

December 2001

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	6	80	230	365	435	500	471	404	289	117	43	0	0	0	0	0	0	0	2939
2	0	0	0	0	0	0	4	81	147	341	397	327	370	319	325	158	13	0	0	0	0	0	0	0	2483
3	0	0	0	0	0	0	4	68	242	362	468	534	519	464	221	102	29	0	0	0	0	0	0	0	3014
4	0	0	0	0	0	0	3	57	202	348	451	516	504	435	304	155	31	0	0	0	0	0	0	0	3007
5	0	0	0	0	0	0	2	59	196	324	462	537	480	390	289	134	20	0	0	0	0	0	0	0	2892
6	0	0	0	0	0	0	3	24	62	107	181	201	258	244	254	134	6	0	0	0	0	0	0	0	1475
7	0	0	0	0	0	0	0	15	40	32	53	106	104	62	50	43	7	0	0	0	0	0	0	0	513
8	0	0	0	0	0	0	0	7	22	59	63	63	111	30	21 ?	10 ?	1	0	0	0	0	0	0	0	388 ?
9	0	0	0	0	0	0	0	16	58	210	256	435	423	257	166	89	26	0	0	0	0	0	0	0	1937
10	0	0	0	0	0	0	0	25	69	325	446	513	505	435	309	158	32	0	0	0	0	0	0	0	2818
11	0	0	0	0	0	0	2	26	82	119	131	132	167	153	80	46	11	0	0	0	0	0	0	0	950
12	0	0	0	0	0	0	0	5	26	39	66	22	12	16	11	15 ?	6	0	0	0	0	0	0	0	217
13	0	0	0	0	0	0	0	3	12	19	28	35	26	12	5	4	1	0	0	0	0	0	0	0	146
14	0	0	0	0	0	0	0	10	54	111	129	250	151	276	173	61	18	0	0	0	0	0	0	0	1233
15	0	0	0	0	0	0	3	66	218	311	311	350	355	186	102	37	11	0	0	0	0	0	0	0	1950
16	0	0	0	0	0	0	0	17	51	83	124	164	104	177	120	112	25	0	0	0	0	0	0	0	977
17	0	0	0	0	0	0	0	8	51	126	98	179	144	264	116	62	19	0	0	0	0	0	0	0	1067
18	0	0	0	0	0	0	0	42	175	351	433	539	521	429	279	159	37	0	0	0	0	0	0	0	2963
19	0	0	0	0	0	0	0	39	183	329	433	268	99	181	262	168	38	0	0	0	0	0	0	0	2000
20	0	0	0	0	0	0	0	38	186	348	455	527	524	455	327	175	36	0	0	0	0	0	0	0	3071
21	0	0	0	0	0	0	0	42	177	346	450	528	529	464	335	179	38	0	0	0	0	0	0	0	3088
22	0	0	0	0	0	0	0	27	141	116	140	165	130	56	133	119	24	0	0	0	0	0	0	0	1050
23	0	0	0	0	0	0	0	34	187	350	462	536	533	463	332	179	42	0	0	0	0	0	0	0	3118
24	0	0	0	0	0	0	0	38	190	358	472	545	546	478	344	186	45	0	0	0	0	0	0	0	3202
25	0	0	0	0	0	0	0	31	127	224	231	444	431	433	302	101	53	0	0	0	0	0	0	0	2378
26	0	0	0	0	0	0	0	48	149	186	342	477	421	458	337	185	47	0	0	0	0	0	0	0	2650
27	0	0	0	0	0	0	0	37	179	340	452	529	532	466	339	182	51	0	0	0	0	0	0	0	3108
28	0	0	0	0	0	0	0	30	168	325	437	511	513	449	324	171	50	0	0	0	0	0	0	0	2980
29	0	0	0	0	0	0	0	31	172	335	456	523	539	481	351	194	47	0	0	0	0	0	0	0	3129
30	0	0	0	0	0	0	0	22	93	326	451	542	445	334	166	85	9	0	0	0	0	0	0	0	2473
31	0	0	0	0	0	0	0	13	52	121	270	329	473	401	344	191	48	0	0	0	0	0	0	0	2241
Avg	0	0	0	0	0	0	1	33	127	237	309	365	353	312	226	120	28	0	0	0	0	0	0	0	2111
S D	0	0	0	0	0	0	2	21	70	124	161	183	186	160	115	60	17	0	0	0	0	0	0	0	1012
S/A	0	0	0	0	0	0	1.82	0.64	0.55	0.52	0.52	0.5	0.53	0.51	0.51	0.5	0.59	0	0	0	0	0	0	0	0.48
Min	0	0	0	0	0	0	0	3	12	19	28	22	12	12	5	4	1	0	0	0	0	0	0	0	146
Max	0	0	0	0	0	0	6	81	242	365	472	545	546	481	351	194	53	0	0	0	0	0	0	0	3202
n	0	0	0	0	0	0	25	366	371	372	372	370	371	370	366	362	327	0	0	0	0	0	0	0	3672

Daylight Data Recovery: 0.0% missing; 0.6% exceed the 15% QC threshold -- 3694 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.

December 2001

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	0	0	*
2	0	0	0	0	0	0	?	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
3	0	0	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	0	*
5	0	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	0	*
7	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	475 *?	0	0	0	0	0	0	0	0	*
8	0	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	0	*
10	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
11	0	0	0	0	0	0	*	*	*	*	*	120 *?	*	*	*	*	*	0	0	0	0	0	0	0	0	*
12	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	199 ?	402 ?	0	0	0	0	0	0	0	0	*
13	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	630 *?	0	0	0	0	0	0	0	0	*
14	0	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	0	*
16	0	0	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	0	0	*
18	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
19	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
20	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
21	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
22	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	199 ?	0	0	0	0	0	0	0	0	*
23	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
24	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
25	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
26	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
27	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
28	0	0	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	0	0	*
30	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
31	0	0	0	0	0	0	0	496 *?	?	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
Avg	0	0	0	0	0	0	0	496	N/A	N/A	N/A	120	N/A	N/A	N/A	199	426	0	0	0	0	0	0	0	N/A	*
SD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	179	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	0.42	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	496	N/A	N/A	N/A	120	N/A	N/A	N/A	199	199	0	0	0	0	0	0	0	0	N/A
Max	0	0	0	0	0	0	0	496	N/A	N/A	N/A	120	N/A	N/A	N/A	199	630	0	0	0	0	0	0	0	0	N/A
n	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	2	10	0	0	0	0	0	0	0	0	0

Daylight Data Recovery: 95.0% missing; 4.5% exceed the 15% QC threshold -- 3694 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.

December 2001

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	5	84	201 ?	366	415 ?	464 ?	440 ?	358 ?	238 ?	110	41	0	0	0	0	0	0	0	2722 ?
2	0	0	0	0	0	0	3	80	147	326 ?	339 ?	312	350	280	284 ?	160	12	0	0	0	0	0	0	0	2295 ?
3	0	0	0	0	0	0	4	68	176 ?	374 ?	?	?	?	?	203	95	28	0	0	0	0	0	0	0	947 ?
4	0	0	0	0	0	0	3	56	196	355	437 ?	?	?	414 ?	315 ?	154	31	0	0	0	0	0	0	0	1960 ?
5	0	0	0	0	0	0	2	58	187	301	407 ?	457 ?	305 ?	392	295	131	19	0	0	0	0	0	0	0	2554 ?
6	0	0	0	0	0	0	3	23	60	103	173	194	251	241	229 ?	131	6	0	0	0	0	0	0	0	1414
7	0	0	0	0	0	0	0	15	38	31	51	103	100	60	48	41	7	0	0	0	0	0	0	0	495
8	0	0	0	0	0	0	0	6	20	57	61	61	103	27	19	11	0	0	0	0	0	0	0	0	365
9	0	0	0	0	0	0	0	15	55	200	243	355 ?	386	244	162	85	27	0	0	0	0	0	0	0	1773
10	0	0	0	0	0	0	0	24	66	255 ?	?	?	?	420 ?	319 ?	155	31	0	0	0	0	0	0	0	1270 ?
11	0	0	0	0	0	0	1	25	79	114	125	131	161	148	77	44	11	0	0	0	0	0	0	0	916
12	0	0	0	0	0	0	0	4	24	37	63	20	12	15	10	13	5	0	0	0	0	0	0	0	204
13	0	0	0	0	0	0	0	3	12	18	27	34	25	12	5	4	1	0	0	0	0	0	0	0	140
14	0	0	0	0	0	0	0	10	52	106	123	242	144	248	165	58	17	0	0	0	0	0	0	0	1166
15	0	0	0	0	0	0	2	60	178 ?	275 ?	289	323	319	180	98	35	11	0	0	0	0	0	0	0	1771 ?
16	0	0	0	0	0	0	0	17	50	80	120	158	100	173	84	107	24	0	0	0	0	0	0	0	913
17	0	0	0	0	0	0	0	8	49	122	94	171	139	218	111	60	18	0	0	0	0	0	0	0	990
18	0	0	0	0	0	0	0	40	153	368 ?	420 ?	?	?	378 ?	256 ?	113 ?	35	0	0	0	0	0	0	0	1763 ?
19	0	0	0	0	0	0	0	38	176	331 ?	406 ?	237	95	148	247	165	37	0	0	0	0	0	0	0	1880 ?
20	0	0	0	0	0	0	0	38	176	361 ?	?	?	?	?	?	160	36	0	0	0	0	0	0	0	771 ?
21	0	0	0	0	0	0	0	41	175	352 ?	?	?	?	?	?	157 ?	38	0	0	0	0	0	0	0	763 ?
22	0	0	0	0	0	0	0	26	100 ?	113	133	156	126	54	127	89	23	0	0	0	0	0	0	0	946
23	0	0	0	0	0	0	0	32	174	?	?	?	?	?	?	163	41	0	0	0	0	0	0	0	410 ?
24	0	0	0	0	0	0	0	38	171	?	?	?	?	?	?	156 ?	44	0	0	0	0	0	0	0	409 ?
25	0	0	0	0	0	0	0	30	124	217	224	391 ?	386	323 ?	185 ?	95	46	0	0	0	0	0	0	0	2021 ?
26	0	0	0	0	0	0	0	39	109 ?	178	316	403 ?	382	?	?	167	45	0	0	0	0	0	0	0	1640 ?
27	0	0	0	0	0	0	0	37	173	369 ?	?	?	?	?	?	148 ?	49	0	0	0	0	0	0	0	776 ?
28	0	0	0	0	0	0	0	28	162	327 ?	405 ?	?	?	411 ?	336 ?	121 ?	49	0	0	0	0	0	0	0	1838 ?
29	0	0	0	0	0	0	0	31	166	334 ?	?	447 ?	?	?	?	164 ?	46	0	0	0	0	0	0	0	1188 ?
30	0	0	0	0	0	0	0	20	88	334 ?	?	439 ?	379 ?	301	160	81	9	0	0	0	0	0	0	0	1810 ?
31	0	0	0	0	0	0	0	12	50	115	257	295	391 ?	357 ?	?	177	46	0	0	0	0	0	0	0	1700 ?
Avg	0	0	0	0	0	0	1	32	116	225	233	257	230	235	173	108	27	0	0	0	0	0	0	0	1284 ?
S D	0	0	0	0	0	0	1	21	62	126	142	146	142	137	104	53	16	0	0	0	0	0	0	0	696
S/A	0	0	0	0	0	0	1.87	0.66	0.54	0.56	0.61	0.57	0.62	0.58	0.6	0.49	0.59	0	0	0	0	0	0	0	0.54
Min	0	0	0	0	0	0	0	3	12	18	27	20	12	12	5	4	0	0	0	0	0	0	0	0	140
Max	0	0	0	0	0	0	5	84	201	374	437	464	440	420	336	177	49	0	0	0	0	0	0	0	2722
n	0	0	0	0	0	0	25	362	341	272	214	203	209	222	231	339	325	0	0	0	0	0	0	0	2751

Daylight Data Recovery: 0.0% missing; 25.5% exceed the 15% QC threshold -- 3694 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.