

**September 2001**

**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	1	10	20	63	274	246	462	652	407	282	365	252	132	28	0	0	0	0	0	3194
2	0	0	0	0	0	3	20	106	306	617	739	767	790	787	604	518	354	144	28	0	0	0	0	0	5782
3	0	0	0	0	0	1	18	49	64	115	61	61	167	97	60	63	81	106	15	0	0	0	0	0	958
4	0	0	0	0	0	3	19	67	118	429	570	609	523	711	495	413	280	167	23	0	0	0	0	0	4426
5	0	0	0	0	0	0	17	87	371	461	666	799	670	714	608	589	301	168	21	0	0	0	0	0	5473
6	0	0	0	0	0	0	47	238	421	602	737	680	615	779	716	556	205	92	25	0	0	0	0	0	5714
7	0	0	0	0	0	0	42	185	376	532	498	485	588	715	518	432	338	145	20	0	0	0	0	0	4874
8	0	0	0	0	0	0	48	219	419	598	740	839	913	807	808	574	345	147	20	0	0	0	0	0	6477
9	0	0	0	0	0	0	54	216	338	311	477	699	632	435	209	226	210	42	10	0	0	0	0	0	3860
10	0	0	0	0	0	0	24	103	237	266	273	138	76	77	133	27	37	54	37	0	0	0	0	0	1481
11	0	0	0	0	0	0	29	144	247	584	767	858	790	737	706	548	364	155	8	0	0	0	0	0	5935
12	0	0	0	0	0	0	46	200 ?	459 ?	619	761	837	859	810	700	535	341	140	8	0	0	0	0	0	6315
13	0	0	0	0	0	0	43	227	426	604	730	751	646	797	553	586	360	127	11	0	0	0	0	0	5860
14	0	0	0	0	0	0	7	29	104	144	124	160	125	156	480	348	300	140	6	0	0	0	0	0	2122
15	0	0	0	0	0	0	54	235	443	628	772	859	876	817	675	545	326	103	13	0	0	0	0	0	6343
16	0	0	0	0	0	0	52	222	427	614	765	849	821	771	689	486	302	82	8	0	0	0	0	0	6086
17	0	0	0	0	0	0	45	214 ?	428 ?	547	683	626	663	771	569	445	250	121	4	0	0	0	0	0	5365
18	0	0	0	0	0	0	28	123 ?	367 ?	534	591	335 ?	308 ?	233	270	168	51	44	9	0	0	0	0	0	3060 ?
19	0	0	0	0	0	0	22	77 ?	?	324 ?	660 ?	523 ?	312	248	179	56	11	9	2	0	0	0	0	0	2423 ?
20	0	0	0	0	0	0	4	133	158	203	666	176	144	178	105	146	104	90	7	0	0	0	0	0	2115
21	0	0	0	0	0	0	23	126	325	652	570	655	793	756	640	477	285	84	9	0	0	0	0	0	5395
22	0	0	0	0	0	0	19	110	216	272	538	631	627	563	580	463	293	91	4	0	0	0	0	0	4408
23	0	0	0	0	0	0	27	137	364 ?	602 ?	630	731	672	747	610	480	278	89	2	0	0	0	0	0	5369
24	0	0	0	0	0	0	4	17	55	54	139	183	252	265	152	93	43	9	1	0	0	0	0	0	1270
25	0	0	0	0	0	0	11	84	179	383	301	493	287	472	571	291	123	48	11	0	0	0	0	0	3253
26	0	0	0	0	0	0	38	194	402	502	612	805	819	761	641	477	282	85	3	0	0	0	0	0	5622
27	0	0	0	0	0	0	33	187	389	568	708	787	801	743	635	438	217	48	5	0	0	0	0	0	5560
28	0	0	0	0	0	0	25	146	374	586	584	629	192	194	228	126	43	17	1	0	0	0	0	0	3145
29	0	0	0	0	0	0	21	116	225	217	220	532	440	519	509	321	180	60	2	0	0	0	0	0	3362
30	0	0	0	0	0	0	18	119	321 ?	466	298	658	771	748	617	498	299	59	0	0	0	0	0	0	4872
Avg	0	0	0	0	0	0	28	138	297	444	538	587	561	561	485	376	229	93	11	0	0	0	0	0	4337
S D	0	0	0	0	0	1	15	67	129	180	221	241	261	259	218	180	113	47	10	0	0	0	0	0	1681
S/A	0	0	0	0	0	2.79	0.54	0.49	0.43	0.41	0.41	0.41	0.47	0.46	0.45	0.48	0.5	0.5	0.85	0	0	0	0	0	0.39
Min	0	0	0	0	0	0	4	17	55	54	61	61	76	77	60	27	11	9	0	0	0	0	0	0	958
Max	0	0	0	0	0	3	54	238	459	652	772	859	913	817	808	589	364	168	37	0	0	0	0	0	6477
n	0	0	0	0	0	4	316	338	310	346	350	348	354	360	360	360	360	360	166	0	0	0	0	0	4333

Daylight Data Recovery: 0.0% missing; 2.5% exceed the 15% QC threshold -- 4446 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.

**September 2001**

**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	12	4	112	255	122	14	97	186	95	0	0	0	0	0	0	897
2	0	0	0	0	0	0	0	1	266	818	750	511	453	505	349	418	317	76	0	0	0	0	0	0	4463
3	0	0	0	0	0	0	1	0	0	1	0	0	1	1	0	0	3	13	0	0	0	0	0	0	20
4	0	0	0	0	0	0	0	1	1	67	320	211	273	510	225	280	411	420	49	0	0	0	0	0	2769
5	0	0	0	0	0	0	0	0	0	280	347	547	675	460	590	558	639	463	433	42	0	0	0	0	5035
6	0	0	0	0	0	0	59	424	598	668	665	424	250	596	614	475	84	6	1	0	0	0	0	0	4865
7	0	0	0	0	0	0	40	141	388	303	170	131	251	478	336	365	481	273	21	0	0	0	0	0	3376
8	0	0	0	0	0	0	186	543	689	747	786	810	804	688	778	689	579	425	33	0	0	0	0	0	7756
9	0	0	0	0	0	0	194	500	516	112	371	572	380	65	5	13	188	0	0	0	0	0	0	0	2917
10	0	0	0	0	0	0	9	9	7	5	3	1	0	0	1	0	0	2	2	0	0	0	0	0	38
11	0	0	0	0	0	0	0	46	60	658	922	942	798	794	931	906	832	651	36	0	0	0	0	0	7577
12	0	0	0	0	0	0	146	601 ?	830 ?	866	906	934	947	921	925	866	761	544	22	0	0	0	0	0	9269
13	0	0	0	0	0	0	134	538	687	785	788	622	526	767	494	699	569	345	7	0	0	0	0	0	6961
14	0	0	0	0	0	0	0	0	1	1	1	1	1	1	312	268	526	585	10	0	0	0	0	0	1706
15	0	0	0	0	0	0	304	755	876	913	946	987	1009	957	758	894	698	325	0	0	0	0	0	0	9422
16	0	0	0	0	0	0	325	673	823	869	908	903	702	865	943	720	589	217	1	0	0	0	0	0	8537
17	0	0	0	0	0	0	165	640 ?	781 ?	622	595	368	375	730	500	473	321	449	1	0	0	0	0	0	6021
18	0	0	0	0	0	0	37	271 ?	511 ?	520	418	26 ?	2 ?	2	3	0	0	0	0	0	0	0	0	0	1790 ?
19	0	0	0	0	0	0	0	1 ?	?	5 ?	497 ?	139 ?	2	2	0	0	0	0	0	0	0	0	0	0	646 ?
20	0	0	0	0	0	0	0	91	25	29	432	23	1	1	0	1	1	164	0	0	0	0	0	0	771
21	0	0	0	0	0	0	0	10	520 ?	809	589	551	883	900	865	793	620	251	0	0	0	0	0	0	6792
22	0	0	0	0	0	0	5	78	85	104	305	393	421	397	449	519	558	334	0	0	0	0	0	0	3646
23	0	0	0	0	0	0	0	165	688	755 ?	639	673	571	809	718	810	645	345	0	0	0	0	0	0	6819
24	0	0	0	0	0	0	0	0	0	0	1	1	3	4	1	0	0	0	0	0	0	0	0	0	10
25	0	0	0	0	0	0	0	8	76	310	95	214	6	144	465	96	32	17	0	0	0	0	0	0	1464
26	0	0	0	0	0	0	221	680	849	586	647	995	1000	985	944	890	780	460	0	0	0	0	0	0	9038
27	0	0	0	0	0	0	211	662	833	910	955	971	974	957	907	600	330	55	0	0	0	0	0	0	8366
28	0	0	0	0	0	0	95	575 ?	775	760	559	559	0	3	3	1	0	0	0	0	0	0	0	0	3330
29	0	0	0	0	0	0	0	159	160	28	13	229	191	355	505	288	199	145	0	0	0	0	0	0	2271
30	0	0	0	0	0	0	0	180	805	426	108	681	880	961	933	881	680	297	0	0	0	0	0	0	6832
Avg	0	0	0	0	0	0	71	258	418	435	465	455	414	470	451	423	362	231	8	0	0	0	0	0	4447
S D	0	0	0	0	0	0	101	277	341	350	332	350	364	378	361	342	284	205	14	0	0	0	0	0	3128
S/A	0	0	0	0	0	0	1.42	1.07	0.81	0.8	0.71	0.77	0.88	0.8	0.8	0.81	0.79	0.89	1.91	0	0	0	0	0	0.7
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	10
Max	0	0	0	0	0	0	325	755	876	913	955	995	1009	985	944	906	832	651	49	0	0	0	0	0	9422
n	0	0	0	0	0	4	316	332	324	347	350	348	354	360	360	360	360	360	166	0	0	0	0	0	4342

Daylight Data Recovery: 0.0% missing; 2.3% exceed the 15% QC threshold -- 4446 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.

**September 2001**

**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	1	9	17	56	248	216	351	420	296	256	292	157	104	25	0	0	0	0	0	2449
2	0	0	0	0	0	2	18	94	172	119	161	334	391	363	337	262	216	124	25	0	0	0	0	0	2617
3	0	0	0	0	0	1	16	45	58	104	56	56	151	85	53	56	73	92	13	0	0	0	0	0	858
4	0	0	0	0	0	2	17	60	106	389	304	403	289	302	311	244	112	70	17	0	0	0	0	0	2627
5	0	0	0	0	0	0	15	77	254	233	249	251	291	248	217	219	117	76	16	0	0	0	0	0	2264
6	0	0	0	0	0	0	40	124	151	190	246	327	411	317	296	295	164	82	22	0	0	0	0	0	2664
7	0	0	0	0	0	0	40	151	202	340	363	372	387	339	280	222	152	92	18	0	0	0	0	0	2958
8	0	0	0	0	0	0	29	77	109	138	158	186	264	275	286	196	121	63	16	0	0	0	0	0	1917
9	0	0	0	0	0	0	32	80	102	232	181	216	307	386	192	203	129	38	9	0	0	0	0	0	2107
10	0	0	0	0	0	0	22	92	212	236	243	123	68	69	119	23	33	48	33	0	0	0	0	0	1323
11	0	0	0	0	0	0	26	130	209	160	80	94	131	112	69	54	42	25	4	0	0	0	0	0	1138
12	0	0	0	0	0	0	23	48 ?	62 ?	83	86	83	93	90	76	66	56	39	8	0	0	0	0	0	814
13	0	0	0	0	0	0	27	78	127	127	150	253	226	219	215	213	152	62	10	0	0	0	0	0	1860
14	0	0	0	0	0	0	6	25	92	130	110	144	112	140	259	196	113	34	6	0	0	0	0	0	1368
15	0	0	0	0	0	0	20	41	52	65	68	67	67	92	165	71	67	36	12	0	0	0	0	0	824
16	0	0	0	0	0	0	20	49	58	77	88	118	251	115	68	105	87	38	7	0	0	0	0	0	1080
17	0	0	0	0	0	0	19	43 ?	66	151	218	300	343	219	241	186	144	40	3	0	0	0	0	0	1973
18	0	0	0	0	0	0	19	63 ?	140 ?	208	285	297 ?	276 ?	216	237	151	45	34	8	0	0	0	0	0	1981 ?
19	0	0	0	0	0	0	20	64 ?	?	219 ?	275 ?	362 ?	286	228	163	52	11	8	1	0	0	0	0	0	1689 ?
20	0	0	0	0	0	0	4	110	143	172	368	153	131	162	97	132	93	66	7	0	0	0	0	0	1636
21	0	0	0	0	0	0	20	115	129 ?	118	154	218	109	98	90	80	75	39	9	0	0	0	0	0	1255
22	0	0	0	0	0	0	17	89	172	199	319	329	294	271	295	209	107	39	4	0	0	0	0	0	2346
23	0	0	0	0	0	0	25	97	93	122	192	230	232	162	152	82	68	37	2	0	0	0	0	0	1494
24	0	0	0	0	0	0	3	16	50	49	126	168	225	240	140	84	39	8	1	0	0	0	0	0	1150
25	0	0	0	0	0	0	10	75	148	197	223	313	258	344	267	232	104	45	10	0	0	0	0	0	2226
26	0	0	0	0	0	0	15	41	60	178	161	76	73	68	64	55	42	20	3	0	0	0	0	0	855
27	0	0	0	0	0	0	14	39	55	65	72	76	76	72	83	146	98	38	4	0	0	0	0	0	839
28	0	0	0	0	0	0	13	41 ?	72	168	203	217	177	178	209	114	39	15	1	0	0	0	0	0	1447
29	0	0	0	0	0	0	19	79	162	189	197	350	293	263	200	176	118	42	1	0	0	0	0	0	2090
30	0	0	0	0	0	0	16	69	66	222	219	159	124	90	68	100	105	21	0	0	0	0	0	0	1259
Avg	0	0	0	0	0	0	19	71	117	171	192	221	225	202	184	151	96	49	10	0	0	0	0	0	1704
S D	0	0	0	0	0	1	9	34	58	78	86	107	110	99	89	79	47	28	8	0	0	0	0	0	638
S/A	0	0	0	0	0	2.82	0.46	0.48	0.5	0.45	0.45	0.49	0.49	0.49	0.48	0.53	0.49	0.58	0.86	0	0	0	0	0	0.37
Min	0	0	0	0	0	0	3	16	50	49	56	56	67	68	53	23	11	8	0	0	0	0	0	0	814
Max	0	0	0	0	0	2	40	151	254	389	368	403	420	386	337	295	216	124	33	0	0	0	0	0	2958
n	0	0	0	0	0	4	316	335	330	350	350	348	354	360	360	360	360	360	166	0	0	0	0	0	4354

Daylight Data Recovery: 0.0% missing; 2.1% exceed the 15% QC threshold -- 4446 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.