

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	30	92	123	66	53 ?	83	104	35 ?	45	3	0	0	0	0	0	0	642 ?
2	0	0	0	0	0	0	0	5	23	66	81	67	42	117	79	160	66	5	0	0	0	0	0	0	709
3	0	0	0	0	0	0	0	2	12	41	97	174	84	44	32 ?	19 ?	7	2	0	0	0	0	0	0	514 ?
4	0	0	0	0	0	0	0	6	51	156	275	349	272	207	140	83	90	7	0	0	0	0	0	0	1634
5	0	0	0	0	0	0	0	2	13	25 ?	28 ?	?	?	?	51	67	21	3	0	0	0	0	0	0	211 ?
6	0	0	0	0	0	0	0	1	7 ?	?	43 ?	59 ?	108	138	75	36 ?	15	4	0	0	0	0	0	0	485 ?
7	0	0	0	0	0	0	0	6	33	181	436	491	523	485	395	252	99	15	0	0	0	0	0	0	2915
8	0	0	0	0	0	0	0	6	39	218	376	470	504	469	389	242	86	14	0	0	0	0	0	0	2813
9	0	0	0	0	0	0	0	5	89	245	388	476	511	466	368	259	111	19	0	0	0	0	0	0	2937
10	0	0	0	0	0	0	0	6	27	119	319	381	340	376	328	195	78	17	0	0	0	0	0	0	2186
11	0	0	0	0	0	0	0	8	74	251	408	496	532	498	409	269	107	12	0	0	0	0	0	0	3064
12	0	0	0	0	0	0	0	6	85	278	414	506	539	505	419	263	83	7	0	0	0	0	0	0	3106
13	0	0	0	0	0	0	0	5	98	262	206	185	432	497	406	262	109	14	0	0	0	0	0	0	2476
14	0	0	0	0	0	0	0	8	62	219	203	210	161	91	43	26 ?	9 ?	1	0	0	0	0	0	0	1032
15	0	0	0	0	0	0	0	7	66	287	426	519	555	524	433	286	123	15	0	0	0	0	0	0	3242
16	0	0	0	0	0	0	0	7	31	113	147	110	189	275	165	50	11 ?	2	0	0	0	0	0	0	1100
17	0	0	0	0	0	0	0	2	30	59	134	157	156	303	221	189	67	11	0	0	0	0	0	0	1329
18	0	0	0	0	0	0	0	6	40 ?	?	?	568 ?	567	530	445	303	138	13	0	0	0	0	0	0	2610 ?
19	0	0	0	0	0	0	0	9	51	140	204	361	538	519	433	293	135	23	0	0	0	0	0	0	2706
20	0	0	0	0	0	0	0	4	29	79	126	175	183	164	125	106	78	21	0	0	0	0	0	0	1090
21	0	0	0	0	0	0	0	7	46	73	113	149	190	190	104	74	79	21	0	0	0	0	0	0	1045
22	0	0	0	0	0	0	0	7	138	321	436	522	562	539	474	328	102	14	0	0	0	0	0	0	3441
23	0	0	0	0	0	0	0	6	57	125	242	216	319	366	224	214	66	15	0	0	0	0	0	0	1851
24	0	0	0	0	0	0	0	10	46	123	316	462	396	578	465	325	149	27	0	0	0	0	0	0	2897
25	0	0	0	0	0	0	0	7	120	295	440	535	528	431	456	318	152	24	0	0	0	0	0	0	3307
26	0	0	0	0	0	0	0	15	51	85	340	531	314	373	192	126	47	10	0	0	0	0	0	0	2083
27	0	0	0	0	0	0	0	9	88	340	477	561	604	569	478	330	164	31	0	0	0	0	0	0	3650
28	0	0	0	0	0	0	0	6	30	59	81	82	131	210	167	81	46	9	0	0	0	0	0	0	902
29	0	0	0	0	0	0	0	2	7 ?	?	58 ?	45	50 ?	53 ?	40 ?	36 ?	18 ?	3	0	0	0	0	0	0	311 ?
30	0	0	0	0	0	0	0	2	20	118	80	136	136	135	74	58	20 ?	5	0	0	0	0	0	0	784
31	0	0	0	0	0	0	0	5	26	56	94	123	157	485	224	105	56	13	0	0	0	0	0	0	1344
Avg	0	0	0	0	0	0	0	6	49	158	237	306	322	341	257	174	77	12	0	0	0	0	0	0	1884
S D	0	0	0	0	0	0	0	3	33	95	148	189	194	180	162	110	46	8	0	0	0	0	0	0	1089
S/A	0	0	0	0	0	0	0	0.5	0.67	0.6	0.62	0.62	0.6	0.53	0.63	0.63	0.6	0.65	0	0	0	0	0	0	0.58
Min	0	0	0	0	0	0	0	1	7	25	28	45	42	44	32	19	7	1	0	0	0	0	0	0	211
Max	0	0	0	0	0	0	0	15	138	340	477	568	604	578	478	330	164	31	0	0	0	0	0	0	3650
n	0	0	0	0	0	0	0	149	359	329	337	343	342	353	362	346	355	176	0	0	0	0	0	0	3453

Daylight Data Recovery: 0.0% missing; 6.0% exceed the 15% QC threshold -- 3673 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.

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	0	0	1	8	0	0	1	1	0	85	0	0	0	0	0	0	0	96
2	0	0	0	0	0	0	0	0	0	1	1	0	0	3	2	133	96	0	0	0	0	0	0	0	236
3	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	2
4	0	0	0	0	0	0	0	0	0	41	227	283	66	14	1	3	450	196	0	0	0	0	0	0	1282
5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6	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
7	0	0	0	0	0	0	0	0	0	77	755	986	999	981	941	834	562	19	0	0	0	0	0	0	6153
8	0	0	0	0	0	0	0	0	0	417	735	846	882	878	889	737	360	169	0	0	0	0	0	0	5913
9	0	0	0	0	0	0	0	0	442	743	884	941	965	914	749	558	438	107	0	0	0	0	0	0	6743
10	0	0	0	0	0	0	0	0	0	3	455	349	252	462	651	419	156	139	0	0	0	0	0	0	2887
11	0	0	0	0	0	0	0	0	291	734	911	980	1001	986	947	865	654	260	0	0	0	0	0	0	7629
12	0	0	0	0	0	0	0	0	409	899	973	1023	1031	1020	982	827	383	3	0	0	0	0	0	0	7550
13	0	0	0	0	0	0	0	0	528	817	22	1	428	963	908	784	529	29	0	0	0	0	0	0	5011
14	0	0	0	0	0	0	0	0	24	151	15	6	1	0	0	0	0	0	0	0	0	0	0	0	197
15	0	0	0	0	0	0	0	0	88	879	976	1015	1027	1020	984	899	693	206	0	0	0	0	0	0	7786
16	0	0	0	0	0	0	0	0	0	1	1	0	1	59	1	0	0	0	0	0	0	0	0	0	64
17	0	0	0	0	0	0	0	0	1	7	85	146	14	44	60	118	2	0	0	0	0	0	0	0	477
18	0	0	0	0	0	0	0	0	83 ?	?	?	1050 ?	1045	1024	986	910	725	74	0	0	0	0	0	0	5897 ?
19	0	0	0	0	0	0	0	0	1	7	19	220	819	818	876	808	658	249	0	0	0	0	0	0	4475
20	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	3	22	83	0	0	0	0	0	0	110
21	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	278	221	0	0	0	0	0	0	501
22	0	0	0	0	0	0	0	0	497	760	903	969	962	900	792	558	95	0	0	0	0	0	0	0	6437
23	0	0	0	0	0	0	0	0	9	57	58	6	72	133	38	172	13	0	0	0	0	0	0	0	558
24	0	0	0	0	0	0	0	0	0	0	133	374	139	882	967	892	607	264	0	0	0	0	0	0	4258
25	0	0	0	0	0	0	0	0	619	873	955	994	660	344	926	866	702	207	0	0	0	0	0	0	7146
26	0	0	0	0	0	0	0	0	22	0	392	750	80	306	37	1	0	0	0	0	0	0	0	0	1588
27	0	0	0	0	0	0	0	0	137	686	979	1030	1043	1008	987	854	753	368	0	0	0	0	0	0	7844
28	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	2
29	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
30	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
31	0	0	0	0	0	0	0	0	0	0	0	1	1	277	10	0	0	0	0	0	0	0	0	0	289
Avg	0	0	0	0	0	0	0	0	102	239	316	386	371	421	411	363	266	84	0	0	0	0	0	0	2940
S D	0	0	0	0	0	0	0	0	0	189	355	405	449	450	444	455	393	288	110	0	0	0	0	0	3119
S/A	0	0	0	0	0	0	0	4.89	1.86	1.49	1.28	1.16	1.21	1.06	1.11	1.08	1.08	1.31	0	0	0	0	0	0	1.06
Min	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
Max	0	0	0	0	0	0	0	0	619	899	979	1050	1045	1024	987	910	753	368	0	0	0	0	0	0	7844
n	0	0	0	0	0	0	0	149	368	360	360	360	372	372	371	372	372	176	0	0	0	0	0	0	3632

Daylight Data Recovery: 0.0% missing; 1.1% exceed the 15% QC threshold -- 3673 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.

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	6	30	94	121	70	40 ?	76	108	32 ?	34	3	0	0	0	0	0	0	614
2	0	0	0	0	0	0	0	4	23	69	84	70	43	116	80	119	51	5	0	0	0	0	0	0	663
3	0	0	0	0	0	0	0	1	12	42	102	181	87	43	30	17	7	1	0	0	0	0	0	0	522
4	0	0	0	0	0	0	0	5	51	144	180	211	238	207	145	85	44	5	0	0	0	0	0	0	1314
5	0	0	0	0	0	0	0	1	13	22	26 ?	?	?	27 ?	47	71	21	3	0	0	0	0	0	0	232 ?
6	0	0	0	0	0	0	0	0	7	11 ?	29	54	113	146	78	32 ?	15	4	0	0	0	0	0	0	490 ?
7	0	0	0	0	0	0	0	5	34	161	149	60	65	59	52	42	29	14	0	0	0	0	0	0	669
8	0	0	0	0	0	0	0	5	39	92	93	89	89	77	57	49	36	10	0	0	0	0	0	0	638
9	0	0	0	0	0	0	0	5	29	46	55	57	58	58	86	107	54	16	0	0	0	0	0	0	570
10	0	0	0	0	0	0	0	5	28	121	135	217	201	150	73	72	51	13	0	0	0	0	0	0	1065
11	0	0	0	0	0	0	0	6	34	52	62	58	61	57	50	40	23	7	0	0	0	0	0	0	449
12	0	0	0	0	0	0	0	5	24	42	45	48	52	47	44	39	21	5	0	0	0	0	0	0	371
13	0	0	0	0	0	0	0	4	25	44	200	194	217	58	54	48	35	12	0	0	0	0	0	0	891
14	0	0	0	0	0	0	0	9	55	174	197	212	169	96	42	24	11	1	0	0	0	0	0	0	989
15	0	0	0	0	0	0	0	8	48	52	53	59	62	57	50	38	26	7	0	0	0	0	0	0	461
16	0	0	0	0	0	0	0	8	32	117	155	116	201	247	172	53	11	1	0	0	0	0	0	0	1112
17	0	0	0	0	0	0	0	1	26	55	110	115	145	288	200	162	68	10	0	0	0	0	0	0	1179
18	0	0	0	0	0	0	0	4	33	36	36	41	55	56	55	46	32	9	0	0	0	0	0	0	403
19	0	0	0	0	0	0	0	10	52	141	203	250	125	128	78	57	36	12	0	0	0	0	0	0	1093
20	0	0	0	0	0	0	0	4	30	83	133	185	194	175	133	111	75	19	0	0	0	0	0	0	1143
21	0	0	0	0	0	0	0	7	48	76	121	158	201	200	110	78	47	11	0	0	0	0	0	0	1057
22	0	0	0	0	0	0	0	6	35	69	68	60	73	98	136	145	79	14	0	0	0	0	0	0	784
23	0	0	0	0	0	0	0	4	50	107	211	222	285	299	213	168	64	15	0	0	0	0	0	0	1637
24	0	0	0	0	0	0	0	10	48	129	238	266	318	144	63	52	42	14	0	0	0	0	0	0	1322
25	0	0	0	0	0	0	0	7	28	44	53	56	166	241	61	47	33	11	0	0	0	0	0	0	748
26	0	0	0	0	0	0	0	17	50	88	158	148	283	213	181	132	49	10	0	0	0	0	0	0	1330
27	0	0	0	0	0	0	0	8	59	92	68	64	66	66	56	56	32	12	0	0	0	0	0	0	578
28	0	0	0	0	0	0	0	6	31	63	86	88	140	225	178	86	49	9	0	0	0	0	0	0	961
29	0	0	0	0	0	0	0	2	9	22 ?	49	46	42	50	41	34	16	2	0	0	0	0	0	0	313
30	0	0	0	0	0	0	0	1	20	127	88	148	146	144	77	61	18	4	0	0	0	0	0	0	835
31	0	0	0	0	0	0	0	5	27	59	100	130	169	339	234	114	61	14	0	0	0	0	0	0	1251
Avg	0	0	0	0	0	0	0	6	33	80	110	123	137	135	96	71	38	9	0	0	0	0	0	0	829
S D	0	0	0	0	0	0	0	3	14	43	60	71	81	87	58	41	19	5	0	0	0	0	0	0	359
S/A	0	0	0	0	0	0	0	0.62	0.42	0.54	0.54	0.58	0.59	0.64	0.6	0.58	0.51	0.57	0	0	0	0	0	0	0.43
Min	0	0	0	0	0	0	0	0	7	11	26	41	40	27	30	17	7	1	0	0	0	0	0	0	232
Max	0	0	0	0	0	0	0	17	59	174	238	266	318	339	234	168	79	19	0	0	0	0	0	0	1637
n	0	0	0	0	0	0	0	142	369	356	360	357	352	363	371	364	371	176	0	0	0	0	0	0	3581

Daylight Data Recovery: 0.0% missing; 2.5% exceed the 15% QC threshold -- 3673 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.