

**April 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	6	29	164	307	579	874	902	865	765	605	408	191	24	0	0	0	0	0	5718
2	0	0	0	0	0	0	29	134	391	611	766	868	843	831	678	488	377	169	26	0	0	0	0	0	6210
3	0	0	0	0	0	0	37	178	222	76	51	34	33	43	55	46	34	19	8	0	0	0	0	0	836
4	0	0	0	0	0	0	50	231	424	645	799	895	921	872	771	606	388	177	30	0	0	0	0	0	6809
5	0	0	0	0	0	0	68	231	394	592	824	898	925	886	778	614	417	197	35	0	0	0	0	0	6859
6	0	0	0	0	0	0	6	34	86	309	628	640	689	664	887	587	429	200	30	0	0	0	0	0	5191
7	0	0	0	0	0	0	55	242	458	657	806	890	838	858	756	618	422	196	32	0	0	0	0	0	6828
8	0	0	0	0	0	0	55	167	350	630	779	835	801	831	750	543	361	141	32	0	0	0	0	0	6275
9	0	0	0	0	0	0	10	30	75	123	202	244	304	157	209	55	86	27	14	0	0	0	0	0	1535
10	0	0	0	0	0	0	26	107	188	450	807	922	948	905	793	629	429	211	35	0	0	0	0	0	6450
11	0	0	0	0	0	2	65	255	468	661	811	906	936	897	789	627	429	216	34	0	0	0	0	0	7098
12	0	0	0	0	0	3	60	121	204	221	253	357	646	349	323	204	194	51	12	0	0	0	0	0	2996
13	0	0	0	0	0	0	12	52	133	173	363	485	632	596	311	111	206	74	4	0	0	0	0	0	3150
14	0	0	0	0	0	5	17	44	162	236	325	366	281	269	276	187	149	46	20	0	0	0	0	0	2383
15	0	0	0	0	0	6	95	255	376	537	475	512	632	684	458	568	226	126	38	0	0	0	0	0	4988
16	0	0	0	0	0	6	86	261	462	646	797	505	654	708	521	350	273	158	43	0	0	0	0	0	5471
17	0	0	0	0	0	8	84	215	430	688	810	772	781	930	186	349	389	129	43	0	0	0	0	0	5813
18	0	0	0	0	0	5	66	302	295	542	858	908	902	805	485	538	388	211	31	0	0	0	0	0	6335
19	0	0	0	0	0	7	55	123	472	659	435	208	306	840	529	516	334	207	29	0	0	0	0	0	4719
20	0	0	0	0	0	2	16	62	212	254	365	425	286	97	161	349	334	165	49	0	0	0	0	0	2777
21	0	0	0	0	0	1	6	70	173	384	507	487	433	209	314	435	325	167	50	0	0	0	0	0	3561
22	0	0	0	0	0	2	47	188	402	664	744	876	982	940	828	655	465	248	49	0	0	0	0	0	7091
23	0	0	0	0	0	7	58	145	480	686	875	964	986	943	834	670	469	251	47	1	0	0	0	0	7417
24	0	0	0	0	0	15	111	309	521	712	852	844	792	688	220	91	37	33	6	0	0	0	0	0	5230
25	0	0	0	0	0	5	15	22	90	91	267	314	759	617	665	457	225	53	3	0	0	0	0	0	3585
26	0	0	0	0	0	14	85	245	290	316	315	379	337	314	324	321	454	205	44	7	0	0	0	0	3648
27	0	0	0	0	0	30	123	205	460	521	592	362	659	513	309	95	127	37	10	0	0	0	0	0	4042
28	0	0	0	0	0	0	10	45	26	116	771	754	876	810	303	287	202	76	29	4	0	0	0	0	4310
29	0	0	0	0	0	8	60	72	110	275	340	556	792	940	838	668	472	263	61	4	0	0	0	0	5459
30	0	0	0	0	0	17	113	306 ?	528	742	880	963	989	932	798	636	328	121	41	1	0	0	0	0	7395
Avg	0	0	0	0	0	5	50	156	299	451	590	633	681	671	529	437	320	151	32	1	0	0	0	0	5006
S D	0	0	0	0	0	7	35	95	159	221	257	274	270	286	259	214	134	74	15	2	0	0	0	0	1810
S/A	0	0	0	0	0	1.46	0.7	0.61	0.53	0.49	0.44	0.43	0.4	0.43	0.49	0.49	0.42	0.49	0.47	2.37	0	0	0	0	0.36
Min	0	0	0	0	0	0	5	15	22	76	51	34	33	43	55	46	34	19	4	0	0	0	0	0	836
Max	0	0	0	0	0	30	123	309	528	742	880	964	989	943	887	670	472	263	61	7	0	0	0	0	7417
n	0	0	0	0	0	71	353	353	358	359	359	360	360	360	360	360	360	360	328	11	0	0	0	0	4712

Daylight Data Recovery: 0.0% missing; 0.3% exceed the 15% QC threshold -- 4724 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.

**April 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	20	115	506	978	996	987	981	939	862	694	120	0	0	0	0	0	7197
2	0	0	0	0	0	0	41	151	693	911	957	982	776	819	518	511	606	501	109	0	0	0	0	0	7576
3	0	0	0	0	0	0	112	343	94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	550
4	0	0	0	0	0	0	261	683	769	911	969	994	996	968	948	883	719	492	52	0	0	0	0	0	9645
5	0	0	0	0	0	0	196	388	305	658	910	939	958	951	917	863	777	583	101	0	0	0	0	0	8545
6	0	0	0	0	0	0	0	1	1	46	384	385	404	420	900	763	819	637	115	0	0	0	0	0	4874
7	0	0	0	0	0	0	292	684	841	925	910	886	661	818	860	892	815	496	51	0	0	0	0	0	9130
8	0	0	0	0	0	0	111	57	343	822	859	765	580	681	632	459	383	51	5	0	0	0	0	0	5747
9	0	0	0	0	0	0	0	0	0	0	1	3	9	1	1	0	0	0	0	0	0	0	0	0	17
10	0	0	0	0	0	0	4	0	2	290	936	1006	1011	997	964	920	835	661	133	0	0	0	0	0	7758
11	0	0	0	0	0	0	301	660	815	886	930	956	972	964	939	894	811	651	118	0	0	0	0	0	9896
12	0	0	0	0	0	0	72	17	38	2	6	23	130	5	5	1	6	0	0	0	0	0	0	0	305
13	0	0	0	0	0	0	0	0	1	2	32	75	305	358	195	3	38	1	0	0	0	0	0	0	1010
14	0	0	0	0	0	1	2	1	1	2	3	5	4	6	11	4	11	0	0	0	0	0	0	0	50
15	0	0	0	0	0	0	225	467	359	370	141	205	385	399	173	599	141	130	83	0	0	0	0	0	3675
16	0	0	0	0	0	1	311	629	763	801	831	351	449	539	377	160	264	158	85	0	0	0	0	0	5718
17	0	0	0	0	0	1	196	335	394	469	690	502	559	750	20	84	241	71	28	0	0	0	0	0	4340
18	0	0	0	0	0	0	154	454	120	213	785	894	816	579	306	527	597	510	63	0	0	0	0	0	6018
19	0	0	0	0	0	0	30	45	587	650	182	5	9	663	274	399	360	423	46	0	0	0	0	0	3674
20	0	0	0	0	0	0	0	0	15	2	10	27	9	0	1	85	162	90	57	0	0	0	0	0	458
21	0	0	0	0	0	0	0	0	14	105	188	142	145	22	95	383	323	156	41	0	0	0	0	0	1612
22	0	0	0	0	0	0	1	157	425	644	583	721	979	981	952	877	798	646	155	0	0	0	0	0	7920
23	0	0	0	0	0	0	3	20	579	764	978	1000	1002	998	976	929	853	698	165	0	0	0	0	0	8965
24	0	0	0	0	0	71	428	695	842	903	873	589	406	281	11	0	0	0	0	0	0	0	0	0	5100
25	0	0	0	0	0	0	0	0	0	1	1	17	17	473	489	789	646	395	160	0	0	0	0	0	2988
26	0	0	0	0	0	80	305	329	60	4	4	7	3	4	2	20	707	420	9	0	0	0	0	0	1955
27	0	0	0	0	0	107	271	100	283	163	166	12	157	64	57	0	19	0	0	0	0	0	0	0	1397
28	0	0	0	0	0	1	0	0	1	16	524	459	641	479	73	182	121	46	0	1	0	0	0	0	2543
29	0	0	0	0	0	0	0	0	1	20	39	106	391	865	869	812	758	630	175	0	0	0	0	0	4666
30	0	0	0	0	0	67	410	777 ?	812	895	945	958	944	864	810	584	250	58	11	0	0	0	0	0	8386
Avg	0	0	0	0	0	11	124	233	306	386	478	466	490	531	445	452	431	307	63	0	0	0	0	0	4724
S D	0	0	0	0	0	29	141	275	324	378	401	414	383	379	402	373	332	273	59	0	0	0	0	0	3245
S/A	0	0	0	0	0	2.6	1.14	1.18	1.06	0.98	0.84	0.89	0.78	0.71	0.9	0.83	0.77	0.89	0.95	5.48	0	0	0	0	0.69
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	17
Max	0	0	0	0	0	107	428	777	842	925	978	1006	1011	998	981	939	862	698	175	1	0	0	0	0	9896
n	0	0	0	0	0	71	352	350	358	359	359	360	360	360	360	360	360	360	329	11	0	0	0	0	4709

Daylight Data Recovery: 0.0% missing; 0.3% exceed the 15% QC threshold -- 4724 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.

**April 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	5	26	147	223	207	100	91	88	76	66	55	38	11	0	0	0	0	0	1133
2	0	0	0	0	0	0	24	95	82	73	79	86	187	168	288	178	121	57	14	0	0	0	0	0	1451
3	0	0	0	0	0	0	30	91	178	67	45	30	30	38	48	41	30	18	7	0	0	0	0	0	654
4	0	0	0	0	0	0	26	60	83	95	95	97	98	101	94	90	84	55	24	0	0	0	0	0	1003
5	0	0	0	0	0	0	39	116	242	183	158	140	129	124	119	107	89	60	22	0	0	0	0	0	1529
6	0	0	0	0	0	0	5	30	77	261	338	333	345	320	251	135	85	54	17	0	320	0	0	0	2250
7	0	0	0	0	0	0	26	62	81	91	129	161	261	188	132	91	77	73	25	0	0	0	0	0	1395
8	0	0	0	0	0	0	42	151	171	122	140	200	290	269	280	267	185	122	29	0	0	0	0	0	2268
9	0	0	0	0	0	0	8	27	68	108	176	213	273	138	185	49	77	24	12	0	0	0	0	0	1358
10	0	0	0	0	0	0	22	94	168	237	97	88	87	88	83	74	64	49	18	0	0	0	0	0	1169
11	0	0	0	0	0	2	34	69	86	101	109	112	108	107	99	89	77	58	19	0	0	0	0	0	1070
12	0	0	0	0	0	2	52	107	173	197	227	325	525	312	288	186	174	44	11	0	0	0	0	0	2623
13	0	0	0	0	0	0	10	46	117	153	304	394	344	294	151	101	175	65	3	0	0	0	0	0	2156
14	0	0	0	0	0	6 ?	16	40	148	219	292	320	249	233	242	167	135	42	18	0	0	0	0	0	2125
15	0	0	0	0	0	5	66	112	193	298	363	336	287	354	320	199	162	95	27	0	0	0	0	0	2818
16	0	0	0	0	0	6	41	74	95	128	161	207	264	261	235	243	158	114	33	0	0	0	0	0	2020
17	0	0	0	0	0	12 ?	62	122	220	387	279	348	290	308	158	291	279	106	38	0	0	0	0	0	2898
18	0	0	0	0	0	4	45	180	240	375	245	147	193	305	242	220	127	77	22	0	0	0	0	0	2424
19	0	0	0	0	0	7	48	102	177	231	291	189	275	273	312	269	180	105	22	0	0	0	0	0	2480
20	0	0	0	0	0	2	14	54	183	225	325	374	260	87	142	285	263	125	40	0	0	0	0	0	2379
21	0	0	0	0	0	0	5	62	153	305	344	348	306	180	239	203	187	123	43	0	0	0	0	0	2498
22	0	0	0	0	0	2	41	140	188	235	276	242	118	111	106	103	97	74	26	0	0	0	0	0	1760
23	0	0	0	0	0	7	51	129	172	167	106	105	98	92	85	75	62	24	1	0	0	0	0	0	1280
24	0	0	0	0	0	13	52	80	88	104	154	316	416	430	194	81	33	29	5	0	0	0	0	0	1995
25	0	0	0	0	0	1	4	13	19	80	81	233	277	349	243	152	143	117	29	3	0	0	0	0	1745
26	0	0	0	0	0	12	50	129	239	275	275	326	296	274	285	278	118	71	39	6	0	0	0	0	2674
27	0	0	0	0	0	41 ?	86	164	296	405	453	330	516	426	240	82	111	33	9	0	0	0	0	0	3192
28	0	0	0	0	0	0	9	40	23	95	304	346	292	399	234	160	136	58	27	4	0	0	0	0	2127
29	0	0	0	0	0	7	52	63	96	240	286	442	433	189	158	141	108	81	34	4	0	0	0	0	2334
30	0	0	0	0	0	12	57	87 ?	103	122	112	118	137	177	146	221	194	91	37	1	0	0	0	0	1617
Avg	0	0	0	0	0	5	34	86	144	193	215	233	249	223	189	155	127	71	23	1	0	0	0	0	1948
S D	0	0	0	0	0	8	22	43	68	97	105	115	125	112	80	77	61	31	11	1	0	0	0	0	642
S/A	0	0	0	0	0	1.71	0.63	0.51	0.47	0.5	0.49	0.49	0.5	0.5	0.42	0.5	0.48	0.44	0.48	2.34	0	0	0	0	0.33
Min	0	0	0	0	0	0	4	13	19	67	45	30	30	38	48	41	30	18	3	0	0	0	0	0	654
Max	0	0	0	0	0	41	86	180	296	405	453	442	525	430	320	291	279	125	43	6	0	0	0	0	3192
n	0	0	0	0	0	65	349	350	358	359	359	360	360	360	360	360	360	360	328	11	0	0	0	0	4699

Daylight Data Recovery: 0.0% missing; 0.5% exceed the 15% QC threshold -- 4724 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 17860F3    Calibration Factor: 7.010 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.