

October 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	0	4	65	266	538	678	767	752	692	486	375	200	38	0	0	0	0	0	0	4860
2	0	0	0	0	0	0	32	113	197	143	70 ?	68 ?	99	128	127	94	105	11	0	0	0	0	0	0	1189 ?
3	0	0	0	0	0	0	10	56	253	405	233	237	419	386	406	334	159	44	0	0	0	0	0	0	2943
4	0	0	0	0	0	0	15	94 ?	306 ?	532 ?	663	740	755	693	575	413	221	46	0	0	0	0	0	0	5054 ?
5	0	0	0	0	0	0	22	97 ?	?	495 ?	648	734	695	677	549	417	222	48	0	0	0	0	0	0	4603 ?
6	0	0	0	0	0	0	16	146	299	494 ?	599	580	821	741	550	349	207	44	0	0	0	0	0	0	4845
7	0	0	0	0	0	0	13	68	201	336 ?	635	724	704	687	538	377	189	63	0	0	0	0	0	0	4535
8	0	0	0	0	0	0	26	127	313	522	658	730	745	681	557	336	148	23	0	0	0	0	0	0	4868
9	0	0	0	0	0	0	3	34	78	223	196	301	277	316	72	92	71	18	0	0	0	0	0	0	1681
10	0	0	0	0	0	0	14	89	217 ?	456	557	603	714	622	536	368	162	25	0	0	0	0	0	0	4363
11	0	0	0	0	0	0	23	101	303 ?	510 ?	546	575	756	532	280	206	76	16	0	0	0	0	0	0	3924 ?
12	0	0	0	0	0	0	13	88	153 ?	?	647 ?	701	704	647	522	362	129	17	0	0	0	0	0	0	3984 ?
13	0	0	0	0	0	0	1	40	196	266	294	477	318	177	84	73 ?	23	5	0	0	0	0	0	0	1956
14	0	0	0	0	0	0	9	56	50	78	152	113	133	91	124	70	21 ?	7	0	0	0	0	0	0	903
15	0	0	0	0	0	0	4	48	189	123	275	210	188	163	80	116	17 ?	2	0	0	0	0	0	0	1414
16	0	0	0	0	0	0	11	26 ?	36 ?	100	160	288	134	481	432	353	177	39	0	0	0	0	0	0	2237 ?
17	0	0	0	0	0	0	13	126	316	485	617	678	689	635	512	355	166	27	0	0	0	0	0	0	4619
18	0	0	0	0	0	0	8	35	96	203	143	143	136	184	241	147	52	8	0	0	0	0	0	0	1395
19	0	0	0	0	0	0	5	43	99	137	220	199	236	212	207	227	86	15	0	0	0	0	0	0	1686
20	0	0	0	0	0	0	7	48	155	286	277	454	334	235	210	155	83	18	0	0	0	0	0	0	2262
21	0	0	0	0	0	0	1	4 ?	27 ?	88	161	128	178	210	356	226	104	10	0	0	0	0	0	0	1492
22	0	0	0	0	0	0	6	46	130	139	450	687	659	600	414	310	136	17	0	0	0	0	0	0	3593
23	0	0	0	0	0	0	5	45	154	284	482	537	610	530	251	140	51	2	0	0	0	0	0	0	3091
24	0	0	0	0	0	0	3	15	43	81	116	77	101	126	297	286	102	12	0	0	0	0	0	0	1258
25	0	0	0	0	0	0	5	48	133 ?	461 ?	545	638	646	586	468	311	133	16	0	0	0	0	0	0	3989
26	0	0	0	0	0	0	12	84	232	389	530	601	612	571	448	289	112	14	0	0	0	0	0	0	3893
27	0	0	0	0	0	0	2	12	30 ?	46	60	141	97	71	66	38	17	3	0	0	0	0	0	0	584
28	0	0	0	0	0	0	3	20	85	196	301	547	390	435	347	274	69	9	0	0	0	0	0	0	2677
29	0	0	0	0	0	0	2	14	45	70	102	102	129 ?	173	154	62	82	18	0	0	0	0	0	0	953
30	0	0	0	0	0	0	5	73	236	399	517	478	308	469	198	197	85	14	0	0	0	0	0	0	2978
31	0	0	0	0	0	0	3	47	236	401	485	572	584	530	345	239	100	8	0	0	0	0	0	0	3551
Avg	0	0	0	0	0	0	10	62	169	296	388	446	449	428	337	245	113	21	0	0	0	0	0	0	2948
S D	0	0	0	0	0	0	8	37	95	170	214	242	259	223	172	118	61	16	0	0	0	0	0	0	1438
S/A	0	0	0	0	0	0	0.83	0.6	0.56	0.57	0.55	0.54	0.58	0.52	0.51	0.48	0.54	0.76	0	0	0	0	0	0	0.49
Min	0	0	0	0	0	0	1	4	27	46	60	68	97	71	66	38	17	2	0	0	0	0	0	0	584
Max	0	0	0	0	0	0	32	146	316	538	678	767	821	741	575	417	222	63	0	0	0	0	0	0	5054
n	0	0	0	0	0	0	165	350	308	320	358	363	366	372	372	366	359	262	1	0	0	0	0	0	3962

Daylight Data Recovery: 0.0% missing; 4.5% exceed the 15% QC threshold -- 4150 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.

October 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	0	51	150	310	460	643	636	684	432	467	350	72	0	0	0	0	0	0	4255
2	0	0	0	0	0	0	47	157	153	1	0	0	1	0	0	0	8	0	0	0	0	0	0	0	367
3	0	0	0	0	0	0	0	1	148	234	22	21	154	118	210	277	202	83	0	0	0	0	0	0	1470
4	0	0	0	0	0	0	1	113 ?	826 ?	910 ?	963	982	986	949	909	838	696	282	0	0	0	0	0	0	8455
5	0	0	0	0	0	0	95	435 ?	?	876 ?	918	922	865	896	871	869	732	325	0	0	0	0	0	0	7804 ?
6	0	0	0	0	0	0	27	498	733 ?	863 ?	725	583	904	898	795	664	631	267	0	0	0	0	0	0	7588
7	0	0	0	0	0	0	0	0	23	226 ?	953	974	793	879	751	613	468	292	0	0	0	0	0	0	5970
8	0	0	0	0	0	0	132	411	667	929	988	1007	1014	979	883	435	92	7	0	0	0	0	0	0	7545
9	0	0	0	0	0	0	0	0	1	5	4	4	7	10	0	0	0	0	0	0	0	0	0	0	32
10	0	0	0	0	0	0	0	8	146 ?	326	521	680	919	837	874	753	494	70	0	0	0	0	0	0	5628
11	0	0	0	0	0	0	32	274	582 ?	723	470	379	774	332	25	78	34	1	0	0	0	0	0	0	3704
12	0	0	0	0	0	0	0	12	170 ?	?	997 ?	1004	979	967	924	842	367	7	0	0	0	0	0	0	6269 ?
13	0	0	0	0	0	0	1	1	100	50	54	212	50	1	0	1	0	0	0	0	0	0	0	0	471
14	0	0	0	0	0	0	0	27	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	31
15	0	0	0	0	0	0	0	7	149	2	55	5	1	0	0	14	0	0	0	0	0	0	0	0	233
16	0	0	0	0	0	0	0	0	0	0	2	58	13	510	588	644	609	259	0	0	0	0	0	0	2683
17	0	0	0	0	0	0	74	610	830	924	971	962	950	966	918	852	683	252	0	0	0	0	0	0	8992
18	0	0	0	0	0	0	0	0	1	12	1	1	1	2	12	7	0	0	0	0	0	0	0	0	37
19	0	0	0	0	0	0	0	1	1	1	4	1	3	2	10	148	63	0	0	0	0	0	0	0	235
20	0	0	0	0	0	0	1	1	160	124	69	195	63	4	72	119	25	1	0	0	0	0	0	0	834
21	0	0	0	0	0	0	0	0	0	1	2	2	2	2	376	247	110	0	0	0	0	0	0	0	742
22	0	0	0	0	0	0	0	1	2	1	212	793	803	851	642	673	485	50	0	0	0	0	0	0	4514
23	0	0	0	0	0	0	0	0	1	93	222	277	523	377	17	1	0	0	0	0	0	0	0	0	1511
24	0	0	0	0	0	0	0	0	0	0	2	0	1	1	379	564	178	4	0	0	0	0	0	0	1129
25	0	0	0	0	0	0	0	0	90 ?	910 ?	865	971	977	965	932	855	668	248	0	0	0	0	0	0	7481
26	0	0	0	0	0	0	0	368	634 ?	711	805	855	902	949	902	800	487	11	0	0	0	0	0	0	7425
27	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
28	0	0	0	0	0	0	0	0	0	1	21	160	151	232	279	209	7	0	0	0	0	0	0	0	1062
29	0	0	0	0	0	0	0	0	1	1	1	1	1	2	18	0	95	76	0	0	0	0	0	0	196
30	0	0	0	0	0	0	0	241	569	693	634	353	48	260	65	133	139	16	0	0	0	0	0	0	3150
31	0	0	0	0	0	0	0	172	693	800	781	777	873	736	325	399	371	1	0	0	0	0	0	0	5926
Avg	0	0	0	0	0	0	13	109	228	324	378	414	432	433	394	371	258	75	0	0	0	0	0	0	3411
S D	0	0	0	0	0	0	32	178	295	381	404	408	433	417	381	335	264	113	0	0	0	0	0	0	3151
S/A	0	0	0	0	0	0	2.4	1.62	1.3	1.18	1.07	0.99	1	0.96	0.97	0.9	1.03	1.51	0	0	0	0	0	0	0.92
Min	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
Max	0	0	0	0	0	0	132	610	830	929	997	1007	1014	979	932	869	732	325	0	0	0	0	0	0	8992
n	0	0	0	0	0	0	165	361	326	331	368	372	372	372	372	372	372	264	1	0	0	0	0	0	4048

Daylight Data Recovery: 0.0% missing; 2.5% exceed the 15% QC threshold -- 4150 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.

October 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	0	4	53	207	376	384	320	306	235	234	168	104	30	0	0	0	0	0	0	2420
2	0	0	0	0	0	0	32	93	161	153	54	61	106	137	136	99	105	11	0	0	0	0	0	0	1147
3	0	0	0	0	0	0	11	59	184	268	231	228	311	308	284	213	99	35	0	0	0	0	0	0	2231
4	0	0	0	0	0	0	17	59	60	61	63	66	68	72	68	57	41	15	0	0	0	0	0	0	645
5	0	0	0	0	0	0	14	41 ?	68 ?	70	80	101	89	87	65	51	37	14	0	0	0	0	0	0	717
6	0	0	0	0	0	0	13	50	64	75	152	176	213	174	111	76	50	18	0	0	0	0	0	0	1173
7	0	0	0	0	0	0	14	72	197	122	64	68	157	122	119	125	71	37	0	0	0	0	0	0	1167
8	0	0	0	0	0	0	18	57	64	59	60	61	60	63	79	144	122	22	0	0	0	0	0	0	809
9	0	0	0	0	0	0	3	37	85	234	206	322	287	322	77	99	77	19	0	0	0	0	0	0	1769
10	0	0	0	0	0	0	14	87	174 ?	239	240	149	99	96	73	62	39	18	0	0	0	0	0	0	1291
11	0	0	0	0	0	0	21	65	83 ?	130	250	314	241	284	258	164	63	17	0	0	0	0	0	0	1891
12	0	0	0	0	0	0	14	78	92	69	45	50	59	53	42	35	34	18	0	0	0	0	0	0	589
13	0	0	0	0	0	0	1	41	171	244	264	341	293	187	90	75 ?	22	5	0	0	0	0	0	0	1735
14	0	0	0	0	0	0	10	55	52	82	162	118	142	98	133	75	20	7	0	0	0	0	0	0	951
15	0	0	0	0	0	0	5	47	127	128	251	220	198	172	85	115	16	1	0	0	0	0	0	0	1365
16	0	0	0	0	0	0	12	22	30	94	168	235	125	179	132	111	52	21	0	0	0	0	0	0	1181
17	0	0	0	0	0	0	11	31	48	59	64	71	84	66	59	48	32	9	0	0	0	0	0	0	582
18	0	0	0	0	0	0	8	37	101	207	152	152	145	194	243	150	55	8	0	0	0	0	0	0	1452
19	0	0	0	0	0	0	5	46	107	148	238	220	256	228	213	178	72	16	0	0	0	0	0	0	1726
20	0	0	0	0	0	0	8	50	117	230	249	322	302	250	175	120	76	18	0	0	0	0	0	0	1918
21	0	0	0	0	0	0	1	8	26	95	172	138	191	224	181	134	79	10	0	0	0	0	0	0	1256
22	0	0	0	0	0	0	6	48	137	147	330	197	159	112	99	78	47	13	0	0	0	0	0	0	1373
23	0	0	0	0	0	0	5 ?	47	161	231	357	355	281	309	253	148	54	2	0	0	0	0	0	0	2202
24	0	0	0	0	0	0	3 ?	15	45	77	123	76	109	134	146	103	74	11	0	0	0	0	0	0	918
25	0	0	0	0	0	0	6 ?	49	87	49	70	54	55	50	40	33	23	5	0	0	0	0	0	0	522
26	0	0	0	0	0	0	14 ?	35	89 ?	90	87	85	67	49	39	33	27	14	0	0	0	0	0	0	627
27	0	0	0	0	0	0	1	12	27	47	60	151	104	75	70	41	18	3	0	0	0	0	0	0	610
28	0	0	0	0	0	0	3 ?	21	91	207	300	429	302	305	221	198	70	9	0	0	0	0	0	0	2156
29	0	0	0	0	0	0	2 ?	15	48	75	110	110	98	185	150	58	68	14	0	0	0	0	0	0	933
30	0	0	0	0	0	0	5 ?	39	77	108	183	275	291	332	180	157	62	14	0	0	0	0	0	0	1722
31	0	0	0	0	0	0	2	19	46	68	79	120	74	132	194	115	43	9	0	0	0	0	0	0	901
Avg	0	0	0	0	0	0	9	45	98	137	169	180	170	169	137	105	56	14	0	0	0	0	0	0	1290
S D	0	0	0	0	0	0	7	21	53	82	99	109	92	91	73	51	28	9	0	0	0	0	0	0	560
S/A	0	0	0	0	0	0	0.77	0.47	0.54	0.6	0.58	0.6	0.54	0.53	0.48	0.49	0.61	0	0	0	0	0	0	0	0.43
Min	0	0	0	0	0	0	1	8	26	47	45	50	55	49	39	33	16	1	0	0	0	0	0	0	522
Max	0	0	0	0	0	0	32	93	207	376	384	429	311	332	284	213	122	37	0	0	0	0	0	0	2420
n	0	0	0	0	0	0	145	362	346	368	370	369	372	372	372	367	371	262	1	0	0	0	0	0	4077

Daylight Data Recovery: 0.0% missing; 1.8% exceed the 15% QC threshold -- 4150 total daylight measurements.

Instrument: Eppley PSP Serial Number: 17860F3 Calibration Factor: 7.010 $\mu\text{V}/\text{W}/\text{m}^2$ 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.