

August 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	12	87	195	484	622	728	550	784	540	788	539	555	336	65	7	0	0	0	0	6291
2	0	0	0	0	0	6	69	81	190	570	726	745	721	749	732	406	145	68 ?	21 ?	36	0	0	0	0	5268
3	0	0	0	0	0	6	47	109	168	256	478	670	851	863	749	536	434	240	81	7	0	0	0	0	5497
4	0	0	0	0	0	11	81	201 ?	457	604	791	878	916	763	587	655	393	166	49	4	0	0	0	0	6554
5	0	0	0	0	0	12	42	21 ?	43 ?	92	101	93	128 ?	135	128	116	90 ?	130	40	8	0	0	0	0	1178 ?
6	0	0	0	0	0	10	86	177	438	489	681	847	797	839	622	584	273	283	91	4	0	0	0	0	6223
7	0	0	0	0	0	11	83	?	492 ?	657	789	844	874	512	740	636	500	223	78	7	0	0	0	0	6446 ?
8	0	0	0	0	0	9	68 ?	334 ?	510	675	637	772	718	479	689	463	321	253	77	4	0	0	0	0	6010
9	0	0	0	0	0	10	87	253 ?	479	649	639	635	918	650	733	634	438	257	74	6	0	0	0	0	6463
10	0	0	0	0	0	8	80	244	451	498	733	748	595	707	700	577	353	210	73	7	0	0	0	0	5983
11	0	0	0	0	0	10	95	108	232 ?	608	800	772	927	897	765	639	444	236	58	8	0	0	0	0	6599
12	0	0	0	0	0	2	15	33 ?	60	108	150	136	130	175	223	347	106	71	53	6	0	0	0	0	1614
13	0	0	0	0	0	2	11	57	137	123	332	441	426	399	302	256	234	149	77	10	0	0	0	0	2955
14	0	0	0	0	0	3	20	163	415 ?	624	709	737	929	559	567	238	246	152	54	11	0	0	0	0	5425
15	0	0	0	0	0	4	76	235	310	467	742	985	797	857	738	655	238	96	22	1	0	0	0	0	6223
16	0	0	0	0	0	3	19	86	197	197	347	683	872	724	637	619	365	209	55	6	0	0	0	0	5019
17	0	0	0	0	0	7	51	179	355	625	757	741	752	790	604	493	417	213	51	1	0	0	0	0	6034
18	0	0	0	0	0	6	53	235	372 ?	624	663	694	832	885	788	570	425	225	51	1	0	0	0	0	6423
19	0	0	0	0	0	4	34	211	393	606	666	781	774	816	689	398	211	104	35	0	0	0	0	0	5723
20	0	0	0	0	0	8	49	217	398	592	697	614	838	747	550	585	293	133	24	1	0	0	0	0	5745
21	0	0	0	0	0	2	35	83	96	190	202	269	181	194	225	268	110	29 ?	21	7	0	0	0	0	1911
22	0	0	0	0	0	4	43	221	486	599	572	655	804	636	582	313	344	148	44	3	0	0	0	0	5455
23	0	0	0	0	0	5	64	163	416	518	585	728	606	721	790	583	345	107	55	0	0	0	0	0	5686
24	0	0	0	0	0	4	37	113	246	318	656	556	781	608	646	515	129	189	31	0	0	0	0	0	4830
25	0	0	0	0	0	3	89	229	316	580	732	798	844	811	680	538	372	175	26	0	0	0	0	0	6194
26	0	0	0	0	0	10	89	217	394	576	709	553	724	572	299	280	200	72	39	0	0	0	0	0	4736
27	0	0	0	0	0	2	50	200	385	588	666	732	724	737	510	555	407	193	40	0	0	0	0	0	5790
28	0	0	0	0	0	3	51	187	360 ?	577	473	533	686	814	724	399	105	160	58	0	0	0	0	0	5132
29	0	0	0	0	0	4	54	186	416	372	599	770	683	461	377	365	265	69	7	0	0	0	0	0	4628
30	0	0	0	0	0	0	21	122	204	189	383	542	780	669	529	325	169	130	23	0	0	0	0	0	4086
31	0	0	0	0	0	2	20	74	185	103	275	318	572	793	812	673	450	165	23	0	0	0	0	0	4466
Avg	0	0	0	0	0	6	55	164	325	461	581	639	708	648	597	476	303	168	48	5	0	0	0	0	5180
S D	0	0	0	0	0	4	26	75	139	199	200	208	218	207	190	151	130	72	22	7	0	0	0	0	1454
S/A	0	0	0	0	0	0.6	0.47	0.45	0.43	0.43	0.34	0.33	0.31	0.32	0.32	0.32	0.43	0.43	0.45	1.44	0	0	0	0	0.28
Min	0	0	0	0	0	0	11	21	43	92	101	93	128	135	128	116	90	29	7	0	0	0	0	0	1178
Max	0	0	0	0	0	12	95	334	510	675	800	985	929	897	812	673	555	336	91	36	0	0	0	0	6599
n	0	0	0	0	0	116	366	319	339	368	371	370	369	370	371	372	367	358	358	71	0	0	0	0	4885

Daylight Data Recovery: 0.0% missing; 2.6% exceed the 15% QC threshold -- 5016 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.

August 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	4	52	588	576	537	245	467	165	510	406	556	464	45	0	0	0	0	0	4614
2	0	0	0	0	0	0	7	3	41	235	188	300	247	431	585	294	37	0	0	0	0	0	0	0	2367
3	0	0	0	0	0	0	0	1	1	3	73	330	522	585	588	414	430	272	155	0	0	0	0	0	3374
4	0	0	0	0	0	2	148	?	611	597	722	735	720	473	262	589	352	90	3	0	0	0	0	0	5305
5	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	1	0	29	10	0	0	0	0	0	45
6	0	0	0	0	0	1	152	71	402	330	504	679	549	604	440	519	170	607	254	0	0	0	0	0	5282
7	0	0	0	0	0	5	191	?	788 ?	692	694	609	655	308	641	633	730	355	197	0	0	0	0	0	6499 ?
8	0	0	0	0	0	11	217 ?	732 ?	799	868	571	519	440	222	467	200	270	472	234	0	0	0	0	0	6024
9	0	0	0	0	0	6	195	534 ?	762	764	499	394	677	357	575	521	531	498	170	0	0	0	0	0	6484
10	0	0	0	0	0	0	195	469	575	400	554	485	339	468	544	483	264	211	29	0	0	0	0	0	5015
11	0	0	0	0	0	0	48	19	26	476	685	642	851	777	650	719	635	446	24	0	0	0	0	0	6000
12	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	26	1	16	0	0	0	0	0	0	47
13	0	0	0	0	0	0	0	0	1	1	41	152	71	22	5	2	1	39	0	0	0	0	0	0	336
14	0	0	0	0	0	0	4	133 ?	476 ?	439	428	412	710	192	299	24	83	73	4	0	0	0	0	0	3275
15	0	0	0	0	0	0	83	208	170	238	531	701	581	656	540	714	169	6	0	0	0	0	0	0	4596
16	0	0	0	0	0	0	0	1	2	2	6	342	615	421	430	544	343	283	88	0	0	0	0	0	3077
17	0	0	0	0	0	0	23	58	273	490	598	449	338	446	315	339	426	278	63	0	0	0	0	0	4097
18	0	0	0	0	0	0	1	193	365	514	478	489	582	697	756	463	549	451	117	0	0	0	0	0	5654
19	0	0	0	0	0	0	5	201	429	617	450	541	559	671	583	292	70	39	4	0	0	0	0	0	4460
20	0	0	0	0	0	5	116	382	486	518	462	251	469	405	270	355	101	55	0	0	0	0	0	0	3876
21	0	0	0	0	0	0	0	0	1	2	4	2	1	2	2	21	0	0	0	0	0	0	0	0	35
22	0	0	0	0	0	0	0	221	750	622	289	243	453	244	261	67	229	111	11	0	0	0	0	0	3500
23	0	0	0	0	0	1	129	102	599	467	478	583	352	594	782	633	366	8	24	0	0	0	0	0	5119
24	0	0	0	0	0	0	1	1	10	25	307	194	427	252	441	412	22	136	0	0	0	0	0	0	2229
25	0	0	0	0	0	0	142	286	119	542	587	470	511	557	471	419	414	254	32	0	0	0	0	0	4802
26	0	0	0	0	0	0	162	209	373	529	554	140	284	164	40	12	31	12	23	0	0	0	0	0	2534
27	0	0	0	0	0	0	73	325	433	546	452	466	524	572	392	600	535	376	71	0	0	0	0	0	5363
28	0	0	0	0	0	0	69	351	527 ?	551	222	248	391	602	567	225	1	44	51	0	0	0	0	0	3849
29	0	0	0	0	0	0	89	176	540	283	356	466	306	142	62	210	167	0	0	0	0	0	0	0	2798
30	0	0	0	0	0	0	4	7	4	1	12	146	513	489	330	26	41	38	0	0	0	0	0	0	1612
31	0	0	0	0	0	0	0	0	11	0	4	4	238	600	754	690	591	379	49	0	0	0	0	0	3320
Avg	0	0	0	0	0	1	66	163	328	365	364	362	432	391	405	350	262	195	54	0	0	0	0	0	3729
S D	0	0	0	0	0	2	76	190	285	269	241	218	217	228	238	240	228	190	74	0	0	0	0	0	1898
S/A	0	0	0	0	0	2.28	1.14	1.16	0.87	0.74	0.66	0.6	0.5	0.58	0.59	0.69	0.87	0.98	1.38	5.43	0	0	0	0	0.51
Min	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	35
Max	0	0	0	0	0	11	217	732	799	868	722	735	851	777	782	719	730	607	254	0	0	0	0	0	6499
n	0	0	0	0	0	116	363	327	357	371	372	372	372	372	372	372	372	372	365	71	0	0	0	0	4946

Daylight Data Recovery: 0.0% missing; 1.4% exceed the 15% QC threshold -- 5016 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.

August 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	92	182	164	209	285	331	363	390	368	252	272	180	56	5	0	0	0	0	3163
2	0	0	0	0	0	6	72	84	171	412	558	467	489	354	262	210	129	72 ?	21 ?	42 ?	0	0	0	0	3348 ?
3	0	0	0	0	0	7	51	117	180	272	434	387	390	358	287	273	224	163	60	8	0	0	0	0	3210
4	0	0	0	0	0	14	61	?	160	203	218	233	264	351	384	265	210	136	51	4	0	0	0	0	2554
5	0	0	0	0	0	14	45	22 ?	32	90	109	93	116	145	130	124	81	126	40	9	0	0	0	0	1176
6	0	0	0	0	0	12	63	138	239	265	275	246	302	309	278	239	191	95	53	302	6	0	0	0	2710
7	0	0	0	0	0	14	52	81 ?	104 ?	176	239	310	282	251	234	226	128	111	47	8	0	0	0	0	2262
8	0	0	0	0	0	12	41 ?	73	82	86	188	310	323	286	316	331	182	109	41	4	0	0	0	0	2385
9	0	0	0	0	0	12	49	99 ?	94	136	232	291	318	344	270	271	179	102	48	6	0	0	0	0	2452
10	0	0	0	0	0	10	58	116	162	238	304	338	301	312	285	271	237	146	72	7	0	0	0	0	2856
11	0	0	0	0	0	13	82	87	184	298	260	211	167	224	248	164	134	90	57	8	0	0	0	0	2226
12	0	0	0	0	0	2	15	29	58	114	162	148	141	191	241	353	115	66	57	6	0	0	0	0	1697
13	0	0	0	0	0	1	11	60	146	132	315	318	382	396	318	271	248	146	79	8	0	0	0	0	2831
14	0	0	0	0	0	2	20	102 ?	217 ?	320	353	377	295	393	348	231	220	138	55	10	0	0	0	0	3081
15	0	0	0	0	0	5 ?	64	176	240	306	328	392	293	306	319	202	161	99	23	0	0	0	0	0	2915
16	0	0	0	0	0	3 ?	20	92	209	210	363	398	334	364	307	277	217	130	44	5	0	0	0	0	2974
17	0	0	0	0	0	7	52	160	264	329	302	372	459	418	374	290	227	140	44	1	0	0	0	0	3439
18	0	0	0	0	0	7	56	176	217	285	303	280	340	311	223	289	178	102	37	1	0	0	0	0	2805
19	0	0	0	0	0	4	35	152	185	208	332	332	296	258	246	223	185	99	36	0	0	0	0	0	2591
20	0	0	0	0	0	10 ?	40	138	186	269	346	411	428	396	355	371	252	126	26	1	0	0	0	0	3355
21	0	0	0	0	0	2	37	89	102	201	203	292	196	180	242	269	102	27	21	7	0	0	0	0	1971
22	0	0	0	0	0	4 ?	47	137	135	192	348	448	404	423	381	277	234	121	42	2	0	0	0	0	3195
23	0	0	0	0	0	6 ?	49	144	147	221	214	238	307	226	208	192	171	113	55	0	0	0	0	0	2292
24	0	0	0	0	0	5	39	121	255	320	429	404	424	416	340	259	124	155	33	0	0	0	0	0	3323
25	0	0	0	0	0	3	59	150	259	233	292	415	420	363	341	294	197	116	24	0	0	0	0	0	3164
26	0	0	0	0	0	12 ?	74	163	222	245	296	447	481	445	281	287	202	75	39	0	0	0	0	0	3269
27	0	0	0	0	0	4 ?	41	101	181	239	333	351	284	278	228	197	176	103	32	0	0	0	0	0	2548
28	0	0	0	0	0	4 ?	43	121	174 ?	241	316	344	359	331	317	270	109	160	55	0	0	0	0	0	2845
29	0	0	0	0	0	5 ?	44	136	168	204	322	388	428	355	348	248	189	73	8	0	0	0	0	0	2918
30	0	0	0	0	0	0	22	127	215	204	395	424	351	282	296	326	164	131	24	0	0	0	0	0	2960
31	0	0	0	0	0	2	21	80	190	111	291	339	376	309	277	277	211	82	19	0	0	0	0	0	2585
Avg	0	0	0	0	0	7	47	115	172	225	301	333	333	321	292	259	182	114	42	5	0	0	0	0	2745
S/D	0	0	0	0	0	5	19	41	58	76	87	87	93	76	59	52	49	33	16	8	0	0	0	0	520
S/A	0	0	0	0	0	0.65	0.41	0.36	0.34	0.34	0.29	0.26	0.28	0.24	0.2	0.2	0.27	0.29	0.39	1.59	0	0	0	0	0.19
Min	0	0	0	0	0	0	11	22	32	86	109	93	116	145	130	124	81	27	8	0	0	0	0	0	1176
Max	0	0	0	0	0	14	92	182	264	412	558	467	489	445	384	371	272	180	79	42	0	0	0	0	3439
n	0	0	0	0	0	98	360	330	355	371	372	372	372	372	372	372	372	362	358	69	0	0	0	0	4907

Daylight Data Recovery: 0.0% missing; 2.2% exceed the 15% QC threshold -- 5016 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.