

MORRIS RIDGE SOLAR ENERGY CENTER, LLC

PRELIMINARY GLARE ANALYSIS MORRIS RIDGE SOLAR ENERGY CENTER

JUNE 26, 2020





MORRIS RIDGE SOLAR ENERGY CENTER PRELIMINARY GLARE ANALYSIS

MORRIS RIDGE SOLAR ENERGY CENTER, LLC

PROJECT NO.: 193576A

DATE: JUNE 2020

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1 INTRODUCTION

This report presents the methodology and results of the preliminary glare analysis associated with the proposed Morris Ridge Solar Energy Center (the “Project”) located in the Town of Mount Morris, New York. The proposed development will include ground-mounted fixed-tilt photovoltaic (PV) panels and associated appurtenances and equipment pads. In certain scenarios, solar farms can produce a momentary flash of bright light (glint) and/or a continuous source of bright light (glare) that can be visible to nearby residences, commuters, and aerial activities. This report documents the potential for solar glare from the Project to affect permanent residences and road intersections located within 1,500 feet and within 1 mile of the PV arrays, respectively, with potential Project visibility.¹

¹ A receptor was determined to have Project visibility if it had a direct view of solar panels. Visibility at each sensitive receptor was determined using the Digital Surface Model (DSM) viewshed data derived from USGS and NYSGPO lidar datasets.

2 METHODOLOGY

2.1 INTRODUCTION

The glare analysis was performed using a web-based Solar Glare Hazard Analysis Tool (SGHAT) supplied by ForgeSolar. This tool is intended to be used to determine potential glare occurrence of solar PV installations on or around airports and is focused on the safety of air travel but can also be used to assess glare potential at pedestrian observation locations. Per the SGHAT Technical Reference Manual, it determines (1) when and where glare will occur throughout the year for a prescribed solar installation, (2) potential effects on the human eye at locations where glare occurs and has the ability to (3) estimate of the maximum annual energy production.

SGHAT employs an interactive Google map where the proposed PV array areas can be defined and specify observer locations or air paths. Latitude, longitude, and elevation are automatically recorded through the Google interface and fed into sun position and reflection calculations. Additional information, such as the orientation of the PV panels, reflectance properties, environment and ocular factors are input by the user and accounted for in the analysis.

If glare is found, SGHAT calculates the retinal irradiance and angle of impact (size, distance) of the glare to predict potential ocular hazards, which can range from temporary after-image to retinal burn.

2.2 METHODOLOGY

SGHAT is an online tool that processes the glare analysis calculations. Due to computational time limits to run the simulations, WSP broke the Project into four individual groups based on which PV arrays would impact surrounding receptors. These groups are described and shown in Figures 1-5 below.

Observation points and routes were duplicated in each of the simulations if the PV arrays were likely to impact the overall result. WSP is confident that this analysis covers all areas and potential impacts to surrounding receptors. The individual reports for each of the analyses conducted can be found in Appendix B.

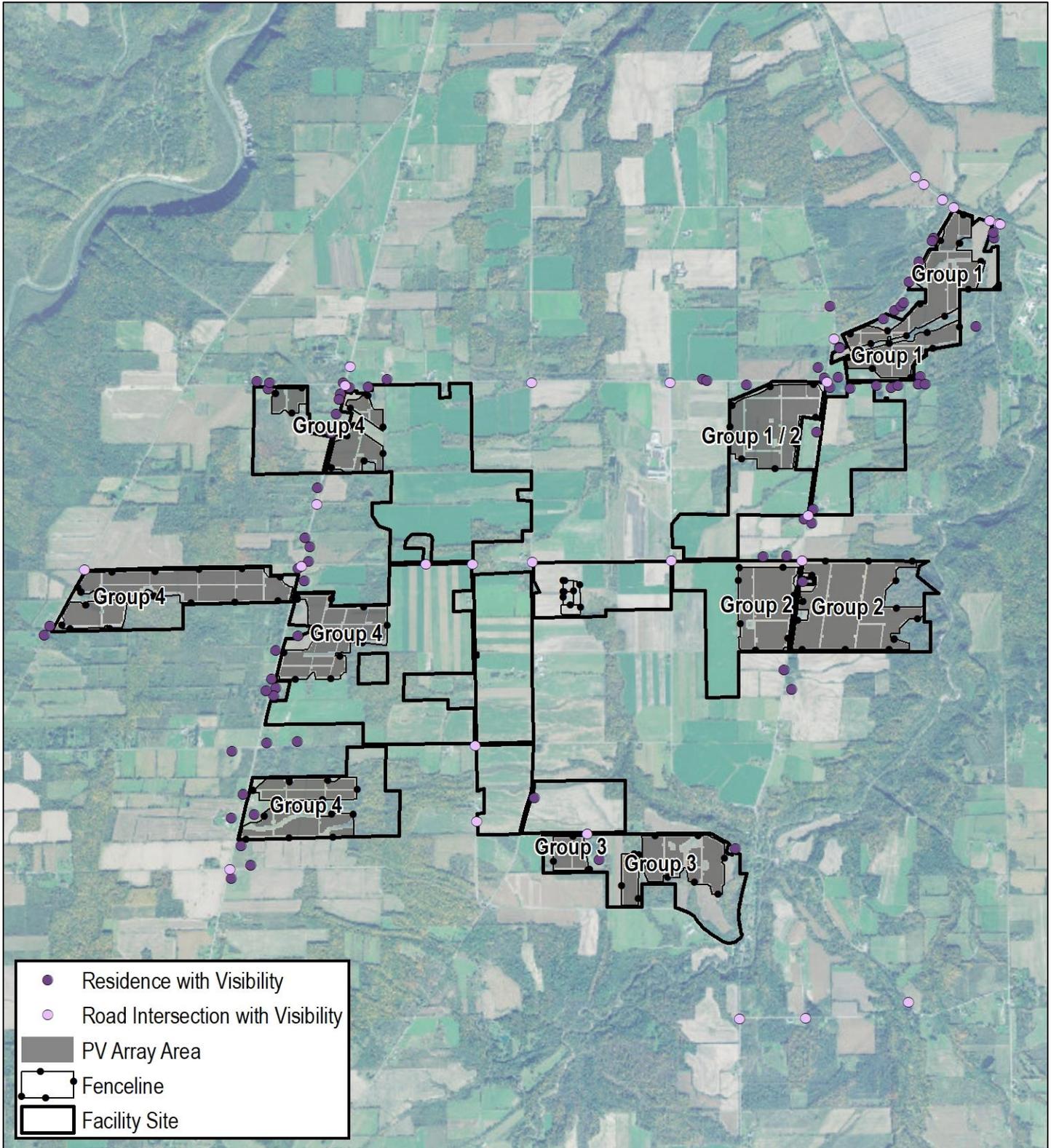


Figure 1. Project Overview

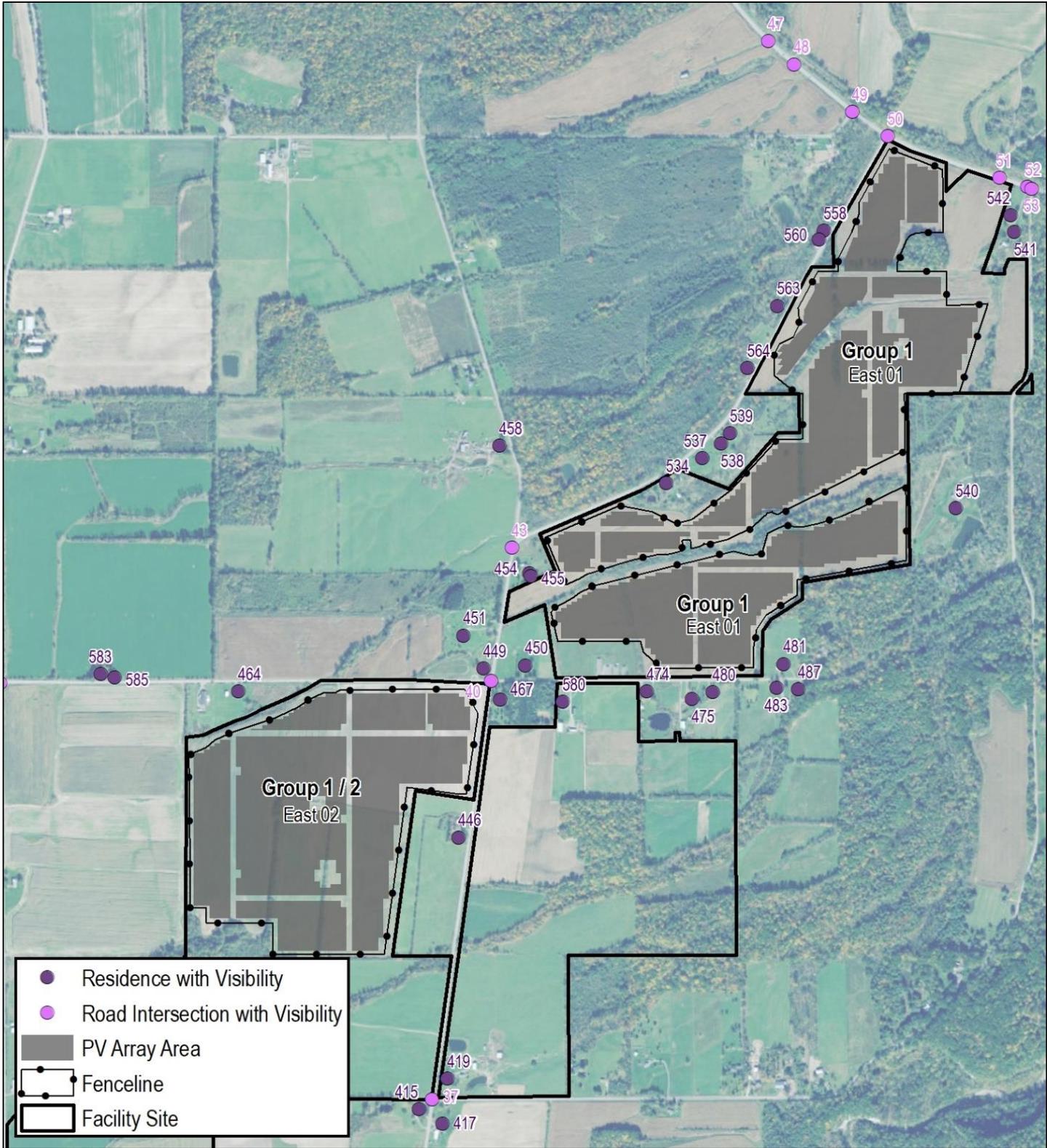


Figure 2. Group 1 – Arrays East 01 and East 02

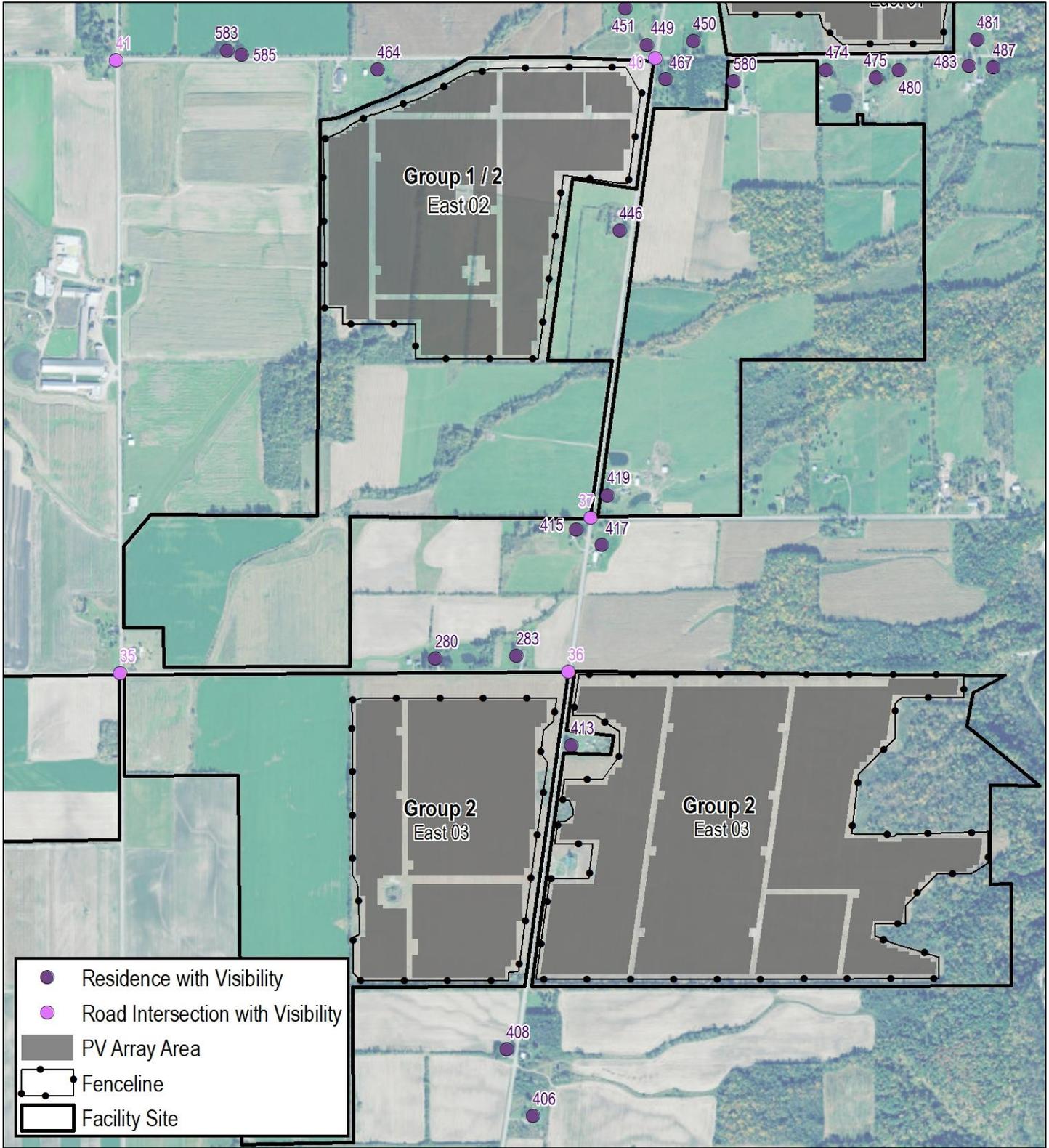


Figure 3. Group 2 – Arrays East 02 and East 03

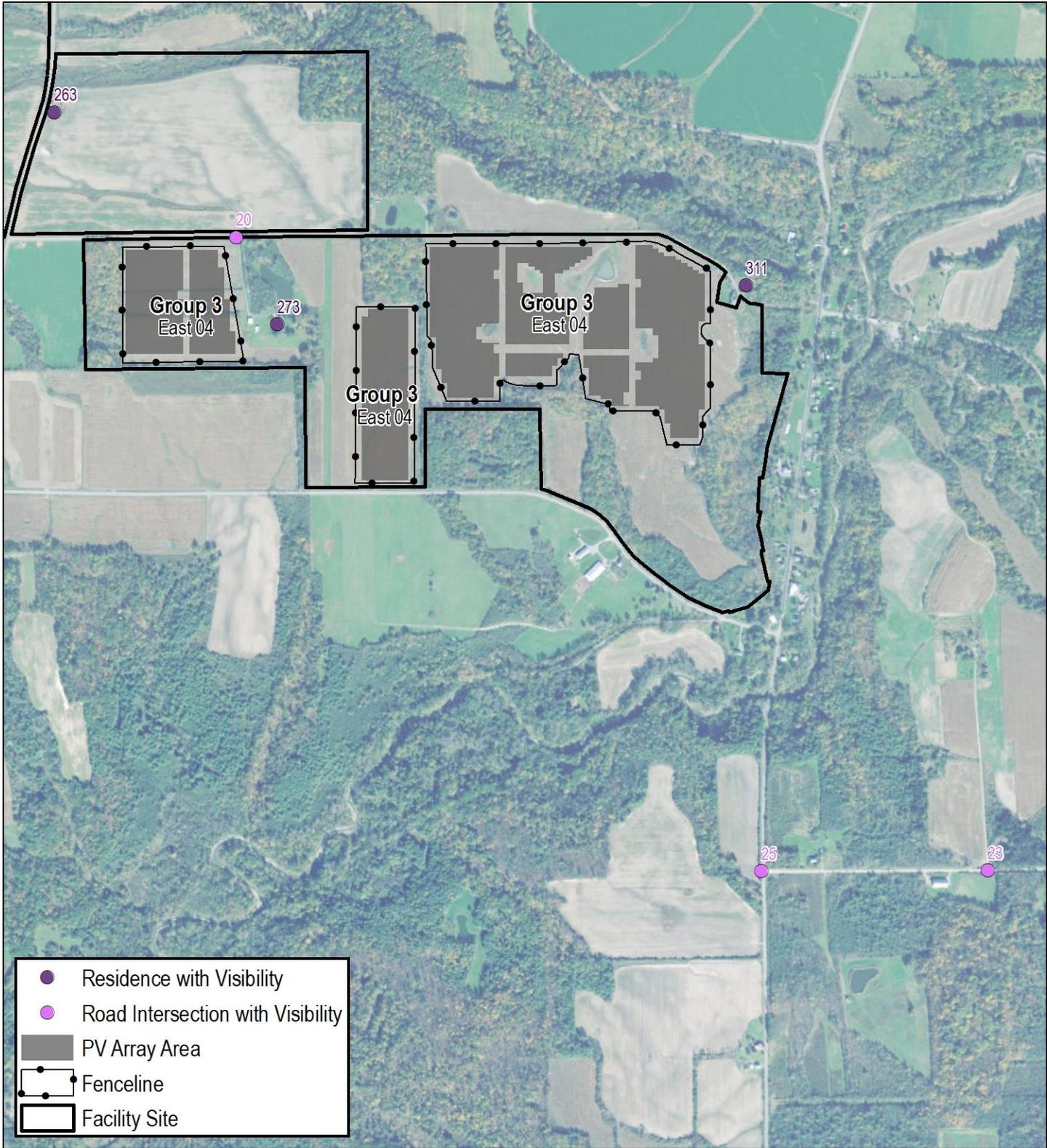


Figure 4. Group 3 – Array East 04

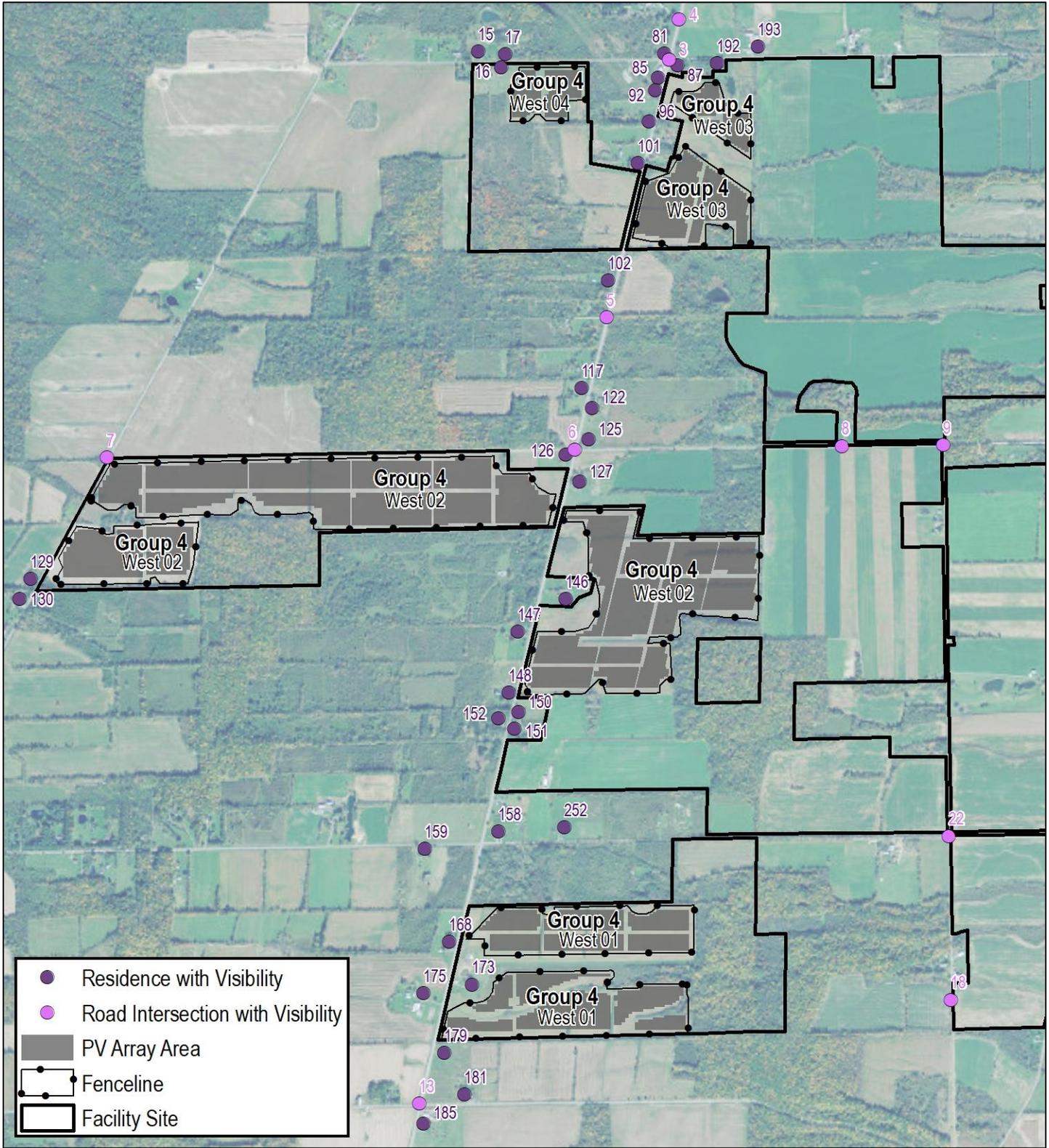


Figure 5. Group 4 – Arrays West 01, 02, 03 and 04.

2.3 ANALYSIS PARAMETERS

The following parameters were used as inputs into the SGHAT tool for the glare assessment:

Table 1: SGHAT Input Parameters

PARAMETER	PURPOSE
Height Units	This variable is the unit for input surface elevations, heights of PV arrays and observation points. Units in feet and meter are available. The unit “feet” was selected. All elevations are automatically taken from Google Earth through the web-based tool.
Peak DNI	The maximum Direct Normal Irradiance (DNI) at the given location at solar noon. This variable is given in units W/m^2 . The peak DNI at solar noon is approximately $1,000 W/m^2$ on a clear, sunny day. The default value of $1,000 W/m^2$ was selected.
DNI Variability	If “variable” is selected, the peak DNI is scaled at each time step interval based on the changing position of the sun. If “fixed” is selected, the peak DNI is used at each time step interval. The default value of “variable” was selected.
Ocular Transmission Coefficient	The coefficient accounts for radiation that is absorbed in the eye before reaching the retina. The default value of 0.5 is typical and was selected.
Pupil Diameter	The diameter of the pupil in meters. Values typically range from 0.002 m (daylight-adjusted eyes) to 0.008 m (nighttime-adjusted eyes). The default value of 0.002 m was selected.
Eye Focal Length	The distance between where light enters the eye and the retina in meters. The default value of 0.017 m was selected.
Time Interval	The time step for the glare analysis in minutes. The potential glare is measured at each time interval. The default value of 1 minute was selected.

2.4 PV ARRAYS

The PV array extents were included in the model were developed from project layout information provided by MRSEC, as shown in Appendix C. The extents of the array were vertically offset 7.5 feet to represent the center of the racking height proposed in the site design. The following additional parameters were used for the PV array:

Table 2: PV Array Parameter Definitions

PARAMETER	PURPOSE
Axis Tracking	The type of tracking used by the panels, if any. Fixed (no rotation) was selected based on the proposed Project design.
Orientation	The orientation of the PV array in degrees, measured clockwise from true north. An orientation of 180° was selected based on the proposed site design.
Tilt	The tilt of the modules toward the sun in the north-south direction, in degrees. 30° (facing south) was selected based on the proposed site design.
Rated Power	The rated power in kilowatts (kW) of the entire PV system. The rated power was not specified for this analysis.
Panel Material	The surface material of the PV array panels. Each material has variable reflectivity. Smooth glass without anti-reflection coating was selected. Anti-reflection coating is an additional option for the panels proposed. However, to be conservative, this option was not utilized.
Reflectivity Varies with Incidence Angle	If selected, the reflectivity of the PV arrays will be calculated at each time step based on the panel material and the angle between the panel and the position of the sun. “Vary with sun” was selected by default.
Slope Error	The amount of light scatter in milliradians that occurs from the panel surface material. Smoother surfaces create less scatter and rougher surfaces create more scatter. The default value for the selected panel material of 6.55 mrad was used.

One characteristic of the array that cannot be analyzed by the SGHAT software is any physical obstruction, such as vegetation, between the input PV array and the observation receptors, and any atmospheric obstructions, such as clouds and humidity that would limit the production of glare. These limitations are important because there is significant vegetation surrounding the PV arrays and the area the Facility is located in has a substantial amount of cloud cover annually. By not accounting for vegetation, topography, cloud cover, and other factors that limit glare in the real world, the results of this analysis are conservative. Glare conditions post-construction are expected to be less significant in most of the observation points than those conditions simulated herein.

2.5 DISCRETE OBSERVATION RECEPTORS

This analysis was performed for all year-round residences within 1,500 feet and road intersections located within 1 mile of the Facility with potential project visibility (i.e., discrete observation receptors).² The observation point receptor type was utilized for both residences and intersections as it is the most conservative method of quantifying glare. Observation point receptors assume full 360-degree visibility with no field-of-view restrictions.

In total, seventy-four (74) year-round residences (i.e., discrete observation receptors) and (29) intersections with visibility of the Project were identified within 1500 feet and within 1 mile of the Facility, respectively (see Figures 1-5). The analysis performed for these sensitive receptors assumed an eye height of 64.32 inches (5.36 feet), which is the mean eye height for males based on anthropometric survey data of U.S. personnel (Appendix A).

² A receptor was determined to have Project visibility if it had a direct view of solar panels. Visibility at each sensitive receptor was determined using the Digital Surface Model (DSM) viewshed data derived from USGS and NYSGPO lidar datasets.

3 RESULTS

Glare anticipated for this Facility can be separated into two hazard levels: green and yellow. “Green” glare is defined as having low potential for temporary after-image. “Yellow” is glare defined as having potential for temporary after-image. “Red” glare—glare that has the potential to cause eye damage—is typically not possible for non-concentrating solar energy facilities such as the proposed project.

According to the SGHAT, this site does not produce “red” glare on any of the discrete observation receptors or routes path receptors analyzed. The majority of the glare received by this site is “yellow” glare.

Table 3: Annual Glare Received by Discrete Observation Receptors with Visibility of PV panels in Group 1 (i.e., PV arrays E01 and E02).

OP #	EDF ID	Observation Point Type	Green Glare (Minutes/Year)	Yellow Glare (Minutes/Year)
1	542	Residence	0	3558
2	541	Residence	0	3215
3	558	Residence	0	2567
4	560	Residence	0	2997
5	563	Residence	0	2472
6	564	Residence	0	4973
7	539	Residence	0	2813
8	538	Residence	0	2932
9	537	Residence	0	2882
10	534	Residence	0	2907
11	540	Residence	0	2732
12	454	Residence	0	6260
13	455	Residence	0	5807
14	458	Residence	0	2577
15	474	Residence	0	3182
16	475	Residence	0	426
17	480	Residence	0	273
18	481	Residence	0	3757
19	451	Residence	0	3636
20	446	Residence	0	3009
21	464	Residence	0	1970
22	585	Residence	0	37
23	583	Residence	0	120
24	847	Intersection	0	0
25	848	Intersection	0	0
26	849	Intersection	0	0
27	850	Intersection	0	0
28	851	Intersection	0	1467
29	852	Intersection	0	1547

OP #	EDF ID	Observation Point Type	Green Glare (Minutes/Year)	Yellow Glare (Minutes/Year)
30	853	Intersection	0	1520
31	843	Intersection	0	3067
32	840	Intersection	0	3318
33	837	Intersection	0	0
34	836	Intersection	0	0
35	841	Intersection	0	1257
36	842	Intersection	16	1028
37	483	Residence	0	2086
38	487	Residence	0	2168
39	449	Residence	0	3561
40	450	Residence	0	4716
41	419	Residence	0	0
42	415	Residence	0	0
43	417	Residence	0	0
44	283	Residence	0	0
45	280	Residence	0	0
46	580	Residence	0	2050
47	467	Residence	0	4625

Table 4: Annual Glare Received by Discrete Observation Receptors with Visibility of PV panels in Group 2 (i.e., PV arrays E02 and E03).

OP #	EDF ID	Observation Point Type	Green Glare (Minutes/Year)	Yellow Glare (Minutes/Year)
1	419	Residence	0	0
2	417	Residence	0	0
3	415	Residence	0	0
4	283	Residence	0	0
5	280	Residence	0	0
6	413	Residence	0	6074
7	408	Residence	0	1598
8	406	Residence	0	403
9	836	Intersection	0	3
10	835	Intersection	0	45
11	837	Intersection	0	0
12	840	Intersection	0	0
13	843	Intersection	0	0
14	841	Intersection	0	9
15	842	Intersection	0	5
16	838	Intersection	5	1094
17	809	Intersection	19	1239

Table 5: Annual Glare Received by Discrete Observation Receptors with Visibility of PV panels in Group 3 (i.e., PV array E04.

OP #	EDF ID	Observation Point Type	Green Glare (Minutes/Year)	Yellow Glare (Minutes/Year)
1	311	Residence	93	4095
2	273	Residence	9	7152
3	263	Residence	0	0
4	820	Intersection	0	20
5	822	Intersection	0	0
6	818	Intersection	78	172
7	825	Intersection	0	0
8	823	Intersection	0	0
9	834	Intersection	3254	566

Table 6: Annual Glare Received by Discrete Observation Receptors with Visibility of PV panels in Group 4 (i.e., PV arrays W01-04.

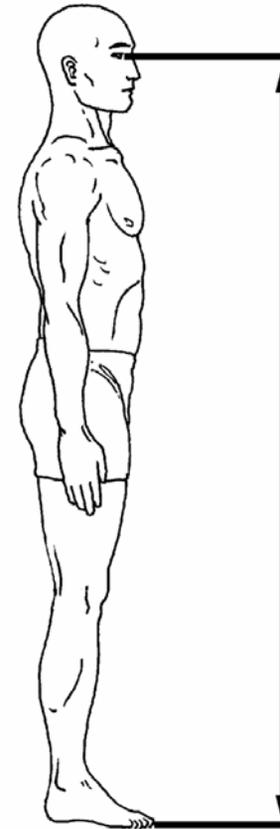
OP #	EDF ID	Observation Point Type	Green Glare (Minutes/Year)	Yellow Glare (Minutes/Year)
1	185	Residence	0	204
2	181	Residence	0	160
3	179	Residence	0	2636
4	175	Residence	0	2780
5	173	Residence	0	2060
6	168	Residence	0	2153
7	159	Residence	0	0
8	158	Residence	0	0
9	252	Residence	0	30
10	151	Residence	0	3662
11	152	Residence	0	4295
12	150	Residence	0	4978
13	148	Residence	0	10516
14	147	Residence	0	2384
15	146	Residence	8	5863
16	130	Residence	158	2349
17	129	Residence	256	2735
18	127	Residence	0	5586
19	126	Residence	2	97
20	125	Residence	0	0
21	122	Residence	0	0
22	117	Residence	0	0
23	102	Residence	0	550

OP #	EDF ID	Observation Point Type	Green Glare (Minutes/Year)	Yellow Glare (Minutes/Year)
24	101	Residence	0	4023
25	96	Residence	0	5046
26	92	Residence	0	877
27	85	Residence	0	232
28	87	Residence	0	17
29	81	Residence	0	0
30	193	Residence	0	0
31	16	Residence	0	21
32	17	Residence	0	0
33	15	Residence	0	0
34	192	Residence	0	0
35	804	Intersection	0	0
36	803	Intersection	0	0
37	805	Intersection	0	0
38	806	Intersection	1	17
39	807	Intersection	123	1336
40	813	Intersection	0	885
41	822	Intersection	0	2748
42	818	Intersection	19	1454
43	808	Intersection	4	23
44	809	Intersection	12	16
45	838	Intersection	28	30
46	835	Intersection	403	99

APPENDIX A – EXCERPT FROM 1988 ANTHROPOMORPHIC SURVEY OF U.S. PERSONNEL: SUMMARY STATISTICS

Eye Height, Standing

FEMALE N = 2208			MALE N = 1774		
<u>Centimeters</u>		<u>Inches</u>	<u>Centimeters</u>		<u>Inches</u>
151.61	Mean	59.69	163.39	Mean	64.32
6.25	Std Dev	2.46	6.57	Std Dev	2.59
175.30	Maximum	69.02	191.20	Maximum	75.28
132.50	Minimum	52.17	138.10	Minimum	54.37
Percentiles			Percentiles		
137.39	1 st	54.09	148.40	1 st	58.43
139.07	2 nd	54.75	150.22	2 nd	59.14
140.11	3 rd	55.16	151.33	3 rd	59.14
141.52	5 th	55.72	152.82	5 th	59.58
143.67	10 th	56.56	155.08	10 th	60.17
145.13	15 th	57.14	156.60	15 th	61.05
146.29	20 th	57.59	157.82	20 th	61.65
147.30	25 th	57.99	158.88	25 th	62.13
148.21	30 th	58.35	159.84	30 th	62.55
149.06	35 th	58.68	160.73	35 th	62.93
149.87	40 th	59.00	161.59	40 th	63.62
150.66	45 th	59.32	162.42	45 th	63.95
151.45	50 th	59.63	163.26	50 th	64.28
152.24	55 th	59.94	164.10	55 th	64.61
153.05	60 th	60.26	164.96	60 th	64.94
153.90	65 th	60.59	165.85	65 th	65.30
154.79	70 th	60.94	166.79	70 th	65.67
155.77	75 th	61.33	167.82	75 th	66.07
156.86	80 th	61.76	168.97	80 th	66.52
158.14	85 th	62.26	170.29	85 th	67.04
159.75	90 th	62.90	171.29	90 th	67.69
162.13	95 th	63.83	174.29	95 th	68.62
163.35	97 th	64.43	175.73	97 th	69.18
164.75	98 th	64.86	176.72	98 th	69.57
166.43	99 th	65.52	178.15	99 th	70.14



Excerpts from :
 Gordon, Claire C. et. al 1988 *Anthropometric Survey of U.S. Personnel: Summary Statistics Interim Report*. March 1989.



APPENDIX B – FORGE SOLAR GLARE ANALYSIS RESULTS

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I Accept



ForgeSolar

Site Configuration: Morris Ridge Solar Farm

Project site configuration details and results.



Created **April 2, 2020 5:28 p.m.**
 Updated **June 23, 2020 3:23 p.m.**
 DNI **varies** and peaks at **1,000.0 W/m²**
 Analyze every **1 minute(s)**
0.5 ocular transmission coefficient
0.002 m pupil diameter
0.017 m eye focal length
9.3 mrad sun subtended angle
 Timezone **UTC-5**
 Site Configuration ID: 39765.6879

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

PV Name	Tilt deg	Orientation deg	"Green" Glare min	"Yellow" Glare min	Energy Produced kWh
PV Array - East 01	30.0	180.0	16	92,548	-
PV Array - East 02	30.0	180.0	6	4,964	-

Component Data

PV Array(s)

Name: PV Array - East 01
Description: North-east PV Array
Axis tracking: Fixed (no rotation)
Tilt: 30.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad
Approx. area: 7,111,280 sq-ft



Vertex	Latitude deg	Longitude deg	Ground elevation ft	Height above ground ft	Total elevation ft
1	42.689876	-77.846477	608.46	7.50	615.96
2	42.687731	-77.848193	627.46	7.50	634.96
3	42.686659	-77.848193	638.20	7.50	645.70
4	42.686722	-77.849138	642.56	7.50	650.06
5	42.683914	-77.851240	697.56	7.50	705.06
6	42.683946	-77.849481	674.24	7.50	681.74
7	42.682463	-77.849524	691.17	7.50	698.67
8	42.682463	-77.850339	704.26	7.50	711.76
9	42.680412	-77.853601	745.36	7.50	752.86
10	42.680633	-77.855446	760.61	7.50	768.11
11	42.680854	-77.855704	761.40	7.50	768.90
12	42.679908	-77.858622	795.81	7.50	803.31
13	42.678267	-77.857978	801.06	7.50	808.57
14	42.678141	-77.858450	807.54	7.50	815.05
15	42.677005	-77.858021	808.78	7.50	816.28
16	42.677068	-77.855232	785.58	7.50	793.08
17	42.676626	-77.855103	787.42	7.50	794.92
18	42.676658	-77.851283	740.86	7.50	748.36
19	42.677605	-77.851283	734.06	7.50	741.57
20	42.678362	-77.849953	725.28	7.50	732.78
21	42.678835	-77.849738	731.45	7.50	738.95
22	42.679340	-77.846176	681.49	7.50	688.99
23	42.681043	-77.846048	660.39	7.50	667.89
24	42.679876	-77.849738	727.13	7.50	734.63
25	42.680002	-77.850725	727.45	7.50	734.95
26	42.679371	-77.851198	721.12	7.50	728.62
27	42.679466	-77.852270	728.87	7.50	736.37
28	42.679782	-77.852270	729.22	7.50	736.72
29	42.679782	-77.851412	722.70	7.50	730.20
30	42.680665	-77.851412	726.38	7.50	733.88
31	42.680602	-77.849695	715.65	7.50	723.15
32	42.681611	-77.846176	651.92	7.50	659.42
33	42.683567	-77.846048	637.91	7.50	645.41
34	42.683567	-77.843773	622.79	7.50	630.29
35	42.685965	-77.842915	605.49	7.50	612.99
36	42.685996	-77.844674	616.11	7.50	623.61
37	42.686722	-77.844631	613.88	7.50	621.38
38	42.686754	-77.846477	626.88	7.50	634.38
39	42.687795	-77.845790	611.49	7.50	618.99
40	42.687731	-77.844760	612.94	7.50	620.44
41	42.689340	-77.844589	604.01	7.50	611.51

Name: PV Array - East 02
Axis tracking: Fixed (no rotation)
Tilt: 30.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad
Approx. area: 5,000,803 sq-ft



Vertex	Latitude deg	Longitude deg	Ground elevation ft	Height above ground ft	Total elevation ft
1	42.675963	-77.861047	855.73	7.50	863.23
2	42.675995	-77.866282	881.36	7.50	888.86
3	42.675395	-77.868128	905.14	7.50	912.64
4	42.674575	-77.871003	924.94	7.50	932.44
5	42.670378	-77.871089	943.44	7.50	950.94
6	42.670347	-77.870531	938.71	7.50	946.21
7	42.670031	-77.870531	938.92	7.50	946.42
8	42.670094	-77.869329	940.90	7.50	948.40
9	42.669621	-77.868299	938.00	7.50	945.50
10	42.670473	-77.866561	919.63	7.50	927.13
11	42.670142	-77.866347	916.07	7.50	923.57
12	42.669952	-77.866604	922.84	7.50	930.34
13	42.669747	-77.867076	922.04	7.50	929.54
14	42.669242	-77.867784	933.83	7.50	941.33
15	42.669211	-77.863493	901.72	7.50	909.22
16	42.673502	-77.862763	888.01	7.50	895.51
17	42.673502	-77.861433	878.43	7.50	885.93

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
OP 1	42.688139	-77.842277	611.62	5.36	616.98
OP 2	42.687717	-77.842213	610.77	5.36	616.13
OP 3	42.687784	-77.848774	641.94	5.36	647.30
OP 4	42.687581	-77.848967	642.32	5.36	647.68
OP 5	42.685857	-77.850437	670.02	5.36	675.38
OP 6	42.684261	-77.851442	700.57	5.36	705.93
OP 7	42.682597	-77.852113	719.22	5.36	724.58
OP 8	42.682320	-77.852456	726.00	5.36	731.36
OP 9	42.681938	-77.853073	734.25	5.36	739.61
OP 10	42.681311	-77.854366	751.17	5.36	756.53
OP 11	42.680626	-77.844289	670.38	5.36	675.75
OP 12	42.679044	-77.859141	810.31	5.36	815.67
OP 13	42.678940	-77.859128	809.57	5.36	814.93
OP 14	42.682317	-77.860227	810.10	5.36	815.46
OP 15	42.676064	-77.855109	799.35	5.36	804.71
OP 16	42.675795	-77.853553	775.99	5.36	781.35
OP 17	42.675950	-77.852829	765.01	5.36	770.37
OP 18	42.676650	-77.850329	748.96	5.36	754.32
OP 19	42.677434	-77.861436	849.22	5.36	854.58
OP 20	42.672278	-77.861735	895.72	5.36	901.08
OP 21	42.676109	-77.869355	916.22	5.36	921.58
OP 22	42.676399	-77.873665	929.80	5.36	935.16
OP 23	42.676504	-77.874131	931.03	5.36	936.39
OP 24	42.692672	-77.850802	607.31	5.36	612.67
OP 25	42.692118	-77.849819	603.16	5.36	608.52
OP 26	42.690810	-77.847792	600.52	5.36	605.88
OP 27	42.690225	-77.846612	605.05	5.36	610.41
OP 28	42.689129	-77.842653	603.80	5.36	609.16
OP 29	42.688877	-77.841751	603.26	5.36	608.62
OP 30	42.688806	-77.841505	601.45	5.36	606.81
OP 31	42.679929	-77.859604	806.01	5.36	811.37
OP 32	42.676297	-77.860548	850.41	5.36	855.77
OP 33	42.665516	-77.862593	904.74	5.36	910.10
OP 34	42.661981	-77.863515	925.27	5.36	930.63
OP 35	42.676290	-77.877756	932.97	5.36	938.33
OP 36	42.676479	-77.892776	971.89	5.36	977.25
OP 37	42.676024	-77.850582	756.30	5.36	761.66
OP 38	42.676048	-77.849820	749.79	5.36	755.15
OP 39	42.676589	-77.860860	850.60	5.36	855.96
OP 40	42.676668	-77.859358	836.71	5.36	842.07
OP 41	42.666055	-77.862255	909.28	5.36	914.64
OP 42	42.665234	-77.863167	916.59	5.36	921.95
OP 43	42.664916	-77.862401	909.71	5.36	915.07
OP 44	42.662277	-77.865089	941.72	5.36	947.08
OP 45	42.662222	-77.867707	955.72	5.36	961.08
OP 46	42.675692	-77.857975	819.89	5.36	825.25
OP 47	42.675805	-77.860250	862.46	5.36	867.82

PV Array Results

Summary of PV Glare Analysis PV configuration and predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File 
	deg	deg	min	min	kWh	
PV Array - East 01	30.0	180.0	16	92,548	-	
PV Array - East 02	30.0	180.0	6	4,964	-	

Click the name of the PV array to scroll to its results

PV & Receptor Analysis Results detailed results for each PV array and receptor

PV Array - East 01 potential temporary after-image



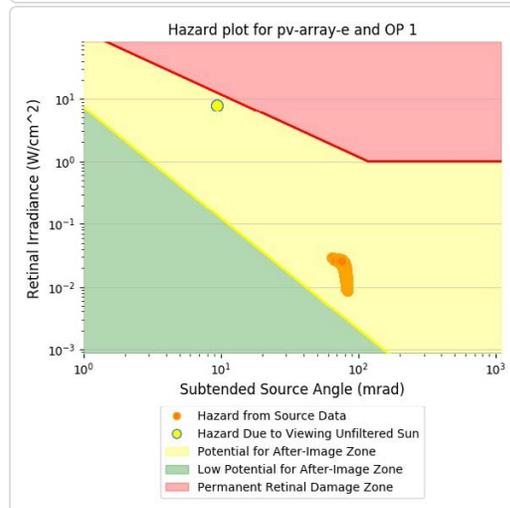
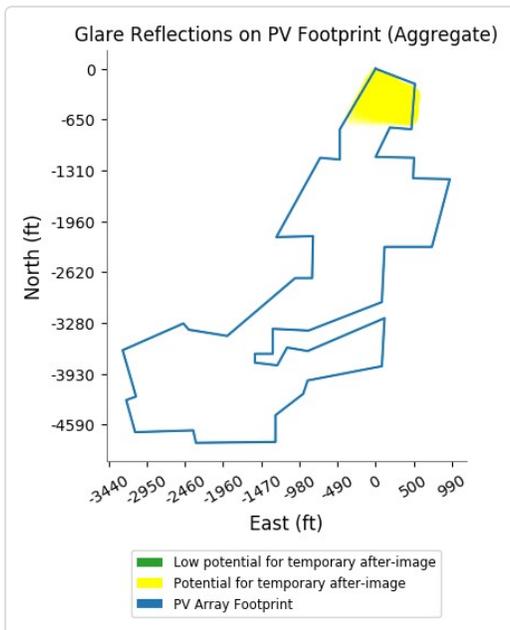
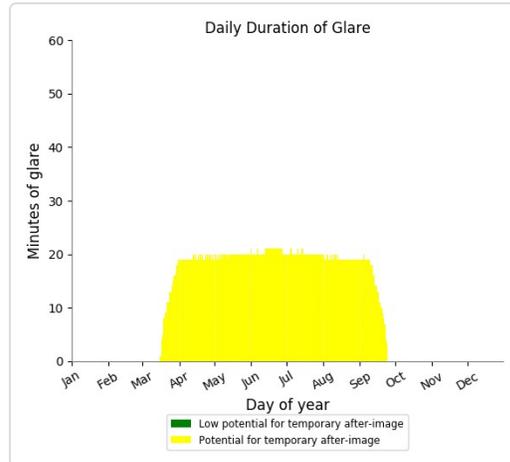
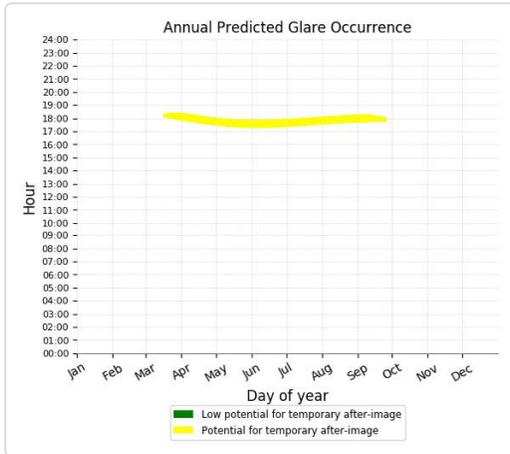
Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	3558
OP: OP 2	0	3215
OP: OP 3	0	2567
OP: OP 4	0	2997
OP: OP 5	0	2472
OP: OP 6	0	4973
OP: OP 7	0	2813
OP: OP 8	0	2932
OP: OP 9	0	2882
OP: OP 10	0	2907
OP: OP 11	0	2732
OP: OP 12	0	6260
OP: OP 13	0	5807
OP: OP 14	0	2577
OP: OP 15	0	3182
OP: OP 16	0	419
OP: OP 17	0	273
OP: OP 18	0	3757
OP: OP 19	0	3636
OP: OP 20	0	0
OP: OP 21	0	1849
OP: OP 22	0	33
OP: OP 23	0	118
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	1467

OP: OP 29	0	1547
OP: OP 30	0	1520
OP: OP 31	0	3067
OP: OP 32	0	3318
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	1250
OP: OP 36	16	1023
OP: OP 37	0	2086
OP: OP 38	0	2168
OP: OP 39	0	3561
OP: OP 40	0	4716
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	1849
OP: OP 47	0	3017

PV Array - East 01 - OP Receptor (OP 1)

PV array is expected to produce the following glare for receptors at this location:

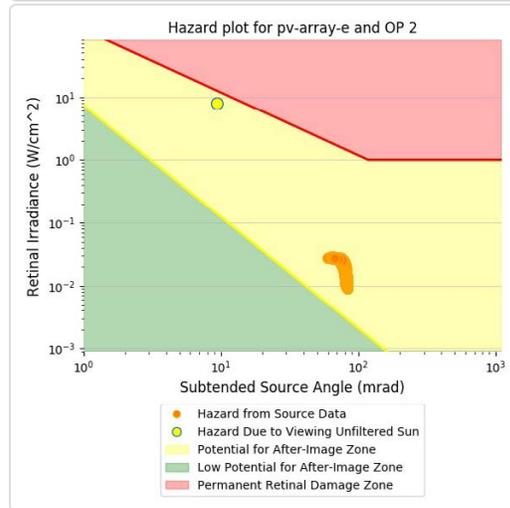
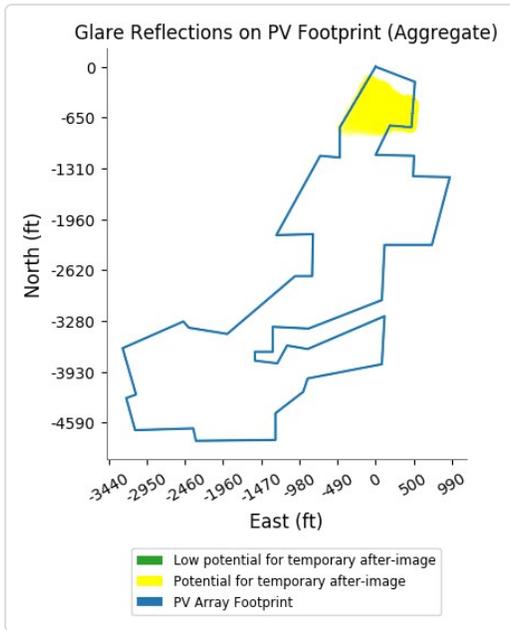
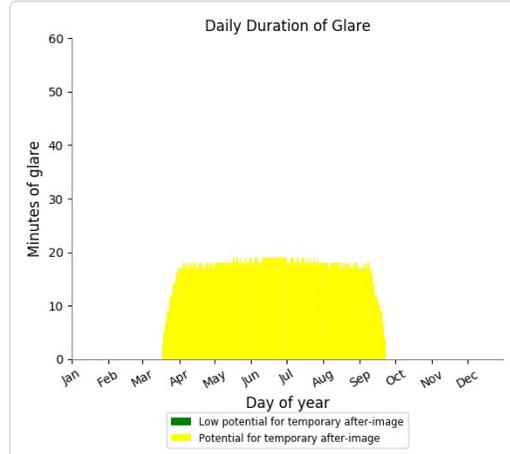
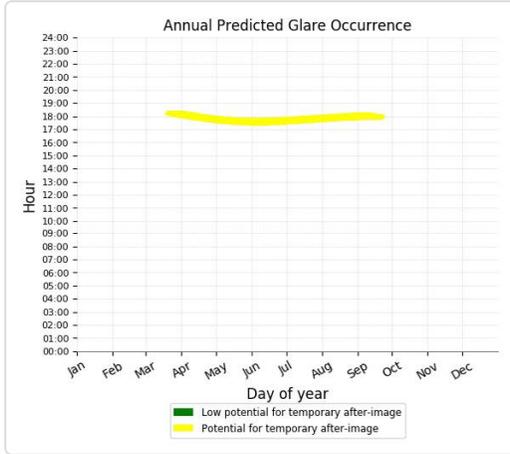
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,558 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 2)

PV array is expected to produce the following glare for receptors at this location:

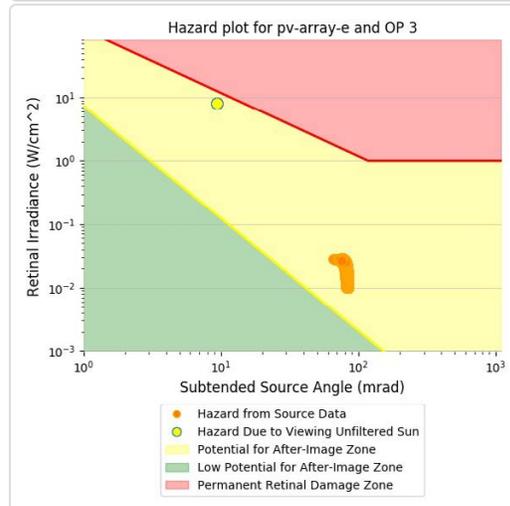
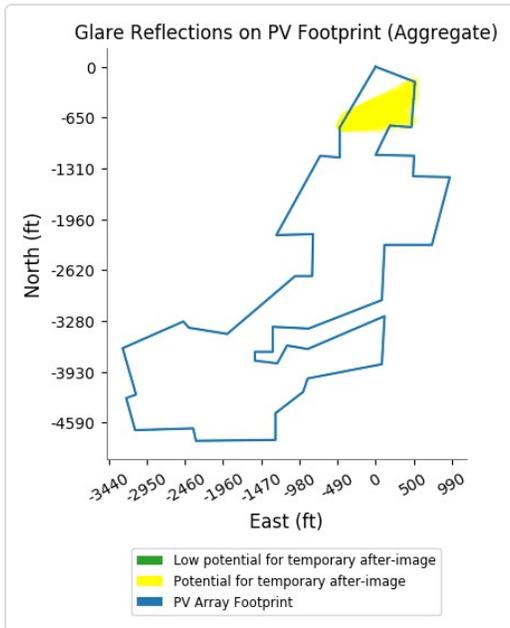
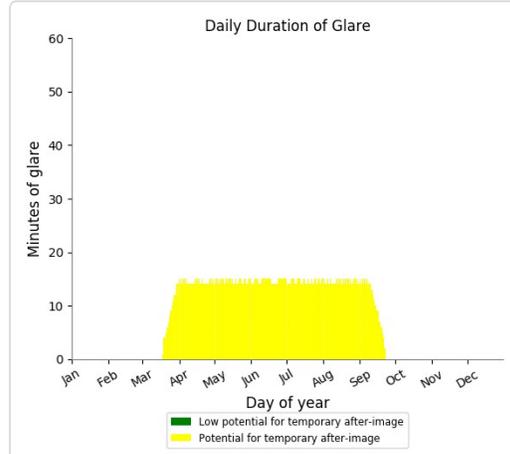
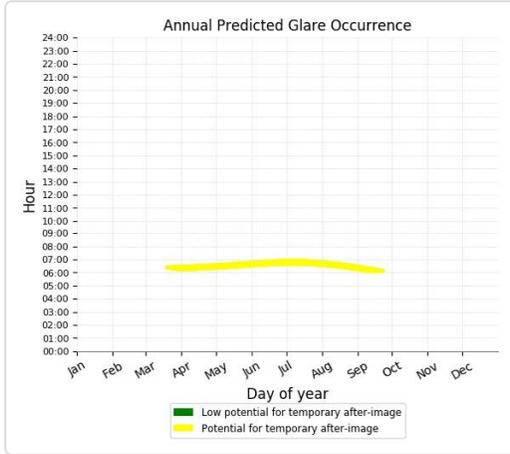
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,215 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 3)

PV array is expected to produce the following glare for receptors at this location:

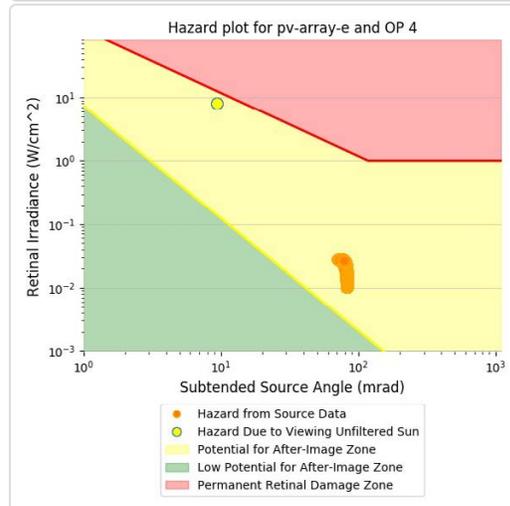
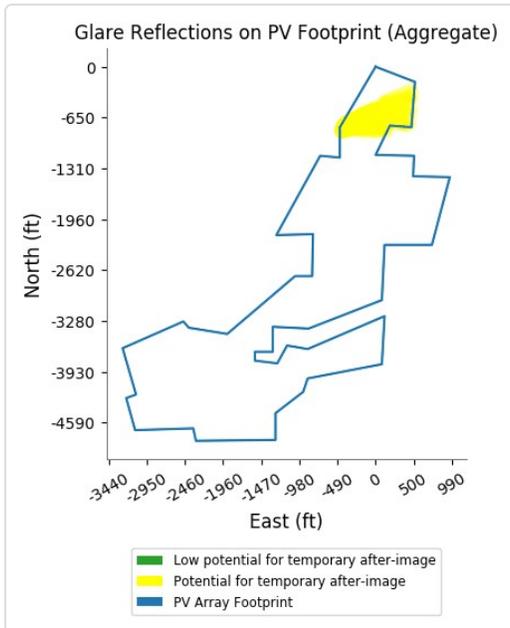
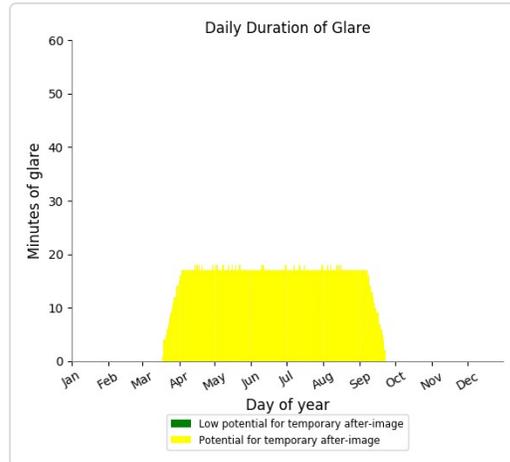
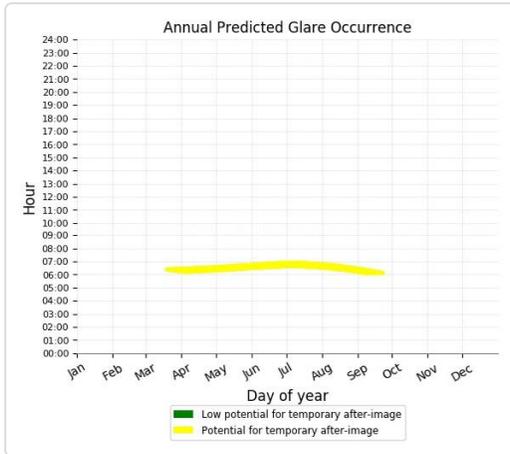
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,567 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 4)

PV array is expected to produce the following glare for receptors at this location:

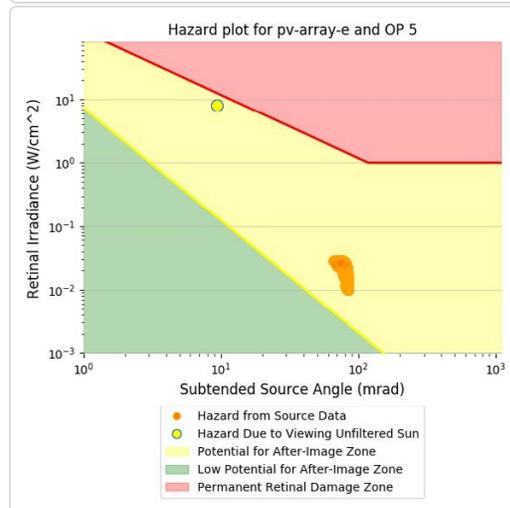
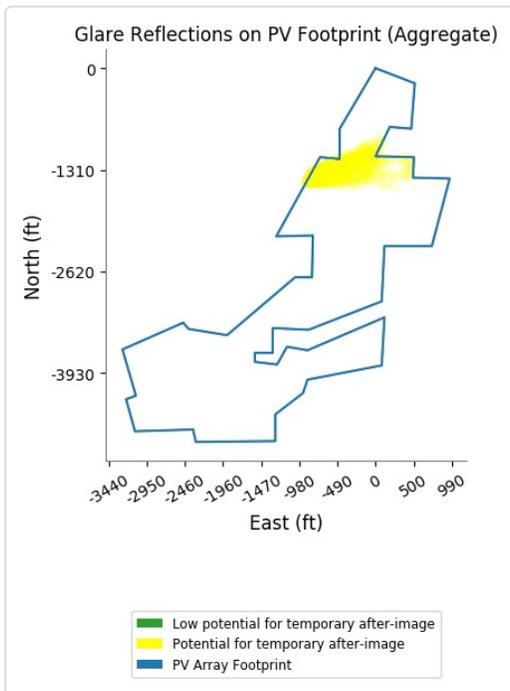
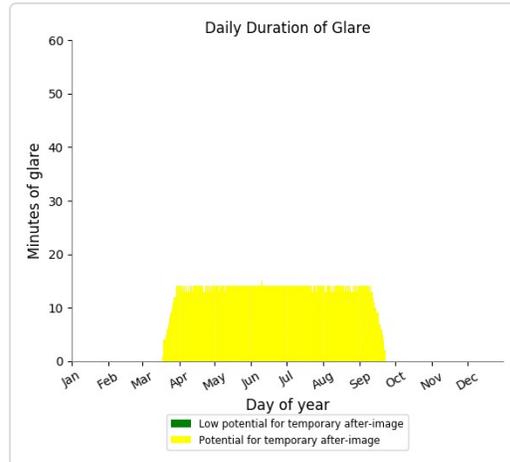
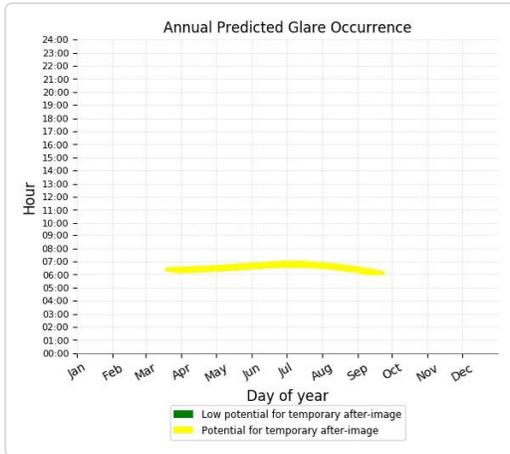
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,997 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 5)

PV array is expected to produce the following glare for receptors at this location:

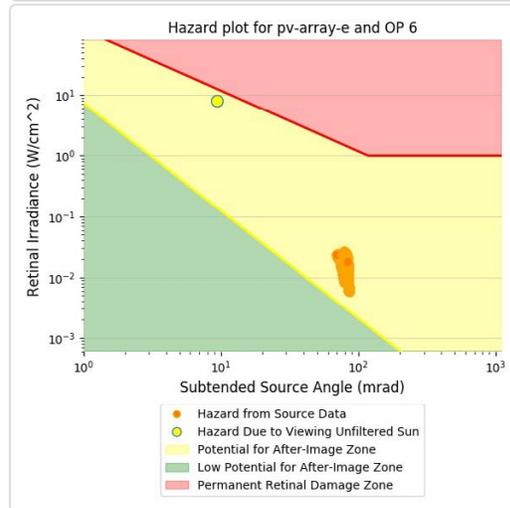
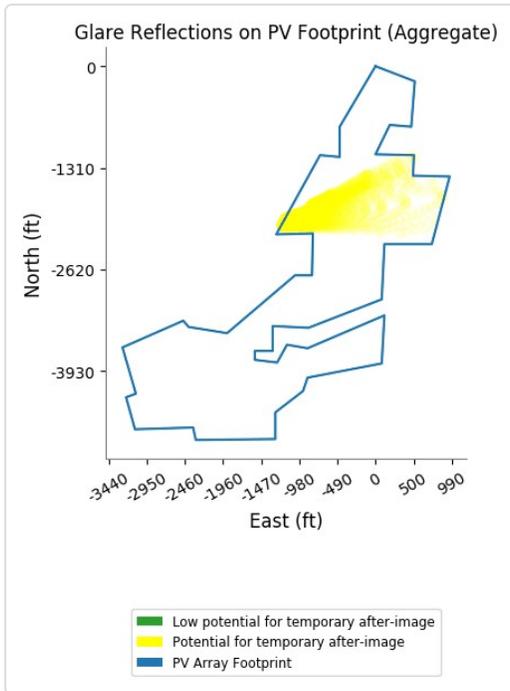
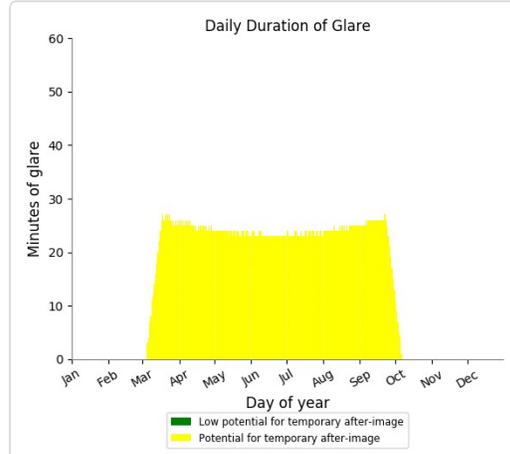
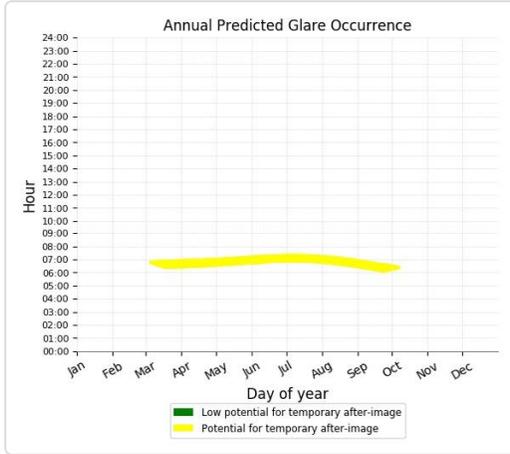
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,472 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 6)

PV array is expected to produce the following glare for receptors at this location:

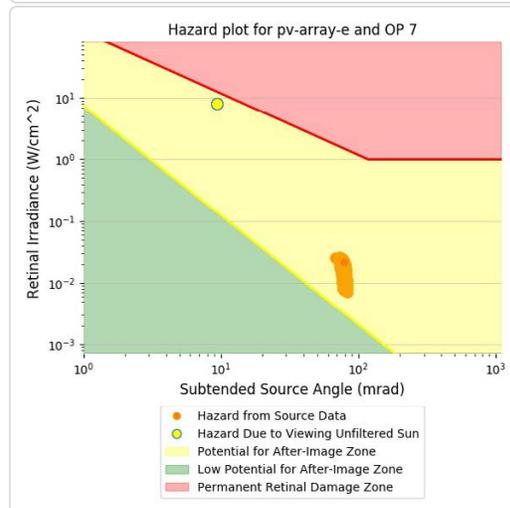
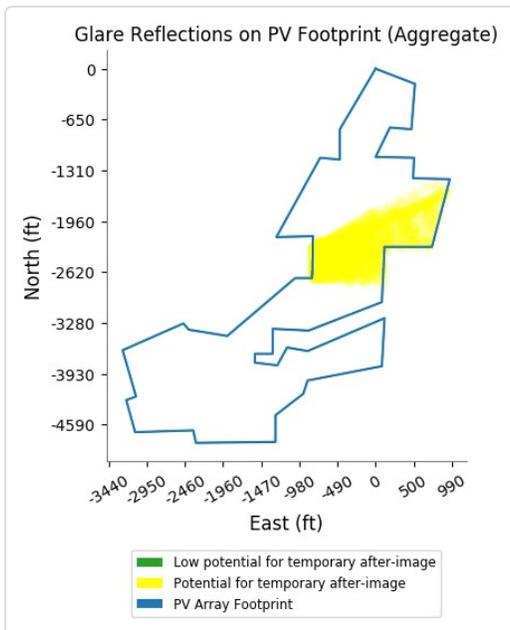
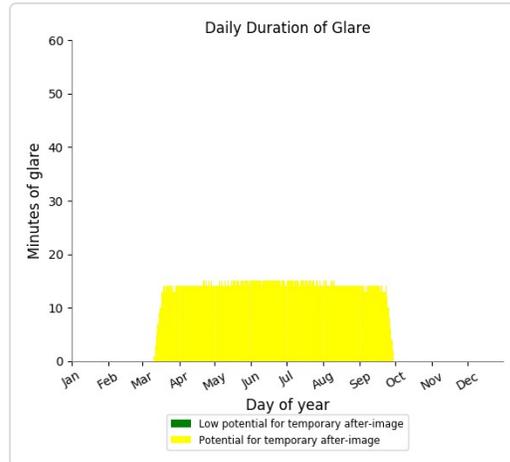
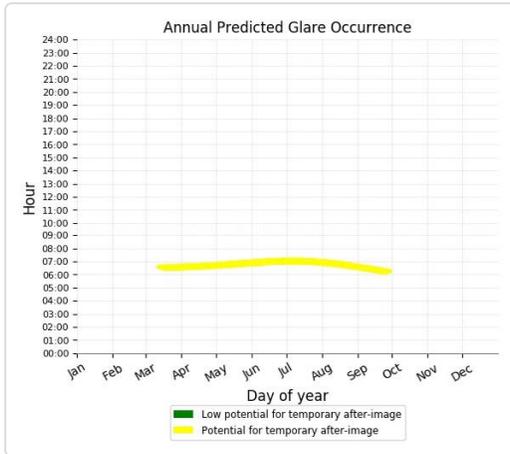
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 4,973 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 7)

PV array is expected to produce the following glare for receptors at this location:

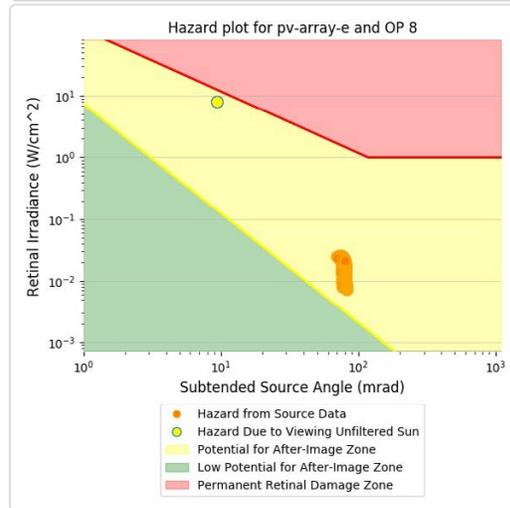
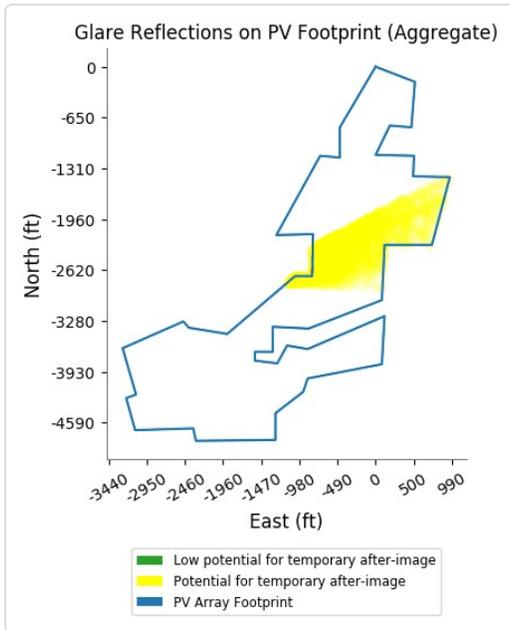
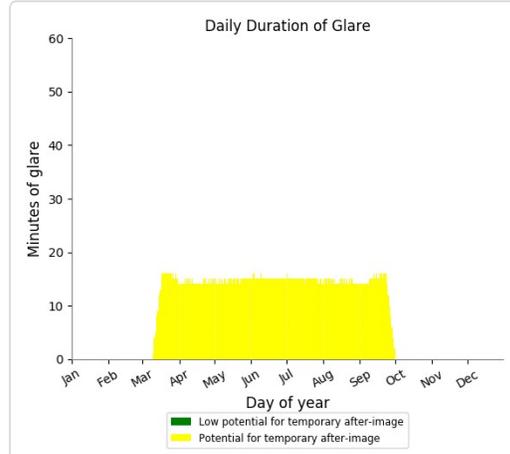
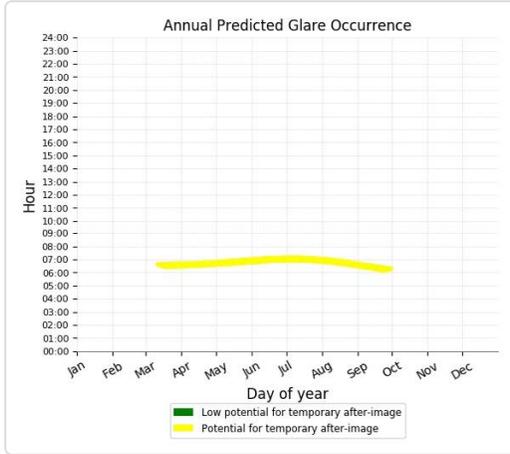
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,813 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 8)

PV array is expected to produce the following glare for receptors at this location:

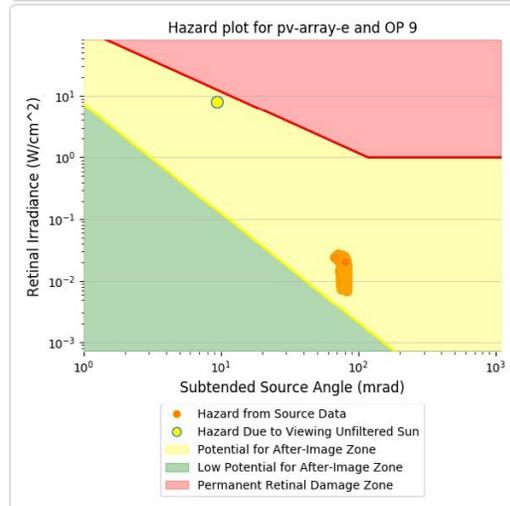
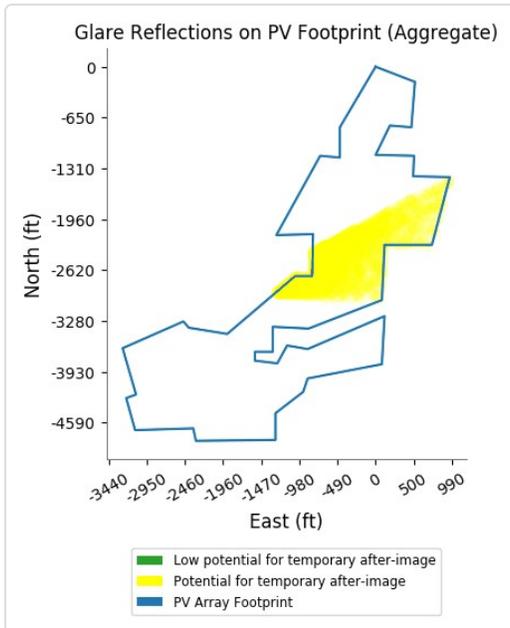
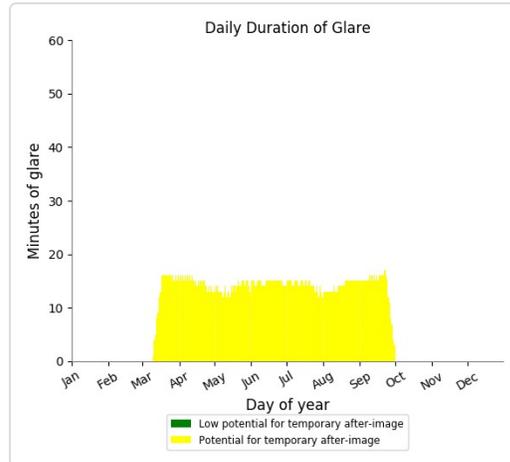
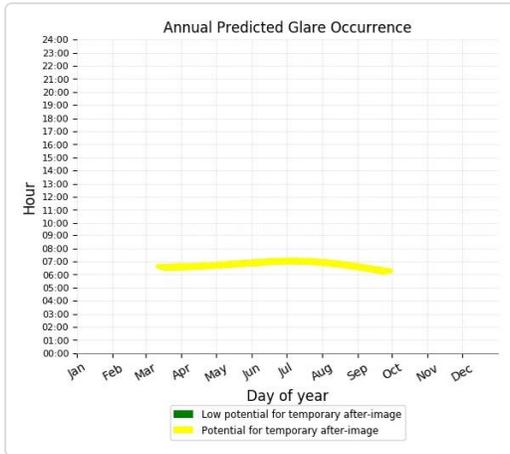
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,932 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 9)

PV array is expected to produce the following glare for receptors at this location:

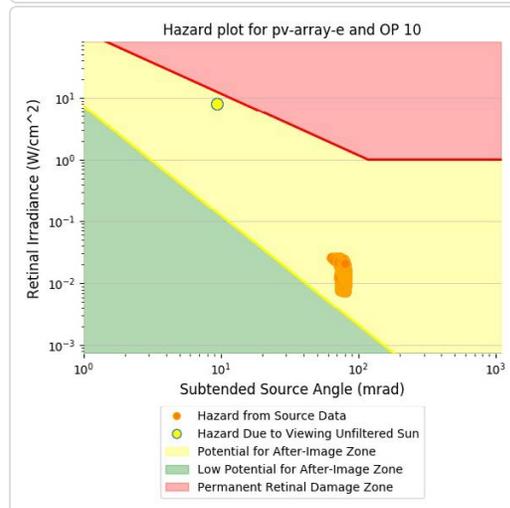
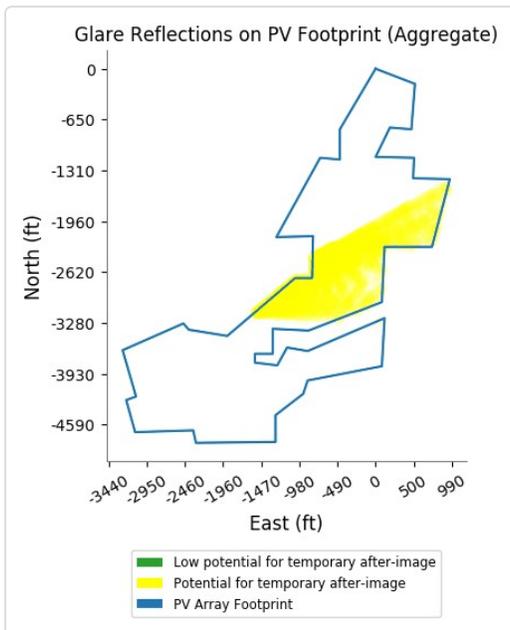
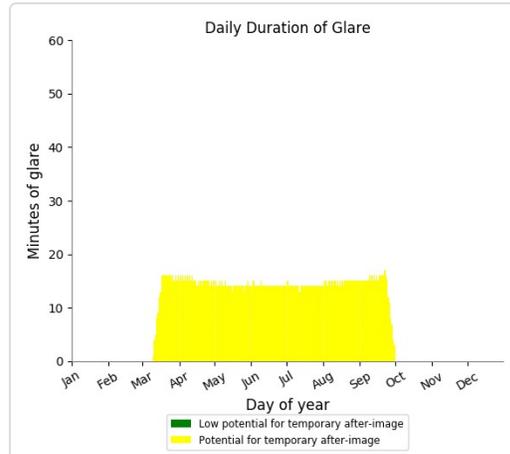
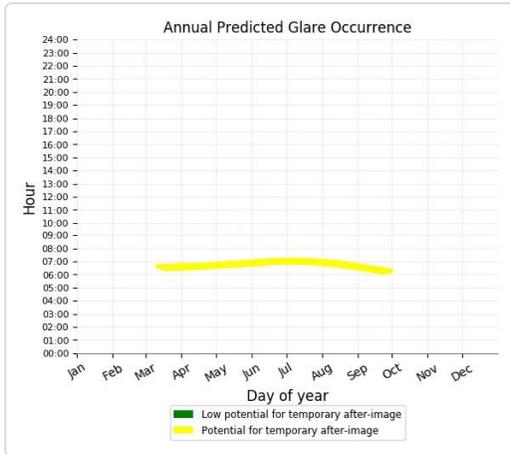
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,882 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 10)

PV array is expected to produce the following glare for receptors at this location:

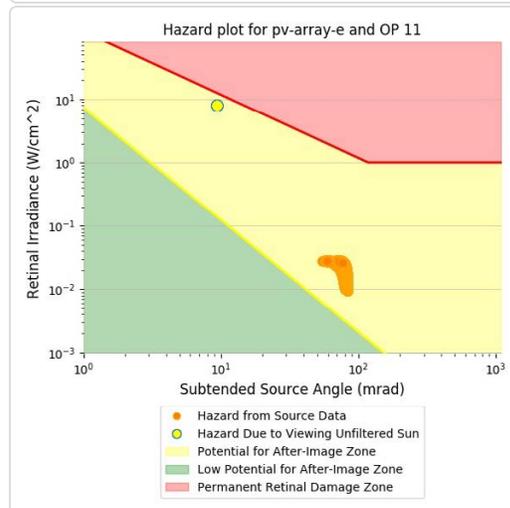
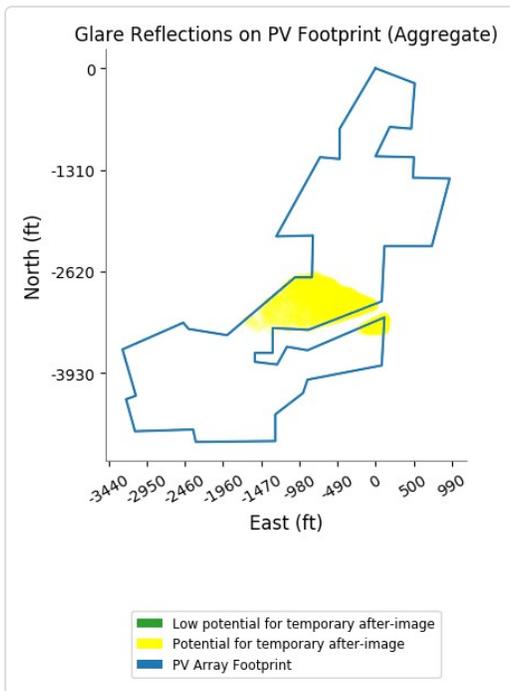
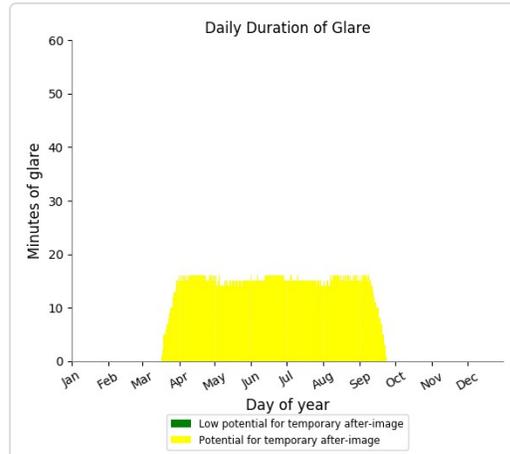
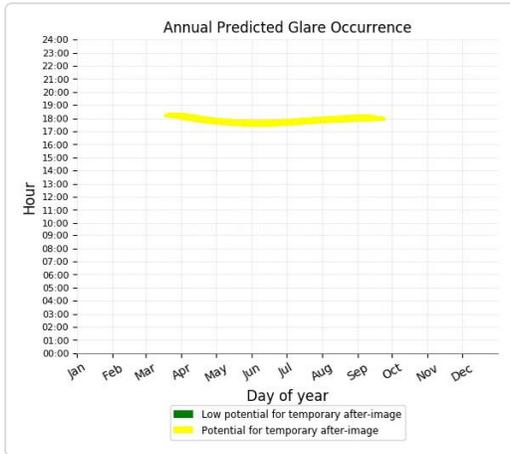
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,907 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 11)

PV array is expected to produce the following glare for receptors at this location:

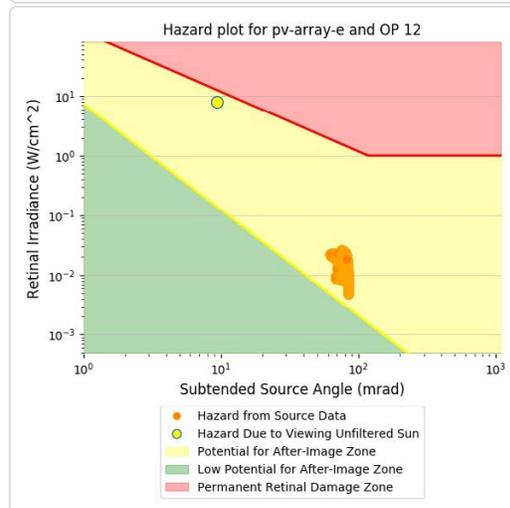
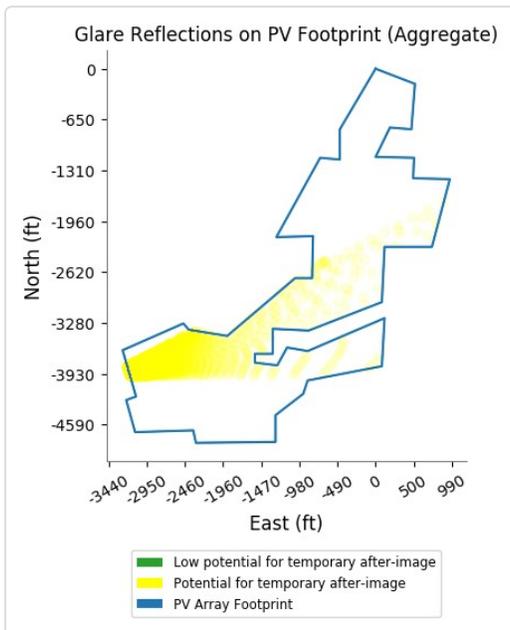
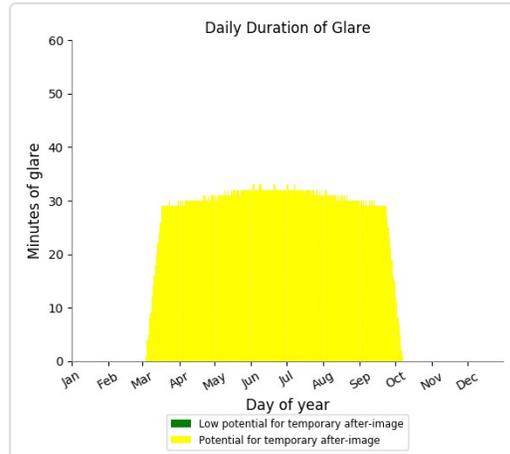
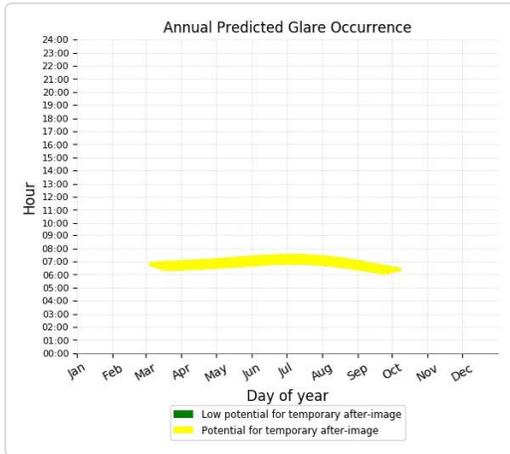
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,732 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 12)

PV array is expected to produce the following glare for receptors at this location:

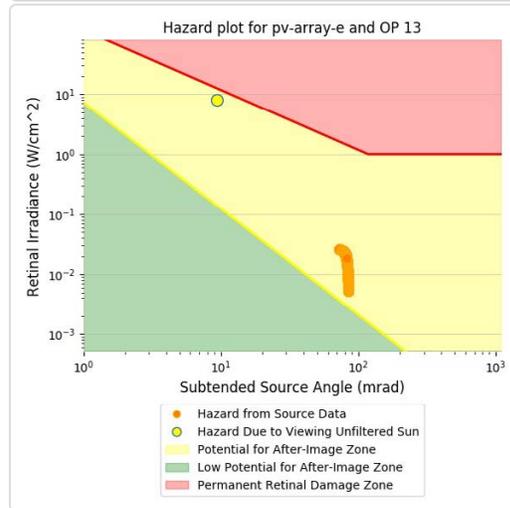
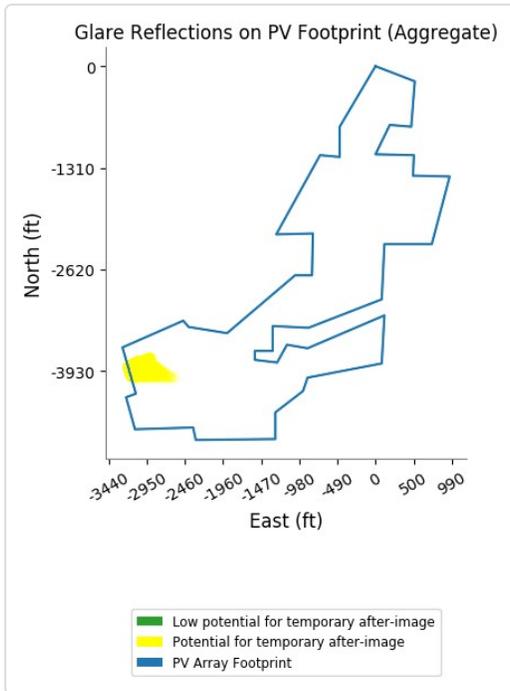
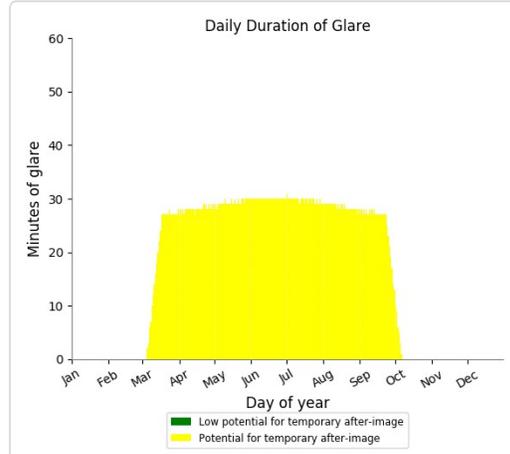
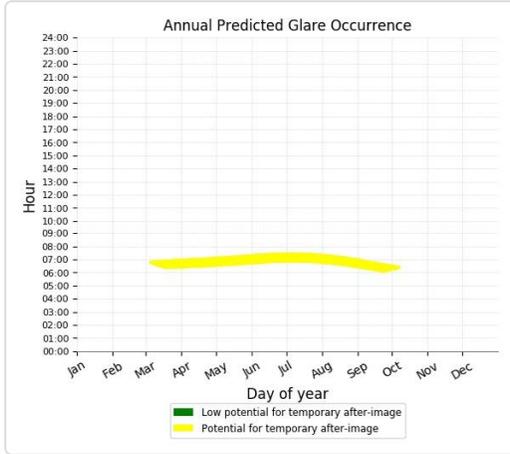
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 6,260 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 13)

PV array is expected to produce the following glare for receptors at this location:

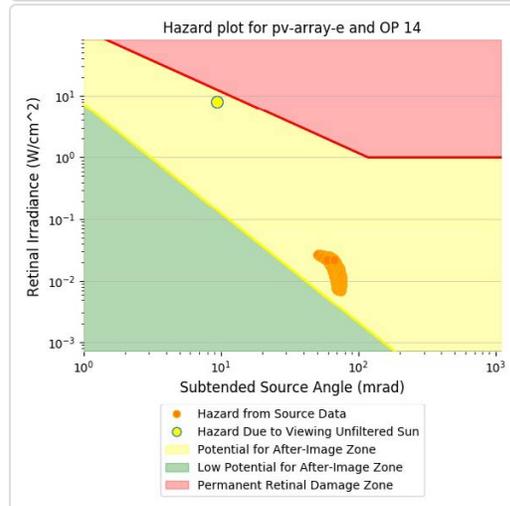
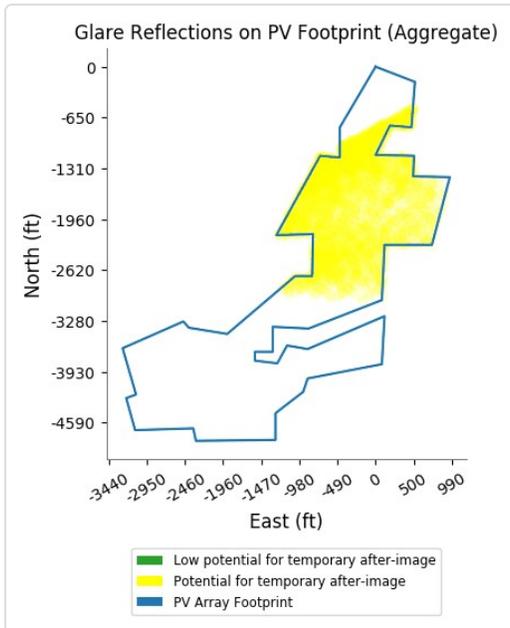
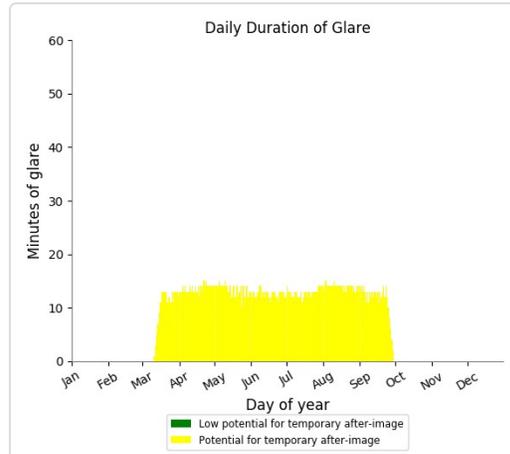
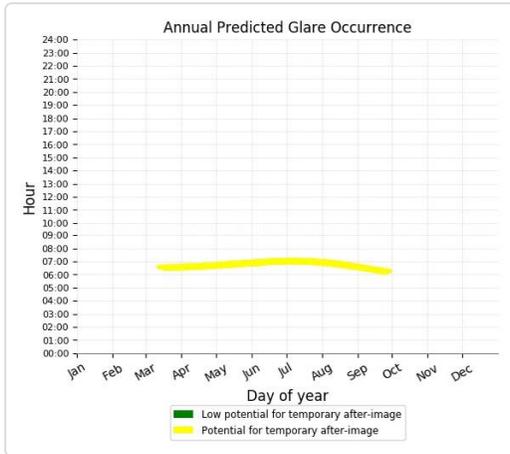
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 5,807 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 14)

PV array is expected to produce the following glare for receptors at this location:

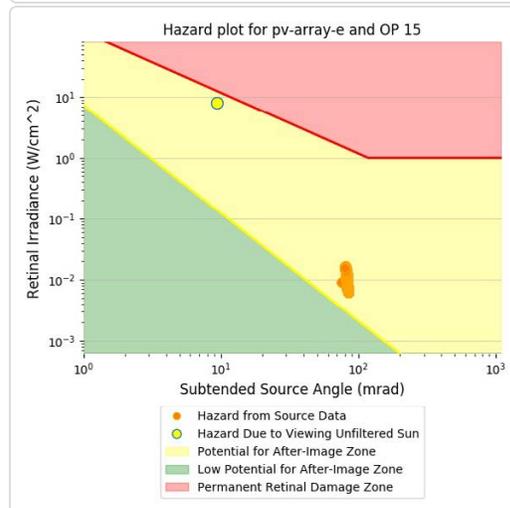
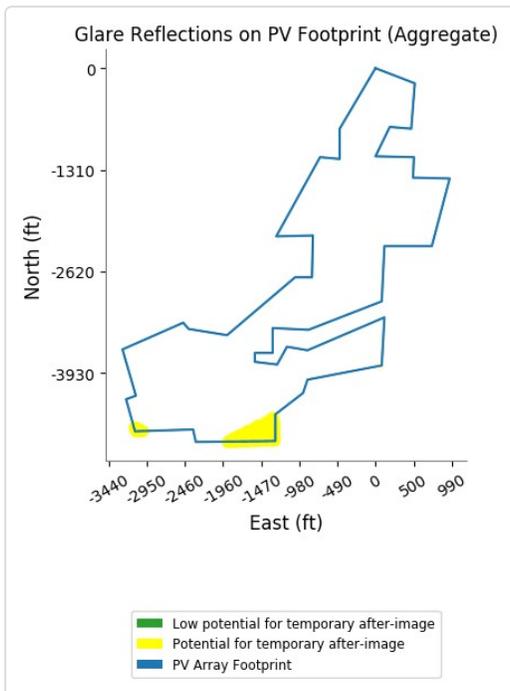
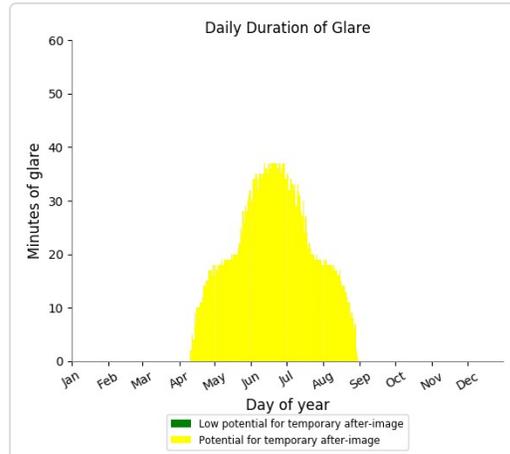
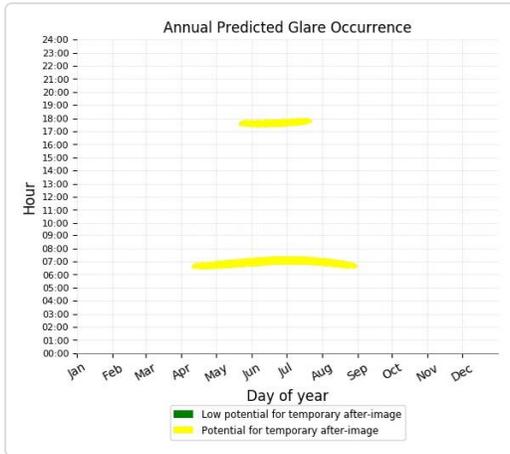
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,577 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 15)

PV array is expected to produce the following glare for receptors at this location:

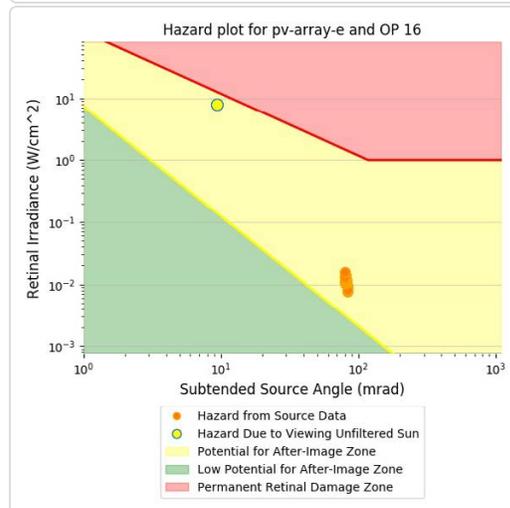
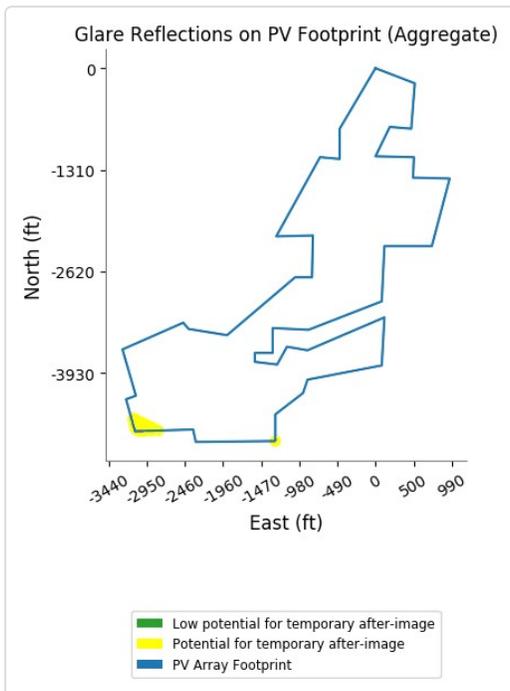
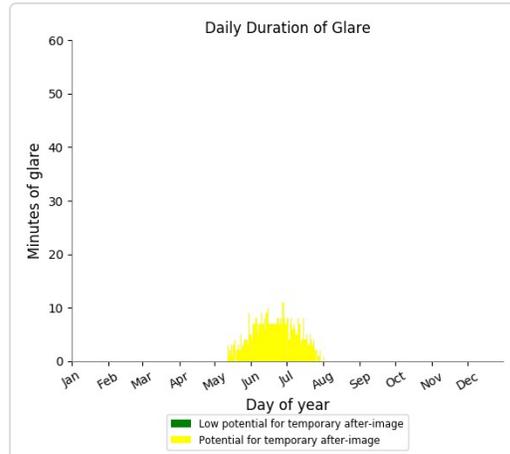
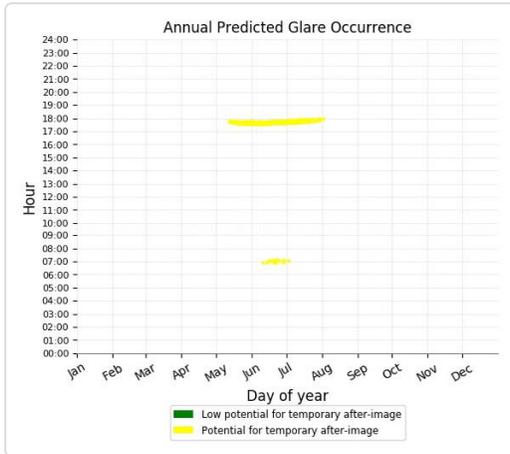
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,182 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 16)

PV array is expected to produce the following glare for receptors at this location:

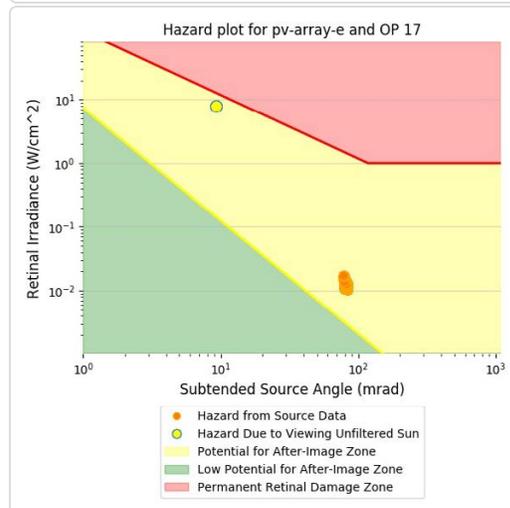
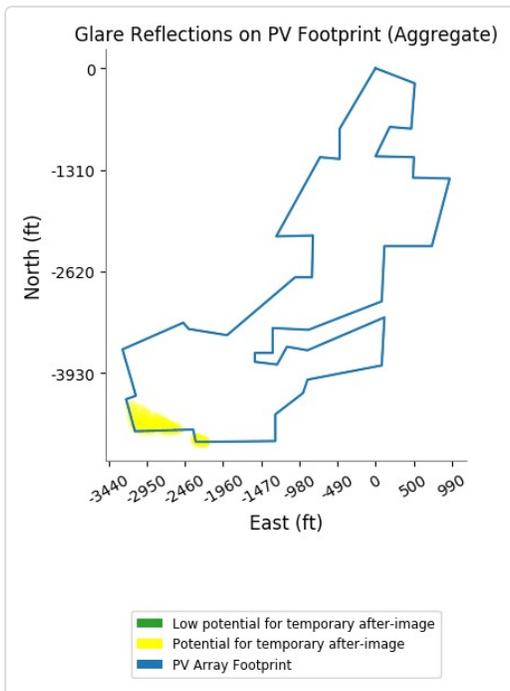
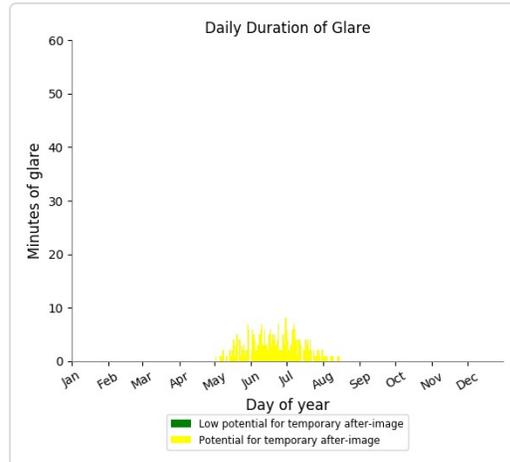
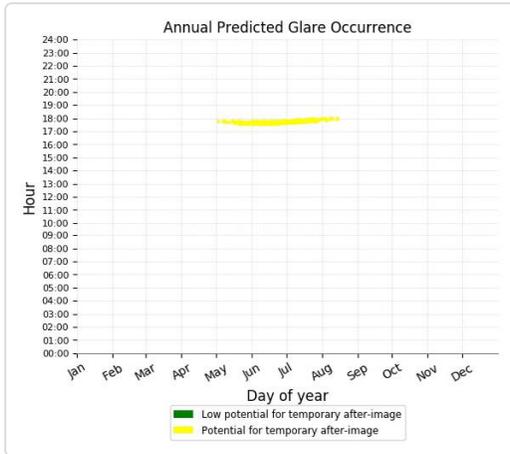
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 419 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 17)

PV array is expected to produce the following glare for receptors at this location:

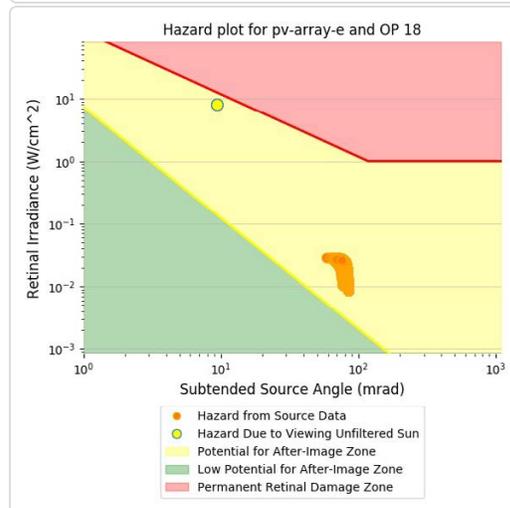
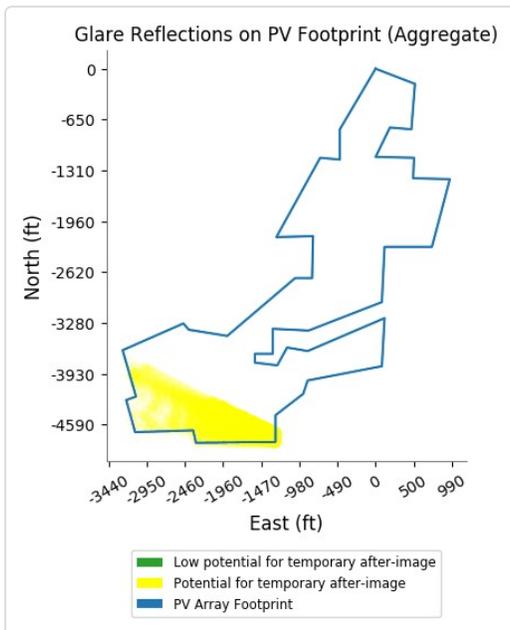
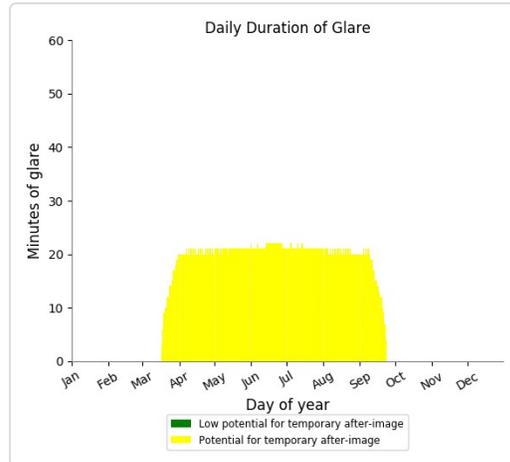
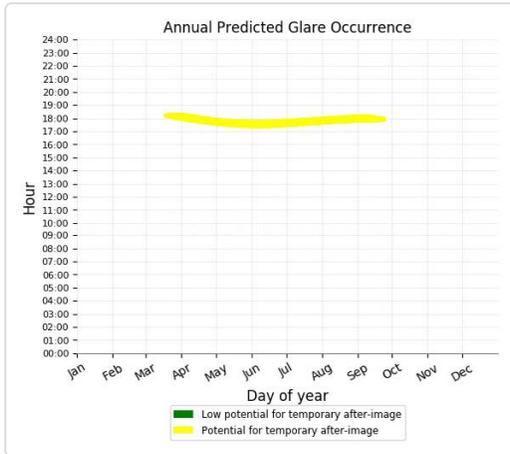
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 273 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 18)

PV array is expected to produce the following glare for receptors at this location:

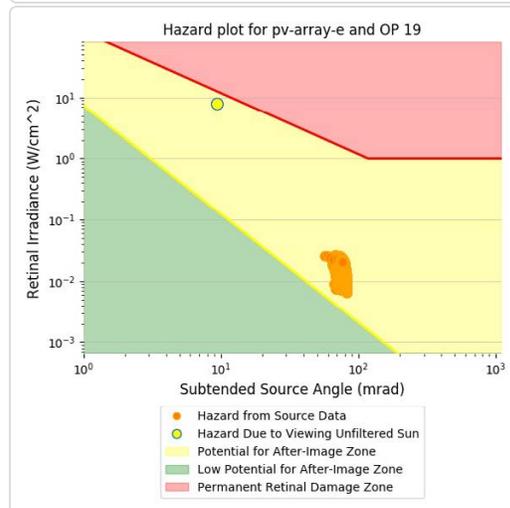
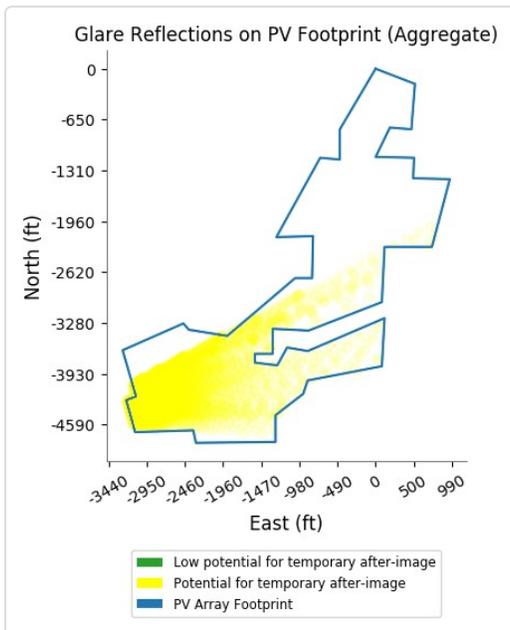
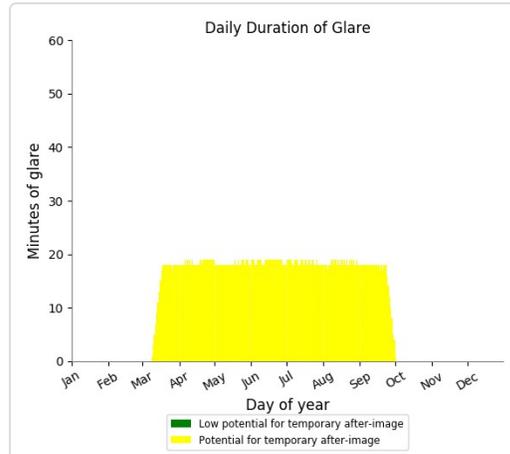
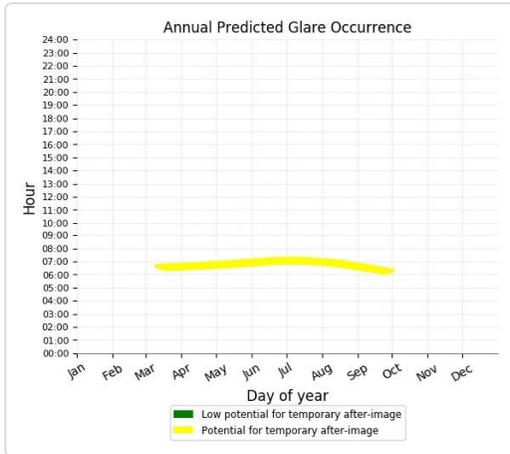
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,757 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 19)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,636 minutes of "yellow" glare with potential to cause temporary after-image.



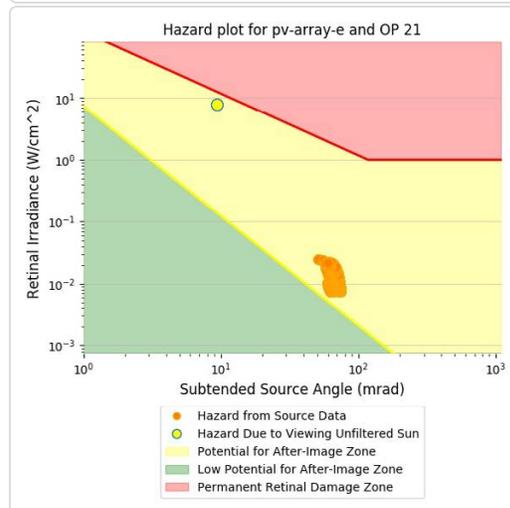
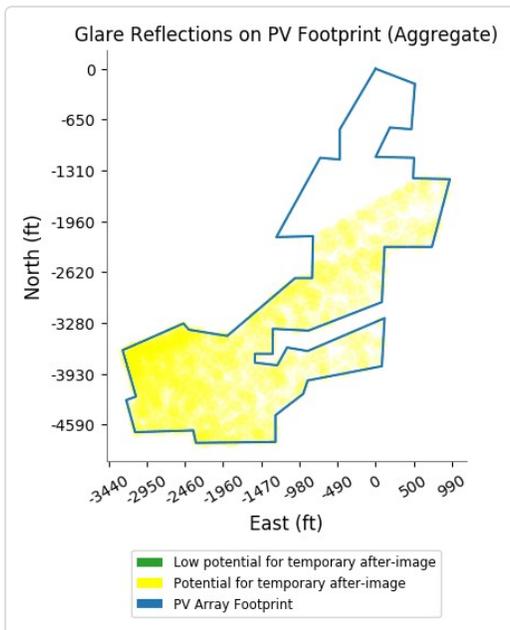
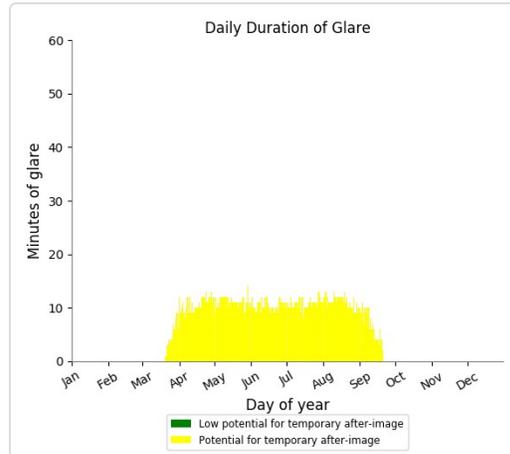
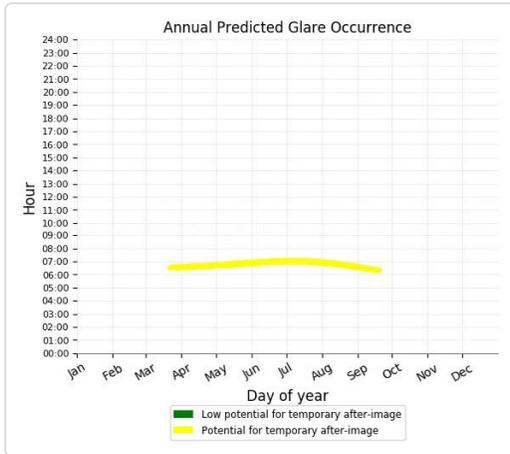
PV Array - East 01 - OP Receptor (OP 20)

No glare found

PV Array - East 01 - OP Receptor (OP 21)

PV array is expected to produce the following glare for receptors at this location:

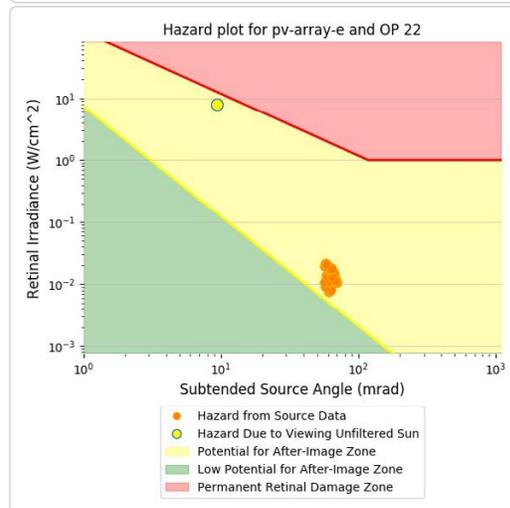
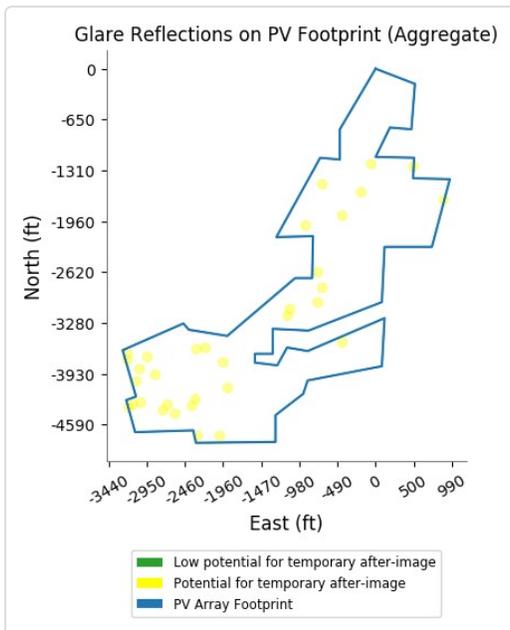
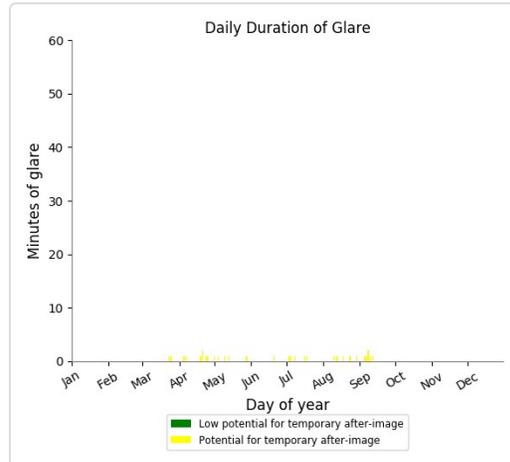
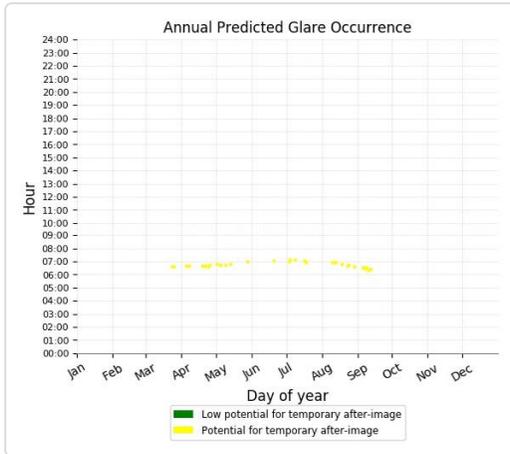
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,849 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 22)

PV array is expected to produce the following glare for receptors at this location:

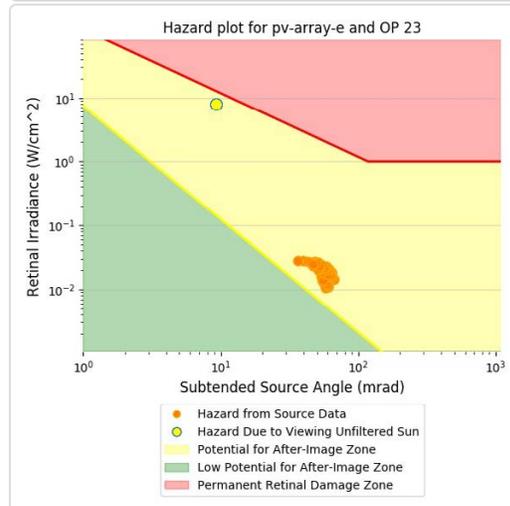
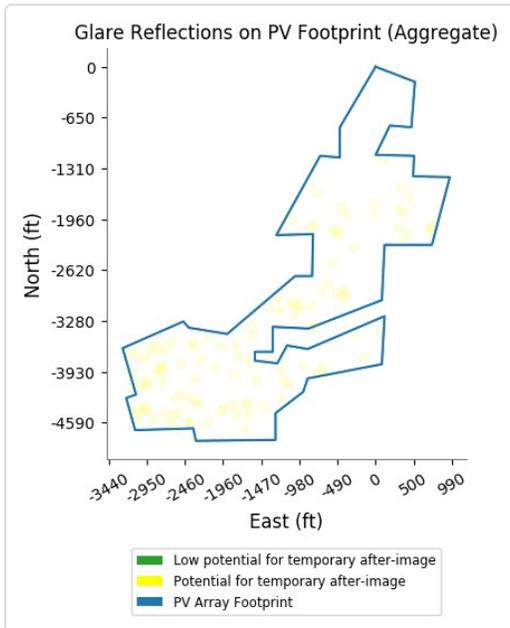
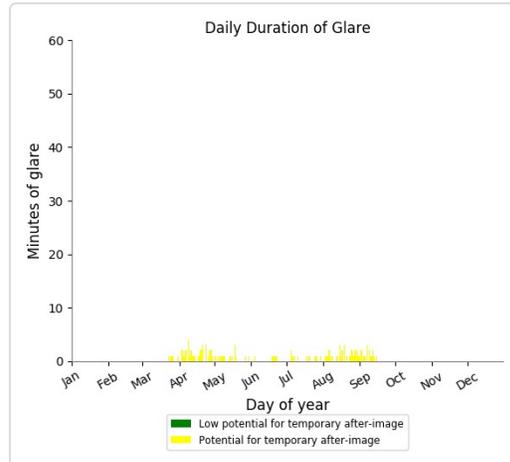
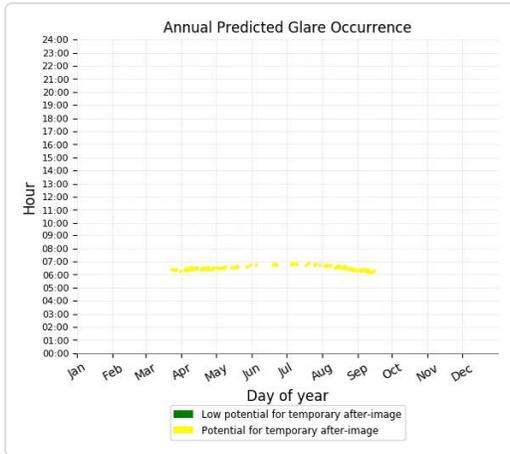
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 33 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 23)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 118 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 24)

No glare found

PV Array - East 01 - OP Receptor (OP 25)

No glare found

PV Array - East 01 - OP Receptor (OP 26)

No glare found

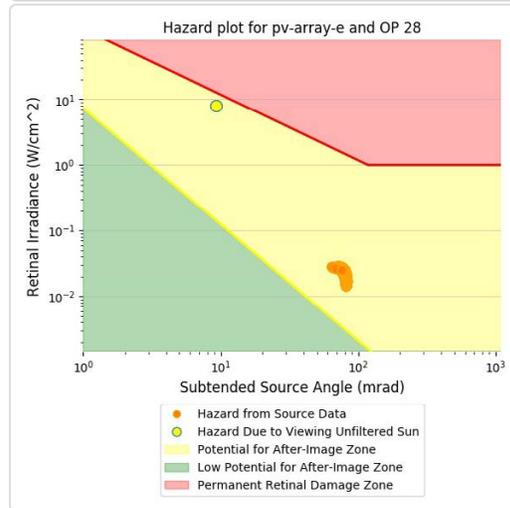
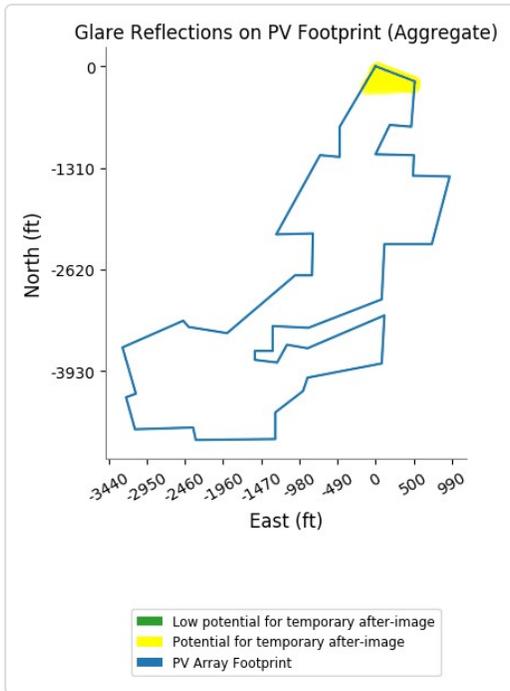
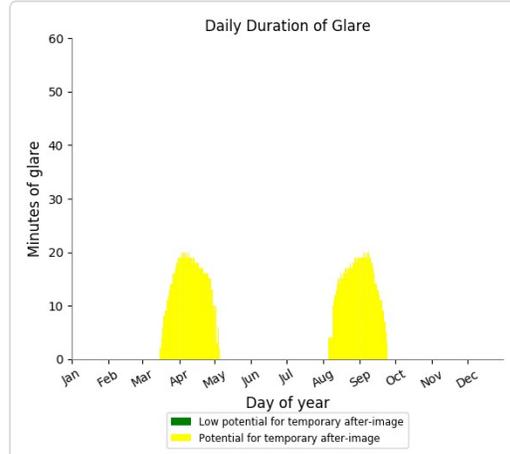
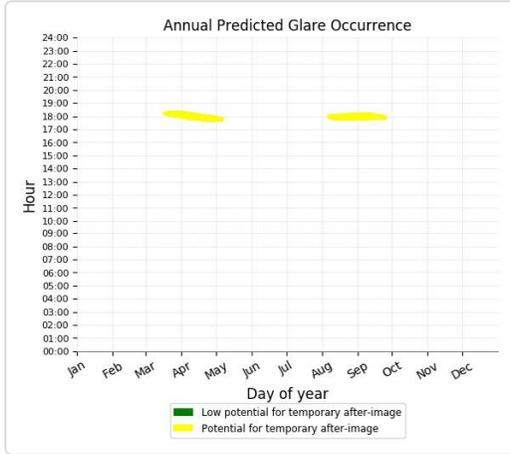
PV Array - East 01 - OP Receptor (OP 27)

No glare found

PV Array - East 01 - OP Receptor (OP 28)

PV array is expected to produce the following glare for receptors at this location:

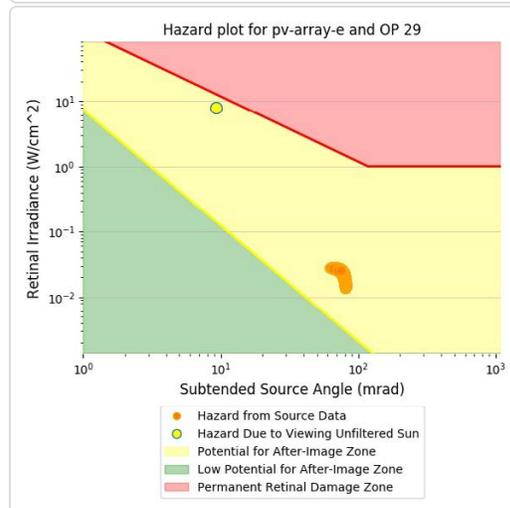
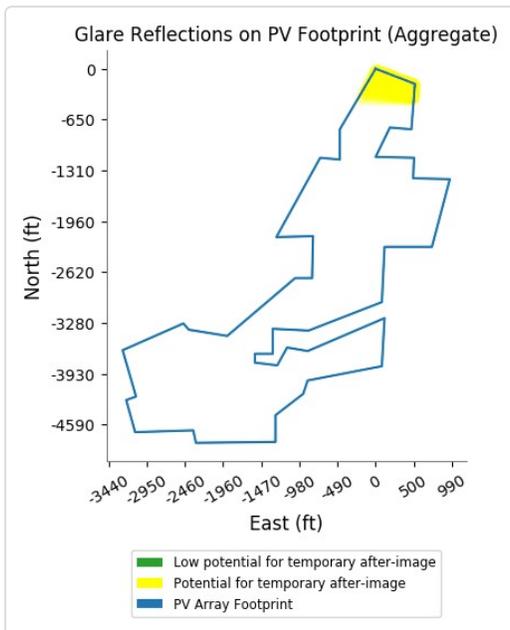
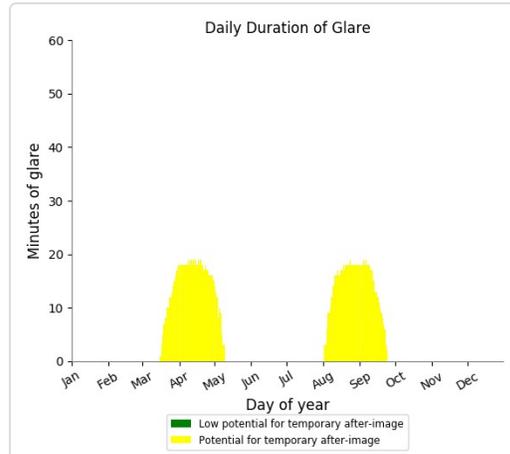
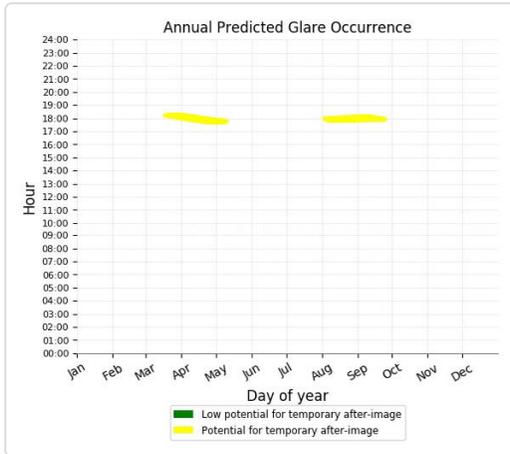
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,467 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 29)

PV array is expected to produce the following glare for receptors at this location:

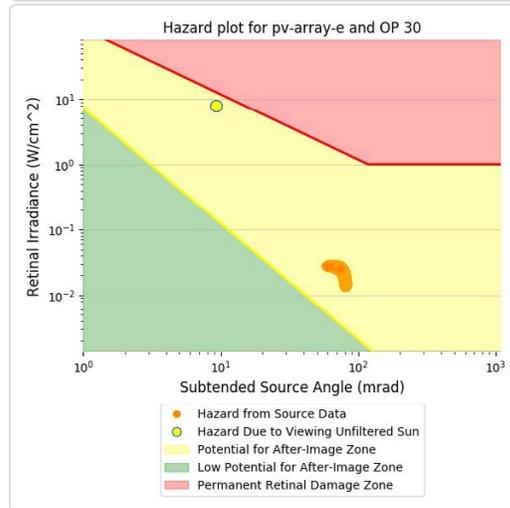
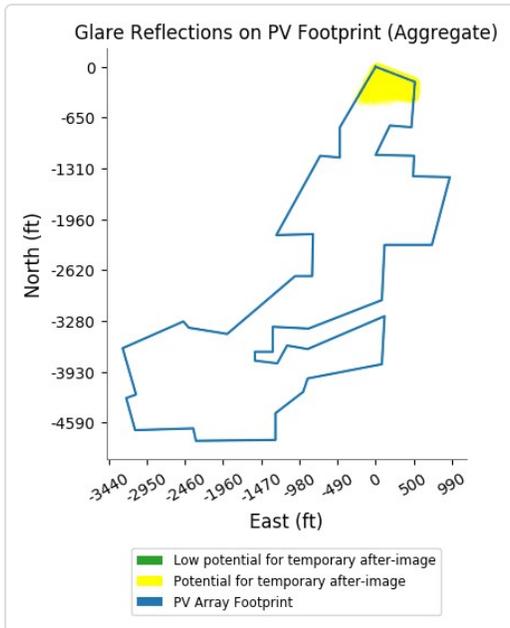
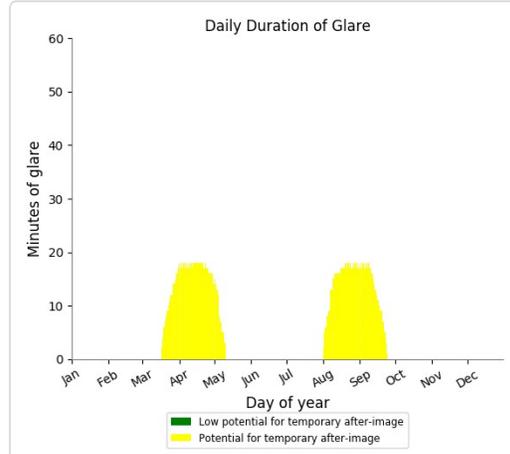
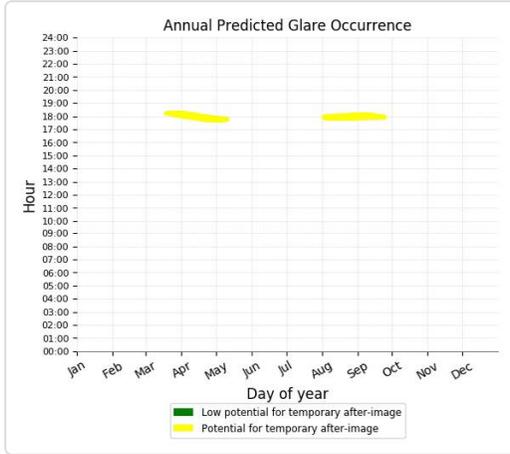
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,547 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 30)

PV array is expected to produce the following glare for receptors at this location:

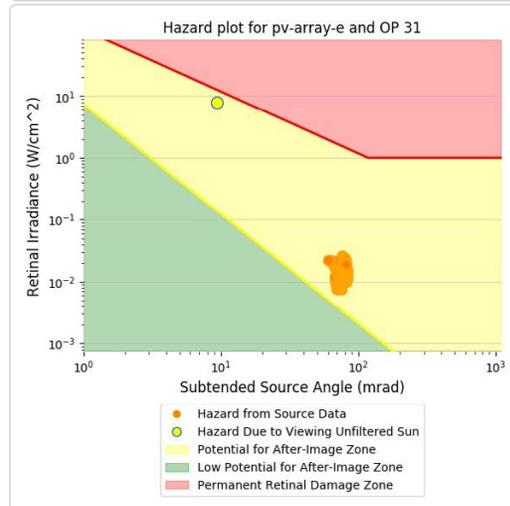
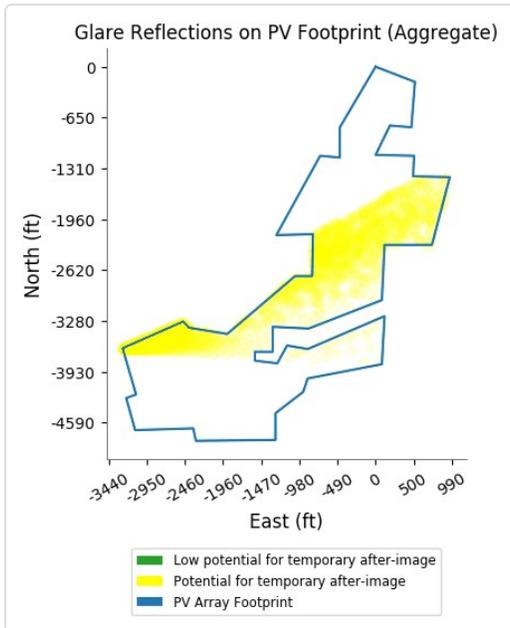
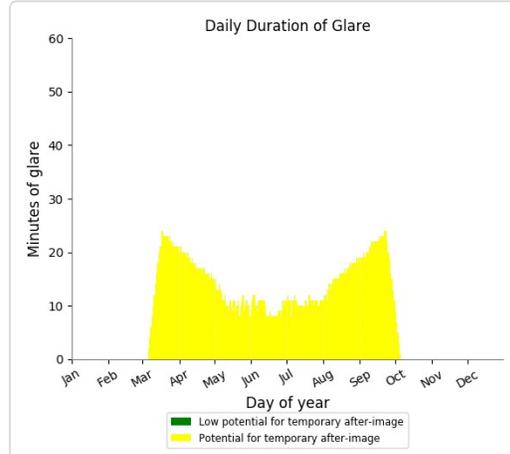
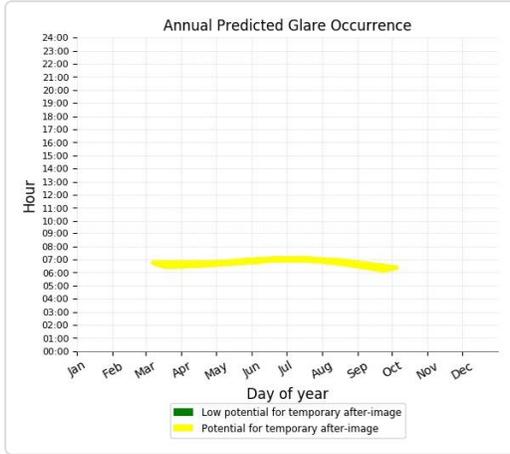
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,520 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 31)

PV array is expected to produce the following glare for receptors at this location:

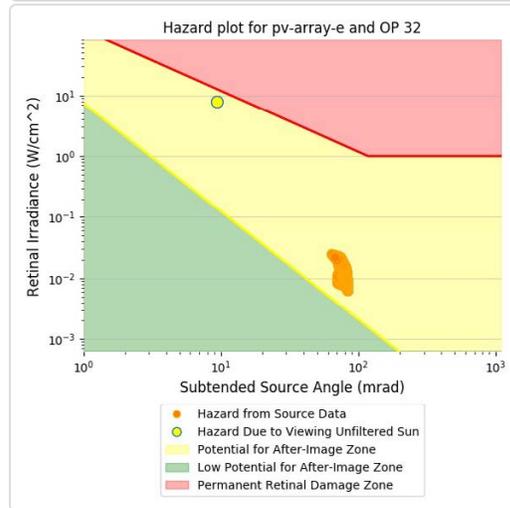
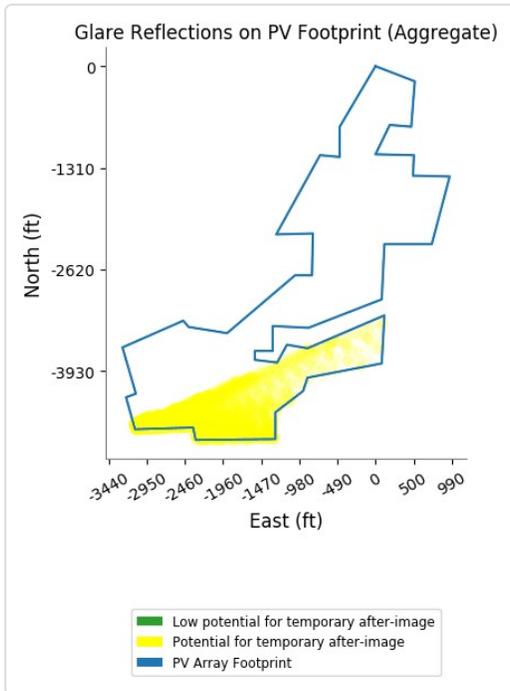
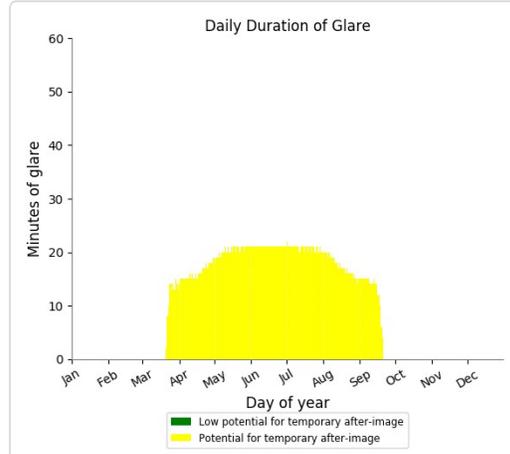
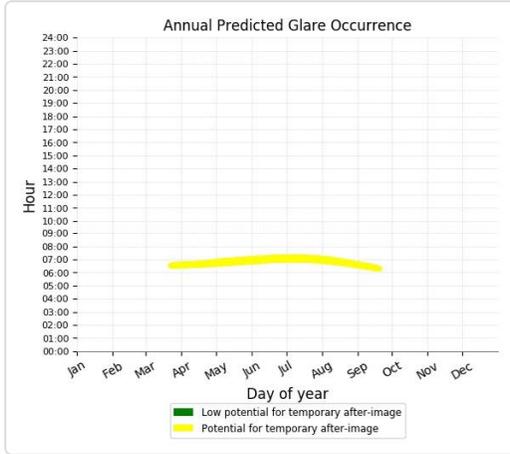
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,067 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 32)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,318 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 33)

No glare found

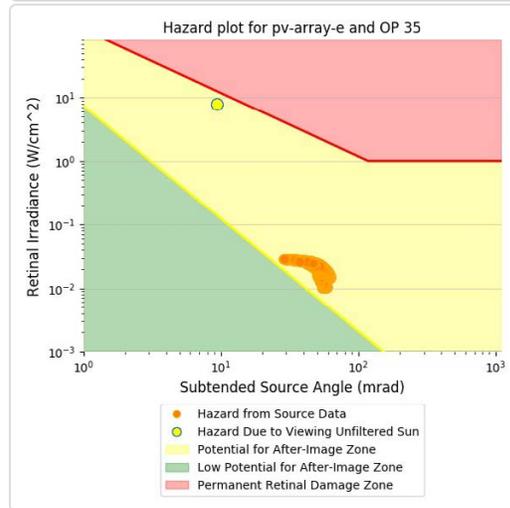
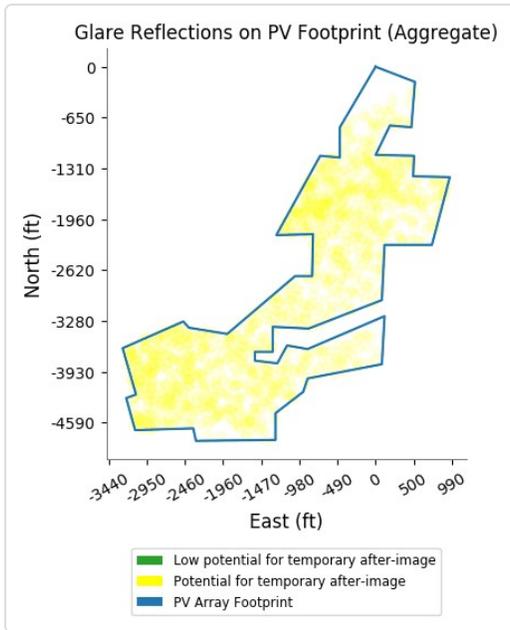
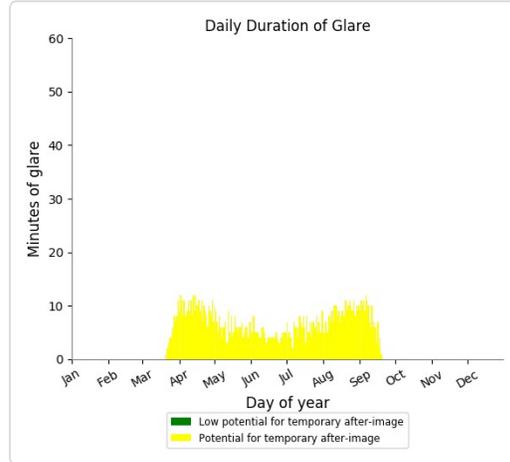
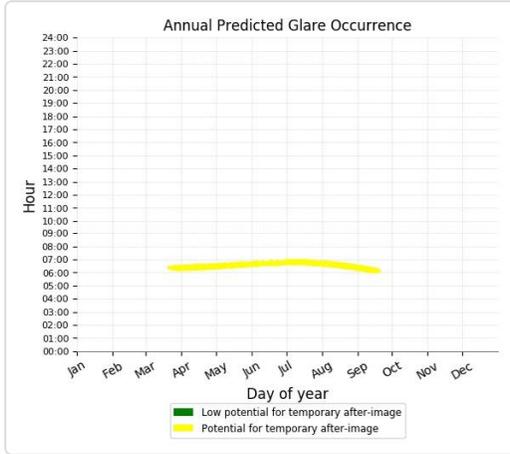
PV Array - East 01 - OP Receptor (OP 34)

No glare found

PV Array - East 01 - OP Receptor (OP 35)

PV array is expected to produce the following glare for receptors at this location:

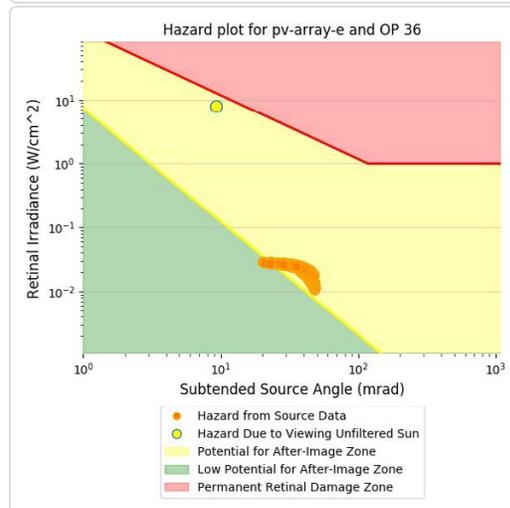
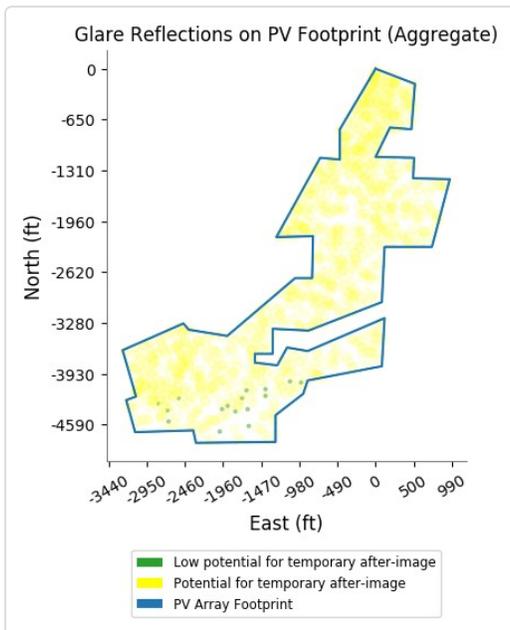
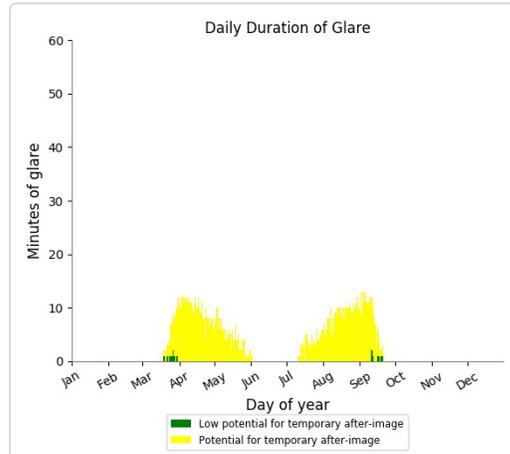
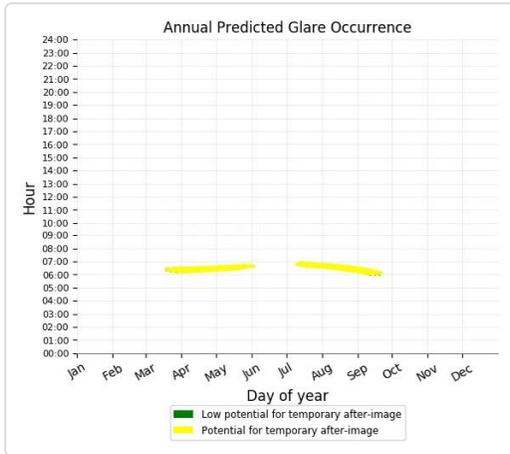
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,250 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 36)

PV array is expected to produce the following glare for receptors at this location:

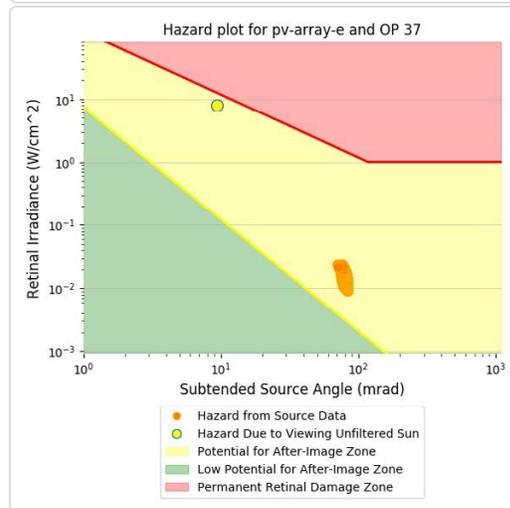
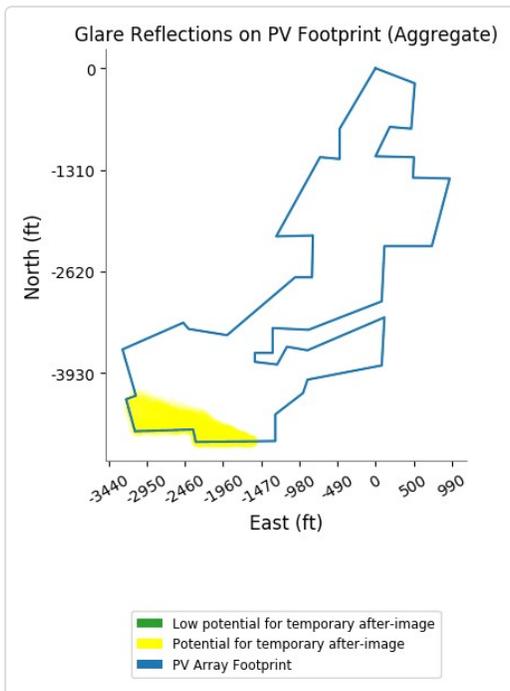
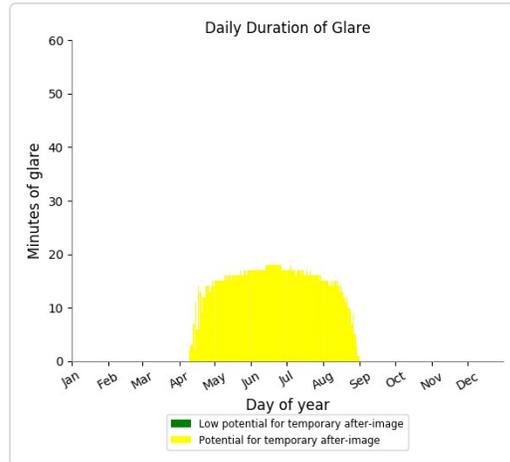
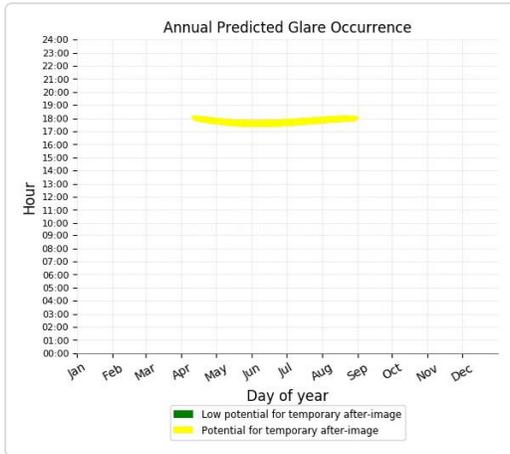
- 16 minutes of "green" glare with low potential to cause temporary after-image.
- 1,023 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 37)

PV array is expected to produce the following glare for receptors at this location:

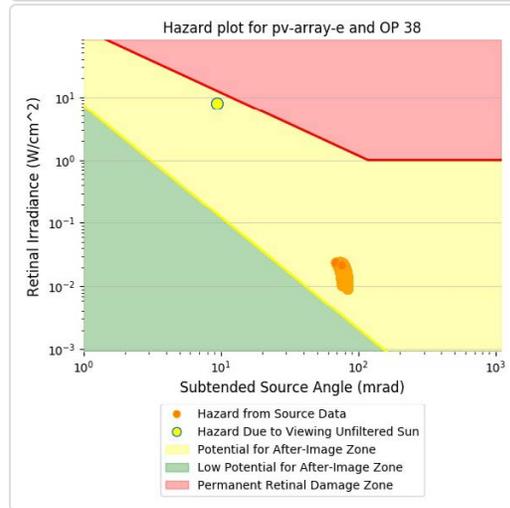
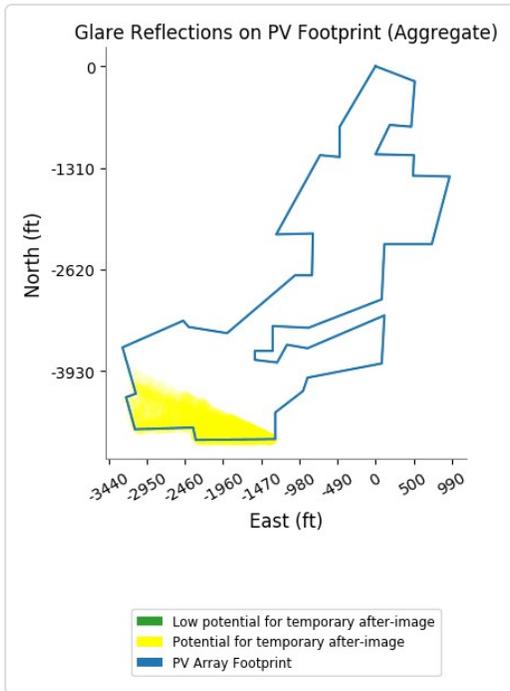
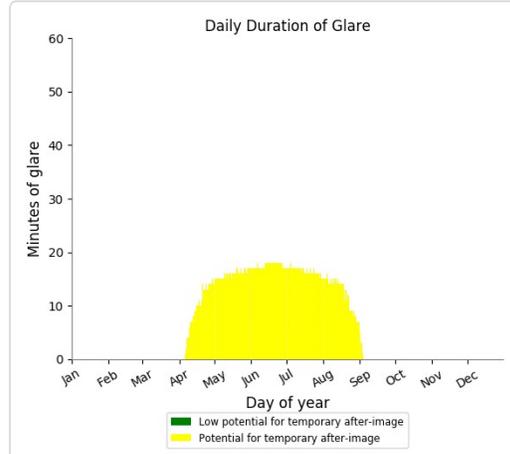
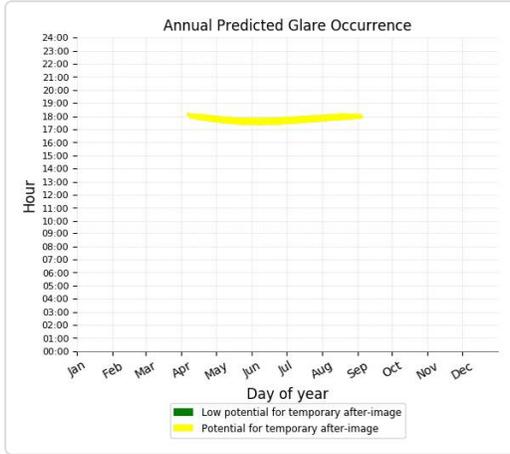
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,086 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 38)

PV array is expected to produce the following glare for receptors at this location:

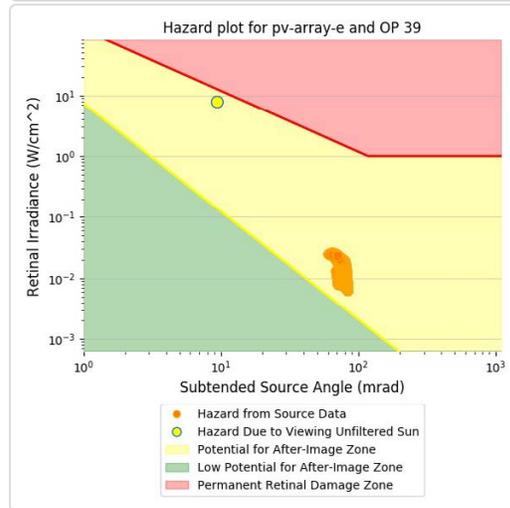
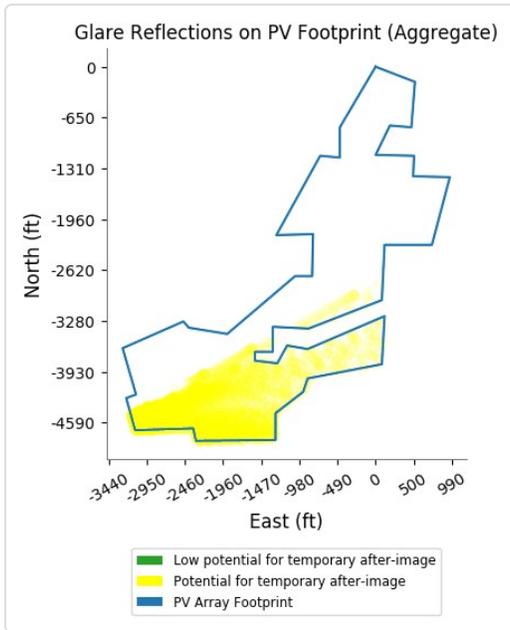
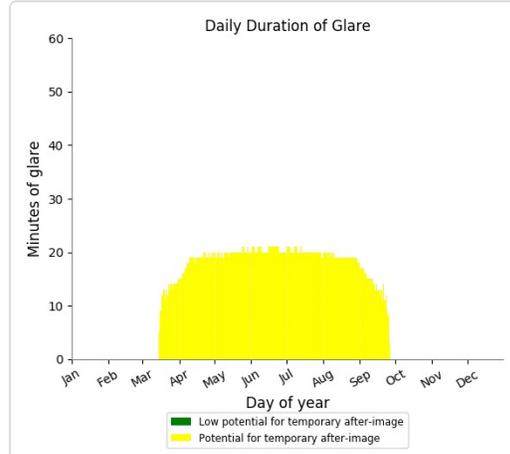
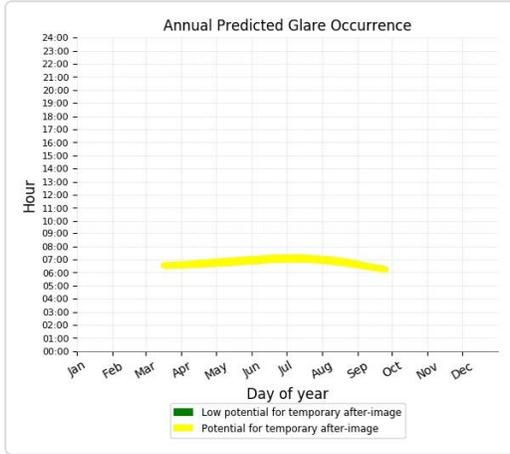
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,168 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 39)

PV array is expected to produce the following glare for receptors at this location:

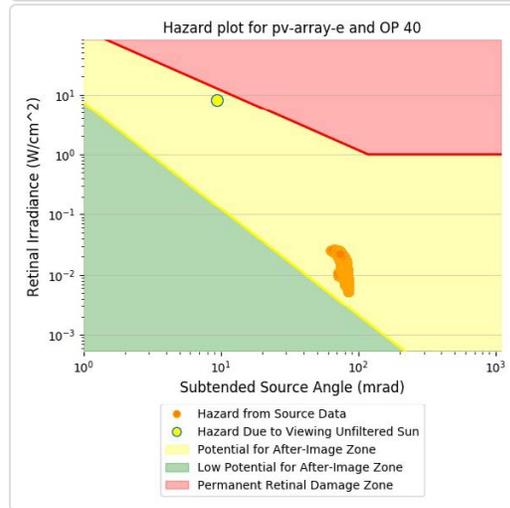
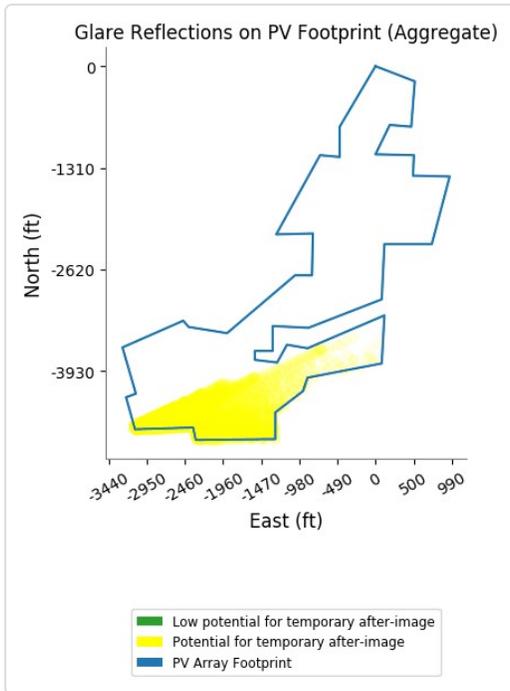
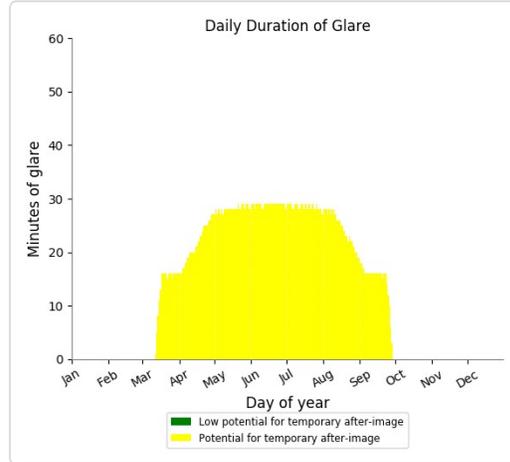
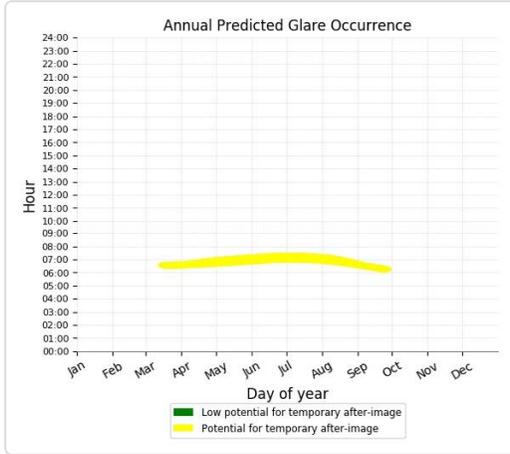
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,561 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 40)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 4,716 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 41)

No glare found

PV Array - East 01 - OP Receptor (OP 42)

No glare found

PV Array - East 01 - OP Receptor (OP 43)

No glare found

PV Array - East 01 - OP Receptor (OP 44)

No glare found

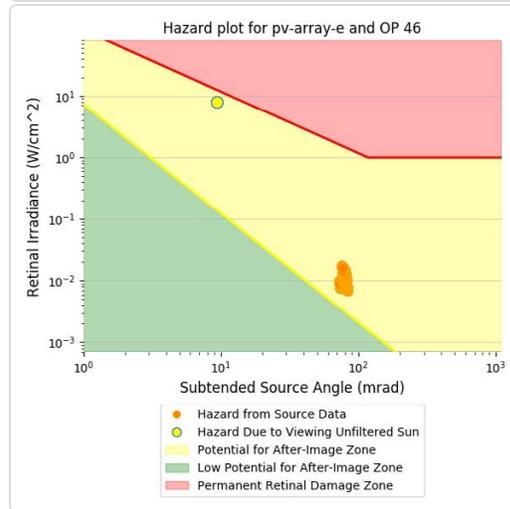
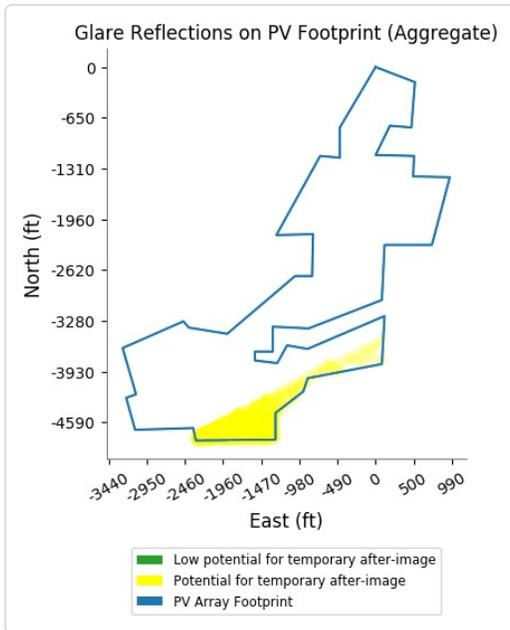
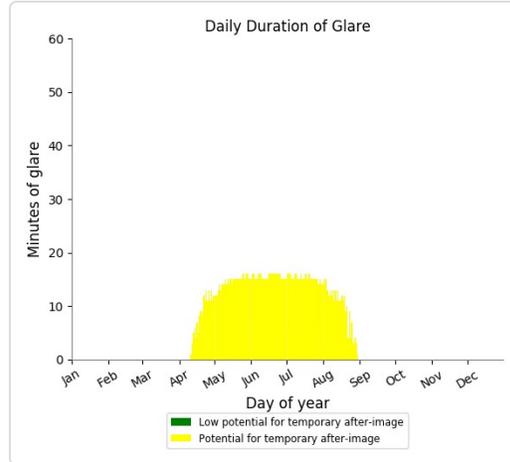
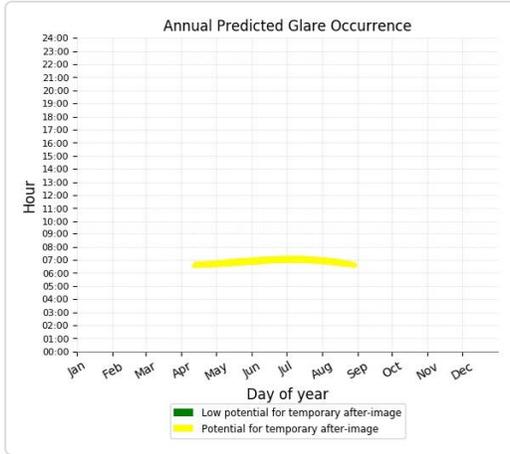
PV Array - East 01 - OP Receptor (OP 45)

No glare found

PV Array - East 01 - OP Receptor (OP 46)

PV array is expected to produce the following glare for receptors at this location:

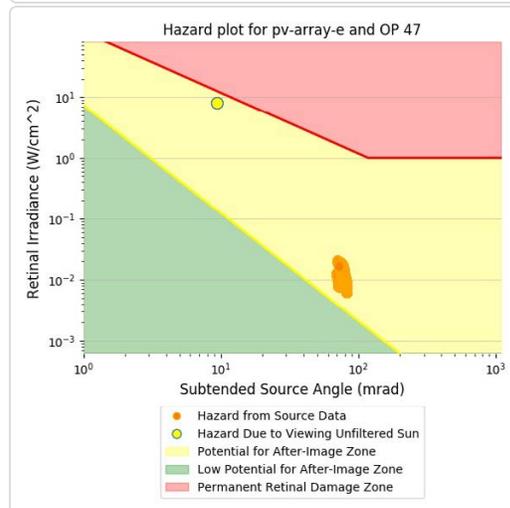
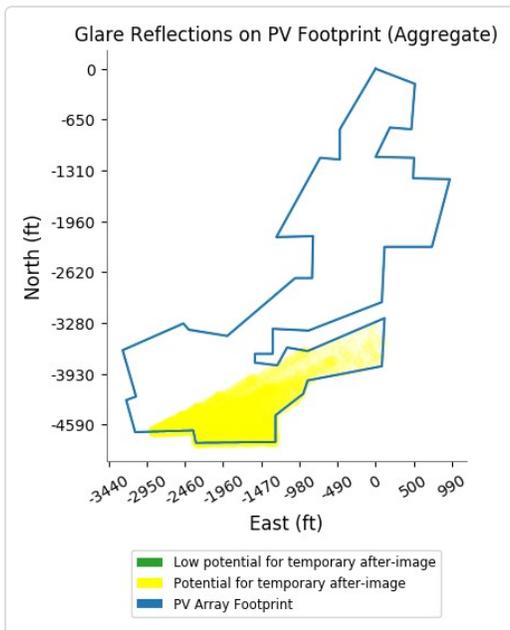
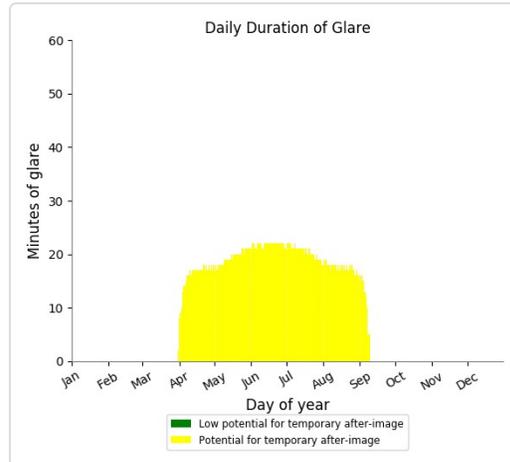
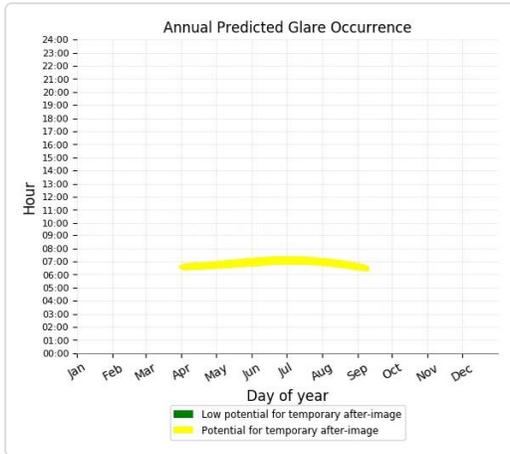
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,849 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 01 - OP Receptor (OP 47)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,017 minutes of "yellow" glare with potential to cause temporary after-image.




PV Array - East 02 potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	7
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	3009
OP: OP 21	0	121
OP: OP 22	0	4
OP: OP 23	0	2
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	7
OP: OP 36	6	5
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0

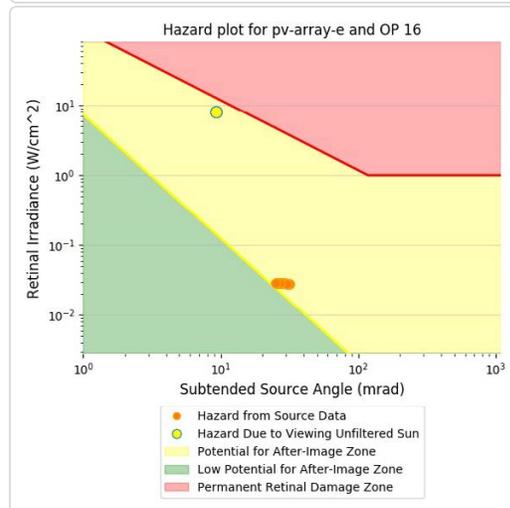
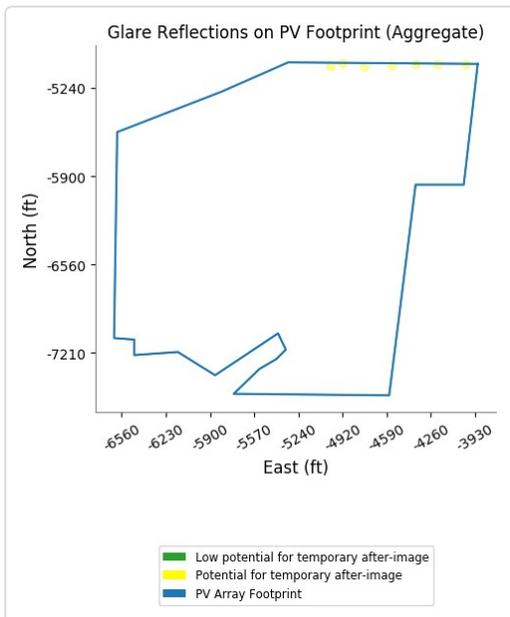
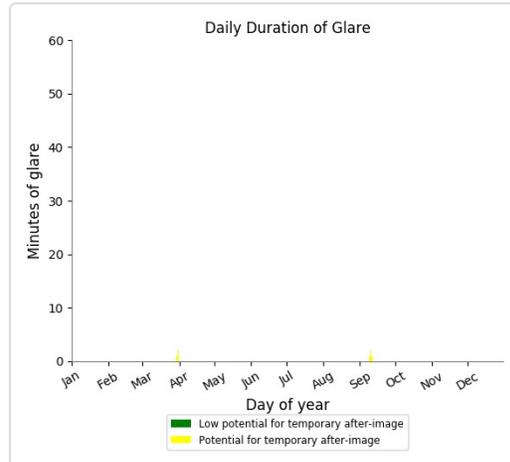
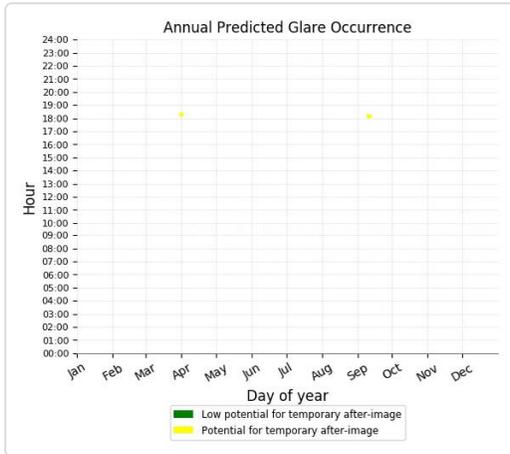
OP: OP 46	0	201
OP: OP 47	0	1608

PV Array - East 02 - OP Receptor (OP 1)*No glare found***PV Array - East 02 - OP Receptor (OP 2)***No glare found***PV Array - East 02 - OP Receptor (OP 3)***No glare found***PV Array - East 02 - OP Receptor (OP 4)***No glare found***PV Array - East 02 - OP Receptor (OP 5)***No glare found***PV Array - East 02 - OP Receptor (OP 6)***No glare found***PV Array - East 02 - OP Receptor (OP 7)***No glare found***PV Array - East 02 - OP Receptor (OP 8)***No glare found***PV Array - East 02 - OP Receptor (OP 9)***No glare found***PV Array - East 02 - OP Receptor (OP 10)***No glare found***PV Array - East 02 - OP Receptor (OP 11)***No glare found***PV Array - East 02 - OP Receptor (OP 12)***No glare found***PV Array - East 02 - OP Receptor (OP 13)***No glare found***PV Array - East 02 - OP Receptor (OP 14)***No glare found***PV Array - East 02 - OP Receptor (OP 15)***No glare found*

PV Array - East 02 - OP Receptor (OP 16)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 7 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 02 - OP Receptor (OP 17)

No glare found

PV Array - East 02 - OP Receptor (OP 18)

No glare found

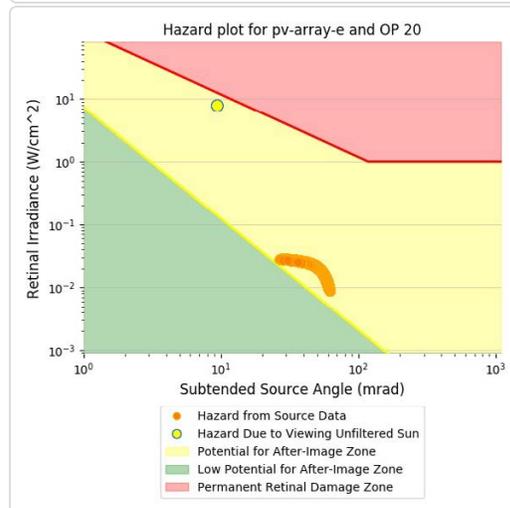
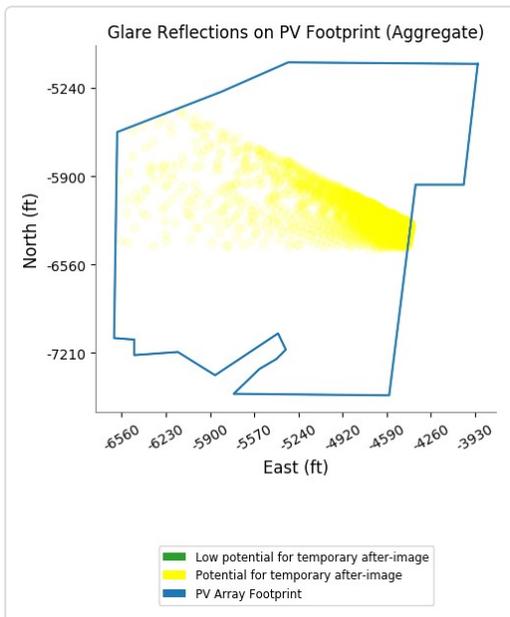
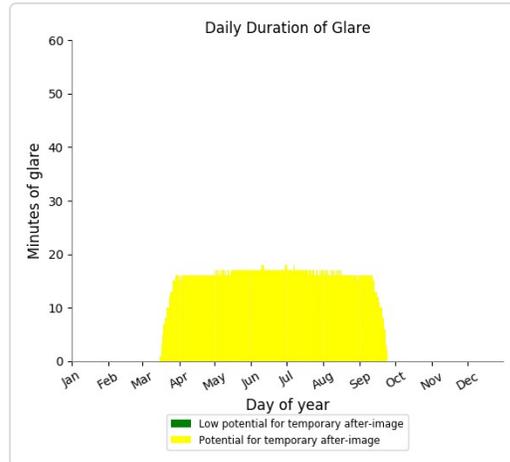
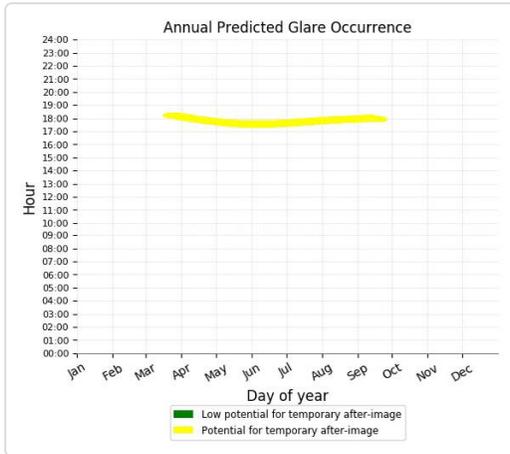
PV Array - East 02 - OP Receptor (OP 19)

No glare found

PV Array - East 02 - OP Receptor (OP 20)

PV array is expected to produce the following glare for receptors at this location:

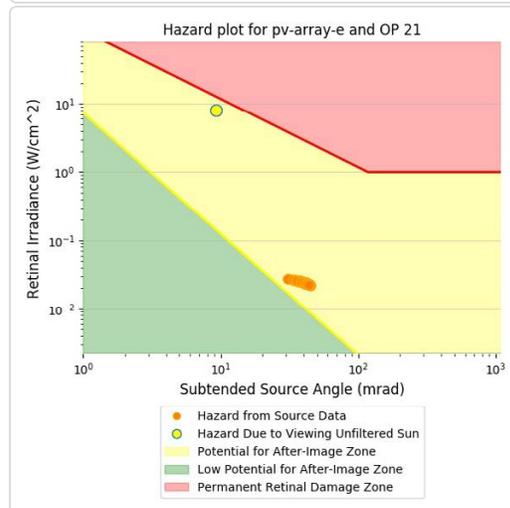
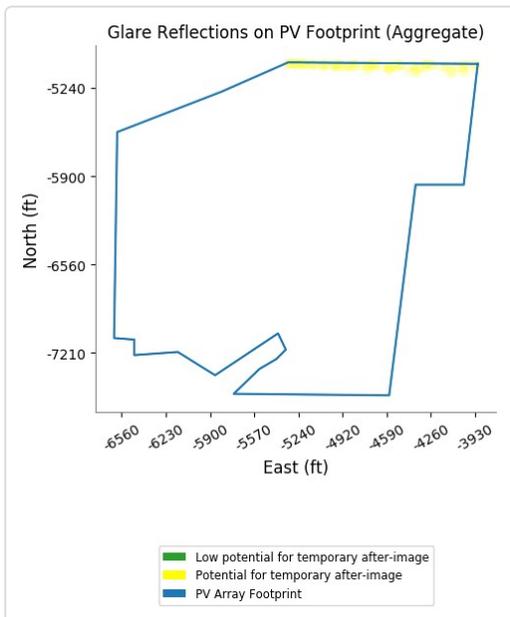
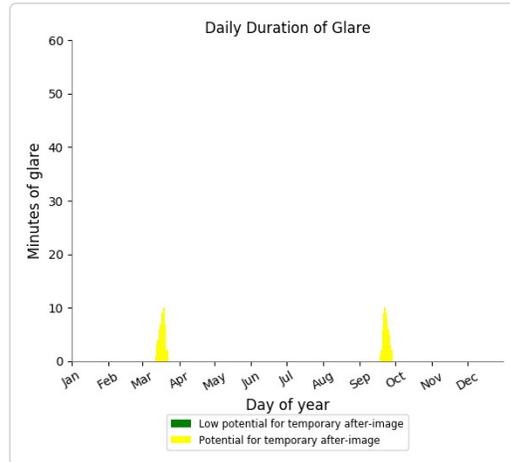
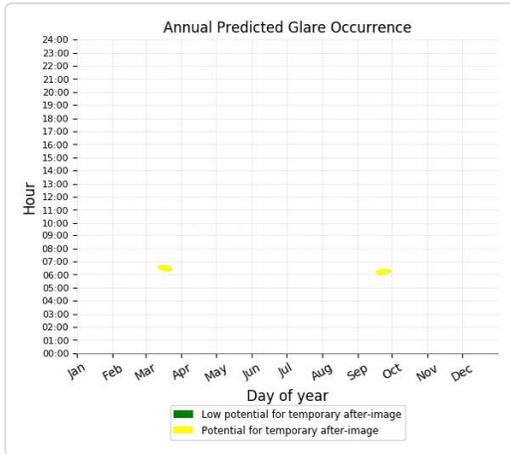
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,009 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 02 - OP Receptor (OP 21)

PV array is expected to produce the following glare for receptors at this location:

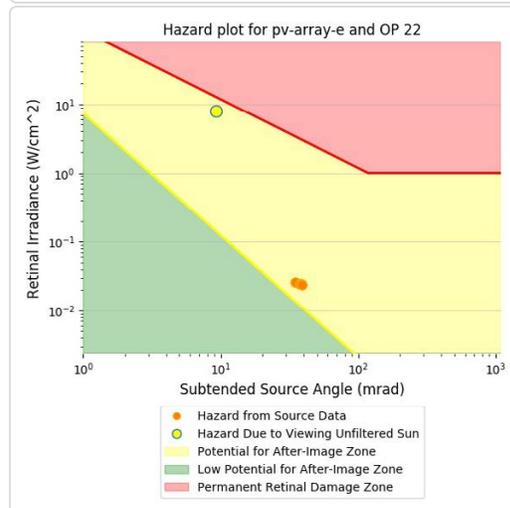
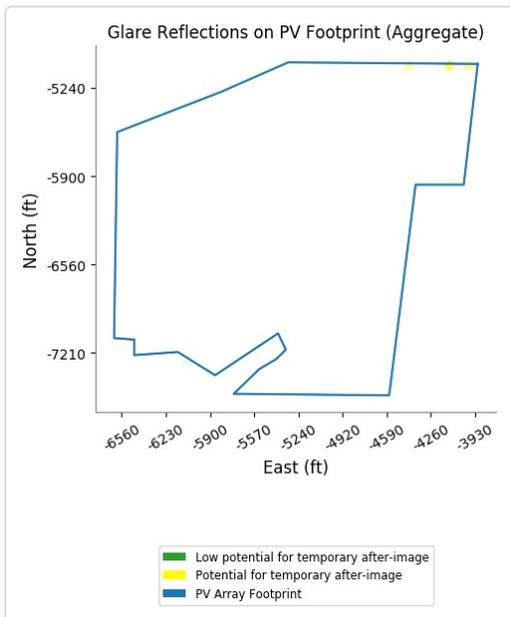
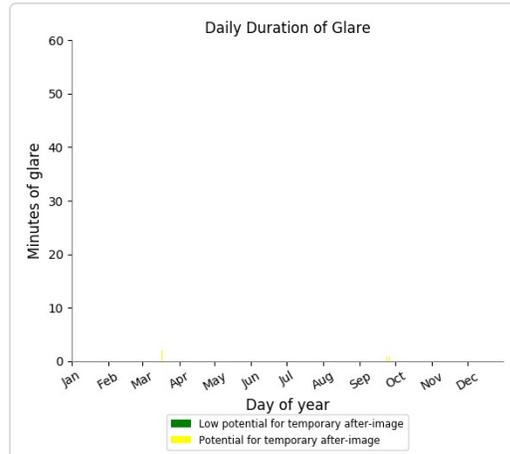
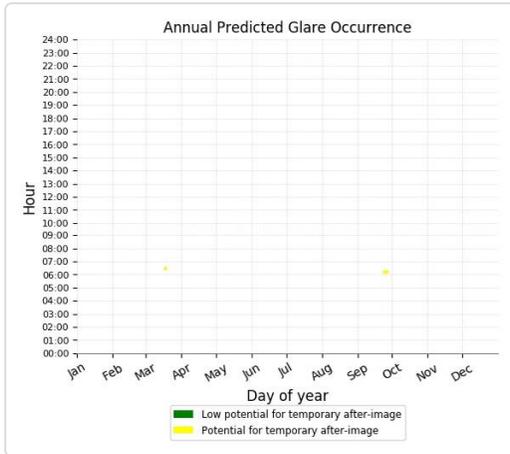
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 121 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 02 - OP Receptor (OP 22)

PV array is expected to produce the following glare for receptors at this location:

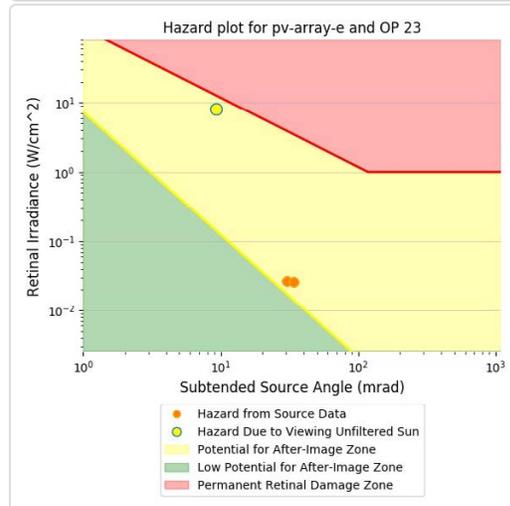
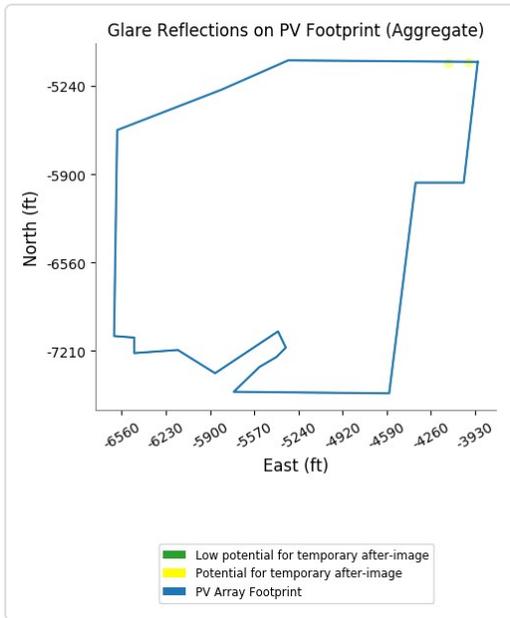
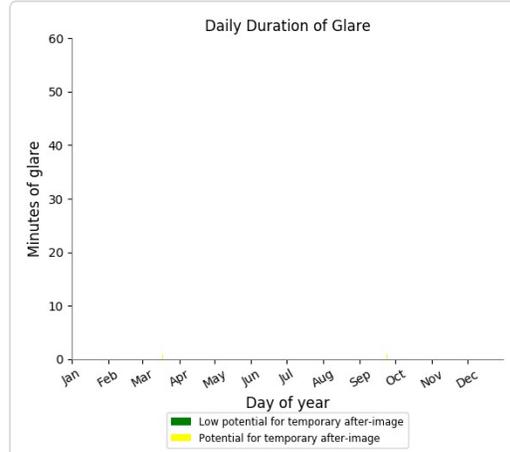
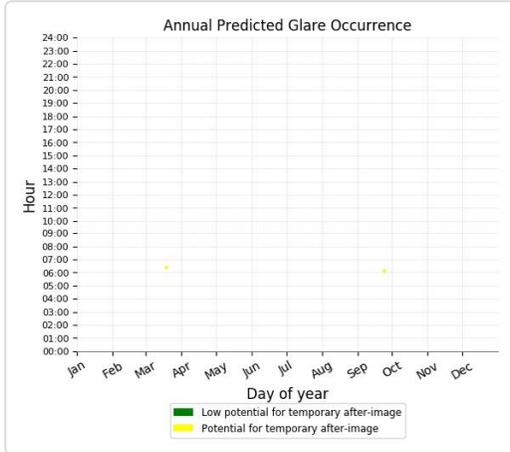
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 4 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 02 - OP Receptor (OP 23)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 02 - OP Receptor (OP 24)

No glare found

PV Array - East 02 - OP Receptor (OP 25)

No glare found

PV Array - East 02 - OP Receptor (OP 26)

No glare found

PV Array - East 02 - OP Receptor (OP 27)

No glare found

PV Array - East 02 - OP Receptor (OP 28)

No glare found

PV Array - East 02 - OP Receptor (OP 29)

No glare found

PV Array - East 02 - OP Receptor (OP 30)

No glare found

PV Array - East 02 - OP Receptor (OP 31)

No glare found

PV Array - East 02 - OP Receptor (OP 32)

No glare found

PV Array - East 02 - OP Receptor (OP 33)

No glare found

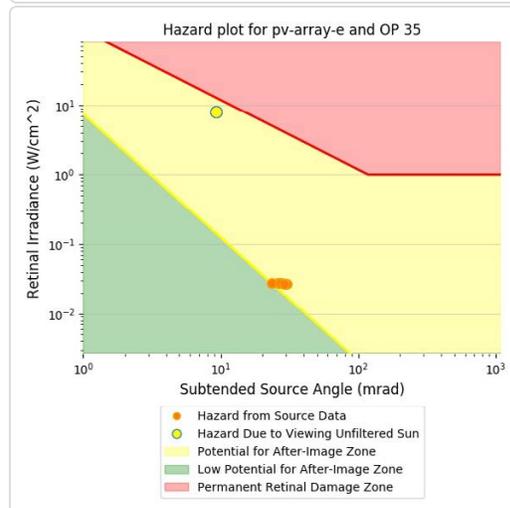
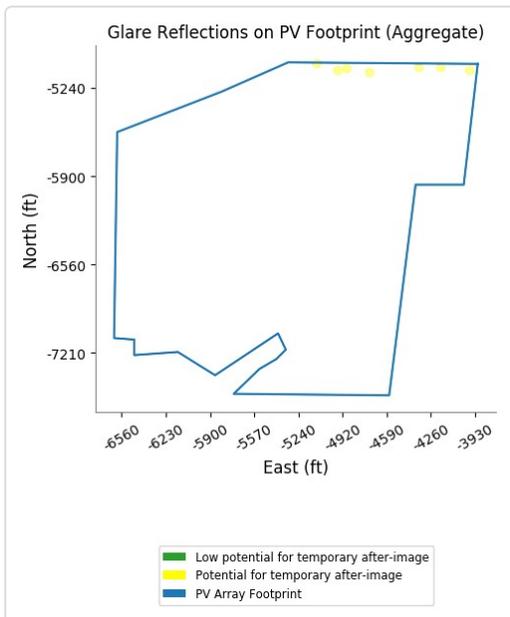
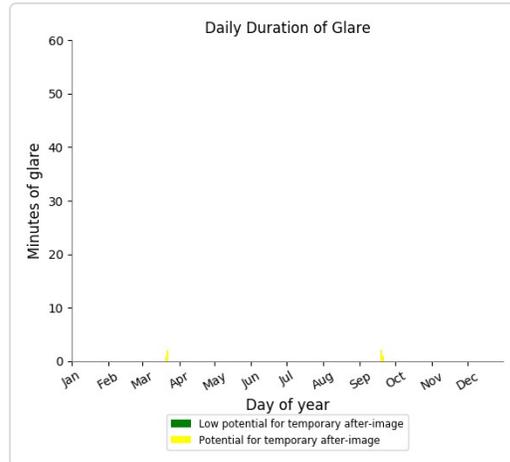
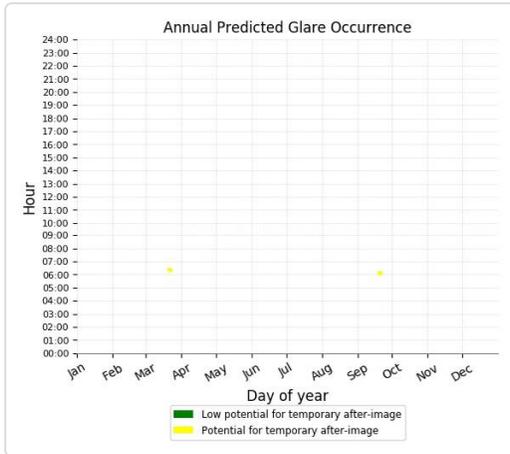
PV Array - East 02 - OP Receptor (OP 34)

No glare found

PV Array - East 02 - OP Receptor (OP 35)

PV array is expected to produce the following glare for receptors at this location:

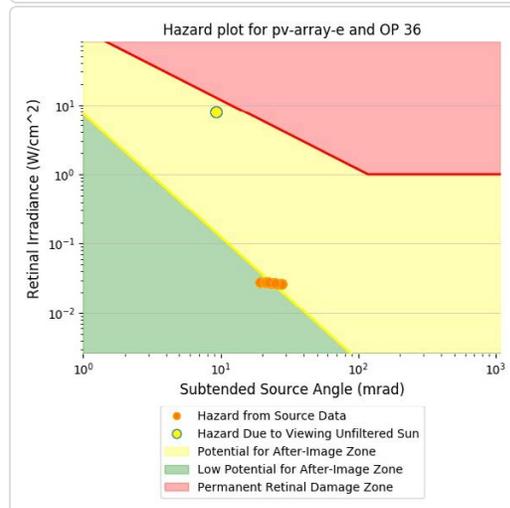
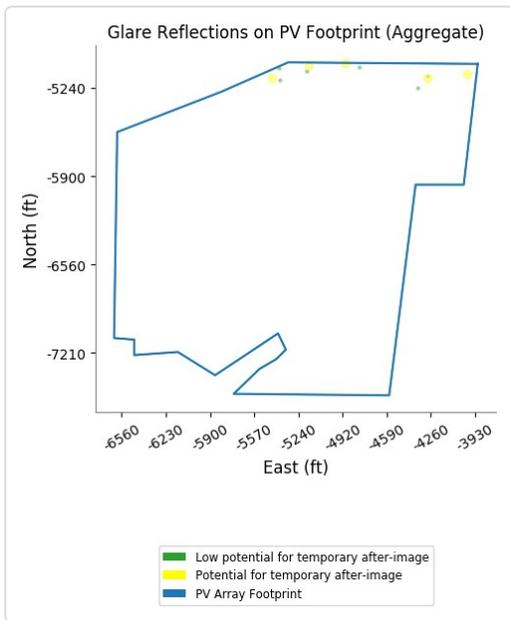
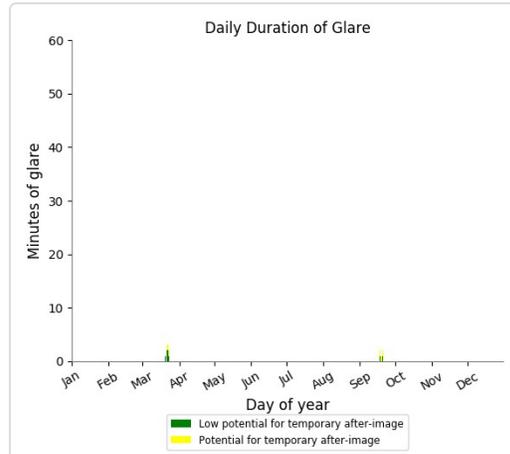
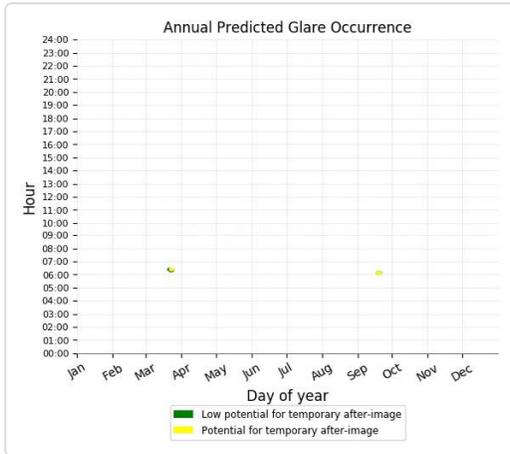
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 7 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 02 - OP Receptor (OP 36)

PV array is expected to produce the following glare for receptors at this location:

- 6 minutes of "green" glare with low potential to cause temporary after-image.
- 5 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 02 - OP Receptor (OP 37)

No glare found

PV Array - East 02 - OP Receptor (OP 38)

No glare found

PV Array - East 02 - OP Receptor (OP 39)

No glare found

PV Array - East 02 - OP Receptor (OP 40)

No glare found

PV Array - East 02 - OP Receptor (OP 41)

No glare found

PV Array - East 02 - OP Receptor (OP 42)

No glare found

PV Array - East 02 - OP Receptor (OP 43)

No glare found

PV Array - East 02 - OP Receptor (OP 44)

No glare found

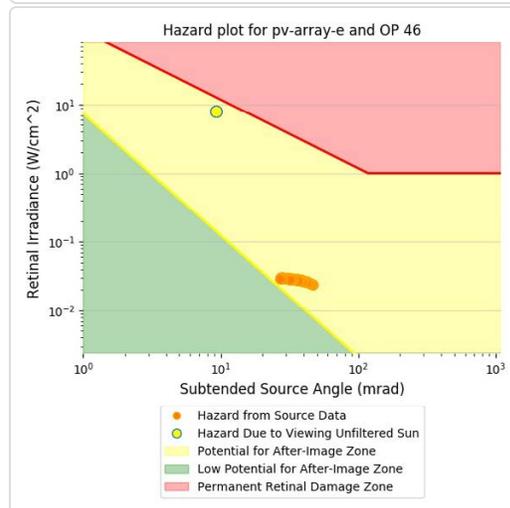
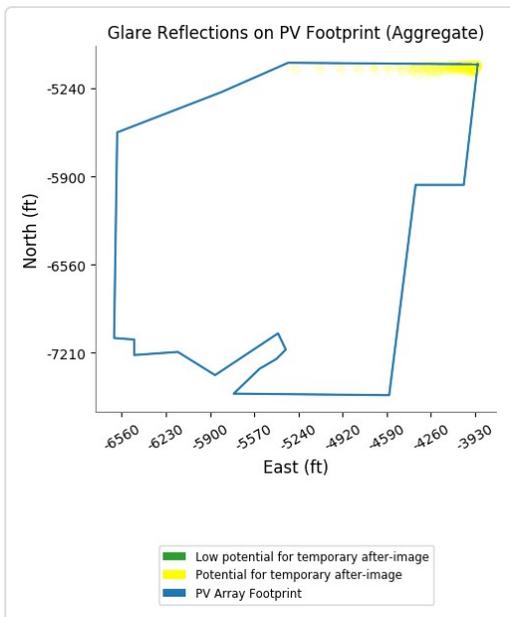
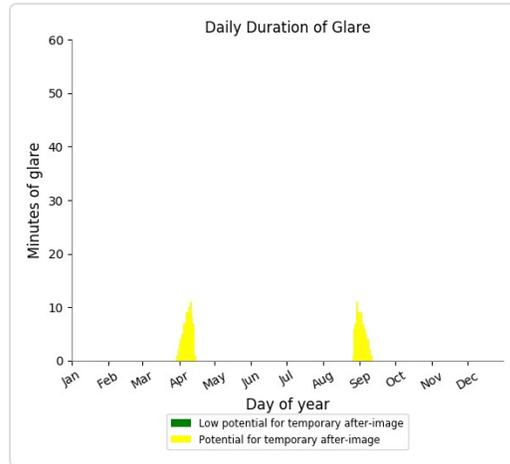
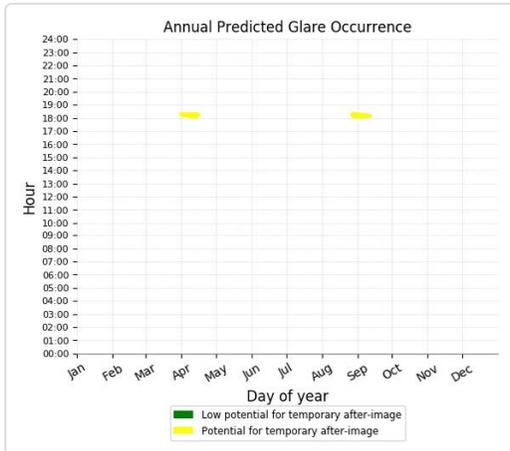
PV Array - East 02 - OP Receptor (OP 45)

No glare found

PV Array - East 02 - OP Receptor (OP 46)

PV array is expected to produce the following glare for receptors at this location:

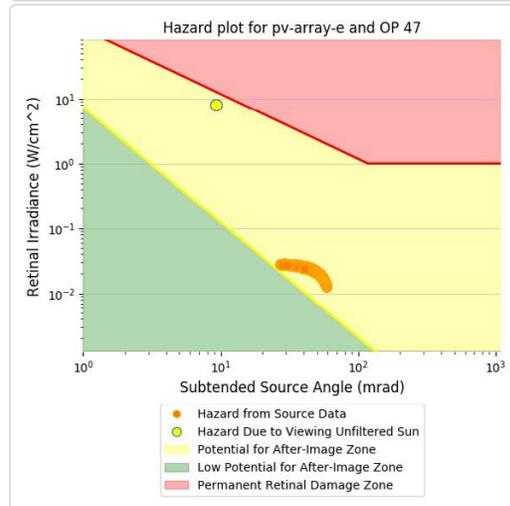
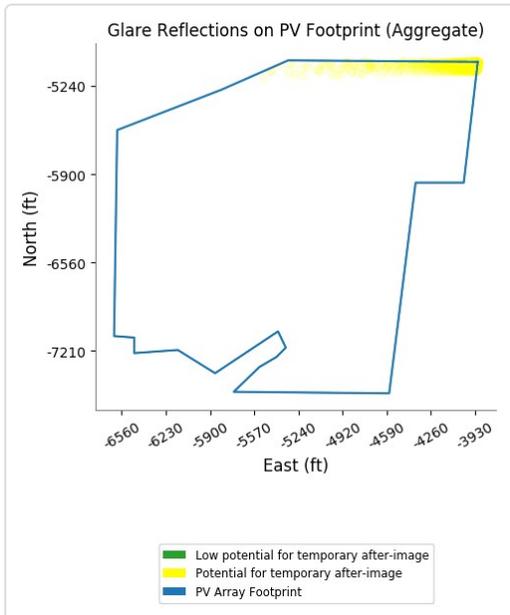
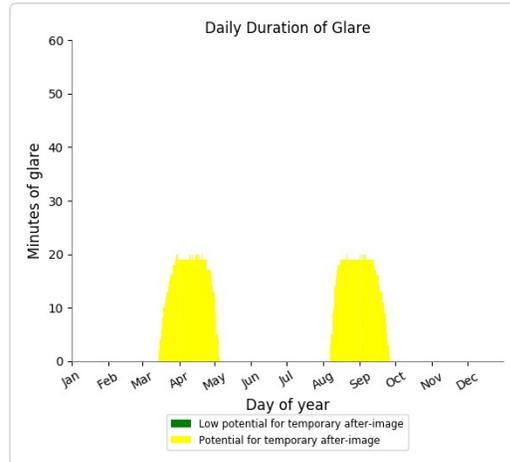
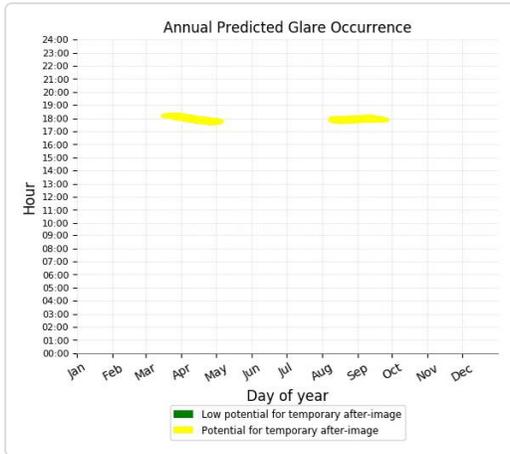
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 201 minutes of "yellow" glare with potential to cause temporary after-image.



PV Array - East 02 - OP Receptor (OP 47)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,608 minutes of "yellow" glare with potential to cause temporary after-image.



Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- 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.
- Several 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.
- 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.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.
- Glare analysis methods used: OP V1, FP V1, Route V1
- Refer to the **Help page** for assumptions and limitations not listed here.



ForgeSolar

Site Configuration: Morris Ridge Solar Farm Glare Analysis

Project site configuration details and results.



Created **April 8, 2020 4:35 p.m.**
 Updated **June 15, 2020 5:40 p.m.**
 DNI **varies** and peaks at **1,000.0 W/m²**
 Analyze every **1 minute(s)**
0.5 ocular transmission coefficient
0.002 m pupil diameter
0.017 m eye focal length
9.3 mrad sun subtended angle
 Timezone **UTC-5**
 Site Configuration ID: 40024.6925

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

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
East 02	30.0	180.0	0	2,205	-
East 03-1	30.0	180.0	8	3,465	-
East 03-2	30.0	180.0	16	4,830	-

Component Data

PV Array(s)

Name: East 02
Axis tracking: Fixed (no rotation)
Tilt: 30.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad
Approx. area: 4,878,053 sq-ft



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.676025	-77.860938	853.78	7.50	861.28
2	42.673533	-77.861453	878.12	7.50	885.62
3	42.673596	-77.863341	888.52	7.50	896.02
4	42.669241	-77.864157	904.75	7.50	912.25
5	42.669241	-77.868234	938.66	7.50	946.16
6	42.669588	-77.868062	933.31	7.50	940.81
7	42.669999	-77.866431	918.18	7.50	925.68
8	42.670503	-77.866646	919.36	7.50	926.86
9	42.669872	-77.868320	939.29	7.50	946.79
10	42.669746	-77.868963	938.57	7.50	946.07
11	42.670093	-77.869392	941.05	7.50	948.55
12	42.670093	-77.870637	939.20	7.50	946.70
13	42.670472	-77.870637	938.74	7.50	946.24
14	42.670503	-77.871238	945.01	7.50	952.51
15	42.674605	-77.871195	926.19	7.50	933.70
16	42.675299	-77.868105	905.97	7.50	913.47
17	42.676057	-77.866260	879.99	7.50	887.49

Name: East 03-1

Axis tracking: Fixed (no rotation)

Tilt: 30.0 deg

Orientation: 180.0 deg

Rated power: -

Panel material: Smooth glass without AR coating

Vary reflectivity with sun position? Yes

Correlate slope error with surface type? Yes

Slope error: 6.55 mrad

Approx. area: 3,573,936 sq-ft



Vertex	Latitude deg	Longitude deg	Ground elevation ft	Height above ground ft	Total elevation ft
1	42.661372	-77.864104	932.90	7.50	940.40
2	42.660173	-77.864169	937.57	7.50	945.07
3	42.660173	-77.864426	939.98	7.50	947.48
4	42.659131	-77.864383	944.75	7.50	952.25
5	42.659131	-77.864641	944.81	7.50	952.31
6	42.657174	-77.864705	948.83	7.50	956.33
7	42.657159	-77.864984	951.02	7.50	958.52
8	42.656054	-77.864941	948.47	7.50	955.97
9	42.656054	-77.865134	949.20	7.50	956.70
10	42.655265	-77.865134	945.25	7.50	952.75
11	42.655265	-77.865327	945.75	7.50	953.25
12	42.654681	-77.865370	945.60	7.50	953.10
13	42.654728	-77.870370	972.32	7.50	979.82
14	42.661403	-77.870263	955.82	7.50	963.32

Name: East 03-2

Axis tracking: Fixed (no rotation)

Tilt: 30.0 deg

Orientation: 180.0 deg

Rated power: -

Panel material: Smooth glass without AR coating

Vary reflectivity with sun position? Yes

Correlate slope error with surface type? Yes

Slope error: 6.55 mrad

Approx. area: 7,083,964 sq-ft



Vertex	Latitude deg	Longitude deg	Ground elevation ft	Height above ground ft	Total elevation ft
1	42.661782	-77.862860	923.82	7.50	931.32
2	42.660852	-77.863096	928.45	7.50	935.95
3	42.660820	-77.861680	919.71	7.50	927.21
4	42.659226	-77.861916	916.89	7.50	924.39
5	42.659289	-77.863503	935.95	7.50	943.45
6	42.658926	-77.863546	937.30	7.50	944.80
7	42.658721	-77.863267	931.89	7.50	939.39
8	42.658485	-77.863396	935.18	7.50	942.68
9	42.658421	-77.863740	939.31	7.50	946.81
10	42.657869	-77.863740	944.62	7.50	952.12
11	42.657822	-77.862516	924.76	7.50	932.26
12	42.657112	-77.862581	924.85	7.50	932.35
13	42.657112	-77.863675	947.75	7.50	955.25
14	42.654713	-77.864212	936.35	7.50	943.85
15	42.654650	-77.851723	844.18	7.50	851.68
16	42.655186	-77.851723	837.39	7.50	844.89
17	42.655455	-77.852582	838.29	7.50	845.79
18	42.655849	-77.853912	843.35	7.50	850.85
19	42.655960	-77.852710	838.06	7.50	845.56
20	42.656449	-77.852646	837.94	7.50	845.44
21	42.656670	-77.853204	843.55	7.50	851.05
22	42.656954	-77.853182	842.19	7.50	849.69
23	42.656922	-77.852002	836.21	7.50	843.71
24	42.657080	-77.851916	836.20	7.50	843.70
25	42.657112	-77.850650	824.81	7.50	832.31
26	42.657380	-77.850071	824.46	7.50	831.96
27	42.658058	-77.850135	834.08	7.50	841.58
28	42.658074	-77.854513	852.21	7.50	859.71
29	42.659984	-77.854255	844.98	7.50	852.48
30	42.660031	-77.853054	833.07	7.50	840.57
31	42.661262	-77.852946	832.83	7.50	840.33
32	42.661214	-77.850951	823.56	7.50	831.06
33	42.661593	-77.850929	822.46	7.50	829.96

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
OP 1	42.666066	-77.862131	906.88	5.36	912.24
OP 2	42.664941	-77.862399	909.43	5.36	914.79
OP 3	42.665233	-77.863150	916.48	5.36	921.84
OP 4	42.662291	-77.865033	941.14	5.36	946.51
OP 5	42.662228	-77.867704	955.82	5.36	961.18
OP 6	42.660202	-77.863538	936.86	5.36	942.23
OP 7	42.653095	-77.865487	934.93	5.36	940.29
OP 8	42.651486	-77.864779	931.81	5.36	937.17
OP 9	42.661962	-77.863442	923.81	5.36	929.17
OP 10	42.662082	-77.877758	972.43	5.36	977.79
OP 11	42.665502	-77.862708	906.76	5.36	912.13
OP 12	42.676294	-77.860528	850.46	5.36	855.82
OP 13	42.679696	-77.859739	805.74	5.36	811.10
OP 14	42.676353	-77.877708	933.54	5.36	938.90
OP 15	42.676465	-77.892829	972.17	5.36	977.53
OP 16	42.661975	-77.892898	1005.59	5.36	1010.95
OP 17	42.661874	-77.899421	1074.51	5.36	1079.87

PV Array Results

Summary of PV Glare Analysis PV configuration and predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File 
	deg	deg	min	min	kWh	
East 02	30.0	180.0	0	2,205	-	
East 03-1	30.0	180.0	8	3,465	-	
East 03-2	30.0	180.0	16	4,830	-	

Click the name of the PV array to scroll to its results

PV & Receptor Analysis Results detailed results for each PV array and receptor

East 02 potential temporary after-image



Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	9
OP: OP 15	0	5
OP: OP 16	0	1014
OP: OP 17	0	1177

East 02 - OP Receptor (OP 1)

No glare found

East 02 - OP Receptor (OP 2)

No glare found

East 02 - OP Receptor (OP 3)

No glare found

East 02 - OP Receptor (OP 4)

No glare found

East 02 - OP Receptor (OP 5)

No glare found

East 02 - OP Receptor (OP 6)

No glare found

East 02 - OP Receptor (OP 7)

No glare found

East 02 - OP Receptor (OP 8)

No glare found

East 02 - OP Receptor (OP 9)

No glare found

East 02 - OP Receptor (OP 10)

No glare found

East 02 - OP Receptor (OP 11)

No glare found

East 02 - OP Receptor (OP 12)

No glare found

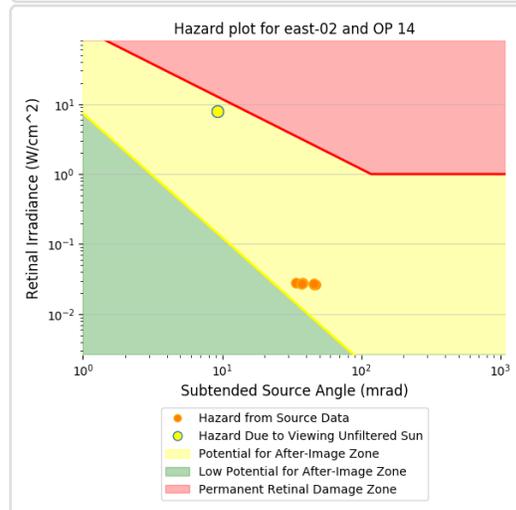
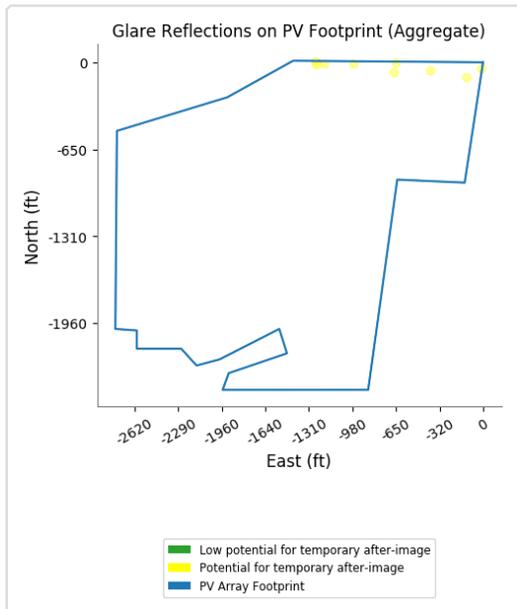
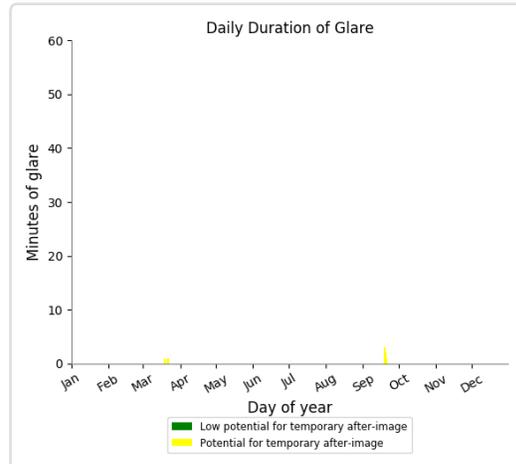
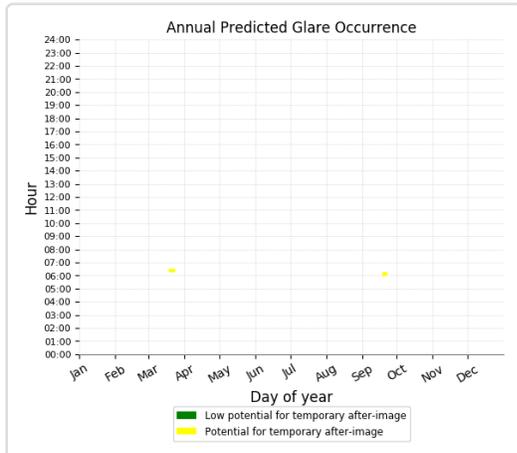
East 02 - OP Receptor (OP 13)

No glare found

East 02 - OP Receptor (OP 14)

PV array is expected to produce the following glare for receptors at this location:

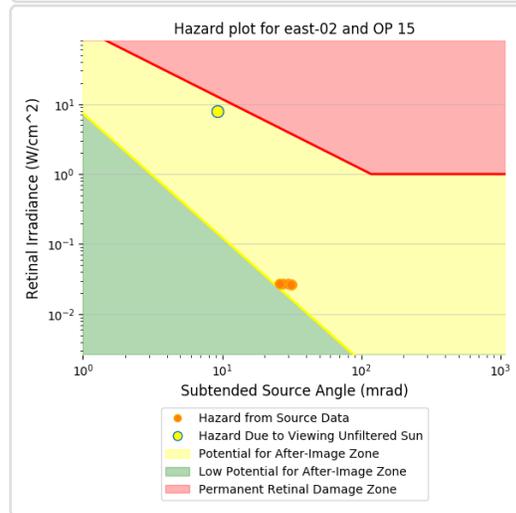
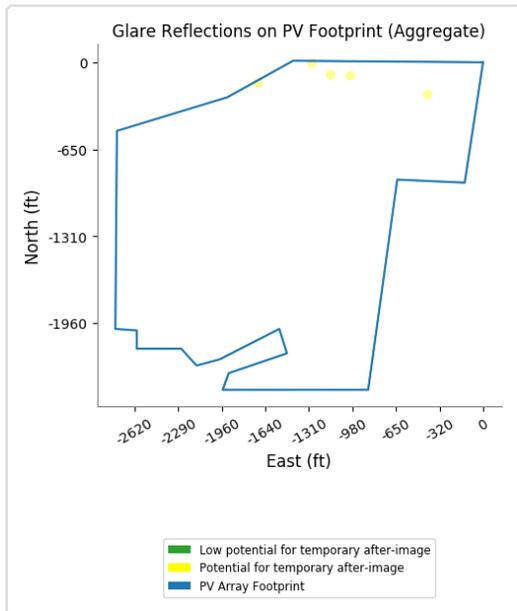
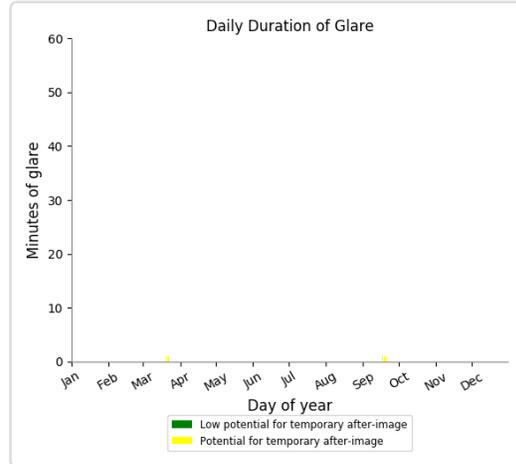
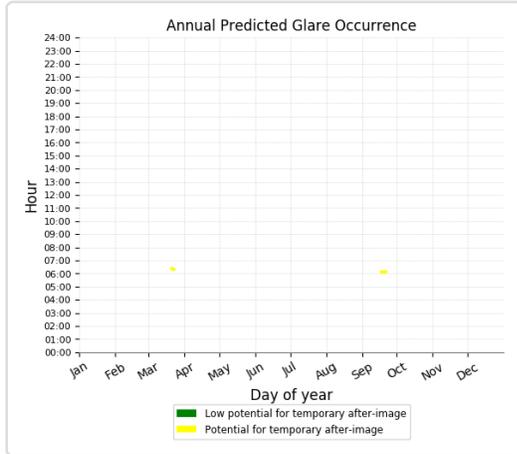
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 9 minutes of "yellow" glare with potential to cause temporary after-image.



East 02 - OP Receptor (OP 15)

PV array is expected to produce the following glare for receptors at this location:

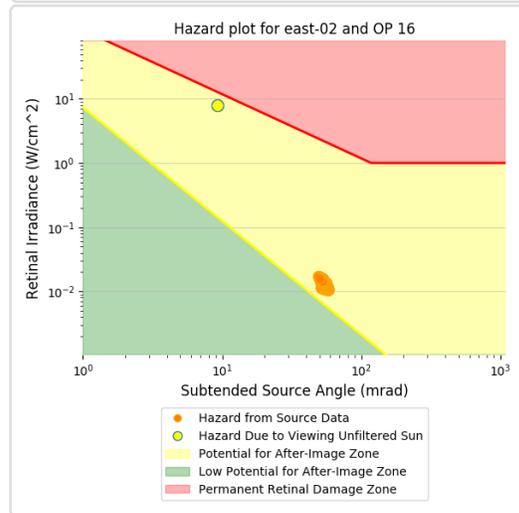
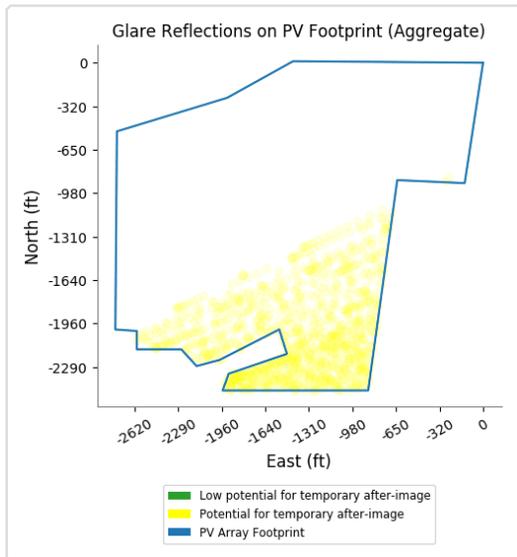
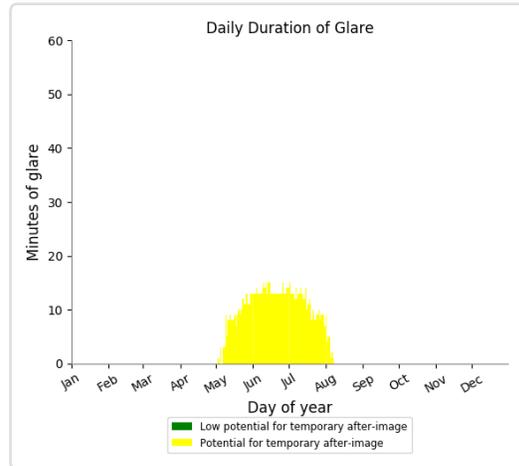
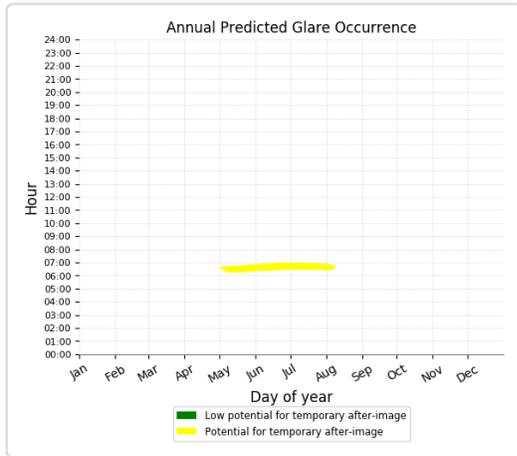
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 5 minutes of "yellow" glare with potential to cause temporary after-image.



East 02 - OP Receptor (OP 16)

PV array is expected to produce the following glare for receptors at this location:

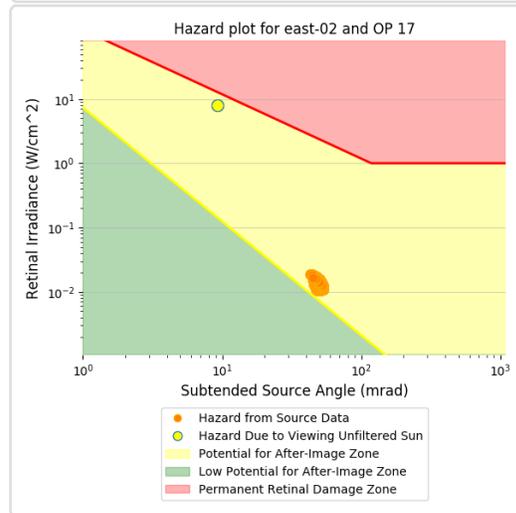
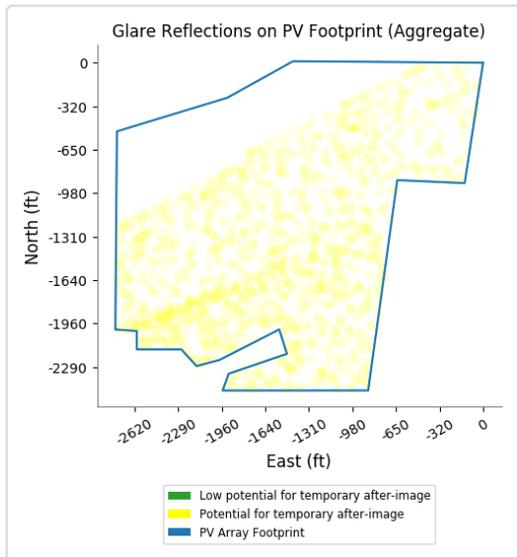
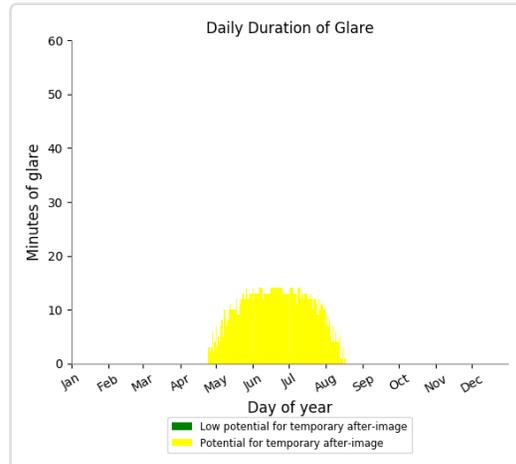
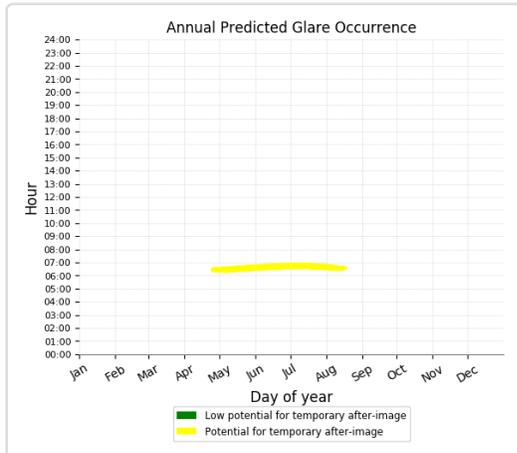
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,014 minutes of "yellow" glare with potential to cause temporary after-image.



East 02 - OP Receptor (OP 17)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,177 minutes of "yellow" glare with potential to cause temporary after-image.





East 03-1 potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	3405
OP: OP 7	0	48
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	1	7
OP: OP 17	7	5

East 03-1 - OP Receptor (OP 1)

No glare found

East 03-1 - OP Receptor (OP 2)

No glare found

East 03-1 - OP Receptor (OP 3)

No glare found

East 03-1 - OP Receptor (OP 4)

No glare found

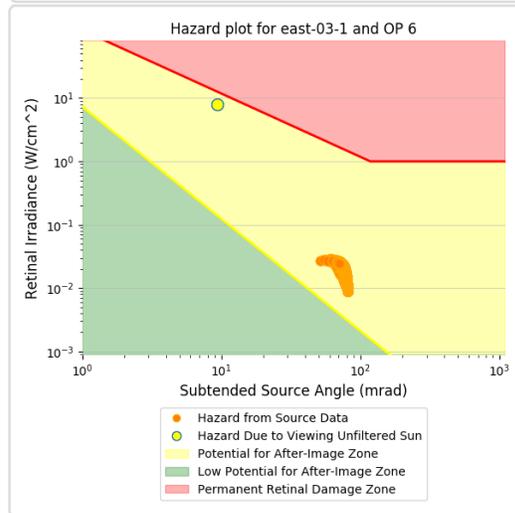
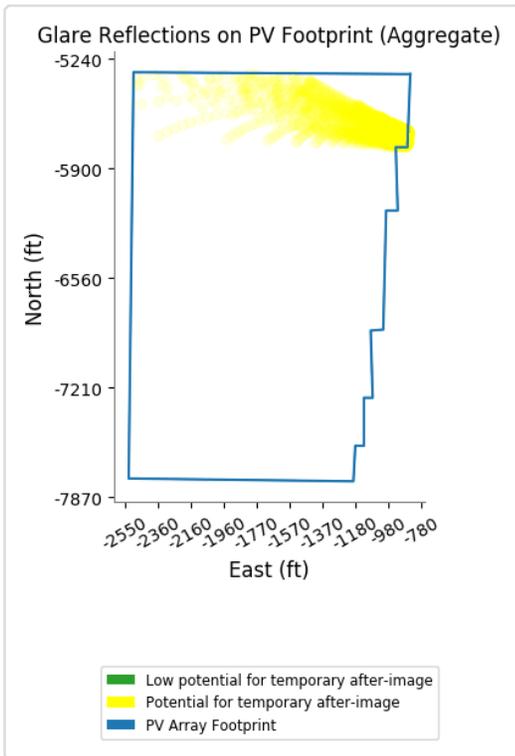
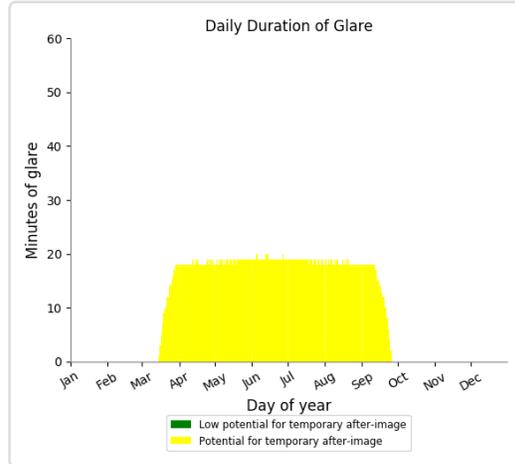
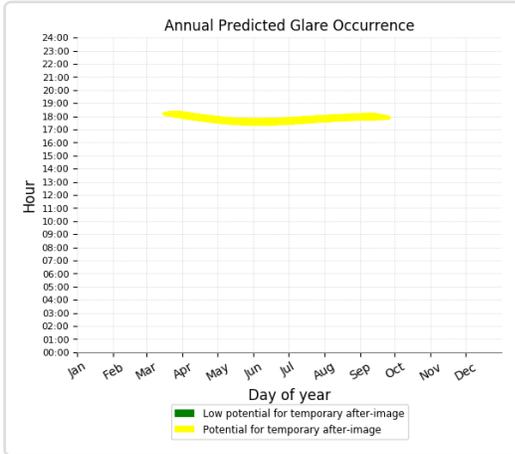
East 03-1 - OP Receptor (OP 5)

No glare found

East 03-1 - OP Receptor (OP 6)

PV array is expected to produce the following glare for receptors at this location:

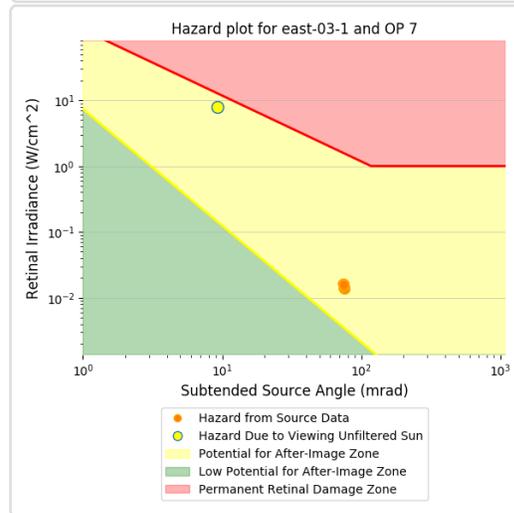
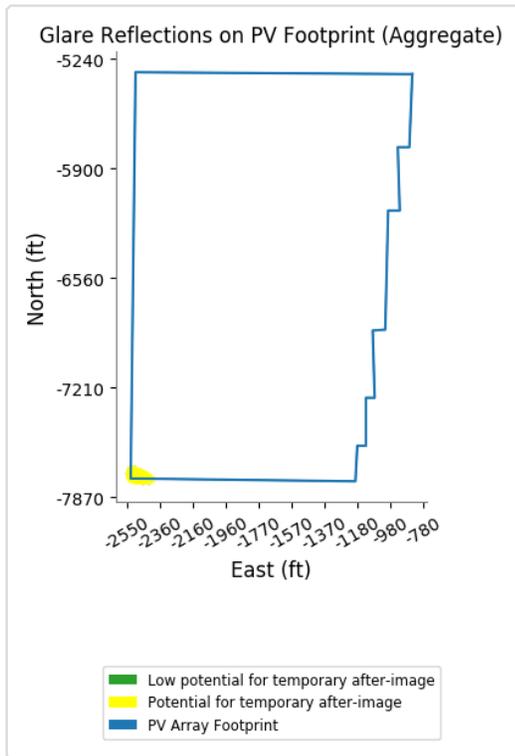
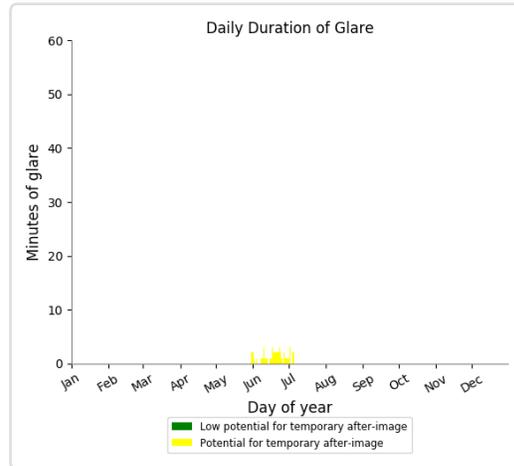
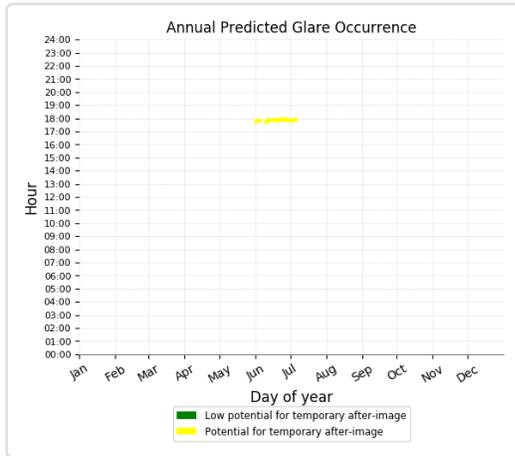
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,405 minutes of "yellow" glare with potential to cause temporary after-image.



East 03-1 - OP Receptor (OP 7)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 48 minutes of "yellow" glare with potential to cause temporary after-image.



East 03-1 - OP Receptor (OP 8)

No glare found

East 03-1 - OP Receptor (OP 9)

No glare found

East 03-1 - OP Receptor (OP 10)

No glare found

East 03-1 - OP Receptor (OP 11)

No glare found

East 03-1 - OP Receptor (OP 12)

No glare found

East 03-1 - OP Receptor (OP 13)

No glare found

East 03-1 - OP Receptor (OP 14)

No glare found

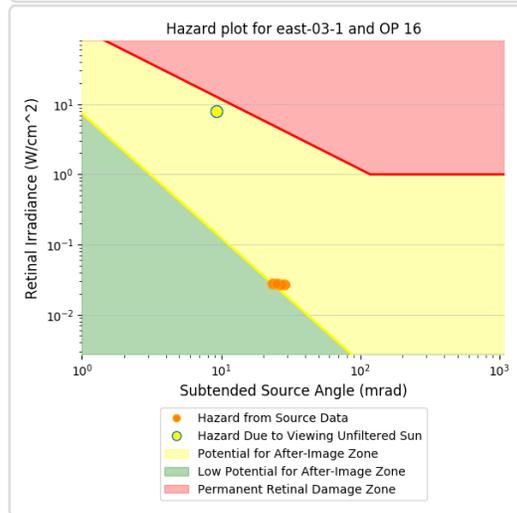
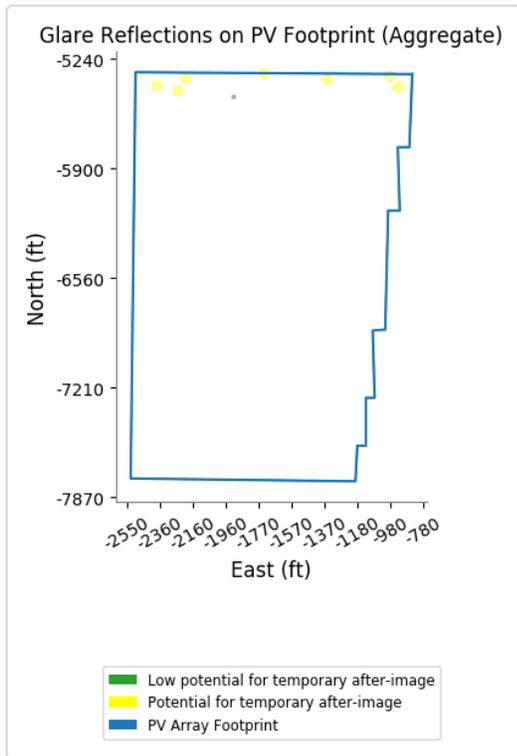
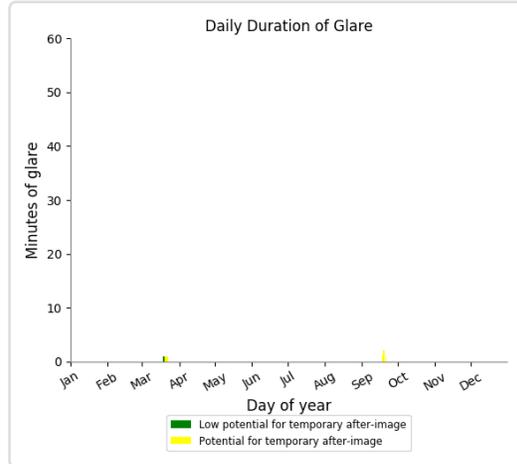
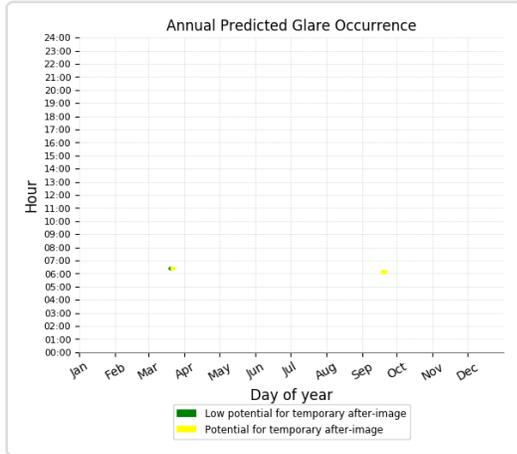
East 03-1 - OP Receptor (OP 15)

No glare found

East 03-1 - OP Receptor (OP 16)

PV array is expected to produce the following glare for receptors at this location:

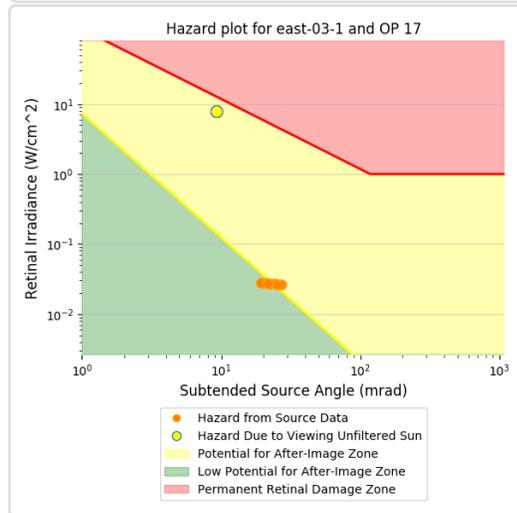
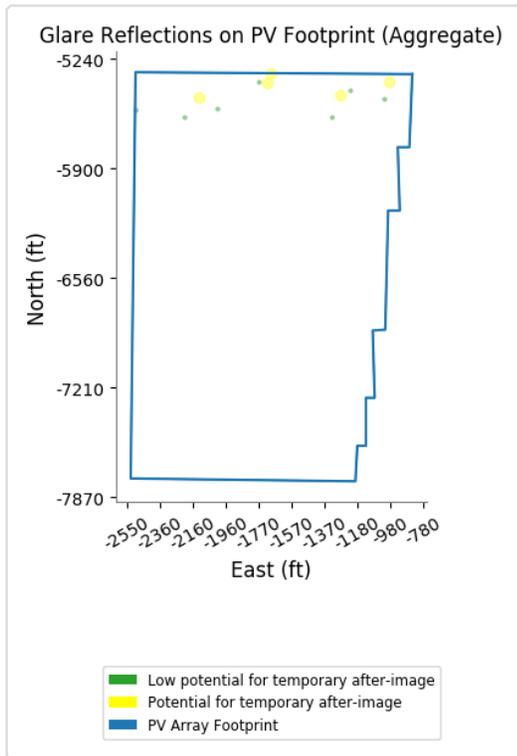
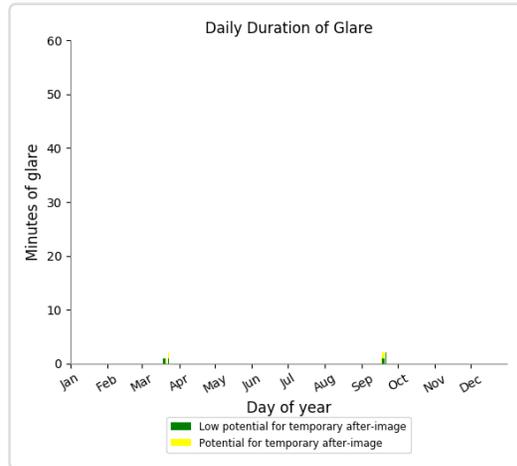
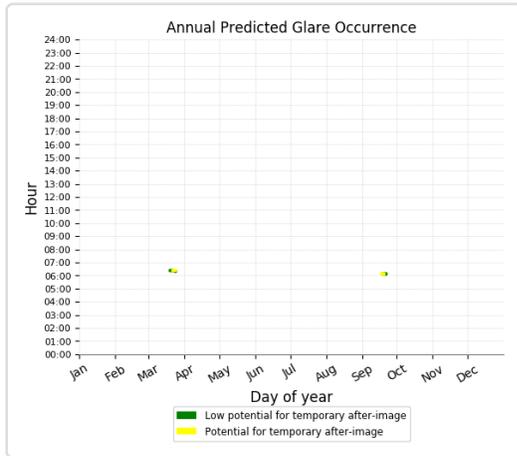
- 1 minutes of "green" glare with low potential to cause temporary after-image.
- 7 minutes of "yellow" glare with potential to cause temporary after-image.



East 03-1 - OP Receptor (OP 17)

PV array is expected to produce the following glare for receptors at this location:

- 7 minutes of "green" glare with low potential to cause temporary after-image.
- 5 minutes of "yellow" glare with potential to cause temporary after-image.





East 03-2 potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	2699
OP: OP 7	0	1550
OP: OP 8	0	403
OP: OP 9	0	3
OP: OP 10	0	45
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	4	73
OP: OP 17	12	57

East 03-2 - OP Receptor (OP 1)

No glare found

East 03-2 - OP Receptor (OP 2)

No glare found

East 03-2 - OP Receptor (OP 3)

No glare found

East 03-2 - OP Receptor (OP 4)

No glare found

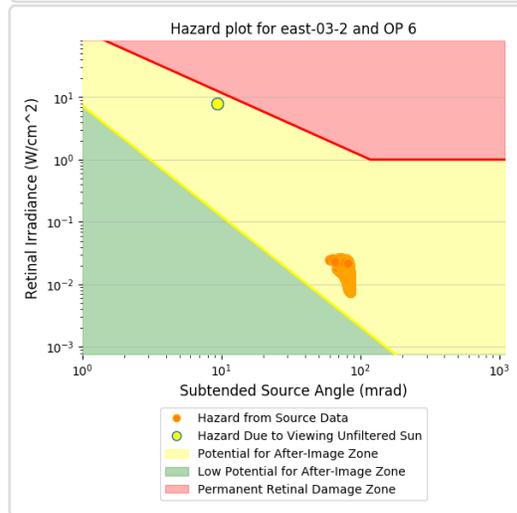
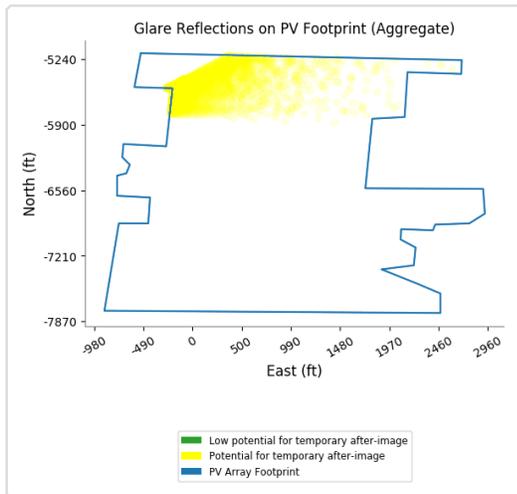
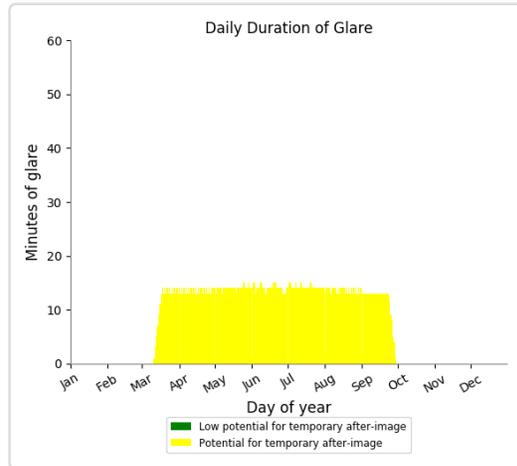
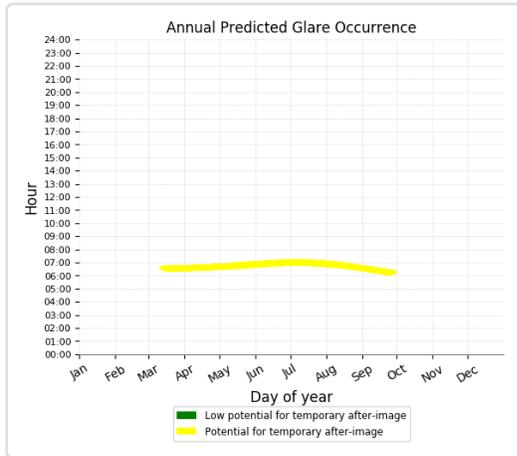
East 03-2 - OP Receptor (OP 5)

No glare found

East 03-2 - OP Receptor (OP 6)

PV array is expected to produce the following glare for receptors at this location:

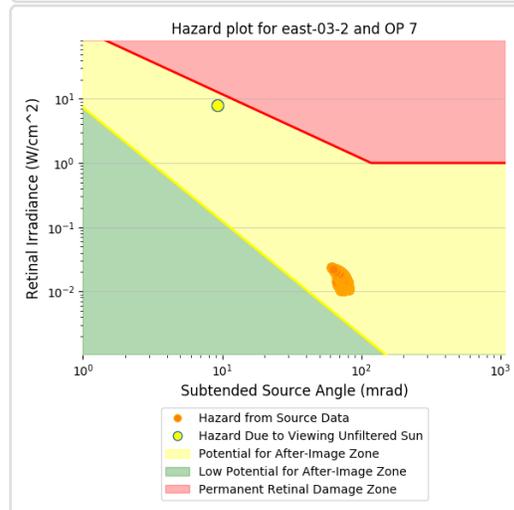
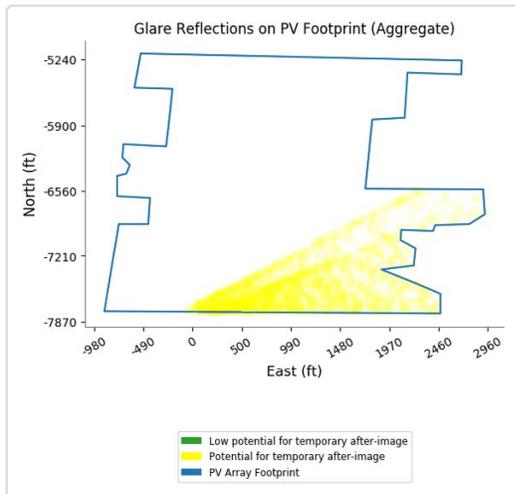
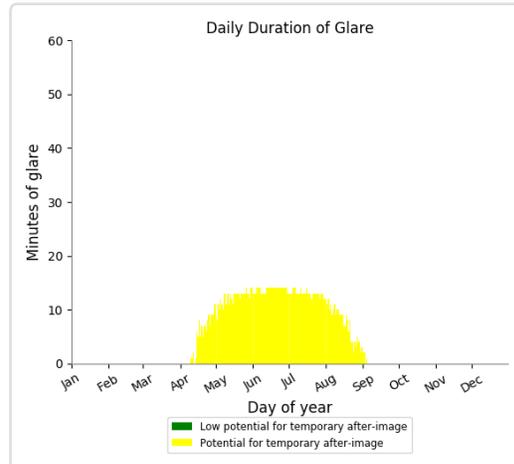
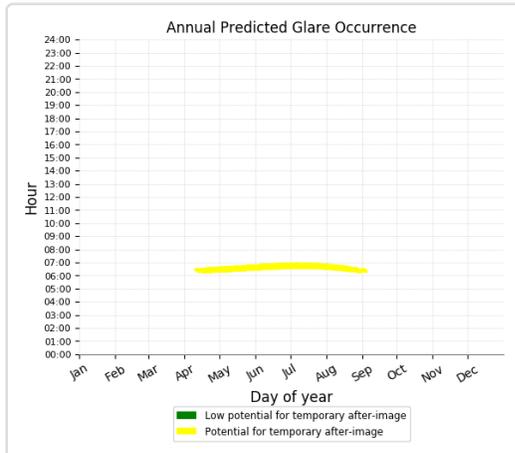
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,699 minutes of "yellow" glare with potential to cause temporary after-image.



East 03-2 - OP Receptor (OP 7)

PV array is expected to produce the following glare for receptors at this location:

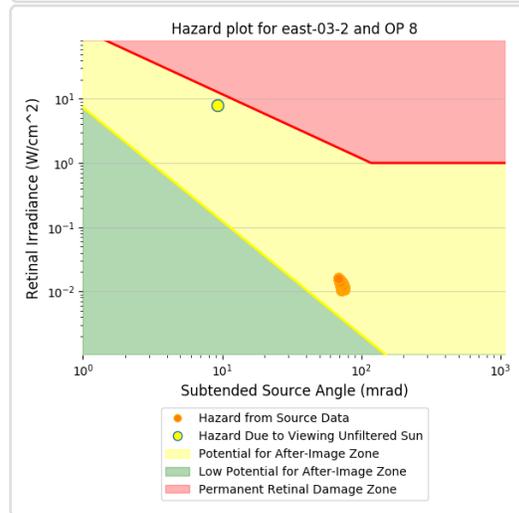
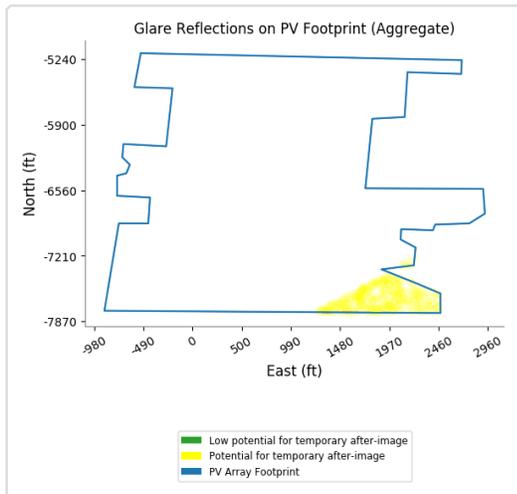
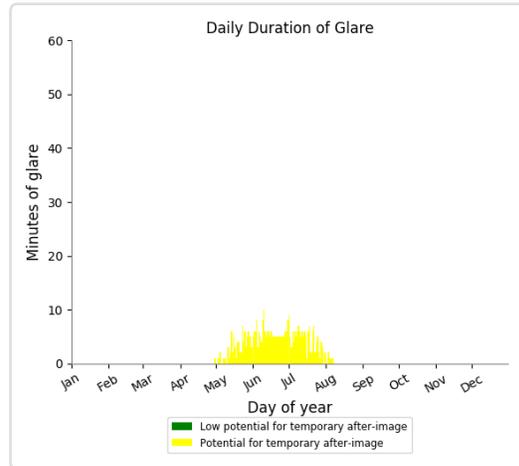
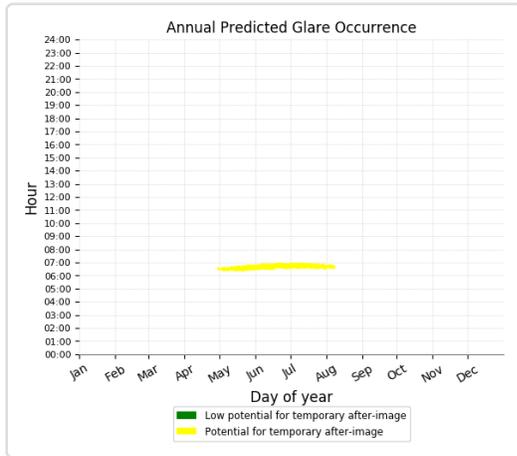
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,550 minutes of "yellow" glare with potential to cause temporary after-image.



East 03-2 - OP Receptor (OP 8)

PV array is expected to produce the following glare for receptors at this location:

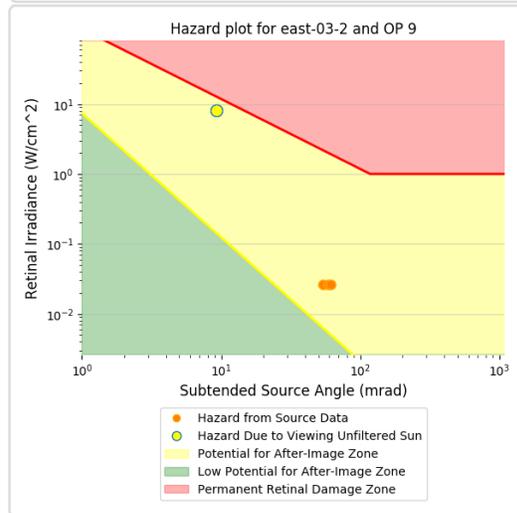
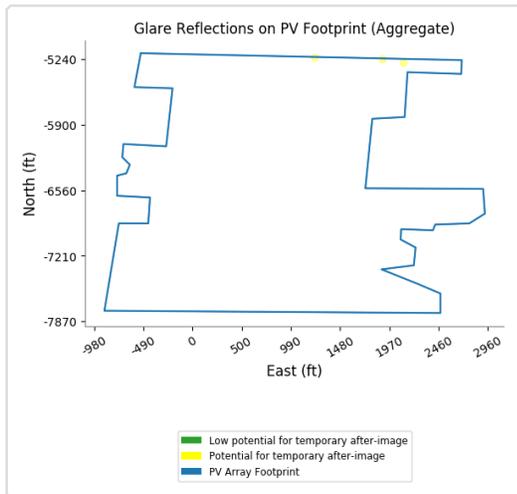
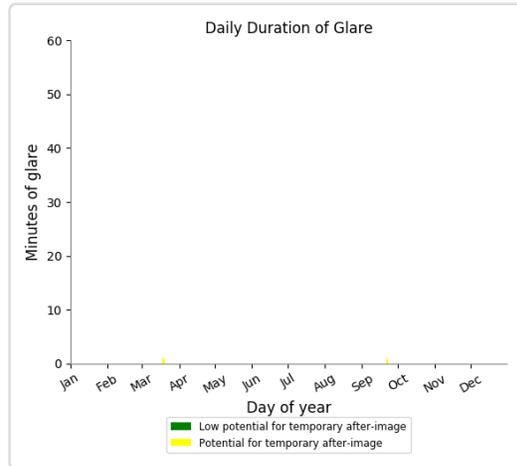
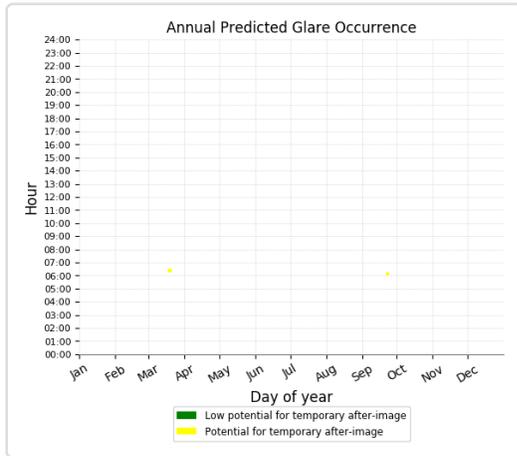
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 403 minutes of "yellow" glare with potential to cause temporary after-image.



East 03-2 - OP Receptor (OP 9)

PV array is expected to produce the following glare for receptors at this location:

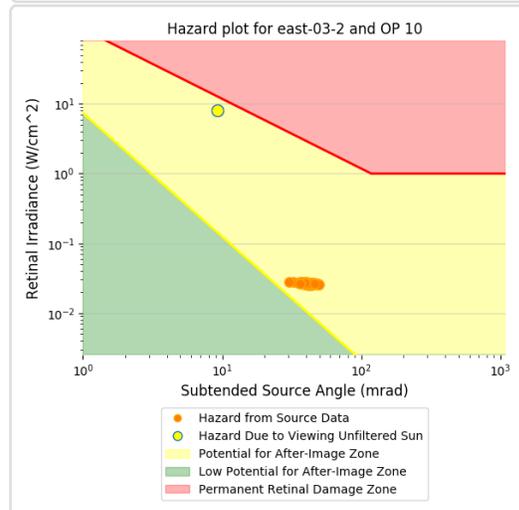
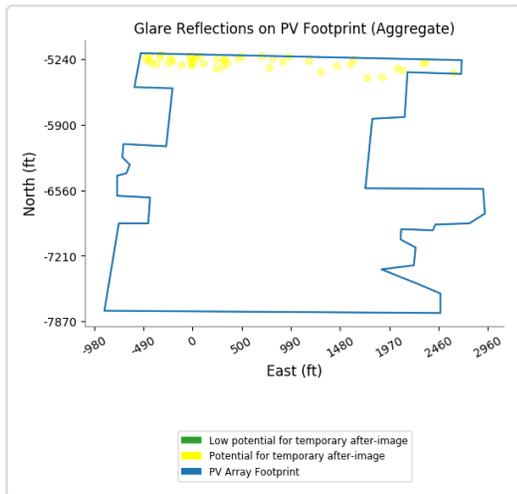
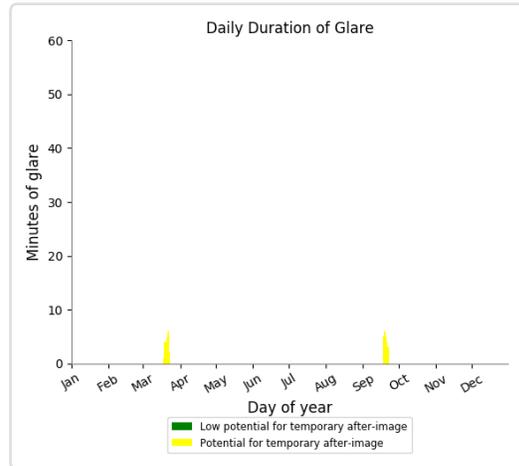
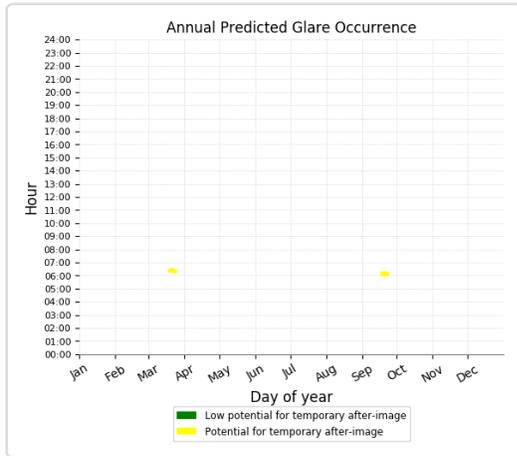
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3 minutes of "yellow" glare with potential to cause temporary after-image.



East 03-2 - OP Receptor (OP 10)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 45 minutes of "yellow" glare with potential to cause temporary after-image.



East 03-2 - OP Receptor (OP 11)

No glare found

East 03-2 - OP Receptor (OP 12)

No glare found

East 03-2 - OP Receptor (OP 13)

No glare found

East 03-2 - OP Receptor (OP 14)

No glare found

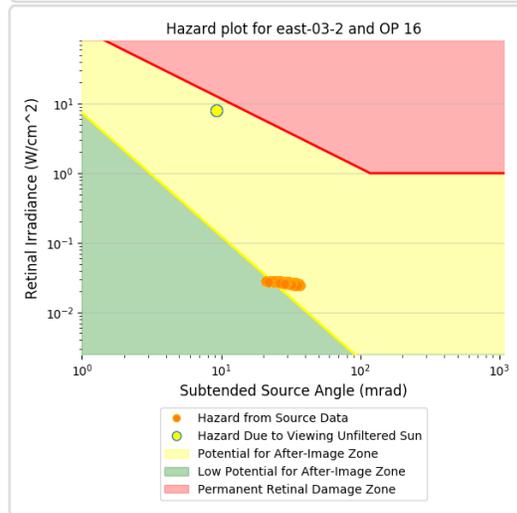
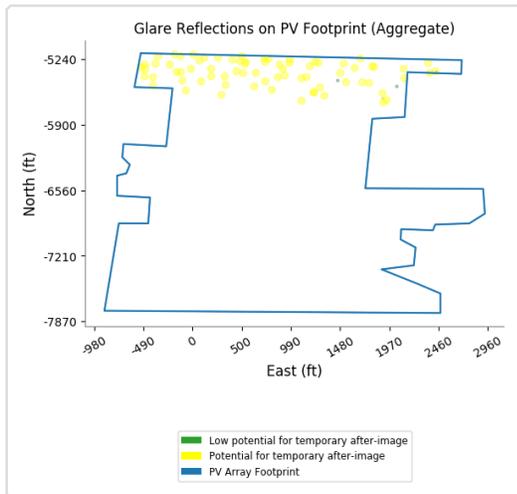
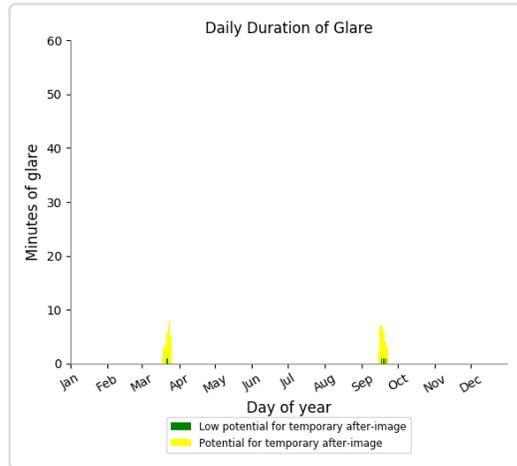
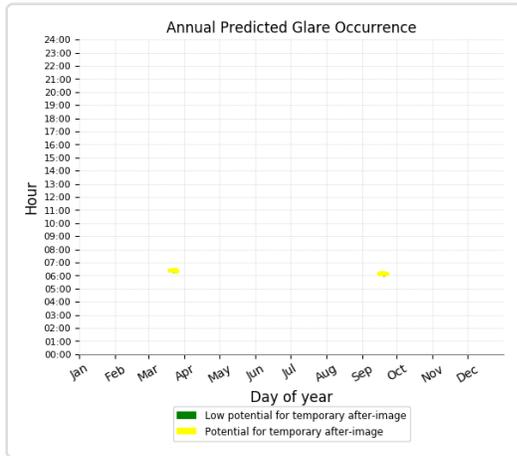
East 03-2 - OP Receptor (OP 15)

No glare found

East 03-2 - OP Receptor (OP 16)

PV array is expected to produce the following glare for receptors at this location:

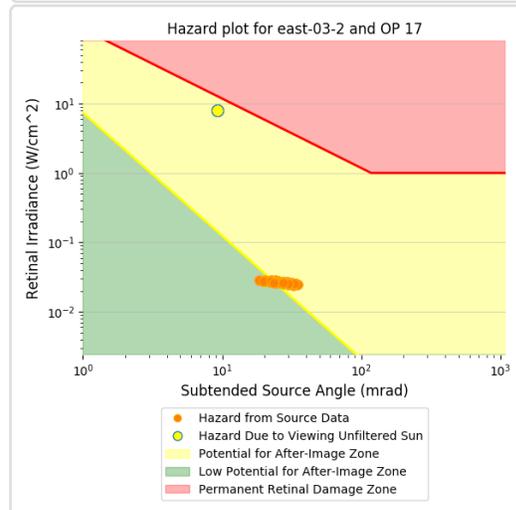
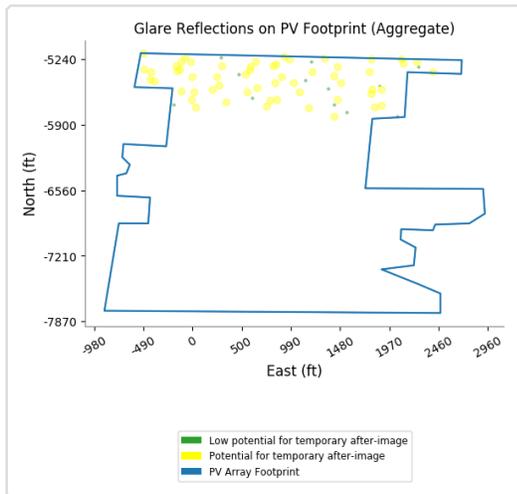
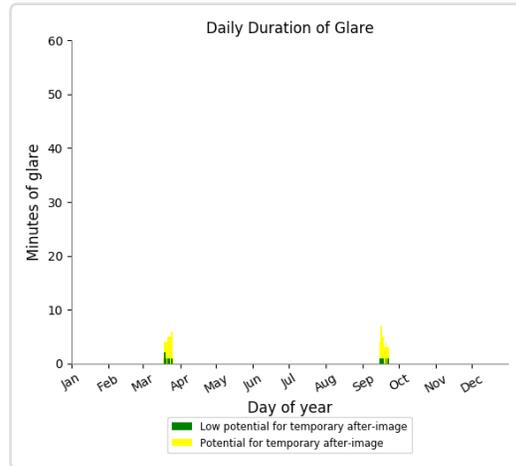
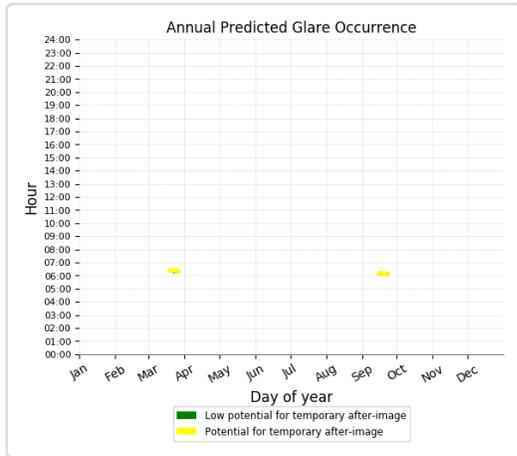
- 4 minutes of "green" glare with low potential to cause temporary after-image.
- 73 minutes of "yellow" glare with potential to cause temporary after-image.



East 03-2 - OP Receptor (OP 17)

PV array is expected to produce the following glare for receptors at this location:

- 12 minutes of "green" glare with low potential to cause temporary after-image.
- 57 minutes of "yellow" glare with potential to cause temporary after-image.



Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- 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.
- Several 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.
- 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.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.
- Glare analysis methods used: OP V1, FP V1, Route V1
- Refer to the **Help page** for assumptions and limitations not listed here.

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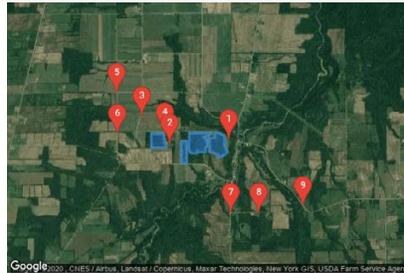
I Accept



ForgeSolar

Site Configuration: Morris Ridge Solar Farm

Project site configuration details and results.



Created **April 10, 2020 3:49 p.m.**
 Updated **June 18, 2020 5:35 p.m.**
 DNI **varies** and peaks at **1,000.0 W/m²**
 Analyze every **1 minute(s)**
0.5 ocular transmission coefficient
0.002 m pupil diameter
0.017 m eye focal length
9.3 mrad sun subtended angle
 Timezone **UTC-5**
 Site Configuration ID: 37962.6948

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

PV Name	Tilt deg	Orientation deg	"Green" Glare min	"Yellow" Glare min	Energy Produced kWh
East 04-1	30.0	180.0	1,547	4,062	-
East 04-2	30.0	180.0	1,551	685	-
East 04-3	30.0	180.0	247	4,383	-
East 04-4	30.0	180.0	89	2,875	-

Component Data

PV Array(s)

Name: East 04-1
Axis tracking: Fixed (no rotation)
Tilt: 30.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad
Approx. area: 851,188 sq-ft

Vertex	Latitude deg	Longitude deg	Ground elevation ft	Height above ground ft	Total elevation ft
1	42.639747	-77.890627	958.29	7.50	965.79
2	42.637127	-77.890669	928.68	7.50	936.18
3	42.637221	-77.886764	907.23	7.50	914.73
4	42.638200	-77.887365	933.89	7.50	941.39
5	42.639747	-77.887494	929.78	7.50	937.28



Name: East 04-2
Axis tracking: Fixed (no rotation)
Tilt: 30.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad
Approx. area: 561,919 sq-ft

Vertex	Latitude deg	Longitude deg	Ground elevation ft	Height above ground ft	Total elevation ft
1	42.638339	-77.883073	903.67	7.50	911.17
2	42.638339	-77.881700	897.11	7.50	904.61
3	42.634235	-77.881657	864.36	7.50	871.86
4	42.634235	-77.883073	873.27	7.50	880.77



Name: East 04-3
Axis tracking: Fixed (no rotation)
Tilt: 30.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad
Approx. area: 1,536,801 sq-ft



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.639823	-77.881014	906.56	7.50	914.06
2	42.636792	-77.881099	883.90	7.50	891.40
3	42.636098	-77.880584	879.09	7.50	886.59
4	42.636066	-77.879082	876.55	7.50	884.05
5	42.636697	-77.878997	873.62	7.50	881.12
6	42.636319	-77.878825	871.42	7.50	878.92
7	42.636350	-77.876937	864.79	7.50	872.29
8	42.637013	-77.876979	867.54	7.50	875.04
9	42.637329	-77.876593	866.07	7.50	873.57
10	42.638339	-77.876379	880.79	7.50	888.29
11	42.638371	-77.876851	878.28	7.50	885.78
12	42.638781	-77.876851	884.62	7.50	892.12
13	42.638844	-77.877280	884.36	7.50	891.86
14	42.639191	-77.877237	890.84	7.50	898.34
15	42.639476	-77.875821	889.65	7.50	897.15
16	42.639886	-77.875520	890.60	7.50	898.10

Name: East 04-4
Axis tracking: Fixed (no rotation)
Tilt: 30.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad
Approx. area: 1,369,418 sq-ft



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.638874	-77.875870	883.60	7.50	891.10
2	42.638905	-77.874561	879.75	7.50	887.25
3	42.639853	-77.874625	887.19	7.50	894.69
4	42.639868	-77.873681	881.05	7.50	888.55
5	42.639332	-77.872179	875.62	7.50	883.12
6	42.638227	-77.872115	869.98	7.50	877.48
7	42.637990	-77.871643	866.38	7.50	873.88
8	42.638006	-77.872179	866.58	7.50	874.08
9	42.637501	-77.872136	863.53	7.50	871.03
10	42.636350	-77.871336	849.73	7.50	857.23
11	42.635782	-77.872237	851.21	7.50	858.71
12	42.635277	-77.873782	852.91	7.50	860.41
13	42.635940	-77.873782	857.48	7.50	864.98
14	42.636319	-77.875885	862.10	7.50	869.60

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
OP 1	42.638793	-77.870953	874.21	5.36	879.57
OP 2	42.637983	-77.885877	925.95	5.36	931.31
OP 3	42.642989	-77.892933	989.74	5.36	995.10
OP 4	42.640048	-77.887099	928.95	5.36	934.31
OP 5	42.647299	-77.899282	1044.97	5.36	1050.33
OP 6	42.639742	-77.899141	1033.48	5.36	1038.84
OP 7	42.625091	-77.870553	884.26	5.36	889.62
OP 8	42.625097	-77.863459	908.53	5.36	913.89
OP 9	42.626393	-77.852340	987.69	5.36	993.05

PV Array Results

Summary of PV Glare Analysis PV configuration and predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File 
	deg	deg	min	min	kWh	
East 04-1	30.0	180.0	1,547	4,062	-	
East 04-2	30.0	180.0	1,551	685	-	
East 04-3	30.0	180.0	247	4,383	-	
East 04-4	30.0	180.0	89	2,875	-	

Click the name of the PV array to scroll to its results

PV & Receptor Analysis Results detailed results for each PV array and receptor

East 04-1 potential temporary after-image

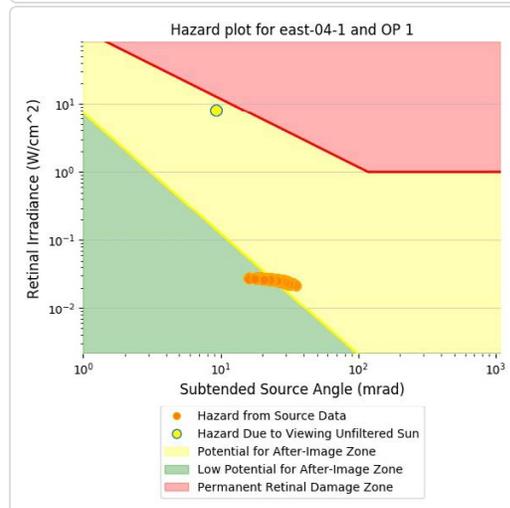
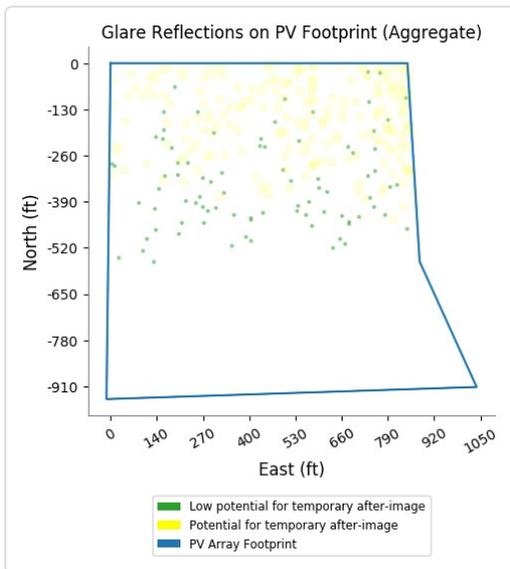
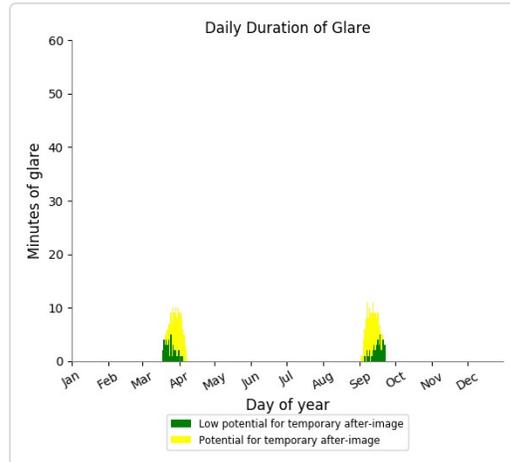
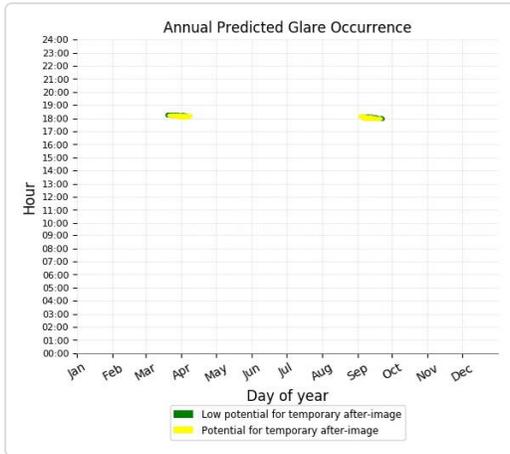


Component	Green glare (min)	Yellow glare (min)
OP: OP 1	84	200
OP: OP 2	0	3831
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	31
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	1463	0

East 04-1 - OP Receptor (OP 1)

PV array is expected to produce the following glare for receptors at this location:

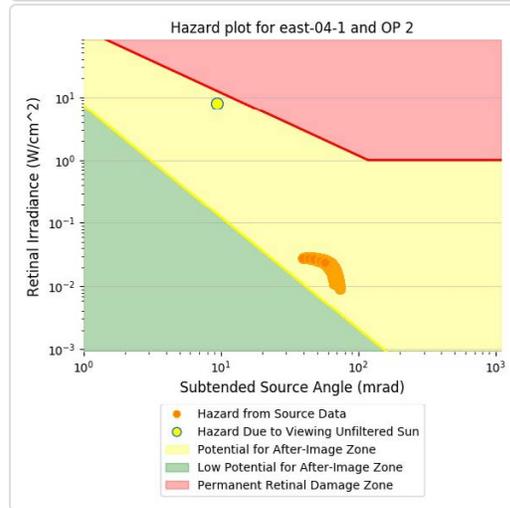
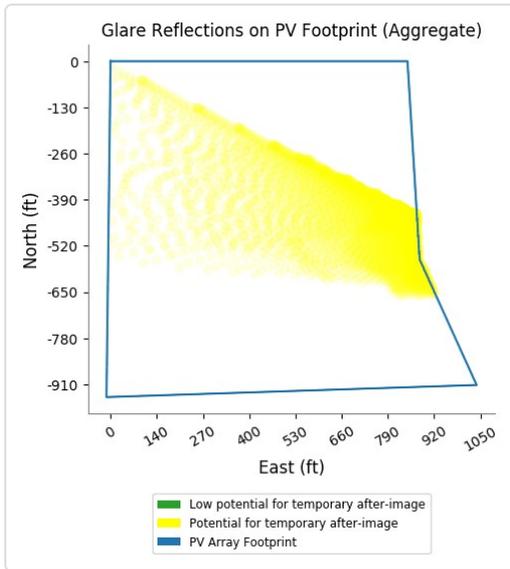
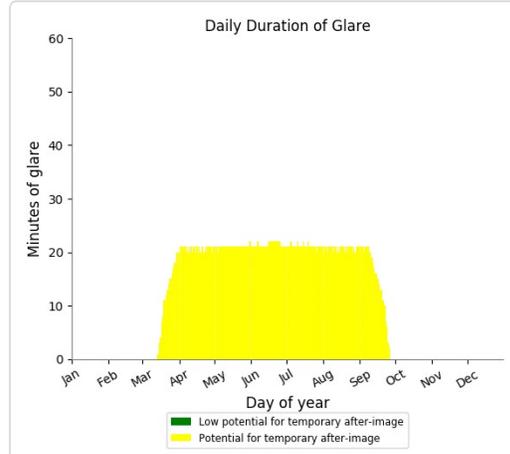
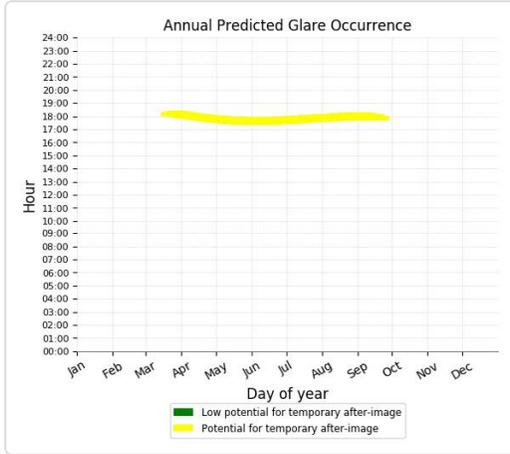
- 84 minutes of "green" glare with low potential to cause temporary after-image.
- 200 minutes of "yellow" glare with potential to cause temporary after-image.



East 04-1 - OP Receptor (OP 2)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,831 minutes of "yellow" glare with potential to cause temporary after-image.



East 04-1 - OP Receptor (OP 3)

No glare found

East 04-1 - OP Receptor (OP 4)

No glare found

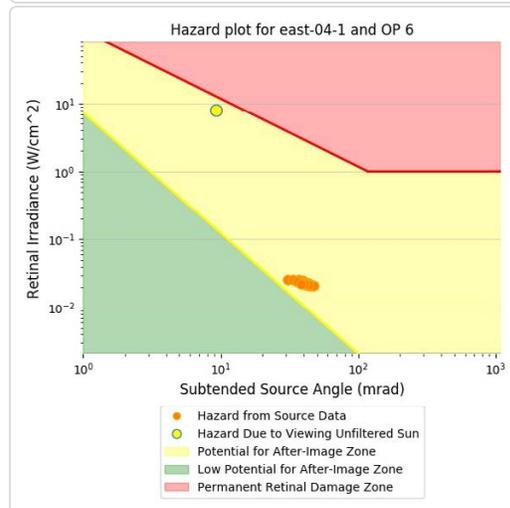
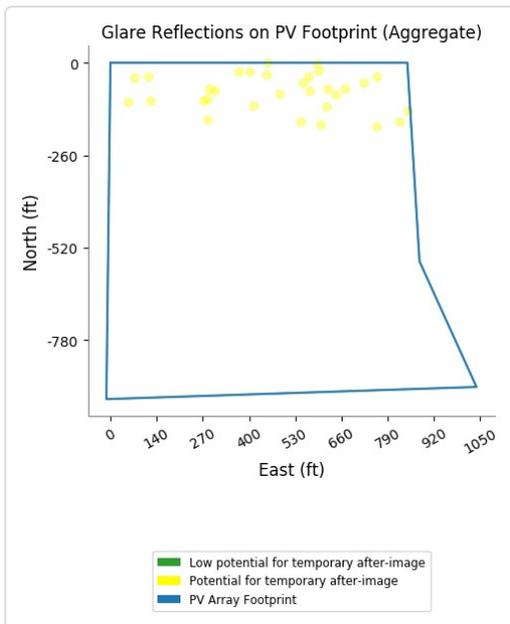
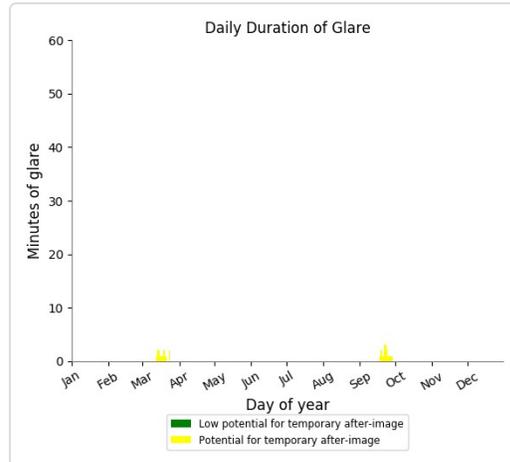
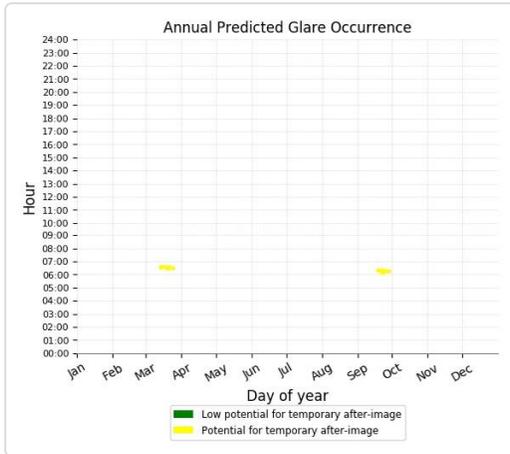
East 04-1 - OP Receptor (OP 5)

No glare found

East 04-1 - OP Receptor (OP 6)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 31 minutes of "yellow" glare with potential to cause temporary after-image.



East 04-1 - OP Receptor (OP 7)

No glare found

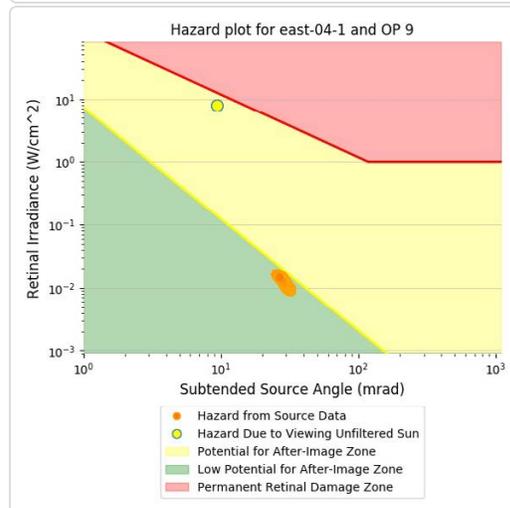
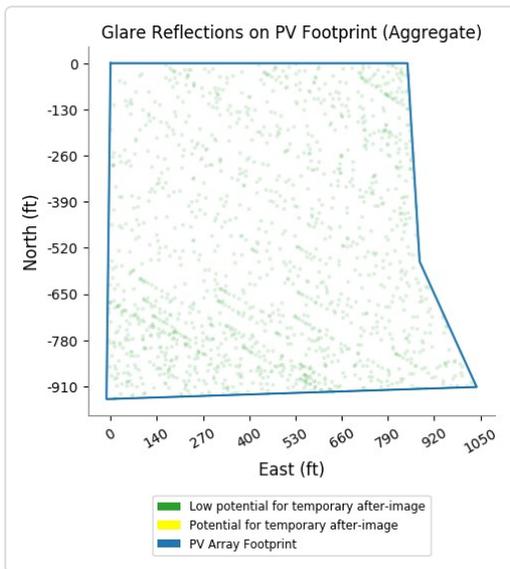
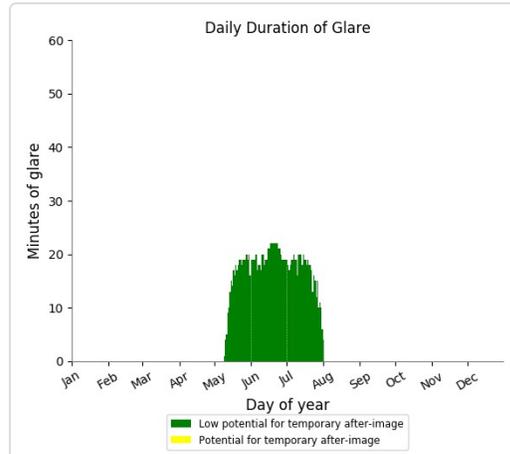
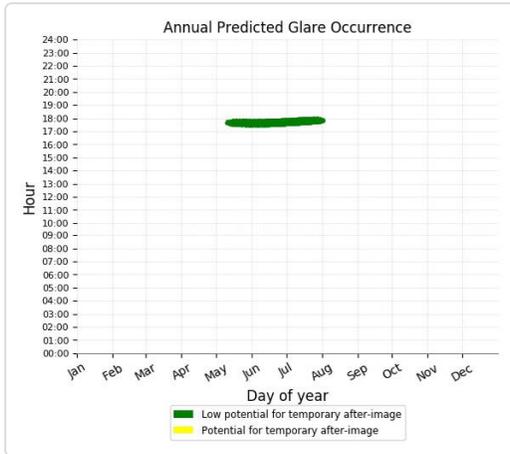
East 04-1 - OP Receptor (OP 8)

No glare found

East 04-1 - OP Receptor (OP 9)

PV array is expected to produce the following glare for receptors at this location:

- 1,463 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.





East 04-2 potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	685
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	1551	0

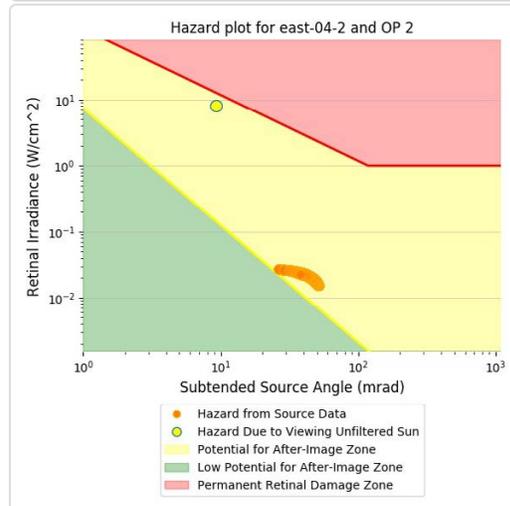
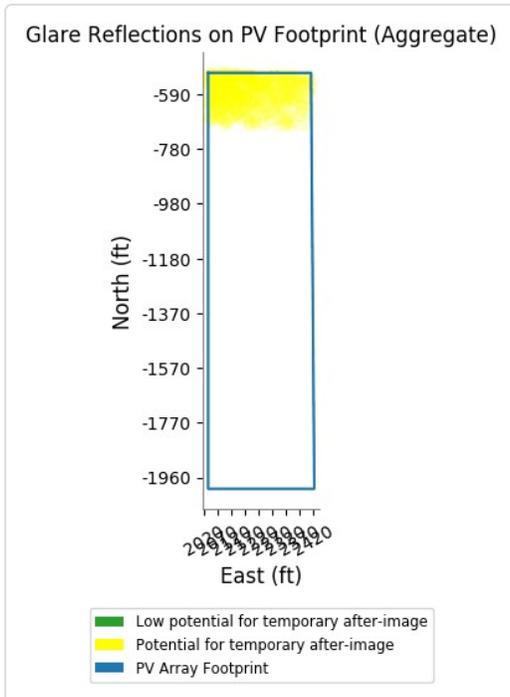
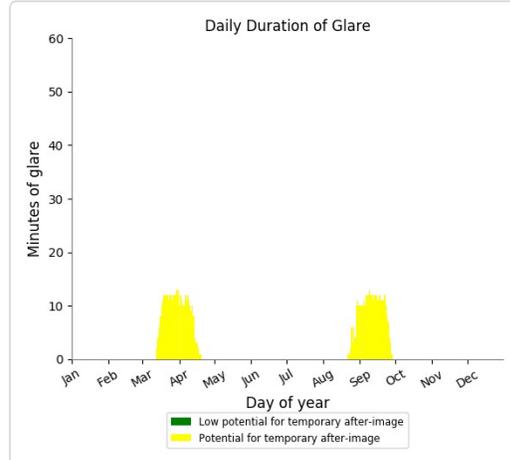
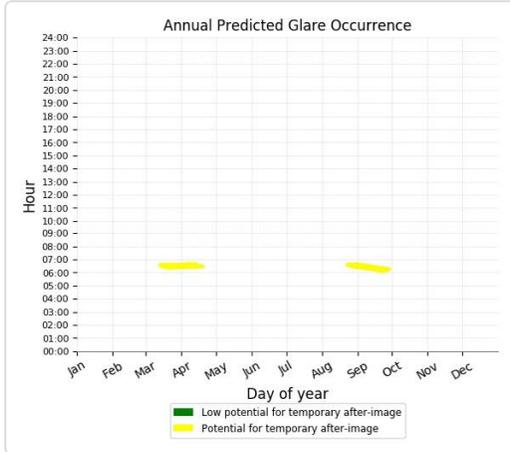
East 04-2 - OP Receptor (OP 1)

No glare found

East 04-2 - OP Receptor (OP 2)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 685 minutes of "yellow" glare with potential to cause temporary after-image.



East 04-2 - OP Receptor (OP 3)

No glare found

East 04-2 - OP Receptor (OP 4)

No glare found

East 04-2 - OP Receptor (OP 5)

No glare found

East 04-2 - OP Receptor (OP 6)

No glare found

East 04-2 - OP Receptor (OP 7)

No glare found

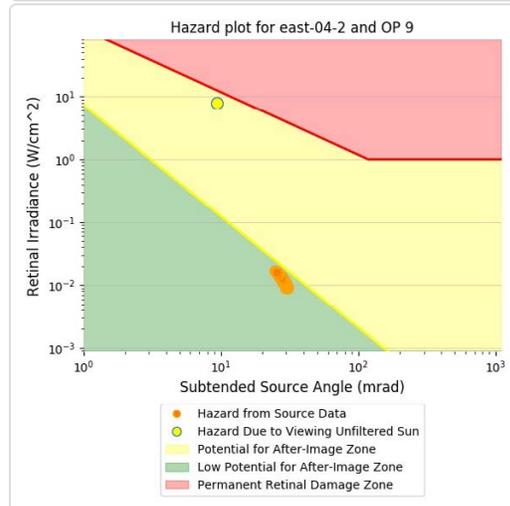
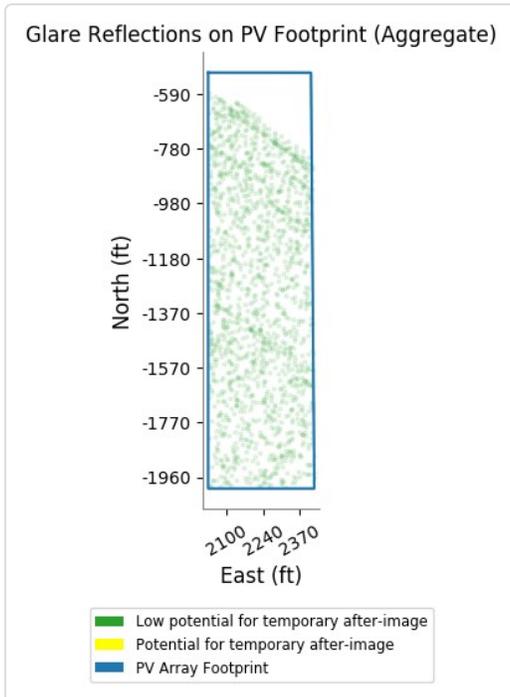
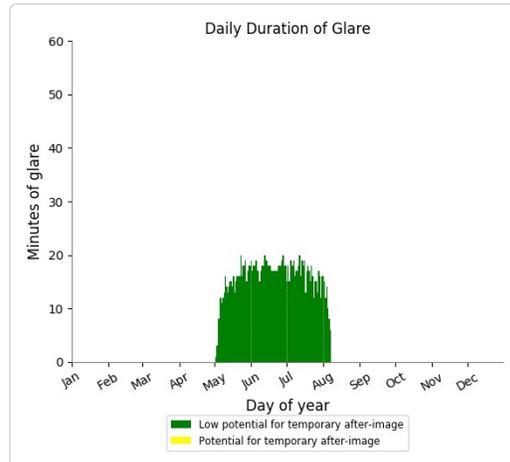
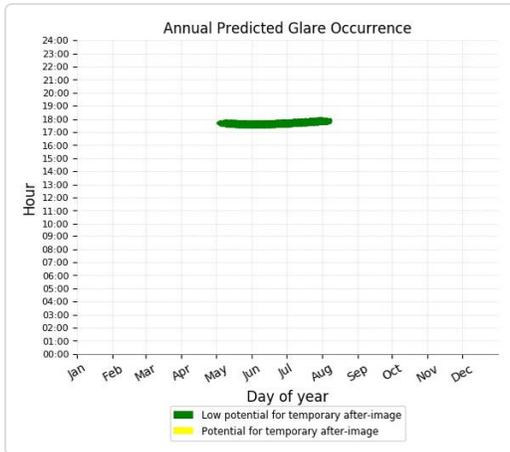
East 04-2 - OP Receptor (OP 8)

No glare found

East 04-2 - OP Receptor (OP 9)

PV array is expected to produce the following glare for receptors at this location:

- 1,551 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.





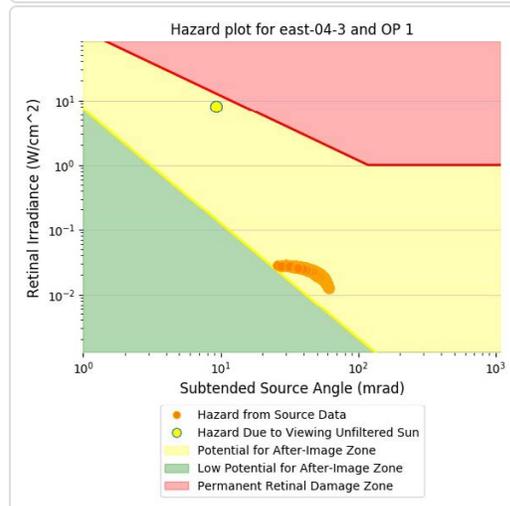
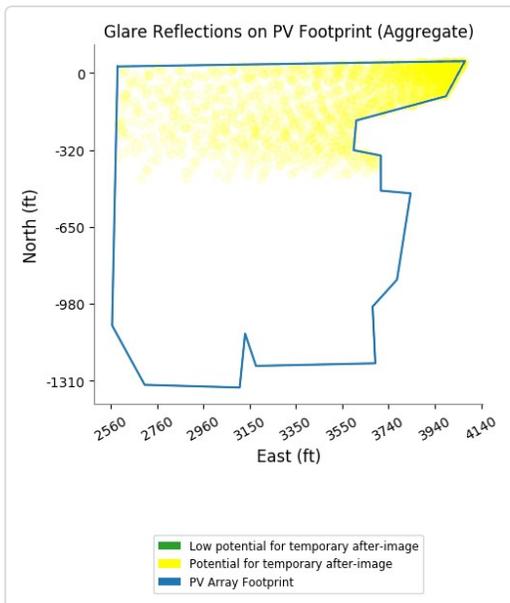
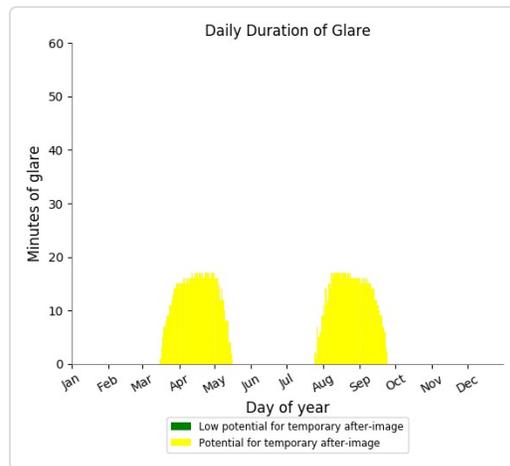
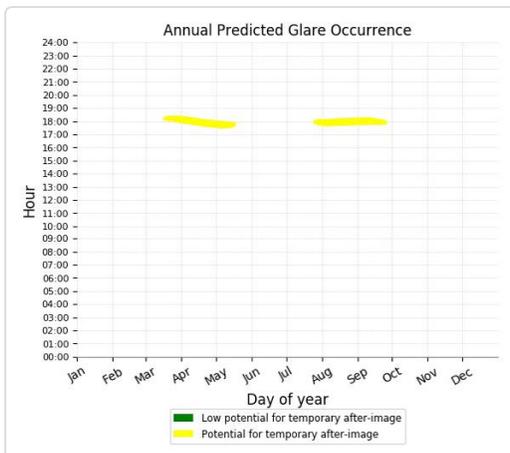
East 04-3 potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	1603
OP: OP 2	0	2082
OP: OP 3	0	0
OP: OP 4	0	12
OP: OP 5	0	0
OP: OP 6	7	120
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	240	566

East 04-3 - OP Receptor (OP 1)

PV array is expected to produce the following glare for receptors at this location:

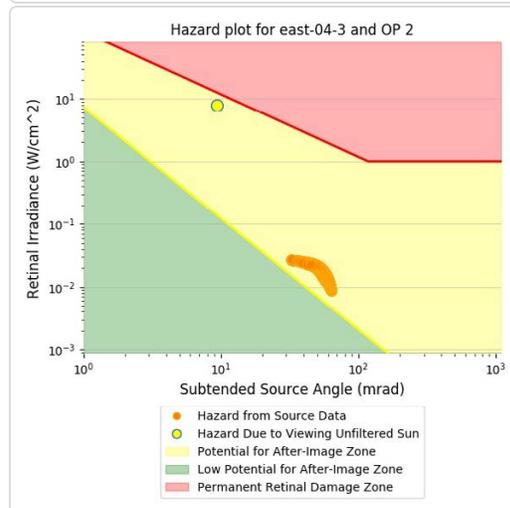
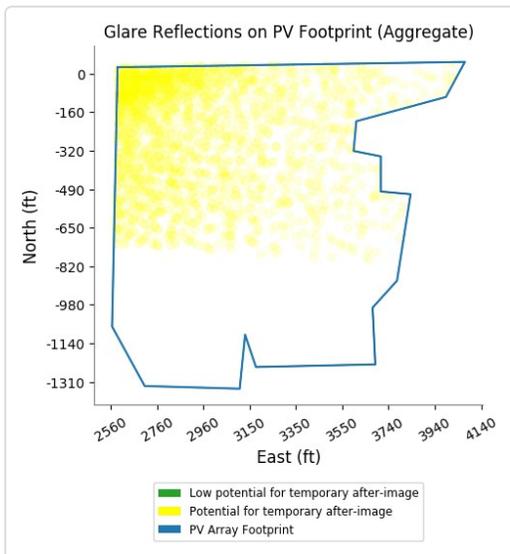
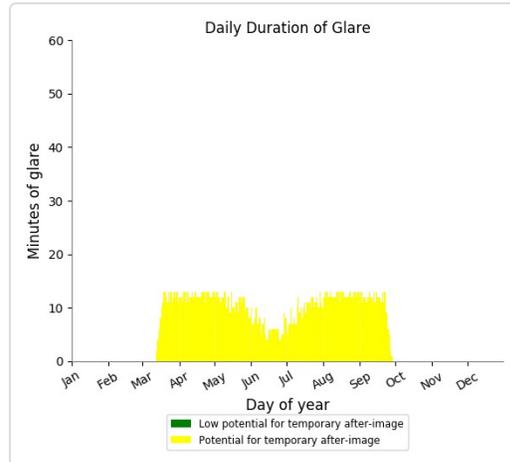
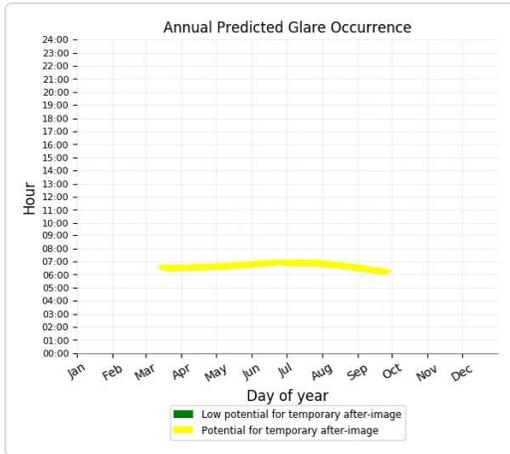
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,603 minutes of "yellow" glare with potential to cause temporary after-image.



East 04-3 - OP Receptor (OP 2)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,082 minutes of "yellow" glare with potential to cause temporary after-image.



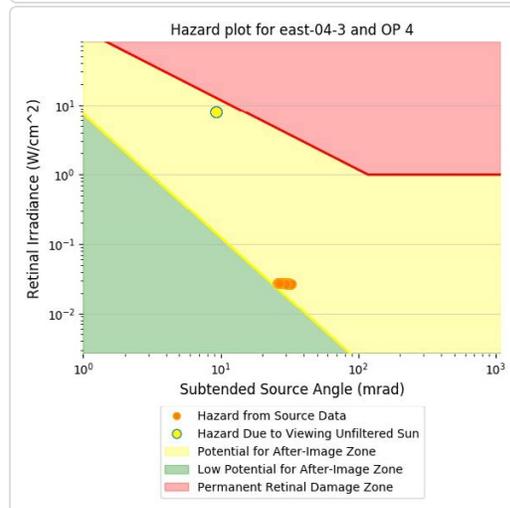
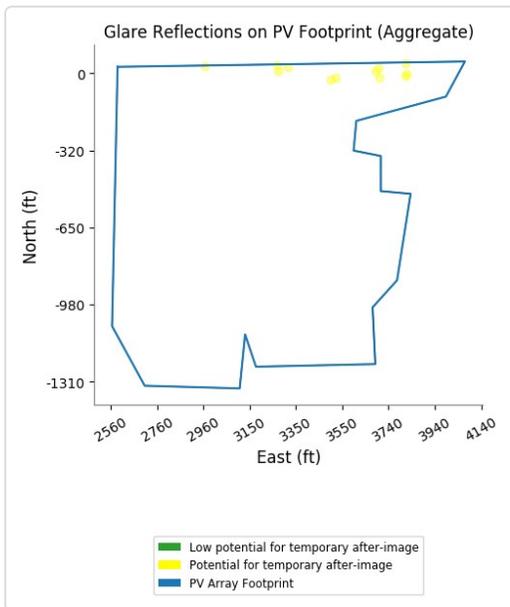
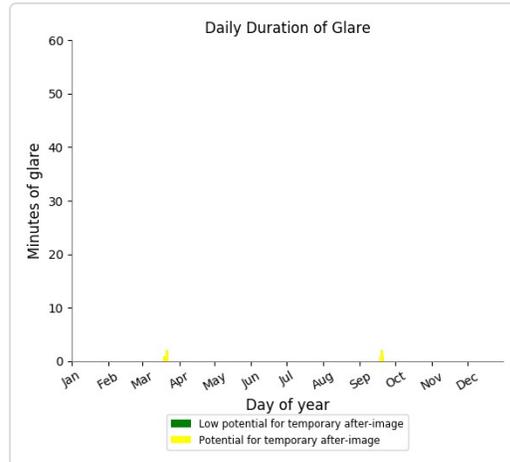
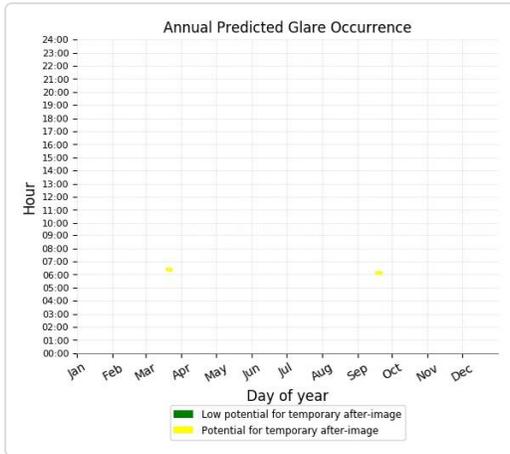
East 04-3 - OP Receptor (OP 3)

No glare found

East 04-3 - OP Receptor (OP 4)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 12 minutes of "yellow" glare with potential to cause temporary after-image.



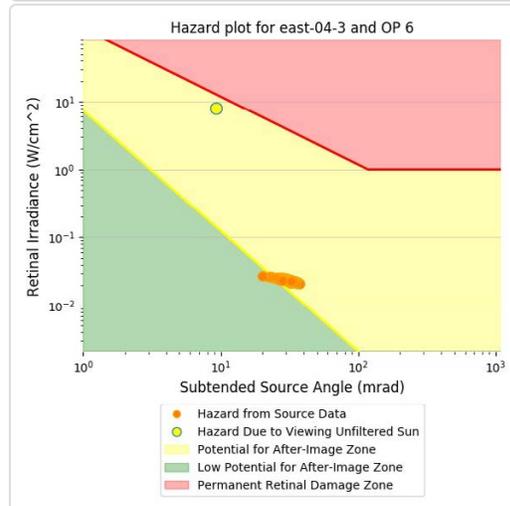
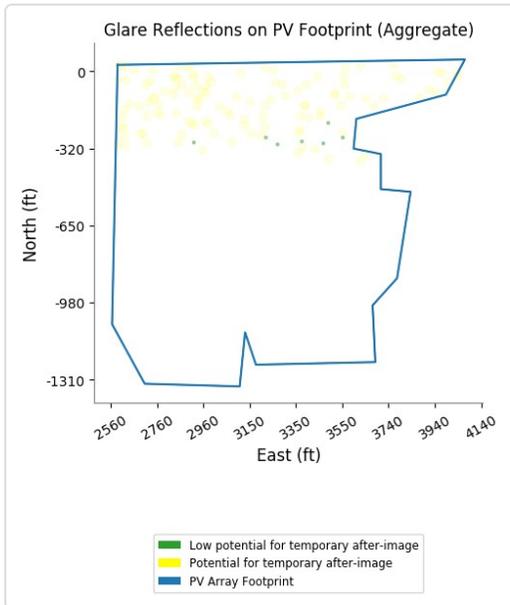
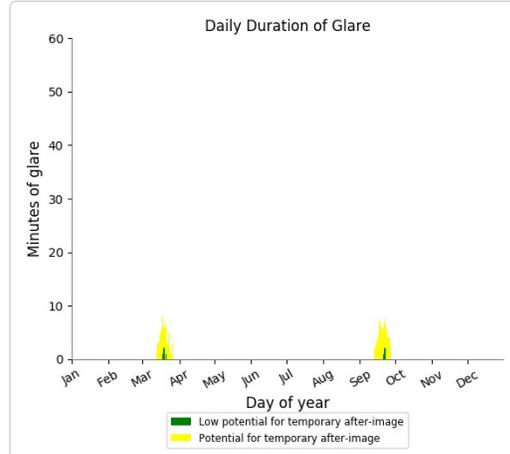
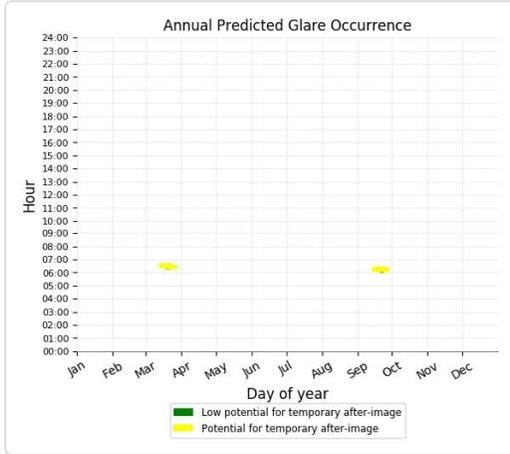
East 04-3 - OP Receptor (OP 5)

No glare found

East 04-3 - OP Receptor (OP 6)

PV array is expected to produce the following glare for receptors at this location:

- 7 minutes of "green" glare with low potential to cause temporary after-image.
- 120 minutes of "yellow" glare with potential to cause temporary after-image.



East 04-3 - OP Receptor (OP 7)

No glare found

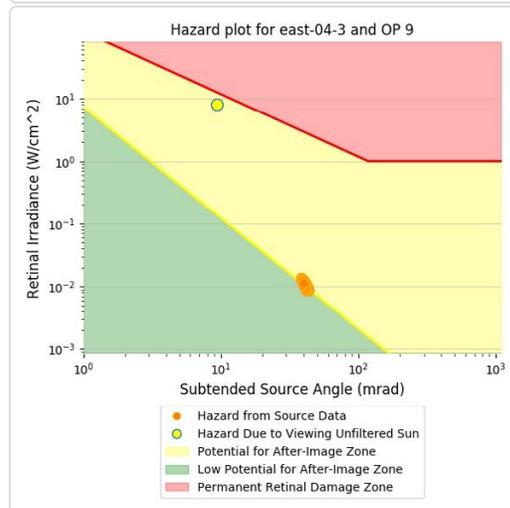
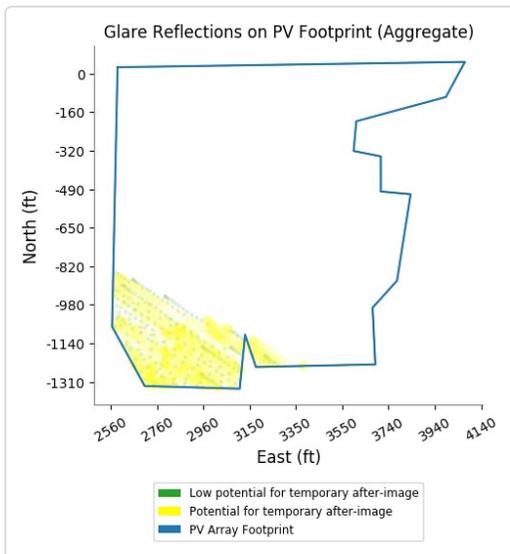
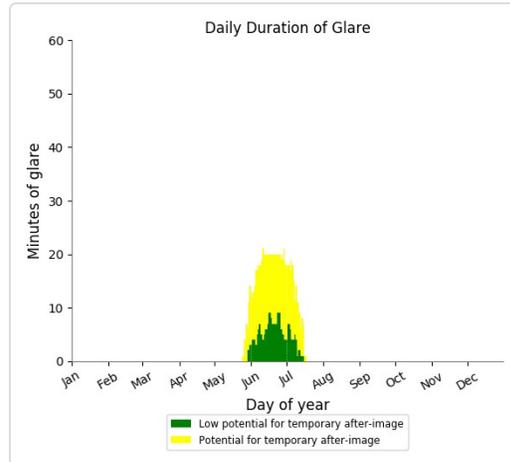
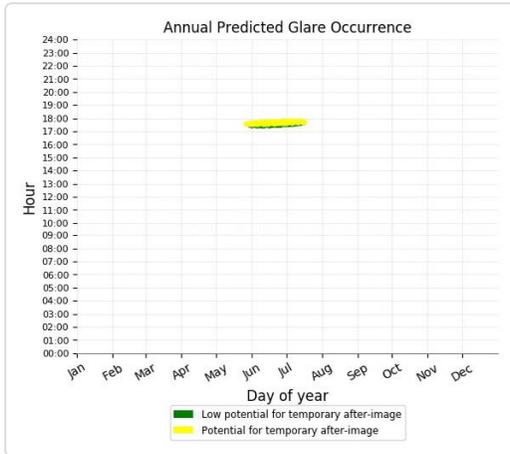
East 04-3 - OP Receptor (OP 8)

No glare found

East 04-3 - OP Receptor (OP 9)

PV array is expected to produce the following glare for receptors at this location:

- 240 minutes of "green" glare with low potential to cause temporary after-image.
- 566 minutes of "yellow" glare with potential to cause temporary after-image.





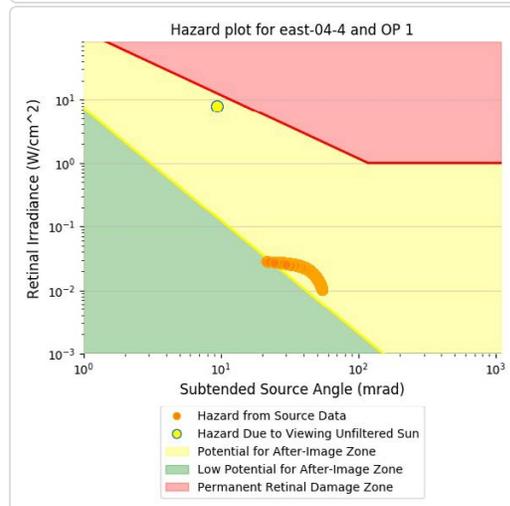
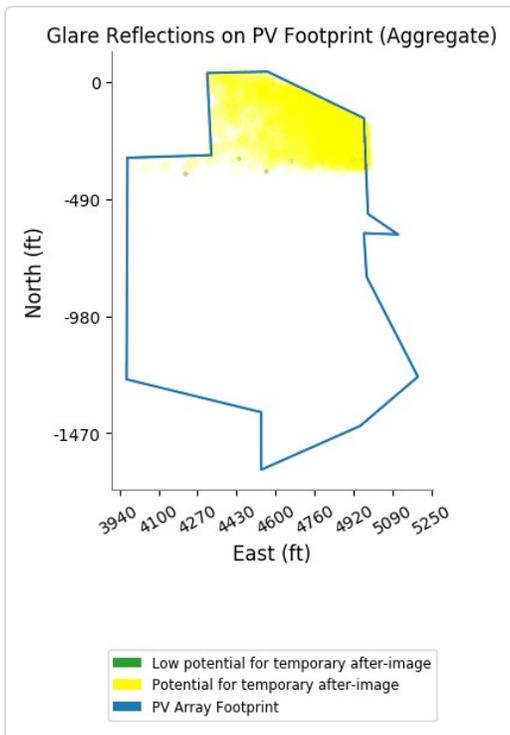
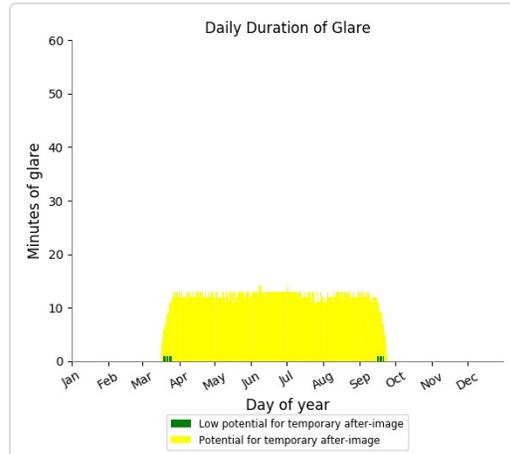
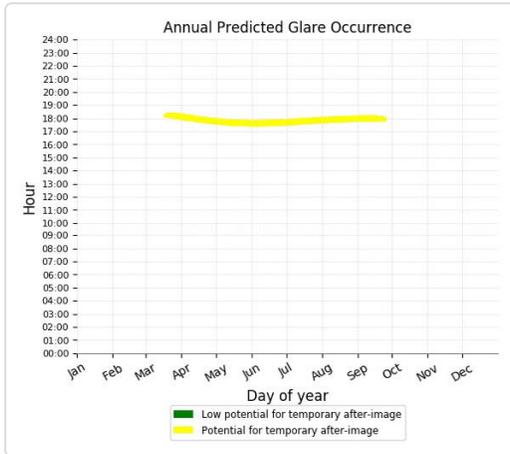
East 04-4 potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	9	2292
OP: OP 2	9	554
OP: OP 3	0	0
OP: OP 4	0	8
OP: OP 5	0	0
OP: OP 6	71	21
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0

East 04-4 - OP Receptor (OP 1)

PV array is expected to produce the following glare for receptors at this location:

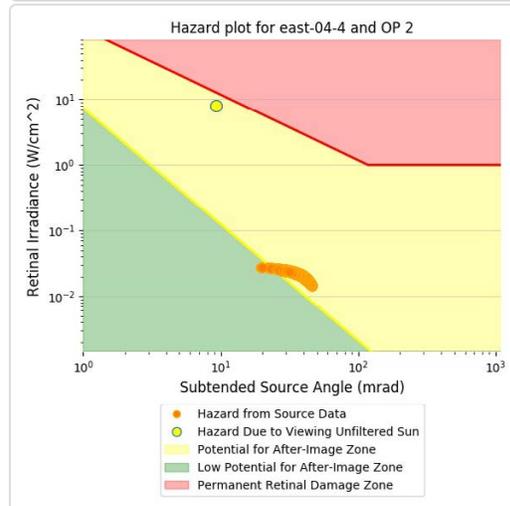
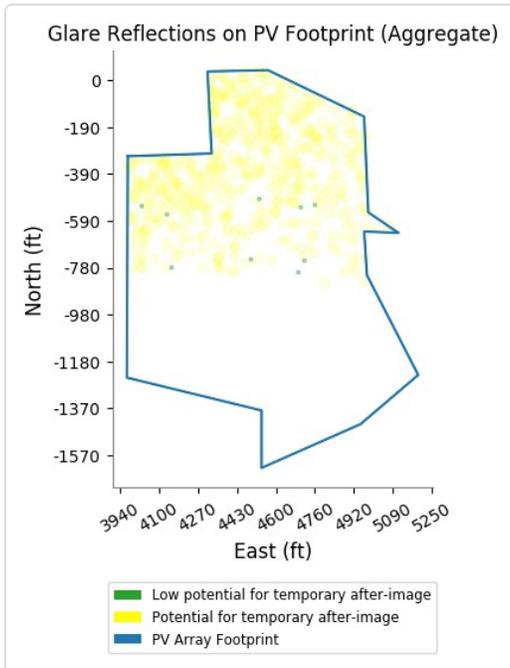
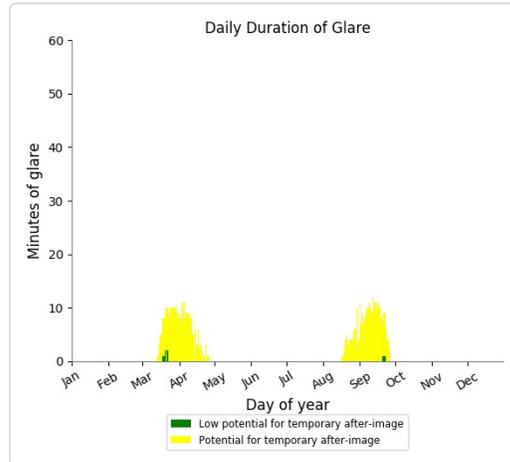
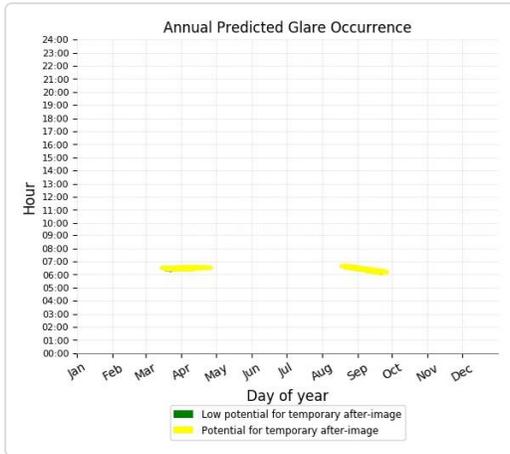
- 9 minutes of "green" glare with low potential to cause temporary after-image.
- 2,292 minutes of "yellow" glare with potential to cause temporary after-image.



East 04-4 - OP Receptor (OP 2)

PV array is expected to produce the following glare for receptors at this location:

- 9 minutes of "green" glare with low potential to cause temporary after-image.
- 554 minutes of "yellow" glare with potential to cause temporary after-image.



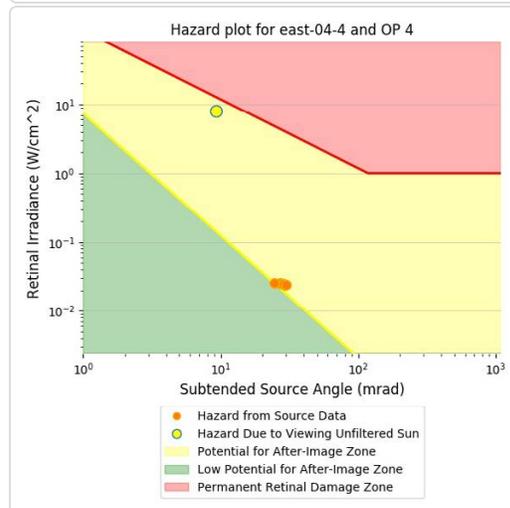
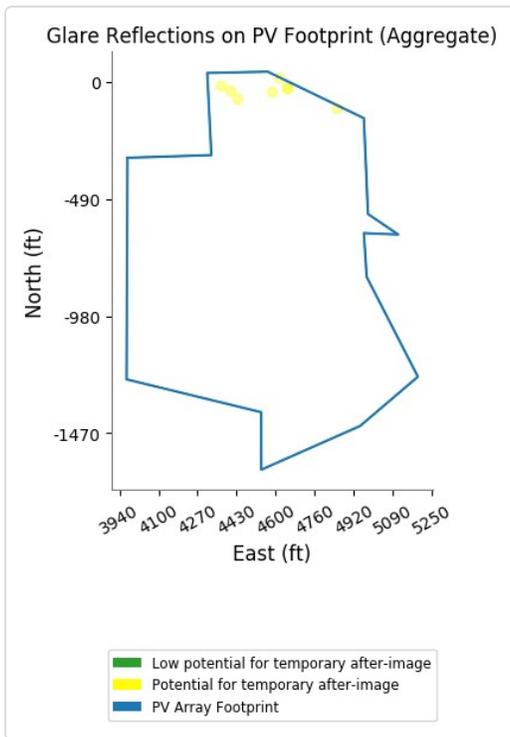
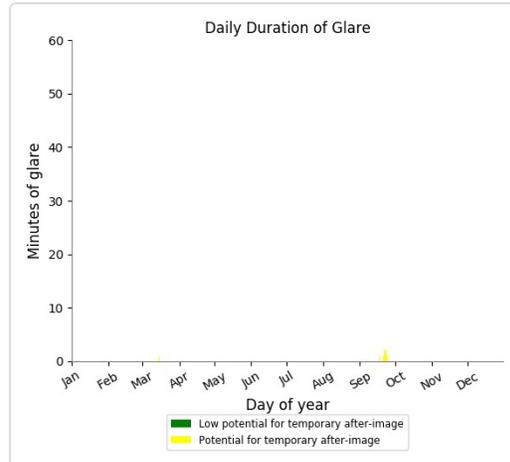
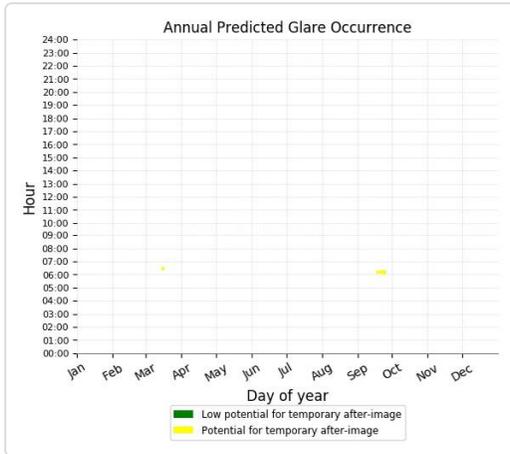
East 04-4 - OP Receptor (OP 3)

No glare found

East 04-4 - OP Receptor (OP 4)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 8 minutes of "yellow" glare with potential to cause temporary after-image.



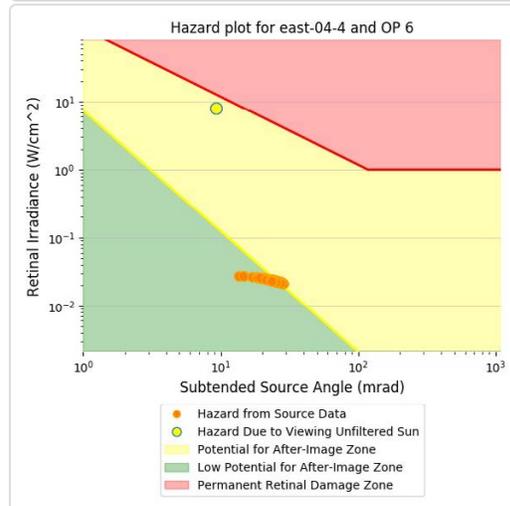
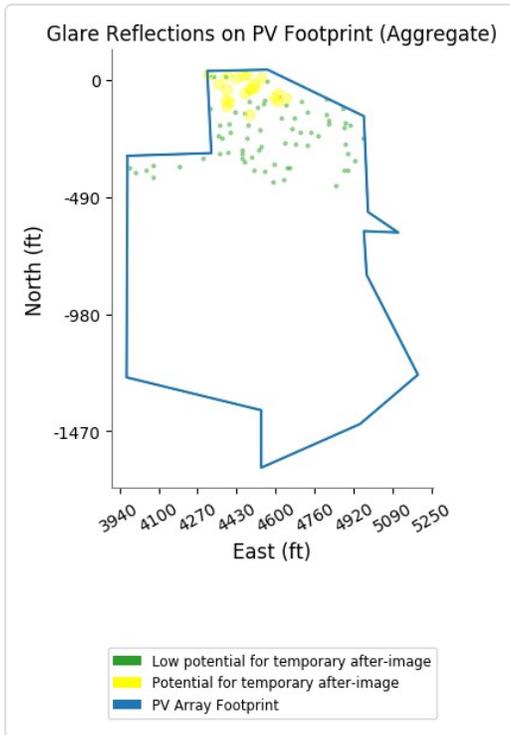
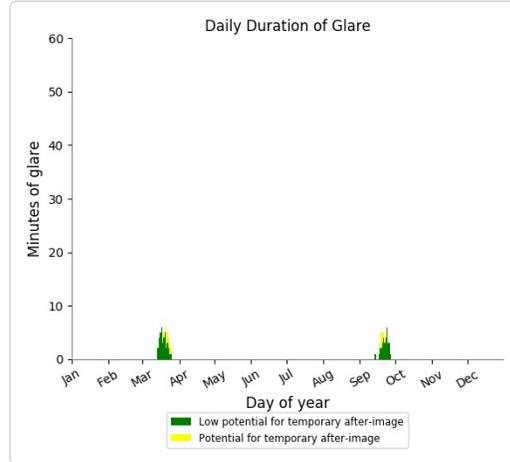
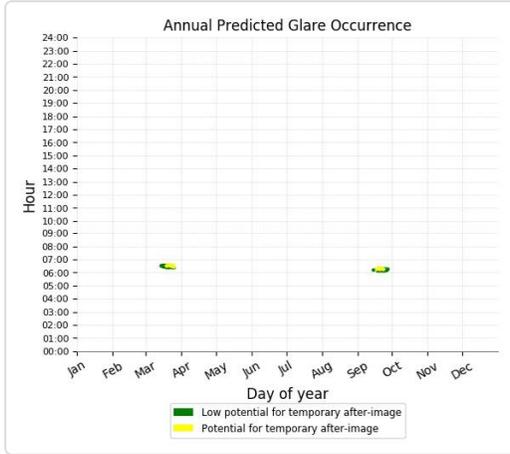
East 04-4 - OP Receptor (OP 5)

No glare found

East 04-4 - OP Receptor (OP 6)

PV array is expected to produce the following glare for receptors at this location:

- 71 minutes of "green" glare with low potential to cause temporary after-image.
- 21 minutes of "yellow" glare with potential to cause temporary after-image.



East 04-4 - OP Receptor (OP 7)

No glare found

East 04-4 - OP Receptor (OP 8)

No glare found

East 04-4 - OP Receptor (OP 9)

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- 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.
- Several 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.
- 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.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.
- Glare analysis methods used: OP V1, FP V1, Route V1
- Refer to the **Help page** for assumptions and limitations not listed here.



ForgeSolar

Site Configuration: Morris Ridge Solar Farm Glare Analysis

Project site configuration details and results.



Created **April 13, 2020 2:46 p.m.**
 Updated **June 17, 2020 1:40 a.m.**
 DNI **varies** and peaks at **1,000.0 W/m²**
 Analyze every **1 minute(s)**
0.5 ocular transmission coefficient
0.002 m pupil diameter
0.017 m eye focal length
9.3 mrad sun subtended angle
 Timezone **UTC-5**
 Site Configuration ID: 37985.6954

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

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
West 01-1	30.0	180.0	1	5,549	-
West 01-2	30.0	180.0	18	6,532	-
West 02-1	30.0	180.0	0	17,338	-
West 02-2	30.0	180.0	197	6,258	-
West 02-3	30.0	180.0	94	21,969	-
West 03-1	30.0	180.0	397	2,786	-
West 03-2	30.0	180.0	188	5,173	-
West 04	30.0	180.0	119	4,257	-

Component Data

PV Array(s)

Name: West 01-1
Axis tracking: Fixed (no rotation)
Tilt: 30.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad
Approx. area: 2,217,943 sq-ft



Vertex	Latitude deg	Longitude deg	Ground elevation ft	Height above ground ft	Total elevation ft
1	42.642282	-77.916185	1199.32	7.50	1206.83
2	42.642313	-77.921378	1234.12	7.50	1241.62
3	42.641871	-77.922151	1234.67	7.50	1242.17
4	42.641240	-77.922151	1228.80	7.50	1236.30
5	42.641208	-77.924082	1230.27	7.50	1237.77
6	42.640577	-77.924768	1236.83	7.50	1244.33
7	42.639883	-77.924854	1238.15	7.50	1245.65
8	42.640009	-77.912409	1186.89	7.50	1194.39
9	42.640640	-77.912366	1187.71	7.50	1195.21
10	42.640609	-77.915241	1189.43	7.50	1196.93
11	42.641145	-77.913010	1182.86	7.50	1190.36
12	42.641808	-77.912967	1182.90	7.50	1190.40
13	42.641840	-77.916271	1195.67	7.50	1203.17

Name: West 01-2
Axis tracking: Fixed (no rotation)
Tilt: 30.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad
Approx. area: 1,603,738 sq-ft



Vertex	Latitude deg	Longitude deg	Ground elevation ft	Height above ground ft	Total elevation ft
1	42.642957	-77.912366	1178.49	7.50	1185.99
2	42.644630	-77.912323	1176.82	7.50	1184.32
3	42.644599	-77.914512	1186.62	7.50	1194.12
4	42.644220	-77.915370	1196.38	7.50	1203.88
5	42.644220	-77.916443	1206.68	7.50	1214.18
6	42.644630	-77.916786	1202.30	7.50	1209.80
7	42.644567	-77.922408	1233.16	7.50	1240.66
8	42.643683	-77.923610	1236.70	7.50	1244.20
9	42.643652	-77.922451	1238.80	7.50	1246.30
10	42.642957	-77.922451	1240.04	7.50	1247.54

Name: West 02-1
Axis tracking: Fixed (no rotation)
Tilt: 30.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad
Approx. area: 1,214,518 sq-ft



Vertex	Latitude deg	Longitude deg	Ground elevation ft	Height above ground ft	Total elevation ft
1	42.654562	-77.920226	1209.04	7.50	1216.54
2	42.654547	-77.913317	1186.97	7.50	1194.47
3	42.652716	-77.913403	1180.65	7.50	1188.15
4	42.652763	-77.916707	1200.30	7.50	1207.80
5	42.653174	-77.916707	1200.46	7.50	1207.96
6	42.653174	-77.917330	1198.42	7.50	1205.92
7	42.652747	-77.917330	1200.80	7.50	1208.30
8	42.652811	-77.920698	1214.15	7.50	1221.65

Name: West 02-2
Axis tracking: Fixed (no rotation)
Tilt: 30.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad
Approx. area: 2,931,902 sq-ft



Vertex	Latitude deg	Longitude deg	Ground elevation ft	Height above ground ft	Total elevation ft
1	42.659329	-77.918300	1198.44	7.50	1205.94
2	42.659329	-77.915167	1185.36	7.50	1192.86
3	42.658350	-77.915210	1185.98	7.50	1193.48
4	42.658413	-77.908773	1141.93	7.50	1149.43
5	42.655699	-77.908816	1145.16	7.50	1152.66
6	42.655636	-77.912678	1178.76	7.50	1186.26
7	42.654752	-77.912978	1185.31	7.50	1192.81
8	42.654689	-77.920059	1210.28	7.50	1217.78
9	42.655099	-77.920017	1208.92	7.50	1216.42
10	42.655226	-77.916326	1198.28	7.50	1205.78
11	42.657435	-77.916712	1194.71	7.50	1202.21
12	42.657435	-77.918257	1202.01	7.50	1209.51
13	42.657688	-77.918257	1201.87	7.50	1209.37
14	42.658224	-77.917270	1198.20	7.50	1205.70
15	42.658571	-77.917399	1200.73	7.50	1208.23
16	42.658761	-77.918214	1198.64	7.50	1206.14

Name: West 02-3
Axis tracking: Fixed (no rotation)
Tilt: 30.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad
Approx. area: 6,634,467 sq-ft



Vertex	Latitude deg	Longitude deg	Ground elevation ft	Height above ground ft	Total elevation ft
1	42.659136	-77.943274	1111.76	7.50	1119.26
2	42.657179	-77.944648	1113.44	7.50	1120.94
3	42.656989	-77.943875	1120.18	7.50	1127.68
4	42.656989	-77.937609	1166.75	7.50	1174.25
5	42.659388	-77.937095	1154.77	7.50	1162.27
6	42.660019	-77.935035	1165.85	7.50	1173.35
7	42.659956	-77.934348	1168.57	7.50	1176.07
8	42.659767	-77.933747	1174.54	7.50	1182.04
9	42.659830	-77.930915	1201.51	7.50	1209.01
10	42.658757	-77.930829	1207.73	7.50	1215.23
11	42.658694	-77.919413	1206.23	7.50	1213.73
12	42.660903	-77.918555	1196.44	7.50	1203.94
13	42.660903	-77.921902	1195.27	7.50	1202.77
14	42.661660	-77.922160	1194.91	7.50	1202.41
15	42.661345	-77.941386	1110.51	7.50	1118.01

Name: West 03-1
Axis tracking: Fixed (no rotation)
Tilt: 30.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad
Approx. area: 1,355,902 sq-ft



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.671908	-77.914155	1177.45	7.50	1184.95
2	42.669494	-77.914949	1165.91	7.50	1173.41
3	42.669510	-77.914241	1164.35	7.50	1171.85
4	42.669384	-77.914241	1164.20	7.50	1171.70
5	42.669368	-77.911302	1157.73	7.50	1165.23
6	42.670173	-77.911216	1163.15	7.50	1170.65
7	42.670157	-77.909800	1151.25	7.50	1158.75
8	42.669478	-77.909800	1152.42	7.50	1159.92
9	42.669478	-77.909156	1146.64	7.50	1154.14
10	42.671419	-77.909049	1138.71	7.50	1146.21
11	42.672318	-77.910915	1162.72	7.50	1170.22
12	42.672350	-77.911302	1170.02	7.50	1177.52
13	42.672567	-77.911302	1168.70	7.50	1176.20
14	42.672871	-77.912460	1167.31	7.50	1174.81
15	42.672429	-77.912589	1172.07	7.50	1179.57
16	42.672445	-77.912911	1176.24	7.50	1183.74
17	42.671924	-77.913211	1171.04	7.50	1178.54

Name: West 03-2
Axis tracking: Fixed (no rotation)
Tilt: 30.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad
Approx. area: 490,634 sq-ft



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.672892	-77.908925	1143.47	7.50	1150.97
2	42.674383	-77.908871	1139.43	7.50	1146.93
3	42.674399	-77.909922	1156.85	7.50	1164.35
4	42.674730	-77.910169	1162.67	7.50	1170.17
5	42.674738	-77.910394	1165.95	7.50	1173.45
6	42.675219	-77.910416	1162.73	7.50	1170.23
7	42.675251	-77.912884	1173.19	7.50	1180.69
8	42.674556	-77.912894	1169.45	7.50	1176.95
9	42.673712	-77.910995	1161.82	7.50	1169.32
10	42.673712	-77.910384	1165.12	7.50	1172.62
11	42.673239	-77.910394	1161.54	7.50	1169.04

Name: West 04
Axis tracking: Fixed (no rotation)
Tilt: 30.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad
Approx. area: 602,955 sq-ft



Vertex	Latitude deg	Longitude deg	Ground elevation ft	Height above ground ft	Total elevation ft
1	42.675945	-77.917315	1185.87	7.50	1193.37
2	42.675961	-77.920759	1196.54	7.50	1204.04
3	42.675716	-77.920759	1196.51	7.50	1204.01
4	42.675716	-77.920941	1196.42	7.50	1203.92
5	42.675290	-77.920973	1195.85	7.50	1203.35
6	42.675290	-77.921134	1196.36	7.50	1203.86
7	42.674099	-77.921155	1194.83	7.50	1202.33
8	42.674099	-77.920007	1189.85	7.50	1197.35
9	42.674226	-77.919975	1189.77	7.50	1197.27
10	42.674218	-77.919814	1189.64	7.50	1197.14
11	42.674297	-77.919793	1189.66	7.50	1197.16
12	42.674297	-77.919278	1191.47	7.50	1198.97
13	42.674091	-77.919289	1189.54	7.50	1197.04
14	42.674131	-77.917969	1184.56	7.50	1192.06
15	42.674943	-77.917948	1183.64	7.50	1191.14
16	42.674951	-77.917454	1183.37	7.50	1190.87
17	42.675701	-77.917433	1187.58	7.50	1195.08
18	42.675693	-77.917293	1188.26	7.50	1195.76

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
OP 1	42.636648	-77.925858	1248.86	5.36	1254.22
OP 2	42.637695	-77.923809	1241.60	5.36	1246.96
OP 3	42.639400	-77.924826	1241.37	5.36	1246.73
OP 4	42.641519	-77.925776	1241.40	5.36	1246.76
OP 5	42.641801	-77.923397	1243.05	5.36	1248.41
OP 6	42.643414	-77.924400	1245.77	5.36	1251.13
OP 7	42.646798	-77.925735	1244.44	5.36	1249.80
OP 8	42.647497	-77.921999	1234.63	5.36	1239.99
OP 9	42.647620	-77.918673	1220.91	5.36	1226.27
OP 10	42.651435	-77.921186	1229.95	5.36	1235.31
OP 11	42.651802	-77.921910	1230.10	5.36	1235.46
OP 12	42.652030	-77.921025	1226.86	5.36	1232.22
OP 13	42.652729	-77.921331	1226.57	5.36	1231.93
OP 14	42.654988	-77.920848	1214.83	5.36	1220.19
OP 15	42.656150	-77.918520	1215.27	5.36	1220.63
OP 16	42.656337	-77.945992	1113.44	5.36	1118.80
OP 17	42.657136	-77.945436	1111.86	5.36	1117.22
OP 18	42.660533	-77.917869	1200.93	5.36	1206.29
OP 19	42.661617	-77.918384	1203.75	5.36	1209.11
OP 20	42.662177	-77.917328	1194.06	5.36	1199.42
OP 21	42.663356	-77.917162	1196.83	5.36	1202.19
OP 22	42.664102	-77.917565	1193.01	5.36	1198.37
OP 23	42.668083	-77.916088	1179.74	5.36	1185.10
OP 24	42.672496	-77.914619	1190.14	5.36	1195.50
OP 25	42.674033	-77.914078	1182.84	5.36	1188.20
OP 26	42.675164	-77.913727	1177.72	5.36	1183.08
OP 27	42.675639	-77.913504	1179.48	5.36	1184.84
OP 28	42.676077	-77.912584	1182.28	5.36	1187.64
OP 29	42.676536	-77.913295	1186.11	5.36	1191.47
OP 30	42.676777	-77.908676	1129.33	5.36	1134.69
OP 31	42.676071	-77.921507	1205.95	5.36	1211.31
OP 32	42.676564	-77.921351	1206.79	5.36	1212.15
OP 33	42.676662	-77.922708	1200.84	5.36	1206.20
OP 34	42.676208	-77.910649	1162.39	5.36	1167.75
OP 35	42.677841	-77.912557	1164.00	5.36	1169.36
OP 36	42.676307	-77.913046	1180.25	5.36	1185.61
OP 37	42.666748	-77.916270	1172.73	5.36	1178.09
OP 38	42.661808	-77.917943	1194.95	5.36	1200.31
OP 39	42.661633	-77.941632	1106.89	5.36	1112.25
OP 40	42.637450	-77.926070	1244.17	5.36	1249.53
OP 41	42.647305	-77.899257	1044.61	5.36	1049.97
OP 42	42.641178	-77.899171	1043.77	5.36	1049.13
OP 43	42.661925	-77.904438	1122.02	5.36	1127.38
OP 44	42.661951	-77.899356	1074.23	5.36	1079.59
OP 45	42.662001	-77.892833	1004.17	5.36	1009.53
OP 46	42.662001	-77.877761	972.60	5.36	977.96

PV Array Results

Summary of PV Glare Analysis PV configuration and predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File 
	deg	deg	min	min	kWh	
West 01-1	30.0	180.0	1	5,549	-	
West 01-2	30.0	180.0	18	6,532	-	
West 02-1	30.0	180.0	0	17,338	-	
West 02-2	30.0	180.0	197	6,258	-	
West 02-3	30.0	180.0	94	21,969	-	
West 03-1	30.0	180.0	397	2,786	-	
West 03-2	30.0	180.0	188	5,173	-	
West 04	30.0	180.0	119	4,257	-	

Click the name of the PV array to scroll to its results

PV & Receptor Analysis Results detailed results for each PV array and receptor

West 01-1 potential temporary after-image



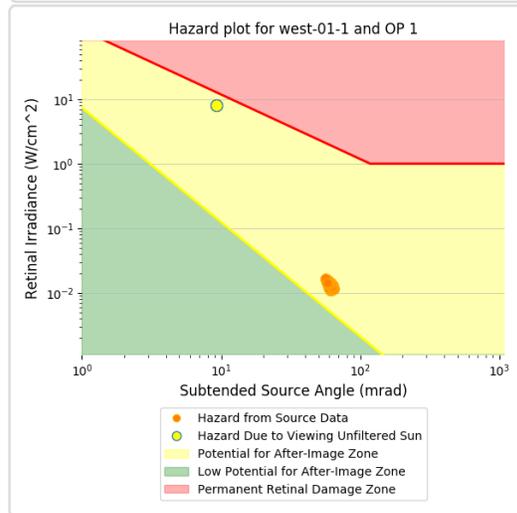
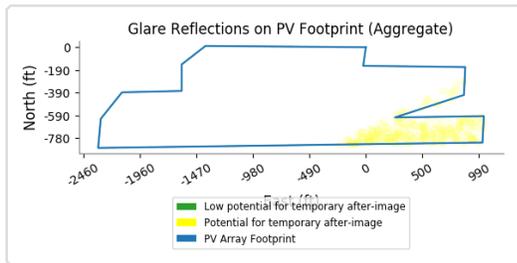
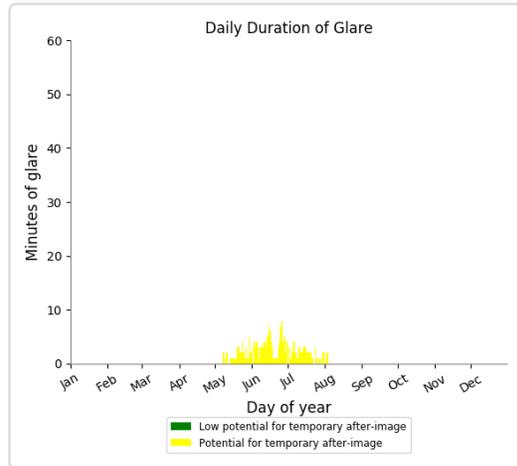
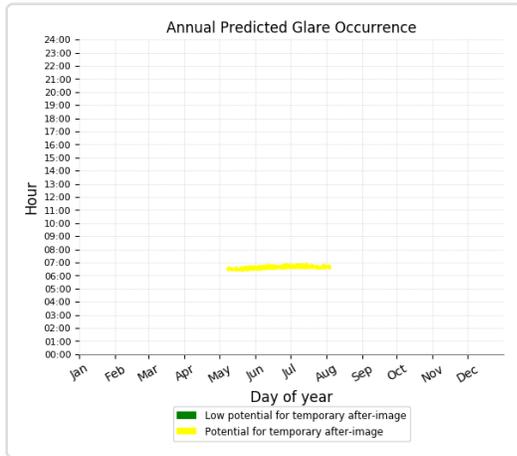
Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	204
OP: OP 2	0	160
OP: OP 3	0	2211
OP: OP 4	0	859
OP: OP 5	0	1187
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0

OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	885
OP: OP 41	0	0
OP: OP 42	1	43
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0

West 01-1 - OP Receptor (OP 1)

PV array is expected to produce the following glare for receptors at this location:

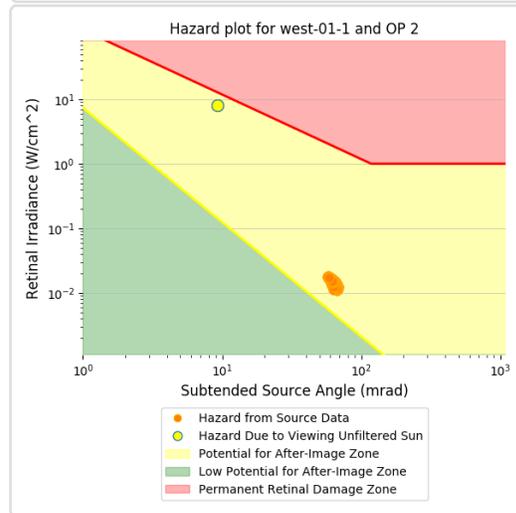
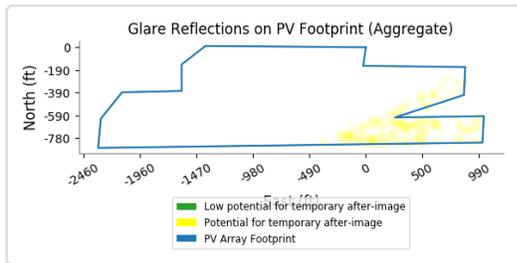
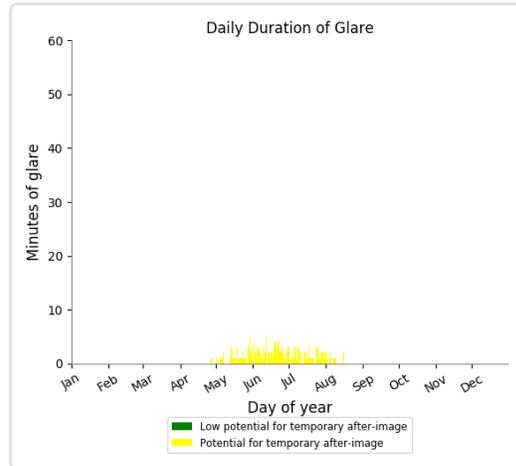
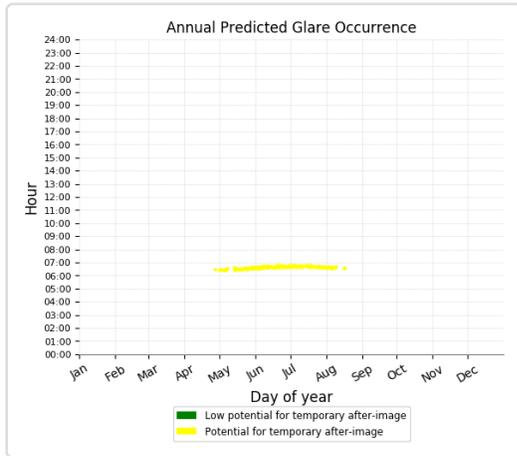
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 204 minutes of "yellow" glare with potential to cause temporary after-image.



West 01-1 - OP Receptor (OP 2)

PV array is expected to produce the following glare for receptors at this location:

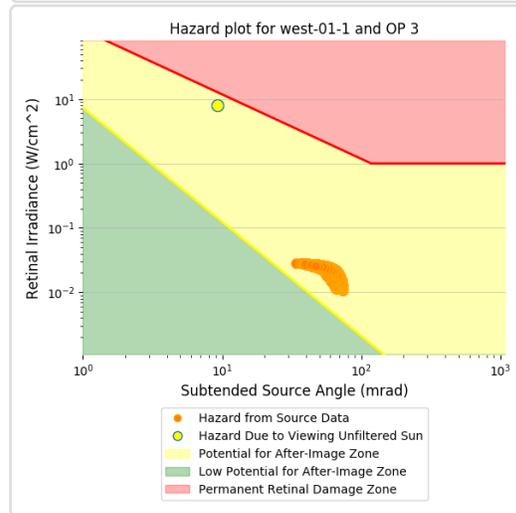
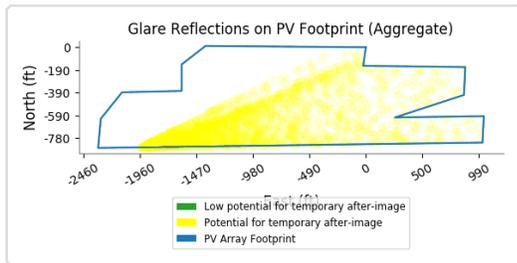
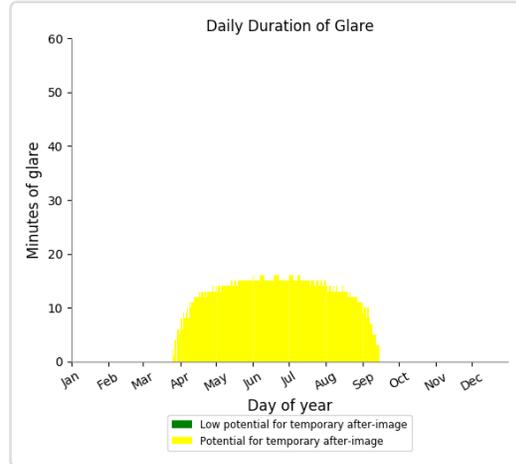
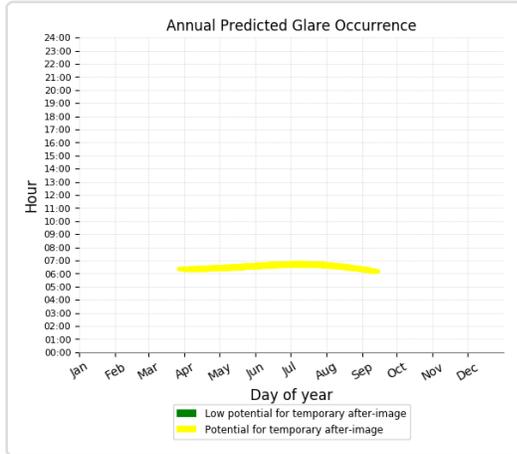
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 160 minutes of "yellow" glare with potential to cause temporary after-image.



West 01-1 - OP Receptor (OP 3)

PV array is expected to produce the following glare for receptors at this location:

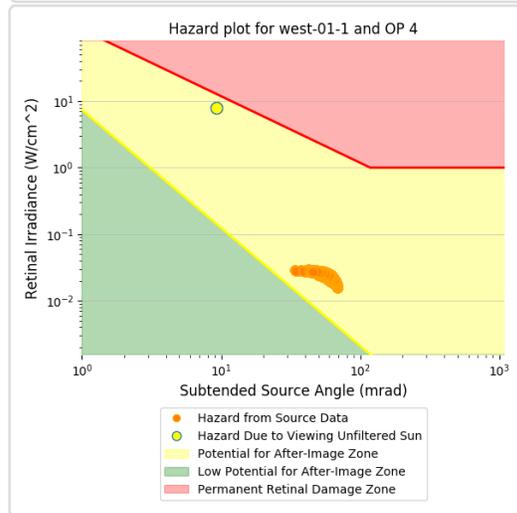
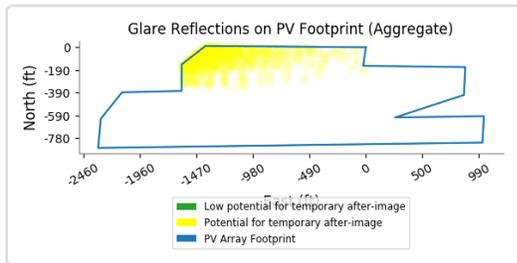
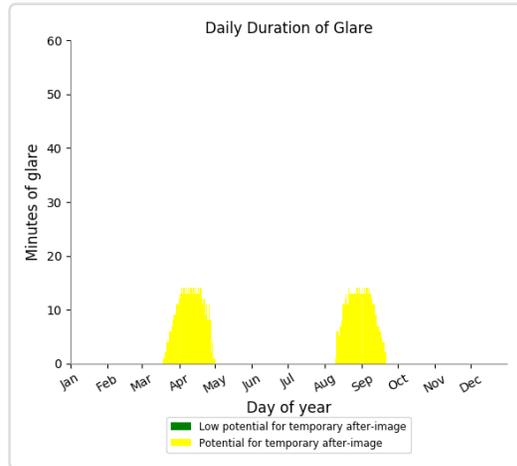
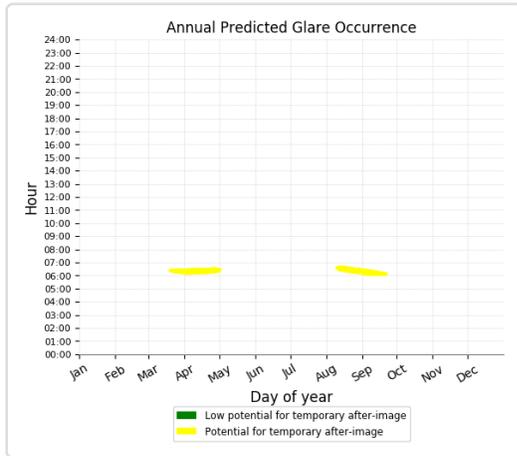
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,211 minutes of "yellow" glare with potential to cause temporary after-image.



West 01-1 - OP Receptor (OP 4)

PV array is expected to produce the following glare for receptors at this location:

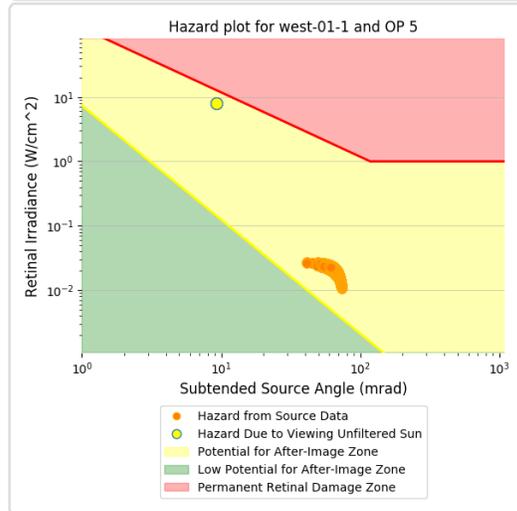
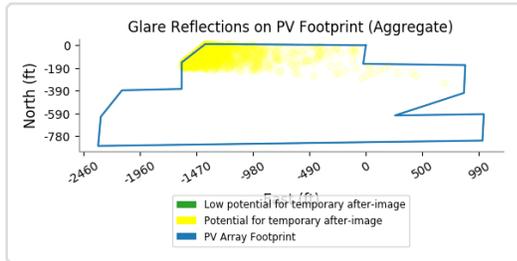
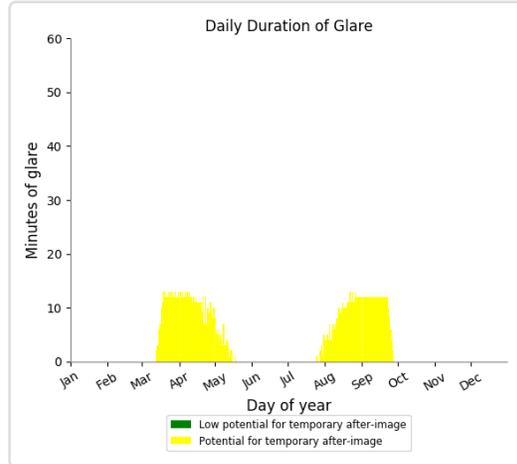
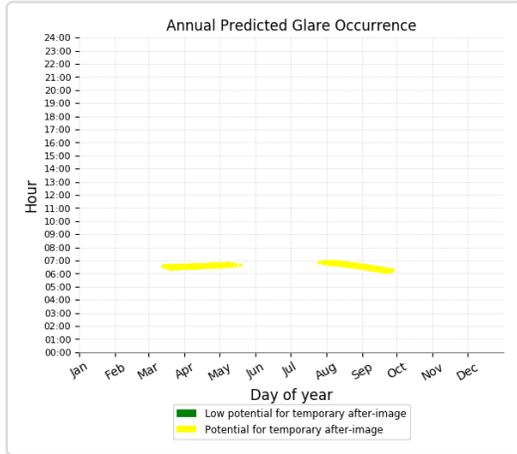
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 859 minutes of "yellow" glare with potential to cause temporary after-image.



West 01-1 - OP Receptor (OP 5)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,187 minutes of "yellow" glare with potential to cause temporary after-image.



West 01-1 - OP Receptor (OP 6)

No glare found

West 01-1 - OP Receptor (OP 7)

No glare found

West 01-1 - OP Receptor (OP 8)

No glare found

West 01-1 - OP Receptor (OP 9)

No glare found

West 01-1 - OP Receptor (OP 10)

No glare found

West 01-1 - OP Receptor (OP 11)

No glare found

West 01-1 - OP Receptor (OP 12)

No glare found

West 01-1 - OP Receptor (OP 13)

No glare found

West 01-1 - OP Receptor (OP 14)

No glare found

West 01-1 - OP Receptor (OP 15)

No glare found

West 01-1 - OP Receptor (OP 16)

No glare found

West 01-1 - OP Receptor (OP 17)

No glare found

West 01-1 - OP Receptor (OP 18)

No glare found

West 01-1 - OP Receptor (OP 19)

No glare found

West 01-1 - OP Receptor (OP 20)

No glare found

West 01-1 - OP Receptor (OP 21)

No glare found

West 01-1 - OP Receptor (OP 22)

No glare found

West 01-1 - OP Receptor (OP 23)

No glare found

West 01-1 - OP Receptor (OP 24)

No glare found

West 01-1 - OP Receptor (OP 25)

No glare found

West 01-1 - OP Receptor (OP 26)

No glare found

West 01-1 - OP Receptor (OP 27)

No glare found

West 01-1 - OP Receptor (OP 28)

No glare found

West 01-1 - OP Receptor (OP 29)

No glare found

West 01-1 - OP Receptor (OP 30)

No glare found

West 01-1 - OP Receptor (OP 31)

No glare found

West 01-1 - OP Receptor (OP 32)

No glare found

West 01-1 - OP Receptor (OP 33)

No glare found

West 01-1 - OP Receptor (OP 34)

No glare found

West 01-1 - OP Receptor (OP 35)

No glare found

West 01-1 - OP Receptor (OP 36)

No glare found

West 01-1 - OP Receptor (OP 37)

No glare found

West 01-1 - OP Receptor (OP 38)

No glare found

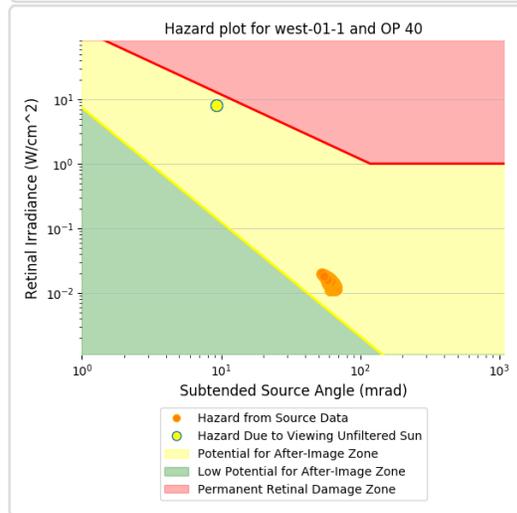
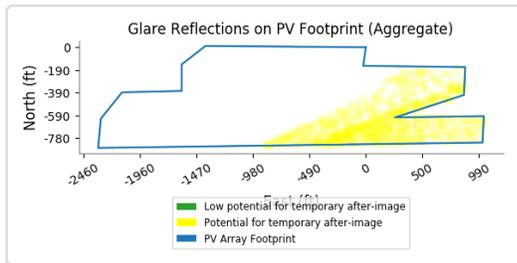
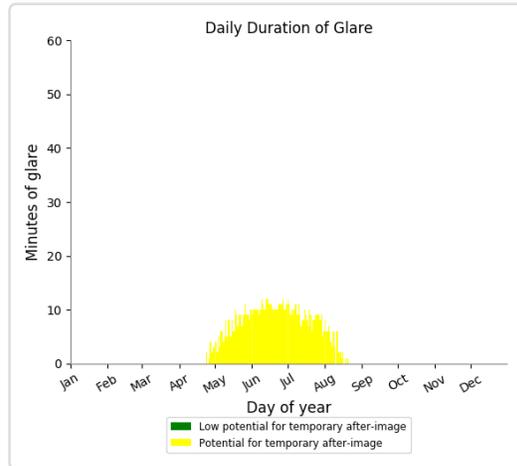
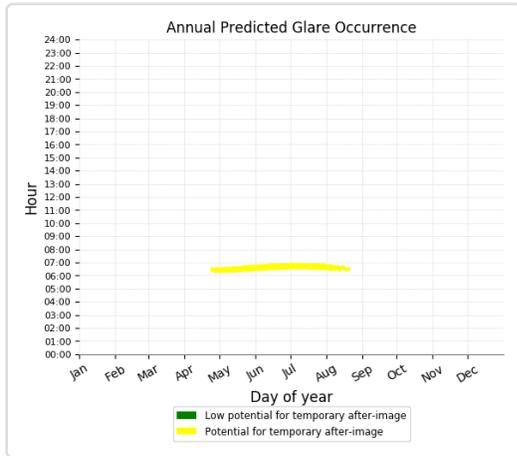
West 01-1 - OP Receptor (OP 39)

No glare found

West 01-1 - OP Receptor (OP 40)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 885 minutes of "yellow" glare with potential to cause temporary after-image.



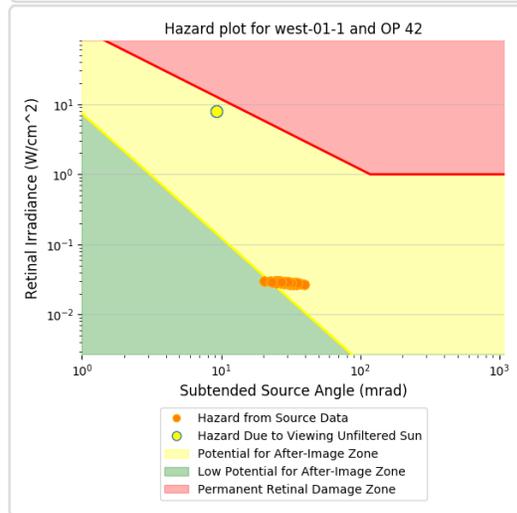
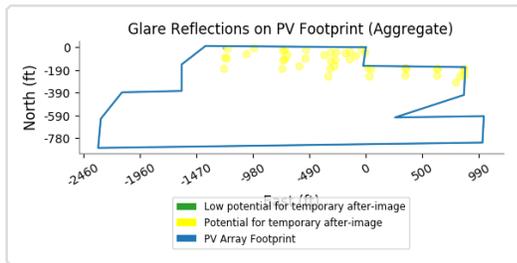
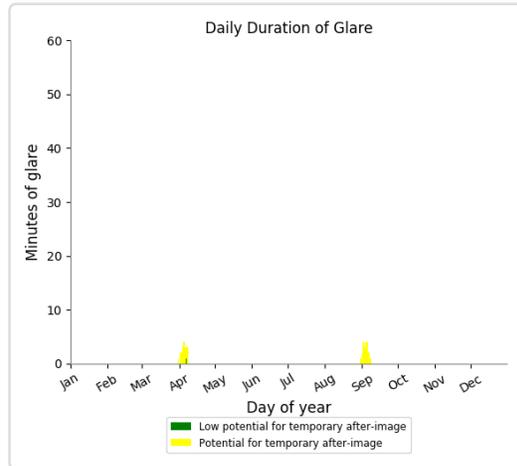
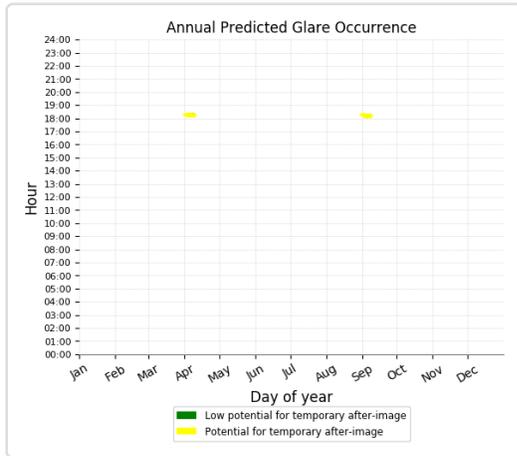
West 01-1 - OP Receptor (OP 41)

No glare found

West 01-1 - OP Receptor (OP 42)

PV array is expected to produce the following glare for receptors at this location:

- 1 minutes of "green" glare with low potential to cause temporary after-image.
- 43 minutes of "yellow" glare with potential to cause temporary after-image.



West 01-1 - OP Receptor (OP 43)

No glare found

West 01-1 - OP Receptor (OP 44)

No glare found

West 01-1 - OP Receptor (OP 45)

No glare found

West 01-1 - OP Receptor (OP 46)

No glare found


West 01-2 potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	425
OP: OP 4	0	1921
OP: OP 5	0	873
OP: OP 6	0	2153
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	18	1160
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0

West 01-2 - OP Receptor (OP 1)

No glare found

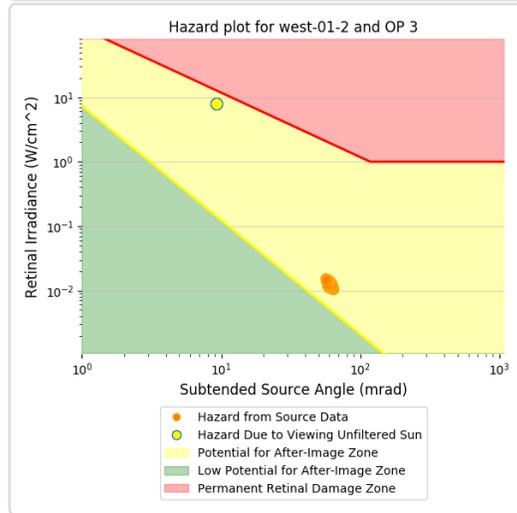
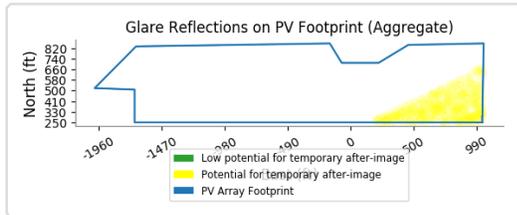
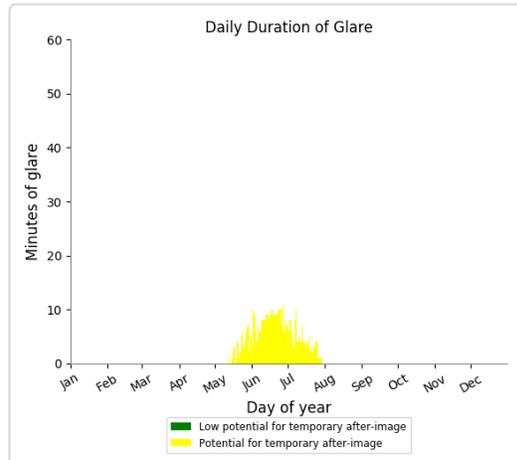
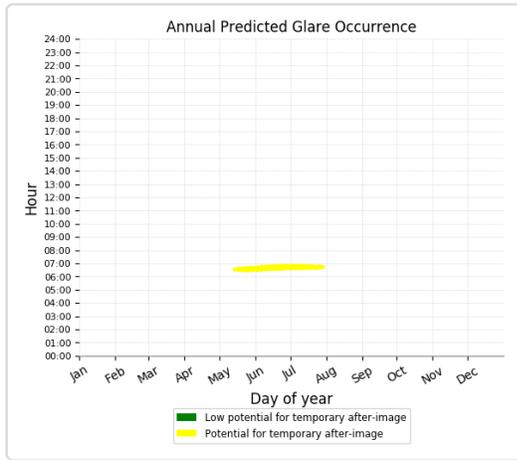
West 01-2 - OP Receptor (OP 2)

No glare found

West 01-2 - OP Receptor (OP 3)

PV array is expected to produce the following glare for receptors at this location:

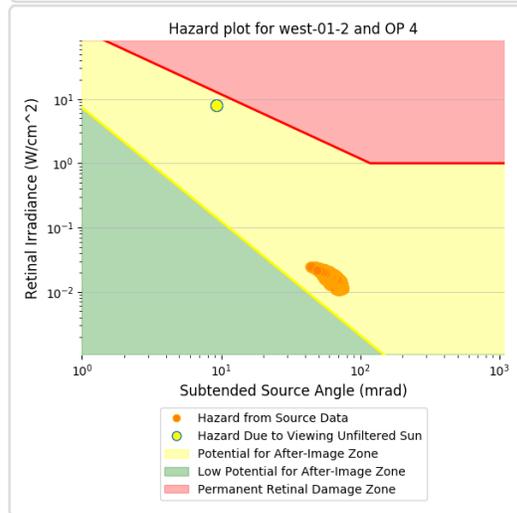
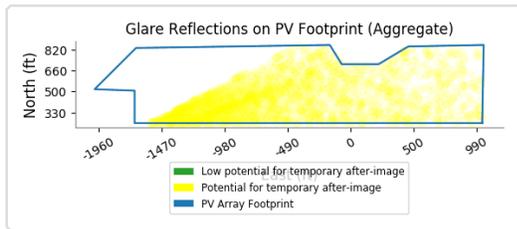
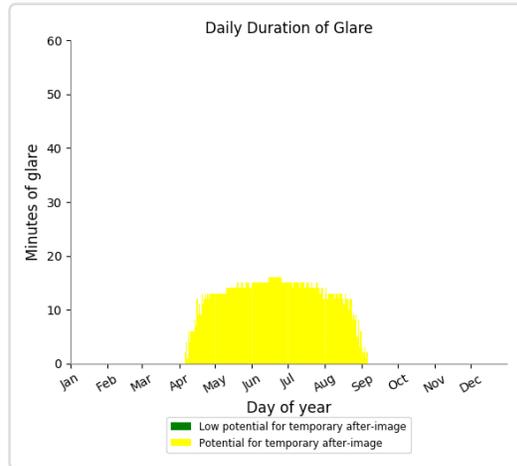
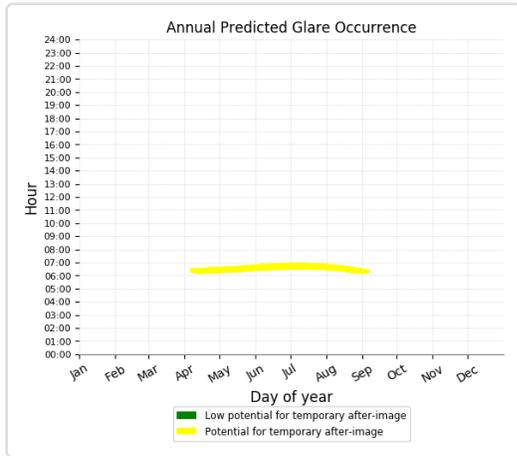
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 425 minutes of "yellow" glare with potential to cause temporary after-image.



West 01-2 - OP Receptor (OP 4)

PV array is expected to produce the following glare for receptors at this location:

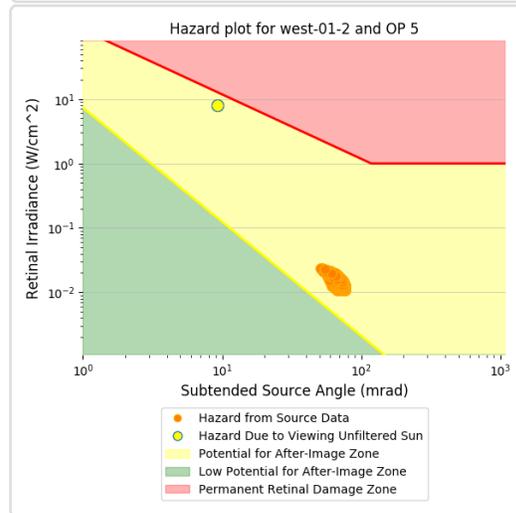
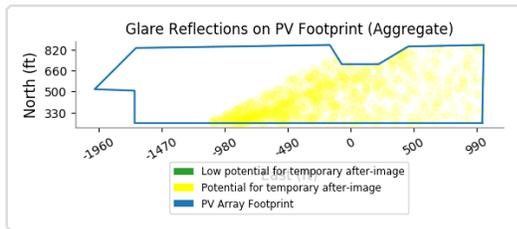
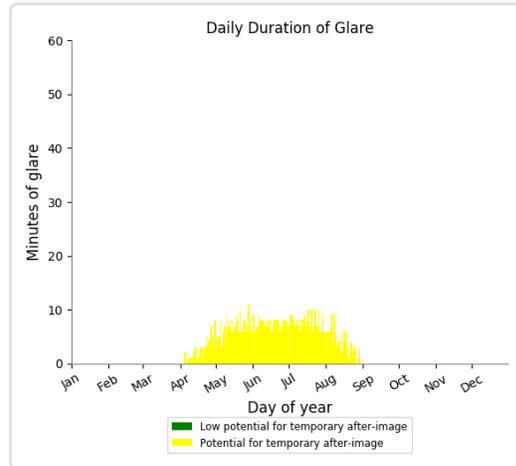
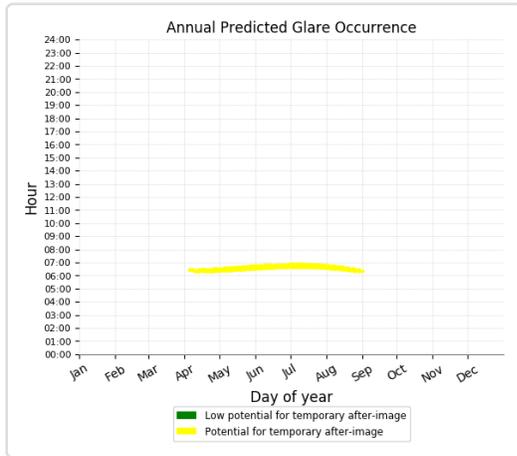
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,921 minutes of "yellow" glare with potential to cause temporary after-image.



West 01-2 - OP Receptor (OP 5)

PV array is expected to produce the following glare for receptors at this location:

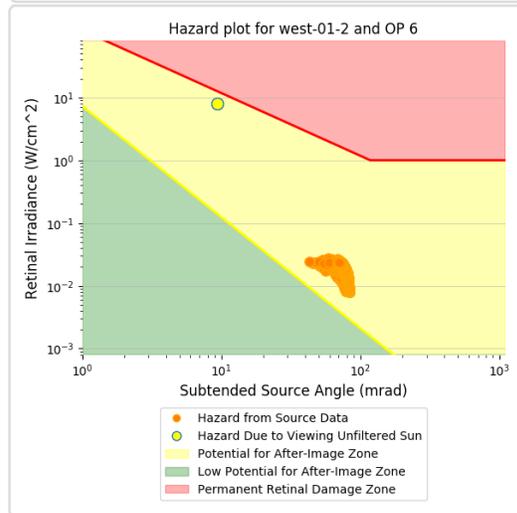
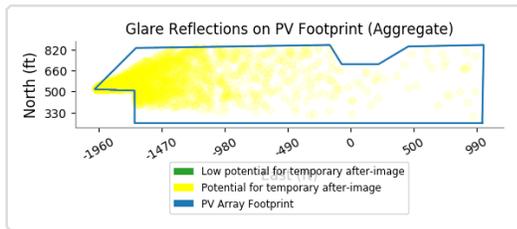
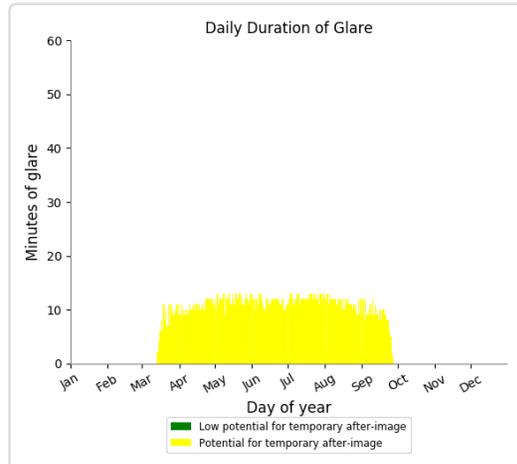
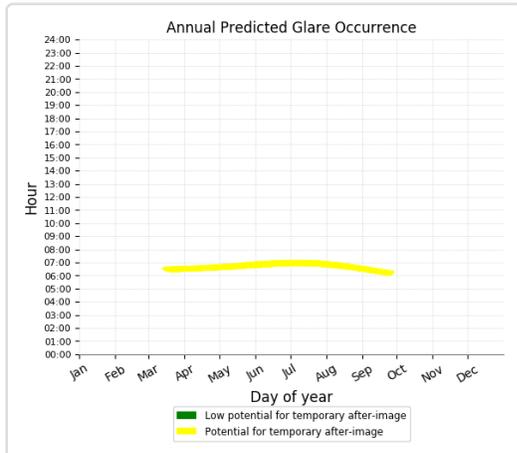
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 873 minutes of "yellow" glare with potential to cause temporary after-image.



West 01-2 - OP Receptor (OP 6)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,153 minutes of "yellow" glare with potential to cause temporary after-image.



West 01-2 - OP Receptor (OP 7)

No glare found

West 01-2 - OP Receptor (OP 8)

No glare found

West 01-2 - OP Receptor (OP 9)

No glare found

West 01-2 - OP Receptor (OP 10)

No glare found

West 01-2 - OP Receptor (OP 11)

No glare found

West 01-2 - OP Receptor (OP 12)

No glare found

West 01-2 - OP Receptor (OP 13)

No glare found

West 01-2 - OP Receptor (OP 14)

No glare found

West 01-2 - OP Receptor (OP 15)

No glare found

West 01-2 - OP Receptor (OP 16)

No glare found

West 01-2 - OP Receptor (OP 17)

No glare found

West 01-2 - OP Receptor (OP 18)

No glare found

West 01-2 - OP Receptor (OP 19)

No glare found

West 01-2 - OP Receptor (OP 20)

No glare found

West 01-2 - OP Receptor (OP 21)

No glare found

West 01-2 - OP Receptor (OP 22)

No glare found

West 01-2 - OP Receptor (OP 23)

No glare found

West 01-2 - OP Receptor (OP 24)

No glare found

West 01-2 - OP Receptor (OP 25)

No glare found

West 01-2 - OP Receptor (OP 26)

No glare found

West 01-2 - OP Receptor (OP 27)

No glare found

West 01-2 - OP Receptor (OP 28)

No glare found

West 01-2 - OP Receptor (OP 29)

No glare found

West 01-2 - OP Receptor (OP 30)

No glare found

West 01-2 - OP Receptor (OP 31)

No glare found

West 01-2 - OP Receptor (OP 32)

No glare found

West 01-2 - OP Receptor (OP 33)

No glare found

West 01-2 - OP Receptor (OP 34)

No glare found

West 01-2 - OP Receptor (OP 35)

No glare found

West 01-2 - OP Receptor (OP 36)

No glare found

West 01-2 - OP Receptor (OP 37)

No glare found

West 01-2 - OP Receptor (OP 38)

No glare found

West 01-2 - OP Receptor (OP 39)

No glare found

West 01-2 - OP Receptor (OP 40)

No glare found

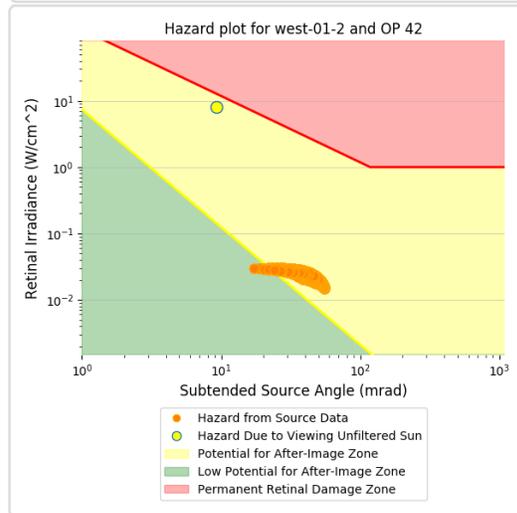
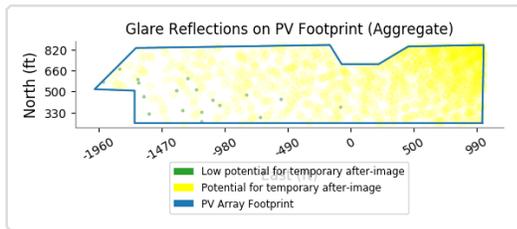
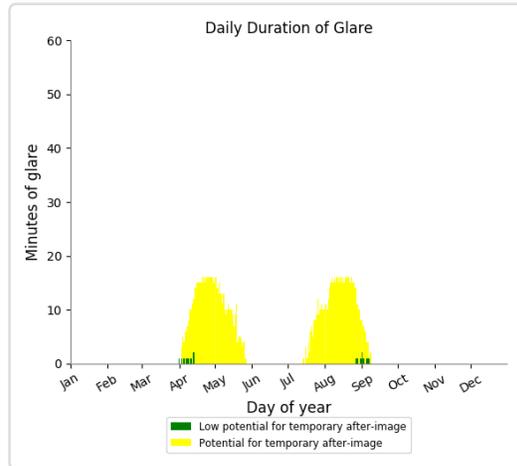
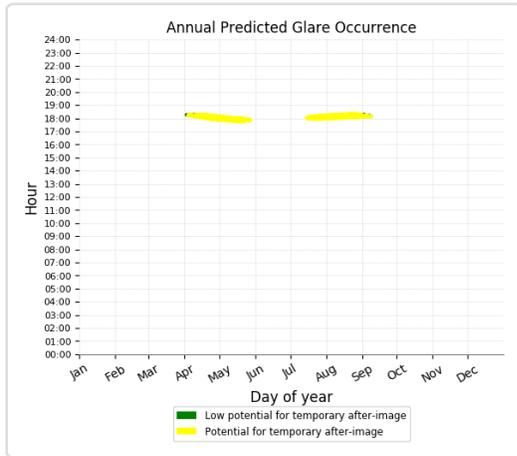
West 01-2 - OP Receptor (OP 41)

No glare found

West 01-2 - OP Receptor (OP 42)

PV array is expected to produce the following glare for receptors at this location:

- 18 minutes of "green" glare with low potential to cause temporary after-image.
- 1,160 minutes of "yellow" glare with potential to cause temporary after-image.



West 01-2 - OP Receptor (OP 43)

No glare found

West 01-2 - OP Receptor (OP 44)

No glare found

West 01-2 - OP Receptor (OP 45)

No glare found

West 01-2 - OP Receptor (OP 46)

No glare found


West 02-1 potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	2380
OP: OP 11	0	2870
OP: OP 12	0	3299
OP: OP 13	0	8132
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	657
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0

West 02-1 - OP Receptor (OP 1)

No glare found

West 02-1 - OP Receptor (OP 2)

No glare found

West 02-1 - OP Receptor (OP 3)

No glare found

West 02-1 - OP Receptor (OP 4)

No glare found

West 02-1 - OP Receptor (OP 5)

No glare found

West 02-1 - OP Receptor (OP 6)

No glare found

West 02-1 - OP Receptor (OP 7)

No glare found

West 02-1 - OP Receptor (OP 8)

No glare found

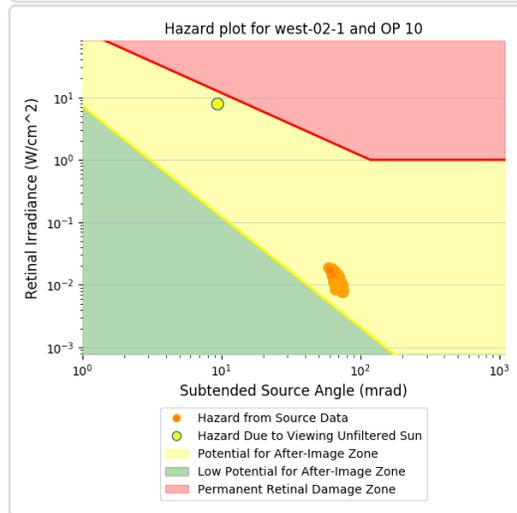
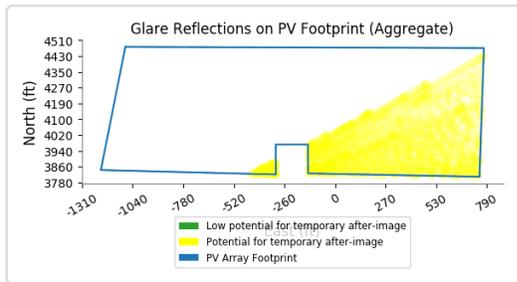
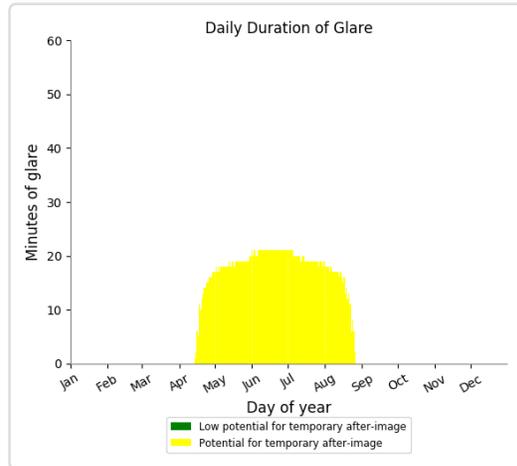
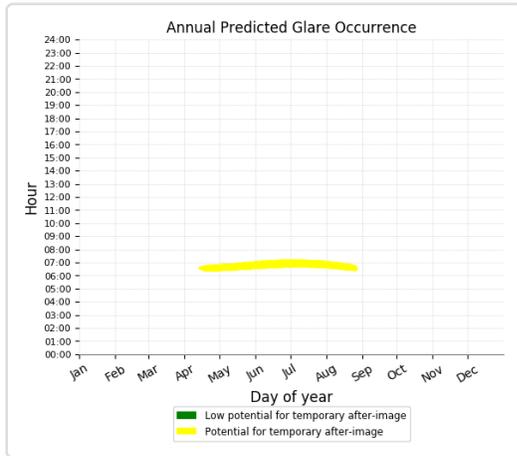
West 02-1 - OP Receptor (OP 9)

No glare found

West 02-1 - OP Receptor (OP 10)

PV array is expected to produce the following glare for receptors at this location:

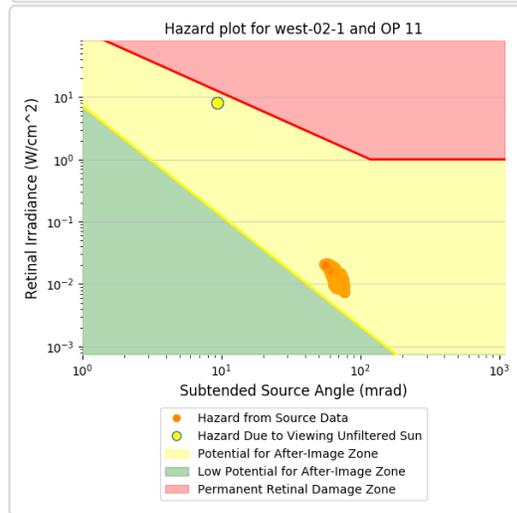
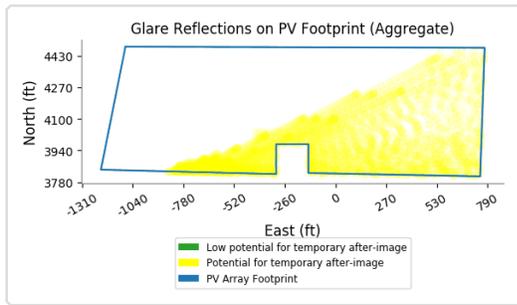
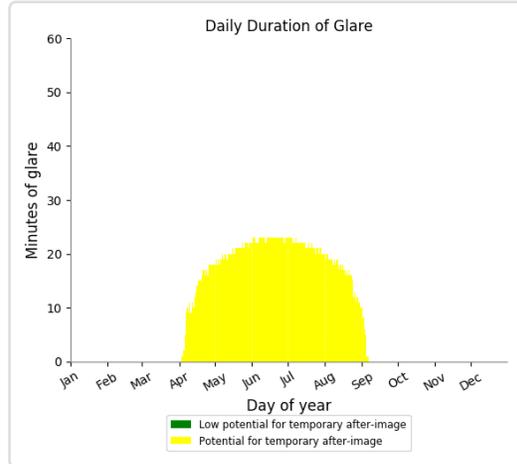
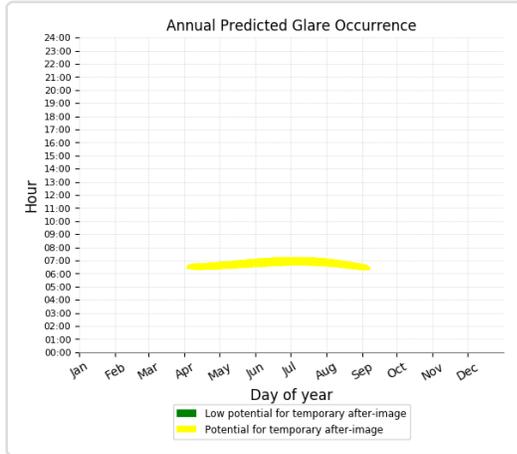
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,380 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-1 - OP Receptor (OP 11)

PV array is expected to produce the following glare for receptors at this location:

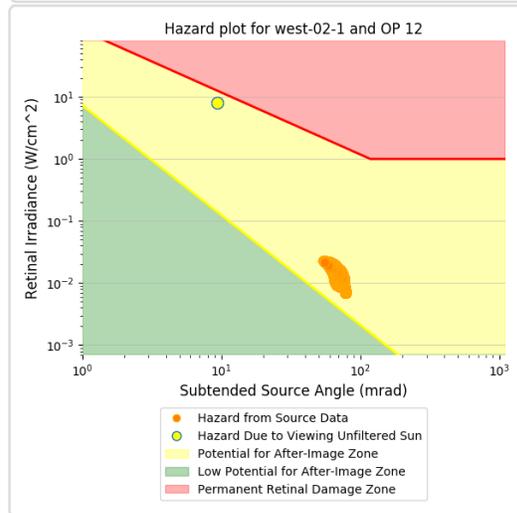
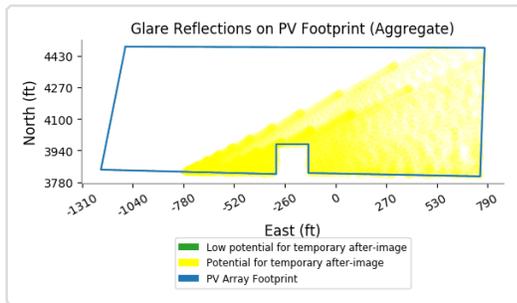
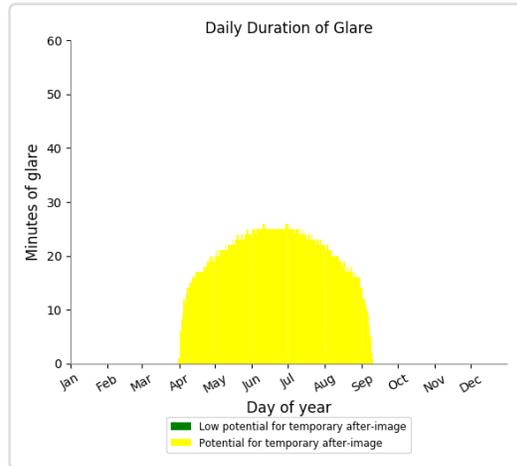
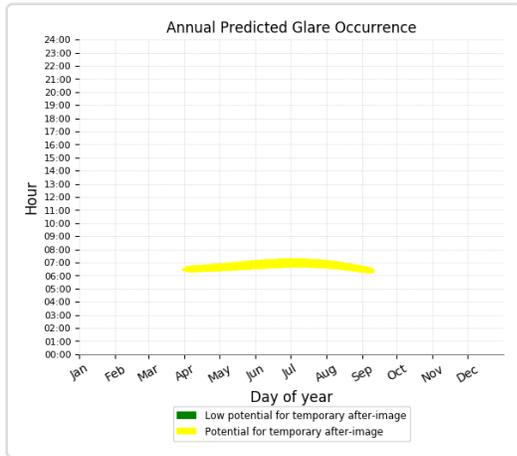
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,870 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-1 - OP Receptor (OP 12)

PV array is expected to produce the following glare for receptors at this location:

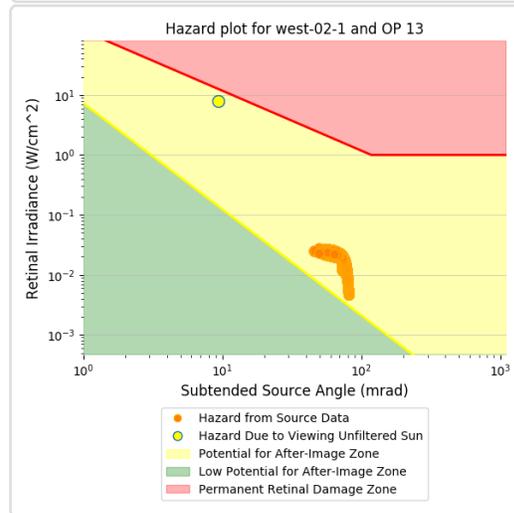
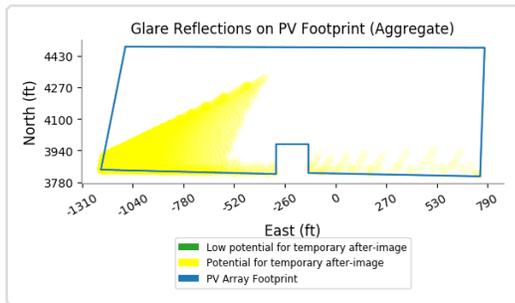
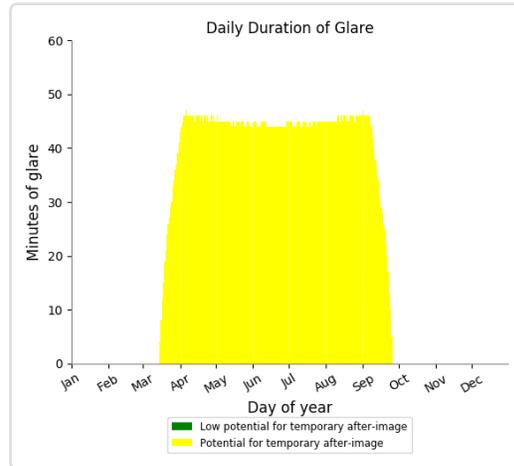
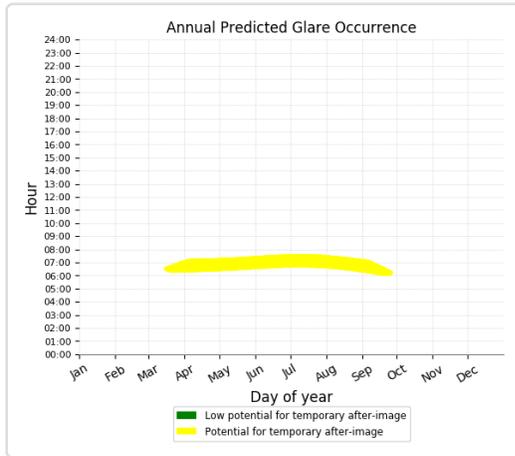
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,299 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-1 - OP Receptor (OP 13)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 8,132 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-1 - OP Receptor (OP 14)

No glare found

West 02-1 - OP Receptor (OP 15)

No glare found

West 02-1 - OP Receptor (OP 16)

No glare found

West 02-1 - OP Receptor (OP 17)

No glare found

West 02-1 - OP Receptor (OP 18)

No glare found

West 02-1 - OP Receptor (OP 19)

No glare found

West 02-1 - OP Receptor (OP 20)

No glare found

West 02-1 - OP Receptor (OP 21)

No glare found

West 02-1 - OP Receptor (OP 22)

No glare found

West 02-1 - OP Receptor (OP 23)

No glare found

West 02-1 - OP Receptor (OP 24)

No glare found

West 02-1 - OP Receptor (OP 25)

No glare found

West 02-1 - OP Receptor (OP 26)

No glare found

West 02-1 - OP Receptor (OP 27)

No glare found

West 02-1 - OP Receptor (OP 28)

No glare found

West 02-1 - OP Receptor (OP 29)

No glare found

West 02-1 - OP Receptor (OP 30)

No glare found

West 02-1 - OP Receptor (OP 31)

No glare found

West 02-1 - OP Receptor (OP 32)

No glare found

West 02-1 - OP Receptor (OP 33)

No glare found

West 02-1 - OP Receptor (OP 34)

No glare found

West 02-1 - OP Receptor (OP 35)

No glare found

West 02-1 - OP Receptor (OP 36)

No glare found

West 02-1 - OP Receptor (OP 37)

No glare found

West 02-1 - OP Receptor (OP 38)

No glare found

West 02-1 - OP Receptor (OP 39)

No glare found

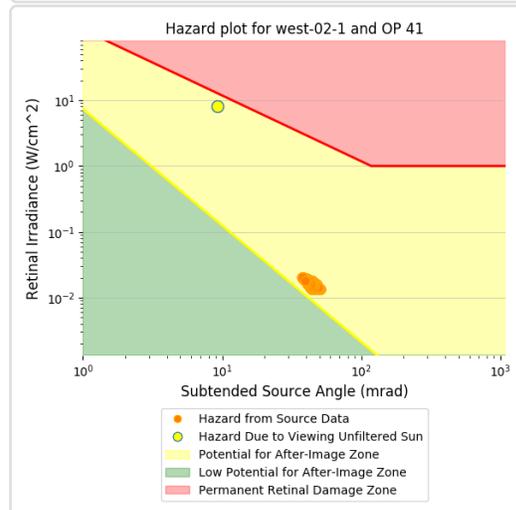
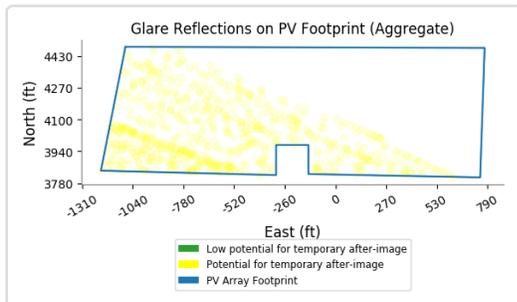
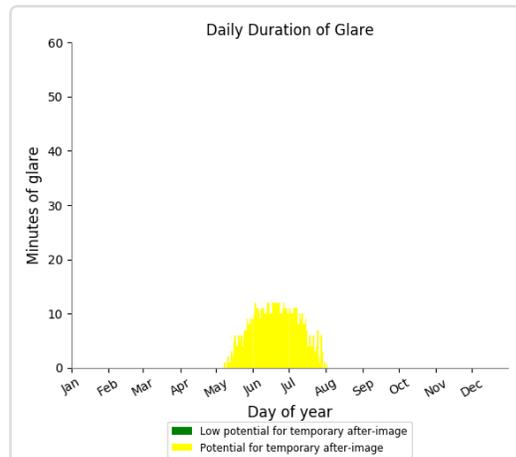
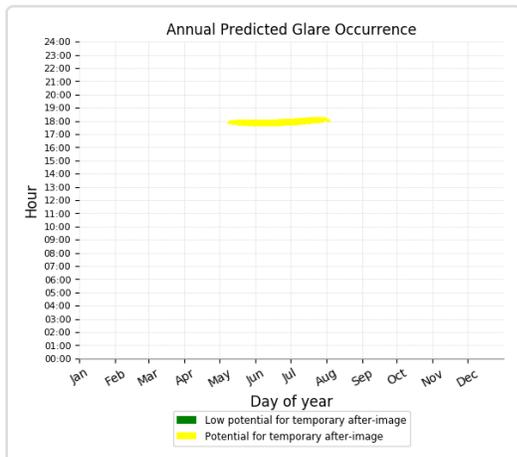
West 02-1 - OP Receptor (OP 40)

No glare found

West 02-1 - OP Receptor (OP 41)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 657 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-1 - OP Receptor (OP 42)

No glare found

West 02-1 - OP Receptor (OP 43)

No glare found

West 02-1 - OP Receptor (OP 44)

No glare found

West 02-1 - OP Receptor (OP 45)

No glare found

West 02-1 - OP Receptor (OP 46)

No glare found

West 02-2 potential temporary after-image



Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	77
OP: OP 11	0	363
OP: OP 12	0	364
OP: OP 13	0	912
OP: OP 14	0	441
OP: OP 15	0	3341
OP: OP 16	108	435
OP: OP 17	89	314
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	11
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0

West 02-2 - OP Receptor (OP 1)

No glare found

West 02-2 - OP Receptor (OP 2)

No glare found

West 02-2 - OP Receptor (OP 3)

No glare found

West 02-2 - OP Receptor (OP 4)

No glare found

West 02-2 - OP Receptor (OP 5)

No glare found

West 02-2 - OP Receptor (OP 6)

No glare found

West 02-2 - OP Receptor (OP 7)

No glare found

West 02-2 - OP Receptor (OP 8)

No glare found

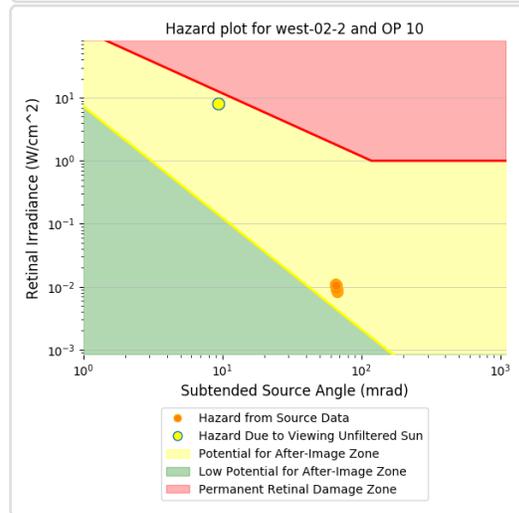
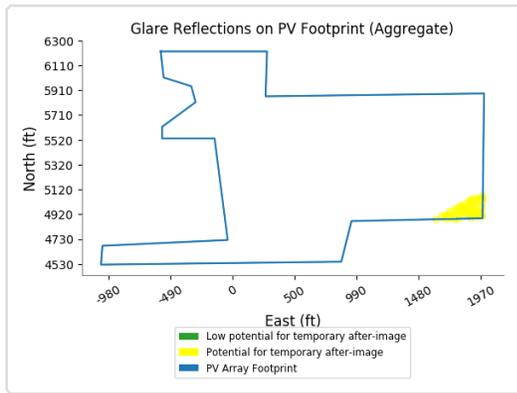
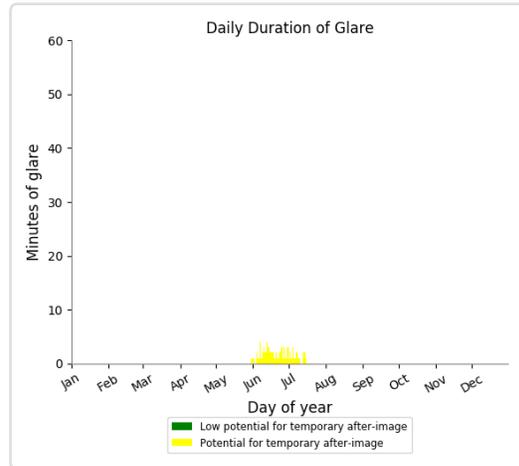
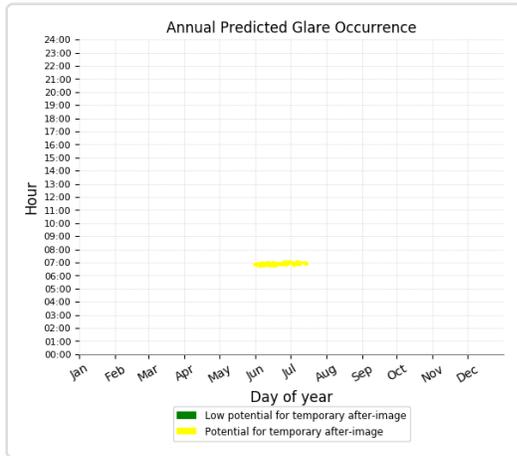
West 02-2 - OP Receptor (OP 9)

No glare found

West 02-2 - OP Receptor (OP 10)

PV array is expected to produce the following glare for receptors at this location:

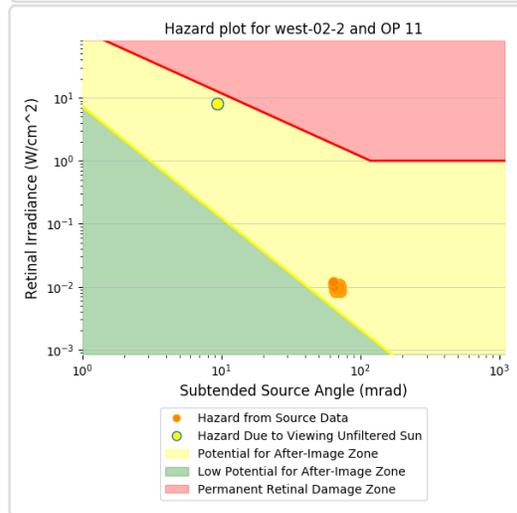
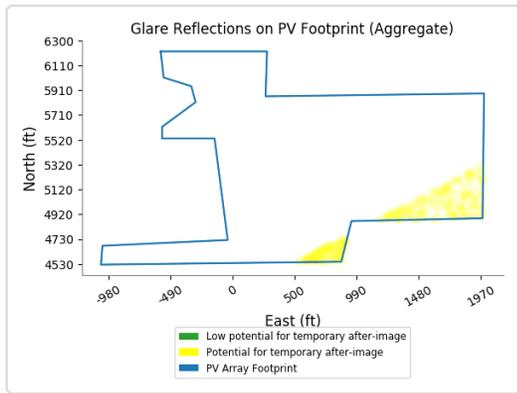
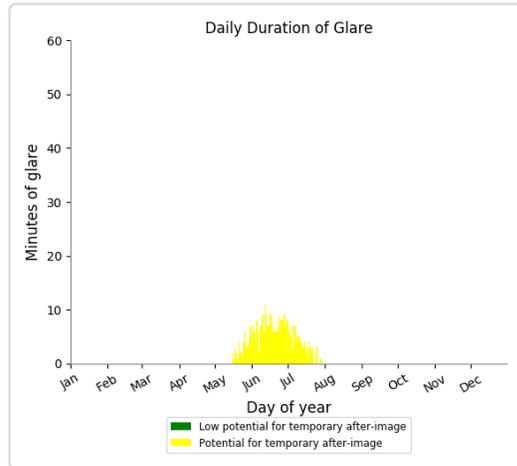
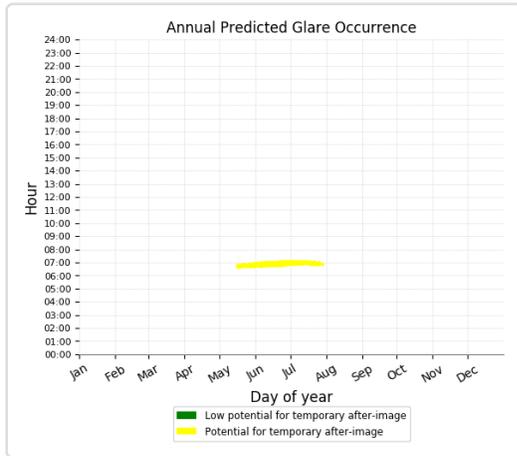
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 77 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-2 - OP Receptor (OP 11)

PV array is expected to produce the following glare for receptors at this location:

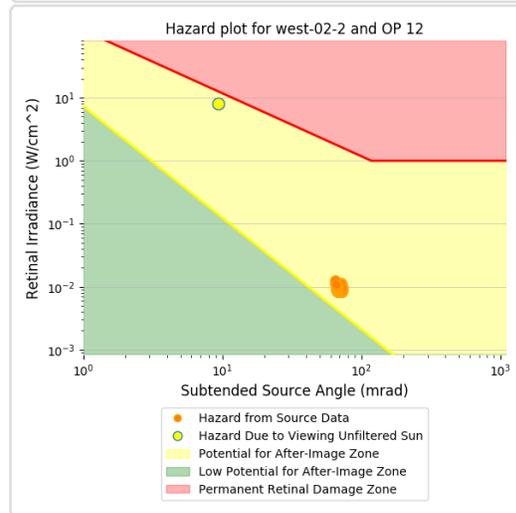
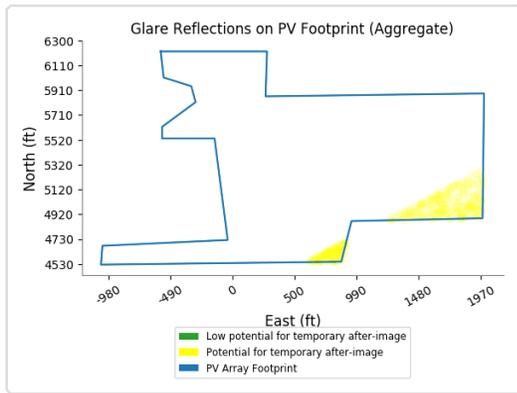
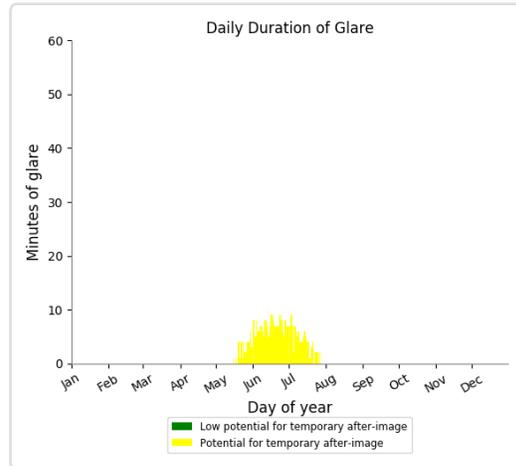
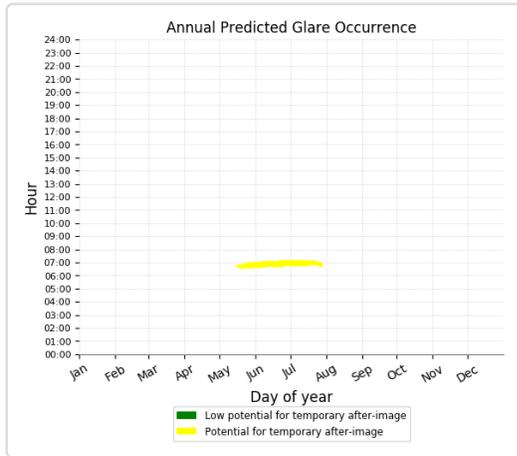
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 363 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-2 - OP Receptor (OP 12)

PV array is expected to produce the following glare for receptors at this location:

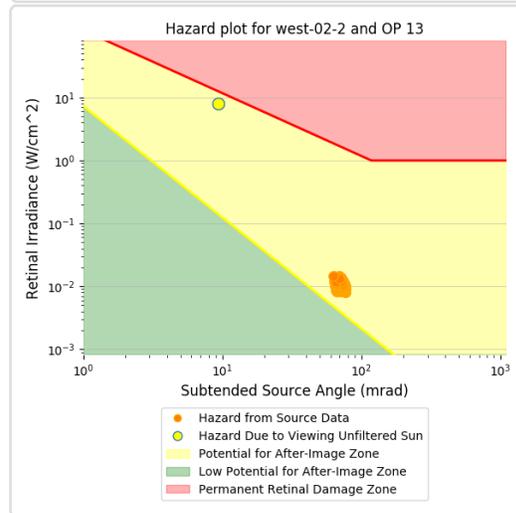
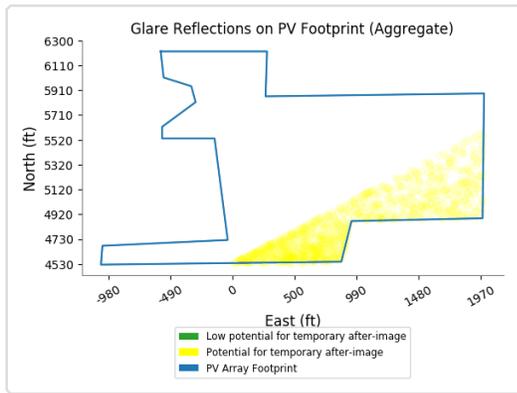
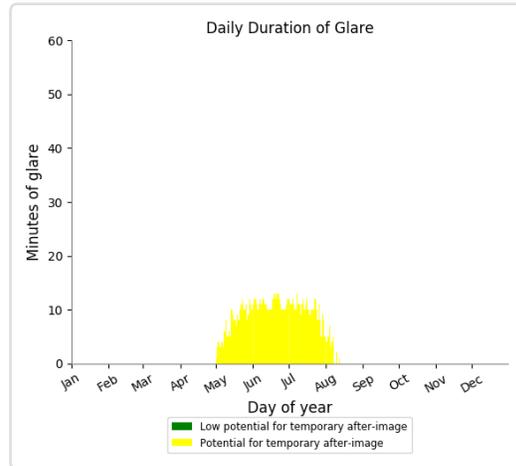
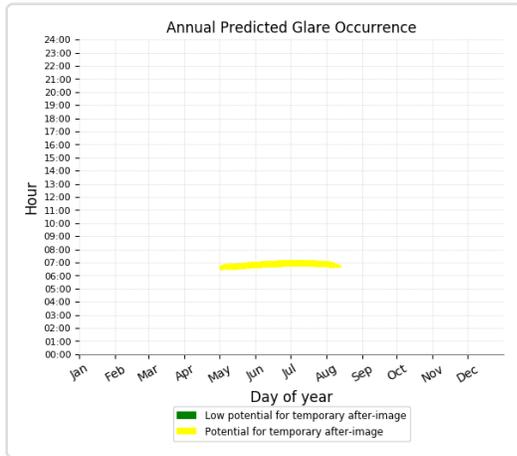
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 364 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-2 - OP Receptor (OP 13)

PV array is expected to produce the following glare for receptors at this location:

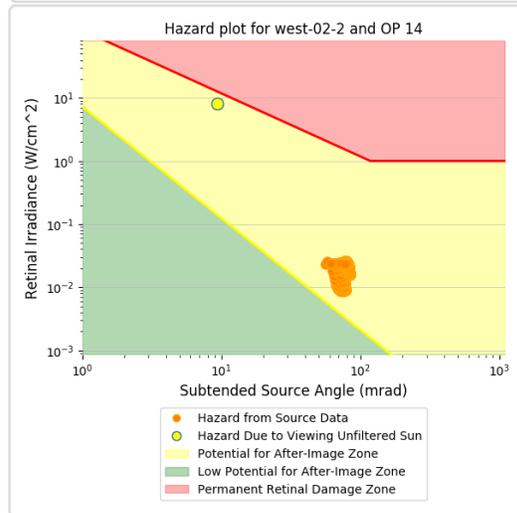
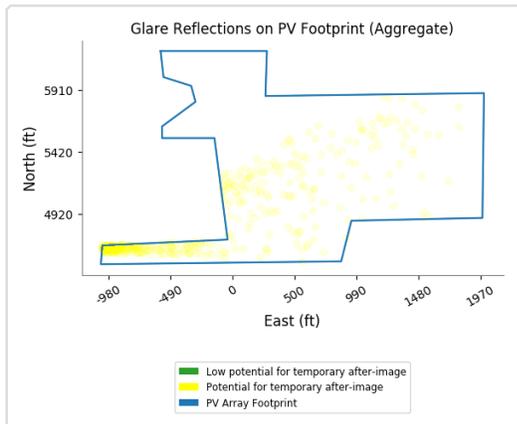
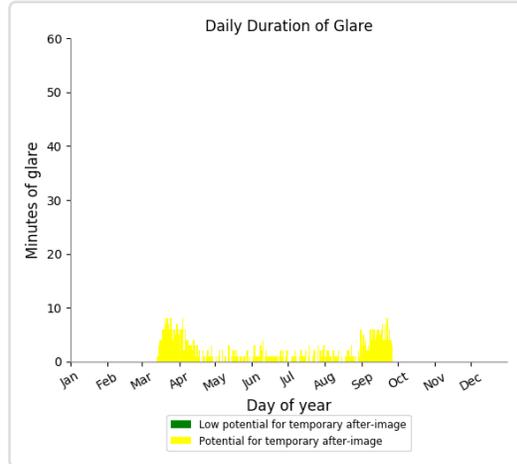
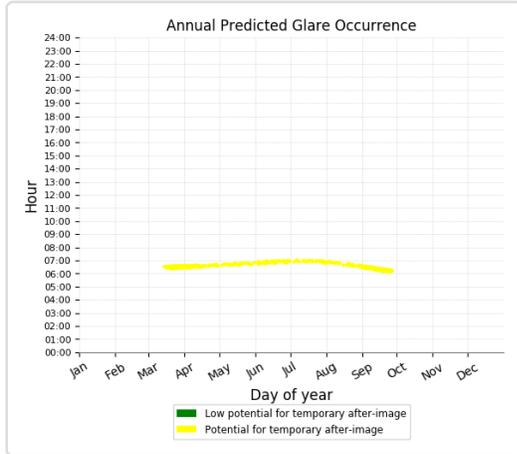
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 912 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-2 - OP Receptor (OP 14)

PV array is expected to produce the following glare for receptors at this location:

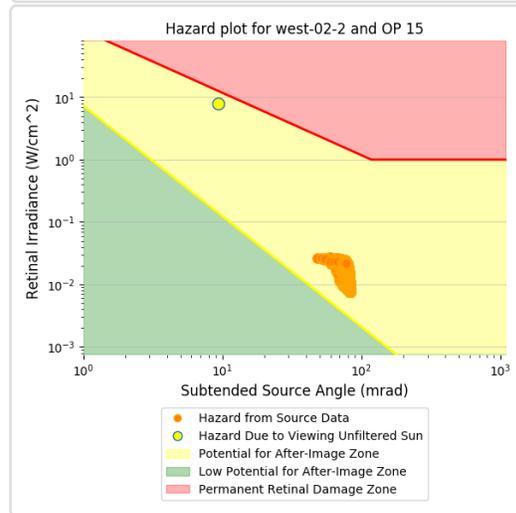
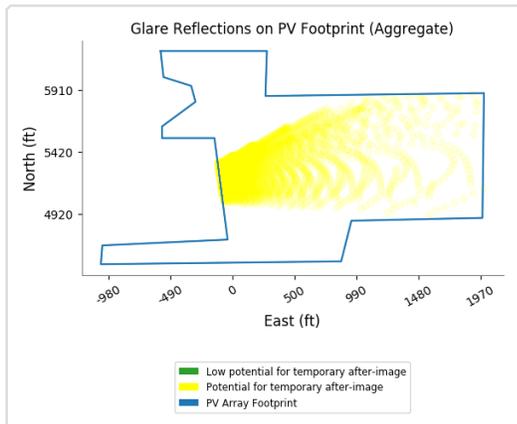
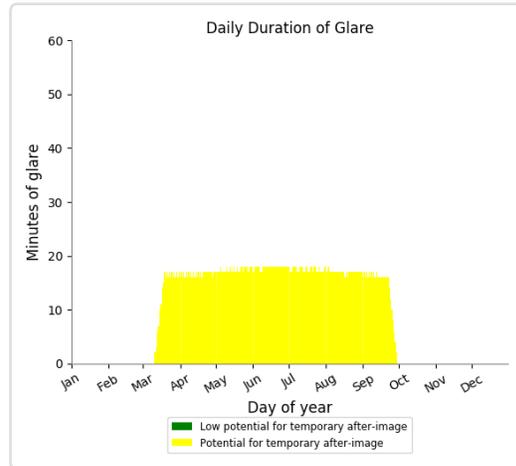
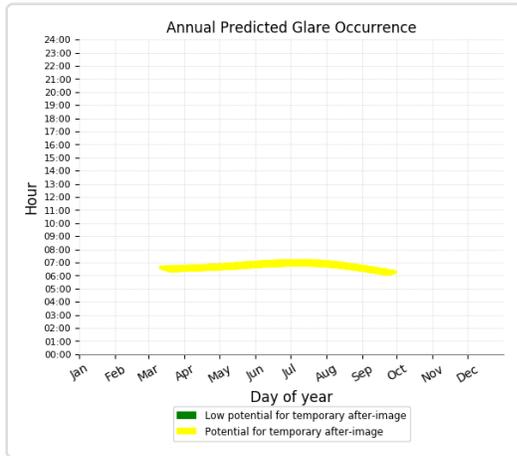
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 441 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-2 - OP Receptor (OP 15)

PV array is expected to produce the following glare for receptors at this location:

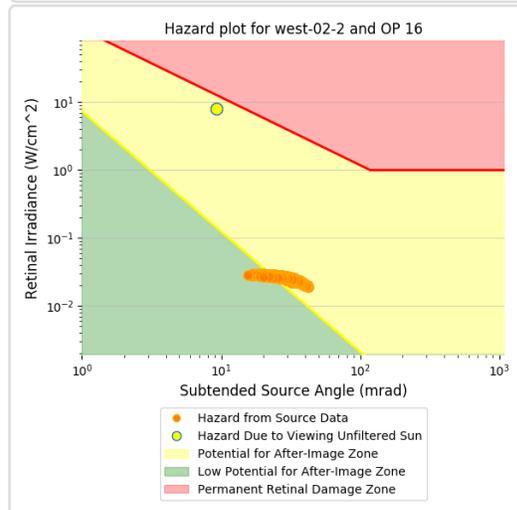
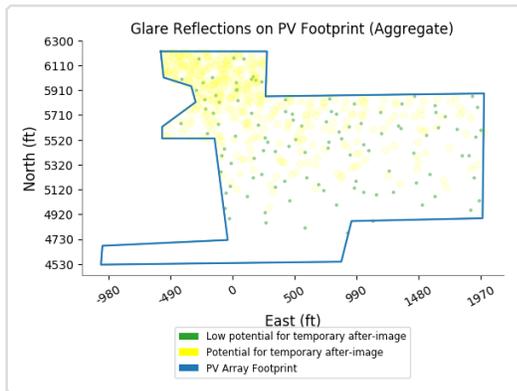
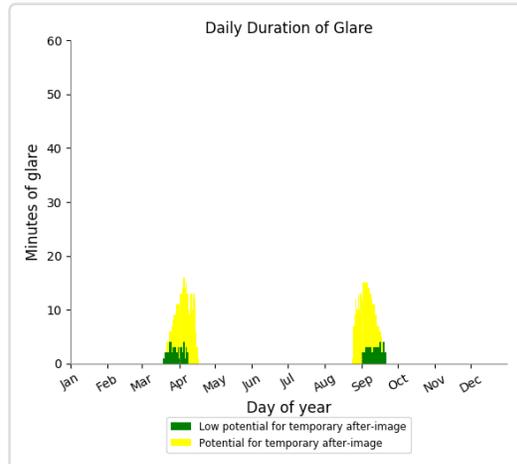
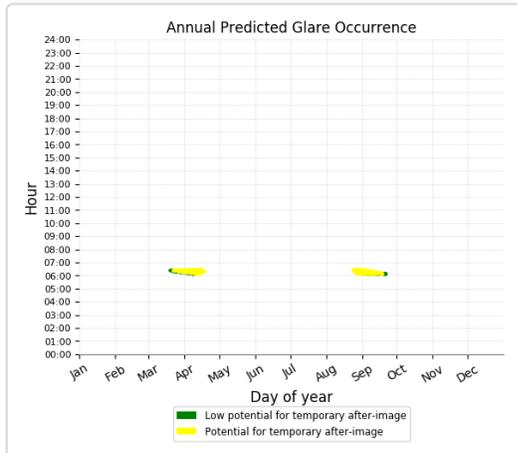
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,341 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-2 - OP Receptor (OP 16)

PV array is expected to produce the following glare for receptors at this location:

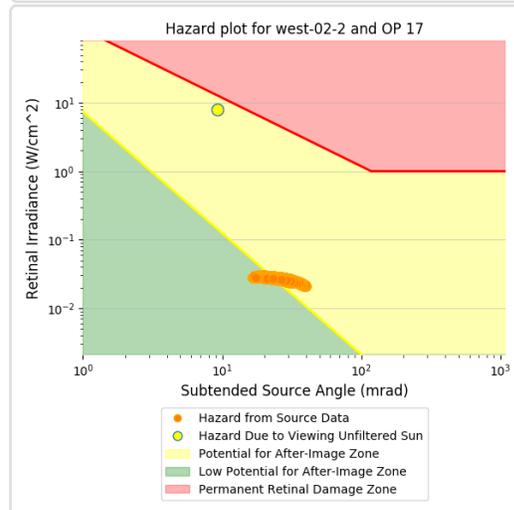
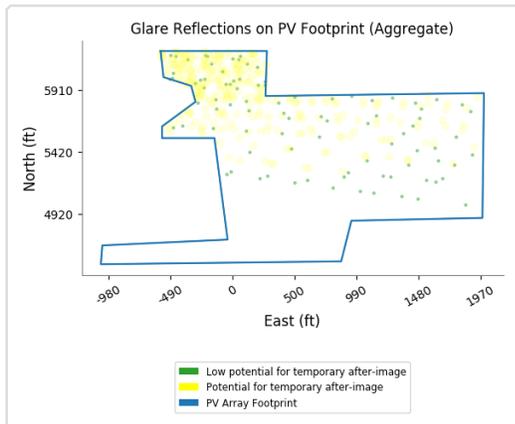
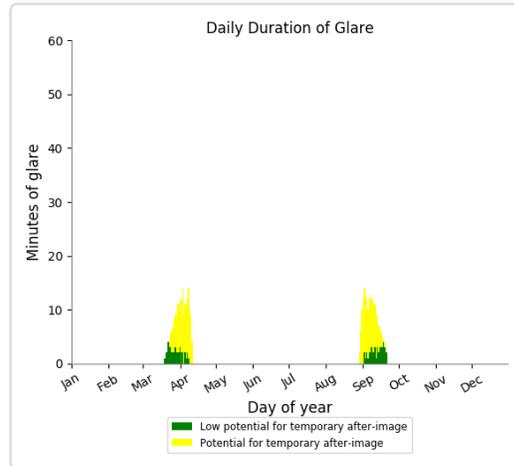
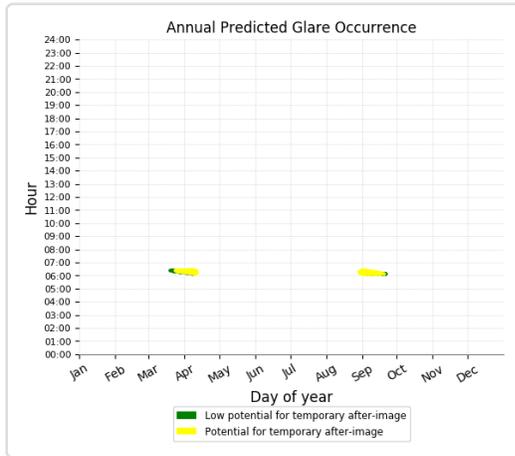
- 108 minutes of "green" glare with low potential to cause temporary after-image.
- 435 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-2 - OP Receptor (OP 17)

PV array is expected to produce the following glare for receptors at this location:

- 89 minutes of "green" glare with low potential to cause temporary after-image.
- 314 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-2 - OP Receptor (OP 18)

No glare found

West 02-2 - OP Receptor (OP 19)

No glare found

West 02-2 - OP Receptor (OP 20)

No glare found

West 02-2 - OP Receptor (OP 21)

No glare found

West 02-2 - OP Receptor (OP 22)

No glare found

West 02-2 - OP Receptor (OP 23)

No glare found

West 02-2 - OP Receptor (OP 24)

No glare found

West 02-2 - OP Receptor (OP 25)

No glare found

West 02-2 - OP Receptor (OP 26)

No glare found

West 02-2 - OP Receptor (OP 27)

No glare found

West 02-2 - OP Receptor (OP 28)

No glare found

West 02-2 - OP Receptor (OP 29)

No glare found

West 02-2 - OP Receptor (OP 30)

No glare found

West 02-2 - OP Receptor (OP 31)

No glare found

West 02-2 - OP Receptor (OP 32)

No glare found

West 02-2 - OP Receptor (OP 33)

No glare found

West 02-2 - OP Receptor (OP 34)

No glare found

West 02-2 - OP Receptor (OP 35)

No glare found

West 02-2 - OP Receptor (OP 36)

No glare found

West 02-2 - OP Receptor (OP 37)

No glare found

West 02-2 - OP Receptor (OP 38)

No glare found

West 02-2 - OP Receptor (OP 39)

No glare found

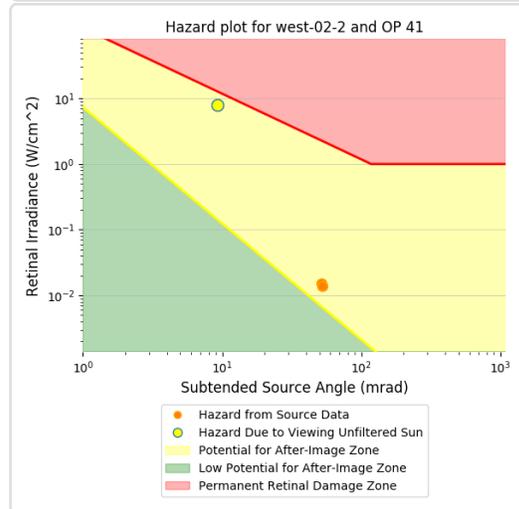
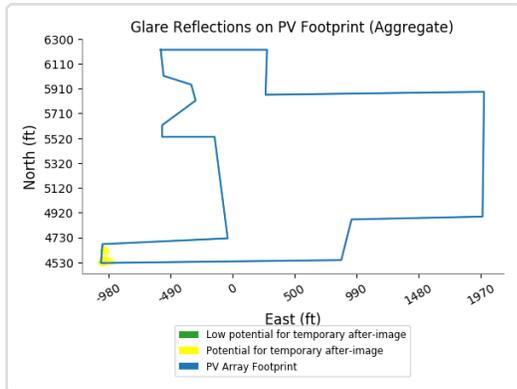
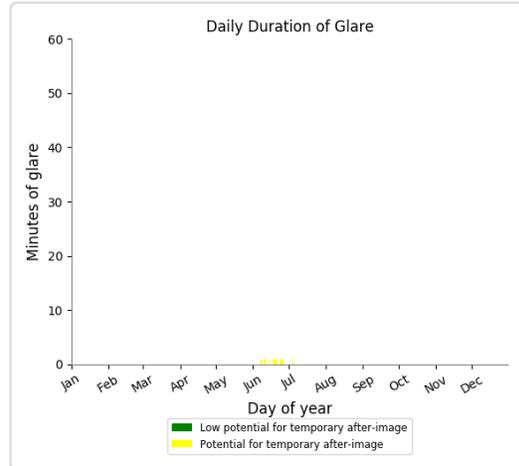
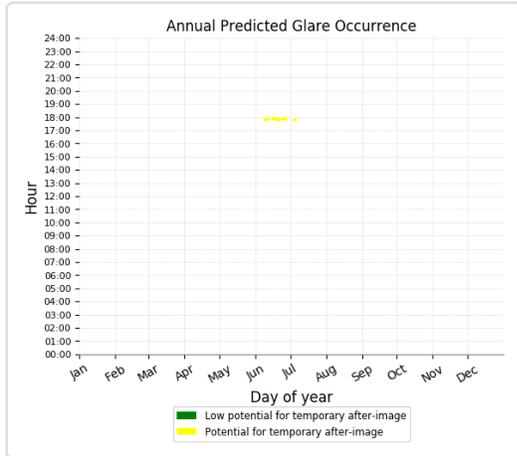
West 02-2 - OP Receptor (OP 40)

No glare found

West 02-2 - OP Receptor (OP 41)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 11 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-2 - OP Receptor (OP 42)

No glare found

West 02-2 - OP Receptor (OP 43)

No glare found

West 02-2 - OP Receptor (OP 44)

No glare found

West 02-2 - OP Receptor (OP 45)

No glare found

West 02-2 - OP Receptor (OP 46)

No glare found



West 02-3 potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	30
OP: OP 10	0	1205
OP: OP 11	0	1062
OP: OP 12	0	1315
OP: OP 13	0	1472
OP: OP 14	0	1943
OP: OP 15	8	2522
OP: OP 16	1	1914
OP: OP 17	1	2421
OP: OP 18	0	5586
OP: OP 19	2	97
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	1	17
OP: OP 39	0	15
OP: OP 40	0	0
OP: OP 41	0	2080
OP: OP 42	0	251
OP: OP 43	4	23
OP: OP 44	12	16
OP: OP 45	28	0
OP: OP 46	37	0

West 02-3 - OP Receptor (OP 1)

No glare found

West 02-3 - OP Receptor (OP 2)

No glare found

West 02-3 - OP Receptor (OP 3)

No glare found

West 02-3 - OP Receptor (OP 4)

No glare found

West 02-3 - OP Receptor (OP 5)

No glare found

West 02-3 - OP Receptor (OP 6)

No glare found

West 02-3 - OP Receptor (OP 7)

No glare found

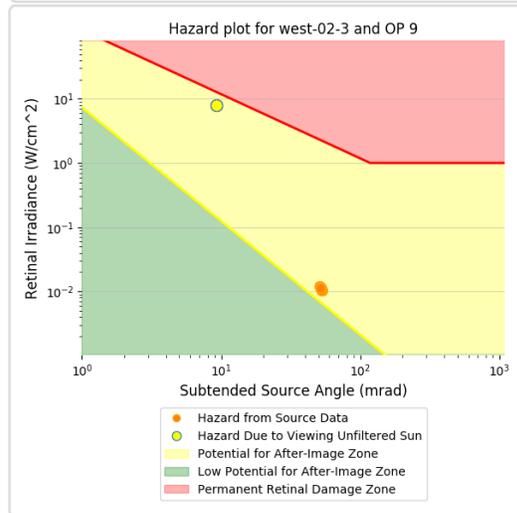
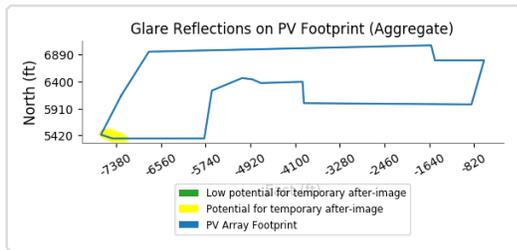
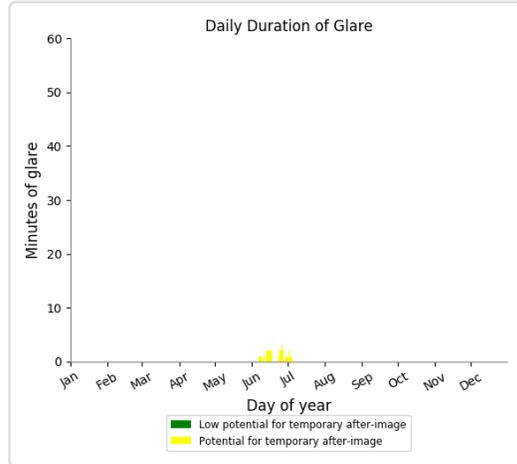
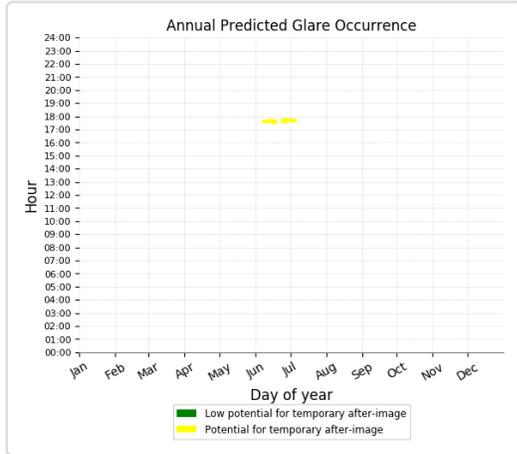
West 02-3 - OP Receptor (OP 8)

No glare found

West 02-3 - OP Receptor (OP 9)

PV array is expected to produce the following glare for receptors at this location:

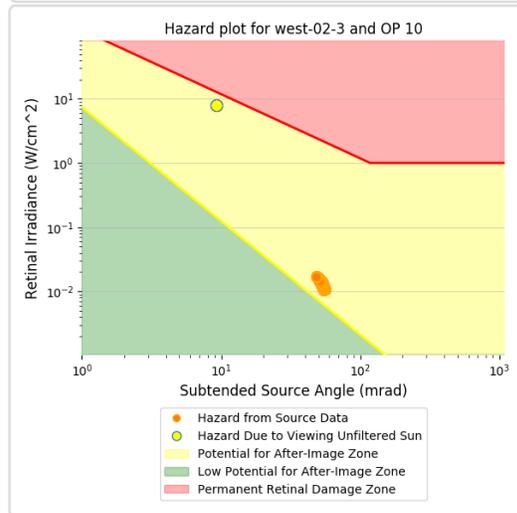
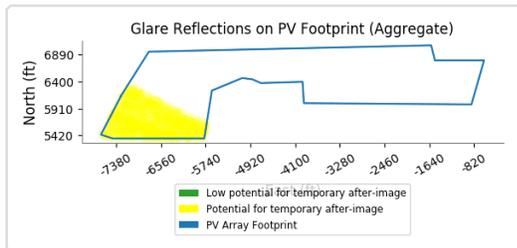
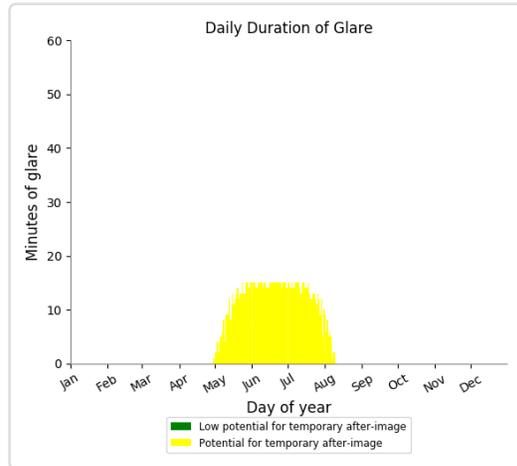
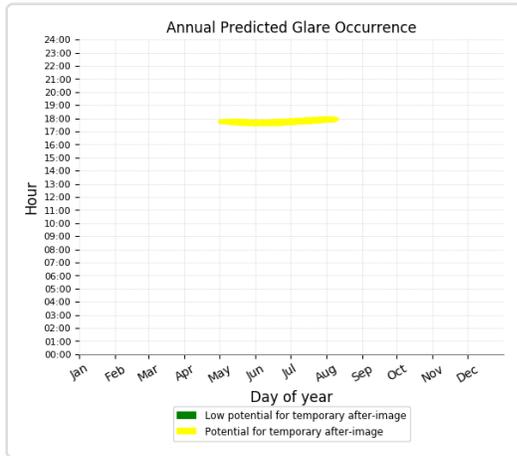
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 30 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 10)

PV array is expected to produce the following glare for receptors at this location:

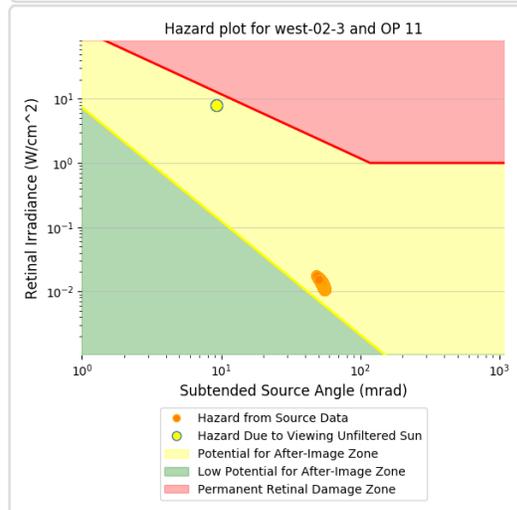
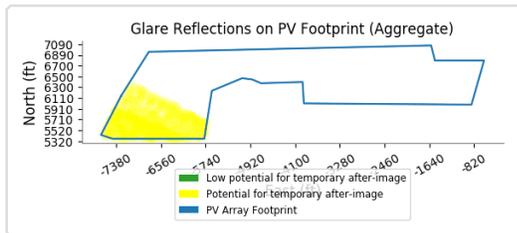
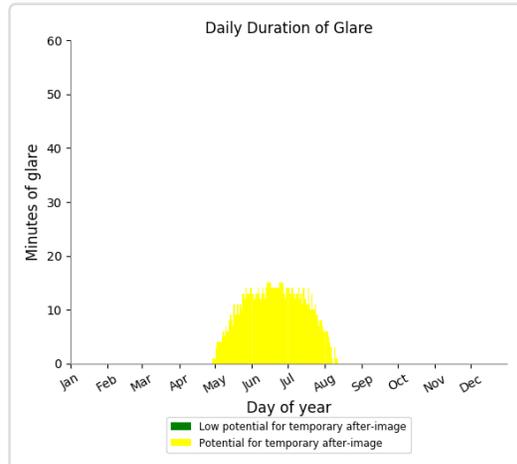
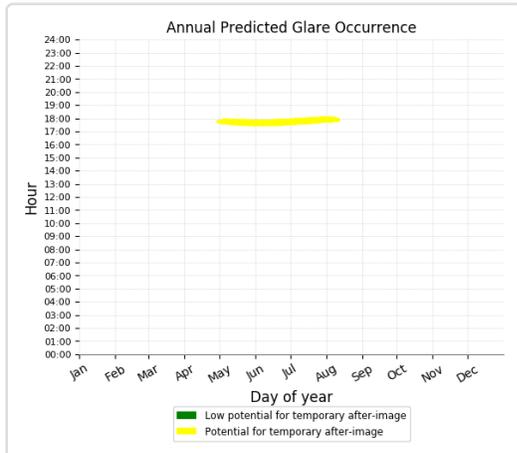
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,205 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 11)

PV array is expected to produce the following glare for receptors at this location:

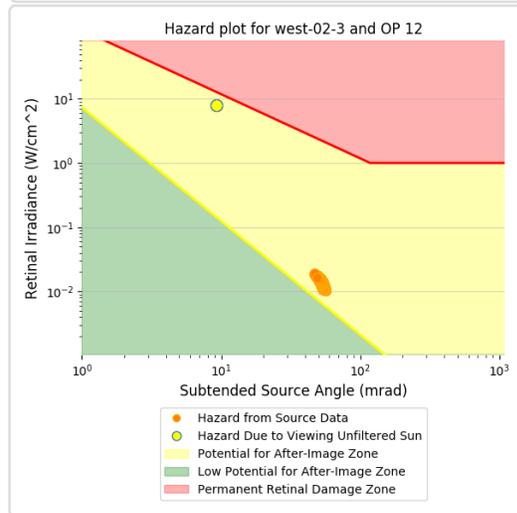
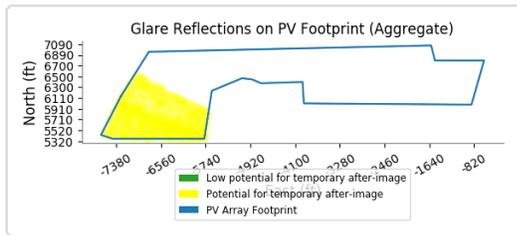
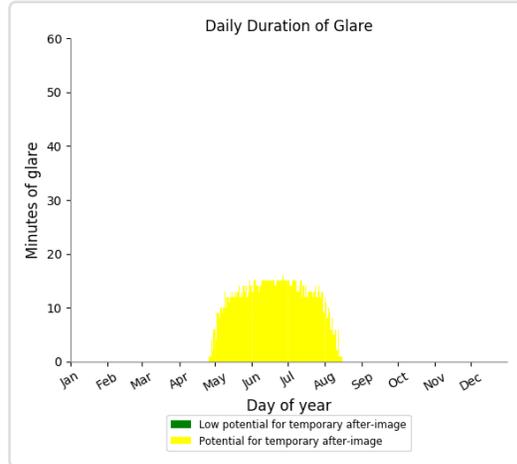
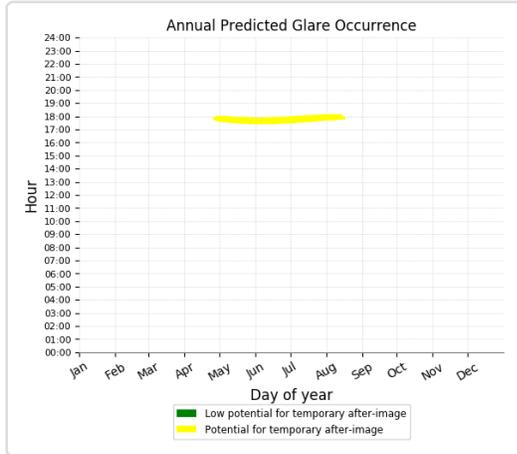
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,062 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 12)

PV array is expected to produce the following glare for receptors at this location:

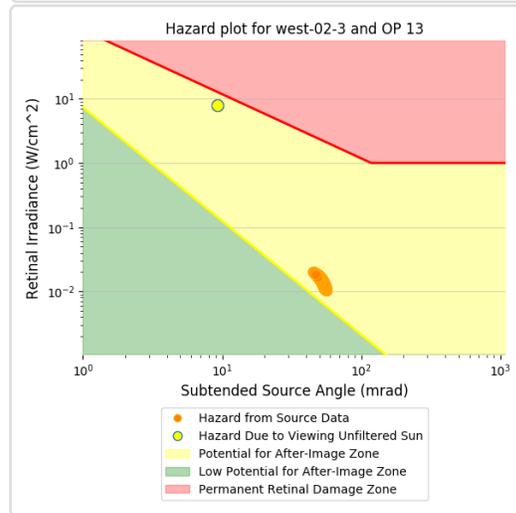
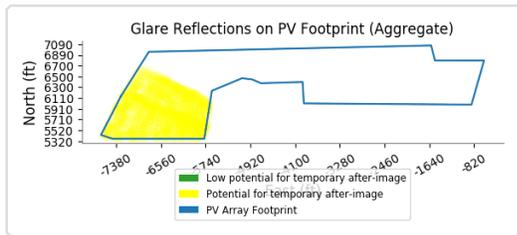
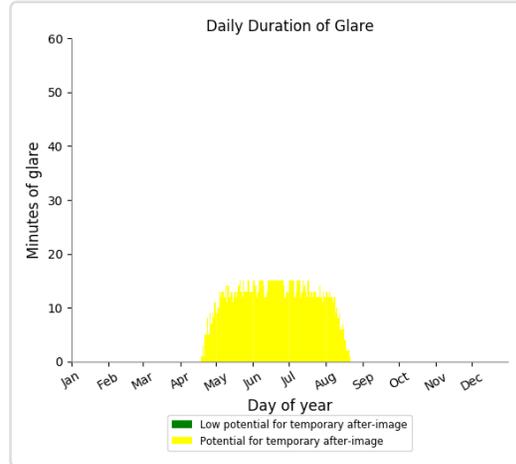
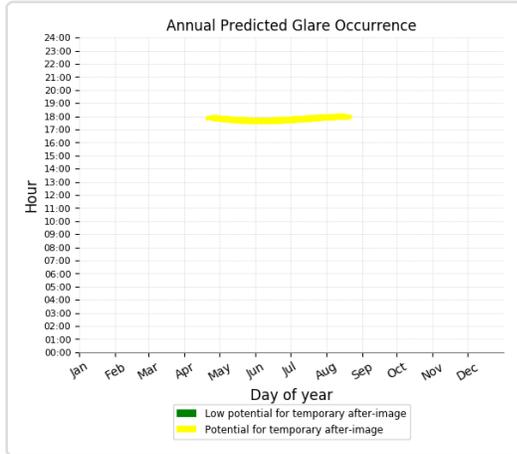
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,315 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 13)

PV array is expected to produce the following glare for receptors at this location:

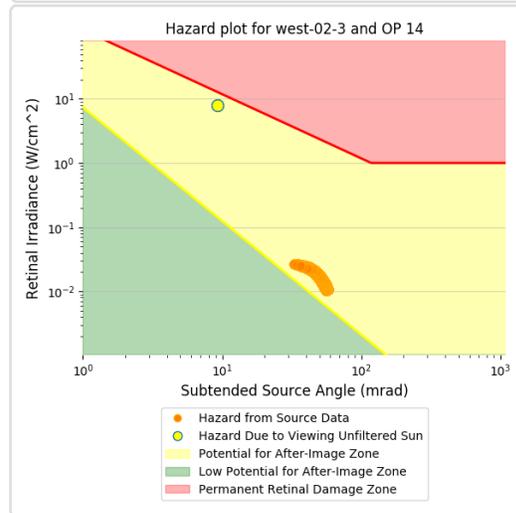
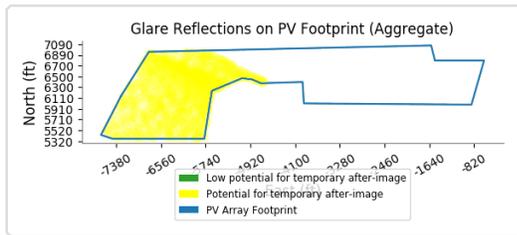
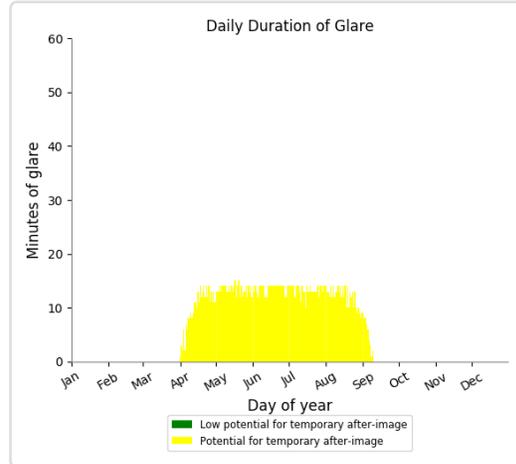
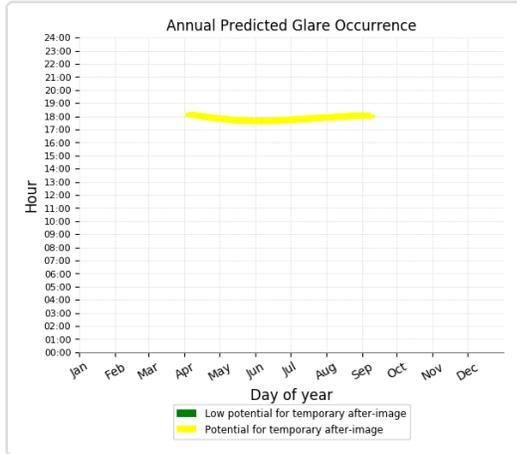
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,472 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 14)

PV array is expected to produce the following glare for receptors at this location:

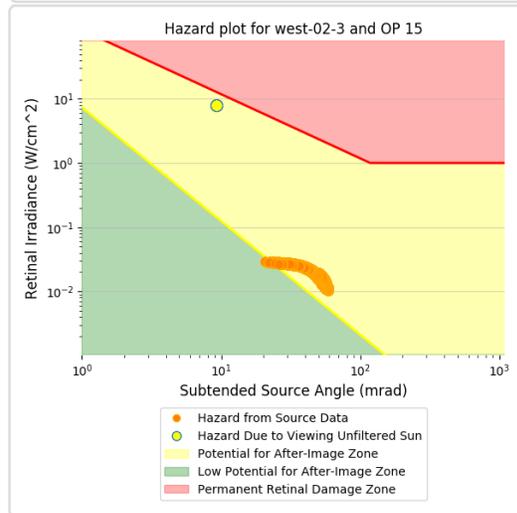
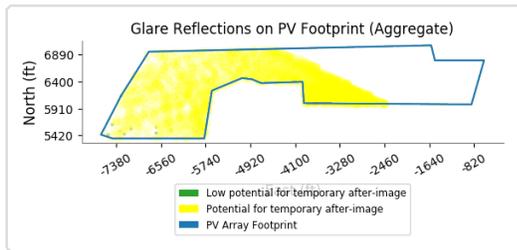
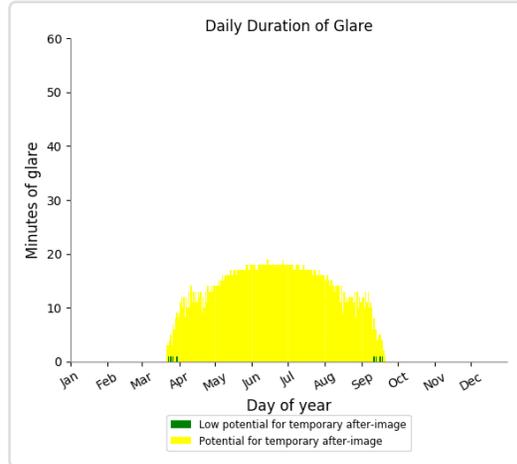
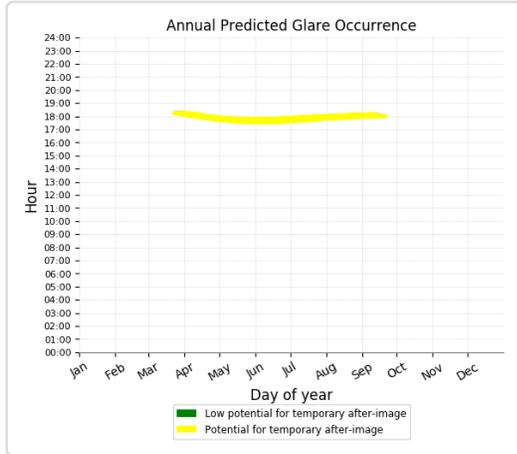
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,943 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 15)

PV array is expected to produce the following glare for receptors at this location:

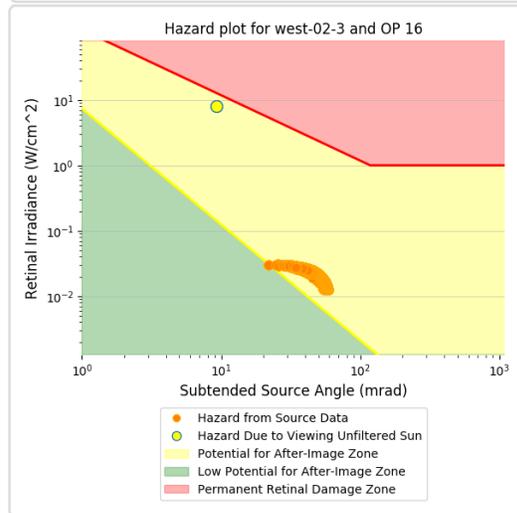
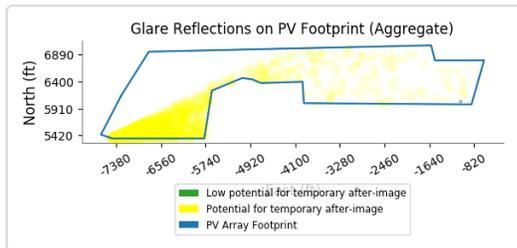
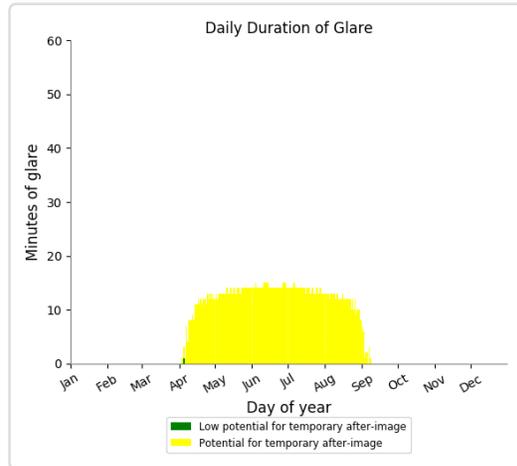
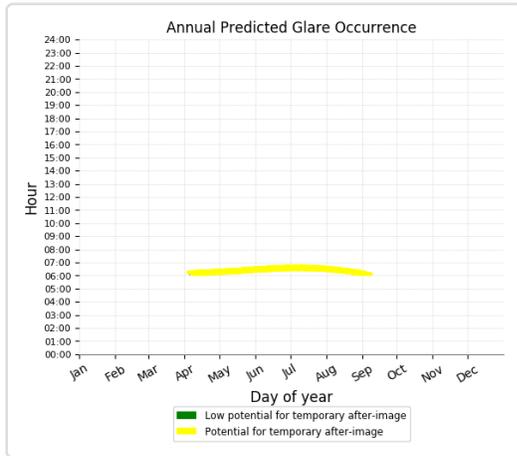
- 8 minutes of "green" glare with low potential to cause temporary after-image.
- 2,522 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 16)

PV array is expected to produce the following glare for receptors at this location:

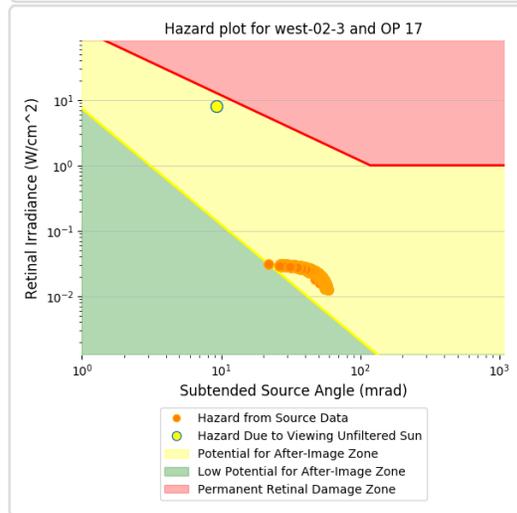
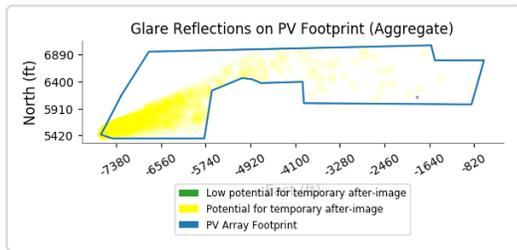
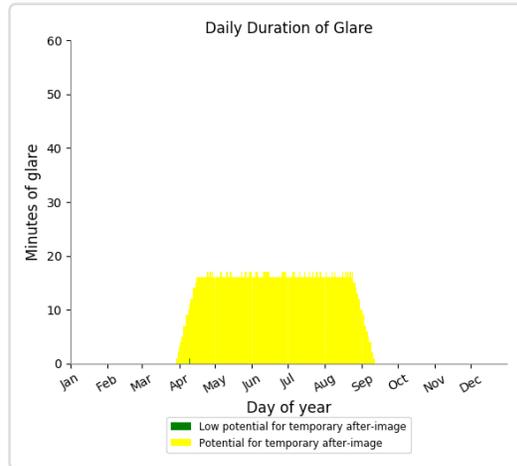
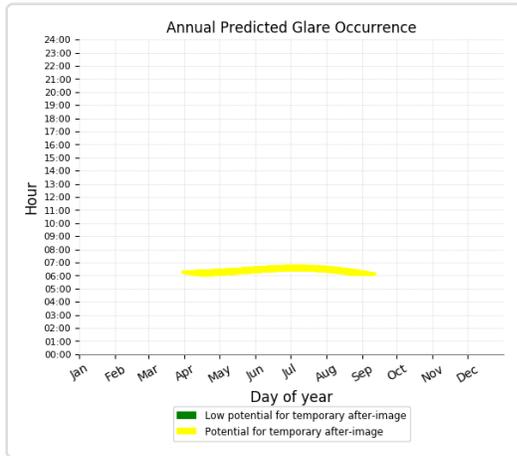
- 1 minutes of "green" glare with low potential to cause temporary after-image.
- 1,914 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 17)

PV array is expected to produce the following glare for receptors at this location:

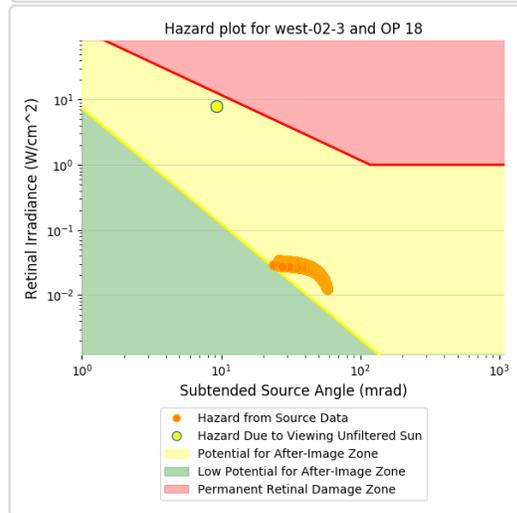
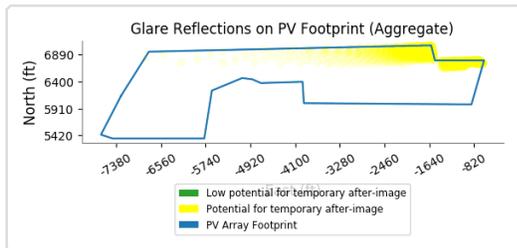
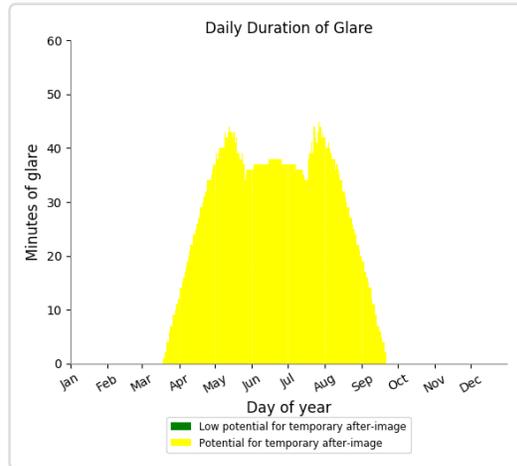
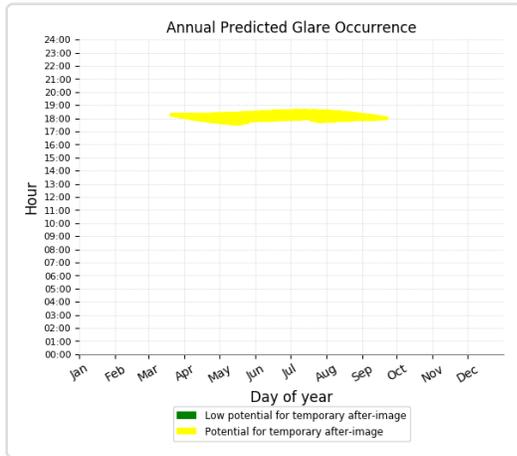
- 1 minutes of "green" glare with low potential to cause temporary after-image.
- 2,421 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 18)

PV array is expected to produce the following glare for receptors at this location:

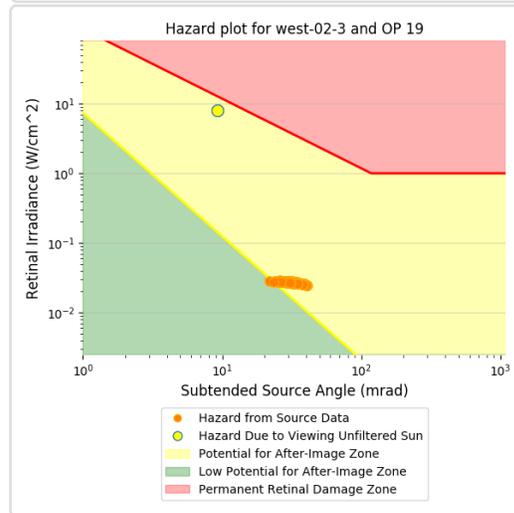
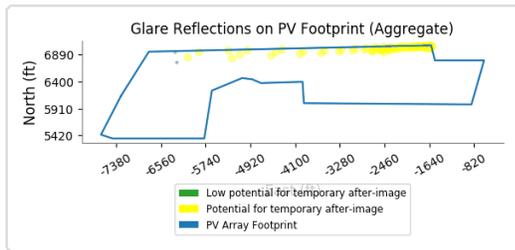
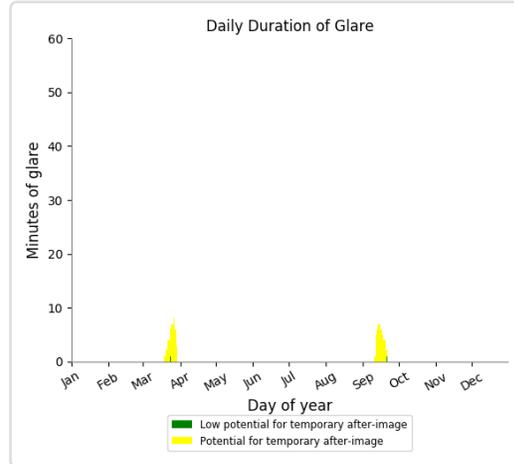
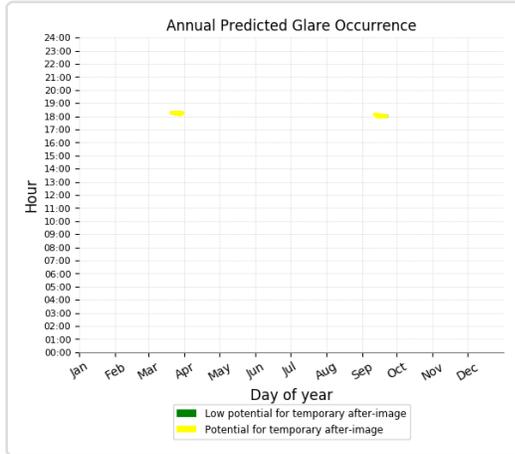
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 5,586 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 19)

PV array is expected to produce the following glare for receptors at this location:

- 2 minutes of "green" glare with low potential to cause temporary after-image.
- 97 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 20)

No glare found

West 02-3 - OP Receptor (OP 21)

No glare found

West 02-3 - OP Receptor (OP 22)

No glare found

West 02-3 - OP Receptor (OP 23)

No glare found

West 02-3 - OP Receptor (OP 24)

No glare found

West 02-3 - OP Receptor (OP 25)

No glare found

West 02-3 - OP Receptor (OP 26)

No glare found

West 02-3 - OP Receptor (OP 27)

No glare found

West 02-3 - OP Receptor (OP 28)

No glare found

West 02-3 - OP Receptor (OP 29)

No glare found

West 02-3 - OP Receptor (OP 30)

No glare found

West 02-3 - OP Receptor (OP 31)

No glare found

West 02-3 - OP Receptor (OP 32)

No glare found

West 02-3 - OP Receptor (OP 33)

No glare found

West 02-3 - OP Receptor (OP 34)

No glare found

West 02-3 - OP Receptor (OP 35)

No glare found

West 02-3 - OP Receptor (OP 36)

No glare found

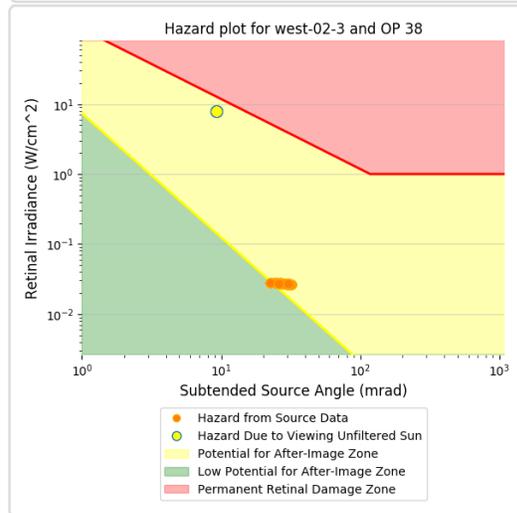
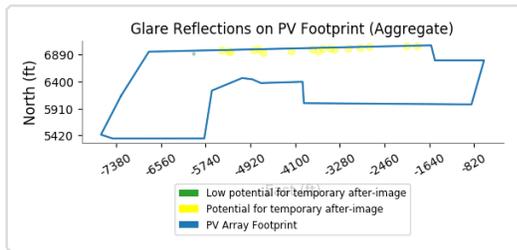
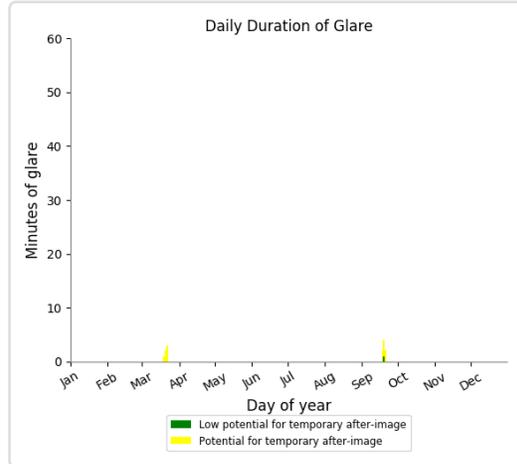
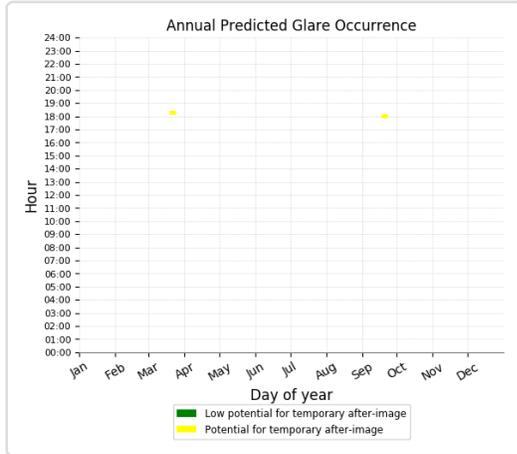
West 02-3 - OP Receptor (OP 37)

No glare found

West 02-3 - OP Receptor (OP 38)

PV array is expected to produce the following glare for receptors at this location:

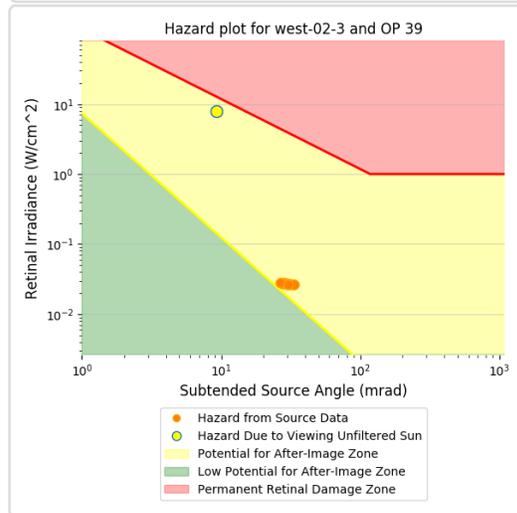
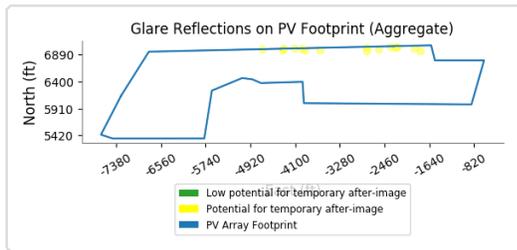
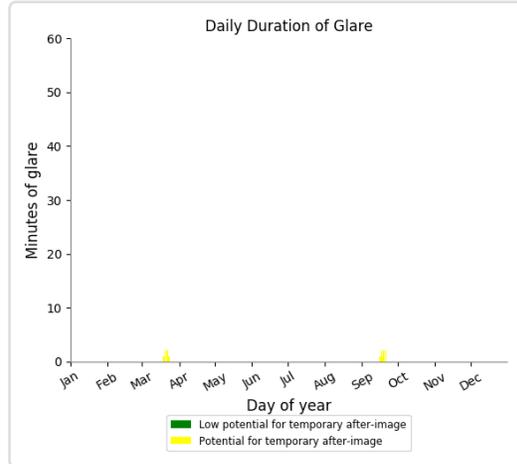
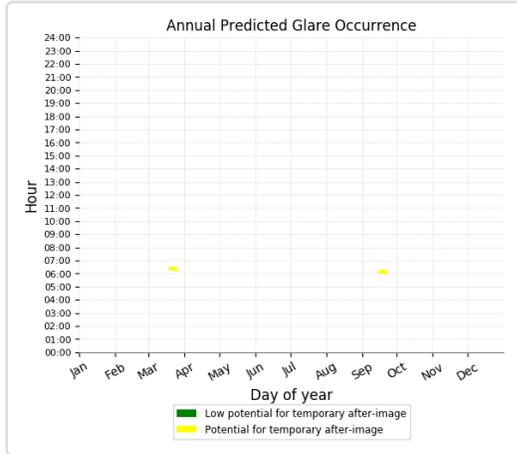
- 1 minutes of "green" glare with low potential to cause temporary after-image.
- 17 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 39)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 15 minutes of "yellow" glare with potential to cause temporary after-image.



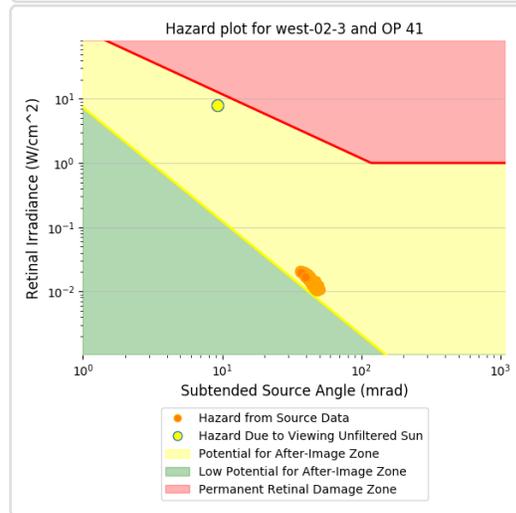
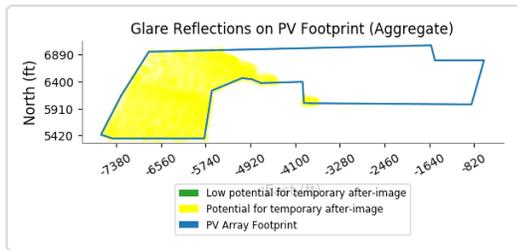
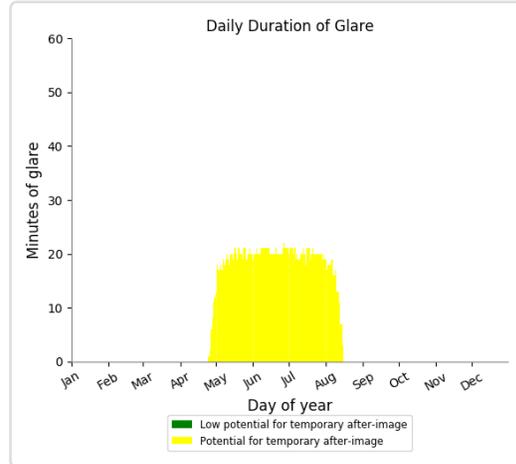
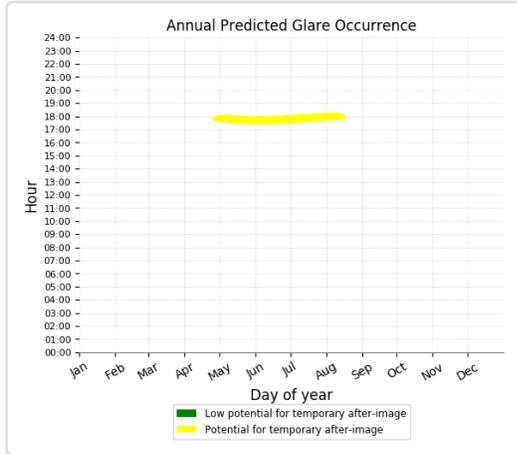
West 02-3 - OP Receptor (OP 40)

No glare found

West 02-3 - OP Receptor (OP 41)

PV array is expected to produce the following glare for receptors at this location:

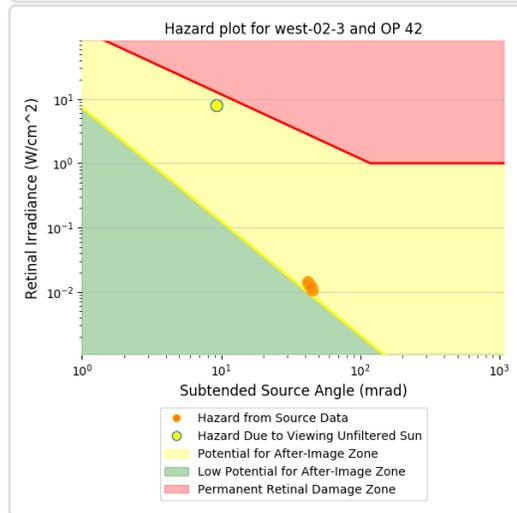
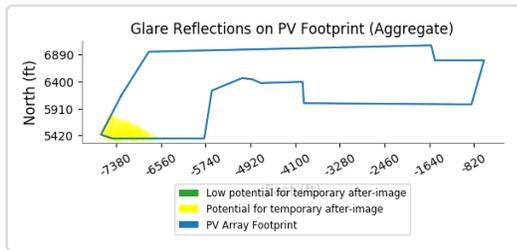
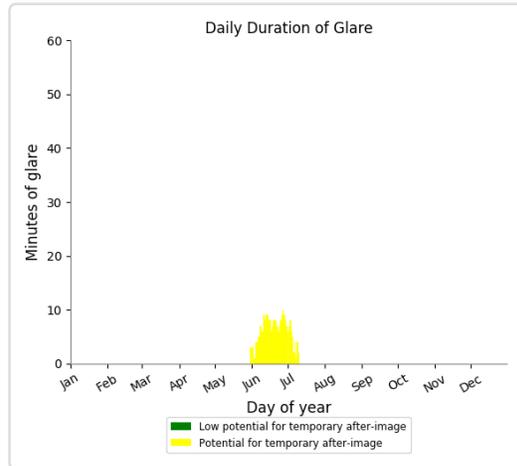
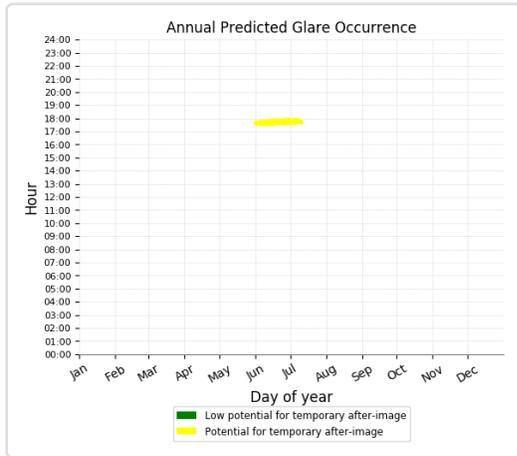
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,080 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 42)

PV array is expected to produce the following glare for receptors at this location:

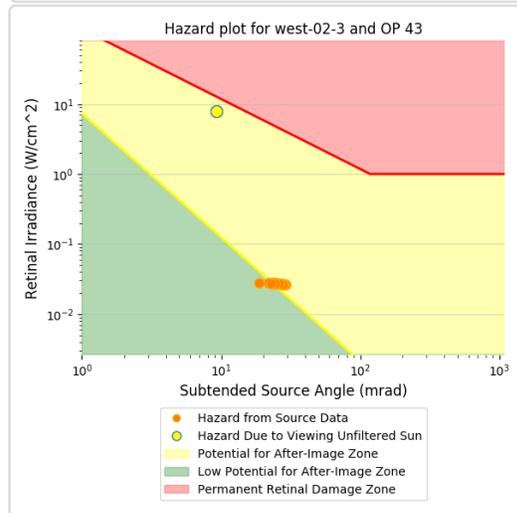
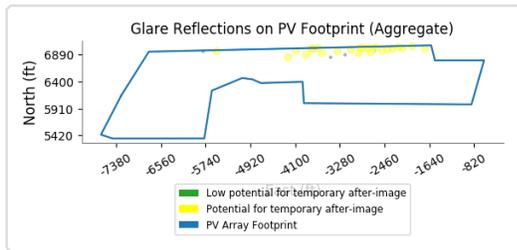
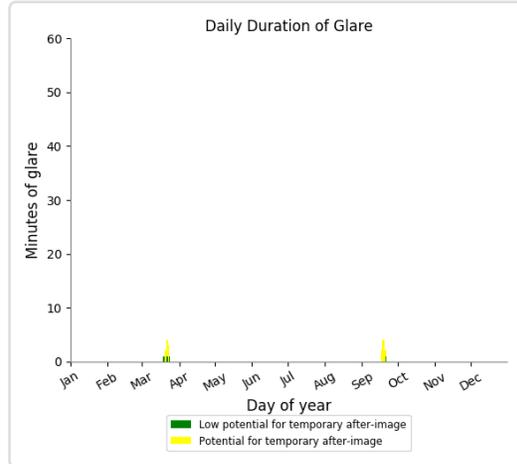
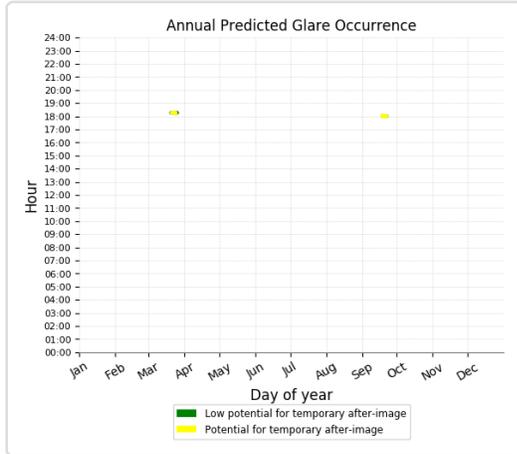
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 251 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 43)

PV array is expected to produce the following glare for receptors at this location:

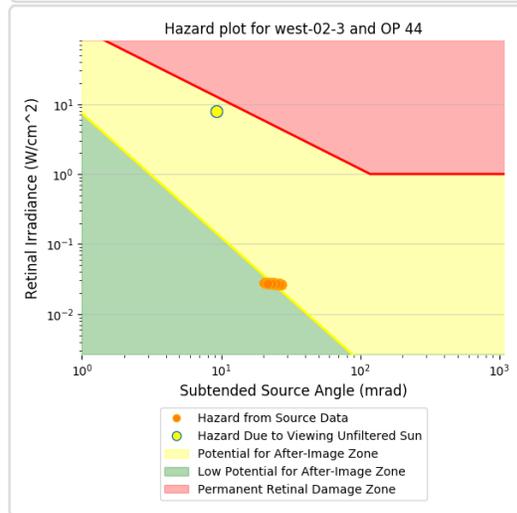
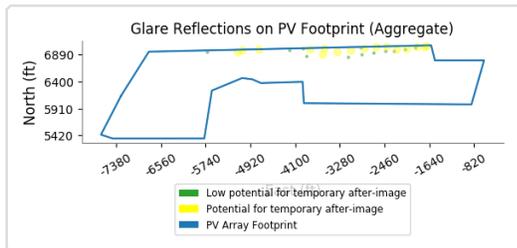
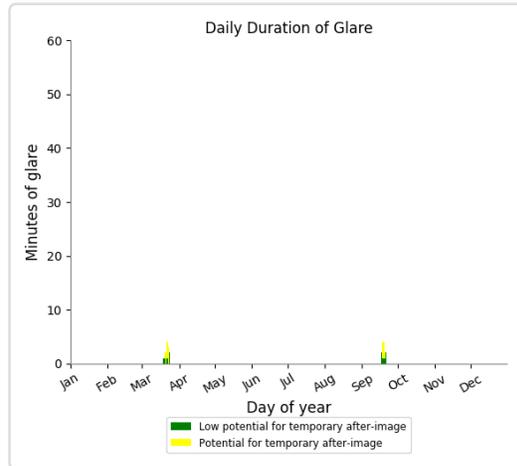
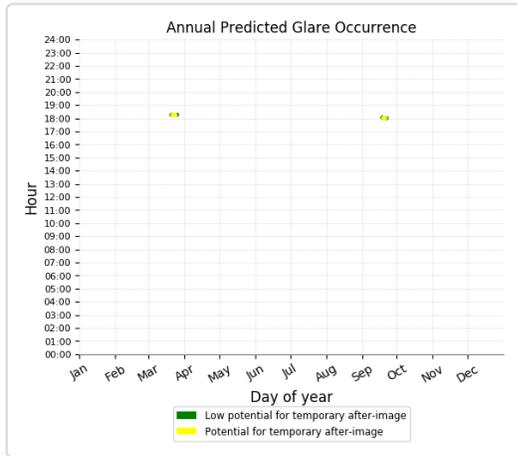
- 4 minutes of "green" glare with low potential to cause temporary after-image.
- 23 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 44)

PV array is expected to produce the following glare for receptors at this location:

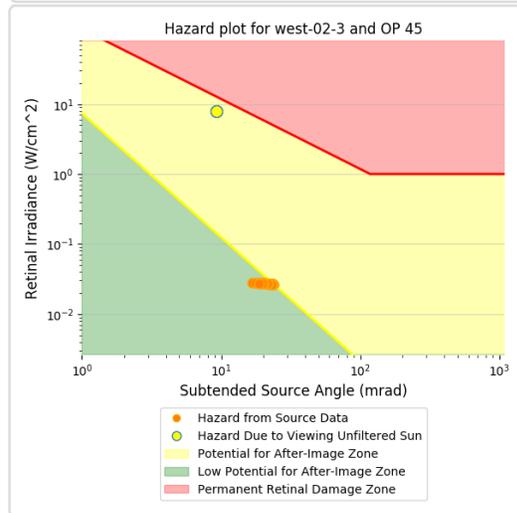
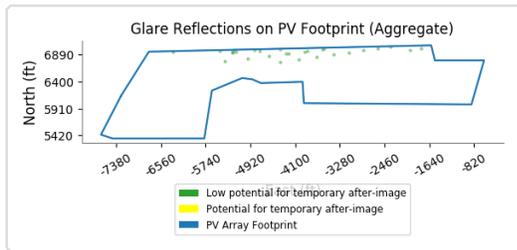
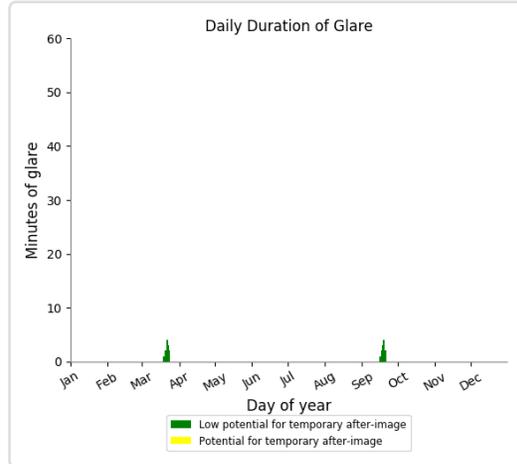
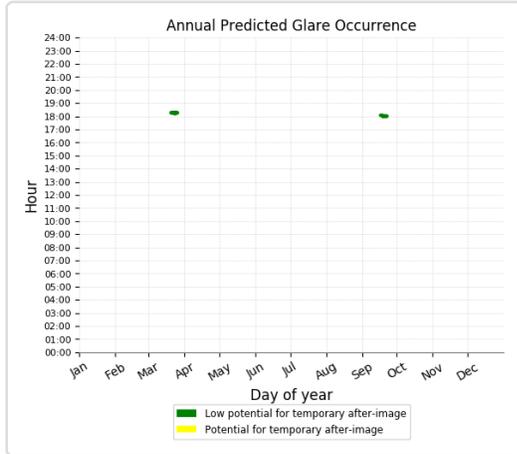
- 12 minutes of "green" glare with low potential to cause temporary after-image.
- 16 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 45)

PV array is expected to produce the following glare for receptors at this location:

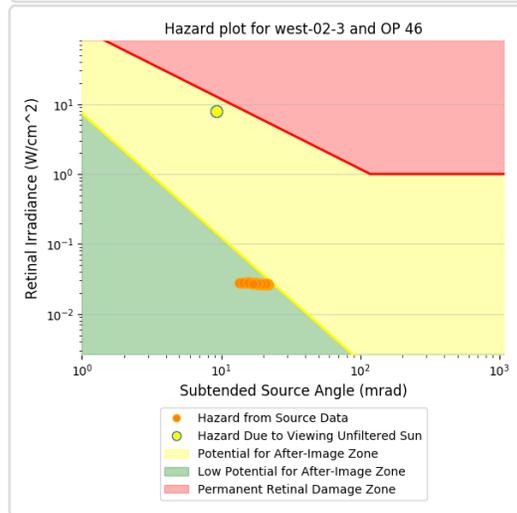
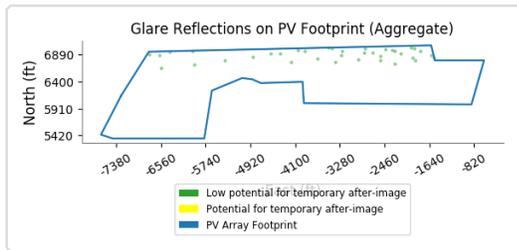
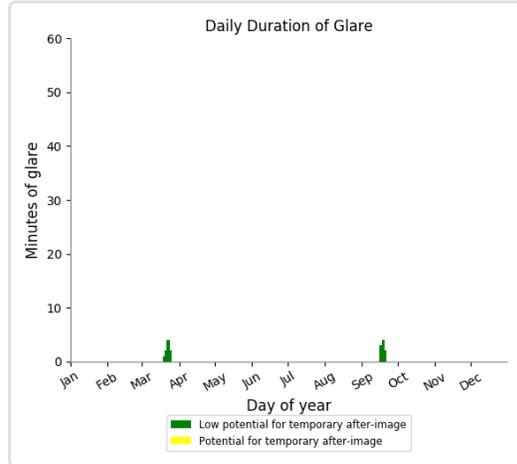
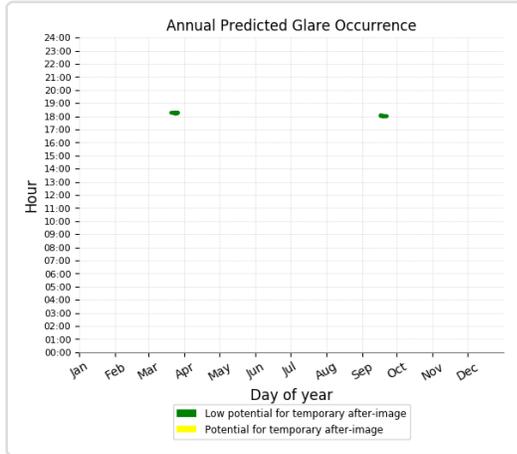
- 28 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.



West 02-3 - OP Receptor (OP 46)

PV array is expected to produce the following glare for receptors at this location:

- 37 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.



West 03-1 potential temporary after-image



Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	49	0
OP: OP 17	166	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	550
OP: OP 24	0	786
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	20	1321
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	30
OP: OP 46	162	99

West 03-1 - OP Receptor (OP 1)

No glare found

West 03-1 - OP Receptor (OP 2)

No glare found

West 03-1 - OP Receptor (OP 3)

No glare found

West 03-1 - OP Receptor (OP 4)

No glare found

West 03-1 - OP Receptor (OP 5)

No glare found

West 03-1 - OP Receptor (OP 6)

No glare found

West 03-1 - OP Receptor (OP 7)

No glare found

West 03-1 - OP Receptor (OP 8)

No glare found

West 03-1 - OP Receptor (OP 9)

No glare found

West 03-1 - OP Receptor (OP 10)

No glare found

West 03-1 - OP Receptor (OP 11)

No glare found

West 03-1 - OP Receptor (OP 12)

No glare found

West 03-1 - OP Receptor (OP 13)

No glare found

West 03-1 - OP Receptor (OP 14)

No glare found

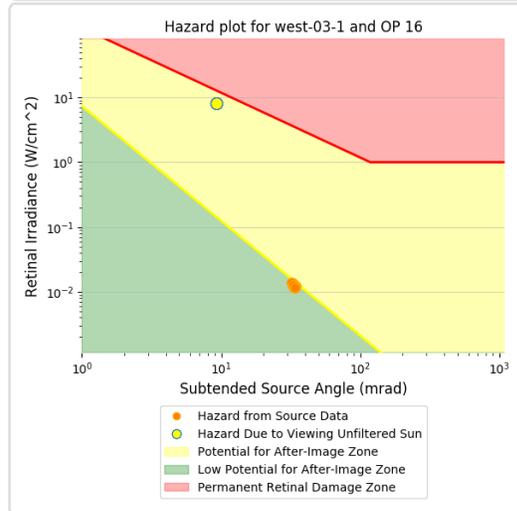
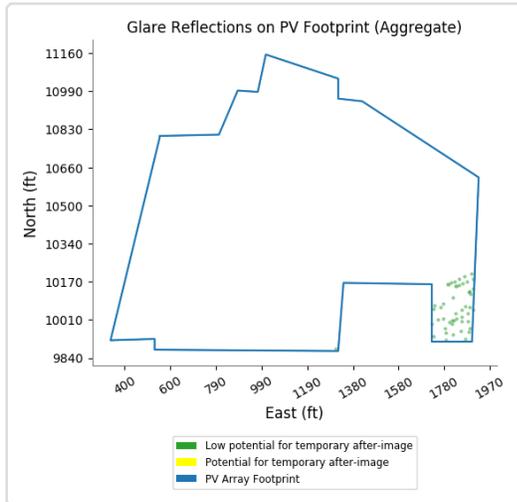
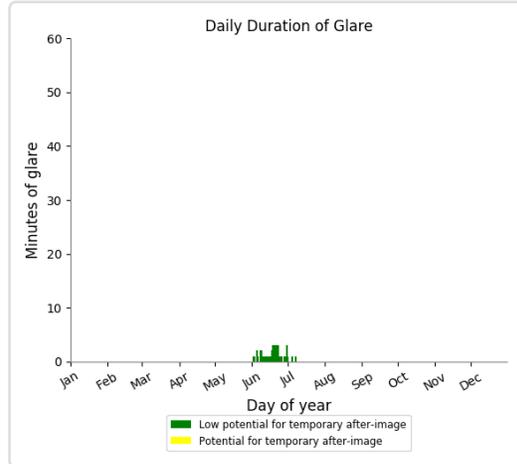
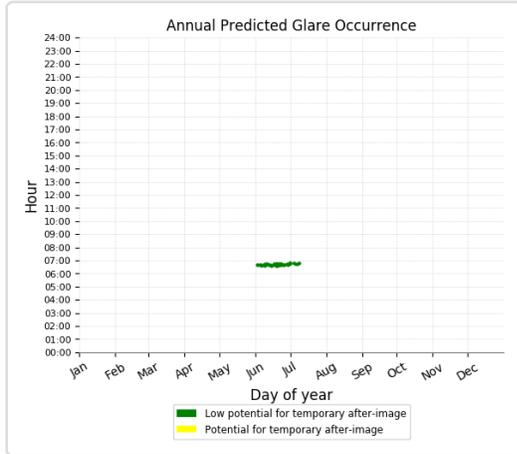
West 03-1 - OP Receptor (OP 15)

No glare found

West 03-1 - OP Receptor (OP 16)

PV array is expected to produce the following glare for receptors at this location:

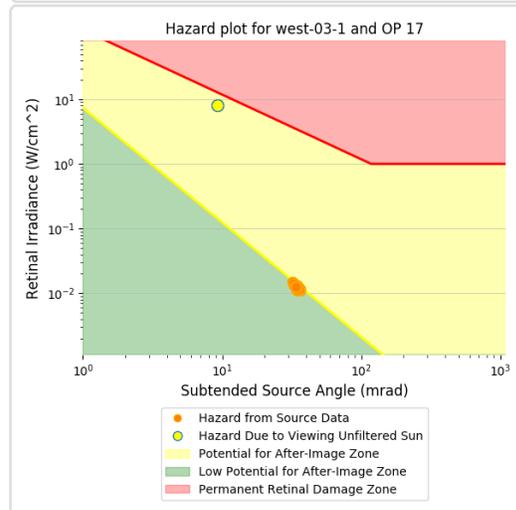
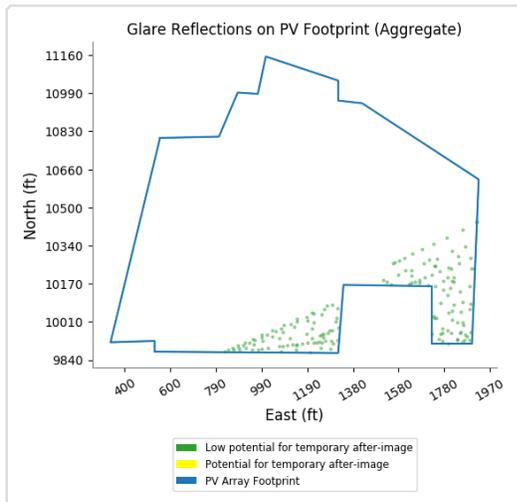
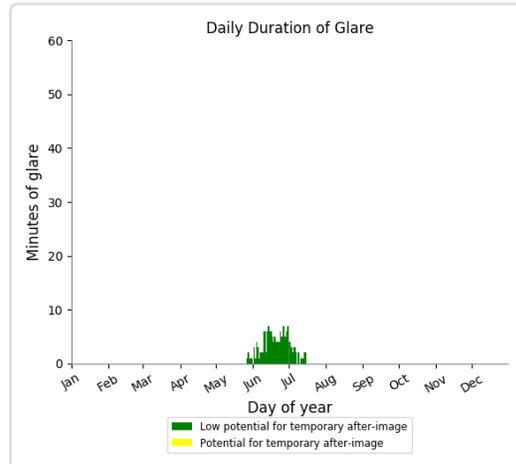
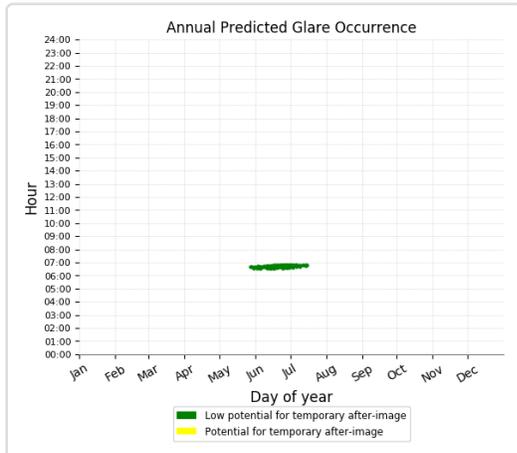
- 49 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.



West 03-1 - OP Receptor (OP 17)

PV array is expected to produce the following glare for receptors at this location:

- 166 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.



West 03-1 - OP Receptor (OP 18)

No glare found

West 03-1 - OP Receptor (OP 19)

No glare found

West 03-1 - OP Receptor (OP 20)

No glare found

West 03-1 - OP Receptor (OP 21)

No glare found

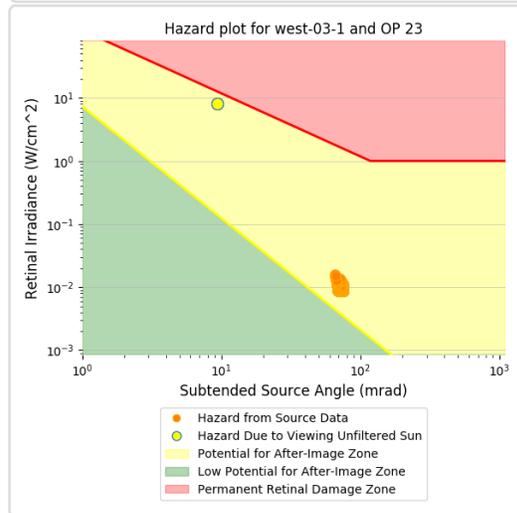
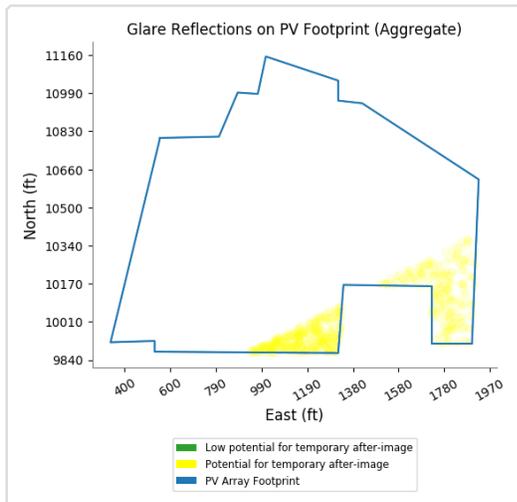
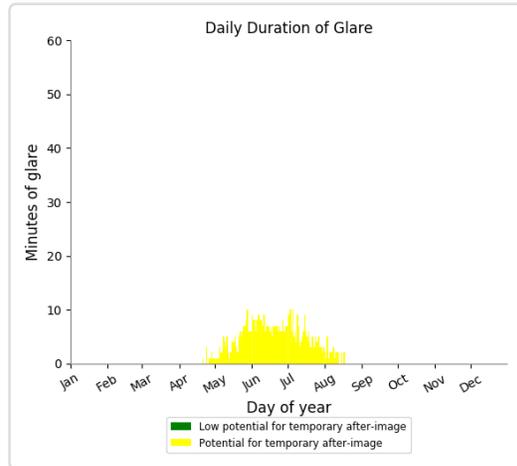
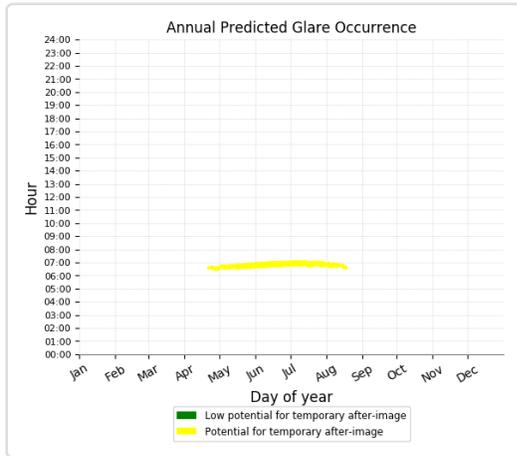
West 03-1 - OP Receptor (OP 22)

No glare found

West 03-1 - OP Receptor (OP 23)

PV array is expected to produce the following glare for receptors at this location:

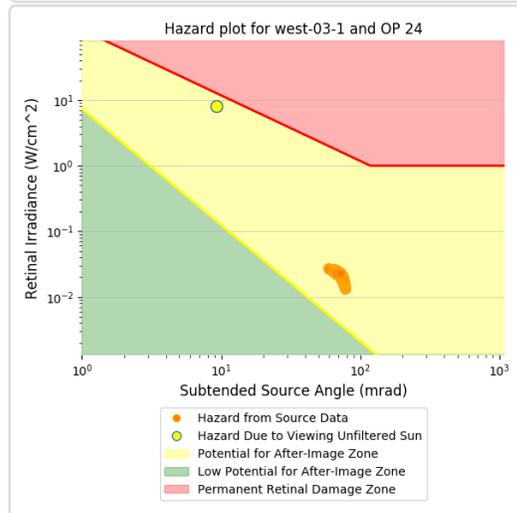
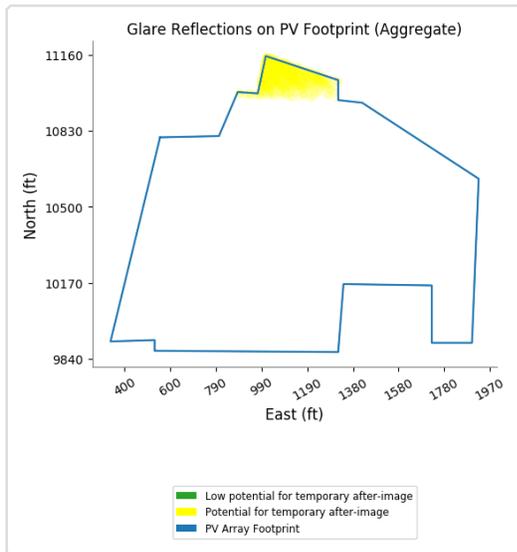
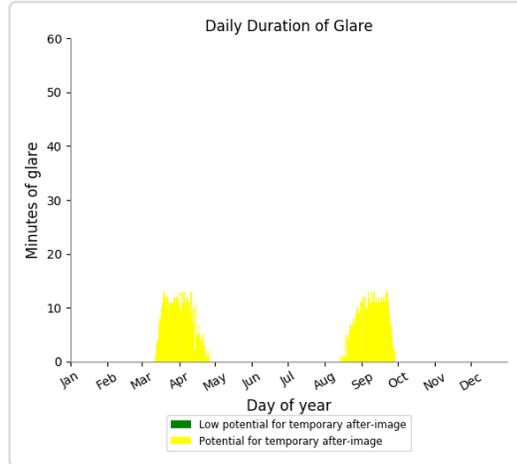
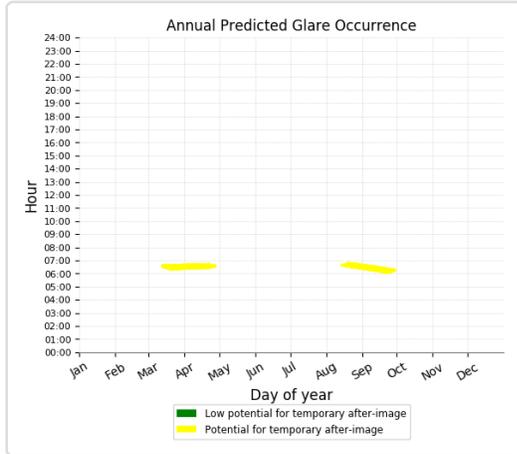
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 550 minutes of "yellow" glare with potential to cause temporary after-image.



West 03-1 - OP Receptor (OP 24)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 786 minutes of "yellow" glare with potential to cause temporary after-image.



West 03-1 - OP Receptor (OP 25)

No glare found

West 03-1 - OP Receptor (OP 26)

No glare found

West 03-1 - OP Receptor (OP 27)

No glare found

West 03-1 - OP Receptor (OP 28)

No glare found

West 03-1 - OP Receptor (OP 29)

No glare found

West 03-1 - OP Receptor (OP 30)

No glare found

West 03-1 - OP Receptor (OP 31)

No glare found

West 03-1 - OP Receptor (OP 32)

No glare found

West 03-1 - OP Receptor (OP 33)

No glare found

West 03-1 - OP Receptor (OP 34)

No glare found

West 03-1 - OP Receptor (OP 35)

No glare found

West 03-1 - OP Receptor (OP 36)

No glare found

West 03-1 - OP Receptor (OP 37)

No glare found

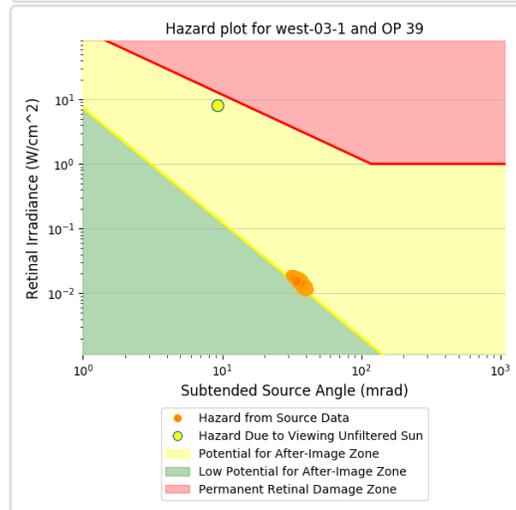
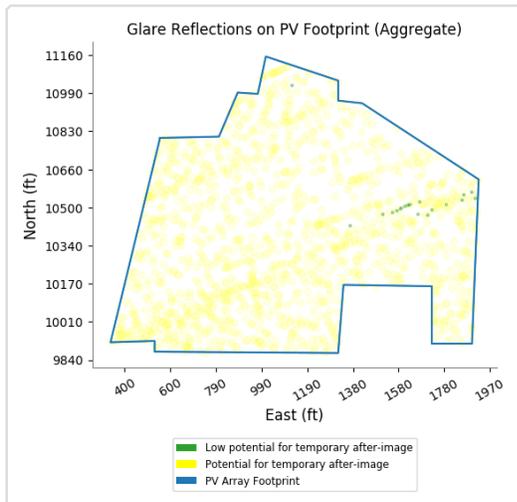
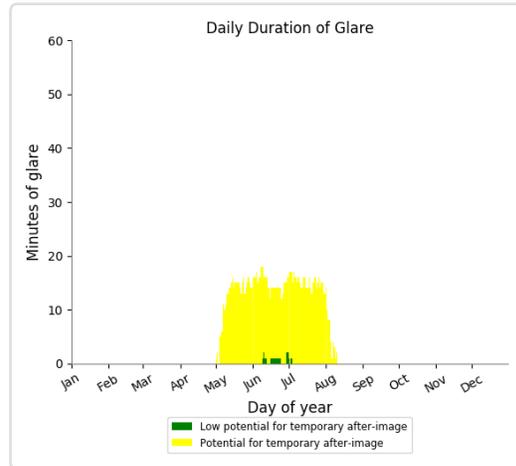
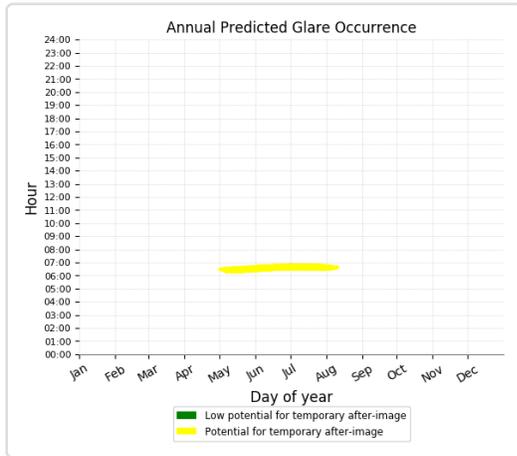
West 03-1 - OP Receptor (OP 38)

No glare found

West 03-1 - OP Receptor (OP 39)

PV array is expected to produce the following glare for receptors at this location:

- 20 minutes of "green" glare with low potential to cause temporary after-image.
- 1,321 minutes of "yellow" glare with potential to cause temporary after-image.



West 03-1 - OP Receptor (OP 40)

No glare found

West 03-1 - OP Receptor (OP 41)

No glare found

West 03-1 - OP Receptor (OP 42)

No glare found

West 03-1 - OP Receptor (OP 43)

No glare found

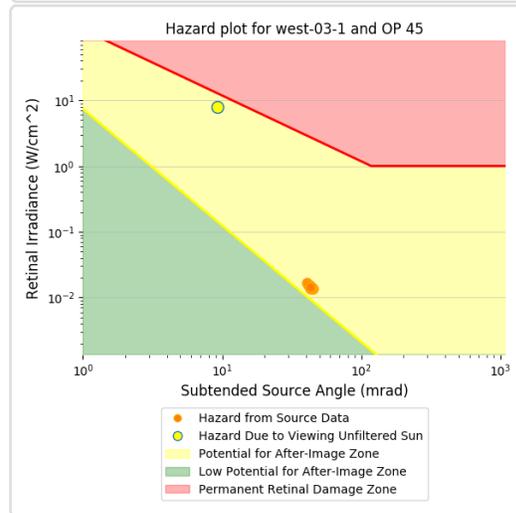
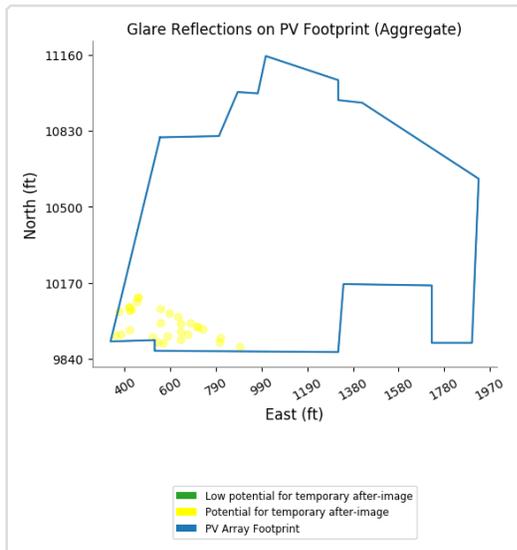
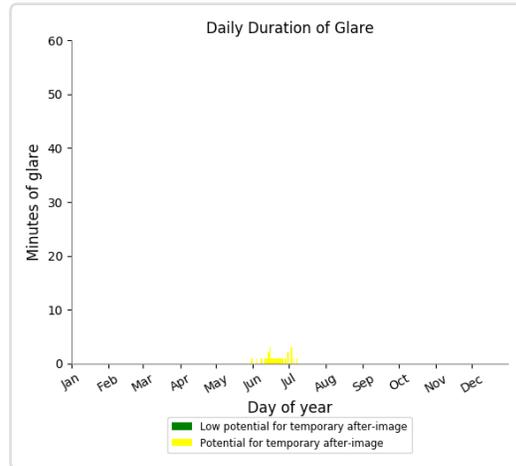
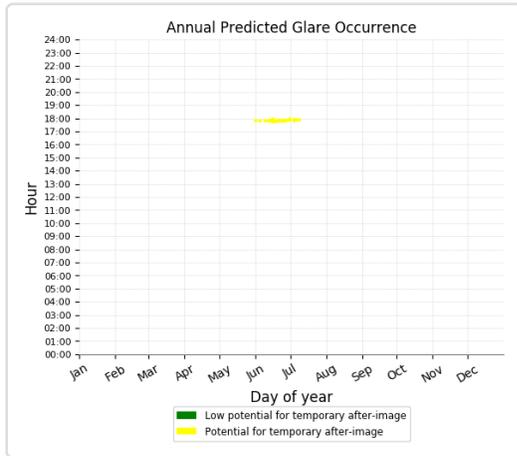
West 03-1 - OP Receptor (OP 44)

No glare found

West 03-1 - OP Receptor (OP 45)

PV array is expected to produce the following glare for receptors at this location:

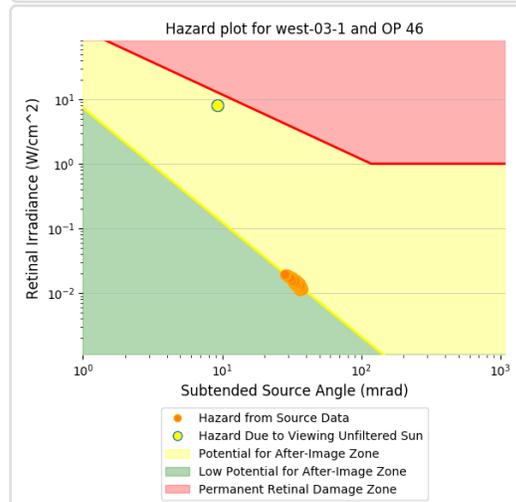
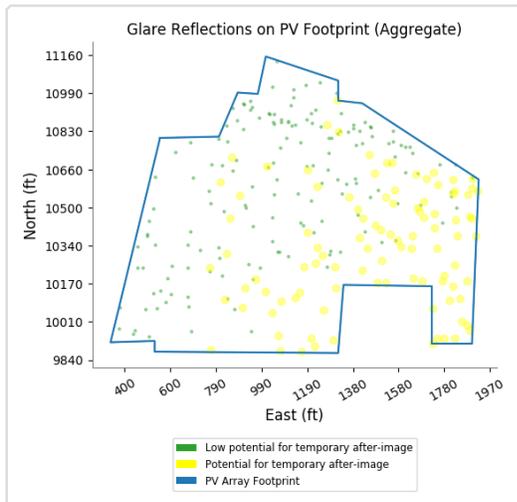
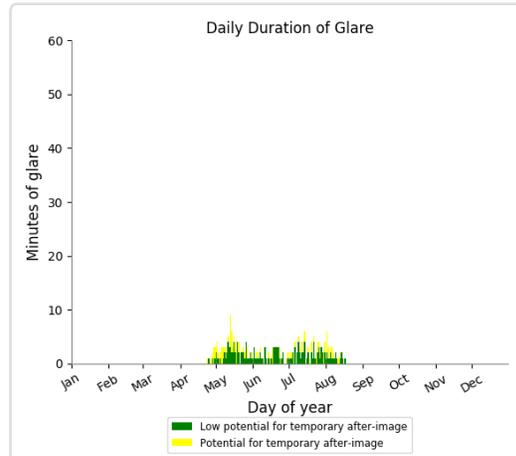
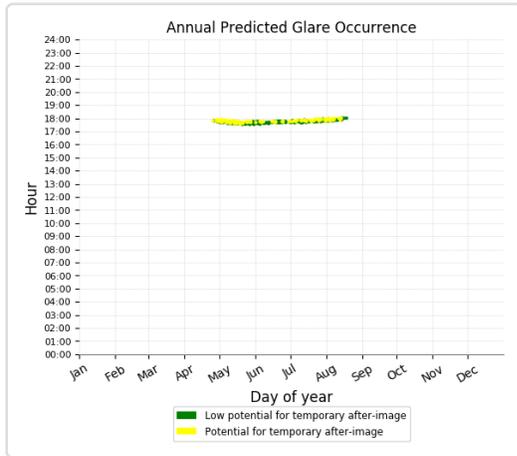
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 30 minutes of "yellow" glare with potential to cause temporary after-image.



West 03-1 - OP Receptor (OP 46)

PV array is expected to produce the following glare for receptors at this location:

- 162 minutes of "green" glare with low potential to cause temporary after-image.
- 99 minutes of "yellow" glare with potential to cause temporary after-image.



West 03-2 potential temporary after-image



Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	2096
OP: OP 25	0	2656
OP: OP 26	0	421
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	103	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	85	0

West 03-2 - OP Receptor (OP 1)

No glare found

West 03-2 - OP Receptor (OP 2)

No glare found

West 03-2 - OP Receptor (OP 3)

No glare found

West 03-2 - OP Receptor (OP 4)

No glare found

West 03-2 - OP Receptor (OP 5)

No glare found

West 03-2 - OP Receptor (OP 6)

No glare found

West 03-2 - OP Receptor (OP 7)

No glare found

West 03-2 - OP Receptor (OP 8)

No glare found

West 03-2 - OP Receptor (OP 9)

No glare found

West 03-2 - OP Receptor (OP 10)

No glare found

West 03-2 - OP Receptor (OP 11)

No glare found

West 03-2 - OP Receptor (OP 12)

No glare found

West 03-2 - OP Receptor (OP 13)

No glare found

West 03-2 - OP Receptor (OP 14)

No glare found

West 03-2 - OP Receptor (OP 15)

No glare found

West 03-2 - OP Receptor (OP 16)

No glare found

West 03-2 - OP Receptor (OP 17)

No glare found

West 03-2 - OP Receptor (OP 18)

No glare found

West 03-2 - OP Receptor (OP 19)

No glare found

West 03-2 - OP Receptor (OP 20)

No glare found

West 03-2 - OP Receptor (OP 21)

No glare found

West 03-2 - OP Receptor (OP 22)

No glare found

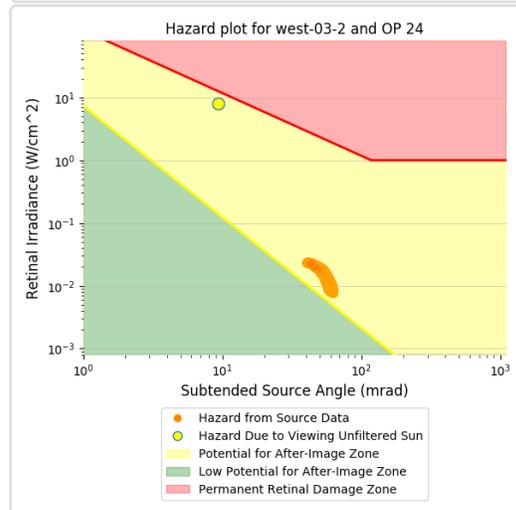
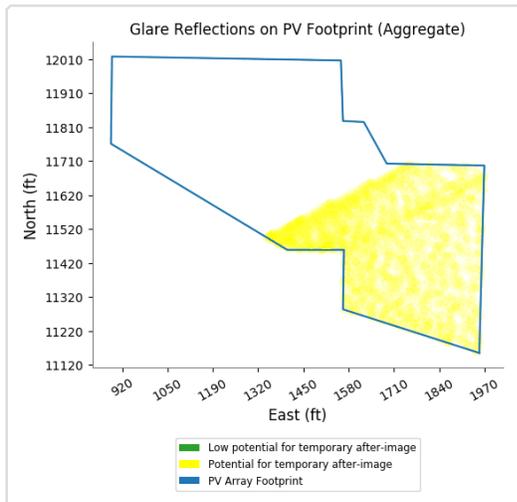
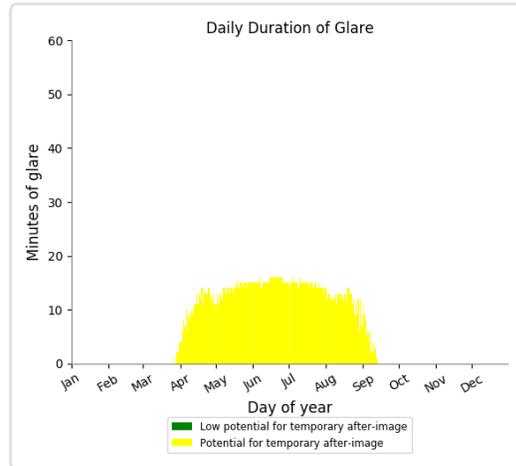
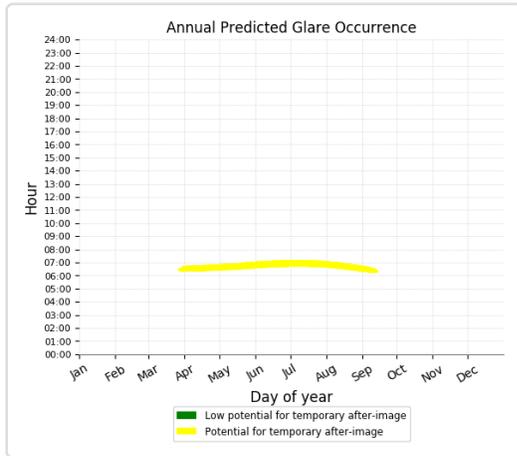
West 03-2 - OP Receptor (OP 23)

No glare found

West 03-2 - OP Receptor (OP 24)

PV array is expected to produce the following glare for receptors at this location:

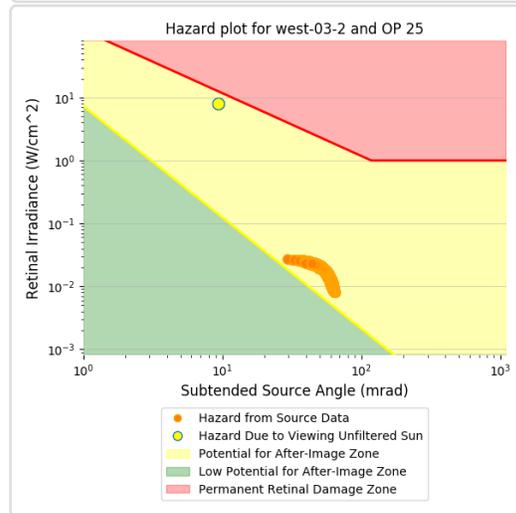
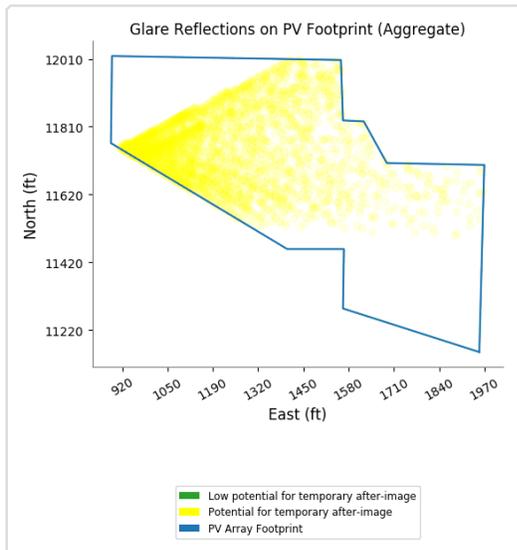
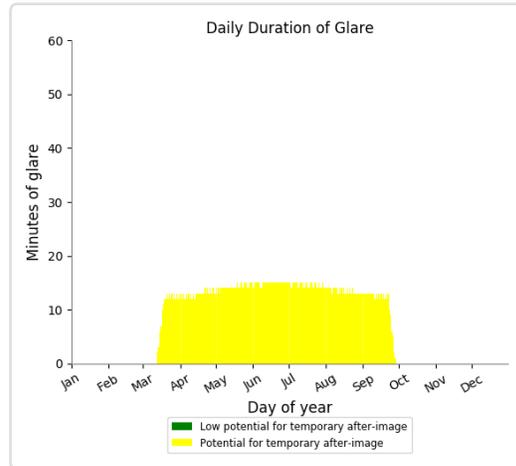
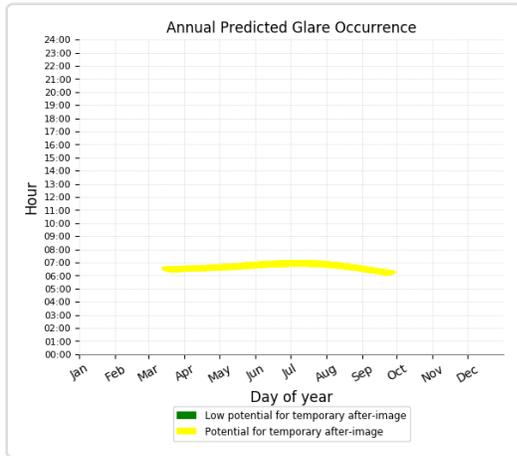
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,096 minutes of "yellow" glare with potential to cause temporary after-image.



West 03-2 - OP Receptor (OP 25)

PV array is expected to produce the following glare for receptors at this location:

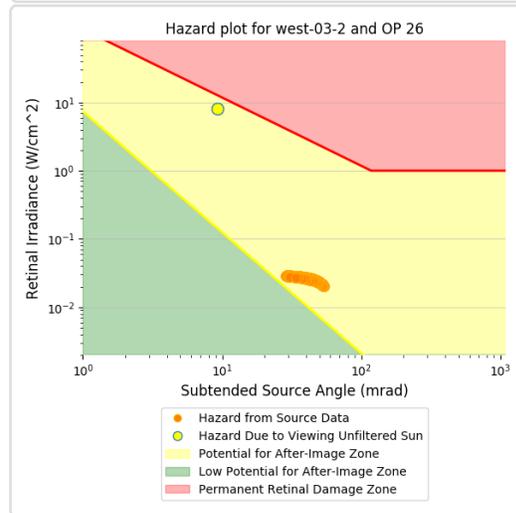
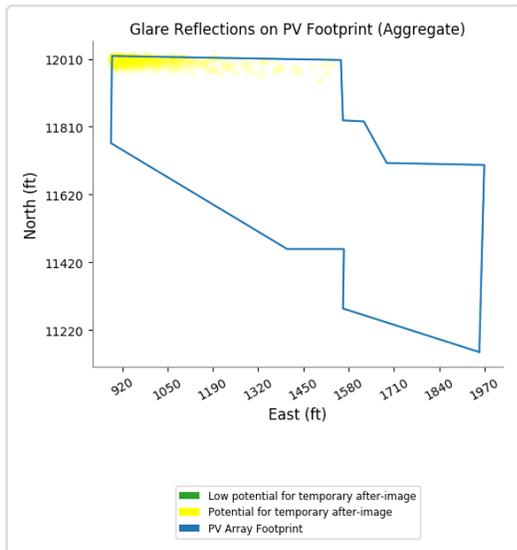
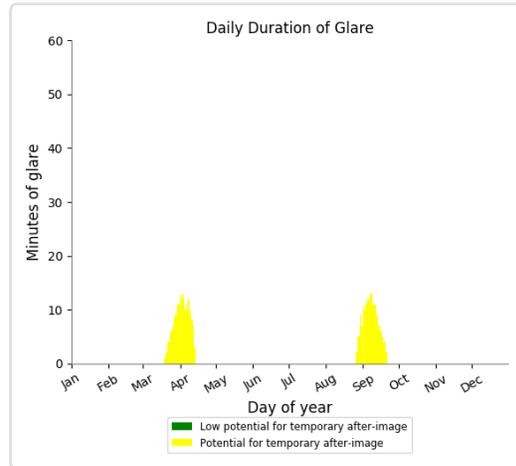
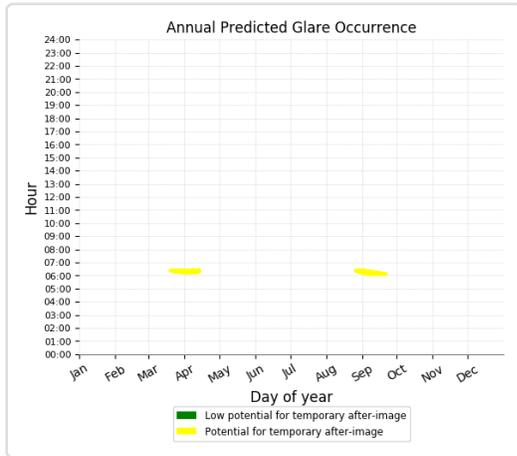
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,656 minutes of "yellow" glare with potential to cause temporary after-image.



West 03-2 - OP Receptor (OP 26)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 421 minutes of "yellow" glare with potential to cause temporary after-image.



West 03-2 - OP Receptor (OP 27)

No glare found

West 03-2 - OP Receptor (OP 28)

No glare found

West 03-2 - OP Receptor (OP 29)

No glare found

West 03-2 - OP Receptor (OP 30)

No glare found

West 03-2 - OP Receptor (OP 31)

No glare found

West 03-2 - OP Receptor (OP 32)

No glare found

West 03-2 - OP Receptor (OP 33)

No glare found

West 03-2 - OP Receptor (OP 34)

No glare found

West 03-2 - OP Receptor (OP 35)

No glare found

West 03-2 - OP Receptor (OP 36)

No glare found

West 03-2 - OP Receptor (OP 37)

No glare found

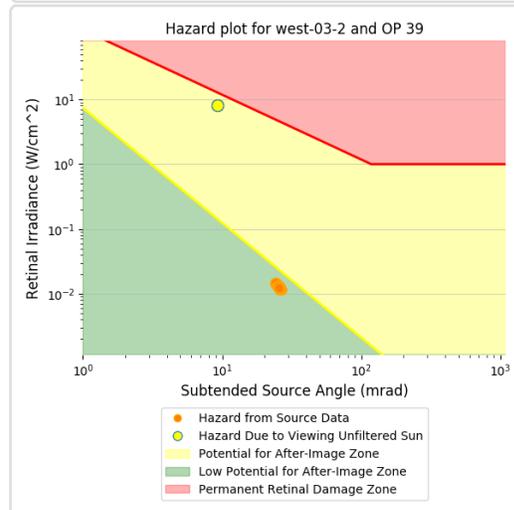
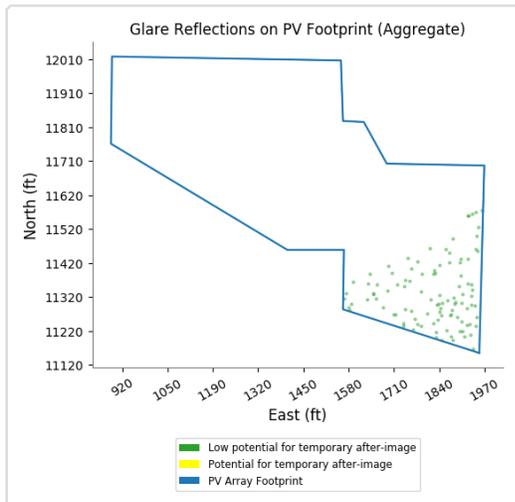
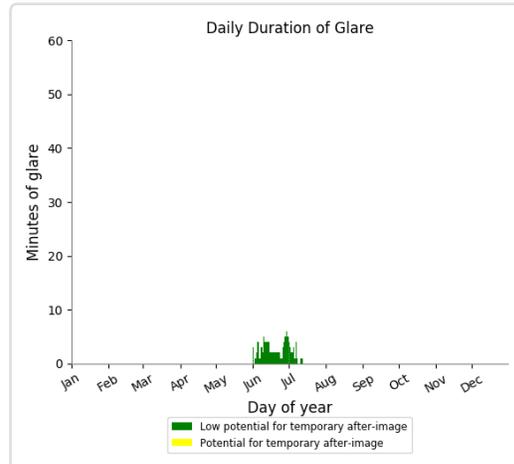
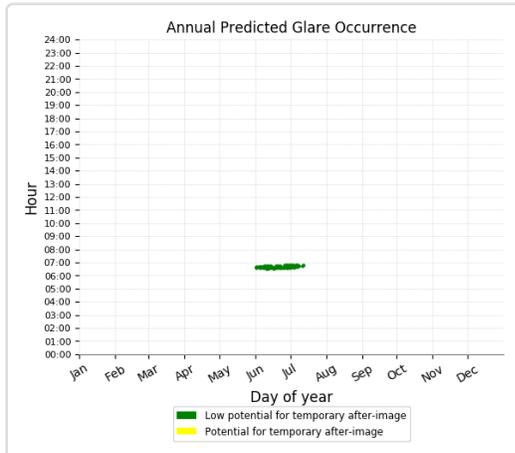
West 03-2 - OP Receptor (OP 38)

No glare found

West 03-2 - OP Receptor (OP 39)

PV array is expected to produce the following glare for receptors at this location:

- 103 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.



West 03-2 - OP Receptor (OP 40)

No glare found

West 03-2 - OP Receptor (OP 41)

No glare found

West 03-2 - OP Receptor (OP 42)

No glare found

West 03-2 - OP Receptor (OP 43)

No glare found

West 03-2 - OP Receptor (OP 44)

No glare found

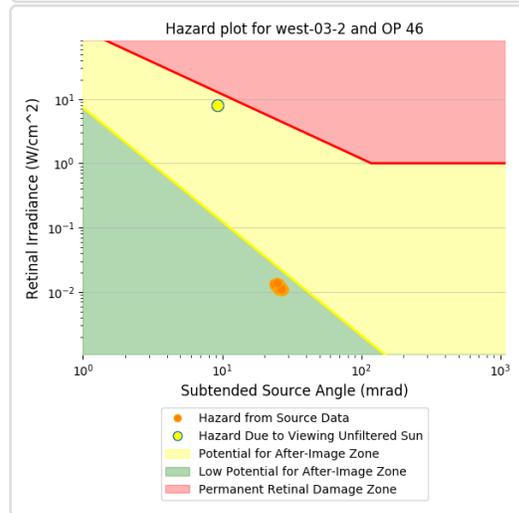
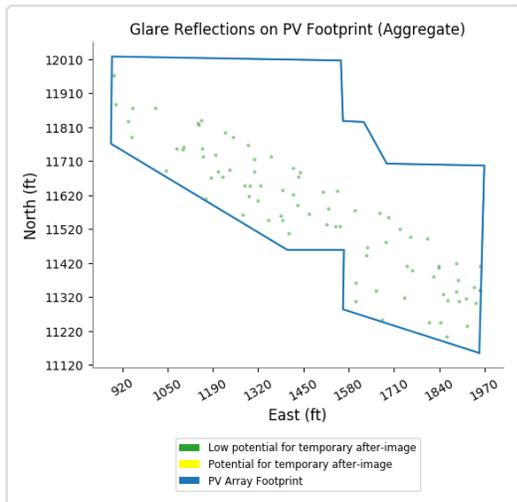
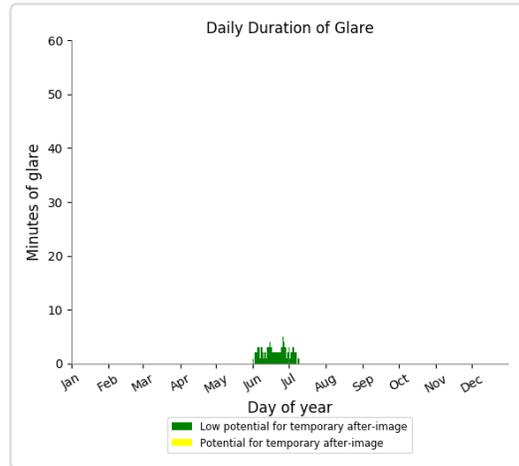
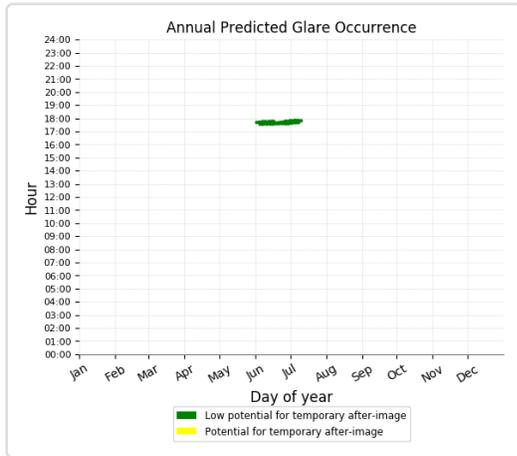
West 03-2 - OP Receptor (OP 45)

No glare found

West 03-2 - OP Receptor (OP 46)

PV array is expected to produce the following glare for receptors at this location:

- 85 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.





West 04 potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	1141
OP: OP 25	0	2390
OP: OP 26	0	456
OP: OP 27	0	232
OP: OP 28	0	17
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	21
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	119	0

West 04 - OP Receptor (OP 1)

No glare found

West 04 - OP Receptor (OP 2)

No glare found

West 04 - OP Receptor (OP 3)

No glare found

West 04 - OP Receptor (OP 4)

No glare found

West 04 - OP Receptor (OP 5)

No glare found

West 04 - OP Receptor (OP 6)

No glare found

West 04 - OP Receptor (OP 7)

No glare found

West 04 - OP Receptor (OP 8)

No glare found

West 04 - OP Receptor (OP 9)

No glare found

West 04 - OP Receptor (OP 10)

No glare found

West 04 - OP Receptor (OP 11)

No glare found

West 04 - OP Receptor (OP 12)

No glare found

West 04 - OP Receptor (OP 13)

No glare found

West 04 - OP Receptor (OP 14)

No glare found

West 04 - OP Receptor (OP 15)

No glare found

West 04 - OP Receptor (OP 16)

No glare found

West 04 - OP Receptor (OP 17)

No glare found

West 04 - OP Receptor (OP 18)

No glare found

West 04 - OP Receptor (OP 19)

No glare found

West 04 - OP Receptor (OP 20)

No glare found

West 04 - OP Receptor (OP 21)

No glare found

West 04 - OP Receptor (OP 22)

No glare found

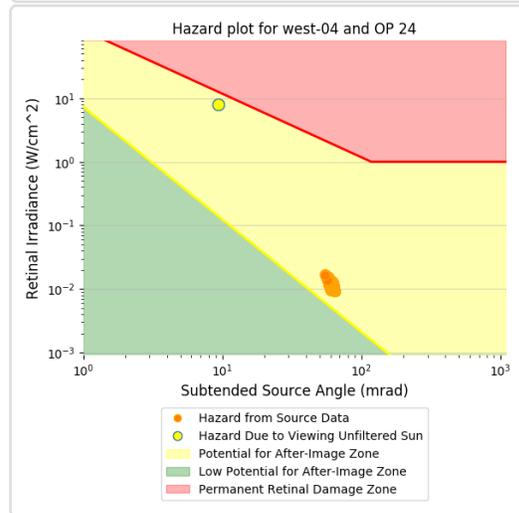
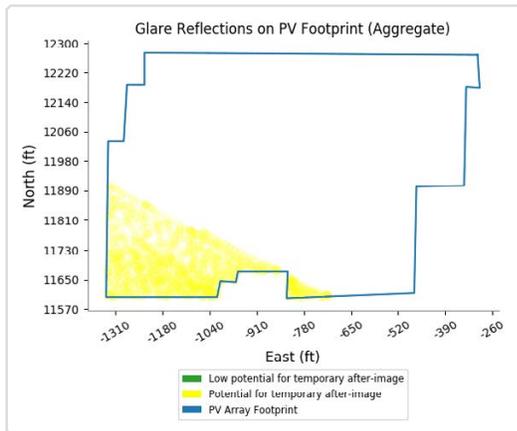
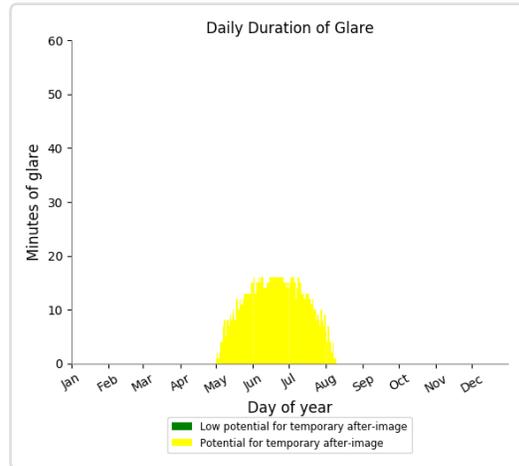
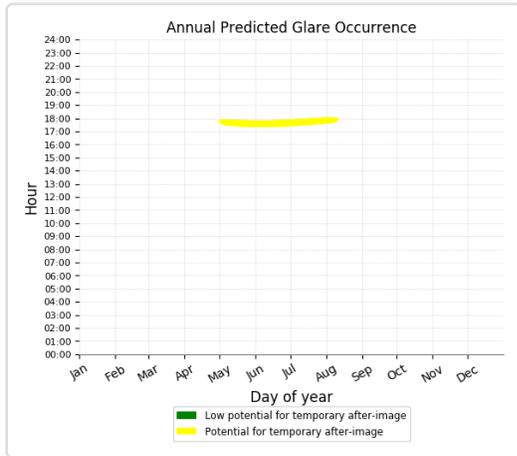
West 04 - OP Receptor (OP 23)

No glare found

West 04 - OP Receptor (OP 24)

PV array is expected to produce the following glare for receptors at this location:

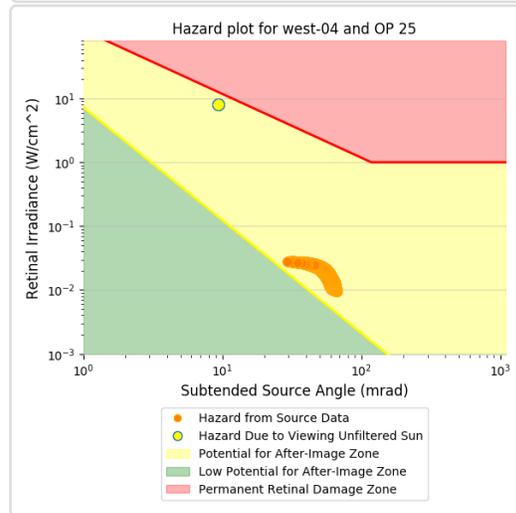
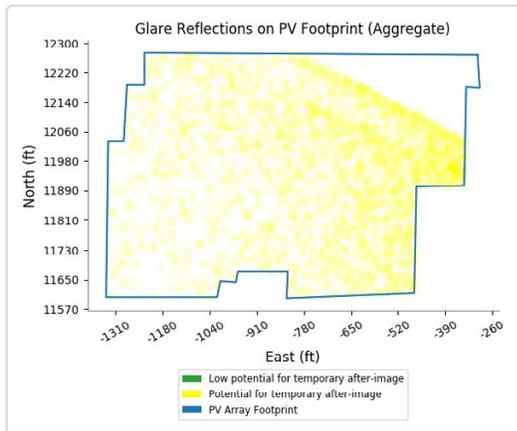
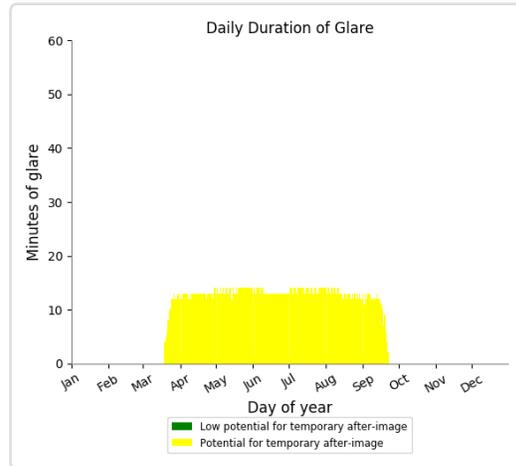
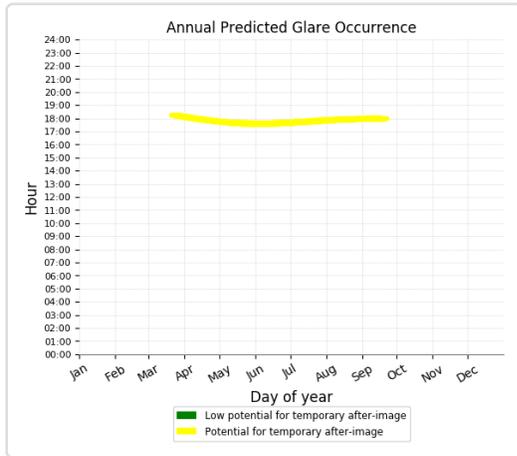
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,141 minutes of "yellow" glare with potential to cause temporary after-image.



West 04 - OP Receptor (OP 25)

PV array is expected to produce the following glare for receptors at this location:

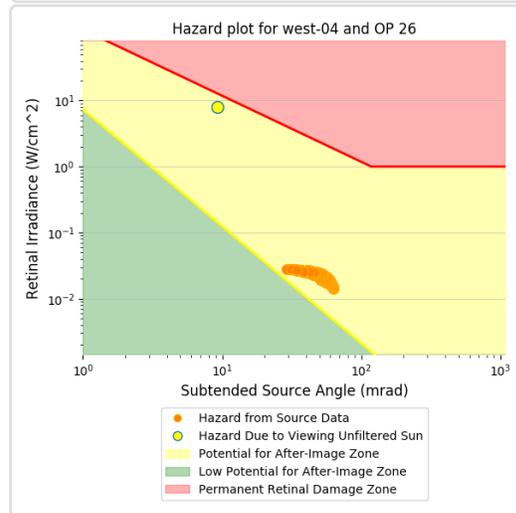
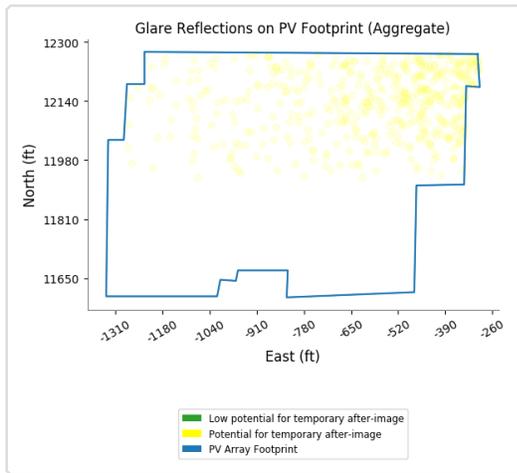
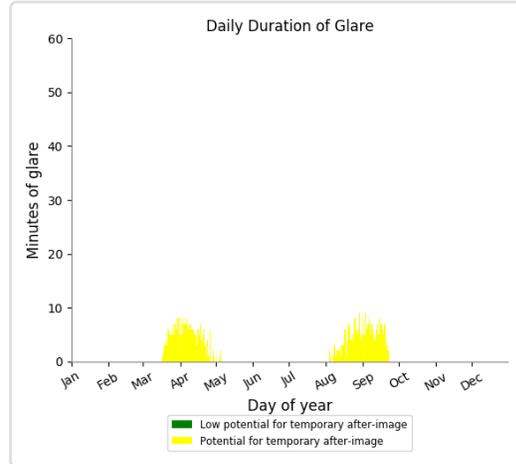
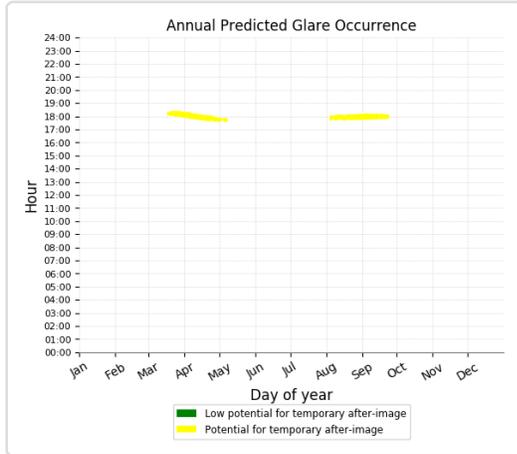
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,390 minutes of "yellow" glare with potential to cause temporary after-image.



West 04 - OP Receptor (OP 26)

PV array is expected to produce the following glare for receptors at this location:

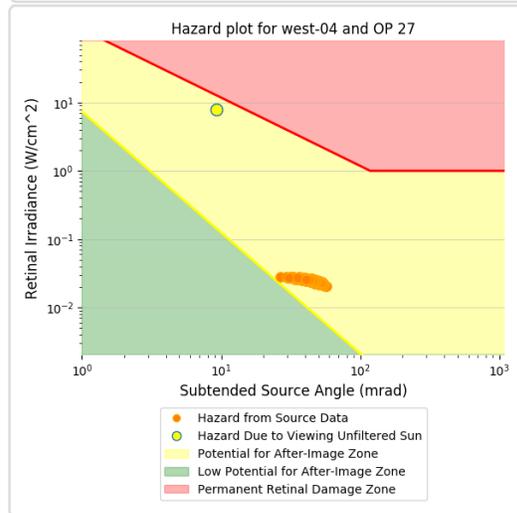
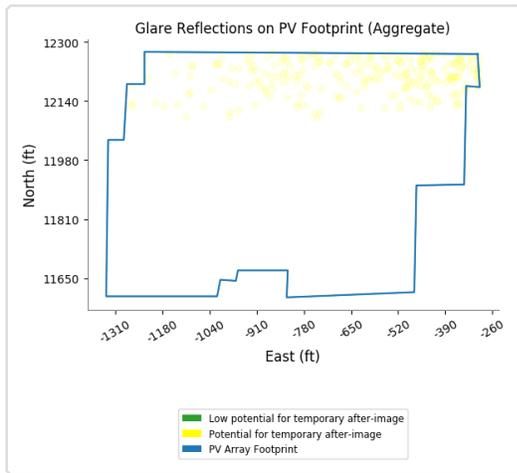
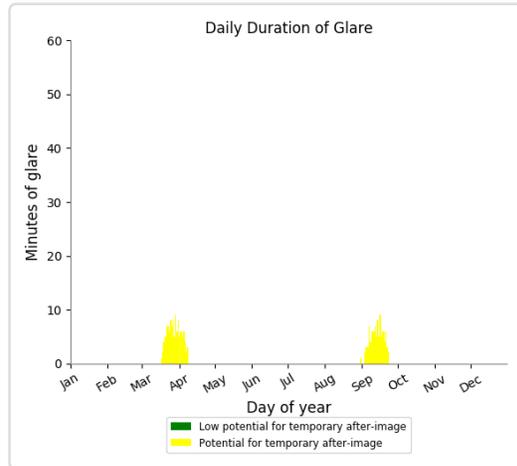
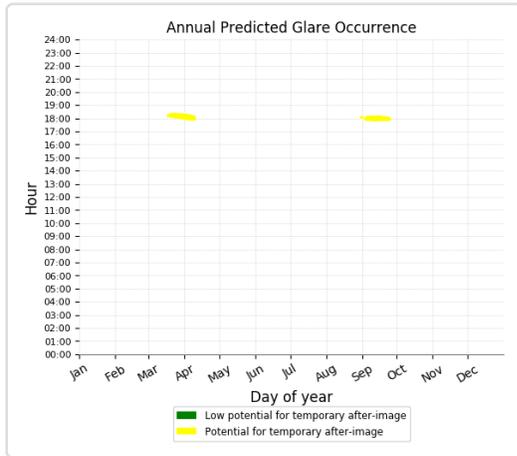
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 456 minutes of "yellow" glare with potential to cause temporary after-image.



West 04 - OP Receptor (OP 27)

PV array is expected to produce the following glare for receptors at this location:

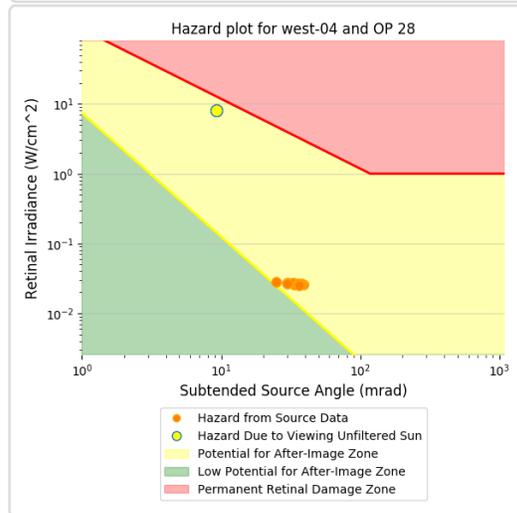
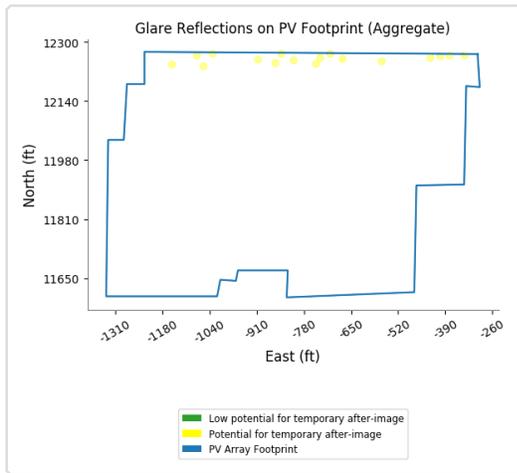
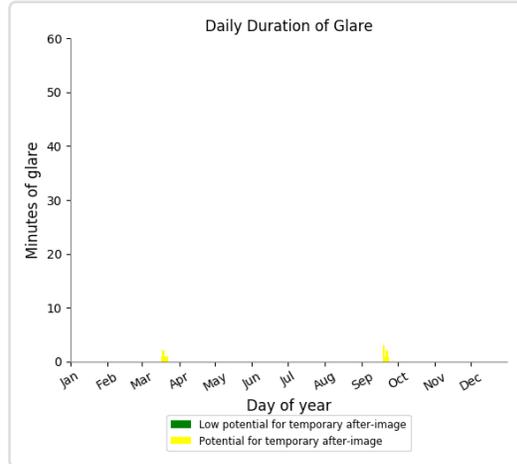
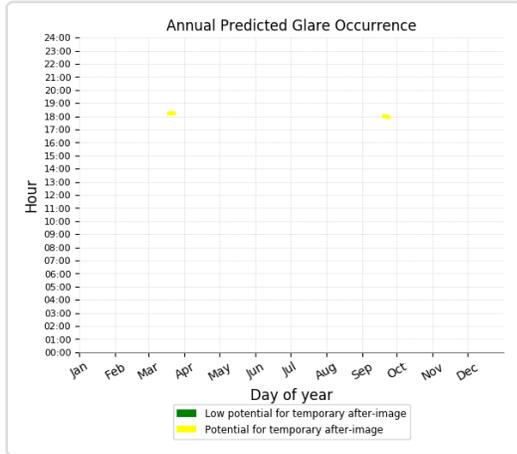
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 232 minutes of "yellow" glare with potential to cause temporary after-image.



West 04 - OP Receptor (OP 28)

PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 17 minutes of "yellow" glare with potential to cause temporary after-image.



West 04 - OP Receptor (OP 29)

No glare found

West 04 - OP Receptor (OP 30)

No glare found