

December 2005

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Instrument: Eppley PSP
Watt-Hours per Square Meter

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	0	0	0	14	122 ?	?	273 ?	284 ?	215 ?	169	75	46	21	3	0	0	0	0	0	0	1221 ?
2	0	0	0	0	0	0	0	11	59 ?	?	?	?	?	?	?	?	50	1	0	0	0	0	0	0	121 ?
3	0	0	0	0	0	0	0	9	48	120	187	115	126	104	61	31	9	0	0	0	0	0	0	0	809
4	0	0	0	0	0	0	0	4	21	59	90	123	55 ?	?	34 ?	?	3	1	0	0	0	0	0	0	389 ?
5	0	0	0	0	0	0	0	3	7 ?	?	?	?	46 ?	43 ?	39	28 ?	6	1	0	0	0	0	0	0	172 ?
6	0	0	0	0	0	0	0	3	22	51	126	81	143 ?	130 ?	69 ?	147 ?	41	3	0	0	0	0	0	0	816 ?
7	0	0	0	0	0	0	0	9	62	?	?	?	?	?	?	86 ?	35	0	0	0	0	0	0	0	192 ?
8	0	0	0	0	0	0	0	12	55 ?	?	?	?	202	144	52	31	12	1	0	0	0	0	0	0	508 ?
9	0	0	0	0	0	0	0	10	121 ?	?	?	?	?	?	?	?	52	1	0	0	0	0	0	0	184 ?
10	0	0	0	0	0	0	0	10	72 ?	?	?	?	?	?	?	?	56	1	0	0	0	0	0	0	138 ?
11	0	0	0	0	0	0	0	5	21	30 ?	31 ?	39 ?	40 ?	42 ?	44	49	13	2	0	0	0	0	0	0	315 ?
12	0	0	0	0	0	0	0	8	33	118	99	93	95	43 ?	38 ?	19 ?	5	1	0	0	0	0	0	0	552 ?
13	0	0	0	0	0	0	0	8	59	154 ?	?	?	?	?	?	?	49	0	0	0	0	0	0	0	270 ?
14	0	0	0	0	0	0	0	7	30	70	166	197	271	115	148	90	20	5	0	0	0	0	0	0	1119
15	0	0	0	0	0	0	0	3	19	37	54	59	76	117	92	51	9	0	0	0	0	0	0	0	517
16	0	0	0	0	0	0	0	8	76 ?	?	194 ?	235	171	178	101	90	38	7	0	0	0	0	0	0	1098 ?
17	0	0	0	0	0	0	0	7	52	140	194	276 ?	299	200	197	140	40	0	0	0	0	0	0	0	1544
18	0	0	0	0	0	0	0	6	69 ?	?	?	?	?	?	?	?	44	0	0	0	0	0	0	0	120 ?
19	0	0	0	0	0	0	0	10	46	76	140	148	133	135	166	132	27	4	0	0	0	0	0	0	1017
20	0	0	0	0	0	0	0	8	107 ?	?	?	?	?	?	?	?	57	1	0	0	0	0	0	0	172 ?
21	0	0	0	0	0	0	0	7	127 ?	?	?	?	?	?	?	?	57	2	0	0	0	0	0	0	194 ?
22	0	0	0	0	0	0	0	12	123 ?	?	?	?	?	?	?	?	71	2	0	0	0	0	0	0	207 ?
23	0	0	0	0	0	0	0	6	75 ?	?	?	?	?	?	?	?	60	1	0	0	0	0	0	0	141 ?
24	0	0	0	0	0	0	0	6	71 ?	?	?	?	?	?	?	?	57	3	0	0	0	0	0	0	136 ?
25	0	0	0	0	0	0	0	3	16	68 ?	98	150 ?	189	125	75 ?	60 ?	18	3	0	0	0	0	0	0	805 ?
26	0	0	0	0	0	0	0	3	19	65	60	60	58	54	39 ?	21 ?	8	1	0	0	0	0	0	0	388
27	0	0	0	0	0	0	0	6	60 ?	?	?	?	?	?	?	?	56	0	0	0	0	0	0	0	121 ?
28	0	0	0	0	0	0	0	5	51	?	198 ?	233	104	136	160	134 ?	81	4	0	0	0	0	0	0	1107 ?
29	0	0	0	0	0	0	0	1	7	52	82	60	47	42	34	23	9	2	0	0	0	0	0	0	360
30	0	0	0	0	0	0	0	4	19	43	70	94	127	101	95	77	54	8	0	0	0	0	0	0	690
31	0	0	0	0	0	0	0	5	41	99	206 ?	153 ?	163 ?	?	?	?	42	4	0	0	0	0	0	0	713 ?
Avg	0	0	0	0	0	0	0	7	55	79	133	141	135	110	84	70	35	2	0	0	0	0	0	0	521 ?
S D	0	0	0	0	0	0	0	3	35	38	68	79	76	51	51	44	22	2	0	0	0	0	0	0	404
S/A	0	0	0	0	0	0	0	0.48	0.64	0.49	0.51	0.56	0.57	0.46	0.61	0.64	0.63	1.07	0	0	0	0	0	0	0.78
Min	0	0	0	0	0	0	0	1	7	30	31	39	40	42	34	19	3	0	0	0	0	0	0	0	120
Max	0	0	0	0	0	0	0	14	127	154	273	284	299	200	197	147	81	8	0	0	0	0	0	0	1544
n	0	0	0	0	0	0	0	183	297	160	162	171	188	173	186	174	355	43	0	0	0	0	0	0	2097

Daylight Data Recovery: 0.0% missing; 41.3% exceed the 15% QC threshold -- 3575 total daylight measurements.

Instrument: Eppley PSP Serial Number: 25821F3 Calibration Factor: 9.020 $\mu\text{V}/\text{W}/\text{m}^2$ Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (*) are not used in monthly statistics.

December 2005

**Direct Normal Solar Radiation
 Hourly Integrated and Daily Totals
 Instrument: Eppley NIP
 Watt-Hours per Square Meter**

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily	
1	0	0	0	0	0	0	0	1	2	?	4?	4?	2?	1	0	0	0	0	0	0	0	0	0	0	0	14 ?
2	0	0	0	0	0	0	0	0	0?	?	?	?	?	?	?	?	0	0	0	0	0	0	0	0	0	0 ?
3	0	0	0	0	0	0	0	0	0	1	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	6
4	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	1	0	2?	2?	0?	0?	0	0	0	0	0	0	0	0	0	6 ?
7	0	0	0	0	0	0	0	0	0	?	?	?	?	?	?	0?	0	0	0	0	0	0	0	0	0	0 ?
8	0	0	0	0	0	0	0	0	0?	?	?	?	1	1	0	0	0	0	0	0	0	0	0	0	0	2 ?
9	0	0	0	0	0	0	0	0	0?	?	?	?	?	?	?	?	0	0	0	0	0	0	0	0	0	0 ?
10	0	0	0	0	0	0	0	0	0?	?	7?	?	?	?	?	?	0	0	0	0	0	0	0	0	0	7 ?
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
13	0	0	0	0	0	0	0	0	0	1?	?	?	?	?	?	?	0	0	0	0	0	0	0	0	0	1 ?
14	0	0	0	0	0	0	0	0	0	0	1	1	2	0	1	0	0	0	0	0	0	0	0	0	0	6
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	1?	1?	1	1	1	0	0	0	0	0	0	0	0	0	0	0	6 ?
17	0	0	0	0	0	0	0	0	0	1	2	5?	4	2	2	1	0	0	0	0	0	0	0	0	0	17
18	0	0	0	0	0	0	0	0	2?	?	?	?	?	?	?	?	0	0	0	0	0	0	0	0	0	2 ?
19	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	4
20	0	0	0	0	0	0	0	0	0?	?	?	?	?	?	?	?	0	0	0	0	0	0	0	0	0	0 ?
21	0	0	0	0	0	0	0	0	2?	1?	3?	?	?	?	?	?	?	0	0	0	0	0	0	0	0	6 ?
22	0	0	0	0	0	0	0	0	2?	?	?	?	?	?	?	?	0	0	0	0	0	0	0	0	0	2 ?
23	0	0	0	0	0	0	0	0	1?	?	?	?	?	?	?	?	0	0	0	0	0	0	0	0	0	1 ?
24	0	0	0	0	0	0	0	0	2?	?	?	?	?	?	?	?	0	0	0	0	0	0	0	0	0	2 ?
25	0	0	0	0	0	0	0	0	0	0	2	3?	2	1	0	0	0	0	0	0	0	0	0	0	0	8
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0?	?	?	?	4?	?	?	?	0	0	0	0	0	0	0	0	0	4 ?
28	0	0	0	0	0	0	0	0	2	?	2?	3	0	1	1	1?	0	0	0	0	0	0	0	0	0	11 ?
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	1	0	0	0	0	0	0	0	0	0	4
31	0	0	0	0	0	0	0	0	0	0	1?	1?	2?	?	?	?	0	0	0	0	0	0	0	0	0	4 ?
Avg	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	4 ?
S D	0	0	0	0	0	0	0	0	0	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	4
S/A	0	0	0	0	0	0	0	3.67	1.62	1.33	1.23	1.32	1.03	1.02	1.67	1.66	2.87	0	0	0	0	0	0	0	0	1.16
Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	1	2	1	7	5	4	2	2	1	0	0	0	0	0	0	0	0	0	17
n	0	0	0	0	0	0	0	184	323	196	192	190	205	208	211	209	359	43	0	0	0	0	0	0	0	2323

Daylight Data Recovery: 0.0% missing; 35.0% exceed the 15% QC threshold -- 3575 total daylight measurements.

Instrument: Eppley NIP Serial Number: 17664E6 Calibration Factor: 8.480 μV/W/m² Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (*) are not used in monthly statistics.

December 2005

Diffuse Solar Radiation (Shadow Band) on a Horizontal Surface
Hourly Integrated and Daily Totals
Instrument: Eppley PSP
Watt-Hours per Square Meter

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	0	0	0	15	85	?	210 ?	261 ?	227 ?	163	78	49	21	2	0	0	0	0	0	0	1109 ?
2	0	0	0	0	0	0	0	12	56 ?	?	?	?	?	?	?	?	17	1	0	0	0	0	0	0	85 ?
3	0	0	0	0	0	0	0	10	51	126	186	124	134	111	64	31	9	0	0	0	0	0	0	0	845
4	0	0	0	0	0	0	0	4	21	63	96	123	44	26 ?	29	16	3	0	0	0	0	0	0	0	425
5	0	0	0	0	0	0	0	2	9	14 ?	23 ?	31 ?	46	38	44	26	6	0	0	0	0	0	0	0	240 ?
6	0	0	0	0	0	0	0	3	25	53	104	80	100 ?	77 ?	66 ?	127 ?	39	3	0	0	0	0	0	0	677 ?
7	0	0	0	0	0	0	0	8	55	?	?	?	?	?	?	68 ?	34	0	0	0	0	0	0	0	165 ?
8	0	0	0	0	0	0	0	12	50 ?	?	?	?	210	151	48	30	12	0	0	0	0	0	0	0	514 ?
9	0	0	0	0	0	0	0	8	36 ?	?	?	?	?	?	?	?	18	1	0	0	0	0	0	0	63 ?
10	0	0	0	0	0	0	0	6	30 ?	?	179 ?	?	?	?	?	?	17	1	0	0	0	0	0	0	233 ?
11	0	0	0	0	0	0	0	4	21	29	28	39	39	35	47	51	14	1	0	0	0	0	0	0	309
12	0	0	0	0	0	0	0	9	35	124	105	100	102	39	34	18	5	0	0	0	0	0	0	0	571
13	0	0	0	0	0	0	0	8	57	124 ?	?	?	?	?	?	?	14	0	0	0	0	0	0	0	203 ?
14	0	0	0	0	0	0	0	8	32	74	172	204	259	122	155	95	21	4	0	0	0	0	0	0	1147
15	0	0	0	0	0	0	0	2	20	39	58	64	81	125	99	54	9	0	0	0	0	0	0	0	551
16	0	0	0	0	0	0	0	9	37	88 ?	168 ?	218	173	174	107	94	39	7	0	0	0	0	0	0	1112 ?
17	0	0	0	0	0	0	0	7	55	143	174	210 ?	258	209	166	109	33	0	0	0	0	0	0	0	1364
18	0	0	0	0	0	0	0	6	22 ?	?	?	?	?	?	?	?	28	0	0	0	0	0	0	0	55 ?
19	0	0	0	0	0	0	0	11	48	80	147	156	141	139	154	123	23	3	0	0	0	0	0	0	1027
20	0	0	0	0	0	0	0	7	25 ?	?	?	?	?	?	?	?	15	0	0	0	0	0	0	0	47 ?
21	0	0	0	0	0	0	0	6	29 ?	52 ?	58 ?	?	?	?	?	?	16	2	0	0	0	0	0	0	163 ?
22	0	0	0	0	0	0	0	12	35 ?	?	?	?	?	?	?	?	34	1	0	0	0	0	0	0	83 ?
23	0	0	0	0	0	0	0	7	20 ?	?	?	?	?	?	?	?	15	1	0	0	0	0	0	0	44 ?
24	0	0	0	0	0	0	0	6	19 ?	?	?	?	?	?	?	?	23	2	0	0	0	0	0	0	51 ?
25	0	0	0	0	0	0	0	2	17	49 ?	101	127 ?	181	130	71 ?	53 ?	19	3	0	0	0	0	0	0	751 ?
26	0	0	0	0	0	0	0	2	20	69	63	64	62	58	37	20	8	0	0	0	0	0	0	0	403
27	0	0	0	0	0	0	0	6	24 ?	?	?	?	200 ?	?	?	?	16	1	0	0	0	0	0	0	247 ?
28	0	0	0	0	0	0	0	6	36	?	131 ?	224	105	137	161	114 ?	61	3	0	0	0	0	0	0	978 ?
29	0	0	0	0	0	0	0	0	8	55	87	64	49	41	33	23	9	1	0	0	0	0	0	0	370
30	0	0	0	0	0	0	0	3	19	46	75	102	135	106	101	80	54	8	0	0	0	0	0	0	729
31	0	0	0	0	0	0	0	6	42	99	159 ?	109 ?	109 ?	?	?	?	20	3	0	0	0	0	0	0	547 ?
Avg	0	0	0	0	0	0	0	7	34	74	116	128	133	105	83	62	21	2	0	0	0	0	0	0	487 ?
S D	0	0	0	0	0	0	0	3	17	37	56	70	71	55	48	38	14	2	0	0	0	0	0	0	393
S/A	0	0	0	0	0	0	0	0.51	0.51	0.5	0.48	0.54	0.54	0.53	0.58	0.62	0.65	1.2	0	0	0	0	0	0	0.81
Min	0	0	0	0	0	0	0	0	8	14	23	31	39	26	29	16	3	0	0	0	0	0	0	0	44
Max	0	0	0	0	0	0	0	15	85	143	210	261	259	209	166	127	61	8	0	0	0	0	0	0	1364
n	0	0	0	0	0	0	0	171	322	179	189	187	205	204	207	204	357	43	0	0	0	0	0	0	2271

Daylight Data Recovery: 0.0% missing; 36.5% exceed the 15% QC threshold -- 3575 total daylight measurements.

Instrument: Eppley PSP Serial Number: 17860F3 Calibration Factor: 7.010 $\mu\text{V}/\text{W}/\text{m}^2$ Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (*) are not used in monthly statistics.