

August 2009

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	*
2	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
3	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
4	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
5	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
6	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
7	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
8	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
14	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	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	10	42	189	393	201	403	650	721	642	696	442	326	160	23	0	0	0	0	4899	
19	0	0	0	0	0	11	19	104	157	340	444	293 ?	139 ?	438	257	240	179	77	29	4	0	0	0	2731	
20	0	0	0	0	0	3	51	136	209	520	565	682	677	416	689	153	386	256	77	1	0	0	0	4820	
21	0	0	0	0	0	0	16	161	279	477	568	554	672	567	296	463	424	250	61	6	0	0	0	4794	
22	0	0	0	0	0	3	20	75	99	157	323	419	267	231	451	444	241	206	21	2	0	0	0	2959	
23	0	0	0	0	0	3	19	52	166	195	281	352	394	479	553	413	251	91 ?	23	0	0	0	0	3271	
24	0	0	0	0	0	5	40	117	240	470	396	601	734	745	640	333	167	94 ?	3	0	0	0	0	4586	
25	0	0	0	0	0	4	46	206	420	595	746	691	779	619	473	506	362	180	37	0	0	0	0	5666	
26	0	0	0	0	0	4	42	182	381	398	590	545	572	484	585	520	343	210	32	0	0	0	0	4887	
27	0	0	0	0	0	5	65	199	401	549	734	834	711	735	688	495	278	104	24	0	0	0	0	5823	
28	0	0	0	0	0	1	17	69	120	278	376	263	367	378	337	398	275	143	58	0	0	0	0	3078	
29	0	0	0	0	0	2	26	129	92	303	461	704	707	479	150	290	71 ?	56	28	0	0	0	0	3498	
30	0	0	0	0	0	1	15	90	220	536	542	771	828	751	563	419	401	173	36	0	0	0	0	5345	
31	0	0	0	0	0	2	28	185	398	524	739	553	416	590	416	224	91	50	11	0	0	0	0	4226	
Avg	0	0	0	0	0	4	32	135	255	396	512	565	570	540	485	381	271	146	33	1	0	0	0	4327 *	
S D	0	0	0	0	0	3	16	52	122	149	154	177	214	153	175	115	112	69	20	2	0	0	0	1039	
S/A	0	0	0	0	0	0.85	0.5	0.39	0.48	0.38	0.3	0.31	0.37	0.28	0.36	0.3	0.41	0.47	0.6	2.1	0	0	0	0.24	
Min	0	0	0	0	0	0	15	52	92	157	281	263	139	231	150	153	71	50	3	0	0	0	0	2731	
Max	0	0	0	0	0	11	65	206	420	595	746	834	828	751	696	520	424	256	77	6	0	0	0	5823	
n	0	0	0	0	0	32	167	167	167	168	167	162	165	168	168	168	165	162	158	7	0	0	0	2191	

Daylight Data Recovery: 55.8% missing; 0.0% untested; 0.5% exceed the 15% QC threshold -- 5019 total daylight measurements.

Instrument: Eppley PSP Serial Number: 25821F3 Calibration Factor: 9.020 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.

August 2009

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	*	
2	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
3	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
4	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
5	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
6	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
7	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
8	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
14	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
31	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
Avg	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	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	0	0	0	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	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	N/A
Max	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	N/A
n	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

Daylight Data Recovery: 100.0% missing; 0.0% untested; 0.0% exceed the 15% QC threshold -- 5019 total daylight measurements.

Instrument: Eppley NIP Serial Number: 17664E6 Calibration Factor: 8.480 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.

Bluefield State College
37.27 N Latitude 81.24 W Longitude 803 Meters AMSL Time Zone -5

August 2009

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	*
2	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
3	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
4	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
5	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
6	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
7	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
8	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
14	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	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	11 ?	43	131 ?	337 ?	214	316 ?	438 ?	363 ?	316	370	310	254	136	24	0	0	0	0	3263 ?	
19	0	0	0	0	0	12 ?	20	110	167	362	438	206	141	409	263	250	178	79	28	2	0	0	0	2667	
20	0	0	0	0	0	3	54	137	216	370 ?	543 ?	602 ?	417 ?	402	300	138	189	158	53 ?	0	0	0	0	3583 ?	
21	0	0	0	0	0	0	17	128	189 ?	293 ?	430 ?	357 ?	587 ?	437 ?	305	276	157	111	41	6	0	0	0	3334 ?	
22	0	0	0	0	0	3 ?	20	80	106	165	339	438	280	243	422	250	157	101	21	1	0	0	0	2627	
23	0	0	0	0	0	3 ?	19	51	174	205	297	369	415	500	426 ?	305	203	65	24	0	0	0	0	3056	
24	0	0	0	0	0	4	41	123	254	453 ?	403	516 ?	608 ?	537 ?	307 ?	285	137	74	2	0	0	0	0	3744 ?	
25	0	0	0	0	0	3	43	154 ?	?	?	?	492 ?	510 ?	346 ?	375 ?	355	168	91	29	0	0	0	0	2567 ?	
26	0	0	0	0	0	5 ?	44	193	373 ?	375	504 ?	518 ?	450 ?	486	463 ?	450 ?	187	116	25	0	0	0	0	4188 ?	
27	0	0	0	0	0	6 ?	53	199	401 ?	479 ?	?	?	446 ?	641 ?	601 ?	433 ?	245	97	24	0	0	0	0	3626 ?	
28	0	0	0	0	0	0	17	72	117	286	387	259	368	388	345	362	233	134	60	0	0	0	0	3028	
29	0	0	0	0	0	2 ?	27	121	95	232	254	340	257	329	162	247	69	60	28	0	0	0	0	2224	
30	0	0	0	0	0	1	15	95	188	264	305	397	314	266	323	274	166	98	28	0	0	0	0	2736	
31	0	0	0	0	0	1	29	103	163	235	315	431	420	326	270	209	98	55	11	0	0	0	0	2666	
Avg	0	0	0	0	0	4	32	121	214	303	378	413	398	402	352	296	174	98	29	1	0	0	0	3094 *	
S D	0	0	0	0	0	4	14	42	100	98	89	109	126	110	105	84	52	31	15	2	0	0	0	553	
S/A	0	0	0	0	0	0.96	0.44	0.35	0.47	0.32	0.23	0.26	0.32	0.27	0.3	0.28	0.3	0.31	0.52	2.56	0	0	0	0	0.18
Min	0	0	0	0	0	0	15	51	95	165	254	206	141	243	162	138	69	55	2	0	0	0	0	2224	
Max	0	0	0	0	0	12	54	199	401	479	543	602	608	641	601	450	254	158	60	6	0	0	0	4188	
n	0	0	0	0	0	25	166	157	135	127	123	122	119	136	136	158	167	168	156	7	0	0	0	1902	

Daylight Data Recovery: 55.8% missing; 0.0% untested; 6.3% exceed the 15% QC threshold -- 5019 total daylight measurements.

Instrument: Eppley PSP Serial Number: 17860F3 Calibration Factor: 7.010 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.