

EXHIBIT "E-13"



GlareGauge Glare Analysis Results

Site Configuration: Lawai Tracker

Project site configuration details and results.



Created Sept. 11, 2017 12:20 p.m.
 DNI varies and peaks at 1,000.0 W/m²
 Analyze every 1 minute(s)
 0.5 ocular transmission coefficient
 0.0066 ft pupil diameter
 0.056 ft eye focal length
 9.3 mrad sun subtended angle
 Site Configuration ID: 10153.1755

Summary of Results **No glare predicted!**

PV name	Tilt deg	Orientation deg	"Green" Glare min	"Yellow" Glare min	Energy Produced kWh
North Array	0.0	0.0	0	0	-
South Array	0.0	0.0	0	0	-

Component Data

PV Array(s)

Name: North Array
 Axis tracking: Single-axis rotation
 Tracking axis orientation: 0.0 deg
 Tracking axis tilt: 0.0 deg
 Tracking axis panel offset: 0.0 deg
 Limit tracking rotation? Yes
 Maximum tracking angle: 60.0 deg
 Rated power: -
 Panel material: Light textured glass with AR coating
 Vary reflectivity with sun position? Yes
 Correlate slope error with surface type? Yes
 Slope error: 9.16 mrad

Vertex	Latitude deg	Longitude deg	Ground elevation ft	Height above ground ft	Total elevation ft
1	21.913808	-159.491186	432.60	12.00	444.61
2	21.912750	-159.491186	410.98	12.00	422.98
3	21.910938	-159.489534	389.72	12.00	400.72
4	21.910679	-159.488461	362.36	12.00	374.37
5	21.911257	-159.487817	381.87	12.00	393.87
6	21.912371	-159.487753	378.26	12.00	390.26
7	21.914004	-159.489985	405.56	12.00	417.56
8	21.914302	-159.491057	421.80	12.00	433.80

Name: South Array
 Axis tracking: Single-axis rotation
 Tracking axis orientation: 0.0 deg
 Tracking axis tilt: 0.0 deg
 Tracking axis panel offset: 0.0 deg
 Limit tracking rotation? Yes
 Maximum tracking angle: 60.0 deg
 Rated power: -
 Panel material: Light textured glass with AR coating
 Vary reflectivity with sun position? Yes
 Correlate slope error with surface type? Yes
 Slope error: 9,16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	21.910440	-159.492824	421.27	12.00	433.27
2	21.909486	-159.493761	432.72	12.00	444.72
3	21.908270	-159.493804	414.71	12.00	426.71
4	21.907315	-159.494296	412.39	12.00	424.39
5	21.905722	-159.494169	379.69	12.00	391.69
6	21.904747	-159.493053	366.78	12.00	378.78
7	21.904090	-159.493890	367.68	12.00	379.68
8	21.902397	-159.492774	330.34	12.00	342.34
9	21.902936	-159.491572	313.40	12.00	325.40
10	21.905404	-159.491744	321.01	12.00	333.01
11	21.907315	-159.491960	362.87	12.00	374.87
12	21.908677	-159.491281	367.11	12.00	379.11
13	21.905224	-159.490693	345.58	12.00	357.58
14	21.905424	-159.489920	341.84	12.00	353.84
15	21.906797	-159.489634	363.68	12.00	375.68
16	21.907912	-159.489839	369.45	12.00	381.45
17	21.909724	-159.491036	388.42	12.00	399.42

Flight Path Receptor(s)

Name: FP 1 - LH
 Description:
 Threshold height: 60 ft
 Direction: 44.99 deg
 Glide slope: 3.0 deg
 Pilot view restricted? Yes
 Vertical view restriction: 30.0 deg
 Azimuthal view restriction: 120.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	21.973186	-159.348707	144.41	60.00	194.42
2-mile point	21.993664	-159.326640	-52.08	799.95	747.87

Name: FP 2 - LH
 Description:
 Threshold height: 60 ft
 Direction: 359.73 deg
 Glide slope: 3.0 deg
 Pilot view restricted? Yes
 Vertical view restriction: 30.0 deg
 Azimuthal view restriction: 120.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	21.964639	-159.336916	80.91	60.00	140.91
2-mile point	21.993452	-159.339066	-4.58	698.85	694.28

Name: FP 3 - LH
 Description:
 Threshold height: 60 ft
 Direction: 180.0 deg
 Glide slope: 3.0 deg
 Pilot view restricted? Yes
 Vertical view restriction: 30.0 deg
 Azimuthal view restriction: 120.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	21.983861	-159.338090	67.92	60.00	127.92
2-mile point	21.954968	-159.336090	12.68	678.70	691.38

Name: FP 4 - LIH
 Description:
 Threshold height: 50 ft
 Direction: 225.76 deg
 Glide slope: 3.0 deg
 Pilot view restricted? Yes
 Vertical view restriction: 30.0 deg
 Azimuthal view restriction: 120.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	21.894895	-159.335651	79.56	50.00	129.56
2-mile point	21.894824	-159.358025	108.54	578.47	683.02

Name: FP 5 - Port Allen
 Description:
 Threshold height: 50 ft
 Direction: 98.09 deg
 Glide slope: 3.0 deg
 Pilot view restricted? Yes
 Vertical view restriction: 30.0 deg
 Azimuthal view restriction: 120.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	21.897390	-159.606382	18.59	50.00	68.60
2-mile point	21.892922	-159.574559	4.34	617.71	622.05

Name: FP 6 - Port Allen
 Description:
 Threshold height: 50 ft
 Direction: 278.63 deg
 Glide slope: 3.0 deg
 Pilot view restricted? Yes
 Vertical view restriction: 30.0 deg
 Azimuthal view restriction: 120.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	21.898385	-159.598899	20.01	50.00	70.02
2-mile point	21.900723	-159.630541	-174.75	798.22	623.47

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
1 - Port Allen	21.898485	-159.600963	20.01	40.00	60.02
2 - LIH	21.894652	-159.344695	121.70	50.00	171.70

PV Array Results

North Array

Component	Green glare (min)	Yellow glare (min)	Red glare (min)
FP: FP 1	0	0	0
FP: FP 2	0	0	0
FP: FP 3	0	0	0
FP: FP 4	0	0	0
FP: FP 5	0	0	0
FP: FP 6	0	0	0
OP: 1	0	0	0
OP: 2	0	0	0

South Array

Component	Green glare (min)	Yellow glare (min)	Red glare (min)
FP: FP 1	0	0	0
FP: FP 2	0	0	0
FP: FP 3	0	0	0
FP: FP 4	0	0	0
FP: FP 5	0	0	0
FP: FP 6	0	0	0
OP: 1	0	0	0
OP: 2	0	0	0

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values may differ.
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.