

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

July 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	13	58	208	317	147	207	339	241	248	63 ?	174	90 ?	46	12	4	0	0	0	0	2168	
2	0	0	0	0	1	29	168	358	528	676	792	868	957	895	735	568	231	129	30	4	0	0	0	0	6969	
3	0	0	0	0	1	26	87	297	247	477	728	419	806	896	674	473	457	217	70	7	0	0	0	0	5881	
4	0	0	0	0	0	38	166	271	496	743	835	585	634	648	863	615	437	161	33	5	0	0	0	0	6531	
5	0	0	0	0	0	39	188	387	586	757	878	935	938	818	576	552	424	221	56	4	0	0	0	0	7357	
6	0	0	0	0	0	25	180	386	365	530	751	747	556	940	409	252	239	237	51	5	0	0	0	0	5673	
7	0	0	0	0	1	22	149	321	507	657	636	633	493	?	?	94	183	116	47	4	0	0	0	0	3863 ?	
8	0	0	0	0	0	34	119	191	431	645	742	767	780	548	486	148 ?	?	65	33	4	0	0	0	0	4991 ?	
9	0	0	0	0	0	39	190	371	495	712	801	790	896	882	696	526	298	81	29	4	0	0	0	0	6809	
10	0	0	0	0	0	37	188	389	466	767	685	904	877	828	673	668	437	214	60	2	0	0	0	0	7196	
11	0	0	0	0	0	36	181	375	577	729	807	895	787	834	706	617	425	204	53	3	0	0	0	0	7229	
12	0	0	0	0	0	34	183	373	571	714	866	969	881	879	765	608	427	126	58	3	0	0	0	0	7458	
13	0	0	0	0	0	33	174	373	532	723	850	854	919	826	565 ?	622	388	231	61	4	0	0	0	0	7155	
14	0	0	0	0	0	33	191 ?	373	567	733	827	837	828	865	700	579	416	216	46	1	0	0	0	0	7210	
15	0	0	0	0	0	16	150	371	549	714	832	783	654	769	638	510	436	210	23	0	0	0	0	0	6653	
16	0	0	0	0	0	41	138	289	252	188	485	775	614	429	305	360	141	110	35	3	0	0	0	0	4165	
17	0	0	0	0	0	19	144	335	379	342	397	840	871	557	524	310 ?	299	203	17	10	0	0	0	0	5249	
18	0	0	0	0	0	32	161	329	503	745	698	827	845	862	776	599	390	192	45	0	0	0	0	0	7002	
19	0	0	0	0	0	32	158	339	531	708	848	928	913	901	668	566	399	185	39	0	0	0	0	0	7215	
20	0	0	0	0	0	26	133	317	518	703	818	895	891	655	746	588	396	195	43	0	0	0	0	0	6925	
21	0	0	0	0	0	28	154	345	547	722	854	653	771	817	692	564	388	188	42	0	0	0	0	0	6767	
22	0	0	0	0	0	28	145	330	523	689	822	918	845	823	737	539	314	178	34	0	0	0	0	0	6925	
23	0	0	0	0	0	17	131	310	516	689	833	868	926	378 ?	554	147	349	172	10	0	0	0	0	0	5902	
24	0	0	0	0	0	26	136	292	501	667	797	770	925	859	721	332	337	164	3	0	0	0	0	0	6529	
25	0	0	0	0	0	26	121	188	247	595	813	902	858	777	725	590	367	196	34	0	0	0	0	0	6440	
26	0	0	0	0	0	12	38	93	192	168	170	186	198	248	232	137	91	48	9	0	0	0	0	0	1821	
27	0	0	0	0	0	9	67	281	517	629	879	905	937	902	712	545	387	150	40	0	0	0	0	0	6960	
28	0	0	0	0	0	33	169	355	546	740	885	1011	891	835	414	322	406	194	37	0	0	0	0	0	6836	
29	0	0	0	0	0	30	125	273	548	706	795	624	724	795	596	478	336	149	12	0	0	0	0	0	6192	
30	0	0	0	0	0	24	142	329	535	494	592	561	730	411 ?	265	660	348	71	19	0	0	0	0	0	5180	
31	0	0	0	0	0	19	94 ?	267	392	724	751	888	583	486	340	275	378	166	37	0	0	0	0	0	5399	
Avg	0	0	0	0	0	28	143	313	467	620	731	770	767	720	585	452	340	162	36	2	0	0	0	0	6085	
S D	0	0	0	0	0	9	40	69	111	177	183	191	192	207	191	180	103	55	17	3	0	0	0	0	1432	
S/A	0	0	0	0	2.36	0.31	0.28	0.22	0.24	0.29	0.25	0.25	0.25	0.29	0.33	0.4	0.3	0.34	0.48	1.23	0	0	0	0	0.24	
Min	0	0	0	0	0	9	38	93	192	147	170	186	198	248	63	94	90	46	3	0	0	0	0	0	1821	
Max	0	0	0	0	1	41	191	389	586	767	885	1011	957	940	863	668	457	237	70	10	0	0	0	0	7458	
n	0	0	0	0	7	347	357	370	371	372	371	371	370	352	346	356	355	366	370	39	0	0	0	0	0	5121

Daylight Data Recovery: 0.0% missing; 2.1% exceed the 15% QC threshold -- 5232 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.

July 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	0	0	*
2	0	0	0	0	*	*	*	?	*	?	564 ?	*	*	*	*	*	*	*	*	*	0	0	0	0	*
3	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
4	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
5	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
6	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
7	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
8	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	222 ?	98 ?	?	?	0	0	0	0	*
9	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
10	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
11	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
12	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
13	0	0	0	0	0	?	?	?	?	?	?	?	?	814 ?	?	*	*	?	*	*	0	0	0	0	?
14	0	0	0	0	0	472 ?	261 ?	?	?	?	?	?	?	?	?	?	?	?	?	?	0	0	0	0	?
15	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
16	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
17	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
18	0	0	0	0	0	?	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
19	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
20	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
21	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
22	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
23	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
24	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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
30	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	581 ?	*	*	*	0	0	0	0	*
31	0	0	0	0	0	320	234 ?	103 *	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	657 *
Avg	0	0	0	0	0	396	248	103	N/A	N/A	564	N/A	N/A	814	N/A	581	222	98	N/A	0	0	0	0	N/A	*
S D	0	0	0	0	0	108	19	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	0.27	0.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	320	234	103	N/A	N/A	564	N/A	N/A	814	N/A	581	222	98	N/A	0	0	0	0	0	N/A
Max	0	0	0	0	0	472	261	103	N/A	N/A	564	N/A	N/A	814	N/A	581	222	98	N/A	0	0	0	0	0	N/A
n	0	0	0	0	0	13	8	5	0	0	2	0	0	2	0	2	2	4	0	0	0	0	0	0	0

Daylight Data Recovery: 91.0% missing; 8.1% exceed the 15% QC threshold -- 5232 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

July 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	1	14	61	215	323	154	215	358	249	258	47	166	100	48	13	5	0	0	0	0	2227
2	0	0	0	0	1	34	178	339 ?	474 ?	517 ?	523 ?	358	194	210	199	243	190	101	31	4	0	0	0	0	3595 ?
3	0	0	0	0	1	27	90	311	209	460	631	434	381	268	310	290	188	114	55	8	0	0	0	0	3776
4	0	0	0	0	0	40	175	286	391 ?	?	550	328	372	343	292	264	224	121	29	6	0	0	0	0	3422 ?
5	0	0	0	0	0	42	158 ?	?	?	?	421	153	167	244	233	179	108	78	36	5	0	0	0	0	1825 ?
6	0	0	0	0	?	26	90 ?	?	365	376 ?	467	328	266	290	315	209	194	85	34	6	0	0	0	0	3051 ?
7	0	0	0	0	?	22	156	325	472 ?	527 ?	366	384	386	?	44 ?	90	191	121	48	4	0	0	0	0	3137 ?
8	0	0	0	0	0	36	125	197	435	551 ?	512	393	399	397	385	100 ?	26 ?	68	35	4	0	0	0	0	3662
9	0	0	0	0	0	41	128 ?	369 ?	438 ?	415	339	316	222	140	173	170	173	88	30	4	0	0	0	0	3046 ?
10	0	0	0	0	0	38	121 ?	?	395	347	281	247	221	244	189	214	95	68	34	3	0	0	0	0	2497 ?
11	0	0	0	0	0	36	151 ?	380	413	217	174	212	314	280	239	240	145	89	39	4	0	0	0	0	2932
12	0	0	0	0	0	33	164	324	312	173	158	233	250	150	131	116	111	75	53	3	0	0	0	0	2286
13	0	0	0	0	0	31	126 ?	259	247	173	184	232	195	211	245	165	118	118	43	4	0	0	0	0	2353
14	0	0	0	0	0	28	128 ?	192	157	135	188	342	307	296	201	162	103	81	31	1	0	0	0	0	2350
15	0	0	0	0	0	17	115	160	167	158	161	248	353	275	234	166	140	86	16	0	0	0	0	0	2296
16	0	0	0	0	0	42 ?	123	204	229	196	391	434	466	382	269	319	146	112	37	3	0	0	0	0	3351
17	0	0	0	0	0	20	112	255	335	334	391	438	371	336	261	189 ?	173	91	18	11	0	0	0	0	3335
18	0	0	0	0	0	28	105	197	296	331	375	370	317	271	215	178	161	111	38	0	0	0	0	0	2993
19	0	0	0	0	0	29	108	171	220	254	312	315	293	273	230	182	129	91	33	0	0	0	0	0	2640
20	0	0	0	0	0	26	100	163	212	248	292	318	346	351	274	202	144	94	32	0	0	0	0	0	2802
21	0	0	0	0	0	26	99	160	195	214	294	329	341	304	279	233	188	114	36	0	0	0	0	0	2811
22	0	0	0	0	0	26	100	171	240	286	322	359	356	375	310	260	185	113	31	0	0	0	0	0	3133
23	0	0	0	0	0	19	99	179	221	252	299	281	283	162	264	135	191	106	10	0	0	0	0	0	2501
24	0	0	0	0	0	27	102	168	227	266	289	351	346	304	301	207	250	88	5	0	0	0	0	0	2930
25	0	0	0	0	0	24	107	197	258	355	247	295	349	349	235	222	145	96	27	0	0	0	0	0	2906
26	0	0	0	0	0	12	39	96	200	175	177	193	205	258	242	143	95	50	9	0	0	0	0	0	1893
27	0	0	0	0	0	9	70	200	223	265	161	201	231	301	268	178	142	76	26	0	0	0	0	0	2352
28	0	0	0	0	0	31	98	168	189	166	230	228	271	276	253	212	192	108	29	0	0	0	0	0	2451
29	0	0	0	0	0	28	111	182	185	212	286	385	406	361	316	240	166	88	13	0	0	0	0	0	2978
30	0	0	0	0	0	23	112	179	290	436	479	433	418	254 ?	197	249	156	70	19	0	0	0	0	0	3314
31	0	0	0	0	0	21	89 ?	174	279	233	308	345	310	233	263	225	229	144	37	0	0	0	0	0	2889
Avg	0	0	0	0	0	28	114	222	287	291	323	317	309	280	239	198	155	93	30	2	0	0	0	0	2830
S/D	0	0	0	0	0	9	32	73	96	121	127	78	76	66	72	53	47	22	12	3	0	0	0	0	502
S/A	0	0	0	0	2.55	0.31	0.28	0.33	0.33	0.42	0.39	0.25	0.25	0.24	0.3	0.27	0.3	0.23	0.41	1.19	0	0	0	0	0.18
Min	0	0	0	0	0	9	39	96	157	135	158	153	167	140	44	90	26	48	5	0	0	0	0	0	1825
Max	0	0	0	0	1	42	178	380	474	551	631	438	466	397	385	319	250	144	55	11	0	0	0	0	3776
n	0	0	0	0	5	341	322	319	328	329	364	372	370	356	364	364	365	370	372	39	0	0	0	0	4981

Daylight Data Recovery: 0.0% missing; 4.8% exceed the 15% QC threshold -- 5232 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.