

**April 2005**

**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	19	148	165	140	102	482	403	224	95	56	59	38	6	0	0	0	0	0	1939	
2	0	0	0	0	0	0	6	52	67	101	224	225	250	372	155	118	60	41	9	0	0	0	0	0	1680	
3	0	0	0	0	0	0	23	111	367	609	807	904	921	875	770	609	414	201	32	0	0	0	0	0	6643	
4	0	0	0	0	0	0	46	218	422	608	757	853	884	826	731	592	394	191	29	0	0	0	0	0	6550	
5	0	0	0	0	0	0	51	217	421	609	761	855	884	824	721	506	332	121	35	0	0	0	0	0	6335	
6	0	0	0	0	0	0	25	164	364	527	713	809	857	813	701	476	287	86	10	0	0	0	0	0	5831	
7	0	0	0	0	0	0	9	55	147	186	192	191	259	195	98	83	140	144	27	0	0	0	0	0	1726	
8	0	0	0	0	0	0	20	114	120	110	227	695	842	620	374	74 ?	87	55	5	0	0	0	0	0	3344	
9	0	0	0	0	0	0	17	172	455	649	794	883	910	867	766	541	367	203	28	0	0	0	0	0	6651	
10	0	0	0	0	0	0	60	244	446	634	784	876	900	866	763	594	415	201	31	0	0	0	0	0	6813	
11	0	0	0	0	0	3	55	233	372	462	453	695	762	737	621	403	250	66	16	0	0	0	0	0	5128	
12	0	0	0	0	0	0	5	50	87	209	249	191	148	99	87	57	41 ?	22 ?	5	0	0	0	0	0	1251 ?	
13	0	0	0	0	0	2	18	62	54	48 ?	69 ?	89 ?	151	112 ?	56 ?	54 ?	40 ?	25 ?	8	0	0	0	0	0	786 ?	
14	0	0	0	0	0	4	74	253	484	686	827	911	928	886	773	559	363	219	31	0	0	0	0	0	7000	
15	0	0	0	0	0	7	81	271	485	676	821	909	935	894	784	617	422	218	38	0	0	0	0	0	7157	
16	0	0	0	0	0	5	86	290	507	699	847	937	960	913	805	639	441	230	41	0	0	0	0	0	7401	
17	0	0	0	0	0	5	81	279	493	693	743	881	889	760	775	623	396	174	52	0	0	0	0	0	6844	
18	0	0	0	0	0	6	86	254	448	634	718	627	476	548	330	353	124	199	31	0	0	0	0	0	4836	
19	0	0	0	0	0	6	72	243	440	624	790	551	635	767	419	600	300	142	52	0	0	0	0	0	5641	
20	0	0	0	0	0	5	79	264	474	607	794	604	744	722	663	432	363	204	42	0	0	0	0	0	5997	
21	0	0	0	0	0	8	87	199	431	551	587	808	533	397	150	121	121	96	28	0	0	0	0	0	4117	
22	0	0	0	0	0	7	94	225	453	543	485	589	480 ?	172 ?	64 ?	119	87	83	32	3	0	0	0	0	3435 ?	
23	0	0	0	0	0	12	42	214	159	142	440	651	328	730	361	216	167	79	14	2	0	0	0	0	3556	
24	0	0	0	0	0	2	24	114	196	267	223	428	241	213	137	168	70	27	13	2	0	0	0	0	2127	
25	0	0	0	0	0	10	92	313	531	627	785	817	949	934	823	631	321	156	38	3	0	0	0	0	7030	
26	0	0	0	0	0	7	45	72	146	204	260	404	960	805	651	398	150	68	13	0	0	0	0	0	4186	
27	0	0	0	0	0	18	149	224	241	110 ?	280	218	416	530	480	417	185	110	40	5	0	0	0	0	3423	
28	0	0	0	0	0	15	122	268	369	623	720	877	729	581	342	200	117	75	19	2	0	0	0	0	5057	
29	0	0	0	0	0	2	12	40	62	105	64 ?	294	536	299	108	59 ?	97	44 ?	14	3	0	0	0	0	1740 ?	
30	0	0	0	0	0	1	12 ?	48	91	140	260	224	147	98	199	86	87	29 ?	7 ?	1	0	0	0	0	1432 ?	
Avg	0	0	0	0	0	4	53	180	317	427	526	616	635	589	460	347	223	118	25	1	0	0	0	0	4522	
S D	0	0	0	0	0	5	38	87	165	241	279	275	291	287	226	141	71	14	1	0	0	0	0	0	2164	
S/A	0	0	0	0	0	1.16	0.71	0.48	0.52	0.56	0.53	0.45	0.46	0.49	0.62	0.65	0.63	0.6	0.57	1.81	0	0	0	0	0	0.48
Min	0	0	0	0	0	0	5	40	54	48	64	89	147	98	56	54	40	22	5	0	0	0	0	0	786	
Max	0	0	0	0	0	18	149	313	531	699	847	937	960	934	823	639	441	230	52	5	0	0	0	0	7401	
n	0	0	0	0	0	74	348	358	356	350	344	355	355	349	342	344	345	334	320	12	0	0	0	0	4586	

Daylight Data Recovery: 0.0% missing; 3.0% exceed the 15% QC threshold -- 4728 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 2005**

**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	60	7	1	1	104	44	3	0	0	0	0	0	0	0	0	0	0	220
2	0	0	0	0	0	0	0	0	0	1	13	2	1	4	0	0	0	0	0	0	0	0	0	0	22
3	0	0	0	0	0	0	0	40	507	814	1016 ?	1054	1035	1016	997	952	874	708	136	0	0	0	0	0	9149
4	0	0	0	0	0	0	237	650	793	846	882	909	896	816	827	867	774	634	119	0	0	0	0	0	9250
5	0	0	0	0	0	0	254	658	825	897	941	961	963	915	842	626	523	210	89	0	0	0	0	0	8704
6	0	0	0	0	0	0	26	211	386	478	684	769	837	865	622	373	223	4	0	0	0	0	0	0	5478
7	0	0	0	0	0	0	0	0	1	1	1	1	3	2	0	0	1	103	15	0	0	0	0	0	128
8	0	0	0	0	0	0	0	8	0	0	1	413	454	382	152	4	1	0	0	0	0	0	0	0	1416
9	0	0	0	0	0	0	0	268	798	911	960	987	991	976	940	767	706	659	116	0	0	0	0	0	9079
10	0	0	0	0	0	0	331	691	826	892	926	951	954	958	935	795	768	617	116	0	0	0	0	0	9759
11	0	0	0	0	0	0	158	535	292	123	59	277	419	354	372	229	115	0	0	0	0	0	0	0	2933
12	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	4
13	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
14	0	0	0	0	0	0	38	453	868	955	993	997	977	981	926	498	638	711	148	0	0	0	0	0	9183
15	0	0	0	0	0	2	315	676	843	916	953	962	967	967	933	863	774	623	126	0	0	0	0	0	9919
16	0	0	0	0	0	1	418	745	880	945	980	999	1001	982	956	900	814	653	137	0	0	0	0	0	10412
17	0	0	0	0	0	2	292	658	817	849	578	717	695	431	777	814	585	189	59	0	0	0	0	0	7463
18	0	0	0	0	0	1	202	384	625	722	668	349	164	127	40	116	24	328	50	0	0	0	0	0	3798
19	0	0	0	0	0	5	187	447	593	702	744	307	364	473	254	460	228	134	68	0	0	0	0	0	4967
20	0	0	0	0	0	4	226	498	654	530	446	104	352	462	544	291	388	431	90	0	0	0	0	0	5019
21	0	0	0	0	0	13	290	279	536	424	396	575	293	196	0	0	0	3	0	0	0	0	0	0	3004
22	0	0	0	0	0	2	167	388	498	278	191	185	84	1	0	2	0	1	0	0	0	0	0	0	1797
23	0	0	0	0	0	53	70	259	25	1	120	315	42	412	69	3	0	0	0	0	0	0	0	0	1369
24	0	0	0	0	0	0	0	0	4	19	2	13	1	1	0	0	0	0	0	0	0	0	0	0	41
25	0	0	0	0	0	79	601	861	654	735	692	903	972	952	792	236	129	49	0	0	0	0	0	0	7655
26	0	0	0	0	0	1	1	1	1	1	2	36	597	503	402	149	0	0	0	0	0	0	0	0	1694
27	0	0	0	0	0	109	453	310	77	0	2	19	36	331	293	287	31	114	1	0	0	0	0	0	2064
28	0	0	0	0	0	84	430	278	246	543	593	743	287	115	6	2	0	0	0	0	0	0	0	0	3325
29	0	0	0	0	0	0	0	0	0	0	0	4	88	5	0	0	0	0	0	0	0	0	0	0	98
30	0	0	0	0	0	0	0	0	1	2	3	3	1	0	3	0	0	0	0	0	0	0	0	0	13
Avg	0	0	0	0	0	9	139	303	399	417	430	448	448	442	395	326	257	208	44	0	0	0	0	0	4265
S D	0	0	0	0	0	26	153	266	360	393	411	403	405	398	406	361	326	273	55	0	0	0	0	0	3804
S/A	0	0	0	0	0	2.81	1.1	0.88	0.9	0.94	0.96	0.9	0.9	0.9	1.03	1.11	1.27	1.31	1.25	0	0	0	0	0	0.89
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	109	453	745	880	955	1016	1054	1035	1016	997	952	874	711	148	0	0	0	0	0	10412
n	0	0	0	0	0	74	353	358	360	360	354	359	360	360	360	360	360	360	329	12	0	0	0	0	4719

Daylight Data Recovery: 0.0% missing; 0.2% exceed the 15% QC threshold -- 4728 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 2005**

**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	20	137	174	151	108	406	382	235	97	58	59	35	6	0	0	0	0	0	1868
2	0	0	0	0	0	0	6	54	63	96	222	238	269	392	166	128	60	39	8	0	0	0	0	0	1740
3	0	0	0	0	0	0	25	101	148	137	86	81	83	84	77	70	60	45	18	0	0	0	0	0	1016
4	0	0	0	0	0	0	27	60	85	112	130	136	152	176	144	98	76	50	18	0	0	0	0	0	1264
5	0	0	0	0	0	0	28	56	69	78	86	93	98	101	122	140	104	80	26	0	0	0	0	0	1082
6	0	0	0	0	0	0	27	101	187	230	205	184	161	125	258	262	191	91	10	0	0	0	0	0	2032
7	0	0	0	0	0	0	9	58	158	199	206	205	277	207	104	90	149	123	27	0	0	0	0	0	1813
8	0	0	0	0	0	0	22	119	131	122	249	361	466	319	287	62	96	58	5	0	0	0	0	0	2296
9	0	0	0	0	0	0	17	85	91	90	89	85	84	86	95	90	76	49	16	0	0	0	0	0	953
10	0	0	0	0	0	0	28	59	75	88	101	103	103	95	90	123	92	55	19	0	0	0	0	0	1031
11	0	0	0	0	0	?	37	90	253	393	421	459	379	423	347	265	200	72	17	0	0	0	0	0	3355
12	0	0	0	0	0	0	5	53	94	225	269	206	160	106	93	60	39 ?	17	5	0	0	0	0	0	1332
13	0	0	0	0	0	2 ?	18	67	57	49	47	76	163	106	57	54	37	22	7	0	0	0	0	0	763
14	0	0	0	0	0	2	54	112	73	72	77	82	96	84	92	241	87	44	15	0	0	0	0	0	1131
15	0	0	0	0	0	9 ?	42	72	82	93	99	108	110	101	98	96	83	61	23	0	0	0	0	0	1076
16	0	0	0	0	0	4	38	69	84	95	103	105	104	104	99	93	82	63	25	0	0	0	0	0	1068
17	0	0	0	0	0	5	45	80	97	145	286	261	284	397	196	124	127	129	46	0	0	0	0	0	2221
18	0	0	0	0	0	9 ?	64	146	145	171	212	333	348	455	317	288	122	120	26	0	0	0	0	0	2756
19	0	0	0	0	0	6	50	112	156	172	221	297	329	374	233	331	200	108	46	0	0	0	0	0	2636
20	0	0	0	0	0	5	52	113	152	254	442	520	422	321	256	257	198	94	31	0	0	0	0	0	3117
21	0	0	0	0	0	9 ?	50	125	167	261	288	320	271	243	163	127	129	101	29	0	0	0	0	0	2284
22	0	0	0	0	0	8 ?	69	124	207	353	343	445	277	125	60 ?	127	93	88	34	2	0	0	0	0	2354
23	0	0	0	0	0	10	40	131	141	150	348	373	301	356	288	223	176	83	14	1	0	0	0	0	2634
24	0	0	0	0	0	2	26	124	210	270	239	435	260	228	148	179	75	28	14	2	0	0	0	0	2238
25	0	0	0	0	0	12	79	102	89	181	199	205	144	114	102	129	200	129	32	4	0	0	0	0	1720
26	0	0	0	0	0	9	48	77	157	227	287	399	423	376	341	307	158	71	13	0	0	0	0	0	2893
27	0	0	0	0	0	10	63	135	208	100	301	206	387	188	243	210	182	72	40	5	0	0	0	0	2348
28	0	0	0	0	0	11	60	180	239	257	251	225	467	492	360	213	124	80	19	1	0	0	0	0	2980
29	0	0	0	0	0	2	13	42	64	103	59	314	467	318	117	53	104	40	13	2	0	0	0	0	1711
30	0	0	0	0	0	1	12	51	99	154	281	240	159	99	192	93	93	26	8	1	0	0	0	0	1507
Avg	0	0	0	0	0	4	36	95	132	168	208	250	254	228	175	153	116	69	20	1	0	0	0	0	1907
S D	0	0	0	0	0	4	20	35	56	85	108	132	130	133	94	85	51	33	12	1	0	0	0	0	739
S/A	0	0	0	0	0	1.07	0.56	0.37	0.43	0.5	0.52	0.53	0.51	0.58	0.54	0.55	0.44	0.47	0.57	2.02	0	0	0	0	0.39
Min	0	0	0	0	0	0	5	42	57	49	47	76	83	84	57	53	37	17	5	0	0	0	0	0	763
Max	0	0	0	0	0	12	79	180	253	393	442	520	467	492	360	331	200	129	46	5	0	0	0	0	3355
n	0	0	0	0	0	66	348	358	360	360	360	360	358	360	351	360	354	357	328	12	0	0	0	0	4692

Daylight Data Recovery: 0.0% missing; 0.8% exceed the 15% QC threshold -- 4728 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 17860F3    Calibration Factor: 7.010  $\mu\text{V}/\text{W}/\text{m}^2$     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.