

October 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	54	225	421	603	628	785	776	648	451	273	136	35	0	0	0	0	0	0	5036
2	0	0	0	0	0	0	62	242	452	631	748	807	795	705	566	385	172	34	0	0	0	0	0	0	5599
3	0	0	0	0	0	1	32	230	417	547	707	756	758	673	534	350	141	27	0	0	0	0	0	0	5172
4	0	0	0	0	0	0	41	211	402	572	689	721	643	619	510	325	158	26	0	0	0	0	0	0	4917
5	0	0	0	0	0	0	39	136	377	536	435	456	483	289	263	165	78	18	0	0	0	0	0	0	3276
6	0	0	0	0	0	0	6	47	137	309	644	581	537	223	192	238	142	25	0	0	0	0	0	0	3082
7	0	0	0	0	0	0	24	55	101	179	188	653	696	488	233	241	121	15	0	0	0	0	0	0	2994
8	0	0	0	0	0	0	40	179	363	541	630	595	594	613	241	199	98	19	0	0	0	0	0	0	4111
9	0	0	0	0	0	0	8	21 ?	188 ?	261	218	331	264 ?	?	129	87	51	3	0	0	0	0	0	0	1560 ?
10	0	0	0	0	0	0	28	50	136	382 ?	440	173	443	615	411	181	105	15	0	0	0	0	0	0	2980
11	0	0	0	0	0	0	12	49	139 ?	158	187	231	167	168	382	235	87	14	0	0	0	0	0	0	1829
12	0	0	0	0	0	0	17	148	288	153	528	160	262	221	154	140	106	12	0	0	0	0	0	0	2190
13	0	0	0	0	0	0	29	140	378	281	147	121	72	244	400	172	64	12	0	0	0	0	0	0	2059
14	0	0	0	0	0	0	10	26 ?	52	129 ?	551	737	736	651	500	326	125	18	0	0	0	0	0	0	3862
15	0	0	0	0	0	0	46	205	404	569	687	742	723	636	485	310	115	13	0	0	0	0	0	0	4935
16	0	0	0	0	0	0	38	195	395	562	677	730	715	629	474	298	108	13	0	0	0	0	0	0	4833
17	0	0	0	0	0	0	22	149	160	152	181	214	192	150	123	104	36	5	0	0	0	0	0	0	1489
18	0	0	0	0	0	0	35	179	374	511	619	680	692	610	463	292	101	10	0	0	0	0	0	0	4566
19	0	0	0	0	0	0	36	180	373	537	655	706	689	603	451	279	94	7	0	0	0	0	0	0	4610
20	0	0	0	0	0	0	35	172	353	511	648	698	673	586	441	274	92	8	0	0	0	0	0	0	4491
21	0	0	0	0	0	0	31	170	355	511	638	675	663	588	391	262	74	13	0	0	0	0	0	0	4371
22	0	0	0	0	0	0	28	163	347	498	640	691	667	583	443	269	84	8	0	0	0	0	0	0	4422
23	0	0	0	0	0	0	34	179	353	502	639	687	654	572	432	268	86	8	0	0	0	0	0	0	4414
24	0	0	0	0	0	0	28	162	343	489	622	673	650	571	431	258	76	3	0	0	0	0	0	0	4308
25	0	0	0	0	0	0	17	87	153	238	338	441	519	463	124	?	1 ?	3	0	0	0	0	0	0	2385 ?
26	0	0	0	0	0	0	3	31	60 ?	43 ?	60	63	185	234	191	128	41	4	0	0	0	0	0	0	1043
27	0	0	0	0	0	0	21	119	183	284	491	392	517	464	339	193	56	11	0	0	0	0	0	0	3072
28	0	0	0	0	0	0	27	154	338	493	614	661	650	560	418	214	80	6	0	0	0	0	0	0	4215
29	0	0	0	0	0	0	26	143	322	482	601	650	629	553	416	242	70	4	0	0	0	0	0	0	4136
30	0	0	0	0	0	0	22	143	329	481	600	649	607	529	413	228	68	6	0	0	0	0	0	0	4077
31	0	0	0	0	0	0	15	64	248	452	577	598	620	539	395	234	63	1	0	0	0	0	0	0	3808
Avg	0	0	0	0	0	0	28	137	288	406	517	550	557	501	368	239	91	13	0	0	0	0	0	0	3672
S D	0	0	0	0	0	0	14	65	119	169	196	224	202	169	131	71	37	9	0	0	0	0	0	0	1230
S/A	0	0	0	0	0	4.83	0.48	0.47	0.41	0.42	0.38	0.41	0.36	0.34	0.36	0.3	0.41	0.7	0	0	0	0	0	0	0.33
Min	0	0	0	0	0	0	3	21	52	43	60	63	72	150	123	87	1	1	0	0	0	0	0	0	1043
Max	0	0	0	0	0	1	62	242	452	631	748	807	795	705	566	385	172	35	0	0	0	0	0	0	5599
n	0	0	0	0	0	5	329	356	354	359	371	371	365	360	371	360	368	146	0	0	0	0	0	0	4116

Daylight Data Recovery: 0.0% missing; 2.1% exceed the 15% QC threshold -- 4203 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.

October 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	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	0	*
7	0	0	0	0	0	0	?	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
8	0	0	0	0	0	0	*	*	*	*	?	?	?	?	?	?	?	?	0	0	0	0	0	0	?
9	0	0	0	0	0	0	425 ?	?	?	?	?	?	173 ?	?	?	?	?	?	0	0	0	0	0	0	?
10	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	*
12	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	*
14	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	*
16	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
17	0	0	0	0	0	0	218 ?	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
18	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	*
20	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	*
22	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
23	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
24	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
25	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
26	0	0	0	0	0	0	*	*	*	285 *	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
27	0	0	0	0	0	0	728 **?	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
28	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
29	0	0	0	0	0	0	762 *	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
30	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
31	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
Avg	0	0	0	0	0	0	533	N/A	N/A	285	N/A	N/A	173	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	N/A *
SD	0	0	0	0	0	0	259	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	0.49	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	218	N/A	N/A	285	N/A	N/A	173	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	762	N/A	N/A	285	N/A	N/A	173	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	10	0	0	4	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0

Daylight Data Recovery: 90.4% missing; 9.1% exceed the 15% QC threshold -- 4203 total daylight measurements.

Instrument: Eppley NIP Serial Number: 25796E6 Calibration Factor: 8.670 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.

October 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	57	198 ?	?	?	505 ?	?	?	497 ?	403 ?	172 ?	115 ?	44	0	0	0	0	0	0	1991 ?
2	0	0	0	0	0	0	67	189 ?	?	?	?	?	?	?	?	?	143 ?	44	0	0	0	0	0	0	443 ?
3	0	0	0	0	0	1	33	205 ?	452 ?	529 ?	?	?	?	?	?	274 ?	155	31	0	0	0	0	0	0	1680 ?
4	0	0	0	0	0	0	43	203 ?	366 ?	?	?	?	579 ?	582 ?	?	326 ?	160 ?	29	0	0	0	0	0	0	2288 ?
5	0	0	0	0	0	0	40	125	286 ?	435 ?	454	475	441	297	267	169	81	19	0	0	0	0	0	0	3087 ?
6	0	0	0	0	0	0	7	42	139	317	?	481 ?	432 ?	185	197	233	148	26	0	0	0	0	0	0	2207 ?
7	0	0	0	0	0	0	24	55	103	180	191	522 ?	?	387 ?	242	230 ?	90	15	0	0	0	0	0	0	2038 ?
8	0	0	0	0	0	0	35	159	426 ?	?	569 ?	447 ?	462 ?	363 ?	228	216	107	20	0	0	0	0	0	0	3032 ?
9	0	0	0	0	0	0	8	64	184	265	222	336	286 ?	205	133	88	52	3	0	0	0	0	0	0	1845
10	0	0	0	0	0	0	28	50	138	311 ?	340 ?	180	380	592 ?	260 ?	159	63 ?	14	0	0	0	0	0	0	2515 ?
11	0	0	0	0	0	0	14	49	141	161	190	235	172	172	309 ?	221	89	14	0	0	0	0	0	0	1767
12	0	0	0	0	0	0	19	116	235 ?	157	520 ?	164	266	222	156	143	106	12	0	0	0	0	0	0	2116
13	0	0	0	0	0	0	28	137	346 ?	285	150	121	73	145 ?	330 ?	173	65	12	0	0	0	0	0	0	1865
14	0	0	0	0	0	0	10	24	52	118	311 ?	?	?	?	?	?	115 ?	24	0	0	0	0	0	0	653 ?
15	0	0	0	0	0	0	50	180 ?	?	?	?	?	?	?	?	?	?	121	20	0	0	0	0	0	371 ?
16	0	0	0	0	0	0	41	168 ?	?	?	?	?	?	?	?	?	?	127	17	0	0	0	0	0	353 ?
17	0	0	0	0	0	0	23	144	148	152	181	214	193	151	124	105	36	5	0	0	0	0	0	0	1474
18	0	0	0	0	0	0	34	162	407 ?	420 ?	446 ?	?	?	?	?	?	?	121	16	0	0	0	0	0	1606 ?
19	0	0	0	0	0	0	42	166	?	?	?	?	?	?	?	?	226 ?	112	11	0	0	0	0	0	556 ?
20	0	0	0	0	0	0	42	173	?	?	?	?	?	?	?	?	218 ?	108	12	0	0	0	0	0	552 ?
21	0	0	0	0	0	0	34	169	?	?	?	?	?	?	?	363 ?	264 ?	78	15	0	0	0	0	0	924 ?
22	0	0	0	0	0	0	30	169	?	?	?	?	?	?	?	?	216 ?	96	10	0	0	0	0	0	523 ?
23	0	0	0	0	0	0	39	176 ?	?	?	?	?	?	?	?	?	215 ?	99	10	0	0	0	0	0	538 ?
24	0	0	0	0	0	0	31	162	?	?	?	?	?	?	?	?	209 ?	88	5	0	0	0	0	0	494 ?
25	0	0	0	0	0	0	17	87	153	240	344	441	460 ?	376 ?	125	30 ?	1 ?	3	0	0	0	0	0	0	2275 ?
26	0	0	0	0	0	0	3	30	50	39	59	61	182	231	189	128	40	4	0	0	0	0	0	0	1016
27	0	0	0	0	0	0	20	119	182	287	461 ?	405	445 ?	345 ?	333	159 ?	56	13	0	0	0	0	0	0	2825 ?
28	0	0	0	0	0	0	33	161	?	?	?	?	?	?	?	303 ?	186 ?	77	6	0	0	0	0	0	766 ?
29	0	0	0	0	0	0	29	150	?	?	?	?	?	?	?	?	199 ?	82	6	0	0	0	0	0	465 ?
30	0	0	0	0	0	0	25	157	?	?	?	?	?	499 ?	538 ?	402 ?	196 ?	76	7	0	0	0	0	0	1900 ?
31	0	0	0	0	0	0	15	63	263	402 ?	?	?	?	?	?	364 ?	195 ?	72	2	0	0	0	0	0	1377 ?
Avg	0	0	0	0	0	0	30	131	226	269	329	314	348	330	263	190	93	15	0	0	0	0	0	0	1469 ?
S D	0	0	0	0	0	0	15	56	128	132	158	157	151	155	94	61	36	11	0	0	0	0	0	0	858
S/A	0	0	0	0	0	4.91	0.5	0.43	0.56	0.49	0.48	0.5	0.43	0.47	0.36	0.32	0.39	0.72	0	0	0	0	0	0	0.58
Min	0	0	0	0	0	0	3	24	50	39	59	61	73	145	124	30	1	2	0	0	0	0	0	0	353
Max	0	0	0	0	0	1	67	205	452	529	569	522	579	592	403	326	160	44	0	0	0	0	0	0	3087
n	0	0	0	0	0	5	329	317	159	154	134	134	117	122	158	193	339	146	0	0	0	0	0	0	2312

Daylight Data Recovery: 0.0% missing; 45.0% exceed the 15% QC threshold -- 4203 total daylight measurements.

Instrument: Eppley PSP Serial Number: 18039F3 Calibration Factor: 7.470 $\mu\text{V}/\text{W}/\text{m}^2$ 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.