

March 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	0	3	44	190 ?	447	484	620	702	604	581	414	291	90	7	0	0	0	0	0	4474
2	0	0	0	0	0	0	1	4	?	42 ?	47 ?	65	69	83	54	38 ?	?	7 ?	1	0	0	0	0	0	411 ?
3	0	0	0	0	0	0	2	17	62	151	210	253	410	615	638	496	298	102	7	0	0	0	0	0	3262
4	0	0	0	0	0	0	3	76	267	460	550	624	683	707	615	402	267	111	6	0	0	0	0	0	4771
5	0	0	0	0	0	0	2	21	89	209	491	513	686	562	450	333	212	72	6	0	0	0	0	0	3647
6	0	0	0	0	0	0	1	16	55	153	217	316	363	263	258	96	33 ?	16	2	0	0	0	0	0	1791
7	0	0	0	0	0	0	3	34	72	125	165	277	590	745	642	485	298	106	9	0	0	0	0	0	3550
8	0	0	0	0	0	0	5	111	332	496	638	746	778	724	595	390	187	58	8	0	0	0	0	0	5066
9	0	0	0	0	0	0	3	35	75	400	645	726	779	752	658	501	317	117	10	0	0	0	0	0	5020
10	0	0	0	0	0	0	9	103	299	495	657	766	808	769	673	515	328	123	10	0	0	0	0	0	5556
11	0	0	0	0	0	0	2	15	55	192	340	413	392	668	682	504	297	107	11	0	0	0	0	0	3678
12	0	0	0	0	0	0	9	104	287	422	596	720	585	591	481	493	302	116	14	0	0	0	0	0	4720
13	0	0	0	0	0	0	17	113	258	448	629	713	798	625	568	131 ?	?	16 ?	4	0	0	0	0	0	4320 ?
14	0	0	0	0	0	0	11	116	297	538	676	797	726	597	489	345	242	98	15	0	0	0	0	0	4947
15	0	0	0	0	0	0	8	87	318	472	413	700	729	585	663	517	283	82	13	0	0	0	0	0	4870
16	0	0	0	0	0	0	3	16	133	212	373	222	262	184	145	125	102	25	6	0	0	0	0	0	1810
17	0	0	0	0	0	0	14	56	132	156	194	336	328	451	603	454	258	90	14	0	0	0	0	0	3085
18	0	0	0	0	0	0	12	44	82	140	165	108	147	370	264	256	79	56	13	0	0	0	0	0	1736
19	0	0	0	0	0	0	12	137	299	441	210	238	347	365	269	96	52	22	15	0	0	0	0	0	2503
20	0	0	0	0	0	0	2	18	29 ?	56	124	184	162	206	375	175	138	106	16	0	0	0	0	0	1590
21	0	0	0	0	0	0	15	147	346	537	698	321	532	379	316	306	126	81	9	0	0	0	0	0	3813
22	0	0	0	0	0	0	7	64	313	395	351	551	778	757	711	562	370	156	20	0	0	0	0	0	5036
23	0	0	0	0	0	0	21	99	227	302	293	518	453	645	527	403	280	86	11	0	0	0	0	0	3864
24	0	0	0	0	0	0	29	145	336	558	731	798	853	816	710	553	362	158	17	0	0	0	0	0	6068
25	0	0	0	0	0	0	29	166	374	562	720	819	844	812	653	529	311	138	29	0	0	0	0	0	5986
26	0	0	0	0	0	0	25	154	251	208	160	109 ?	80 ?	99 ?	89	72 ?	?	35	19	0	0	0	0	0	1301 ?
27	0	0	0	0	0	0	36	199	414	606	758	857	880	837	735	546	402	173	24	0	0	0	0	0	6466
28	0	0	0	0	0	0	18	92	215	644	758	615	868	799	755	589	291	34	7	0	0	0	0	0	5685
29	0	0	0	0	0	0	31	188	323	235	212	89 ?	82 ?	99	90	112	42 ?	28	2	0	0	0	0	0	1532 ?
30	0	0	0	0	0	0	1	3 ?	?	?	?	?	?	?	58 ?	?	47 ?	14 ?	9	0	0	0	0	0	133 ?
31	0	0	0	0	0	0	2	19 ?	43	76 ?	89 ?	98	109 ?	78 ?	133 ?	81 ?	143	179	29	0	0	0	0	0	1079 ?
Avg	0	0	0	0	0	0	11	79	213	339	420	470	527	526	467	351	227	84	12	0	0	0	0	0	3605
S D	0	0	0	0	0	0	10	58	120	184	235	264	277	251	232	183	111	50	7	0	0	0	0	0	1784
S/A	0	0	0	0	0	0	0.93	0.74	0.56	0.54	0.56	0.56	0.53	0.48	0.5	0.52	0.49	0.59	0.61	0	0	0	0	0	0.49
Min	0	0	0	0	0	0	1	3	29	42	47	65	69	78	54	38	33	7	1	0	0	0	0	0	133
Max	0	0	0	0	0	0	36	199	414	644	758	857	880	837	755	589	402	179	29	0	0	0	0	0	6466
n	0	0	0	0	0	0	163	354	327	351	348	339	350	349	353	336	319	348	180	0	0	0	0	0	4119

Daylight Data Recovery: 0.0% missing; 7.1% exceed the 15% QC threshold -- 4435 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.

March 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	93	521 ?	759	344	466	660	590	685	587	633	375	10	0	0	0	0	0	5722
2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3	0	0	0	0	0	0	0	0	0	13	1	4	78	467	862	888	791	544	109	0	0	0	0	0	3757
4	0	0	0	0	0	0	0	406	782	877	613	563	689	853	836	430	315	268	0	0	0	0	0	0	6632
5	0	0	0	0	0	0	0	0	0	29	354	218	452	319	116	165	192	42	0	0	0	0	0	0	1889
6	0	0	0	0	0	0	0	0	1	6	66	108	82	4	2	0	0	0	0	0	0	0	0	0	270
7	0	0	0	0	0	0	0	0	0	2	1	17	491	912	911	831	683	479	58	0	0	0	0	0	4384
8	0	0	0	0	0	0	1	385	821	909	930	972	957	796	592	336	39	1	0	0	0	0	0	0	6738
9	0	0	0	0	0	0	0	6	2	451	860	883	937	968	956	879	773	485	40	0	0	0	0	0	7240
10	0	0	0	0	0	0	0	420	716	861	937	980	1000	963	950	891	800	541	51	0	0	0	0	0	9110
11	0	0	0	0	0	0	0	0	0	3	38	34	10	341	886	799	582	357	30	0	0	0	0	0	3080
12	0	0	0	0	0	0	1	408	636	438	640	764	392	398	375	572	567	390	29	0	0	0	0	0	5608
13	0	0	0	0	0	0	4	240	353	610	747	720	781	494	377	2	0	0	0	0	0	0	0	0	4329
14	0	0	0	0	0	0	17	398	666	928	942	999	686	380	206	175	124	61	1	0	0	0	0	0	5584
15	0	0	0	0	0	0	4	178	667	669	234	569	476	269	874	850	502	52	3	0	0	0	0	0	5346
16	0	0	0	0	0	0	0	0	2	11	15	4	4	1	1	0	1	0	0	0	0	0	0	0	38
17	0	0	0	0	0	0	0	0	0	0	1	26	8	74	438	429	225	17	0	0	0	0	0	0	1219
18	0	0	0	0	0	0	0	0	0	0	0	0	1	8	4	8	0	0	0	0	0	0	0	0	22
19	0	0	0	0	0	0	0	168	308	305	2	1	29	49	32	0	0	0	0	0	0	0	0	0	896
20	0	0	0	0	0	0	0	0	0	0	0	2	1	1	28	1	1	111	5	0	0	0	0	0	150
21	0	0	0	0	0	0	58	525	739	845	778	108	241	120	217	248	22	33	0	0	0	0	0	0	3935
22	0	0	0	0	0	0	0	0	446	430	37	318	742	817	929	910	823	585	80	0	0	0	0	0	6117
23	0	0	0	0	0	0	33	31	76	44	5	158	57	341	285	287	456	137	0	0	0	0	0	0	1908
24	0	0	0	0	0	0	137	543	800 ?	852	923	924	982	965	936	889	797	617	98	0	0	0	0	0	9465
25	0	0	0	0	0	0	168	591	785	857	909	937	925	912	698	660	409	285	26	0	0	0	0	0	8162
26	0	0	0	0	0	0	67	427	201	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	710
27	0	0	0	0	0	0	179	700	886	958	995	1023 ?	1010	990	961	823	787	622	94	0	0	0	0	0	10028
28	0	0	0	0	0	0	0	76	94	473	496	230	757	732	931	894	392	0	0	0	0	0	0	0	5074
29	0	0	0	0	0	0	139	601	494	15	2	0	0	1	0	0	0	0	0	0	0	0	0	0	1252
30	0	0	0	0	0	0	0	0	0	0	0	0	2	9	41 ?	18 ?	34	0	0	0	0	0	0	0	105
31	0	0	0	0	0	0	0	7	22	118 ?	94 ?	55	51 ?	11 ?	84 ?	14 ?	109	525	89	0	0	0	0	0	1178 ?
Avg	0	0	0	0	0	0	26	200	323	370	354	358	403	412	459	406	324	211	23	0	0	0	0	0	3869
S D	0	0	0	0	0	0	54	235	338	381	394	396	392	377	393	373	319	237	36	0	0	0	0	0	3134
S/A	0	0	0	0	0	0	2.06	1.18	1.05	1.03	1.12	1.11	0.97	0.92	0.86	0.92	0.98	1.12	1.52	0	0	0	0	0	0.81
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	1
Max	0	0	0	0	0	0	179	700	886	958	995	1023	1010	990	961	910	823	622	109	0	0	0	0	0	10028
n	0	0	0	0	0	0	163	368	359	367	366	365	368	369	360	362	370	370	180	0	0	0	0	0	4367

Daylight Data Recovery: 0.0% missing; 1.5% exceed the 15% QC threshold -- 4435 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.

March 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	0	?	26	66 ?	107	259	304	245	204	182	128	94	34	6	0	0	0	0	0	1656
2	0	0	0	0	0	0	0	3	15 ?	39	45	70	74	89	57	32	16 ?	8	0	0	0	0	0	0	448 ?
3	0	0	0	0	0	0	1	18	66	153	229	270	373	282	135	86	55	29	5	0	0	0	0	0	1702
4	0	0	0	0	0	0	3 ?	25	48	71	181	238	201	137	114	185	173	66	6	0	0	0	0	0	1449
5	0	0	0	0	0	0	2	22	96	206	275	370	367	343	390	264	144	65	6	0	0	0	0	0	2550
6	0	0	0	0	0	0	1	17	59	161	168	259	314	281	280	105	30	17	1	0	0	0	0	0	1693
7	0	0	0	0	0	0	3	36	76	132	176	283	236	134	102	92	82	37	7	0	0	0	0	0	1395
8	0	0	0	0	0	0	6 ?	60	94	72	94	94	105	183	236	223	182	62	8	0	0	0	0	0	1419
9	0	0	0	0	0	0	3	36	80	184	138	132	116	95	84	78	61	39	8	0	0	0	0	0	1055
10	0	0	0	0	0	0	8	37	69	84	93	97	97	104	91	78	60	35	7	0	0	0	0	0	859
11	0	0	0	0	0	0	2	15	58	202	322	399	402	410	139	103	91	44	8	0	0	0	0	0	2194
12	0	0	0	0	0	0	10 ?	42	83	203	199	186	296	317	246	211	111	50	13	0	0	0	0	0	1969
13	0	0	0	0	0	0	21 ?	78	134	138	163	205	231	264	316	113 ?	18 ?	16 ?	4	0	0	0	0	0	1699
14	0	0	0	0	0	0	11	47	66	78	89	94	197	309	357	249	203	87	15	0	0	0	0	0	1801
15	0	0	0	0	0	0	8	52	90	133	235	285	337	390	109	87	92	73	13	0	0	0	0	0	1903
16	0	0	0	0	0	0	3	17	141	211	382	232	275	201	162	139	112	27	6	0	0	0	0	0	1909
17	0	0	0	0	0	0	17	60	143	171	212	339	347	404	308	210	167	87	15	0	0	0	0	0	2479
18	0	0	0	0	0	0	15	47	88	152	177	118	158	386	276	266	85	60	14	0	0	0	0	0	1840
19	0	0	0	0	0	0	15	102	181	292	224	258	341	336	256	103	55	23	16	0	0	0	0	0	2200
20	0	0	0	0	0	0	2	19	24 ?	61	135	195	173	228	368	187	148	97	16	0	0	0	0	0	1654
21	0	0	0	0	0	0	11	47	72	85	195	251	350	298	191	147	124	77	10	0	0	0	0	0	1856
22	0	0	0	0	0	0	8	68	128	176	343	299	190	135	96	75	61	43	14	0	0	0	0	0	1635
23	0	0	0	0	0	0	20	96	198	291	311	402	415	353	317	254	96	55	12	0	0	0	0	0	2819
24	0	0	0	0	0	0	17	51	77 ?	97	118	106	91	95	87	74	59	36	10	0	0	0	0	0	917
25	0	0	0	0	0	0	19	47	72	93	111	117	123	125	171	159	151	72	27	0	0	0	0	0	1287
26	0	0	0	0	0	0	21	65	180	216	175	69 ?	77	93 ?	97	63	24	34	19	0	0	0	0	0	1132
27	0	0	0	0	0	0	19	44	60	68	77	79	83	83	81	87	100	45	15	0	0	0	0	0	842
28	0	0	0	0	0	0	17	76	164	376	416	440	265	249	126	99	124	36	7	0	0	0	0	0	2396
29	0	0	0	0	0	0	20	56	125	238	226	68 ?	80	106	87	118	39	28	1	0	0	0	0	0	1192
30	0	0	0	0	0	0	0	3 ?	?	?	?	41	46	51 ?	60	55	33	18	6	0	0	0	0	0	314 ?
31	0	0	0	0	0	0	1	16	36	75	87	83	108	88	155 ?	127 ?	116	99	21	0	0	0	0	0	1012
Avg	0	0	0	0	0	0	9	43	93	152	195	206	217	218	183	135	94	48	10	0	0	0	0	0	1590
S D	0	0	0	0	0	0	8	25	47	80	94	116	115	115	101	67	51	25	6	0	0	0	0	0	601
S/A	0	0	0	0	0	0	0.8	0.59	0.51	0.53	0.48	0.56	0.53	0.52	0.55	0.5	0.54	0.52	0.6	0	0	0	0	0	0.38
Min	0	0	0	0	0	0	0	3	15	39	45	41	46	51	57	32	16	8	0	0	0	0	0	0	314
Max	0	0	0	0	0	0	21	102	198	376	416	440	415	410	390	266	203	99	27	0	0	0	0	0	2819
n	0	0	0	0	0	0	150	356	345	360	360	360	369	364	368	365	354	366	180	0	0	0	0	0	4298

Daylight Data Recovery: 0.0% missing; 3.1% exceed the 15% QC threshold -- 4435 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.