

**Global Solar Radiation on a Horizontal Surface**  
**Hourly Integrated and Daily Totals**  
**Watt-Hours per Square Meter**  
**Mississippi Valley State Unive - June 1999**

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	40	167	312	450	772	758	883	909	890	776	522	405	172	35	0	0	0	0	0	7092	
2	0	0	0	0	0	52	224	437	645	783	813	897	998	848	548	616	435	239	21	0	0	0	0	0	7557	
3	0	0	0	0	1	55	230	403	625	724	707	520	860	833	772	588	385	194	44	0	0	0	0	0	6941	
4	0	0	0	0	0	50	204	418	602	780	834	807	761	910	753	562	387	179	43	0	0	0	0	0	7292	
5	0	0	0	0	0	45	185	397	591	760	816	671	829	641	597	547	440	223	48	0	0	0	0	0	6790	
6	0	0	0	0	0	55	213	420	617	784	912	974	964	898	771	569	317	143	39	0	0	0	0	0	7677	
7	0	0	0	0	1	56	218	421	618	758	925	973	820	875	689	431	230	165	42	1	0	0	0	0	7224	
8	0	0	0	0	1	58	219	418	612	783	924	778	612	635	677	492	416	213	47	0	0	0	0	0	6886	
9	0	0	0	0	0	40	118	214	279	633	819	810	541	760	794	644	434	224	48	0	0	0	0	0	6359	
10	0	0	0	0	1	55	216	413	607	771	884	954	961	907	782	608	368	183	54	0	0	0	0	0	7764	
11	0	0	0	0	0	45	178	426	593	596	637	666	578	71	378	622	291	113	23	0	0	0	0	0	5217	
12	0	0	0	0	0	46	216	349	509	648	764	942	785	927	807	489	221	104	37	0	0	0	0	0	6844	
13	0	0	0	0	1	49	193	345	429	402	412	614	965	311	198	330	116	24	8	0	0	0	0	0	4394	
14	0	0	0	0	1	25	199	205	254	497	568	531	858	569	379	274	268	138	44	2	0	0	0	0	4812	
15	0	0	0	0	0	24	98	213	527	805	921	872	757	793	531	573	448	213	57	0	0	0	0	0	6832	
16	0	0	0	0	0	31	121	286	422	652	889	961	864	901	790	619	413	214	52	0	0	0	0	0	7216	
17	0	0	0	0	0	38	142	430	628	758	916	986	980	928	796	620	443	240	62	0	0	0	0	0	7967	
18	0	0	0	0	0	50	244	451	652	825	913	1017	1011	950	825	652	453	239	62	0	0	0	0	0	8344	
19	0	0	0	0	1	59	199	354	559	788	667	699	714	552	640	333	393	165	79	0	0	0	0	0	6200	
20	0	0	0	0	0	38	109	362	604	774	886	940	953	623	588	491	254	119	46	0	0	0	0	0	6788	
21	0	0	0	0	0	53	214	411	609	783	790	661	813	801	634	531	420	185	45	0	0	0	0	0	6952	
22	0	0	0	0	0	44	208	411	606	772	876	708	802	535	409	464	395	145	33	0	0	0	0	0	6409	
23	0	0	0	0	0	10	39	140	210	456	497	668	305	112	239	329	120	66	22	2	0	0	0	0	3216	
24	0	0	0	0	0	57	147	311	486	756	730	904	857	929	404	117	63	51	23	1	0	0	0	0	5837	
25	0	0	0	0	0	19	60	236	151	308	585	555	612	234	76	48	44	66	17	0	0	0	0	0	3012	
26	0	0	0	0	0	9	102	194	354	253	203	203	434	850	635	408	340	57	8	2	0	0	0	0	4053	
27	0	0	0	0	0	13	100	72	187	552	719	989	866	679	549	533	437	217	53	1	0	0	0	0	5968	
28	0	0	0	0	0	34	180	234	384	490	792	777	978	911	544	405	363	232	50	1	0	0	0	0	6374	
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0
Avg	0	0	0	0	0	41	169	332	493	667	756	784	800	710	592	479	332	162	41	0	0	0	0	0	6138	
S D	0	0	0	0	0	15	55	102	153	158	172	188	175	251	200	151	121	64	16	1	0	0	0	0	1760	
S/A	0	0	0	0	0.52	0.36	0.32	0.31	0.31	0.24	0.23	0.24	0.22	0.35	0.34	0.32	0.36	0.39	0.4	1.5	0	0	0	0	0.29	
Min	0	0	0	0	0	9	39	72	151	253	203	203	305	71	76	48	44	24	8	0	0	0	0	0	0	
Max	0	0	0	0	1	59	244	451	652	825	925	1017	1011	950	825	652	453	240	79	2	0	0	0	0	8344	

Daylight Data Recovery: 7% missing; 0% exceed the 15% QC threshold -- 5166 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: 5/15/98

**Direct Normal Solar Radiation  
Hourly Integrated and Daily Totals  
Watt-Hours per Square Meter  
Mississippi Valley State Unive - June 1999**

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	*	*	*	*	*	*	*	*		307		628		*	*	*	*	*	*	*		?	*		935 *?	
2	*		*	*	*	*	*	391 ?		*	*	628	*	*	*	*	*	*	*	*	*	?	*		391 *?	
3		?	0	?	*	*	*		368	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		368 *?
4	*	*	*	*	*	*	*	82	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	82 *
5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0 *
6	*	*	*	*	*	710	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	710 *
7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0 *
8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0 *
9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0 *
10	*	*	*	*	*	405	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	405 *
11	*	*	*	*	*	*	*	166	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	166 *
12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0 *
13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0 *
14	*	*	*	?	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	?	*	*	0 *?
15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0 *
16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0 *?
24	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	56	*	*	*	*	*	*	*	56 *
25	*	*	*	*	*	52	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*	*	*	*	*	52 *
26	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0 *
27	*	*	*	*	*	?	?	?	?	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0 *?
28	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
29	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0 *
30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Avg	0	0	0	0	0	389	0	213	368	307	0	628	0	0	0	0	0	56	0	0	0	0	0	0	0	151
S D	0	0	0	0	0	269	0	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	258
S/A	0	0	0	0	0	0.69	0	0.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.71
Min	0	0	0	0	0	52	0	82	368	307	0	628	0	0	0	0	0	56	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	710	0	391	368	307	0	628	0	0	0	0	0	56	0	0	0	0	0	0	0	935

Daylight Data Recovery: 96% missing; 4% exceed the 15% QC threshold -- 5166 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:	5/15/98

**Diffuse Solar Radiation on a Horizontal Surface (Shadow Band PSP)**  
**Hourly Integrated and Daily Totals**  
**Watt-Hours per Square Meter**  
**Mississippi Valley State Unive - June 1999**

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	
1	0	0	0	0	0	38	160	272	404 ?	635 ?	598 ?	725 ?	728 ?	652 ?	?	387 ?	369 ?	150	34	0	0	0	0	0	5152 ?	
2	0	0	0	0	0	50	208 ?	349 ?	?	584 ?	632 ?	723 ?	?	505 ?	536	559 ?	324 ?	141 ?	20	0	0	0	0	0	4632 ?	
3	0	0	0	0	1	52	216	383 ?	?	594 ?	498 ?	442	482 ?	612 ?	?	479 ?	354 ?	198	44	0	0	0	0	0	4355 ?	
4	0	0	0	0	0	48	200	369 ?	?	?	697 ?	652 ?	575 ?	768 ?	679 ?	491 ?	364 ?	180	42	0	0	0	0	0	5066 ?	
5	0	0	0	0	0	43	188	386	?	?	442 ?	570 ?	640 ?	491 ?	403 ?	436 ?	332 ?	174 ?	47	0	0	0	0	0	4150 ?	
6	0	0	0	0	0	52	209	368 ?	?	?	?	?	?	?	?	509 ?	316	138	36	0	0	0	0	0	1629 ?	
7	0	0	0	0	0	54	214	360 ?	?	672 ?	723 ?	699 ?	435 ?	684 ?	556 ?	309 ?	197	165	40	0	0	0	0	0	5108 ?	
8	0	0	0	0	1	55	216	361 ?	?	?	660 ?	505 ?	449 ?	476 ?	498 ?	397 ?	334 ?	191 ?	47	0	0	0	0	0	4190 ?	
9	0	0	0	0	0	37	110	200	262	530 ?	508 ?	557 ?	494	380 ?	642 ?	?	?	184 ?	48	0	0	0	0	0	3953 ?	
10	0	0	0	0	0	55	213	371 ?	?	?	?	761 ?	737 ?	?	678 ?	490 ?	294 ?	176 ?	31	0	0	0	0	0	3805 ?	
11	0	0	0	0	0	42	172	348 ?	530 ?	486 ?	490 ?	540 ?	276 ?	63	282	376 ?	180 ?	106	20	0	0	0	0	0	3913 ?	
12	0	0	0	0	0	44	210	341	500	550 ?	431 ?	713 ?	544 ?	515 ?	693 ?	381 ?	217	99	36	0	0	0	0	0	5274 ?	
13	0	0	0	0	1	46	184	333	378	316	337	463 ?	?	302	183	271	110	23	7	0	0	0	0	0	2953	
14	0	0	0	0	1	23	181 ?	192	238	475	535	501	701 ?	428 ?	316	259	252	129	43	2	0	0	0	0	4273	
15	0	0	0	0	0	22	91	201	340 ?	633 ?	725 ?	691 ?	626 ?	652 ?	376 ?	393 ?	?	191 ?	57	0	0	0	0	0	5001 ?	
16	0	0	0	0	0	28	114	210	387	492 ?	685 ?	765 ?	647 ?	?	?	?	364 ?	211	53	0	0	0	0	0	3956 ?	
17	0	0	0	0	0	35	137	351 ?	?	657 ?	?	?	?	?	?	?	?	185 ?	64	0	0	0	0	0	1430 ?	
18	0	0	0	0	0	48	189 ?	?	?	?	777 ?	?	?	?	?	?	?	181 ?	65	0	0	0	0	0	1260 ?	
19	0	0	0	0	1	56	163 ?	348	426 ?	?	440 ?	497 ?	514 ?	405 ?	328 ?	323	355 ?	162	78	0	0	0	0	0	4097 ?	
20	0	0	0	0	0	35	103	354	?	?	?	?	?	469 ?	479 ?	393 ?	247	113	46	0	0	0	0	0	2241 ?	
21	0	0	0	0	0	50	210	368 ?	?	?	446 ?	478 ?	605 ?	516 ?	391 ?	282 ?	332 ?	164 ?	45	0	0	0	0	0	3887 ?	
22	0	0	0	0	0	42	203	367 ?	?	?	699 ?	479 ?	365 ?	385 ?	367	338 ?	296 ?	142	32	0	0	0	0	0	3716 ?	
23	0	0	0	0	0	9	35	130	196	406	468	394 ?	216	106	224	314	116	62	22	1	0	0	0	0	2698	
24	0	0	0	0	0	54	144	293	448	629 ?	593 ?	671 ?	707 ?	622 ?	346	108	60	49	22	1	0	0	0	0	4749 ?	
25	0	0	0	0	0	18	56	223	142	288	553	497	485 ?	222	70	45	41	62	16	0	0	0	0	0	2718	
26	0	0	0	0	0	9	95	182	306	239	192	176	370	594 ?	362 ?	322 ?	272 ?	53	7	2	0	0	0	0	3181	
27	0	0	0	0	0	12	93	67	175	458	621 ?	696 ?	626 ?	546 ?	415 ?	415 ?	379 ?	201	50	1	0	0	0	0	4756 ?	
28	0	0	0	0	0	32	173	223	304	337 ?	689 ?	515 ?	?	?	419 ?	375	318 ?	210 ?	48	1	0	0	0	0	3644 ?	
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Avg	0	0	0	0	0	39	160	295	336	499	560	571	534	472	420	361	268	144	39	0	0	0	0	0	3648	
S D	0	0	0	0	0	14	52	88	114	131	138	139	143	176	161	115	99	53	17	0	0	0	0	0	1296	
S/A	0	0	0	0	0.52	0.37	0.33	0.3	0.34	0.26	0.25	0.24	0.27	0.37	0.38	0.32	0.37	0.37	0.43	1.53	0	0	0	0	0.36	
Min	0	0	0	0	0	9	35	67	142	239	192	176	216	63	70	45	41	23	7	0	0	0	0	0	0	
Max	0	0	0	0	1	56	216	386	530	672	777	765	737	768	693	559	379	211	78	2	0	0	0	0	5274	

Daylight Data Recovery: 7% missing; 36% exceed the 15% QC threshold -- 5166 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: 5/15/98