

September 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	2	16	93	261	593	619	576	734	412	696	349	328	118	24	0	0	0	0	0	4821
2	0	0	0	0	0	3	53	233	427	614	582	664	519	513	602	436	244	141	15	0	0	0	0	0	5047
3	0	0	0	0	0	2	52	202	378 ?	585	489	760	537	206	573	508	277	159	26	0	0	0	0	0	4755
4	0	0	0	0	0	2	48	195	323	367	425	602	537	585	574	450	343	180	26	0	0	0	0	0	4660
5	0	0	0	0	0	0	60	298 ?	444 ?	630	784	873	892	849	749	586	390	178	19	0	0	0	0	0	6751
6	0	0	0	0	0	0	57	235	427	622	763	848	866	820	711	548	361	164	19	0	0	0	0	0	6440
7	0	0	0	0	0	0	50	222	410	599	737	833	874	854	671	524	279	142	17	0	0	0	0	0	6211
8	0	0	0	0	0	0	48	219	407	593	732	811	848	817	722	469	335	133	15	0	0	0	0	0	6148
9	0	0	0	0	0	0	49	221	416	613	756	847	865	823	714	555	360	163	17	0	0	0	0	0	6399
10	0	0	0	0	0	0	56	233	418	618	759	847	868	814	712	550	351	140	13	0	0	0	0	0	6379
11	0	0	0	0	0	0	29	74	127	96	128	254	449	749	697	546	352	154	10	0	0	0	0	0	3664
12	0	0	0	0	0	0	59	288 ?	460	615	761	843	855	810	698	536	335	137	9	0	0	0	0	0	6406
13	0	0	0	0	0	0	49	203	389	588	726	746	455	663	481	321	204	121	11	0	0	0	0	0	4957
14	0	0	0	0	0	0	6	51	122	130	143	293	408	322	515	260	151	16 ?	15	0	0	0	0	0	2433
15	0	0	0	0	0	0	6	34	73	134	142	180	338	305	135	64	52	35	16	0	0	0	0	0	1514
16	0	0	0	0	0	0	7	63	161	278	435	337	415	502	260	478	264	88	17	0	0	0	0	0	3305
17	0	0	0	0	0	0	35	135	258	501	436	587	628	662	511	394	309	89	10	0	0	0	0	0	4556
18	0	0	0	0	0	0	24	88	309	354	699	555	717	553	397	278	123	47	42	0	0	0	0	0	4187
19	0	0	0	0	0	0	23	103	342	528	463	754	737	767	478	530	306	86	13	0	0	0	0	0	5130
20	0	0	0	0	0	0	33	152	315	468	708	730	512	432	442	438	151	45	17	0	0	0	0	0	4442
21	0	0	0	0	0	0	6	60	140	265	390	170	151	177	157	58 ?	138	36	7	0	0	0	0	0	1756
22	0	0	0	0	0	0	23	83	145	330	342	176	271	288	81 ?	?	34 ?	16	2	0	0	0	0	0	1791 ?
23	0	0	0	0	0	0	8	72	186	443	756	799	813	760	643	477	253	90	9	0	0	0	0	0	5310
24	0	0	0	0	0	0	20	143	309	243	269	323	600	498	386	333	188	50	3	0	0	0	0	0	3363
25	0	0	0	0	0	0	10	48	116	310	396	258	320	210	155	91	45	16	1	0	0	0	0	0	1978
26	0	0	0	0	0	0	4	10 ?	47 ?	46 ?	71	148	110	73	54 ?	?	27 ?	8 ?	2	0	0	0	0	0	600 ?
27	0	0	0	0	0	0	17	79	196	181	341	316	261	423	438	105	43	4 ?	1	0	0	0	0	0	2407
28	0	0	0	0	0	0	9	62	135	288	628	651	786	731	614	453	259	72	1	0	0	0	0	0	4689
29	0	0	0	0	0	0	28	104 ?	?	?	706 ?	755	705	599	594	444	265	65	2	0	0	0	0	0	4266 ?
30	0	0	0	0	0	0	27	163	?	?	?	?	?	?	?	?	?	53	2	0	0	0	0	0	246 ?
Avg	0	0	0	0	0	0	30	139	276	415	524	570	589	559	499	399	233	92	13	0	0	0	0	0	4154
S D	0	0	0	0	0	1	19	81	131	192	227	257	238	236	215	161	115	57	9	0	0	0	0	0	1849
S/A	0	0	0	0	0	2.64	0.64	0.58	0.47	0.46	0.43	0.45	0.4	0.42	0.43	0.4	0.49	0.62	0.73	0	0	0	0	0	0.45
Min	0	0	0	0	0	0	4	10	47	46	71	148	110	73	54	58	27	4	1	0	0	0	0	0	246
Max	0	0	0	0	0	3	60	298	460	630	784	873	892	854	749	586	390	180	42	0	0	0	0	0	6751
n	0	0	0	0	0	4	320	324	315	330	338	347	348	348	332	315	333	345	167	0	0	0	0	0	4166

Daylight Data Recovery: 0.0% missing; 6.4% exceed the 15% QC threshold -- 4452 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.

September 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	0	0	0	48	475	393	403	457	101	606	286	397	221	52	0	0	0	0	0	3440
2	0	0	0	0	0	0	153	581	726	739	421	509	281	354	460	360	259	286	7	0	0	0	0	0	5135
3	0	0	0	0	0	0	123	392	583 ?	657	285	570	329	43	520	552	387	303	41	0	0	0	0	0	4785
4	0	0	0	0	0	1	80	256	219	71	83	294	240	332	380	434	568	543	67	0	0	0	0	0	3566
5	0	0	0	0	0	0	188	777 ?	876 ?	917	958	976	973	969	963	921	839	657	79	0	0	0	0	0	10095
6	0	0	0	0	0	0	279	693	825	893	934	948	945	930	898	830	732	544	60	0	0	0	0	0	9510
7	0	0	0	0	0	0	203	595	744	828	860	867	873	835	666	621	404	325	1	0	0	0	0	0	7824
8	0	0	0	0	0	0	209	590	744	812	856	861	866	887	890	599	513	415	37	0	0	0	0	0	8280
9	0	0	0	0	0	0	239	657	804	892	943	966	966	963	938	877	774	617	50	0	0	0	0	0	9687
10	0	0	0	0	0	0	263	728	869	934	963	981	985	960	947	896	776	494	36	0	0	0	0	0	9831
11	0	0	0	0	0	0	26	17	3	1	1	17	243	691	834	846	776	599	34	0	0	0	0	0	4088
12	0	0	0	0	0	0	314	827 ?	814	855	967	975	968	958	936	885	776	538	16	0	0	0	0	0	9829
13	0	0	0	0	0	0	177	525	700	791	845	690	190	433	247	98	62	116	0	0	0	0	0	0	4875
14	0	0	0	0	0	0	0	0	1	1	1	0	5	21	24	212	34	18	0	0	0	0	0	0	318
15	0	0	0	0	0	0	0	1	1	1	2	2	4	3	1	0	0	0	0	0	0	0	0	0	14
16	0	0	0	0	0	0	0	1	3	72	121	75	149	157	95	441	289	80	0	0	0	0	0	0	1482
17	0	0	0	0	0	0	0	3	60	283	108	221	343	390	290	306	342	49	0	0	0	0	0	0	2394
18	0	0	0	0	0	0	2	14	255	122	470	183	325	215	149	42	11	0	0	0	0	0	0	0	1788
19	0	0	0	0	0	0	8	89	395	353	228	544	530	675	179	405	223	90	0	0	0	0	0	0	3719
20	0	0	0	0	0	0	42	236	267	293	521	480	114	167	211	406	61	6	0	0	0	0	0	0	2805
21	0	0	0	0	0	0	0	1	2	18	53	1	0	2	2	0	19	1	0	0	0	0	0	0	99
22	0	0	0	0	0	0	1	6	2	26	17	2	2	4	0	0	0	0	0	0	0	0	0	0	59
23	0	0	0	0	0	0	0	0	7	250	856	912	941	919	821	789	493	341	0	0	0	0	0	0	6331
24	0	0	0	0	0	0	0	119	206	26	11	54	281	215	179	189	149	2	0	0	0	0	0	0	1431
25	0	0	0	0	0	0	0	0	0	43	62	3	3	1	0	0	0	0	0	0	0	0	0	0	112
26	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
27	0	0	0	0	0	0	1	11	86	12	73	31	14	238	351	0	0	0	0	0	0	0	0	0	817
28	0	0	0	0	0	0	0	1	1	26	390	482	839	933	909	850	706	344	0	0	0	0	0	0	5479
29	0	0	0	0	0	0	38	132 ?	?	?	867 ?	905	739	596	772	802	640	311	0	0	0	0	0	0	5802 ?
30	0	0	0	0	0	0	58	302	406 ?	?	?	?	?	?	?	?	?	36	0	0	0	0	0	0	803 ?
Avg	0	0	0	0	0	0	80	252	333	371	424	447	435	448	464	430	352	231	16	0	0	0	0	0	4147
S/D	0	0	0	0	0	0	104	296	345	372	385	388	378	379	359	346	305	232	25	0	0	0	0	0	3463
S/A	0	0	0	0	0	5.48	1.3	1.18	1.04	1	0.91	0.87	0.87	0.85	0.77	0.8	0.87	1.01	1.54	0	0	0	0	0	0.84
Min	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
Max	0	0	0	0	0	1	314	827	876	934	967	981	985	969	963	921	839	657	79	0	0	0	0	0	10095
n	0	0	0	0	0	4	320	336	325	336	340	348	348	348	348	348	348	360	168	0	0	0	0	0	4277

Daylight Data Recovery: 0.0% missing; 3.9% exceed the 15% QC threshold -- 4452 total daylight measurements.

Instrument: Eppley NIP Serial Number: 17664E6 Calibration Factor: 8.480 $\mu\text{V}/\text{W}/\text{m}^2$ 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 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	2	17	101	243	272	311	221	328	334	254	191	163	62	19	0	0	0	0	0	2518
2	0	0	0	0	0	?	33	74	95	152	269	253	290	235	281	229	145	76	16	0	0	0	0	0	2148
3	0	0	0	0	0	?	37	105	143 ?	182	286	294	270	177	210	186	125	91	22	0	0	0	0	0	2129
4	0	0	0	0	0	?	38	128	233	330	367	365	347	328	307	202	114	61	20	0	0	0	0	0	2841
5	0	0	0	0	0	0	26	51	58	64	75	82	85	79	69	58	49	36	12	0	0	0	0	0	744
6	0	0	0	0	0	0	25	52	64	73	77	83	85	84	80	76	67	49	14	0	0	0	0	0	828
7	0	0	0	0	0	0	28	65	83	94	109	139	161	203	209	178	125	74	18	0	0	0	0	0	1487
8	0	0	0	0	0	0	26	66	84	100	109	123	141	126	107	125	128	52	12	0	0	0	0	0	1200
9	0	0	0	0	0	0	23	54	68	72	72	77	78	74	67	69	60	40	14	0	0	0	0	0	769
10	0	0	0	0	0	0	20	44	50	58	64	68	69	71	63	57	52	41	11	0	0	0	0	0	668
11	0	0	0	0	0	0	29	75	134	104	123	236	257	209	126	78	55	36	9	0	0	0	0	0	1471
12	0	0	0	0	0	0	25	45 ?	78	87	68	72	75	73	66	58	48	33	9	0	0	0	0	0	737
13	0	0	0	0	0	0	30	74	95	118	124	204	299	326	310	271	187	103	11	0	0	0	0	0	2151
14	0	0	0	0	0	0	6	55	131	142	156	308	405	311	369	245	123	15	15	0	0	0	0	0	2280
15	0	0	0	0	0	0	5	30	78	144	150	195	363	327	143	64	51	37	17	0	0	0	0	0	1605
16	0	0	0	0	0	0	8	67	170	253	334	284	288	393	205	243	156	76	15	0	0	0	0	0	2492
17	0	0	0	0	0	0	40	140	242	342	359	419	350	367	321	234	187	76	8	0	0	0	0	0	3084
18	0	0	0	0	0	0	24	87	199	280	370	414	468	396	299	266	120	47	32 ?	0	0	0	0	0	3002
19	0	0	0	0	0	0	23	75	160	322	309	342	328	266	356	328	233	76	14	0	0	0	0	0	2832
20	0	0	0	0	0	0	27	98	194	289	342	366	431	317	313	240	132	47	18	0	0	0	0	0	2813
21	0	0	0	0	0	0	6	64	151	270	369	186	163	187	162	53 ?	141	38	7	0	0	0	0	0	1797
22	0	0	0	0	0	0	27	86	157	333	353	187	298	304	72 ?	?	34 ?	16	2	0	0	0	0	0	1869 ?
23	0	0	0	0	0	0	8	76	193	280	167	115	95	94	123	90	86	39	9	0	0	0	0	0	1375
24	0	0	0	0	0	0	21	113	226	239	281	292	371	336	270	246	136	52	3	0	0	0	0	0	2586
25	0	0	0	0	0	0	11	52	125	294	367	276	343	228	167	98	48	17	1	0	0	0	0	0	2027
26	0	0	0	0	0	0	4	12 ?	32	43	73	153	114	75	41	29 ?	28	10	2	0	0	0	0	0	615
27	0	0	0	0	0	0	20	78	164	182	299	305	260	256	207	99	43	3 ?	1	0	0	0	0	0	1918
28	0	0	0	0	0	0	10	66	144	280	347	285	159	84	68	58	48	25	1	0	0	0	0	0	1576
29	0	0	0	0	0	0	17	38 ?	?	?	92 ?	103	159	179	141	78	83	25	2	0	0	0	0	0	917 ?
30	0	0	0	0	0	0	17	56	76 ?	?	?	?	?	?	?	?	?	36	3	0	0	0	0	0	189 ?
Avg	0	0	0	0	0	0	21	71	134	193	221	222	244	222	186	148	102	46	11	0	0	0	0	0	1756
S D	0	0	0	0	0	0	10	28	62	101	120	108	121	111	103	89	54	25	8	0	0	0	0	0	823
S/A	0	0	0	0	0	5.2	0.49	0.4	0.46	0.52	0.54	0.48	0.5	0.5	0.55	0.6	0.53	0.53	0.67	0	0	0	0	0	0.47
Min	0	0	0	0	0	0	4	12	32	43	64	68	69	71	41	29	28	3	1	0	0	0	0	0	189
Max	0	0	0	0	0	2	40	140	243	342	370	419	468	396	369	328	233	103	32	0	0	0	0	0	3084
n	0	0	0	0	0	1	311	341	332	336	340	348	348	348	342	326	342	355	166	0	0	0	0	0	4236

Daylight Data Recovery: 0.0% missing; 4.9% exceed the 15% QC threshold -- 4452 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.