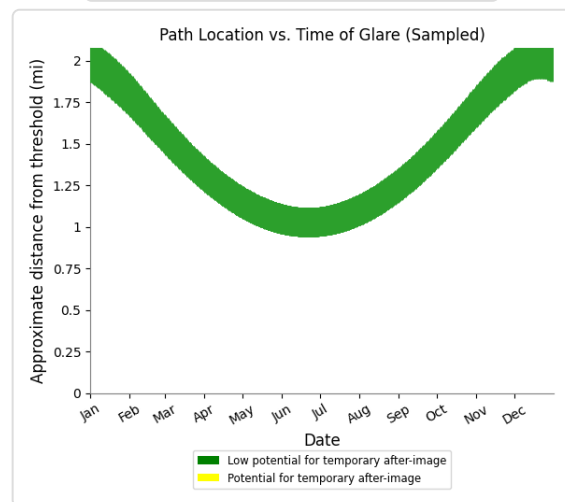
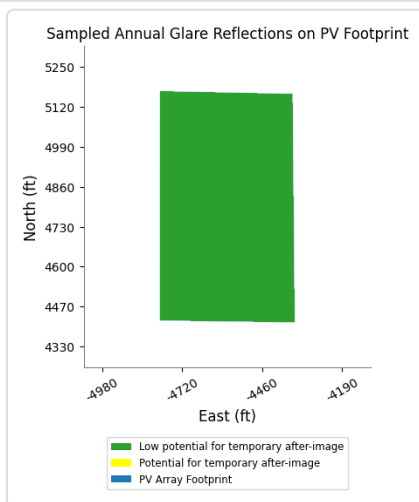
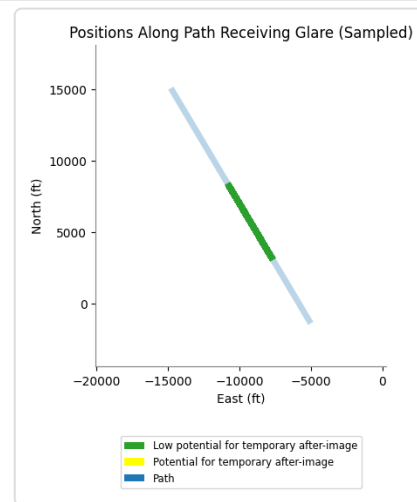
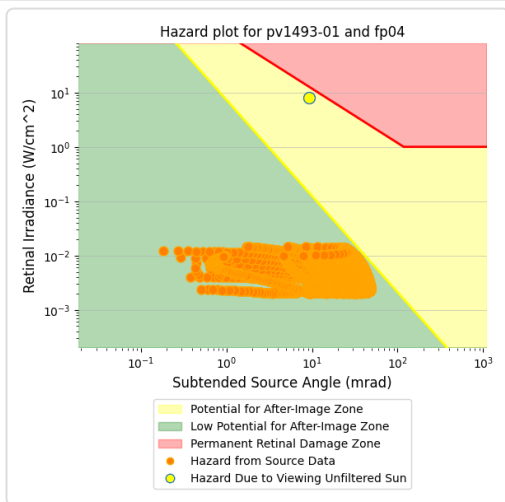
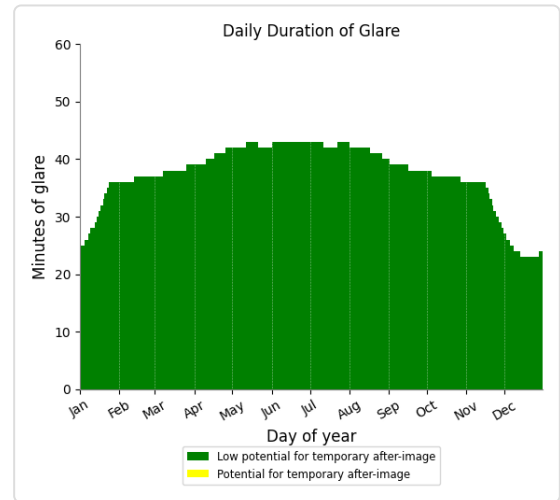
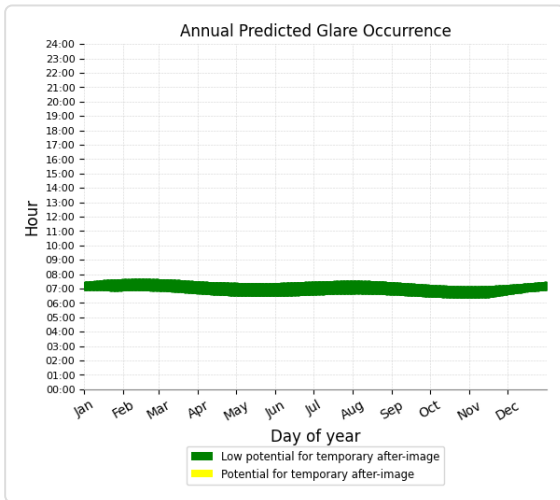
PV: PV1493_01 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	13,632	227.2	0	0.0
FP06	9,393	156.6	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1493_01 and FP: FP04

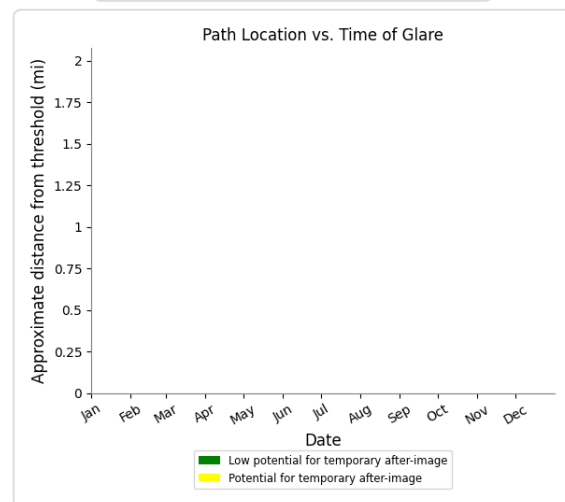
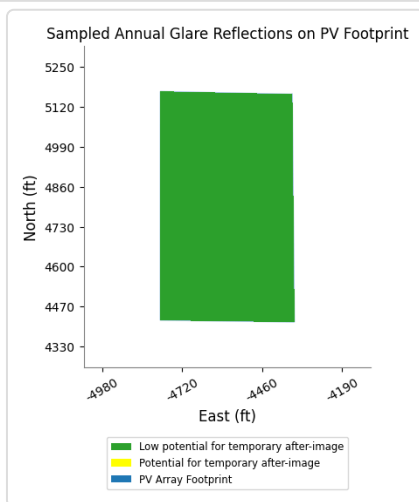
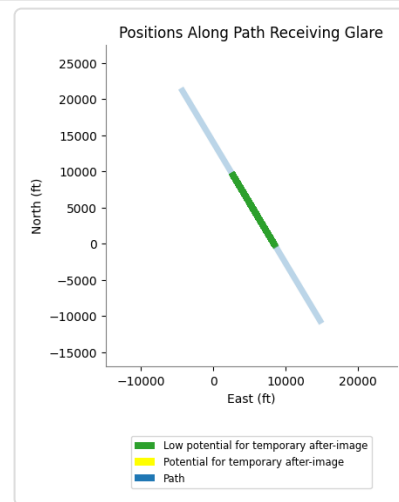
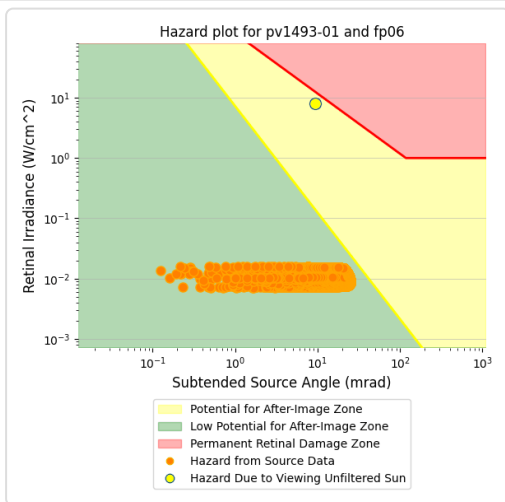
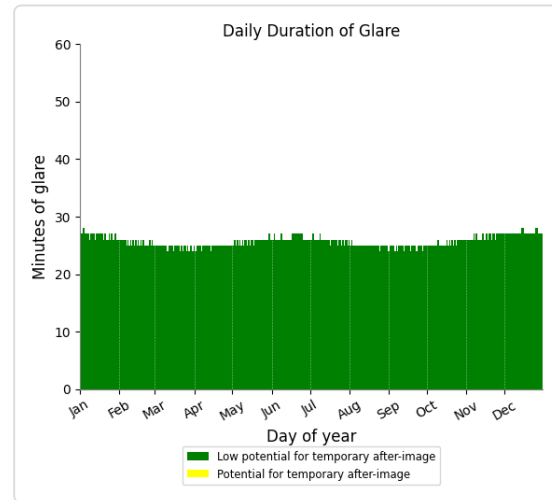
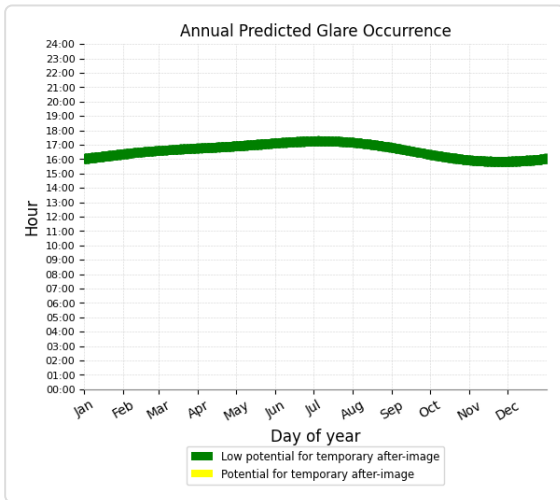
Yellow glare: none
 Green glare: 13,632 min.



PV1493_01 and FP: FP06

Yellow glare: none

Green glare: 9,393 min.



PV1493_01 and FP: FP01

No glare found

PV1493_01 and FP: FP02

No glare found

PV1493_01 and FP: FP03

No glare found

PV1493_01 and FP: FP05

No glare found

PV1493_01 and FP: FP07

No glare found

PV1493_01 and FP: FP08

No glare found

PV1493_01 and FP: FP09

No glare found

PV1493_01 and FP: FP10

No glare found

PV1493_01 and FP: FP11

No glare found

PV1493_01 and FP: FP12

No glare found

PV1493_01 and FP: FP13

No glare found

PV1493_01 and FP: FP14

No glare found

PV1493_01 and FP: FP15

No glare found

PV1493_01 and FP: FP16

No glare found

PV1493_01 and 1-ATCT

No glare found

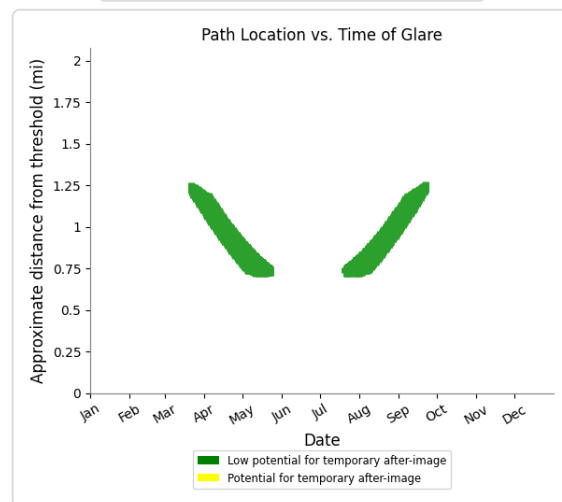
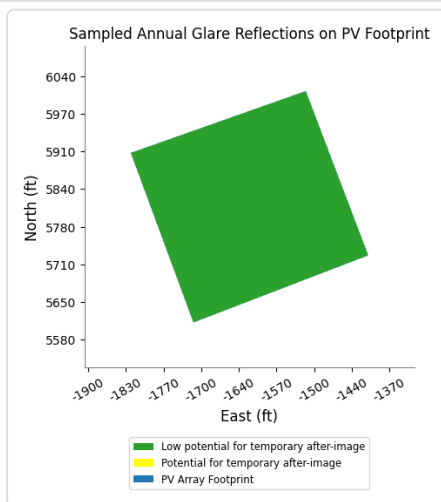
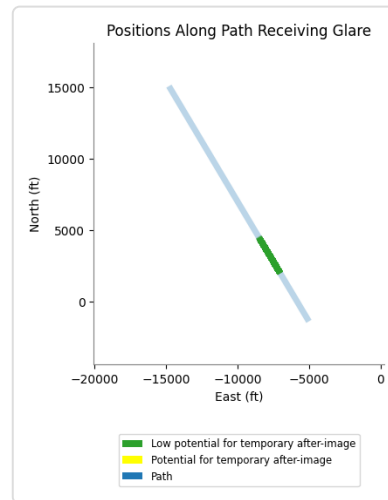
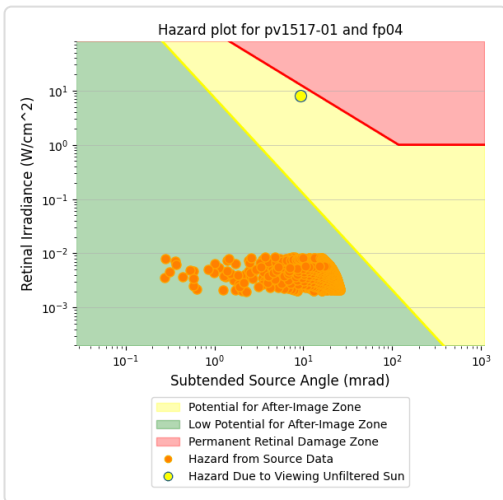
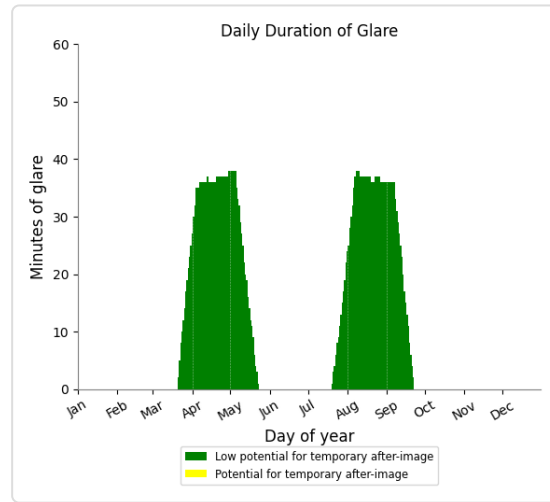
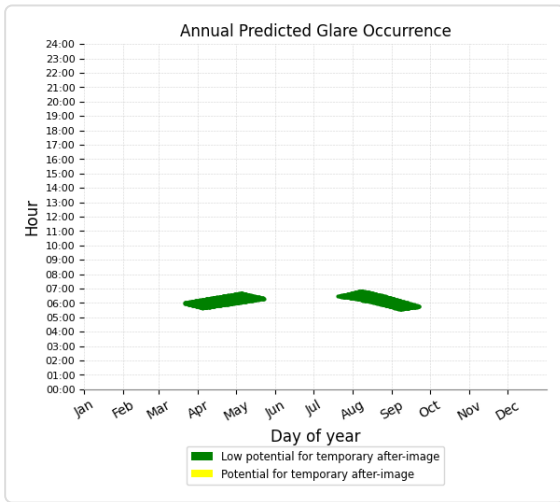
PV: PV1517_01 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	3,473	57.9	0	0.0
FP05	606	10.1	0	0.0
FP06	11,665	194.4	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1517_01 and FP: FP04

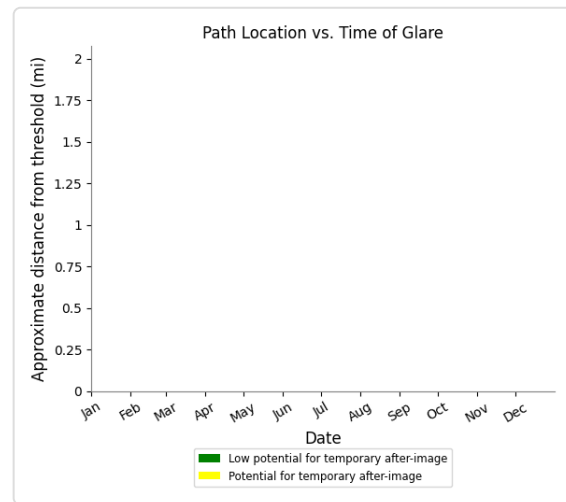
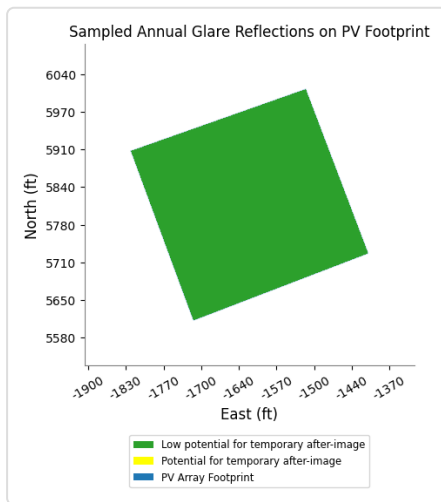
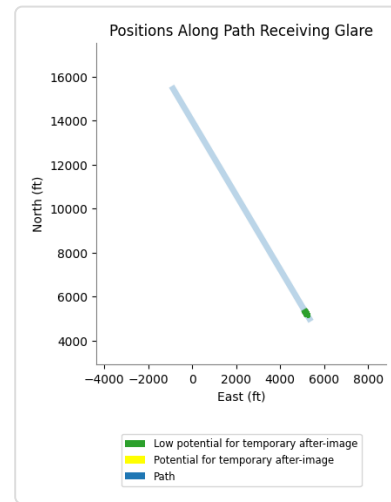
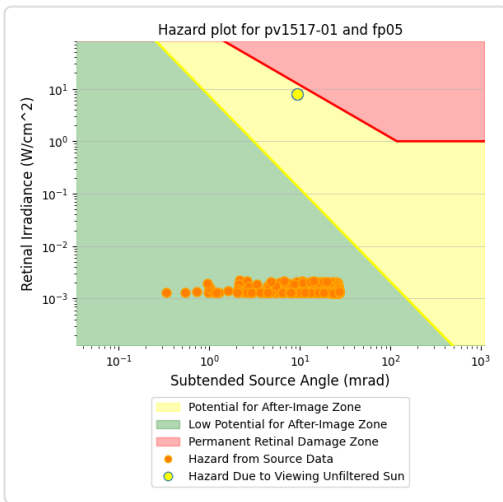
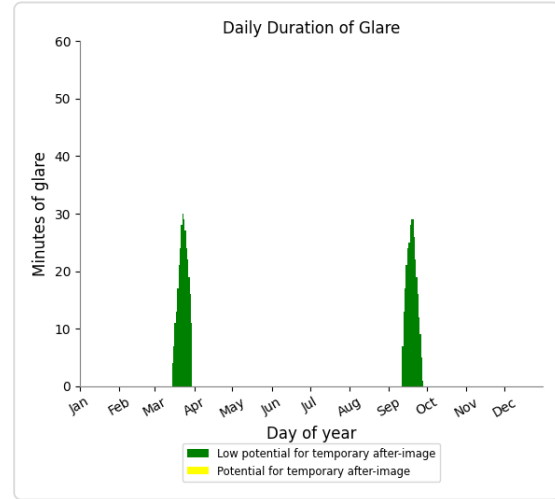
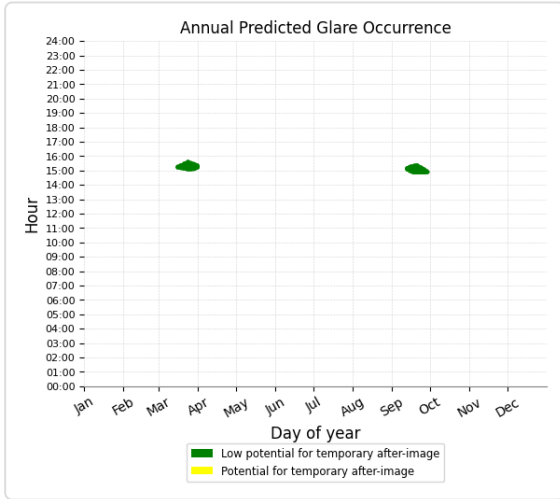
Yellow glare: none
 Green glare: 3,473 min.



PV1517_01 and FP: FP05

Yellow glare: none

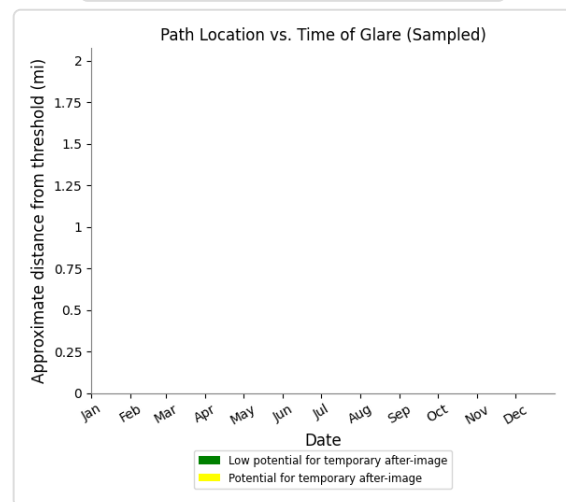
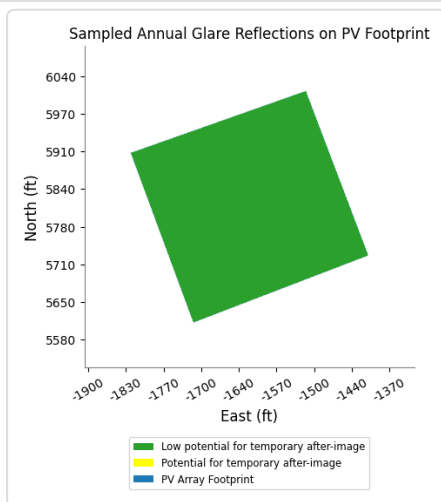
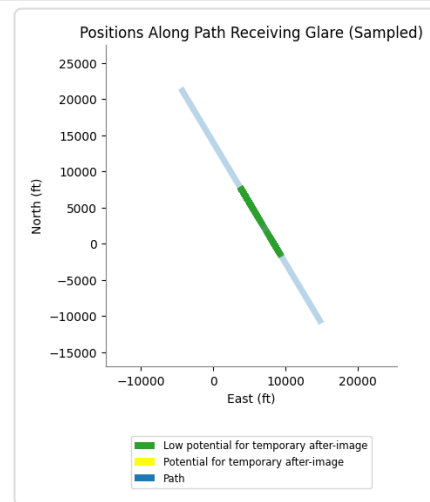
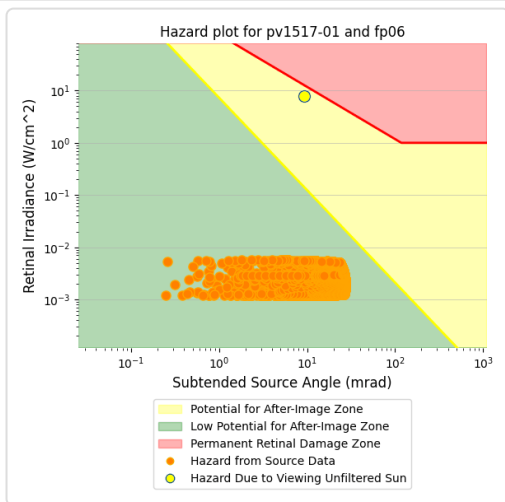
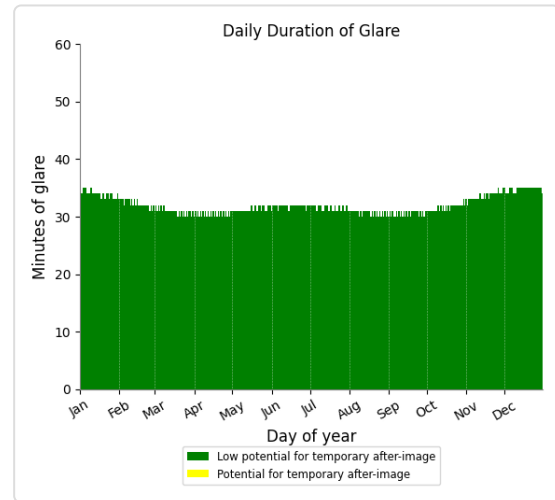
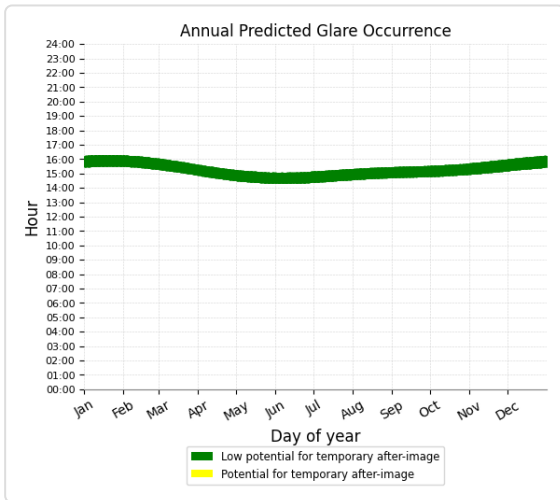
Green glare: 606 min.



PV1517_01 and FP: FP06

Yellow glare: none

Green glare: 11,665 min.



PV1517_01 and FP: FP01

No glare found

PV1517_01 and FP: FP02

No glare found

PV1517_01 and FP: FP03

No glare found

PV1517_01 and FP: FP07

No glare found

PV1517_01 and FP: FP08

No glare found

PV1517_01 and FP: FP09

No glare found

PV1517_01 and FP: FP10

No glare found

PV1517_01 and FP: FP11

No glare found

PV1517_01 and FP: FP12

No glare found

PV1517_01 and FP: FP13

No glare found

PV1517_01 and FP: FP14

No glare found

PV1517_01 and FP: FP15

No glare found

PV1517_01 and FP: FP16

No glare found

PV1517_01 and 1-ATCT

No glare found

PV: PV1518_01 low potential for temporary after-image

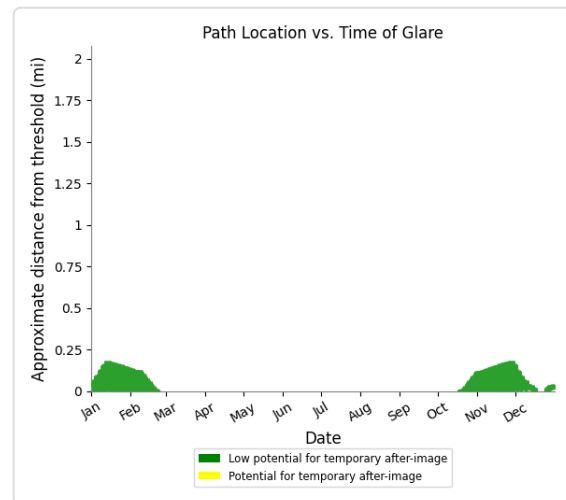
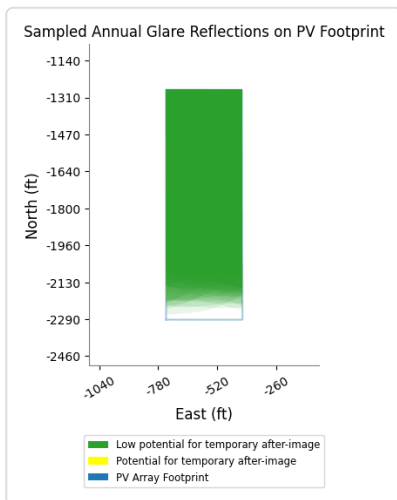
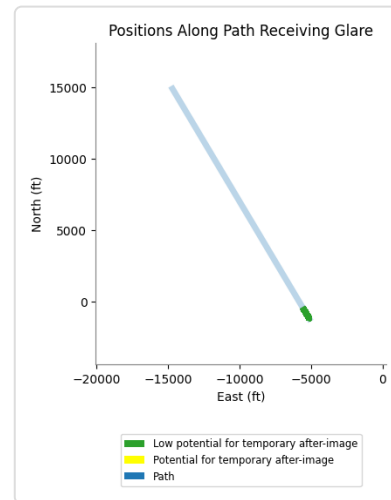
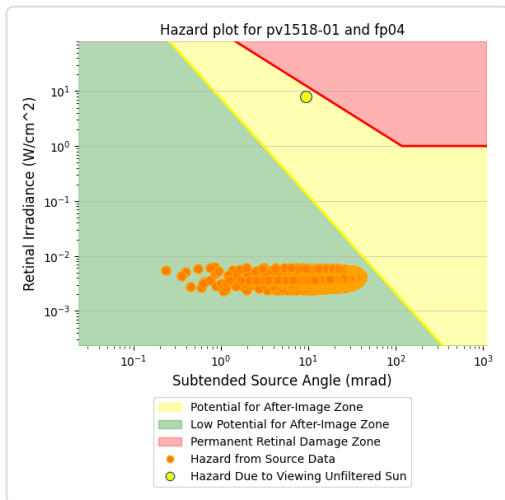
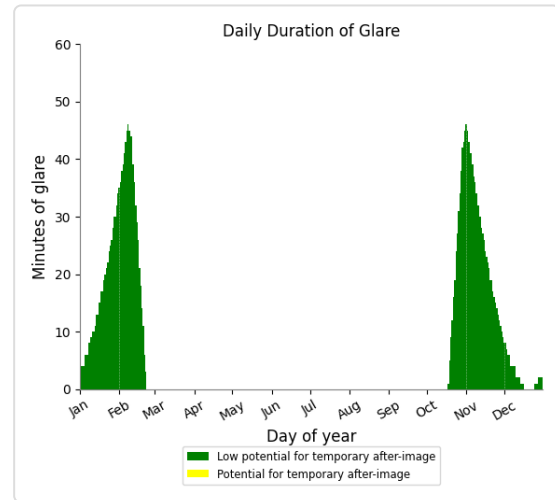
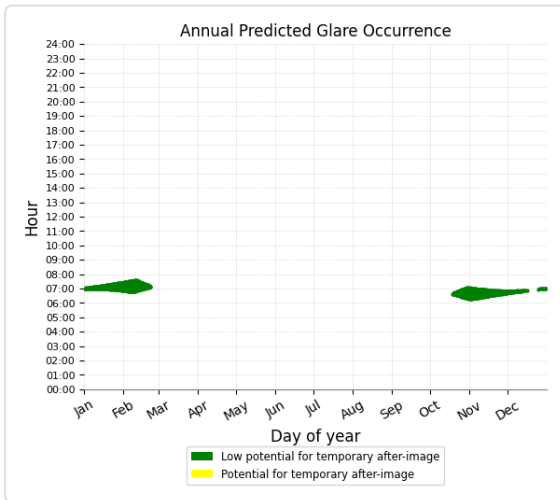
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	2,382	39.7	0	0.0
FP06	7,396	123.3	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP05	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1518_01 and FP: FP04

Yellow glare: none

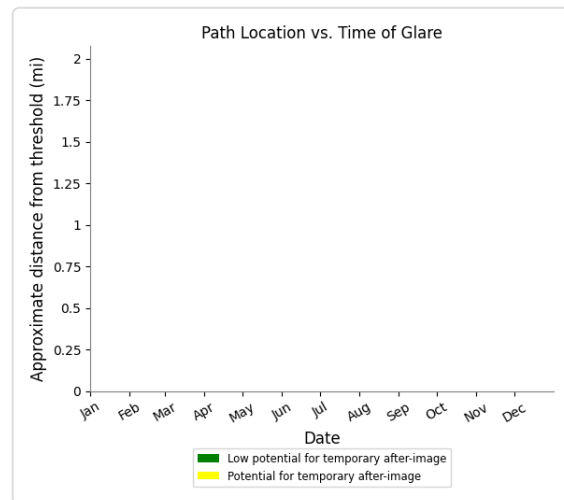
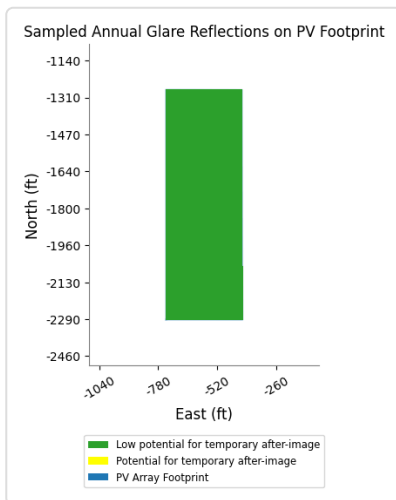
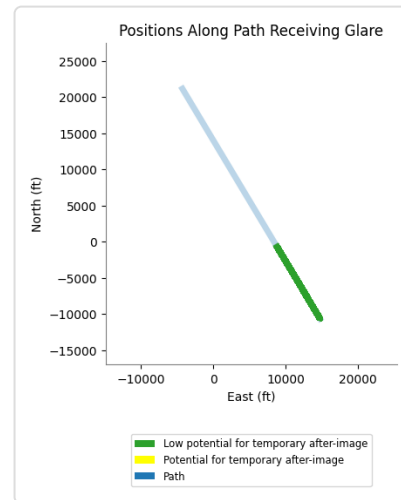
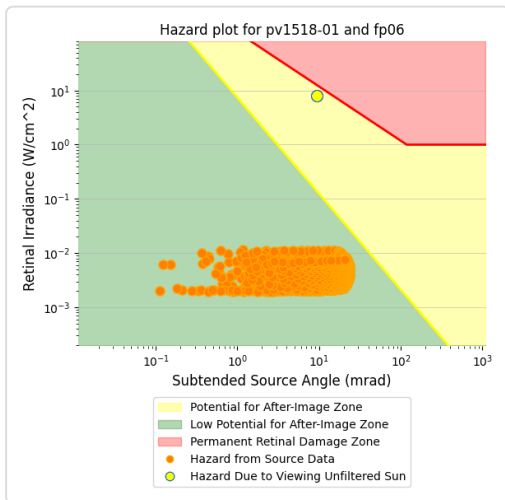
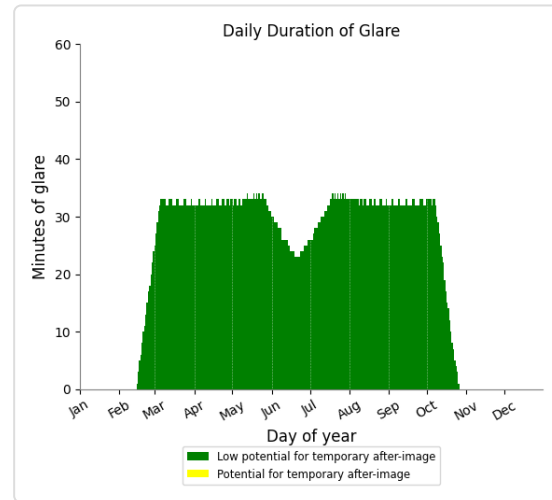
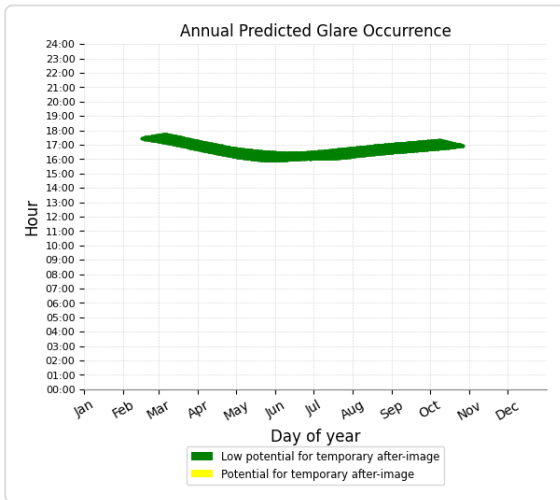
Green glare: 2,382 min.



PV1518_01 and FP: FP06

Yellow glare: none

Green glare: 7,396 min.



PV1518_01 and FP: FP01

No glare found

PV1518_01 and FP: FP02

No glare found

PV1518_01 and FP: FP03

No glare found

PV1518_01 and FP: FP05

No glare found

PV1518_01 and FP: FP07

No glare found

PV1518_01 and FP: FP08

No glare found

PV1518_01 and FP: FP09

No glare found

PV1518_01 and FP: FP10

No glare found

PV1518_01 and FP: FP11

No glare found

PV1518_01 and FP: FP12

No glare found

PV1518_01 and FP: FP13

No glare found

PV1518_01 and FP: FP14

No glare found

PV1518_01 and FP: FP15

No glare found

PV1518_01 and FP: FP16

No glare found

PV1518_01 and 1-ATCT

No glare found

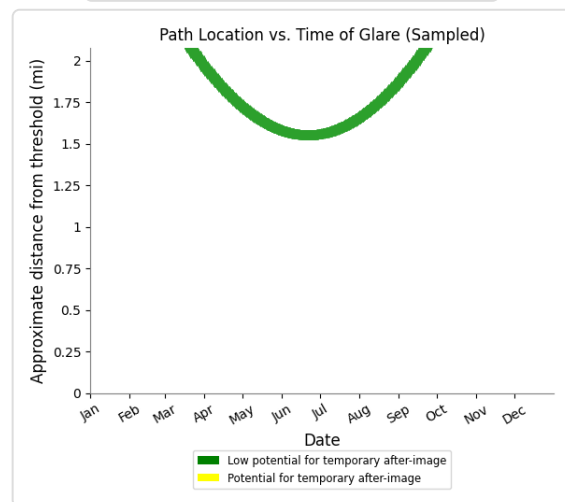
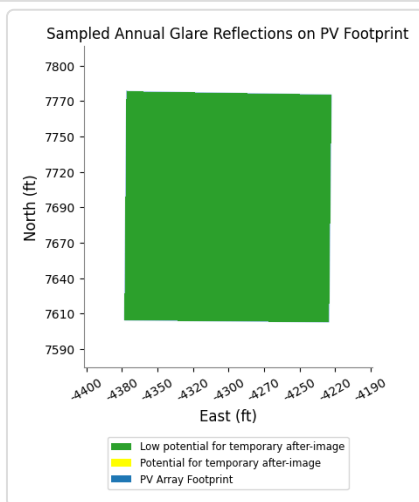
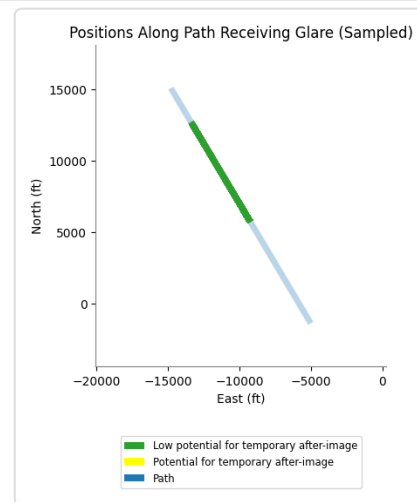
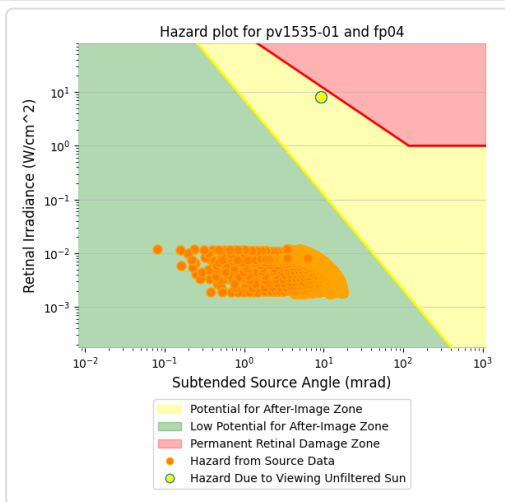
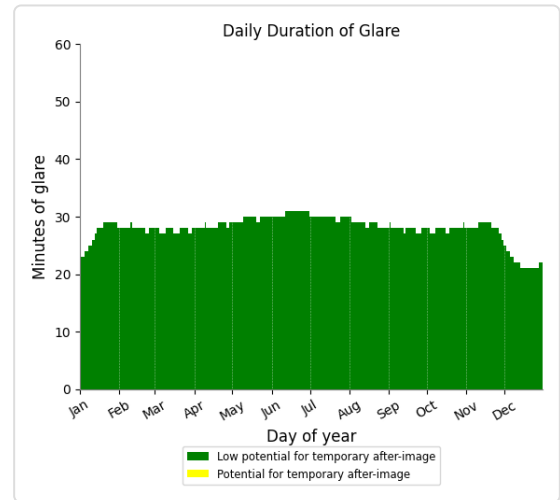
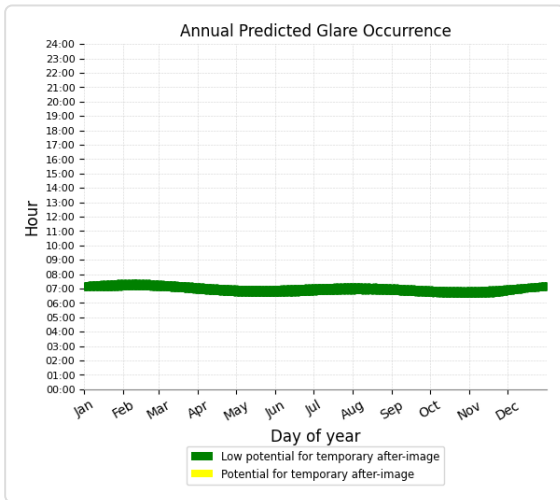
PV: PV1535_01 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	10,196	169.9	0	0.0
FP05	2,161	36.0	0	0.0
FP06	11,042	184.0	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1535_01 and FP: FP04

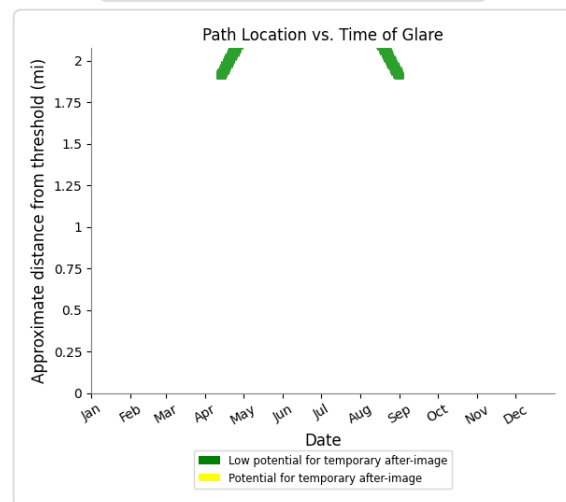
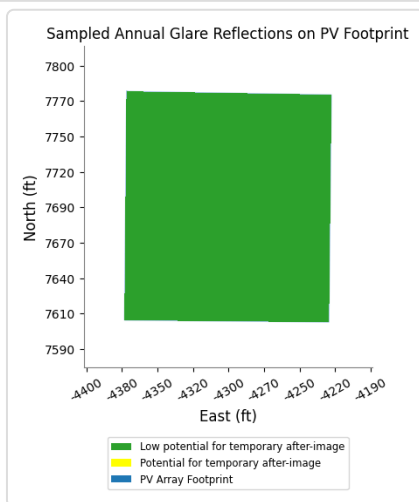
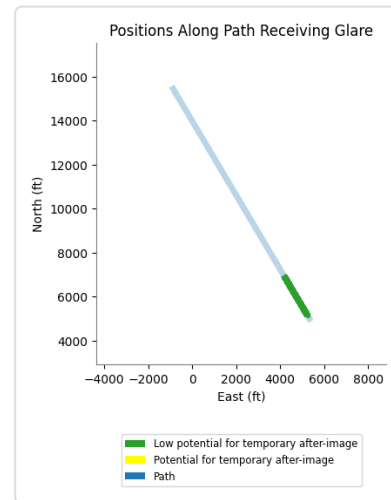
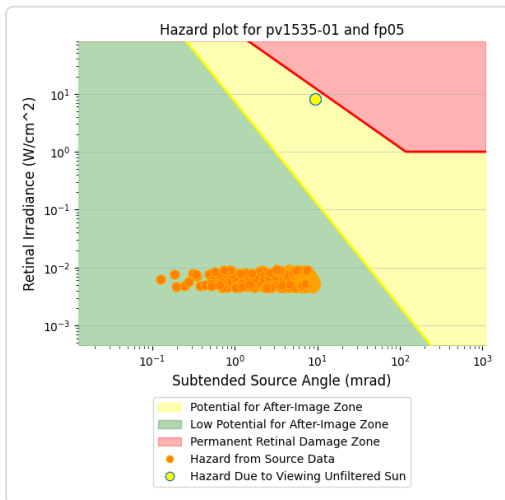
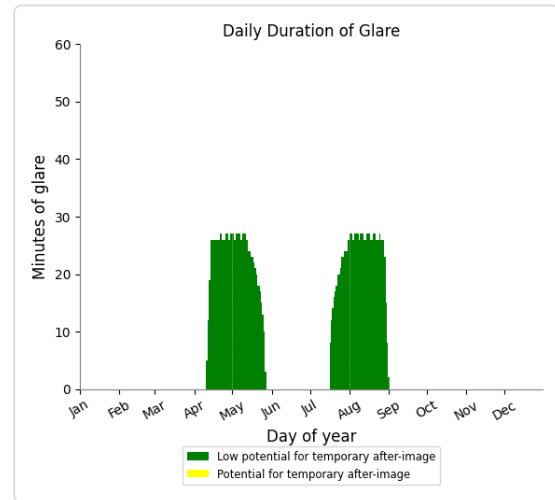
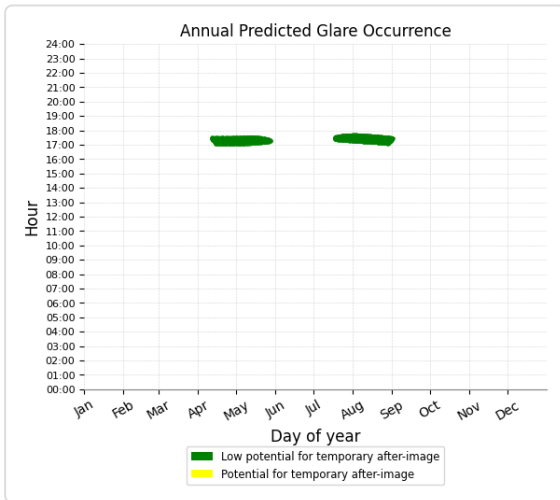
Yellow glare: none
 Green glare: 10,196 min.



PV1535_01 and FP: FP05

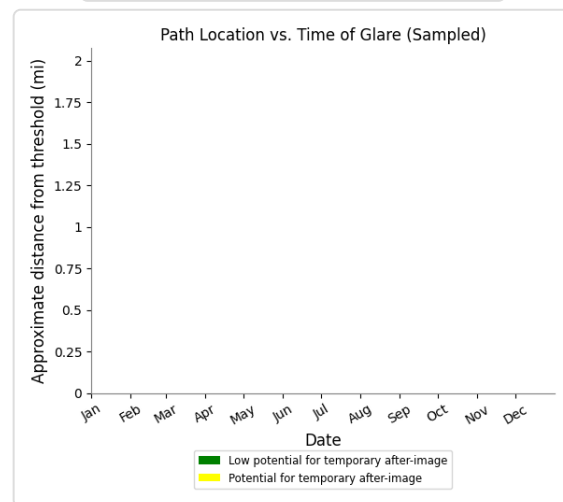
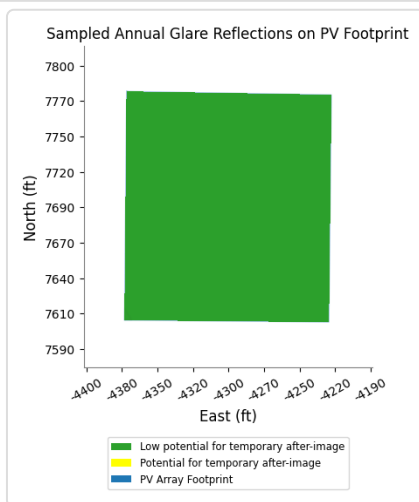
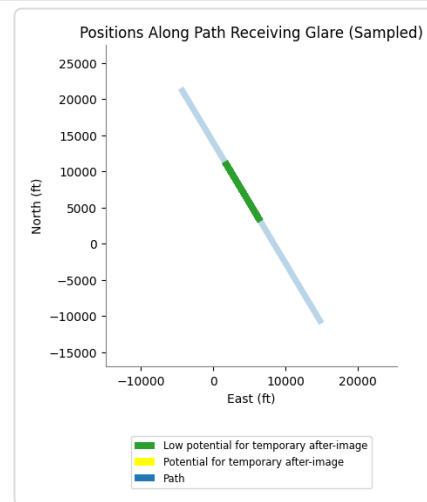
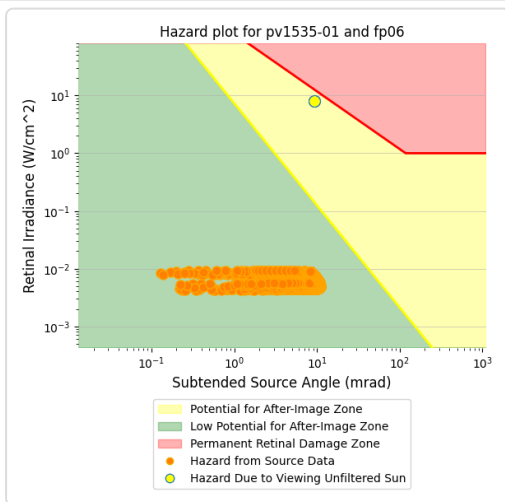
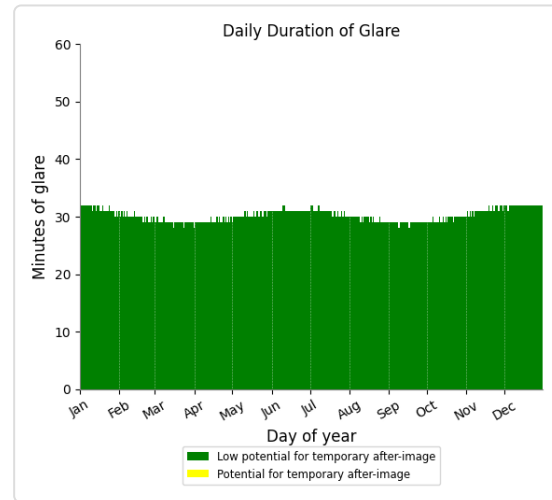
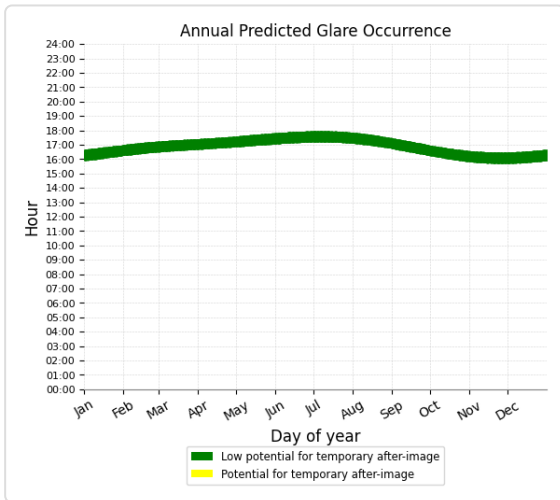
Yellow glare: none

Green glare: 2,161 min.



PV1535_01 and FP: FP06

Yellow glare: none
Green glare: 11,042 min.



PV1535_01 and FP: FP01

No glare found

PV1535_01 and FP: FP02

No glare found

PV1535_01 and FP: FP03

No glare found

PV1535_01 and FP: FP07

No glare found

PV1535_01 and FP: FP08

No glare found

PV1535_01 and FP: FP09

No glare found

PV1535_01 and FP: FP10

No glare found

PV1535_01 and FP: FP11

No glare found

PV1535_01 and FP: FP12

No glare found

PV1535_01 and FP: FP13

No glare found

PV1535_01 and FP: FP14

No glare found

PV1535_01 and FP: FP15

No glare found

PV1535_01 and FP: FP16

No glare found

PV1535_01 and 1-ATCT

No glare found

PV: PV1541_01 low potential for temporary after-image

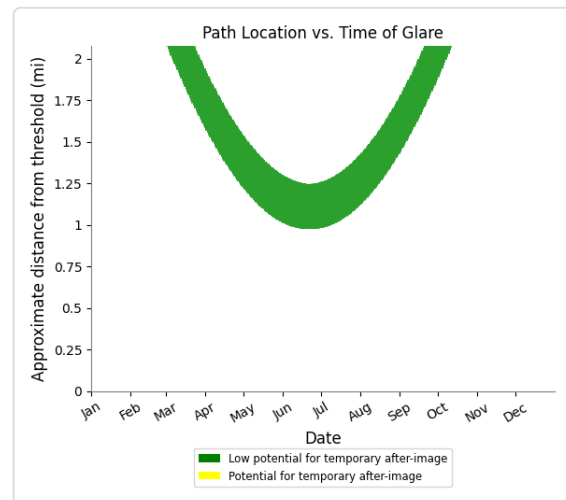
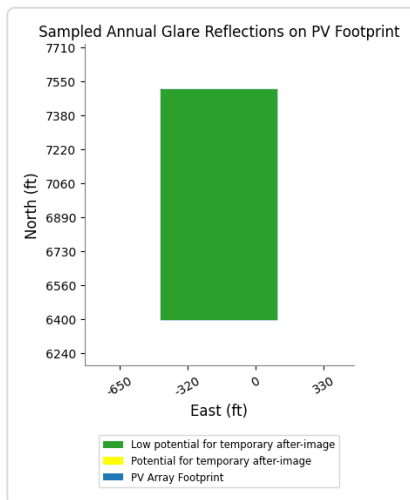
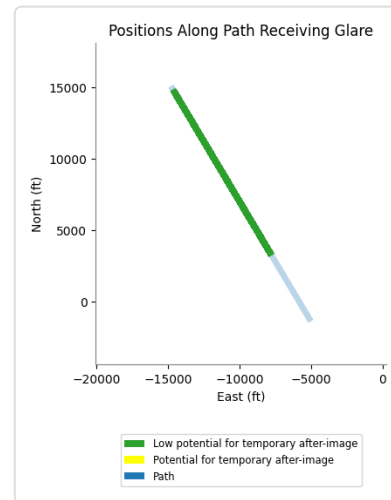
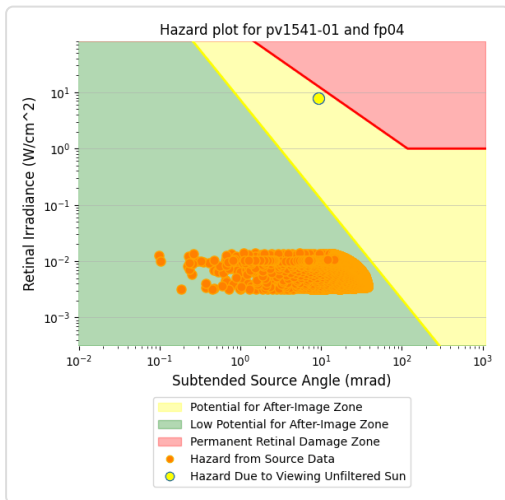
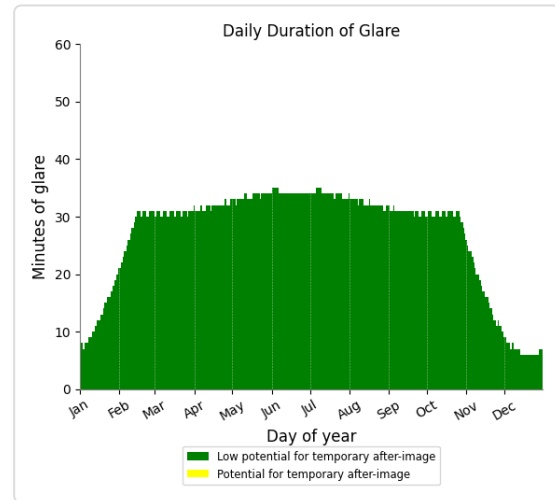
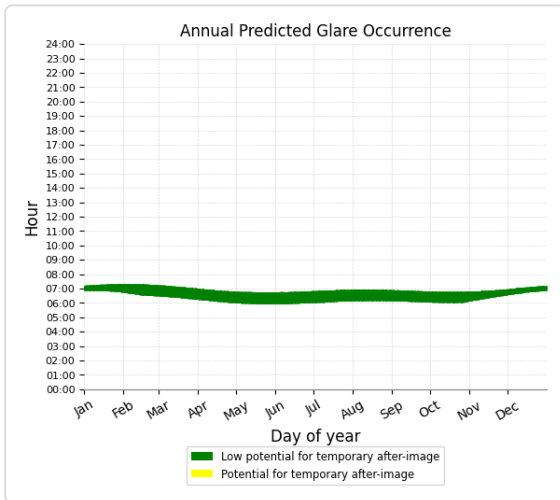
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP04	9,789	163.2	0	0.0
FP05	4,853	80.9	0	0.0
FP06	17,895	298.2	0	0.0
FP01	0	0.0	0	0.0
FP02	0	0.0	0	0.0
FP03	0	0.0	0	0.0
FP07	0	0.0	0	0.0
FP08	0	0.0	0	0.0
FP09	0	0.0	0	0.0
FP10	0	0.0	0	0.0
FP11	0	0.0	0	0.0
FP12	0	0.0	0	0.0
FP13	0	0.0	0	0.0
FP14	0	0.0	0	0.0
FP15	0	0.0	0	0.0
FP16	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV1541_01 and FP: FP04

Yellow glare: none

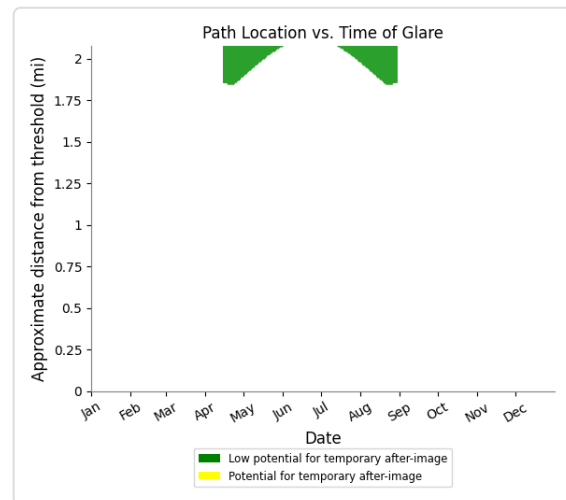
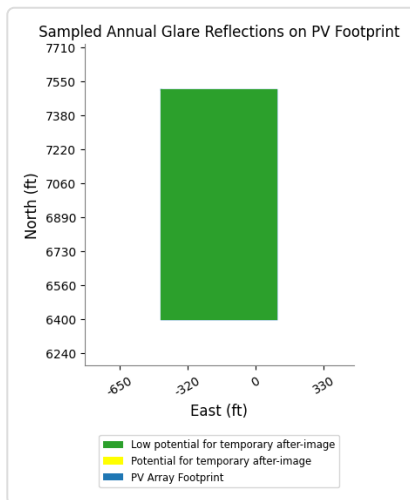
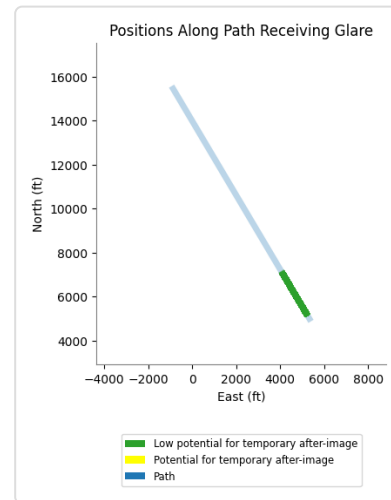
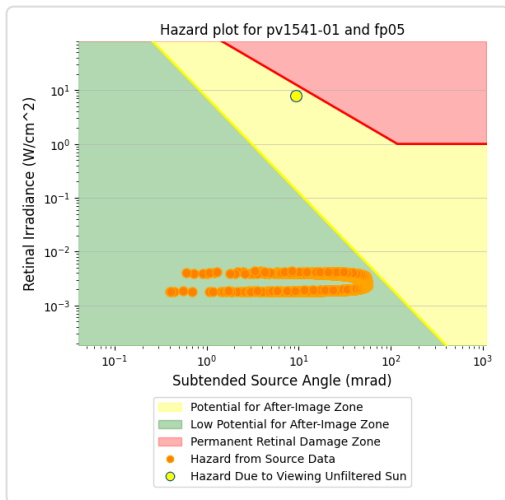
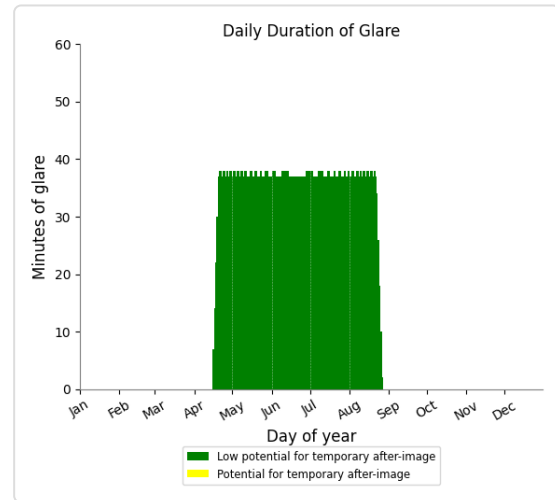
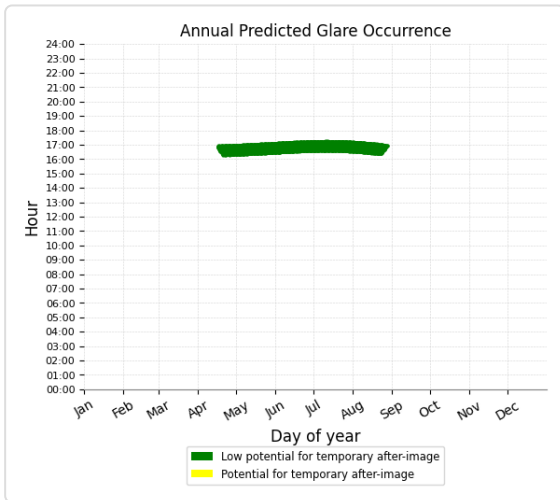
Green glare: 9,789 min.



PV1541_01 and FP: FP05

Yellow glare: none

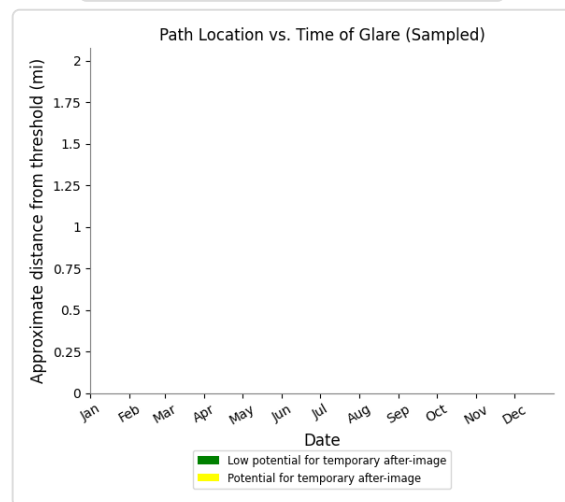
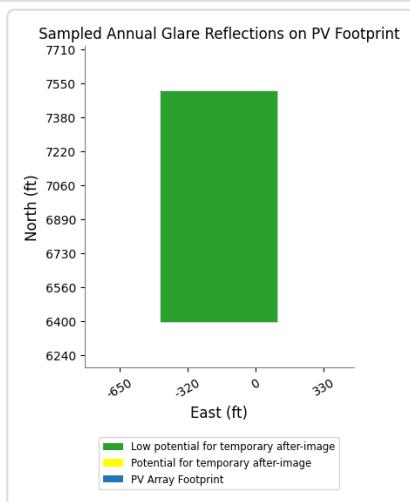
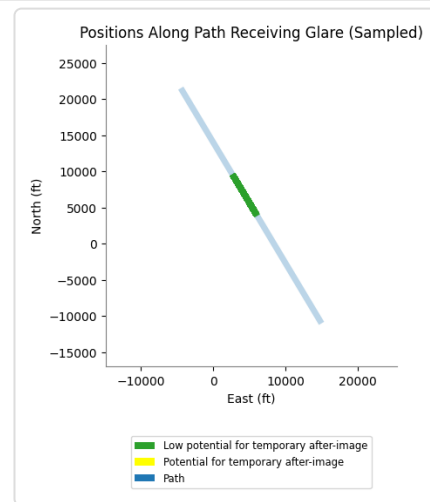
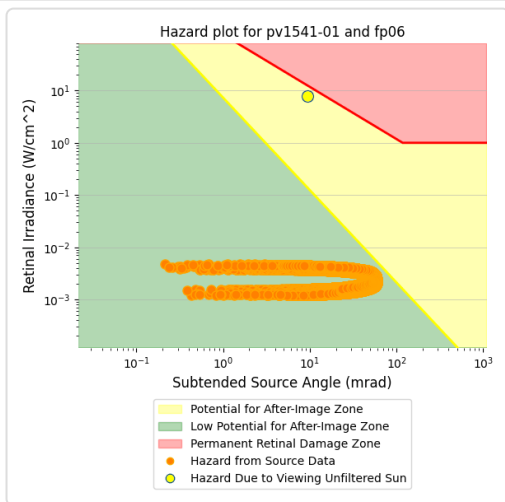
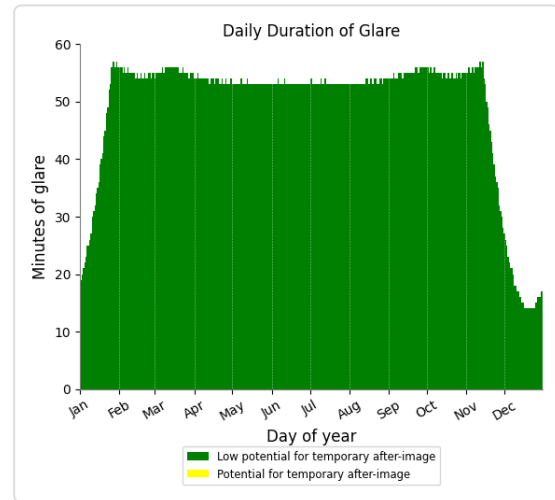
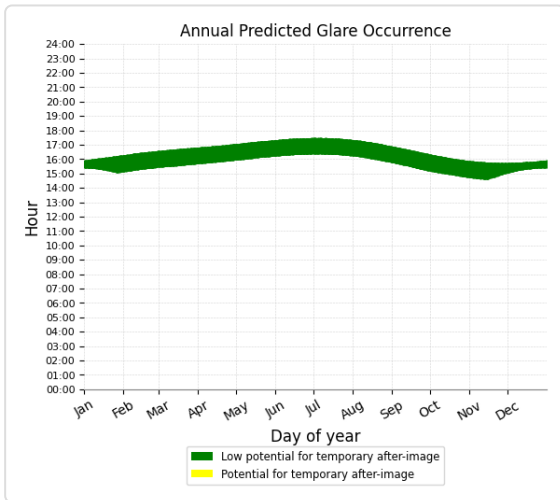
Green glare: 4,853 min.



PV1541_01 and FP: FP06

Yellow glare: none

Green glare: 17,895 min.



PV1541_01 and FP: FP01

No glare found

PV1541_01 and FP: FP02

No glare found

PV1541_01 and FP: FP03

No glare found

PV1541_01 and FP: FP07

No glare found

PV1541_01 and FP: FP08

No glare found

PV1541_01 and FP: FP09

No glare found

PV1541_01 and FP: FP10

No glare found

PV1541_01 and FP: FP11

No glare found

PV1541_01 and FP: FP12

No glare found

PV1541_01 and FP: FP13

No glare found

PV1541_01 and FP: FP14

No glare found

PV1541_01 and FP: FP15

No glare found

PV1541_01 and FP: FP16

No glare found

PV1541_01 and 1-ATCT

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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FORGESOLAR GLARE ANALYSIS

Project: **March Air Reserve Base Cumulative Analysis South A**

Site configuration: **South A Rwy 14_32 90DegView**

Created 10 Jul, 2023

Updated 13 Sep, 2023

Time-step 1 minute

Timezone offset UTC-8

Minimum sun altitude 0.0 deg

DNI peaks at 1,000.0 W/m²

Category 10 MW to 100 MW

Site ID 95009.16372

Ocular transmission coefficient 0.5

Pupil diameter 0.002 m

Eye focal length 0.017 m

Sun subtended angle 9.3 mrad

PV analysis methodology V2



Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt °	Orient °	Annual Green Glare		Annual Yellow Glare		Energy kWh
			min	hr	min	hr	
PV1302_01	5.0	252.0	21,960	366.0	0	0.0	-
PV1386_01	10.0	180.0	2,126	35.4	0	0.0	-
PV1396_01	10.0	180.0	15,952	265.9	0	0.0	-
PV1398_01	10.0	180.0	10,075	167.9	0	0.0	-
PV1400_01	10.0	180.0	14,914	248.6	0	0.0	-
PV1421_01	15.0	178.0	7,501	125.0	0	0.0	-
PV1425_01	15.0	180.0	978	16.3	0	0.0	-
PV1493_01	10.0	160.0	11,137	185.6	0	0.0	-
PV1517_01	33.0	160.0	7,859	131.0	0	0.0	-
PV1518_01	34.0	180.0	21,914	365.2	0	0.0	-
PV1535_01	10.0	180.0	15,327	255.4	0	0.0	-
PV1541_01	10.0	180.0	19,879	331.3	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	0	0.0	0	0.0
FP18	35,911	598.5	0	0.0
FP19	3,587	59.8	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP22	4,711	78.5	0	0.0
FP23	0	0.0	0	0.0
FP24	86,890	1,448.2	0	0.0
FP25	7,910	131.8	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	3,937	65.6	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	82	1.4	0	0.0
FP33	0	0.0	0	0.0
FP34	6,594	109.9	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV1302_01
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 252.0°
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.822560	-117.245420	1503.01	30.00	1533.01
2	33.822560	-117.245090	1500.52	30.00	1530.52
3	33.820010	-117.245090	1511.51	30.00	1541.51
4	33.820010	-117.245420	1513.69	30.00	1543.69

Name: PV1386_01
Axis tracking: Fixed (no rotation)
Tilt: 10.0°
Orientation: 180.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.811220	-117.242500	1506.47	20.00	1526.47
2	33.811224	-117.240400	1503.37	20.00	1523.37
3	33.810359	-117.240400	1502.47	20.00	1522.47
4	33.810360	-117.242500	1505.77	20.00	1525.77

Name: PV1396_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.824223	-117.251701	1545.08	48.00	1593.08
2	33.824239	-117.250952	1545.08	48.00	1593.08
3	33.823621	-117.250921	1545.08	48.00	1593.08
4	33.823617	-117.251679	1545.08	48.00	1593.08

Name: PV1398_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.830600	-117.252369	1524.87	20.00	1544.87
2	33.831300	-117.252374	1521.87	20.00	1541.87
3	33.831300	-117.249703	1508.57	20.00	1528.57
4	33.830600	-117.249700	1512.27	20.00	1532.27

Name: PV1400_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.823956	-117.248587	1523.07	48.00	1571.07
2	33.823969	-117.247880	1523.07	48.00	1571.07
3	33.823486	-117.247865	1523.07	48.00	1571.07
4	33.823472	-117.248582	1523.07	48.00	1571.07

Name: PV1421_01

Axis tracking: Fixed (no rotation)

Tilt: 15.0°

Orientation: 178.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.839115	-117.254663	1510.07	20.00	1530.07
2	33.839156	-117.252572	1510.07	20.00	1530.07
3	33.838233	-117.252554	1510.07	20.00	1530.07
4	33.838226	-117.254643	1510.07	20.00	1530.07

Name: PV1425_01

Axis tracking: Fixed (no rotation)

Tilt: 15.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.812595	-117.242087	1510.07	20.00	1530.07
2	33.812609	-117.239078	1510.07	20.00	1530.07
3	33.811920	-117.239078	1510.07	20.00	1530.07
4	33.811926	-117.242094	1510.07	20.00	1530.07

Name: PV1493_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 160.0°

Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.836738	-117.259788	1583.57	48.00	1631.57
2	33.836763	-117.261206	1563.72	48.00	1611.72
3	33.834701	-117.261207	1564.01	48.00	1612.01
4	33.834684	-117.259765	1583.27	48.00	1631.27

Name: PV1517_01

Axis tracking: Fixed (no rotation)

Tilt: 33.0°

Orientation: 160.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.838778	-117.251436	1504.01	43.50	1547.51
2	33.839072	-117.250438	1507.21	43.50	1550.71
3	33.838291	-117.250082	1505.93	43.50	1549.43
4	33.837972	-117.251079	1507.86	43.50	1551.36

Name: PV1518_01

Axis tracking: Fixed (no rotation)

Tilt: 34.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.816243	-117.247897	1534.07	52.00	1586.07
2	33.816242	-117.246780	1534.07	52.00	1586.07
3	33.819046	-117.246789	1534.07	52.00	1586.07
4	33.819048	-117.247899	1534.07	52.00	1586.07

Name: PV1535_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.843927	-117.259838	1540.08	50.00	1590.08
2	33.843920	-117.259342	1540.08	50.00	1590.08
3	33.843459	-117.259348	1540.08	50.00	1590.08
4	33.843463	-117.259843	1540.08	50.00	1590.08

Name: PV1541_01

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.843184	-117.246923	1490.07	53.00	1543.07
2	33.843184	-117.245079	1490.07	53.00	1543.07
3	33.840133	-117.245079	1490.07	53.00	1543.07
4	33.840133	-117.246923	1490.07	53.00	1543.07

Flight Path Receptors

Name: FP17
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



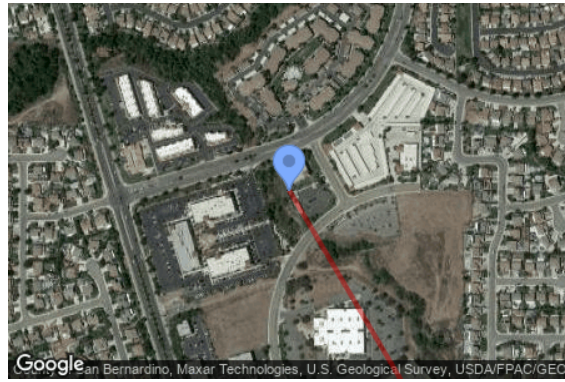
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.931244	-117.309014	0.00	3000.00	3000.00
Two-mile	33.922394	-117.325047	0.00	3000.00	3000.00

Name: FP18
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.813147	-117.244350	0.00	3000.00	3000.00
Two-mile	33.821961	-117.228367	0.00	3000.00	3000.00

Name: FP19
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.908131	-117.325528	0.00	3000.00	3000.00
Two-mile	33.819225	-117.262269	0.00	3000.00	3000.00

Name: FP20
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896431	-117.270636	0.00	1550.00	1550.00
Two-mile	33.925156	-117.291061	0.00	3000.00	3000.00

Name: FP21
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.836269	-117.227869	0.00	3000.00	3000.00
Two-mile	33.864994	-117.248281	0.00	1550.00	1550.00

Name: FP22
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.821961	-117.228367	0.00	3000.00	3000.00
Two-mile	33.813147	-117.244350	0.00	3000.00	3000.00

Name: FP23
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.922394	-117.325047	0.00	3000.00	3000.00
Two-mile	33.931244	-117.309014	0.00	3000.00	3000.00

Name: FP24
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.819225	-117.262269	0.00	3000.00	3000.00
Two-mile	33.908131	-117.325528	0.00	3000.00	3000.00

Name: FP25
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.864994	-117.248281	0.00	1550.00	1550.00
Two-mile	33.836269	-117.227869	0.00	3000.00	3000.00

Name: FP26
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.925156	-117.291061	0.00	3000.00	3000.00
Two-mile	33.896431	-117.270636	0.00	1550.00	1550.00

Name: FP27
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



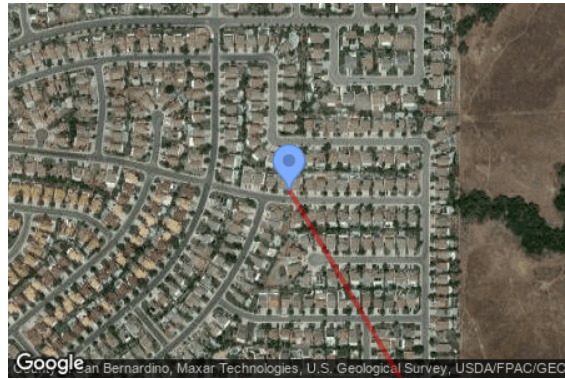
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.908242	-117.286017	0.00	3000.00	3000.00
Two-mile	33.904833	-117.292903	0.00	3000.00	3000.00

Name: FP28
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.844669	-117.250119	0.00	3000.00	3000.00
Two-mile	33.848078	-117.243236	0.00	3000.00	3000.00

Name: FP29
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.897972	-117.295011	0.00	3000.00	3000.00
Two-mile	33.846422	-117.258344	0.00	3000.00	3000.00

Name: FP30
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896431	-117.270636	0.00	1550.00	1550.00
Two-mile	33.906486	-117.277783	0.00	3000.00	3000.00

Name: FP31
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.854942	-117.241136	0.00	3000.00	3000.00
Two-mile	33.864994	-117.248281	0.00	1550.00	1550.00

Name: FP32
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.848078	-117.243236	0.00	3000.00	3000.00
Two-mile	33.844669	-117.250119	0.00	3000.00	3000.00

Name: FP33
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.904833	-117.292903	0.00	3000.00	3000.00
Two-mile	33.908242	-117.286017	0.00	3000.00	3000.00

Name: FP34
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 90.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.846422	-117.258344	0.00	3000.00	3000.00
Two-mile	33.897972	-117.295011	0.00	3000.00	3000.00

Name: FP35
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.864994	-117.248281	0.00	1550.00	1550.00
Two-mile	33.854942	-117.241136	0.00	3000.00	3000.00

Name: FP36
Description: None
Threshold height: 50 ft
Direction: 0.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.906486	-117.277783	0.00	3000.00	3000.00
Two-mile	33.896431	-117.270636	0.00	1550.00	1550.00

Glare Analysis Results

Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV1302_01	5.0	252.0	21,960	366.0	0	0.0	-
PV1386_01	10.0	180.0	2,126	35.4	0	0.0	-
PV1396_01	10.0	180.0	15,952	265.9	0	0.0	-
PV1398_01	10.0	180.0	10,075	167.9	0	0.0	-
PV1400_01	10.0	180.0	14,914	248.6	0	0.0	-
PV1421_01	15.0	178.0	7,501	125.0	0	0.0	-
PV1425_01	15.0	180.0	978	16.3	0	0.0	-
PV1493_01	10.0	160.0	11,137	185.6	0	0.0	-
PV1517_01	33.0	160.0	7,859	131.0	0	0.0	-
PV1518_01	34.0	180.0	21,914	365.2	0	0.0	-
PV1535_01	10.0	180.0	15,327	255.4	0	0.0	-
PV1541_01	10.0	180.0	19,879	331.3	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP17	0	0.0	0	0.0
FP18	35,911	598.5	0	0.0
FP19	3,587	59.8	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	4,711	78.5	0	0.0
FP23	0	0.0	0	0.0
FP24	86,890	1,448.2	0	0.0
FP25	7,910	131.8	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	3,937	65.6	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	82	1.4	0	0.0
FP33	0	0.0	0	0.0
FP34	6,594	109.9	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

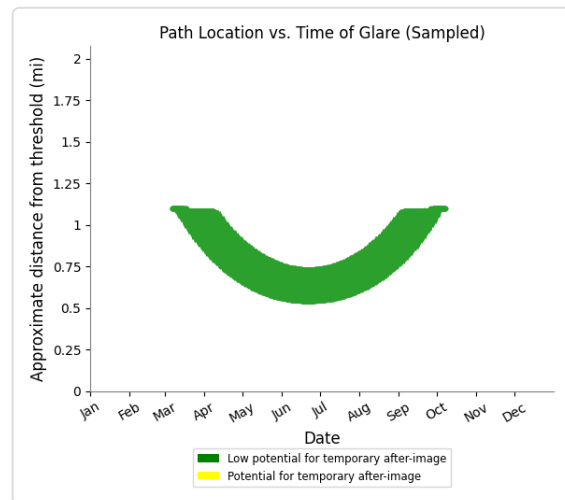
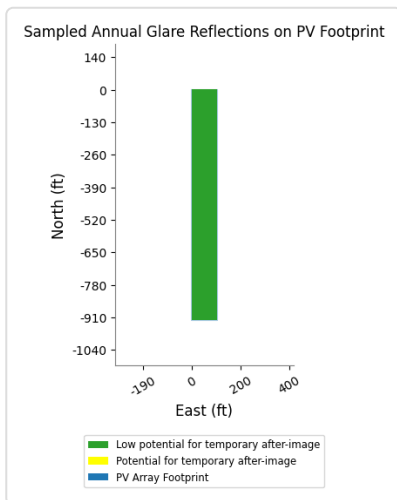
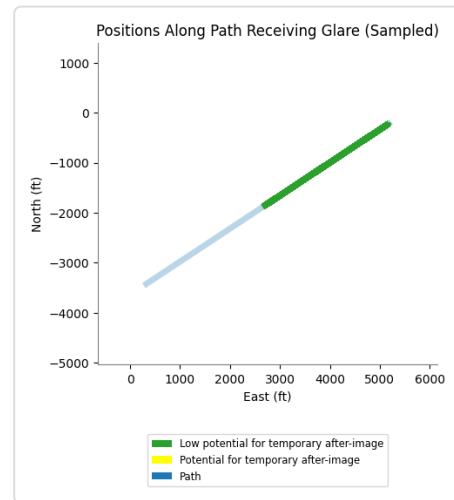
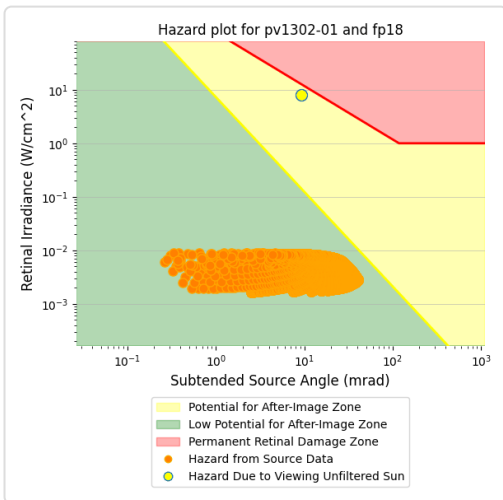
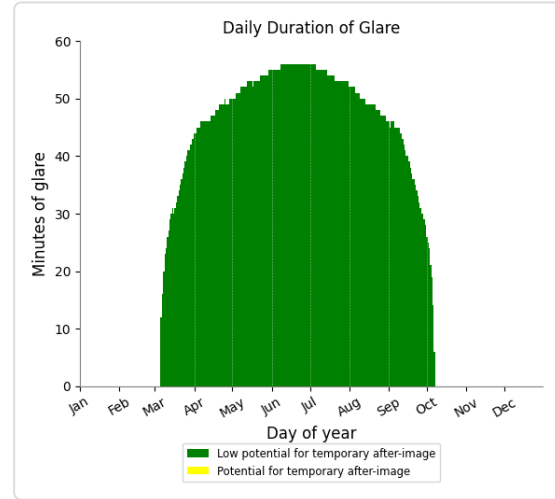
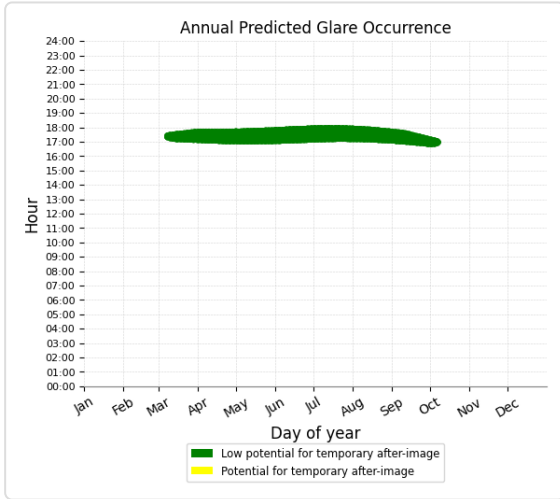
PV: PV1302_01 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP18	10,068	167.8	0	0.0
FP24	11,892	198.2	0	0.0
FP17	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

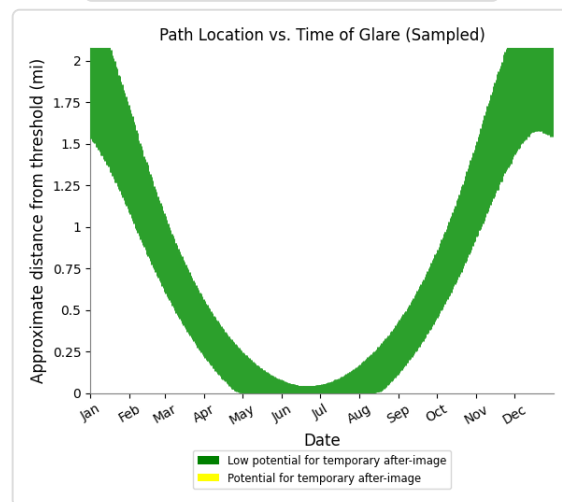
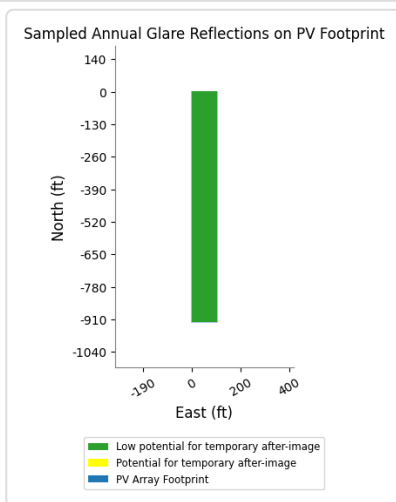
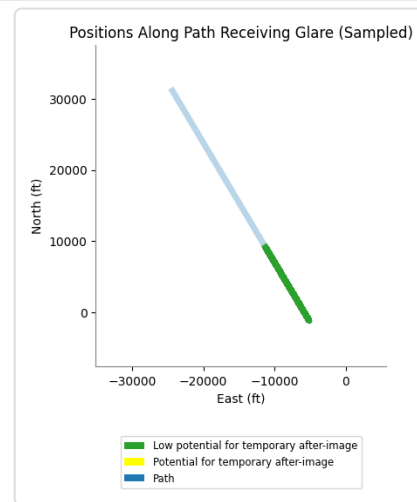
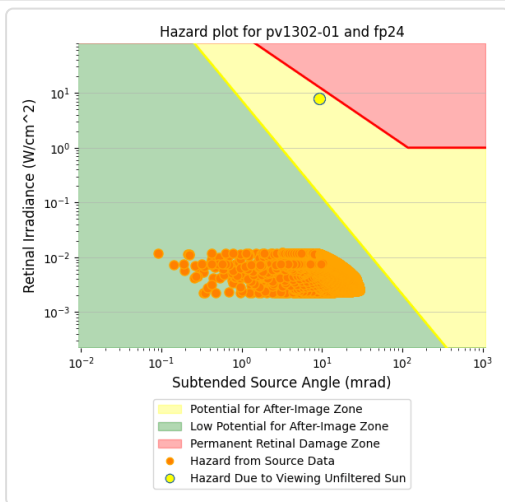
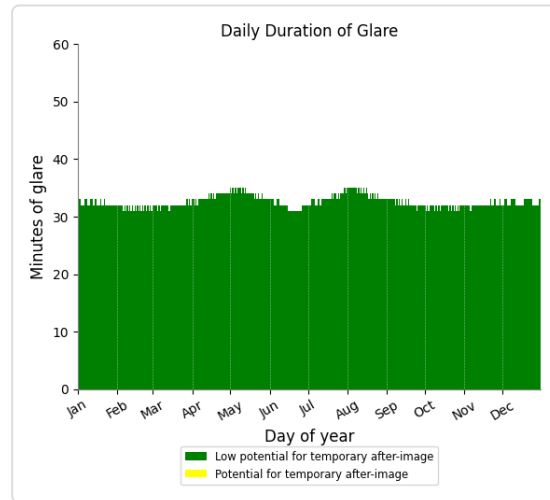
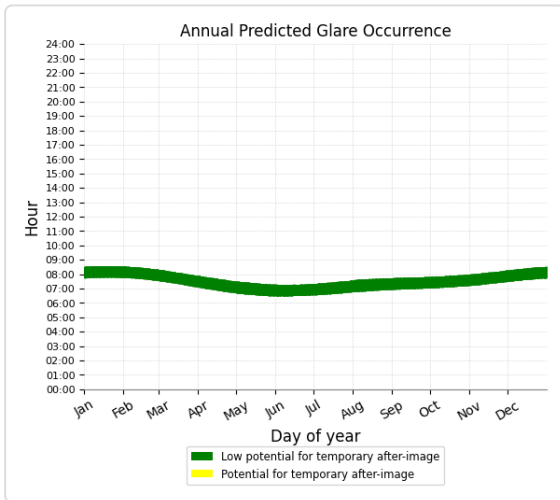
PV1302_01 and FP: FP18

Yellow glare: none
 Green glare: 10,068 min.



PV1302_01 and FP: FP24

Yellow glare: none
Green glare: 11,892 min.



PV1302_01 and FP: FP17

No glare found

PV1302_01 and FP: FP19

No glare found

PV1302_01 and FP: FP20

No glare found

PV1302_01 and FP: FP21

No glare found

PV1302_01 and FP: FP22

No glare found

PV1302_01 and FP: FP23

No glare found

PV1302_01 and FP: FP25

No glare found

PV1302_01 and FP: FP26

No glare found

PV1302_01 and FP: FP27

No glare found

PV1302_01 and FP: FP28

No glare found

PV1302_01 and FP: FP29

No glare found

PV1302_01 and FP: FP30

No glare found

PV1302_01 and FP: FP31

No glare found

PV1302_01 and FP: FP32

No glare found

PV1302_01 and FP: FP33

No glare found

PV1302_01 and FP: FP34

No glare found

PV1302_01 and FP: FP35

No glare found

PV1302_01 and FP: FP36

No glare found

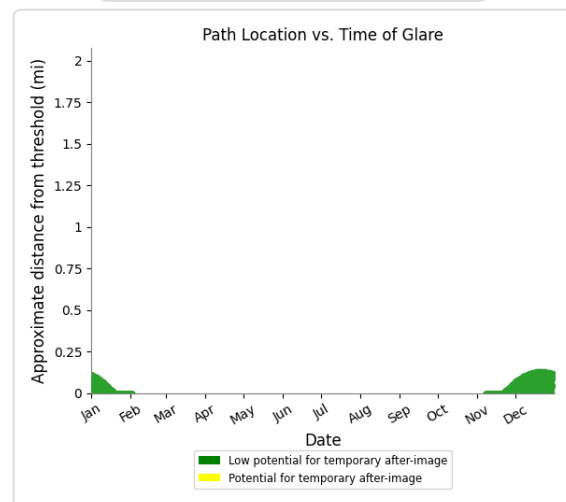
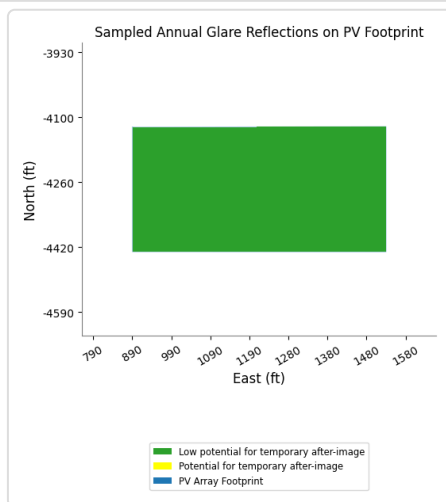
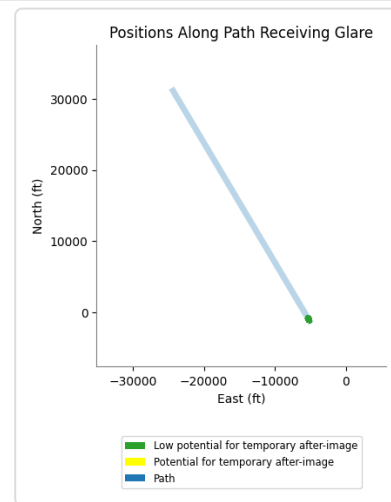
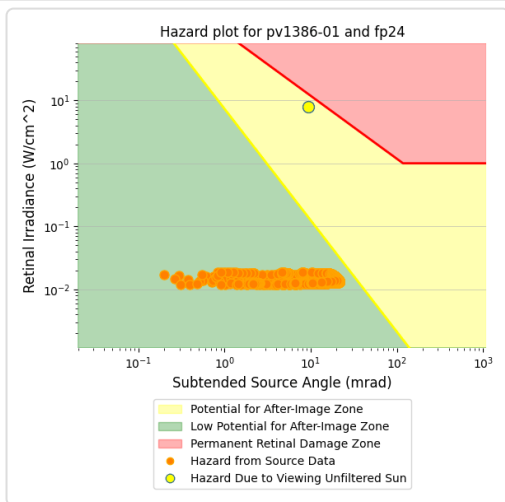
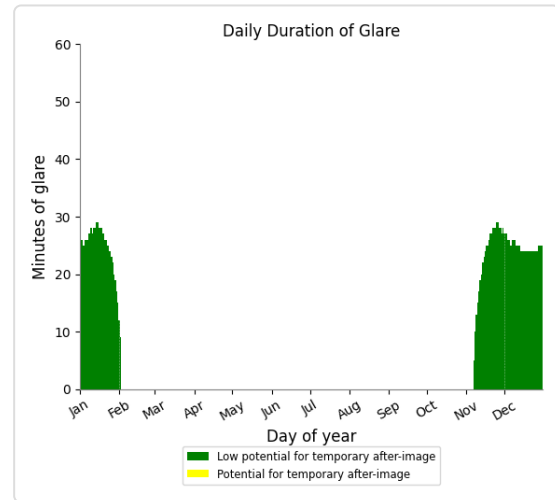
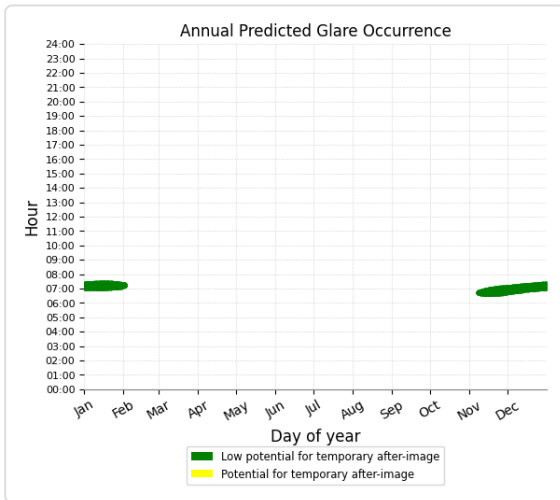
PV: PV1386_01 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	2,126	35.4	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1386_01 and FP: FP24

Yellow glare: none
Green glare: 2,126 min.



PV1386_01 and FP: FP17

No glare found

PV1386_01 and FP: FP18

No glare found

PV1386_01 and FP: FP19

No glare found

PV1386_01 and FP: FP20

No glare found

PV1386_01 and FP: FP21

No glare found

PV1386_01 and FP: FP22

No glare found

PV1386_01 and FP: FP23

No glare found

PV1386_01 and FP: FP25

No glare found

PV1386_01 and FP: FP26

No glare found

PV1386_01 and FP: FP27

No glare found

PV1386_01 and FP: FP28

No glare found

PV1386_01 and FP: FP29

No glare found

PV1386_01 and FP: FP30

No glare found

PV1386_01 and FP: FP31

No glare found

PV1386_01 and FP: FP32

No glare found

PV1386_01 and FP: FP33

No glare found

PV1386_01 and FP: FP34

No glare found

PV1386_01 and FP: FP35

No glare found

PV1386_01 and FP: FP36

No glare found

PV: PV1396_01 low potential for temporary after-image

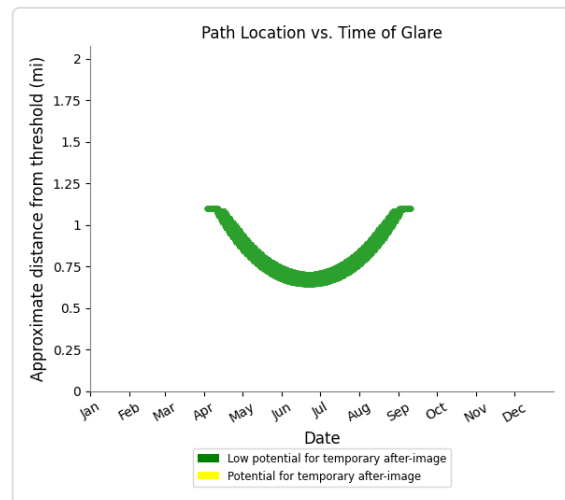
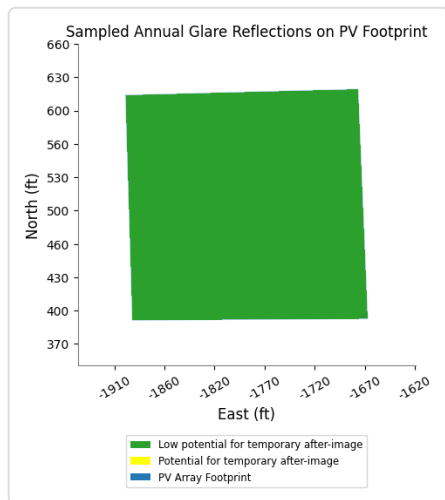
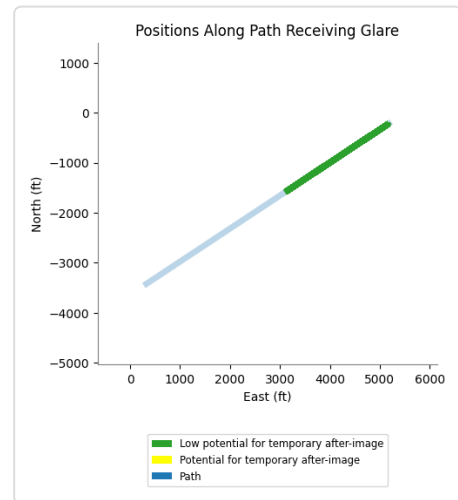
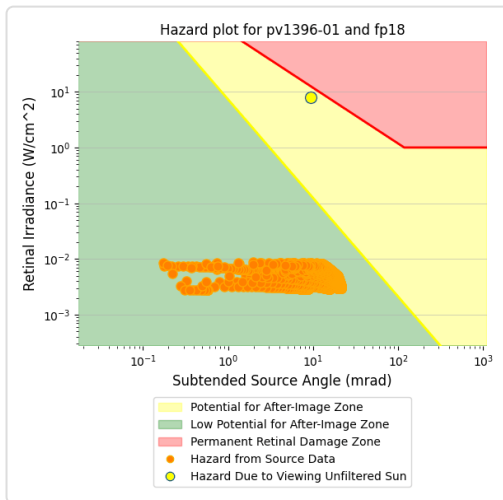
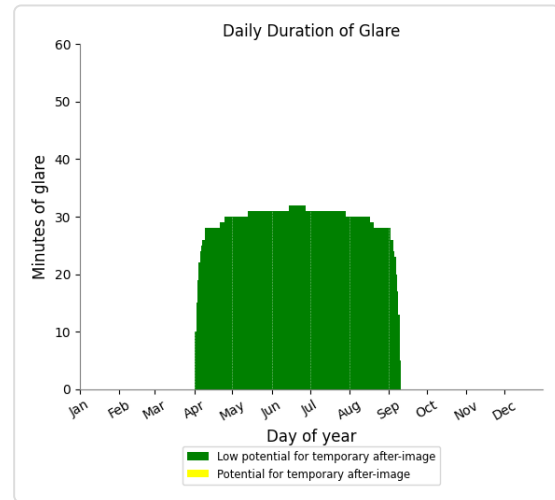
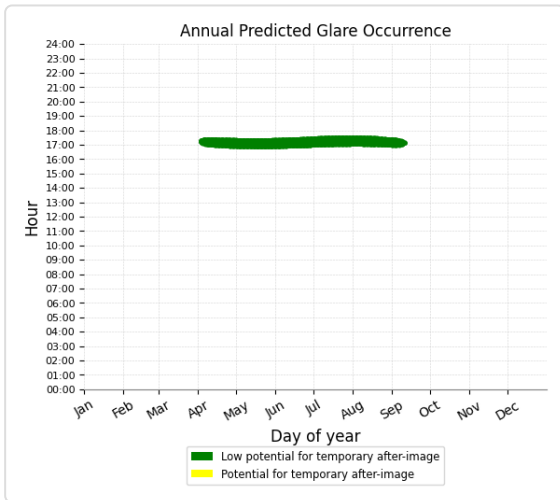
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP18	4,735	78.9	0	0.0
FP24	11,217	186.9	0	0.0
FP17	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1396_01 and FP: FP18

Yellow glare: none

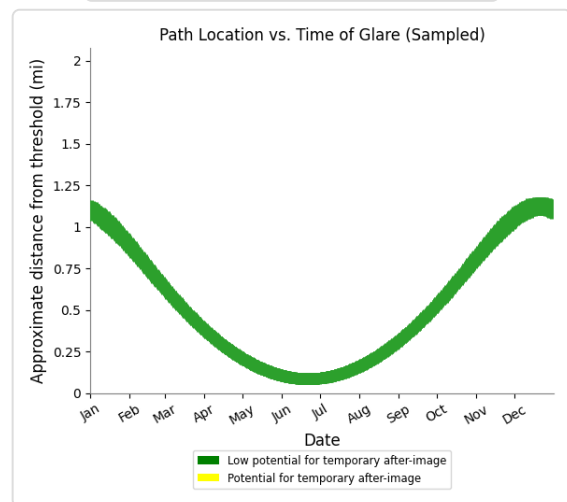
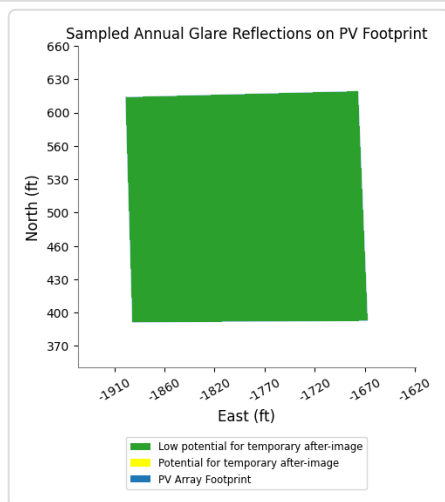
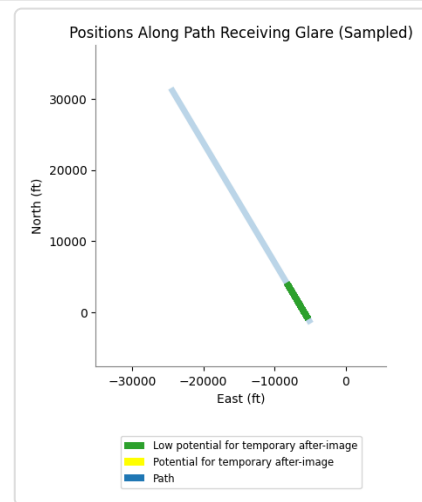
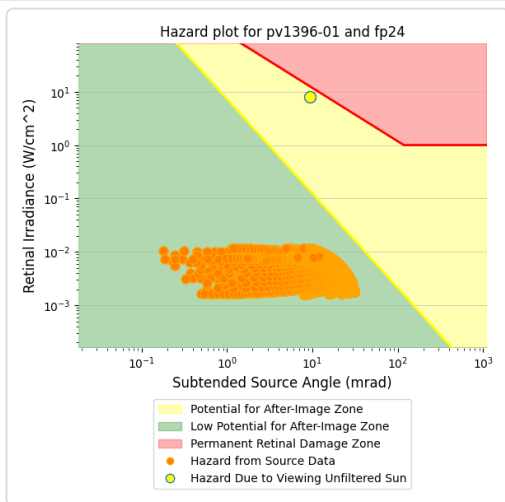
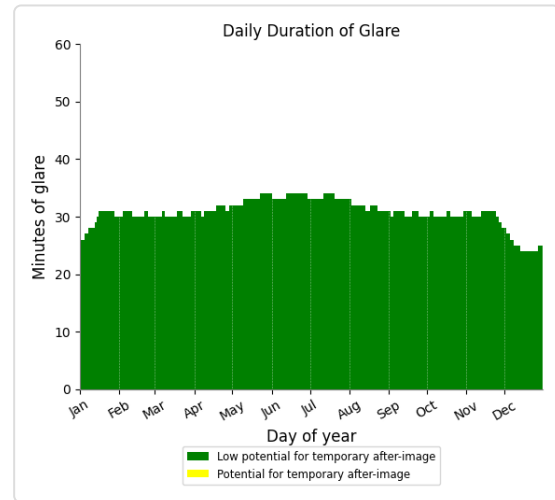
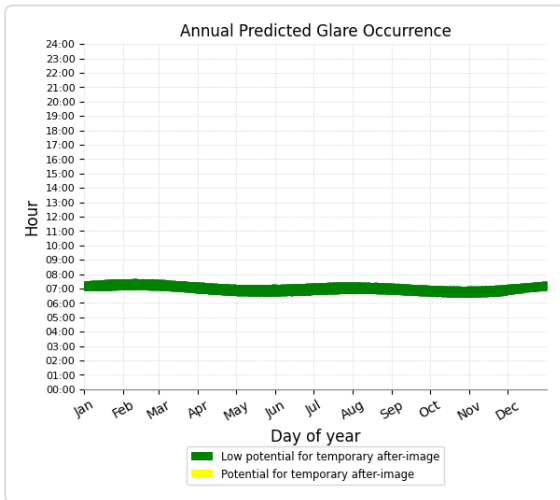
Green glare: 4,735 min.



PV1396_01 and FP: FP24

Yellow glare: none

Green glare: 11,217 min.



PV1396_01 and FP: FP17

No glare found

PV1396_01 and FP: FP19

No glare found

PV1396_01 and FP: FP20

No glare found

PV1396_01 and FP: FP21

No glare found

PV1396_01 and FP: FP22

No glare found

PV1396_01 and FP: FP23

No glare found

PV1396_01 and FP: FP25

No glare found

PV1396_01 and FP: FP26

No glare found

PV1396_01 and FP: FP27

No glare found

PV1396_01 and FP: FP28

No glare found

PV1396_01 and FP: FP29

No glare found

PV1396_01 and FP: FP30

No glare found

PV1396_01 and FP: FP31

No glare found

PV1396_01 and FP: FP32

No glare found

PV1396_01 and FP: FP33

No glare found

PV1396_01 and FP: FP34

No glare found

PV1396_01 and FP: FP35

No glare found

PV1396_01 and FP: FP36

No glare found

PV: PV1398_01 low potential for temporary after-image

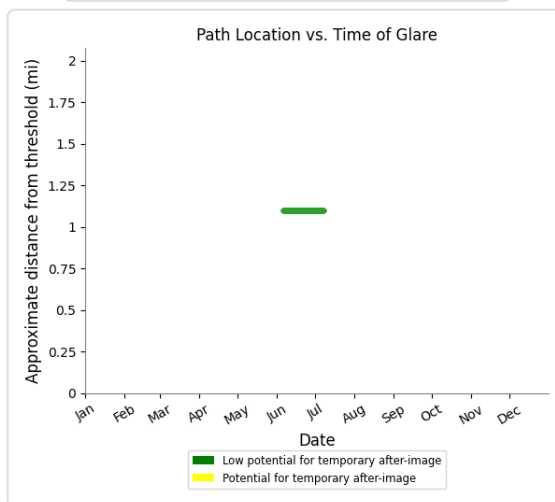
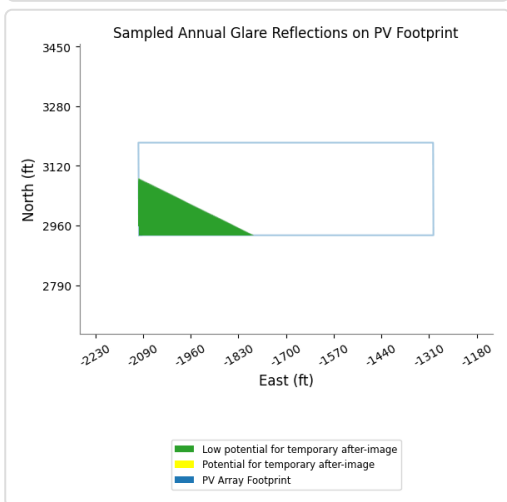
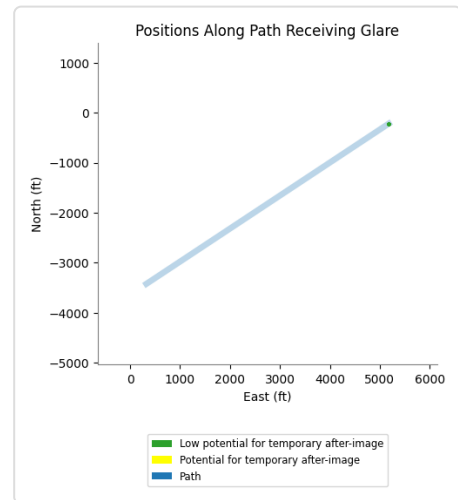
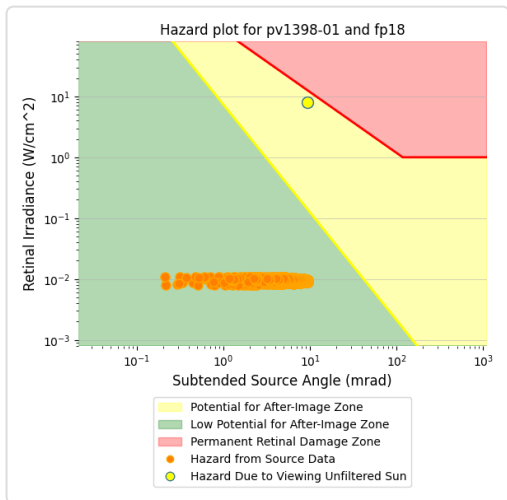
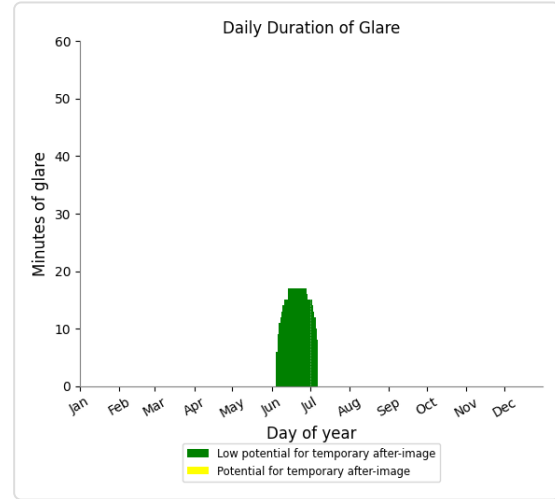
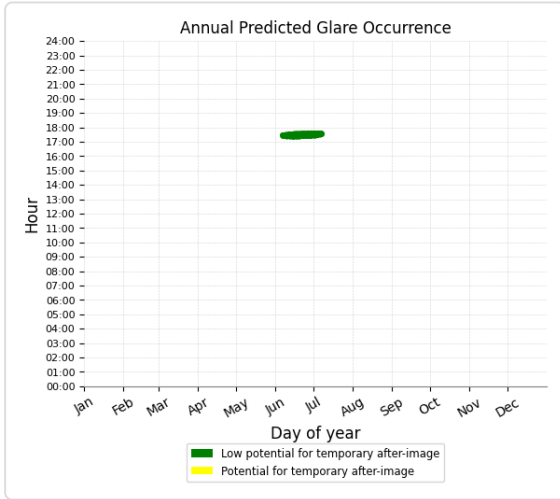
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP18	483	8.1	0	0.0
FP24	9,592	159.9	0	0.0
FP17	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1398_01 and FP: FP18

Yellow glare: none

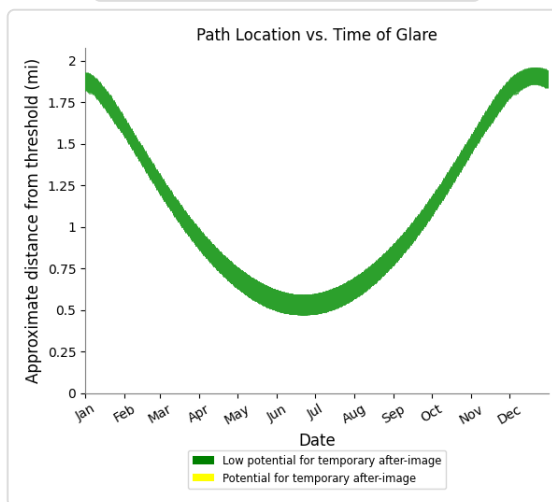
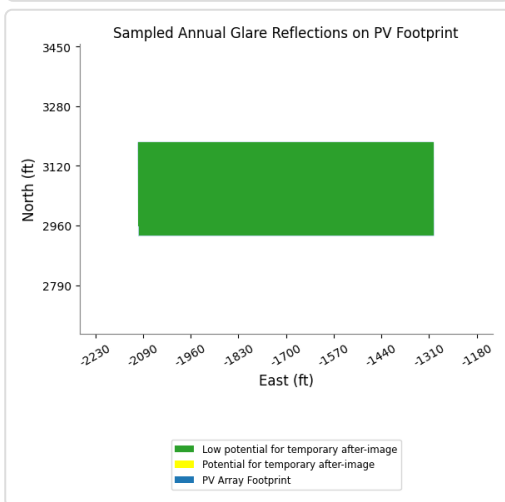
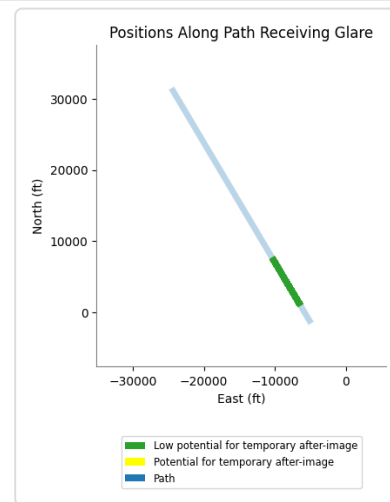
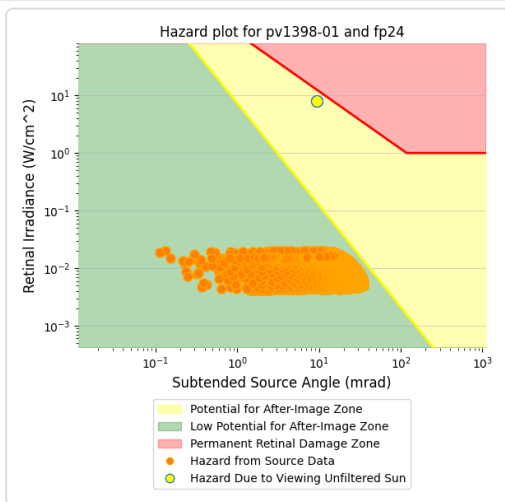
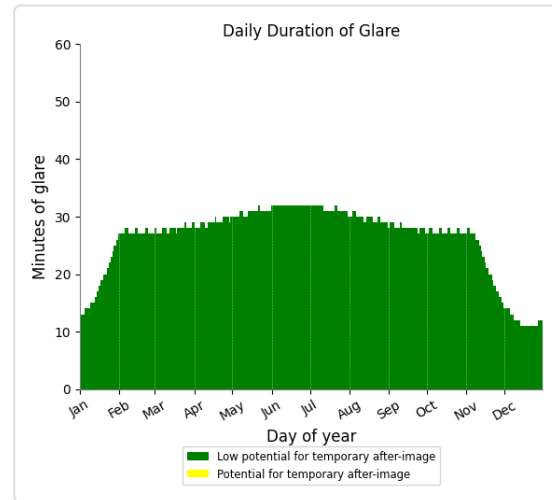
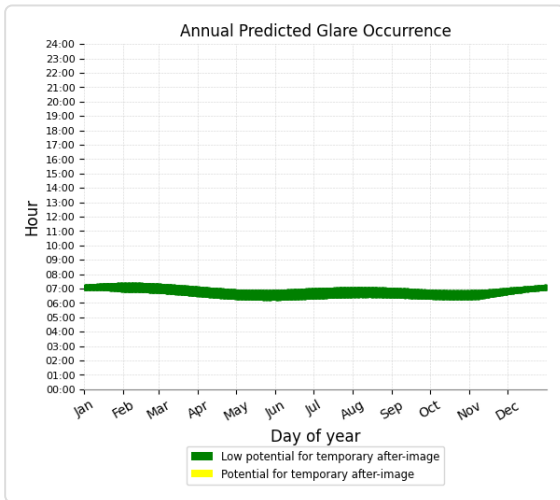
Green glare: 483 min.



PV1398_01 and FP: FP24

Yellow glare: none

Green glare: 9,592 min.



PV1398_01 and FP: FP17

No glare found

PV1398_01 and FP: FP19

No glare found

PV1398_01 and FP: FP20

No glare found

PV1398_01 and FP: FP21

No glare found

PV1398_01 and FP: FP22

No glare found

PV1398_01 and FP: FP23

No glare found

PV1398_01 and FP: FP25

No glare found

PV1398_01 and FP: FP26

No glare found

PV1398_01 and FP: FP27

No glare found

PV1398_01 and FP: FP28

No glare found

PV1398_01 and FP: FP29

No glare found

PV1398_01 and FP: FP30

No glare found

PV1398_01 and FP: FP31

No glare found

PV1398_01 and FP: FP32

No glare found

PV1398_01 and FP: FP33

No glare found

PV1398_01 and FP: FP34

No glare found

PV1398_01 and FP: FP35

No glare found

PV1398_01 and FP: FP36

No glare found

PV: PV1400_01 low potential for temporary after-image

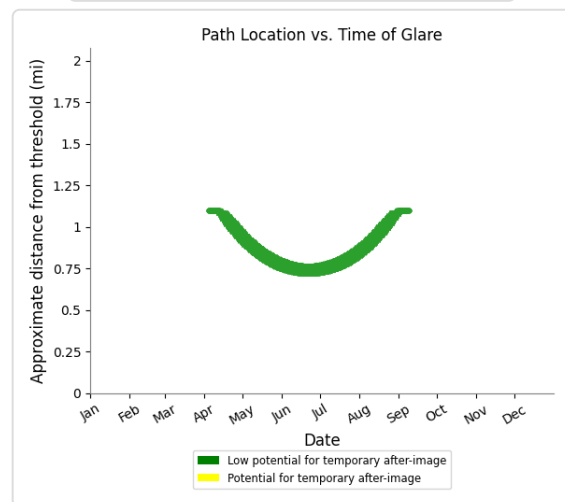
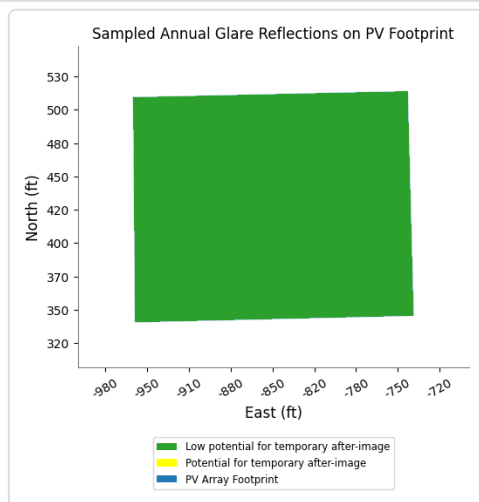
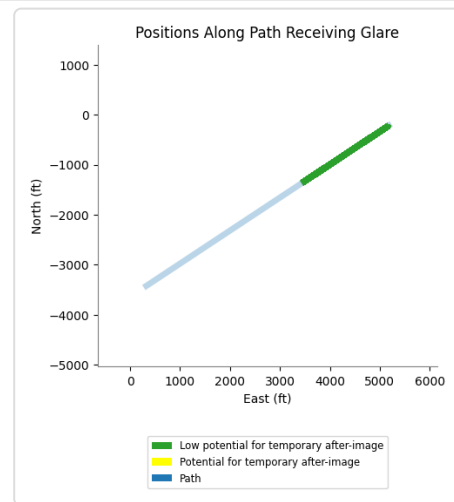
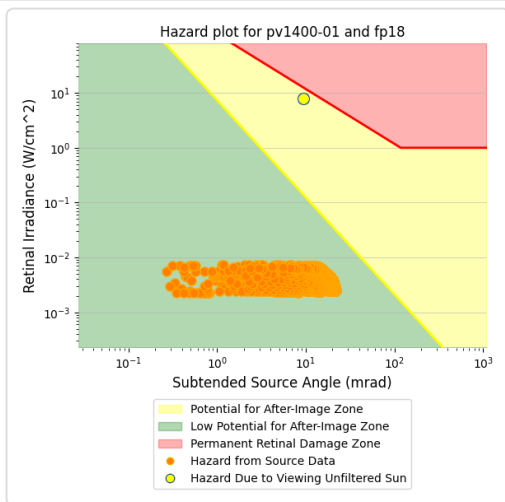
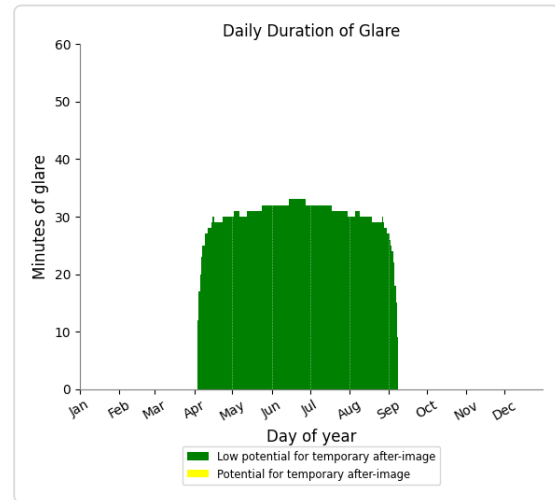
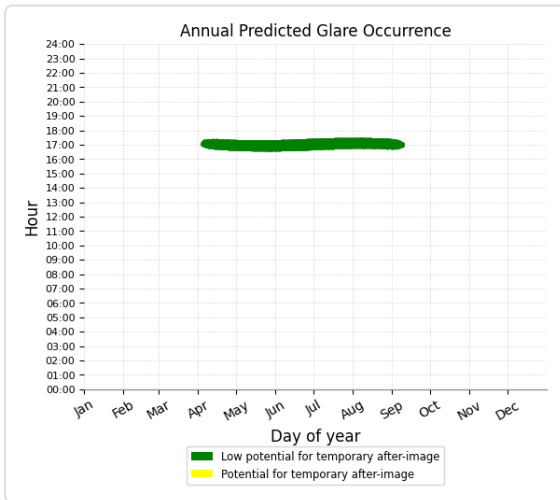
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP18	4,727	78.8	0	0.0
FP24	10,187	169.8	0	0.0
FP17	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1400_01 and FP: FP18

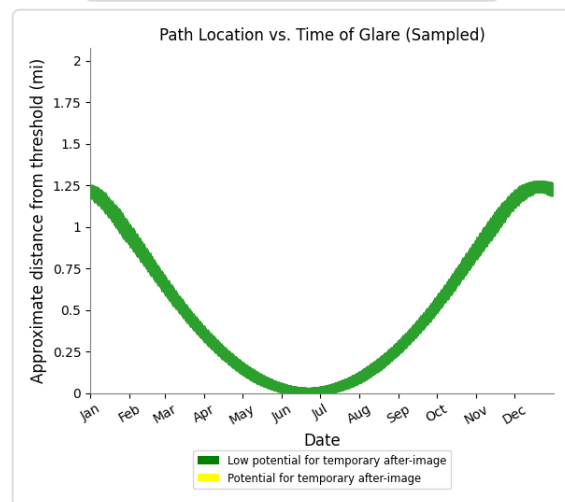
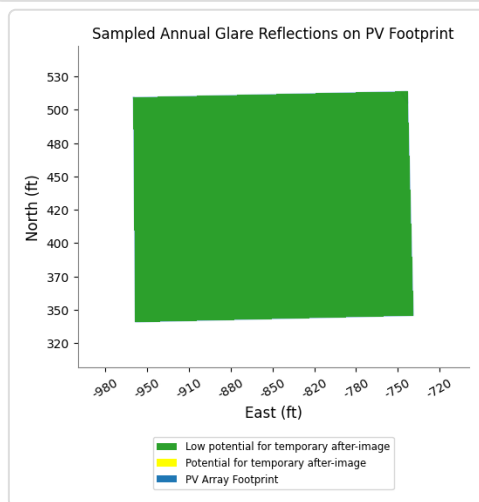
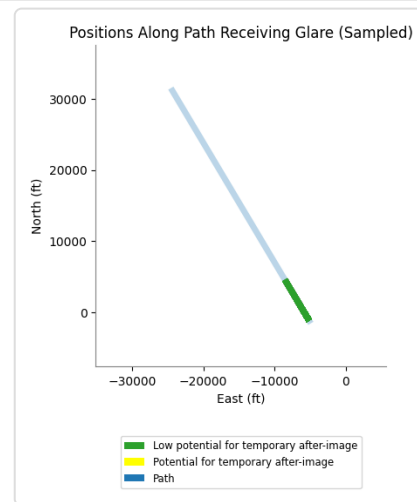
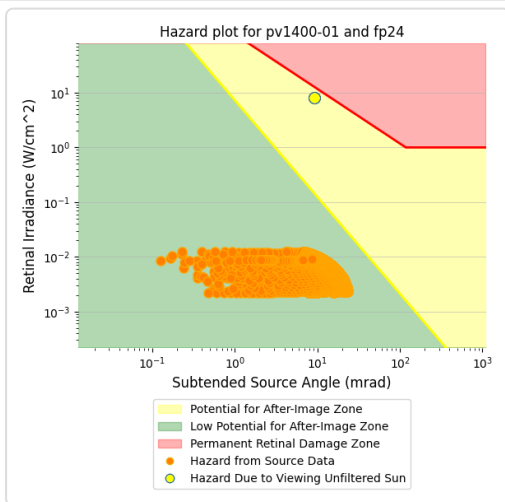
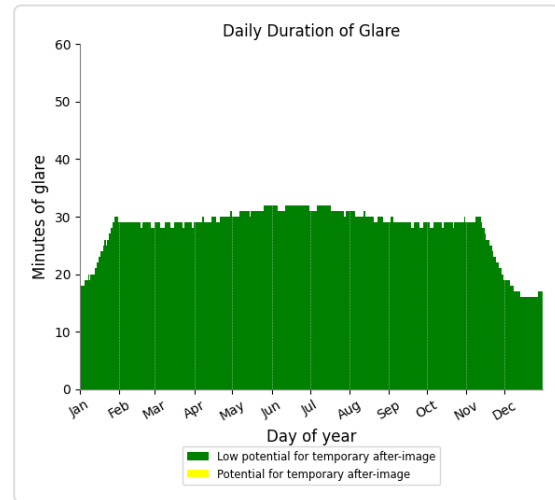
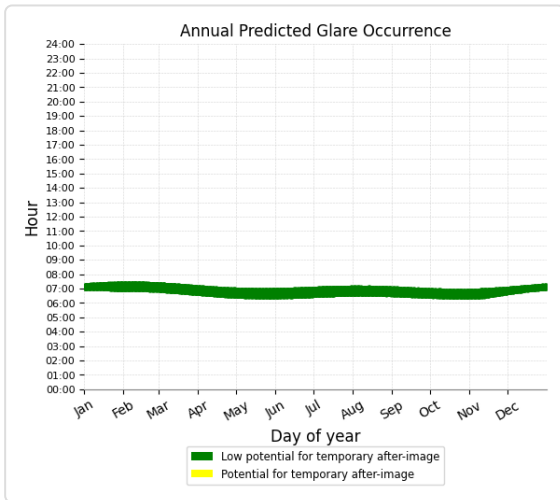
Yellow glare: none

Green glare: 4,727 min.



PV1400_01 and FP: FP24

Yellow glare: none
Green glare: 10,187 min.



PV1400_01 and FP: FP17

No glare found

PV1400_01 and FP: FP19

No glare found

PV1400_01 and FP: FP20

No glare found

PV1400_01 and FP: FP21

No glare found

PV1400_01 and FP: FP22

No glare found

PV1400_01 and FP: FP23

No glare found

PV1400_01 and FP: FP25

No glare found

PV1400_01 and FP: FP26

No glare found

PV1400_01 and FP: FP27

No glare found

PV1400_01 and FP: FP28

No glare found

PV1400_01 and FP: FP29

No glare found

PV1400_01 and FP: FP30

No glare found

PV1400_01 and FP: FP31

No glare found

PV1400_01 and FP: FP32

No glare found

PV1400_01 and FP: FP33

No glare found

PV1400_01 and FP: FP34

No glare found

PV1400_01 and FP: FP35

No glare found

PV1400_01 and FP: FP36

No glare found

PV: PV1421_01 low potential for temporary after-image

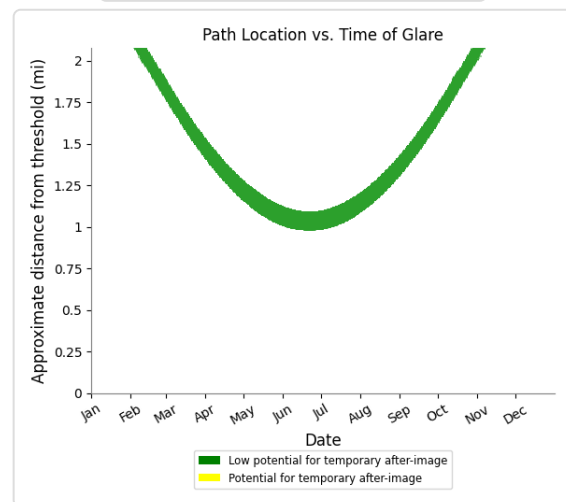
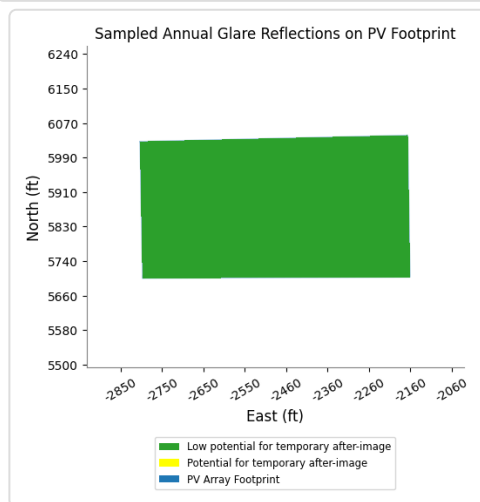
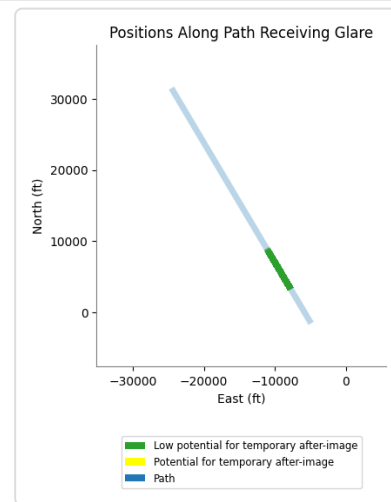
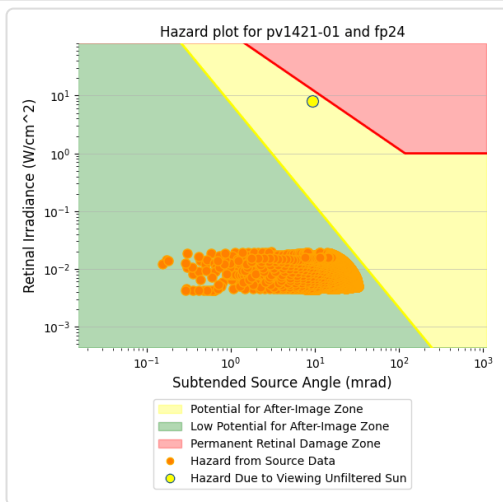
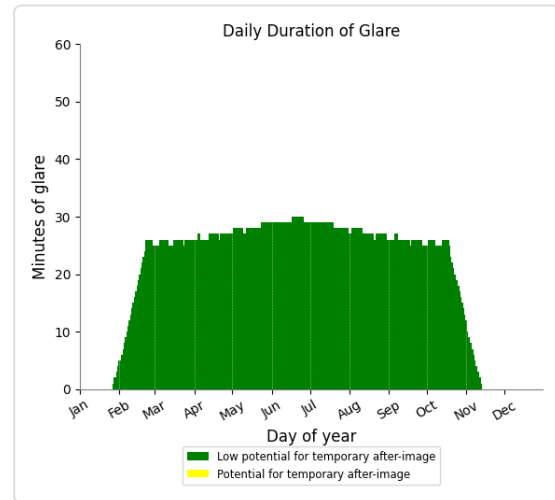
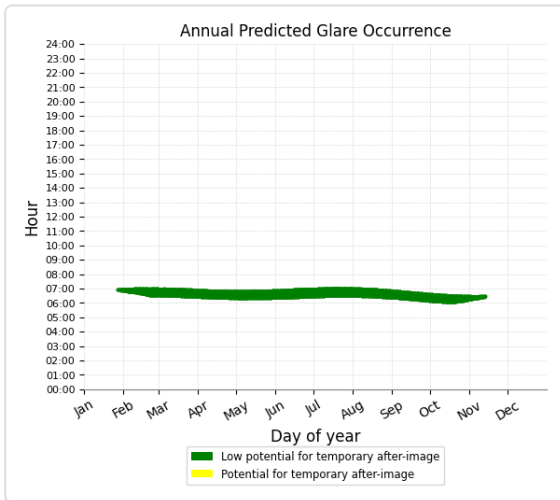
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	7,129	118.8	0	0.0
FP25	372	6.2	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1421_01 and FP: FP24

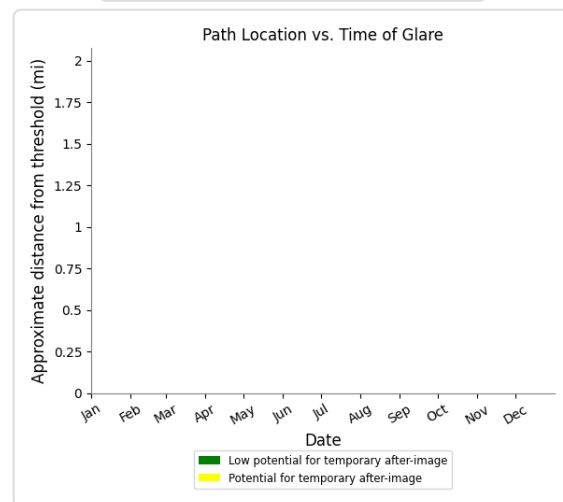
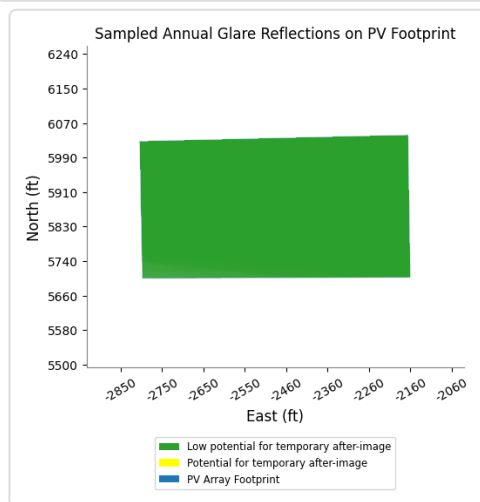
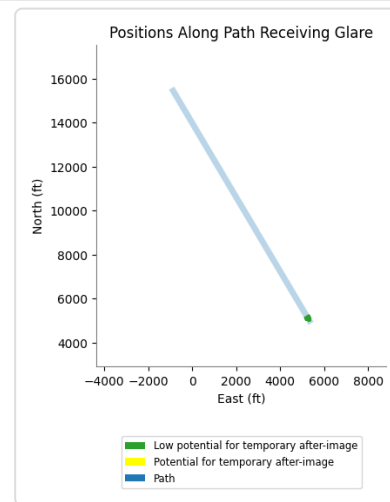
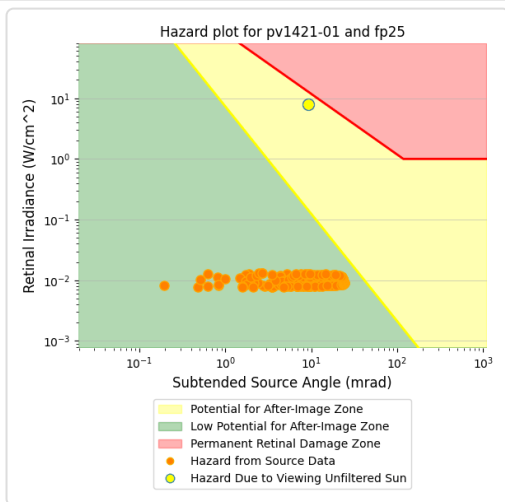
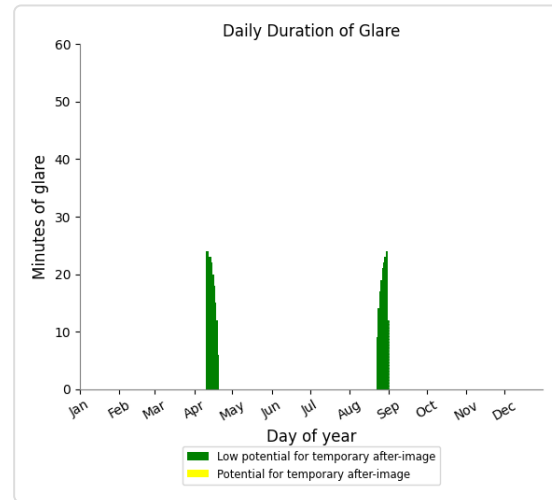
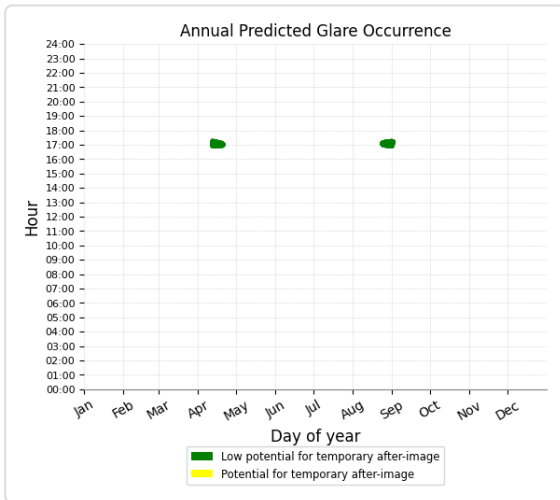
Yellow glare: none

Green glare: 7,129 min.



PV1421_01 and FP: FP25

Yellow glare: none
Green glare: 372 min.



PV1421_01 and FP: FP17

No glare found

PV1421_01 and FP: FP18

No glare found

PV1421_01 and FP: FP19

No glare found

PV1421_01 and FP: FP20

No glare found

PV1421_01 and FP: FP21

No glare found

PV1421_01 and FP: FP22

No glare found

PV1421_01 and FP: FP23

No glare found

PV1421_01 and FP: FP26

No glare found

PV1421_01 and FP: FP27

No glare found

PV1421_01 and FP: FP28

No glare found

PV1421_01 and FP: FP29

No glare found

PV1421_01 and FP: FP30

No glare found

PV1421_01 and FP: FP31

No glare found

PV1421_01 and FP: FP32

No glare found

PV1421_01 and FP: FP33

No glare found

PV1421_01 and FP: FP34

No glare found

PV1421_01 and FP: FP35

No glare found

PV1421_01 and FP: FP36

No glare found

PV: PV1425_01 low potential for temporary after-image

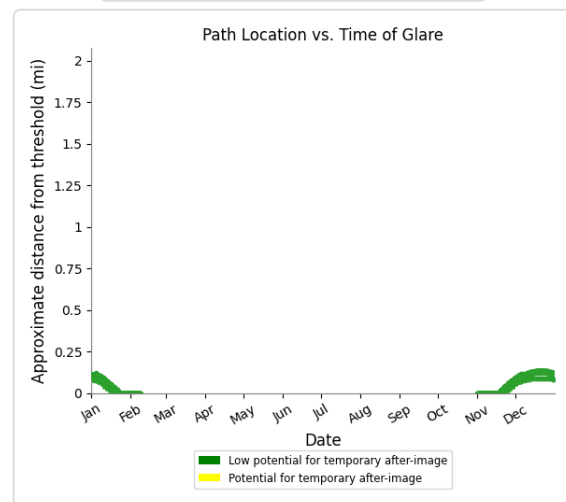
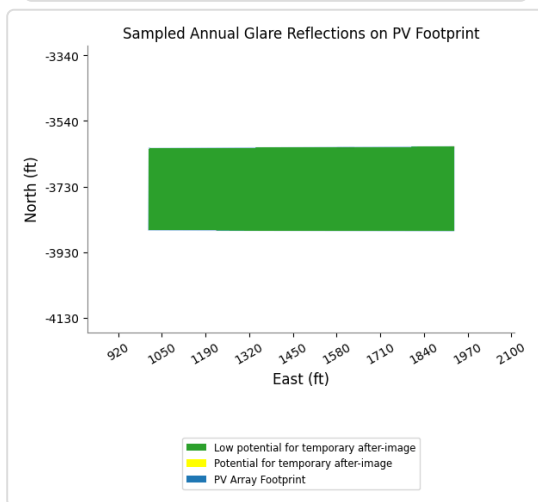
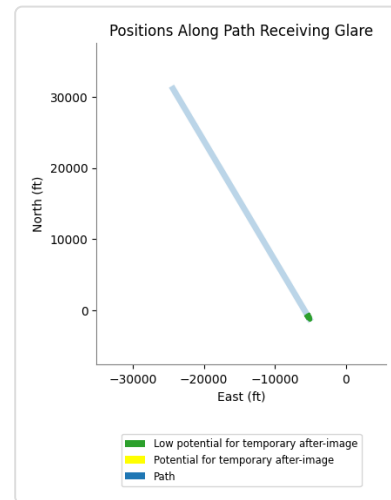
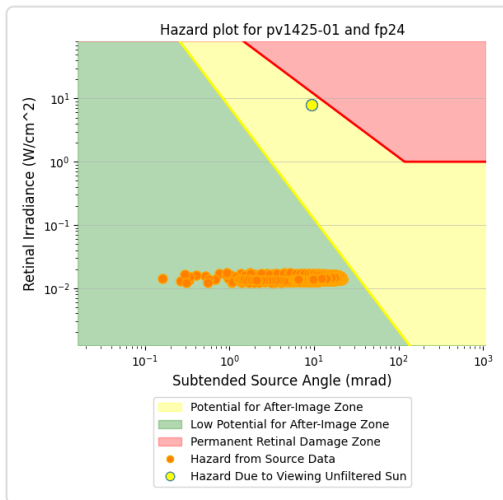
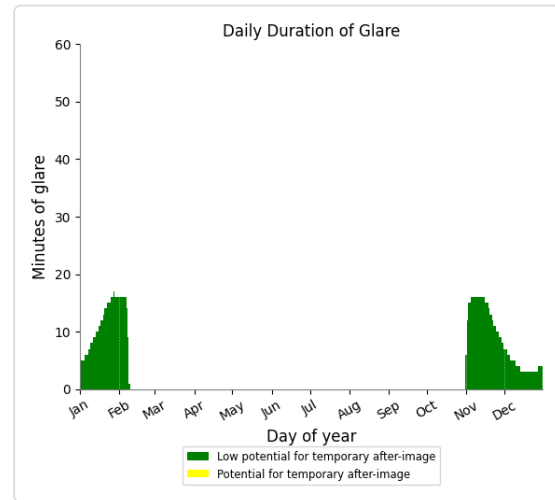
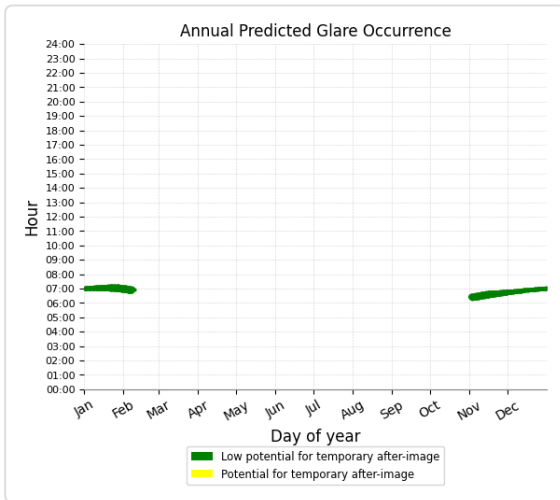
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	978	16.3	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1425_01 and FP: FP24

Yellow glare: none

Green glare: 978 min.



PV1425_01 and FP: FP17

No glare found

PV1425_01 and FP: FP18

No glare found

PV1425_01 and FP: FP19

No glare found

PV1425_01 and FP: FP20

No glare found

PV1425_01 and FP: FP21

No glare found

PV1425_01 and FP: FP22

No glare found

PV1425_01 and FP: FP23

No glare found

PV1425_01 and FP: FP25

No glare found

PV1425_01 and FP: FP26

No glare found

PV1425_01 and FP: FP27

No glare found

PV1425_01 and FP: FP28

No glare found

PV1425_01 and FP: FP29

No glare found

PV1425_01 and FP: FP30

No glare found

PV1425_01 and FP: FP31

No glare found

PV1425_01 and FP: FP32

No glare found

PV1425_01 and FP: FP33

No glare found

PV1425_01 and FP: FP34

No glare found

PV1425_01 and FP: FP35

No glare found

PV1425_01 and FP: FP36

No glare found

PV: PV1493_01 low potential for temporary after-image

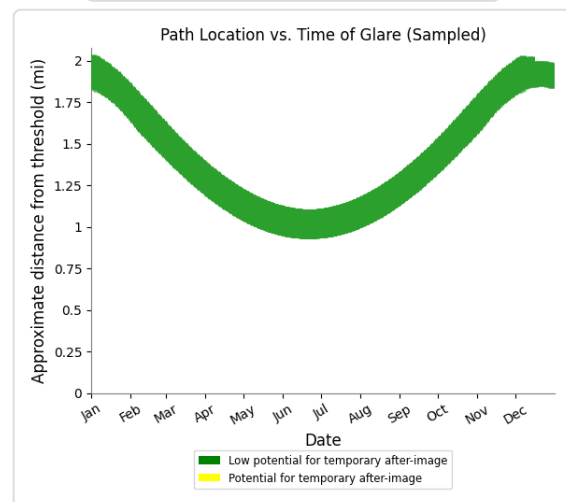
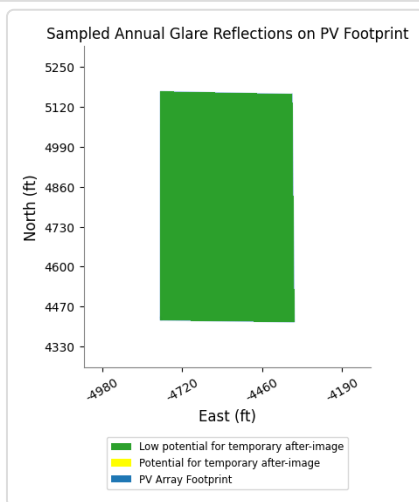
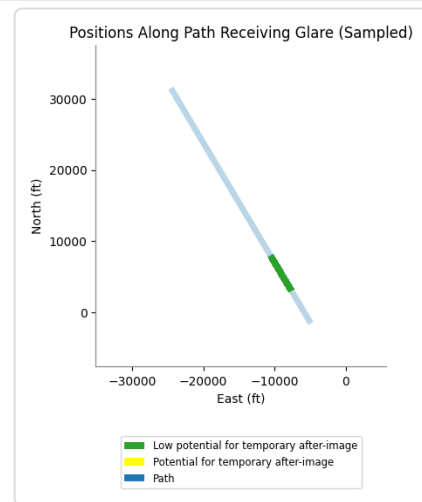
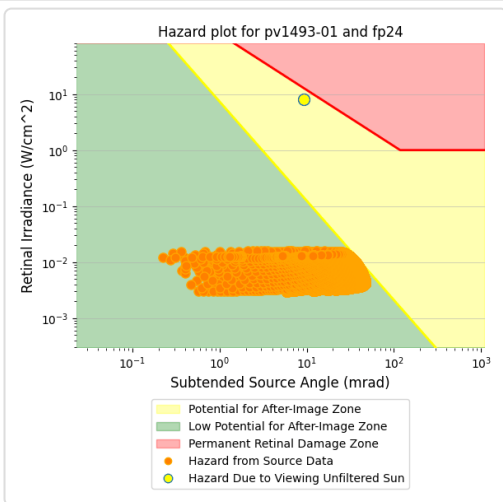
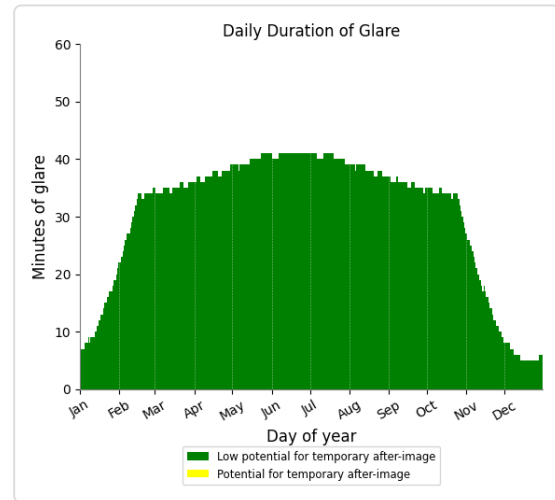
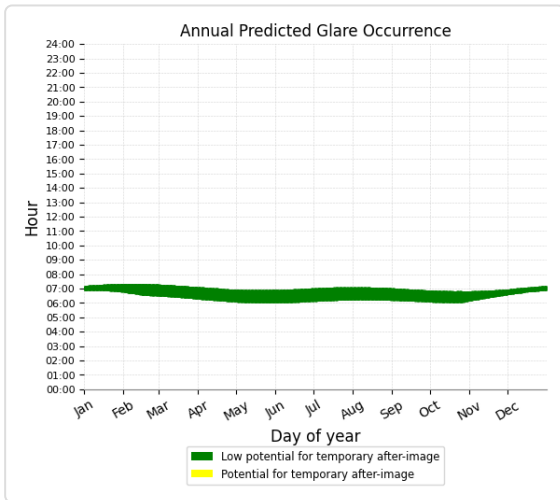
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	11,137	185.6	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1493_01 and FP: FP24

Yellow glare: none

Green glare: 11,137 min.



PV1493_01 and FP: FP17

No glare found

PV1493_01 and FP: FP18

No glare found

PV1493_01 and FP: FP19

No glare found

PV1493_01 and FP: FP20

No glare found

PV1493_01 and FP: FP21

No glare found

PV1493_01 and FP: FP22

No glare found

PV1493_01 and FP: FP23

No glare found

PV1493_01 and FP: FP25

No glare found

PV1493_01 and FP: FP26

No glare found

PV1493_01 and FP: FP27

No glare found

PV1493_01 and FP: FP28

No glare found

PV1493_01 and FP: FP29

No glare found

PV1493_01 and FP: FP30

No glare found

PV1493_01 and FP: FP31

No glare found

PV1493_01 and FP: FP32

No glare found

PV1493_01 and FP: FP33

No glare found

PV1493_01 and FP: FP34

No glare found

PV1493_01 and FP: FP35

No glare found

PV1493_01 and FP: FP36

No glare found

PV: PV1517_01 low potential for temporary after-image

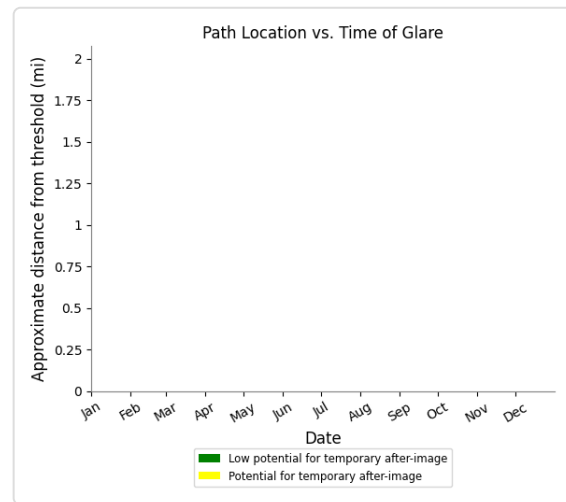
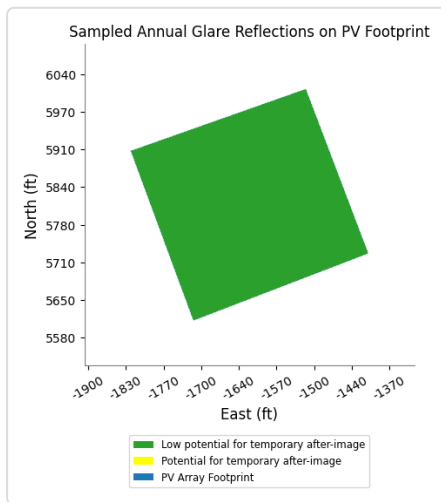
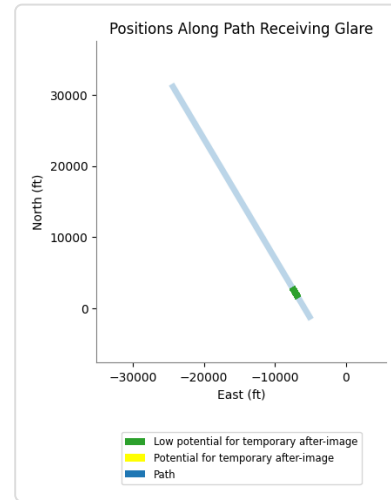
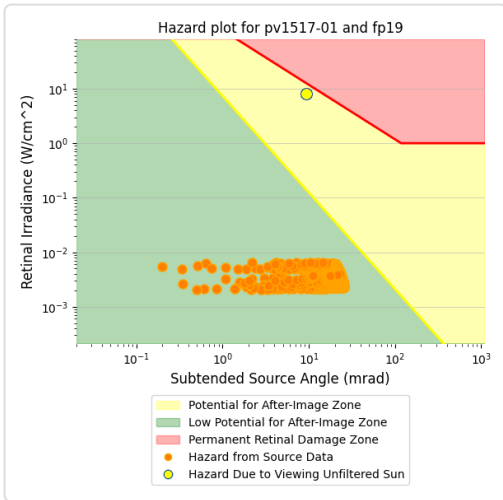
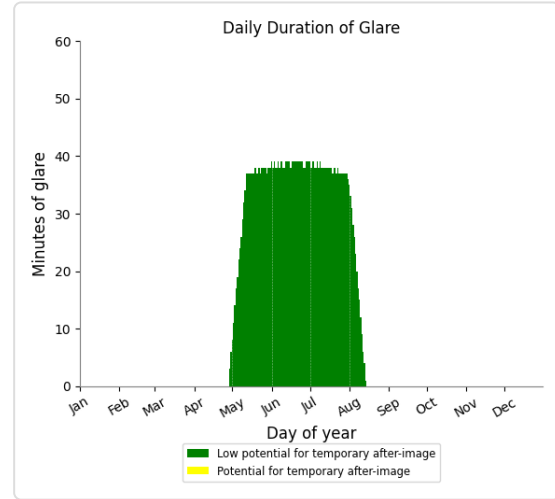
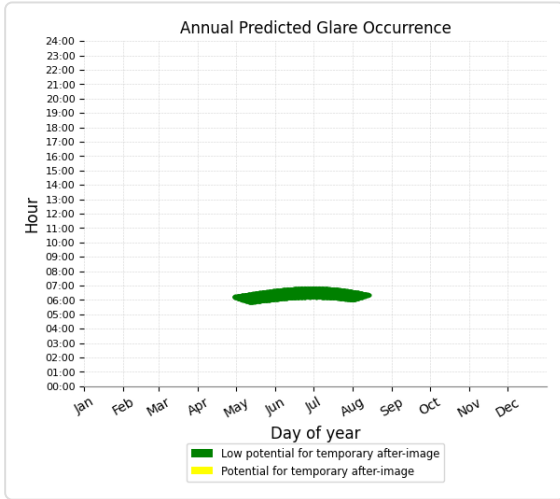
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP19	3,587	59.8	0	0.0
FP24	3,655	60.9	0	0.0
FP25	617	10.3	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1517_01 and FP: FP19

Yellow glare: none

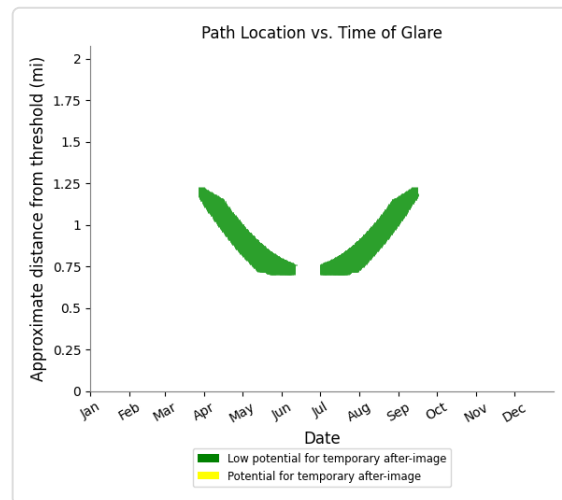
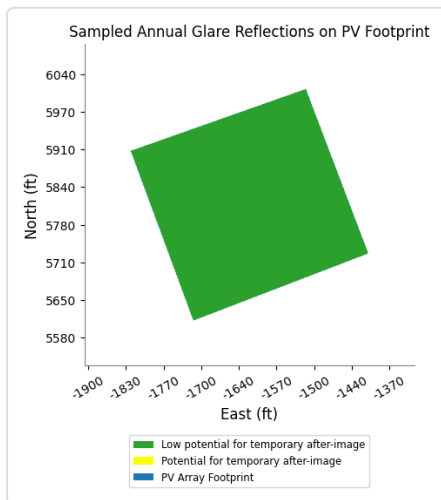
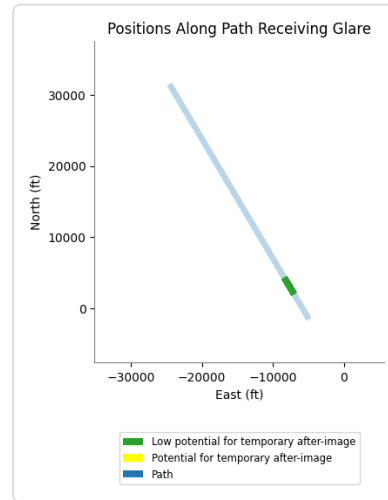
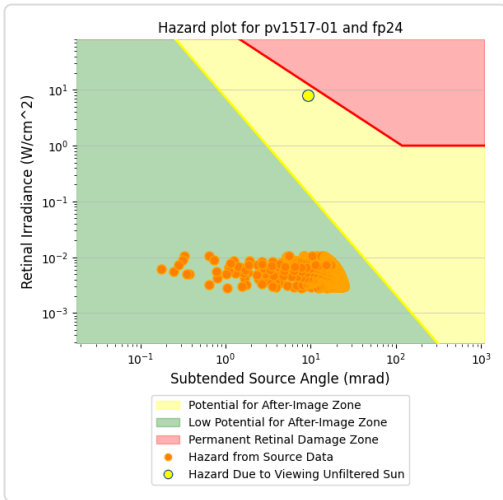
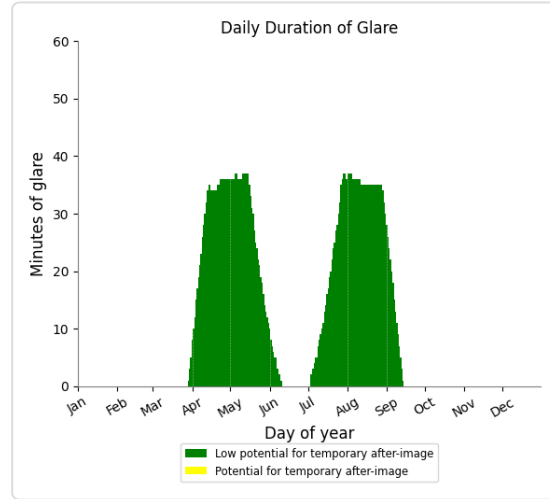
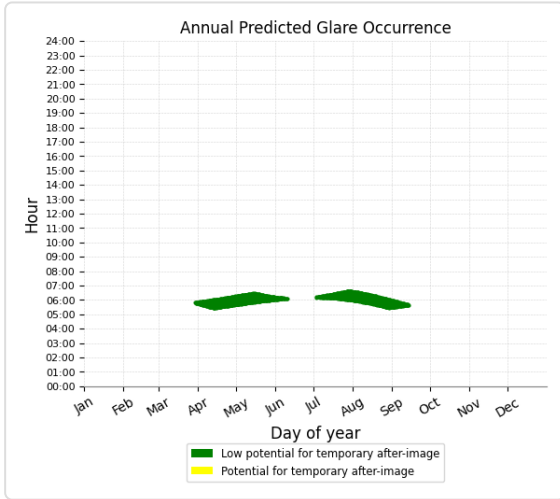
Green glare: 3,587 min.



PV1517_01 and FP: FP24

Yellow glare: none

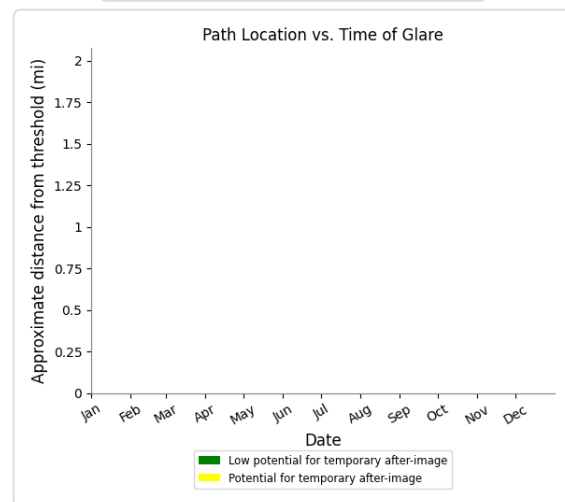
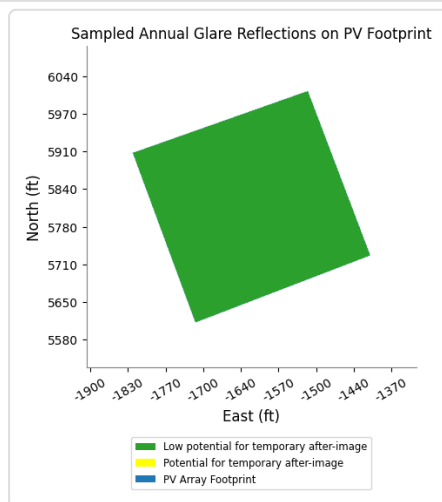
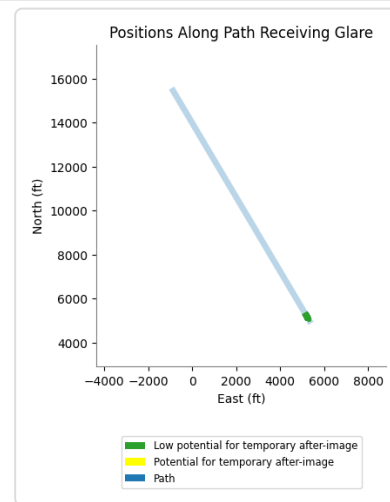
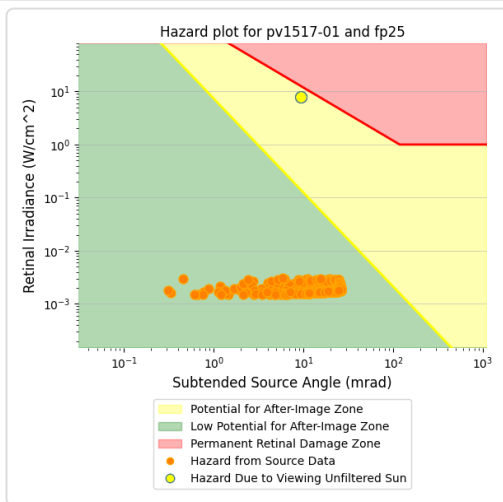
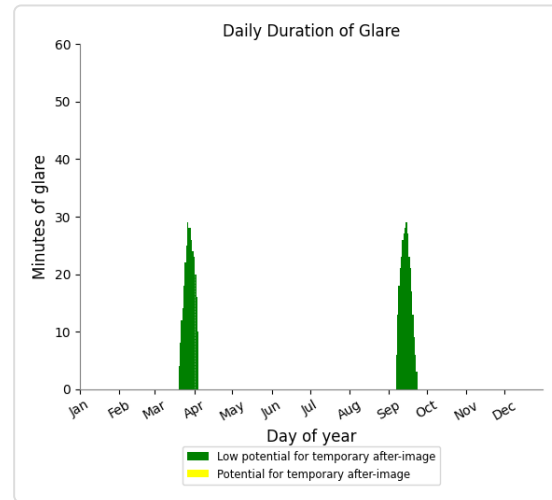
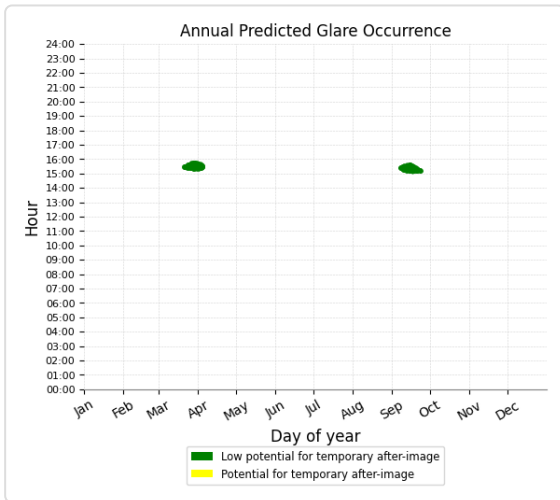
Green glare: 3,655 min.



PV1517_01 and FP: FP25

Yellow glare: none

Green glare: 617 min.



PV1517_01 and FP: FP17

No glare found

PV1517_01 and FP: FP18

No glare found

PV1517_01 and FP: FP20

No glare found

PV1517_01 and FP: FP21

No glare found

PV1517_01 and FP: FP22

No glare found

PV1517_01 and FP: FP23

No glare found

PV1517_01 and FP: FP26

No glare found

PV1517_01 and FP: FP27

No glare found

PV1517_01 and FP: FP28

No glare found

PV1517_01 and FP: FP29

No glare found

PV1517_01 and FP: FP30

No glare found

PV1517_01 and FP: FP31

No glare found

PV1517_01 and FP: FP32

No glare found

PV1517_01 and FP: FP33

No glare found

PV1517_01 and FP: FP34

No glare found

PV1517_01 and FP: FP35

No glare found

PV1517_01 and FP: FP36

No glare found

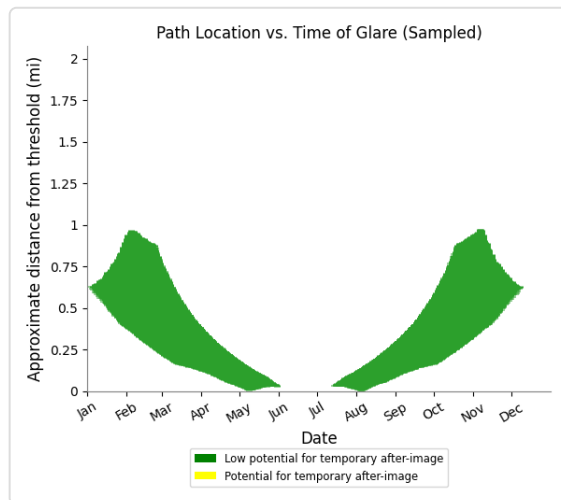
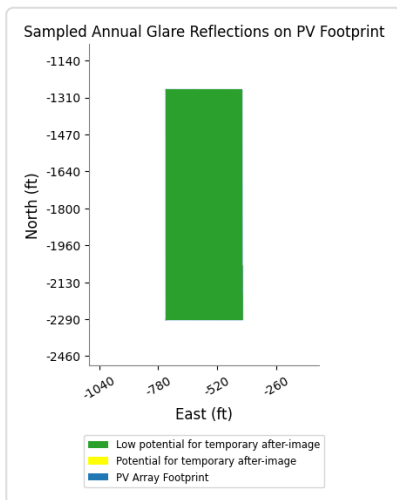
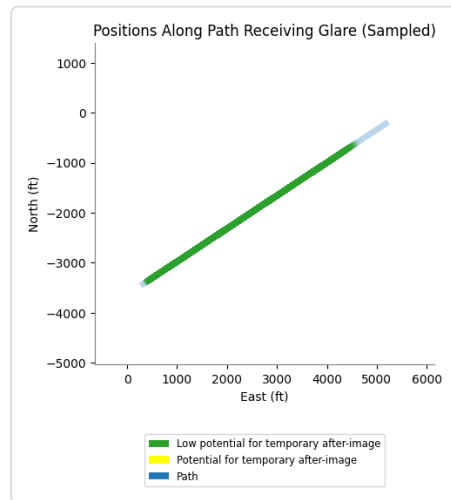
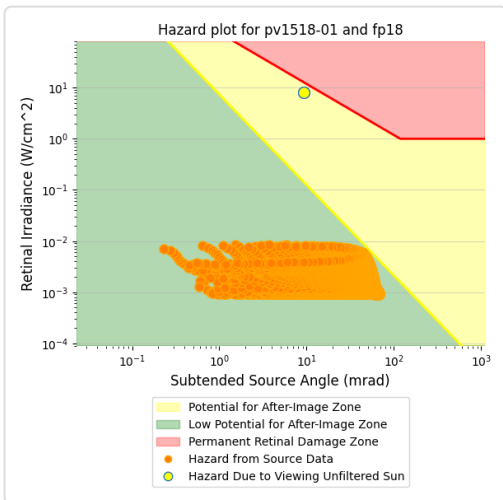
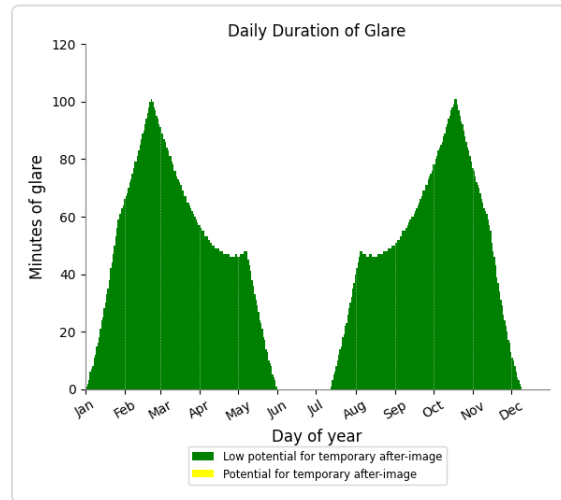
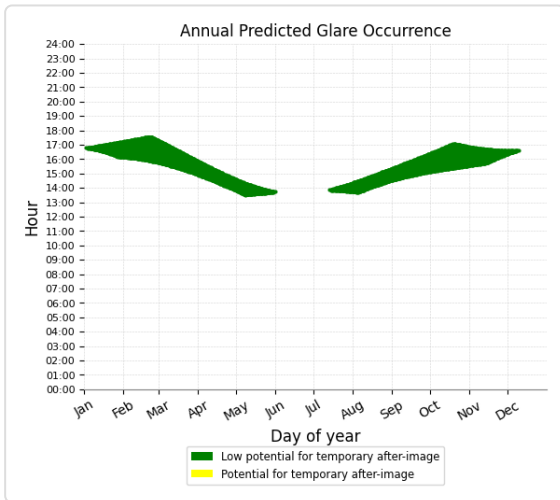
PV: PV1518_01 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP18	15,898	265.0	0	0.0
FP22	4,711	78.5	0	0.0
FP24	1,305	21.8	0	0.0
FP17	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP25	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1518_01 and FP: FP18

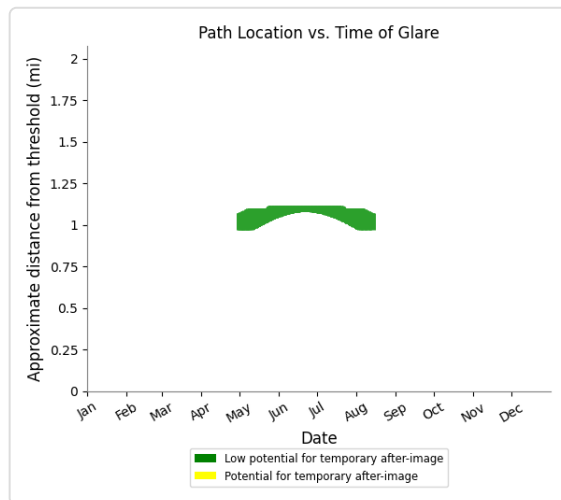
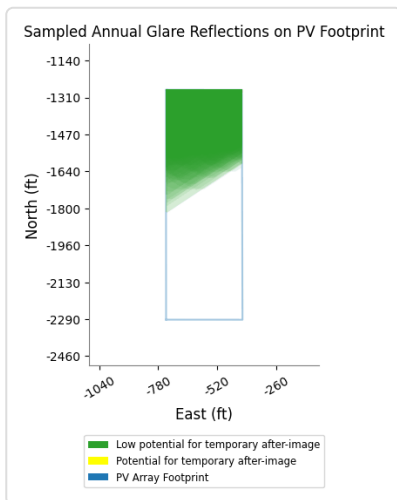
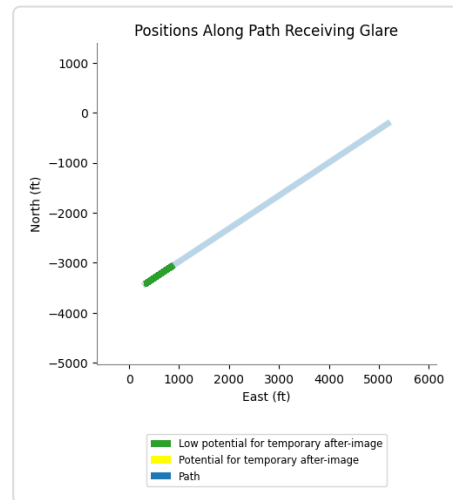
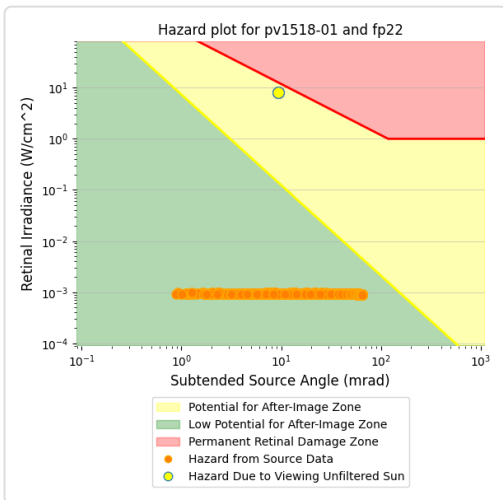
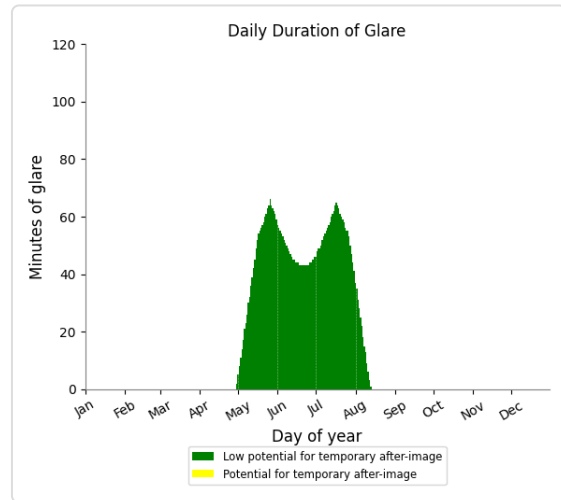
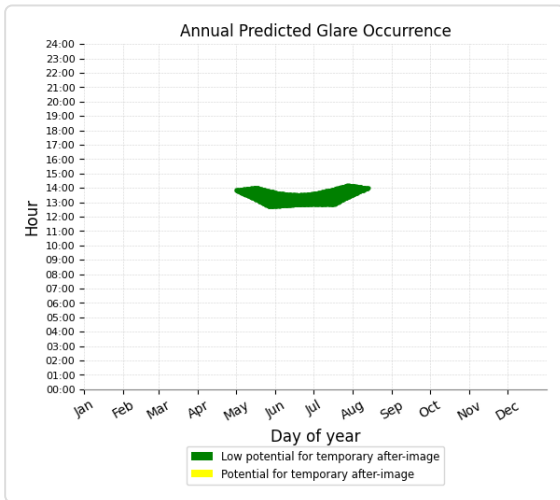
Yellow glare: none
 Green glare: 15,898 min.



PV1518_01 and FP: FP22

Yellow glare: none

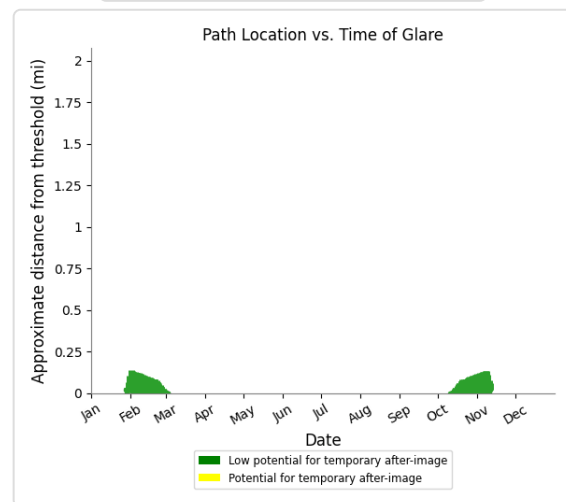
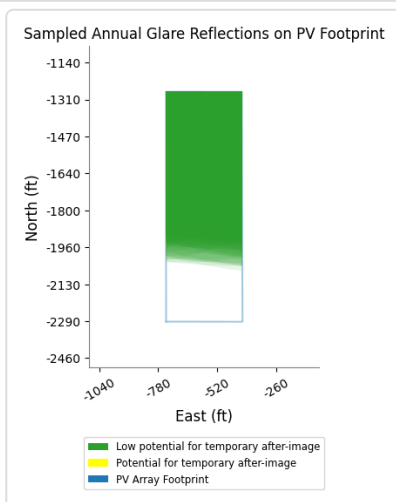
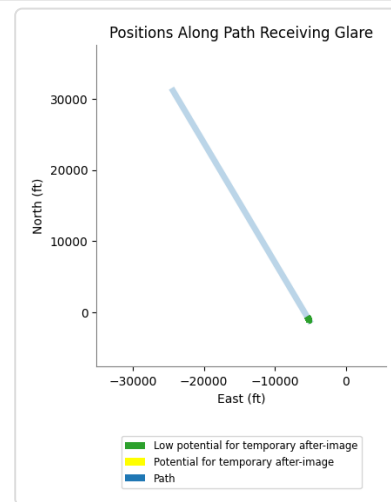
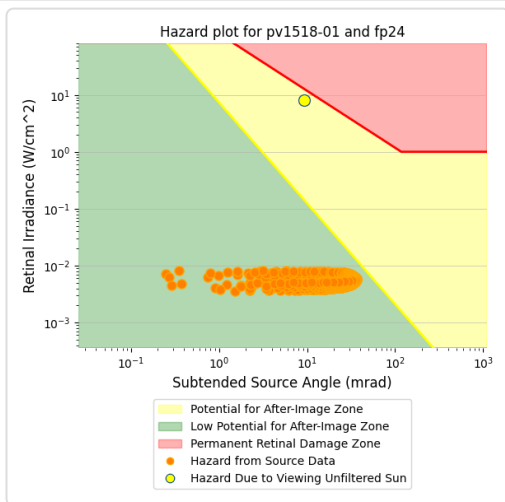
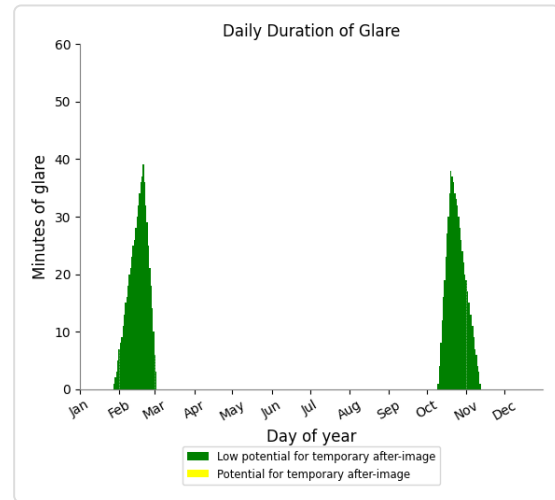
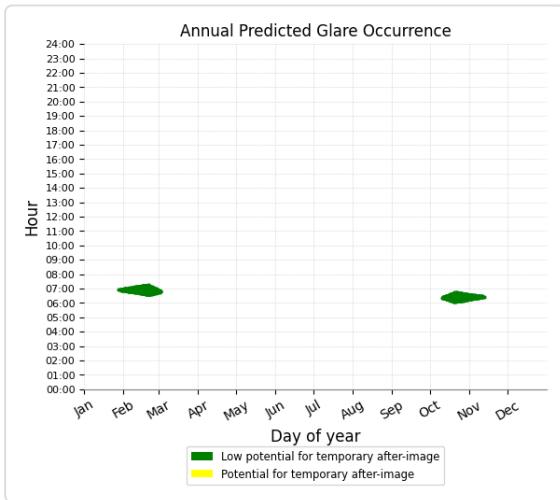
Green glare: 4,711 min.



PV1518_01 and FP: FP24

Yellow glare: none

Green glare: 1,305 min.



PV1518_01 and FP: FP17

No glare found

PV1518_01 and FP: FP19

No glare found

PV1518_01 and FP: FP20

No glare found

PV1518_01 and FP: FP21

No glare found

PV1518_01 and FP: FP23

No glare found

PV1518_01 and FP: FP25

No glare found

PV1518_01 and FP: FP26

No glare found

PV1518_01 and FP: FP27

No glare found

PV1518_01 and FP: FP28

No glare found

PV1518_01 and FP: FP29

No glare found

PV1518_01 and FP: FP30

No glare found

PV1518_01 and FP: FP31

No glare found

PV1518_01 and FP: FP32

No glare found

PV1518_01 and FP: FP33

No glare found

PV1518_01 and FP: FP34

No glare found

PV1518_01 and FP: FP35

No glare found

PV1518_01 and FP: FP36

No glare found

PV: PV1535_01 low potential for temporary after-image

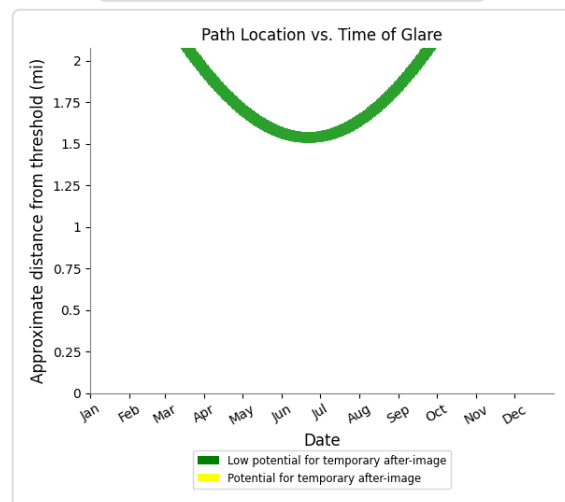
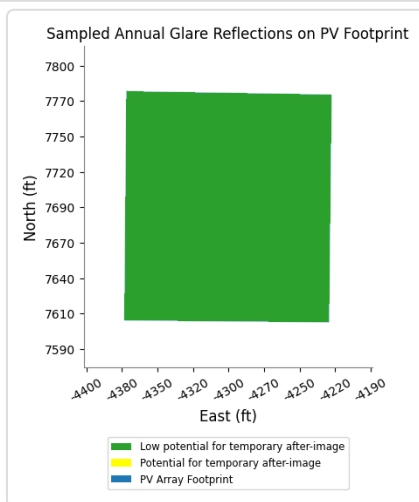
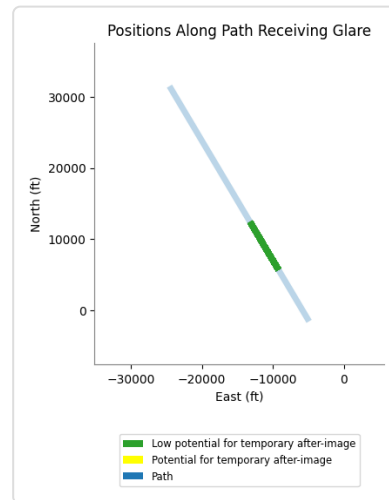
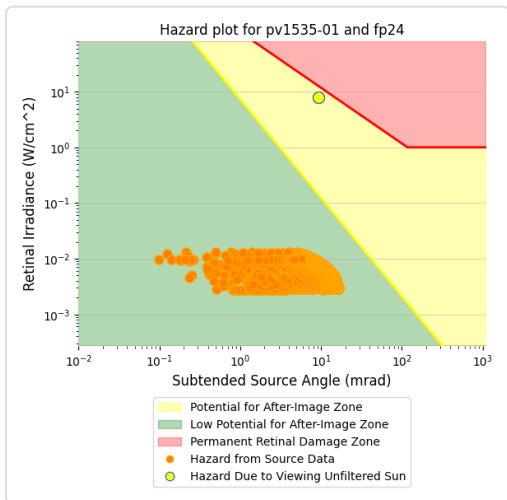
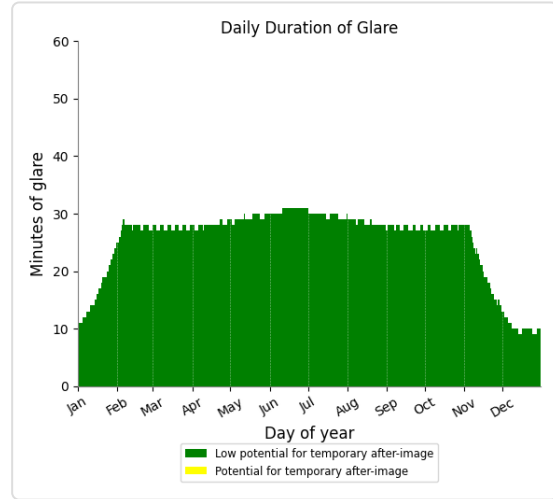
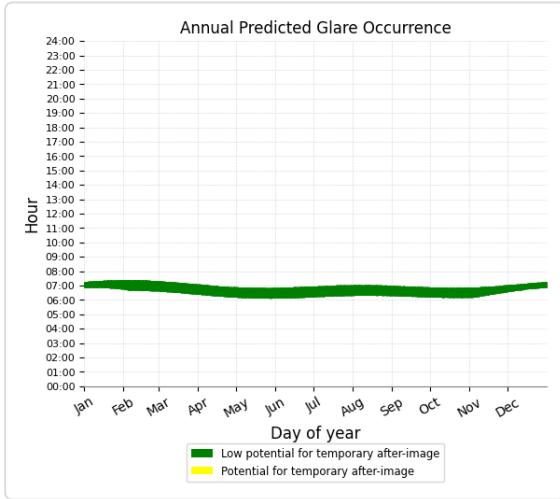
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	9,224	153.7	0	0.0
FP25	2,166	36.1	0	0.0
FP28	3,937	65.6	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP32	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP34	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1535_01 and FP: FP24

Yellow glare: none

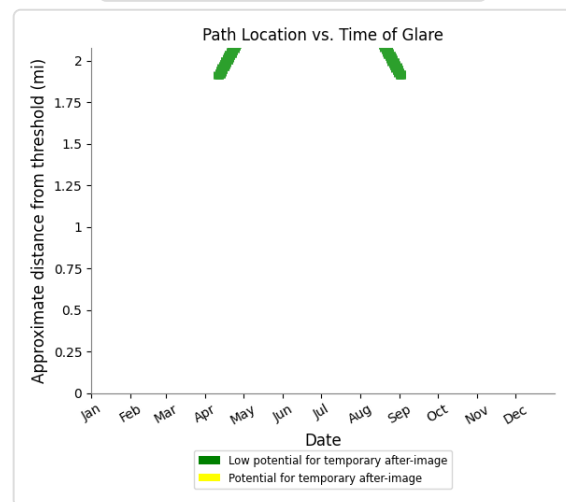
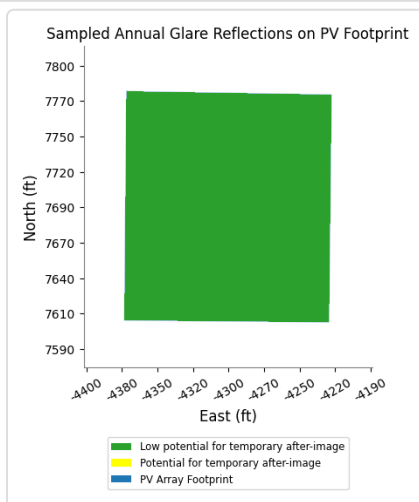
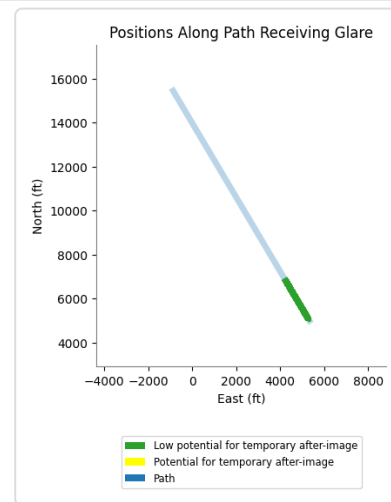
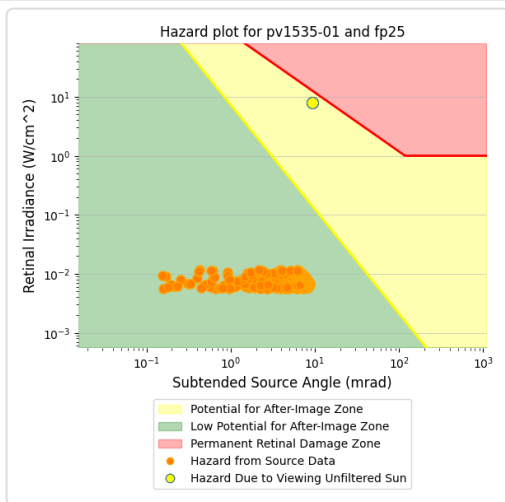
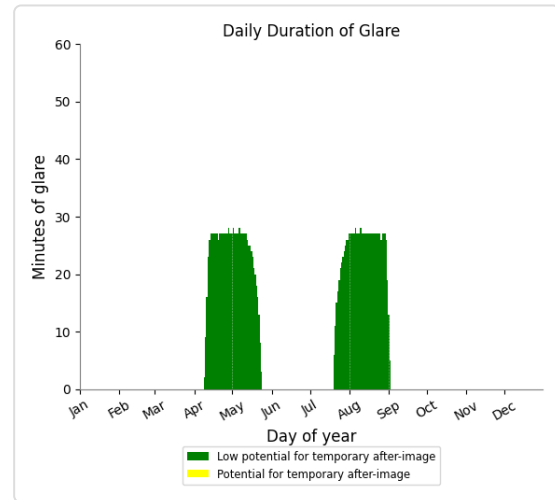
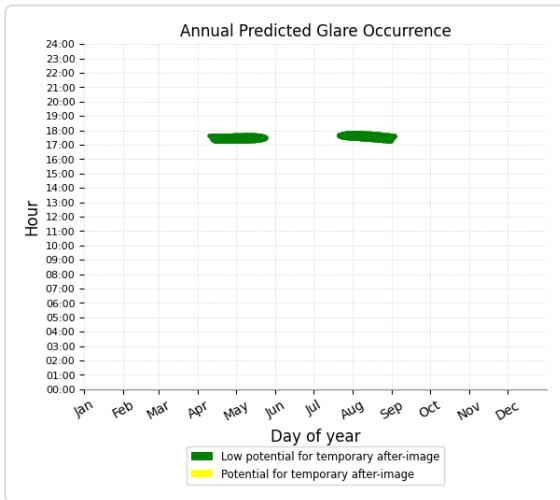
Green glare: 9,224 min.



PV1535_01 and FP: FP25

Yellow glare: none

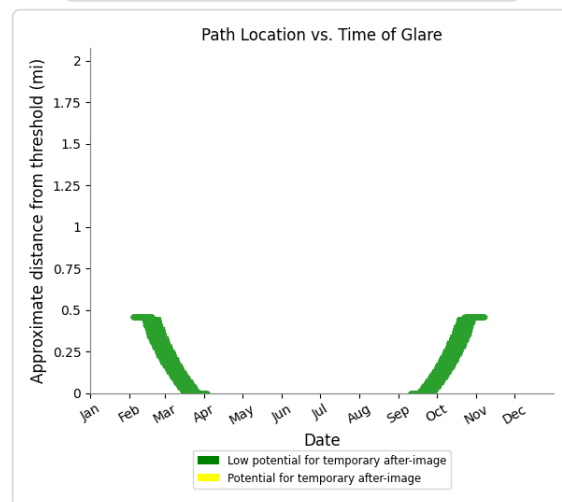
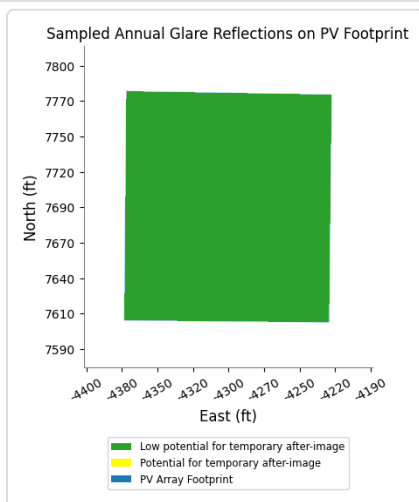
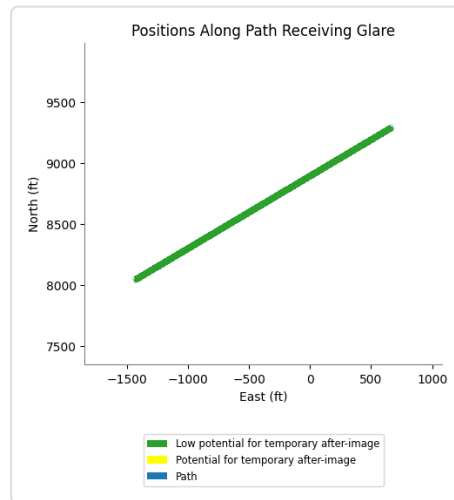
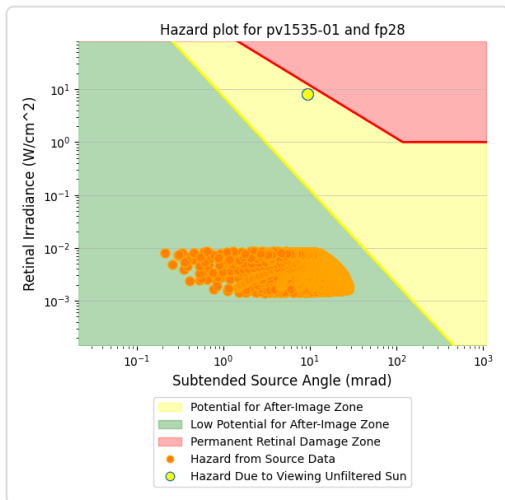
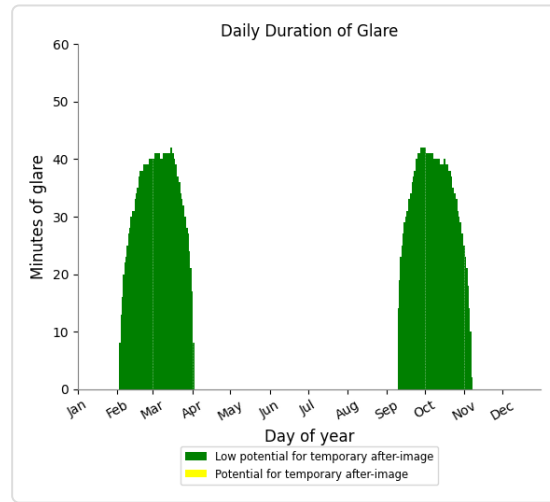
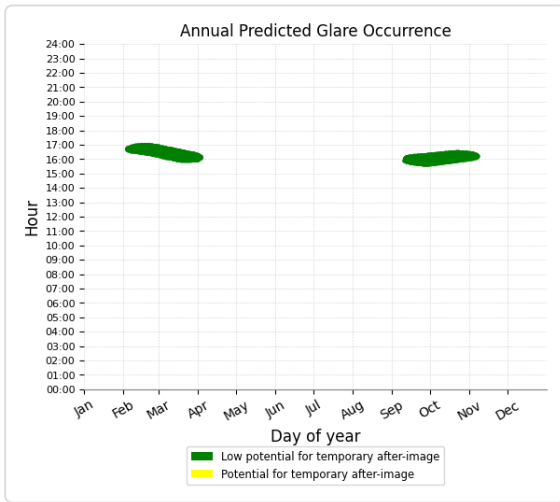
Green glare: 2,166 min.



PV1535_01 and FP: FP28

Yellow glare: none

Green glare: 3,937 min.



PV1535_01 and FP: FP17

No glare found

PV1535_01 and FP: FP18

No glare found

PV1535_01 and FP: FP19

No glare found

PV1535_01 and FP: FP20

No glare found

PV1535_01 and FP: FP21

No glare found

PV1535_01 and FP: FP22

No glare found

PV1535_01 and FP: FP23

No glare found

PV1535_01 and FP: FP26

No glare found

PV1535_01 and FP: FP27

No glare found

PV1535_01 and FP: FP29

No glare found

PV1535_01 and FP: FP30

No glare found

PV1535_01 and FP: FP31

No glare found

PV1535_01 and FP: FP32

No glare found

PV1535_01 and FP: FP33

No glare found

PV1535_01 and FP: FP34

No glare found

PV1535_01 and FP: FP35

No glare found

PV1535_01 and FP: FP36

No glare found

PV: PV1541_01 low potential for temporary after-image

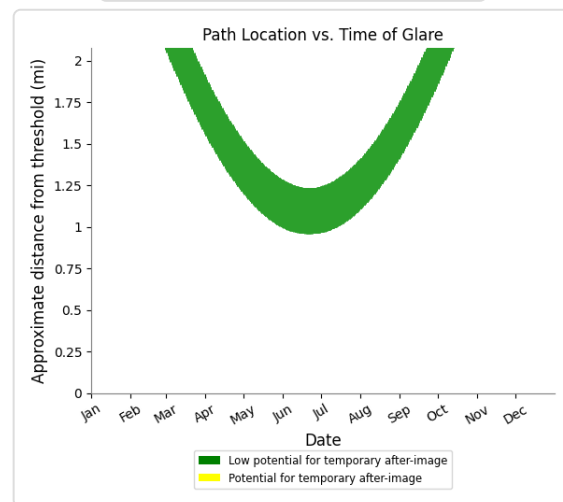
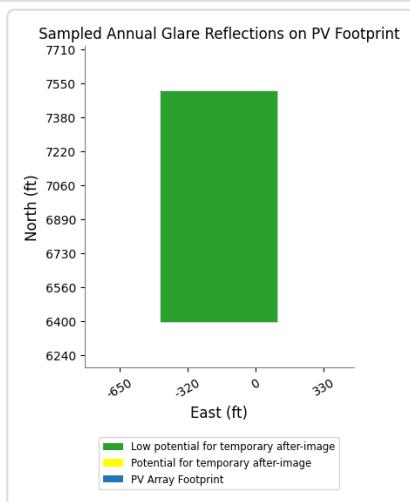
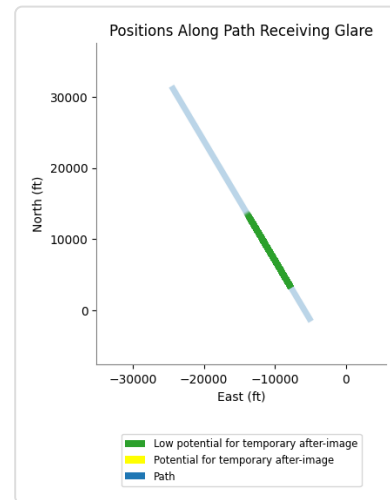
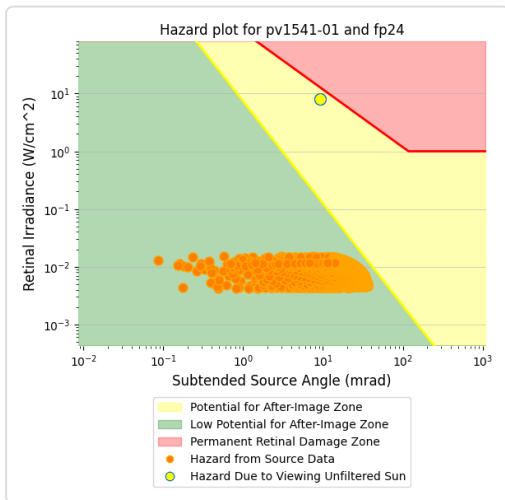
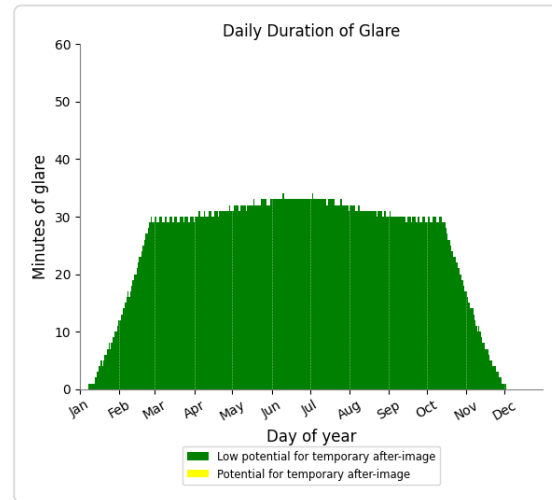
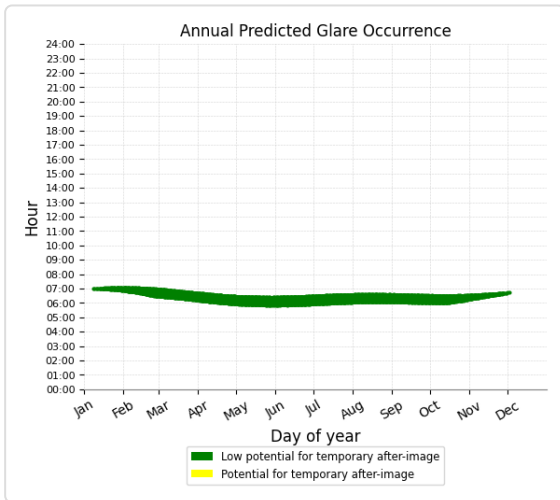
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
FP24	8,448	140.8	0	0.0
FP25	4,755	79.2	0	0.0
FP32	82	1.4	0	0.0
FP34	6,594	109.9	0	0.0
FP17	0	0.0	0	0.0
FP18	0	0.0	0	0.0
FP19	0	0.0	0	0.0
FP20	0	0.0	0	0.0
FP21	0	0.0	0	0.0
FP22	0	0.0	0	0.0
FP23	0	0.0	0	0.0
FP26	0	0.0	0	0.0
FP27	0	0.0	0	0.0
FP28	0	0.0	0	0.0
FP29	0	0.0	0	0.0
FP30	0	0.0	0	0.0
FP31	0	0.0	0	0.0
FP33	0	0.0	0	0.0
FP35	0	0.0	0	0.0
FP36	0	0.0	0	0.0

PV1541_01 and FP: FP24

Yellow glare: none

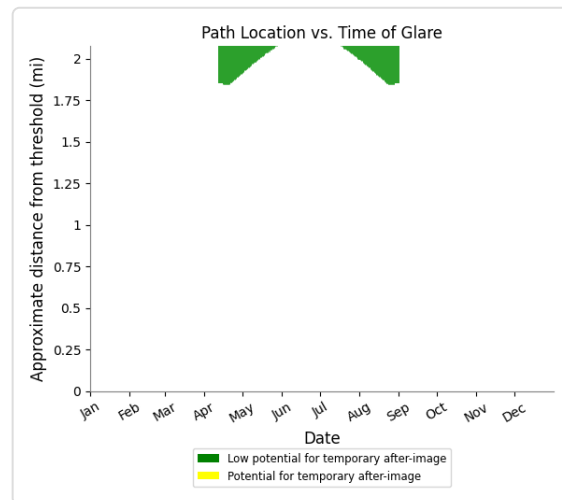
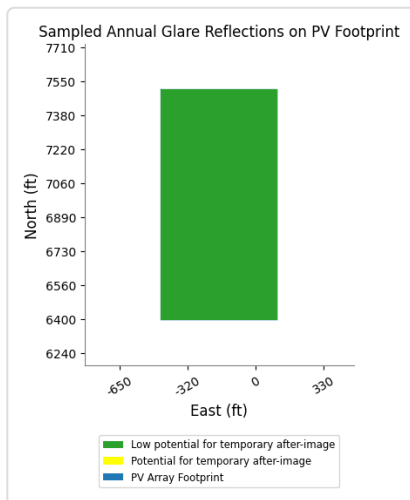
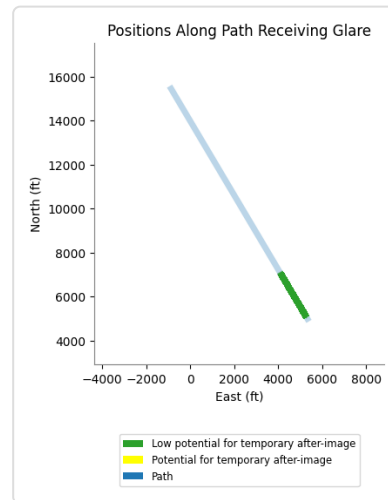
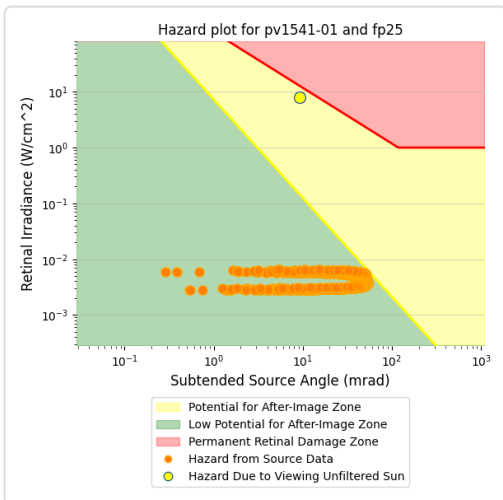
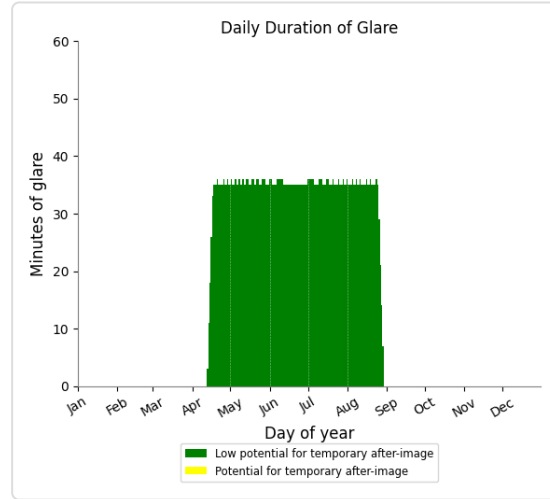
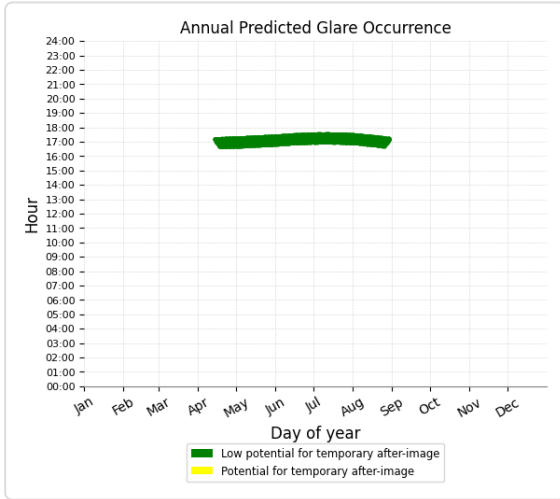
Green glare: 8,448 min.



PV1541_01 and FP: FP25

Yellow glare: none

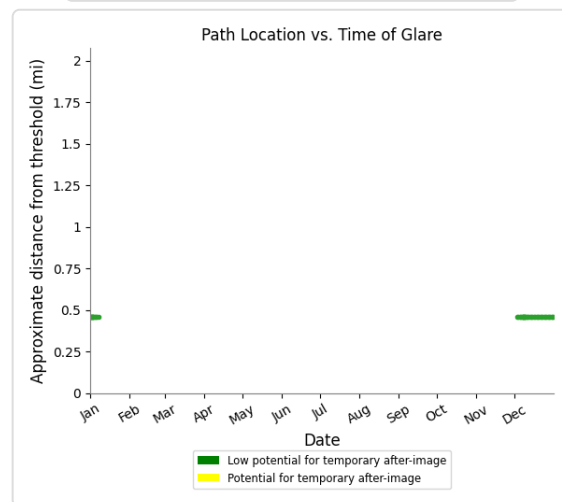
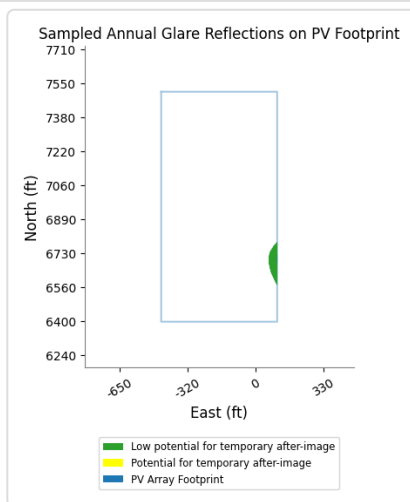
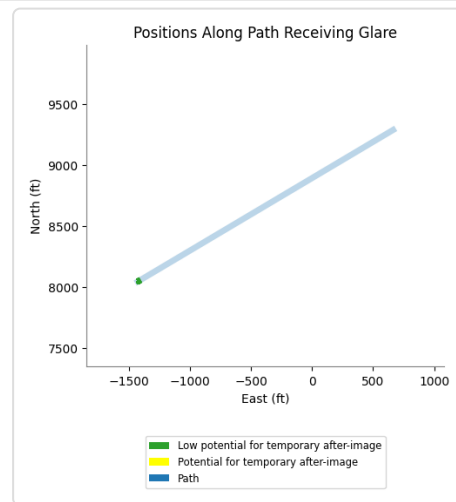
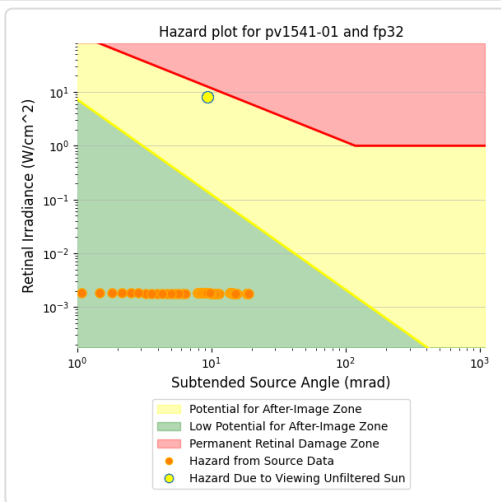
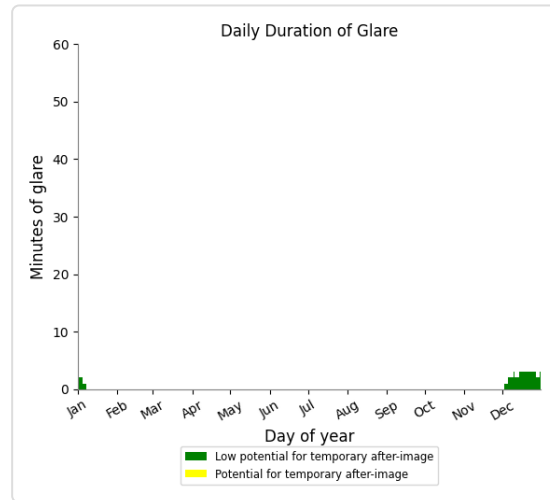
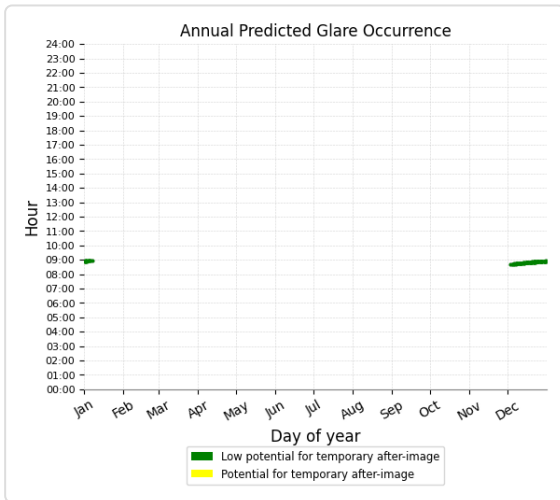
Green glare: 4,755 min.



PV1541_01 and FP: FP32

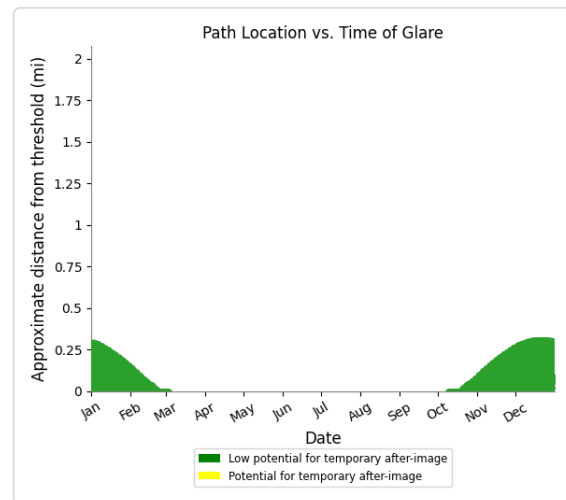
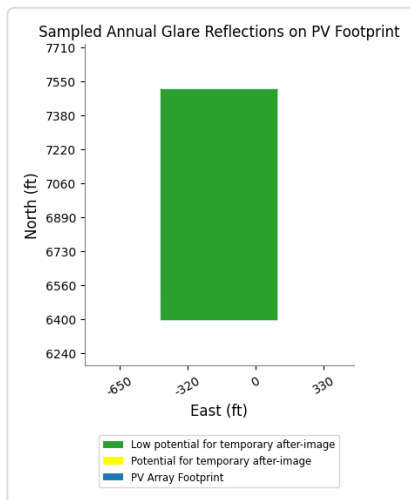
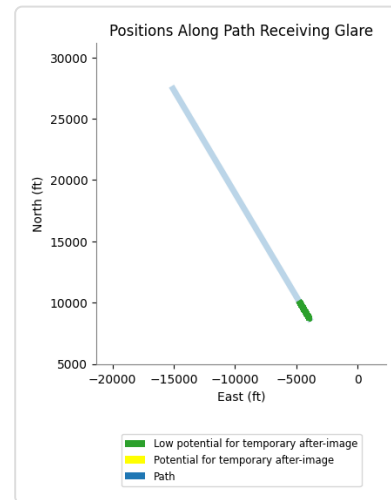
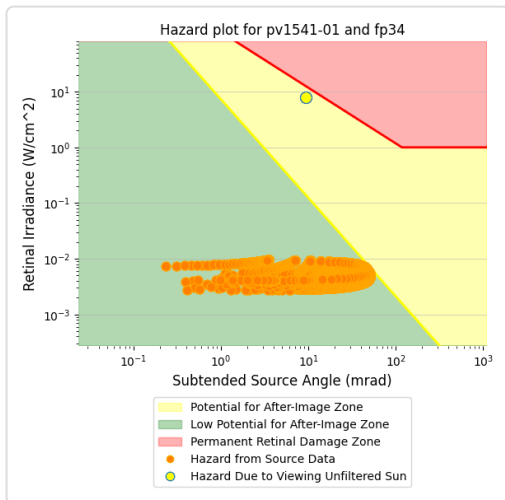
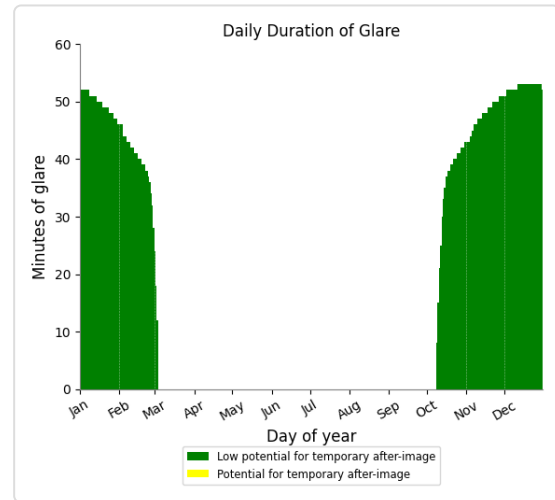
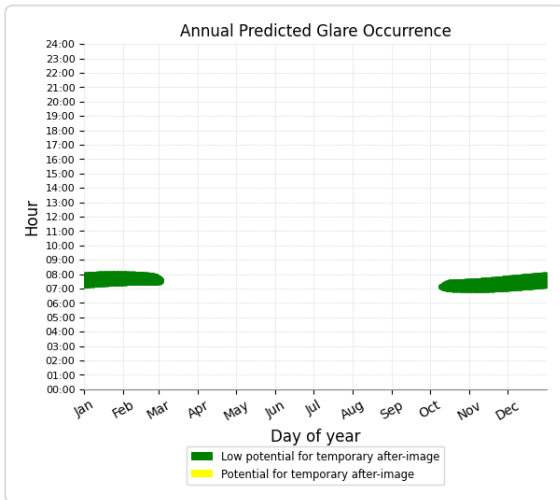
Yellow glare: none

Green glare: 82 min.



PV1541_01 and FP: FP34

Yellow glare: none
Green glare: 6,594 min.



PV1541_01 and FP: FP17

No glare found

PV1541_01 and FP: FP18

No glare found

PV1541_01 and FP: FP19

No glare found

PV1541_01 and FP: FP20

No glare found

PV1541_01 and FP: FP21

No glare found

PV1541_01 and FP: FP22

No glare found

PV1541_01 and FP: FP23

No glare found

PV1541_01 and FP: FP26

No glare found

PV1541_01 and FP: FP27

No glare found

PV1541_01 and FP: FP28

No glare found

PV1541_01 and FP: FP29

No glare found

PV1541_01 and FP: FP30

No glare found

PV1541_01 and FP: FP31

No glare found

PV1541_01 and FP: FP33

No glare found

PV1541_01 and FP: FP35

No glare found

PV1541_01 and FP: FP36

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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