

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

July 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	8	58	177	350	463	545	714	777	657	772	600	174	133	82	6	0	0	0	0	5517
2	0	0	0	0	1	29	229 ?	377	559	535	843	934	805	944	708	630	470	226	60	2	0	0	0	0	7354
3	0	0	0	0	1	34	189	384	572	788	732	959	948	865	626	517	364	170	70	2	0	0	0	0	7220
4	0	0	0	0	0	39	191	382	581	653	751	853	776	710	672	498	267	224	59	1	0	0	0	0	6659
5	0	0	0	0	0	9	62	211	322	461	756	624	719	783	255	91	206	98	37	5	0	0	0	0	4638
6	0	0	0	0	0	6	25 ?	89	76 ?	159	424	590	540	605	548	519	367	217	51	4	0	0	0	0	4219
7	0	0	0	0	0	15	54	152	281	385	546	849	902	567	617	325	392	210	50	1	0	0	0	0	5346
8	0	0	0	0	0	19	77	287	536	601	466	605	956	932	789	426	293	152	43	10	0	0	0	0	6192
9	0	0	0	0	0	30	160 ?	234	279	464	833	903	860	634	760	655	313	178	31	6	0	0	0	0	6340
10	0	0	0	0	0	5	47	236	357	256	701	684	730	101 ?	?	148	195	153	23	7	0	0	0	0	3643 ?
11	0	0	0	0	0	27	130	299	564	709	779	898	861	820	683	639	440	229	55	0	0	0	0	0	7132
12	0	0	0	0	0	26	153	368	247	143	425	354	410	588	717	491	422	214	52	0	0	0	0	0	4609
13	0	0	0	0	0	32	172	358	558	720	719	840	766	707	578	534	283	181	64	15 ?	0	0	0	0	6527
14	0	0	0	0	0	39	178	356	564	681	851	869	928	763	548	557	411	199	52	3	0	0	0	0	6997
15	0	0	0	0	0	31	178	373	581	747	869	945	952	894	783	623	427	220	58	2	0	0	0	0	7682
16	0	0	0	0	0	21	165	353	553	727	820	894	913	780	710	500	355	180	53	2	0	0	0	0	7026
17	0	0	0	0	0	27	167	340	538	705	825	897	912	625	303	57 ?	77	109	40	6	0	0	0	0	5627
18	0	0	0	0	0	30	151	343	508	660	835	894	908	459	611	353	172	74	14	9	0	0	0	0	6024
19	0	0	0	0	0	1	?	65	150	136	248	334	530	801	700	399	409	160	65	6	0	0	0	0	4001
20	0	0	0	0	0	22	124	276	435	592	730	785	752	710	727	549	300	185	31	4	0	0	0	0	6222
21	0	0	0	0	0	33	162	343	537	650	807	813	818	852	743	456	199	195	53	8	0	0	0	0	6669
22	0	0	0	0	0	27	120	85 ?	422	546	297	627	720	435	282	515	190	152	62	3	0	0	0	0	4483
23	0	0	0	0	0	20	195	302	534	746	870	964	920	903	782	571	443	222	52	0	0	0	0	0	7524
24	0	0	0	0	0	30	173	370	578	754	888	826	909	894	817	595	452	251	63	0	0	0	0	0	7600
25	0	0	0	0	0	37	177	269	524	527	808	792	786	827	817	540	406	194	42	0	0	0	0	0	6745
26	0	0	0	0	0	34	113	329	530	692	842	916	923	877	735	601	406	191	36	0	0	0	0	0	7224
27	0	0	0	0	0	25	148	336	540	717	821	915	923	815	624	613	392	191	39	0	0	0	0	0	7100
28	0	0	0	0	0	24	138	328	521	701	839	930	942	838	579	561	295	194	46	0	0	0	0	0	6936
29	0	0	0	0	0	16	79	225	449	719	835	622	766	876	756	592	389	187	30	0	0	0	0	0	6541
30	0	0	0	0	0	8	67	263	451	654	780	746	827	271	594	176 ?	?	?	0	0	0	0	0	0	4837 ?
31	0	0	0	0	0	1	50 ?	215	481	318	385	367	369	560	533	471	314	110	48	0	0	0	0	0	4220
Avg	0	0	0	0	0	23	131	281	457	568	705	772	802	713	646	477	327	180	47	3	0	0	0	0	6092
S/D	0	0	0	0	0	11	55	92	135	193	186	180	155	198	150	162	103	43	17	4	0	0	0	0	1211
S/A	0	0	0	0	2.8	0.49	0.42	0.33	0.3	0.34	0.26	0.23	0.19	0.28	0.23	0.34	0.32	0.24	0.36	1.15	0	0	0	0	0.2
Min	0	0	0	0	0	1	25	65	76	136	248	334	369	101	255	57	77	74	0	0	0	0	0	0	3643
Max	0	0	0	0	1	39	229	384	581	788	888	964	956	944	817	655	470	251	82	15	0	0	0	0	7682
n	0	0	0	0	8	346	340	364	368	371	372	371	372	360	360	362	357	359	370	40	0	0	0	0	5121

Daylight Data Recovery: 0.0% missing; 2.2% 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 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	*	
2	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
13	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
18	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
19	0	0	0	0	0	?	*	*	*	*	*	*	*	*	*	*	*	*	*	*	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	*	
24	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	695*	*	*	*	*	0	0	0	*	
25	0	0	0	0	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	*	*	*	*	*	*	*	*	*	*	*	65*?	*	208*?	*	0	0	0	0	*	
31	0	0	0	0	0	*	412?	*	?	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
Avg	0	0	0	0	0	N/A	412	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	380	N/A	208	0	0	0	0	0	N/A	*
SD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	445	0	0	0	0	0	0	0	0	0
S/A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.17	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	N/A	412	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	65	N/A	208	0	0	0	0	0	0	N/A
Max	0	0	0	0	0	N/A	412	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	695	N/A	208	0	0	0	0	0	0	N/A
n	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	4	0	2	0	0	0	0	0	0	0

Daylight Data Recovery: 95.1% missing; 4.6% exceed the 15% QC threshold -- 5236 total daylight measurements.

Instrument: Eppley NIP Serial Number: 25796E6 Calibration Factor: 8.670 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.

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

July 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	9	60	184	347	414	530	412	424	382	339	116	112	104	59	7	0	0	0	0	3498
2	0	0	0	0	1	32	158 ?	?	344 ?	261 ?	553 ?	327	219	156	159	180	124	67	34	4	0	0	0	0	2622 ?
3	0	0	0	0	0	37	158 ?	?	?	?	485 ?	255	208	221	174	153	119	88	49	2	0	0	0	0	1950 ?
4	0	0	0	0	0	43	159 ?	?	?	599 ?	557	336	305	271	236	257	138	99	40	1	0	0	0	0	3041 ?
5	0	0	0	0	0	10	71	197	330	433	529 ?	443	308	283	208	94	220	96	38	4	0	0	0	0	3263
6	0	0	0	0	0	7	20	86	67	154	431	578	538	563	473	357	220	126	46	2	0	0	0	0	3669
7	0	0	0	0	0	15	56	159	294	404	537	455	447	509	377	337	200	104	43	2	0	0	0	0	3939
8	0	0	0	0	?	20	80	221 ?	472 ?	480	351	275	183	209	182	247	215	124	45	11	0	0	0	0	3114
9	0	0	0	0	0	34	142	243	289	456	497	352	295	292	199	191	142	65	27	8	0	0	0	0	3231
10	0	0	0	0	0	6	49	242	317	271	455	504	364	75	48 ?	153	200	150	23	7	0	0	0	0	2863
11	0	0	0	0	0	29	135	254 ?	474	281	288	297	264	236	185	84	62	51	27	0	0	0	0	0	2667
12	0	0	0	0	0	28	148	321 ?	259	147	412	351	371	342	185	172	89	67	29	0	0	0	0	0	2921
13	0	0	0	0	0	32	151	268	247	173	309	317	374	320	294	253	234	169	50	14 ?	0	0	0	0	3206
14	0	0	0	0	0	38	148	241	244	259	246	307	263	258	270	193	135	101	36	4	0	0	0	0	2744
15	0	0	0	0	0	26	102	159	129	116	117	118	119	115	109	100	89	69	34	2	15	0	0	0	1405
16	0	0	0	0	0	19	100	156	178	199	230	241	246	314	268	202	148	98	40	2	0	0	0	0	2441
17	0	0	0	0	0	28	125	175	198	220	265	253	263	267	214	50	81	112	41	7	0	0	0	0	2300
18	0	0	0	0	0	27	96	139	213	221	201	248	380	381	370	280	168	78	15	10	0	0	0	0	2827
19	0	0	0	0	0	1	?	62	156	143	260	339	470	252	281	309	228	118	64	7	0	0	0	0	2690
20	0	0	0	0	0	22	110	209	330	400	417	426	396	384	337	313	231	127	31	4	0	0	0	0	3737
21	0	0	0	0	0	33	119	149	183	238	240	314	382	249	202	250	175	132	50	8	0	0	0	0	2724
22	0	0	0	0	0	24	94	74	303	425	301	509	519	356	278	335	151	119	40	4	0	0	0	0	3533
23	0	0	0	0	0	20	86	188	139	119	126	136	156	197	216	151	97	69	30	1	0	0	0	0	1732
24	0	0	0	0	0	19	59	79	91	103	108	171	161	130	163	161	118	107	40	0	0	0	0	0	1512
25	0	0	0	0	0	31	122	148	241	267	326	316	293	221	215	172	135	85	32	0	0	0	0	0	2606
26	0	0	0	0	0	32	100	176	195	229	240	263	255	250	214	198	157	104	33	0	0	0	0	0	2446
27	0	0	0	0	0	22	84	129	149	169	199	210	262	302	226	210	139	97	31	0	0	0	0	0	2231
28	0	0	0	0	0	23	91	147	195	210	241	257	270	269	221	190	152	103	37	0	0	0	0	0	2405
29	0	0	0	0	0	17	83	186	241	227	263	429	335	216	198	182	137	92	23	0	0	0	0	0	2630
30	0	0	0	0	0	9	71	211	235	299	272	333	350	230	317	173 ?	?	?	0	0	0	0	0	0	2501 ?
31	0	0	0	0	0	1	51	191	323	316	391	377	383	454	395	305	151	102	47	0	0	0	0	0	3487
Avg	0	0	0	0	0	22	101	178	248	275	335	327	316	281	244	205	152	101	37	4	0	0	0	0	2772
S D	0	0	0	0	0	11	38	61	98	125	135	107	104	107	89	48	26	13	4	0	0	0	0	0	628
S/A	0	0	0	0	3.9	0.5	0.37	0.34	0.4	0.46	0.4	0.33	0.33	0.38	0.36	0.39	0.32	0.26	0.34	1.06	0	0	0	0	0.23
Min	0	0	0	0	0	1	20	62	67	103	108	118	119	75	48	50	62	51	0	0	0	0	0	0	1405
Max	0	0	0	0	1	43	159	321	474	599	557	578	538	563	473	357	234	169	64	14	0	0	0	0	3939
n	0	0	0	0	7	346	336	325	327	343	356	372	372	369	367	369	358	356	368	40	0	0	0	0	5011

Daylight Data Recovery: 0.0% missing; 4.3% 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.