

September 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	5	54	140	312	483	665	500 ?	252	689	278	263	142	14	3	0	0	0	0	0	3800
2	0	0	0	0	0	10	74	268	468	395	826	568	522	85 ?	274	319	110	38	4	0	0	0	0	0	3961
3	0	0	0	0	0	5	20	43 ?	129 ?	213	172	391	631 ?	467	426	420	285	77	18	0	0	0	0	0	3298
4	0	0	0	0	0	7	90	285	499	662	810	887	839	747	599	305	263	62	15	0	0	0	0	0	6067
5	0	0	0	0	0	6	101	303	515	693	793	840	797	625	596	553	341	87	16	0	0	0	0	0	6265
6	0	0	0	0	0	3	54	240	478	651	771	793	839	530	581	452	229	87	12	0	0	0	0	0	5722
7	0	0	0	0	0	6	76	255	463	634	764	809	814	697	594	348	208	82	7	0	0	0	0	0	5756
8	0	0	0	0	0	7	71	257	436	618	743	714	685	797	494	411	226	64	0	0	0	0	0	0	5524
9	0	0	0	0	0	8	70	244	440	578	629	854	857	750	637	259	226	60	2	0	0	0	0	0	5613
10	0	0	0	0	0	6	75	249	444	582	496	688	823	707	638	450	251	66	3	0	0	0	0	0	5477
11	0	0	0	0	0	4	71	239	432	605	732	733	783	719	556	411	237	65	2	0	0	0	0	0	5589
12	0	0	0	0	0	1	18	76	171	345	319	573	764	581	430	204	147	45	3	0	0	0	0	0	3677
13	0	0	0	0	0	8	42	131	109	281	162	268	517	469	383	394	190	44	21	0	0	0	0	0	3020
14	0	0	0	0	0	4	77	268	492	664	767	823	734	731	639	451	229	75	2	0	0	0	0	0	5957
15	0	0	0	0	0	6	83	273	493	678	809	876	869	794	660	476	255	61	0	0	0	0	0	0	6335
16	0	0	0	0	0	4	83	283	497	674	805	870	867	789	655	473	253	62	0	0	0	0	0	0	6314
17	0	0	0	0	0	5	75	264	469	644	772	839	827	749	628	434	182	47	0	0	0	0	0	0	5936
18	0	0	0	0	0	4	62	222	433	614	742	806	728	512	328	448	143	26	0	0	0	0	0	0	5068
19	0	0	0	0	0	3	65	238	436	605	729	790	785	716	573	355	180	41	0	0	0	0	0	0	5517
20	0	0	0	0	0	2	55	236	398	601	727	744	776	439	346	279	132	48	0	0	0	0	0	0	4781
21	0	0	0	0	0	0	10	28 ?	49 ?	98	101	63 ?	103	179	154	54	?	4	0	0	0	0	0	0	843 ?
22	0	0	0	0	0	0	22	83	306	475	567	460	692	444	348	425	206	43	0	0	0	0	0	0	4070
23	0	0	0	0	0	2	45	221	433	632	754	805	819	739	551	360	173	27	0	0	0	0	0	0	5560
24	0	0	0	0	0	4	53	168	395	528	609	649	719	624	479	215	56	24	0	0	0	0	0	0	4523
25	0	0	0	0	0	3	53	256 ?	437	604	724	765	759	704	569	376	194	32	0	0	0	0	0	0	5476
26	0	0	0	0	0	1	43	175	400	582	735	602	581	522	381	405	178	38	0	0	0	0	0	0	4641
27	0	0	0	0	0	0	45	222	412	574	694	753	755	595	527	370	167	36	0	0	0	0	0	0	5150
28	0	0	0	0	0	0	61	246	454	627	754	814	805	730	580	409	194	42	0	0	0	0	0	0	5716
29	0	0	0	0	0	0	63	252	462	641	761	821	813	733	591	396	187	37	0	0	0	0	0	0	5757
30	0	0	0	0	0	0	57	238	438	614	733	790	778	696	559	381	170	34	0	0	0	0	0	0	5489
Avg	0	0	0	0	0	4	59	213	397	553	656	696	718	619	502	370	198	49	4	0	0	0	0	0	5030
S D	0	0	0	0	0	3	22	74	123	146	202	195	174	172	135	100	57	21	6	0	0	0	0	0	1205
S/A	0	0	0	0	0	0.74	0.37	0.35	0.31	0.26	0.31	0.28	0.24	0.28	0.27	0.27	0.29	0.43	1.73	0	0	0	0	0	0.24
Min	0	0	0	0	0	0	10	28	49	98	101	63	103	85	154	54	56	4	0	0	0	0	0	0	843
Max	0	0	0	0	0	10	101	303	515	693	826	887	869	797	660	553	341	87	21	0	0	0	0	0	6335
n	0	0	0	0	0	98	359	348	347	358	359	349	357	356	360	359	348	335	43	0	0	0	0	0	4376

Daylight Data Recovery: 0.0% missing; 1.4% exceed the 15% QC threshold -- 4440 total daylight measurements.

Instrument: Eppley PSP Serial Number: 18036F3 Calibration Factor: 7.430 $\mu\text{V}/\text{W}/\text{m}^2$ 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.

September 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	*	*	*	*	*	*	*	*	*	*	*	*	762 *?	?	0	0	0	0	0	*
2	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
3	0	0	0	0	0	93 *	*	?	142 ?	108 ?	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
4	0	0	0	0	0	445 ?	251 **	*	*	*	*	*	*	*	*	*	*	*	*	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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	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	433 *?	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
18	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
19	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
20	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
21	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
22	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
23	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
24	0	0	0	0	0	?	?	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
25	0	0	0	0	0	?	415 ?	146 ?	?	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
26	0	0	0	0	0	?	*	*	?	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
27	0	0	0	0	0	?	?	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
28	0	0	0	0	0	?	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
29	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
30	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
Avg	0	0	0	0	0	324	333	146	142	108	N/A	N/A	N/A	N/A	N/A	N/A	N/A	762	0	0	0	0	0	N/A	*
SD	0	0	0	0	0	200	116	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	0.62	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	93	251	146	142	108	N/A	N/A	N/A	N/A	N/A	N/A	N/A	762	0	0	0	0	0	0	N/A
Max	0	0	0	0	0	445	415	146	142	108	N/A	N/A	N/A	N/A	N/A	N/A	N/A	762	0	0	0	0	0	0	N/A
n	0	0	0	0	0	5	7	2	4	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0

Daylight Data Recovery: 96.4% missing; 3.0% exceed the 15% QC threshold -- 4440 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.

September 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	6	57	148	312	462 ?	453 ?	161 ?	263	400 ?	293	279	150	15	3	0	0	0	0	0	3002 ?
2	0	0	0	0	0	9	76	244 ?	418 ?	318 ?	?	538 ?	517	84 ?	257	235 ?	117	40	3	0	0	0	0	0	2856 ?
3	0	0	0	0	0	5	21	56	121 ?	221	182	407	599 ?	312 ?	422	405 ?	188 ?	79	17	0	0	0	0	0	3034 ?
4	0	0	0	0	0	7	96	?	?	?	?	?	?	?	536 ?	329	241 ?	68	15	0	0	0	0	0	1291 ?
5	0	0	0	0	0	5	73 ?	?	?	?	?	?	?	610 ?	534 ?	?	?	58 ?	14	0	0	0	0	0	1293 ?
6	0	0	0	0	0	3	56	241 ?	?	?	?	?	?	472 ?	488 ?	357 ?	219 ?	87	13	0	0	0	0	0	1935 ?
7	0	0	0	0	0	6	81	272 ?	?	?	?	?	?	596 ?	446 ?	274 ?	126 ?	64 ?	7	0	0	0	0	0	1872 ?
8	0	0	0	0	0	6	74	249 ?	392 ?	?	?	304 ?	453 ?	?	432 ?	409 ?	208 ?	73	1	0	0	0	0	0	2600 ?
9	0	0	0	0	0	8	72	254 ?	406 ?	461 ?	558 ?	?	?	?	195 ?	248 ?	66	2	0	0	0	0	0	0	2271 ?
10	0	0	0	0	0	6	79	263 ?	?	537 ?	466 ?	452 ?	?	432 ?	?	?	183 ?	73	3	0	0	0	0	0	2494 ?
11	0	0	0	0	0	4	75	260 ?	393 ?	?	?	?	?	513 ?	448 ?	378 ?	228 ?	53	2	0	0	0	0	0	2353 ?
12	0	0	0	0	0	1	19	79	178	357	333	493 ?	?	503 ?	411	212	154	47	3	0	0	0	0	0	2790 ?
13	0	0	0	0	0	10 ?	44	137	114	293	170	281	462	344 ?	328 ?	381 ?	179 ?	45	?	0	0	0	0	0	2787 ?
14	0	0	0	0	0	3	84	?	?	?	?	?	?	?	?	?	188 ?	43 ?	2	0	0	0	0	0	321 ?
15	0	0	0	0	0	5	67 ?	?	?	?	?	?	?	?	?	?	?	59	0	0	0	0	0	0	131 ?
16	0	0	0	0	0	3	75	?	?	?	?	?	?	?	?	?	?	40 ?	0	0	0	0	0	0	118 ?
17	0	0	0	0	0	4	83	?	?	?	?	?	?	?	?	?	178 ?	57	0	0	0	0	0	0	321 ?
18	0	0	0	0	0	4	65	237 ?	?	?	?	620 ?	532 ?	404 ?	290 ?	?	142	27	0	0	0	0	0	0	2322 ?
19	0	0	0	0	0	3	71	223 ?	?	?	?	?	?	?	366 ?	343 ?	189	46	0	0	0	0	0	0	1241 ?
20	0	0	0	0	0	2	57	233 ?	335 ?	?	?	?	?	438	318	260	139	51	0	0	0	0	0	0	1833 ?
21	0	0	0	0	0	0	9	25	38	102	105	55	107	186	160	54	16	4	0	0	0	0	0	0	862
22	0	0	0	0	0	0	23	90	293 ?	407 ?	429 ?	428	602 ?	453	322 ?	?	?	54	0	0	0	0	0	0	3102 ?
23	0	0	0	0	0	2	48	213 ?	359 ?	?	?	?	?	?	?	362 ?	137 ?	29	0	0	0	0	0	0	1151 ?
24	0	0	0	0	0	4	54	174	349 ?	496 ?	545 ?	606 ?	512 ?	?	357 ?	234	59	25	0	0	0	0	0	0	3416 ?
25	0	0	0	0	0	2	51	233 ?	336 ?	?	?	?	?	?	?	363 ?	127 ?	40	0	0	0	0	0	0	1153 ?
26	0	0	0	0	0	1	44	140 ?	334 ?	?	?	437 ?	486 ?	379 ?	318 ?	237 ?	147 ?	47	0	0	0	0	0	0	2570 ?
27	0	0	0	0	0	0	48	229 ?	?	?	?	?	?	465 ?	491 ?	?	122 ?	44	0	0	0	0	0	0	1400 ?
28	0	0	0	0	0	0	66	?	?	?	?	?	?	?	?	?	?	52	0	0	0	0	0	0	118 ?
29	0	0	0	0	0	0	60	?	?	?	?	?	?	?	?	?	?	48	0	0	0	0	0	0	108 ?
30	0	0	0	0	0	0	61	?	?	?	?	?	?	?	?	?	103 ?	32	0	0	0	0	0	0	197 ?
Avg	0	0	0	0	0	4	60	190	292	365	360	399	453	412	380	295	158	49	3	0	0	0	0	0	1698 ?
S D	0	0	0	0	0	3	21	75	120	135	170	171	154	136	100	92	55	18	5	0	0	0	0	0	1075
S/A	0	0	0	0	0	0.78	0.35	0.4	0.41	0.37	0.47	0.43	0.34	0.33	0.26	0.31	0.35	0.38	1.75	0	0	0	0	0	0.63
Min	0	0	0	0	0	0	9	25	38	102	105	55	107	84	160	54	16	4	0	0	0	0	0	0	108
Max	0	0	0	0	0	10	96	272	418	537	558	620	602	610	536	409	248	87	17	0	0	0	0	0	3416
n	0	0	0	0	0	97	349	189	95	81	77	90	73	107	135	140	179	318	42	0	0	0	0	0	1991

Daylight Data Recovery: 0.0% missing; 55.2% exceed the 15% QC threshold -- 4440 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.