

**April 2002**

**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	4	64	253	492	686	825	896	907	838	708	525	313	101	8	0	0	0	0	0	6622
2	0	0	0	0	0	3	77	271	489	682	820	895	901	841	617	446	252	109	10	0	0	0	0	0	6413
3	0	0	0	0	0	0	18	61	144	290	295	377	502	592	507	253	189	104	13	0	0	0	0	0	3345
4	0	0	0	0	0	9	68	186	173	229	653	890	901	844	715	528	302	75	17	0	0	0	0	0	5590
5	0	0	0	0	0	7	91	304	525	717	857	934	933	865	729	537	322	107	13	0	0	0	0	0	6942
6	0	0	0	0	0	8	91	289	503	692	833	909	915	856	723	494	272	75	11	0	0	0	0	0	6672
7	0	0	0	0	0	3	53	191	421	526	767	873	776	801	723	487	297	117	10	0	0	0	0	0	6046
8	0	0	0	0	0	1	9	24	70	187	81	?	?	22 ?	28	31	39	20	2	0	0	0	0	0	514 ?
9	0	0	0	0	0	4	53	111	211	534	463	759	629	611	334	191	226	107	13	0	0	0	0	0	4246
10	0	0	0	0	0	9	101	307	524	708	848	910	892	851	717	534	324	102	13	0	0	0	0	0	6841
11	0	0	0	0	0	8	98	231	515	696	740	656	652	452	469	238	311	106	15	0	0	0	0	0	5187
12	0	0	0	0	0	5	95	274	417	587	734	705	421	595	637	399	254	93	19	0	0	0	0	0	5235
13	0	0	0	0	0	10	71	175	477	701	837	864	762	705	601	471	233	55	7	0	0	0	0	0	5970
14	0	0	0	0	0	10	74	287	485	479	347	292	321	524	516	396	256	96	15	0	0	0	0	0	4096
15	0	0	0	0	0	14	92	210	472	476	668	877	748	765	466	364	269	113	24	0	0	0	0	0	5558
16	0	0	0	0	0	14	81	267	449	507	486	675	640	649	452	411	254	72	11	0	0	0	0	0	4967
17	0	0	0	0	0	12	130	294	385	489	798	898	761	842	704	527	325	112	14	0	0	0	0	0	6291
18	0	0	0	0	0	10	117	319	536	702	762	860	947	822	546	547	333	122	10	0	0	0	0	0	6632
19	0	0	0	0	0	19	82	180	294	371	462	571	531	642	460	325	209	66	9	0	0	0	0	0	4221
20	0	0	0	0	0	16	102	186	193	223	519	724	884	747	737	433	276	125	29	0	0	0	0	0	5193
21	0	0	0	0	0	27	74	125	406	458	734	854	907	772	475	306	97	65	14	0	0	0	0	0	5313
22	0	0	0	0	0	3	23	160	405	468	635	826	907	811	740	576	356	109	9	0	0	0	0	0	6027
23	0	0	0	0	0	22	83	193 ?	158	243	523	491	522	863	727	544	283	122	17	0	0	0	0	0	4791
24	0	0	0	0	0	17	115	324	564	578	763	820	728	738	635	525	345	126	23	0	0	0	0	0	6300
25	0	0	0	0	0	26	151	371	591	754	903	940	967	895	591	560	355	107	25	0	0	0	0	0	7235
26	0	0	0	0	0	0	16	33	50	102	94	119	108	274	230	168	129	72	15	0	0	0	0	0	1410
27	0	0	0	0	0	34	129	259	358	397	565	658	693	439	435	417	230	54	25	0	0	0	0	0	4691
28	0	0	0	0	0	14	67	199	365 ?	546	491	477	643	584	322	214	195	99	25	0	0	0	0	0	4239
29	0	0	0	0	0	36	136	317	490	702	831	605	438	684	410	155	80	15	21	0	0	0	0	0	4920
30	0	0	0	0	0	11	42	103	96	257	385	631 ?	607	651	698	522	350	154	13	0	0	0	0	0	4520
Avg	0	0	0	0	0	12	80	217	375	499	624	724	708	686	555	404	256	93	15	0	0	0	0	0	5201
S/D	0	0	0	0	0	9	36	90	162	190	224	211	215	196	175	147	83	31	6	0	0	0	0	0	1521
S/A	0	0	0	0	0	0.79	0.45	0.42	0.43	0.38	0.36	0.29	0.3	0.29	0.32	0.36	0.32	0.33	0.42	0	0	0	0	0	0.29
Min	0	0	0	0	0	0	9	24	50	102	81	119	108	22	28	31	39	15	2	0	0	0	0	0	514
Max	0	0	0	0	0	36	151	371	591	754	903	940	967	895	740	576	356	154	29	0	0	0	0	0	7235
n	0	0	0	0	0	182	358	351	357	358	359	342	347	350	360	360	360	360	173	0	0	0	0	0	4617

Daylight Data Recovery: 0.0% missing; 1.2% exceed the 15% QC threshold -- 4675 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 18036F3    Calibration Factor: 7.430  $\mu\text{V}/\text{W}/\text{m}^2$     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.

April 2002

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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
4	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
9	0	0	0	0	0	?	?	?	?	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
10	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
11	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
12	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	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	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	566	?	115	?	*	*	*	*	*	*	*	*	*	*	*	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	*	*	*	?	145	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
29	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	237	*	0	0	0	0	*
30	0	0	0	0	0	*	*	*	*	*	*	84	?	*	*	*	*	*	*	*	0	0	0	0	0	*
Avg	0	0	0	0	0	566	N/A	115	N/A	145	N/A	84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	237	0	0	0	0	N/A	*
SD	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	0
StA	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	0
Min	0	0	0	0	0	566	N/A	115	N/A	145	N/A	84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	237	0	0	0	0	0	N/A
Max	0	0	0	0	0	566	N/A	115	N/A	145	N/A	84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	237	0	0	0	0	0	N/A
n	0	0	0	0	0	7	0	3	0	2	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0

Daylight Data Recovery: 94.7% missing; 4.9% exceed the 15% QC threshold -- 4675 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**

**April 2002**

**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	3	58	154 ?	?	?	?	?	?	?	?	?	?	100	5	0	0	0	0	0	321 ?	
2	0	0	0	0	0	3	71	256	?	?	?	?	?	?	510 ?	415	202 ?	86	8	0	0	0	0	0	1551 ?	
3	0	0	0	0	0	0	16	53	126	253	258	327	408	498	429	220	164	99	11	0	0	0	0	0	2864	
4	0	0	0	0	0	9	59	171	150	199	457 ?	?	?	?	?	?	288 ?	66	15	0	0	0	0	0	1414 ?	
5	0	0	0	0	0	6	85	197 ?	?	?	?	?	?	?	?	?	298 ?	104	11	0	0	0	0	0	702 ?	
6	0	0	0	0	0	7	85	281 ?	?	?	?	?	?	?	?	?	432 ?	258	67	10	0	0	0	0	1140 ?	
7	0	0	0	0	0	3	46	169	338	470	450 ?	?	621 ?	?	?	434 ?	274	94	9	0	0	0	0	0	2908 ?	
8	0	0	0	0	0	1	8	21	61	163	71	?	?	19 ?	25	27	35	19	3	0	0	0	0	0	452 ?	
9	0	0	0	0	0	4	47	98	184	391 ?	398	534 ?	459 ?	487 ?	294	167	190	96	13	0	0	0	0	0	3361 ?	
10	0	0	0	0	0	8	93	287 ?	?	?	?	?	?	?	?	?	294 ?	88	12	0	0	0	0	0	782 ?	
11	0	0	0	0	0	7	91	207	448 ?	?	598 ?	496 ?	493 ?	311	296 ?	215	294 ?	101	13	0	0	0	0	0	3571 ?	
12	0	0	0	0	0	5	87	255 ?	372	459 ?	523 ?	501 ?	276	458 ?	425 ?	303	193 ?	88	16	0	0	0	0	0	3959 ?	
13	0	0	0	0	0	9	62	151	307 ?	?	?	771 ?	705	655	560	444	218	48	7	0	0	0	0	0	3937 ?	
14	0	0	0	0	0	9	69	224	393 ?	414	304	254	282	414	365 ?	302 ?	230	94	13	0	0	0	0	0	3367	
15	0	0	0	0	0	14	80	188	370	396	454 ?	673 ?	576 ?	552 ?	358	309	249	110	21	0	0	0	0	0	4349 ?	
16	0	0	0	0	0	12	70	191	305	438	443	568	545	548	379	306 ?	221	64	10	0	0	0	0	0	4100	
17	0	0	0	0	0	11	96	209	221	362	601 ?	722 ?	569 ?	692 ?	?	467 ?	330 ?	111	13	0	0	0	0	0	4404 ?	
18	0	0	0	0	0	9	65	110	128	166	379	635 ?	?	648 ?	471 ?	?	293 ?	121	9	0	0	0	0	0	3034 ?	
19	0	0	0	0	0	18	70	160	262	328	398	522	465	487 ?	399	283	184	58	8	0	0	0	0	0	3640	
20	0	0	0	0	0	15	89	165	174	200	372	416	681 ?	558 ?	?	392	246 ?	117	25	0	0	0	0	0	3449 ?	
21	0	0	0	0	0	24	66	110	276	336	366	377	518	606 ?	402	267	86	58	12	0	0	0	0	0	3503	
22	0	0	0	0	0	3	20	142	291	388	451	345	290	601 ?	622 ?	?	306 ?	89	10	0	0	0	0	0	3559 ?	
23	0	0	0	0	0	16	70	151	139	213	409	411	394	365	618 ?	?	254	108	15	0	0	0	0	0	3164 ?	
24	0	0	0	0	0	16	81	147	230	390	345	341	300	309	440	471 ?	355 ?	120	20	0	0	0	0	0	3566	
25	0	0	0	0	0	21	69	97	130	179	182	204	153	182	331	362	300	92	22	0	0	0	0	0	2326	
26	0	0	0	0	0	0	16	29	43	89	82	102	94	237	200	147	113	63	13	0	0	0	0	0	1229	
27	0	0	0	0	0	31	117	194	292	349	487	454	469	397	385	336	178	47	22	0	0	0	0	0	3756	
28	0	0	0	0	0	12	60	178	305 ?	406	409	395	482	438	275	186	171	88	23	0	0	0	0	0	3430	
29	0	0	0	0	0	36	116	214	308	300	347	498	396	412	262	138	70	14	20	0	0	0	0	0	3132	
30	0	0	0	0	0	10	36	90	84	225	336	555 ?	493	451	332	229	160	106	11	0	0	0	0	0	3119	
Avg	0	0	0	0	0	11	67	163	237	309	380	459	440	449	381	298	223	84	13	0	0	0	0	0	2803 ?	
S D	0	0	0	0	0	9	27	67	111	110	133	165	158	162	135	120	80	28	6	0	0	0	0	0	1233	
S/A	0	0	0	0	0	0.82	0.41	0.41	0.47	0.36	0.35	0.36	0.36	0.36	0.36	0.4	0.36	0.33	0.43	0	0	0	0	0	0	0.44
Min	0	0	0	0	0	0	8	21	43	89	71	102	94	19	25	27	35	14	3	0	0	0	0	0	321	
Max	0	0	0	0	0	36	117	287	448	470	601	771	705	692	622	471	355	121	25	0	0	0	0	0	4404	
n	0	0	0	0	0	181	359	326	275	263	254	215	230	209	216	239	277	353	173	0	0	0	0	0	3580	

Daylight Data Recovery: 0.0% missing; 23.4% exceed the 15% QC threshold -- 4675 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.