

December 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	0	4	11 ?	29 ?	62	110	149	110	110	111	31	2	0	0	0	0	0	0	729
2	0	0	0	0	0	0	0	6	44	128	240	220	228	157	101	89	27	3	0	0	0	0	0	0	1241
3	0	0	0	0	0	0	0	7	70	151	169	175	286	176	128	67	16	2	0	0	0	0	0	0	1247
4	0	0	0	0	0	0	0	10	49	116	163	108	59 ?	40 ?	?	?	2	0	0	0	0	0	0	0	549 ?
5	0	0	0	0	0	0	0	1	7 ?	30 ?	38 ?	55	61	97	57	31	8	1	0	0	0	0	0	0	385 ?
6	0	0	0	0	0	0	0	10	52	122	157	152	214	205	223	76	19	4	0	0	0	0	0	0	1232
7	0	0	0	0	0	0	0	13	81	152	259	337	249	187	117	97	31	3	0	0	0	0	0	0	1526
8	0	0	0	0	0	0	0	6	50	136	198	322	336	244	164	112	39	3	0	0	0	0	0	0	1610
9	0	0	0	0	0	0	0	12	293 ?	335	432	577	497	450	358	206	38	0	0	0	0	0	0	0	3199
10	0	0	0	0	0	0	0	12	78	91	173	395	444	439	346	200	47	0	0	0	0	0	0	0	2223
11	0	0	0	0	0	0	0	14	46	110	181	295	415	417	293	134	38	1	0	0	0	0	0	0	1944
12	0	0	0	0	0	0	0	1	13	48	149	178	74	60	71	34	8	1	0	0	0	0	0	0	636
13	0	0	0	0	0	0	0	7	52	135	219	211	169	261	180	89	22	4	0	0	0	0	0	0	1350
14	0	0	0	0	0	0	0	11	78	235	405	406	473	282	194	107	27	3	0	0	0	0	0	0	2221
15	0	0	0	0	0	0	0	7	62	124	258	419	500	454	359	198	47	1	0	0	0	0	0	0	2429
16	0	0	0	0	0	0	0	2	10	25	34	38 ?	38 ?	36 ?	37	19 ?	7	1	0	0	0	0	0	0	247 ?
17	0	0	0	0	0	0	0	2	12	37	57	79	87	74	58	47	18	2	0	0	0	0	0	0	472
18	0	0	0	0	0	0	0	2	21	45	121	148	114	121	86	63	18	3	0	0	0	0	0	0	742
19	0	0	0	0	0	0	0	3	13	39	76	105	95	109	101	62	17	3	0	0	0	0	0	0	624
20	0	0	0	0	0	0	0	7	47	152	299	315	375	344	243	95	23	4	0	0	0	0	0	0	1902
21	0	0	0	0	0	0	0	6	39	55	70	76	123	97	88	66	17	2	0	0	0	0	0	0	639
22	0	0	0	0	0	0	0	2	10 ?	26	34	40	41	36 ?	29 ?	24 ?	6	1	0	0	0	0	0	0	250 ?
23	0	0	0	0	0	0	0	2	18	64	105	140	113	116	82	74	22	3	0	0	0	0	0	0	740
24	0	0	0	0	0	0	0	6	34	109	311	428	454	427	244	147	39	3	0	0	0	0	0	0	2204
25	0	0	0	0	0	0	0	2	11	?	32 ?	39 ?	35 ?	?	?	?	5	1	0	0	0	0	0	0	124 ?
26	0	0	0	0	0	0	0	1	3 ?	?	33 ?	35 ?	38 ?	37 ?	32	22 ?	6	1	0	0	0	0	0	0	209 ?
27	0	0	0	0	0	0	0	1	3 ?	40	50	105	126	380	382	127	43	7	0	0	0	0	0	0	1264
28	0	0	0	0	0	0	0	7	78	323 ?	479	476	496	458	362	227	69	6	0	0	0	0	0	0	2981
29	0	0	0	0	0	0	0	4	30	90	101	197	237	428	347	214	68	7	0	0	0	0	0	0	1723
30	0	0	0	0	0	0	0	2	31	136	154	263	399	428	342	199	64	2	0	0	0	0	0	0	2020
31	0	0	0	0	0	0	0	9	92	214	345	409	315	362	338	202	58	3	0	0	0	0	0	0	2346
Avg	0	0	0	0	0	0	0	6	46	114	174	221	233	234	189	108	28	3	0	0	0	0	0	0	1323
S D	0	0	0	0	0	0	0	4	53	82	125	152	164	156	123	65	19	2	0	0	0	0	0	0	858
S/A	0	0	0	0	0	0	0	0.69	1.14	0.72	0.72	0.69	0.7	0.66	0.65	0.6	0.68	0.72	0	0	0	0	0	0	0.65
Min	0	0	0	0	0	0	0	1	3	25	32	35	35	36	29	19	2	0	0	0	0	0	0	0	124
Max	0	0	0	0	0	0	0	14	293	335	479	577	500	458	382	227	69	7	0	0	0	0	0	0	3199
n	0	0	0	0	0	0	0	184	340	331	355	357	352	334	337	329	367	42	0	0	0	0	0	0	3328

Daylight Data Recovery: 0.0% missing; 0.0% untested; 6.9% exceed the 15% QC threshold -- 3574 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.

December 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	0	0	*	
2	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
3	0	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	0	*	
5	0	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	0	*	
7	0	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	0	*	
9	0	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	0	*	
11	0	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	0	*	
13	0	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	0	*	
15	0	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	0	*	
17	0	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	0	*	
19	0	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	0	*	
21	0	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	0	*	
23	0	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	0	*	
25	0	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	0	*	
27	0	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	0	*	
29	0	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	0	*	
31	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
Avg	0	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	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	0	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	0	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: 100.0% missing; 0.0% untested; 0.0% exceed the 15% QC threshold -- 3574 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

December 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	0	3	12	23	60	107	146	107	107	107	29	1	0	0	0	0	0	0	703
2	0	0	0	0	0	0	0	5	40	121	236	209	217	152	98	85	25	2	0	0	0	0	0	0	1190
3	0	0	0	0	0	0	0	7	66	144	163	171	260	169	123	66	15	2	0	0	0	0	0	0	1184
4	0	0	0	0	0	0	0	11	47	111	155	103	49	30 ?	?	?	1	0	0	0	0	0	0	0	506 ?
5	0	0	0	0	0	0	0	0	4 ?	20 ?	23	35	38	54	24	15 ?	2	0	0	0	0	0	0	0	214 ?
6	0	0	0	0	0	0	0	4	25	61	80	75	120	161	205	74	18	3	0	0	0	0	0	0	825
7	0	0	0	0	0	0	0	14	77	149	247	317	243	184	115	94	29	3	0	0	0	0	0	0	1470
8	0	0	0	0	0	0	0	5	49	134	194	310	309	239	160	103	33	2	0	0	0	0	0	0	1537
9	0	0	0	0	0	0	0	12	?	?	360 ?	340 ?	79	49	52	50	18	0	0	0	0	0	0	0	960 ?
10	0	0	0	0	0	0	0	11	75	93	173	322 ?	197	55	53	38	16	0	0	0	0	0	0	0	1034
11	0	0	0	0	0	0	0	15	45	110	185	298	193	72	78	73	33	0	0	0	0	0	0	0	1104
12	0	0	0	0	0	0	0	0	12	48	151	182	74	62	74	31	8	0	0	0	0	0	0	0	642
13	0	0	0	0	0	0	0	6	53	137	219	216	167	253	178	92	22	3	0	0	0	0	0	0	1345
14	0	0	0	0	0	0	0	12	76	192 ?	309 ?	374 ?	253	229	189	106	27	3	0	0	0	0	0	0	1769 ?
15	0	0	0	0	0	0	0	8	63	127	251	327 ?	152 ?	52	47	45	22	0	0	0	0	0	0	0	1094
16	0	0	0	0	0	0	0	2	10	25	36	39	38	34	39	16	7	1	0	0	0	0	0	0	246
17	0	0	0	0	0	0	0	1	11	38	58	82	90	76	60	48	18	2	0	0	0	0	0	0	484
18	0	0	0	0	0	0	0	2	21	47	126	155	120	128	91	66	18	2	0	0	0	0	0	0	776
19	0	0	0	0	0	0	0	2	13	40	80	111	100	114	105	65	18	3	0	0	0	0	0	0	650
20	0	0	0	0	0	0	0	6	48	152	245 ?	296	338	245	170	96	23	3	0	0	0	0	0	0	1623
21	0	0	0	0	0	0	0	5	39	56	72	80	129	102	92	69	17	2	0	0	0	0	0	0	662
22	0	0	0	0	0	0	0	2	11	27	35	41	42	34	26	21	6	1	0	0	0	0	0	0	245
23	0	0	0	0	0	0	0	1	18	66	110	145	117	121	86	77	22	2	0	0	0	0	0	0	767
24	0	0	0	0	0	0	0	7	35	113	278 ?	323 ?	228 ?	146	148	131	37	2	0	0	0	0	0	0	1448 ?
25	0	0	0	0	0	0	0	1	10	16	28	36	31	24	15 ?	14 ?	4	0	0	0	0	0	0	0	179 ?
26	0	0	0	0	0	0	0	0	2 ?	15 ?	26	29	33	30	28	18	6	0	0	0	0	0	0	0	188
27	0	0	0	0	0	0	0	0	2	28	34	67	72	106	195	93	38	7	0	0	0	0	0	0	643
28	0	0	0	0	0	0	0	7	68	?	?	?	159 ?	54	52	42	21	5	0	0	0	0	0	0	409 ?
29	0	0	0	0	0	0	0	4	31	93	106	205	243	119	79	55	29	6	0	0	0	0	0	0	971
30	0	0	0	0	0	0	0	2	31	138	160	249	208	62	52	40	20	1	0	0	0	0	0	0	961
31	0	0	0	0	0	0	0	8	81	188 ?	308 ?	373 ?	278	148	65	58	27	2	0	0	0	0	0	0	1535 ?
Avg	0	0	0	0	0	0	0	5	36	87	150	187	152	110	94	63	20	2	0	0	0	0	0	0	883
S D	0	0	0	0	0	0	0	4	25	55	98	117	89	69	55	32	10	2	0	0	0	0	0	0	463
S/A	0	0	0	0	0	0	0	0.82	0.71	0.63	0.65	0.62	0.58	0.62	0.59	0.5	0.52	0.95	0	0	0	0	0	0	0.52
Min	0	0	0	0	0	0	0	0	2	15	23	29	31	24	15	14	1	0	0	0	0	0	0	0	179
Max	0	0	0	0	0	0	0	15	81	192	360	374	338	253	205	131	38	7	0	0	0	0	0	0	1769
n	0	0	0	0	0	0	0	172	348	328	325	314	357	364	349	349	369	42	0	0	0	0	0	0	3318

Daylight Data Recovery: 0.0% missing; 0.0% untested; 7.2% exceed the 15% QC threshold -- 3574 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.