

December 2007

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	23	112	258	374	435	462	395	310	153	23	2	0	0	0	0	0	0	2546
2	0	0	0	0	0	0	0	9	56	110	161	111	72 ?	42 ?	42	38 ?	7	0	0	0	0	0	0	0	650
3	0	0	0	0	0	0	0	7	23	44	42	45 ?	44	76	105	74	22	6	0	0	0	0	0	0	488
4	0	0	0	0	0	0	0	15	75	142	147	199	355 ?	447	342	152	34	1	0	0	0	0	0	0	1908
5	0	0	0	0	0	0	0	7	15	37	49 ?	113	148	102	57	33	3	0	0	0	0	0	0	0	563
6	0	0	0	0	0	0	0	14	134	287	412	484	498	443	367	199	51	7	0	0	0	0	0	0	2896
7	0	0	0	0	0	0	0	2	22 ?	86 ?	101	171	114 ?	46 ?	34 ?	?	4	0	0	0	0	0	0	0	580 ?
8	0	0	0	0	0	0	0	1	4 ?	?	50	68	149	60	48	32	32	1	0	0	0	0	0	0	446 ?
9	0	0	0	0	0	0	0	11	32	159	174	386	412	234	131	52	19	0	0	0	0	0	0	0	1609
10	0	0	0	0	0	0	0	6	31	108	80	79 ?	82	70	48 ?	30	9	1	0	0	0	0	0	0	545
11	0	0	0	0	0	0	0	12	112	245	355	362	308	447	238	142	44	2	0	0	0	0	0	0	2269
12	0	0	0	0	0	0	0	20	33	33	43	130	147	63	52	33	15	2	0	0	0	0	0	0	570
13	0	0	0	0	0	0	0	4	62	225	246	88	70 ?	52 ?	55	42	10	2	0	0	0	0	0	0	857
14	0	0	0	0	0	0	0	5	39	75 ?	127 ?	220	422	431	314	195	48	0	0	0	0	0	0	0	1877 ?
15	0	0	0	0	0	0	0	5	54	89	66 ?	38 ?	37 ?	?	40 ?	27 ?	2	0	0	0	0	0	0	0	358 ?
16	0	0	0	0	0	0	0	21	68	56	79	98	109	75	47	27	12	2	0	0	0	0	0	0	593
17	0	0	0	0	0	0	0	6	58	286	425	453	268	258	378	194 ?	59	3	0	0	0	0	0	0	2387
18	0	0	0	0	0	0	0	12	171 ?	224	342	559 ?	491	457	345	105	20	2	0	0	0	0	0	0	2728
19	0	0	0	0	0	0	0	2	10	30	52	125	234	263	157	137	39	6	0	0	0	0	0	0	1055
20	0	0	0	0	0	0	0	10	77	269	298	410	463	347	229	111	33	2	0	0	0	0	0	0	2248
21	0	0	0	0	0	0	0	1	8 ?	66 ?	106	114	152	147	152	92	33	7	0	0	0	0	0	0	879
22	0	0	0	0	0	0	0	4	25	119	315	272	240	144	218	82	25	7	0	0	0	0	0	0	1451
23	0	0	0	0	0	0	0	2	27	56	82	94	126	178	302	212	66	4	0	0	0	0	0	0	1151
24	0	0	0	0	0	0	0	7	94	246	378	459	484	284	330	209	48	4	0	0	0	0	0	0	2542
25	0	0	0	0	0	0	0	8	86	256	340	451	420	273	318	153	21	1	0	0	0	0	0	0	2326
26	0	0	0	0	0	0	0	2	19	60	165	175	194	204	209	205	55	0	0	0	0	0	0	0	1287
27	0	0	0	0	0	0	0	2	23	55	98	122	134	123	90	97	32	3	0	0	0	0	0	0	781
28	0	0	0	0	0	0	0	9	48	104	59	62	57 ?	47 ?	47	24 ?	7	3	0	0	0	0	0	0	465 ?
29	0	0	0	0	0	0	0	1	3 ?	43 ?	86	197	149	367	323	196	51	5	0	0	0	0	0	0	1422
30	0	0	0	0	0	0	0	4	12 ?	32 ?	62	51 ?	56	61	47	27 ?	3	0	0	0	0	0	0	0	353 ?
31	0	0	0	0	0	0	0	8	127	242	323	455	480	441	356	221	71	3	0	0	0	0	0	0	2727
Avg	0	0	0	0	0	0	0	8	54	135	182	227	238	219	185	110	29	3	0	0	0	0	0	0	1373
S D	0	0	0	0	0	0	0	6	43	92	132	164	162	153	128	71	20	2	0	0	0	0	0	0	859
S/A	0	0	0	0	0	0	0	0.78	0.81	0.68	0.73	0.73	0.68	0.7	0.69	0.65	0.7	0.91	0	0	0	0	0	0	0.63
Min	0	0	0	0	0	0	0	1	3	30	42	38	37	42	34	24	2	0	0	0	0	0	0	0	353
Max	0	0	0	0	0	0	0	23	171	287	425	559	498	457	378	221	71	7	0	0	0	0	0	0	2896
n	0	0	0	0	0	0	0	185	344	331	351	342	339	335	354	333	364	41	0	0	0	0	0	0	3320

Daylight Data Recovery: 0.0% missing; 0.0% untested; 7.1% exceed the 15% QC threshold -- 3574 total daylight measurements.

Instrument: Eppley PSP Serial Number: 25821F3 Calibration Factor: 9.020 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 2007

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	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
2	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
3	0	0	0	0	0	0	0	?	?	?	*	*	*	*	?	*	*	?	0	0	0	0	0	0	*
4	0	0	0	0	0	0	0	*	*	?	?	?	502 ?	539 ?	?	?	?	?	0	0	0	0	0	0	1041 *?
5	0	0	0	0	0	0	0	464 *?	*	?	?	?	*	*	*	*	?	?	0	0	0	0	0	0	?
6	0	0	0	0	0	0	0	?	?	392 *	*	*	585 ?	?	*	239 *	?	?	0	0	0	0	0	0	1217 *?
7	0	0	0	0	0	0	0	?	493 ?	73 ?	?	?	?	?	?	?	?	?	0	0	0	0	0	0	566 ?
8	0	0	0	0	0	0	0	?	?	?	?	?	?	?	?	?	?	?	0	0	0	0	0	0	?
9	0	0	0	0	0	0	0	?	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
10	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
11	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	*
13	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
14	0	0	0	0	0	0	0	?	?	?	?	?	?	?	?	*	*	*	0	0	0	0	0	0	?
15	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
16	0	0	0	0	0	0	0	?	?	?	?	?	*	*	*	*	*	*	0	0	0	0	0	0	*
17	0	0	0	0	0	0	0	*	*	*	*	*	*	595 *	*	?	?	*	0	0	0	0	0	0	*
18	0	0	0	0	0	0	0	?	?	?	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
19	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
20	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
21	0	0	0	0	0	0	0	*	?	?	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
22	0	0	0	0	0	0	0	*	?	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
23	0	0	0	0	0	0	0	*	*	456 *?	?	?	?	*	?	*	*	*	0	0	0	0	0	0	*
24	0	0	0	0	0	0	0	*	*	541 ?	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
25	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
26	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
27	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
28	0	0	0	0	0	0	0	?	?	?	?	?	355 ?	?	?	?	?	?	0	0	0	0	0	0	?
29	0	0	0	0	0	0	0	?	?	?	?	?	?	?	?	?	?	?	0	0	0	0	0	0	?
30	0	0	0	0	0	0	0	?	694 ?	89 ?	?	?	?	?	?	?	?	?	0	0	0	0	0	0	?
31	0	0	0	0	0	0	0	?	757 *?	333 ?	?	?	?	?	?	?	?	?	0	0	0	0	0	0	?
Avg	0	0	0	0	0	0	0	464	648	314	N/A	N/A	481	567	N/A	239	N/A	N/A	0	0	0	0	0	0	566 *?
S D	0	0	0	0	0	0	0	0	138	194	0	0	117	40	0	0	0	0	0	0	0	0	0	0	0
S/A	0	0	0	0	0	0	0	0.21	0.62	0	0	0.24	0.07	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	464	493	73	N/A	N/A	355	539	N/A	239	N/A	N/A	0	0	0	0	0	0	566
Max	0	0	0	0	0	0	0	464	757	541	N/A	N/A	585	595	N/A	239	N/A	N/A	0	0	0	0	0	0	566
n	0	0	0	0	0	0	0	2	18	20	0	0	10	11	0	4	0	0	0	0	0	0	0	0	12

Daylight Data Recovery: 64.6% missing; 0.0% untested; 33.3% exceed the 15% QC threshold -- 3574 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 2007

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	22	115	206 ?	?	365 ?	?	357 ?	229 ?	105 ?	21	1	0	0	0	0	0	0	1422 ?
2	0	0	0	0	0	0	0	9	55	109	161	113	65	38	43	40 ?	7	0	0	0	0	0	0	0	641
3	0	0	0	0	0	0	0	6	22	43	42	39	44	76	105	74	22	5	0	0	0	0	0	0	478
4	0	0	0	0	0	0	0	13	73	127	146	190	327 ?	?	?	123 ?	32	0	0	0	0	0	0	0	1030 ?
5	0	0	0	0	0	0	0	5	11	29	38	102	151	104	58	33	3	0	0	0	0	0	0	0	534
6	0	0	0	0	0	0	0	13	88 ?	?	?	?	?	?	200 ?	54	?	0	0	0	0	0	0	0	356 ?
7	0	0	0	0	0	0	0	1	23	76	101	167	68	28 ?	27	12 ?	3	0	0	0	0	0	0	0	506
8	0	0	0	0	0	0	0	0	4 ?	23 ?	46	67	148	61	49	33	32	1	0	0	0	0	0	0	463 ?
9	0	0	0	0	0	0	0	12	31	148	151	333 ?	326 ?	229	127	52	19	0	0	0	0	0	0	0	1428 ?
10	0	0	0	0	0	0	0	5	30	106	80	61	83	70	42	30	9	1	0	0	0	0	0	0	516
11	0	0	0	0	0	0	0	11	91	199 ?	?	241 ?	320	332 ?	168 ?	145	46	2	0	0	0	0	0	0	1556 ?
12	0	0	0	0	0	0	0	21	33	32	41	129	141	56	51	31	14	1	0	0	0	0	0	0	549
13	0	0	0	0	0	0	0	4	60	223	244	88	56	45	52	42	9	1	0	0	0	0	0	0	825
14	0	0	0	0	0	0	0	5	40	82	123	215	335 ?	?	272 ?	157 ?	51	0	0	0	0	0	0	0	1281 ?
15	0	0	0	0	0	0	0	4	51	86	52	34	29	22 ?	33	17 ?	1	0	0	0	0	0	0	0	329
16	0	0	0	0	0	0	0	20 ?	32 ?	55	73	98	109	76	47	27	11	1	0	0	0	0	0	0	549
17	0	0	0	0	0	0	0	5	43	?	?	347 ?	254	163 ?	?	200 ?	57	2	0	0	0	0	0	0	1073 ?
18	0	0	0	0	0	0	0	13 ?	?	202 ?	269 ?	?	?	?	?	105	19	1	0	0	0	0	0	0	610 ?
19	0	0	0	0	0	0	0	1	10	29	52	125	226	261	155	106	37	5	0	0	0	0	0	0	1007
20	0	0	0	0	0	0	0	8	73	202 ?	?	369 ?	?	257 ?	210	103	31	1	0	0	0	0	0	0	1254 ?
21	0	0	0	0	0	0	0	0	9	37	108	117	155	148	153	92	31	6	0	0	0	0	0	0	857
22	0	0	0	0	0	0	0	3	23	117	209 ?	254	217	139	184 ?	80	24	6	0	0	0	0	0	0	1256
23	0	0	0	0	0	0	0	1	27	51	82	95	127	157	215 ?	198 ?	66	5	0	0	0	0	0	0	1025 ?
24	0	0	0	0	0	0	0	7	74 ?	?	?	?	?	258	?	183 ?	48	3	0	0	0	0	0	0	573 ?
25	0	0	0	0	0	0	0	8	71 ?	?	?	?	382 ?	267	276 ?	114 ?	21	0	0	0	0	0	0	0	1139 ?
26	0	0	0	0	0	0	0	2	19	59	158	167	193	200	176	165 ?	62	1	0	0	0	0	0	0	1201
27	0	0	0	0	0	0	0	2	24	56	98	123	134	123	92	95	32	3	0	0	0	0	0	0	781
28	0	0	0	0	0	0	0	10	46	104	60	55	48 ?	37	43	20	8	2	0	0	0	0	0	0	432
29	0	0	0	0	0	0	0	0	3 ?	36 ?	86	195	148	274 ?	281 ?	147 ?	48	4	0	0	0	0	0	0	1223 ?
30	0	0	0	0	0	0	0	3	12	33	57	44	57	59	47	21	3	0	0	0	0	0	0	0	337
31	0	0	0	0	0	0	0	8	31 ?	?	?	?	?	?	?	170 ?	78	4	0	0	0	0	0	0	291 ?
Avg	0	0	0	0	0	0	0	7	41	95	108	159	166	148	125	94	29	2	0	0	0	0	0	0	823 ?
S D	0	0	0	0	0	0	0	6	29	65	66	104	106	102	86	62	21	2	0	0	0	0	0	0	382
S/A	0	0	0	0	0	0	0	0.83	0.7	0.69	0.61	0.65	0.64	0.69	0.69	0.66	0.73	1.05	0	0	0	0	0	0	0.46
Min	0	0	0	0	0	0	0	0	3	23	38	34	29	22	27	12	1	0	0	0	0	0	0	0	291
Max	0	0	0	0	0	0	0	22	115	223	269	369	382	357	281	200	78	6	0	0	0	0	0	0	1556
n	0	0	0	0	0	0	0	173	321	271	262	268	265	268	249	280	368	40	0	0	0	0	0	0	2771

Daylight Data Recovery: 0.0% missing; 0.0% untested; 22.5% exceed the 15% QC threshold -- 3574 total daylight measurements.

Instrument: Eppley PSP Serial Number: 17860F3 Calibration Factor: 7.010 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.