

March 2005

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	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
2	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
3	0	0	0	0	0	0	*	*	*	*	*	*	*	*	585	422	221	44	0	0	0	0	0	0	1272 *
4	0	0	0	0	0	0	22	134	299	469	422	557	569	559	428	306	189	50	0	0	0	0	0	0	4004
5	0	0	0	0	0	0	21	123	305	464	618	670	684	582	441	318	148	32	0	0	0	0	0	0	4404
6	0	0	0	0	0	0	10	80	234	551	524	610	614	715	603	425	220	47	0	0	0	0	0	0	4632
7	0	0	0	0	0	0	1	53	73	66 ?	98	195	201 ?	206	79 ?	?	26 ?	6	0	0	0	0	0	0	1004 ?
8	0	0	0	0	0	0	30	173	392	585	729	808	824	764	637	460	244	53	0	0	0	0	0	0	5700
9	0	0	0	0	0	0	6	41	61	115	71	113	119	86	77 ?	121	42 ?	15	0	0	0	0	0	0	868
10	0	0	0	0	0	0	17	64 ?	190	570	716	800	817	732	621	449	238	55	0	0	0	0	0	0	5268
11	0	0	0	0	0	0	15	158	398	600	744	818	837	771	649	472	254	58	0	0	0	0	0	0	5772
12	0	0	0	0	0	0	33	181	397	588	729	810	822	760	633	458	248	61	2	0	0	0	0	0	5724
13	0	0	0	0	0	0	22	95	208	320	353	202	147 ?	411	575	384	69	18	1	0	0	0	0	0	2806
14	0	0	0	0	0	0	19	197	401	591	736	818	830	771	647	473	258	63	0	0	0	0	0	0	5804
15	0	0	0	0	0	0	32	166	424	529	596	308	210 ?	201	114	139	27 ?	10	0	0	0	0	0	0	2756
16	0	0	0	0	0	0	3	27	60	73	91	122 ?	152 ?	111	90	52	30 ?	6 ?	0	0	0	0	0	0	816 ?
17	0	0	0	0	0	0	28	202	411	592	756	826	853	793	627	473	264	75	4	0	0	0	0	0	5905
18	0	0	0	0	0	0	41	209	384	617	706	833	825	773	639	472	262	69	3	0	0	0	0	0	5833
19	0	0	0	0	0	0	1	?	185	276	196	530	463	281	460	346	170	51	2	0	0	0	0	0	2961 ?
20	0	0	0	0	0	0	34	87	85	106	140	255	274 ?	238	206	107	101	22	0	0	0	0	0	0	1655
21	0	0	0	0	0	0	14	40	69	135	260	407	424	431	262	120	78	42	1	0	0	0	0	0	2282
22	0	0	0	0	0	0	11	32 ?	111	596	621	810	685	617	650	484	185	75	6	0	0	0	0	0	4883
23	0	0	0	0	0	0	8	59	179	224	223	251	195	245	163	205	96	60	2	0	0	0	0	0	1910
24	0	0	0	0	0	0	47	199	441	577	776	846	815	712	491	252	200	75	1	0	0	0	0	0	5433
25	0	0	0	0	0	0	50	220	431	625	732	779	780	765	653	449	259	76	3	0	0	0	0	0	5822
26	0	0	0	0	0	0	53	238	379	626	753	837	776	647	393	266	123	50	8	0	0	0	0	0	5147
27	0	0	0	0	0	0	4 ?	32 ?	60	62 ?	67 ?	?	345 ?	343	89 ?	70 ?	36 ?	3 ?	0	0	0	0	0	0	1111 ?
28	0	0	0	0	0	0	63	258	482	674	817	891	899	835	705	519	304	90	2	0	0	0	0	0	6538
29	0	0	0	0	0	2	65	253	471	623	739	745	723	623	460	405	277	66	6	0	0	0	0	0	5458
30	0	0	0	0	0	2	20	73	141	178	619	868	863	802	673	448	190	49	12	0	0	0	0	0	4937
31	0	0	0	0	0	0	58	269	489	672	806	880	882	815	688	510	302	81	8	0	0	0	0	0	6462
Avg	0	0	0	0	0	0	26	136	277	432	523	614	594	557	460	343	174	48	2	0	0	0	0	0	4139 *
S D	0	0	0	0	0	0	19	80	154	221	268	273	278	247	222	151	92	25	3	0	0	0	0	0	1905
S/A	0	0	0	0	0	3.67	0.74	0.59	0.55	0.51	0.51	0.44	0.47	0.44	0.48	0.44	0.53	0.51	1.53	0	0	0	0	0	0.46
Min	0	0	0	0	0	0	1	27	60	62	67	113	119	86	77	52	26	3	0	0	0	0	0	0	816
Max	0	0	0	0	0	2	65	269	489	674	817	891	899	835	705	519	304	90	12	0	0	0	0	0	6538
n	0	0	0	0	0	10	284	303	326	322	323	315	307	335	334	329	318	337	41	0	0	0	0	0	3839

Daylight Data Recovery: 8.3% missing; 4.4% exceed the 15% QC threshold -- 4446 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.

March 2005

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	0	0	*	
2	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	*	
4	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	*	
6	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
7	0	0	0	0	0	0	*	*	*	*	?	*	19 **	*	*	*	*	*	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	*	?	?	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
11	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
12	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
13	0	0	0	0	0	0	*	*	*	*	*	*	?	*	*	*	*	*	*	0	0	0	0	0	*	
14	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
15	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
16	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
17	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
18	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
19	0	0	0	0	0	0	*	*	*	*	101 **	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
20	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
21	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
22	0	0	0	0	0	0	*	78 **	?	?	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
23	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*	
24	0	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	347	405 ?	302 **	*	*	*	*	*	*	*	*	*	*	*	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	14	405	190	N/A	N/A	101	N/A	19	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	N/A	*
SD	0	0	0	0	0	69	0	159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S/A	0	0	0	0	0	5	0	0.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	405	78	N/A	N/A	101	N/A	19	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	N/A	
Max	0	0	0	0	0	347	405	302	N/A	N/A	101	N/A	19	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	N/A	
n	0	0	0	0	0	1	4	4	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0

Daylight Data Recovery: 96.2% missing; 3.4% exceed the 15% QC threshold -- 4446 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 2005**

**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	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
2	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
3	0	0	0	0	0	0	*	*	*	*	*	*	*	*	?	?	174 ?	54	0	0	0	0	0	0	227 *?
4	0	0	0	0	0	0	25	153	380 ?	437 ?	436	564 ?	533 ?	533 ?	439 ?	325	203	59	0	0	0	0	0	0	4088 ?
5	0	0	0	0	0	0	20	125	323	481 ?	?	?	?	560 ?	471	337	151	32	0	0	0	0	0	0	2500 ?
6	0	0	0	0	0	0	9	80	242	?	489 ?	539 ?	465 ?	?	?	?	194 ?	57	0	0	0	0	0	0	2076 ?
7	0	0	0	0	0	0	1	55	75	63	98	196	203	208	81 ?	?	26 ?	6	0	0	0	0	0	0	1012 ?
8	0	0	0	0	0	0	31	132 ?	?	?	?	?	?	?	?	?	181 ?	67	0	0	0	0	0	0	411 ?
9	0	0	0	0	0	0	6	41	55	114	70	113	117	87	71	122	35	15	0	0	0	0	0	0	845
10	0	0	0	0	0	0	16	86	162	334 ?	?	?	?	?	?	?	197 ?	65	0	0	0	0	0	0	860 ?
11	0	0	0	0	0	0	14	111 ?	?	?	?	?	?	?	?	?	188 ?	72	0	0	0	0	0	0	385 ?
12	0	0	0	0	0	0	34	152 ?	?	?	?	?	?	?	?	?	196 ?	75	2	0	0	0	0	0	459 ?
13	0	0	0	0	0	0	22	98	215	325	347	207	150 ?	420	464 ?	267 ?	70	18	1	0	0	0	0	0	2603 ?
14	0	0	0	0	0	0	19	145 ?	?	?	?	?	?	?	?	?	200 ?	76	0	0	0	0	0	0	439 ?
15	0	0	0	0	0	0	32	128 ?	?	?	420 ?	315	212 ?	205	116	142	24 ?	10	0	0	0	0	0	0	1603 ?
16	0	0	0	0	0	0	2	24	54	73	92	124 ?	154 ?	112	91	49	20	7	0	0	0	0	0	0	803 ?
17	0	0	0	0	0	0	28	160 ?	?	?	?	?	?	?	?	?	204 ?	89	5	0	0	0	0	0	486 ?
18	0	0	0	0	0	0	48	178 ?	332 ?	?	?	?	?	?	?	?	208 ?	82	3	0	0	0	0	0	852 ?
19	0	0	0	0	0	0	1	?	159	277	204	395 ?	385 ?	288	428 ?	317 ?	177	52	2	0	0	0	0	0	2684 ?
20	0	0	0	0	0	0	34	87	86	107	143	264	278 ?	243	212	110	101	22	0	0	0	0	0	0	1686
21	0	0	0	0	0	0	14	40	70	138	267	407	438	448	269	124	80	43	1	0	0	0	0	0	2339
22	0	0	0	0	0	0	11	29	112	?	479 ?	?	502 ?	554 ?	?	?	167 ?	85	6	0	0	0	0	0	1945 ?
23	0	0	0	0	0	0	8	60	182	229	229	257	199	250	166	209	98	61	2	0	0	0	0	0	1951
24	0	0	0	0	0	0	49	192 ?	?	?	?	?	?	607 ?	378 ?	266	192	87	1	0	0	0	0	0	1772 ?
25	0	0	0	0	0	0	53	187 ?	?	?	?	530 ?	?	?	?	425 ?	247 ?	85	3	0	0	0	0	0	1530 ?
26	0	0	0	0	0	0	56	180 ?	317 ?	?	?	?	526 ?	507 ?	321 ?	283	126	52	8	0	0	0	0	0	2376 ?
27	0	0	0	0	0	0	3 ?	26	62	50 ?	51 ?	49 ?	292	352	76	60	33 ?	4 ?	0	0	0	0	0	0	1059 ?
28	0	0	0	0	0	0	68	192 ?	?	?	?	?	?	?	?	?	?	97	0	0	0	0	0	0	357 ?
29	0	0	0	0	0	2	70	217 ?	?	560 ?	?	740 ?	714 ?	638 ?	461	366 ?	281 ?	57	6	0	0	0	0	0	4111 ?
30	0	0	0	0	0	2	20	76	145	184	508 ?	?	?	?	?	349 ?	180	50	12	0	0	0	0	0	1525 ?
31	0	0	0	0	0	0	65	?	?	?	?	?	?	?	?	?	?	88	8	0	0	0	0	0	161 ?
Avg	0	0	0	0	0	0	27	114	175	241	274	336	345	376	270	234	146	54	2	0	0	0	0	0	1533 ?
S D	0	0	0	0	0	0	21	59	109	166	170	202	179	181	161	119	74	29	3	0	0	0	0	0	1061
S/A	0	0	0	0	0	3.88	0.78	0.52	0.63	0.69	0.62	0.6	0.52	0.48	0.6	0.51	0.51	0.53	1.59	0	0	0	0	0	0.69
Min	0	0	0	0	0	0	1	24	54	50	51	49	117	87	71	49	20	4	0	0	0	0	0	0	161
Max	0	0	0	0	0	2	70	217	380	560	508	740	714	638	471	425	281	97	12	0	0	0	0	0	4111
n	0	0	0	0	0	10	284	235	176	119	135	116	116	154	148	160	213	339	41	0	0	0	0	0	2246

Daylight Data Recovery: 8.3% missing; 40.8% exceed the 15% QC threshold -- 4446 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.