

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Mississippi Valley State Unive - May 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	28	188	409	623	806	939	1003	996	898	775	592	381	156	15	0	0	0	0	0	7810	
2	0	0	0	0	0	33	203	418	618	806	942	946	934	905	665	452	202	88	20	0	0	0	0	0	7231	
3	0	0	0	0	0	28	54	315	317	540	688	874	913	892	654	555	356	121	17	0	0	0	0	0	6324	
4	0	0	0	0	0	19	102	324 ?	463	464	303	369	605	323	106	222	33 ?	1 ?	1	0	0	0	0	0	3335	
5	0	0	0	0	0	23	153	318	164	528	865	882	913	757	583	226 ?	83	1 ?	1	0	0	0	0	0	5497	
6	0	0	0	0	0	33	198	416	629	803	927	996	993	929	795	592	389	142	10	0	0	0	0	0	7854	
7	0	0	0	0	0	38	213	434	647	826	949	1009	1001	916	787	605	394	174	22	0	0	0	0	0	8016	
8	0	0	0	0	0	38	206	433	638	812	933	999	995	903	772	593	383	169	23	0	0	0	0	0	7897	
9	0	0	0	0	0	39	204	421	631	800	917	977	986	897	770	592	384	171	23	0	0	0	0	0	7812	
10	0	0	0	0	0	40	211	428	643	704	909	879	761	706	500	267	149	70	10	0	0	0	0	0	6277	
11	0	0	0	0	0	13	81	141	135	163	164	147	127	128	53 ?	83	48	17	2	0	0	0	0	0	1302	
12	0	0	0	0	0	25	159	165	448	345	127	759	815	817	739	603	381	116	47	0	0	0	0	0	5548	
13	0	0	0	0	0	35	228 ?	316	639	819	946	991	1009	937	801	626	413	193	30	0	0	0	0	0	7983	
14	0	0	0	0	0	53	239	441	635	825	920	1010	998	928	784	607	388	178	22	0	0	0	0	0	8026	
15	0	0	0	0	0	41	191	329	611	791	892	958	762	844	663	570	351	171	23	0	0	0	0	0	7198	
16	0	0	0	0	0	44	217	417	614	773	911	959	967	889	741	462	376	166	24	0	0	0	0	0	7560	
17	0	0	0	0	0	36	192	299	504	741	859	887	890	793	690	589	378	137	11	0	0	0	0	0	7005	
18	0	0	0	0	0	21	84	314	490	532	757	782	703	758	655	394	350	199	35	0	0	0	0	0	6074	
19	0	0	0	0	0	52	234	449	660	835	957	999	1010	940	801	621	405	194	31	0	0	0	0	0	8189	
20	0	0	0	0	0	54	235	445	642	786	932	1000	968	842	735	565	388	166	23	0	0	0	0	0	7780	
21	0	0	0	0	0	47	200	391	556	717	666	663	695	404	411	328	349	165	37	0	0	0	0	0	5629	
22	0	0	0	0	0	39	198	399	536	698	885	917	977	756	579	221	303	140	3	0	0	0	0	0	6653	
23	0	0	0	0	0	24	89	228	400	351	723	963	827	800	646	480	258	214	42	0	0	0	0	0	6045	
24	0	0	0	0	0	55	240	457	669	848	969	1024	1021	949	806	631	399	192	29	0	0	0	0	0	8290	
25	0	0	0	0	0	57	231	432	630	750	914	887	893	660	473	302	114	194	26	0	0	0	0	0	6563	
26	0	0	0	0	0	35	139	211	188	230	338	574	368	841	625	310	268	91	31	0	0	0	0	0	4249	
27	0	0	0	0	0	58	236	453	662	809	940	997	1010	940	823	628	414	197	50	0	0	0	0	0	8218	
28	0	0	0	0	0	28	163	338	614	813	918	972	971	897	768	607	400	197	45	0	0	0	0	0	7731	
29	0	0	0	0	0	39	154	390	605	761	890	795	796	88	397	443	287	103	23	0	0	0	0	0	5771	
30	0	0	0	0	0	38	71 ?	152	565	762	695	544	725	730	288	68 ?	29 ?	31	23	0	0	0	0	0	4720	
31	0	0	0	0	0	4	26	105	80	437	716	466	759	573	345	556	187	74	23	0	0	0	0	0	4352	
Avg	0	0	0	0	0	36	172	348	524	673	790	846	851	763	620	464	298	136	23	0	0	0	0	0	6546	
S D	0	0	0	0	0	13	61	102	169	192	233	214	198	226	203	170	124	61	13	0	0	0	0	0	1628	
S/A	0	0	0	0	2.07	0.36	0.35	0.29	0.32	0.29	0.3	0.25	0.23	0.3	0.33	0.37	0.42	0.45	0.55	3.86	0	0	0	0	0	0.25
Min	0	0	0	0	0	4	26	105	80	163	127	147	127	88	53	68	29	1	1	0	0	0	0	0	1302	
Max	0	0	0	0	0	58	240	457	669	848	969	1024	1021	949	823	631	414	214	50	0	0	0	0	0	8290	

Daylight Data Recovery: 0% missing; 1% exceed the 15% QC threshold -- 5162 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 - May 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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*		
2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*	
3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*	
4	*	*	*	*	*	*	*	*	*	*	*	*	*	51	?	?	*	*	*	*	*	*	*	*	*	51	*?	
5	*	*	?	*	*	*	*	*	*	*	923	*	936	*	*	*	*	*	*	*	*	*	*	*	*	1859	*?	
6	*	*	*	?	*	*	*	*	*	*	*	*	406	*	*	*	*	*	*	*	*	*	*	*	*	406	*?	
7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8	*	*	*	*	*	*	*	389	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	389	*	
9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*	
10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	522	*	
11	*	*	*	*	*	*	*	522	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	?	522	*
12	?	?	?	*	*	*	*	*	*	*	*	*	*	124	*	*	*	*	*	*	*	*	*	*	*	?	124	*?
13	*	*	*	?	?	?	360	?	?	*	818	?	*	*	315	*	*	*	*	*	*	*	*	*	*	*	315	*?
14	*	*	?	?	?	257	?	*	*	*	*	525	544	*	*	*	*	*	*	*	*	*	*	*	*	*	2247	*?
15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	257	*?
16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*
17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*
18	*	*	*	*	*	610	*	?	765	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1374	*
19	*	?	?	?	*	160	?	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	160	*?
20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*
21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*
22	*	*	?	*	*	222	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	222	*?
23	*	*	*	*	*	119	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	119	*
24	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*
25	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*
26	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*
27	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*
28	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*
29	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	*
30	*	*	*	*	*	416	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	416	*?
31	?	*	*	*	*	707	?	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	707	*?
Avg	0	0	0	0	0	356	0	456	791	0	923	730	475	88	315	0	0	0	0	0	0	0	0	0	0	0	353	
S D	0	0	0	0	0	198	0	66	27	0	0	205	69	37	0	0	0	0	0	0	0	0	0	0	0	0	578	
S/A	0	0	0	0	0	0.56	0	0.15	0.03	0	0	0.28	0.15	0.42	0	0	0	0	0	0	0	0	0	0	0	0	1.64	
Min	0	0	0	0	0	119	0	389	765	0	923	525	406	51	315	0	0	0	0	0	0	0	0	0	0	0	0	
Max	0	0	0	0	0	707	0	522	818	0	923	936	544	124	315	0	0	0	0	0	0	0	0	0	0	0	2247	

Daylight Data Recovery: 93% missing; 7% exceed the 15% QC threshold -- 5162 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 - May 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	27	165	344 ?	?	?	?	?	?	?	?	?	?	141	16	0	0	0	0	0	693 ?
2	0	0	0	0	0	33	153 ?	390 ?	590 ?	?	?	?	724 ?	?	536 ?	415 ?	191	82	19	0	0	0	0	0	3132 ?
3	0	0	0	0	0	26	49	218 ?	177 ?	514	549 ?	681 ?	745 ?	?	440 ?	439 ?	333 ?	118	16	0	0	0	0	0	4307 ?
4	0	0	0	0	0	18	94	279	384 ?	419	288	344	473 ?	314	109	211	31 ?	1 ?	1	0	0	0	0	0	2966
5	0	0	0	0	0	22	145	301	155	398 ?	737 ?	699 ?	?	486 ?	434 ?	215 ?	77	1 ?	1	0	0	0	0	0	3671 ?
6	0	0	0	0	0	31	177	351 ?	?	?	?	?	?	?	?	390 ?	?	121	10	0	0	0	0	0	1081 ?
7	0	0	0	0	0	37	166 ?	?	?	?	?	?	?	?	?	?	?	161	22	0	0	0	0	0	386 ?
8	0	0	0	0	0	36	167 ?	?	?	?	?	?	?	?	?	?	?	358 ?	164	23	0	0	0	0	749 ?
9	0	0	0	0	0	38	175 ?	364 ?	?	?	?	?	?	?	?	?	?	362 ?	168	24	0	0	0	0	1130 ?
10	0	0	0	0	0	39	172 ?	338 ?	?	518 ?	?	?	687 ?	591 ?	433	249	140	65	10	0	0	0	0	0	3241 ?
11	0	0	0	0	0	12	76	133	127	149	153	138	118	112	49	78	45	16	2	0	0	0	0	0	1206
12	0	0	0	0	0	25	139	153	326 ?	325	119	460 ?	530 ?	586 ?	588 ?	?	303 ?	81	31 ?	0	0	0	0	0	3666 ?
13	0	0	0	0	0	32	179	234 ?	570 ?	?	?	?	?	?	?	?	?	161 ?	31	0	0	0	0	0	1208 ?
14	0	0	0	0	0	49	180 ?	?	?	?	?	?	?	?	?	?	?	364 ?	173	22	0	0	0	0	788 ?
15	0	0	0	0	0	40	186	293	?	?	?	?	534 ?	706 ?	472 ?	?	358	171	23	0	0	0	0	0	2783 ?
16	0	0	0	0	0	41	208	386 ?	?	?	?	?	?	?	620 ?	294 ?	342 ?	166	23	0	0	0	0	0	2080 ?
17	0	0	0	0	0	34	184	283	479	?	?	775 ?	?	701 ?	655 ?	?	366 ?	137	10	0	0	0	0	0	3623 ?
18	0	0	0	0	0	19	77	253 ?	408 ?	419 ?	485 ?	656 ?	542 ?	611 ?	522 ?	334	318 ?	169 ?	37	0	0	0	0	0	4851 ?
19	0	0	0	0	0	50	177 ?	?	?	?	?	?	?	?	?	?	?	174 ?	34	0	0	0	0	0	435 ?
20	0	0	0	0	0	51	204 ?	350 ?	?	?	?	?	?	?	?	496 ?	386 ?	140	22	0	0	0	0	0	1650 ?
21	0	0	0	0	0	45	193	382	486 ?	544 ?	419 ?	594 ?	568 ?	379	386	310	329 ?	162	36	0	0	0	0	0	4833 ?
22	0	0	0	0	0	37	193	395	417 ?	543 ?	?	643 ?	783 ?	592 ?	448 ?	210	305	140	4	0	0	0	0	0	4709 ?
23	0	0	0	0	0	20	84	213	332	292	424 ?	?	654 ?	591 ?	502 ?	425 ?	250	174 ?	41	0	0	0	0	0	4001 ?
24	0	0	0	0	0	54	207 ?	?	?	?	?	?	?	?	?	?	354 ?	173	28	0	0	0	0	0	816 ?
25	0	0	0	0	0	56	216	375 ?	?	598 ?	?	661 ?	701 ?	568 ?	447	285	106	119 ?	24	0	0	0	0	0	4155 ?
26	0	0	0	0	0	33	130	201	177	212	318	512	343	693 ?	515 ?	293	242	85	30	0	0	0	0	0	3785
27	0	0	0	0	0	56	213 ?	356 ?	?	?	?	780 ?	?	?	?	?	354 ?	182	49	0	0	0	0	0	1991 ?
28	0	0	0	0	0	26	145	284 ?	471 ?	?	?	?	?	?	?	?	380 ?	182	45	0	0	0	0	0	1533 ?
29	0	0	0	0	0	37	149	381	520 ?	660 ?	746 ?	484 ?	436 ?	80	273 ?	341 ?	190 ?	98	21	0	0	0	0	0	4415 ?
30	0	0	0	0	0	35	66	141	408 ?	629 ?	395 ?	388 ?	504 ?	399 ?	272	64 ?	27 ?	29	21	0	0	0	0	0	3378 ?
31	0	0	0	0	0	4	25	100	75	410	599 ?	400	639 ?	398 ?	293	463 ?	186	70	22	0	0	0	0	0	3682
Avg	0	0	0	0	0	34	151	288	359	442	436	548	561	488	421	306	258	123	22	0	0	0	0	0	2611
S D	0	0	0	0	0	13	51	88	157	145	193	174	164	188	156	119	118	55	12	0	0	0	0	0	1466
S/A	0	0	0	0	2.1	0.37	0.34	0.31	0.44	0.33	0.44	0.32	0.29	0.38	0.37	0.39	0.46	0.45	0.54	0	0	0	0	0	0.56
Min	0	0	0	0	0	4	25	100	75	149	119	138	118	80	49	64	27	1	1	0	0	0	0	0	386
Max	0	0	0	0	0	56	216	395	590	660	746	780	783	706	655	496	386	182	49	0	0	0	0	0	4851

Daylight Data Recovery: 0% missing; 48% exceed the 15% QC threshold -- 5162 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