

August 2003

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	18	106	306	550	703	815	908	920	857	745	586	378	161	22	0	0	0	0	0	7077
2	0	0	0	0	0	22	120	207	277	608	800	880	769	429	?	222	269	27	21	0	0	0	0	0	4650
3	0	0	0	0	0	23	144	273	514	598	461	525	554	497	554	314	308	170	41	0	0	0	0	0	4975
4	0	0	0	0	0	23	137	325	524	694	821	753	726	761	539	350	301	136	27	0	0	0	0	0	6118
5	0	0	0	0	0	1	40	39	67	248	600	736	341	374	379	366	289	102	36	0	0	0	0	0	3618
6	0	0	0	0	0	18	89	339	295	510	757	851	846	782	760	510	162	118	20	0	0	0	0	0	6057
7	0	0	0	0	0	21	139	309	521	694	833	768	730	641	645	468	359	153	35	0	0	0	0	0	6316
8	0	0	0	0	0	20	125	308	507	684	818	876	915	853	746	581	390	183	45	0	0	0	0	0	7050
9	0	0	0	0	0	25	138	304	511	674	737	892	914	881	657	585	381	165	27	0	0	0	0	0	6891
10	0	0	0	0	0	23	131	322	512	656	770	720	891	808	736	583	390	180	31	0	0	0	0	0	6752
11	0	0	0	0	0	20	130	315	512	718	845	730	367	620	470	516	351	176	16	0	0	0	0	0	5786
12	0	0	0	0	0	13	83	243	502	555	592	548	506	502	268	151	86 ?	?	5	0	0	0	0	0	4054
13	0	0	0	0	0	4	47	132	121	340	403	774	754	673	478	371	373	138	41	0	0	0	0	0	4648
14	0	0	0	0	0	21	79 ?	185	291	499	510	764	914	852	738	553	365	159	30	0	0	0	0	0	5962
15	0	0	0	0	0	16	122	310	507	672	764	576	792	821	647	484	296	130	10	0	0	0	0	0	6148
16	0	0	0	0	0	16	113	302	498	676	818	744	511	852	712	554	351	145	25	0	0	0	0	0	6317
17	0	0	0	0	0	15	116	295	491	671	793	873	892	691	638	526	322	138	26	0	0	0	0	0	6488
18	0	0	0	0	0	13	99	277	472	647	774	846	754	807	681	506	303	120	20	0	0	0	0	0	6320
19	0	0	0	0	0	18	101	271	464	645	789	780	699	514	560	414	84 ?	20	2	0	0	0	0	0	5362
20	0	0	0	0	0	14	67	206	484	627	784	870	895	133	183	192	120	133	18	0	0	0	0	0	4728
21	0	0	0	0	0	7	50	119	386	641	656	721	570	742	597 ?	71	60	33	13	0	0	0	0	0	4666
22	0	0	0	0	0	13	101	286	483	584	730	544	854	832	678	406	320	119	23	0	0	0	0	0	5971
23	0	0	0	0	0	13	100	276	433	606	717	790	843	790	661	489	295	113	18	0	0	0	0	0	6144
24	0	0	0	0	0	14	98	274	470	619	800	753	631	788	548	501	292	114	18	0	0	0	0	0	5920
25	0	0	0	0	0	12	85	260	470	636	774	869	718	807	388	492	291	103	14	0	0	0	0	0	5919
26	0	0	0	0	0	13	84	269	470	632	757	810	843	649	671	473	123	40	18	0	0	0	0	0	5852
27	0	0	0	0	0	7	49	119	294	449	537	657	873	862	377 ?	?	?	12 ?	4	0	0	0	0	0	4239 ?
28	0	0	0	0	0	1	18 ?	109	73 ?	?	613 ?	788	870	799	620	500	148	75	26	0	0	0	0	0	4641 ?
29	0	0	0	0	0	6	74	279	460	502	721	853	783	649	641	464	288	107	6	0	0	0	0	0	5834
30	0	0	0	0	0	13	69	242	421	467	613	776	696	575	302	478	263	47 ?	1	0	0	0	0	0	4963
31	0	0	0	0	0	11	91	259	438	596	828	790	521	406	388	64	51 ?	25	5	0	0	0	0	0	4473
Avg	0	0	0	0	0	15	95	250	420	595	717	767	739	685	567	426	267	111	21	0	0	0	0	0	5611
S D	0	0	0	0	0	6	32	75	133	109	119	105	165	181	158	150	108	53	12	0	0	0	0	0	930
S/A	0	0	0	0	0	0.44	0.34	0.3	0.32	0.18	0.17	0.14	0.22	0.26	0.28	0.35	0.4	0.47	0.57	0	0	0	0	0	0.17
Min	0	0	0	0	0	1	18	39	67	248	403	525	341	133	183	64	51	12	1	0	0	0	0	0	3618
Max	0	0	0	0	0	25	144	339	550	718	845	908	920	881	760	586	390	183	45	0	0	0	0	0	7077
n	0	0	0	0	0	230	361	370	366	360	368	370	372	371	348	358	342	344	260	0	0	0	0	0	4820

Daylight Data Recovery: 0.0% missing; 2.7% exceed the 15% QC threshold -- 4954 total daylight measurements.

Instrument: Eppley PSP Serial Number: 18036F3 Calibration Factor: 7.430 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.

August 2003

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	*
2	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	?	0	0	0	0	0	*
3	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
4	0	0	0	0	0	?	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
5	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
6	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
7	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
8	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
9	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	*	71 ?	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
15	0	0	0	0	0	281 ?	*	*	*	*	*	*	*	*	*	*	*	*	*	*	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	*
31	0	0	0	0	0	*	?	*	*	*	*	*	*	*	*	?	?	*	*	*	0	0	0	0	0	*
Avg	0	0	0	0	0	281	71	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	281	71	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	281	71	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	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daylight Data Recovery: 96.3% missing; 3.5% exceed the 15% QC threshold -- 4954 total daylight measurements.

Instrument: Eppley NIP Serial Number: 25796E6 Calibration Factor: 8.670 $\mu\text{V}/\text{W}/\text{m}^2$ 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.

August 2003

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	20	103	179	181	160	184	190	219	202	171	143	117	77	20	0	0	0	0	0	1966
2	0	0	0	0	0	23	113	197	203	299	274	334	416	348	?	219	233	29	22	0	0	0	0	0	2709
3	0	0	0	0	0	23	103	168	229	352	434	493	498	452	412	277	222	149	43	0	0	0	0	0	3854
4	0	0	0	0	0	24	108	132	164	177	199	303	296	307	269	223	179	134	28	0	0	0	0	0	2543
5	0	0	0	0	0	1	36	38	66	261	363	464	352	380	377	294	183	102	35	0	0	0	0	0	2950
6	0	0	0	0	0	18	57	133	255	333	330	333	357	358	310	216	131	105	22	0	0	0	0	0	2957
7	0	0	0	0	0	21	74	127	170	201	241	405	388	358	313	228	152	88	30	0	0	0	0	0	2796
8	0	0	0	0	0	17	80	135	179	211	257	307	313	284	246	146	106	93	38	0	0	0	0	0	2411
9	0	0	0	0	0	23	87	131	162	219	286	242	237	233	272	159	108	75	21	0	0	0	0	0	2255
10	0	0	0	0	0	18	67	113	159	235	280	299	288	309	203	144	104	67	20	0	0	0	0	0	2306
11	0	0	0	0	0	20	82	124	158	214	237	319	338	326	353	278	158	129	17	0	0	0	0	0	2752
12	0	0	0	0	0	13	84	184	214	330	415	430	472	456	268	159	83 ?	?	5	0	0	0	0	0	3113
13	0	0	0	0	0	4	46	139	126	354	325	427	333	313	241	225	167	78	42	0	0	0	0	0	2820
14	0	0	0	0	0	17	62	190	298	382	479	377	141	144	154	131	83	62	19	0	0	0	0	0	2538
15	0	0	0	0	0	14	60	102	132	156	212	316	320	252	312	258	165	96	12	0	0	0	0	0	2406
16	0	0	0	0	0	15	72	117	157	197	211	263	256	220	183	161	200	133	21	0	0	0	0	0	2207
17	0	0	0	0	0	14	69	113	155	221	226	298	297	280	285	327	323	155	24	0	0	0	0	0	2787
18	0	0	0	0	0	13	69	138	186	221	249	289	303	268	351	502 ?	339	136	19	0	0	0	0	0	3084
19	0	0	0	0	0	20	78	142	195	216	223	279	371	340	426	268 ?	53	20	2	0	0	0	0	0	2632
20	0	0	0	0	0	16	71	113	191	212	212	280	369	125	191	199	128	133 ?	19	0	0	0	0	0	2257
21	0	0	0	0	0	7	52	124	281	294	405	397	419	613 ?	144 ?	77	65	34	13	0	0	0	0	0	2926
22	0	0	0	0	0	14	67	127	176	230	300	342	547 ?	?	?	278 ?	?	121	21	0	0	0	0	0	2224 ?
23	0	0	0	0	0	13	82	154	217	268	294	441	?	?	?	?	339 ?	128	19	0	0	0	0	0	1956 ?
24	0	0	0	0	0	14	69	141	222	247	299	600	542 ?	?	267 ?	354 ?	286 ?	133	19	0	0	0	0	0	3193 ?
25	0	0	0	0	0	12	76	157	202	242	463	?	461 ?	?	270 ?	267 ?	312 ?	117	13	0	0	0	0	0	2592 ?
26	0	0	0	0	0	15	75	211	259	348	633 ?	591 ?	?	507 ?	?	?	137	42	19	0	0	0	0	0	2838 ?
27	0	0	0	0	0	7	51	126	288	441	512	513 ?	?	?	97 ?	31 ?	?	12 ?	4	0	0	0	0	0	2083 ?
28	0	0	0	0	0	1	16	111	64	?	210 ?	665 ?	729 ?	?	473 ?	430 ?	161	78	27	0	0	0	0	0	2964 ?
29	0	0	0	0	0	6	64	237	465 ?	272 ?	509 ?	596 ?	621 ?	545 ?	474 ?	300 ?	214 ?	81 ?	6	0	0	0	0	0	4388 ?
30	0	0	0	0	0	13	69	232	328 ?	479	518 ?	562 ?	502 ?	358 ?	291	164 ?	289 ?	22 ?	1	0	0	0	0	0	3828 ?
31	0	0	0	0	0	12	81	280	462 ?	404 ?	?	583 ?	382 ?	413	355	67	68	27	5	0	0	0	0	0	3138 ?
Avg	0	0	0	0	0	14	72	149	211	273	326	398	385	336	285	225	176	89	19	0	0	0	0	0	2757 ?
S D	0	0	0	0	0	6	20	47	90	83	119	127	128	117	98	103	86	43	11	0	0	0	0	0	552
S/A	0	0	0	0	0	0.43	0.28	0.32	0.43	0.31	0.37	0.32	0.33	0.35	0.34	0.46	0.49	0.48	0.55	0	0	0	0	0	0.2
Min	0	0	0	0	0	1	16	38	64	156	184	190	141	125	97	31	53	12	1	0	0	0	0	0	1956
Max	0	0	0	0	0	24	113	280	465	479	633	665	729	613	474	502	339	155	43	0	0	0	0	0	4388
n	0	0	0	0	0	223	369	370	350	344	331	308	289	272	278	271	312	340	260	0	0	0	0	0	4324

Daylight Data Recovery: 0.0% missing; 12.7% exceed the 15% QC threshold -- 4954 total daylight measurements.

Instrument: Eppley PSP Serial Number: 18039F3 Calibration Factor: 7.470 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.