

September 2009

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	29	122	255	275	439	715	723	470	550	400	214	97	20	0	0	0	0	0	4311
2	0	0	0	0	0	3	48	190	438	608	740	824	822	807	687	546	369	173	23	0	0	0	0	0	6278
3	0	0	0	0	0	2	56	231	426	603	743	826	847	804	695	546	368	170	21	0	0	0	0	0	6337
4	0	0	0	0	0	3	43	147	300	580	727	809	833	796	687	535	362	154	14	0	0	0	0	0	5989
5	0	0	0	0	0	0	50	210	280	538	626	719	758	657	429	344	237	101	44	0	0	0	0	0	4993
6	0	0	0	0	0	0	15	47	32 ?	68	184	312	365	309	317	96	75	13 ?	3	0	0	0	0	0	1836 ?
7	0	0	0	0	0	0	7	24 ?	43 ?	89	165	341	554	688	341	146 ?	114 ?	117	28	0	0	0	0	0	2659 ?
8	0	0	0	0	0	0	33	134	393	558	656	774	447	736	469	244	130	96	11	0	0	0	0	0	4682
9	0	0	0	0	0	0	18	175	367	431	436	414	255	93 ?	140	438	344	97	14	0	0	0	0	0	3221
10	0	0	0	0	0	0	4	15 ?	72 ?	113	129	102	167	150	144	112	258	110	34	0	0	0	0	0	1410
11	0	0	0	0	0	0	32	199	389	507	661	763	736	802	621	449	333	132	11	0	0	0	0	0	5635
12	0	0	0	0	0	0	24	98	211	530	584	745	800	794	542	318	224	119	11	0	0	0	0	0	5000
13	0	0	0	0	0	0	44	197	394	568	723	711	737	597	302	344	163	76	14	0	0	0	0	0	4869
14	0	0	0	0	0	0	32	169	401	577	711	802	608	787	620	486	324	122	4	0	0	0	0	0	5641
15	0	0	0	0	0	0	33	155	381	601	636	603	582	516	388	317	205	66	8	0	0	0	0	0	4491
16	0	0	0	0	0	0	26	144	286	362	625	729	628	566	651	401	202	61	11	0	0	0	0	0	4693
17	0	0	0	0	0	0	11	57	77	68	63	74 ?	87	76	59 ?	56	33	32	9	0	0	0	0	0	704
18	0	0	0	0	0	0	17	60	80	193	456	477	251	628 ?	118	347	174	35 ?	21	0	0	0	0	0	2856
19	0	0	0	0	0	0	24	42	74	211	189	356	341	305	554	365	154	37	6	0	0	0	0	0	2660
20	0	0	0	0	0	0	10	36	87	148	171	175	195	240	249	265	125	54	8	0	0	0	0	0	1762
21	0	0	0	0	0	0	5	20 ?	46	55	131 ?	232	272	270	134	69 ?	29	14	1	0	0	0	0	0	1278 ?
22	0	0	0	0	0	0	8	32	57	204	487	713	653	472	378	217	87	87	5	0	0	0	0	0	3847
23	0	0	0	0	0	0	48	173	366	530	658	734	733	754	373	301	126	49	4	0	0	0	0	0	4849
24	0	0	0	0	0	0	23	127	284	406	446	534	382	169	108	198	98	21	1	0	0	0	0	0	2795
25	0	0	0	0	0	0	9	40	137	179	238	311	422	320	234	205	79	12	0	0	0	0	0	0	2185
26	0	0	0	0	0	0	2	16 ?	?	?	?	?	?	?	?	49 ?	29	10	2	0	0	0	0	0	108 ?
27	0	0	0	0	0	0	7	71	144 ?	221	570	373	421	598	407	251	152	77	3	0	0	0	0	0	3295
28	0	0	0	0	0	0	11	32	67	243	591	350	328	522	604	445	280	69	3	0	0	0	0	0	3545
29	0	0	0	0	0	0	31	98	223	330	213	307	174	213	137	74	56	14	2	0	0	0	0	0	1871
30	0	0	0	0	0	0	5	27	48	124	159	182	134	191	125	47	44	17	2	0	0	0	0	0	1105
Avg	0	0	0	0	0	0	23	103	219	342	454	518	492	496	385	292	184	74	11	0	0	0	0	0	3497
S D	0	0	0	0	0	1	16	70	145	199	232	248	243	249	209	158	109	49	11	0	0	0	0	0	1770
S/A	0	0	0	0	0	2.64	0.68	0.68	0.66	0.58	0.51	0.48	0.49	0.5	0.54	0.54	0.59	0.66	0.94	0	0	0	0	0	0.51
Min	0	0	0	0	0	0	2	15	32	55	63	74	87	76	59	47	29	10	0	0	0	0	0	0	108
Max	0	0	0	0	0	3	56	231	438	608	743	826	847	807	695	546	369	173	44	0	0	0	0	0	6337
n	0	0	0	0	0	4	315	327	323	344	339	343	347	338	339	344	349	345	166	0	0	0	0	0	4224

Daylight Data Recovery: 0.0% missing; 0.0% untested; 5.0% exceed the 15% QC threshold -- 4446 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 2009

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	0	*	
2	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
3	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
4	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
5	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
6	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
7	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
8	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
9	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
10	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
11	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
12	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
13	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
14	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
15	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
16	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
17	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
18	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
19	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
20	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
21	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
22	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
23	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
24	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
25	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
26	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
27	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
28	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
29	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
30	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
Avg	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	N/A	*
SD	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
S/A	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
Min	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	N/A	
Max	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	N/A	
n	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

Daylight Data Recovery: 100.0% missing; 0.0% untested; 0.0% exceed the 15% QC threshold -- 4446 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 2009

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	127	181	225	374	413	365	359	358	319	185	101	20	0	0	0	0	0	3060
2	0	0	0	0	0	?	44	109	111	125	135	143	147	137	129	104	86	59	17	0	0	0	0	0	1345
3	0	0	0	0	0	?	26	58	75	86	96	102	103	98	89	77	66	45	14	0	0	0	0	0	935
4	0	0	0	0	0	?	40	143	211	208	106	103	105	106	103	92	77	54	15	0	0	0	0	0	1361
5	0	0	0	0	0	0	28	71	197	140	190	211	226	312	298	274	171	93	43	0	0	0	0	0	2256
6	0	0	0	0	0	0	17	50	28 ?	68	197	330	383	323	329	97	74	14 ?	3	0	0	0	0	0	1915
7	0	0	0	0	0	0	8	22	32 ?	92	179	351	483	433	349	155 ?	91	108	28	0	0	0	0	0	2329
8	0	0	0	0	0	0	34	96	127	180	263	319	232	324	217	193	130	72	10	0	0	0	0	0	2199
9	0	0	0	0	0	0	21	88	175	298	354	282	195	100 ?	144	312	221	92	12	0	0	0	0	0	2292
10	0	0	0	0	0	0	4	16	64	123	141	110	178	159	156	121	191	81	34	0	0	0	0	0	1377
11	0	0	0	0	0	0	21	67	90	207	200	238	234	160	184	117	75	46	11	0	0	0	0	0	1649
12	0	0	0	0	0	0	24	102	215	233	256	223	160	123	212	187	92	62	11	0	0	0	0	0	1899
13	0	0	0	0	0	0	23	52	65	94	206	302	229	344	313	273	157	50	13	0	0	0	0	0	2120
14	0	0	0	0	0	0	33	106	104	98	85	127	161	122	91	73	48	31	4	0	0	0	0	0	1084
15	0	0	0	0	0	0	27	108	191	219	241	361	421	384	338	271	174	65	8	0	0	0	0	0	2807
16	0	0	0	0	0	0	28	136	261	316	372	375	358	354	296	227	145	62	11	0	0	0	0	0	2942
17	0	0	0	0	0	0	12	62	83	73	65	67	93	82	50	58	35	33	9	0	0	0	0	0	721
18	0	0	0	0	0	0	17	63	85	205	467	459	244	227	128	189	87	31	21	0	0	0	0	0	2222
19	0	0	0	0	0	0	28	45	80	222	203	362	348	312	277	258	144	37	6	0	0	0	0	0	2321
20	0	0	0	0	0	0	9	36	90	152	183	190	209	258	260	238	122	53	7	0	0	0	0	0	1809
21	0	0	0	0	0	0	4	17	45	54	100 ?	250	280	270	142	64	29	15	1	0	0	0	0	0	1271
22	0	0	0	0	0	0	8	35	60	212	449 ?	627 ?	557 ?	365	235	180	95	40	6	0	0	0	0	0	2868 ?
23	0	0	0	0	0	0	42	168	?	?	?	?	168 ?	202	168	199	118	48	4	0	0	0	0	0	1117 ?
24	0	0	0	0	0	0	26	113	164	283	194	317	303	187	119	181	105	21	0	0	0	0	0	0	2013
25	0	0	0	0	0	0	10	42	145	190	254	332	413	332	204	210	85	13	0	0	0	0	0	0	2231
26	0	0	0	0	0	0	1	15	22 ?	28	32 ?	?	?	45 ?	30 ?	50 ?	29	10	1	0	0	0	0	0	263 ?
27	0	0	0	0	0	0	8	69	104	188	226	257	215	227	209	155	98	44	3	0	0	0	0	0	1802
28	0	0	0	0	0	0	13	33	72	227	229	170	305	216	189	84	67	26	2	0	0	0	0	0	1633
29	0	0	0	0	0	0	18	97	202	279	214	300	185	226	147	70	60	14	2	0	0	0	0	0	1814
30	0	0	0	0	0	0	5	27	51	133	170	195	143	205	134	51	47	18	2	0	0	0	0	0	1179
Avg	0	0	0	0	0	0	20	72	115	171	213	268	257	233	197	163	104	48	11	0	0	0	0	0	1828
S D	0	0	0	0	0	0	12	42	66	78	108	125	118	106	92	83	51	28	10	0	0	0	0	0	676
S/A	0	0	0	0	0	5.2	0.59	0.58	0.57	0.45	0.5	0.47	0.46	0.45	0.47	0.51	0.49	0.58	0.97	0	0	0	0	0	0.37
Min	0	0	0	0	0	0	1	15	22	28	32	67	93	45	30	50	29	10	0	0	0	0	0	0	263
Max	0	0	0	0	0	2	44	168	261	316	467	627	557	433	358	319	221	108	43	0	0	0	0	0	3060
n	0	0	0	0	0	1	303	356	334	346	336	327	341	347	351	352	359	349	166	0	0	0	0	0	4269

Daylight Data Recovery: 0.0% missing; 0.0% untested; 4.0% exceed the 15% QC threshold -- 4446 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.