

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

May 2003

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	26	147	365	499	665	790	864	855	700	531	288	229	86	8	0	0	0	0	0	6051
2	0	0	0	0	0	18	127	321	453	677	673	796	940	769	633	400	229	111	21	0	0	0	0	0	6169
3	0	0	0	0	0	21	168	334	569	711	854 ?	928 ?	883	845	675	465	311	130	17	0	0	0	0	0	6912
4	0	0	0	0	0	10	102	151	288	500	489	591	671	624	468	371	308	82	19	0	0	0	0	0	4675
5	0	0	0	0	0	10	33 ?	70 ?	69 ?	?	367	369 ?	253	156	89 ?	?	59 ?	?	0	0	0	0	0	0	1476 ?
6	0	0	0	0	0	4	35	168	314	358	411	493	401	357	327	183	43 ?	50	19	0	0	0	0	0	3163
7	0	0	0	0	0	0	?	?	76 ?	87 ?	86 ?	249	913 ?	826	386	272	195	102	16	0	0	0	0	0	3208 ?
8	0	0	0	0	0	21	120	217	314	605	794	895 ?	942 ?	822 ?	727	502	372	159	26	0	0	0	0	0	6516 ?
9	0	0	0	0	0	32	123	337	583	688	766	686	527	417	462	352 ?	350 ?	166 ?	32	0	0	0	0	0	5519 ?
10	0	0	0	0	0	24	138	334	452	559	773	717	682	550	461	426	182	109	21	0	0	0	0	0	5428
11	0	0	0	0	0	3	55	295	397	493	799	952	951	893	775	596	391	178	33	0	0	0	0	0	6812
12	0	0	0	0	0	39	204	419	630	810	919 ?	1005 ?	998	928	796	608	401	177	31	0	0	0	0	0	7965
13	0	0	0	0	0	35	194	373	441	530	472 ?	427 ?	531 ?	655 ?	580	399	287	106	17	0	0	0	0	0	5047 ?
14	0	0	0	0	0	8	36 ?	132	197	172	117 ?	327 ?	432	233	277	183	74	45 ?	2	0	0	0	0	0	2234 ?
15	0	0	0	0	0	34	168	145	258	380	828	657	895	869	782	600	387	158	20	0	0	0	0	0	6181
16	0	0	0	0	0	25	159	216	322	395	804	395	713	756	665	524	195	144	28	0	0	0	0	0	5341
17	0	0	0	0	0	0	?	?	?	132 ?	452	315	202	204	203	422	243	179	52	0	0	0	0	0	2406 ?
18	0	0	0	0	0	7	33	153	401	327	644	533	905	505	426	306	237	109	24	0	0	0	0	0	4612
19	0	0	0	0	1	27	151	374	470	335	698	693	765 ?	237 ?	414 ?	552	392	190	39	0	0	0	0	0	5338 ?
20	0	0	0	0	0	26	110	167	248	325	460	774	547	732	420	320	170	77	9	0	0	0	0	0	4384
21	0	0	0	0	0	9	50	116	147	178 ?	277 ?	353	303	395	394	187	73	39	11	0	0	0	0	0	2533
22	0	0	0	0	0	41	200	405	602	780	907	976	974	904	772	597	398	191	41	0	0	0	0	0	7788
23	0	0	0	0	0	43	211	371	611	790	920	960	974	851	628	599	448	173	29	0	0	0	0	0	7608
24	0	0	0	0	0	45	209	414	610	757	886	944	933	856	692	504	349	156	46	0	0	0	0	0	7400
25	0	0	0	0	0	39	140	129	225	105	301	448	588	604	298	202	227	51 ?	8	0	0	0	0	0	3366
26	0	0	0	0	0	18	91	203	450	372	562	824	862	862	766	564	350	158	25	0	0	0	0	0	6109
27	0	0	0	0	0	44	205	413	613	796	911	949	992	880	774	594	400	181	38	0	0	0	0	0	7789
28	0	0	0	0	1	44	212	398	596	772	899	961	956	893	763	592	392	188	42	0	0	0	0	0	7710
29	0	0	0	0	0	43	195	388	590	769	885	945	960	925	822	589	371	181	37	0	0	0	0	0	7700
30	0	0	0	0	0	27	160	287	547	436	549	938	942	879	736	577	388	190	44	0	0	0	0	0	6700
31	0	0	0	0	1	45	196	389	572	731	850	922	910	804	752	589	398	191	45	0	0	0	0	0	7396
Avg	0	0	0	0	0	25	137	279	418	508	650	706	755	675	564	445	285	135	26	0	0	0	0	0	5533
S/D	0	0	0	0	0	15	61	113	172	234	247	248	243	244	203	148	118	50	14	0	0	0	0	0	1907
S/A	0	0	0	0	2.46	0.6	0.45	0.41	0.41	0.46	0.38	0.35	0.32	0.36	0.36	0.33	0.41	0.37	0.54	0	0	0	0	0	0.34
Min	0	0	0	0	0	0	33	70	69	87	86	249	202	156	89	183	43	39	0	0	0	0	0	0	1476
Max	0	0	0	0	1	45	212	419	630	810	920	1005	998	928	822	608	448	191	52	0	0	0	0	0	7965
n	0	0	0	0	16	353	335	337	345	333	336	342	344	354	353	350	351	340	316	0	0	0	0	0	4806

Daylight Data Recovery: 0.0% missing; 6.7% exceed the 15% QC threshold -- 5153 total daylight measurements.

Instrument: Eppley PSP Serial Number: 18036F3 Calibration Factor: 7.430 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.

May 2003

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	0	0	0	0	*	
2	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
3	0	0	0	0	0	*	*	*	*	*	759 ?	?	?	?	*	*	*	*	?	0	0	0	0	0	*	
4	0	0	0	0	0	*	*	*	*	*	*	?	232 ?	*	*	*	*	*	*	0	0	0	0	0	*	
5	0	0	0	0	0	*	*	*	*	*	*	?	?	?	?	*	*	*	*	0	0	0	0	0	*	
6	0	0	0	0	0	*	*	?	?	?	?	?	?	?	?	?	?	*	*	0	0	0	0	0	?	
7	0	0	0	0	0	*	*	*	*	*	*	?	?	?	?	?	?	?	?	0	0	0	0	0	?	
8	0	0	0	0	0	755 ?	?	?	?	?	?	836 ?	699 ?	?	?	?	?	?	?	0	0	0	0	0	?	
9	0	0	0	0	0	?	?	?	*	?	?	?	?	?	?	?	?	?	513	0	0	0	0	0	?	
10	0	0	0	0	0	?	?	406 ?	?	*	?	?	?	?	?	?	?	?	?	0	0	0	0	0	?	
11	0	0	0	0	0	*	*	*	*	*	*	*	*	*	?	?	*	*	*	370 ?	0	0	0	0	0	*
12	0	0	0	0	0	*	*	*	*	*	812 ?	?	*	*	*	*	*	*	*	*	0	0	0	0	0	*
13	0	0	0	0	0	*	*	*	*	*	?	40 ?	?	?	?	?	?	?	?	0	0	0	0	0	?	
14	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
15	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	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	*	*	*	*	*	*	?	?	?	?	690 *?	*	*	*	394 *	0	0	0	0	0	*
20	0	0	0	0	0	*	*	*	*	*	?	?	*	*	*	*	*	*	?	*	0	0	0	0	0	*
21	0	0	0	0	0	?	?	?	?	?	96 ?	96 ?	*	*	*	*	*	*	*	*	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	0	*
26	0	0	0	0	0	?	?	?	?	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
27	0	0	0	0	0	?	?	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
28	0	0	0	0	0	*	*	?	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
29	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
30	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
31	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
Avg	0	0	0	0	0	755	N/A	406	N/A	N/A	556	324	465	N/A	N/A	690	N/A	N/A	425	0	0	0	0	0	N/A	*?
SD	0	0	0	0	0	0	0	0	0	0	399	444	330	0	0	0	0	0	77	0	0	0	0	0	0	0
S/A	0	0	0	0	0	0	0	0	0	0	0.72	1.37	0.71	0	0	0	0	0	0.18	0	0	0	0	0	0	0
Min	0	0	0	0	0	755	N/A	406	N/A	N/A	96	40	232	N/A	N/A	690	N/A	N/A	370	0	0	0	0	0	N/A	
Max	0	0	0	0	0	755	N/A	406	N/A	N/A	812	836	699	N/A	N/A	690	N/A	N/A	513	0	0	0	0	0	N/A	
n	0	0	0	0	0	5	0	2	0	0	16	9	9	0	0	2	0	0	17	0	0	0	0	0	0	0

Daylight Data Recovery: 75.1% missing; 23.4% exceed the 15% QC threshold -- 5153 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

May 2003

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	23	86	143	268	305	306	324	290	386	309	250	159	71	8	0	0	0	0	0	2928
2	0	0	0	0	0	18	92	221	284	297	447	526	367	357	313	266	191	99	21	0	0	0	0	0	3499
3	0	0	0	0	0	17	98	157	145	205	190 ?	222 ?	286	290	262	255	172	88	17	0	0	0	0	0	2405
4	0	0	0	0	0	11	104	156	268	394	427	402	404	378	340	299	195	74	19	0	0	0	0	0	3473
5	0	0	0	0	0	11	26	51 ?	67 ?	?	334	357	265	163	82 ?	31 ?	45 ?	?	1	0	0	0	0	0	1434 ?
6	0	0	0	0	0	4	37	173	310	365	422	467	395	366	325	191	53	53	20	0	0	0	0	0	3180
7	0	0	0	0	0	0	?	20 ?	61 ?	56 ?	81 ?	250	282 ?	349	348	269	191	100	15	0	0	0	0	0	2022 ?
8	0	0	0	0	0	22	117	215	301	382	365	279 ?	198 ?	235 ?	225	168	139	79	22	0	0	0	0	0	2747
9	0	0	0	0	0	29	117	140	153	265	354	426	449	381	373	309	205	99	30	0	0	0	0	0	3330
10	0	0	0	0	0	23	111	192	303	327	375	454	468	376	395	298	179	101	22	0	0	0	0	0	3624
11	0	0	0	0	0	4	58	182	327	383	426	299	213	162	114	98	90	61	22	0	0	0	0	0	2439
12	0	0	0	0	0	22	57	71	80	83	85 ?	86 ?	86	87	86	78	68	56	20	0	0	0	0	0	965
13	0	0	0	0	0	25	73	204	341	424	460 ?	429 ?	486 ?	444	368	284	196	105	18	0	0	0	0	0	3856
14	0	0	0	0	0	9	31	138	207	181	123 ?	285	433	246	288	187	78	29 ?	1	0	0	0	0	0	2237
15	0	0	0	0	0	26	98	140	257	360	393	554	490	242	192	141	119	81	21	0	0	0	0	0	3115
16	0	0	0	0	0	26	150	221	307	347	427	384	402	378	272	199	170	109	25	0	0	0	0	0	3419
17	0	0	0	0	0	1	?	?	31 ?	118 ?	422	308	212	215	210	316	151	144	45	0	0	0	0	0	2173 ?
18	0	0	0	0	0	7	32	158	355	289	473	383	318	461	292	241	227	95	25	0	0	0	0	0	3357
19	0	0	0	0	?	28	135	150	286	331	320	304	401	255	341 ?	135	112	90	33	0	0	0	0	0	2921
20	0	0	0	0	?	27	113	176	262	340	416	557	547	455	382	301	170	80	9	0	0	0	0	0	3834
21	0	0	0	0	0	9	52	122	154	180	292 ?	381 ?	318	410	399	194	76	41	12	0	0	0	0	0	2638
22	0	0	0	0	0	30	88	119	133	154	154	139	138	141	141	128	109	80	30	0	0	0	0	0	1585
23	0	0	0	0	0	30	98	131	119	128	128	150	139	190	308	310	151	121	31	0	0	0	0	0	2034
24	0	0	0	0	0	29	73	97	113	146	172	204	237	273	304	275	205	114	50 ?	0	0	0	0	0	2293
25	0	0	0	0	0	41	141	134	234	101	319	454	511	568	298	211	212	36	8	0	0	0	0	0	3268
26	0	0	0	0	0	19	95	204	411	377	515	572	331	223	210	175	136	101	24	0	0	0	0	0	3392
27	0	0	0	0	0	34	104	143	153	171	197	223	268	236	194	173	135	98	32	0	0	0	0	0	2161
28	0	0	0	0	1	38	136	182	189	200	210	217	228	226	212	178	140	94	31	0	0	0	0	0	2283
29	0	0	0	0	0	38	142	231	201	171	175	182	170	172	201	160	134	89	29	0	0	0	0	0	2094
30	0	0	0	0	0	28	146	237	291	316	366	238	189	205	190	176	128	89	34	0	0	0	0	0	2635
31	0	0	0	0	1	43	186	358	377	266	281	249	214	193	147	126	113	86	34	0	0	0	0	0	2675
Avg	0	0	0	0	0	22	96	162	225	255	311	333	314	292	262	207	144	85	23	0	0	0	0	0	2710
S D	0	0	0	0	0	12	40	63	101	107	126	131	123	114	91	76	49	25	11	0	0	0	0	0	725
S/A	0	0	0	0	3.26	0.55	0.42	0.39	0.45	0.42	0.41	0.39	0.39	0.39	0.35	0.37	0.34	0.3	0.5	0	0	0	0	0	0.27
Min	0	0	0	0	0	0	26	20	31	56	81	86	86	87	82	31	45	29	1	0	0	0	0	0	965
Max	0	0	0	0	1	43	186	358	411	424	515	572	547	568	399	316	227	144	50	0	0	0	0	0	3856
n	0	0	0	0	14	355	346	344	353	353	337	350	357	364	358	364	366	355	314	0	0	0	0	0	4932

Daylight Data Recovery: 0.0% missing; 4.3% exceed the 15% QC threshold -- 5153 total daylight measurements.

Instrument: Eppley PSP Serial Number: 18039F3 Calibration Factor: 7.470 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.