

April 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	5	96	278	478	670	810	812	800	853	710	498	276	95	7	0	0	0	0	0	6388
2	0	0	0	0	0	5	86	289	507	693	837	913	913	845	713	528	309	100	8	0	0	0	0	0	6745
3	0	0	0	0	0	7	85	284	498	685	830	909	920	834	590	441	348	103	5	0	0	0	0	0	6539
4	0	0	0	0	0	11	81	297	521	707	848	919	915	859	727	539	324	110	10	0	0	0	0	0	6868
5	0	0	0	0	0	11	100	307	534	470	713	652	462	667	607	438	226	67	9	0	0	0	0	0	5264
6	0	0	0	0	0	2	46	169	415	682	778	838	881	810	702	493	238	91	6	0	0	0	0	0	6152
7	0	0	0	0	0	0	25	97	267	465	808	648	549	436	317	135	93	41	4	0	0	0	0	0	3886
8	0	0	0	0	0	7	68	355	477	678	814	896	725	688	579	497	293	94	8	0	0	0	0	0	6179
9	0	0	0	0	0	11	77	286	497	679	807	874	870	807	674	493	283	91	7	0	0	0	0	0	6457
10	0	0	0	0	0	0	10	124	459	634	765	697	621	284	640	504	229	57	7	0	0	0	0	0	5030
11	0	0	0	0	0	1	8 ?	36 ?	62	93	91	123	132	104	83	50 ?	39 ?	1 ?	0	0	0	0	0	0	825 ?
12	0	0	0	0	0	1	26	41	70	67	80 ?	114	99	71 ?	64	49 ?	?	6 ?	1	0	0	0	0	0	689 ?
13	0	0	0	0	0	1	31	144	299	568	680	736	727	823	695	388	284	117	19	0	0	0	0	0	5513
14	0	0	0	0	0	14	119	333	547	732	866	937	934	867	733	550	335	119	13	0	0	0	0	0	7099
15	0	0	0	0	0	18	123	339	553	737	872	945	942	881	746	563	345	126	15	0	0	0	0	0	7204
16	0	0	0	0	0	18	125	331	535	706	849	805	652	759	718	545	336	124	17	0	0	0	0	0	6518
17	0	0	0	0	0	28	123	351	541	727	867	932	941	871	741	554	326	122	12	0	0	0	0	0	7136
18	0	0	0	0	0	19	112 ?	341	527	758	883	953	950	848	671	497	292	89	25	0	0	0	0	0	6965
19	0	0	0	0	0	18	119	251	529	374	653	677	651	693	486	311	195	78	7	0	0	0	0	0	5042
20	0	0	0	0	0	4	29 ?	136 ?	341 ?	704	572	682	880	773	570	410	292	129	7	0	0	0	0	0	5530 ?
21	0	0	0	0	0	18	78	165	424	580	469	678	422	145	364	242	289	66	10	0	0	0	0	0	3951
22	0	0	0	0	0	16	86	141	352	274	236	367	747	578	594	426	285	153	17	0	0	0	0	0	4272
23	0	0	0	0	0	20	104	263	366	478	560	745	655	803	667	490	265	107	12	0	0	0	0	0	5535
24	0	0	0	0	0	12	104 ?	234	493	679	745	718	724	578	572	325	155	58	1	0	0	0	0	0	5398
25	0	0	0	0	0	13	44	135	138	155	183	183	150	288	89	80	38 ?	19	0	0	0	0	0	0	1515
26	0	0	0	0	0	20	55 ?	133	468	761	895	957	950	877	740	563	347	134	22	0	0	0	0	0	6920
27	0	0	0	0	0	27	168	383	593	771	904	971	970	899	765	579	364	143	19	0	0	0	0	0	7557
28	0	0	0	0	0	31	177	388	599	776	897	958	943	854	643	551	331	120	25	0	0	0	0	0	7292
29	0	0	0	0	0	25	176	334	557	713	680	594	235	596	787	417	90 ?	1 ?	1	0	0	0	0	0	5206
30	0	0	0	0	0	8	67	117	210	294	285	430	422	353	332 ?	290	174	82	22	0	0	0	0	0	3087
Avg	0	0	0	0	0	12	85	236	429	577	676	722	693	658	577	415	255	88	10	0	0	0	0	0	5425
S D	0	0	0	0	0	9	46	105	149	210	253	251	271	258	208	160	94	42	7	0	0	0	0	0	1871
S/A	0	0	0	0	0	0.72	0.54	0.45	0.35	0.36	0.37	0.35	0.39	0.39	0.36	0.39	0.37	0.47	0.7	0	0	0	0	0	0.34
Min	0	0	0	0	0	0	8	36	62	67	80	114	99	71	64	49	38	1	0	0	0	0	0	0	689
Max	0	0	0	0	0	31	177	388	599	776	904	971	970	899	787	579	364	153	25	0	0	0	0	0	7557
n	0	0	0	0	0	186	332	346	351	357	357	360	360	353	354	352	328	335	175	0	0	0	0	0	4546

Daylight Data Recovery: 0.0% missing; 2.9% exceed the 15% QC threshold -- 4681 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.

April 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	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	101 ?	254 *?	*	*	*	*	*	*	*	*	*	*	*	*	*	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	?	403 ?	?	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
19	0	0	0	0	0	440 ?	251 ?	*	544 *?	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
20	0	0	0	0	0	?	55 ?	?	?	?	60 ?	*	*	*	*	*	*	*	*	*	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	186 ?	420 ?	?	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	*
25	0	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	*
Avg	0	0	0	0	0	242	276	N/A	544	N/A	60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	N/A	*
SD	0	0	0	0	0	176	147	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	0.73	0.53	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	101	55	N/A	544	N/A	60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	N/A
Max	0	0	0	0	0	440	420	N/A	544	N/A	60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	N/A
n	0	0	0	0	0	12	14	0	2	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

Daylight Data Recovery: 92.5% missing; 6.6% exceed the 15% QC threshold -- 4681 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 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	4	71	?	?	?	?	418 ?	708 ?	577 ?	515 ?	412 ?	276 ?	90	6	0	0	0	0	0	3076 ?
2	0	0	0	0	0	4	68 ?	?	?	?	?	?	?	?	?	?	?	86 ?	6	0	0	0	0	0	164 ?
3	0	0	0	0	0	6	83	?	?	?	?	?	?	?	482 ?	425 ?	?	87 ?	5	0	0	0	0	0	1089 ?
4	0	0	0	0	0	13 ?	78	?	?	?	?	?	?	?	?	?	?	74 ?	7	0	0	0	0	0	172 ?
5	0	0	0	0	0	13 ?	78 ?	?	?	433 ?	566 ?	638 ?	486	663 ?	579 ?	438 ?	233	70	10	0	0	0	0	0	4207 ?
6	0	0	0	0	0	2	48	176	297 ?	?	?	?	?	?	?	?	217 ?	93	6	0	0	0	0	0	839 ?
7	0	0	0	0	0	0	26	101	280	421 ?	?	583 ?	325 ?	430	335	142	91	43	5	0	0	0	0	0	2782 ?
8	0	0	0	0	0	7	72	210 ?	?	?	?	?	627 ?	562 ?	407 ?	?	?	107	7	0	0	0	0	0	2000 ?
9	0	0	0	0	0	10	79	?	?	?	?	?	?	?	?	?	283 ?	105	7	0	0	0	0	0	485 ?
10	0	0	0	0	0	0	10	130	232 ?	471 ?	630 ?	584 ?	626	303	?	?	212	60	7	0	0	0	0	0	3266 ?
11	0	0	0	0	0	0	11	31	65	97	95	128	138	109	87	48	25 ?	3 ?	0	0	0	0	0	0	838
12	0	0	0	0	0	1	28	42	72	65	84	120	105	67	65	44	20 ?	10	0	0	0	0	0	0	724
13	0	0	0	0	0	1	32	147	291	546 ?	658 ?	682 ?	600 ?	625 ?	?	389	291 ?	99 ?	17	0	0	0	0	0	4378 ?
14	0	0	0	0	0	12	63	155	376 ?	?	?	?	?	?	?	?	?	80 ?	11	0	0	0	0	0	696 ?
15	0	0	0	0	0	14	51	84	180	464 ?	?	?	?	?	?	?	?	72 ?	13	0	0	0	0	0	879 ?
16	0	0	0	0	0	14	58	97	148	311	624 ?	713 ?	540 ?	435 ?	?	?	?	84 ?	15	0	0	0	0	0	3038 ?
17	0	0	0	0	0	28	71	112	128	173	459	?	?	?	?	?	?	95 ?	10	0	0	0	0	0	1076 ?
18	0	0	0	0	0	16	56 ?	91	141	134	179	559 ?	?	?	?	367 ?	293 ?	95	24	0	0	0	0	0	1954 ?
19	0	0	0	0	0	15	65	188	245	336	362	491	584	639 ?	446 ?	327	204	82	7	0	0	0	0	0	3991
20	0	0	0	0	0	5	43	149	275	324	423	353	587 ?	652 ?	524 ?	356 ?	269 ?	87 ?	7	0	0	0	0	0	4056 ?
21	0	0	0	0	0	17	79	168	328	416	447	510	415	145	377	255	265	69	11	0	0	0	0	0	3502
22	0	0	0	0	0	17	90	148	288	272	242	309	394	380	541 ?	345 ?	238 ?	91 ?	16	0	0	0	0	0	3371 ?
23	0	0	0	0	0	19	90	189	297	400	368	403	370	322	440 ?	370 ?	213 ?	91	12	0	0	0	0	0	3585 ?
24	0	0	0	0	0	13	91 ?	196	269	289	381	486	491	477	421	303	163	61	2	0	0	0	0	0	3642
25	0	0	0	0	0	13	47	122	143	164	190	193	156	265	89	84	32	18	0	0	0	0	0	0	1518
26	0	0	0	0	0	18	57	129	217	168	131	125	132	138	137	139	150	91	18	0	0	0	0	0	1651
27	0	0	0	0	0	18	55	71	82	93	100	103	103	101	99	94	84	58	13	0	0	0	0	0	1075
28	0	0	0	0	0	23	66	78	89	100	113	147	198	232	277	246	166	72	22	0	0	0	0	0	1827
29	0	0	0	0	0	19	101	209	192	229	375	479	241	407	386	252	87	0 ?	0	0	0	0	0	0	2977
30	0	0	0	0	0	9	70	122	219	303	298	434	428	343	309	295	182	86	22	0	0	0	0	0	3120
Avg	0	0	0	0	0	11	61	131	211	282	336	403	393	375	343	267	182	72	10	0	0	0	0	0	2199 ?
S D	0	0	0	0	0	7	23	51	89	143	191	199	199	197	171	131	90	29	7	0	0	0	0	0	1349
S/A	0	0	0	0	0	0.68	0.38	0.39	0.42	0.51	0.57	0.5	0.51	0.53	0.5	0.49	0.49	0.41	0.69	0	0	0	0	0	0.61
Min	0	0	0	0	0	0	10	31	65	65	84	103	103	67	65	44	20	0	0	0	0	0	0	0	164
Max	0	0	0	0	0	28	101	210	376	546	658	713	708	663	579	438	293	107	24	0	0	0	0	0	4378
n	0	0	0	0	0	182	340	278	258	237	207	212	213	189	174	191	196	292	175	0	0	0	0	0	3158

Daylight Data Recovery: 0.0% missing; 32.5% exceed the 15% QC threshold -- 4681 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.