

November 2002

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	1	7	21 ?	40 ?	64 ?	133	121	65	60 ?	76	54	16	0	0	0	0	0	0	657 ?
2	0	0	0	0	0	0	4	71	254	425	553	625	630	572	446	266	76	8	0	0	0	0	0	0	3929
3	0	0	0	0	0	0	1	67	225	409	419	516	410	285	210	138	56	5	0	0	0	0	0	0	2741
4	0	0	0	0	0	0	2	11	36	56	72	80	106	80	58	38	16	2	0	0	0	0	0	0	558
5	0	0	0	0	0	0	3	12	29	59	72	103 ?	?	46 ?	40	40	16	3	0	0	0	0	0	0	423 ?
6	0	0	0	0	0	0	0	9	37	35 ?	76	148	107	84	59	37 ?	12	2	0	0	0	0	0	0	605 ?
7	0	0	0	0	0	0	1	8	35	62	126	237	339	486	316	242	95	10	0	0	0	0	0	0	1956
8	0	0	0	0	0	0	3	70 ?	216 ?	389	520	590	596	536	422	265	93	2	0	0	0	0	0	0	3703 ?
9	0	0	0	0	0	0	?	46	214	396	419	430	506	418	379	201	70	5	0	0	0	0	0	0	3083
10	0	0	0	0	0	0	0	18	187	229	298	507	520	443	166	88	52	4	0	0	0	0	0	0	2512
11	0	0	0	0	0	0	0	7	55	159	223	264	238	235	267	227	47	6	0	0	0	0	0	0	1728
12	0	0	0	0	0	0	0	7	28	59	62 ?	75	93	56	62	84	59	14	0	0	0	0	0	0	598
13	0	0	0	0	0	0	0	5	23	59	146	288	400	400	360	238	76	4	0	0	0	0	0	0	1998
14	0	0	0	0	0	0	0	60	205 ?	366	479	443	463	448	378	202	62	6	0	0	0	0	0	0	3112
15	0	0	0	0	0	0	0	46	163	332	443	476	559	396	202	115	21	0	0	0	0	0	0	0	2752
16	0	0	0	0	0	0	0	10	37	41 ?	62	62	78	67	37 ?	?	6 ?	2	0	0	0	0	0	0	402 ?
17	0	0	0	0	0	0	0	3	20 ?	58	63	71	77	67	40	27	14	2	0	0	0	0	0	0	444
18	0	0	0	0	0	0	0	21	109	234	371	479	558	499	388	234	66	2	0	0	0	0	0	0	2963
19	0	0	0	0	0	0	0	1	17 ?	38	51	51 ?	77	188	271	176	58	6	0	0	0	0	0	0	934 ?
20	0	0	0	0	0	0	0	30	158	369	463	543	549	487	375	223	68	1	0	0	0	0	0	0	3266
21	0	0	0	0	0	0	0	4	31	51	66	129	58	52	58	32	52	9	0	0	0	0	0	0	543
22	0	0	0	0	0	0	0	10	20 ?	58	77	83	75	78	50 ?	?	5	1	0	0	0	0	0	0	458 ?
23	0	0	0	0	0	0	0	9	53	139	441	524	532	473	365	216	64	4	0	0	0	0	0	0	2821
24	0	0	0	0	0	0	0	28	162	321	442	511	521	466	360	210	59	0	0	0	0	0	0	0	3080
25	0	0	0	0	0	0	0	29	152	299	339	445	466	439	317	178	48	1	0	0	0	0	0	0	2712
26	0	0	0	0	0	0	0	8	28	69	82	50	148	133	229	56	10	0	0	0	0	0	0	0	812
27	0	0	0	0	0	0	0	1	5 ?	54 ?	127	54	74	65	42 ?	45	35	0	0	0	0	0	0	0	501 ?
28	0	0	0	0	0	0	0	7	42	104	189	?	?	371 ?	276	164	46	2	0	0	0	0	0	0	1201 ?
29	0	0	0	0	0	0	0	23	153	311	433	505	516	464	357	199	37	4	0	0	0	0	0	0	3000
30	0	0	0	0	0	0	0	4	20	78	280	228	149	114	212	63	25	4	0	0	0	0	0	0	1179
Avg	0	0	0	0	0	0	0	21	91	177	249	298	320	284	227	146	47	4	0	0	0	0	0	0	1822
S D	0	0	0	0	0	0	1	22	81	144	176	204	211	190	143	83	26	4	0	0	0	0	0	0	1193
S/A	0	0	0	0	0	0	2.15	1.04	0.89	0.81	0.71	0.68	0.66	0.67	0.63	0.57	0.55	0.96	0	0	0	0	0	0	0.65
Min	0	0	0	0	0	0	0	1	5	35	51	50	58	46	37	27	5	0	0	0	0	0	0	0	402
Max	0	0	0	0	0	0	4	71	254	425	553	625	630	572	446	266	95	16	0	0	0	0	0	0	3929
n	0	0	0	0	0	0	13	321	311	334	348	336	334	346	334	329	354	69	0	0	0	0	0	0	3431

Daylight Data Recovery: 0.0% missing; 6.0% exceed the 15% QC threshold -- 3649 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.

November 2002

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	2	1	0	0	0	74	2	0	0	0	0	0	0	79
2	0	0	0	0	0	0	0	326	753	916	983	1007	1004	990	923	579	186	9	0	0	0	0	0	0	7674
3	0	0	0	0	0	0	0	355	655	861	557	468	164	35	3	4	0	0	0	0	0	0	0	0	3101
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
7	0	0	0	0	0	0	0	0	0	0	1	11	172	629	500	533	486	146	0	0	0	0	0	0	2477
8	0	0	0	0	0	0	0	225	790 ?	918	966	987	986	969	927	845	603	97	0	0	0	0	0	0	8314
9	0	0	0	0	0	0	0	172	762	892	349	256	338	315	590	342	109	0	0	0	0	0	0	0	4125
10	0	0	0	0	0	0	0	0	228	220	175	515	570	330	88	1	32	0	0	0	0	0	0	0	2159
11	0	0	0	0	0	0	0	0	0	2	20	26	12	38	189	357	9	35	0	0	0	0	0	0	687
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	4
13	0	0	0	0	0	0	0	0	0	0	1	45	282	559	727	686	459	142	0	0	0	0	0	0	2900
14	0	0	0	0	0	0	0	173	725 ?	894	915	490	329	495	573	302	50	36	0	0	0	0	0	0	4982
15	0	0	0	0	0	0	0	27	247	666	754	654	905	375	92	38	0	0	0	0	0	0	0	0	3757
16	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
17	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
18	0	0	0	0	0	0	0	0	19	158	451	710	957	959	911	813	317	10	0	0	0	0	0	0	5304
19	0	0	0	0	0	0	0	0	0	0	0	0	0	13	169	187	142	26	0	0	0	0	0	0	537
20	0	0	0	0	0	0	0	8	279	896	958	995	996	969	900	755	327	10	0	0	0	0	0	0	7092
21	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	143	138	0	0	0	0	0	0	284
22	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
23	0	0	0	0	0	0	0	0	0	4	533	952	962	933	854	742	450	118	0	0	0	0	0	0	5548
24	0	0	0	0	0	0	0	147	637	810	899	933	938	916	860	744	450	101	0	0	0	0	0	0	7436
25	0	0	0	0	0	0	0	120	422	537	365	551	583	642	579	354	173	47	0	0	0	0	0	0	4374
26	0	0	0	0	0	0	0	0	0	0	0	0	9	13	186	1	0	0	0	0	0	0	0	0	209
27	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	115	0	0	0	0	0	0	0	118
28	0	0	0	0	0	0	0	0	0	1	18	?	?	706 ?	577	537	249	0	0	0	0	0	0	0	2087 ?
29	0	0	0	0	0	0	0	109	653	830	921	952	944	933	875	668	38	0	0	0	0	0	0	0	6922
30	0	0	0	0	0	0	0	0	0	0	296	83	2	5	144	4	2	19	0	0	0	0	0	0	556
Avg	0	0	0	0	0	0	0	55	206	287	305	332	350	361	356	283	147	31	0	0	0	0	0	0	2691
S D	0	0	0	0	0	0	0	102	303	394	383	400	417	401	374	320	183	50	0	0	0	0	0	0	2833
S/A	0	0	0	0	0	0	5.48	1.83	1.47	1.37	1.25	1.2	1.19	1.11	1.05	1.13	1.25	1.59	0	0	0	0	0	0	1.05
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	355	790	918	983	1007	1004	990	927	845	603	146	0	0	0	0	0	0	8314
n	0	0	0	0	0	0	14	326	343	358	360	348	348	356	358	359	360	69	0	0	0	0	0	0	3599

Daylight Data Recovery: 0.0% missing; 1.4% exceed the 15% QC threshold -- 3649 total daylight measurements.

Instrument: Eppley NIP Serial Number: 17664E6 Calibration Factor: 8.480 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 2002

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	22	32	52	138	111	70	47	77	49	17	0	0	0	0	0	0	622
2	0	0	0	0	0	0	3	26	51	54	55	57	58	54	49	80	44	7	0	0	0	0	0	0	537
3	0	0	0	0	0	0	0	21	47	62	111	217	299	265	222	143	58	5	0	0	0	0	0	0	1451
4	0	0	0	0	0	0	2 ?	11	38	59	77	85	113	86	62	40	17	1	0	0	0	0	0	0	590
5	0	0	0	0	0	0	3 ?	12	29	62	77	94	32 ?	39 ?	40	40	16	3	0	0	0	0	0	0	448
6	0	0	0	0	0	0	0	9	36	31	80	154	114	89	62	27	12	1	0	0	0	0	0	0	616
7	0	0	0	0	0	0	1	8	37	65	133	241	230	154	92	90	33	7	0	0	0	0	0	0	1091
8	0	0	0	0	0	0	?	21	35 ?	40	48	53	55	50	43	33	19	2	0	0	0	0	0	0	401
9	0	0	0	0	0	0	?	23	29	57	235	275	310	248	131	94	51	4	0	0	0	0	0	0	1459
10	0	0	0	0	0	0	0	18	109	156	208	217	207	272	128	91	48	4	0	0	0	0	0	0	1458
11	0	0	0	0	0	0	0	7	58	168	218	258	243	221	195	121	48	7	0	0	0	0	0	0	1545
12	0	0	0	0	0	0	0	6	30	60	47	76	99	59	66	88	61	18 ?	0	0	0	0	0	0	609
13	0	0	0	0	0	0	0	4	23	61	152	265	245	118	67	62	27	5	0	0	0	0	0	0	1028
14	0	0	0	0	0	0	0	17	40	38	57	170	278	192	153	115	56	7	0	0	0	0	0	0	1122
15	0	0	0	0	0	0	0	42	102	79	95	116	85	212	166	104	22	0	0	0	0	0	0	0	1023
16	0	0	0	0	0	0	0	10	39	38	68	68	85	73	29	16	8	1	0	0	0	0	0	0	435
17	0	0	0	0	0	0	0	2	19	61	67	75	82	72	42	28	13	0	0	0	0	0	0	0	461
18	0	0	0	0	0	0	0	23	105	172	156	107	69	55	47	35	34	2	0	0	0	0	0	0	806
19	0	0	0	0	0	0	0	0	17	39	52	42	82	189	211	127	41	6	0	0	0	0	0	0	806
20	0	0	0	0	0	0	0	24	74	52	51	50	49	44	41	42	34	1	0	0	0	0	0	0	463
21	0	0	0	0	0	0	0	4	33	54	71	138	61	50	58	32	39	7	0	0	0	0	0	0	547
22	0	0	0	0	0	0	0	11	17	62	82	88	80	83	39	15	5	0	0	0	0	0	0	0	483
23	0	0	0	0	0	0	0	10	55	144	203	61	58	53	53	42	21	4	0	0	0	0	0	0	704
24	0	0	0	0	0	0	0	15	40	53	56	58	60	55	47	36	17	0	0	0	0	0	0	0	439
25	0	0	0	0	0	0	0	15	63	110	161	158	167	142	99	94	29	1	0	0	0	0	0	0	1040
26	0	0	0	0	0	0	0	9	28	72	88	51	151	128	152	57	9	0	0	0	0	0	0	0	746
27	0	0	0	0	0	0	0	0	7 ?	46	133	54	72	60	32 ?	37	25	0	0	0	0	0	0	0	466
28	0	0	0	0	0	0	0	6	38	96	175	104	70	61	64	43	21	1	0	0	0	0	0	0	677
29	0	0	0	0	0	0	0	14	37	52	53	59	65	57	49	43	30	4	0	0	0	0	0	0	463
30	0	0	0	0	0	0	0	4	21	82	147	193	156	115	157	64	24	4	0	0	0	0	0	0	966
Avg	0	0	0	0	0	0	0	13	43	72	107	124	126	112	88	64	30	4	0	0	0	0	0	0	783
S D	0	0	0	0	0	0	1	9	26	39	58	74	82	73	58	36	16	4	0	0	0	0	0	0	353
S/A	0	0	0	0	0	0	2.73	0.73	0.6	0.55	0.54	0.59	0.65	0.65	0.66	0.56	0.53	1.12	0	0	0	0	0	0	0.45
Min	0	0	0	0	0	0	0	0	7	31	47	42	32	39	29	15	5	0	0	0	0	0	0	0	401
Max	0	0	0	0	0	0	3	42	109	172	235	275	310	272	222	143	61	18	0	0	0	0	0	0	1545
n	0	0	0	0	0	0	10	317	343	358	360	358	354	356	357	359	360	68	0	0	0	0	0	0	3600

Daylight Data Recovery: 0.0% missing; 1.3% exceed the 15% QC threshold -- 3649 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.