

October 2010

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	14	80	204	497	545	644	710	727	590	433	244	58	0	0	0	0	0	0	4746
2	0	0	0	0	0	0	19	124	314	528	658	733	744	689	577	421	231	57	0	0	0	0	0	0	5094
3	0	0	0	0	0	0	8	36	50	79	63 ?	54 ?	70	84	102	42 ?	49 ?	7	0	0	0	0	0	0	644 ?
4	0	0	0	0	0	0	2	22	43	70	115	159	271	316	353	117	74	3	0	0	0	0	0	0	1546
5	0	0	0	0	0	0	3	17	44	308	294	492	479	430	170 ?	84	65	15	0	0	0	0	0	0	2401
6	0	0	0	0	0	0	10	51	202	391	559	575	484	532	478	400	215	48	0	0	0	0	0	0	3943
7	0	0	0	0	0	0	21	138	317	482	616	690	709	652	547	391	209	46	0	0	0	0	0	0	4816
8	0	0	0	0	0	0	15	112	318	502	632	703	714	660	547	391	203	39	0	0	0	0	0	0	4836
9	0	0	0	0	0	0	16	83	306	490	612	681	690	633	520	365	180	32	0	0	0	0	0	0	4608
10	0	0	0	0	0	0	19	135	378	460	599	669	675	623	516	362	180	32	0	0	0	0	0	0	4648
11	0	0	0	0	0	0	22	126	303	457	588	655	674	615	522	368	161	33	0	0	0	0	0	0	4524
12	0	0	0	0	0	0	16	103	278	436	560	627	613	241	150	73	45	8	0	0	0	0	0	0	3149
13	0	0	0	0	0	0	3	20	89	89	53 ?	121	193	509	318	300	86	23	0	0	0	0	0	0	1803
14	0	0	0	0	0	0	3	7 ?	42 ?	99	205	481	531	541	563	394	154	33	0	0	0	0	0	0	3052
15	0	0	0	0	0	0	15	42	96 ?	124 ?	252	378	233	301	214	140	156	35	0	0	0	0	0	0	1985
16	0	0	0	0	0	0	12	114	281	469	606	673	680	626	511	356	171	27	0	0	0	0	0	0	4528
17	0	0	0	0	0	0	12	109	288	451	580	652	659	599	487	332	155	21	0	0	0	0	0	0	4345
18	0	0	0	0	0	0	14	76	202	257	464	473	492	551	478	207	63	15	0	0	0	0	0	0	3291
19	0	0	0	0	0	0	9	93	262	432	572	617	586	546	251	236	103	12	0	0	0	0	0	0	3720
20	0	0	0	0	0	0	3	20	68	206	225	411	568	590	491	325	147	23	0	0	0	0	0	0	3078
21	0	0	0	0	0	0	8	100	282	444	569	636	644	589	479	320	142	23	0	0	0	0	0	0	4236
22	0	0	0	0	0	0	8	100	278	442	570	642	650	592	479	321	140	19	0	0	0	0	0	0	4240
23	0	0	0	0	0	0	7	97	268	423	540	602	610	555	448	302	117	12	0	0	0	0	0	0	3982
24	0	0	0	0	0	0	9	78	286	362	546	609	620	561	454	282	130	22	0	0	0	0	0	0	3959
25	0	0	0	0	0	0	2	40	166	97	230	418	474	352	347	279	86	11	0	0	0	0	0	0	2502
26	0	0	0	0	0	0	5	76	194	237	306	243	372	312	225	165	100	15	0	0	0	0	0	0	2251
27	0	0	0	0	0	0	1	23	66	120	124	50 ?	73	174	149	107	132	14	0	0	0	0	0	0	1034
28	0	0	0	0	0	0	5	62	129	297	508	609	614	570	454	299	120	13	0	0	0	0	0	0	3680
29	0	0	0	0	0	0	4	28	78	146	414	593	620	562	448	292	115	16	0	0	0	0	0	0	3315
30	0	0	0	0	0	0	5	96	298	421	541	619	584	545	453	300	109	18	0	0	0	0	0	0	3990
31	0	0	0	0	0	0	2	63	234	391	518	579	589	529	418	267	100	10	0	0	0	0	0	0	3699
Avg	0	0	0	0	0	0	9	73	205	329	441	519	536	510	411	280	135	24	0	0	0	0	0	0	3473
S D	0	0	0	0	0	0	6	39	105	156	191	198	187	157	142	111	53	14	0	0	0	0	0	0	1192
S/A	0	0	0	0	0	0	0.66	0.54	0.51	0.47	0.43	0.38	0.35	0.31	0.35	0.4	0.39	0.61	0	0	0	0	0	0	0.34
Min	0	0	0	0	0	0	1	7	42	70	53	50	70	84	102	42	45	3	0	0	0	0	0	0	644
Max	0	0	0	0	0	0	22	138	378	528	658	733	744	727	590	433	244	58	0	0	0	0	0	0	5094
n	0	0	0	0	0	0	169	365	359	367	359	355	369	372	369	363	365	263	2	0	0	0	0	0	4077

Daylight Data Recovery: 0.0% missing; 0.0% untested; 1.9% exceed the 15% QC threshold -- 4158 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.

October 2010

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	*	
2	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	*	*	*	*	*	*	*	*	*	*	*	*	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	0	*	
13	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
14	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
15	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
16	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
17	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
18	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
19	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
20	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
21	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
22	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
23	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
24	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
25	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
26	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
27	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
28	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
29	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
30	0	0	0	0	0	0	?	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
31	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
Avg	0	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	0	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	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	0	0	0	0	0	0	N/A	
Max	0	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	0	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: 99.9% missing; 0.0% untested; 0.1% exceed the 15% QC threshold -- 4158 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

October 2010

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	13	81	156	227 ?	389 ?	470 ?	302	104	64	50	36	15	0	0	0	0	0	0	1907 ?
2	0	0	0	0	0	0	24	133 ?	215 ?	?	?	?	406 ?	83	57	49	45	19	0	0	0	0	0	0	1030 ?
3	0	0	0	0	0	0	9	37	52	82	51	48	68	88	107	33	38 ?	7	0	0	0	0	0	0	621
4	0	0	0	0	0	0	2	23	45	72	120	166	238	283	276	120	74	2	0	0	0	0	0	0	1421
5	0	0	0	0	0	0	2	17	45	227 ?	286	415 ?	426 ?	303 ?	131	87	63	14	0	0	0	0	0	0	2017 ?
6	0	0	0	0	0	0	11	53	148 ?	326 ?	453 ?	478 ?	412 ?	387 ?	216	79	38	14	0	0	0	0	0	0	2615 ?
7	0	0	0	0	0	0	24	103 ?	?	?	?	?	?	?	312 ?	72	35	15	0	0	0	0	0	0	561 ?
8	0	0	0	0	0	0	22	120	155 ?	?	?	?	?	?	?	159	27	8	0	0	0	0	0	0	491 ?
9	0	0	0	0	0	0	21	84 ?	?	?	?	?	?	?	?	247 ?	56	13	0	0	0	0	0	0	422 ?
10	0	0	0	0	0	0	22	90 ?	?	?	?	?	?	?	?	280 ?	100	12	0	0	0	0	0	0	504 ?
11	0	0	0	0	0	0	21	116	?	?	?	?	?	?	?	?	119 ?	19	0	0	0	0	0	0	274 ?
12	0	0	0	0	0	0	18	102	?	?	?	?	540 ?	253	129	76	45	8	0	0	0	0	0	0	1171 ?
13	0	0	0	0	0	0	3	21	91	92	42	122	198	434 ?	314	143 ?	79	19	0	0	0	0	0	0	1558
14	0	0	0	0	0	0	2	8 ?	30	101	172	362 ?	235 ?	419 ?	?	?	116 ?	34	0	0	0	0	0	0	1480 ?
15	0	0	0	0	0	0	18	42	77	113 ?	227	247 ?	238	209 ?	222	145	130 ?	35	0	0	0	0	0	0	1703 ?
16	0	0	0	0	0	0	16	63 ?	179 ?	?	?	?	?	?	?	?	116 ?	28	0	0	0	0	0	0	404 ?
17	0	0	0	0	0	0	12	95 ?	?	?	?	?	?	?	?	?	124 ?	21	0	0	0	0	0	0	253 ?
18	0	0	0	0	0	0	16	76	194	261	456 ?	455	459 ?	452 ?	331 ?	186	63	14	0	0	0	0	0	0	2963 ?
19	0	0	0	0	0	0	9	100	?	?	?	?	490 ?	385 ?	260	193 ?	91	12	0	0	0	0	0	0	1539 ?
20	0	0	0	0	0	0	3	20	70	201	229	266 ?	?	?	?	?	118 ?	24	0	0	0	0	0	0	930 ?
21	0	0	0	0	0	0	8	77 ?	?	?	?	?	?	?	?	?	113 ?	24	0	0	0	0	0	0	222 ?
22	0	0	0	0	0	0	7	79 ?	?	?	?	?	?	?	?	?	100 ?	19	0	0	0	0	0	0	206 ?
23	0	0	0	0	0	0	8 ?	77 ?	?	?	?	?	?	?	?	?	109	10	0	0	0	0	0	0	205 ?
24	0	0	0	0	0	0	8	82	?	285 ?	?	?	?	?	?	194 ?	80 ?	22	0	0	0	0	0	0	672 ?
25	0	0	0	0	0	0	2	40	154	98	206	338 ?	449 ?	358	336 ?	231 ?	82	10	0	0	0	0	0	0	2306 ?
26	0	0	0	0	0	0	6 ?	62	190	242	315	240	360	286	233	151	85	15	0	0	0	0	0	0	2185
27	0	0	0	0	0	0	0	23	68	120	126	41	71	177	153	111	70 ?	13	0	0	0	0	0	0	972
28	0	0	0	0	0	0	4	62	127	229 ?	?	?	?	?	?	?	91 ?	14	0	0	0	0	0	0	526 ?
29	0	0	0	0	0	0	3	27	79	145	341 ?	?	?	?	?	?	92 ?	16	0	0	0	0	0	0	703 ?
30	0	0	0	0	0	0	5 ?	41 ?	?	?	?	?	?	?	?	?	89 ?	18	0	0	0	0	0	0	153 ?
31	0	0	0	0	0	0	2	67	?	?	?	?	?	?	?	?	99	10	0	0	0	0	0	0	178 ?
Avg	0	0	0	0	0	0	10	65	115	176	244	281	326	281	209	137	82	16	0	0	0	0	0	0	1038 ?
S D	0	0	0	0	0	0	8	34	60	82	136	154	147	127	97	71	30	7	0	0	0	0	0	0	800
S/A	0	0	0	0	0	0	0.75	0.52	0.52	0.46	0.56	0.55	0.45	0.45	0.46	0.52	0.37	0.45	0	0	0	0	0	0	0.77
Min	0	0	0	0	0	0	0	8	30	72	42	41	68	83	57	33	27	2	0	0	0	0	0	0	153
Max	0	0	0	0	0	0	24	133	215	326	456	478	540	452	336	280	130	35	0	0	0	0	0	0	2963
n	0	0	0	0	0	0	156	305	179	160	145	116	127	136	159	188	298	265	2	0	0	0	0	0	2246

Daylight Data Recovery: 0.0% missing; 0.0% untested; 46.0% exceed the 15% QC threshold -- 4158 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.