

August 2002

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	15	99	270 ?	478	667	820	938	685	877	801	667	476	275	70	12	0	0	0	0	7149
2	0	0	0	0	0	13	98	250	464	655	835	702	920	761	804	663	461	239	88	4	0	0	0	0	6956
3	0	0	0	0	0	12	94	258	463	642	783	832	941	801	755	573	343	283	74	26	0	0	0	0	6881
4	0	0	0	0	0	12	108	294	484	664	795	889	861	633	734	533	436	261	109	22	0	0	0	0	6834
5	0	0	0	0	0	14	94	274	471	655	787	878	768	683	758	551	424	242	54	4	0	0	0	0	6658
6	0	0	0	0	0	1	12 ?	50 ?	287	635	843	938	978	849	849	653	504	301	90	4	9	0	0	0	7094
7	0	0	0	0	0	11	67 ?	285	481	720	785	876	910	903	847	695	509	304	86	2	0	0	0	0	7481
8	0	0	0	0	0	11	123	318	511	702	816	940	972	934	841	687	495	290	83	4	0	0	0	0	7727
9	0	0	0	0	0	10	111	305	499	686	827	917	946	799	802	648	483	269	72	3	0	0	0	0	7377
10	0	0	0	0	0	9	96	271	443	507	585	627	476	581	710	554	416	234	63	4	0	0	0	0	5576
11	0	0	0	0	0	5	70	244	385	578	581	484	585	423	642	374	189	52	21	6	0	0	0	0	4638
12	0	0	0	0	0	10	79	191	247	555	765	785	886	830	678	566	349	222	61	7	0	0	0	0	6231
13	0	0	0	0	0	8	73	237	418	600	751	533	700	570	688	312	357	217	41	4	0	0	0	0	5507
14	0	0	0	0	0	7	83	259	447	633	772	764	708	718	798	559	427	214	55	8	0	0	0	0	6453
15	0	0	0	0	0	8	81	155	104	180	394	525	694	708	688	390	343	58	20	1	0	0	0	0	4350
16	0	0	0	0	0	1	83	154	159	234	505	415	684	464	526	557	294	193	39	1	0	0	0	0	4309
17	0	0	0	0	0	4	102	153	162	137	250	415	424	498	564	553	359	74	14	0	0	0	0	0	3710
18	0	0	0	0	0	2	16	43	86	261	639	725	554	371	664	521	257	98	19	0	0	0	0	0	4256
19	0	0	0	0	0	7	70	144 ?	420 ?	632 ?	729	702	562	532	481	199	88	162	52	1	0	0	0	0	4782 ?
20	0	0	0	0	0	5	60	202	223	343	612	646	415	753	585	464	234	203	40	0	0	0	0	0	4785
21	0	0	0	0	0	10	64	203	459	636	784	876	896	862	754	602	398	200	40	0	0	0	0	0	6784
22	0	0	0	0	0	3	68	230	414	560	395	412	753	480	597	489	363	170	32	4	0	0	0	0	4969
23	0	0	0	0	0	7	66	212	413	495	547	583	610	620	368	483	379	202	42	0	0	0	0	0	5028
24	0	0	0	0	0	2	32	103	351	337	542	649 ?	365	331	282	331	292	145	43	0	0	0	0	0	3806
25	0	0	0	0	0	4	55	172	238	277	402	373	344	412	483	283	185	139	34	0	0	0	0	0	3401
26	0	0	0	0	0	0	13	85	101	195	433	316	506	613	620	348	205	76	8	0	0	0	0	0	3519
27	0	0	0	0	0	1	10	44	92	102	76 ?	180	410	473	174	169	115	54	8	0	0	0	0	0	1909
28	0	0	0	0	0	1	34	123	155	111	80	151	161	132	111	78	47	29 ?	9	0	0	0	0	0	1223
29	0	0	0	0	0	2	16	88	358	419	581	533	729	544	331	258	202	82	31	0	0	0	0	0	4173
30	0	0	0	0	0	3	46	178	298	292	375	598	400	374	421	454	346	172	48	0	0	0	0	0	4005
31	0	0	0	0	0	0	8	92	150	126	133	201	231	226	197	187	173	97	30	0	0	0	0	0	1852
Avg	0	0	0	0	0	6	66	190	331	459	588	626	648	608	599	465	327	179	48	4	0	0	0	0	5143
S D	0	0	0	0	0	4	34	82	145	212	233	238	232	213	212	170	129	84	27	6	0	0	0	0	1765
S/A	0	0	0	0	0	0.7	0.51	0.43	0.44	0.46	0.4	0.38	0.36	0.35	0.35	0.37	0.39	0.47	0.56	1.63	0	0	0	0	0.34
Min	0	0	0	0	0	0	8	43	86	102	76	151	161	132	111	78	47	29	8	0	0	0	0	0	1223
Max	0	0	0	0	0	15	123	318	511	720	843	940	978	949	849	695	509	304	109	26	0	0	0	0	7727
n	0	0	0	0	0	116	363	348	362	369	368	368	372	371	372	372	372	369	365	76	0	0	0	0	4963

Daylight Data Recovery: 0.0% missing; 1.2% exceed the 15% QC threshold -- 5022 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.

August 2002

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	6	244	538 ?	667 ?	709	763	735	459	701	759	703	600	485	78	0	0	0	0	0	7450
2	0	0	0	0	0	8	295	549 ?	672	716	729	504	785	577	749	722	589	333	188	0	0	0	0	0	7417
3	0	0	0	0	0	4	229	455	612	680	712	663	763	567	630	543	370	468	67	0	0	0	0	0	6764
4	0	0	0	0	0	7	234	559	675	750	773	796	672	433	603	458	494	404	183	0	0	0	0	0	7039
5	0	0	0	0	0	5	140	389	597	679	694	670	450	421	590	421	460	283	7	0	0	0	0	0	5809
6	0	0	0	0	0	0	0	0	155	588	888	919	942	953	923	802	819	723	323	0	0	0	0	0	8034
7	0	0	0	0	0	44	445 ?	667	686	876	762	783	796	878	969	922 ?	882	779	357	0	0	0	0	0	9846
8	0	0	0	0	0	64	546	776	872	918 ?	897 ?	970	974	969	961	901	838	723	313	0	0	0	0	0	10722
9	0	0	0	0	0	54	479	716	820	878	904	915	918	749	773	790	782	621	230	0	0	0	0	0	9630
10	0	0	0	0	0	39	309	518	542	248	315	290	157	237	408	359	403	338	98	0	0	0	0	0	4261
11	0	0	0	0	0	1	91	301	297	367	215	191	237	174	271	139	13	0	7	0	0	0	0	0	2305
12	0	0	0	0	0	7	125	153	23	397	579	423	623	544	434	479	342	301	70	0	0	0	0	0	4500
13	0	0	0	0	0	5	116	299	426	509	573	270	400	203	404	123	271	295	41	0	0	0	0	0	3935
14	0	0	0	0	0	24	230	461	562	613	684	562	221	351	762	567	546	341	31	0	0	0	0	0	5955
15	0	0	0	0	0	1	79	47	1	1	9	19	321	474	442	164	310	0	0	0	0	0	0	0	1869
16	0	0	0	0	0	0	72	33	3	12	74	9	143	94	153	399	179	55	26	0	0	0	0	0	1254
17	0	0	0	0	0	0	121	18	3	1	2	43	76	183	334	441	308	1	0	0	0	0	0	0	1530
18	0	0	0	0	0	0	0	0	1	40	392	444	244	115	504	403	162	26	0	0	0	0	0	0	2330
19	0	0	0	0	0	6	161	395 ?	502 ?	579 ?	441	349	215	175	198	4	0	79	33	0	0	0	0	0	3140 ?
20	0	0	0	0	0	0	46	138	57	88	376	418	151	581	480	394	173	365	82	0	0	0	0	0	3350
21	0	0	0	0	0	2	104	452	703	768	820	849	843	843	801	736	587	389	75	0	0	0	0	0	7970
22	0	0	0	0	0	1	158	357	471	439	111	108	453	209	385	397	384	217	5	0	0	0	0	0	3696
23	0	0	0	0	0	1	85	263	434	304	291	261	268	326	130	288	404	349	72	0	0	0	0	0	3476
24	0	0	0	0	0	0	0	1	257	91	287	178	34	51	11	51	123	82	61	0	0	0	0	0	1226
25	0	0	0	0	0	12	111	8	7	22	9	7	59	135	61	74	98	1	0	0	0	0	0	0	603
26	0	0	0	0	0	0	0	1	1	13	109	2	92	307	391	132	68	5	0	0	0	0	0	0	1120
27	0	0	0	0	0	0	0	0	0	1	0	1	6	40	1	1	0	1	0	0	0	0	0	0	51
28	0	0	0	0	0	0	1	57	4	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	66
29	0	0	0	0	0	0	0	2	140	148	78	31	144	156	10	17	39	8	66	0	0	0	0	0	839
30	0	0	0	0	0	0	93	136	61	12	7	132	14	4	51	227	237	201	41	0	0	0	0	0	1216
31	0	0	0	0	0	0	0	1	2	1	1	1	2	2	1	5	1	0	0	0	0	0	0	0	17
Avg	0	0	0	0	0	9	142	271	331	369	404	372	368	367	428	376	337	257	79	0	0	0	0	0	4110
S D	0	0	0	0	0	17	148	248	303	329	331	323	300	310	290	271	240	102	0	0	0	0	0	0	3205
S/A	0	0	0	0	0	1.89	1.04	0.92	0.91	0.89	0.82	0.89	0.88	0.82	0.73	0.77	0.8	0.93	1.29	5.57	0	0	0	0	0.78
Min	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	17
Max	0	0	0	0	0	64	546	776	872	918	904	970	974	969	969	922	882	779	357	0	0	0	0	0	10722
n	0	0	0	0	0	116	366	350	361	363	369	372	372	372	368	365	372	371	366	76	0	0	0	0	4959

Daylight Data Recovery: 0.0% missing; 1.3% exceed the 15% QC threshold -- 5022 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.

August 2002

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	18	67	116 ?	144 ?	170	199	279	258	249	184	185	165	111	61	13	0	0	0	0	2218
2	0	0	0	0	0	16	61	102 ?	123	159	246	248	191	244	193	167	150	132	58	4	0	0	0	0	2096
3	0	0	0	0	0	15	64	120	142	175	209	238	246	294	247	206	155	130	67	31	0	0	0	0	2339
4	0	0	0	0	0	15	63	102	129	147	170	179	240	244	246	224	188	130	81	21	0	0	0	0	2179
5	0	0	0	0	0	17	70	131	163	192	233	291	368	322	291	274	196	152	56	4	0	0	0	0	2759
6	0	0	0	0	0	1	12	41 ?	209	223	116	110	100	88	90	96	79	62	36	4	0	0	0	0	1268
7	0	0	0	0	0	14	33 ?	67	108	110	158	169	176	126	70	65	57	50	28	3	0	0	0	0	1234
8	0	0	0	0	0	13	43	58	65	72	85	87	88	82	75	79	70	59	33	5	0	0	0	0	914
9	0	0	0	0	0	13	46	69	80	91	103	113	117	136	189	123	90	73	38	4	0	0	0	0	1284
10	0	0	0	0	0	11	56	108	180	353	351	390	353	397	409	330	229	135	52	4	0	0	0	0	3359
11	0	0	0	0	0	7	59	156	240	345	414	337	388	281	446	295	191	55	21	6	0	0	0	0	3239
12	0	0	0	0	0	10	63	151	251	289	319	412	343	376	347	264	184	138	54	8	0	0	0	0	3210
13	0	0	0	0	0	8	62	151	218	274	312	316	357	416	392	244	240	135	37	4	0	0	0	0	3165
14	0	0	0	0	0	7	57	119	173	233	238	281	500	406	203	189	163	108	52	8	0	0	0	0	2738
15	0	0	0	0	0	8	71	153	111	192	408	531	397	307	347	287	63	21	1	0	0	0	0	0	3088
16	0	0	0	0	0	1	73	152	166	235	457	436	562	404	414	295	209	185	36	1	0	0	0	0	3626
17	0	0	0	0	0	5	86	158	173	148	269	385	363	341	307	269	209	78	14	0	0	0	0	0	2803
18	0	0	0	0	0	2	16	43	90	240	334	344	343	283	273	261	192	93	20	0	0	0	0	0	2535
19	0	0	0	0	0	7	49	83 ?	174 ?	223 ?	372	388	372	385	321	205	93	138	47	1	0	0	0	0	2858 ?
20	0	0	0	0	0	6 ?	55	159	203	298	318	293	292	266	213	213	157	104	31	0	0	0	0	0	2609
21	0	0	0	0	0	13 ?	50	93	114	133	145	150	158	150	144	138	129	96	32	1	0	0	0	0	1547
22	0	0	0	0	0	4	51	126	187	285	318	334	371	318	311	249	194	116	32	3	0	0	0	0	2901
23	0	0	0	0	0	9 ?	60	133	208	307	330	375	392	355	272	316	201	114	375	0	0	0	0	0	3108
24	0	0	0	0	0	2	34	110	218	285	303	365 ?	345	293	287	301	246	128	34	0	0	0	0	0	2952
25	0	0	0	0	0	4	56	163	241	286	400	382	358	374	381	251	166	115	34	0	0	0	0	0	3210
26	0	0	0	0	0	0	13	90	108	195	359	341	436	358	332	262	179	80	9	0	0	0	0	0	2761
27	0	0	0	0	0	1	11	48	98	112	74	196	434	451	187	180	125	57	8	0	0	0	0	0	1982
28	0	0	0	0	0	2 ?	36	107	161	120	83	162	174	135	119	84	50	26	10	0	0	0	0	0	1269
29	0	0	0	0	0	2 ?	17	92	287	328	533	527	618	425	347	257	191	84	25	0	0	0	0	0	3732
30	0	0	0	0	0	3	35	142	276	300	392	502	411	398	401	313	261	117	44	0	0	0	0	0	3596
31	0	0	0	0	0	0	9	98	160	138	144	216	248	246	211	198	184	105	32	0	0	0	0	0	1991
Avg	0	0	0	0	0	7	48	111	168	215	271	303	323	295	266	220	166	102	37	4	0	0	0	0	2535
S D	0	0	0	0	0	6	21	37	58	80	122	121	128	105	105	75	55	36	17	7	0	0	0	0	788
S/A	0	0	0	0	0	0.77	0.44	0.33	0.35	0.37	0.45	0.4	0.4	0.36	0.39	0.34	0.33	0.35	0.48	1.64	0	0	0	0	0.31
Min	0	0	0	0	0	0	9	41	65	72	74	87	88	82	70	65	50	26	8	0	0	0	0	0	914
Max	0	0	0	0	0	18	86	163	287	353	533	531	618	451	446	330	261	185	81	31	0	0	0	0	3732
n	0	0	0	0	0	103	364	347	361	369	372	369	372	372	372	372	372	372	366	75	0	0	0	0	4958

Daylight Data Recovery: 0.0% missing; 1.3% exceed the 15% QC threshold -- 5022 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.