

**April 2011**

**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	7	40	90	77	211	356	430	306	464	282	264	133	27	0	0	0	0	0	2687
2	0	0	0	0	0	0	9	37	103	274	275	353	396	476	498	222	295	78	26	0	0	0	0	0	3043
3	0	0	0	0	0	0	37	210	413	597	735	820	838	826	720	570	386	167	25	0	0	0	0	0	6344
4	0	0	0	0	0	0	33	192	382	507	666	824	817	746	670	365	?	?	1	0	0	0	0	0	5204 ?
5	0	0	0	0	0	0	4	41	91	148	218	567	534	490	456	241	224	161	29	0	0	0	0	0	3204
6	0	0	0	0	0	0	51	227	433	623	771	862	889	850	748	593	395	165	31	0	0	0	0	0	6638
7	0	0	0	0	0	0	35	225	425	614	758	847	854	720	614	530	361	158	20	0	0	0	0	0	6162
8	0	0	0	0	0	0	24	80	138	103	68 ?	124	298	341	362	334	352	69	10	0	0	0	0	0	2300
9	0	0	0	0	0	0	39	178	401	397	424	435	338	327 ?	?	?	?	42 ?	33	0	0	0	0	0	2613 ?
10	0	0	0	0	0	2	34	156	513 ?	604	726	684	681	762	715	539	369	176	30	0	0	0	0	0	5991
11	0	0	0	0	0	0	43	157	309	522	642	545	612	591	648	620	399	138	33	0	0	0	0	0	5259
12	0	0	0	0	0	0	30	235	148	464	304	630	609	542	292	117	66	?	5	0	0	0	0	0	3443
13	0	0	0	0	0	1	7	32	75	226	759	902	923	878	764	583	409	191	46	0	0	0	0	0	5797
14	0	0	0	0	0	2	85	290	459	654	769	875	855	853	740	556	404	168	38	0	0	0	0	0	6748
15	0	0	0	0	0	4	61	232	441	600	421	380	577	415	269	242	146	52	15	0	0	0	0	0	3854
16	0	0	0	0	0	3	14	68	119	241	420	359	278	626	759	419	97	29 ?	1	0	0	0	0	0	3433
17	0	0	0	0	0	3	61	253	462	671	811	899	918	768	771	602	418	218	37	0	0	0	0	0	6893
18	0	0	0	0	0	7	63	160	258	350	453	803	592	472	253	262	209	95	10	0	0	0	0	0	3986
19	0	0	0	0	0	2	25	119	319	436	548	382	288	430	483	425	456	237	45	0	0	0	0	0	4196
20	0	0	0	0	0	1	24	138	242	232	542	837	483	417	404	414	374	179	43	0	0	0	0	0	4331
21	0	0	0	0	0	2	40	163	339	650	757	744	725	758	550	496	408	201	40	0	0	0	0	0	5872
22	0	0	0	0	0	0	17	115	54 ?	58 ?	160	184	141 ?	120 ?	117	82 ?	234	163	41	0	0	0	0	0	1484
23	0	0	0	0	0	6	71	261	328	455	395	395	551	624	688	560	441	200	46	0	0	0	0	0	5020
24	0	0	0	0	0	8	74	139	411	542	600	580	647	777	713	568	406	186	47	0	0	0	0	0	5696
25	0	0	0	0	0	13	104	279	464	641	800	890	947	630	124 ?	72 ?	289	140	18	0	0	0	0	0	5409
26	0	0	0	0	0	6	54	194	208	514	771	545	693	593	427	381	214	77	41	3	0	0	0	0	4722
27	0	0	0	0	0	8	77	274	370	494	486	257	455	468	225	286	99	42	12	0	0	0	0	0	3552
28	0	0	0	0	0	2	94	298	373	326	563	351	601	517	499	286	313	245	51	4	0	0	0	0	4523
29	0	0	0	0	0	14	113	297	442	498	749	669	802	705	478	521	311	204	55	4	0	0	0	0	5862
30	0	0	0	0	0	16	143	186	451	691	799	916	938	896	799	646	455	248	51	2	0	0	0	0	7237
Avg	0	0	0	0	0	3	49	176	309	440	553	600	624	597	526	407	314	149	30	0	0	0	0	0	4717
S D	0	0	0	0	0	4	34	83	145	193	222	244	227	197	207	171	114	65	16	1	0	0	0	0	1525
S/A	0	0	0	0	0	1.33	0.7	0.47	0.47	0.44	0.4	0.41	0.36	0.33	0.39	0.42	0.36	0.44	0.52	2.74	0	0	0	0	0.32
Min	0	0	0	0	0	0	4	32	54	58	68	124	141	120	117	72	66	29	1	0	0	0	0	0	1484
Max	0	0	0	0	0	16	143	298	513	691	811	916	947	896	799	646	456	248	55	4	0	0	0	0	7237
n	0	0	0	0	0	70	350	356	350	355	355	359	357	353	344	338	335	321	324	11	0	0	0	0	4581

Daylight Data Recovery: 0.0% missing; 0.0% untested; 3.0% exceed the 15% QC threshold -- 4721 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 25821F3    Calibration Factor: 9.020 μV/W/m<sup>2</sup>    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.

**April 2011**

**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	*	
2	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
3	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
4	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
5	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
6	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
7	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
8	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
9	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
10	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
11	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
12	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
13	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
14	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
15	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
16	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
17	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
18	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
19	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
20	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
21	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
22	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
23	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
24	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
25	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
26	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
27	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
28	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
29	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
30	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
Avg	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	N/A	*
SD	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
S/A	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
Min	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	N/A
Max	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	N/A
n	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

Daylight Data Recovery: 100.0% missing; 0.0% untested; 0.0% exceed the 15% QC threshold -- 4721 total daylight measurements.

Instrument: Eppley NIP    Serial Number: 17664E6    Calibration Factor: 8.480 μV/W/m<sup>2</sup>    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.

**April 2011**

**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	8	45	102	88	240	308	358 ?	356	420 ?	320	198 ?	126 ?	29	0	0	0	0	0	2597 ?	
2	0	0	0	0	0	0	10	41	118	317	245	345	309 ?	273 ?	308 ?	215	169 ?	73	27	0	0	0	0	0	2450 ?	
3	0	0	0	0	0	0	43	?	?	?	?	?	?	?	?	?	?	160 ?	27	0	0	0	0	0	230 ?	
4	0	0	0	0	0	0	36	146 ?	?	?	?	?	?	?	?	307 ?	31 ?	10 ?	1	0	0	0	0	0	531 ?	
5	0	0	0	0	0	0	4	42	103	170	249	539 ?	461 ?	476 ?	309 ?	249	126 ?	114 ?	32	0	0	0	0	0	2874 ?	
6	0	0	0	0	0	0	54	?	?	?	?	?	?	?	?	?	?	134 ?	33	0	0	0	0	0	222 ?	
7	0	0	0	0	0	0	41	?	?	?	?	?	?	636 ?	468 ?	?	337 ?	90 ?	23	0	0	0	0	0	1595 ?	
8	0	0	0	0	0	0	27	92	162	113	68	135	344	306	271 ?	356	271 ?	80	11	0	0	0	0	0	2234 ?	
9	0	0	0	0	0	0	50	241 ?	386 ?	412 ?	475	487	394	342 ?	?	?	37 ?	39	16 ?	0	0	0	0	0	2878 ?	
10	0	0	0	0	0	?	37	178	?	?	?	633 ?	712 ?	?	?	?	?	163 ?	32	0	0	0	0	0	1756 ?	
11	0	0	0	0	0	0	49	178	358	492 ?	?	552 ?	669 ?	594 ?	?	?	260 ?	144	37	0	0	0	0	0	3332 ?	
12	0	0	0	0	0	0	34	174 ?	172	453 ?	354	558 ?	425 ?	507 ?	243	136	71	24 ?	5	0	0	0	0	0	3157 ?	
13	0	0	0	0	0	0	7	36	86	260	?	?	?	?	?	?	356 ?	172 ?	29	0	0	0	0	0	947 ?	
14	0	0	0	0	0	2	42 ?	?	?	128 ?	125	136	217	194	202	359	382 ?	159	37	0	0	0	0	0	1982 ?	
15	0	0	0	0	0	3	38	98	145	226	339	349	434	378	283	251	155	56	16	0	0	0	0	0	2770	
16	0	0	0	0	0	3	15	69	119	196	353	330	281	312	421	384 ?	102	18	2	0	0	0	0	0	2607	
17	0	0	0	0	0	4 ?	51	95	122	103	112	122	154	302	614 ?	?	?	161 ?	41	0	0	0	0	0	1880 ?	
18	0	0	0	0	0	9 ?	58	149	248	307	355	404	465	469	272	280	225	103	11	0	0	0	0	0	3355	
19	0	0	0	0	0	2	27	124	272	369	454	386	298	357 ?	482	440 ?	?	155 ?	49	0	0	0	0	0	3416 ?	
20	0	0	0	0	0	1	22	143	188	242	354	336	411	422	421	312 ?	312 ?	156	46	0	0	0	0	0	3366	
21	0	0	0	0	0	2	42	148	240	143	219	413	525	673 ?	599	534 ?	?	185 ?	45	0	0	0	0	0	3767 ?	
22	0	0	0	0	0	0	18	120	54 ?	59	178	211	143	115	130	84	219	145	43	0	0	0	0	0	1520	
23	0	0	0	0	0	6	70	147	297	388	399	408	538	573 ?	599 ?	494 ?	?	197	52	0	0	0	0	0	4167 ?	
24	0	0	0	0	0	8	67	136	173	269	331	467	601 ?	?	?	?	370 ?	180 ?	51	0	0	0	0	0	2653 ?	
25	0	0	0	0	0	14	52	74	105	116	132	454 ?	?	534 ?	107	66 ?	253 ?	108	21	3	0	0	0	0	2037 ?	
26	0	0	0	0	0	8	46	103	167	266	291	465	573 ?	604 ?	399	418	233	83	45	3	0	0	0	0	3704	
27	0	0	0	0	0	8	61	217	309	353	391	280	431	441	243	313	107	45	12	0	0	0	0	0	3213	
28	0	0	0	0	0	1	66	134	205	275	470	331	531 ?	436 ?	440 ?	229	235 ?	248 ?	36	4	0	0	0	0	3641 ?	
29	0	0	0	0	0	13	46	92	198	265	504 ?	509 ?	563 ?	520 ?	475	365 ?	291 ?	216 ?	53	3	0	0	0	0	4112 ?	
30	0	0	0	0	0	16	70	159	169	305	?	?	?	?	?	?	?	?	58	2	0	0	0	0	779 ?	
Avg	0	0	0	0	0	3	40	122	187	253	302	382	428	427	367	306	216	122	31	1	0	0	0	0	2459 ?	
S D	0	0	0	0	0	5	19	54	87	119	126	138	152	144	147	123	105	62	16	1	0	0	0	0	1128	
S/A	0	0	0	0	0	1.37	0.49	0.44	0.47	0.47	0.42	0.36	0.36	0.34	0.4	0.4	0.49	0.51	0.53	2.36	0	0	0	0	0	0.46
Min	0	0	0	0	0	0	4	36	54	59	68	122	143	115	107	66	31	10	1	0	0	0	0	0	222	
Max	0	0	0	0	0	16	70	241	386	492	504	633	712	673	614	534	382	248	58	4	0	0	0	0	4167	
n	0	0	0	0	0	63	344	292	277	277	250	246	218	199	194	190	162	245	317	11	0	0	0	0	3298	

Daylight Data Recovery: 0.0% missing; 0.0% untested; 30.1% exceed the 15% QC threshold -- 4721 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.