

January 2003

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	0	7	22 ?	54	89	104	102	100	79	46	11	0	0	0	0	0	0	0	615
2	0	0	0	0	0	0	0	31	140	141	83	52	?	60	48	24 ?	4	0	0	0	0	0	0	0	583 ?
3	0	0	0	0	0	0	0	14	106	324	453	535	537	485	373	221	61	0	0	0	0	0	0	0	3108
4	0	0	0	0	0	0	0	23	150	332	460	529	530	475	360	204	56	3	0	0	0	0	0	0	3122
5	0	0	0	0	0	0	0	36	193	326	451	524	529	469	355	198	52	0	0	0	0	0	0	0	3131
6	0	0	0	0	0	0	0	30	162	323	463	513	376	414	326	209	47	3	0	0	0	0	0	0	2865
7	0	0	0	0	0	0	0	52	211	373	474	535	539	487	369	212	60	5	0	0	0	0	0	0	3317
8	0	0	0	0	0	0	0	42	145	345	448	517	497	463	333	228	75	7	0	0	0	0	0	0	3101
9	0	0	0	0	0	0	0	36	171 ?	300	260	99	70	144	225	47	21	4	0	0	0	0	0	0	1378
10	0	0	0	0	0	0	0	35	179	349	482	557	565	509	392	228	63	3	0	0	0	0	0	0	3361
11	0	0	0	0	0	0	0	29	164	307	426	439	382	306	261	138	44	3	0	0	0	0	0	0	2498
12	0	0	0	0	0	0	0	13	70	154	229	271	265	213	196	111	27	5	0	0	0	0	0	0	1554
13	0	0	0	0	0	0	0	17	147	344	464	543	556	503	389	230	72	6	0	0	0	0	0	0	3271
14	0	0	0	0	0	0	0	11	41	79	110	122	113	146	111	59	15	2	0	0	0	0	0	0	810
15	0	0	0	0	0	0	0	36	175	345	473	552	563	503	381	235	70	9	0	0	0	0	0	0	3343
16	0	0	0	0	0	0	0	2	?	40 ?	45	79 ?	60 ?	65 ?	34 ?	?	1 ?	0	0	0	0	0	0	0	325 ?
17	0	0	0	0	0	0	0	40	190	369	506	588	600	548	428	259	88	8	0	0	0	0	0	0	3625
18	0	0	0	0	0	0	0	63	217	367	497	576	550	343	411	254	81	9	0	0	0	0	0	0	3368
19	0	0	0	0	0	0	0	41	187	363	502	582	593	537	418	256	89	11	0	0	0	0	0	0	3578
20	0	0	0	0	0	0	0	17	74	111	215	143	131	112	58	154	68	9	0	0	0	0	0	0	1093
21	0	0	0	0	0	0	0	12	57	175	332	394	175	168	115	60	21	3	0	0	0	0	0	0	1512
22	0	0	0	0	0	0	0	10	57	202	479	564	595	512	405	215	56	10	0	0	0	0	0	0	3107
23	0	0	0	0	0	0	0	38	169	345	461	557	468	429	270	279	105	17	0	0	0	0	0	0	3138
24	0	0	0	0	0	0	0	42	197	375	512	595	608	549	446	277	88	17	0	0	0	0	0	0	3706
25	0	0	0	0	0	0	0	18	68	134	247	226	297	279	111	191	53	8	0	0	0	0	0	0	1633
26	0	0	0	0	0	0	0	42	127	304	497	591	592	545	427	261	98	13	0	0	0	0	0	0	3498
27	0	0	0	0	0	0	0	41	190	366	503	586	600	544	431	267	102	14	0	0	0	0	0	0	3645
28	0	0	0	0	0	0	0	7	38	62	79	137	129	114	100 ?	53 ?	30	4	0	0	0	0	0	0	754
29	0	0	0	0	0	0	0	4	39	?	109	164	115 ?	157	107	67	17	5	0	0	0	0	0	0	783 ?
30	0	0	0	0	0	0	0	10	43	82	112	175	293	347	432	285	102 ?	17	0	0	0	0	0	0	1899
31	0	0	0	0	0	0	0	46	91	136	97	77	103	188	113	61	19	5	0	0	0	0	0	0	934
Avg	0	0	0	0	0	0	0	27	127	251	341	385	384	346	274	178	55	6	0	0	0	0	0	0	2344
S D	0	0	0	0	0	0	0	16	62	119	172	207	205	175	144	87	32	5	0	0	0	0	0	0	1166
S/A	0	0	0	0	0	0	0	0.58	0.48	0.48	0.5	0.54	0.53	0.51	0.53	0.49	0.58	0.81	0	0	0	0	0	0	0.5
Min	0	0	0	0	0	0	0	2	22	40	45	52	60	60	34	24	1	0	0	0	0	0	0	0	325
Max	0	0	0	0	0	0	0	63	217	375	512	595	608	549	446	285	105	17	0	0	0	0	0	0	3706
n	0	0	0	0	0	0	1	350	352	354	369	367	345	367	359	348	363	84	0	0	0	0	0	0	3662

Daylight Data Recovery: 0.0% missing; 3.2% exceed the 15% QC threshold -- 3784 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.

January 2003

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	385 ?	?	?	?	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
2	0	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	0	*
4	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
5	0	0	0	0	0	0	0	*	527 *?	*	*	*	*	*	*	*	*	*	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	0	?	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	*
8	0	0	0	0	0	0	0	634 *?	?	*	*	*	*	*	*	*	*	*	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	0	784 ?	*	*	*	*	*	*	*	*	*	*	*	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	*	*	694 *?	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
16	0	0	0	0	0	0	0	*	*	*	*	*	?	?	?	?	361 ?	?	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	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
19	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	*
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	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
25	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	*
27	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	*
29	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	*
31	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
Avg	0	0	0	0	0	0	0	601	527	694	N/A	N/A	N/A	N/A	176	N/A	425	0	0	0	0	0	0	0	N/A	*
S/D	0	0	0	0	0	0	0	202	0	0	0	0	0	0	0	0	90	0	0	0	0	0	0	0	0	0
S/A	0	0	0	0	0	0	0	0.34	0	0	0	0	0	0	0	0	0.21	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	385	527	694	N/A	N/A	N/A	N/A	176	N/A	361	0	0	0	0	0	0	0	0	N/A
Max	0	0	0	0	0	0	0	784	527	694	N/A	N/A	N/A	N/A	176	N/A	489	0	0	0	0	0	0	0	0	N/A
n	0	0	0	0	0	0	0	8	2	2	0	0	0	0	3	0	7	0	0	0	0	0	0	0	0	0

Daylight Data Recovery: 92.3% missing; 7.0% exceed the 15% QC threshold -- 3784 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.

January 2003

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	0	7	20	51	85	104	97	96	75	44	11	0	0	0	0	0	0	0	590
2	0	0	0	0	0	0	0	32	142	135	75	49	29	55	46	19 ?	4	0	0	0	0	0	0	0	587
3	0	0	0	0	0	0	0	13	106	288 ?	365 ?	427 ?	?	?	?	161 ?	63	0	0	0	0	0	0	0	1423 ?
4	0	0	0	0	0	0	0	25	152	287 ?	?	?	?	?	?	200 ?	59	4	0	0	0	0	0	0	727 ?
5	0	0	0	0	0	0	0	39	181	286 ?	?	?	?	?	?	209	55	0	0	0	0	0	0	0	770 ?
6	0	0	0	0	0	0	0	33	170	314 ?	?	404 ?	360	346 ?	312 ?	209	47	2	0	0	0	0	0	0	2197 ?
7	0	0	0	0	0	0	0	44	164 ?	?	?	?	?	?	?	204 ?	63	5	0	0	0	0	0	0	481 ?
8	0	0	0	0	0	0	0	47	150	277 ?	?	?	473 ?	?	350 ?	195 ?	77	8	0	0	0	0	0	0	1578 ?
9	0	0	0	0	0	0	0	41	176 ?	281 ?	240	96	67	139	206	42	21	4	0	0	0	0	0	0	1313
10	0	0	0	0	0	0	0	38	190	?	?	?	?	?	?	194 ?	68	4	0	0	0	0	0	0	493 ?
11	0	0	0	0	0	0	0	28	157	295 ?	421 ?	447 ?	391	305	261	134	42	2	0	0	0	0	0	0	2482 ?
12	0	0	0	0	0	0	0	12	67	148	220	261	256	204	189	106	25	4	0	0	0	0	0	0	1494
13	0	0	0	0	0	0	0	16	123	290 ?	?	?	?	?	?	214 ?	77	8	0	0	0	0	0	0	729 ?
14	0	0	0	0	0	0	0	11	39	76	106	117	108	140	106	57	14	2	0	0	0	0	0	0	776
15	0	0	0	0	0	0	0	38	188	?	?	?	?	?	352 ?	231 ?	76	12	0	0	0	0	0	0	896 ?
16	0	0	0	0	0	0	0	2	14 ?	30	42	64	40	60	33	17 ?	1 ?	0	0	0	0	0	0	0	301 ?
17	0	0	0	0	0	0	0	43	182 ?	?	?	?	?	?	?	211 ?	95	11	0	0	0	0	0	0	543 ?
18	0	0	0	0	0	0	0	52	?	?	?	?	331 ?	318	?	218 ?	86	11	0	0	0	0	0	0	1017 ?
19	0	0	0	0	0	0	0	44	189	?	?	?	?	?	?	212 ?	97	14	0	0	0	0	0	0	555 ?
20	0	0	0	0	0	0	0	17	72	108	212	139	127	109	56	159	70	9	0	0	0	0	0	0	1078
21	0	0	0	0	0	0	0	12	55	172	332	346 ?	170	162	112	58	20	2	0	0	0	0	0	0	1442
22	0	0	0	0	0	0	0	10	54	156	?	?	?	411 ?	381 ?	195	57	9	0	0	0	0	0	0	1273 ?
23	0	0	0	0	0	0	0	41	159	181 ?	441 ?	464 ?	336 ?	371 ?	231 ?	226 ?	113	19	0	0	0	0	0	0	2582 ?
24	0	0	0	0	0	0	0	45	191 ?	?	?	?	?	?	?	?	94	17	0	0	0	0	0	0	347 ?
25	0	0	0	0	0	0	0	18	64	130	237	219	300	276	108	172	51	8	0	0	0	0	0	0	1583
26	0	0	0	0	0	0	0	41	126	312	?	?	?	?	?	256 ?	105	15	0	0	0	0	0	0	855 ?
27	0	0	0	0	0	0	0	43	198	?	?	?	?	?	?	252 ?	112	16	0	0	0	0	0	0	620 ?
28	0	0	0	0	0	0	0	7	37	60	77	134	130	111	105	56	29	4	0	0	0	0	0	0	750
29	0	0	0	0	0	0	0	4	38	24 ?	100	159	112 ?	153	104	64	16	4	0	0	0	0	0	0	779
30	0	0	0	0	0	0	0	10	42	79	108	170	285	325	399 ?	268 ?	111 ?	19	0	0	0	0	0	0	1818 ?
31	0	0	0	0	0	0	0	44	87	132	94	75	100	183	110	59	18	5	0	0	0	0	0	0	906
Avg	0	0	0	0	0	0	0	28	118	179	197	216	206	209	186	155	57	7	0	0	0	0	0	0	1064 ?
S D	0	0	0	0	0	0	0	16	62	102	132	146	136	113	123	80	35	6	0	0	0	0	0	0	602
S/A	0	0	0	0	0	0	0	0.58	0.53	0.57	0.67	0.67	0.66	0.54	0.66	0.52	0.6	0.84	0	0	0	0	0	0	0.57
Min	0	0	0	0	0	0	0	2	14	24	42	49	29	55	33	17	1	0	0	0	0	0	0	0	301
Max	0	0	0	0	0	0	0	52	198	314	441	464	473	411	399	268	113	19	0	0	0	0	0	0	2582
n	0	0	0	0	0	0	1	346	332	202	167	169	185	197	187	257	364	84	0	0	0	0	0	0	2493

Daylight Data Recovery: 0.0% missing; 34.1% exceed the 15% QC threshold -- 3784 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.