

November 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	23	110	211	218	122	124	218	341	318	131	24	0	0	0	0	0	0	0	1840
2	0	0	0	0	0	0	2	20 ?	49	49	61	72	83	56	51	41	9	0	0	0	0	0	0	0	495
3	0	0	0	0	0	0	2	20 ?	78	134	418	235	131	81 ?	104	73	30	5	0	0	0	0	0	0	1312
4	0	0	0	0	0	0	26	85	147	291	336	206	133	84	162	109	23	0	0	0	0	0	0	0	1601
5	0	0	0	0	0	0	27	151	326	482	595	642	628	543	399	213	49	0	0	0	0	0	0	0	4056
6	0	0	0	0	0	0	25	130	332	470	582	626	609	526	388	206	49	0	0	0	0	0	0	0	3943
7	0	0	0	0	0	0	21	120	244	398	577	621	604	525	384	154	47	0	0	0	0	0	0	0	3695
8	0	0	0	0	0	0	19	130	316	473	583	632	529	431	312	190	36	0	0	0	0	0	0	0	3651
9	0	0	0	0	0	0	19	103	284	442	529	573	573	458	270	125	31	0	0	0	0	0	0	0	3410
10	0	0	0	0	0	0	10	112	224	332	478	528	260	392	327	137	30	0	0	0	0	0	0	0	2830
11	0	0	0	0	0	0	13	27	107	110	143	131	354	354	180	179	59	0	0	0	0	0	0	0	1657
12	0	0	0	0	0	0	3	26	79	118	138	217 ?	84	74	52	27	5	0	0	0	0	0	0	0	822
13	0	0	0	0	0	0	7	50	101	139	214	235	121	99	96	41	28	0	0	0	0	0	0	0	1131
14	0	0	0	0	0	0	9	27	111	293	448	530	470	350	222	78	12	0	0	0	0	0	0	0	2549
15	0	0	0	0	0	0	8	63	164	296	406	363	437	414	308	162	31	0	0	0	0	0	0	0	2653
16	0	0	0	0	0	0	11	105	262	404	492	538	519	446	305	138	27	0	0	0	0	0	0	0	3246
17	0	0	0	0	0	0	16	89	222	371	457	496	395	383	245	142	28	0	0	0	0	0	0	0	2843
18	0	0	0	0	0	0	0	25	70	54 ?	117	296	317	128	88	36 ?	11	0	0	0	0	0	0	0	1143
19	0	0	0	0	0	0	13	31	89	89	93	82 ?	75 ?	120	88	86	17	0	0	0	0	0	0	0	783 ?
20	0	0	0	0	0	0	4	28	102	187	198	262	192	183	157	51 ?	11	0	0	0	0	0	0	0	1376
21	0	0	0	0	0	0	0	9 ?	58	106	105	88	185	164 ?	95	72	13	0	0	0	0	0	0	0	895 ?
22	0	0	0	0	0	0	1	18	29	58 ?	103	77 ?	45 ?	48 ?	75	30	10	0	0	0	0	0	0	0	494 ?
23	0	0	0	0	0	0	1	18	58	130	145 ?	188 ?	270	212	160	63	2	0	0	0	0	0	0	0	1246 ?
24	0	0	0	0	0	0	0	60	212	389	475	338	236	81	69 ?	20 ?	6	0	0	0	0	0	0	0	1885
25	0	0	0	0	0	0	2	46	144	291	455	567	550	461	329	164	34	0	0	0	0	0	0	0	3044
26	0	0	0	0	0	0	5	81	245	396	506	550	541	463	331	167	36	0	0	0	0	0	0	0	3320
27	0	0	0	0	0	0	1	22	49	184	163 ?	227	101	65 ?	34 ?	53 ?	32	0	0	0	0	0	0	0	928 ?
28	0	0	0	0	0	0	4	91	243	362	274	449	473	300	162	89	13	0	0	0	0	0	0	0	2461
29	0	0	0	0	0	0	8	38	150	312	323	521	498	327	289	92	20	0	0	0	0	0	0	0	2578
30	0	0	0	0	0	0	0	8	25 ?	46 ?	73	58	55 ?	58 ?	55	29 ?	2	0	0	0	0	0	0	0	408 ?
Avg	0	0	0	0	0	0	9	61	158	254	320	349	323	272	202	103	24	0	0	0	0	0	0	0	2077
S D	0	0	0	0	0	0	9	43	95	145	186	204	198	172	119	59	15	1	0	0	0	0	0	0	1145
S/A	0	0	0	0	0	0	0.95	0.7	0.6	0.57	0.58	0.58	0.61	0.63	0.59	0.57	0.62	5.42	0	0	0	0	0	0	0.55
Min	0	0	0	0	0	0	0	8	25	46	61	58	45	48	34	20	2	0	0	0	0	0	0	0	408
Max	0	0	0	0	0	0	27	151	332	482	595	642	628	543	399	213	59	5	0	0	0	0	0	0	4056
n	0	0	0	0	0	0	164	346	347	340	348	341	338	330	347	335	329	3	0	0	0	0	0	0	3568

Daylight Data Recovery: 0.0% missing; 4.5% exceed the 15% QC threshold -- 3736 total daylight measurements.

Instrument: Eppley PSP Serial Number: 18036F3 Calibration Factor: 7.430 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.

November 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	0	0	0	0	0	*
2	0	0	0	0	0	0	332 ?	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
3	0	0	0	0	0	0	*	*	*	*	*	*	*	*	?	?	?	?	0	0	0	0	0	0	*
4	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
5	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
6	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
7	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
8	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
9	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
10	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
11	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
12	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
13	0	0	0	0	0	0	359 ?	?	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
14	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
15	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
16	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
17	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
18	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	394 *?	0	0	0	0	0	0	0	*
19	0	0	0	0	0	0	606 ?	*	*	*	*	?	?	?	?	?	?	0	0	0	0	0	0	0	?
20	0	0	0	0	0	0	*	*	*	*	*	?	*	136 *?	50 ?	112 ?	?	0	0	0	0	0	0	0	*
21	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
22	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
23	0	0	0	0	0	0	*	*	*	*	*	?	?	?	*	*	*	0	0	0	0	0	0	0	*
24	0	0	0	0	0	0	*	*	*	*	*	*	*	47 *?	?	*	*	0	0	0	0	0	0	0	*
25	0	0	0	0	0	0	*	*	*	*	?	?	?	*	?	*	625 *?	0	0	0	0	0	0	0	?
26	0	0	0	0	0	0	*	*	*	*	*	*	*	143 *?	393	?	?	0	0	0	0	0	0	0	536 *?
27	0	0	0	0	0	0	?	*	*	*	*	?	?	?	?	?	215 ?	0	0	0	0	0	0	0	?
28	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	?	0	0	0	0	0	0	0	*
29	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
30	0	0	0	0	0	0	96 ?	?	*	*	*	*	*	*	*	?	432 ?	0	0	0	0	0	0	0	*

Avg	0	0	0	0	0	0	348	N/A	N/A	N/A	N/A	N/A	N/A	108	221	112	417	0	0	0	0	0	0	0	N/A	*?
SD	0	0	0	0	0	0	209	0	0	0	0	0	0	54	243	0	168	0	0	0	0	0	0	0	0	0
S/A	0	0	0	0	0	0	0.6	0	0	0	0	0	0	0.5	1.1	0	0.4	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	96	N/A	N/A	N/A	N/A	N/A	N/A	47	50	112	215	0	0	0	0	0	0	0	N/A	
Max	0	0	0	0	0	0	606	N/A	N/A	N/A	N/A	N/A	N/A	143	393	112	625	0	0	0	0	0	0	0	N/A	
n	0	0	0	0	0	0	9	0	0	0	0	0	0	6	13	2	11	0	0	0	0	0	0	0	0	0

Daylight Data Recovery: 85.1% missing; 13.3% exceed the 15% QC threshold -- 3736 total daylight measurements.

Instrument: Eppley NIP Serial Number: 25796E6 Calibration Factor: 8.670 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.

November 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	25	113	213	217	119	120	217	316	328	137	23	0	0	0	0	0	0	0	1827
2	0	0	0	0	0	0	2	18	44	48	58	68	81	54	50	40	9	0	0	0	0	0	0	0	470
3	0	0	0	0	0	0	2	18	76	131	420	230	135	68	96	79	30	5	0	0	0	0	0	0	1289
4	0	0	0	0	0	0	27	84	142	235	232 ?	202	129	81	142	94	22	0	0	0	0	0	0	0	1391
5	0	0	0	0	0	0	30	135 ?	?	?	?	?	?	?	?	179 ?	59	0	0	0	0	0	0	0	403 ?
6	0	0	0	0	0	0	25	120 ?	?	?	?	?	?	?	?	181 ?	58	0	0	0	0	0	0	0	384 ?
7	0	0	0	0	0	0	24	113	241 ?	221 ?	?	?	?	?	?	149	53	0	0	0	0	0	0	0	802 ?
8	0	0	0	0	0	0	20	125	?	?	?	?	532 ?	412 ?	293 ?	195 ?	42	0	0	0	0	0	0	0	1618 ?
9	0	0	0	0	0	0	23	107	265 ?	464 ?	?	?	?	437 ?	289	136	35	0	0	0	0	0	0	0	1755 ?
10	0	0	0	0	0	0	10	100	214	299 ?	418 ?	433 ?	255	374 ?	340	132	29	0	0	0	0	0	0	0	2603 ?
11	0	0	0	0	0	0	12	26	103	106	121	126	336	354	147	176	65	0	0	0	0	0	0	0	1572
12	0	0	0	0	0	0	3	24	75	113	133	194	81	71	49	26	5	0	0	0	0	0	0	0	774
13	0	0	0	0	0	0	6	48	97	134	205	227	116	95	92	39	27	0	0	0	0	0	0	0	1086
14	0	0	0	0	0	0	10	26	106	268	394 ?	445 ?	394 ?	314	226	76	12	0	0	0	0	0	0	0	2271 ?
15	0	0	0	0	0	0	9	62	165	264	337 ?	340	347 ?	381 ?	320	178	34	0	0	0	0	0	0	0	2437 ?
16	0	0	0	0	0	0	10	108	244 ?	374 ?	469 ?	?	?	461 ?	332	146	27	0	0	0	0	0	0	0	2172 ?
17	0	0	0	0	0	0	16	93	227	374 ?	405 ?	446 ?	419	372	168 ?	149	27	0	0	0	0	0	0	0	2695 ?
18	0	0	0	0	0	0	0	24	66	41	112	289	318	123	85	29	10	0	0	0	0	0	0	0	1096
19	0	0	0	0	0	0	15	28	85	88	89	79	74	113	82	82	15	0	0	0	0	0	0	0	751
20	0	0	0	0	0	0	5	27	97	178	190	250	183	173	147	45	9	0	0	0	0	0	0	0	1303
21	0	0	0	0	0	0	0	9	55	99	101	83	177	143	95	70	13	0	0	0	0	0	0	0	845
22	0	0	0	0	0	0	1	17	28	47	99	60	30 ?	38 ?	72	28	10	0	0	0	0	0	0	0	430
23	0	0	0	0	0	0	1	17	49	125	139	172	247	210	158	61	3	0	0	0	0	0	0	0	1182
24	0	0	0	0	0	0	1	48	158 ?	303 ?	394 ?	331	203	73	69	17	5	0	0	0	0	0	0	0	1603 ?
25	0	0	0	0	0	0	2	44	121	251 ?	253 ?	?	?	?	334 ?	156 ?	38	0	0	0	0	0	0	0	1200 ?
26	0	0	0	0	0	0	5	84	194 ?	?	?	?	?	?	?	159 ?	40	0	0	0	0	0	0	0	481 ?
27	0	0	0	0	0	0	1	21	47	178	172	225	97	51	29	46	33	0	0	0	0	0	0	0	901
28	0	0	0	0	0	0	4	93	231 ?	324 ?	268	362 ?	397 ?	253 ?	159	87	13	0	0	0	0	0	0	0	2190 ?
29	0	0	0	0	0	0	10 ?	36	146	256 ?	297	418 ?	416 ?	331	292	90	20	0	0	0	0	0	0	0	2311 ?
30	0	0	0	0	0	0	0	8	22	37 ?	63	54	46	50	53	25	3	0	0	0	0	0	0	0	361
Avg	0	0	0	0	0	0	10	59	130	199	229	234	227	214	171	100	26	0	0	0	0	0	0	0	1340 ?
S D	0	0	0	0	0	0	10	42	75	116	133	133	143	146	108	58	18	1	0	0	0	0	0	0	722
S/A	0	0	0	0	0	0	0.96	0.71	0.58	0.58	0.58	0.57	0.63	0.68	0.63	0.58	0.69	5.48	0	0	0	0	0	0	0.54
Min	0	0	0	0	0	0	0	8	22	37	58	54	30	38	29	17	3	0	0	0	0	0	0	0	361
Max	0	0	0	0	0	0	30	135	265	464	469	446	532	461	340	195	65	5	0	0	0	0	0	0	2695
n	0	0	0	0	0	0	156	347	283	246	238	226	238	254	279	325	329	3	0	0	0	0	0	0	2927

Daylight Data Recovery: 0.0% missing; 21.7% exceed the 15% QC threshold -- 3736 total daylight measurements.

Instrument: Eppley PSP Serial Number: 18039F3 Calibration Factor: 7.470 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.