

May 2004

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	13	65	140	213	166	413	456	537	386	329	464	340	149	38	8	0	0	0	0	3718
2	0	0	0	0	0	32	50	103	488	523	693	206	215	231	87 ?	182	79	36	16	4	0	0	0	0	2945
3	0	0	0	0	0	2	22	57	115	153	159	166	179	184	301	371	342	128	51	5	0	0	0	0	2234
4	0	0	0	0	0	19	178	359	558	730	863	904	881	917	832	674	478	269	67	4	0	0	0	0	7734
5	0	0	0	0	0	6	21	91	172	336	257	360	764	883	874	671	477	252	65	4	0	0	0	0	5231
6	0	0	0	0	0	19	140	325	498	467	431	995	946	675	726	626	433	253	60	7	0	0	0	0	6602
7	0	0	0	0	0	15	136	336	536	711	848	937	856	884	799	646	457	226	60	5	0	0	0	0	7450
8	0	0	0	0	0	16	130	316	465	688	707	744	641	737	638	575	451	303	67	6	0	0	0	0	6482
9	0	0	0	0	0	17	136	337	540	715	802	740	819	691	548	557	349	241	58	3	0	0	0	0	6553
10	0	0	0	0	0	20	142	338	425	612	769	742	603	533	342	391	209 ?	?	3 ?	1	0	0	0	0	5131 ?
11	0	0	0	0	0	21	93 ?	301 ?	534	678	843	549	775	746	185	90	133	116	25	2	0	0	0	0	5090
12	0	0	0	0	0	22	135	304	536	655	667	369	711	688	303	454	395	273	44	2	0	0	0	0	5558
13	0	0	0	0	0	20	144	207	278	485	622	298	825	476	289	170	162	216	44	8	0	0	0	0	4243
14	0	0	0	0	0	26	90	126	282	599	780	945	749	635	725	508	324	117	49	5	0	0	0	0	5959
15	0	0	0	0	0	9	59	260	400	565	847	867	877	905	678	293	276	163	36	6	0	0	0	0	6241
16	0	0	0	0	0	32	85	245	270	425	292	681	326	598	487	500	321	149	27	3	0	0	0	0	4443
17	0	0	0	0	0	13	68	134	432	675	594	463	436	657	133 ?	342	257	106	54	18	0	0	0	0	4384
18	0	0	0	0	0	30	119	202	484	467	508	519	290	589	145	626	459	260	73	2	0	0	0	0	4774
19	0	0	0	0	0	6	84	321	135	116	260	529	706	740	369	542	438	177	37	12	0	0	0	0	4472
20	0	0	0	0	0	19	107	185	278	583	447	451	616	678	734	628	432	260	90	14	0	0	0	0	5521
21	0	0	0	0	0	18	75	264	338	479	647	653	539	507	677	579	415	248	68	5	0	0	0	0	5513
22	0	0	0	0	0	28	166	343	509	543	883	672	862	820	724	584	510	76	83	9	0	0	0	0	6812
23	0	0	0	0	0	31	135	309	296	446 ?	777	908	821	726	677	430	190	303	109	14	0	0	0	0	6173
24	0	0	0	0	0	37	165	359	553	491	431	489	427	500	617	561	435	164	116	23	0	0	0	0	5368
25	0	0	0	0	0	38	146	324	483	656	631	751	797	815	598	484	296	93 ?	29 ?	12	0	0	0	0	6152
26	0	0	0	0	0	15	94	169	56 ?	270	287	355	497	538	653	172 ?	82 ?	?	30	6	0	0	0	0	3223 ?
27	0	0	0	0	0	10	57	245	590	717	799	711	767	695	726	680	509	262	92	7	0	0	0	0	6869
28	0	0	0	0	0	5	34	53	140 ?	466	225	170	194	199	297	436	269	140	43	19	0	0	0	0	2689
29	0	0	0	0	0	14	52	239	414	622	826	873	911	909	841	706	466	215	86	11	0	0	0	0	7187
30	0	0	0	0	0	14	75	52 ?	122	157	436	499	206 ?	114	95	323	179	164	61	9	0	0	0	0	2506
31	0	0	0	0	0	2	30 ?	119	293	431	574	569	277	169	281	526	376	285	95	15	0	0	0	0	4042
Avg	0	0	0	0	0	18	98	231	369	504	591	599	615	607	507	477	340	195	57	8	0	0	0	0	5203
S D	0	0	0	0	0	10	46	102	160	181	223	240	246	234	248	168	128	74	27	5	0	0	0	0	1504
S/A	0	0	0	0	0	0.53	0.47	0.44	0.43	0.36	0.38	0.4	0.4	0.38	0.49	0.35	0.38	0.38	0.47	0.68	0	0	0	0	0.29
Min	0	0	0	0	0	2	21	52	56	116	159	166	179	114	87	90	79	36	3	1	0	0	0	0	2234
Max	0	0	0	0	0	38	178	359	590	730	883	995	946	917	874	706	510	303	116	23	0	0	0	0	7734
n	0	0	0	0	0	277	360	360	355	362	372	370	365	370	364	364	363	343	362	146	0	0	0	0	5133

Daylight Data Recovery: 0.0% missing; 2.4% exceed the 15% QC threshold -- 5260 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 2004

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	21	1	10	1	56	74	29	5	11	189	89	27	0	0	0	0	0	0	514
2	0	0	0	0	0	14	21	1	309	187	278	1	1	3	0	1	0	0	0	0	0	0	0	0	816
3	0	0	0	0	0	0	0	0	1	1	1	1	2	1	33	252	275	36	12	0	0	0	0	0	614
4	0	0	0	0	0	9	341	730	849	873	853	731	563	831	928	899	819	665	206	0	0	0	0	0	9297
5	0	0	0	0	0	0	0	0	4	18	6	33	439	709	797	694	667	513	174	0	0	0	0	0	4053
6	0	0	0	0	0	10	363	613	610	234	188	848	784	467	678	753	629	540	128	0	0	0	0	0	6844
7	0	0	0	0	0	39	432	670	779	846	884	896	594	734	850	818	717	452	146	0	0	0	0	0	8857
8	0	0	0	0	0	16	255	484	515	699	480	429	363	502	471	538	565	593	180	0	0	0	0	0	6090
9	0	0	0	0	0	53	414	684	803	851	787	578	618	483	423	555	439	456	96	0	0	0	0	0	7240
10	0	0	0	0	0	44	360	544	314	511	580	458	173	196	84	174	43	0	0	0	0	0	0	0	3481
11	0	0	0	0	0	7	147 ?	541 ?	576	640	688	248	526	444	1	0	1	0	0	0	0	0	0	0	3817
12	0	0	0	0	0	11	285	542	574	592	469	145	476	431	62	330	332	504	73	0	0	0	0	0	4826
13	0	0	0	0	0	3	174	14	8	253	252	10	439	103	23	1	1	76	2	0	0	0	0	0	1358
14	0	0	0	0	0	17	77	19	77	530	618	733	443	200	475	328	282	38	5	0	0	0	0	0	3843
15	0	0	0	0	0	0	1	95	40	78	288	380	656	775	517	92	147	67	1	0	0	0	0	0	3137
16	0	0	0	0	0	17	21	120	9	24	17	270	54	206	162	356	154	105	0	0	0	0	0	0	1515
17	0	0	0	0	0	0	1	4	257	499	311	158	99	260	3	73	182	10	0	0	0	0	0	0	1857
18	0	0	0	0	0	17	47	74	451	241	164	135	3	288	0	382	394	235	29	0	0	0	0	0	2461
19	0	0	0	0	0	0	8	318	6	1	12	60	245	435	102	445	467	190	10	0	0	0	0	0	2298
20	0	0	0	0	0	1	39	114	102	458	172	203	314	370	612	638	464	341	111	0	0	0	0	0	3940
21	0	0	0	0	0	2	6	119	90	267	389	284	251	202	451	500	460	382	14	0	0	0	0	0	3418
22	0	0	0	0	0	88	455	657	557	363	732	411	584	634	568	479	629	18	47	0	0	0	0	0	6221
23	0	0	0	0	0	36	202	278	116	166	504	626	442	423	364	244	64	175	114	0	0	0	0	0	3756
24	0	0	0	0	0	110	412	590	681	236	129	113	4	149	316	422	458	162	67	0	0	0	0	0	3850
25	0	0	0	0	0	48	306	465	457	512	295	321	425	520	294	222	153	23	1	1	0	0	0	0	4043
26	0	0	0	0	0	1	61	47	0	16	12	47	105	120	229	1	1	0	0	0	0	0	0	0	639
27	0	0	0	0	0	0	0	252	723	549	517	376	440	400	498	662	690	335	143	0	0	0	0	0	5585
28	0	0	0	0	0	0	0	0	1	102	12	1	1	1	9	158	50	41	4	0	0	0	0	0	381
29	0	0	0	0	0	0	0	30	210	456	669	651	643	717	805	815	606	170	35	0	0	0	0	0	5806
30	0	0	0	0	0	0	8	0	1	6	27	32	0	1	0	19	6	23	2	0	0	0	0	0	127
31	0	0	0	0	0	0	0	1	25	64	130	296	5	1	44	156	166	381	166	0	0	0	0	0	1436
Avg	0	0	0	0	0	18	144	258	295	331	339	308	314	342	316	361	321	212	57	0	0	0	0	0	3617
S D	0	0	0	0	0	27	165	269	296	279	282	270	249	258	299	273	258	212	68	0	0	0	0	0	2488
S/A	0	0	0	0	0	1.54	1.15	1.04	1	0.84	0.83	0.88	0.8	0.75	0.95	0.76	0.81	1	1.2	2.85	0	0	0	0	0.69
Min	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	127
Max	0	0	0	0	0	110	455	730	849	873	884	896	784	831	928	899	819	665	206	1	0	0	0	0	9297
n	0	0	0	0	0	277	365	362	372	372	372	372	372	372	372	372	371	370	372	147	0	0	0	0	5240

Daylight Data Recovery: 0.0% missing; 0.4% exceed the 15% QC threshold -- 5260 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.

May 2004

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	14	68	153	222	183	384	404	529	411	342	342	315	147	40	9	0	0	0	0	3563
2	0	0	0	0	0	38 ?	51	110	310	396	481	207	231	246	84	194	83	37	16	3	0	0	0	0	2486
3	0	0	0	0	0	1	22	60	122	163	169	177	189	195	286	203	204	123	52	5	0	0	0	0	1972
4	0	0	0	0	0	17	71	94	99	120	165	235	329	190	110	94	86	73	37	5	0	0	0	0	1725
5	0	0	0	0	0	7	22	97	180	343	271	348	379	275	260	227	164	99	39	4	0	0	0	0	2714
6	0	0	0	0	0	23	72	106	164	305	286	245	247	256	197	136	126	93	41	7	0	0	0	0	2305
7	0	0	0	0	0	14	59	89	106	117	126	141	273	220	132	114	108	85	38	5	0	0	0	0	1626
8	0	0	0	0	0	17	76	134	176	199	314	373	312	306	283	228	191	128	40	7	0	0	0	0	2785
9	0	0	0	0	0	20	62	87	100	118	161	211	261	274	225	195	146	99	44	3	0	0	0	0	2006
10	0	0	0	0	0	24	78	145	255	246	293	332	456	366	288	287	180 ?	?	3 ?	1	0	0	0	0	2954 ?
11	0	0	0	0	0	21	70 ?	128 ?	211	223	284	333	312	366	194	96	143	122	25	1	0	0	0	0	2532
12	0	0	0	0	0	22	95	133	219	241	283	252	293	318	271	238	247	119	33	2	0	0	0	0	2766
13	0	0	0	0	0	23	122	214	289	298	398	305	424	392	289	177	174	196	46	8	0	0	0	0	3356
14	0	0	0	0	0	30	82	122	252	206	269	289	337	458	336	278	203	106	50	5	0	0	0	0	3025
15	0	0	0	0	0	10	64	225	386	507	568	480	264	219	261	240	203	150	37	6	0	0	0	0	3621
16	0	0	0	0	0	35	88	212	281	424	295	398	287	419	360	257	258	113	28	2	0	0	0	0	3455
17	0	0	0	0	0	14	73	142	276	304	336	331	361	429	133 ?	304	188	107	58	19	0	0	0	0	3074
18	0	0	0	0	0	31	115	175	219	309	374	407	311	349	156	377	256	185	69	2	0	0	0	0	3336
19	0	0	0	0	0	6	87	166	142	111	265	487	472	357	298	256	201	108	37	13	0	0	0	0	3006
20	0	0	0	0	0	22	99	135	180	295	311	273	325	355	239	191	190	144	73	14	0	0	0	0	2847
21	0	0	0	0	0	21	79	219	298	292	325	401	319	336	330	246	177	125	70	6	0	0	0	0	3243
22	0	0	0	0	0	26	68	98	177	279	271	299	324	258	268	265	191	72	81	10	0	0	0	0	2687
23	0	0	0	0	0	31	91	206	210	213 ?	352	343	416	358	397	277	168	251 ?	93	15	0	0	0	0	3418
24	0	0	0	0	0	34	78	123	156	328	341	394	453	381	359	270	202	107	96	24	0	0	0	0	3344
25	0	0	0	0	0	35	101	161	212	279	386	449	400	344	362	333	237	74	25	12	0	0	0	0	3411
26	0	0	0	0	0	16	94	158	47 ?	255	293	320	406	448	483	158 ?	77	18 ?	31	6	0	0	0	0	2809 ?
27	0	0	0	0	0	11	61	144	166	311	335	365	354	337	321	225	149	148	71	8	0	0	0	0	3004
28	0	0	0	0	0	5	35	56	121 ?	399	232	183	207	213	307	342	253	130	41	18 ?	0	0	0	0	2544
29	0	0	0	0	0	15	55	235	303	281	266	270	305	266	190	145	140	153	82	11	0	0	0	0	2718
30	0	0	0	0	0	16	78	52 ?	129	141	437	493	196 ?	112	99	297	185	164	63	9	0	0	0	0	2472
31	0	0	0	0	0	2	25	126	291	392	477	306	291	182	255	422	301	156	63	15	0	0	0	0	3303
Avg	0	0	0	0	0	19	72	139	203	267	314	324	331	311	262	239	185	121	49	8	0	0	0	0	2842
S D	0	0	0	0	0	10	24	50	78	98	97	93	84	87	94	80	58	46	22	6	0	0	0	0	530
S/A	0	0	0	0	0	0.52	0.34	0.36	0.38	0.37	0.31	0.29	0.25	0.28	0.36	0.34	0.31	0.38	0.45	0.69	0	0	0	0	0.19
Min	0	0	0	0	0	1	22	52	47	111	126	141	189	112	84	94	77	18	3	1	0	0	0	0	1626
Max	0	0	0	0	0	38	122	235	386	507	568	493	529	458	483	422	315	251	96	24	0	0	0	0	3621
n	0	0	0	0	0	261	363	359	364	368	372	372	366	372	368	366	365	346	366	145	0	0	0	0	5153

Daylight Data Recovery: 0.0% missing; 2.0% exceed the 15% QC threshold -- 5260 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.