

**Mississippi Valley State University**  
**33.5 N Latitude 90.33 W Longitude 52 Meters AMSL Time Zone -6**

**March 2004**

**Global Solar Radiation on a Horizontal Surface**  
**Hourly Integrated and Daily Totals**  
**Instrument: Eppley PSP**  
**Watt-Hours per Square Meter**

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	5	16 ?	?	52 ?	84 ?	126	149	114	87	54	31	15	0	0	0	0	0	0	732 ?
2	0	0	0	0	0	0	4	29	66	173	494 ?	478	679	400	246	166	59	13	0	0	0	0	0	0	2806
3	0	0	0	0	0	0	5	55	138	356	636	667	603	516	498	205	126	33	0	0	0	0	0	0	3838
4	0	0	0	0	0	0	9	84 ?	146	221	328	484	338	488	330	158	115	29	0	0	0	0	0	0	2728
5	0	0	0	0	0	0	1	11 ?	41 ?	68 ?	52 ?	64 ?	116 ?	130	58 ?	37 ?	?	3	0	0	0	0	0	0	580 ?
6	0	0	0	0	0	0	16	129	317	349	676	615	652	658	614	442	183	50	0	0	0	0	0	0	4701
7	0	0	0	0	0	0	23	148	352	546	687	767	771	728	616	454	230	48	0	0	0	0	0	0	5369
8	0	0	0	0	0	0	25	160	371	567	719	758	797	754	630	454	242	59	0	0	0	0	0	0	5536
9	0	0	0	0	0	0	26	161	378	582	731	814	827	744	423	432	228	62	0	0	0	0	0	0	5409
10	0	0	0	0	0	0	26	172	394	594	741	824	838	775	653	472	247	46	0	0	0	0	0	0	5781
11	0	0	0	0	0	0	26	159	358	544	691	765	780	719	605	414	219	54	2	0	0	0	0	0	5335
12	0	0	0	0	0	0	28	172	386	580	730	822	837	626	479	292	177	54	0	0	0	0	0	0	5180
13	0	0	0	0	0	0	12	78	328	506	617	601	280	199	144	125	105	35	4	0	0	0	0	0	3033
14	0	0	0	0	0	0	9	65	126	93 ?	78 ?	111 ?	129 ?	100	93	99	52	18	3	0	0	0	0	0	977 ?
15	0	0	0	0	0	0	8	68	130 ?	142 ?	109 ?	309 ?	340	275	100 ?	160 ?	105	17 ?	4	0	0	0	0	0	1770 ?
16	0	0	0	0	0	0	29	178	370	613	762	843	860	794	670	475	255	54	8	0	0	0	0	0	5912
17	0	0	0	0	0	0	39	202	417	605	747	819	830	768	645	464	256	65	1	0	0	0	0	0	5858
18	0	0	0	0	0	0	4	56	165	411	714	800	801	567	399	124	141	28	1	0	0	0	0	0	4211
19	0	0	0	0	0	0	36	181	381	558	593	562	785	673	581	441	244	56	2	0	0	0	0	0	5093
20	0	0	0	0	0	0	42	209	426	612	751	826	826	767	644	466	265	72	4	0	0	0	0	0	5910
21	0	0	0	0	0	0	27	228	451	639	786	866	874	804	670	488	278	79	6	0	0	0	0	0	6195
22	0	0	0	0	0	0	48	231	451	639	783	865	872	804	673	489	275	76	3	0	0	0	0	0	6209
23	0	0	0	0	0	0	50	231	446	629	694	910	862	788	652	475	276	79	4	0	0	0	0	0	6097
24	0	0	0	0	0	0	59	206	450	567	701	671	749	529	477	344	261	68	13	0	0	0	0	0	5095
25	0	0	0	0	0	0	42	178	297	502	678	704	783	601	544	374	198	58	4	0	0	0	0	0	4964
26	0	0	0	0	0	1	57	241	447	609	619	852	844	760	609	560	253	79	7	0	0	0	0	0	5941
27	0	0	0	0	0	3	53	249	458	638	768	684	764	740	513	249	223	71	12	0	0	0	0	0	5426
28	0	0	0	0	0	10	62	237	448	636	775	843	842	690	559	338	176	61	7	0	0	0	0	0	5684
29	0	0	0	0	0	0	11	46 ?	79	112	153 ?	176 ?	?	166 ?	186	202	234	114	11	0	0	0	0	0	1490 ?
30	0	0	0	0	0	3	49	131	284	259	597	851	650	783	645	480	313	92	8	0	0	0	0	0	5144
31	0	0	0	0	0	2	74	274	435	564	779	728	767	728	660	514	317	96	8	0	0	0	0	0	5947
Avg	0	0	0	0	0	1	29	148	318	451	589	652	675	587	474	337	203	54	4	0	0	0	0	0	4482
S D	0	0	0	0	0	2	20	77	136	203	240	248	242	235	209	159	78	26	4	0	0	0	0	0	1776
S/A	0	0	0	0	0	3.07	0.7	0.52	0.43	0.45	0.41	0.38	0.36	0.4	0.44	0.47	0.38	0.49	1.1	0	0	0	0	0	0.4
Min	0	0	0	0	0	0	1	11	41	52	52	64	116	100	58	37	31	3	0	0	0	0	0	0	580
Max	0	0	0	0	0	10	74	274	458	639	786	910	874	804	673	560	317	114	13	0	0	0	0	0	6209
n	0	0	0	0	0	10	308	344	345	349	332	341	344	367	361	358	356	361	43	0	0	0	0	0	4219

Daylight Data Recovery: 0.0% missing; 5.2% exceed the 15% QC threshold -- 4449 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 18036F3    Calibration Factor: 7.430 μV/W/m<sup>2</sup>    Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.

March 2004

Direct Normal Solar Radiation  
 Hourly Integrated and Daily Totals  
 Instrument: Eppley NIP  
 Watt-Hours per Square Meter

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	?	124 ?	?	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
2	0	0	0	0	0	0	*	*	*	?	179 ?	?	?	?	?	*	*	*	0	0	0	0	0	0	*
3	0	0	0	0	0	0	*	*	*	*	?	*	*	*	*	*	*	*	0	0	0	0	0	0	*
4	0	0	0	0	0	0	*	106 *?	?	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
5	0	0	0	0	0	0	?	*	?	*	396 ?	2 ?	?	?	935 ?	698 ?	461 *	*	0	0	0	0	0	0	2493 *?
6	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	*
8	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	*
10	0	0	0	0	0	0	*	*	*	*	*	*	*	*	?	868 *?	*	?	*	0	0	0	0	0	*
11	0	0	0	0	0	0	*	?	*	*	*	*	*	*	*	949 *	*	*	*	0	0	0	0	0	*
12	0	0	0	0	0	0	199 ?	*	*	*	?	*	*	*	*	*	*	*	*	*	0	0	0	0	*
13	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
14	0	0	0	0	0	0	?	*	*	*	*	?	*	*	*	*	*	*	*	*	0	0	0	0	*
15	0	0	0	0	0	0	172 ?	?	?	?	?	?	*	*	*	*	*	*	463 ?	383	0	0	0	0	?
16	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
17	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
18	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
19	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
20	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
21	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
22	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
23	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
24	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
25	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
26	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
27	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
28	0	0	0	0	0	?	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
29	0	0	0	0	0	*	*	43 *?	*	?	?	?	*	?	*	*	*	*	*	*	0	0	0	0	*
30	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
31	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
Avg	0	0	0	0	0	0	186	91	N/A	N/A	288	2	N/A	N/A	917	698	461	463	35	0	0	0	0	0	N/A *?
S D	0	0	0	0	0	0	20	43	0	0	154	0	0	0	43	0	0	0	115	0	0	0	0	0	0
S/A	0	0	0	0	0	0	0.11	0.47	0	0	0.53	0	0	0	0.05	0	0	0	3.32	0	0	0	0	0	0
Min	0	0	0	0	0	0	172	43	N/A	N/A	179	2	N/A	N/A	868	698	461	463	0	0	0	0	0	0	N/A
Max	0	0	0	0	0	0	199	124	N/A	N/A	396	2	N/A	N/A	949	698	461	463	383	0	0	0	0	0	N/A
n	0	0	0	0	0	0	3	7	0	0	6	2	0	0	6	3	7	8	1	0	0	0	0	0	0

Daylight Data Recovery: 87.5% missing; 11.2% exceed the 15% QC threshold -- 4449 total daylight measurements.

Instrument: Eppley NIP Serial Number: 25796E6 Calibration Factor: 8.670 μV/W/m² Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.

**Mississippi Valley State University**  
**33.5 N Latitude 90.33 W Longitude 52 Meters AMSL Time Zone -6**

**March 2004**

**Diffuse Solar Radiation (Shadow Band) on a Horizontal Surface**  
**Hourly Integrated and Daily Totals**  
**Instrument: Eppley PSP**  
**Watt-Hours per Square Meter**

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	4	16	26 ?	38 ?	54 ?	129	151	115	87	54	29	16	0	0	0	0	0	0	719 ?
2	0	0	0	0	0	0	4	29	64	175	354 ?	472	578 ?	354	250	168	60	13	0	0	0	0	0	0	2520 ?
3	0	0	0	0	0	0	5	55	139	299 ?	?	607 ?	586 ?	532 ?	473 ?	212	129	33	0	0	0	0	0	0	3071 ?
4	0	0	0	0	0	0	9	89	148	226	337	445 ?	350	461 ?	344	161	118	29	0	0	0	0	0	0	2716
5	0	0	0	0	0	0	1	13 ?	31	62	41	61	121	133	47	35 ?	?	3	0	0	0	0	0	0	549 ?
6	0	0	0	0	0	0	19	124	272 ?	268 ?	?	534 ?	428 ?	429 ?	?	?	160 ?	60	0	0	0	0	0	0	2295 ?
7	0	0	0	0	0	0	24	142	275 ?	?	?	?	?	?	?	?	156 ?	56	0	0	0	0	0	0	652 ?
8	0	0	0	0	0	0	26	140 ?	?	?	?	?	?	?	?	?	181 ?	73	0	0	0	0	0	0	420 ?
9	0	0	0	0	0	0	27	150 ?	?	?	?	?	?	531 ?	414 ?	355 ?	190 ?	75	0	0	0	0	0	0	1741 ?
10	0	0	0	0	0	0	28	141 ?	?	?	?	?	?	?	?	?	188 ?	59	0	0	0	0	0	0	416 ?
11	0	0	0	0	0	0	27	168 ?	?	?	?	?	?	?	?	?	210 ?	62	2	0	0	0	0	0	469 ?
12	0	0	0	0	0	0	29	151 ?	?	?	?	?	?	611 ?	464 ?	305	186	61	0	0	0	0	0	0	1807 ?
13	0	0	0	0	0	0	11	80	242 ?	378 ?	537 ?	379 ?	289	205	149	128	108	36	4	0	0	0	0	0	2547 ?
14	0	0	0	0	0	0	9	67	129	82 ?	54	71 ?	132 ?	103	96	102	53	18	2	0	0	0	0	0	917 ?
15	0	0	0	0	0	0	9	71	137	139	104	313	361	284	98	138	108	23	5	0	0	0	0	0	1789
16	0	0	0	0	0	0	35	187	231 ?	?	?	?	?	?	?	?	204 ?	63	8	0	0	0	0	0	727 ?
17	0	0	0	0	0	0	41	167 ?	?	?	?	?	?	?	?	?	206 ?	80	2	0	0	0	0	0	496 ?
18	0	0	0	0	0	0	4	50	170	244 ?	?	?	?	431 ?	356 ?	130	147	29	1	0	0	0	0	0	1560 ?
19	0	0	0	0	0	0	37	197	349 ?	?	391 ?	407 ?	674 ?	342 ?	514 ?	?	208 ?	65	2	0	0	0	0	0	3187 ?
20	0	0	0	0	0	0	46	174 ?	?	?	?	?	?	?	?	?	206 ?	87	3	0	0	0	0	0	516 ?
21	0	0	0	0	0	0	28	161 ?	?	?	?	?	?	?	?	?	?	93	5	0	0	0	0	0	287 ?
22	0	0	0	0	0	0	51	165 ?	?	?	?	?	?	?	?	?	212 ?	90	2	0	0	0	0	0	521 ?
23	0	0	0	0	0	0	54	177 ?	?	?	555 ?	?	?	?	?	?	?	93	4	0	0	0	0	0	883 ?
24	0	0	0	0	0	0	34 ?	141 ?	?	509 ?	?	600 ?	652 ?	480 ?	403 ?	302 ?	256 ?	77	14	0	0	0	0	0	3469 ?
25	0	0	0	0	0	0	43	166 ?	290	349 ?	610 ?	595 ?	566 ?	565 ?	534 ?	329 ?	224	65	4	0	0	0	0	0	4340 ?
26	0	0	0	0	0	1	62	186 ?	?	?	524 ?	?	?	434 ?	380 ?	?	248 ?	89	7	0	0	0	0	0	1932 ?
27	0	0	0	0	0	?	58	187 ?	?	?	?	567 ?	602 ?	562 ?	374 ?	239	205 ?	74	11	0	0	0	0	0	2880 ?
28	0	0	0	0	0	?	63	199 ?	?	?	?	?	?	415 ?	521 ?	324	185	64	7	0	0	0	0	0	1779 ?
29	0	0	0	0	0	0	11	47	84	118	157 ?	142 ?	54 ?	173 ?	193	212	209 ?	97 ?	9	0	0	0	0	0	1505 ?
30	0	0	0	0	0	3	51	136	247	270	463 ?	?	536 ?	669 ?	439 ?	365 ?	?	105	5	0	0	0	0	0	3289 ?
31	0	0	0	0	0	1	81	218 ?	360 ?	436 ?	?	519 ?	524 ?	573 ?	?	?	?	93	7	0	0	0	0	0	2813 ?
Avg	0	0	0	0	0	0	30	129	188	240	322	389	413	400	323	209	169	61	3	0	0	0	0	0	1704 ?
S D	0	0	0	0	0	1	21	59	105	140	214	200	209	173	164	106	59	28	4	0	0	0	0	0	1139
S/A	0	0	0	0	0	3.29	0.7	0.46	0.56	0.58	0.66	0.51	0.51	0.43	0.51	0.51	0.35	0.47	1.1	0	0	0	0	0	0.67
Min	0	0	0	0	0	0	1	13	26	38	41	61	54	103	47	35	29	3	0	0	0	0	0	0	287
Max	0	0	0	0	0	3	81	218	360	509	610	607	674	669	534	365	256	105	14	0	0	0	0	0	4340
n	0	0	0	0	0	8	305	264	144	128	93	106	100	137	156	172	201	359	43	0	0	0	0	0	2225

Daylight Data Recovery: 0.0% missing; 50.0% exceed the 15% QC threshold -- 4449 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 18039F3    Calibration Factor: 7.470 μV/W/m<sup>2</sup>    Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.