

Solar Site Assessment Report

# General Site Assessment Report for Solar Applications.



The following report was requested by \_\_\_\_\_\*  
for the following described location:

Report Number: \_0000\_\_\_\_\_

Date of Report: \_02 Feb 2024\_\_\_\_\_

Street Address:

City: \_\_\_\_\_\*

County: \_\_\_\_\_\*

State: \_\_\_\_\_\*

Zip Code: \_\_\_\_\_\*

Longitude: \_\_\_\_\_\*

Elevation: \_\_\_\_\_\*

\*Not Required, but could be useful for further advanced site assessments.

Supplied Site Parameters:

- [1] Latitude: \_36.5°\_\_\_\_\_\*\* \*\*Most Definitely
- [2] Clearance Altitude: \_20°\_\_\_\_\_\*\* Required!!
- [3] Vertical Rise of Slope: \_6\_\_\_\_\_\*\*
- [4] Horizontal Run of Slope: \_12\_\_\_\_\_\*\*
- [5] Azimuth of Slope: \_120°\_\_\_\_\_\*\*

The following solar site report is intended only as a preliminary assay of the solar potential. Meteorological conditions will vary from site to site. The efficiency of solar conversions will vary according to the form of solar conversion selected.

On the following page are the explanations for the required site parameters and the resulting printout.

## Solar Site Assessment Report

### **Explanations**

[1] Latitude: This is the geographical latitude of the site. It is normally given in terms of degrees and minutes.

[2] Clearance Altitude: This may also be referred to as the "obstruction altitude. This is the angular altitude above the level horizon that the Sun must clear in order to shine down on the site. This angle is also measured in degrees and minutes.

[3] Vertical Rise of Slope: The site will most likely not be level. The site will most likely be sloped. This parameter represents the vertical "rise" of the slope in any desired unit.

[4] Horizontal Run of Slope: Since the site is most likely to be sloped, this parameter represents the horizontal "run" of the slope. This parameter must be in the same units as the "run."

[5] Azimuth of Slope: A slope will face on to a compass azimuth direction. This horizontal azimuth angle is measured in terms of positive degrees and minutes clockwise from North.

The first part of the report will contain the sum diurnal assessments as well as a recap of the supplied parameters. The second part of the report will contain an hour by hour table of the solar potentials. Both the returns for the level unobstructed plain and the supplied real parameters will be given. There will be 24 reports, each report representing an apparent movement of the Sun of  $15^\circ$  against the backdrop of the Celestial Sphere. The annual variations in the Solar Constant are accounted for. The report runs from the Spring Equinox to the following Spring Equinox. The datum is around 2020 A.D.

## Solar Site Assessment Report

Date = 20 March

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Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : 0.000 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.384 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 7.679 hr.
Time of Sunset for Level Plain of Site ----- : 16.321 hr.
Time of Sunrise for Plane of Slope ----- : 7.679 hr.
Time of Sunset for Plane of Slope ----- : 16.321 hr.
Diurnal Solar Energy for Level Plain of Site : 7.692 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 8.152 kw-hr/m^2.
    
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Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-53.50	0.000	0.000	0.000	0.000	0.000
1.00	-50.94	24.250	0.000	0.000	0.000	0.000
2.00	-44.12	44.146	0.000	0.000	0.000	0.000
3.00	-34.64	59.255	0.000	0.000	0.000	0.000
4.00	-23.70	71.046	0.000	0.000	0.000	0.000
5.00	-12.01	80.944	0.000	0.000	0.000	0.000
6.00	0.00	90.000	0.000	0.000	0.000	0.000
7.00	12.01	99.056	0.000	0.000	0.000	0.000
8.00	23.70	108.954	0.556	1.054	0.166	0.328
9.00	34.64	120.745	0.787	1.213	0.841	1.468
10.00	44.12	135.854	0.963	1.289	1.721	2.726
11.00	50.94	155.750	1.075	1.278	2.746	4.017
12.00	53.50	180.000	1.113	1.179	3.846	5.252
13.00	50.94	204.250	1.075	1.000	4.946	6.348
14.00	44.12	224.146	0.963	0.753	5.971	7.230
15.00	34.64	239.255	0.787	0.455	6.851	7.838
16.00	23.70	251.046	0.556	0.125	7.526	8.129
17.00	12.01	260.944	0.000	0.000	7.692	8.152
18.00	0.00	270.000	0.000	0.000	7.692	8.152
19.00	-12.01	279.056	0.000	0.000	7.692	8.152
20.00	-23.70	288.954	0.000	0.000	7.692	8.152
21.00	-34.64	300.745	0.000	0.000	7.692	8.152
22.00	-44.12	315.854	0.000	0.000	7.692	8.152
23.00	-50.94	335.750	0.000	0.000	7.692	8.152
24.00	-53.50	360.000	0.000	0.000	7.692	8.152

## Solar Site Assessment Report

Date = 04 April

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Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : 6.070 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.372 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 7.362 hr.
Time of Sunset for Level Plain of Site ----- : 16.638 hr.
Time of Sunrise for Plane of Slope ----- : 7.362 hr.
Time of Sunset for Plane of Slope ----- : 16.523 hr.
Diurnal Solar Energy for Level Plain of Site : 8.651 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 8.797 kw-hr/m^2.
    
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Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-47.43	0.000	0.000	0.000	0.000	0.000
1.00	-45.17	21.412	0.000	0.000	0.000	0.000
2.00	-39.00	39.777	0.000	0.000	0.000	0.000
3.00	-30.15	54.408	0.000	0.000	0.000	0.000
4.00	-19.68	66.149	0.000	0.000	0.000	0.000
5.00	-8.28	76.078	0.000	0.000	0.000	0.000
6.00	3.61	85.114	0.000	0.000	0.000	0.000
7.00	15.65	94.055	0.000	0.000	0.000	0.000
8.00	27.55	103.751	0.635	1.090	0.353	0.652
9.00	38.91	115.358	0.862	1.247	1.105	1.827
10.00	49.04	130.673	1.036	1.322	2.058	3.118
11.00	56.62	152.112	1.146	1.311	3.155	4.442
12.00	59.57	180.000	1.183	1.213	4.326	5.711
13.00	56.62	207.888	1.146	1.037	5.496	6.843
14.00	49.04	229.327	1.036	0.794	6.593	7.763
15.00	38.91	244.642	0.862	0.499	7.547	8.413
16.00	27.55	256.249	0.635	0.175	8.299	8.752
17.00	15.65	265.945	0.000	0.000	8.651	8.797
18.00	3.61	274.886	0.000	0.000	8.651	8.797
19.00	-8.28	283.922	0.000	0.000	8.651	8.797
20.00	-19.68	293.851	0.000	0.000	8.651	8.797
21.00	-30.15	305.592	0.000	0.000	8.651	8.797
22.00	-39.00	320.223	0.000	0.000	8.651	8.797
23.00	-45.17	338.588	0.000	0.000	8.651	8.797
24.00	-47.43	360.000	0.000	0.000	8.651	8.797

## Solar Site Assessment Report

Date = 19 April

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Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : 11.720 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.360 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 7.088 hr.
Time of Sunset for Level Plain of Site ----- : 16.912 hr.
Time of Sunrise for Plane of Slope ----- : 7.088 hr.
Time of Sunset for Plane of Slope ----- : 16.669 hr.
Diurnal Solar Energy for Level Plain of Site : 9.462 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 9.284 kw-hr/m^2.
    
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Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-41.78	0.000	0.000	0.000	0.000	0.000
1.00	-39.75	19.246	0.000	0.000	0.000	0.000
2.00	-34.11	36.251	0.000	0.000	0.000	0.000
3.00	-25.83	50.285	0.000	0.000	0.000	0.000
4.00	-15.83	61.810	0.000	0.000	0.000	0.000
5.00	-4.75	71.632	0.000	0.000	0.000	0.000
6.00	6.94	80.532	0.000	0.000	0.000	0.000
7.00	18.94	89.240	0.000	0.000	0.000	0.000
8.00	30.96	98.579	0.700	1.111	0.533	0.926
9.00	42.64	109.747	0.921	1.264	1.347	2.120
10.00	53.37	124.866	1.091	1.338	2.358	3.428
11.00	61.78	147.597	1.198	1.327	3.509	4.767
12.00	65.22	180.000	1.235	1.232	4.731	6.053
13.00	61.78	212.403	1.198	1.060	5.954	7.205
14.00	53.37	235.134	1.091	0.822	7.104	8.151
15.00	42.64	250.253	0.921	0.535	8.115	8.833
16.00	30.96	261.421	0.700	0.218	8.930	9.211
17.00	18.94	270.760	0.000	0.000	9.462	9.284
18.00	6.94	279.468	0.000	0.000	9.462	9.284
19.00	-4.75	288.368	0.000	0.000	9.462	9.284
20.00	-15.83	298.190	0.000	0.000	9.462	9.284
21.00	-25.83	309.715	0.000	0.000	9.462	9.284
22.00	-34.11	323.749	0.000	0.000	9.462	9.284
23.00	-39.75	340.754	0.000	0.000	9.462	9.284
24.00	-41.78	360.000	0.000	0.000	9.462	9.284

## Solar Site Assessment Report

Date = 05 May

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Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : 16.580 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.349 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 6.861 hr.
Time of Sunset for Level Plain of Site ----- : 17.139 hr.
Time of Sunrise for Plane of Slope ----- : 6.861 hr.
Time of Sunset for Plane of Slope ----- : 16.799 hr.
Diurnal Solar Energy for Level Plain of Site : 10.092 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 9.614 kw-hr/m^2.
    
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Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-36.92	0.000	0.000	0.000	0.000	0.000
1.00	-35.06	17.641	0.000	0.000	0.000	0.000
2.00	-29.83	33.533	0.000	0.000	0.000	0.000
3.00	-22.03	46.976	0.000	0.000	0.000	0.000
4.00	-12.44	58.210	0.000	0.000	0.000	0.000
5.00	-1.70	67.846	0.000	0.000	0.000	0.000
6.00	9.77	76.540	0.000	0.000	0.000	0.000
7.00	21.66	84.949	0.498	0.904	0.066	0.123
8.00	33.71	93.837	0.749	1.120	0.692	1.140
9.00	45.60	104.378	0.964	1.269	1.552	2.341
10.00	56.82	118.881	1.129	1.340	2.603	3.652
11.00	66.05	142.329	1.233	1.329	3.789	4.993
12.00	70.08	180.000	1.268	1.237	5.046	6.283
13.00	66.05	217.671	1.233	1.070	6.302	7.442
14.00	56.82	241.119	1.129	0.839	7.489	8.402
15.00	45.60	255.622	0.964	0.560	8.540	9.105
16.00	33.71	266.163	0.749	0.253	9.400	9.513
17.00	21.66	275.051	0.498	0.000	10.025	9.614
18.00	9.77	283.460	0.000	0.000	10.092	9.614
19.00	-1.70	292.154	0.000	0.000	10.092	9.614
20.00	-12.44	301.790	0.000	0.000	10.092	9.614
21.00	-22.03	313.024	0.000	0.000	10.092	9.614
22.00	-29.83	326.467	0.000	0.000	10.092	9.614
23.00	-35.06	342.359	0.000	0.000	10.092	9.614
24.00	-36.92	360.000	0.000	0.000	10.092	9.614

## Solar Site Assessment Report

Date = 20 May

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Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : 20.310 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.340 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 6.691 hr.
Time of Sunset for Level Plain of Site ----- : 17.309 hr.
Time of Sunrise for Plane of Slope ----- : 6.691 hr.
Time of Sunset for Plane of Slope ----- : 16.904 hr.
Diurnal Solar Energy for Level Plain of Site : 10.529 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 9.811 kw-hr/m^2.
    
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Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-33.19	0.000	0.000	0.000	0.000	0.000
1.00	-31.45	16.530	0.000	0.000	0.000	0.000
2.00	-26.51	31.603	0.000	0.000	0.000	0.000
3.00	-19.06	44.557	0.000	0.000	0.000	0.000
4.00	-9.82	55.512	0.000	0.000	0.000	0.000
5.00	0.65	64.949	0.000	0.000	0.000	0.000
6.00	11.92	73.432	0.000	0.000	0.000	0.000
7.00	23.68	81.546	0.538	0.911	0.154	0.270
8.00	35.69	89.993	0.782	1.121	0.816	1.291
9.00	47.69	99.875	0.991	1.265	1.706	2.490
10.00	59.24	113.520	1.152	1.334	2.782	3.796
11.00	69.17	136.948	1.252	1.324	3.989	5.132
12.00	73.81	180.000	1.287	1.235	5.265	6.418
13.00	69.17	223.052	1.252	1.072	6.540	7.577
14.00	59.24	246.480	1.152	0.848	7.747	8.541
15.00	47.69	260.125	0.991	0.577	8.823	9.257
16.00	35.69	270.007	0.782	0.278	9.713	9.686
17.00	23.68	278.454	0.538	0.000	10.375	9.811
18.00	11.92	286.568	0.000	0.000	10.529	9.811
19.00	0.65	295.051	0.000	0.000	10.529	9.811
20.00	-9.82	304.488	0.000	0.000	10.529	9.811
21.00	-19.06	315.443	0.000	0.000	10.529	9.811
22.00	-26.51	328.397	0.000	0.000	10.529	9.811
23.00	-31.45	343.470	0.000	0.000	10.529	9.811
24.00	-33.19	360.000	0.000	0.000	10.529	9.811

## Solar Site Assessment Report

Date = 05 June

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Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : 0.000 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.333 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 7.679 hr.
Time of Sunset for Level Plain of Site ----- : 16.321 hr.
Time of Sunrise for Plane of Slope ----- : 7.679 hr.
Time of Sunset for Plane of Slope ----- : 16.321 hr.
Diurnal Solar Energy for Level Plain of Site : 7.408 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 7.852 kw-hr/m^2.
    
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Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-53.50	0.000	0.000	0.000	0.000	0.000
1.00	-50.94	24.250	0.000	0.000	0.000	0.000
2.00	-44.12	44.146	0.000	0.000	0.000	0.000
3.00	-34.64	59.255	0.000	0.000	0.000	0.000
4.00	-23.70	71.046	0.000	0.000	0.000	0.000
5.00	-12.01	80.944	0.000	0.000	0.000	0.000
6.00	0.00	90.000	0.000	0.000	0.000	0.000
7.00	12.01	99.056	0.000	0.000	0.000	0.000
8.00	23.70	108.954	0.536	1.015	0.159	0.316
9.00	34.64	120.745	0.758	1.168	0.810	1.414
10.00	44.12	135.854	0.928	1.242	1.658	2.626
11.00	50.94	155.750	1.035	1.231	2.645	3.869
12.00	53.50	180.000	1.072	1.136	3.704	5.059
13.00	50.94	204.250	1.035	0.963	4.763	6.114
14.00	44.12	224.146	0.928	0.725	5.751	6.964
15.00	34.64	239.255	0.758	0.438	6.598	7.549
16.00	23.70	251.046	0.536	0.121	7.249	7.830
17.00	12.01	260.944	0.000	0.000	7.408	7.852
18.00	0.00	270.000	0.000	0.000	7.408	7.852
19.00	-12.01	279.056	0.000	0.000	7.408	7.852
20.00	-23.70	288.954	0.000	0.000	7.408	7.852
21.00	-34.64	300.745	0.000	0.000	7.408	7.852
22.00	-44.12	315.854	0.000	0.000	7.408	7.852
23.00	-50.94	335.750	0.000	0.000	7.408	7.852
24.00	-53.50	360.000	0.000	0.000	7.408	7.852



## Solar Site Assessment Report

Date = 21 June

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Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : 23.450 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.329 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 6.547 hr.
Time of Sunset for Level Plain of Site ----- : 17.453 hr.
Time of Sunrise for Plane of Slope ----- : 6.547 hr.
Time of Sunset for Plane of Slope ----- : 16.997 hr.
Diurnal Solar Energy for Level Plain of Site : 10.841 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 9.917 kw-hr/m^2.
    
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Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-30.05	0.000	0.000	0.000	0.000	0.000
1.00	-28.40	15.660	0.000	0.000	0.000	0.000
2.00	-23.70	30.063	0.000	0.000	0.000	0.000
3.00	-16.54	42.588	0.000	0.000	0.000	0.000
4.00	-7.59	53.275	0.000	0.000	0.000	0.000
5.00	2.63	62.509	0.000	0.000	0.000	0.000
6.00	13.69	70.777	0.000	0.000	0.000	0.000
7.00	25.31	78.601	0.568	0.911	0.232	0.388
8.00	37.26	86.611	0.805	1.115	0.920	1.406
9.00	49.30	95.807	1.008	1.255	1.830	2.596
10.00	61.09	108.412	1.163	1.322	2.920	3.891
11.00	71.63	131.110	1.261	1.312	4.137	5.214
12.00	76.95	180.000	1.295	1.225	5.421	6.489
13.00	71.63	228.890	1.261	1.067	6.704	7.641
14.00	61.09	251.588	1.163	0.850	7.922	8.604
15.00	49.30	264.193	1.008	0.587	9.012	9.326
16.00	37.26	273.389	0.805	0.297	9.921	9.769
17.00	25.31	281.399	0.568	0.000	10.610	9.917
18.00	13.69	289.223	0.000	0.000	10.841	9.917
19.00	2.63	297.491	0.000	0.000	10.841	9.917
20.00	-7.59	306.725	0.000	0.000	10.841	9.917
21.00	-16.54	317.412	0.000	0.000	10.841	9.917
22.00	-23.70	329.937	0.000	0.000	10.841	9.917
23.00	-28.40	344.340	0.000	0.000	10.841	9.917
24.00	-30.05	360.000	0.000	0.000	10.841	9.917

## Solar Site Assessment Report

Date = 07 July

```

Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : 22.650 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.328 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 6.584 hr.
Time of Sunset for Level Plain of Site ----- : 17.416 hr.
Time of Sunrise for Plane of Slope ----- : 6.584 hr.
Time of Sunset for Plane of Slope ----- : 16.973 hr.
Diurnal Solar Energy for Level Plain of Site : 10.734 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 9.865 kw-hr/m^2.
    
```

Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-30.85	0.000	0.000	0.000	0.000	0.000
1.00	-29.18	15.877	0.000	0.000	0.000	0.000
2.00	-24.42	30.449	0.000	0.000	0.000	0.000
3.00	-17.19	43.085	0.000	0.000	0.000	0.000
4.00	-8.16	53.843	0.000	0.000	0.000	0.000
5.00	2.12	63.131	0.000	0.000	0.000	0.000
6.00	13.24	71.457	0.000	0.000	0.000	0.000
7.00	24.90	79.359	0.559	0.909	0.211	0.358
8.00	36.87	87.486	0.797	1.113	0.891	1.373
9.00	48.91	96.868	1.001	1.254	1.793	2.563
10.00	60.64	109.768	1.157	1.322	2.877	3.857
11.00	71.02	132.734	1.256	1.312	4.089	5.181
12.00	76.15	180.000	1.289	1.224	5.367	6.455
13.00	71.02	227.266	1.256	1.066	6.645	7.605
14.00	60.64	250.232	1.157	0.847	7.857	8.566
15.00	48.91	263.132	1.001	0.583	8.940	9.285
16.00	36.87	272.514	0.797	0.291	9.843	9.723
17.00	24.90	280.641	0.559	0.000	10.523	9.865
18.00	13.24	288.543	0.000	0.000	10.734	9.865
19.00	2.12	296.869	0.000	0.000	10.734	9.865
20.00	-8.16	306.157	0.000	0.000	10.734	9.865
21.00	-17.19	316.915	0.000	0.000	10.734	9.865
22.00	-24.42	329.551	0.000	0.000	10.734	9.865
23.00	-29.18	344.123	0.000	0.000	10.734	9.865
24.00	-30.85	360.000	0.000	0.000	10.734	9.865

## Solar Site Assessment Report

Date = 22 July

```

Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : 20.310 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.330 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 6.691 hr.
Time of Sunset for Level Plain of Site ----- : 17.309 hr.
Time of Sunrise for Plane of Slope ----- : 6.691 hr.
Time of Sunset for Plane of Slope ----- : 16.904 hr.
Diurnal Solar Energy for Level Plain of Site : 10.451 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 9.738 kw-hr/m^2.
    
```

Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-33.19	0.000	0.000	0.000	0.000	0.000
1.00	-31.45	16.530	0.000	0.000	0.000	0.000
2.00	-26.51	31.603	0.000	0.000	0.000	0.000
3.00	-19.06	44.557	0.000	0.000	0.000	0.000
4.00	-9.82	55.512	0.000	0.000	0.000	0.000
5.00	0.65	64.949	0.000	0.000	0.000	0.000
6.00	11.92	73.432	0.000	0.000	0.000	0.000
7.00	23.68	81.546	0.534	0.904	0.153	0.268
8.00	35.69	89.993	0.776	1.112	0.810	1.281
9.00	47.69	99.875	0.984	1.256	1.693	2.471
10.00	59.24	113.520	1.143	1.324	2.761	3.768
11.00	69.17	136.948	1.243	1.314	3.960	5.094
12.00	73.81	180.000	1.277	1.225	5.225	6.370
13.00	69.17	223.052	1.243	1.064	6.491	7.520
14.00	59.24	246.480	1.143	0.841	7.690	8.478
15.00	47.69	260.125	0.984	0.572	8.757	9.188
16.00	35.69	270.007	0.776	0.276	9.641	9.613
17.00	23.68	278.454	0.534	0.000	10.298	9.738
18.00	11.92	286.568	0.000	0.000	10.451	9.738
19.00	0.65	295.051	0.000	0.000	10.451	9.738
20.00	-9.82	304.488	0.000	0.000	10.451	9.738
21.00	-19.06	315.443	0.000	0.000	10.451	9.738
22.00	-26.51	328.397	0.000	0.000	10.451	9.738
23.00	-31.45	343.470	0.000	0.000	10.451	9.738
24.00	-33.19	360.000	0.000	0.000	10.451	9.738

## Solar Site Assessment Report

Date = 07 August

```

Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : 16.580 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.335 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 6.861 hr.
Time of Sunset for Level Plain of Site ----- : 17.139 hr.
Time of Sunrise for Plane of Slope ----- : 6.861 hr.
Time of Sunset for Plane of Slope ----- : 16.799 hr.
Diurnal Solar Energy for Level Plain of Site : 9.987 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 9.514 kw-hr/m^2.
    
```

Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-36.92	0.000	0.000	0.000	0.000	0.000
1.00	-35.06	17.641	0.000	0.000	0.000	0.000
2.00	-29.83	33.533	0.000	0.000	0.000	0.000
3.00	-22.03	46.976	0.000	0.000	0.000	0.000
4.00	-12.44	58.210	0.000	0.000	0.000	0.000
5.00	-1.70	67.846	0.000	0.000	0.000	0.000
6.00	9.77	76.540	0.000	0.000	0.000	0.000
7.00	21.66	84.949	0.493	0.895	0.066	0.122
8.00	33.71	93.837	0.741	1.108	0.685	1.128
9.00	45.60	104.378	0.954	1.255	1.536	2.316
10.00	56.82	118.881	1.117	1.326	2.576	3.614
11.00	66.05	142.329	1.220	1.315	3.750	4.941
12.00	70.08	180.000	1.255	1.224	4.994	6.218
13.00	66.05	217.671	1.220	1.059	6.237	7.365
14.00	56.82	241.119	1.117	0.831	7.411	8.314
15.00	45.60	255.622	0.954	0.555	8.451	9.010
16.00	33.71	266.163	0.741	0.250	9.302	9.414
17.00	21.66	275.051	0.493	0.000	9.921	9.514
18.00	9.77	283.460	0.000	0.000	9.987	9.514
19.00	-1.70	292.154	0.000	0.000	9.987	9.514
20.00	-12.44	301.790	0.000	0.000	9.987	9.514
21.00	-22.03	313.024	0.000	0.000	9.987	9.514
22.00	-29.83	326.467	0.000	0.000	9.987	9.514
23.00	-35.06	342.359	0.000	0.000	9.987	9.514
24.00	-36.92	360.000	0.000	0.000	9.987	9.514

## Solar Site Assessment Report

Date = 22 August

```

Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : 11.730 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.343 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 7.088 hr.
Time of Sunset for Level Plain of Site ----- : 16.912 hr.
Time of Sunrise for Plane of Slope ----- : 7.088 hr.
Time of Sunset for Plane of Slope ----- : 16.669 hr.
Diurnal Solar Energy for Level Plain of Site : 9.346 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 9.169 kw-hr/m^2.
    
```

Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-41.77	0.000	0.000	0.000	0.000	0.000
1.00	-39.74	19.242	0.000	0.000	0.000	0.000
2.00	-34.10	36.245	0.000	0.000	0.000	0.000
3.00	-25.82	50.278	0.000	0.000	0.000	0.000
4.00	-15.82	61.802	0.000	0.000	0.000	0.000
5.00	-4.75	71.625	0.000	0.000	0.000	0.000
6.00	6.95	80.524	0.000	0.000	0.000	0.000
7.00	18.94	89.231	0.000	0.000	0.000	0.000
8.00	30.96	98.570	0.691	1.097	0.527	0.915
9.00	42.65	109.737	0.910	1.248	1.331	2.094
10.00	53.37	124.855	1.078	1.321	2.329	3.386
11.00	61.78	147.588	1.183	1.310	3.465	4.708
12.00	65.23	180.000	1.219	1.217	4.673	5.978
13.00	61.78	212.412	1.183	1.047	5.880	7.116
14.00	53.37	235.145	1.078	0.812	7.016	8.050
15.00	42.65	250.263	0.910	0.528	8.015	8.723
16.00	30.96	261.430	0.691	0.215	8.819	9.097
17.00	18.94	270.769	0.000	0.000	9.346	9.169
18.00	6.95	279.476	0.000	0.000	9.346	9.169
19.00	-4.75	288.375	0.000	0.000	9.346	9.169
20.00	-15.82	298.198	0.000	0.000	9.346	9.169
21.00	-25.82	309.722	0.000	0.000	9.346	9.169
22.00	-34.10	323.755	0.000	0.000	9.346	9.169
23.00	-39.74	340.758	0.000	0.000	9.346	9.169
24.00	-41.77	360.000	0.000	0.000	9.346	9.169

## Solar Site Assessment Report

Date = 06 September

```

Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : 6.070 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.353 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 7.362 hr.
Time of Sunset for Level Plain of Site ----- : 16.638 hr.
Time of Sunrise for Plane of Slope ----- : 7.362 hr.
Time of Sunset for Plane of Slope ----- : 16.523 hr.
Diurnal Solar Energy for Level Plain of Site : 8.531 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 8.675 kw-hr/m^2.
    
```

Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-47.43	0.000	0.000	0.000	0.000	0.000
1.00	-45.17	21.412	0.000	0.000	0.000	0.000
2.00	-39.00	39.777	0.000	0.000	0.000	0.000
3.00	-30.15	54.408	0.000	0.000	0.000	0.000
4.00	-19.68	66.149	0.000	0.000	0.000	0.000
5.00	-8.28	76.078	0.000	0.000	0.000	0.000
6.00	3.61	85.114	0.000	0.000	0.000	0.000
7.00	15.65	94.055	0.000	0.000	0.000	0.000
8.00	27.55	103.751	0.626	1.075	0.348	0.643
9.00	38.91	115.358	0.850	1.229	1.089	1.802
10.00	49.04	130.673	1.022	1.304	2.030	3.075
11.00	56.62	152.112	1.130	1.292	3.111	4.381
12.00	59.57	180.000	1.167	1.197	4.266	5.632
13.00	56.62	207.888	1.130	1.023	5.420	6.748
14.00	49.04	229.327	1.022	0.783	6.501	7.655
15.00	38.91	244.642	0.850	0.492	7.442	8.296
16.00	27.55	256.249	0.626	0.172	8.184	8.630
17.00	15.65	265.945	0.000	0.000	8.531	8.675
18.00	3.61	274.886	0.000	0.000	8.531	8.675
19.00	-8.28	283.922	0.000	0.000	8.531	8.675
20.00	-19.68	293.851	0.000	0.000	8.531	8.675
21.00	-30.15	305.592	0.000	0.000	8.531	8.675
22.00	-39.00	320.223	0.000	0.000	8.531	8.675
23.00	-45.17	338.588	0.000	0.000	8.531	8.675
24.00	-47.43	360.000	0.000	0.000	8.531	8.675

## Solar Site Assessment Report

Date = 21 September

```

Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : 0.000 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.364 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 7.679 hr.
Time of Sunset for Level Plain of Site ----- : 16.321 hr.
Time of Sunrise for Plane of Slope ----- : 7.679 hr.
Time of Sunset for Plane of Slope ----- : 16.321 hr.
Diurnal Solar Energy for Level Plain of Site : 7.580 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 8.034 kw-hr/m^2.
    
```

Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-53.50	0.000	0.000	0.000	0.000	0.000
1.00	-50.94	24.250	0.000	0.000	0.000	0.000
2.00	-44.12	44.146	0.000	0.000	0.000	0.000
3.00	-34.64	59.255	0.000	0.000	0.000	0.000
4.00	-23.70	71.046	0.000	0.000	0.000	0.000
5.00	-12.01	80.944	0.000	0.000	0.000	0.000
6.00	0.00	90.000	0.000	0.000	0.000	0.000
7.00	12.01	99.056	0.000	0.000	0.000	0.000
8.00	23.70	108.954	0.548	1.039	0.163	0.323
9.00	34.64	120.745	0.775	1.195	0.829	1.447
10.00	44.12	135.854	0.950	1.271	1.696	2.687
11.00	50.94	155.750	1.059	1.259	2.706	3.959
12.00	53.50	180.000	1.096	1.162	3.790	5.176
13.00	50.94	204.250	1.059	0.986	4.874	6.257
14.00	44.12	224.146	0.950	0.742	5.884	7.126
15.00	34.64	239.255	0.775	0.448	6.752	7.724
16.00	23.70	251.046	0.548	0.124	7.417	8.012
17.00	12.01	260.944	0.000	0.000	7.580	8.034
18.00	0.00	270.000	0.000	0.000	7.580	8.034
19.00	-12.01	279.056	0.000	0.000	7.580	8.034
20.00	-23.70	288.954	0.000	0.000	7.580	8.034
21.00	-34.64	300.745	0.000	0.000	7.580	8.034
22.00	-44.12	315.854	0.000	0.000	7.580	8.034
23.00	-50.94	335.750	0.000	0.000	7.580	8.034
24.00	-53.50	360.000	0.000	0.000	7.580	8.034

## Solar Site Assessment Report

Date = 07 October

```

Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : -6.070 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.376 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 8.029 hr.
Time of Sunset for Level Plain of Site ----- : 15.971 hr.
Time of Sunrise for Plane of Slope ----- : 8.029 hr.
Time of Sunset for Plane of Slope ----- : 15.971 hr.
Diurnal Solar Energy for Level Plain of Site : 6.557 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 7.272 kw-hr/m^2.
    
```

Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-59.57	0.000	0.000	0.000	0.000	0.000
1.00	-56.62	27.888	0.000	0.000	0.000	0.000
2.00	-49.04	49.328	0.000	0.000	0.000	0.000
3.00	-38.91	64.642	0.000	0.000	0.000	0.000
4.00	-27.55	76.249	0.000	0.000	0.000	0.000
5.00	-15.65	85.945	0.000	0.000	0.000	0.000
6.00	-3.61	94.886	0.000	0.000	0.000	0.000
7.00	8.28	103.922	0.000	0.000	0.000	0.000
8.00	19.68	113.852	0.000	0.000	0.000	0.000
9.00	30.15	125.592	0.691	1.148	0.568	1.047
10.00	39.00	140.223	0.866	1.223	1.351	2.239
11.00	45.17	158.589	0.976	1.212	2.278	3.464
12.00	47.43	180.000	1.013	1.115	3.279	4.635
13.00	45.17	201.411	0.976	0.938	4.280	5.667
14.00	39.00	219.777	0.866	0.693	5.206	6.487
15.00	30.15	234.408	0.691	0.398	5.990	7.037
16.00	19.68	246.148	0.000	0.000	6.557	7.272
17.00	8.28	256.078	0.000	0.000	6.557	7.272
18.00	-3.61	265.114	0.000	0.000	6.557	7.272
19.00	-15.65	274.055	0.000	0.000	6.557	7.272
20.00	-27.55	283.751	0.000	0.000	6.557	7.272
21.00	-38.91	295.358	0.000	0.000	6.557	7.272
22.00	-49.04	310.672	0.000	0.000	6.557	7.272
23.00	-56.62	332.112	0.000	0.000	6.557	7.272
24.00	-59.57	360.000	0.000	0.000	6.557	7.272



## Solar Site Assessment Report

Date = 22 October

```

Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : -11.720 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.387 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 8.401 hr.
Time of Sunset for Level Plain of Site ----- : 15.599 hr.
Time of Sunrise for Plane of Slope ----- : 8.401 hr.
Time of Sunset for Plane of Slope ----- : 15.599 hr.
Diurnal Solar Energy for Level Plain of Site : 5.539 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 6.435 kw-hr/m^2.
    
```

Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-65.22	0.000	0.000	0.000	0.000	0.000
1.00	-61.78	32.403	0.000	0.000	0.000	0.000
2.00	-53.37	55.134	0.000	0.000	0.000	0.000
3.00	-42.64	70.253	0.000	0.000	0.000	0.000
4.00	-30.96	81.421	0.000	0.000	0.000	0.000
5.00	-18.94	90.760	0.000	0.000	0.000	0.000
6.00	-6.94	99.468	0.000	0.000	0.000	0.000
7.00	4.75	108.368	0.000	0.000	0.000	0.000
8.00	15.83	118.191	0.000	0.000	0.000	0.000
9.00	25.83	129.715	0.604	1.091	0.324	0.629
10.00	34.11	143.749	0.778	1.166	1.020	1.765
11.00	39.75	160.754	0.887	1.155	1.858	2.932
12.00	41.78	180.000	0.924	1.058	2.770	4.045
13.00	39.75	199.246	0.887	0.882	3.681	5.022
14.00	34.11	216.251	0.778	0.640	4.520	5.788
15.00	25.83	230.285	0.604	0.347	5.216	6.284
16.00	15.83	241.809	0.000	0.000	5.539	6.435
17.00	4.75	251.632	0.000	0.000	5.539	6.435
18.00	-6.94	260.532	0.000	0.000	5.539	6.435
19.00	-18.94	269.240	0.000	0.000	5.539	6.435
20.00	-30.96	278.579	0.000	0.000	5.539	6.435
21.00	-42.64	289.747	0.000	0.000	5.539	6.435
22.00	-53.37	304.866	0.000	0.000	5.539	6.435
23.00	-61.78	327.597	0.000	0.000	5.539	6.435
24.00	-65.22	360.000	0.000	0.000	5.539	6.435

## Solar Site Assessment Report

Date = 06 November

```

Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : -16.580 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.398 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 8.775 hr.
Time of Sunset for Level Plain of Site ----- : 15.225 hr.
Time of Sunrise for Plane of Slope ----- : 8.775 hr.
Time of Sunset for Plane of Slope ----- : 15.225 hr.
Diurnal Solar Energy for Level Plain of Site : 4.620 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 5.613 kw-hr/m^2.
    
```

Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-70.08	0.000	0.000	0.000	0.000	0.000
1.00	-66.05	37.671	0.000	0.000	0.000	0.000
2.00	-56.82	61.119	0.000	0.000	0.000	0.000
3.00	-45.60	75.622	0.000	0.000	0.000	0.000
4.00	-33.71	86.163	0.000	0.000	0.000	0.000
5.00	-21.66	95.052	0.000	0.000	0.000	0.000
6.00	-9.77	103.460	0.000	0.000	0.000	0.000
7.00	1.70	112.154	0.000	0.000	0.000	0.000
8.00	12.44	121.790	0.000	0.000	0.000	0.000
9.00	22.03	133.024	0.524	1.034	0.113	0.230
10.00	29.83	146.467	0.695	1.108	0.728	1.307
11.00	35.06	162.359	0.803	1.096	1.483	2.416
12.00	36.92	180.000	0.840	1.001	2.310	3.472
13.00	35.06	197.641	0.803	0.828	3.138	4.392
14.00	29.83	213.533	0.695	0.589	3.893	5.105
15.00	22.03	226.976	0.524	0.300	4.507	5.553
16.00	12.44	238.210	0.000	0.000	4.620	5.613
17.00	1.70	247.846	0.000	0.000	4.620	5.613
18.00	-9.77	256.540	0.000	0.000	4.620	5.613
19.00	-21.66	264.948	0.000	0.000	4.620	5.613
20.00	-33.71	273.837	0.000	0.000	4.620	5.613
21.00	-45.60	284.378	0.000	0.000	4.620	5.613
22.00	-56.82	298.881	0.000	0.000	4.620	5.613
23.00	-66.05	322.329	0.000	0.000	4.620	5.613
24.00	-70.08	360.000	0.000	0.000	4.620	5.613

## Solar Site Assessment Report

Date = 21 November

```

Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : -20.310 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.408 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 9.112 hr.
Time of Sunset for Level Plain of Site ----- : 14.888 hr.
Time of Sunrise for Plane of Slope ----- : 9.112 hr.
Time of Sunset for Plane of Slope ----- : 14.888 hr.
Diurnal Solar Energy for Level Plain of Site : 3.884 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 4.902 kw-hr/m^2.
    
```

Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-73.81	0.001	0.000	0.000	0.000	0.000
1.00	-69.17	43.053	0.000	0.000	0.000	0.000
2.00	-59.24	66.480	0.000	0.000	0.000	0.000
3.00	-47.69	80.125	0.000	0.000	0.000	0.000
4.00	-35.69	90.007	0.000	0.000	0.000	0.000
5.00	-23.68	98.454	0.000	0.000	0.000	0.000
6.00	-11.92	106.569	0.000	0.000	0.000	0.000
7.00	-0.65	115.051	0.000	0.000	0.000	0.000
8.00	9.82	124.488	0.000	0.000	0.000	0.000
9.00	19.06	135.443	0.000	0.000	0.000	0.000
10.00	26.51	148.397	0.629	1.058	0.496	0.917
11.00	31.45	163.470	0.735	1.047	1.183	1.977
12.00	33.19	180.000	0.771	0.953	1.942	2.983
13.00	31.45	196.530	0.735	0.782	2.701	3.857
14.00	26.51	211.603	0.629	0.546	3.388	4.526
15.00	19.06	224.557	0.000	0.000	3.884	4.902
16.00	9.82	235.512	0.000	0.000	3.884	4.902
17.00	-0.65	244.949	0.000	0.000	3.884	4.902
18.00	-11.92	253.431	0.000	0.000	3.884	4.902
19.00	-23.68	261.546	0.000	0.000	3.884	4.902
20.00	-35.69	269.993	0.000	0.000	3.884	4.902
21.00	-47.69	279.875	0.000	0.000	3.884	4.902
22.00	-59.24	293.520	0.000	0.000	3.884	4.902
23.00	-69.17	316.947	0.000	0.000	3.884	4.902
24.00	-73.81	359.999	0.000	0.000	3.884	4.902

## Solar Site Assessment Report

Date = 06 December

```

Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : -22.650 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.415 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 9.356 hr.
Time of Sunset for Level Plain of Site ----- : 14.644 hr.
Time of Sunrise for Plane of Slope ----- : 9.356 hr.
Time of Sunset for Plane of Slope ----- : 14.644 hr.
Diurnal Solar Energy for Level Plain of Site : 3.404 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 4.410 kw-hr/m^2.
    
```

Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-76.15	0.001	0.000	0.000	0.000	0.000
1.00	-71.02	47.266	0.000	0.000	0.000	0.000
2.00	-60.64	70.232	0.000	0.000	0.000	0.000
3.00	-48.91	83.132	0.000	0.000	0.000	0.000
4.00	-36.87	92.514	0.000	0.000	0.000	0.000
5.00	-24.90	100.641	0.000	0.000	0.000	0.000
6.00	-13.24	108.543	0.000	0.000	0.000	0.000
7.00	-2.12	116.869	0.000	0.000	0.000	0.000
8.00	8.16	126.158	0.000	0.000	0.000	0.000
9.00	17.19	136.916	0.000	0.000	0.000	0.000
10.00	24.42	149.551	0.585	1.024	0.346	0.650
11.00	29.18	164.123	0.690	1.014	0.989	1.676
12.00	30.85	180.000	0.726	0.921	1.702	2.650
13.00	29.18	195.877	0.690	0.752	2.416	3.492
14.00	24.42	210.449	0.585	0.519	3.059	4.132
15.00	17.19	223.084	0.000	0.000	3.404	4.410
16.00	8.16	233.842	0.000	0.000	3.404	4.410
17.00	-2.12	243.131	0.000	0.000	3.404	4.410
18.00	-13.24	251.457	0.000	0.000	3.404	4.410
19.00	-24.90	259.359	0.000	0.000	3.404	4.410
20.00	-36.87	267.486	0.000	0.000	3.404	4.410
21.00	-48.91	276.868	0.000	0.000	3.404	4.410
22.00	-60.64	289.768	0.000	0.000	3.404	4.410
23.00	-71.02	312.734	0.000	0.000	3.404	4.410
24.00	-76.15	359.999	0.000	0.000	3.404	4.410

## Solar Site Assessment Report

Date = 22 December

```

Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : -23.450 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.419 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 9.447 hr.
Time of Sunset for Level Plain of Site ----- : 14.553 hr.
Time of Sunrise for Plane of Slope ----- : 9.447 hr.
Time of Sunset for Plane of Slope ----- : 14.553 hr.
Diurnal Solar Energy for Level Plain of Site : 3.240 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 4.236 kw-hr/m^2.
    
```

Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-76.95	0.001	0.000	0.000	0.000	0.000
1.00	-71.63	48.890	0.000	0.000	0.000	0.000
2.00	-61.09	71.589	0.000	0.000	0.000	0.000
3.00	-49.30	84.193	0.000	0.000	0.000	0.000
4.00	-37.26	93.389	0.000	0.000	0.000	0.000
5.00	-25.31	101.399	0.000	0.000	0.000	0.000
6.00	-13.69	109.223	0.000	0.000	0.000	0.000
7.00	-2.63	117.491	0.000	0.000	0.000	0.000
8.00	7.59	126.725	0.000	0.000	0.000	0.000
9.00	16.54	137.412	0.000	0.000	0.000	0.000
10.00	23.70	149.937	0.570	1.014	0.293	0.554
11.00	28.40	164.340	0.675	1.003	0.921	1.569
12.00	30.05	180.000	0.711	0.910	1.620	2.532
13.00	28.40	195.660	0.675	0.742	2.318	3.364
14.00	23.70	210.063	0.570	0.510	2.947	3.995
15.00	16.54	222.588	0.000	0.000	3.240	4.236
16.00	7.59	233.275	0.000	0.000	3.240	4.236
17.00	-2.63	242.509	0.000	0.000	3.240	4.236
18.00	-13.69	250.777	0.000	0.000	3.240	4.236
19.00	-25.31	258.601	0.000	0.000	3.240	4.236
20.00	-37.26	266.611	0.000	0.000	3.240	4.236
21.00	-49.30	275.807	0.000	0.000	3.240	4.236
22.00	-61.09	288.411	0.000	0.000	3.240	4.236
23.00	-71.63	311.110	0.000	0.000	3.240	4.236
24.00	-76.95	359.999	0.000	0.000	3.240	4.236

## Solar Site Assessment Report

Date = 05 January

```

Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : -22.650 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.420 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 9.356 hr.
Time of Sunset for Level Plain of Site ----- : 14.644 hr.
Time of Sunrise for Plane of Slope ----- : 9.356 hr.
Time of Sunset for Plane of Slope ----- : 14.644 hr.
Diurnal Solar Energy for Level Plain of Site : 3.416 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 4.426 kw-hr/m^2.
    
```

Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-76.15	0.001	0.000	0.000	0.000	0.000
1.00	-71.02	47.266	0.000	0.000	0.000	0.000
2.00	-60.64	70.232	0.000	0.000	0.000	0.000
3.00	-48.91	83.132	0.000	0.000	0.000	0.000
4.00	-36.87	92.514	0.000	0.000	0.000	0.000
5.00	-24.90	100.641	0.000	0.000	0.000	0.000
6.00	-13.24	108.543	0.000	0.000	0.000	0.000
7.00	-2.12	116.869	0.000	0.000	0.000	0.000
8.00	8.16	126.158	0.000	0.000	0.000	0.000
9.00	17.19	136.916	0.000	0.000	0.000	0.000
10.00	24.42	149.551	0.587	1.028	0.347	0.652
11.00	29.18	164.123	0.692	1.017	0.992	1.682
12.00	30.85	180.000	0.728	0.924	1.708	2.659
13.00	29.18	195.877	0.692	0.754	2.424	3.504
14.00	24.42	210.449	0.587	0.521	3.070	4.146
15.00	17.19	223.084	0.000	0.000	3.416	4.426
16.00	8.16	233.842	0.000	0.000	3.416	4.426
17.00	-2.12	243.131	0.000	0.000	3.416	4.426
18.00	-13.24	251.457	0.000	0.000	3.416	4.426
19.00	-24.90	259.359	0.000	0.000	3.416	4.426
20.00	-36.87	267.486	0.000	0.000	3.416	4.426
21.00	-48.91	276.868	0.000	0.000	3.416	4.426
22.00	-60.64	289.768	0.000	0.000	3.416	4.426
23.00	-71.02	312.734	0.000	0.000	3.416	4.426
24.00	-76.15	359.999	0.000	0.000	3.416	4.426

## Solar Site Assessment Report

Date = 20 January

```

Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : -20.310 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.418 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 9.112 hr.
Time of Sunset for Level Plain of Site ----- : 14.888 hr.
Time of Sunrise for Plane of Slope ----- : 9.112 hr.
Time of Sunset for Plane of Slope ----- : 14.888 hr.
Diurnal Solar Energy for Level Plain of Site : 3.912 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 4.937 kw-hr/m^2.
    
```

Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-73.81	0.001	0.000	0.000	0.000	0.000
1.00	-69.17	43.053	0.000	0.000	0.000	0.000
2.00	-59.24	66.480	0.000	0.000	0.000	0.000
3.00	-47.69	80.125	0.000	0.000	0.000	0.000
4.00	-35.69	90.007	0.000	0.000	0.000	0.000
5.00	-23.68	98.454	0.000	0.000	0.000	0.000
6.00	-11.92	106.569	0.000	0.000	0.000	0.000
7.00	-0.65	115.051	0.000	0.000	0.000	0.000
8.00	9.82	124.488	0.000	0.000	0.000	0.000
9.00	19.06	135.443	0.000	0.000	0.000	0.000
10.00	26.51	148.397	0.633	1.065	0.500	0.924
11.00	31.45	163.470	0.740	1.054	1.192	1.991
12.00	33.19	180.000	0.776	0.960	1.956	3.004
13.00	31.45	196.530	0.740	0.788	2.720	3.884
14.00	26.51	211.603	0.633	0.550	3.412	4.558
15.00	19.06	224.557	0.000	0.000	3.912	4.937
16.00	9.82	235.512	0.000	0.000	3.912	4.937
17.00	-0.65	244.949	0.000	0.000	3.912	4.937
18.00	-11.92	253.431	0.000	0.000	3.912	4.937
19.00	-23.68	261.546	0.000	0.000	3.912	4.937
20.00	-35.69	269.993	0.000	0.000	3.912	4.937
21.00	-47.69	279.875	0.000	0.000	3.912	4.937
22.00	-59.24	293.520	0.000	0.000	3.912	4.937
23.00	-69.17	316.947	0.000	0.000	3.912	4.937
24.00	-73.81	359.999	0.000	0.000	3.912	4.937

## Solar Site Assessment Report

Date = 03 February

```

Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : -16.580 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.413 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 8.775 hr.
Time of Sunset for Level Plain of Site ----- : 15.225 hr.
Time of Sunrise for Plane of Slope ----- : 8.775 hr.
Time of Sunset for Plane of Slope ----- : 15.225 hr.
Diurnal Solar Energy for Level Plain of Site : 4.670 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 5.673 kw-hr/m^2.
    
```

Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-70.08	0.000	0.000	0.000	0.000	0.000
1.00	-66.05	37.671	0.000	0.000	0.000	0.000
2.00	-56.82	61.119	0.000	0.000	0.000	0.000
3.00	-45.60	75.622	0.000	0.000	0.000	0.000
4.00	-33.71	86.163	0.000	0.000	0.000	0.000
5.00	-21.66	95.052	0.000	0.000	0.000	0.000
6.00	-9.77	103.460	0.000	0.000	0.000	0.000
7.00	1.70	112.154	0.000	0.000	0.000	0.000
8.00	12.44	121.790	0.000	0.000	0.000	0.000
9.00	22.03	133.024	0.530	1.045	0.114	0.232
10.00	29.83	146.467	0.703	1.119	0.735	1.321
11.00	35.06	162.359	0.812	1.108	1.498	2.442
12.00	36.92	180.000	0.849	1.012	2.335	3.509
13.00	35.06	197.641	0.812	0.837	3.171	4.439
14.00	29.83	213.533	0.703	0.595	3.934	5.160
15.00	22.03	226.976	0.530	0.303	4.556	5.613
16.00	12.44	238.210	0.000	0.000	4.670	5.673
17.00	1.70	247.846	0.000	0.000	4.670	5.673
18.00	-9.77	256.540	0.000	0.000	4.670	5.673
19.00	-21.66	264.948	0.000	0.000	4.670	5.673
20.00	-33.71	273.837	0.000	0.000	4.670	5.673
21.00	-45.60	284.378	0.000	0.000	4.670	5.673
22.00	-56.82	298.881	0.000	0.000	4.670	5.673
23.00	-66.05	322.329	0.000	0.000	4.670	5.673
24.00	-70.08	360.000	0.000	0.000	4.670	5.673



## Solar Site Assessment Report

Date = 18 February

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Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : -11.730 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.405 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 8.402 hr.
Time of Sunset for Level Plain of Site ----- : 15.598 hr.
Time of Sunrise for Plane of Slope ----- : 8.402 hr.
Time of Sunset for Plane of Slope ----- : 15.598 hr.
Diurnal Solar Energy for Level Plain of Site : 5.609 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 6.517 kw-hr/m^2.
    
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Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-65.23	0.000	0.000	0.000	0.000	0.000
1.00	-61.78	32.412	0.000	0.000	0.000	0.000
2.00	-53.37	55.145	0.000	0.000	0.000	0.000
3.00	-42.65	70.263	0.000	0.000	0.000	0.000
4.00	-30.96	81.431	0.000	0.000	0.000	0.000
5.00	-18.94	90.769	0.000	0.000	0.000	0.000
6.00	-6.95	99.476	0.000	0.000	0.000	0.000
7.00	4.75	108.376	0.000	0.000	0.000	0.000
8.00	15.82	118.198	0.000	0.000	0.000	0.000
9.00	25.82	129.722	0.612	1.105	0.328	0.637
10.00	34.10	143.755	0.788	1.181	1.033	1.787
11.00	39.74	160.758	0.898	1.169	1.881	2.969
12.00	41.77	180.000	0.936	1.071	2.805	4.097
13.00	39.74	199.242	0.898	0.894	3.728	5.085
14.00	34.10	216.245	0.788	0.648	4.577	5.861
15.00	25.82	230.278	0.612	0.351	5.282	6.364
16.00	15.82	241.802	0.000	0.000	5.609	6.517
17.00	4.75	251.624	0.000	0.000	5.609	6.517
18.00	-6.95	260.524	0.000	0.000	5.609	6.517
19.00	-18.94	269.231	0.000	0.000	5.609	6.517
20.00	-30.96	278.569	0.000	0.000	5.609	6.517
21.00	-42.65	289.737	0.000	0.000	5.609	6.517
22.00	-53.37	304.855	0.000	0.000	5.609	6.517
23.00	-61.78	327.588	0.000	0.000	5.609	6.517
24.00	-65.23	360.000	0.000	0.000	5.609	6.517

## Solar Site Assessment Report

Date = 05 March

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Terrestrial Latitude of the site ----- : 36.500 deg.
Celestial Declination of the Sun of the Sun - : -6.070 deg.
Obstruction Altitude ----- : 20.000 deg.
Solar Constant ----- : 1.395 kw/m^2.
Horizontal Run of Slope ----- : 12.000 unit(s).
Vertical Rise of Slope ----- : 6.000 unit(s).
Compass Azimuth of Slope ----- : 120.000 deg.
Displaced Latitude for Slope ----- : 20.627 deg.
Displaced Longitude for Slope ----- : 24.445 deg.
Time of Sunrise for Level Plain of Site ----- : 8.029 hr.
Time of Sunset for Level Plain of Site ----- : 15.971 hr.
Time of Sunrise for Plane of Slope ----- : 8.029 hr.
Time of Sunset for Plane of Slope ----- : 15.971 hr.
Diurnal Solar Energy for Level Plain of Site : 6.648 kw-hr/m^2.
Diurnal Solar Energy for Slope ----- : 7.372 kw-hr/m^2.
    
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Time (hr)	Altitude of Sun (deg)	Azimuth of Sun (deg)	Power Plane (Kw/m^2)	Power Slope (Kw/m^2)	Energy Plane (kwh/m^2)	Energy Slope (kwh/m^2)
0.00	-59.57	0.000	0.000	0.000	0.000	0.000
1.00	-56.62	27.888	0.000	0.000	0.000	0.000
2.00	-49.04	49.328	0.000	0.000	0.000	0.000
3.00	-38.91	64.642	0.000	0.000	0.000	0.000
4.00	-27.55	76.249	0.000	0.000	0.000	0.000
5.00	-15.65	85.945	0.000	0.000	0.000	0.000
6.00	-3.61	94.886	0.000	0.000	0.000	0.000
7.00	8.28	103.922	0.000	0.000	0.000	0.000
8.00	19.68	113.852	0.000	0.000	0.000	0.000
9.00	30.15	125.592	0.701	1.164	0.575	1.061
10.00	39.00	140.223	0.878	1.240	1.370	2.270
11.00	45.17	158.589	0.989	1.229	2.309	3.512
12.00	47.43	180.000	1.027	1.130	3.324	4.699
13.00	45.17	201.411	0.989	0.951	4.339	5.745
14.00	39.00	219.777	0.878	0.703	5.278	6.577
15.00	30.15	234.408	0.701	0.404	6.073	7.134
16.00	19.68	246.148	0.000	0.000	6.648	7.372
17.00	8.28	256.078	0.000	0.000	6.648	7.372
18.00	-3.61	265.114	0.000	0.000	6.648	7.372
19.00	-15.65	274.055	0.000	0.000	6.648	7.372
20.00	-27.55	283.751	0.000	0.000	6.648	7.372
21.00	-38.91	295.358	0.000	0.000	6.648	7.372
22.00	-49.04	310.672	0.000	0.000	6.648	7.372
23.00	-56.62	332.112	0.000	0.000	6.648	7.372
24.00	-59.57	360.000	0.000	0.000	6.648	7.372