

Mississippi Valley State University
33.5 N Latitude 90.33 W Longitude 52 Meters AMSL Time Zone -6

July 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	1	18	146	324	570	737	814	627	686	345	786	568	172	78	24	5	0	0	0	0	5902
2	0	0	0	0	2	36	159	372	563	701	849	889	848	885	728	586	387	141	34	2	0	0	0	0	7183
3	0	0	0	0	0	30	205	291	466	729	830	918	996	865	706	294	204	85	37	6	0	0	0	0	6662
4	0	0	0	0	2	36	145	305	504	705	781	873	820	709	652	580	429	279	90	6	0	0	0	0	6915
5	0	0	0	0	0	41	173	352	546	710	831	834	891	853	770	579	284	194	50	2	0	0	0	0	7109
6	0	0	0	0	0	29	138	315	504	680	807	880	891	837	494 ?	68 ?	247	137	26	3	0	0	0	0	6056
7	0	0	0	0	0	33	164	350	532	687	821	905	911	857	745	590	401	211	56	2	0	0	0	0	7266
8	0	0	0	0	0	32	161	344	535	707	823	890	900	781	631	93 ?	56 ?	74	18	1	0	0	0	0	6047
9	0	0	0	0	0	26	147	324	448	688	828	913	951	270 ?	227 ?	613	398	198	51	2	0	0	0	0	6083
10	0	0	0	0	0	25	149	276	535	707	831	918	919	732	777	659	442	209	86	9	0	0	0	0	7275
11	0	0	0	0	0	43	152	318	503	574	723	873	880	271	176	81	136	166	74	6	0	0	0	0	4977
12	0	0	0	0	0	34	128	211	416	597	681	533	106 ?	77 ?	93 ?	623	460	141	38	1	0	0	0	0	4139 ?
13	0	0	0	0	0	18	79	204	399	559	358	441	588	706	777	629	241	97	29	3	0	0	0	0	5128
14	0	0	0	0	0	32	128	212 ?	265	227	586	956	780	775	698	470	212	57 ?	6	1	0	0	0	0	5406
15	0	0	0	0	0	16	67	115	254	489	831	907	867	432	647	540	221	108	126 ?	?	0	0	0	0	5617
16	0	0	0	0	0	22	206	325	432	728	882	1036	994	688	596	248	141	40	12	6	0	0	0	0	6356
17	0	0	0	0	0	23	127	386	576	733	878	922	947	874	699 ?	530	303	123	23	0	0	0	0	0	7144
18	0	0	0	0	0	33	182	362	539	732	865	847 ?	819	884	654	515	446	176	63	6	0	0	0	0	7125
19	0	0	0	0	0	24	164	364	478	718	854 ?	751	506	687	550	126 ?	33 ?	118 ?	68	4	0	0	0	0	5446 ?
20	0	0	0	0	0	24	99	169	552	652	828	865	873	917	812	304	295	64 ?	41	6	0	0	0	0	6500
21	0	0	0	0	0	23	61	340	497	706	849	895	791	831	133	62 ?	31 ?	35	21	5	0	0	0	0	5280
22	0	0	0	0	0	31	147	335	520	657	833	914	980	429	158	118	68	81	91	9	0	0	0	0	5369
23	0	0	0	0	0	18	102	178	403	670	844	944	859	849	720	488	411	186	47	0	0	0	0	0	6719
24	0	0	0	0	0	16	32	103	173	304	387	673	900	663	738	657	314	80	41	1	0	0	0	0	5082
25	0	0	0	0	0	33	126	254	450	491	408	655	908	832	564 ?	567 ?	357	195	60	3	0	0	0	0	5902
26	0	0	0	0	0	16	80	268	506	695	799	776	903	802	660	597	377	198	49	0	0	0	0	0	6727
27	0	0	0	0	0	28	138	190	431	711	784	943	891	899	733	537	388	81	20	0	0	0	0	0	6773
28	0	0	0	0	0	28	159	362	487	717	789	938	777	823	625	604	384	226	61	0	0	0	0	0	6978
29	0	0	0	0	0	26	160	360	574	670	839	941	923	885	596	523	420	215	64	0	0	0	0	0	7195
30	0	0	0	0	0	27	144	319	532	696	834	903	708	904	705	547	400	143	20	0	0	0	0	0	6881
31	0	0	0	0	0	11	67	190	393	325	370	509	573	760	243 ?	103	134	113	32	0	0	0	0	0	3823
Avg	0	0	0	0	0	27	133	284	470	636	756	834	819	714	584	435	284	137	47	3	0	0	0	0	6163
S/D	0	0	0	0	0	8	42	80	97	134	158	179	222	219	211	135	63	27	3	0	0	0	0	0	943
S/A	0	0	0	0	3.15	0.29	0.32	0.28	0.21	0.21	0.21	0.17	0.22	0.31	0.37	0.49	0.48	0.46	0.58	0.95	0	0	0	0	0.15
Min	0	0	0	0	0	11	32	103	173	227	358	441	106	77	93	62	31	35	6	0	0	0	0	0	3823
Max	0	0	0	0	2	43	206	386	576	737	882	1036	996	917	812	659	460	279	126	9	0	0	0	0	7275
n	0	0	0	0	8	351	371	361	371	371	364	369	365	358	350	336	345	354	366	39	0	0	0	0	5079

Daylight Data Recovery: 0.0% missing; 3.0% exceed the 15% QC threshold -- 5236 total daylight measurements.

Instrument: Eppley PSP Serial Number: 18036F3 Calibration Factor: 7.430 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.

July 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	*
2	0	0	0	0	420	424 ?	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
3	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
4	0	0	0	0	?	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
5	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
6	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
7	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
8	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
9	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
10	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
11	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
12	0	0	0	0	0	*	*	*	*	*	*	*	*	571 ?	?	374 *?	*	*	*	*	0	0	0	0	*
13	0	0	0	0	0	*	*	*	*	*	?	?	283 ?	?	?	*	*	*	*	?	0	0	0	0	*
14	0	0	0	0	0	*	?	?	?	?	?	*	*	*	*	*	*	*	*	*	0	0	0	0	*
15	0	0	0	0	0	?	*	?	?	?	?	*	*	*	*	*	*	*	*	*	0	0	0	0	*
16	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
17	0	0	0	0	0	?	?	*	*	*	*	*	?	527 ?	?	?	61 ?	297 ?	*	0	0	0	0	?	
18	0	0	0	0	0	*	*	*	*	*	814 ?	?	?	*	*	*	*	*	*	?	0	0	0	0	*
19	0	0	0	0	0	*	*	*	?	?	719 ?	?	*	*	*	*	*	420 *?	*	*	0	0	0	0	*
20	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
21	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
22	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
23	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
24	0	0	0	0	0	*	*	*	*	*	*	*	?	?	*	*	*	?	386 **?	*	0	0	0	0	*
25	0	0	0	0	0	*	*	*	*	*	*	*	*	?	?	354 ?	?	?	?	?	0	0	0	0	*
26	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
27	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
28	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
29	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
30	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
31	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
Avg	0	0	0	0	17	424	N/A	N/A	N/A	N/A	767	N/A	283	571	527	364	N/A	240	341	0	0	0	0	N/A	*
SD	0	0	0	0	86	0	0	0	0	0	67	0	0	0	0	14	0	253	63	0	0	0	0	0	0
S/A	0	0	0	0	4.9	0	0	0	0	0	0.09	0	0	0	0	0.04	0	1.05	0.19	0	0	0	0	0	0
Min	0	0	0	0	0	424	N/A	N/A	N/A	N/A	719	N/A	283	571	527	354	N/A	61	297	0	0	0	0	0	N/A
Max	0	0	0	0	420	424	N/A	N/A	N/A	N/A	814	N/A	283	571	527	374	N/A	420	386	0	0	0	0	0	N/A
n	0	0	0	0	1	4	0	0	0	0	5	0	2	2	5	5	0	7	6	0	0	0	0	0	0

Daylight Data Recovery: 89.4% missing; 9.8% exceed the 15% QC threshold -- 5236 total daylight measurements.

Instrument: Eppley NIP Serial Number: 25796E6 Calibration Factor: 8.670 $\mu\text{V}/\text{W}/\text{m}^2$ 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.

Mississippi Valley State University
33.5 N Latitude 90.33 W Longitude 52 Meters AMSL Time Zone -6

July 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	1	19	123	316 ?	?	?	661 ?	411	375	272	300	277	151	76	26	6	0	0	0	0	3014 ?
2	0	0	0	0	?	38	144 ?	?	?	?	648 ?	356	285	202	196	170	153	102	36	2	0	0	0	0	2330 ?
3	0	0	0	0	0	32	175 ?	314	285 ?	?	599 ?	329	350	391	361	238	172	91	40	7	0	0	0	0	3384 ?
4	0	0	0	0	?	38	160	330	382 ?	?	580	422	392	381	341	276	211	187	72	6	0	0	0	0	3775 ?
5	0	0	0	0	0	43	164 ?	348 ?	?	?	539	355	375	352	327	315	181	125	44	2	0	0	0	0	3170 ?
6	0	0	0	0	0	31	146	342	485 ?	677 ?	510	369	348	351	265	67 ?	162	98	26	3	0	0	0	0	3881 ?
7	0	0	0	0	0	35	165	338 ?	?	572 ?	368	267	262	240	217	177	138	96	41	4	0	0	0	0	2919 ?
8	0	0	0	0	0	34	180	346 ?	?	562 ?	376	358	346	356	349	63	44	77	19	1	0	0	0	0	3111 ?
9	0	0	0	0	0	27	155	347	428	534	430	473	499	236 ?	164	301	192	120	43	2	0	0	0	0	3951
10	0	0	0	0	0	27	156	287	503	411	317	339	317	292	299	310	260	143	83	9	0	0	0	0	3752
11	0	0	0	0	0	45	157	329	451	485	488	413	366	280	187	86	142	155	68	7	0	0	0	0	3660
12	0	0	0	0	0	36	130	216	378	389	376	369	92 ?	68	113	316	174	72	36	1	0	0	0	0	2767
13	0	0	0	0	0	18	82	194	329	389	360	435	514	397	218	159	146	102	30	2	0	0	0	0	3374
14	0	0	0	0	0	33	131	189 ?	274	236	489	334	333	342	317	233	158	57 ?	7	0	0	0	0	0	3134
15	0	0	0	0	0	17	70	119	271	423	342	359	373	414	417	267	188	114	127 ?	?	0	0	0	0	3499
16	0	0	0	0	0	25	154	231	254	286	255	259	282	288	314	234	149	37	12	5	0	0	0	0	2783
17	0	0	0	0	0	24	114	116	97	115	126	146	256	277	216 ?	195	119	78	22	0	0	0	0	0	1901
18	0	0	0	0	0	27	89	117	180	170	183	296 ?	291	272	260	214	176	100	52	7	0	0	0	0	2433
19	0	0	0	0	0	25	125	138	233	185	185 ?	215	255	269	265	100 ?	32	55 ?	59	5	0	0	0	0	2147 ?
20	0	0	0	0	0	23	104	160	201	286	216	208	221	277	323	309	229	54	37	6	0	0	0	0	2654
21	0	0	0	0	0	27	62	155	258	278	277	338	307	348	122	53	30	37	23	5	0	0	0	0	2320
22	0	0	0	0	0	32	94	169	228	281	260	271	304	315	173	121	72	78	?	?	0	0	0	0	2399
23	0	0	0	0	0	18	105	184	326	357	401	375	326	288	286	245	216	162	46	0	0	0	0	0	3336
24	0	0	0	0	0	18	33	108	184	315	387	438	284	312	329	167	84	55	30	0	0	0	0	0	2744
25	0	0	0	0	0	32	112	207	349	430	427	477	305	329	356 ?	303 ?	182	113	45	3	0	0	0	0	3671
26	0	0	0	0	0	17	85	206	217	210	266	294	293	317	288	268	153	91	43	0	0	0	0	0	2748
27	0	0	0	0	0	23	97	196	215	204	207	275	211	205	265	200	133	51	17	0	0	0	0	0	2299
28	0	0	0	0	0	21	65	99	177	229	204	245	246	189	198	169	97	86	44	0	0	0	0	0	2070
29	0	0	0	0	0	19	61	81	121	151	149	193	187	142	184	137	81	78	50	0	0	0	0	0	1635
30	0	0	0	0	0	26	91	152	175	215	220	290	288	233	240	182	121	80	21	0	0	0	0	0	2334
31	0	0	0	0	0	12	71	194	365	336	337	508	506	400	214	109	139	118	34	0	0	0	0	0	3342
Avg	0	0	0	0	0	27	116	218	283	336	361	336	316	291	261	202	145	93	41	3	0	0	0	0	2921
S/D	0	0	0	0	0	8	40	89	109	145	149	88	89	79	75	82	56	36	24	3	0	0	0	0	630
S/A	0	0	0	0	4.46	0.3	0.34	0.41	0.39	0.43	0.41	0.26	0.28	0.27	0.29	0.41	0.38	0.39	0.58	0.97	0	0	0	0	0.22
Min	0	0	0	0	0	12	33	81	97	115	126	146	92	68	113	53	30	37	7	0	0	0	0	0	1635
Max	0	0	0	0	1	45	180	348	503	677	661	508	514	414	417	316	260	187	127	9	0	0	0	0	3951
n	0	0	0	0	6	346	352	332	287	289	341	369	367	365	360	354	370	361	350	38	0	0	0	0	4888

Daylight Data Recovery: 0.0% missing; 6.6% exceed the 15% QC threshold -- 5236 total daylight measurements.

Instrument: Eppley PSP Serial Number: 18039F3 Calibration Factor: 7.470 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.