

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Mississippi Valley State Univ. - January 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	0	0	0	16 ?	?	349	448	520	529	492 ?	?	?	60 ?	0	0	0	0	0	0	2413 ?
2	0	0	0	0	0	0	0	0	4	24	68	196	321	317	284	177	101 ?	19 ?	0	0	0	0	0	0	1510
3	0	0	0	0	0	0	0	0	24	39	43	87	40	10	47	122	34	8 ?	0	0	0	0	0	0	454
4	0	0	0	0	0	0	0	0	5	18	33	88	113	93	113	96	66 ?	37 ?	0	0	0	0	0	0	662
5	0	0	0	0	0	0	0	0	10 ?	?	?	514 ?	555	567	536 ?	?	?	67 ?	0	0	0	0	0	0	2249 ?
6	0	0	0	0	0	0	0	0	11 ?	?	?	493 ?	540	541	508 ?	229 ?	158 ?	42 ?	0	0	0	0	0	0	2522 ?
7	0	0	0	0	0	0	0	0	18 ?	?	277	379	489	534	503 ?	?	?	56 ?	0	0	0	0	0	0	2256 ?
8	0	0	0	0	0	0	0	0	1 ?	30	35	87	107	67	44	56	32	3	0	0	0	0	0	0	464
9	0	0	0	0	0	0	0	0	5	45	82	133	191	292	360	?	?	123 ?	0	0	0	0	0	0	1230 ?
10	0	0	0	0	0	0	0	0	18 ?	?	?	509 ?	557	569	539 ?	?	?	125 ?	0	0	0	0	0	0	2318 ?
11	0	0	0	0	0	0	0	0	2 ?	?	?	490 ?	537	547	508 ?	?	?	59 ?	0	0	0	0	0	0	2143 ?
12	0	0	0	0	0	0	0	0	8	37	83	139	256	303	366	271 ?	156 ?	127 ?	0	0	0	0	0	0	1745
13	0	0	0	0	0	0	0	0	14	55 ?	354 ?	491	579	570	534 ?	?	106 ?	93 ?	0	0	0	0	0	0	2795 ?
14	0	0	0	0	0	0	0	0	2 ?	?	?	518 ?	570	580	537 ?	?	?	91 ?	0	0	0	0	0	0	2297 ?
15	0	0	0	0	0	0	0	0	8 ?	?	?	478	569	584	542 ?	?	171 ?	130 ?	0	0	0	0	0	0	2481 ?
16	0	0	0	0	0	0	0	0	7	50	98	188	265	354	284	219	106	9 ?	0	0	0	0	0	0	1579
17	0	0	0	0	0	0	0	0	16	112	267	445	517	520	453	243 ?	232 ?	123 ?	0	0	0	0	0	0	2928 ?
18	0	0	0	0	0	0	0	0	12	91	236	99	114	200	169	73	60	43 ?	0	0	0	0	0	0	1097
19	0	0	0	0	0	0	0	0	2	27	58	106	116	98	77	118	102	61 ?	0	0	0	0	0	0	766
20	0	0	0	0	0	0	0	0	6 ?	?	?	542 ?	598	615	579 ?	?	?	150 ?	0	0	0	0	0	0	2490 ?
21	0	0	0	0	0	0	0	0	5 ?	?	?	535 ?	585	596	550 ?	?	?	102 ?	0	0	0	0	0	0	2373 ?
22	0	0	0	0	0	0	0	0	5 ?	18	26	77	94	157	155	40	29	4	0	0	0	0	0	0	604
23	0	0	0	0	0	0	0	0	9	38	73	117	169	153	155	180	102	47 ?	0	0	0	0	0	0	1042
24	0	0	0	0	0	0	0	0	18	62	105	355 ?	616	635	600 ?	?	?	102 ?	0	0	0	0	0	0	2493 ?
25	0	0	0	0	0	0	0	0	26	36 ?	?	513	574	618	357	207	152 ?	77 ?	0 ?	0	0	0	0	0	2560 ?
26	0	0	0	0	0	0	0	0	52 ?	168	350	387	492	471	425	272	143	68 ?	0 ?	0	0	0	0	0	2828
27	0	0	0	0	0	0	0	0	10	87	279	293	194	108	45	23	13	4	0	0	0	0	0	0	1056
28	0	0	0	0	0	0	0	0	14	60	87	120	118	131	96	78	64	43 ?	0	0	0	0	0	0	811
29	0	0	0	0	0	0	0	0	10	62	141	188	256	303	276	204	161	66 ?	0 ?	0	0	0	0	0	1668
30	0	0	0	0	0	0	0	0	34 ?	?	?	?	?	?	?	?	?	128 ?	0 ?	0	0	0	0	0	162 ?
31	0	0	0	0	0	0	0	0	26 ?	?	?	?	?	?	?	?	?	130 ?	0	0	0	0	0	0	156 ?
Avg	0	0	0	0	0	0	0	0	13	56	152	311	367	381	349	153	105	71	0	0	0	0	0	0	1682
S D	0	0	0	0	0	0	0	0	11	36	116	177	202	206	189	80	57	44	0	0	0	0	0	0	862
S/A	0	0	0	0	0	0	0	0	0.83	0.65	0.76	0.57	0.55	0.54	0.54	0.52	0.55	0.62	0	0	0	0	0	0	0.51
Min	0	0	0	0	0	0	0	0	1	18	26	77	40	10	44	23	13	3	0	0	0	0	0	0	156
Max	0	0	0	0	0	0	0	0	52	168	354	542	616	635	600	272	232	150	0	0	0	0	0	0	2928

Daylight Data Recovery: 0% missing; 28% exceed the 15% QC threshold -- 3797 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. - January 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	0	46 ?	?	695	779	831	840	837 ?	757 ?	657	565 ?	0	0	0	0	0	0	6007 ?
2	0	0	0	0	0	0	0	0	0	0	0	4	103	54	80	9	1	0	0	0	0	0	0	0	253
3	0	0	0	0	0	0	0	0	27	1	1	1	0	0	5	0	0	0	0	0	0	0	0	0	35
4	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	21	47 ?	0	0	0	0	0	0	0	70
5	0	0	0	0	0	0	0	0	40 ?	?	?	974 ?	986	992	973 ?	?	818	712 ?	0	0	0	0	0	0	5495 ?
6	0	0	0	0	0	0	0	0	47 ?	?	?	916 ?	917	883	857 ?	311 ?	287	559 ?	0	0	0	0	0	0	4777 ?
7	0	0	0	0	0	0	0	0	72 ?	?	356	545	621	657	862 ?	787 ?	681	369 ?	0	0	0	0	0	0	4950 ?
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	1	1	29	165	782 ?	732	609 ?	0	0	0	0	0	0	2319
10	0	0	0	0	0	0	0	0	62 ?	?	?	941 ?	944	948	937 ?	851 ?	684	525 ?	0	0	0	0	0	0	5894 ?
11	0	0	0	0	0	0	0	0	8 ?	?	?	895 ?	901	895	867 ?	759 ?	642	496 ?	0	0	0	0	0	0	5463 ?
12	0	0	0	0	0	0	0	0	0	0	0	4	4	14	162	142 ?	368	462 ?	0	0	0	0	0	0	1153
13	0	0	0	0	0	0	0	0	0	32 ?	646 ?	850 ?	847	927	916 ?	835 ?	601	355 ?	0	0	0	0	0	0	6008 ?
14	0	0	0	0	0	0	0	0	11 ?	?	?	930 ?	953	961	948 ?	798 ?	516	305 ?	0 ?	0	0	0	0	0	5423 ?
15	0	0	0	0	0	0	0	0	40 ?	?	?	807	893	926	905 ?	802 ?	623	298 ?	0	0	0	0	0	0	5294 ?
16	0	0	0	0	0	0	0	0	0	0	0	1	4	16	9	5	4	0	0	0	0	0	0	0	39
17	0	0	0	0	0	0	0	0	0	29	215	465	605	478	405	362 ?	421	406 ?	0	0	0	0	0	0	3387
18	0	0	0	0	0	0	0	0	0	2	70	0	0	1	0	0	0	0	0	0	0	0	0	0	73
19	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	4
20	0	0	0	0	0	0	0	0	24 ?	?	?	933 ?	951	973	971 ?	856 ?	785	606 ?	0 ?	0	0	0	0	0	6100 ?
21	0	0	0	0	0	0	0	0	21 ?	?	?	930 ?	947	935	914 ?	813 ?	526	289 ?	0 ?	0	0	0	0	0	5373 ?
22	0	0	0	0	0	0	0	0	0	0	1	1	1	3	1	0	0	0	0	0	0	0	0	0	7
23	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
24	0	0	0	0	0	0	0	0	0	0	0	313 ?	945	990	978 ?	875 ?	804	465 ?	0 ?	0	0	0	0	0	5370 ?
25	0	0	0	0	0	0	0	0	0	17 ?	?	774	824	875	197	20	77	13 ?	0 ?	0	0	0	0	0	2796 ?
26	0	0	0	0	0	0	0	0	80 ?	149	366	180	316	233	152	43	3	0	0	0	0	0	0	0	1522
27	0	0	0	0	0	0	0	0	0	1	239	84	0	0	0	0	0	0	0	0	0	0	0	0	324
28	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
29	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
30	0	0	0	0	0	0	0	0	1 ?	?	?	?	?	?	?	5 ?	6	3	0	0	0	0	0	0	15 ?
31	0	0	0	0	0	0	0	0	1 ?	?	?	?	?	?	?	6 ?	7	3	0	0	0	0	0	0	16 ?
Avg	0	0	0	0	0	0	0	0	16	12	130	391	434	436	419	327	299	229	0	0	0	0	0	0	2522
S D	0	0	0	0	0	0	0	0	24	34	216	410	431	439	426	377	320	248	0	0	0	0	0	0	2527
S/A	0	0	0	0	0	0	0	4.26	1.52	2.78	1.67	1.05	0.99	1.01	1.02	1.15	1.07	1.08	0	0	0	0	0	0	1
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	0	0	80	149	695	974	986	992	978	875	818	712	0	0	0	0	0	0	6100

Daylight Data Recovery: 0% missing; 19% exceed the 15% QC threshold -- 3797 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. - January 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	
1	0	0	0	0	0	0	0	0	17	56	82	89	88	87	80 ?	73 ?	70 ?	14 ?	0	0	0	0	0	0	0	655
2	0	0	0	0	0	0	0	0	4	24	67	188	260	280	244	169	100 ?	18 ?	0	0	0	0	0	0	0	1354
3	0	0	0	0	0	0	0	0	22	39	41	85	38	10	47	119	34	8 ?	0	0	0	0	0	0	0	443
4	0	0	0	0	0	0	0	0	5	18	32	85	110	91	111	94	64 ?	33 ?	0	0	0	0	0	0	0	644
5	0	0	0	0	0	0	0	0	13	37	47	49	48	47	49 ?	41	33	7 ?	0	0	0	0	0	0	0	372
6	0	0	0	0	0	0	0	0	14	39	57	60	65	74	77 ?	144 ?	?	13 ?	0	0	0	0	0	0	0	542 ?
7	0	0	0	0	0	0	0	0	16	60 ?	139	109	156	183	71 ?	57 ?	48	12 ?	0	0	0	0	0	0	0	851 ?
8	0	0	0	0	0	0	0	0	1 ?	30	35	87	106	66	43	55	32	3 ?	0	0	0	0	0	0	0	458
9	0	0	0	0	0	0	0	0	5	44	80	130	187	269	271	83 ?	51	19 ?	0	0	0	0	0	0	0	1139
10	0	0	0	0	0	0	0	0	13	34	45	52	59	60	60 ?	57 ?	57 ?	46 ?	0	0	0	0	0	0	0	481
11	0	0	0	0	0	0	0	0	14	36	46	55	61	64	65 ?	62 ?	56	21 ?	0	0	0	0	0	0	0	481
12	0	0	0	0	0	0	0	0	8	36	82	137	247	288	281	212 ?	108 ?	55 ?	0	0	0	0	0	0	0	1454
13	0	0	0	0	0	0	0	0	13	52	68	80	126	69	66 ?	60 ?	62	40 ?	0	0	0	0	0	0	0	637
14	0	0	0	0	0	0	0	0	14	43	56	63 ?	63	60	57 ?	63 ?	74 ?	54 ?	0	0	0	0	0	0	0	548 ?
15	0	0	0	0	0	0	0	0	19	72	84 ?	88	85	77	77 ?	63 ?	53	45 ?	0	0	0	0	0	0	0	663 ?
16	0	0	0	0	0	0	0	0	6	50	96	185	257	331	270	209	119 ?	9 ?	0	0	0	0	0	0	0	1531
17	0	0	0	0	0	0	0	0	15	102	182	209	177	245	239	167 ?	121 ?	63 ?	0	0	0	0	0	0	0	1520
18	0	0	0	0	0	0	0	0	12	86	213	98	113	197	167	72	60	43 ?	0	0	0	0	0	0	0	1060
19	0	0	0	0	0	0	0	0	2	26	56	104	115	97	77	116	102 ?	60 ?	0	0	0	0	0	0	0	756
20	0	0	0	0	0	0	0	0	25 ?	55	65	73 ?	76	70	65 ?	80 ?	56	54 ?	0	0	0	0	0	0	0	619 ?
21	0	0	0	0	0	0	0	0	22	52	68	68 ?	68	70	69 ?	71 ?	75 ?	88 ?	0	0	0	0	0	0	0	652 ?
22	0	0	0	0	0	0	0	0	5 ?	17	24	75	92	153	151	39	28	4	0	0	0	0	0	0	0	586
23	0	0	0	0	0	0	0	0	9	38	71	115	166	150	153	177	104 ?	46 ?	0	0	0	0	0	0	0	1028
24	0	0	0	0	0	0	0	0	18	60	102	191 ?	64 ?	61	60 ?	56 ?	52	42 ?	0	0	0	0	0	0	0	706 ?
25	0	0	0	0	0	0	0	0	24	43	55	107	97	102	232	185	142 ?	69 ?	0 ?	0	0	0	0	0	0	1057
26	0	0	0	0	0	0	0	0	41	129	194	284	286	314	327	248	150 ?	64 ?	0 ?	0	0	0	0	0	0	2037
27	0	0	0	0	0	0	0	0	9	82	165	242	186	104	43	22	12	3	0	0	0	0	0	0	0	868
28	0	0	0	0	0	0	0	0	13	58	84	115	114	127	92	74	62	42 ?	0	0	0	0	0	0	0	781
29	0	0	0	0	0	0	0	0	10	60	137	181	246	289	264	194	186 ?	34 ?	0 ?	0	0	0	0	0	0	1599
30	0	0	0	0	0	0	0	0	18 ?	?	?	?	?	?	?	127 ?	112	54 ?	0 ?	0	0	0	0	0	0	311 ?
31	0	0	0	0	0	0	0	0	12 ?	?	?	?	?	?	?	150 ?	86	54 ?	0	0	0	0	0	0	0	303 ?
Avg	0	0	0	0	0	0	0	0	14	51	85	117	130	139	131	108	77	36	0	0	0	0	0	0	0	843
S D	0	0	0	0	0	0	0	0	8	24	49	60	71	93	90	60	39	23	0	0	0	0	0	0	0	427
S/A	0	0	0	0	0	0	0	0	0.59	0.48	0.58	0.51	0.55	0.67	0.68	0.56	0.51	0.63	0	0	0	0	0	0	0	0.51
Min	0	0	0	0	0	0	0	0	1	17	24	49	38	10	43	22	12	3	0	0	0	0	0	0	0	303
Max	0	0	0	0	0	0	0	0	41	129	213	284	286	331	327	248	186	88	0	0	0	0	0	0	0	2037

Daylight Data Recovery: 0% missing; 15% exceed the 15% QC threshold -- 3797 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