APPENDIX B
RESULTS FOR SOUTHEAST-FACING PV ARRAYS

Glare Analysis Results

Summary of Results

Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy	Peak Luminance
	°	°	min	hr	min	hr	kWh	cd/m^2
PV array 10	10.0	103.0	65,003	1,083.4	0	0.0	-	18,268
PV array 8	10.0	103.0	67,349	1,122.5	0	0.0	-	30,076
PV array 9	10.0	103.0	66,135	1,102.2	0	0.0	-	27,985

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

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
1000Ft-GA_5L23R_05L-L_23R-R	11,786	196.4	0	0.0
1000Ft-GA_5L23R_05L-R_23R-L	42,709	711.8	0	0.0
1000Ft-GA_5R23L_05R-L_23L-R	0	0.0	0	0.0
1000Ft-GA_5R23L_05R-R_23L-L	23,437	390.6	0	0.0
1500Ft-CA_5L23R_05L-L_23R-R	17,863	297.7	0	0.0
1500Ft-CA_5L23R_05L-R_23R-L	33,342	555.7	0	0.0
Approach_05L	0	0.0	0	0.0
Approach_05R	0	0.0	0	0.0
Approach_23L	18,328	305.5	0	0.0
Approach_23R	19,535	325.6	0	0.0
1-ATCT	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	2,124	35.4	0	0.0
OP 6	1,986	33.1	0	0.0
OP 7	1,445	24.1	0	0.0
OP 8	0	0.0	0	0.0
OP 9	1,619	27.0	0	0.0

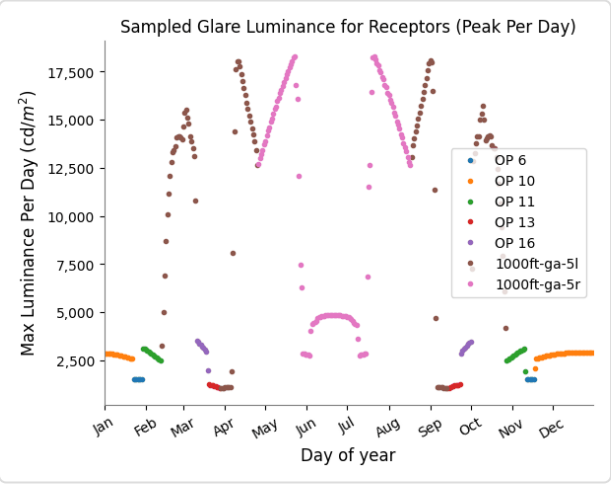
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 10	4,451	74.2	0	0.0
OP 11	1,972	32.9	0	0.0
OP 12	1,409	23.5	0	0.0
OP 13	1,323	22.1	0	0.0
OP 14	0	0.0	0	0.0
OP 15	1,283	21.4	0	0.0
OP 16	1,596	26.6	0	0.0
OP 17	2,099	35.0	0	0.0
OP 18	2,309	38.5	0	0.0
OP 19	2,132	35.5	0	0.0
OP 20	0	0.0	0	0.0
OP 21	1,572	26.2	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	49	0.8	0	0.0
OP 27	2,408	40.1	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	1,710	28.5	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV: PV array 10 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare		Peak Luminance
	min	hr	min	hr	cd/m^2
1000Ft-GA_5L23R_05L-L_23R-R	3,938	65.6	0	0.0	2,750
1000Ft-GA_5L23R_05L-R_23R-L	14,133	235.6	0	0.0	18,079
1000Ft-GA_5R23L_05R-R_23L-L	7,236	120.6	0	0.0	18,268
1500Ft-CA_5L23R_05L-L_23R-R	5,984	99.7	0	0.0	2,730
1500Ft-CA_5L23R_05L-R_23R-L	11,022	183.7	0	0.0	2,730
Approach_23L	6,092	101.5	0	0.0	1,632
Approach_23R	6,521	108.7	0	0.0	2,735
1000Ft-GA_5R23L_05R-L_23L-R	0	0.0	0	0.0	0
Approach_05L	0	0.0	0	0.0	0
Approach_05R	0	0.0	0	0.0	0
OP 5	608	10.1	0	0.0	1,819
OP 6	655	10.9	0	0.0	1,538
OP 7	473	7.9	0	0.0	1,038
OP 9	474	7.9	0	0.0	1,390
OP 10	1,419	23.6	0	0.0	2,906
OP 11	667	11.1	0	0.0	3,104
OP 12	455	7.6	0	0.0	1,977
OP 13	426	7.1	0	0.0	1,248
OP 15	392	6.5	0	0.0	2,010
OP 16	503	8.4	0	0.0	3,685
OP 17	593	9.9	0	0.0	6,680
OP 18	698	11.6	0	0.0	2,469
OP 19	674	11.2	0	0.0	1,249
OP 21	499	8.3	0	0.0	2,106
OP 27	952	15.9	0	0.0	1,547
OP 32	589	9.8	0	0.0	599

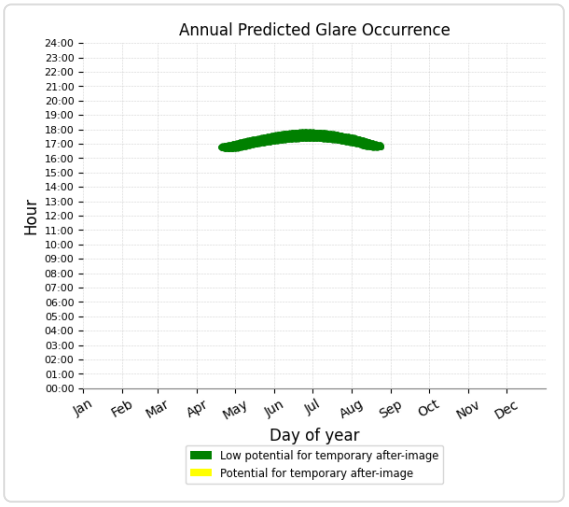
Receptor	Annual Green Glare		Annual Yellow Glare		Peak Luminance
	min	hr	min	hr	cd/m^2
1-ATCT	0	0.0	0	0.0	0
OP 2	0	0.0	0	0.0	0
OP 3	0	0.0	0	0.0	0
OP 4	0	0.0	0	0.0	0
OP 8	0	0.0	0	0.0	0
OP 14	0	0.0	0	0.0	0
OP 20	0	0.0	0	0.0	0
OP 22	0	0.0	0	0.0	0
OP 23	0	0.0	0	0.0	0
OP 24	0	0.0	0	0.0	0
OP 25	0	0.0	0	0.0	0
OP 26	0	0.0	0	0.0	0
OP 28	0	0.0	0	0.0	0
OP 29	0	0.0	0	0.0	0
OP 30	0	0.0	0	0.0	0
OP 31	0	0.0	0	0.0	0
OP 33	0	0.0	0	0.0	0
OP 34	0	0.0	0	0.0	0
OP 35	0	0.0	0	0.0	0
OP 36	0	0.0	0	0.0	0
OP 37	0	0.0	0	0.0	0
OP 38	0	0.0	0	0.0	0
OP 39	0	0.0	0	0.0	0
OP 40	0	0.0	0	0.0	0

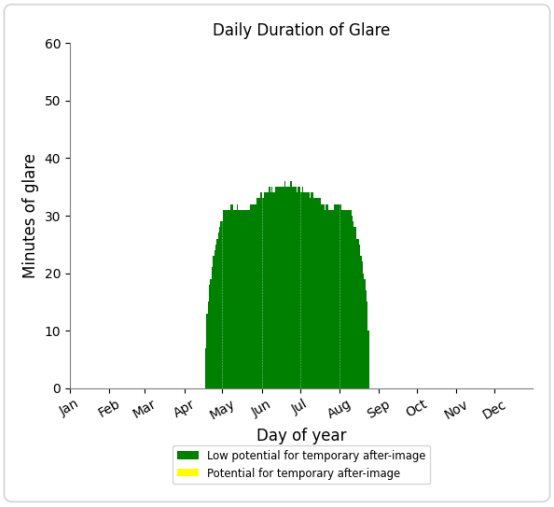


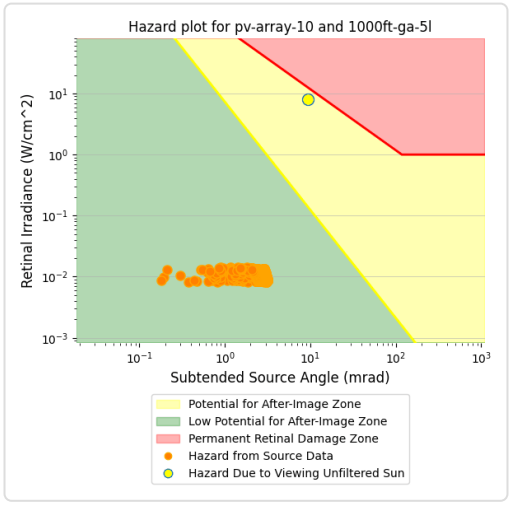
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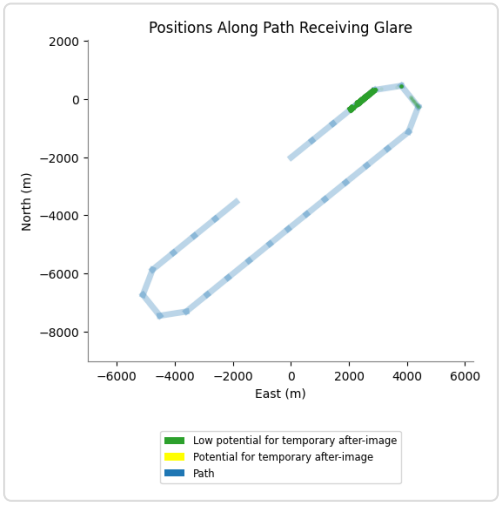
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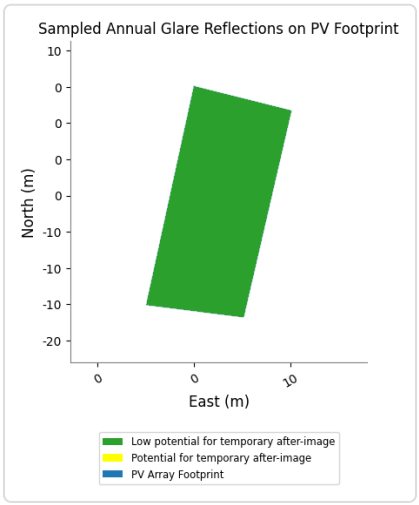
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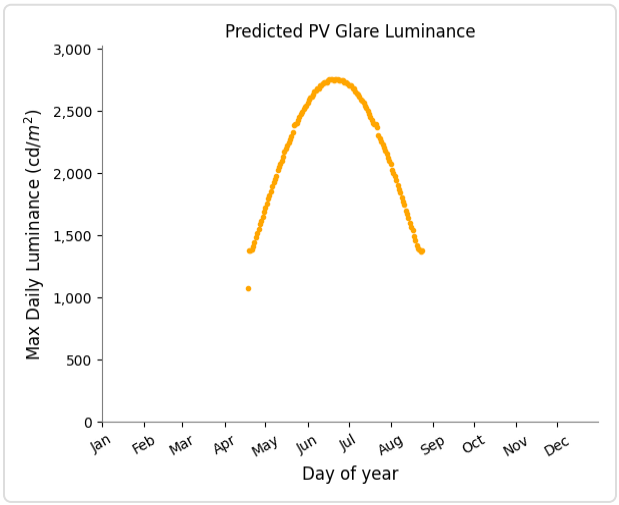








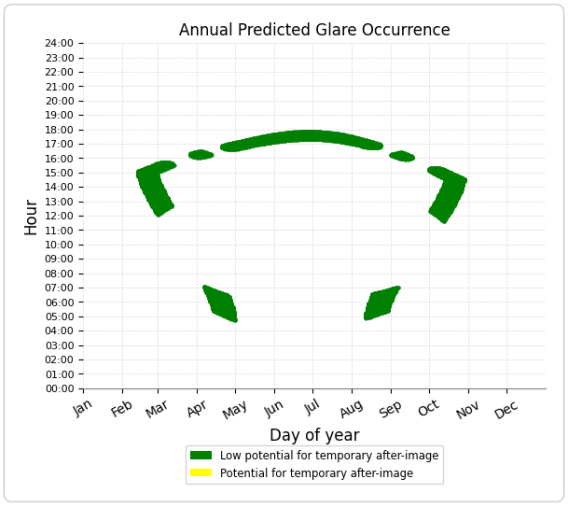


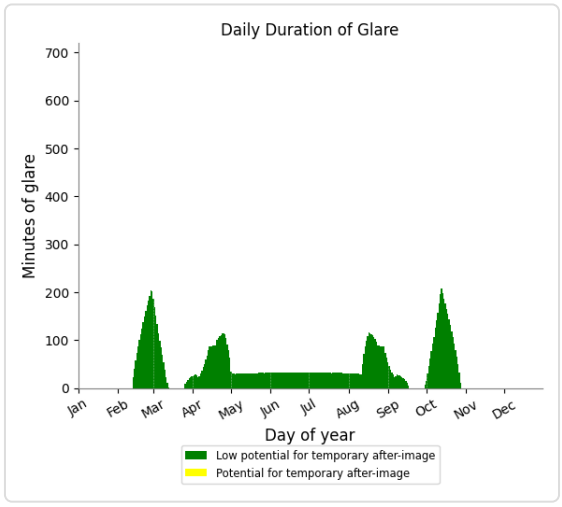


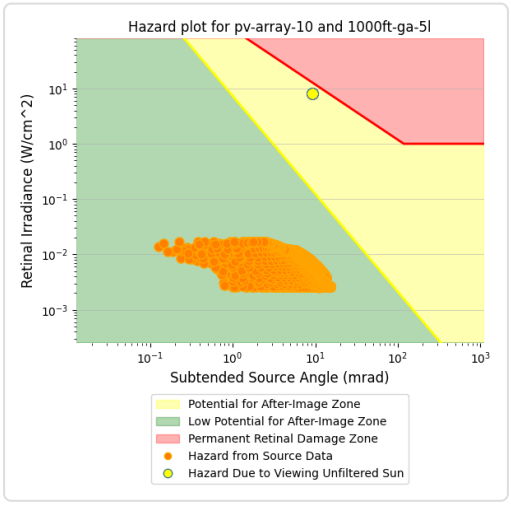
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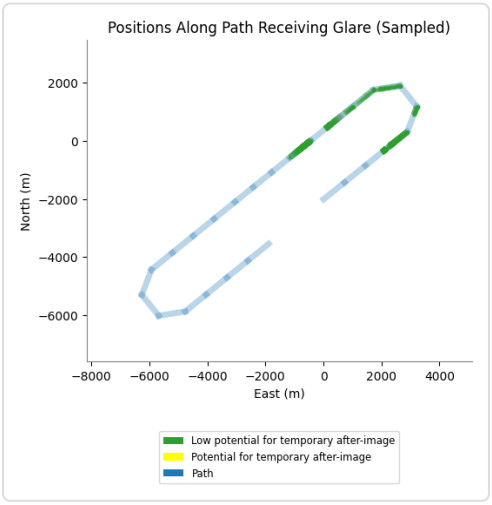
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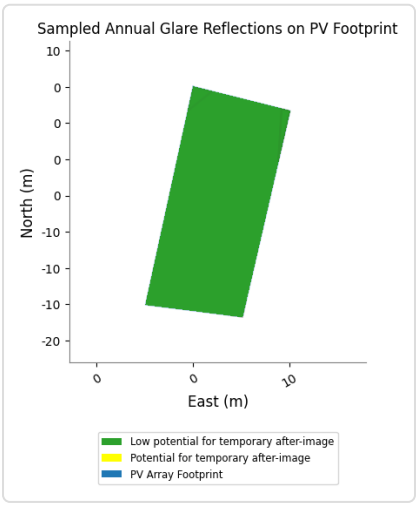
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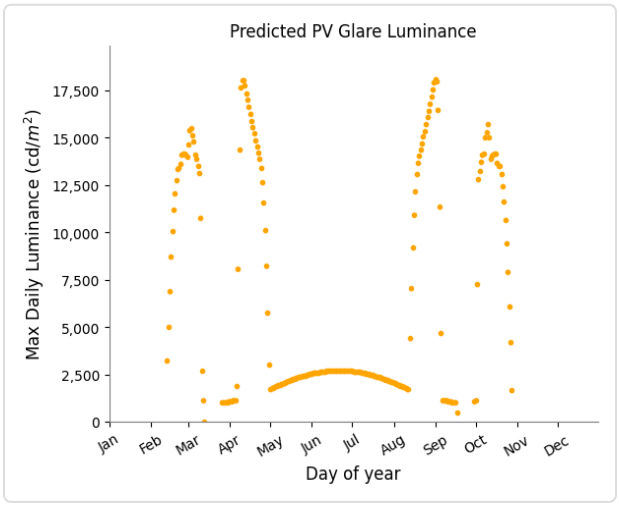








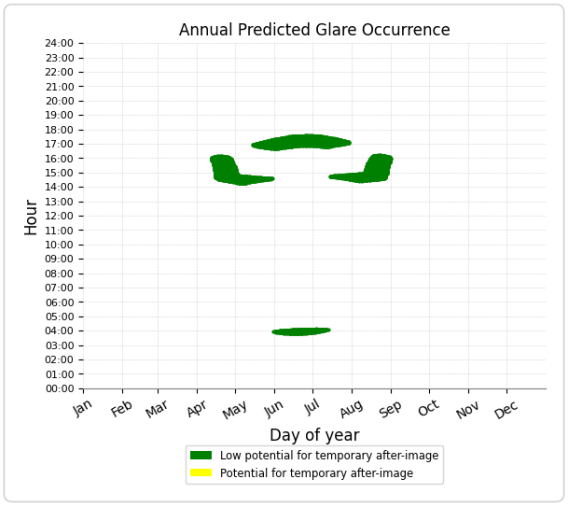


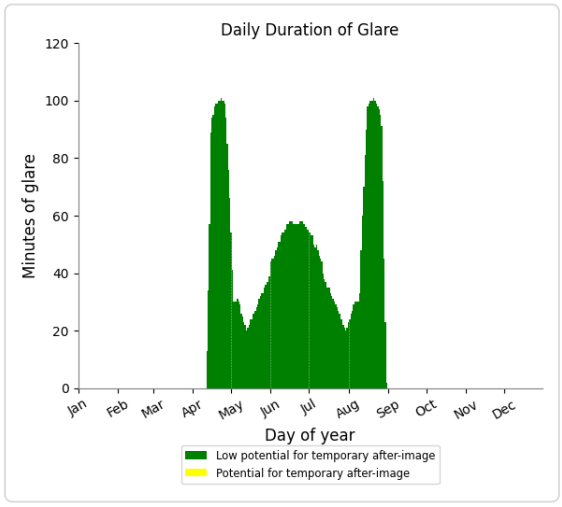


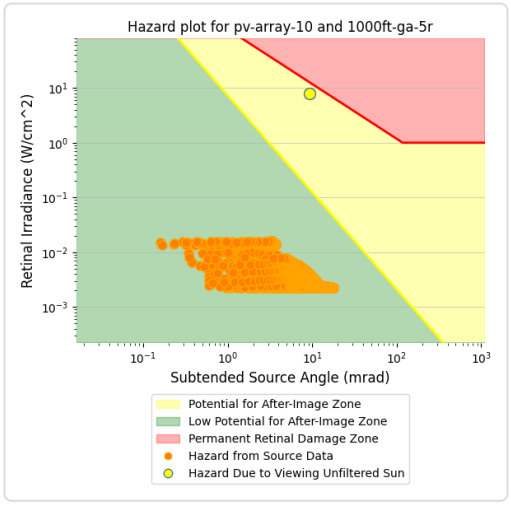
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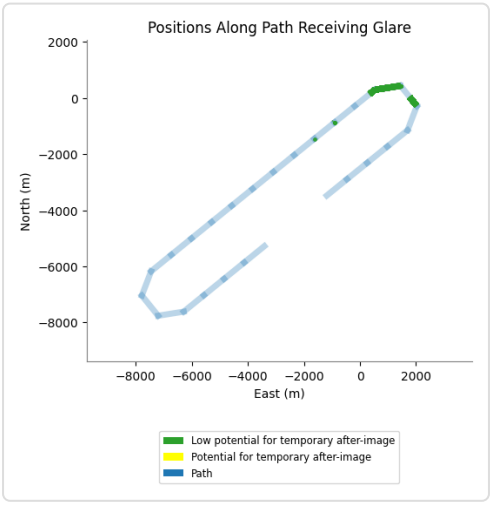
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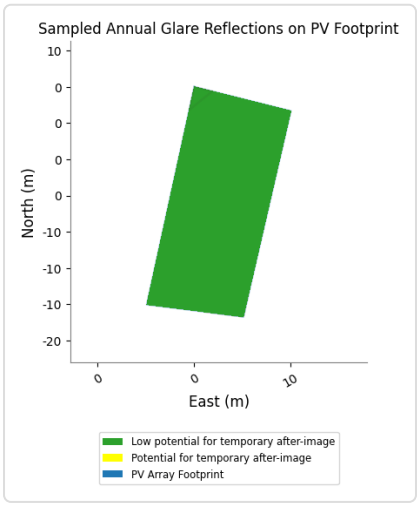
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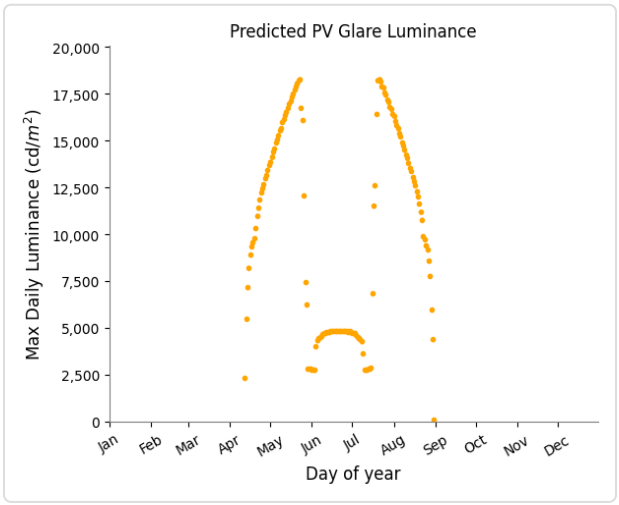








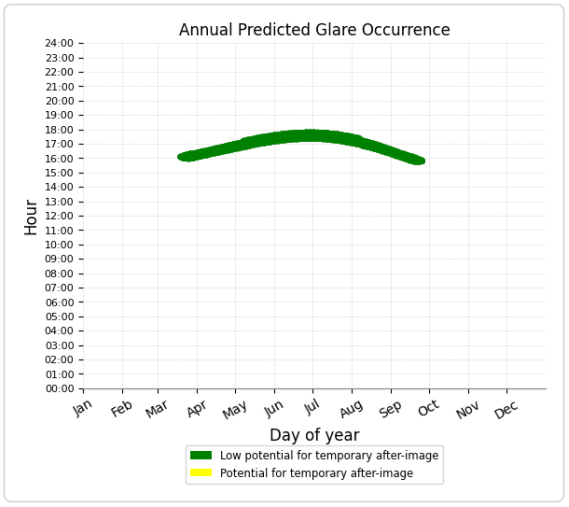


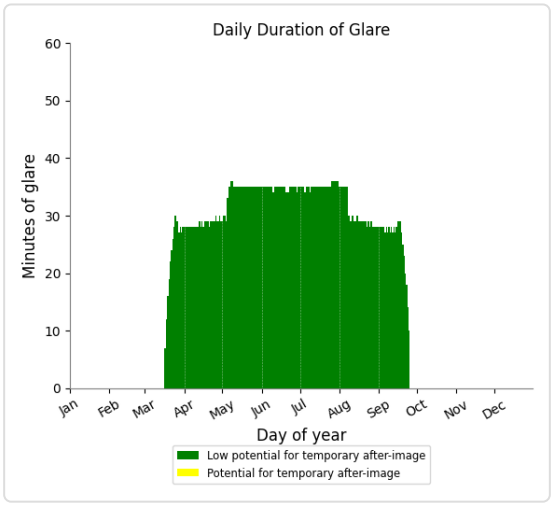


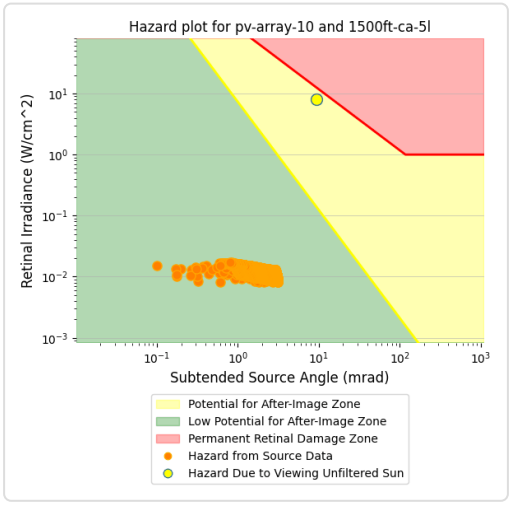
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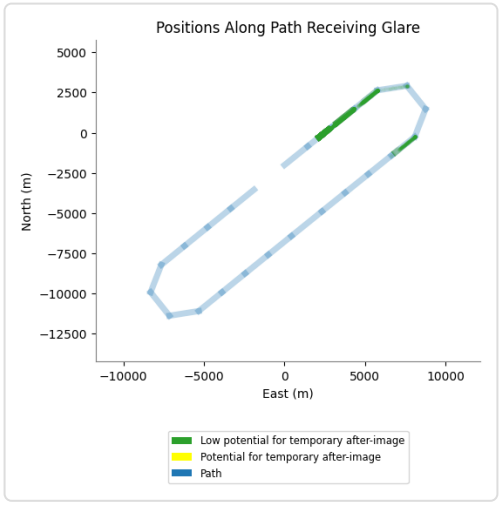
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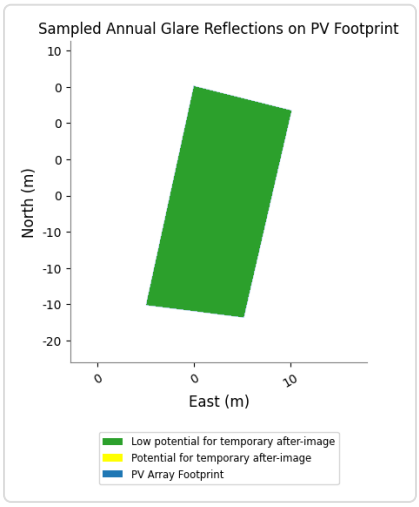
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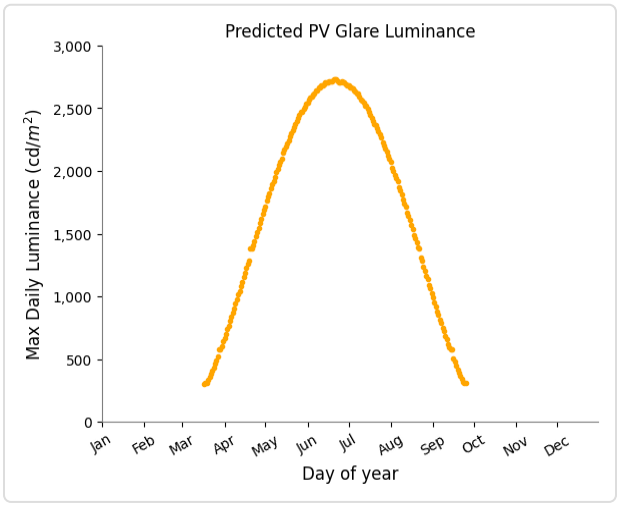








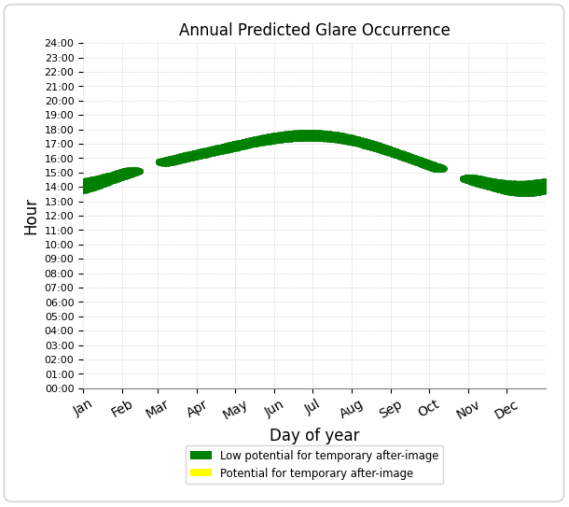


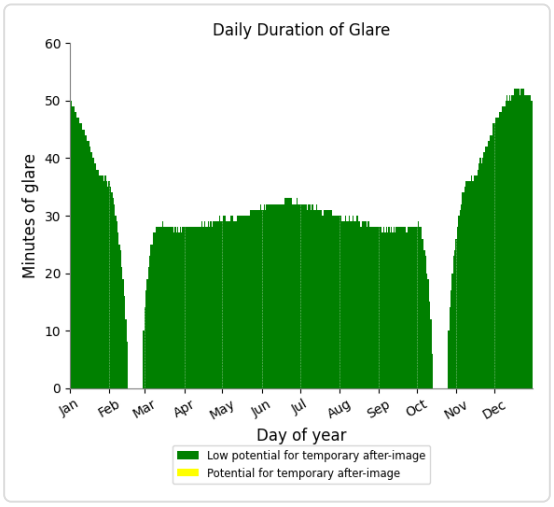


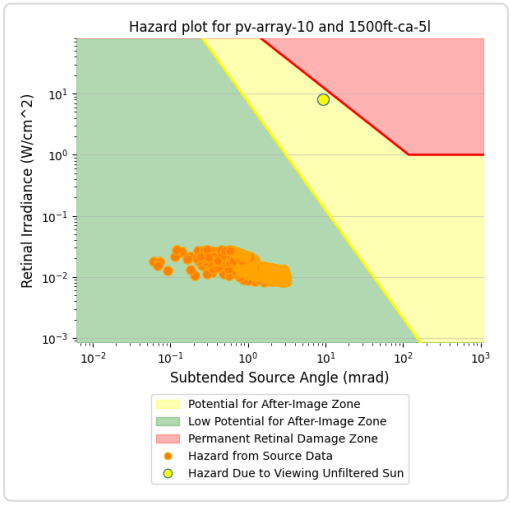
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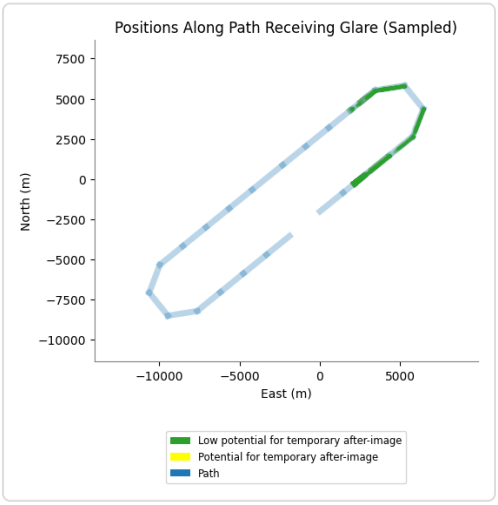
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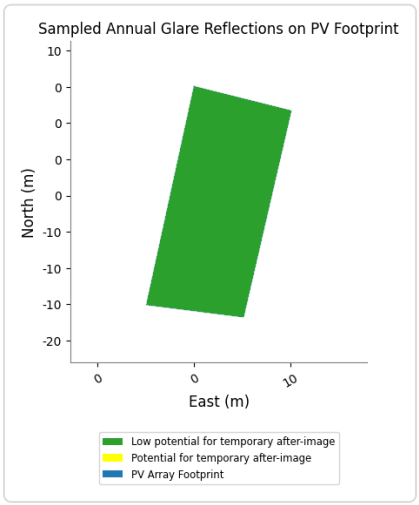
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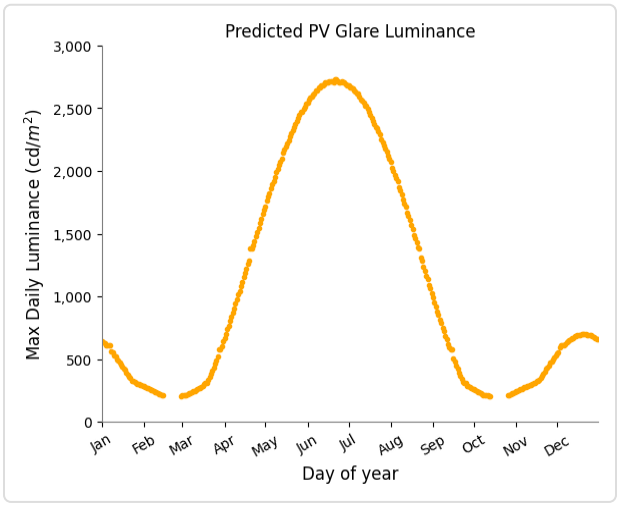








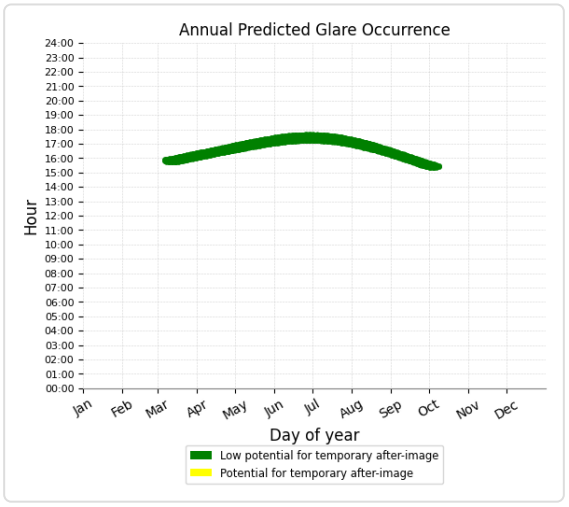


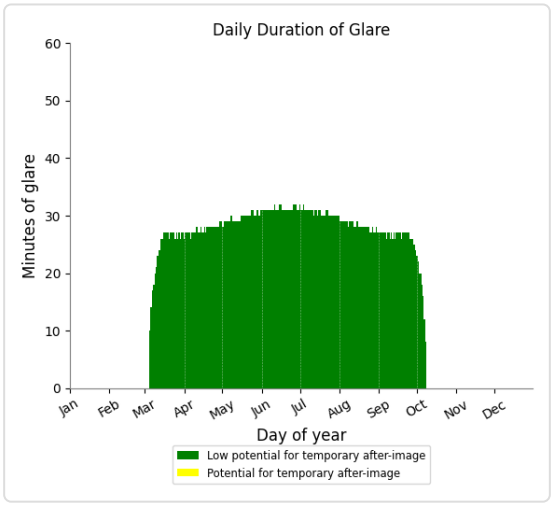


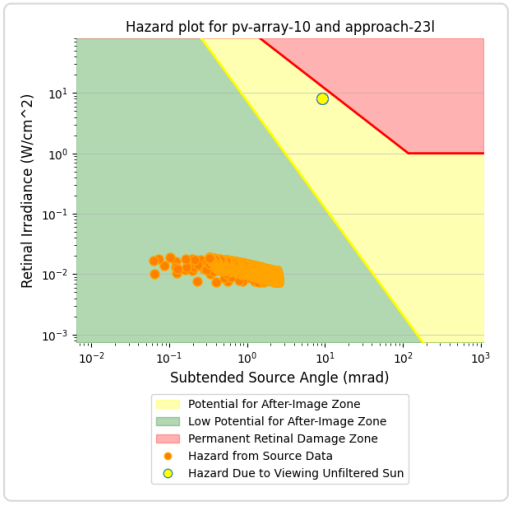
PV array 10 and Route: Approach_23L

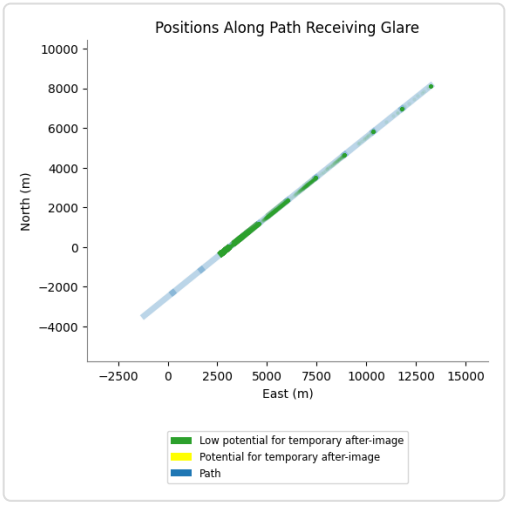
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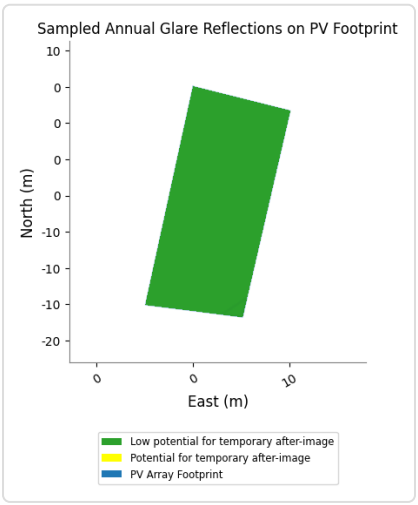
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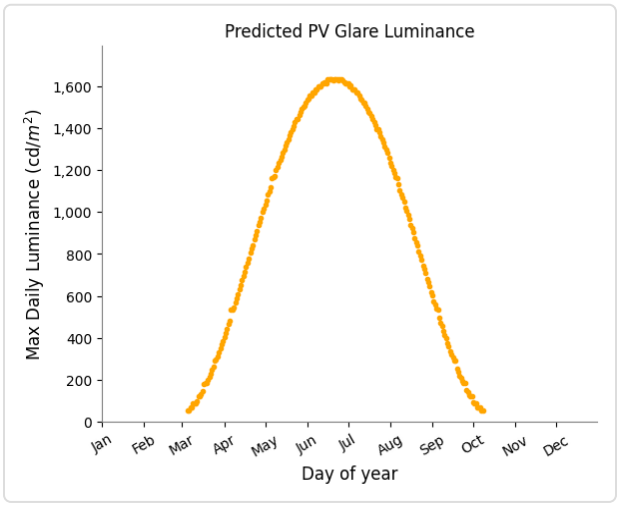








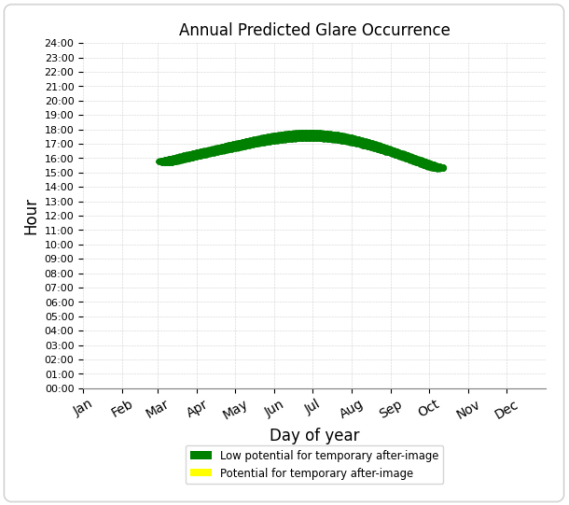


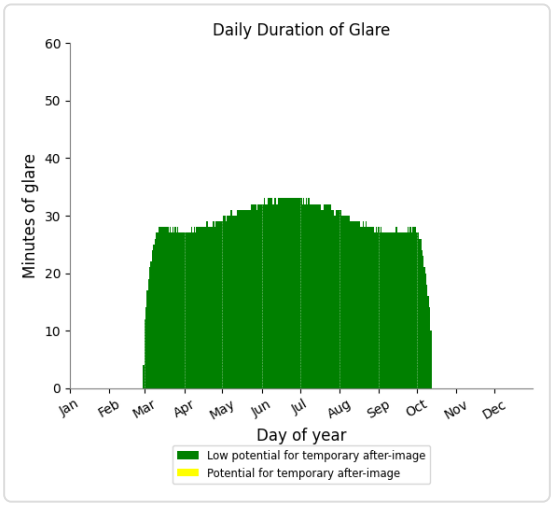


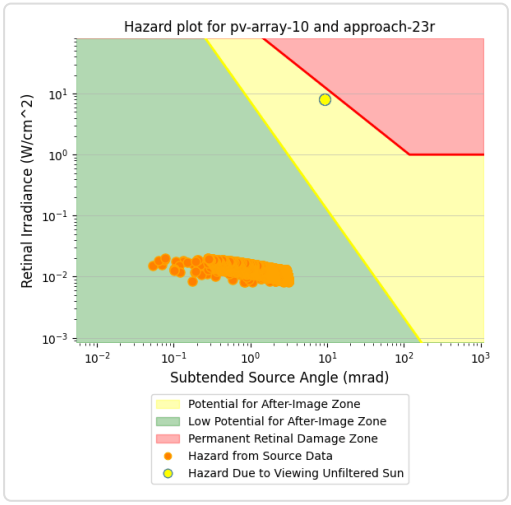
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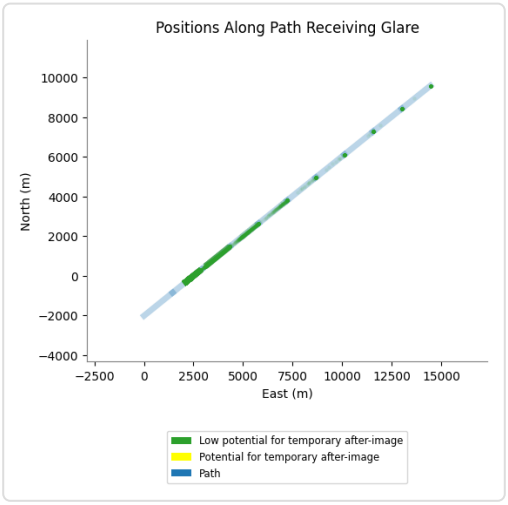
Yellow glare: none

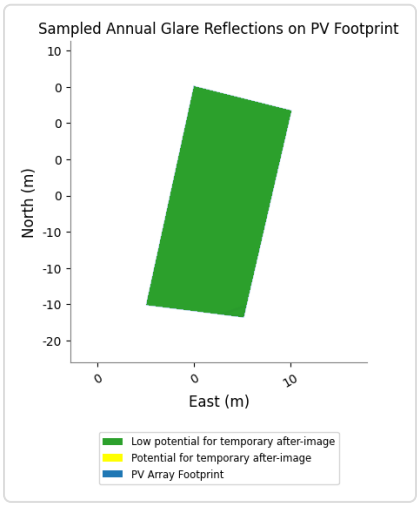
Green glare: 6,521 min.

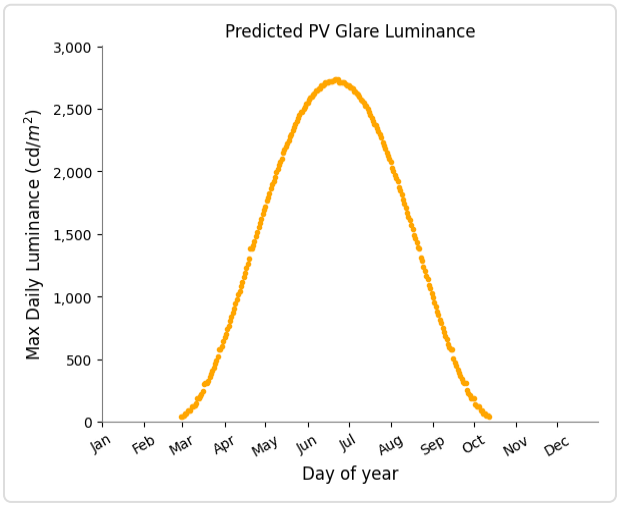












PV array 10 and Route: 1000Ft-GA_5R23L_05R-L_23L-R

No glare found

PV array 10 and Route: Approach_05L

No glare found

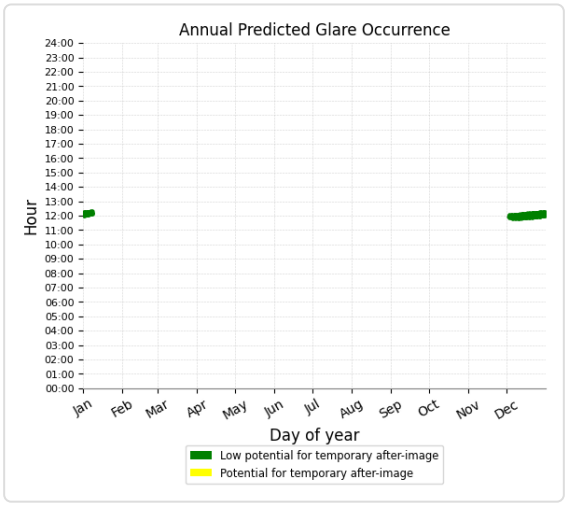
PV array 10 and Route: Approach_05R

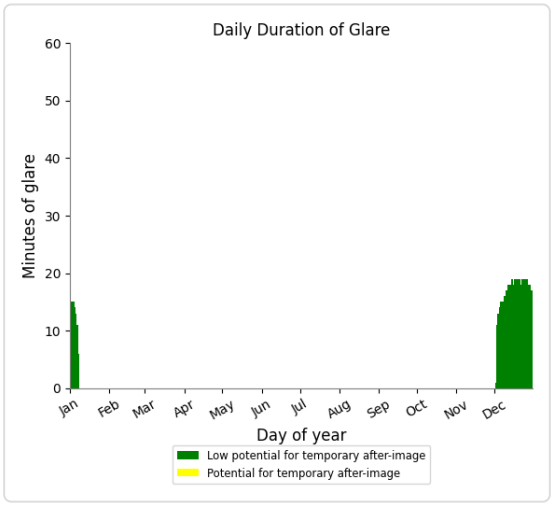
No glare found

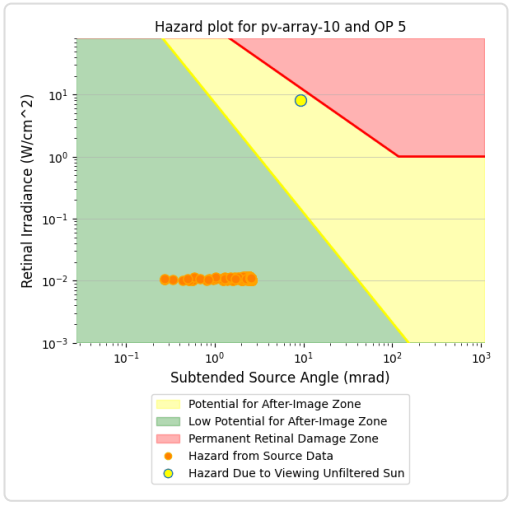
PV array 10 and OP 5

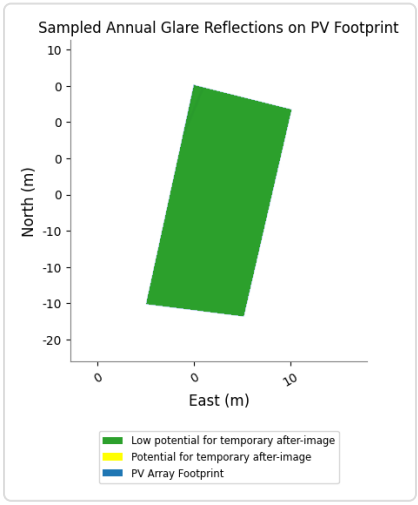
Yellow glare: none

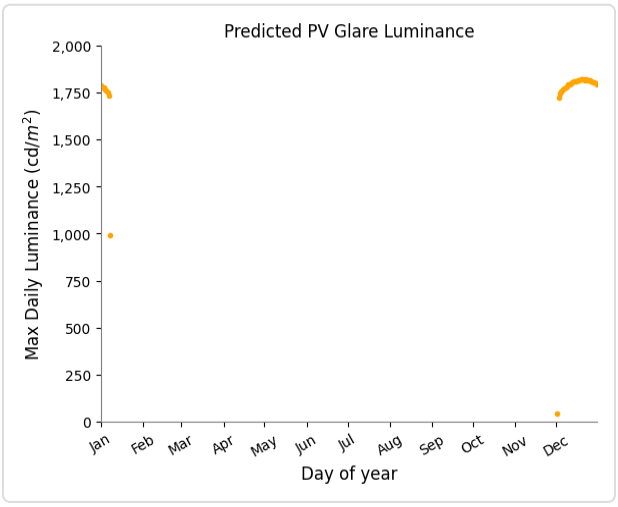
Green glare: 608 min.







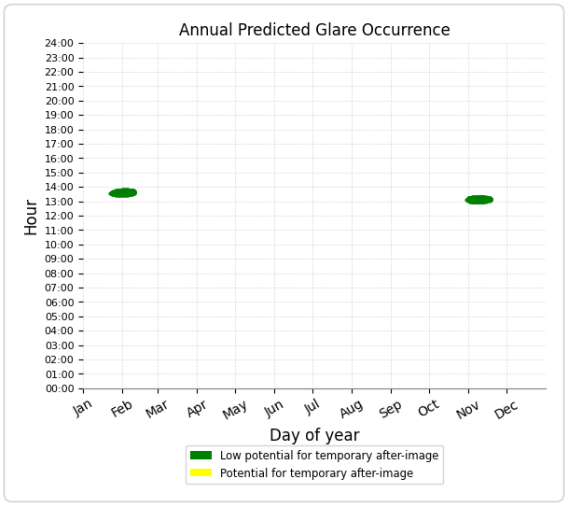


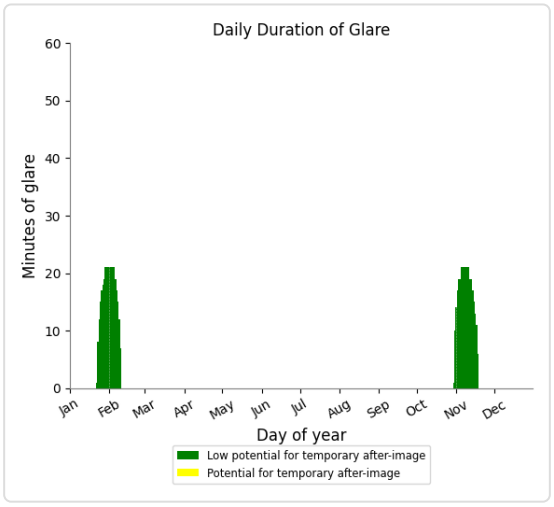


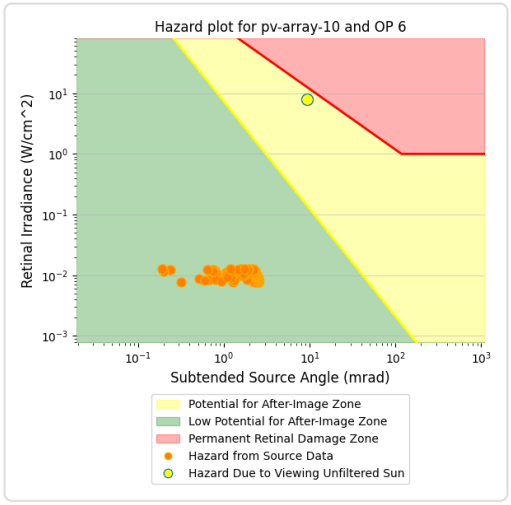
PV array 10 and OP 6

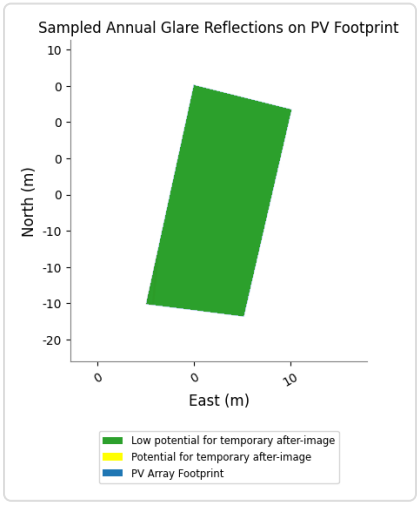
Yellow glare: none

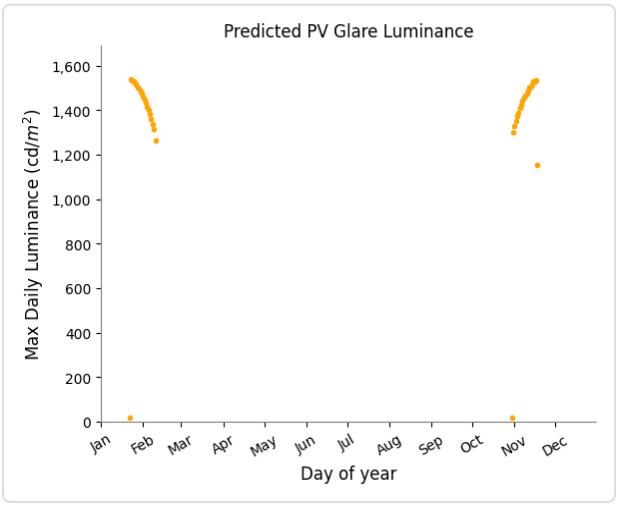
Green glare: 655 min.







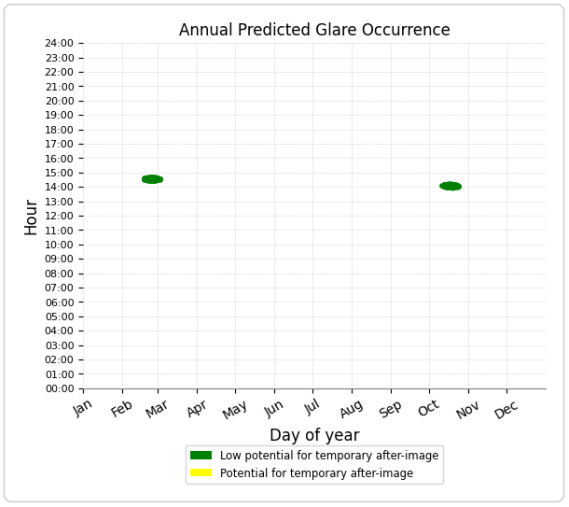


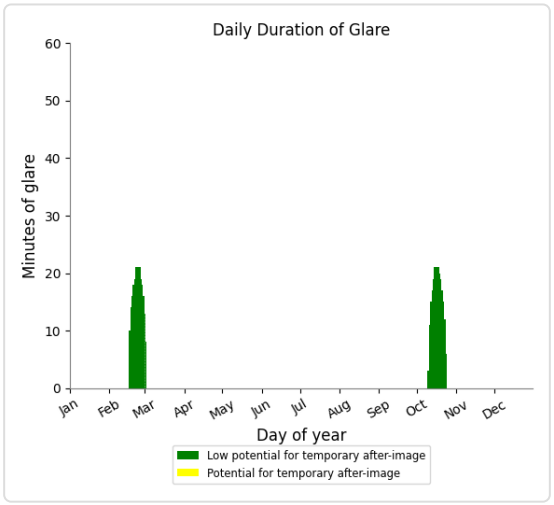


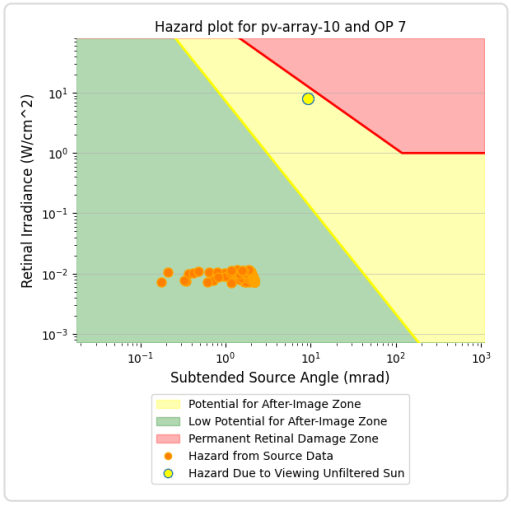
PV array 10 and OP 7

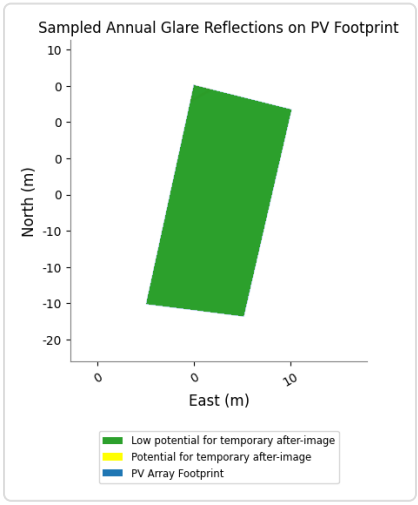
Yellow glare: none

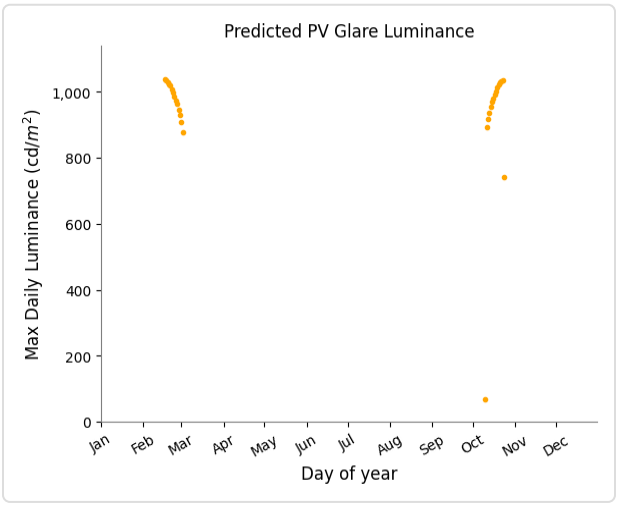
Green glare: 473 min.







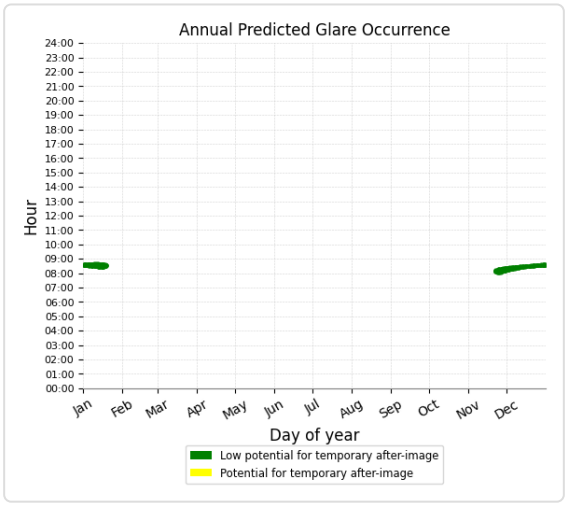


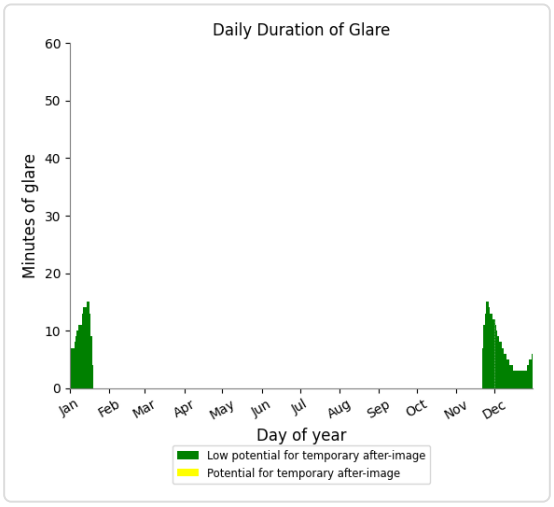


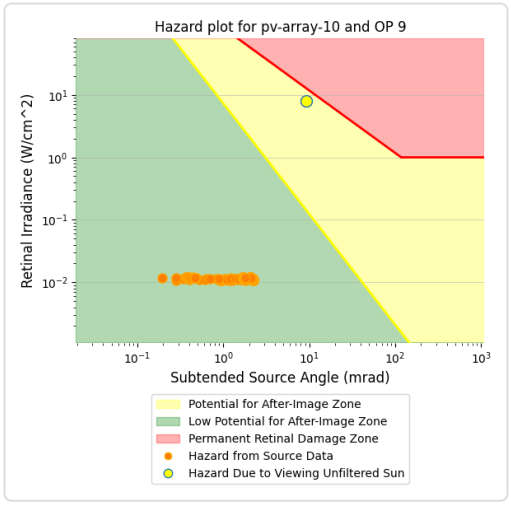
PV array 10 and OP 9

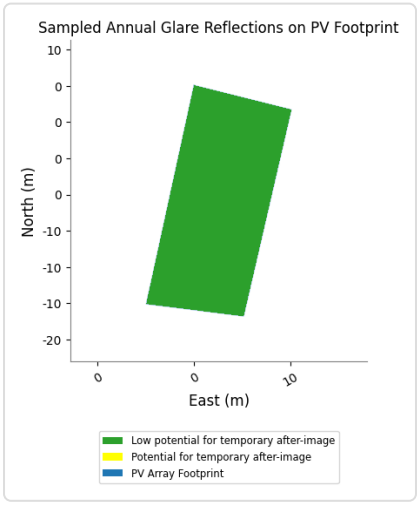
Yellow glare: none

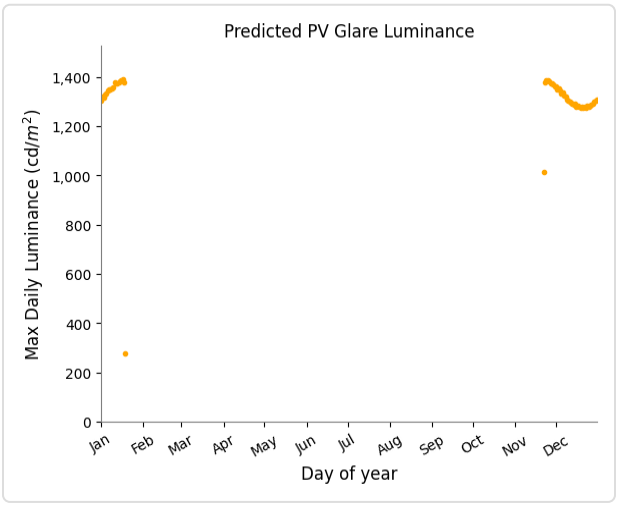
Green glare: 474 min.







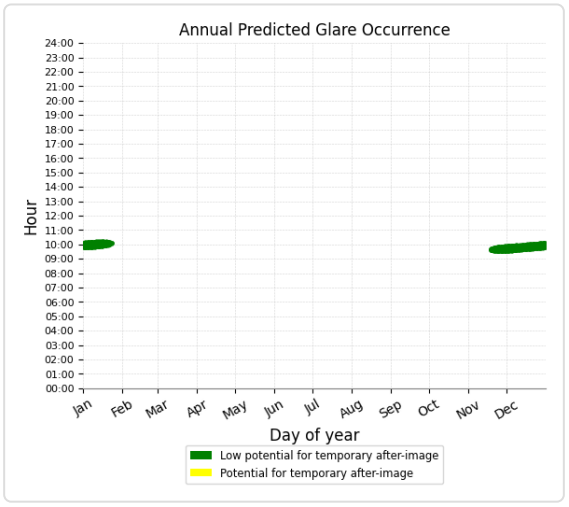


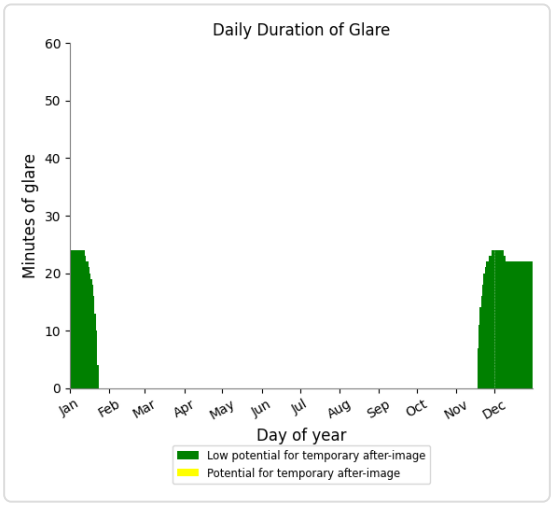


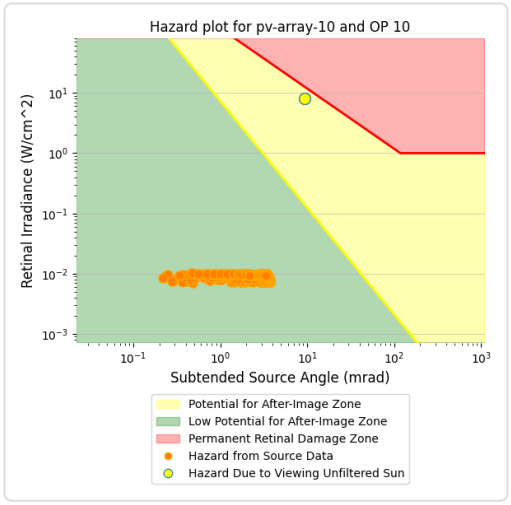
PV array 10 and OP 10

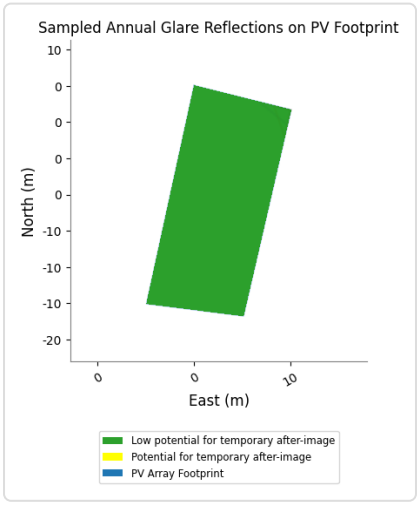
Yellow glare: none

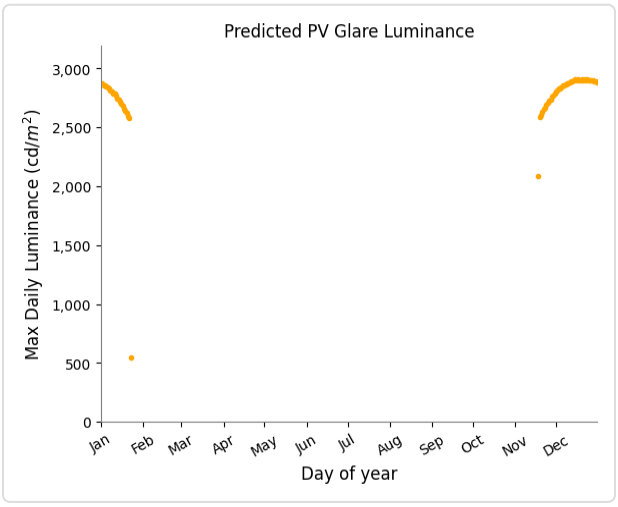
Green glare: 1,419 min.







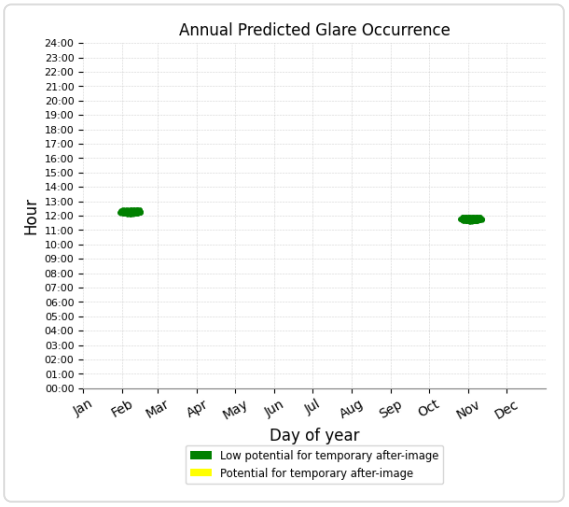


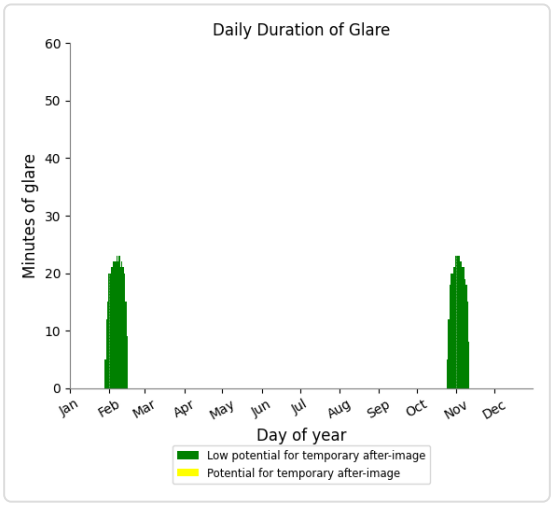


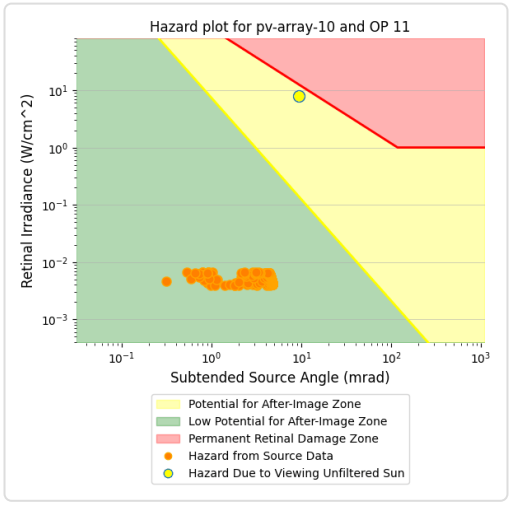
PV array 10 and OP 11

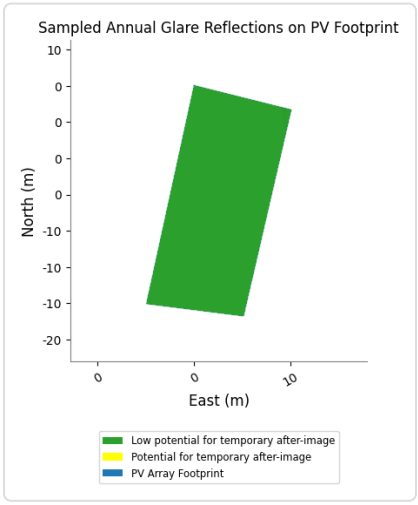
Yellow glare: none

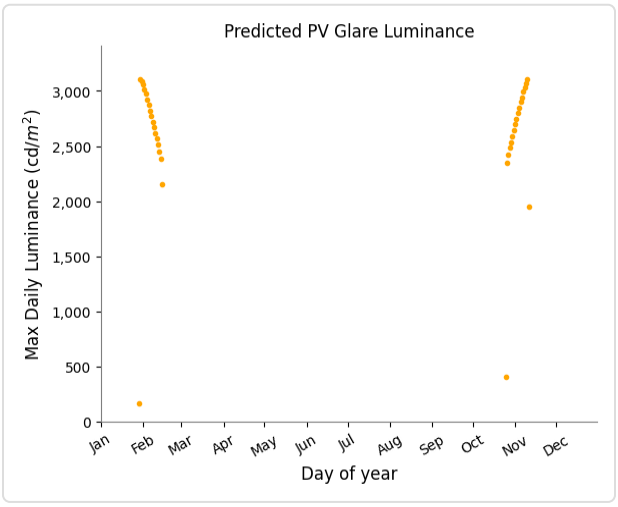
Green glare: 667 min.







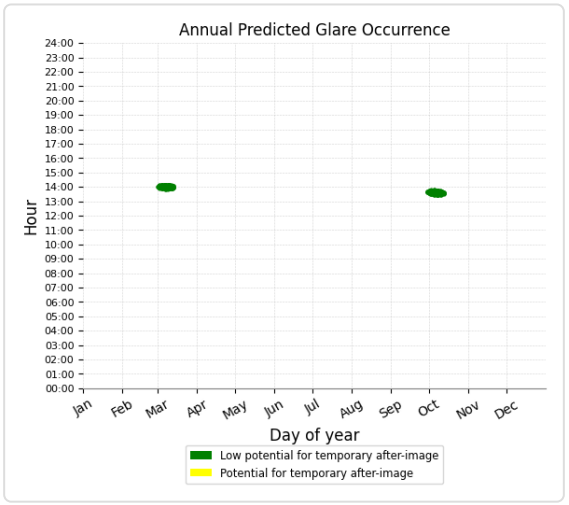


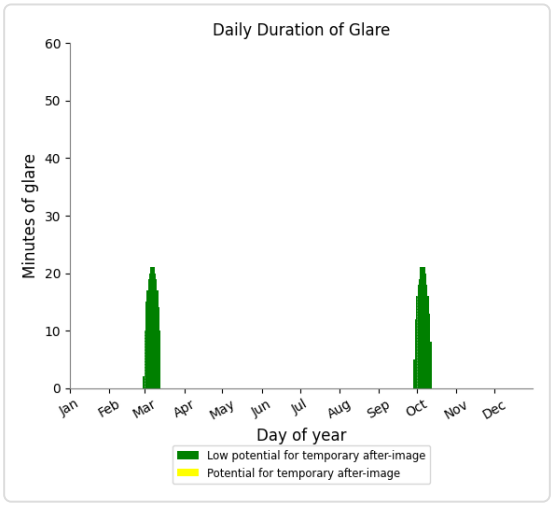


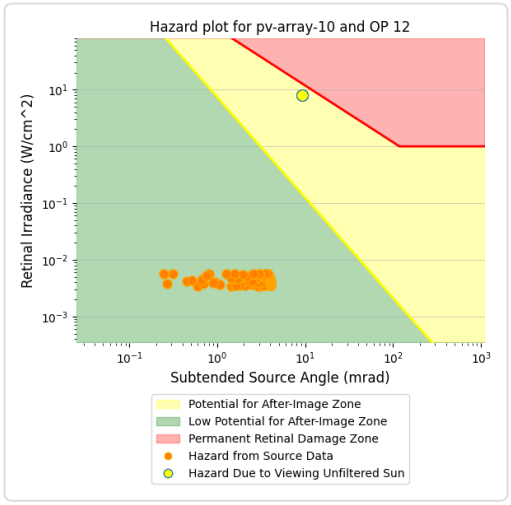
PV array 10 and OP 12

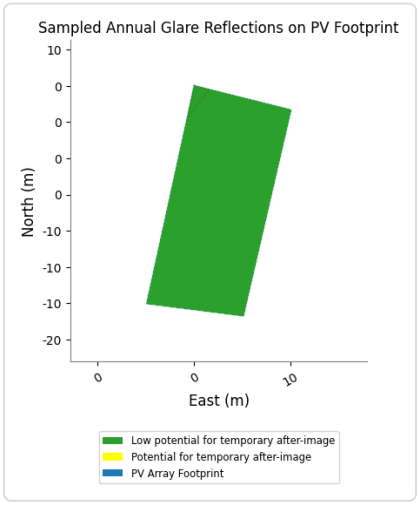
Yellow glare: none

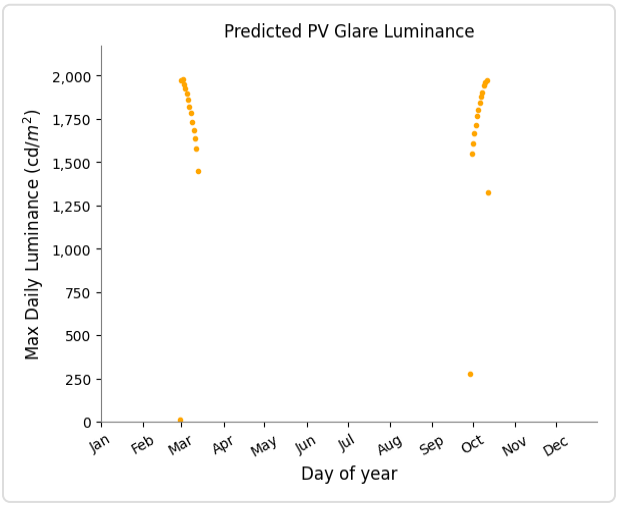
Green glare: 455 min.







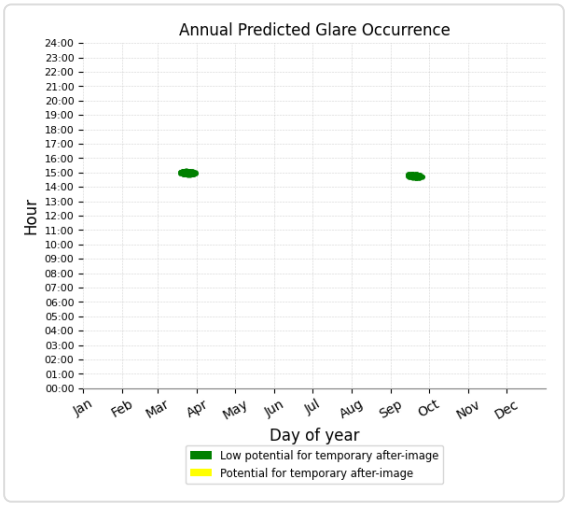


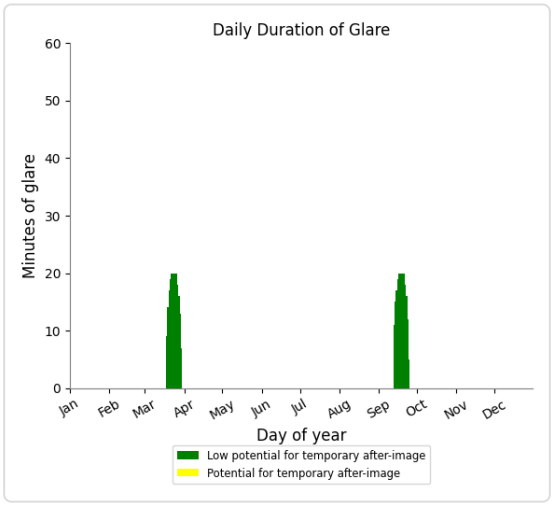


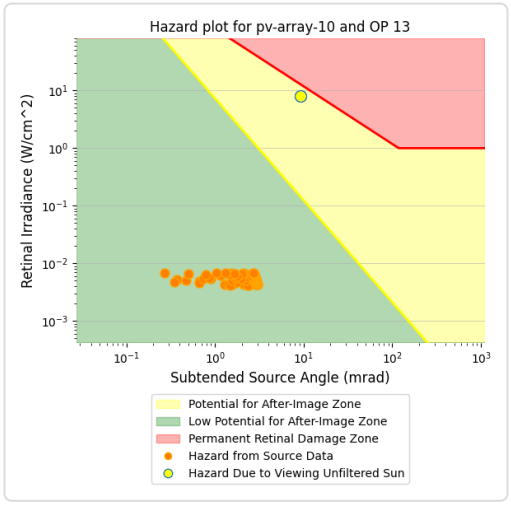
PV array 10 and OP 13

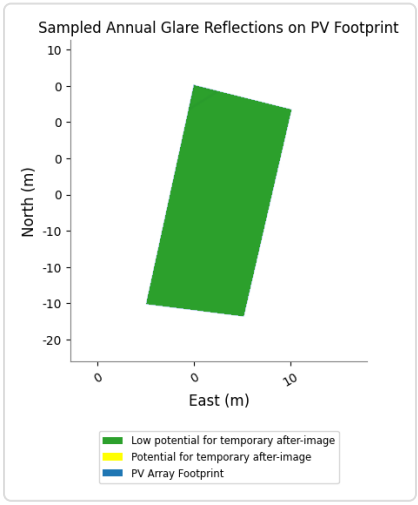
Yellow glare: none

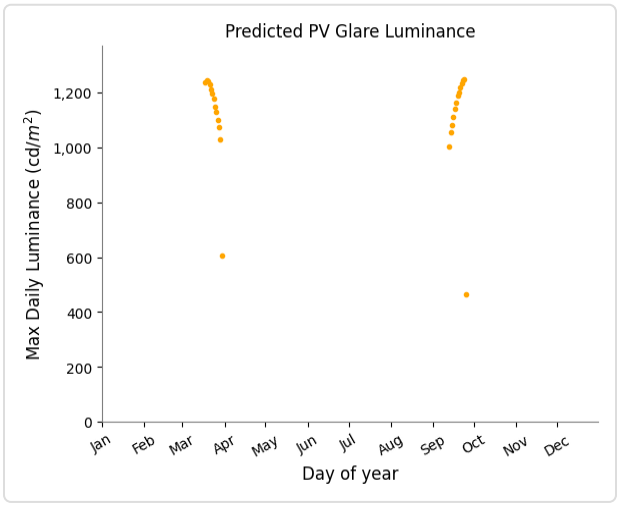
Green glare: 426 min.







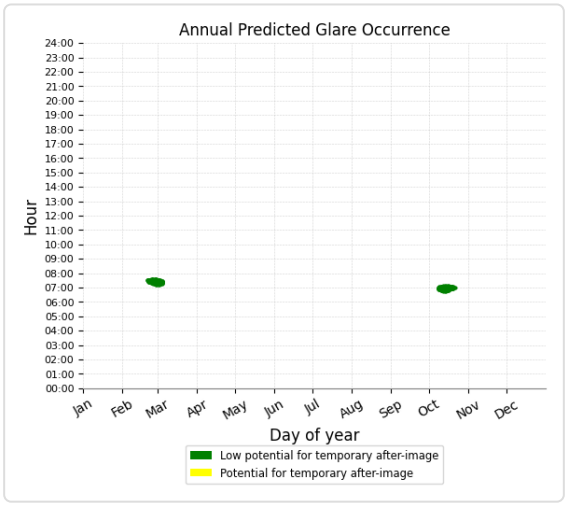


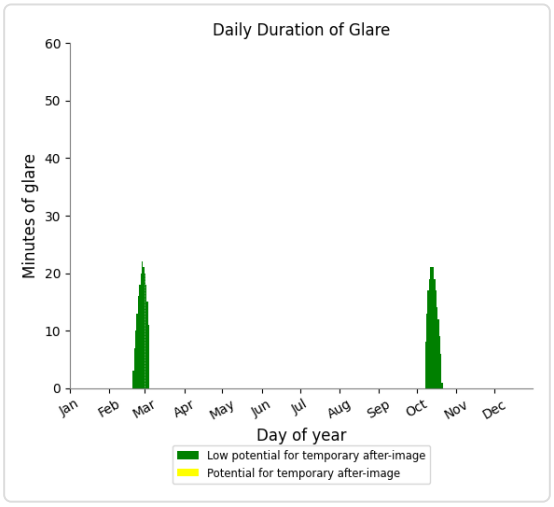


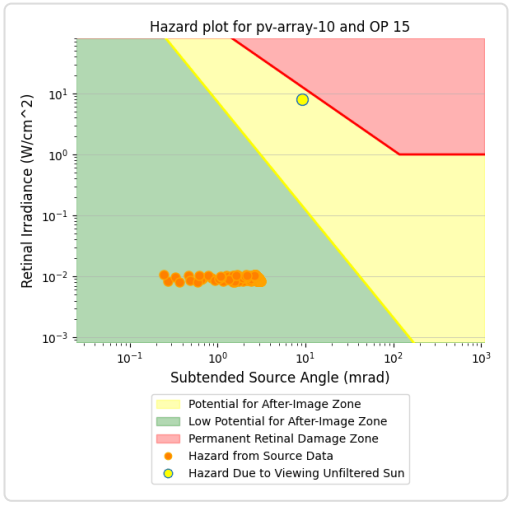
PV array 10 and OP 15

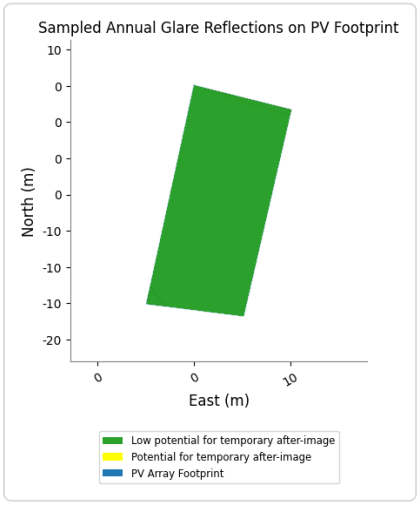
Yellow glare: none

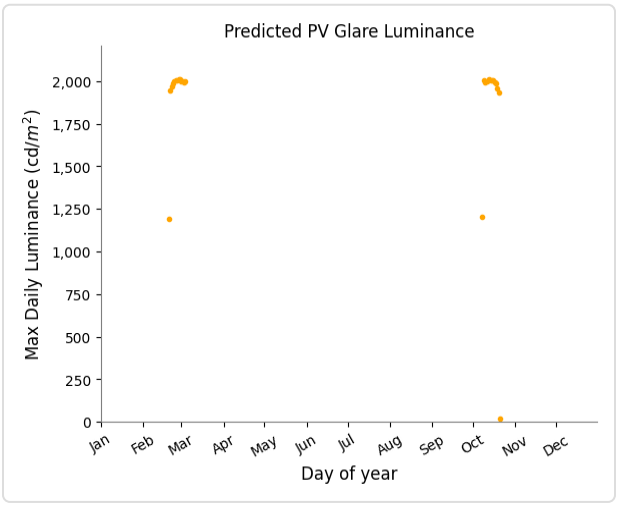
Green glare: 392 min.







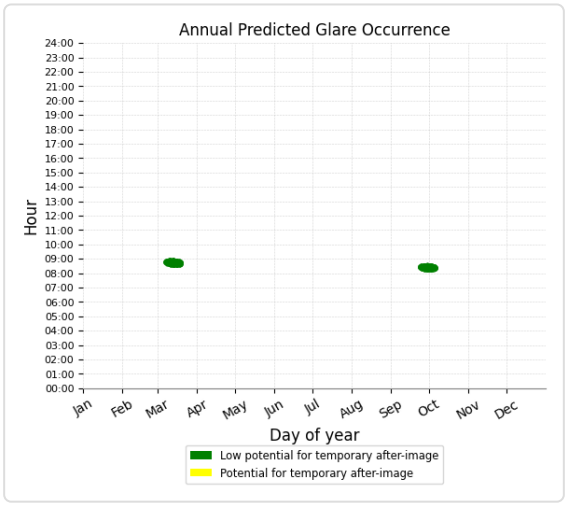


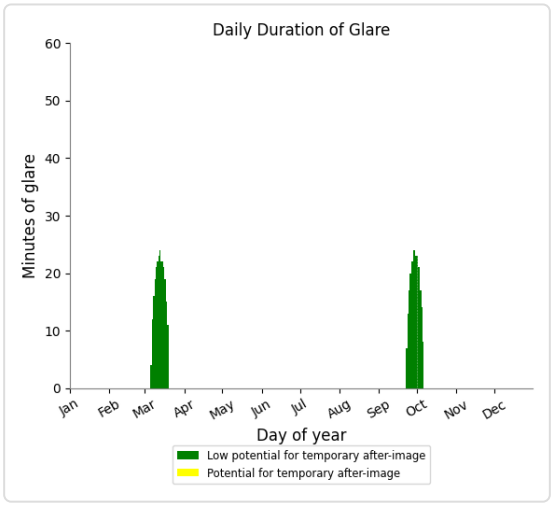


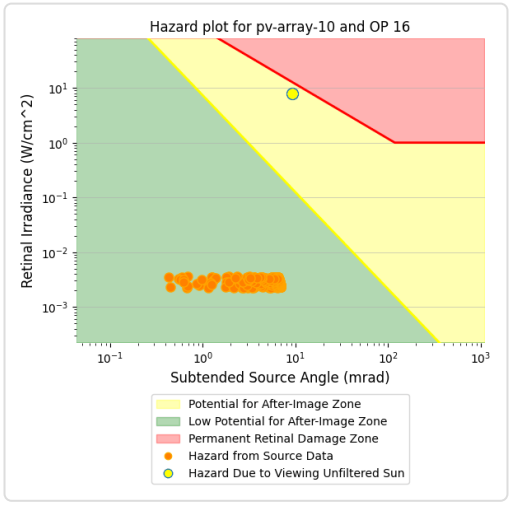
PV array 10 and OP 16

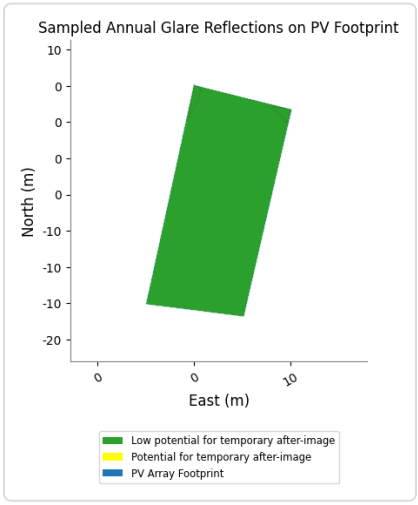
Yellow glare: none

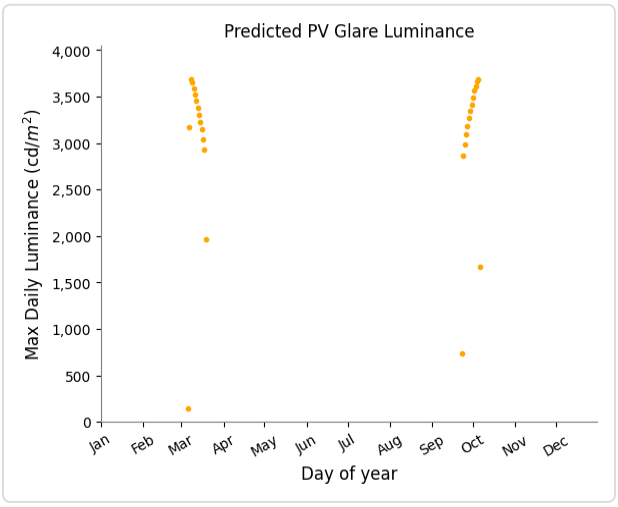
Green glare: 503 min.







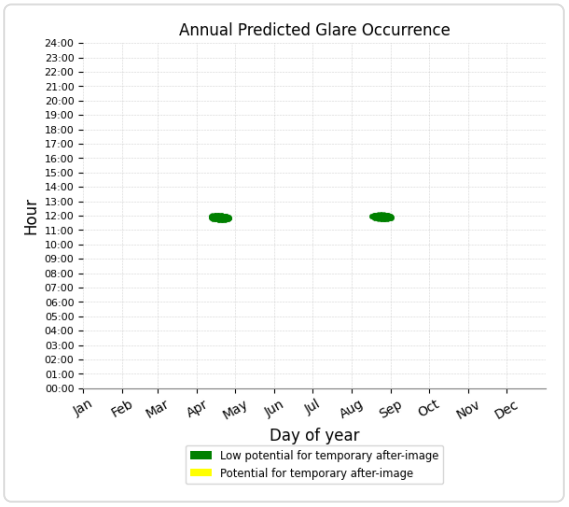


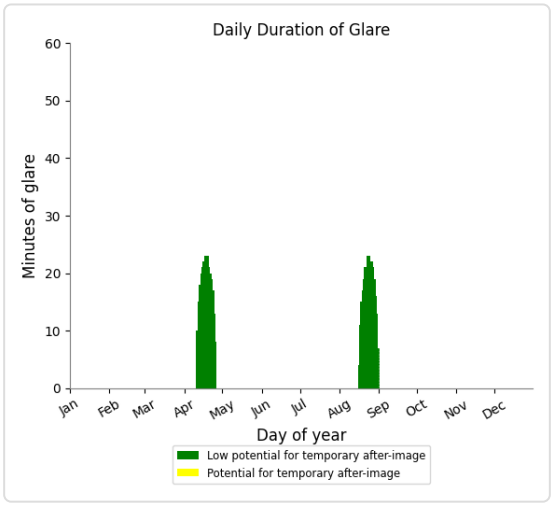


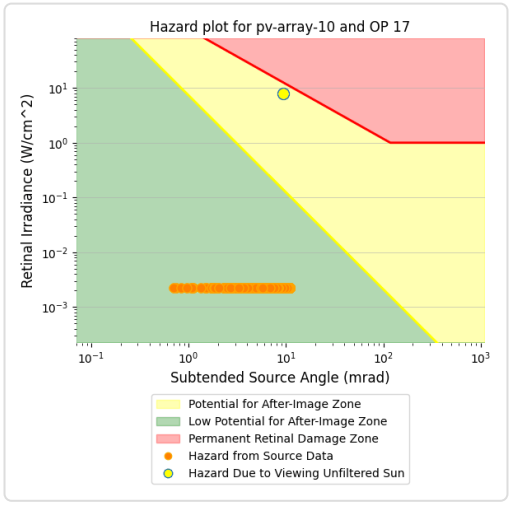
PV array 10 and OP 17

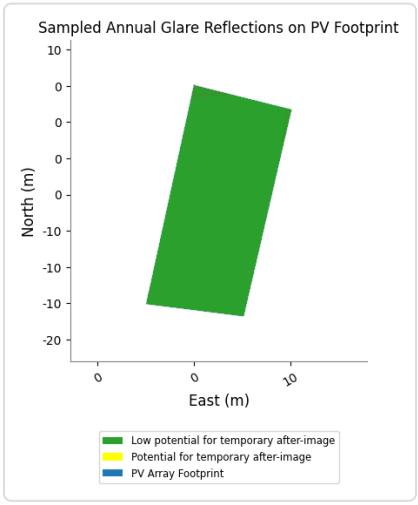
Yellow glare: none

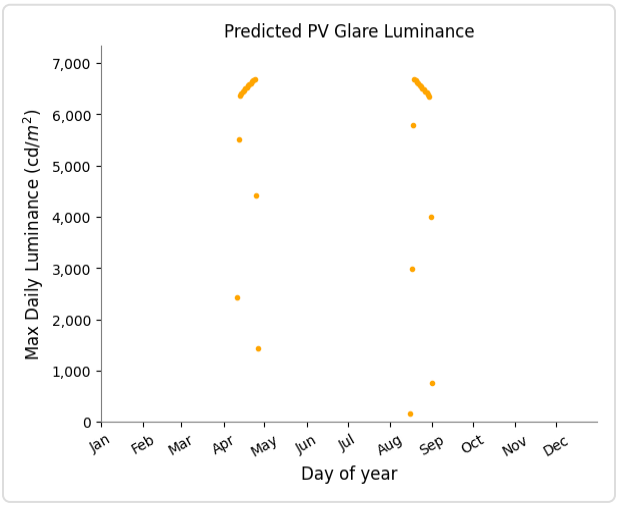
Green glare: 593 min.







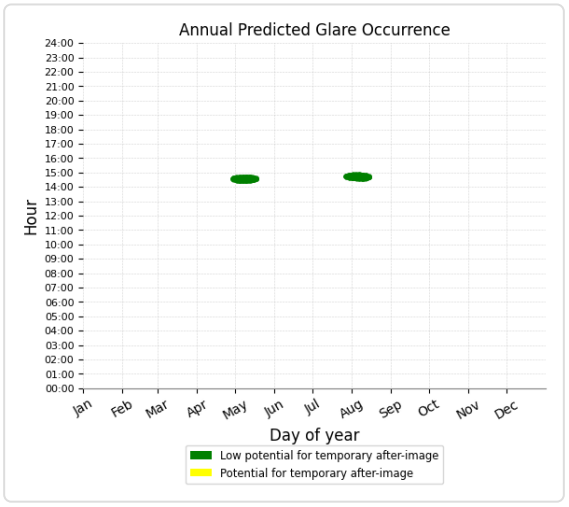


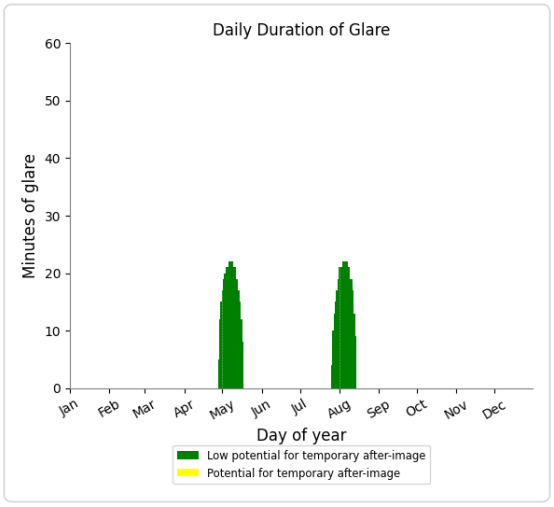


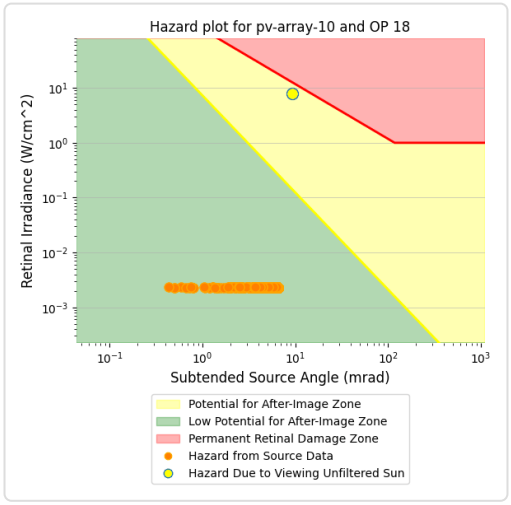
PV array 10 and OP 18

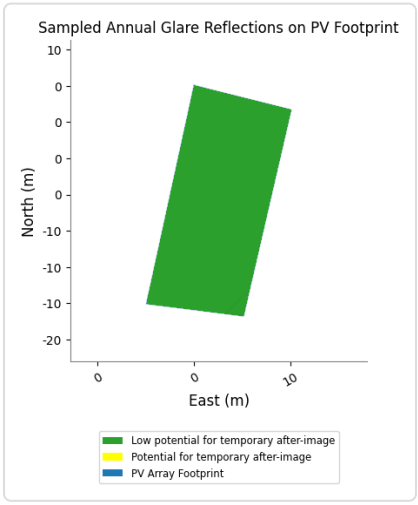
Yellow glare: none

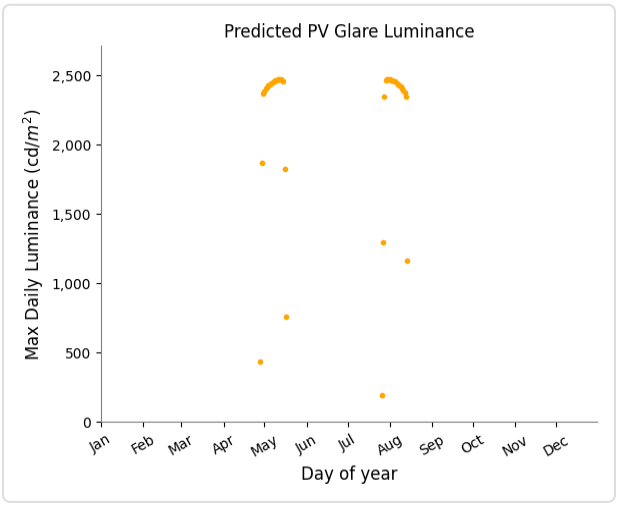
Green glare: 698 min.







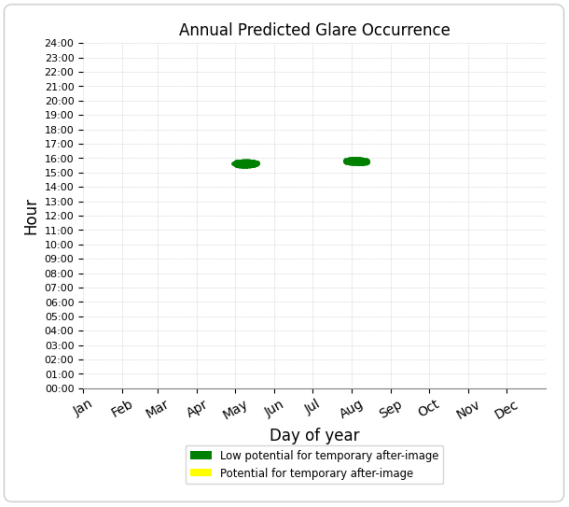


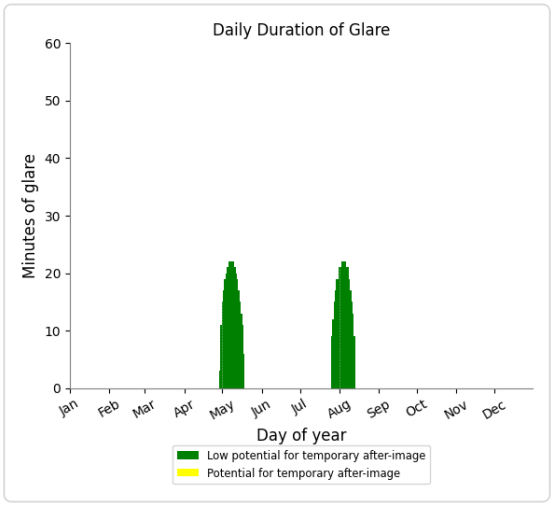


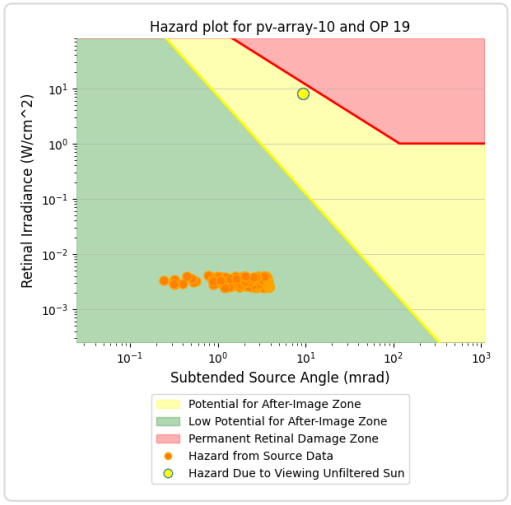
PV array 10 and OP 19

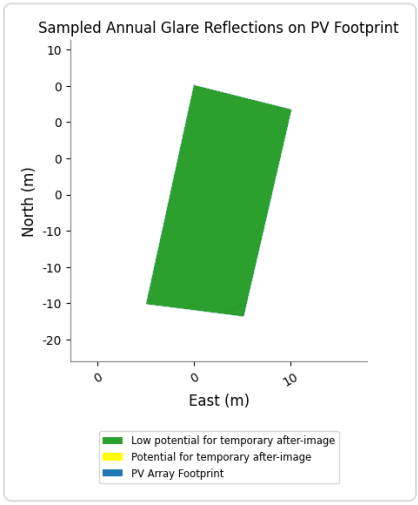
Yellow glare: none

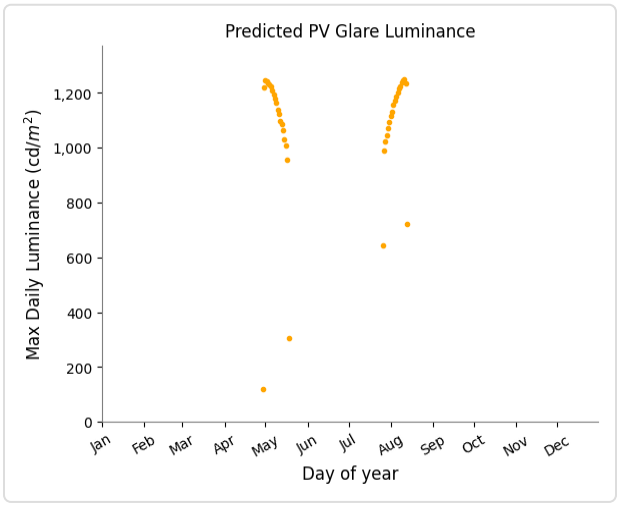
Green glare: 674 min.







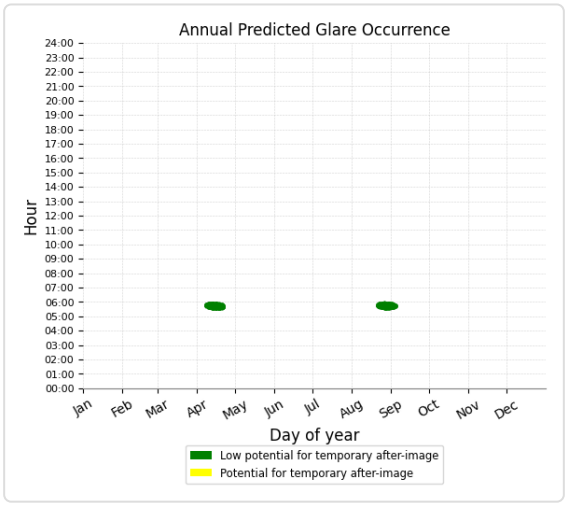


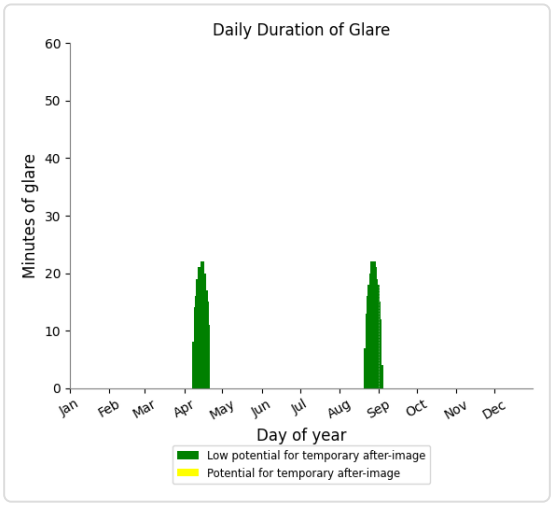


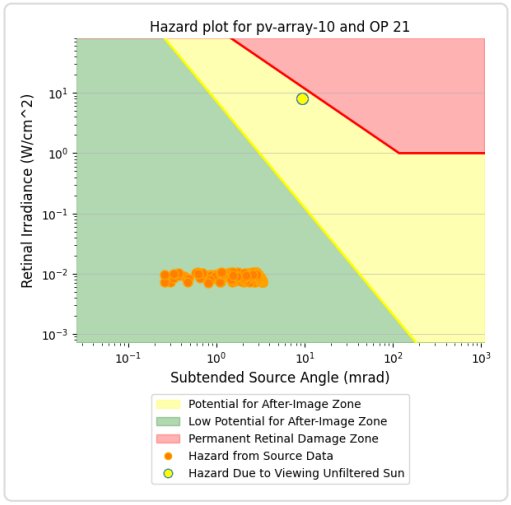
PV array 10 and OP 21

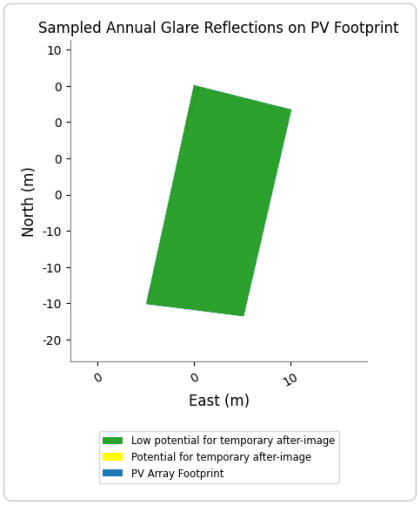
Yellow glare: none

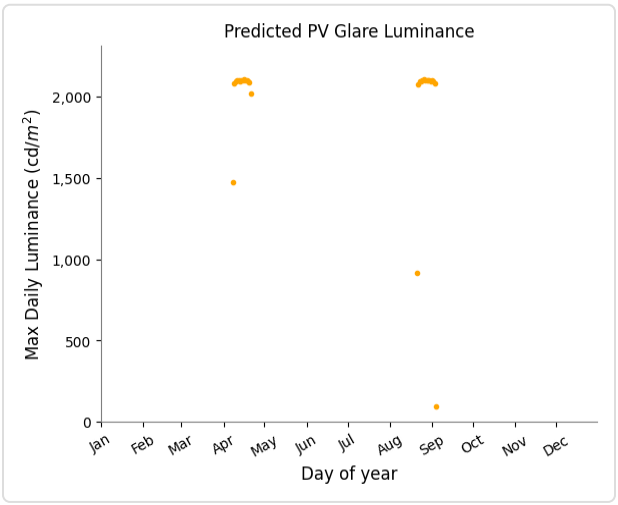
Green glare: 499 min.







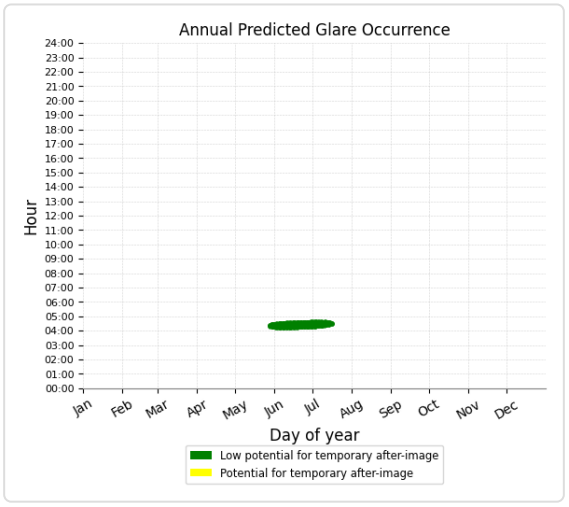


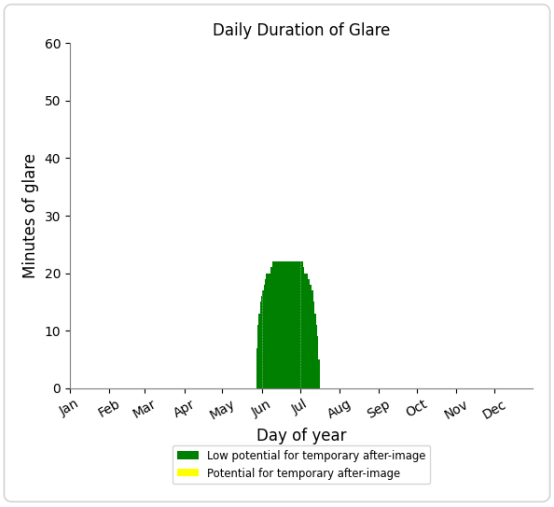


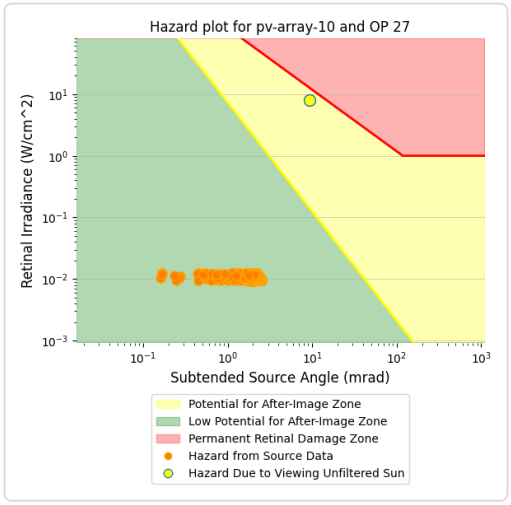
PV array 10 and OP 27

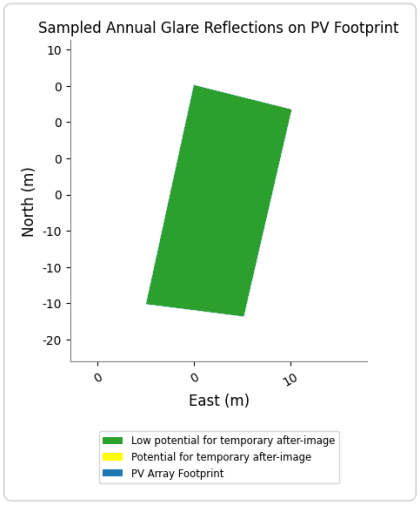
Yellow glare: none

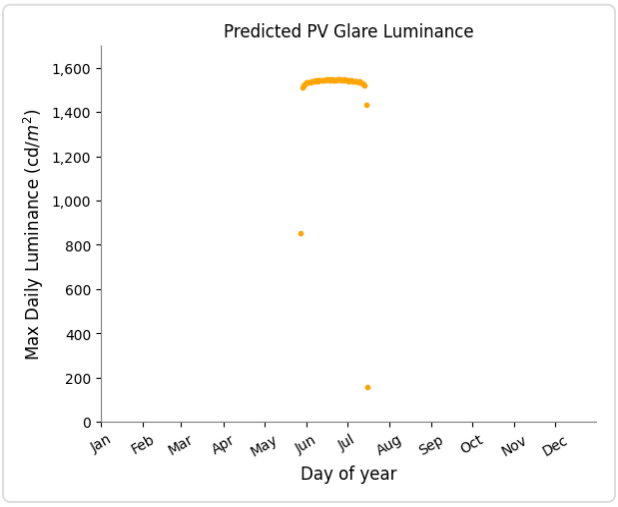
Green glare: 952 min.







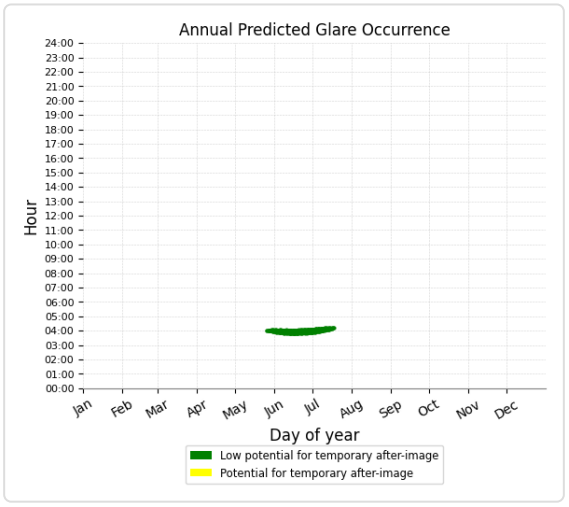


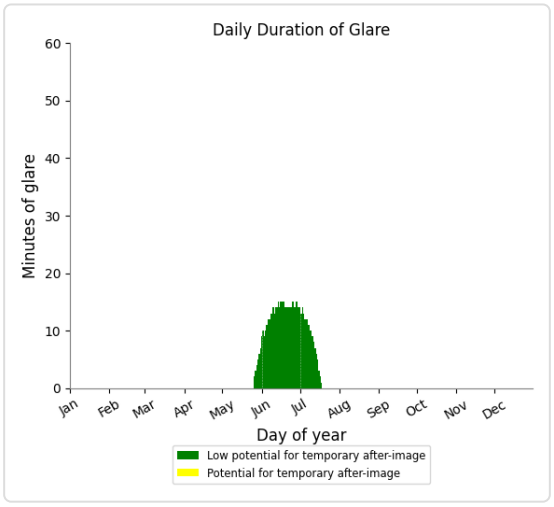


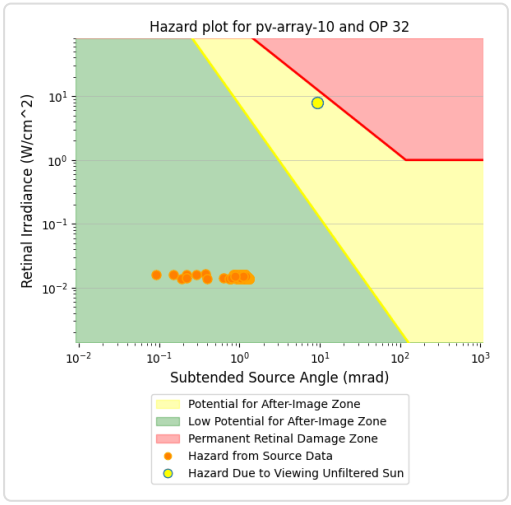
PV array 10 and OP 32

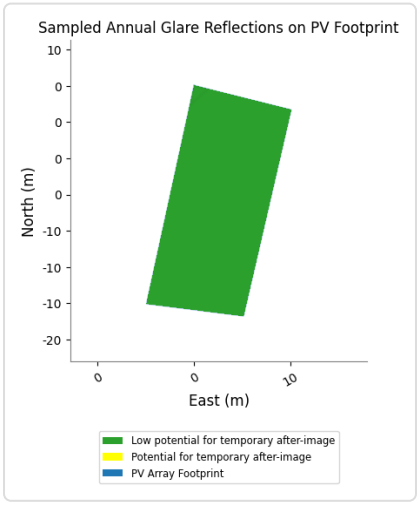
Yellow glare: none

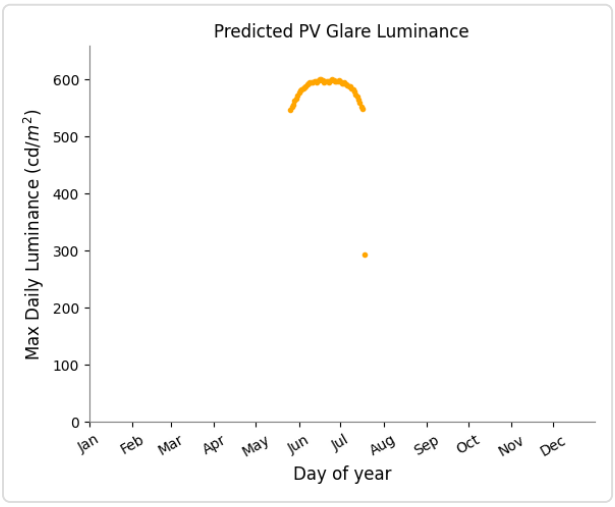
Green glare: 589 min.











PV array 10 and 1-ATCT

No glare found

PV array 10 and OP 2

No glare found

PV array 10 and OP 3

No glare found

PV array 10 and OP 4

No glare found

PV array 10 and OP 8

No glare found

PV array 10 and OP 14

No glare found

PV array 10 and OP 20

No glare found

PV array 10 and OP 22

No glare found

PV array 10 and OP 23

No glare found

PV array 10 and OP 24

No glare found

PV array 10 and OP 25

No glare found

PV array 10 and OP 26

No glare found

PV array 10 and OP 28

No glare found

PV array 10 and OP 29

No glare found

PV array 10 and OP 30

No glare found

PV array 10 and OP 31

No glare found

PV array 10 and OP 33

No glare found

PV array 10 and OP 34

No glare found

PV array 10 and OP 35

No glare found

PV array 10 and OP 36

No glare found

PV array 10 and OP 37

No glare found

PV array 10 and OP 38

No glare found

PV array 10 and OP 39

No glare found

PV array 10 and OP 40

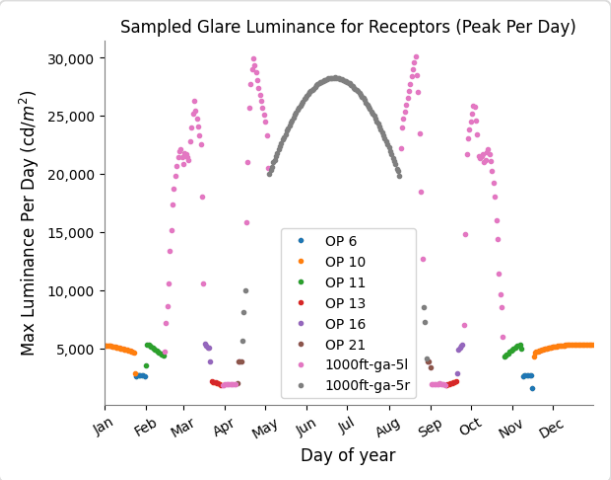
No glare found

PV: PV array 8 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare		Peak Luminance
	min	hr	min	hr	cd/m^2
1000Ft-GA_5L23R_05L-L_23R-R	3,948	65.8	0	0.0	4,712
1000Ft-GA_5L23R_05L-R_23R-L	14,447	240.8	0	0.0	30,076
1000Ft-GA_5R23L_05R-R_23L-L	8,436	140.6	0	0.0	28,281
1500Ft-CA_5L23R_05L-L_23R-R	5,925	98.8	0	0.0	4,651
1500Ft-CA_5L23R_05L-R_23R-L	11,099	185.0	0	0.0	4,651
Approach_23L	6,115	101.9	0	0.0	2,834
Approach_23R	6,521	108.7	0	0.0	4,656
1000Ft-GA_5R23L_05R-L_23L-R	0	0.0	0	0.0	0
Approach_05L	0	0.0	0	0.0	0
Approach_05R	0	0.0	0	0.0	0
OP 5	762	12.7	0	0.0	3,311
OP 6	651	10.8	0	0.0	2,712
OP 7	483	8.1	0	0.0	1,831
OP 9	646	10.8	0	0.0	2,587
OP 10	1,521	25.4	0	0.0	5,314
OP 11	638	10.6	0	0.0	5,346
OP 12	475	7.9	0	0.0	3,397
OP 13	453	7.5	0	0.0	2,170
OP 15	487	8.1	0	0.0	3,707
OP 16	580	9.7	0	0.0	6,193
OP 17	754	12.6	0	0.0	11,256
OP 18	825	13.8	0	0.0	4,097
OP 19	752	12.5	0	0.0	2,169
OP 21	560	9.3	0	0.0	3,860
OP 26	30	0.5	0	0.0	1,440
OP 27	681	11.3	0	0.0	2,802
OP 32	560	9.3	0	0.0	1,088
1-ATCT	0	0.0	0	0.0	0

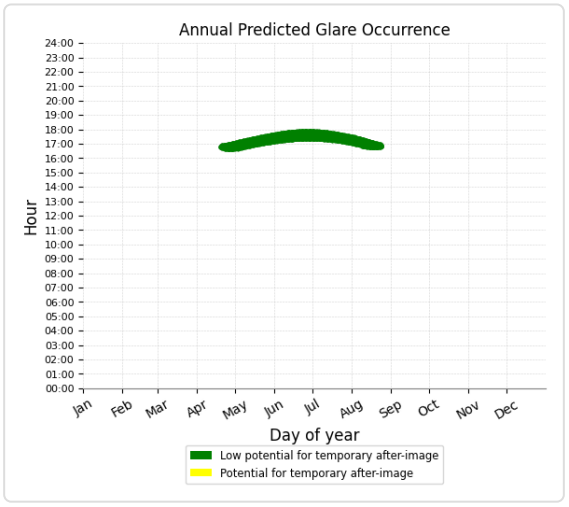
Receptor	Annual Green Glare		Annual Yellow Glare		Peak Luminance
	min	hr	min	hr	cd/m^2
OP 2	0	0.0	0	0.0	0
OP 3	0	0.0	0	0.0	0
OP 4	0	0.0	0	0.0	0
OP 8	0	0.0	0	0.0	0
OP 14	0	0.0	0	0.0	0
OP 20	0	0.0	0	0.0	0
OP 22	0	0.0	0	0.0	0
OP 23	0	0.0	0	0.0	0
OP 24	0	0.0	0	0.0	0
OP 25	0	0.0	0	0.0	0
OP 28	0	0.0	0	0.0	0
OP 29	0	0.0	0	0.0	0
OP 30	0	0.0	0	0.0	0
OP 31	0	0.0	0	0.0	0
OP 33	0	0.0	0	0.0	0
OP 34	0	0.0	0	0.0	0
OP 35	0	0.0	0	0.0	0
OP 36	0	0.0	0	0.0	0
OP 37	0	0.0	0	0.0	0
OP 38	0	0.0	0	0.0	0
OP 39	0	0.0	0	0.0	0
OP 40	0	0.0	0	0.0	0

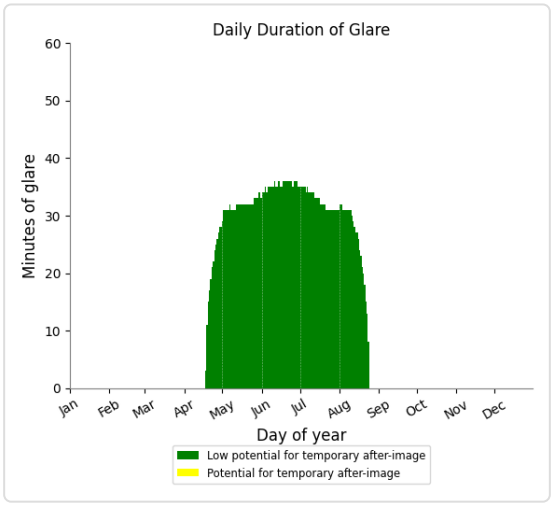


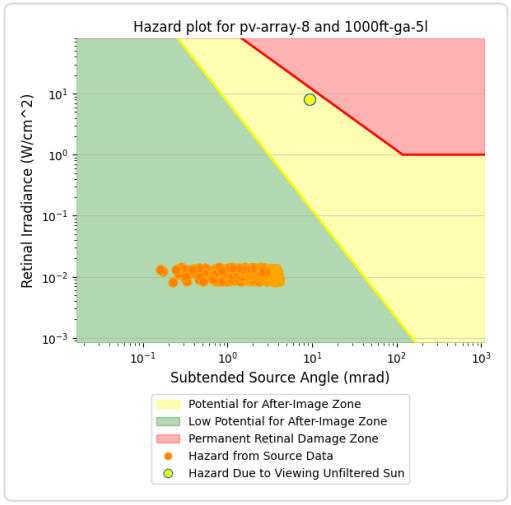
PV array 8 and Route: 1000Ft-GA_5L23R_05L-L_23R-R

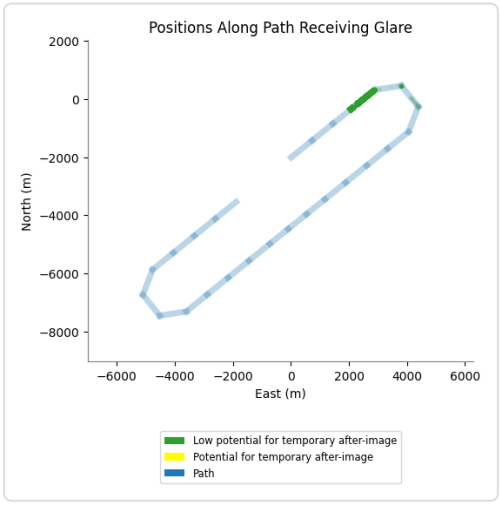
Yellow glare: none

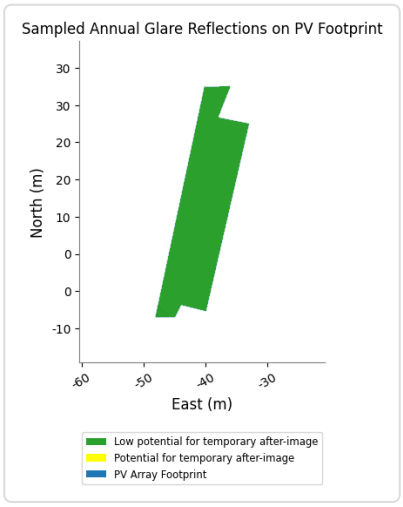
Green glare: 3,948 min.

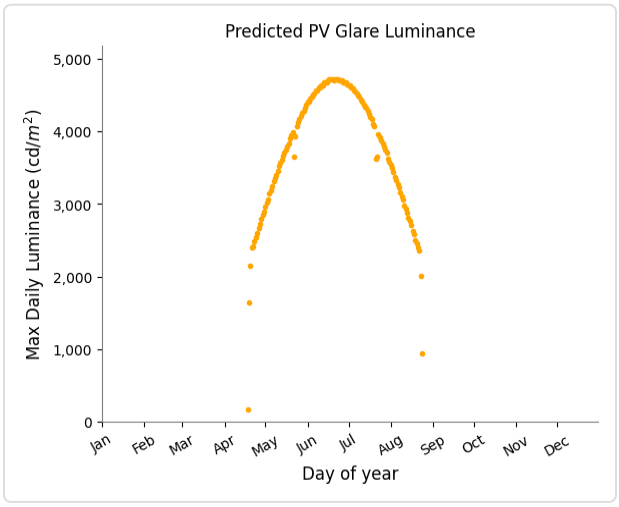








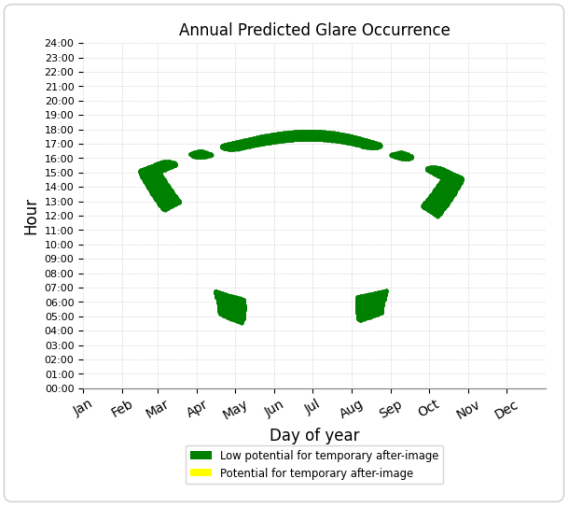


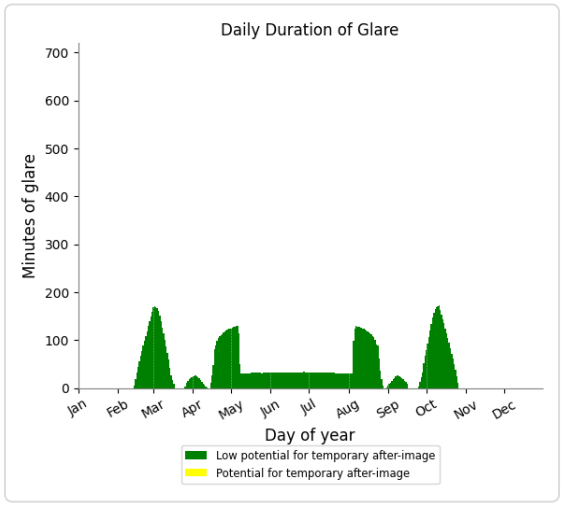


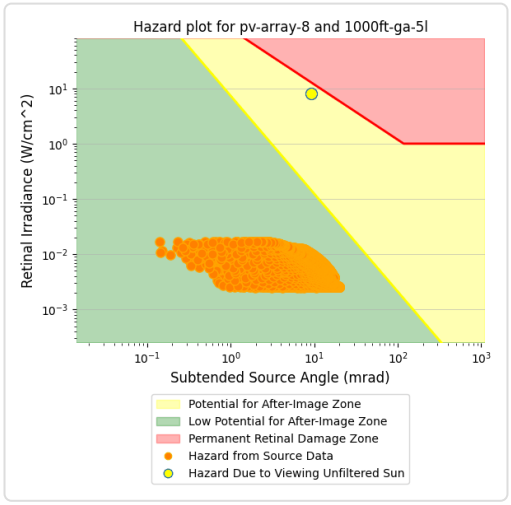
PV array 8 and Route: 1000Ft-GA_5L23R_05L-R_23R-L

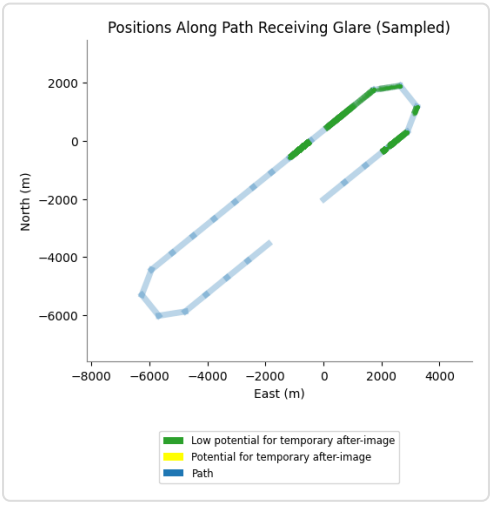
Yellow glare: none

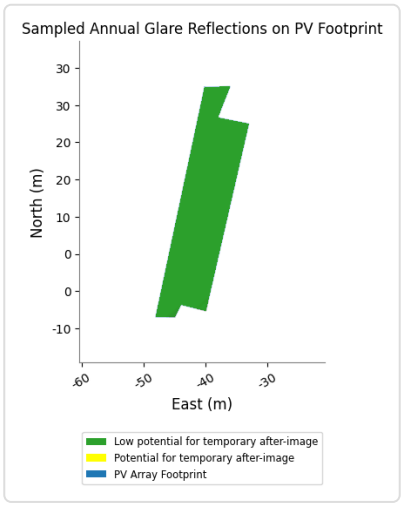
Green glare: 14,447 min.

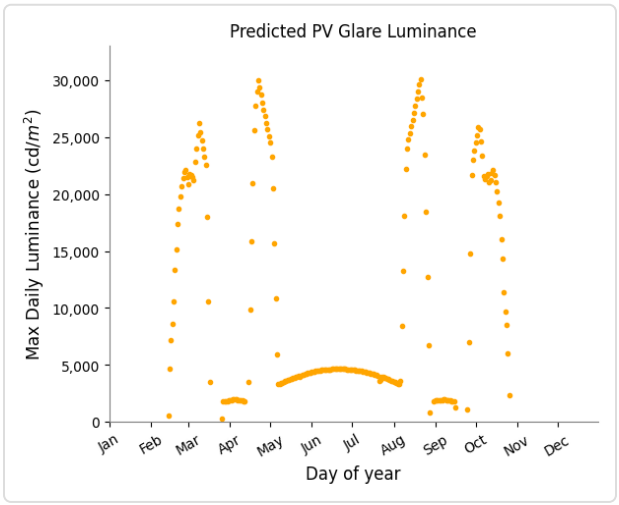








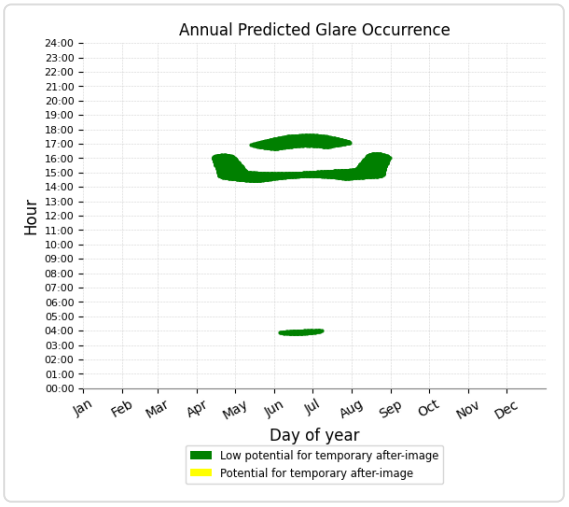


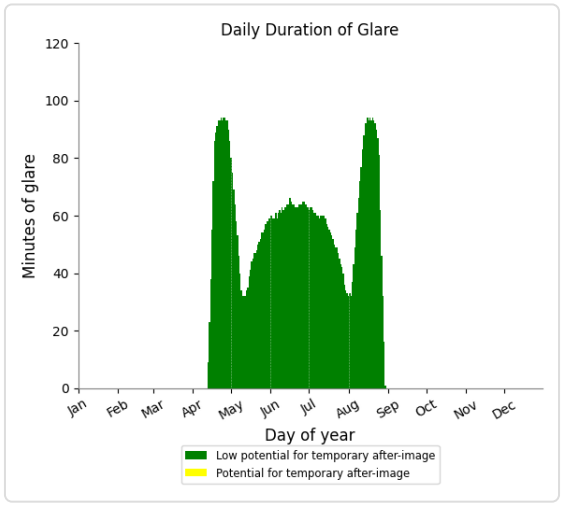


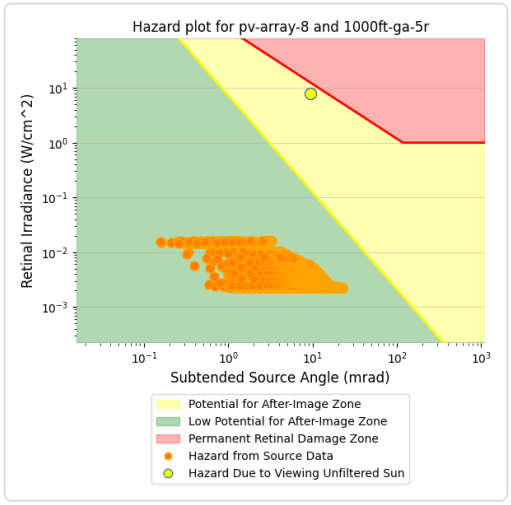
PV array 8 and Route: 1000Ft-GA_5R23L_05R-R_23L-L

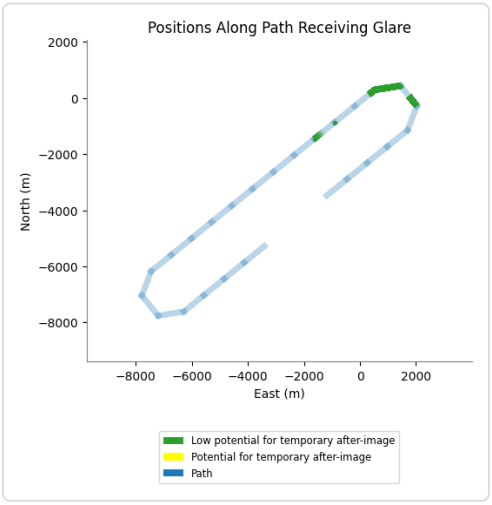
Yellow glare: none

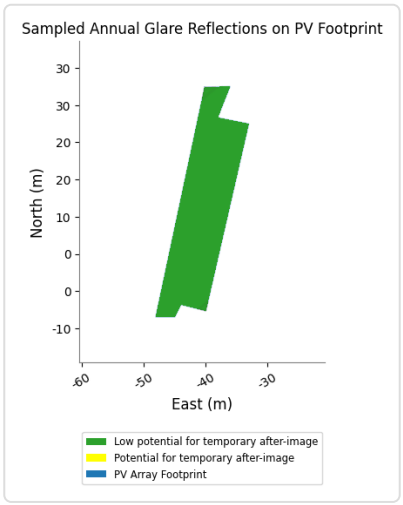
Green glare: 8,436 min.

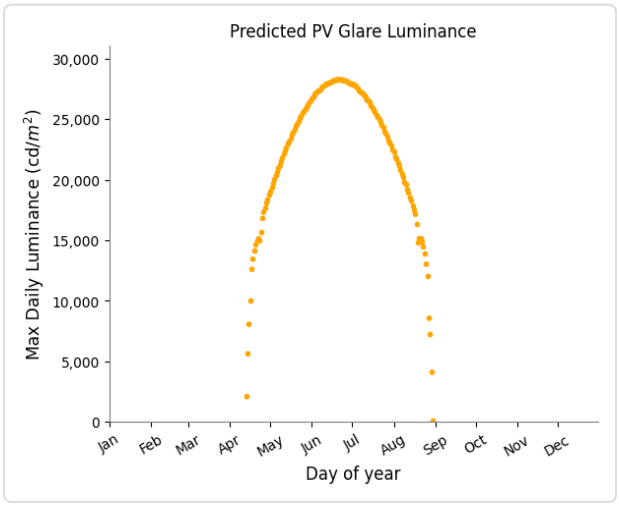








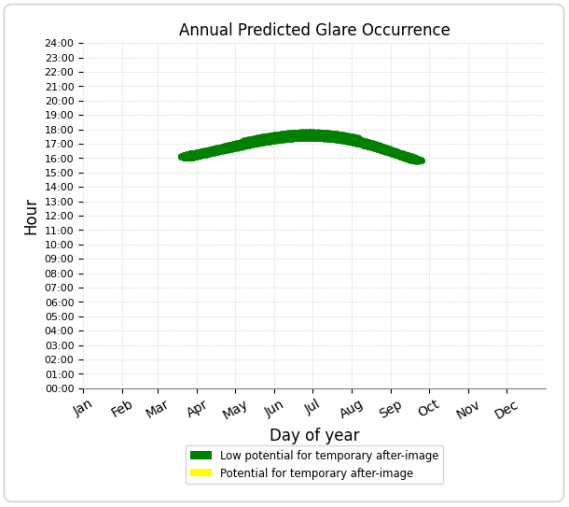


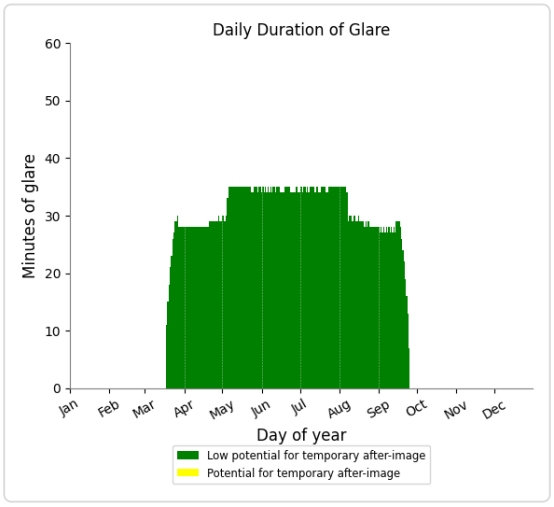


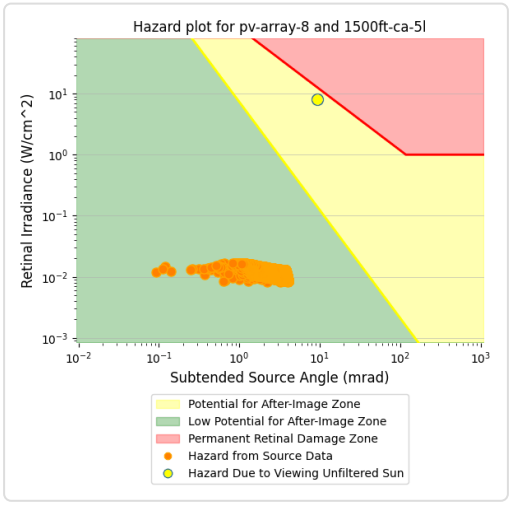
PV array 8 and Route: 1500Ft-CA_5L23R_05L-L_23R-R

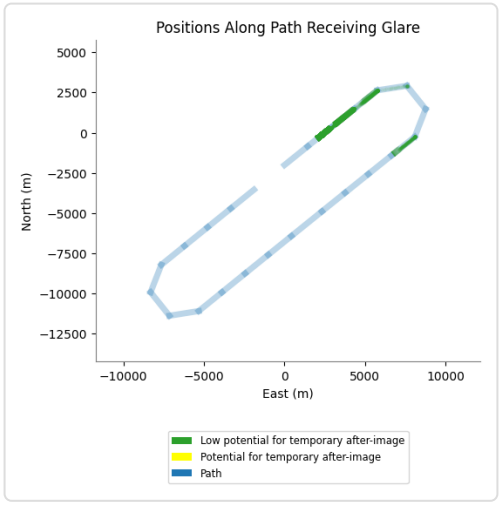
Yellow glare: none

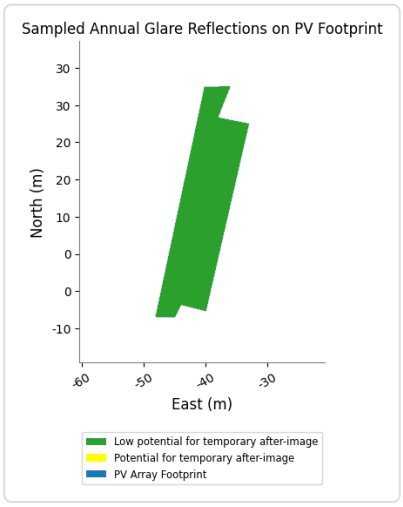
Green glare: 5,925 min.

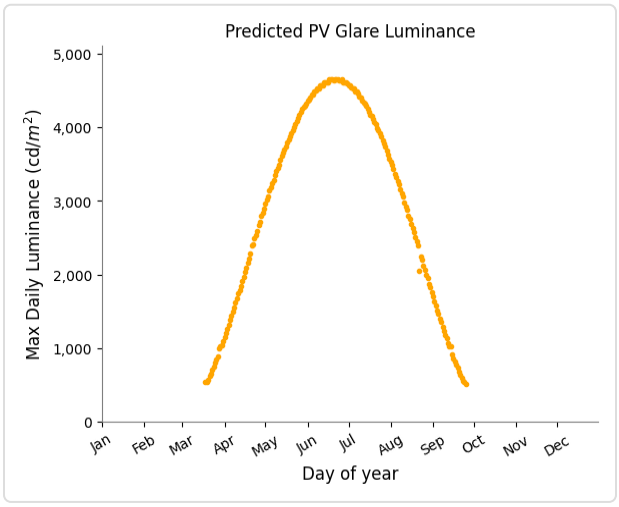








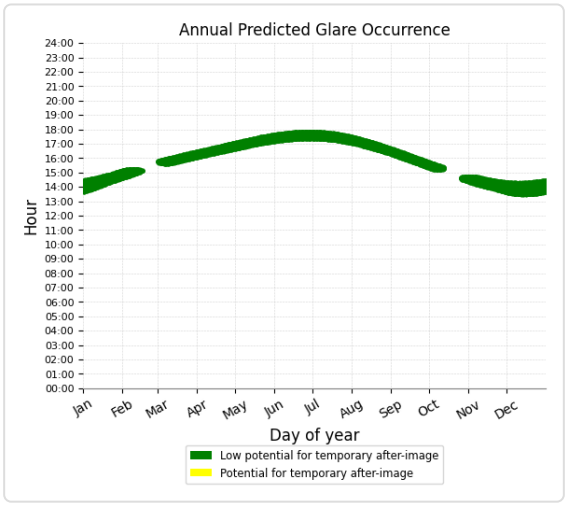


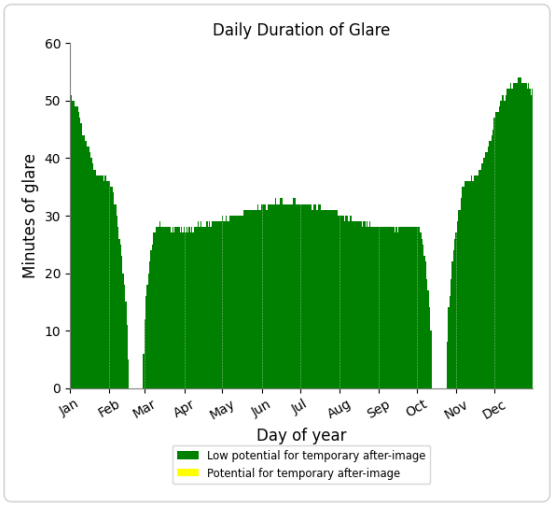


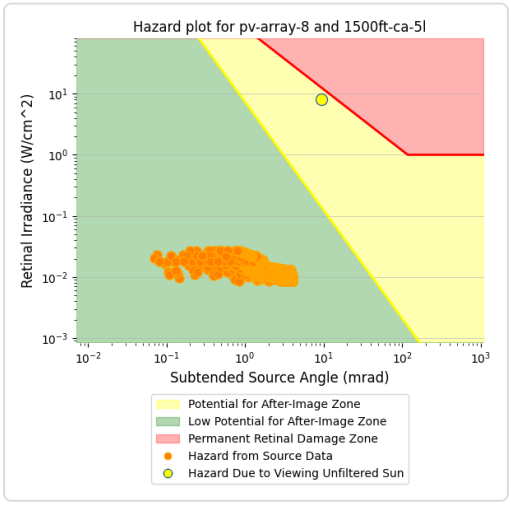
PV array 8 and Route: 1500Ft-CA_5L23R_05L-R_23R-L

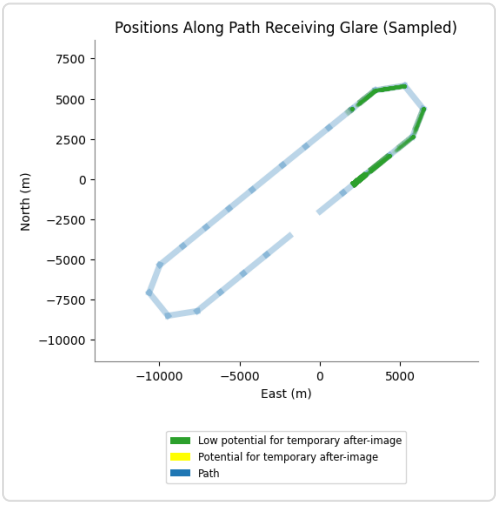
Yellow glare: none

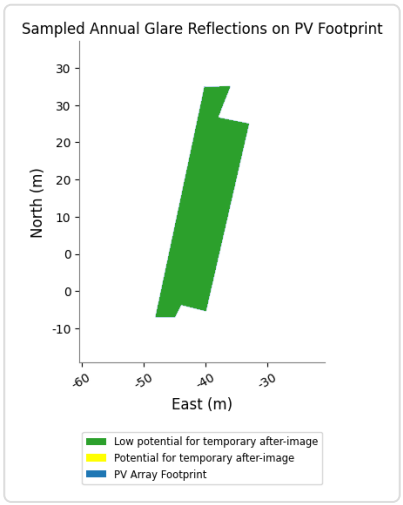
Green glare: 11,099 min.

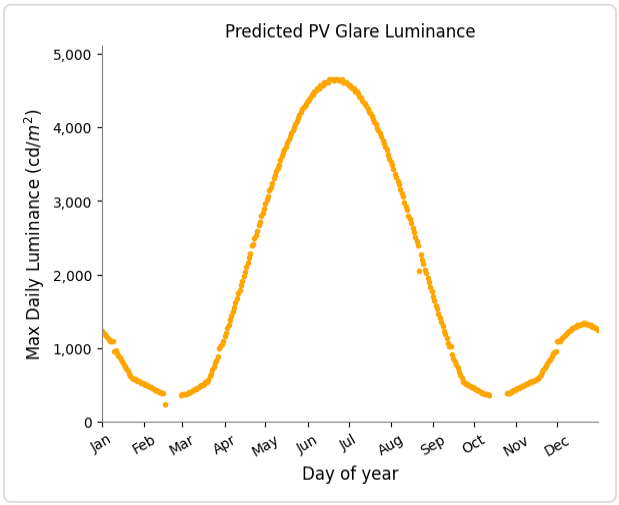








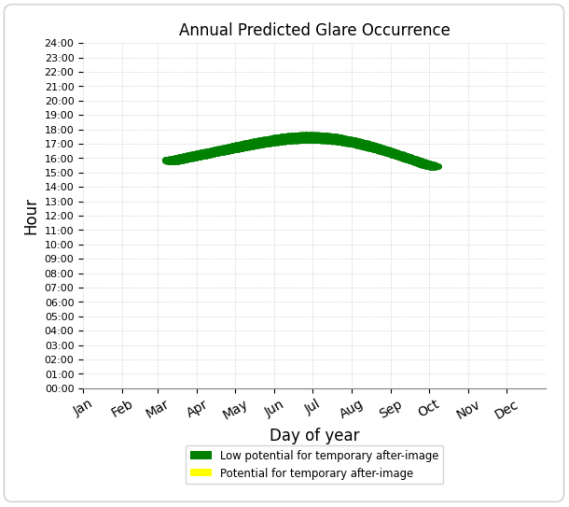


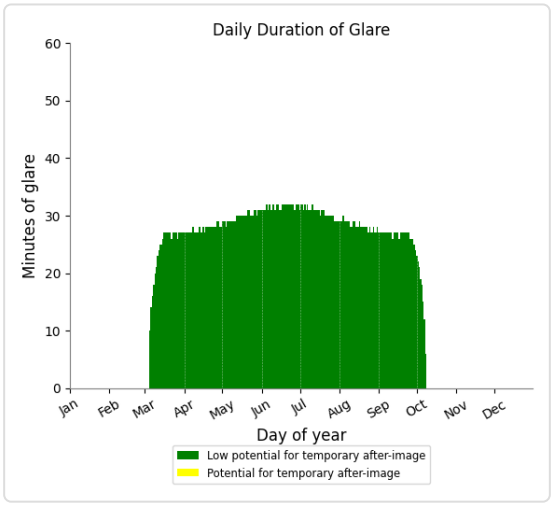


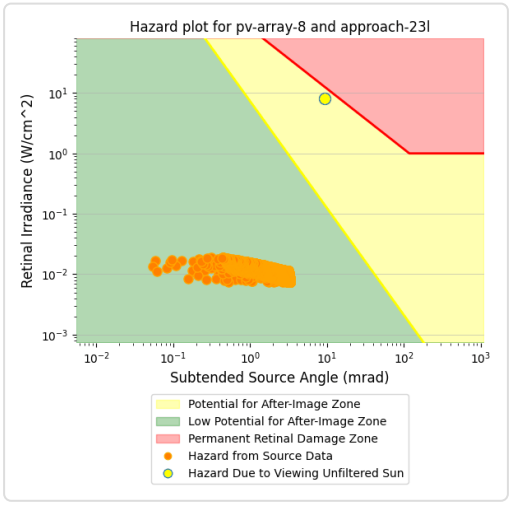
PV array 8 and Route: Approach_23L

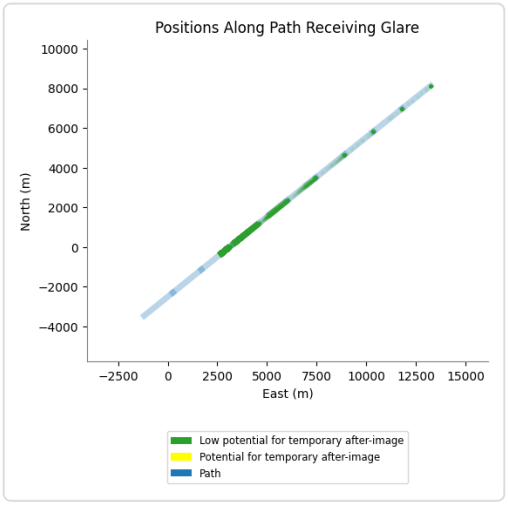
Yellow glare: none

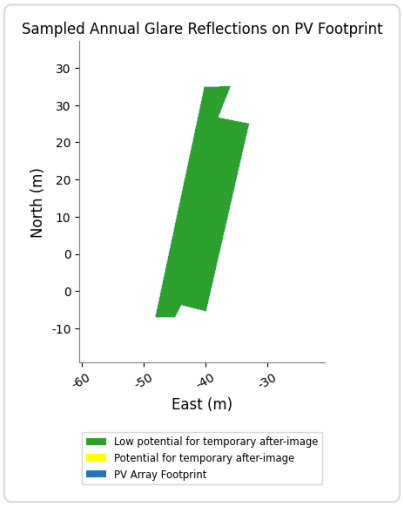
Green glare: 6,115 min.

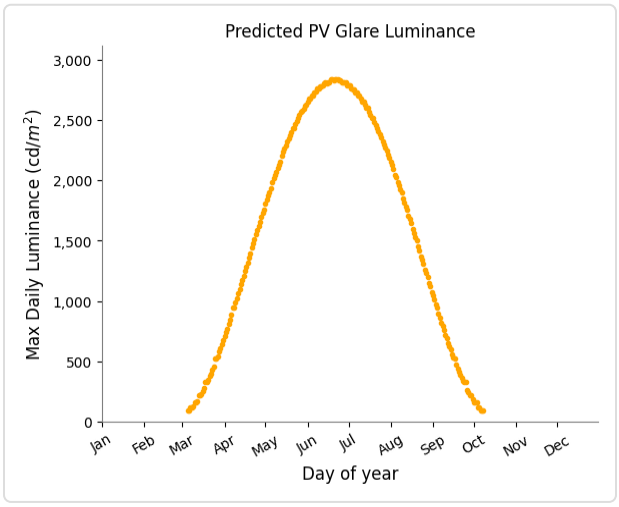








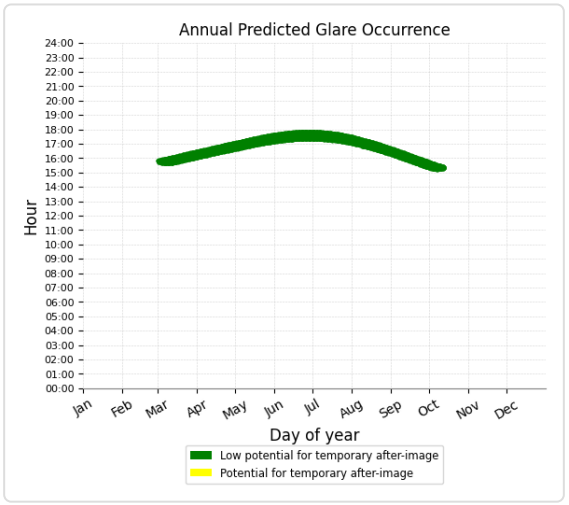


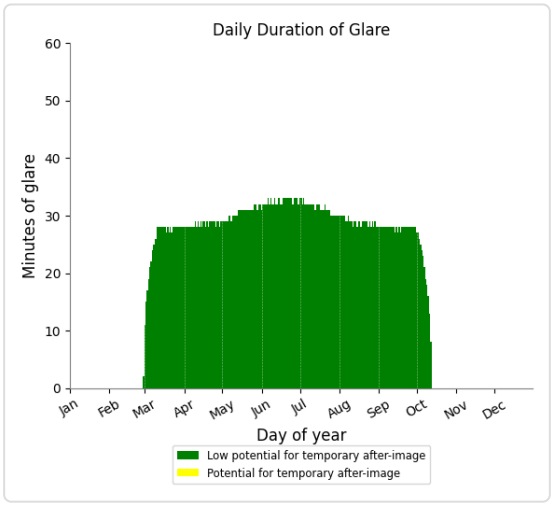


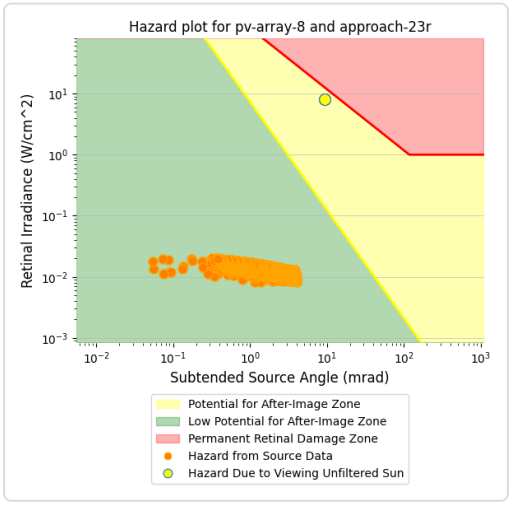
PV array 8 and Route: Approach_23R

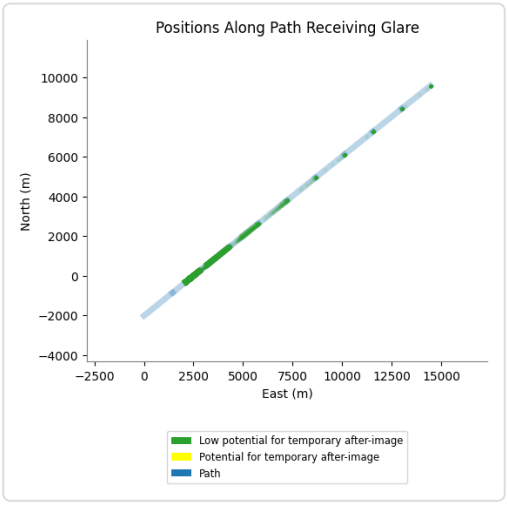
Yellow glare: none

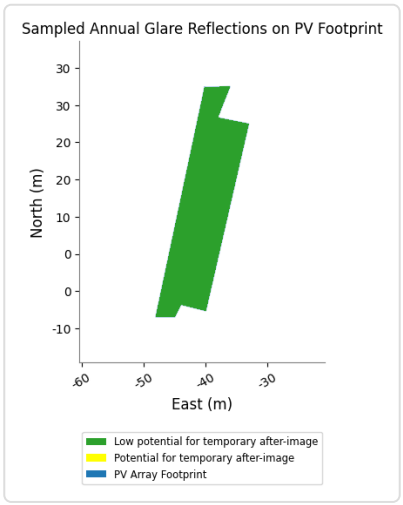
Green glare: 6,521 min.

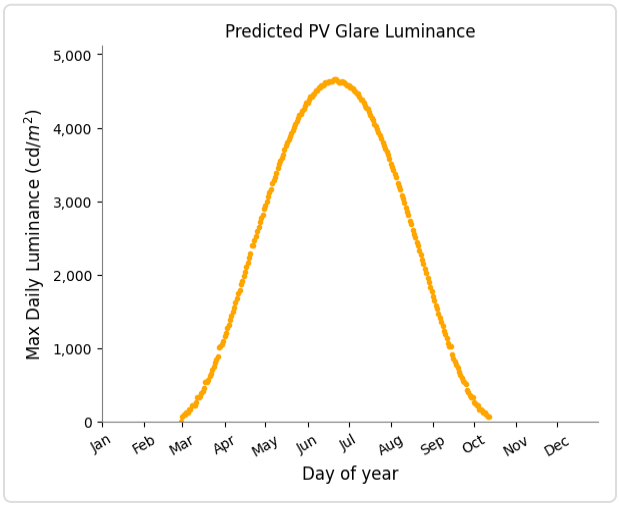












PV array 8 and Route: 1000Ft-GA_5R23L_05R-L_23L-R

No glare found

PV array 8 and Route: Approach_05L

No glare found

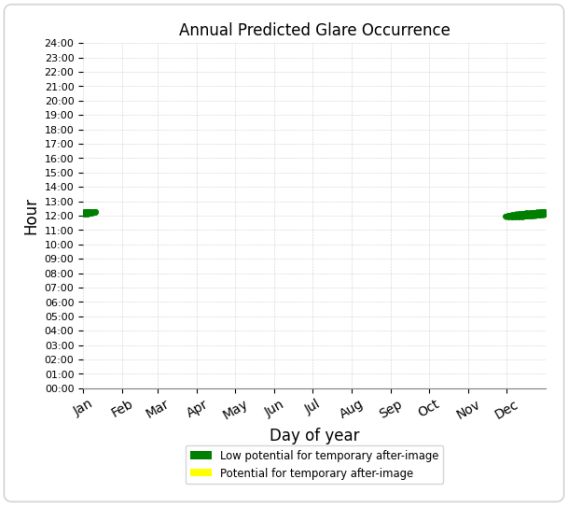
PV array 8 and Route: Approach_05R

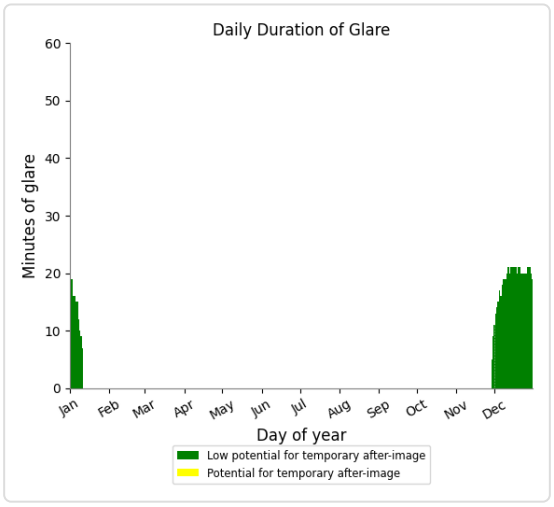
No glare found

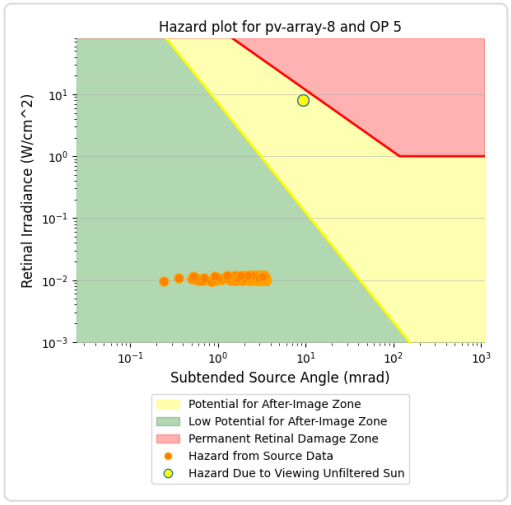
PV array 8 and OP 5

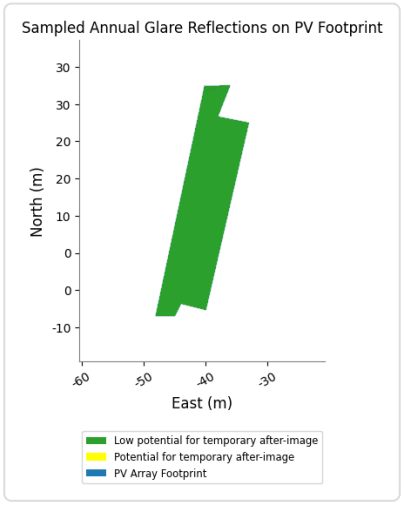
Yellow glare: none

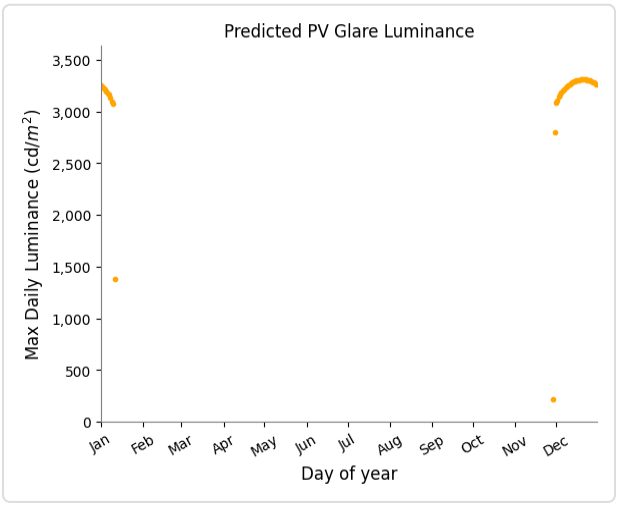
Green glare: 762 min.







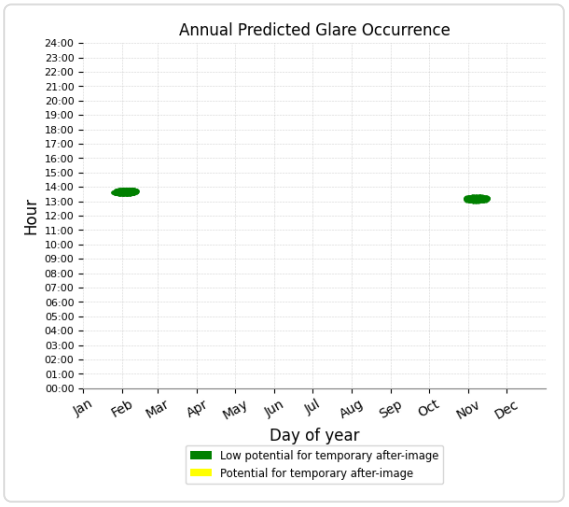


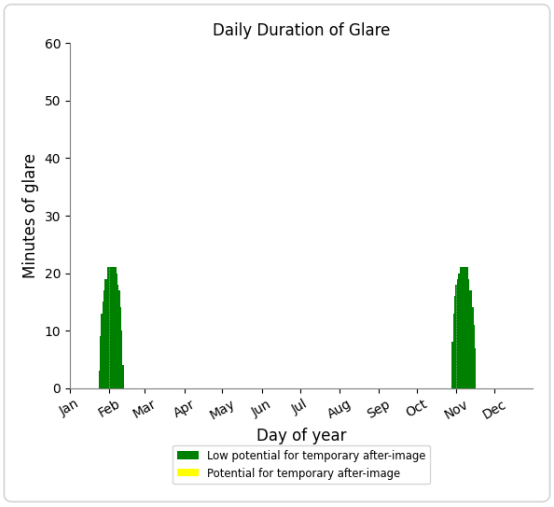


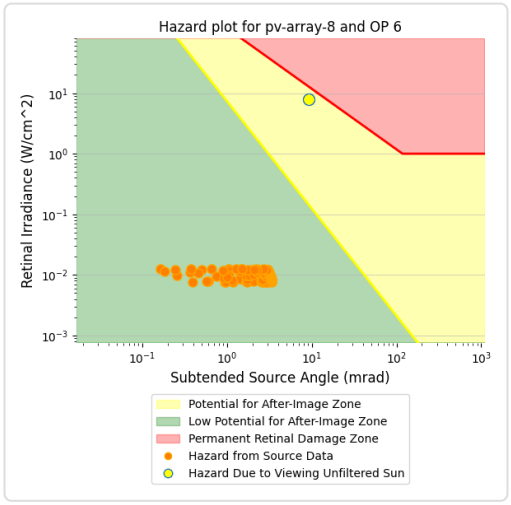
PV array 8 and OP 6

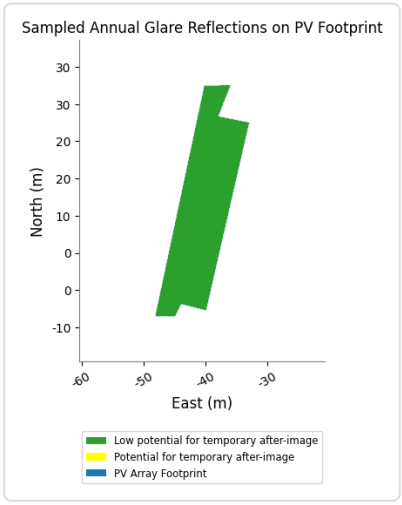
Yellow glare: none

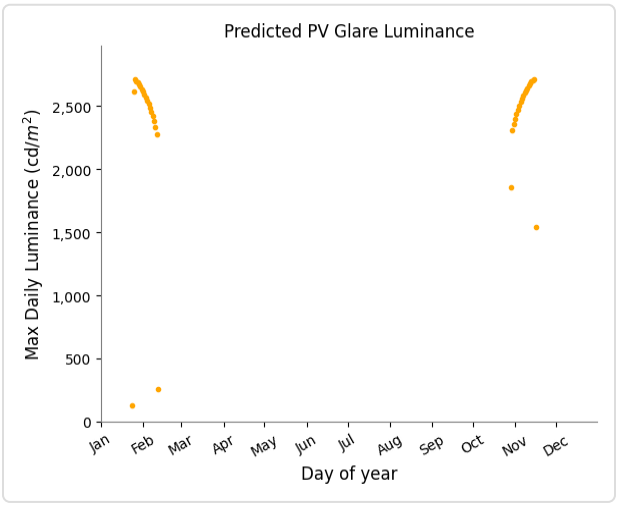
Green glare: 651 min.







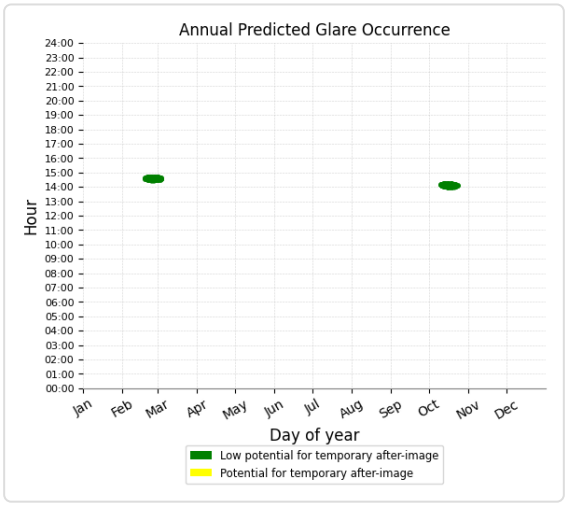


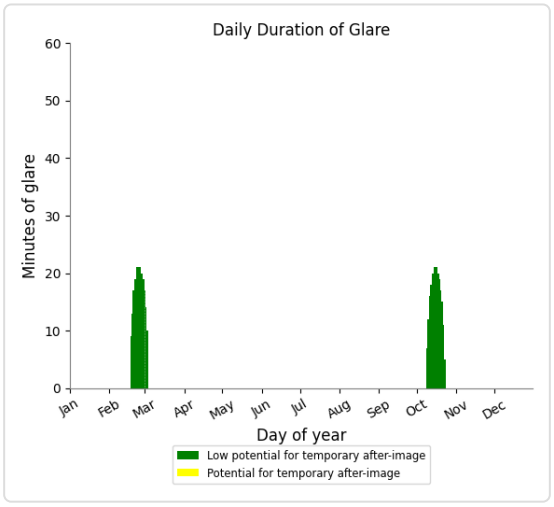


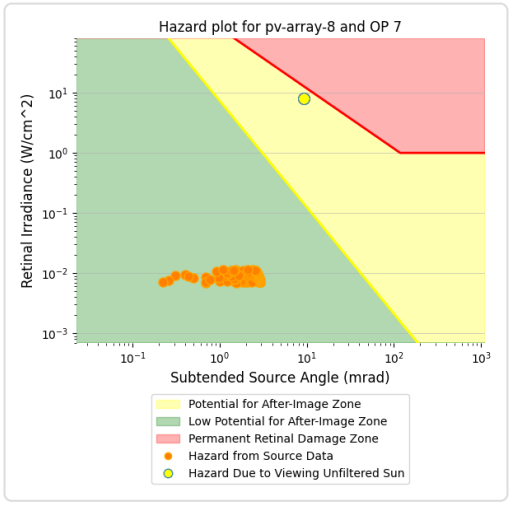
PV array 8 and OP 7

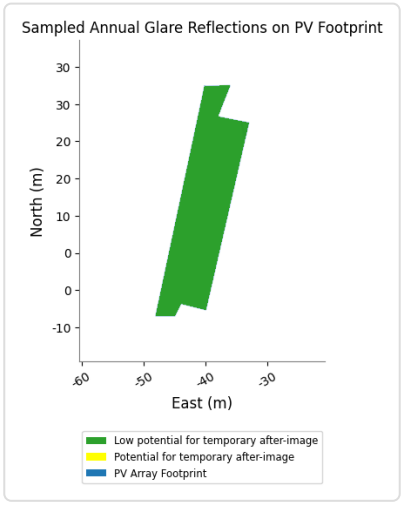
Yellow glare: none

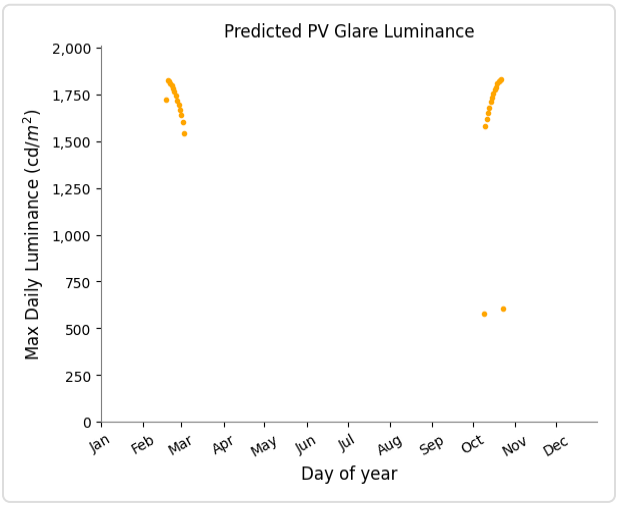
Green glare: 483 min.







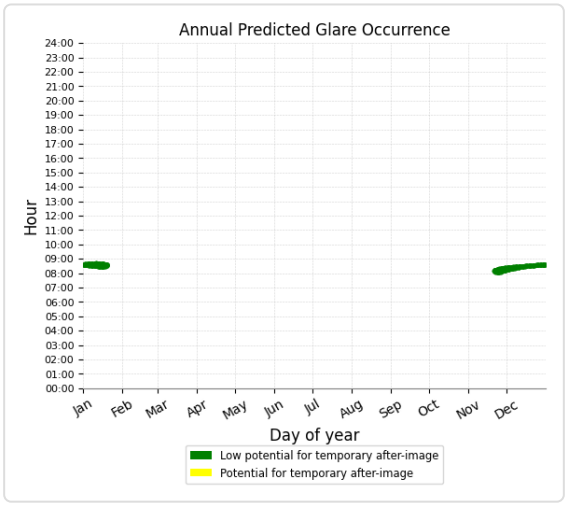


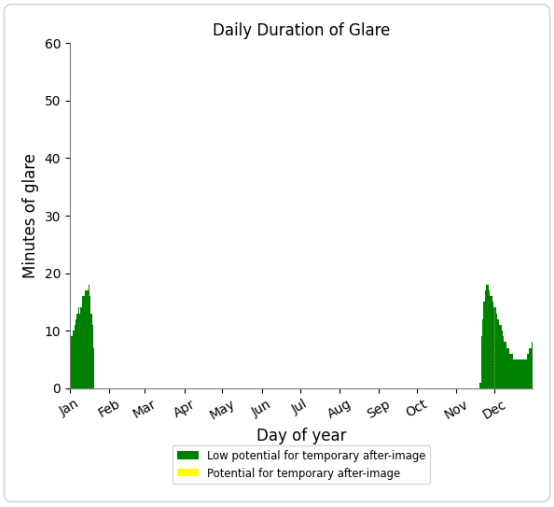


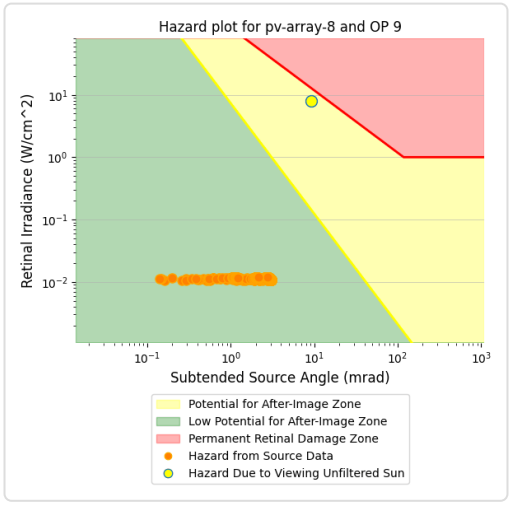
PV array 8 and OP 9

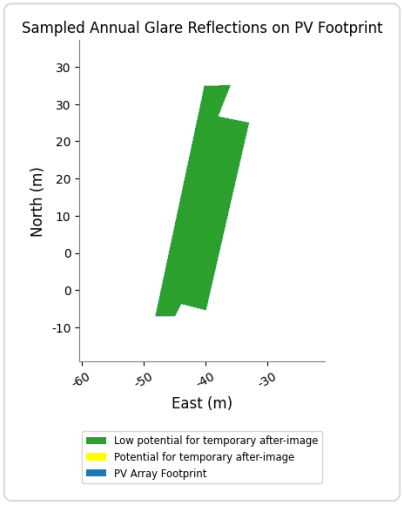
Yellow glare: none

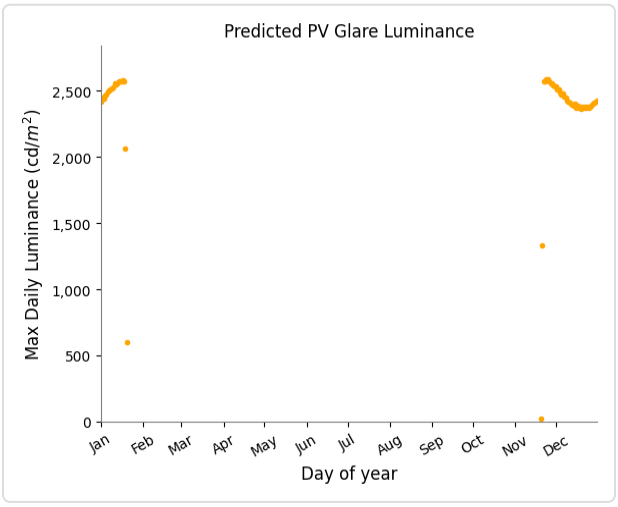
Green glare: 646 min.







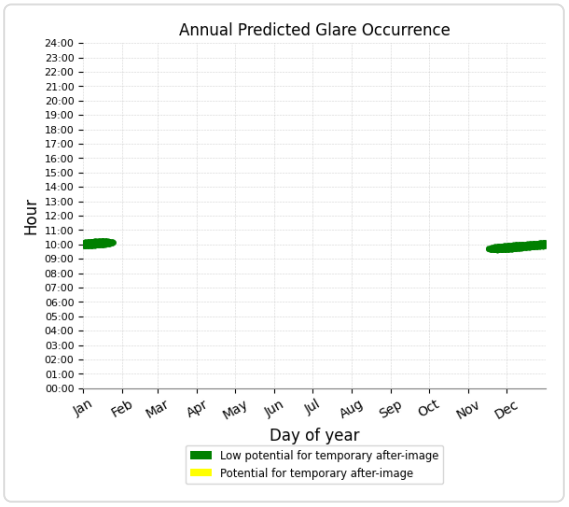


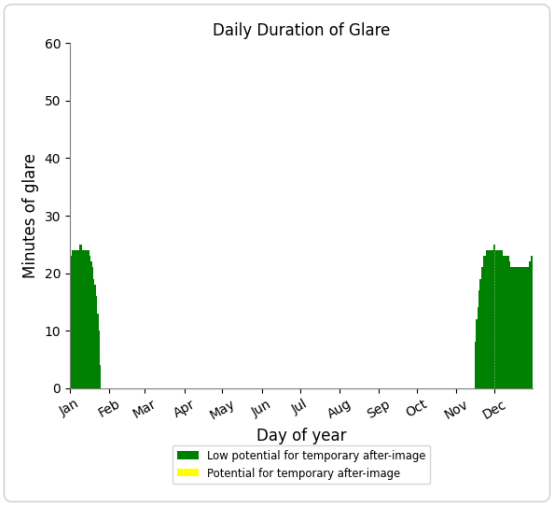


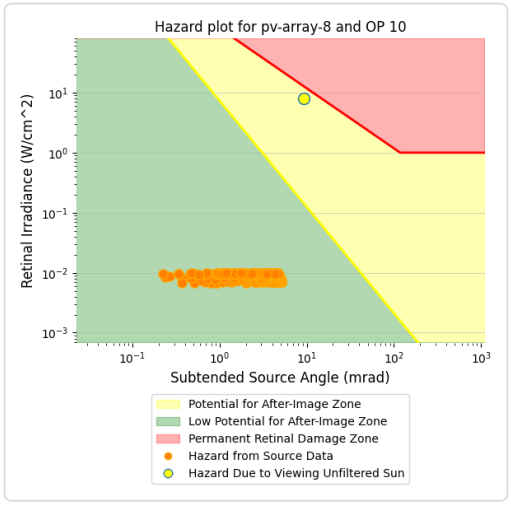
PV array 8 and OP 10

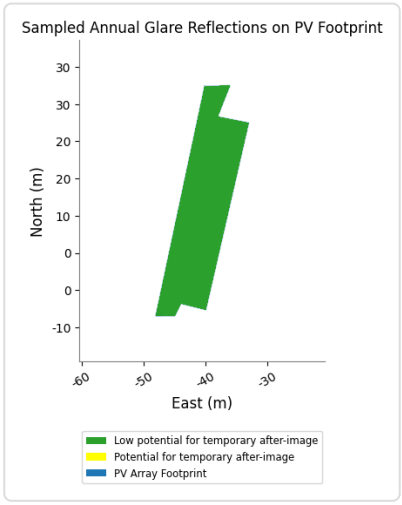
Yellow glare: none

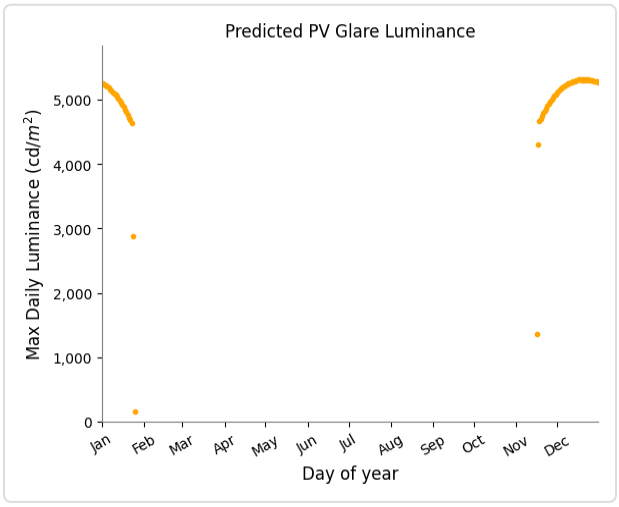
Green glare: 1,521 min.







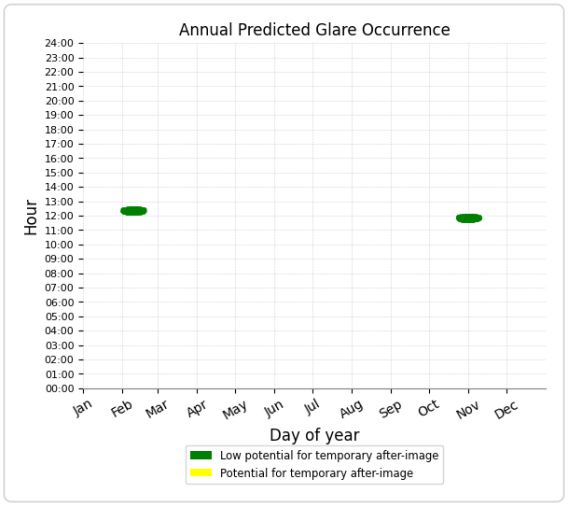


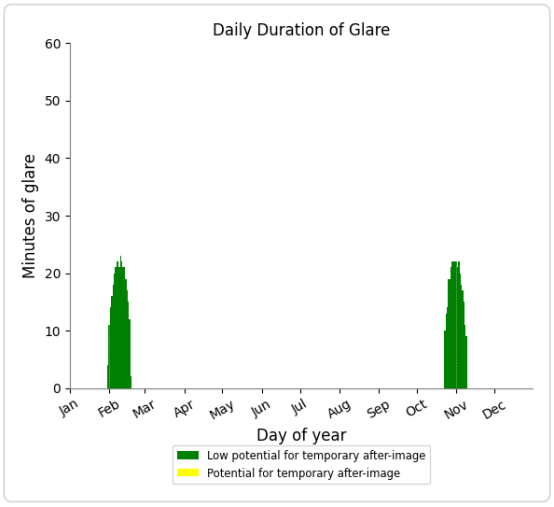


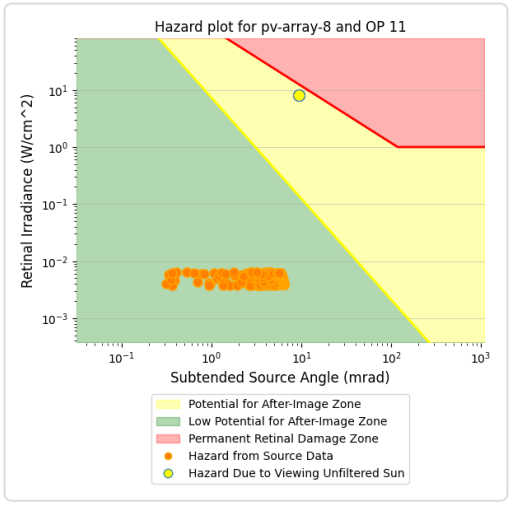
PV array 8 and OP 11

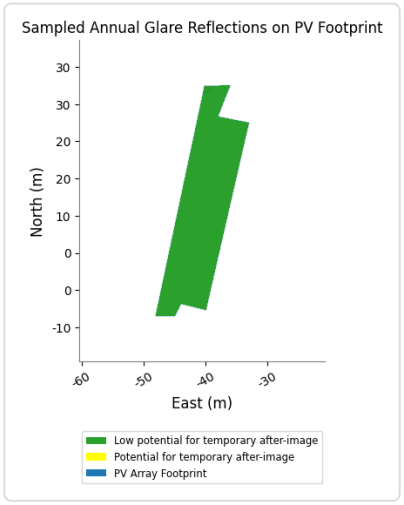
Yellow glare: none

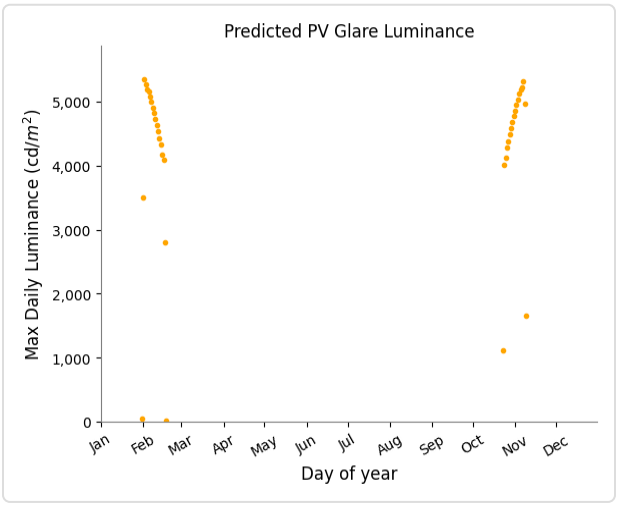
Green glare: 638 min.







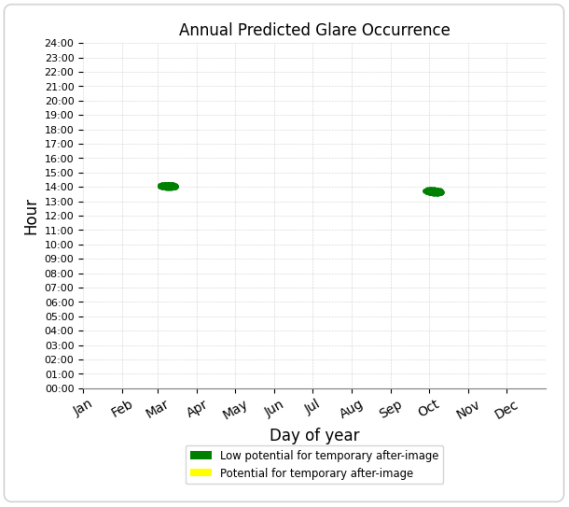


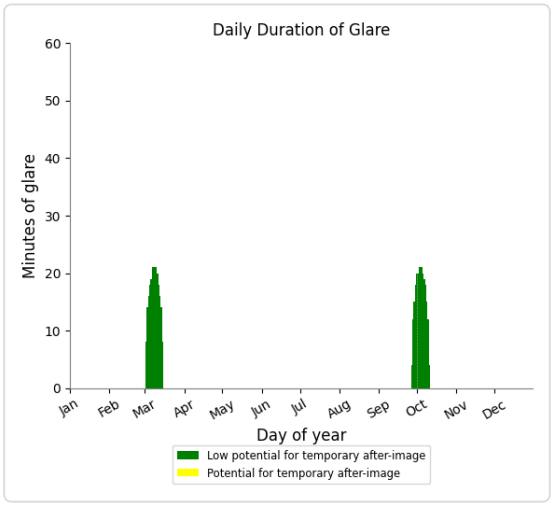


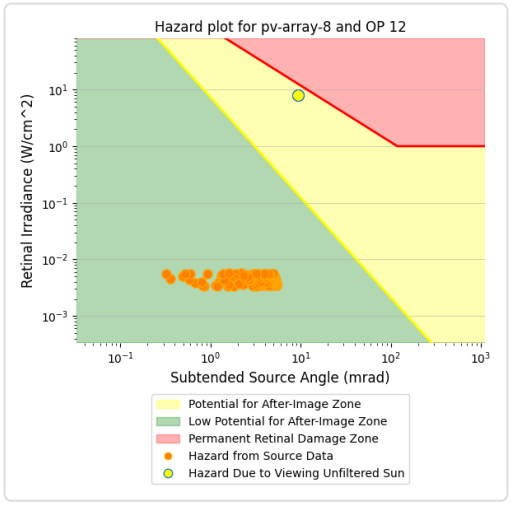
PV array 8 and OP 12

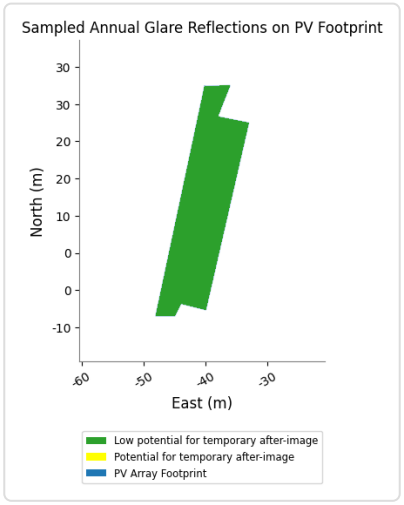
Yellow glare: none

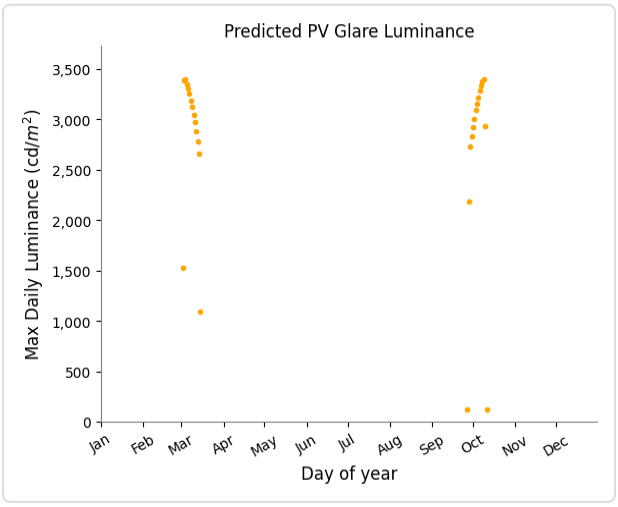
Green glare: 475 min.







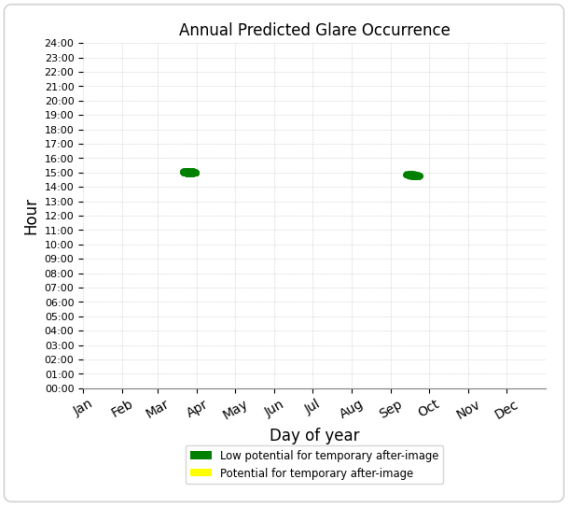


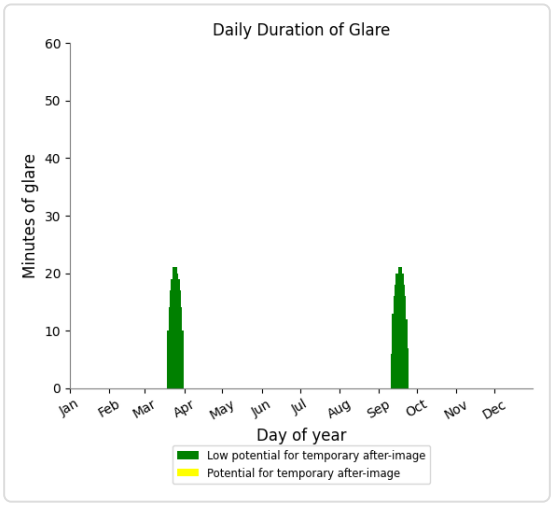


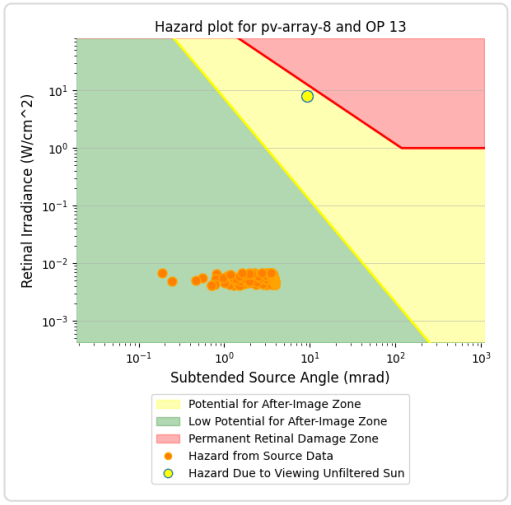
PV array 8 and OP 13

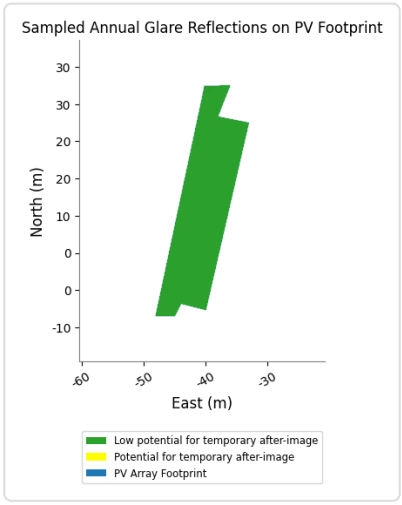
Yellow glare: none

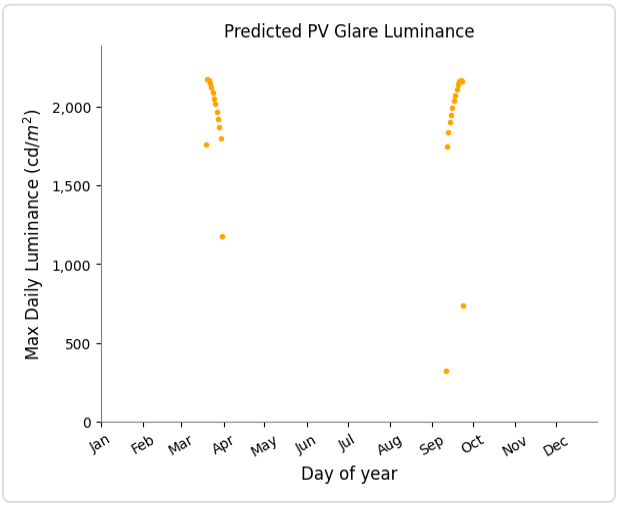
Green glare: 453 min.







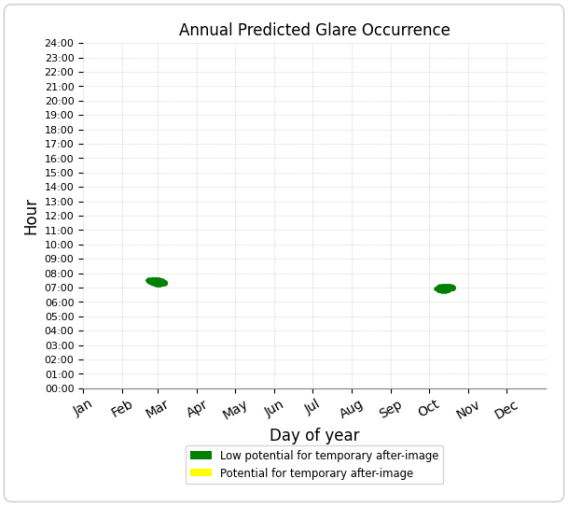


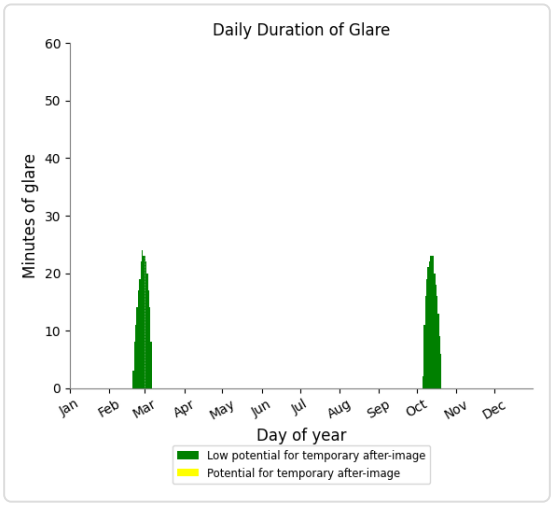


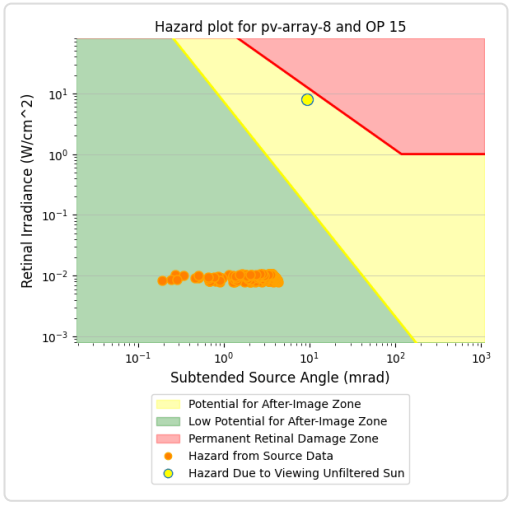
PV array 8 and OP 15

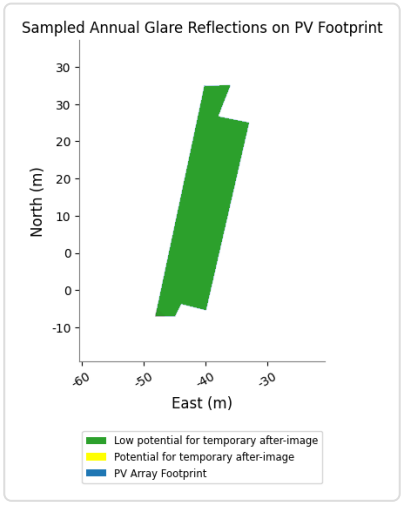
Yellow glare: none

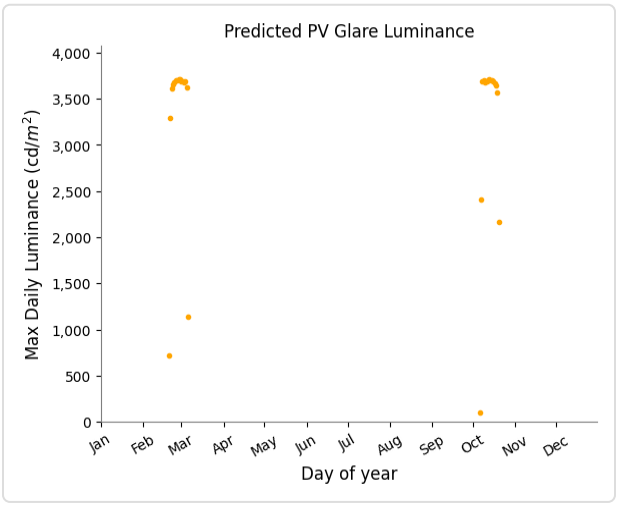
Green glare: 487 min.







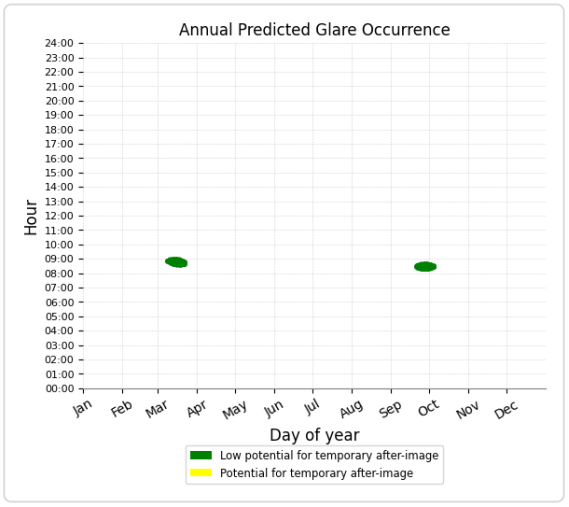


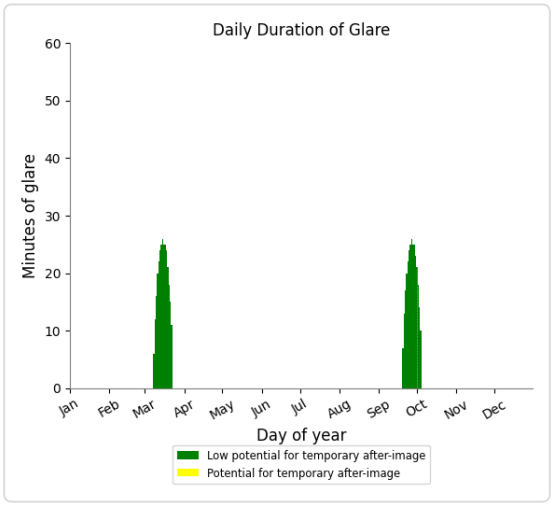


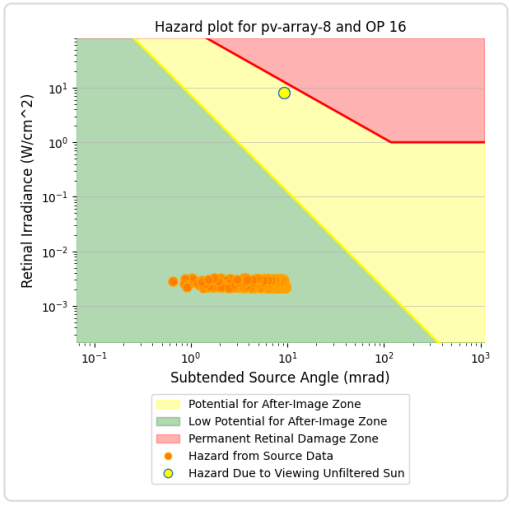
PV array 8 and OP 16

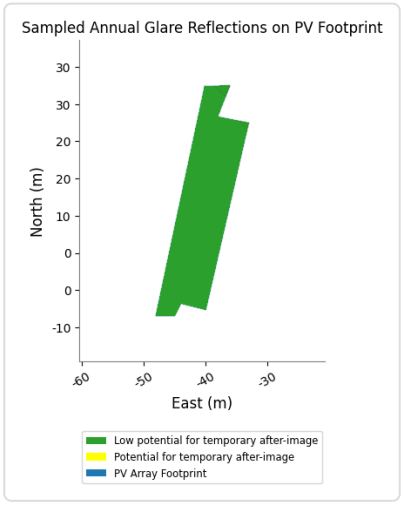
Yellow glare: none

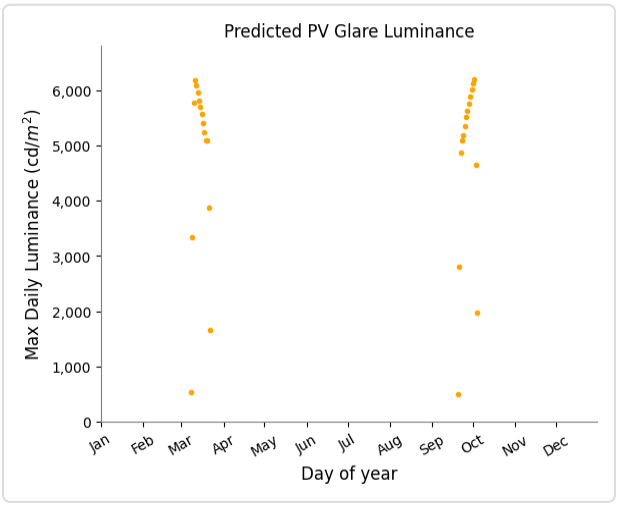
Green glare: 580 min.







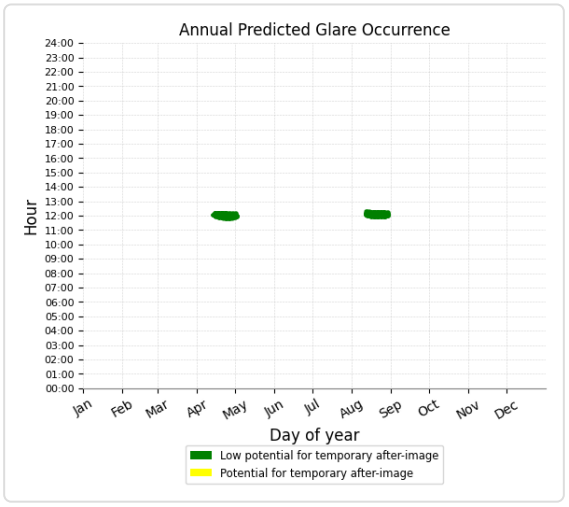


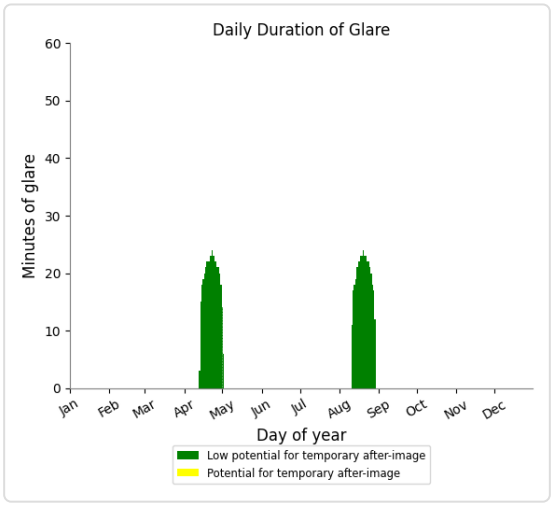


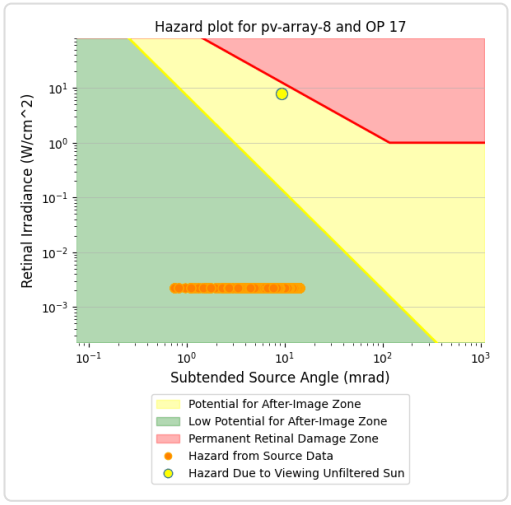
PV array 8 and OP 17

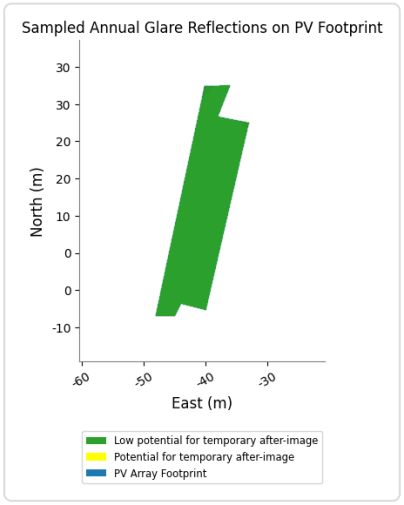
Yellow glare: none

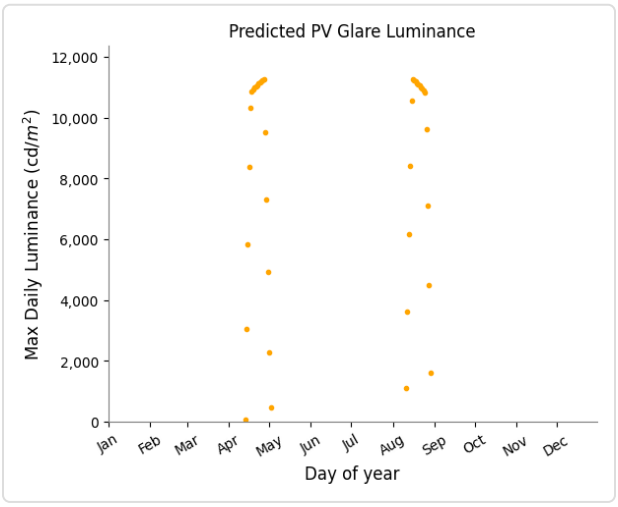
Green glare: 754 min.







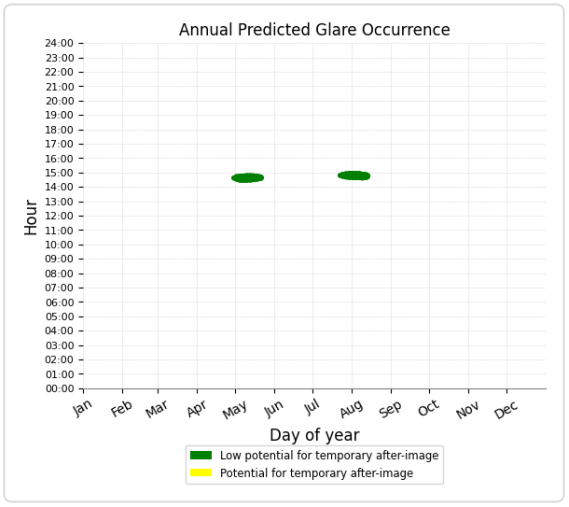


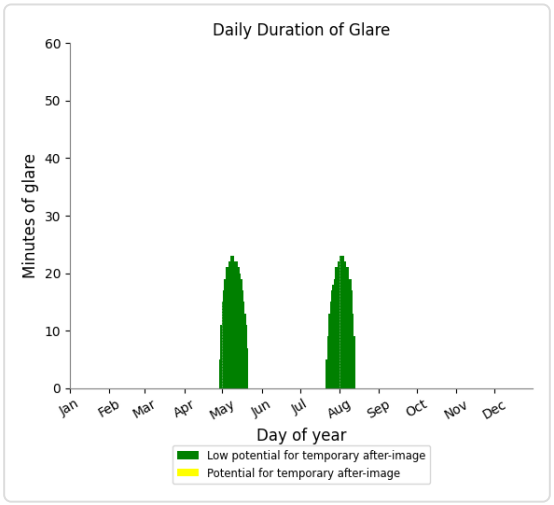


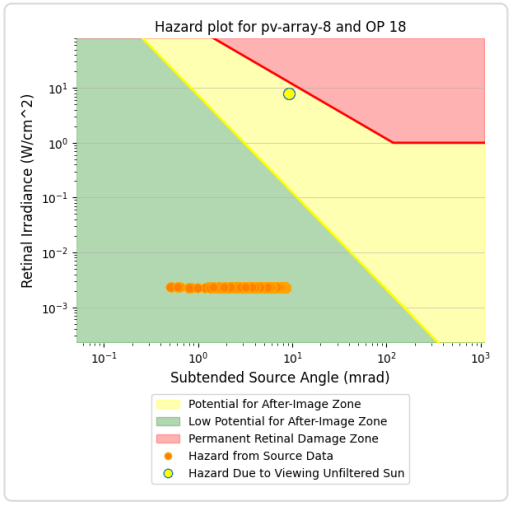
PV array 8 and OP 18

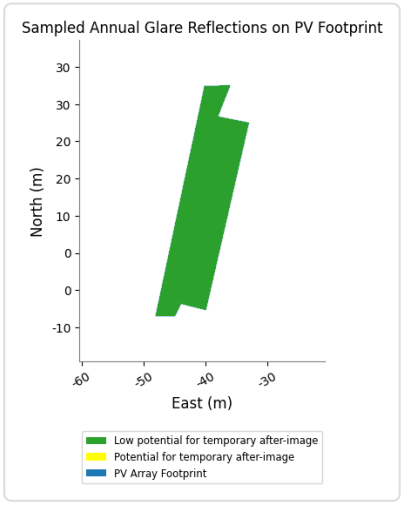
Yellow glare: none

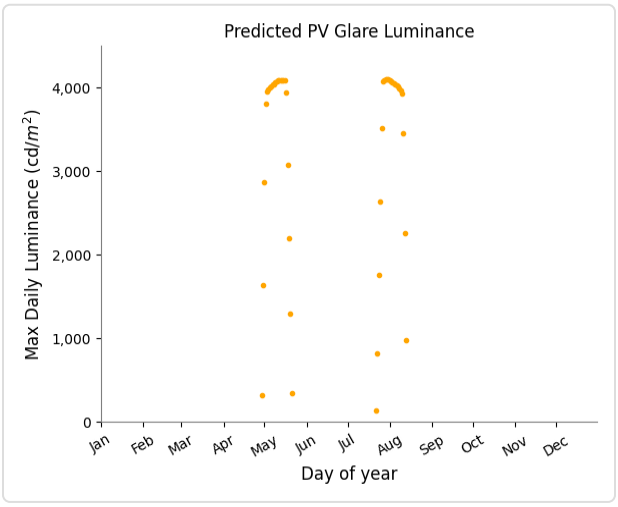
Green glare: 825 min.







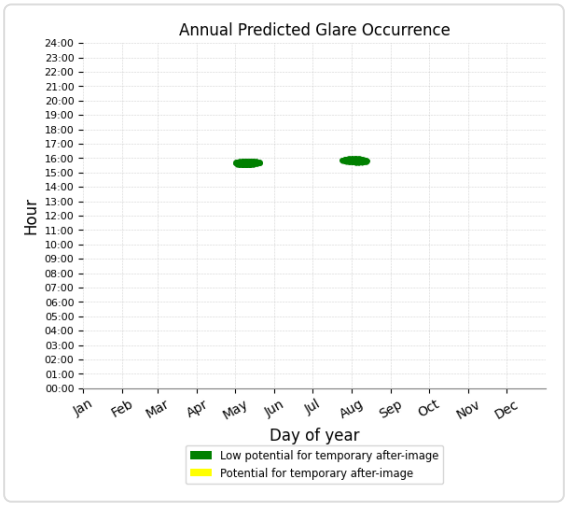


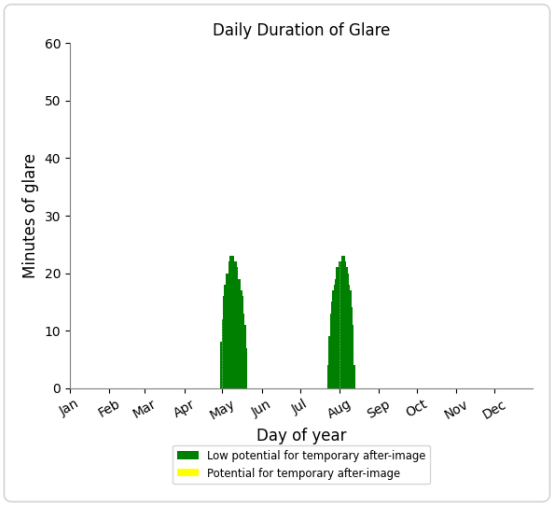


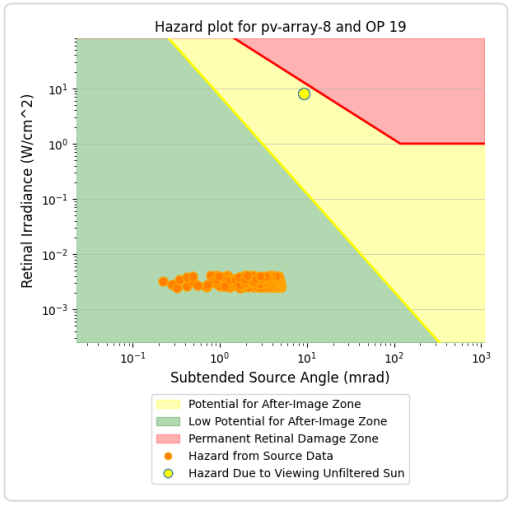
PV array 8 and OP 19

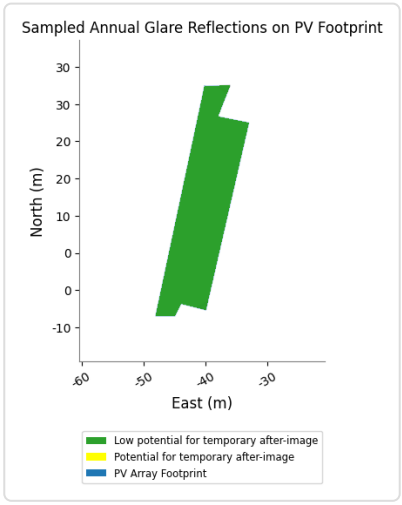
Yellow glare: none

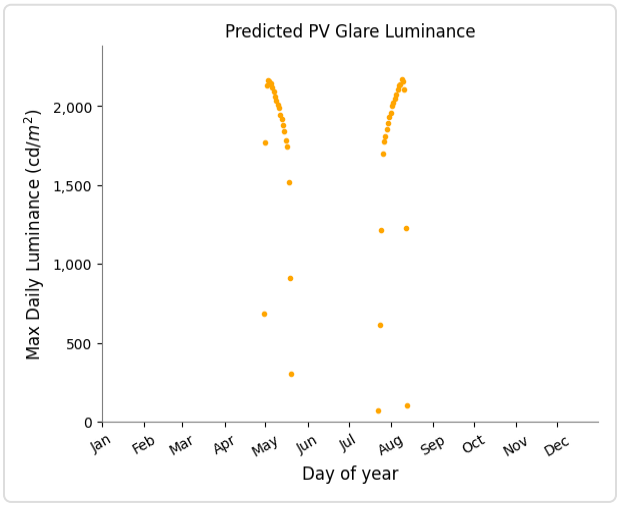
Green glare: 752 min.







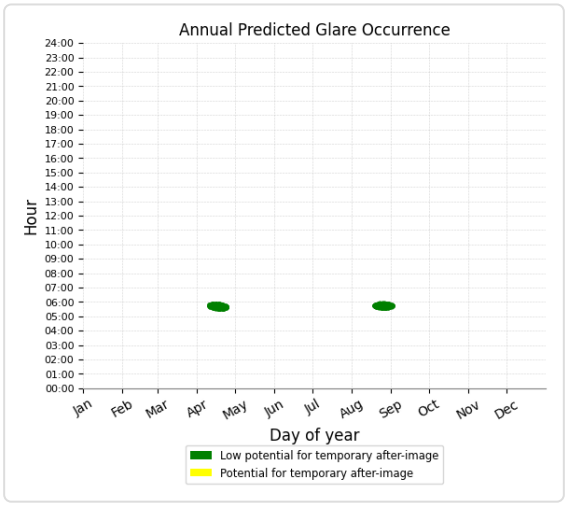


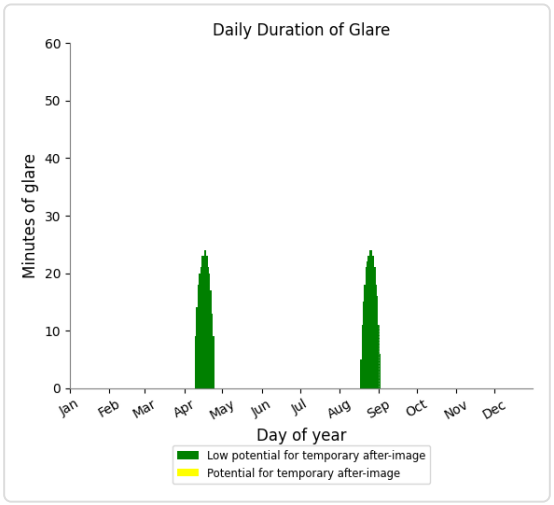


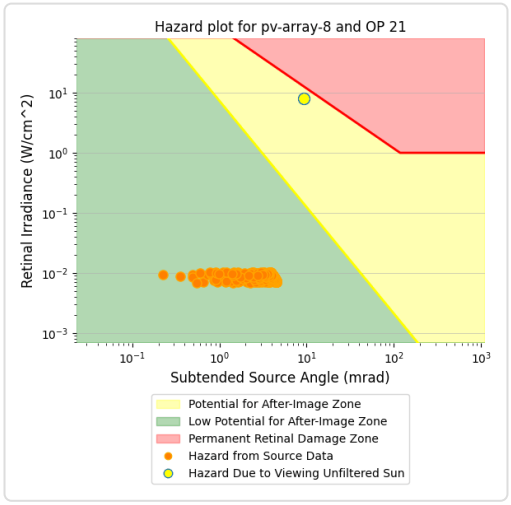
PV array 8 and OP 21

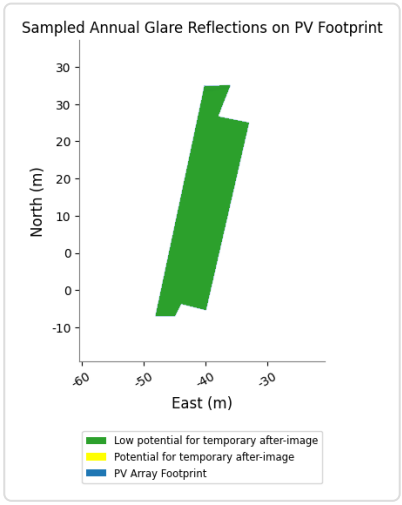
Yellow glare: none

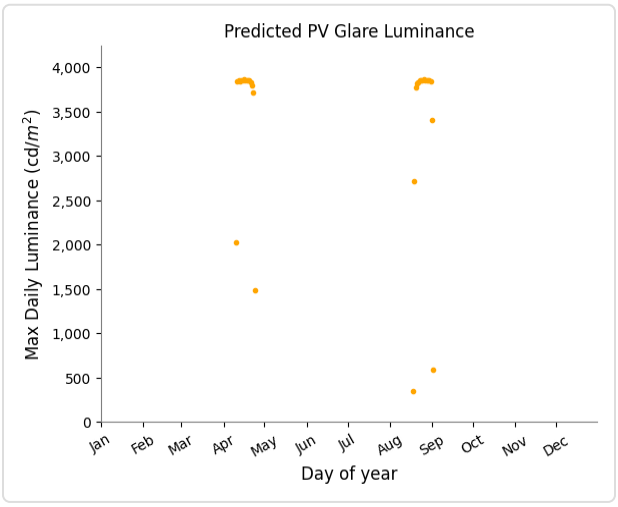
Green glare: 560 min.







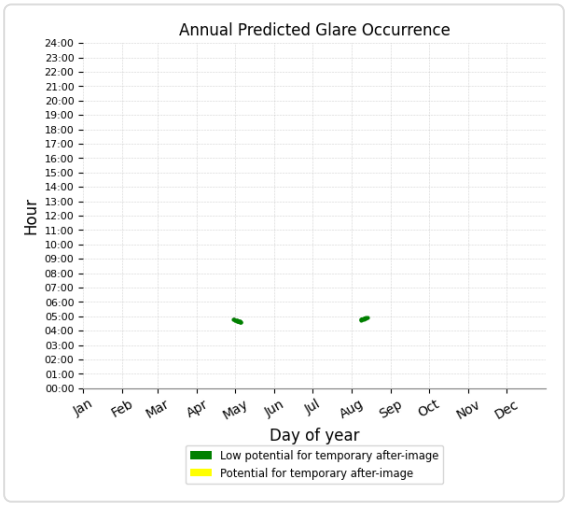


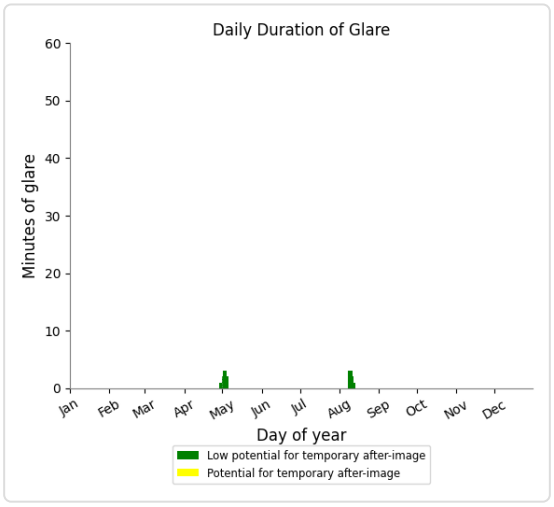


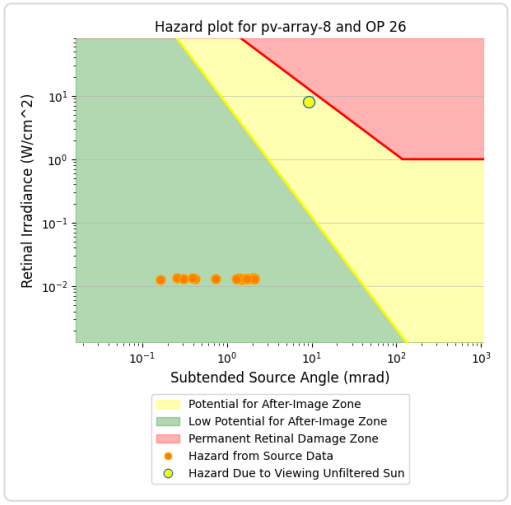
PV array 8 and OP 26

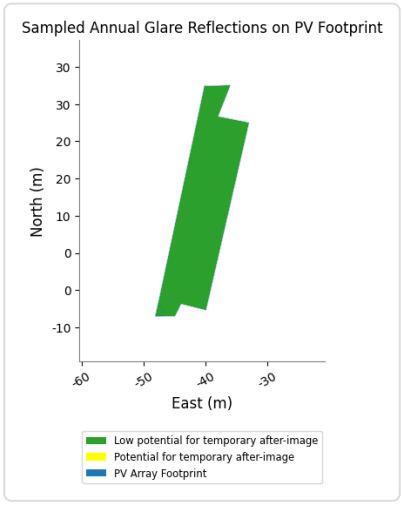
Yellow glare: none

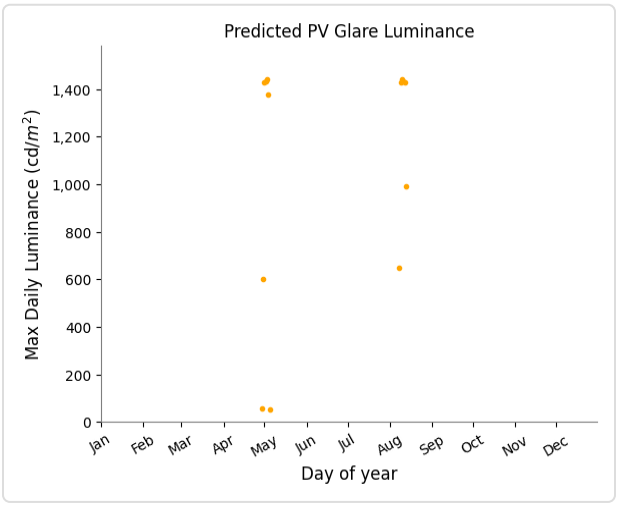
Green glare: 30 min.







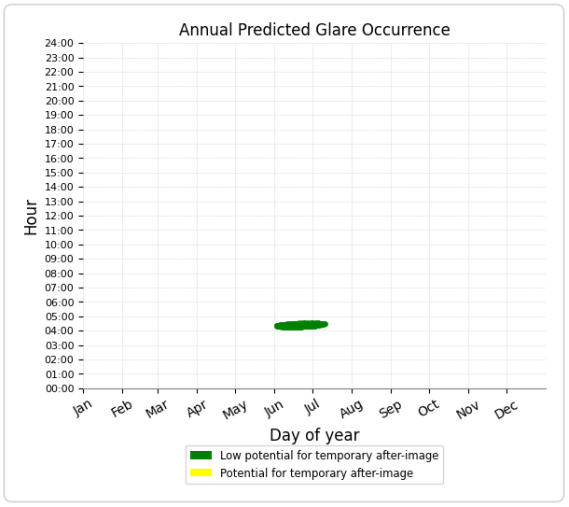


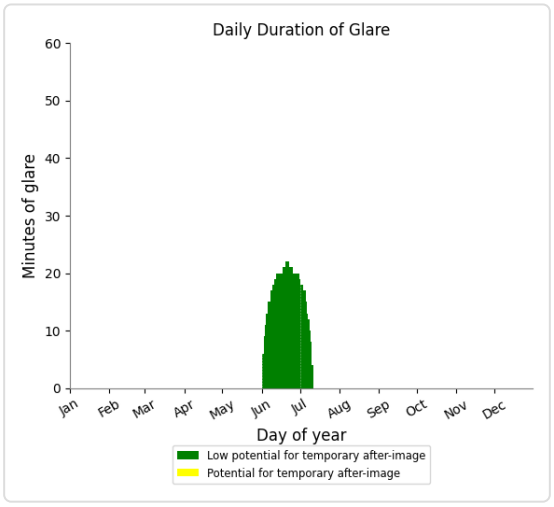


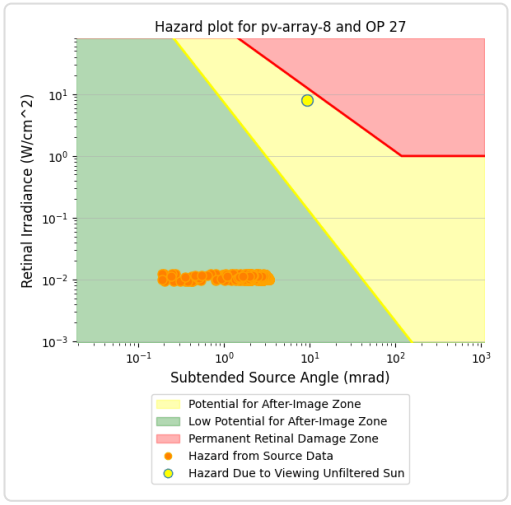
PV array 8 and OP 27

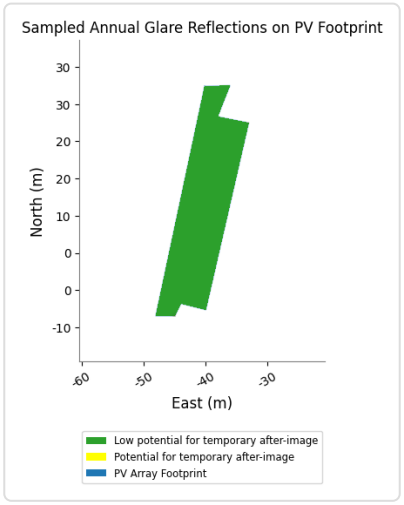
Yellow glare: none

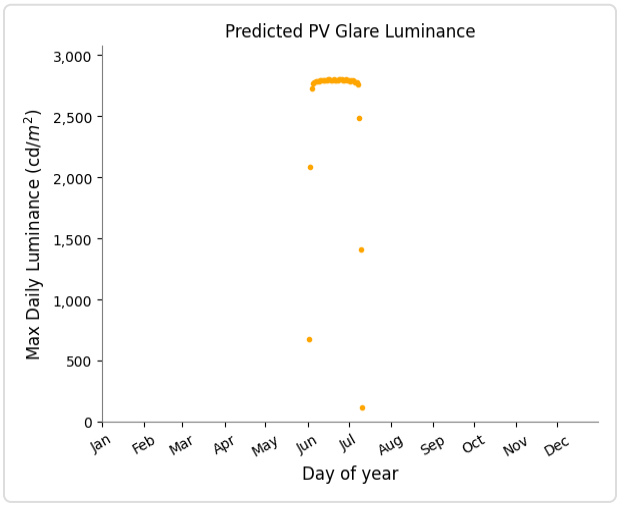
Green glare: 681 min.







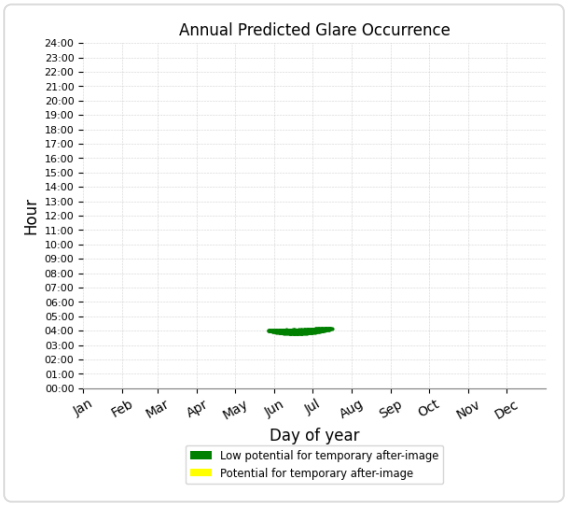


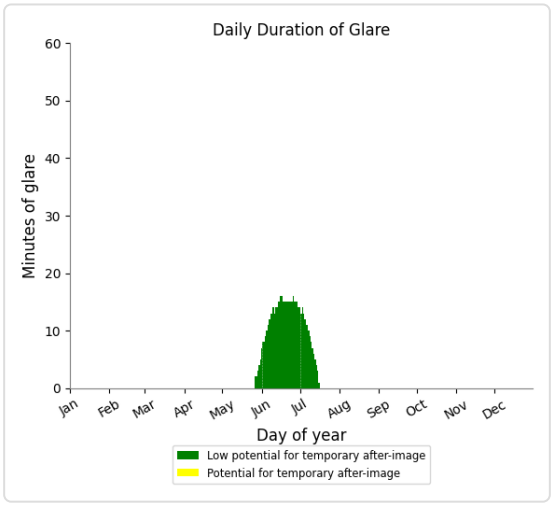


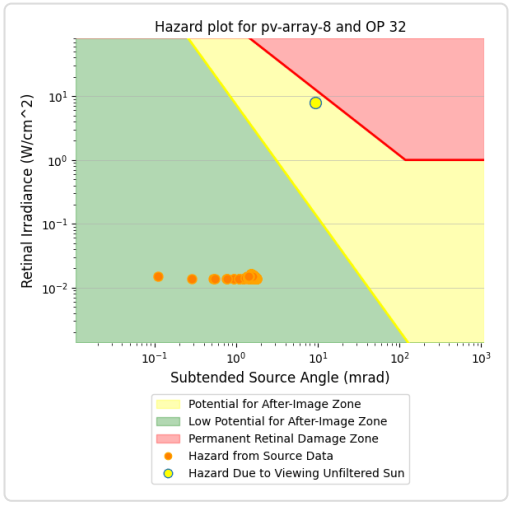
PV array 8 and OP 32

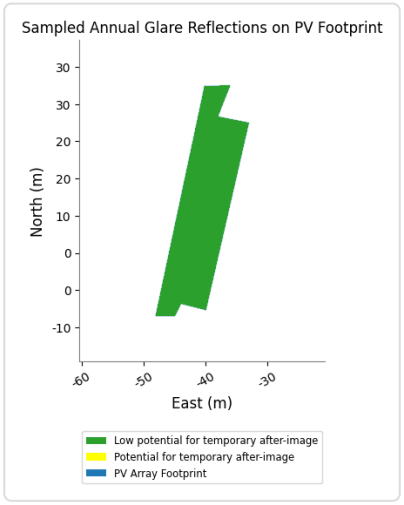
Yellow glare: none

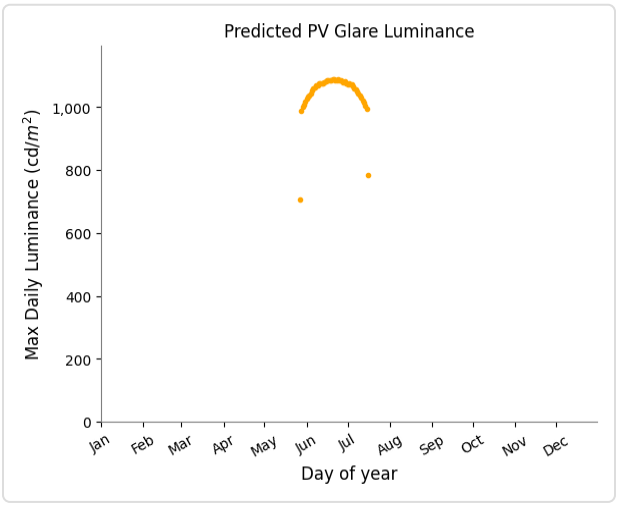
Green glare: 560 min.











PV array 8 and 1-ATCT

No glare found

PV array 8 and OP 2

No glare found

PV array 8 and OP 3

No glare found

PV array 8 and OP 4

No glare found

PV array 8 and OP 8

No glare found

PV array 8 and OP 14

No glare found

PV array 8 and OP 20

No glare found

PV array 8 and OP 22

No glare found

PV array 8 and OP 23

No glare found

PV array 8 and OP 24

No glare found

PV array 8 and OP 25

No glare found

PV array 8 and OP 28

No glare found

PV array 8 and OP 29

No glare found

PV array 8 and OP 30

No glare found

PV array 8 and OP 31

No glare found

PV array 8 and OP 33

No glare found

PV array 8 and OP 34

No glare found

PV array 8 and OP 35

No glare found

PV array 8 and OP 36

No glare found

PV array 8 and OP 37

No glare found

PV array 8 and OP 38

No glare found

PV array 8 and OP 39

No glare found

PV array 8 and OP 40

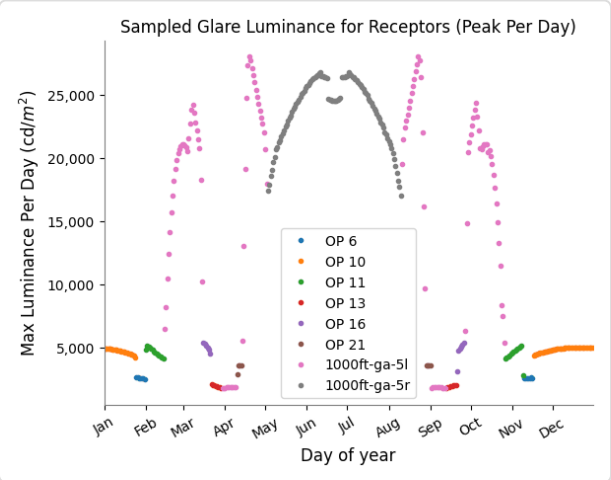
No glare found

PV: PV array 9 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare		Peak Luminance
	min	hr	min	hr	cd/m^2
1000Ft-GA_5L23R_05L-L_23R-R	3,900	65.0	0	0.0	4,399
1000Ft-GA_5L23R_05L-R_23R-L	14,129	235.5	0	0.0	27,985
1000Ft-GA_5R23L_05R-R_23L-L	7,765	129.4	0	0.0	26,768
1500Ft-CA_5L23R_05L-L_23R-R	5,954	99.2	0	0.0	4,341
1500Ft-CA_5L23R_05L-R_23R-L	11,221	187.0	0	0.0	4,343
Approach_23L	6,121	102.0	0	0.0	2,628
Approach_23R	6,493	108.2	0	0.0	4,350
1000Ft-GA_5R23L_05R-L_23L-R	0	0.0	0	0.0	0
Approach_05L	0	0.0	0	0.0	0
Approach_05R	0	0.0	0	0.0	0
OP 5	754	12.6	0	0.0	3,128
OP 6	680	11.3	0	0.0	2,591
OP 7	489	8.2	0	0.0	1,745
OP 9	499	8.3	0	0.0	2,399
OP 10	1,511	25.2	0	0.0	4,985
OP 11	667	11.1	0	0.0	5,123
OP 12	479	8.0	0	0.0	3,270
OP 13	444	7.4	0	0.0	2,078
OP 15	404	6.7	0	0.0	3,430
OP 16	513	8.6	0	0.0	5,889
OP 17	752	12.5	0	0.0	11,026
OP 18	786	13.1	0	0.0	4,005
OP 19	706	11.8	0	0.0	2,059
OP 21	513	8.6	0	0.0	3,552
OP 26	19	0.3	0	0.0	1,326
OP 27	775	12.9	0	0.0	2,587
OP 32	561	9.3	0	0.0	1,010
1-ATCT	0	0.0	0	0.0	0

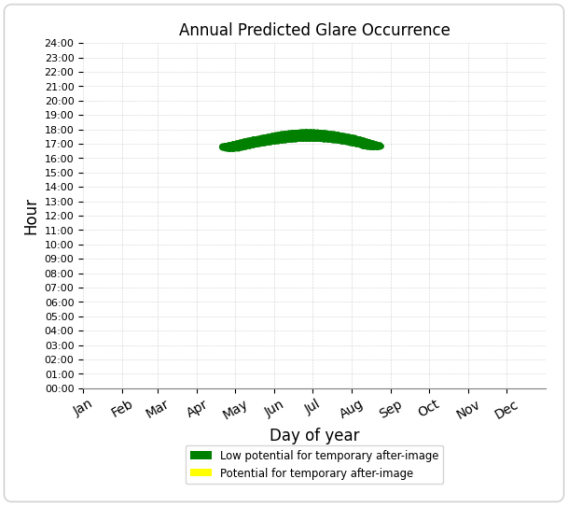
Receptor	Annual Green Glare		Annual Yellow Glare		Peak Luminance
	min	hr	min	hr	cd/m^2
OP 2	0	0.0	0	0.0	0
OP 3	0	0.0	0	0.0	0
OP 4	0	0.0	0	0.0	0
OP 8	0	0.0	0	0.0	0
OP 14	0	0.0	0	0.0	0
OP 20	0	0.0	0	0.0	0
OP 22	0	0.0	0	0.0	0
OP 23	0	0.0	0	0.0	0
OP 24	0	0.0	0	0.0	0
OP 25	0	0.0	0	0.0	0
OP 28	0	0.0	0	0.0	0
OP 29	0	0.0	0	0.0	0
OP 30	0	0.0	0	0.0	0
OP 31	0	0.0	0	0.0	0
OP 33	0	0.0	0	0.0	0
OP 34	0	0.0	0	0.0	0
OP 35	0	0.0	0	0.0	0
OP 36	0	0.0	0	0.0	0
OP 37	0	0.0	0	0.0	0
OP 38	0	0.0	0	0.0	0
OP 39	0	0.0	0	0.0	0
OP 40	0	0.0	0	0.0	0

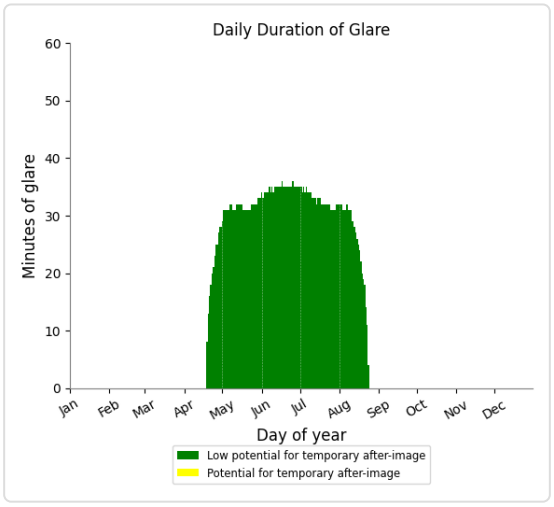


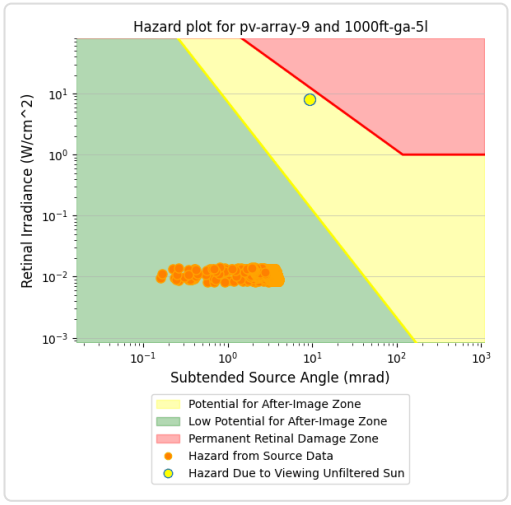
PV array 9 and Route: 1000Ft-GA_5L23R_05L-L_23R-R

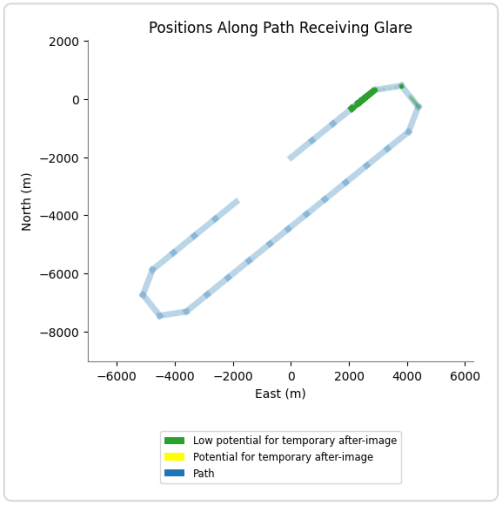
Yellow glare: none

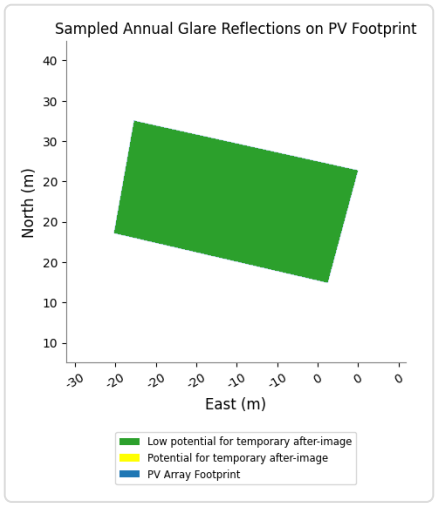
Green glare: 3,900 min.

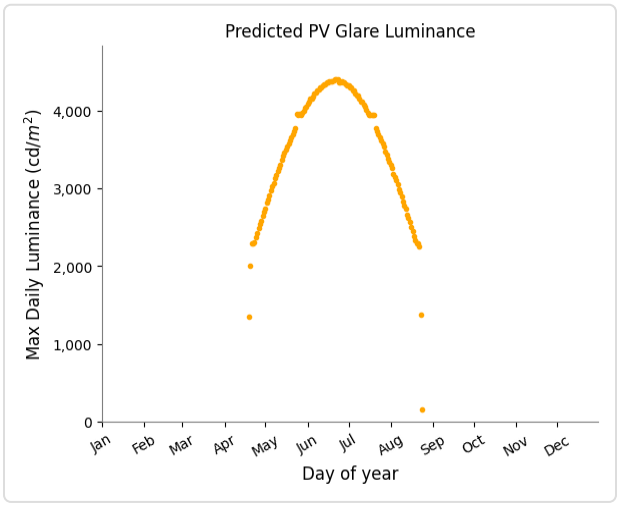








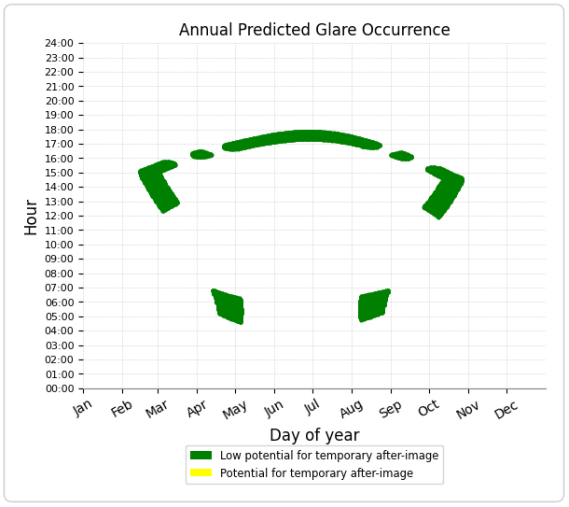


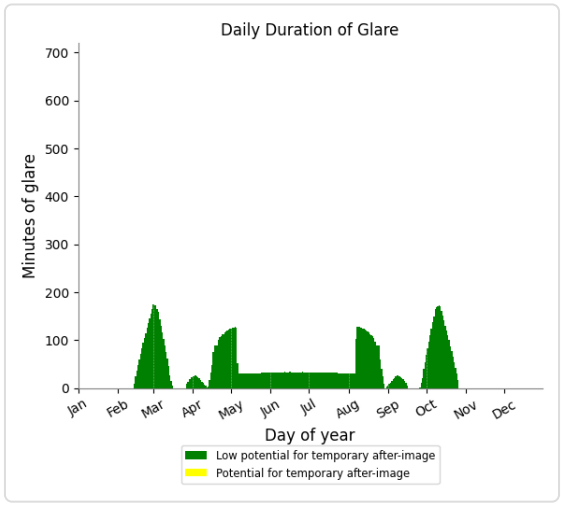


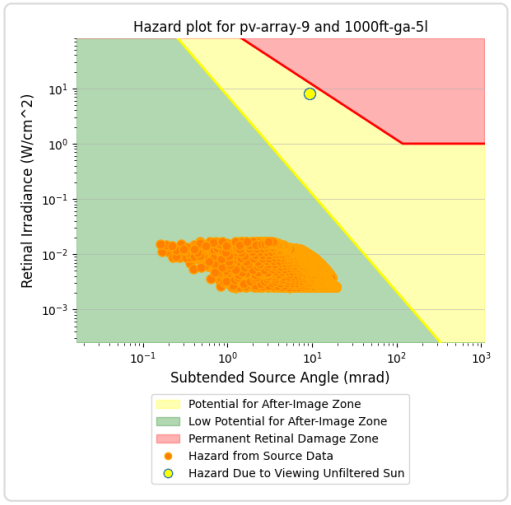
PV array 9 and Route: 1000Ft-GA_5L23R_05L-R_23R-L

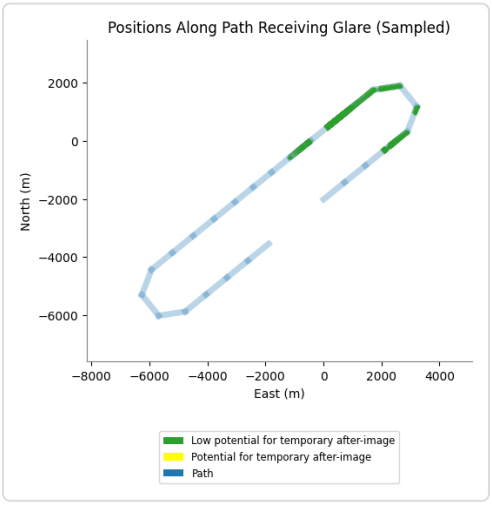
Yellow glare: none

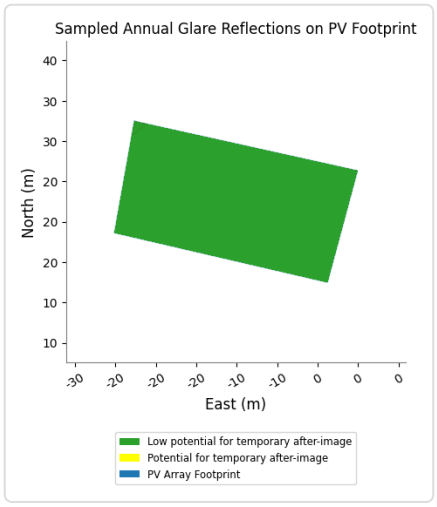
Green glare: 14,129 min.

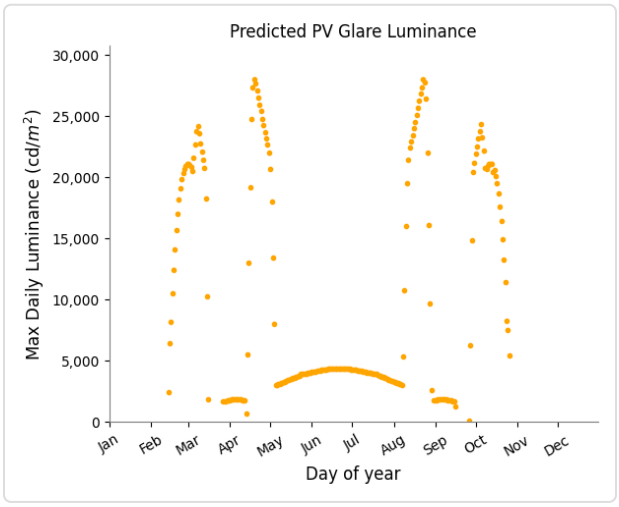








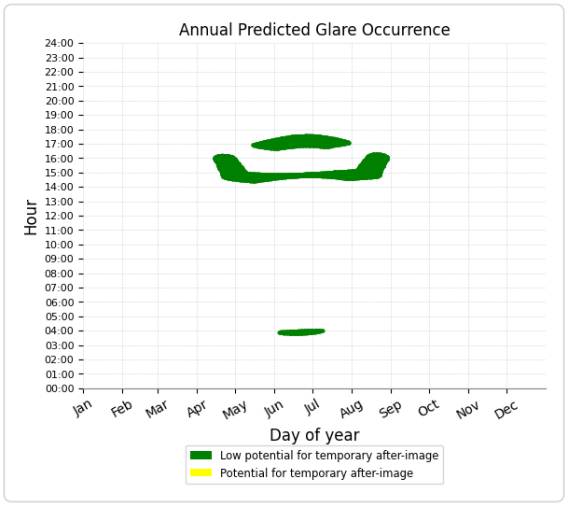


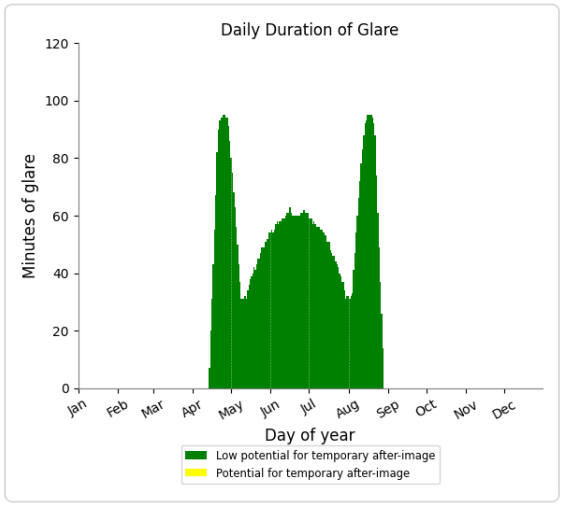


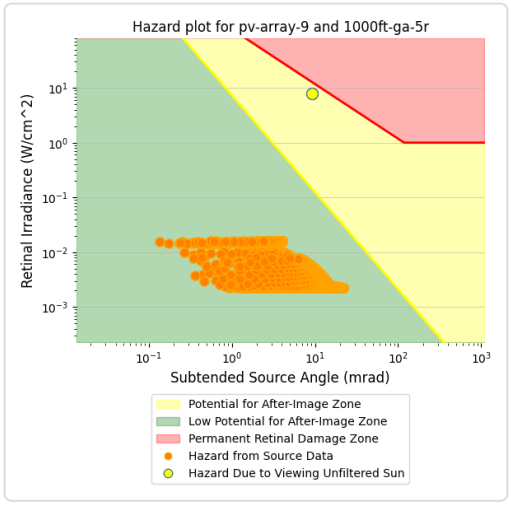
PV array 9 and Route: 1000Ft-GA_5R23L_05R-R_23L-L

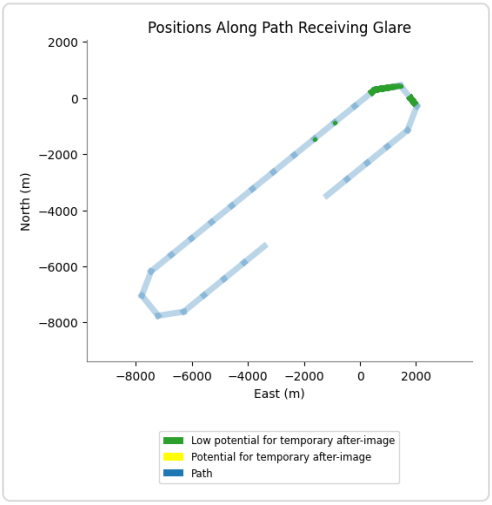
Yellow glare: none

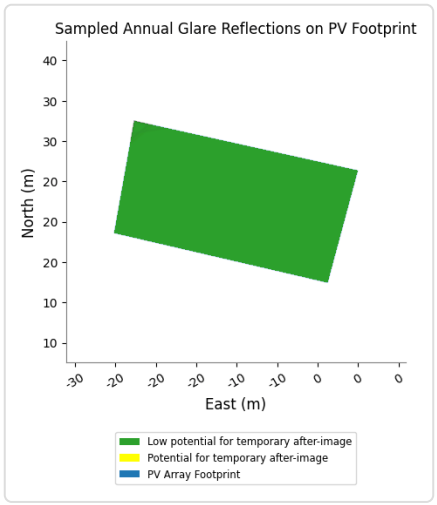
Green glare: 7,765 min.

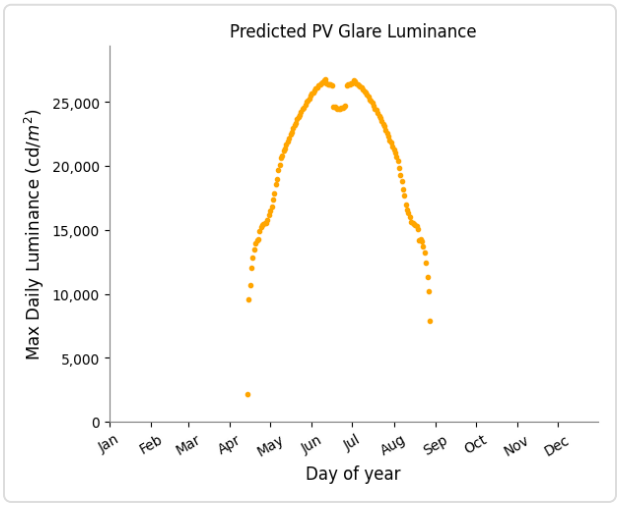








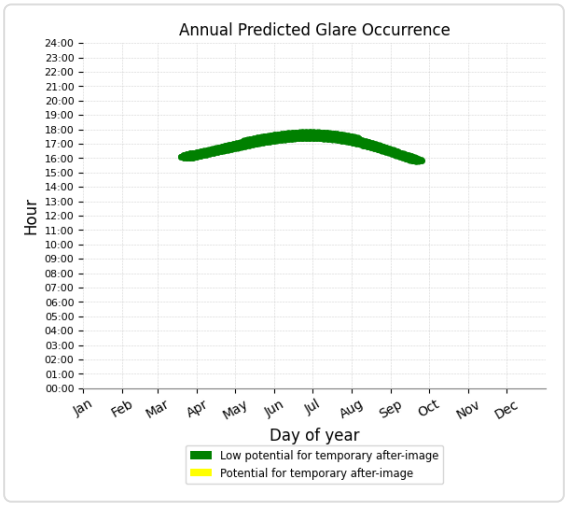


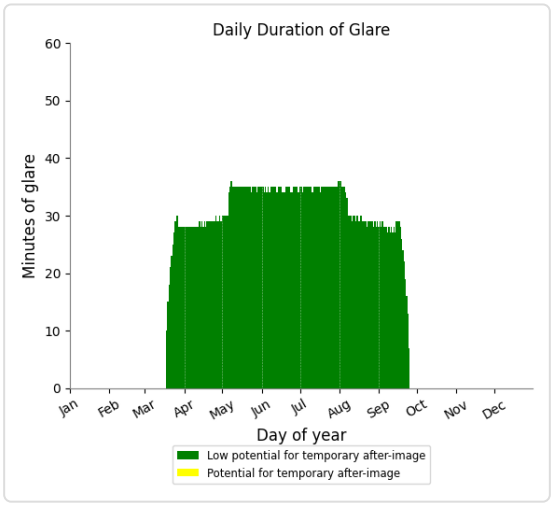


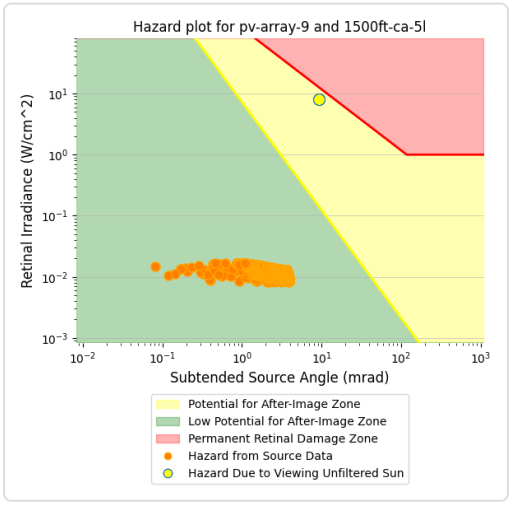
PV array 9 and Route: 1500Ft-CA_5L23R_05L-L_23R-R

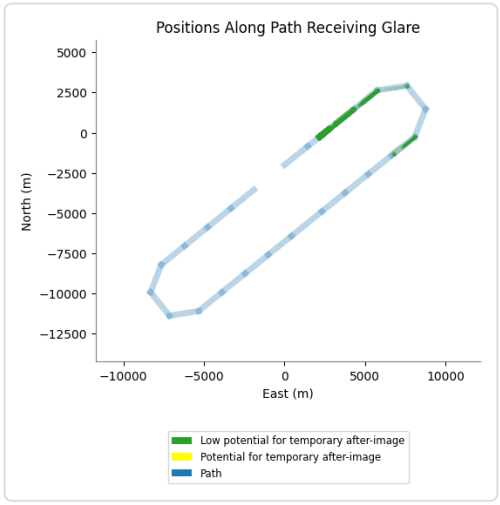
Yellow glare: none

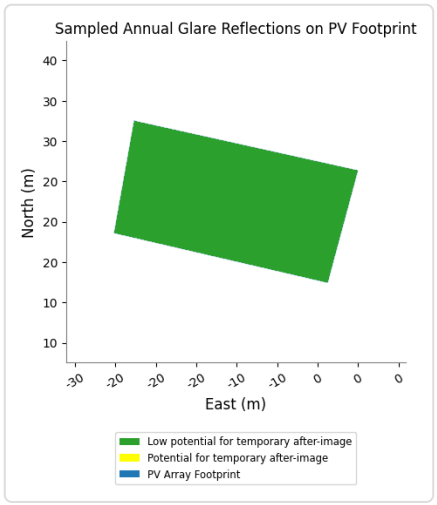
Green glare: 5,954 min.

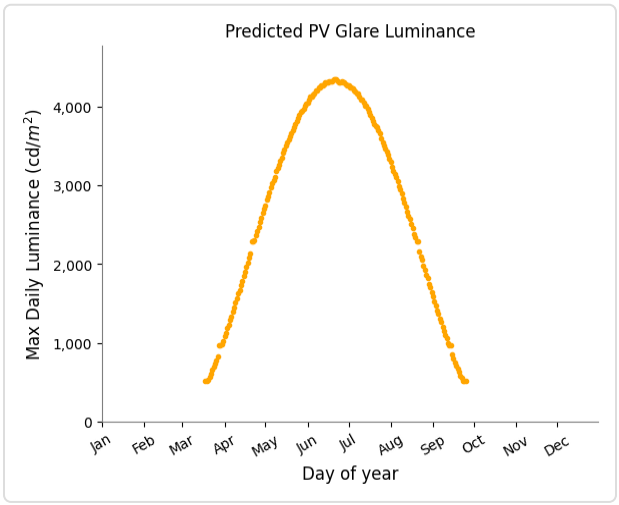








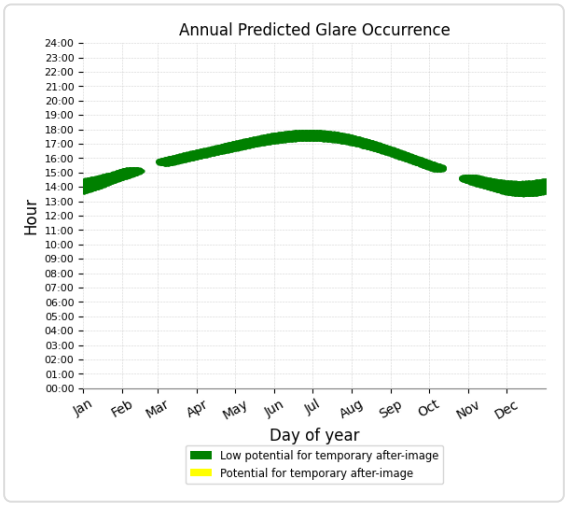


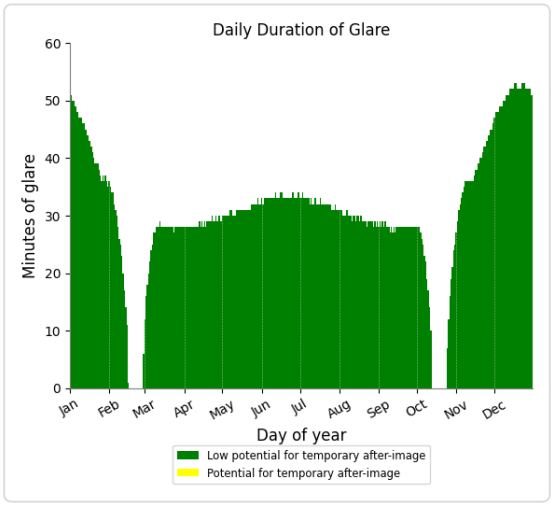


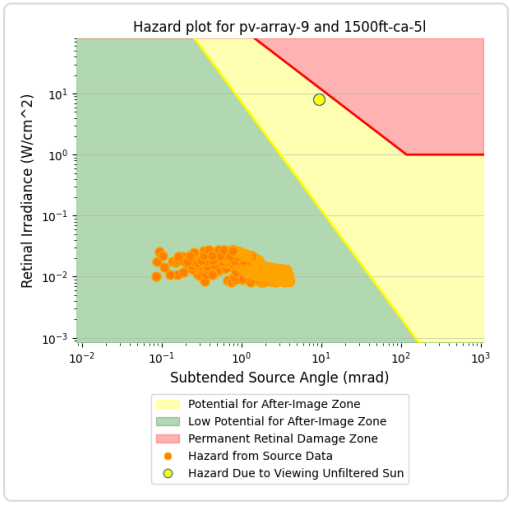
PV array 9 and Route: 1500Ft-CA_5L23R_05L-R_23R-L

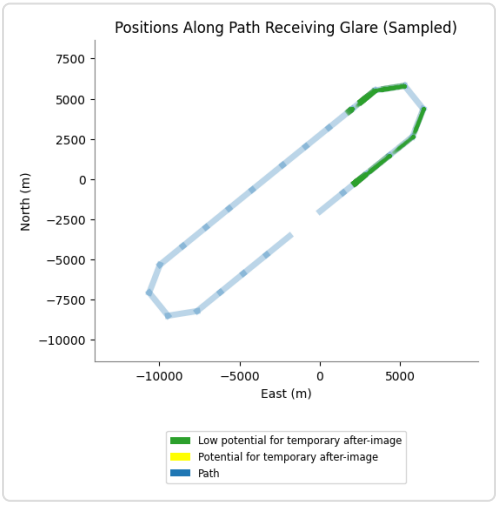
Yellow glare: none

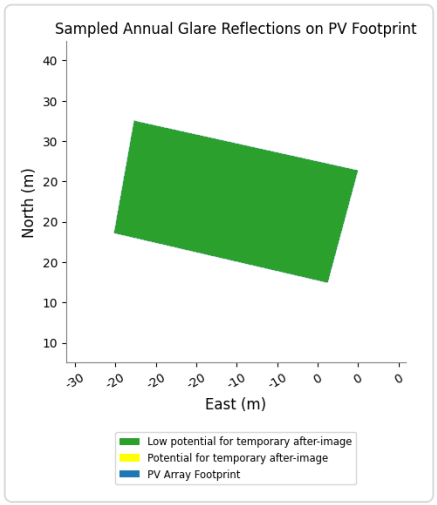
Green glare: 11,221 min.

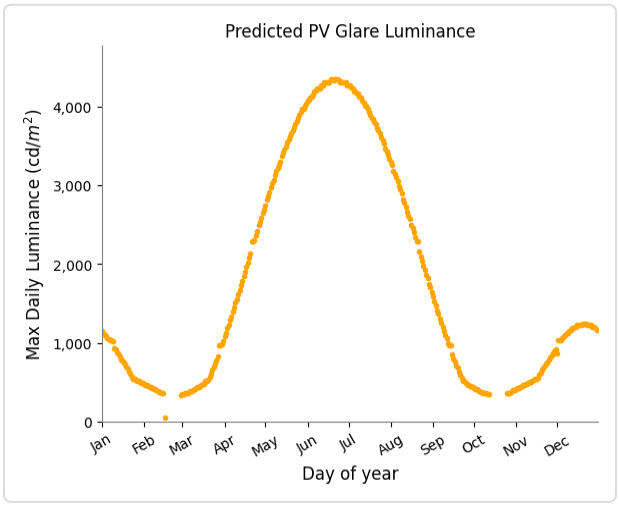








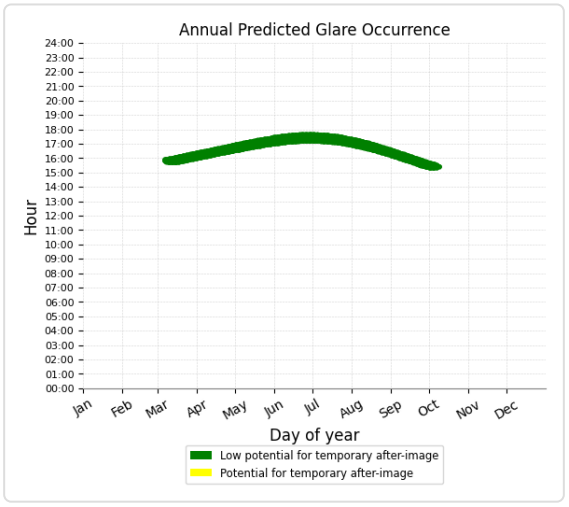


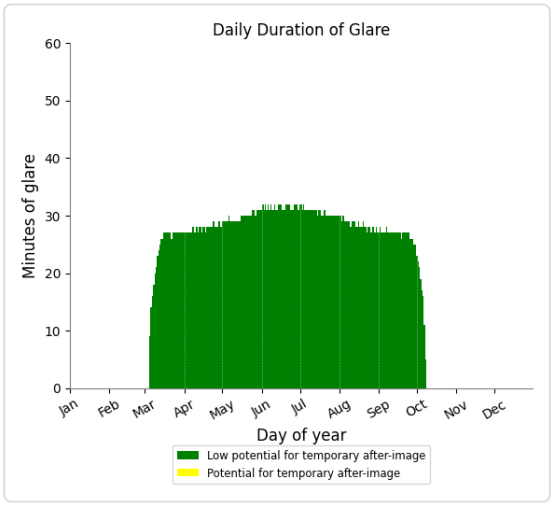


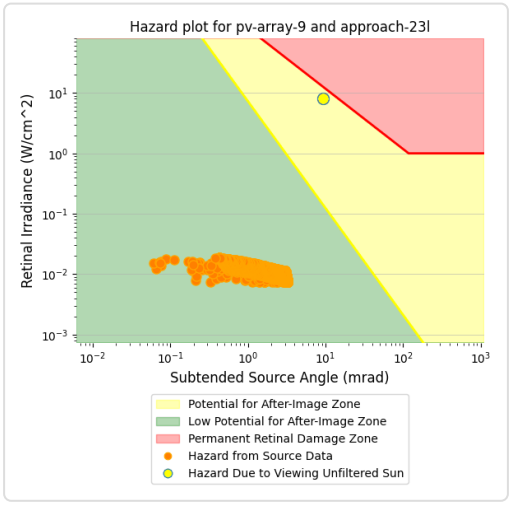
PV array 9 and Route: Approach_23L

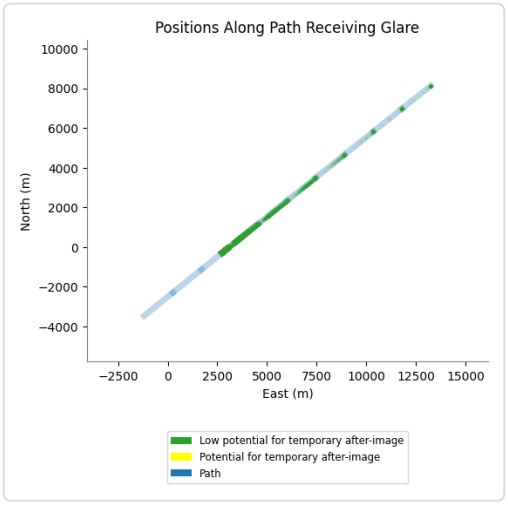
Yellow glare: none

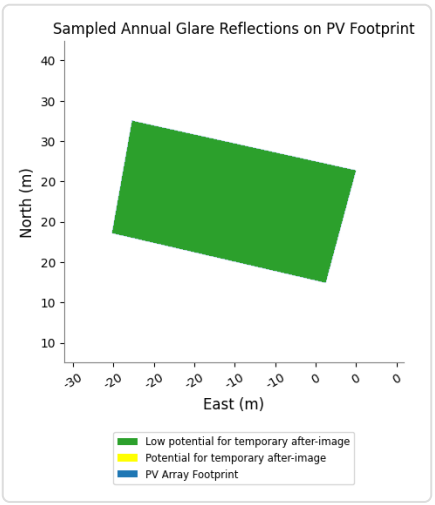
Green glare: 6,121 min.

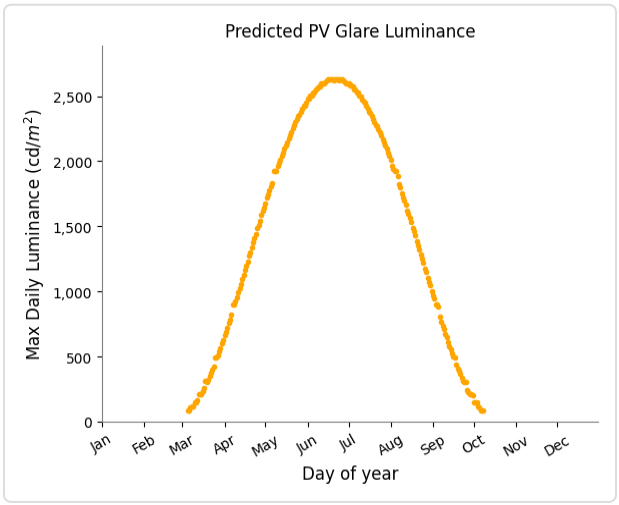








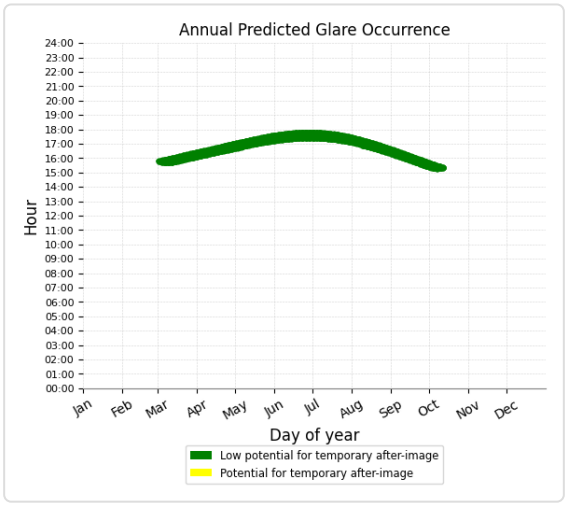


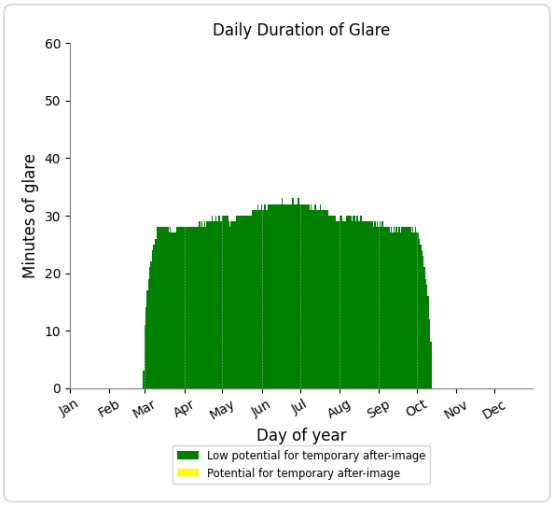


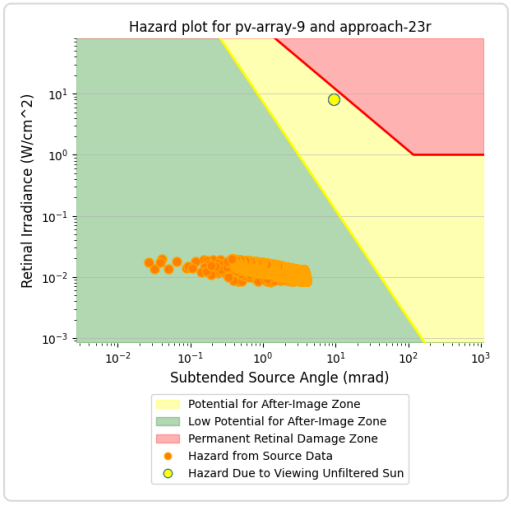
PV array 9 and Route: Approach_23R

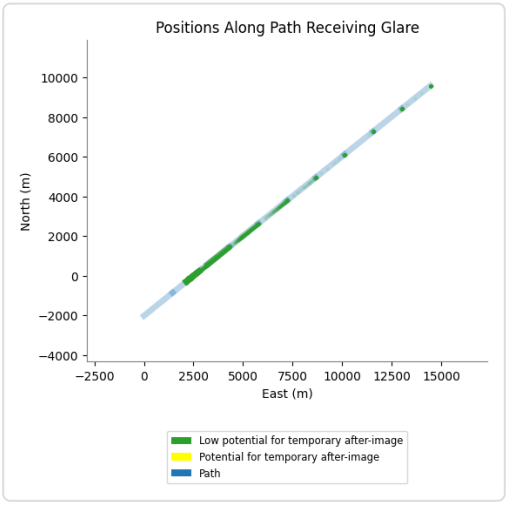
Yellow glare: none

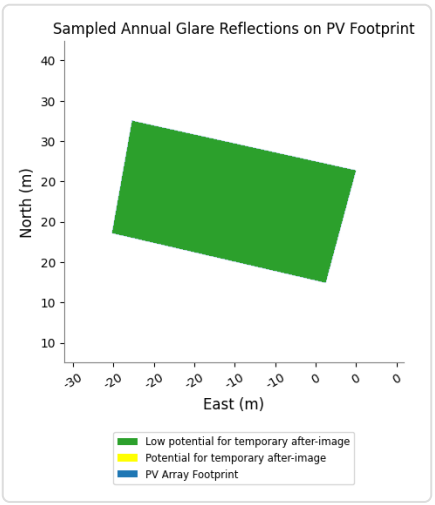
Green glare: 6,493 min.

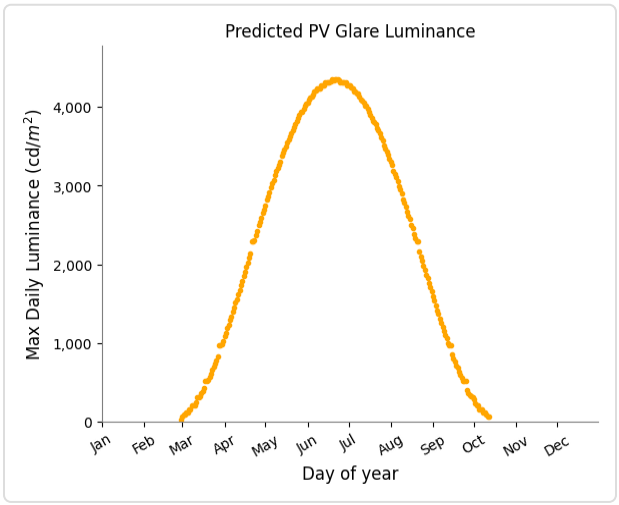












PV array 9 and Route: 1000Ft-GA_5R23L_05R-L_23L-R

No glare found

PV array 9 and Route: Approach_05L

No glare found

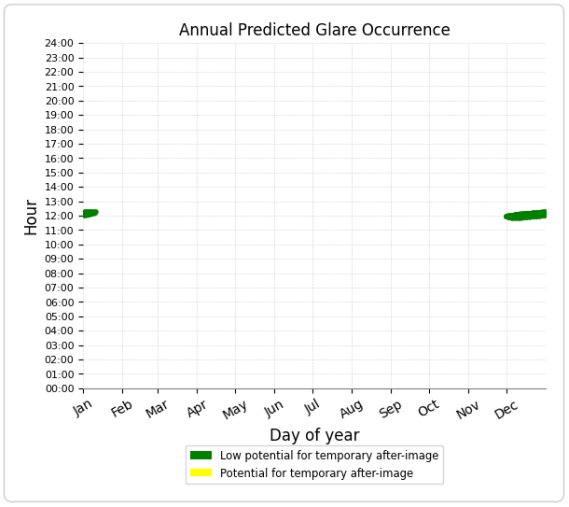
PV array 9 and Route: Approach_05R

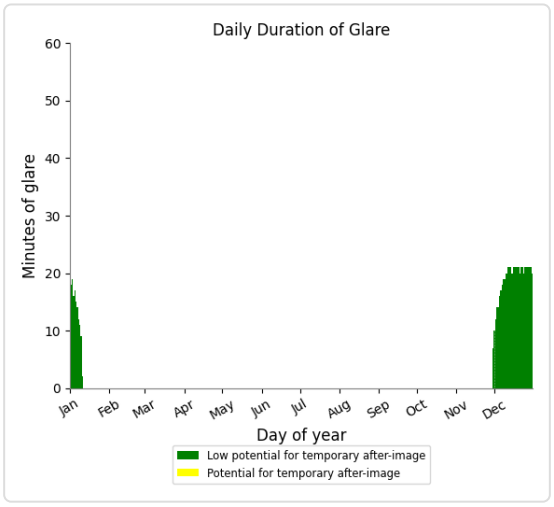
No glare found

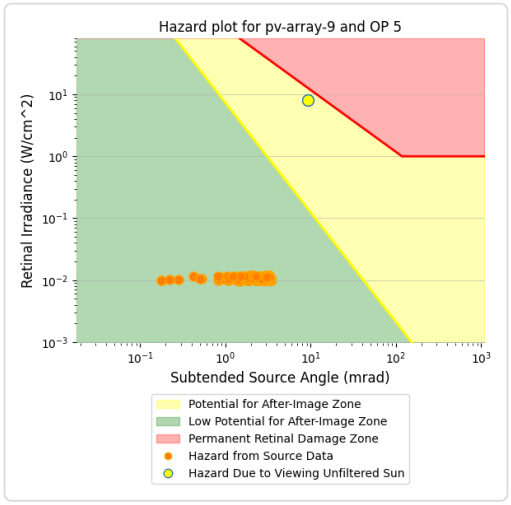
PV array 9 and OP 5

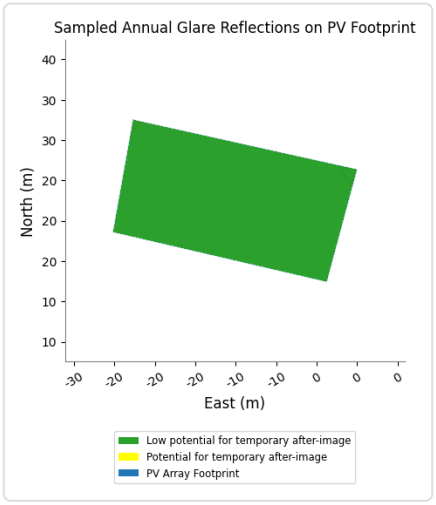
Yellow glare: none

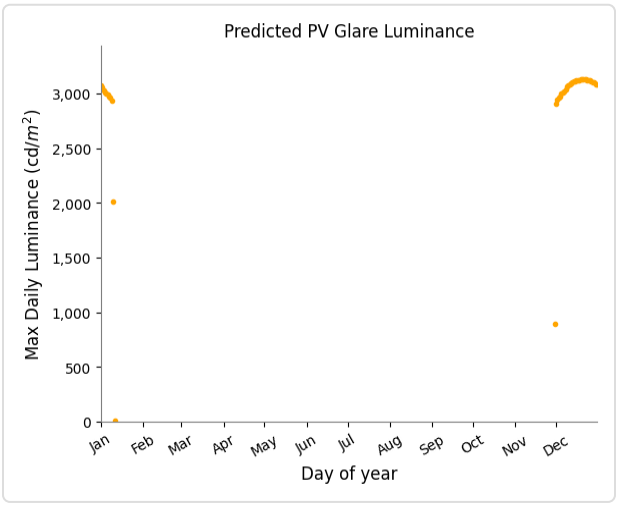
Green glare: 754 min.







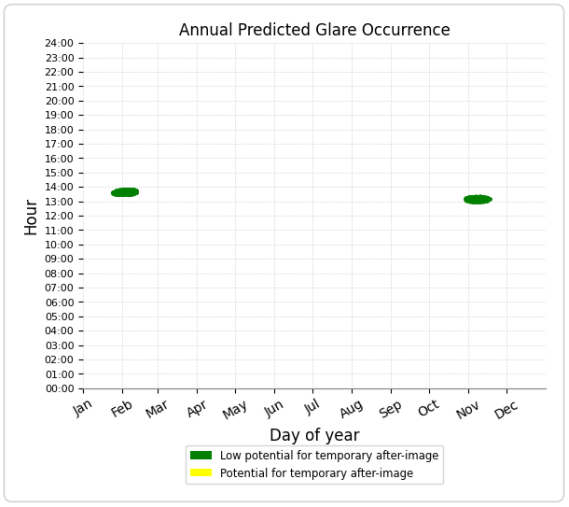


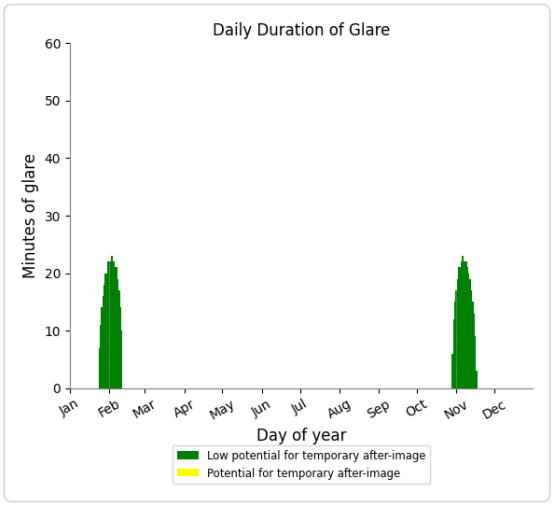


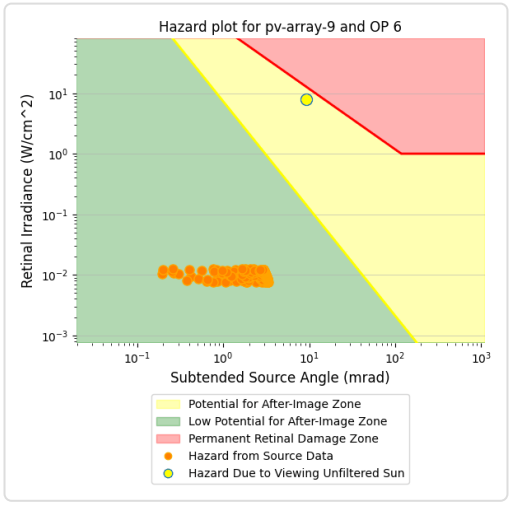
PV array 9 and OP 6

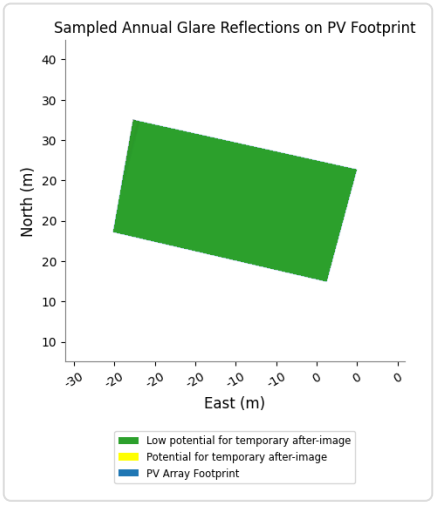
Yellow glare: none

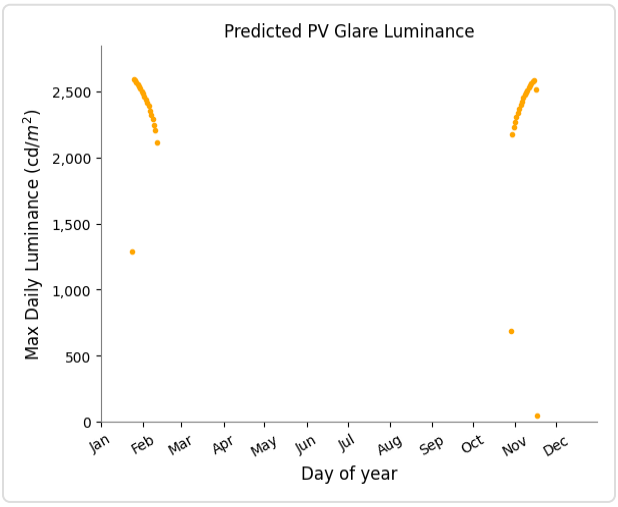
Green glare: 680 min.







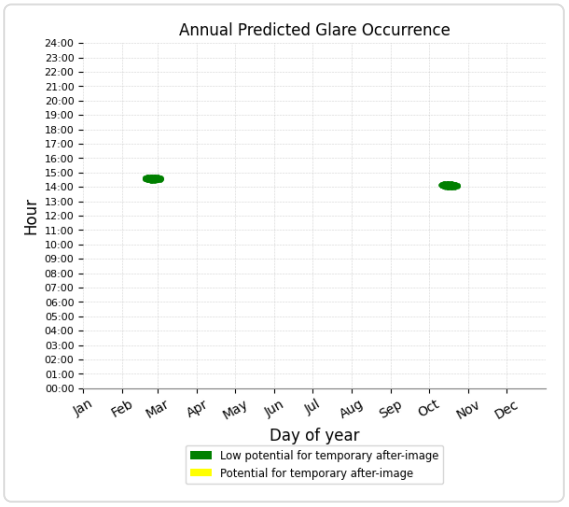


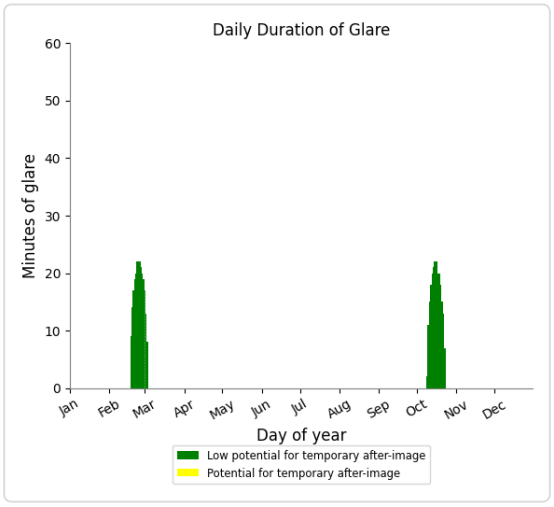


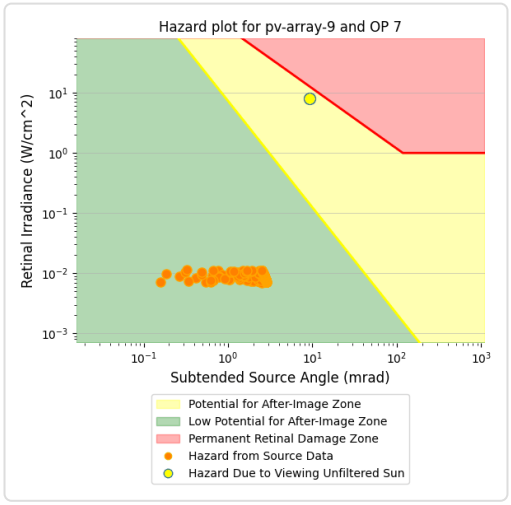
PV array 9 and OP 7

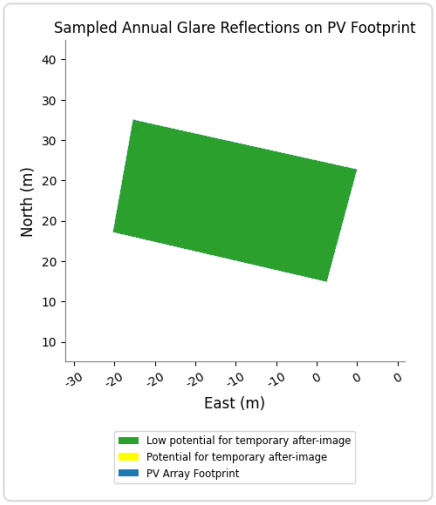
Yellow glare: none

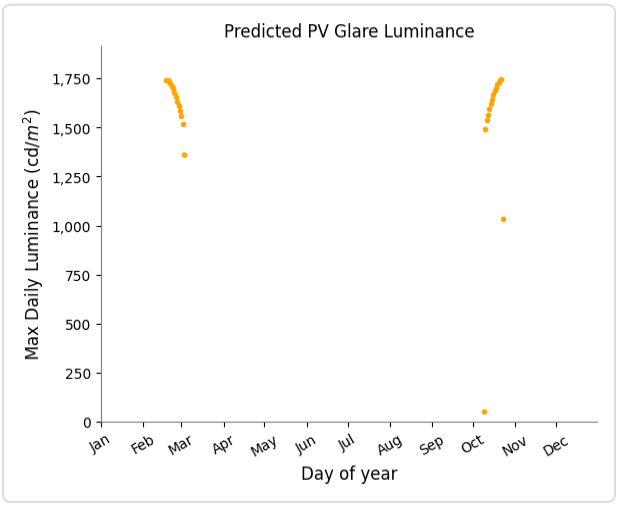
Green glare: 489 min.







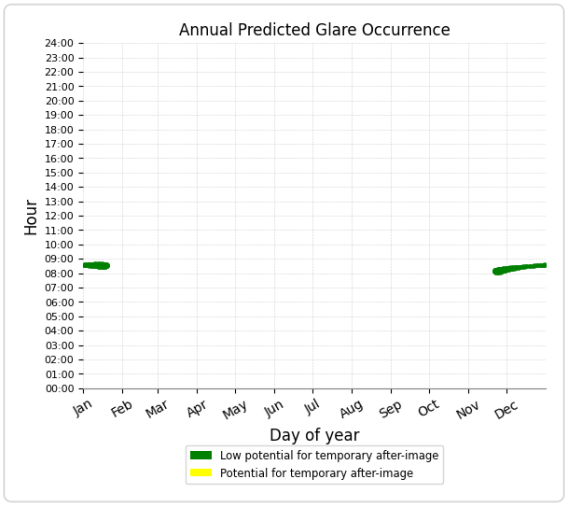


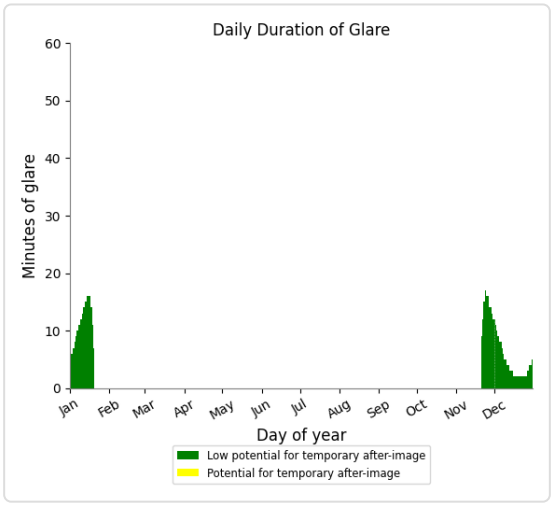


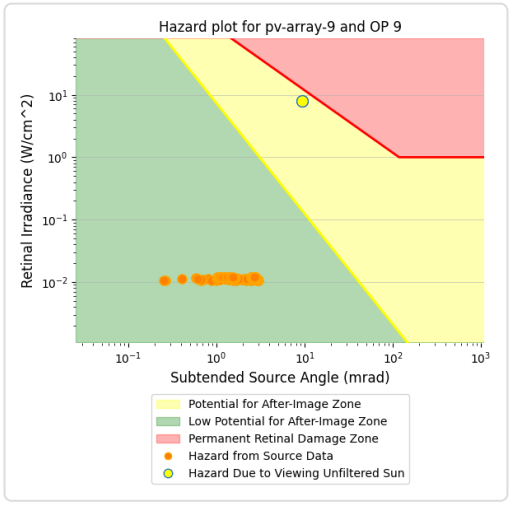
PV array 9 and OP 9

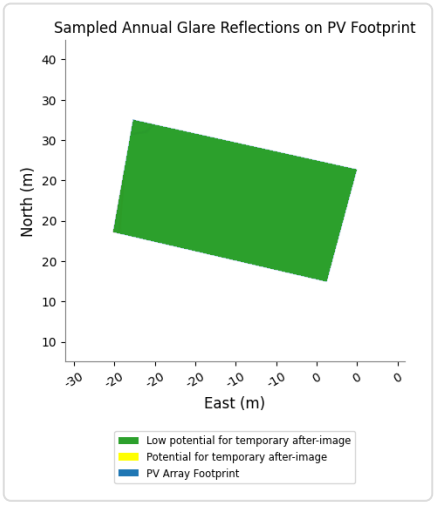
Yellow glare: none

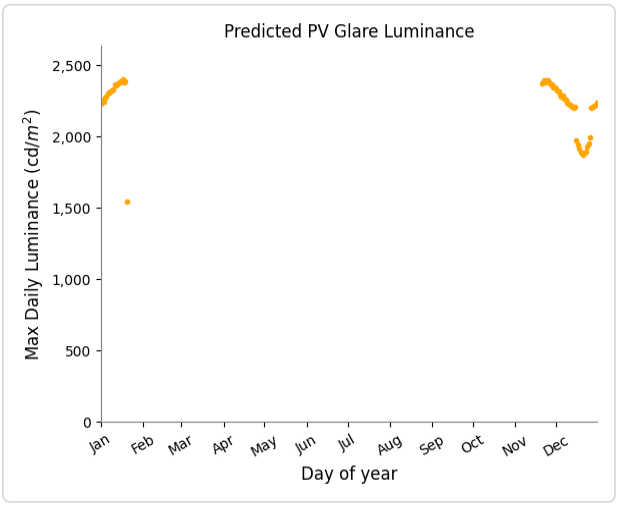
Green glare: 499 min.







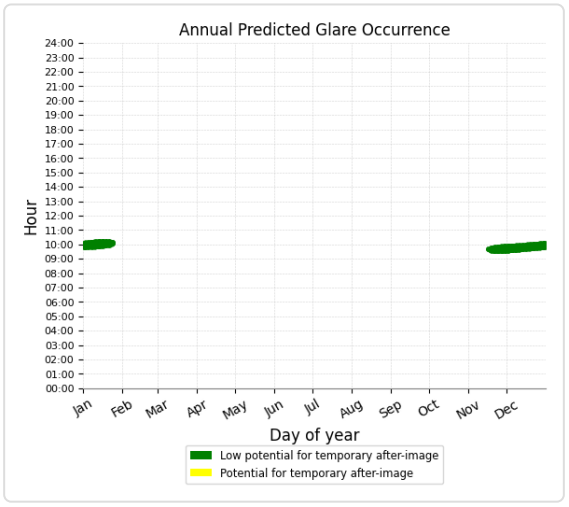


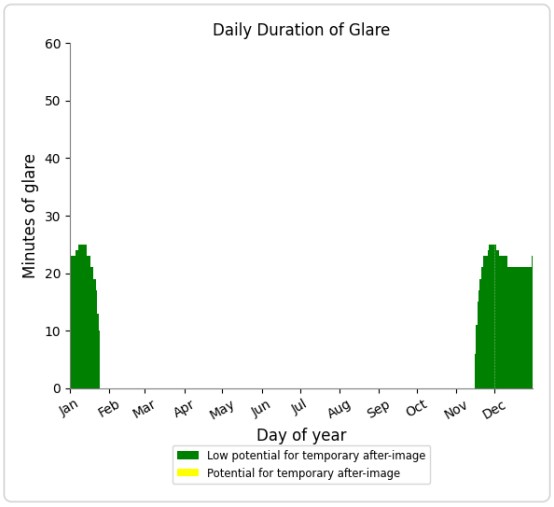


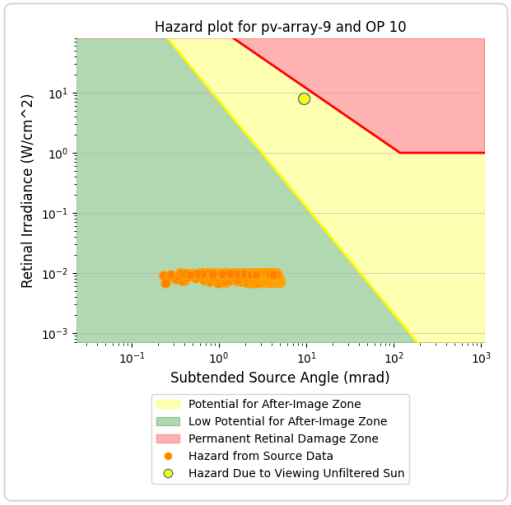
PV array 9 and OP 10

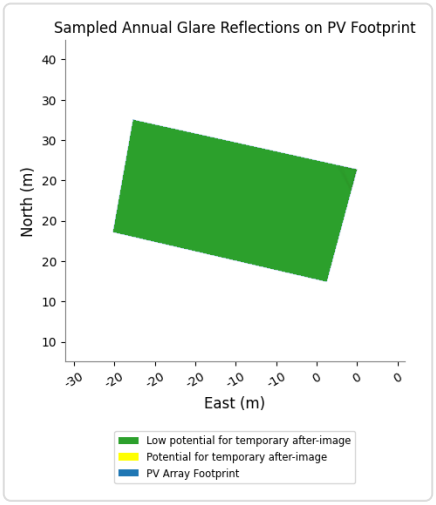
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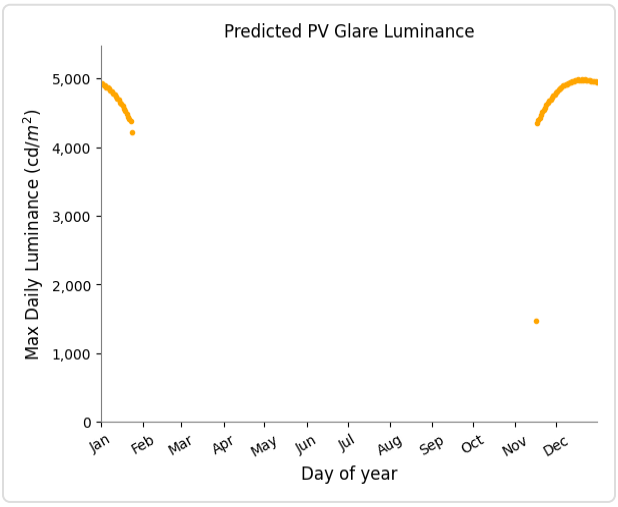
Green glare: 1,511 min.







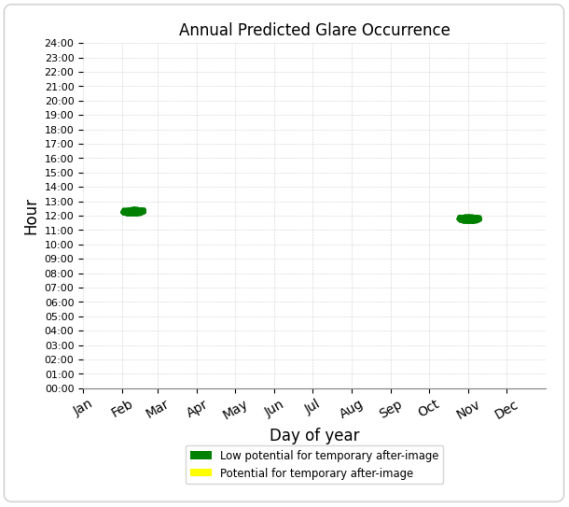


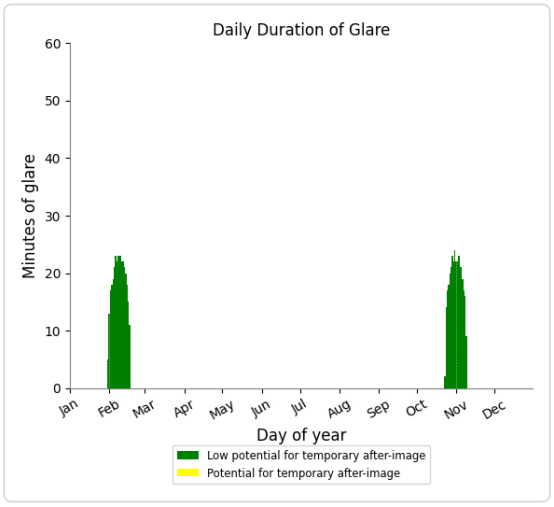


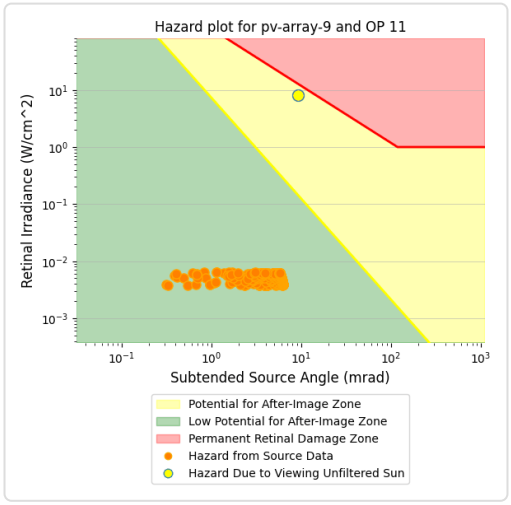
PV array 9 and OP 11

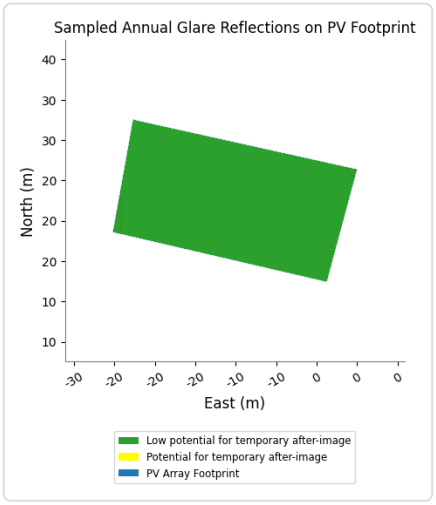
Yellow glare: none

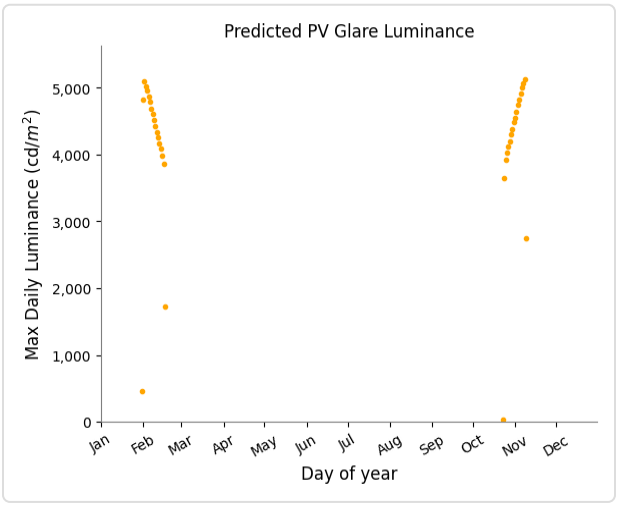
Green glare: 667 min.







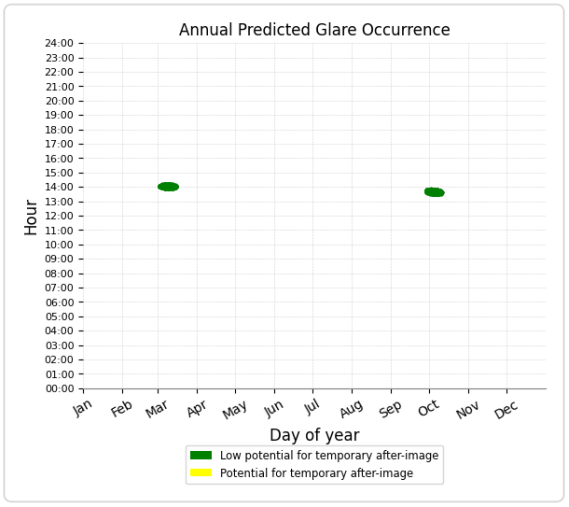


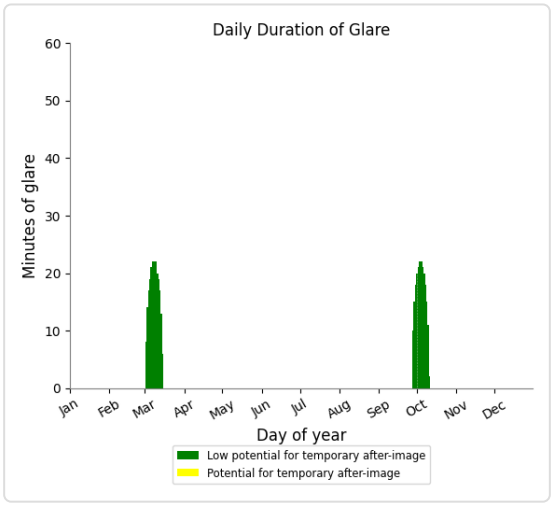


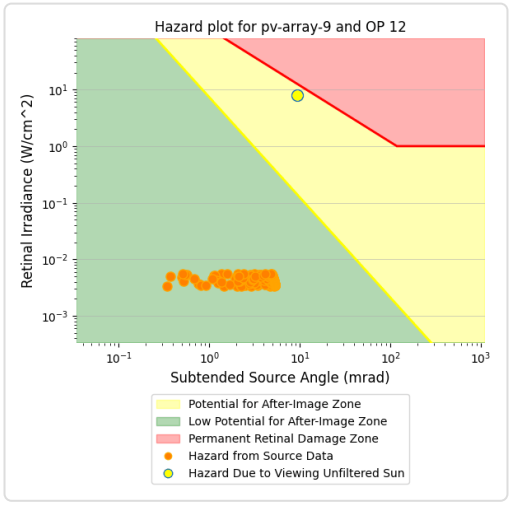
PV array 9 and OP 12

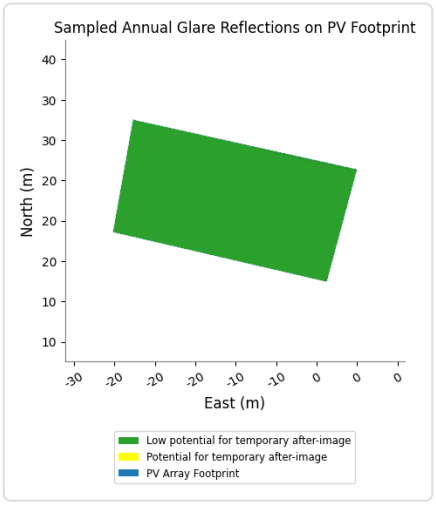
Yellow glare: none

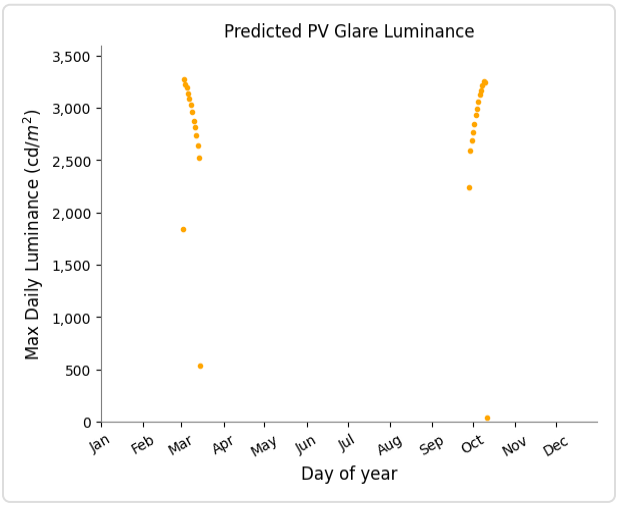
Green glare: 479 min.







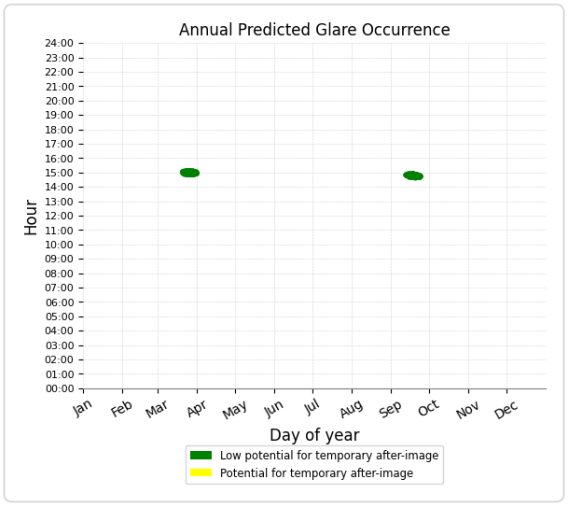


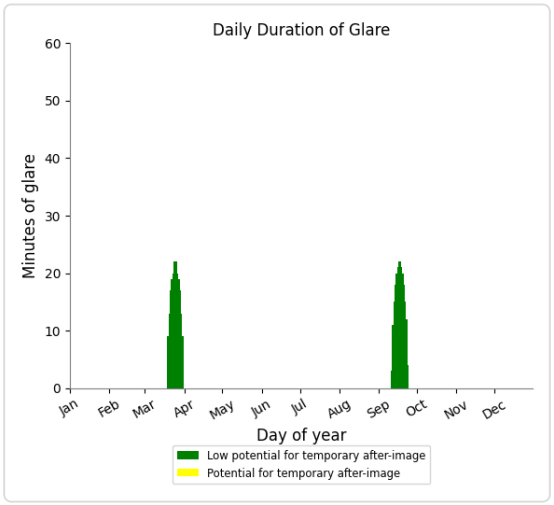


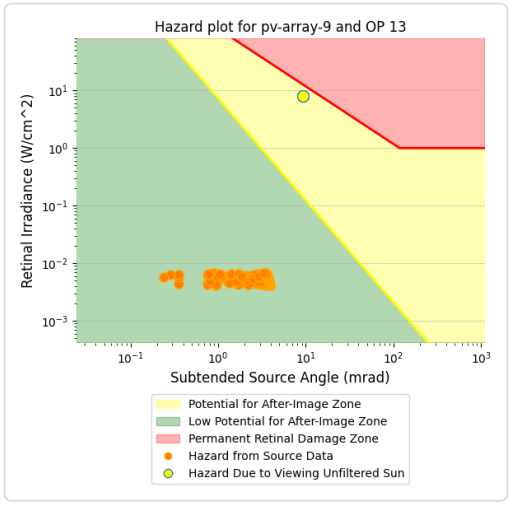
PV array 9 and OP 13

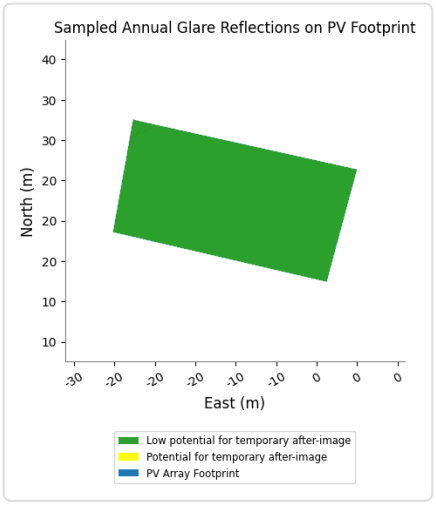
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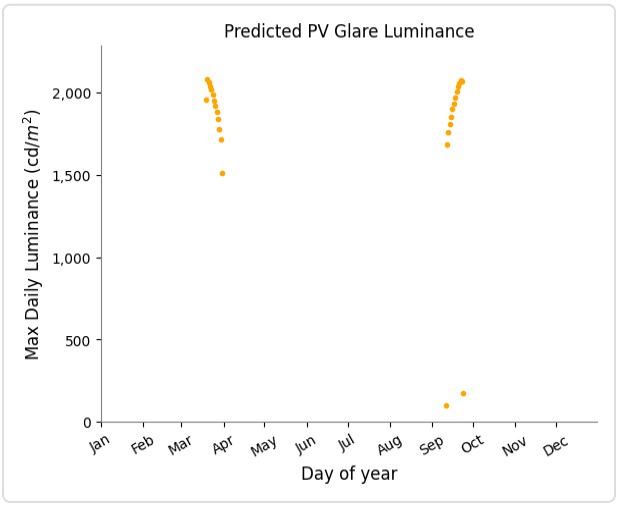
Green glare: 444 min.







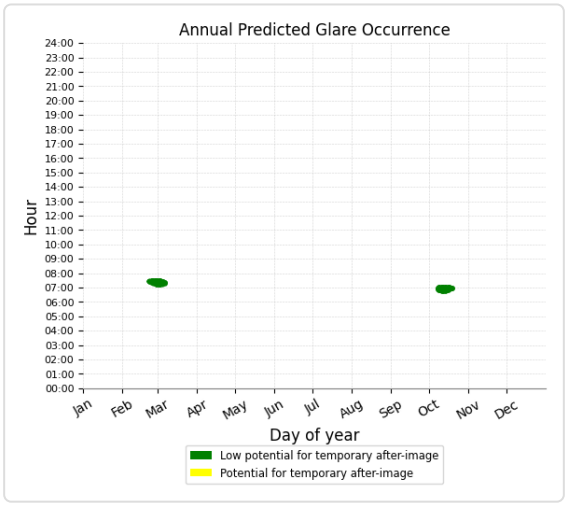


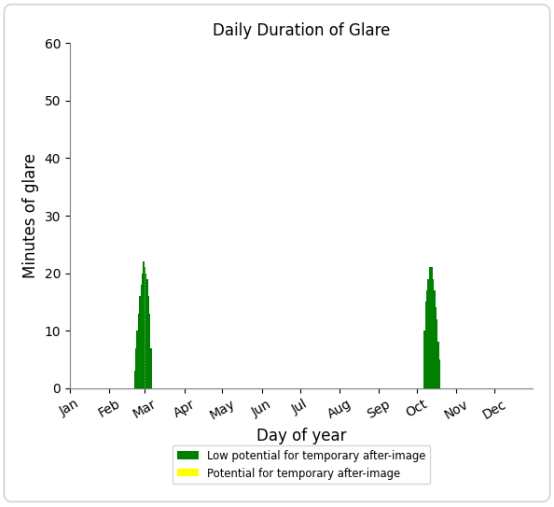


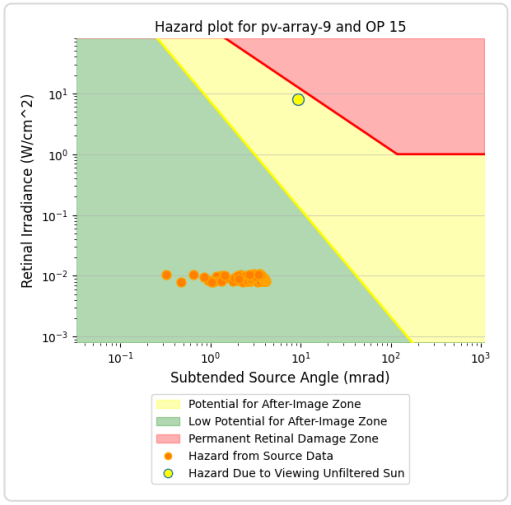
PV array 9 and OP 15

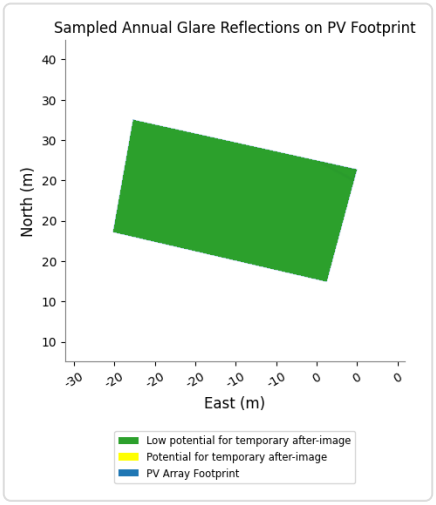
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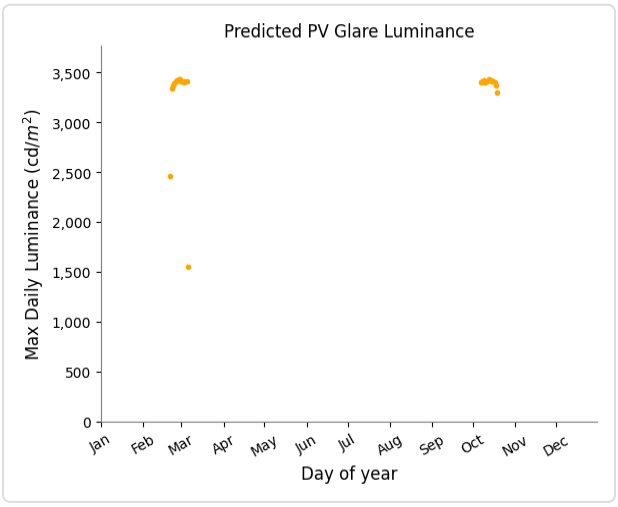
Green glare: 404 min.







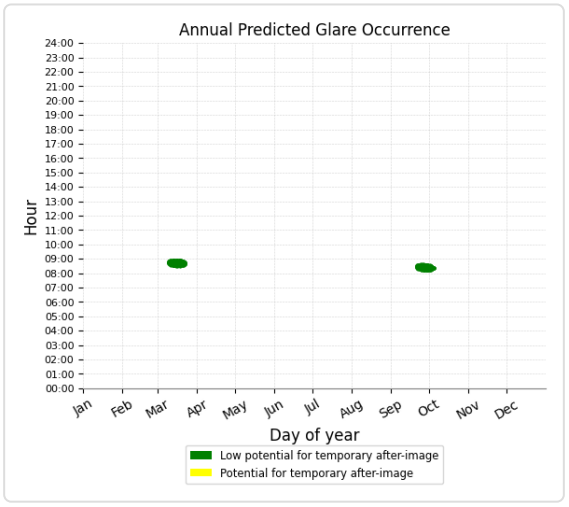


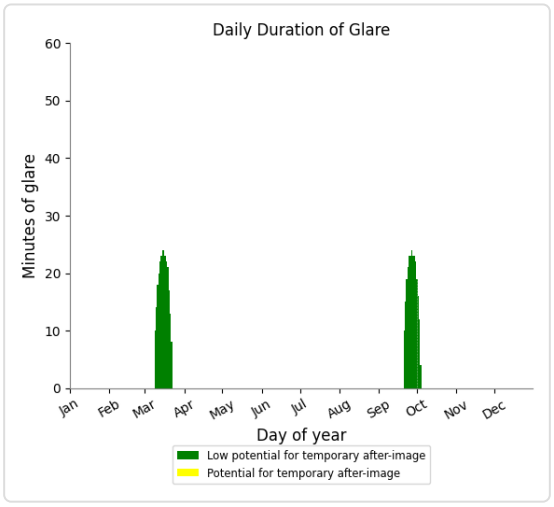


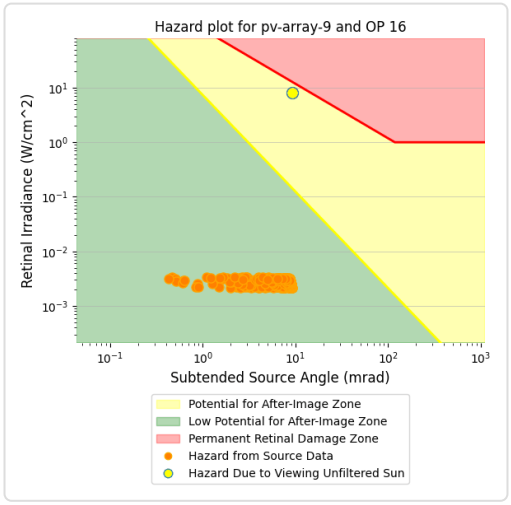
PV array 9 and OP 16

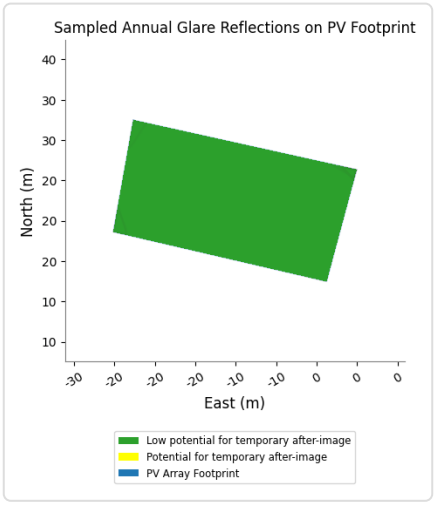
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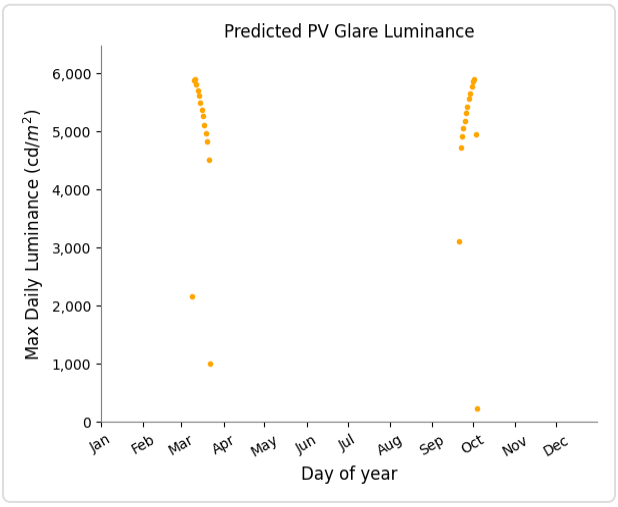
Green glare: 513 min.







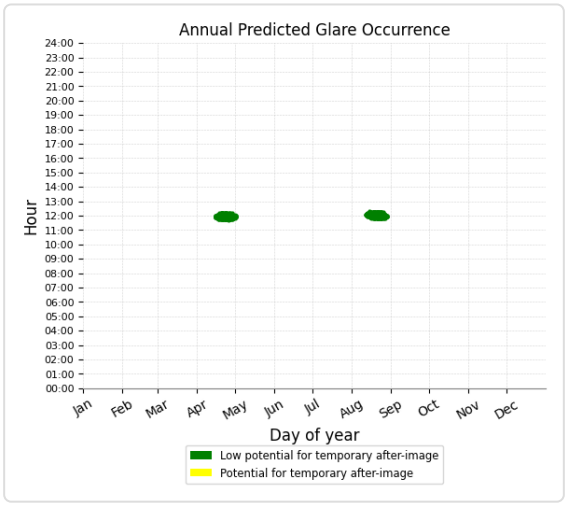


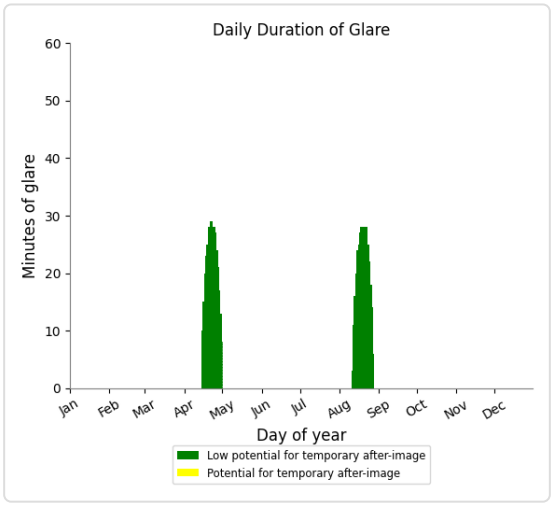


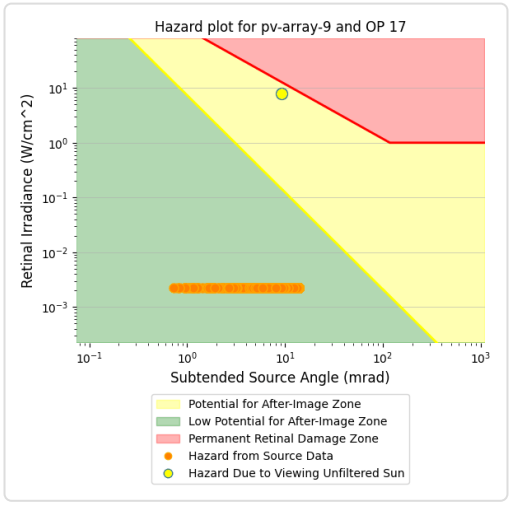
PV array 9 and OP 17

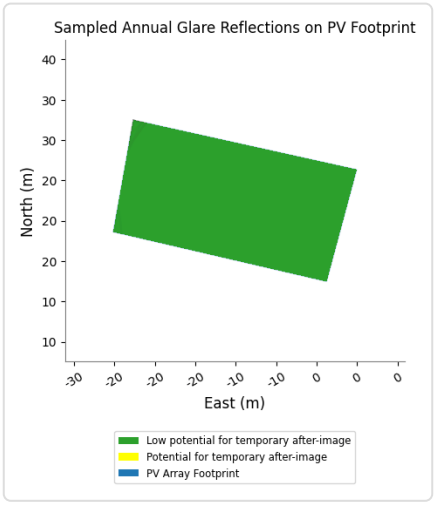
Yellow glare: none

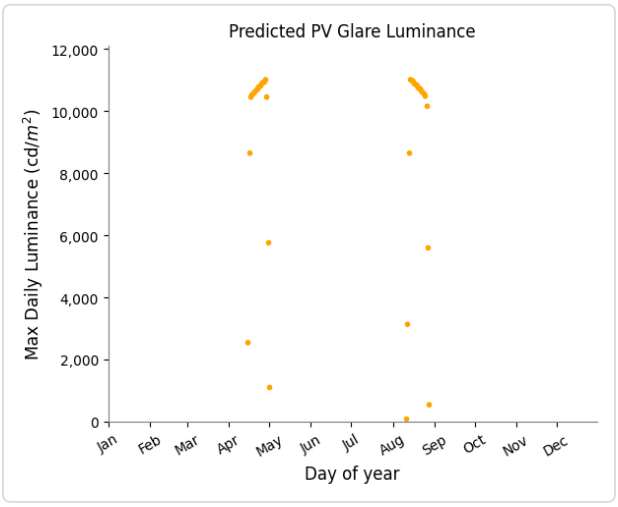
Green glare: 752 min.







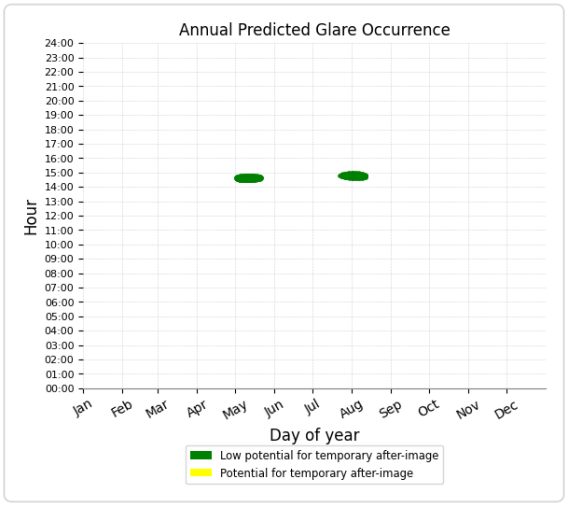


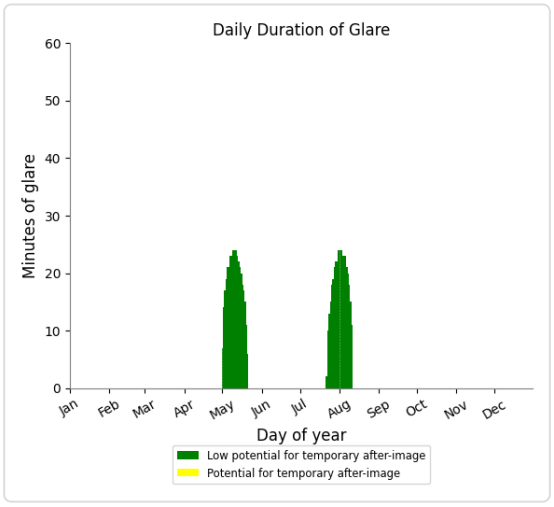


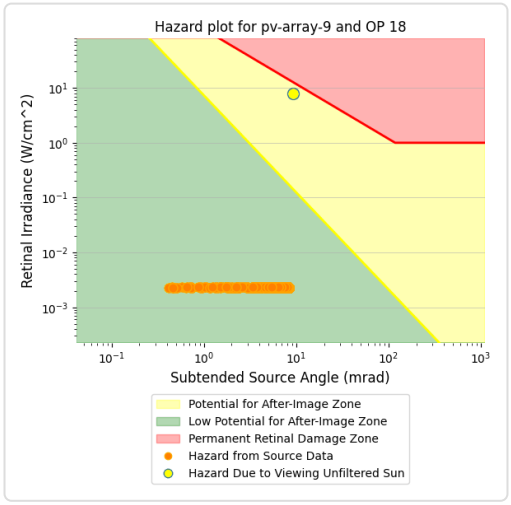
PV array 9 and OP 18

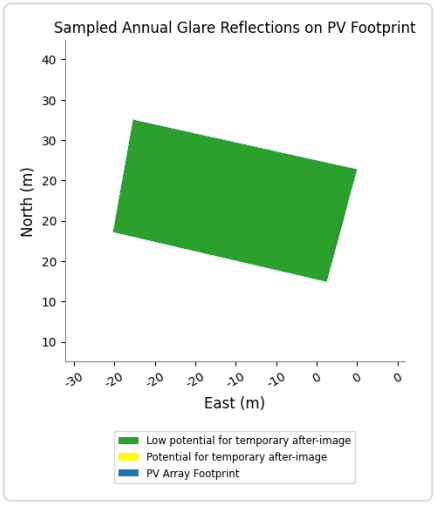
Yellow glare: none

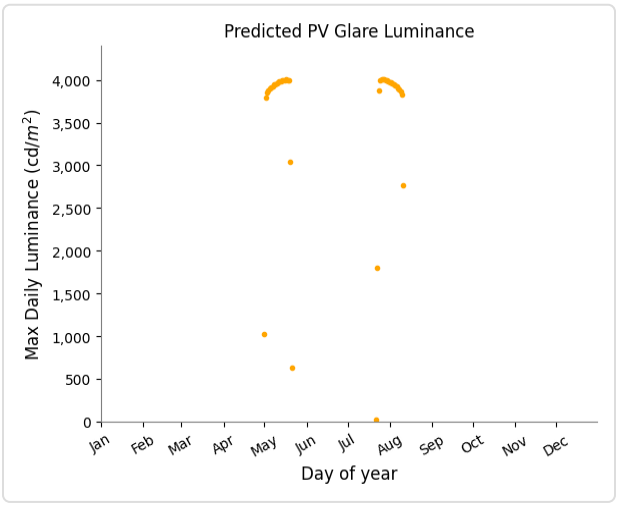
Green glare: 786 min.







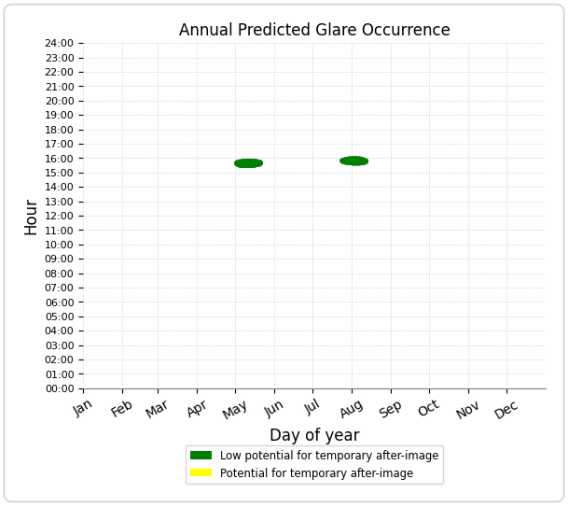


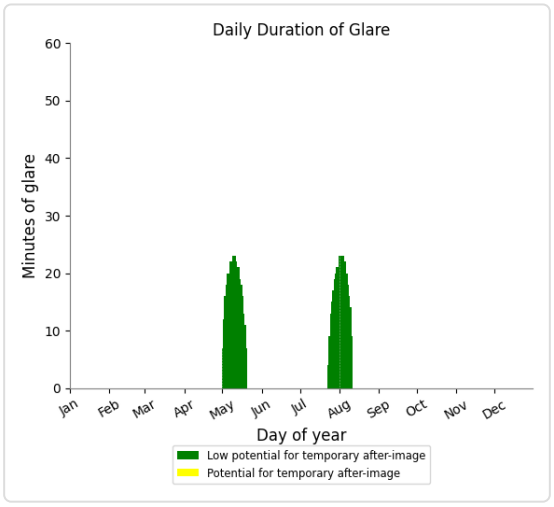


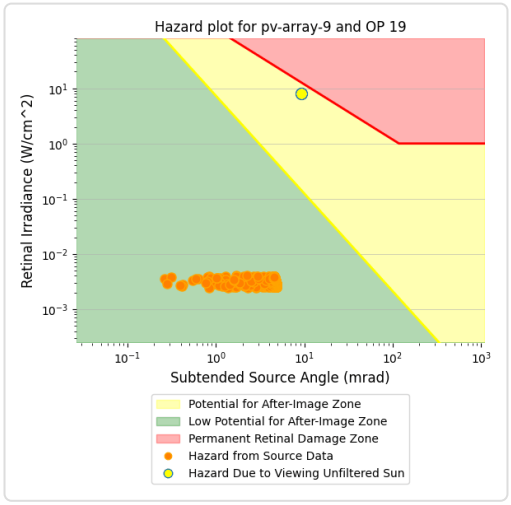
PV array 9 and OP 19

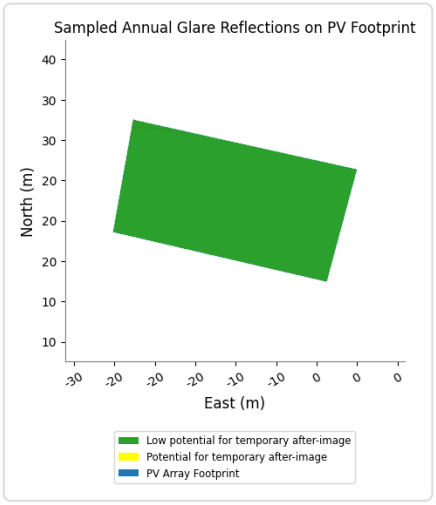
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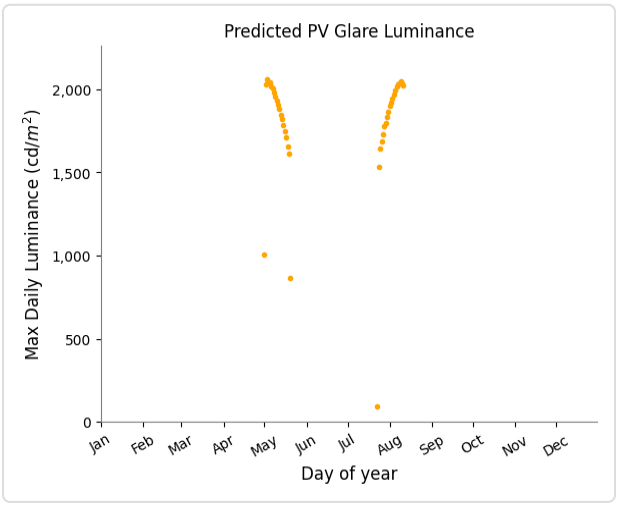
Green glare: 706 min.







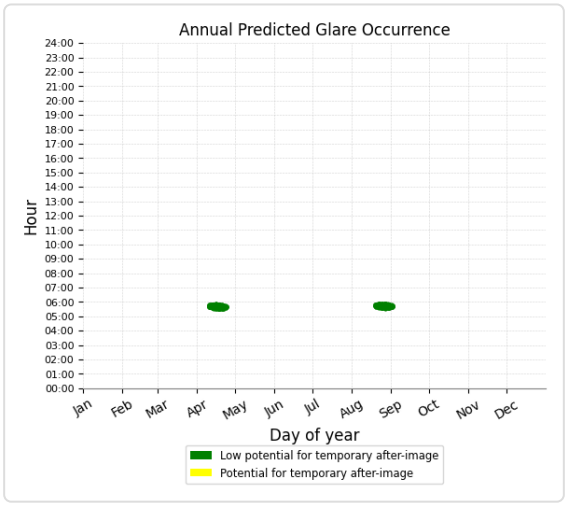


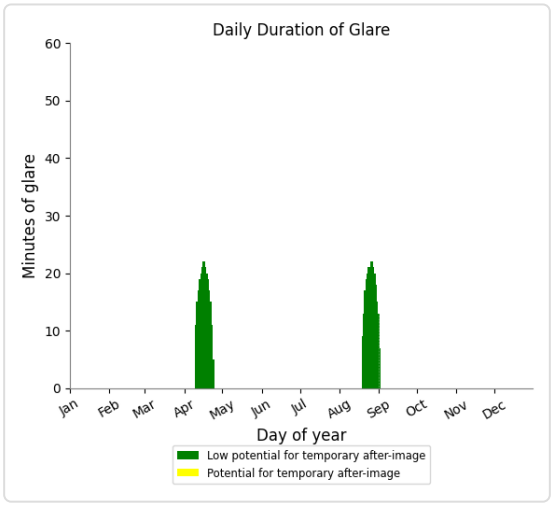


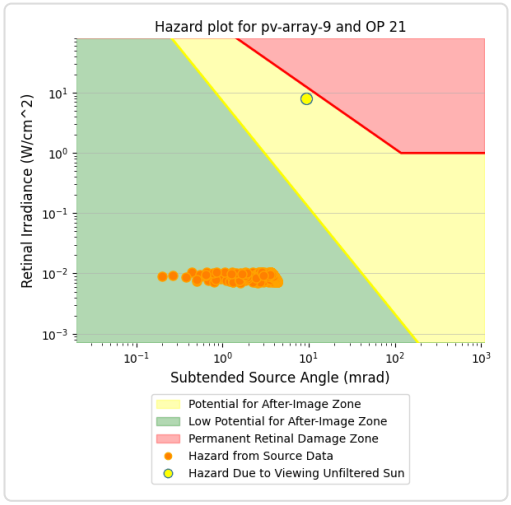
PV array 9 and OP 21

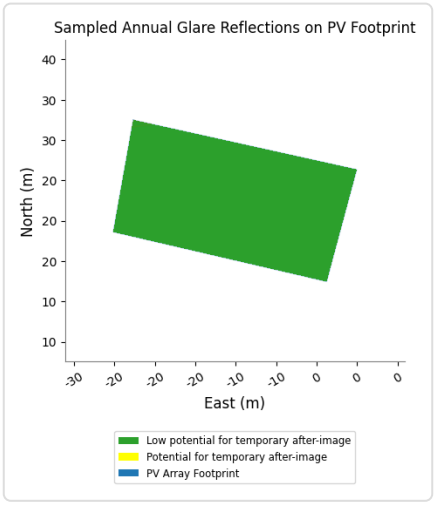
Yellow glare: none

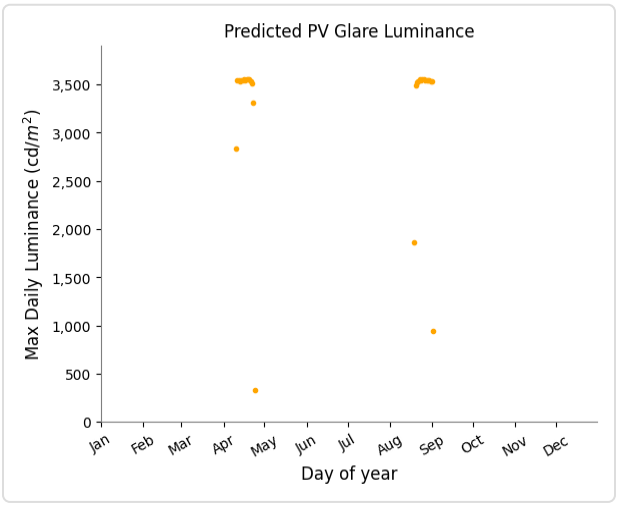
Green glare: 513 min.







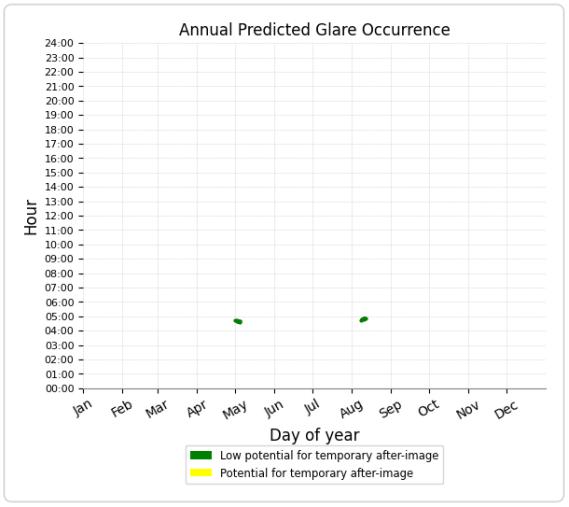


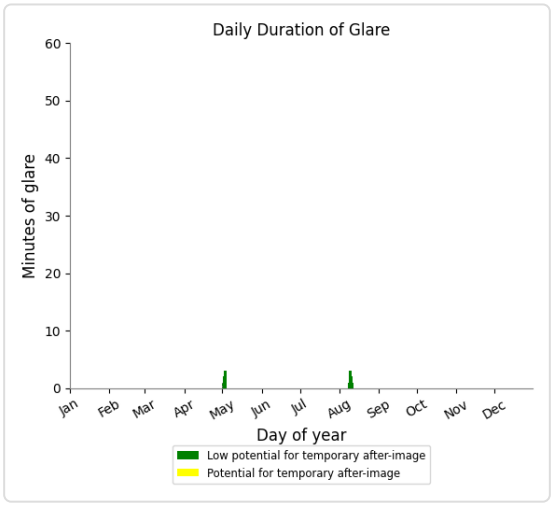


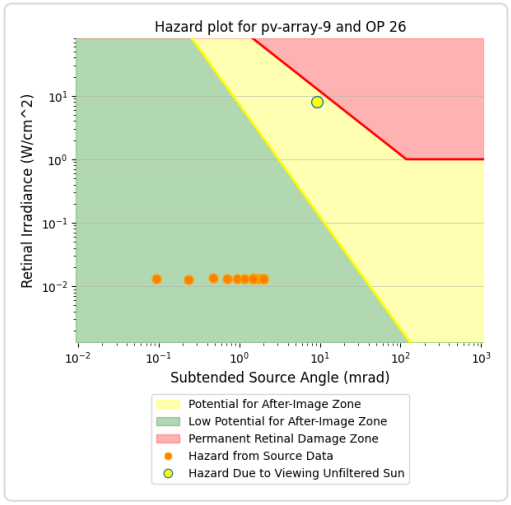
PV array 9 and OP 26

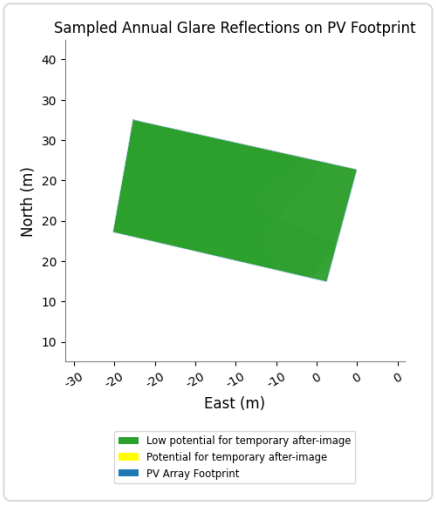
Yellow glare: none

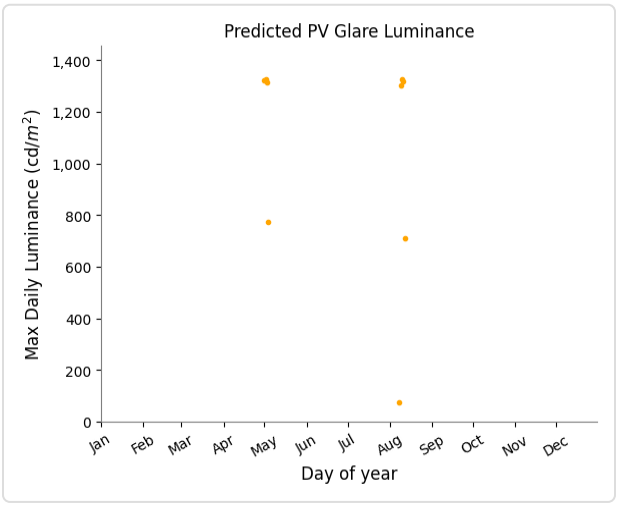
Green glare: 19 min.







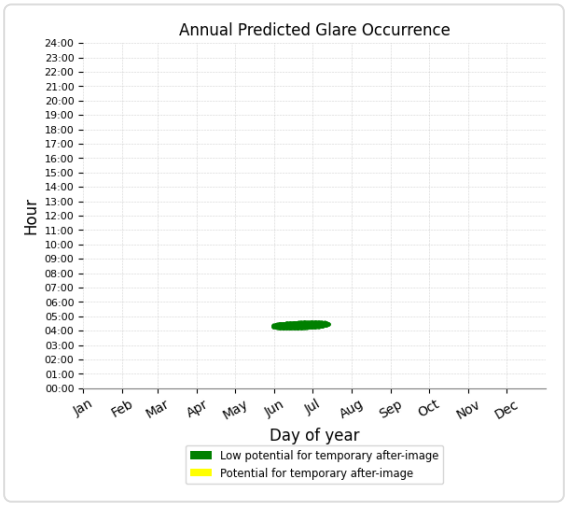


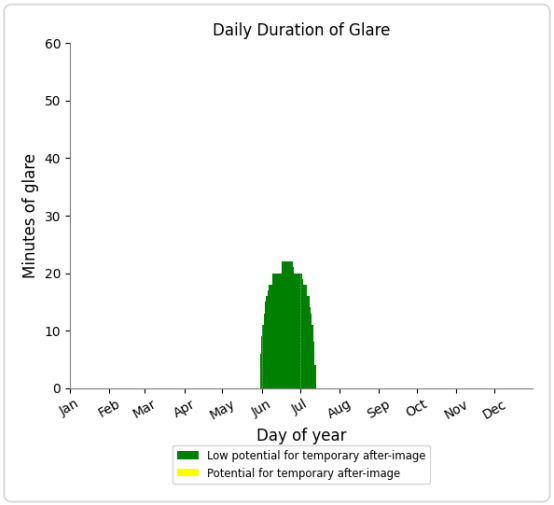


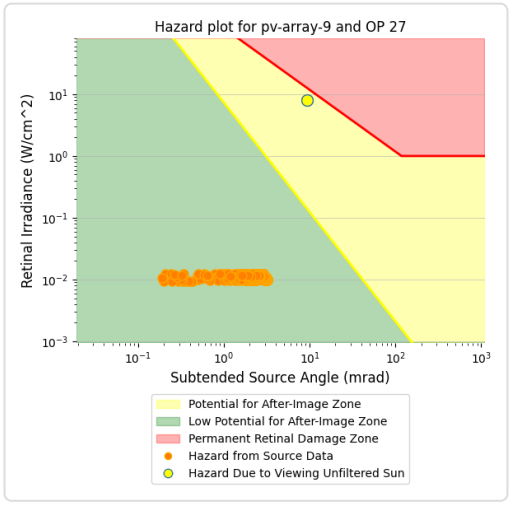
PV array 9 and OP 27

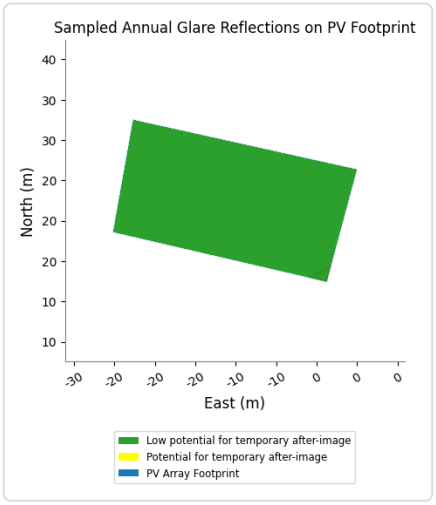
Yellow glare: none

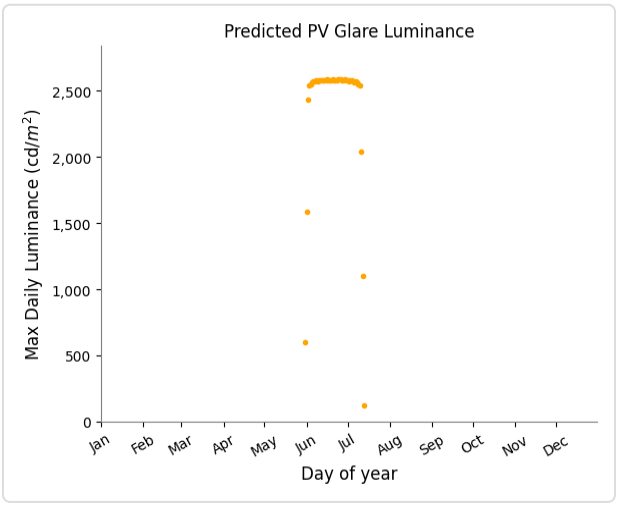
Green glare: 775 min.







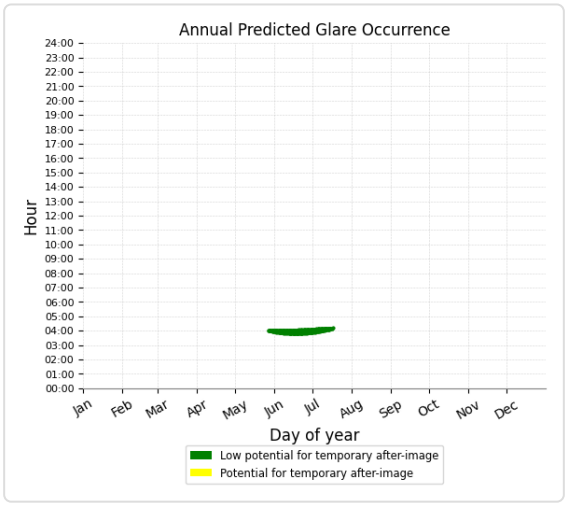


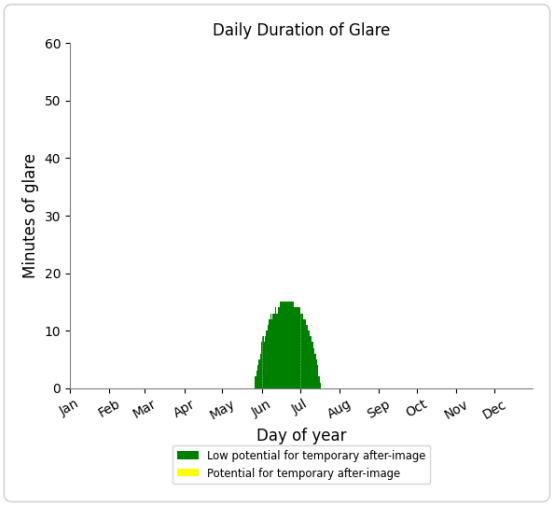


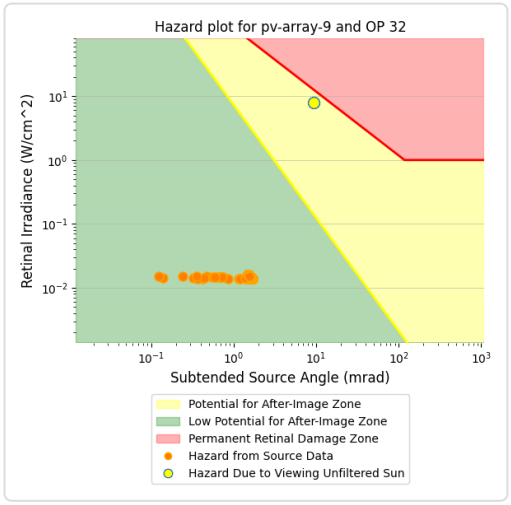
PV array 9 and OP 32

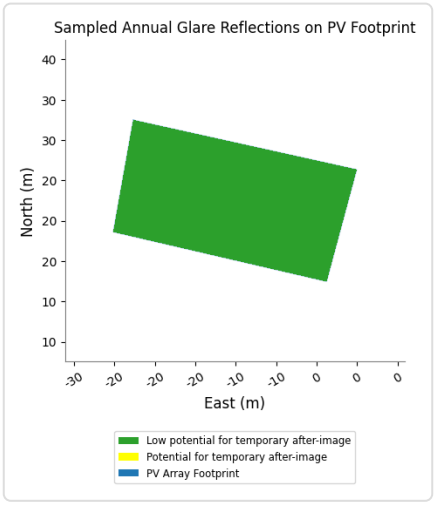
Yellow glare: none

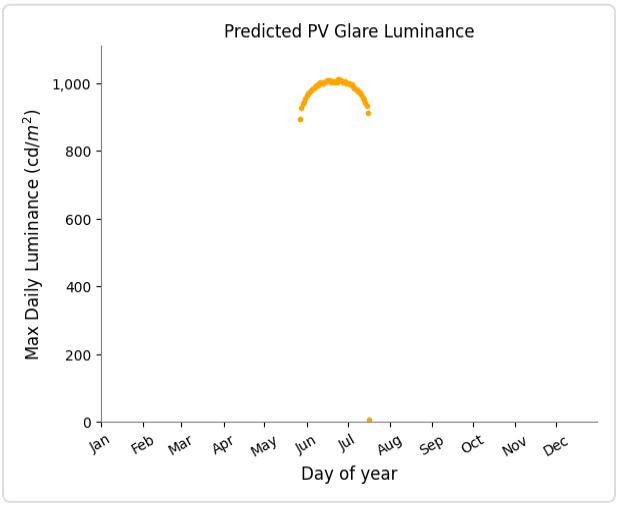
Green glare: 561 min.











PV array 9 and 1-ATCT

No glare found

PV array 9 and OP 2

No glare found

PV array 9 and OP 3

No glare found

PV array 9 and OP 4

No glare found

PV array 9 and OP 8

No glare found

PV array 9 and OP 14

No glare found

PV array 9 and OP 20

No glare found

PV array 9 and OP 22

No glare found

PV array 9 and OP 23

No glare found

PV array 9 and OP 24

No glare found

PV array 9 and OP 25

No glare found

PV array 9 and OP 28

No glare found

PV array 9 and OP 29

No glare found

PV array 9 and OP 30

No glare found

PV array 9 and OP 31

No glare found

PV array 9 and OP 33

No glare found

PV array 9 and OP 34

No glare found

PV array 9 and OP 35

No glare found

PV array 9 and OP 36

No glare found

PV array 9 and OP 37

No glare found

PV array 9 and OP 38

No glare found

PV array 9 and OP 39

No glare found

PV array 9 and OP 40

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

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

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

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