

**February 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	3	25	70	102	120	140	113	79	48	23	5	0	0	0	0	0	0	728
2	0	0	0	0	0	0	0	16	183	309	447	490	481	489	467	338	180	56	0	0	0	0	0	0	3456
3	0	0	0	0	0	0	0	10	93	171	204	223	251	192	133	113	68	23	0	0	0	0	0	0	1482
4	0	0	0	0	0	0	0	1	33	53	57	90	225	338	413	366	186	42	0	0	0	0	0	0	1802
5	0	0	0	0	0	0	0	19	120	342	496	599	641	612	505	334	168	31	0	0	0	0	0	0	3867
6	0	0	0	0	0	0	0	8	54	181	199	165	67	97	99	68	29	6	0	0	0	0	0	0	972
7	0	0	0	0	0	0	0	1	1 ?	33 ?	?	?	?	?	?	39 ?	?	3	0	0	0	0	0	0	77 ?
8	0	0	0	0	0	0	0	4	13 ?	?	?	?	?	?	?	?	181 ?	51	0	0	0	0	0	0	250 ?
9	0	0	0	0	0	0	0	25	186	351 ?	534	609	651	623	531	386	141	30	0	0	0	0	0	0	4068
10	0	0	0	0	0	0	0	3	10 ?	?	88	79	79	222	94	47 ?	29	6	0	0	0	0	0	0	657 ?
11	0	0	0	0	0	0	0	32	140	313	345	349	455	453	178	224	100	19	0	0	0	0	0	0	2609
12	0	0	0	0	0	0	0	25	171	320	533	646	688	661	571	421	238	61	0	0	0	0	0	0	4334
13	0	0	0	0	0	0	0	33	191	383	533	637	676	618	327	173	86	29	0	0	0	0	0	0	3686
14	0	0	0	0	0	0	0	14	65	110	122	108	84	57	72	72	40	9	0	0	0	0	0	0	752
15	0	0	0	0	0	0	0	4	9 ?	?	43 ?	46	51 ?	48 ?	59	52	26 ?	5	0	0	0	0	0	0	341 ?
16	0	0	0	0	0	0	0	3	7 ?	?	53	50 ?	70	?	50 ?	?	?	2	0	0	0	0	0	0	234 ?
17	0	0	0	0	0	0	0	12	47	116	137	158	163	176	181	83	28	11	2	0	0	0	0	0	1114
18	0	0	0	0	0	0	0	5	20	65	96	114	111	108	127	113	66	25	2	0	0	0	0	0	851
19	0	0	0	0	0	0	0	30	98	182	302	339	565	438	244	297	75	24	2	0	0	0	0	0	2597
20	0	0	0	0	0	0	0	20	52	93	191	441	477	252	148	168	74	18	2	0	0	0	0	0	1936
21	0	0	0	0	0	0	0	6	29 ?	49	79	115	117	84	160	121 ?	43	28	1	0	0	0	0	0	833
22	0	0	0	0	0	0	0	4	?	32 ?	40 ?	126	156	159	265	372	174	98	7	0	0	0	0	0	1433 ?
23	0	0	0	0	0	0	0	3	54 ?	166	204	170	123	92	90	88	53	22	4	0	0	0	0	0	1069
24	0	0	0	0	0	0	0	9	88	114	505	569	572	667	605	456	247	54	4	0	0	0	0	0	3891
25	0	0	0	0	0	0	0	12	52	102	151	189	194	170	73	45	28 ?	6 ?	2	0	0	0	0	0	1026
26	0	0	0	0	0	0	0	7	30	34 ?	55	88	61 ?	52 ?	47 ?	?	28 ?	3 ?	1	0	0	0	0	0	405 ?
27	0	0	0	0	0	0	0	2	?	44 ?	41 ?	56 ?	59 ?	85	91	43 ?	23 ?	14	5	0	0	0	0	0	465 ?
28	0	0	0	0	0	0	2	9	41	64	106	173	145	114	81	69	34	11	2	0	0	0	0	0	851

Avg	0	0	0	0	0	0	0	11	70	154	218	260	281	277	219	181	91	25	1	0	0	0	0	0	0	1635 ?
S D	0	0	0	0	0	0	0	10	60	117	180	209	232	221	181	142	72	23	2	0	0	0	0	0	0	1355
S/A	0	0	0	0	0	0	5.29	0.87	0.87	0.76	0.82	0.8	0.83	0.8	0.83	0.79	0.79	0.91	1.5	0	0	0	0	0	0	0.83
Min	0	0	0	0	0	0	0	1	1	32	40	46	51	48	47	39	23	2	0	0	0	0	0	0	0	77
Max	0	0	0	0	0	0	2	33	191	383	534	646	688	667	605	456	247	98	7	0	0	0	0	0	0	4334
n	0	0	0	0	0	0	1	261	260	252	284	299	291	286	299	277	272	303	21	0	0	0	0	0	0	3109

Daylight Data Recovery: 0.0% missing; 14.2% exceed the 15% QC threshold -- 3622 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 25821F3    Calibration Factor: 9.020 μV/W/m<sup>2</sup>    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.

**February 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	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
2	0	0	0	0	0	0	0	10	506	754	852	654	395	581	829	773	618	292	0	0	0	0	0	0	6264
3	0	0	0	0	0	0	0	3	339	171	14	12	11	2	1	0	0	0	0	0	0	0	0	0	553
4	0	0	0	0	0	0	0	0	0	0	0	0	15	208	577	873	725	392	0	0	0	0	0	0	2790
5	0	0	0	0	0	0	0	85	436	904	998	1035	1047	1034	915	573	360	12	0	0	0	0	0	0	7400
6	0	0	0	0	0	0	0	0	0	15	3	1	0	0	0	0	0	0	0	0	0	0	0	0	19
7	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
8	0	0	0	0	0	0	0	0	47 ?	?	?	?	?	?	?	?	801 ?	466	0	0	0	0	0	0	1315 ?
9	0	0	0	0	0	0	0	24	539	455	607	971	992	989	958	877	207	0	0	0	0	0	0	0	6621
10	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	13
11	0	0	0	0	0	0	0	0	170	545	143	69	182	235	7	36	1	0	0	0	0	0	0	0	1387
12	0	0	0	0	0	0	0	108	656	684	1001	1044	1055	1054	1030	974	858	507	0	0	0	0	0	0	8971
13	0	0	0	0	0	0	0	220	781	932	985	1010	1013	870	108	16	0	0	0	0	0	0	0	0	5936
14	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	4
15	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
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	1	1	1	2	2	0	0	0	0	0	0	0	0	7
18	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	5
19	0	0	0	0	0	0	0	5	16	18	82	53	430	115	7	102	9	0	0	0	0	0	0	0	837
20	0	0	0	0	0	0	0	0	0	0	1	60	134	2	0	1	0	0	0	0	0	0	0	0	200
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	3
22	0	0	0	0	0	0	0	0	0	0	0	2	2	2	12	219	80	266	0	0	0	0	0	0	583
23	0	0	0	0	0	0	0	0	0	5	7	2	1	0	0	0	0	0	0	0	0	0	0	0	15
24	0	0	0	0	0	0	0	0	59	18	570	589	604	829	942	804	521	139	0	0	0	0	0	0	5076
25	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3
26	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
28	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1	0	0	0	0	0	0	0	0	0	6

Avg	0	0	0	0	0	0	0	16	127	167	195	204	218	220	200	195	149	74	0	0	0	0	0	0	1715
S D	0	0	0	0	0	0	0	47	234	310	361	382	377	380	375	345	280	155	0	0	0	0	0	0	2787
S/A	0	0	0	0	0	0	0	2.91	1.84	1.86	1.85	1.87	1.73	1.73	1.88	1.77	1.87	2.09	5.29	0	0	0	0	0	1.63
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	220	781	932	1001	1044	1055	1054	1030	974	858	507	0	0	0	0	0	0	8971
n	0	0	0	0	0	0	1	262	331	324	324	324	324	324	324	324	331	314	21	0	0	0	0	0	3528

Daylight Data Recovery: 0.0% missing; 2.6% exceed the 15% QC threshold -- 3622 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.

**February 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	2	26	75	110	129	149	122	84	50	23	5	0	0	0	0	0	0	775
2	0	0	0	0	0	0	0	15	58	68	73	147	246	172	86	70	57	37	0	0	0	0	0	0	1028
3	0	0	0	0	0	0	0	9	38	130	206	232	260	206	144	122	73	24	0	0	0	0	0	0	1445
4	0	0	0	0	0	0	0	1	36	54	58	96	228	225	136	58	38	16	0	0	0	0	0	0	945
5	0	0	0	0	0	0	0	11	38	49	53	55	57	56	71	114	88	28	0	0	0	0	0	0	621
6	0	0	0	0	0	0	0	8	57	179	208	181	70	102	106	72	30	5	0	0	0	0	0	0	1018
7	0	0	0	0	0	0	0	0	0?	27?	?	?	?	32?	?	24?	12?	2	0	0	0	0	0	0	97?
8	0	0	0	0	0	0	0	2	14	25	38	47	52	49	41	33	22	8	0	0	0	0	0	0	332
9	0	0	0	0	0	0	0	19	55	129	200	83	83	77	68	60	84	31	0	0	0	0	0	0	891
10	0	0	0	0	0	0	0	3	12	20	87	84	83	230	102	44	28	6	0	0	0	0	0	0	700
11	0	0	0	0	0	0	0	31	103	125	268	315	348	309	184	212	107	20	0	0	0	0	0	0	2021
12	0	0	0	0	0	0	0	16	46	66	61	67	70	66	62	49	39	18	0	0	0	0	0	0	559
13	0	0	0	0	0	0	0	15	36	51	62	69	74	110	274	174	90	30	0	0	0	0	0	0	985
14	0	0	0	0	0	0	0	14	70	118	131	117	90	60	77	76	42	9	0	0	0	0	0	0	805
15	0	0	0	0	0	0	0	3	12	21	35	48	48	45	63	56	22?	4	0	0	0	0	0	0	359
16	0	0	0	0	0	0	0	2	11?	25?	52	50	73	42	46	21?	16?	2	0	0	0	0	0	0	340?
17	0	0	0	0	0	0	0	12	50	126	149	172	178	192	198	91	30	11	1	0	0	0	0	0	1211
18	0	0	0	0	0	0	0	4	19	66	98	117	114	111	130	116	67	25	1	0	0	0	0	0	869
19	0	0	0	0	0	0	0	33	97	181	246	318	297	369	260	253	76	27	3	0	0	0	0	0	2161
20	0	0	0	0	0	0	0	24	56	101	208	409	379	273	161	182	80	19	2	0	0	0	0	0	1894
21	0	0	0	0	0	0	0	6	27	53	86	126	128	90	174	82?	46	30	0	0	0	0	0	0	848
22	0	0	0	0	0	0	0	4	?	29	40	136	168	170	272	290	155	76	7	0	0	0	0	0	1347
23	0	0	0	0	0	0	0	3	49	176	215	182	133	99	96	95	55	22	3	0	0	0	0	0	1127
24	0	0	0	0	0	0	0	9	76	115	197	220	184	144	83	103	86	36	2	0	0	0	0	0	1255
25	0	0	0	0	0	0	0	12	54	108	162	201	206	177	67	43	23?	7	0	0	0	0	0	0	1060
26	0	0	0	0	0	0	0	6	28	30	55	88	55	44	34	23?	23?	2?	0	0	0	0	0	0	388?
27	0	0	0	0	0	0	0	2	13?	37?	31	43	46	81	84	36	22?	15	4	0	0	0	0	0	414?
28	0	0	0	0	0	0	?	9	43	69	115	188	158	124	87	74	34	11	1	0	0	0	0	0	915

Avg	0	0	0	0	0	0	0	10	42	80	120	145	147	135	118	94	52	19	1	0	0	0	0	0	943
S D	0	0	0	0	0	0	0	9	26	50	74	93	95	87	69	70	34	16	2	0	0	0	0	0	507
S/A	0	0	0	0	0	0	0	0.88	0.62	0.63	0.62	0.64	0.64	0.65	0.59	0.74	0.64	0.84	1.83	0	0	0	0	0	0.54
Min	0	0	0	0	0	0	0	0	0	20	31	43	46	32	34	21	12	2	0	0	0	0	0	0	97
Max	0	0	0	0	0	0	0	33	103	181	268	409	379	369	274	290	155	76	7	0	0	0	0	0	2161
n	0	0	0	0	0	0	0	255	301	311	324	323	322	327	324	309	306	307	21	0	0	0	0	0	3433

Daylight Data Recovery: 0.0% missing; 5.2% exceed the 15% QC threshold -- 3622 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.