

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Mississippi Valley State Univ. - March 2000

Field: GHI

Hour 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
2	0	0	0	0	0	0	0	13 ?	53 ?	?	614 ?	631	729	668	671	458 ?	?	?	0 ?	0	0	0	0	0	3836 ?
3	0	0	0	0	0	0	0	5	37	129	185	320	625	699	689	320 ?	297 ?	?	0 ?	0	0	0	0	0	3307 ?
4	0	0	0	0	0	0	0	2	23	86	148	219	362	275	193	145	112	63	0 ?	0	0	0	0	0	1630
5	0	0	0	0	0	0	0	8 ?	?	?	597 ?	689	768	801	758 ?	?	?	?	0 ?	0	0	0	0	0	3622 ?
6	0	0	0	0	0	0	0	4 ?	?	370 ?	516	659	733	783	720	?	?	?	0 ?	0	0	0	0	0	3784 ?
7	0	0	0	0	0	0	0	12	132	266 ?	522	596	729	460	543	412 ?	214 ?	?	0 ?	0	0	0	0	0	3886 ?
8	0	0	0	0	0	0	0	19	150 ?	208	325	192	345	730	707	607 ?	175 ?	182 ?	?	0	0	0	0	0	3640 ?
9	0	0	0	0	0	0	0	0 ?	44	164	304	416	513	804	556	659 ?	?	?	0 ?	0	0	0	0	0	3461 ?
10	0	0	0	0	0	0	0	7	46	111	221	347	630	723	468	95	5 ?	1	0	0	0	0	0	0	2655
11	0	0	0	0	0	0	0	1 ?	31	68	82	113	80	143	137	160	112	52	0 ?	0	0	0	0	0	978
12	0	0	0	0	0	0	0	2 ?	?	?	656 ?	746	836	855	799	?	?	?	0 ?	0	0	0	0	0	3895 ?
13	0	0	0	0	0	0	0	3 ?	?	?	645 ?	737	825	840	791 ?	?	?	?	0 ?	0	0	0	0	0	3841 ?
14	0	0	0	0	0	0	0	14 ?	?	421 ?	602 ?	744	823	801	628	535	302 ?	139 ?	0 ?	0	0	0	0	0	5010 ?
15	0	0	0	0	0	0	0	5 ?	19	91	195	178	162	105	86	69	81	45	0 ?	0	0	0	0	0	1035
16	0	0	0	0	0	0	0	26	42	73	71	35	265	172	200	250	141	54	0 ?	0	0	0	0	0	1329
17	0	0	0	0	0	0	0	12	70	215	268	335	406	540	510	552 ?	?	?	0 ?	0	0	0	0	0	2908 ?
18	0	0	0	0	0	0	0	22	152	306	380	556	787	817	698	489 ?	386 ?	67 ?	5 ?	0	0	0	0	0	4666 ?
19	0	0	0	0	0	0	0	16	123	85	55	38	62	94	53	91	78	89 ?	0 ?	0	0	0	0	0	783
20	0	0	0	0	0	0	0	5 ?	?	307 ?	552	793	833	896	834 ?	?	?	?	0 ?	0 ?	0	0	0	0	4220 ?
21	0	0	0	0	0	0	0	16 ?	?	294 ?	670 ?	778	851	803	581	375	196	154 ?	0 ?	0	0	0	0	0	4718 ?
22	0	0	0	0	0	0	0	15 ?	127 ?	297 ?	527	790	865	869	800	?	?	?	?	0	0	0	0	0	4289 ?
23	0	0	0	0	0	0	0	31	138	288 ?	635	747	776	789	719	448	326 ?	151 ?	?	0 ?	0	0	0	0	5047 ?
24	0	0	0	0	0	0	0	39	173	237	214	375	508	419	429	112	238	129 ?	?	0	0	0	0	0	2873
25	0	0	0	0	0	0	0	31	150	248	306	460	369	206	112	150	33	43	39 ?	0	0	0	0	0	2145
26	0	0	0	0	0	0	0	26	116	153	200	517	495	727	763	488 ?	233 ?	?	?	0	0	0	0	0	3717 ?
27	0	0	0	0	0	0	0	27 ?	93	188	532	673	903	914	875 ?	?	?	?	?	0	0	0	0	0	4204 ?
28	0	0	0	0	0	0	0	8 ?	?	?	703 ?	790	865	875	818 ?	?	?	?	?	0	0	0	0	0	4059 ?
29	0	0	0	0	0	0	0 ?	9	25	87	175	133	27	49	184	480 ?	?	?	?	0	0	0	0	0	1170 ?
30	0	0	0	0	0	0	0	18	37	162	283	297	432	511	344	223	147	48	2	0	0	0	0	0	2501
31	0	0	0	0	0	1	58 ?	342 ?	489	667	800 ?	904	860	808	677	346	290	101	1	0	0	0	0	0	6344
Avg	0	0	0	0	0	0	2	25	103	221	399	494	582	606	545	339	187	88	2	0	0	0	0	0	3318
S D	0	0	0	0	0	0	10	60	98	133	217	258	269	281	256	182	104	50	8	0	0	0	0	0	1355
S/A	0	0	0	0	0	5.39	5.35	2.44	0.95	0.6	0.54	0.52	0.46	0.46	0.47	0.54	0.56	0.57	3.86	0	0	0	0	0	0.41
Min	0	0	0	0	0	0	0	0	19	68	55	35	27	49	53	69	5	1	0	0	0	0	0	0	783
Max	0	0	0	0	0	1	58	342	489	667	800	904	903	914	875	659	386	182	39	0	0	0	0	0	6344

Daylight Data Recovery: 0% missing; 25% exceed the 15% QC threshold -- 4314 total daylight 5-minute measurements.

Note: Fractional values that do not appear in the hour columns are included in the calculation for daily values.

Data and Flag	Hour Column	Day Column
<value>*	20% < Missing < 100%	10% < Missing < 100%
<value>?	20% < Fail QC < 100%	10% < Fail QC < 100%
<blank>*	100% Missing	100% Missing
<blank>?	100% Fail QC	100% Fail QC

Station: MV
Latitude: 33.50° N
Longitude: 90.33° W
Elevation: 52 Meters AMSL
Time Zone: -6

Instrument: PSP
Calibration Constant: 7.43 uV/Wm-2
Serial Number: 18036F3
Calibration Date: 5/15/1998

Direct Normal Solar Radiation
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Mississippi Valley State Univ. - March 2000

Field: DNI

Hour 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	12	128	119	572	778	895	904	875	815 ?	816	708	?	0	0	0	0	0	6622
2	0	0	0	0	0	0	0	32	192 ?	?	740 ?	607	757	637	656	574 ?	764	655	0 ?	0	0	0	0	0	5613 ?
3	0	0	0	0	0	0	0	0	0	5	9	24	406	604	674	74 ?	506	670	0 ?	0	0	0	0	0	2973
4	0	0	0	0	0	0	0	0	0	0	0	1	9	1	0	0	0	0	0	0	0	0	0	0	11
5	0	0	0	0	0	0	0	37	?	?	838 ?	859	867	898	907 ?	869 ?	819	701	0 ?	0	0	0	0	0	6796 ?
6	0	0	0	0	0	0	0	20 ?	?	564 ?	703	821	835	911	904	851 ?	800	649	?	0	0	0	0	0	7059 ?
7	0	0	0	0	0	0	0	3	177	363 ?	664	534	650	154	249	385	232 ?	535	?	0	0	0	0	0	3946
8	0	0	0	0	0	0	0	45	286 ?	103	65	0	82	576	630	592 ?	175 ?	116	0 ?	0	0	0	0	0	2669
9	0	0	0	0	0	0	0	0	1	30	33	127	325	636	452	703 ?	540 ?	358	56 ?	0	0	0	0	0	3260
10	0	0	0	0	0	0	0	0	0	0	1	24	350	374	254	0	1	0	0	0	0	0	0	0	1004
11	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2
12	0	0	0	0	0	0	0	14 ?	?	?	900 ?	927	951	952	926	858 ?	771	568	502 ?	0	0	0	0	0	7369 ?
13	0	0	0	0	0	0	0	15 ?	?	?	902 ?	929	949	943	923 ?	838 ?	839	651	382 ?	0	0	0	0	0	7371 ?
14	0	0	0	0	0	0	0	64 ?	?	581 ?	794 ?	902	898	650	304	280	84 ?	1 ?	0	0	0	0	0	0	4556 ?
15	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3
16	0	0	0	0	0	0	0	0	0	0	0	0	5	1	2	4	0	0	0	0	0	0	0	0	13
17	0	0	0	0	0	0	0	0	0	2	1	1	3	71	184	492 ?	700	587	87 ?	0	0	0	0	0	2128
18	0	0	0	0	0	0	0	1	77	160	128	263	600	735	569	327 ?	270 ?	152	0	0	0	0	0	0	3283
19	0	0	0	0	0	0	0	0	11	2	0	0	0	1	0	0	0	199	0	0	0	0	0	0	213
20	0	0	0	0	0	0	0	17 ?	?	181 ?	506	840	839	958	955 ?	913 ?	859 ?	759	639 ?	0 ?	0	0	0	0	7466 ?
21	0	0	0	0	0	0	0	74 ?	?	270 ?	856 ?	856	705	658	330	53	47	114	2	0	0	0	0	0	3965 ?
22	0	0	0	0	0	0	0	5	174 ?	251 ?	560	818	861	776	884	835 ?	742	637	507 ?	0	0	0	0	0	7050 ?
23	0	0	0	0	0	0	0	60	212	361 ?	743	729	653	670	645	203	184 ?	230	185 ?	0 ?	0	0	0	0	4874 ?
24	0	0	0	0	0	0	0	41	134	13	1	61	91	58	68	0	22	66	86 ?	0	0	0	0	0	642
25	0	0	0	0	0	0	0	4	47	33	13	70	12	0	0	1	0	0	0	0	0	0	0	0	180
26	0	0	0	0	0	0	0	0	0	2	3	166	146	386	643	407 ?	463	345	84 ?	0	0	0	0	0	2644
27	0	0	0	0	0	0	0	10 ?	3	11	418	568	949	957	967 ?	921 ?	892 ?	783	649 ?	0 ?	0	0	0	0	7128 ?
28	0	0	0	0	0	0	0	43 ?	?	?	852 ?	860	846	852	841 ?	?	772	669	542 ?	0 ?	0	0	0	0	6277 ?
29	0	0	0	0	0	0	0	0	0	0	1	0	0	0	28	233 ?	762	609	178 ?	0	0	0	0	0	1810
30	0	0	0	0	0	0	0	0	0	1	1	1	4	12	2	1	0	0	0	0	0	0	0	0	21
31	0	0	0	0	0	2	207 ?	674 ?	758	822	848 ?	810	710	790	762	245	331	257	0	0	0	0	0	0	7219
Avg	0	0	0	0	0	0	7	38	96	149	360	406	464	489	472	382	400	355	139	0	0	0	0	0	3683
S/D	0	0	0	0	0	0	37	118	166	218	370	385	379	372	365	349	347	291	218	0	0	0	0	0	2764
S/A	0	0	0	0	0	5.48	5.47	3.13	1.73	1.46	1.03	0.95	0.82	0.76	0.77	0.91	0.87	0.82	1.56	0	0	0	0	0	0.75
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	2
Max	0	0	0	0	0	2	207	674	758	822	902	929	951	958	967	921	892	783	649	0	0	0	0	0	7466

Daylight Data Recovery: 0% missing; 13% exceed the 15% QC threshold -- 4451 total daylight 5-minute measurements.

Note: Fractional values that do not appear in the hour columns are included in the calculation for daily values.

Data and Flag	Hour Column	Day Column
<value>*	20% < Missing < 100%	10% < Missing < 100%
<value>?	20% < Fail QC < 100%	10% < Fail QC < 100%
<blank>*	100% Missing	100% Missing
<blank>?	100% Fail QC	100% Fail QC

Station:	MV
Latitude:	33.50° N
Longitude:	90.33° W
Elevation:	52 Meters AMSL
Time Zone:	-6

Instrument:	NIP
Calibration Constant:	8.67 uV/Wm-2
Serial Number:	25796E6
Calibration Date:	5/15/1998

Diffuse Solar Radiation on a Horizontal Surface (Shadow Band PSP)
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Mississippi Valley State Univ. - March 2000

Field: DHI

Hour 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
2	0	0	0	0	0	0	0	10 ?	52	82 ?	205 ?	217	163	176	205	172 ?	83	63 ?	0 ?	0	0	0	0	0	1428 ?
3	0	0	0	0	0	0	0	4	33	118	173	296	310	226	193	266 ?	141	65 ?	0 ?	0	0	0	0	0	1826
4	0	0	0	0	0	0	0	2	21	78	135	200	330	251	177	133	103	63 ?	0 ?	0	0	0	0	0	1494
5	0	0	0	0	0	0	0	9	54	87 ?	103 ?	117	128	116	102 ?	77 ?	67	53 ?	0 ?	0	0	0	0	0	912 ?
6	0	0	0	0	0	0	0	10	47	71	107	113	108	90	84	66 ?	60	49 ?	0 ?	0	0	0	0	0	805
7	0	0	0	0	0	0	0	11	92	118 ?	145	226	235	333	367	238	149 ?	?	0 ?	0	0	0	0	0	1913 ?
8	0	0	0	0	0	0	0	14	82 ?	162	280	176	267	271	246	208 ?	149 ?	?	?	0	0	0	0	0	1855 ?
9	0	0	0	0	0	0	0	0 ?	40	141	273	321	252	293	221	173 ?	180 ?	124 ?	0 ?	0	0	0	0	0	2020 ?
10	0	0	0	0	0	0	0	6	42	102	200	303	345	414	263	89	5	1	0	0	0	0	0	0	1771
11	0	0	0	0	0	0	0	1 ?	29	62	74	102	73	129	124	145	101	49	0 ?	0	0	0	0	0	889
12	0	0	0	0	0	0	0	13	52	78	95 ?	102	101	102	104	123 ?	110	88 ?	0 ?	0	0	0	0	0	967 ?
13	0	0	0	0	0	0	0	14 ?	43	59	77	85	86	88	90 ?	93 ?	70	55 ?	0 ?	0	0	0	0	0	761 ?
14	0	0	0	0	0	0	0	19	59	120 ?	115 ?	105	115	267	386	340	239 ?	?	0 ?	0	0	0	0	0	1766 ?
15	0	0	0	0	0	0	0	4 ?	17	83	176	161	148	96	79	63	74	43	0 ?	0	0	0	0	0	945
16	0	0	0	0	0	0	0	24	38	67	65	32	244	157	182	230	130	53	0 ?	0	0	0	0	0	1222
17	0	0	0	0	0	0	0	10	64	191	242	302	364	446	339	315 ?	110	78 ?	0 ?	0	0	0	0	0	2460
18	0	0	0	0	0	0	0	19	131	243	304	348	284	205	268	303 ?	267 ?	28 ?	3 ?	0	0	0	0	0	2402 ?
19	0	0	0	0	0	0	0	15	109	79	50	35	56	85	48	83	71	73 ?	0 ?	0	0	0	0	0	705
20	0	0	0	0	0	0	0	21	54	192	223	161	132	103	85 ?	71 ?	63	50	0 ?	0	0	0	0	0	1155
21	0	0	0	0	0	0	0	26	68	175 ?	106 ?	132	269	250	305	335	159	?	0 ?	0	0	0	0	0	1826 ?
22	0	0	0	0	0	0	0	20 ?	92 ?	182 ?	167	172	151	205	101	156 ?	116	69 ?	?	0	0	0	0	0	1431 ?
23	0	0	0	0	0	0	0	26	79	113 ?	153	188	219	220	199	305	236 ?	118 ?	?	0	0	0	0	0	1856 ?
24	0	0	0	0	0	0	0	36	138	209	194	324	425	350	360	104	197 ?	110 ?	?	0	0	0	0	0	2447
25	0	0	0	0	0	0	0	27	133	218	275	398	326	191	104	138	30	39	?	0	0	0	0	0	1878
26	0	0	0	0	0	0	0	26	106	141	184	387	353	393	241	236 ?	202	?	?	0	0	0	0	0	2269 ?
27	0	0	0	0	0	0	0	32	85	170	252	231	98	94	83 ?	73 ?	66	52	?	0	0	0	0	0	1234
28	0	0	0	0	0	0	0	56	237	309	115 ?	124	144	141	128 ?	?	88	71	?	0	0	0	0	0	1414 ?
29	0	0	0	0	0	0	0 ?	8	23	79	161	121	25	45	149	354 ?	96	83 ?	0 ?	0	0	0	0	0	1145
30	0	0	0	0	0	0	0	16	34	147	256	270	387	463	310	202	133	44	2	0	0	0	0	0	2262
31	0	0	0	0	0	1	52 ?	?	?	?	?	236	250	170	140	201	176	67	1	0	0	0	0	0	1294 ?
Avg	0	0	0	0	0	0	2	17	71	134	169	199	213	212	190	182	122	64	0	0	0	0	0	0	1545
S/D	0	0	0	0	0	0	9	12	46	61	71	100	109	115	98	92	62	27	1	0	0	0	0	0	528
S/A	0	0	0	0	0	5.39	5.36	0.72	0.65	0.46	0.42	0.5	0.51	0.54	0.52	0.51	0.51	0.42	2.82	0	0	0	0	0	0.34
Min	0	0	0	0	0	0	0	0	17	59	50	32	25	45	48	63	5	1	0	0	0	0	0	0	705
Max	0	0	0	0	0	1	52	56	237	309	304	398	425	463	386	354	267	124	3	0	0	0	0	0	2460

Daylight Data Recovery: 0% missing; 15% exceed the 15% QC threshold -- 4314 total daylight 5-minute measurements.

Note: Fractional values that do not appear in the hour columns are included in the calculation for daily values.

Data and Flag	Hour Column	Day Column
<value>*	20% < Missing < 100%	10% < Missing < 100%
<value>?	20% < Fail QC < 100%	10% < Fail QC < 100%
<blank>*	100% Missing	100% Missing
<blank>?	100% Fail QC	100% Fail QC

Station:	MV
Latitude:	33.50° N
Longitude:	90.33° W
Elevation:	52 Meters AMSL
Time Zone:	-6

Instrument:	PSP
Calibration Constant:	7.47 uV/Wm-2
Serial Number:	18039F3
Calibration Date:	5/15/1998