

May 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	34	56	174	421 ?	437 ?	498 ?	502 ?	?	437 ?	356	238 ?	91	12	0	0	0	0	0	3260 ?
2	0	0	0	0	0	9	88	263	238	402	459	234	45	32	38	30	15	52	1	2	0	0	0	0	1906
3	0	0	0	0	0	15	86	148	272	586	836	644	763	466	243	220	138	83	21	4	0	0	0	0	4526
4	0	0	0	0	0	6	33	99	175	275	281	146	98	122	83	66	60	52	11	1	0	0	0	0	1509
5	0	0	0	0	0	11	87	254 ?	537	728	889	966	989	943	836	675	478	268	65	3	0	0	0	0	7727
6	0	0	0	0	0	27	144	333	402	722	750	577	6	581	710	382	230	141	51	6	2	0	0	0	5059
7	0	0	0	0	0	11	81	172	214	358	460	615	518	345	204	154	69	92	69	4	0	0	0	0	3367
8	0	0	0	0	0	34	132	130	207	494	553	330	568	460	589	437	376	210	62	2	0	0	0	0	4585
9	0	0	0	0	0	19	138	283	383	608	655	763	775	268	122	89	266	229	26	7	0	0	0	0	4631
10	0	0	0	0	0	17	58	144	258	316	537	592	629	444	501	557	255	170	43	2	0	0	0	0	4522
11	0	0	0	0	0	23	105	132	430	372	858	965	827	951	837	668	462	236	59	9	0	0	0	0	6933
12	0	0	0	0	0	22	151	252	429	607	708	658	679	575	689	579	341	168	74	7	0	0	0	0	5939
13	0	0	0	0	0	7	85	227	231	122	374	247	177	119	40	133	373	40	8	1	0	0	0	0	2183
14	0	0	0	0	0	4	34	111	125	100	203	289	315	473 ?	313 ?	206 ?	142 ?	145 ?	49	9	0	0	0	0	2518 ?
15	0	0	0	0	0	28	129 ?	?	?	?	?	?	?	?	?	?	?	?	33 ?	4	0	0	0	0	194 ?
16	0	0	0	0	0	22	117	193	330	437	485 ?	466	594 ?	?	?	440 ?	?	?	31 ?	3	0	0	0	0	3118 ?
17	0	0	0	0	0	19	43	158	381 ?	448	483 ?	569 ?	485 ?	413	355 ?	427	212	129	100	11	0	0	0	0	4233 ?
18	0	0	0	0	0	2	10	20	42	77	88	114	136	134	195	161	203 ?	102 ?	49	9	0	0	0	0	1341
19	0	0	0	0	0	26	140	?	?	344 ?	?	427 ?	427 ?	365 ?	364 ?	261	205 ?	116	72	6	0	0	0	0	2753 ?
20	0	0	0	0	0	63	226 ?	372 ?	?	435 ?	559 ?	440 ?	344	308	200	319	172	89	45	4	0	0	0	0	3576 ?
21	0	0	0	0	0	16	62	204	285	305	310	660	182	161	300	434	?	137 ?	56	7	0	0	0	0	3118 ?
22	0	0	0	0	0	57	131 ?	?	?	?	961 ?	994 ?	?	?	840 ?	709	586 ?	?	34 ?	8	0	0	0	0	4319 ?
23	0	0	0	0	0	36	184	387	587	775	912	996	1017 ?	919 ?	857	708	511	304	94	7	0	0	0	0	8294
24	0	0	0	0	0	34	182	376	574	758	884	973	849	932	794	527	493	314	97	10	0	0	0	0	7797
25	0	0	0	0	0	33	158	336	532	699	879	969	1014	959	853	716	390	257	93	9	0	0	0	0	7896
26	0	0	0	0	0	23	156	363	576	664	711	780	901	937	744	658	377	184	31	4	0	0	0	0	7109
27	0	0	0	0	0	15	122	279	512	729	407	190	467	940	221	372	430	94	50	9	0	0	0	0	4835
28	0	0	0	0	0	13	130	375	517	635	615	264	233	347	530	453	434	226	66	16	347	0	0	0	4852
29	0	0	0	0	0	37	182	383	580	744	876	972	891	843	708	582	267	279	92	10	0	0	0	0	7447
30	0	0	0	0	0	24	155	239	500	662	728	870	983	894	602	221	299	115	64	10	0	0	0	0	6365
31	0	0	0	0	0	40	185	371	565	734	686	858	908	933	801	496	510	291	105	11	0	0	0	0	7492
Avg	0	0	0	0	0	22	115	238	372	502	606	602	583	555	472	396	301	162	52	6	0	0	0	0	4626 ?
S D	0	0	0	0	0	15	54	110	164	211	234	290	303	323	280	213	155	86	30	4	0	0	0	0	2216
S/A	0	0	0	0	0	0.65	0.47	0.46	0.44	0.42	0.39	0.48	0.52	0.58	0.59	0.54	0.51	0.53	0.58	0.62	0	0	0	0	0.48
Min	0	0	0	0	0	2	10	20	42	77	88	114	45	32	38	30	15	40	1	0	0	0	0	0	194
Max	0	0	0	0	0	63	226	387	587	775	961	996	1017	959	857	716	586	314	105	16	0	0	0	0	8294
n	0	0	0	0	0	276	347	326	319	326	315	325	313	308	314	344	306	320	353	145	0	0	0	0	4640

Daylight Data Recovery: 0.0% missing; 11.7% exceed the 15% QC threshold -- 5257 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.

May 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	0	1 ?	0 ?	1 ?	1 ?	?	1 ?	1	0 ?	0	0	0	0	0	0	0	0	5 ?		
2	0	0	0	0	0	0	37	142	80	114	105	10	0	1	0	1	0	0	0	0	0	0	0	0	0	491		
3	0	0	0	0	0	0	12	4	35	319	746	164	318	34	2	1	0	0	0	0	0	0	0	0	0	1635		
4	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4		
5	0	0	0	0	0	0	47	410 ?	767	922	939	932	931	921	892	850	777	642	197	0	0	0	0	0	0	9228		
6	0	0	0	0	0	94	447	550	200	718	487	76	98	258	37	0	0	0	0	0	0	0	0	0	0	2966		
7	0	0	0	0	0	0	41	82	29	96	83	155	64	14	3	0	0	2	30	0	0	0	0	0	0	600		
8	0	0	0	0	0	5	146	4	9	161	136	6	83	54	202	132	308	282	99	0	0	0	0	0	0	1627		
9	0	0	0	0	0	18	271	252	223	453	415	576	476	77	0	0	149	249	0	0	0	0	0	0	0	3160		
10	0	0	0	0	0	0	1	31	12	26	63	100	116	26	102	340	23	58	0	0	0	0	0	0	0	898		
11	0	0	0	0	0	30	39	1	461	100	722	843	533	605	795	748	648	395	25	0	0	0	0	0	0	5945		
12	0	0	0	0	0	4	165	177	261	382	378	228	205	110	333	371	125	64	57	0	0	0	0	0	0	2860		
13	0	0	0	0	0	1	5	43	25	1	38	2	0	0	0	1	144	0	0	0	0	0	0	0	0	261		
14	0	0	0	0	0	0	0	0	0	0	0	0	0	1 ?	1 ?	0 ?	0 ?	1 ?	0	0	0	0	0	0	0	0	3 ?	
15	0	0	0	0	0	1	4 ?	?	?	?	?	?	?	?	?	?	?	?	?	1 ?	0	0	0	0	0	0	5 ?	
16	0	0	0	0	0	0	0	0	0	1	1 ?	1	1 ?	?	?	1 ?	?	?	?	1 ?	0	0	0	0	0	0	6 ?	
17	0	0	0	0	0	0	0	0	1 ?	0	1 ?	1 ?	1 ?	0	1 ?	1	1	0	1	0	0	0	0	0	0	0	7 ?	
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 ?	0 ?	7	0	0	0	0	0	0	0	8	
19	0	0	0	0	0	0	0	?	?	1 ?	?	4 ?	0 ?	2 ?	0	0	0 ?	11	32	0	0	0	0	0	0	0	51 ?	
20	0	0	0	0	0	71	561 ?	783 ?	?	145 ?	148 ?	111	25	15	1	6	1	0	0	0	0	0	0	0	0	0	1867 ?	
21	0	0	0	0	0	2	0	15	8	2	8	118	2	1	3	64	?	28 ?	2	0	0	0	0	0	0	0	251 ?	
22	0	0	0	0	0	11	32 ?	?	?	?	822 ?	843 ?	?	?	768 ?	744	727 ?	?	6 ?	0	0	0	0	0	0	0	3953 ?	
23	0	0	0	0	0	199	622	794	869	918	935	960	945 ?	857 ?	864	887	810	692	304	0	0	0	0	0	0	0	10656	
24	0	0	0	0	0	147	540	690	777	851	849	821	553	730	656	387	656	630	262	0	0	0	0	0	0	0	8547	
25	0	0	0	0	0	63	407	577	565	694	843	868	910	904	856	808	334	202	117	0	0	0	0	0	0	0	8149	
26	0	0	0	0	0	6	244	497	502	490	444	519	612	714	506	608	282	82	1	0	0	0	0	0	0	0	5506	
27	0	0	0	0	0	1	224	328	540	666	130	0	181	599	4	137	409	6	0	0	0	0	0	0	0	0	3226	
28	0	0	0	0	0	0	75	349	443	303	193	3	4	13	133	166	294	179	25	0	0	0	0	0	0	0	2180	
29	0	0	0	0	0	190	532	698	791	829	841	804	682	704	564	449	107	373	152	0	0	0	0	0	0	0	7715	
30	0	0	0	0	0	37	270	186	541	464	548	607	716	671	371	30	135	81	47	0	0	0	0	0	0	0	4703	
31	0	0	0	0	0	182	515	656	728	767	492	621	649	736	658	402	644	470	228	0	0	0	0	0	0	0	7747	
Avg	0	0	0	0	0	34	169	260	291	325	358	312	279	298	267	238	235	159	51	0	0	0	0	0	0	0	3041 ?	
S D	0	0	0	0	0	62	211	285	313	335	346	365	334	359	337	310	281	222	87	0	0	0	0	0	0	0	3301	
S/A	0	0	0	0	0	1.8	1.25	1.1	1.07	1.03	0.97	1.17	1.19	1.2	1.26	1.3	1.2	1.4	1.69	0	0	0	0	0	0	0	1.09	
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	0	0	3	
Max	0	0	0	0	0	199	622	794	869	922	939	960	945	921	892	887	810	692	304	0	0	0	0	0	0	0	0	10656
n	0	0	0	0	0	276	348	326	319	327	315	328	314	310	315	344	307	320	353	145	0	0	0	0	0	0	0	4650

Daylight Data Recovery: 0.0% missing; 11.5% exceed the 15% QC threshold -- 5257 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.

May 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	30	50	153	351 ?	386 ?	417 ?	482 ?	?	344 ?	292	217 ?	81	10	0	0	0	0	0	2815 ?	
2	0	0	0	0	0	8	81	211	196	331	366	211	40	28	33	27	13	46	1	2	0	0	0	0	1594	
3	0	0	0	0	0	13	77	131	249	342	203	503	456	409	216	196	123	74	19	4	0	0	0	0	3015	
4	0	0	0	0	0	5	28	88	153	236	249	135	89	108	73	58	52	44	10	1	0	0	0	0	1330	
5	0	0	0	0	0	9	74	148 ?	108	89	105	120	123	117	113	103	89	71	32	3	0	0	0	0	1304	
6	0	0	0	0	0	21	63	131	285	193	333	515	470	457	328	204	126	44	5	1	0	0	0	0	3177	
7	0	0	0	0	0	10	71	139	195	290	395	486	460	310	186	137	61	80	61	4	0	0	0	0	2887	
8	0	0	0	0	0	33	113	114	192	364	445	287	487	404	435	340	234	133	46	2	0	0	0	0	3628	
9	0	0	0	0	0	16	91	197	266	281	299	235	338	193	109	79	174	149	23	6	0	0	0	0	2457	
10	0	0	0	0	0	15	51	123	226	279	481	509	525	412	420	318	220	146	38	2	0	0	0	0	3762	
11	0	0	0	0	0	20	94	117	160	281	251	209	328	413	208	172	140	106	53	7	0	0	0	0	2561	
12	0	0	0	0	0	19	122	183	291	327	394	470	490	477	425	333	288	146	67	6	0	0	0	0	4037	
13	0	0	0	0	0	6	74	190	203	109	318	218	157	106	35	117	288	36	7	1	0	0	0	0	1864	
14	0	0	0	0	0	4	29	99	109	88	181	259	279	398 ?	258 ?	181 ?	125 ?	118 ?	41	8	0	0	0	0	2178 ?	
15	0	0	0	0	0	23	49 ?	?	?	?	?	?	?	?	?	?	?	?	?	21 ?	4	0	0	0	0	96 ?
16	0	0	0	0	0	21	106	168	312	396	423 ?	404	536 ?	?	?	393 ?	?	?	?	24 ?	2	0	0	0	0	2785 ?
17	0	0	0	0	0	17	38	137	333 ?	383	438 ?	460 ?	388 ?	370	284 ?	362	177	113	83	10	0	0	0	0	3594 ?	
18	0	0	0	0	0	1	9	17	37	67	77	100	119	117	170	140	179 ?	87 ?	42	8	0	0	0	0	1172	
19	0	0	0	0	0	25	116	?	?	276 ?	?	384 ?	374 ?	323 ?	339	231	181 ?	101	58	6	0	0	0	0	2413 ?	
20	0	0	0	0	0	26	72 ?	84 ?	?	235 ?	348 ?	347	278	272	174	281	158	78	39	3	0	0	0	0	2395 ?	
21	0	0	0	0	0	13	54	184	252	265	270	517	159	141	267	370	?	108 ?	49	6	0	0	0	0	2655 ?	
22	0	0	0	0	0	26	66 ?	?	?	?	98 ?	99 ?	?	?	104 ?	101	93 ?	?	24 ?	7	0	0	0	0	618 ?	
23	0	0	0	0	0	24	61	76	86	102	118	118	105 ?	147 ?	143	98	89	75	39	7	0	0	0	0	1287	
24	0	0	0	0	0	25	71	99	121	133	163	219	312	271	253	253	148	109	50	9	0	0	0	0	2233	
25	0	0	0	0	0	27	88	133	203	179	163	173	161	143	152	160	211	206	70	8	0	0	0	0	2077	
26	0	0	0	0	0	20	103	164	286	306	342	308	333	305	338	240	223	149	27	3	0	0	0	0	3148	
27	0	0	0	0	0	13	78	166	214	243	283	170	275	351	197	257	200	81	44	8	0	0	0	0	2580	
28	0	0	0	0	0	11	105	238	256	391	441	235	207	309	410	338	283	167	61	14	0	0	0	0	3466	
29	0	0	0	0	0	26	70	95	112	134	169	245	250	202	241	264	194	149	62	9	0	0	0	0	2221	
30	0	0	0	0	0	22	91	158	165	292	262	310	313	287	283	181	217	88	54	9	0	0	0	0	2733	
31	0	0	0	0	0	27	73	104	137	167	269	289	298	268	258	218	171	134	62	10	0	0	0	0	2486	
Avg	0	0	0	0	0	17	73	134	196	246	285	298	305	272	234	215	167	104	39	5	0	0	0	0	0	2405 ?
S D	0	0	0	0	0	9	28	50	76	100	117	138	145	126	115	101	71	42	21	3	0	0	0	0	0	925
S/A	0	0	0	0	0	0.5	0.38	0.37	0.38	0.41	0.41	0.46	0.48	0.46	0.49	0.47	0.42	0.4	0.54	0.61	0	0	0	0	0	0.38
Min	0	0	0	0	0	1	9	17	37	67	77	99	40	28	33	27	13	36	1	0	0	0	0	0	0	96
Max	0	0	0	0	0	33	122	238	333	396	481	517	536	477	435	393	288	206	83	14	0	0	0	0	0	4037
n	0	0	0	0	0	274	348	326	319	327	315	328	313	310	315	344	307	320	353	145	0	0	0	0	0	4647

Daylight Data Recovery: 0.0% missing; 11.6% exceed the 15% QC threshold -- 5257 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.