

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Mississippi Valley State Unive - April 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	0	20	62	101	207	626 ?	472	560	687 ?	582 ?	498	285	68	1	0	0	0	0	0	4169
2	0	0	0	0	0	0	23	113	209	269	500	543	413	418	225	98	83	34	2	0	0	0	0	0	2930
3	0	0	0	0	0	0	47	126	246	337	555	502	566	588 ?	376	403	75	36	1	0	0	0	0	0	3859
4	0	0	0	0	0	0	37	103	232	232	495 ?	905	910 ?	801 ?	664 ?	495	269	48	1	0	0	0	0	0	5191
5	0	0	0	0	0	1	50	200	262	449	594	657 ?	583 ?	610 ?	568 ?	314	156	70	2	0	0	0	0	0	4516
6	0	0	0	0	0	3	98	318	525	744 ?	871	945	940	869	740	553	332	114	3	0	0	0	0	0	7055
7	0	0	0	0	0	2	51	234	344	543	725 ?	617 ?	663	586	415	247	221	71	2	0	0	0	0	0	4723
8	0	0	0	0	0	2	51	125	352	341	463	438	435	430	277	238	176	49	3	0	0	0	0	0	3381
9	0	0	0	0	0	5	54	200	199	337	470	484	378	370	227	207	243	62	1	0	0	0	0	0	3238
10	0	0	0	0	0	2	46	135	278	483	680	700 ?	667	479	392	212	118	34	1	0	0	0	0	0	4227
11	0	0	0	0	0	5	125	347	567	758	891	963	950 ?	914 ?	732 ?	549 ?	222	64	2	0	0	0	0	0	7091
12	0	0	0	0	0	6	124	340 ?	461 ?	?	907 ?	968 ?	960 ?	897 ?	743	543	339	116	3	0	0	0	0	0	6408 ?
13	0	0	0	0	0	9	116 ?	268 ?	480 ?	681 ?	702 ?	635	629	598	582 ?	297	306	114	5	0	0	0	0	0	5422 ?
14	0	0	0	0	0	4	46	252	410	504 ?	506	313	217	131	258	69	35	0 ?	0	0	0	0	0	0	2744
15	0	0	0	0	0	10	87	82	253	119	205	196	236	325	436 ?	353	200	50	2	0	0	0	0	0	2552
16	0	0	0	0	0	11	147	398 ?	582 ?	?	929 ?	?	?	849 ?	537 ?	460 ?	333 ?	126	7	0	0	0	0	0	4379 ?
17	0	0	0	0	0	11	151	390 ?	?	?	719 ?	678 ?	697 ?	656 ?	545 ?	333	276 ?	134	8	0	0	0	0	0	4597 ?
18	0	0	0	0	0	16	141 ?	383	589	771	915 ?	833 ?	909 ?	525 ?	649 ?	339 ?	318 ?	129	10	0	0	0	0	0	6526 ?
19	0	0	0	0	0	13	152	374	496 ?	?	?	?	?	?	592 ?	519 ?	340	130	10	0	0	0	0	0	2626 ?
20	0	0	0	0	0	14	144	338	523 ?	651 ?	?	?	?	676 ?	741 ?	641 ?	456 ?	325	133	10	0	0	0	0	4652 ?
21	0	0	0	0	0	13	113	322	474 ?	?	?	?	?	?	?	507 ?	346	133	10	0	0	0	0	0	1919 ?
22	0	0	0	0	0	6	81	202	392	568 ?	821 ?	?	?	?	656 ?	584 ?	459	275	110	9	0	0	0	0	4163 ?
23	0	0	0	0	0	14	142	344	448	551 ?	479	536	477	500	597 ?	338	278	134	9	0	0	0	0	0	4846
24	0	0	0	0	0	11	117	175	258	320	294	519	661	308	245	52	58	84	9	0	0	0	0	0	3109
25	0	0	0	0	0	2	47	70	167	384	703 ?	639	473	691 ?	674 ?	465	292	90	7	0	0	0	0	0	4703
26	0	0	0	0	0	7	144	369	546	612	770	775	768	666	444	113 ?	3 ?	3	1	0	0	0	0	0	5221
27	0	0	0	0	0	4	23	139	288	497	647	881	879	887	552	152	321	163	13	0	0	0	0	0	5447
28	0	0	0	0	0	30	182	391	599	781	906	970	963	801	547	530	312	101	8	0	0	0	0	0	7120
29	0	0	0	0	0	9	117	215 ?	329	414	773	686	569	720 ?	658	548	279 ?	123	12	0	0	0	0	0	5452
30	0	0	0	0	0	28	193	381	618	813	934	999	1009	921	780	587	370	153	16	0	0	0	0	0	7803
Avg	0	0	0	0	0	8	96	247	387	495	670	674	661	629	526	364	240	89	6	0	0	0	0	0	4669
S D	0	0	0	0	0	7	50	112	147	194	196	215	225	203	163	161	103	44	4	0	0	0	0	0	1492
S/A	0	0	0	0	0	0.91	0.52	0.45	0.38	0.39	0.29	0.32	0.34	0.32	0.31	0.44	0.43	0.49	0.8	0	0	0	0	0	0.32
Min	0	0	0	0	0	0	20	62	101	119	205	196	217	131	225	52	3	0	0	0	0	0	0	0	1919
Max	0	0	0	0	0	30	193	398	618	813	934	999	1009	921	780	587	370	163	16	0	0	0	0	0	7803

Daylight Data Recovery: 0% missing; 18% exceed the 15% QC threshold -- 4681 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: 8.50 uV/Wm-2
Serial Number: 18038F3
Calibration Date: 9/13/96
Note: Instrument was changed during month.

Direct Normal Solar Radiation
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Mississippi Valley State Unive - April 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	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	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
3	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
4	0	0	0	0	0	0	0	0	0	0	0 ?	?	?	?	?	0 ?	0 ?	0	0	0	0	0	0	0	0 ?
5	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
6	0	0	0	0	0	0	0	0 ?	?	?	?	?	?	?	?	?	?	?	0	0	0	0	0	0	0 ?
7	0	0	0	0	0	0	0	0	0	0	0 ?	0 ?	0	0	0	0	0	0	0	0	0	0	0	0	1
8	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
9	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
10	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
11	0	0	0	0	0	0	0	0 ?	?	?	?	?	?	?	0 ?	0 ?	0 ?	0 ?	0	0	0	0	0	0	0 ?
12	0	0	0	0	0	0	0	0 ?	0 ?	0 ?	?	?	?	?	?	?	?	0 ?	0	0	0	0	0	0	0 ?
13	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 ?
14	0	0	0	0	0	0	0	0	0	0 ?	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
15	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
16	0	0	0	0	0	0	0	0 ?	?	?	?	?	?	?	0 ?	0 ?	0 ?	0 ?	0	0	0	0	0	0	0 ?
17	0	0	0	0	0	0	0	0 ?	?	?	0 ?	0 ?	0 ?	0 ?	0 ?	0	0 ?	0	0	0	0	0	0	0	0 ?
18	0	0	0	0	0	0	0 ?	0 ?	0 ?	?	?	?	0 ?	0 ?	0 ?	0 ?	0 ?	0	0	0	0	0	0	0	0 ?
19	0	0	0	0	0	0	0	0	0 ?	?	?	?	?	?	0 ?	0	0	0	0	0	0	0	0	0	0 ?
20	0	0	0	0	0	0	0	0	0 ?	0 ?	?	?	0 ?	0 ?	0 ?	0 ?	0	0	0	0	0	0	0	0	0 ?
21	0	0	0	0	0	0	0	0	0 ?	?	?	?	?	?	0 ?	0	0	0	0	0	0	0	0	0	0 ?
22	0	0	0	0	0	0	0	1	0	0 ?	0 ?	?	?	0 ?	0	0	0	0	0	0	0	0	0	0	1 ?
23	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
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
25	0	0	0	0	0	0	0	0	0	2	2	1 ?	0	0	0 ?	0	0	0	0	0	0	0	0	0	5
26	0	0	0	0	0	0	1	0 *	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1 *
27	*	*	*	*	*	*	*	?	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0 ?*
28	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0
29	*	*	*	*	*	*	*	*	?	*	*	*	*	454 ?	149 ?	*	149 ?	112 ?	526 ?	*	*	*	*	*	1390 ?*
30	?	*	*	*	*	*	*	*	*	*	751 *	*	*	*	*	*	*	*	*	*	*	*	*	*	751 ?*

Avg	0	0	0	0	0	0	0	0	0	0	42	0	0	24	7	0	6	4	20	0	0	0	0	0	72
S/D	0	0	0	0	0	0	0	0	0	1	172	0	0	101	31	0	30	22	101	0	0	0	0	0	279
S/A	0	0	0	0	0	0	2.36	2.45	3.66	3.53	4.12	3.74	4	4.24	4.56	0	4.79	4.9	5	0	0	0	0	0	3.9
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	0
Max	0	0	0	0	0	0	1	1	2	2	751	0	0	454	149	0	149	112	526	0	0	0	0	0	1390

Daylight Data Recovery: 13% missing; 28% exceed the 15% QC threshold -- 4681 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: 7.46 uV/Wm-2
Serial Number: 25792E6
Calibration Date: 9/13/96
Note: Instrument was changed during month.

Diffuse Solar Radiation on a Horizontal Surface (Shadow Band PSP)
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Mississippi Valley State Unive - April 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	0	18	58	94	194	570 ?	408	517	598 ?	498 ?	?	281 ?	65	0	0	0	0	0	0	3303 ?
2	0	0	0	0	0	0	21	106	195	250	462	506	386	390	210	92	79	32	1	0	0	0	0	0	2731
3	0	0	0	0	0	0	44	117	230	311	498	466	501 ?	504 ?	353	370 ?	70	34	1	0	0	0	0	0	3496
4	0	0	0	0	0	0	35	97	214	214	368 ?	?	?	?	?	421 ?	271	46	1	0	0	0	0	0	1666 ?
5	0	0	0	0	0	1	45	185	242	416	554	595 ?	555 ?	544 ?	487 ?	275	147	66	2	0	0	0	0	0	4115
6	0	0	0	0	0	2	93	291 ?	?	?	?	?	?	?	?	?	?	102	4	0	0	0	0	0	492 ?
7	0	0	0	0	0	2	48	224	321	458 ?	671 ?	584 ?	613 ?	555	365	231	170 ?	67	2	0	0	0	0	0	4312
8	0	0	0	0	0	2	47	116	326	319	433	406	404	401	259	223	166	47	3	0	0	0	0	0	3151
9	0	0	0	0	0	5	51	187	184	313	436	416	345	345	212	192	218	58	1	0	0	0	0	0	2963
10	0	0	0	0	0	2	43	126	258	446	613	649 ?	589 ?	443	369	200	112	32	0	0	0	0	0	0	3882
11	0	0	0	0	0	5	98 ?	?	?	?	?	?	?	?	?	397 ?	149 ?	60	2	0	0	0	0	0	711 ?
12	0	0	0	0	0	5	111 ?	333 ?	?	?	?	?	?	?	?	?	?	101	3	0	0	0	0	0	553 ?
13	0	0	0	0	0	9	86 ?	258 ?	?	596 ?	589 ?	600	570 ?	566	495 ?	288	294 ?	93	5	0	0	0	0	0	4451 ?
14	0	0	0	0	0	4	42	237	374	438 ?	470	293	202	123	243	64	33	0 ?	0	0	0	0	0	0	2520
15	0	0	0	0	0	9	83	77	234	111	191	182	220	300	416 ?	316	188	46	2	0	0	0	0	0	2375
16	0	0	0	0	0	10	108 ?	?	?	?	?	?	?	?	?	333 ?	439 ?	370 ?	125	6	0	0	0	0	1392 ?
17	0	0	0	0	0	11	106 ?	?	?	?	664 ?	459 ?	640 ?	595 ?	492 ?	318	252 ?	119	9	0	0	0	0	0	3663 ?
18	0	0	0	0	0	15	91 ?	?	?	?	?	620 ?	725 ?	508 ?	362 ?	333 ?	310 ?	121	10	0	0	0	0	0	3097 ?
19	0	0	0	0	0	13	115 ?	?	?	?	?	?	?	?	?	596 ?	?	347 ?	131	10	0	0	0	0	1213 ?
20	0	0	0	0	0	13	111 ?	325 ?	?	?	?	?	668 ?	712 ?	583 ?	392 ?	347 ?	134	10	0	0	0	0	0	3295 ?
21	0	0	0	0	0	12	105	295	469 ?	?	?	?	?	?	?	?	?	126	10	0	0	0	0	0	1017 ?
22	0	0	0	0	0	6	75	189	352	521 ?	?	?	?	?	621 ?	490 ?	423 ?	272	107	9	0	0	0	0	3063 ?
23	0	0	0	0	0	13	137	327 ?	413 ?	475 ?	455	514	452	453	541 ?	297 ?	244	98 ?	9	0	0	0	0	0	4427 ?
24	0	0	0	0	0	10	109	163	240	299	277	483	621	292	229	49	55	78	9	0	0	0	0	0	2914
25	0	0	0	0	0	2	44	66	157	358	666 ?	604	443	631 ?	?	413 ?	289	88	6	0	0	0	0	0	3765
26	0	0	0	0	0	6	138	348 ?	454 ?	506 ?	628 ?	565 ?	633 ?	586 ?	425	108 ?	3 ?	3	1	0	0	0	0	0	4405 ?
27	0	0	0	0	0	4	23	131	271	439	537 ?	698 ?	708 ?	?	203 ?	114	198 ?	120 ?	14	0	0	0	0	0	3458 ?
28	0	0	0	0	0	31	141 ?	?	?	?	?	?	?	456 ?	456 ?	367 ?	246 ?	98	8	0	0	0	0	0	1801 ?
29	0	0	0	0	0	9	107	154 ?	305	298 ?	555 ?	467 ?	491	479 ?	502 ?	458 ?	206 ?	119	11	0	0	0	0	0	4162 ?
30	0	0	0	0	0	27	135 ?	325 ?	?	?	?	?	?	?	?	?	?	138	17	0	0	0	0	0	642 ?
Avg	0	0	0	0	0	8	80	197	281	366	507	501	514	481	396	282	204	82	6	0	0	0	0	0	2768
S/D	0	0	0	0	0	7	38	94	97	122	127	123	145	135	122	125	100	39	5	0	0	0	0	0	1265
S/A	0	0	0	0	0	0.94	0.47	0.48	0.35	0.33	0.25	0.25	0.28	0.28	0.31	0.44	0.49	0.48	0.82	0	0	0	0	0	0.46
Min	0	0	0	0	0	0	18	58	94	111	191	182	202	123	203	49	3	0	0	0	0	0	0	0	492
Max	0	0	0	0	0	31	141	348	469	596	671	698	725	712	596	458	370	138	17	0	0	0	0	0	4451

Daylight Data Recovery: 0% missing; 38% exceed the 15% QC threshold -- 4681 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: 9.04 uV/Wm-2
Serial Number: 25818F3
Calibration Date: 9/13/96
Note: Instrument was changed during month.