

**Global Solar Radiation on a Horizontal Surface**  
**Hourly Integrated and Daily Totals**  
**Watt-Hours per Square Meter**  
**Mississippi Valley State Univ. - July 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
1	0	0	0	0	0	36	123 ?	478 ?	619 ?	771	875 ?	950 ?	943	877 ?	808	569	413	215	53	0	0	0	0	0	7732 ?
2	0	0	0	0	0	27	106 ?	478 ?	573 ?	764	861 ?	959	952	722 ?	716	611	404	163	62	1	0	0	0	0	7402 ?
3	0	0	0	0	0	39	97 ?	482 ?	605 ?	764 ?	864 ?	920	932	794	662	586	434	217	53	0	0	0	0	0	7450 ?
4	0	0	0	0	0	35	113 ?	345 ?	629 ?	814 ?	882 ?	981	979	910	793	615	404	231	56	1	0	0	0	0	7788 ?
5	0	0	0	0	0	37	121 ?	?	?	810 ?	875 ?	936	949	892	774	607	408	224	61	1	0	0	0	0	6694 ?
6	0	0	0	0	0	26	87 ?	245 ?	544 ?	777 ?	926 ?	956	958	903	758	607	420	225	56	0	0	0	0	0	7487 ?
7	0	0	0	0	0	22	101	238	430 ?	745 ?	864 ?	853	907	896	707	420	404	223	59	0	0	0	0	0	6869
8	0	0	0	0	0	33	106 ?	?	649 ?	681 ?	888	953	950	906	787	615	423	222	54	0	0	0	0	0	7268 ?
9	0	0	0	0	0	33	107 ?	?	610 ?	?	875	931	944	879 ?	764	599	402	205	51	0	0	0	0	0	6402 ?
10	0	0	0	0	0	30	122 ?	?	551 ?	748 ?	834	907	929	852 ?	711	577	394	209	52	1	?	?	?	?	6916 ?
11	0	0	0	0	0	31	99 ?	472 ?	?	774 ?	874	912	847	664	695	554	299	192	56	1	0	0	0	0	6470 ?
12	0	0	0	0	0	30	218 ?	?	637 ?	739	855	822	932	678	546	589	371	118	19	0	0	0	0	0	6553 ?
13	0	0	0	0	0	32	115 ?	?	587 ?	657	866	889	733	724	545	29	22	24	16	0	0	0	0	0	5239
14	0	0	0	0	0	40	126 ?	?	595	745	819	953	950	885 ?	777	615	421	225	51	0	0	0	0	0	7202
15	0	0	0	0	0	35	129 ?	445 ?	586	754	882	955	963 ?	875 ?	771	608	349	215	36	0	0	0	0	0	7601
16	0	0	0	0	0	44	227	381	562	710	787	910	959 ?	852	733	571	365	188	47	0	0	0	0	0	7335
17	0	0	0	0	0	26	179	400	453	671	818	885	845 ?	668	644	256	137	70	10	1	0	0	0	0	6060
18	0	0	0	0	0	19	49	159	229	194	620	643	747 ?	845	731	586	396	211	45	0	0	0	0	0	5476
19	0	0	0	0	0	28	131	349	548	726	845	912	935 ?	870	746	599	410	230	58	0	0	0	0	0	7386
20	0	0	0	0	0	29	171	363	555	721	840	932	896 ?	485	866	426	279	190	57	0	0	0	0	0	6810
21	0	0	0	0	0	14	142	338	573	730	849	930	934	791	611	532	364	149	68	2	0	0	0	0	7028
22	0	0	0	0	0	32	171	374	569	722	831	888	889	616	475	167	97	142	43	1	0	0	0	0	6016
23	0	0	0	0	0	19	116	318	483	488	783	951	918	892	747	592	411	212	46	0	0	0	0	0	6977
24	0	0	0	0	0	29	181	385	582	750	870	866	937	904	772	616	415	217	48	0	0	0	0	0	7571
25	0	0	0	0	0	28	179	386	573	747	888	965	972	912	785	612	413	209	45	0	0	0	0	0	7713
26	0	0	0	0	0	24	160	355	554	731	862	941	951	882	757	584	392	198	44	0	0	0	0	0	7436
27	0	0	0	0	0	21	148	342	537	708	832	901	905	837	709	566	381	188	34	0	0	0	0	0	7109
28	0	0	0	0	0	22	144	331	526	693	816	877	884	801	640	540	359	176	36	0	0	0	0	0	6842
29	0	0	0	0	0	24	151	298	528	633	778	802	616	677	802	606	400	105	17	0	0	0	0	0	6335
30	0	0	0	0	0	10	64	149	306	492	453	494	277	118	172	371	424	255	54	0	0	0	0	0	3639
31	0	0	0	0	0	20	115	329	524 ?	?	419 ?	549 ?	?	?	703 ?	573	363	178	14	0	0	0	0	0	3786 ?
Avg	0	0	0	0	0	28	132	352	542	698	817	878	884	787	700	529	360	188	45	0	0	0	0	0	6729
S D	0	0	0	0	0	8	39	88	90	120	113	117	137	163	128	140	97	50	15	0	0	0	0	0	1010
S/A	0	0	0	0	2.06	0.27	0.3	0.25	0.17	0.17	0.14	0.13	0.16	0.21	0.18	0.26	0.27	0.27	0.34	1.4	0	0	0	0	0.15
Min	0	0	0	0	0	10	49	149	229	194	419	494	277	118	172	29	22	24	10	0	0	0	0	0	3639
Max	0	0	0	0	0	44	227	482	649	814	926	981	979	912	866	616	434	255	68	2	0	0	0	0	7788

Daylight Data Recovery: 0% missing; 12% exceed the 15% QC threshold -- 5264 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. - July 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	63	156 ?	595 ?	600 ?	738	770 ?	739 ?	719	705 ?	707	489	548	424	180	0	0	0	0	0	7433 ?
2	0	0	0	0	0	16	145 ?	572 ?	670 ?	716	736 ?	683	644	450 ?	589	637	486	259	135	0	0	0	0	0	6738 ?
3	0	0	0	0	0	47	97 ?	597 ?	647 ?	690 ?	733 ?	697	610	445	387	496	499	375	138	1	0	0	0	0	6460 ?
4	0	0	0	0	0	42	123 ?	384 ?	644 ?	738 ?	720 ?	739	771	741	705	613	469	386	83	0	0	0	0	0	7159 ?
5	0	0	0	0	0	34	154 ?	?	?	642 ?	668 ?	685	706	698	666	602	503	403	181	2	0	0	0	0	5943 ?
6	0	0	0	0	0	3	93 ?	79 ?	647 ?	737 ?	787 ?	784	782	753	689	661	565	454	174	1	0	0	0	0	7207 ?
7	0	0	0	0	0	0	1	12	152 ?	525 ?	597 ?	529	603	641	511	265	390	384	151	0	0	0	0	0	4762 ?
8	0	0	0	0	0	69	161 ?	?	666 ?	676 ?	726	743	671	651	666	602	536	402	150	1	0	0	0	0	6722 ?
9	0	0	0	0	0	76	178 ?	?	649 ?	?	722	719	725	723 ?	600	576	491	346	116	0	0	0	0	0	5921 ?
10	0	0	0	0	0	18	140 ?	?	436 ?	500 ?	503	527	571	588 ?	508	497	433	301	107	1	0	0	0	0	5130 ?
11	0	0	0	0	0	70	172 ?	630 ?	?	719 ?	738	677	571	414	513	520	294	272	129	0	0	0	0	0	5719 ?
12	0	0	0	0	0	65	402 ?	?	621 ?	667	650	521	659	351	269	571	383	30	0	0	0	0	0	0	5187 ?
13	0	0	0	0	0	30	221 ?	?	546 ?	524	682	598	428	354	209	0 ?	0	2	0	0	0	0	0	0	3593 ?
14	0	0	0	0	0	100	325 ?	?	697	722	600	725	695	737 ?	716	693	624	507	217	1	0	0	0	0	7360 ?
15	0	0	0	0	0	132	389 ?	710 ?	761	799	810	835	837 ?	741 ?	735	676	305	464	42	0	0	0	0	0	8236
16	0	0	0	0	0	73	346	401	590	658	592	625	724 ?	695	652	582	422	303	127	0	0	0	0	0	6790
17	0	0	0	0	0	36	279	505	284	406	495	585	486 ?	224	298	13	0	2	2	0	0	0	0	0	3616
18	0	0	0	0	0	0	0	17	4	2	148	108	331 ?	563	521	582	538	401	109	0	0	0	0	0	3325
19	0	0	0	0	0	29	140	433	586	683	711	701	713 ?	698	664	654	565	433	157	0	0	0	0	0	7167
20	0	0	0	0	0	75	389	552	652	710	715	728	620 ?	219 ?	606	213	142	229	155	0	0	0	0	0	6004
21	0	0	0	0	0	0	140	415	671	717	744	767	758	535	305	374	244	38	47	0	0	0	0	0	5755
22	0	0	0	0	0	90	379	572	657	611	569	615	617	195	120	1	0	45	37	0	0	0	0	0	4508
23	0	0	0	0	0	2	59	235	214	244	426	715	541	643	640	652	525	405	165	0	0	0	0	0	5465
24	0	0	0	0	0	128	452	593	652	688	668	582	629	694	670	649	586	468	203	0	0	0	0	0	7662
25	0	0	0	0	0	115	437	590	636	701	738	752	744	751	716	672	586	433	169	0	0	0	0	0	8041
26	0	0	0	0	0	63	304	460	550	616	670	685	694	662	629	591	514	371	146	0	0	0	0	0	6955
27	0	0	0	0	0	47	248	392	471	519	546	551	544	536	503	503	445	320	94	0	0	0	0	0	5720
28	0	0	0	0	0	37	205	343	428	469	495	499	505	456	377	409	368	255	69	0	0	0	0	0	4914
29	0	0	0	0	0	41	171	223	353	300	316	195	160	279	562	545	319	3	0	0	0	0	0	0	3467
30	0	0	0	0	0	0	0	3	33	103	50	85	27	0	14	106	299	388	152	0	0	0	0	0	1260
31	0	0	0	0	0	5	89	295	381 ?	?	108 ?	170 ?	?	?	433 ?	476	378	166	0	0	0	0	0	0	2501 ?
Avg	0	0	0	0	0	49	206	400	514	580	595	599	603	538	522	481	402	299	111	0	0	0	0	0	5701
S D	0	0	0	0	0	38	130	207	201	195	196	175	201	187	207	172	156	65	0	0	0	0	0	0	1672
S/A	0	0	0	0	0	0.78	0.63	0.52	0.39	0.34	0.33	0.33	0.29	0.37	0.36	0.43	0.43	0.52	0.58	1.7	0	0	0	0	0.29
Min	0	0	0	0	0	0	0	3	4	2	50	85	27	0	14	0	0	2	0	0	0	0	0	0	1260
Max	0	0	0	0	0	132	452	710	761	799	810	835	837	753	735	693	624	507	217	2	0	0	0	0	8236

Daylight Data Recovery: 0% missing; 12% exceed the 15% QC threshold -- 5264 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. - July 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	Dayly	
1	0	0	0	0	0	33	122 ?	?	?	?	?	269 ?	238	213 ?	229	239	148	99	38	0	0	0	0	0	1629 ?	
2	0	0	0	0	0	25	103 ?	?	?	?	?	339	322	289 ?	235	181	167	98	48	1	0	0	0	0	1809 ?	
3	0	0	0	0	0	36	91 ?	?	?	?	?	272	330	356	339	245	186	106	40	0	0	0	0	0	2002 ?	
4	0	0	0	0	0	32	107 ?	220 ?	?	?	?	384 ?	272	215	210	203	196	171	119	47	1	0	0	0	0	2178 ?
5	0	0	0	0	0	34	110 ?	?	?	?	?	367 ?	278	253	236	219	198	163	108	45	1	0	0	0	0	2013 ?
6	0	0	0	0	0	23	79 ?	217 ?	?	?	?	246 ?	188	182	192	174	151	140	92	39	0	0	0	0	0	1723 ?
7	0	0	0	0	0	20	90	209	307 ?	?	?	366 ?	331	302	288	276	229	213	110	43	0	0	0	0	0	2785 ?
8	0	0	0	0	0	31	95 ?	?	?	?	?	263	226	290	298	233	209	162	109	42	0	0	0	0	0	1958 ?
9	0	0	0	0	0	32	90 ?	?	?	?	?	243	228	225	200 ?	258	210	164	109	42	0	0	0	0	0	1802 ?
10	0	0	0	0	0	27	114 ?	?	?	?	410 ?	385	397	367	317 ?	293	242	185	124	44	1	0	0	0	0	2905 ?
11	0	0	0	0	0	29	82 ?	?	?	?	232 ?	193	239	272	256	257	193	146	117	43	1	0	0	0	0	2059 ?
12	0	0	0	0	0	28	82 ?	?	291 ?	?	240	256	310	269	314	326	194	172	101	17	0	0	0	0	0	2601 ?
13	0	0	0	0	0	28	84 ?	?	272 ?	?	235	235	295	289	380	363	27	20	22	15	0	0	0	0	0	2264 ?
14	0	0	0	0	0	37	78 ?	?	183	?	178	276	243	259	191 ?	182	145	115	80	33	0	0	0	0	0	2001
15	0	0	0	0	0	29	62 ?	136 ?	119	119	136	130	127 ?	168 ?	157	147	205	80	32	0	0	0	0	0	0	1648
16	0	0	0	0	0	40	156	222	200	195	254	290	232 ?	202	198	181	162	106	37	0	0	0	0	0	0	2472
17	0	0	0	0	0	23	119	188	294	349	370	315	349 ?	461	410	225	123	63	9	1	0	0	0	0	0	3299
18	0	0	0	0	0	17	43	140	202	173	486	530	397 ?	311	287	189	138	100	35	0	0	0	0	0	0	3047
19	0	0	0	0	0	26	91	162	179	185	199	221	207 ?	196	191	153	135	109	45	0	0	0	0	0	0	2098
20	0	0	0	0	0	24	85	126	148	161	190	215	267 ?	292	370	274	205	131	45	0	0	0	0	0	0	2532
21	0	0	0	0	0	12	94	141	141	150	159	163	172	275	339	277	249	132	61	0	0	0	0	0	0	2365
22	0	0	0	0	0	26	81	114	138	213	283	253	250	416	359	148	86	128	38	1	0	0	0	0	0	2532
23	0	0	0	0	0	17	95	212	342	237	336	175	318	222	184	136	150	99	34	0	0	0	0	0	0	2558
24	0	0	0	0	0	20	66	91	112	128	177	214	236	180	168	152	117	83	31	0	0	0	0	0	0	1775
25	0	0	0	0	0	20	72	100	125	128	137	144	161	145	148	138	119	88	31	0	0	0	0	0	0	1555
26	0	0	0	0	0	21	90	138	168	184	184	192	194	207	198	170	135	95	33	0	0	0	0	0	0	2008
27	0	0	0	0	0	18	90	147	193	228	255	276	292	271	247	202	154	98	27	0	0	0	0	0	0	2499
28	0	0	0	0	0	20	96	163	211	258	288	307	306	311	296	247	172	106	30	0	0	0	0	0	0	2809
29	0	0	0	0	0	22	113	175	248	334	414	451	398	336	241	177	209	90	15	0	0	0	0	0	0	3222
30	0	0	0	0	0	9	56	134	261	383	375	370	240	107	149	270	262	141	41	0	0	0	0	0	0	2800
31	0	0	0	0	0	17	92	147	215 ?	?	264 ?	298 ?	?	?	252 ?	174	135	122	13	0	0	0	0	0	0	1730 ?
Avg	0	0	0	0	0	25	91	159	207	225	276	272	265	261	251	191	158	102	35	0	0	0	0	0	0	2280
S D	0	0	0	0	0	7	21	39	66	81	89	85	66	80	71	51	46	22	12	0	0	0	0	0	0	484
S/A	0	0	0	0	1.88	0.29	0.23	0.25	0.32	0.36	0.32	0.31	0.25	0.31	0.28	0.27	0.29	0.22	0.33	1.22	0	0	0	0	0	0.21
Min	0	0	0	0	0	9	43	91	112	119	136	130	127	107	148	27	20	22	9	0	0	0	0	0	0	1555
Max	0	0	0	0	0	40	156	222	342	410	486	530	398	461	410	277	262	141	61	1	0	0	0	0	0	3299

Daylight Data Recovery: 0% missing; 15% exceed the 15% QC threshold -- 5264 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