

November 2007

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	3	82	159	117	142	190	145	145	60	66	21	4	0	0	0	0	0	0	1133
2	0	0	0	0	0	0	5	32	208	319	545	614	616	558	439	282	105	10	0	0	0	0	0	0	3734
3	0	0	0	0	0	0	3	87 ?	309 ?	430	538	600	608	550	435	278	99	10	0	0	0	0	0	0	3946
4	0	0	0	0	0	0	3	62	218	380	506	552	586	375	409	235	86	10	0	0	0	0	0	0	3421
5	0	0	0	0	0	0	4	60	221	386	501	576	571	516	399	210	80	16	0	0	0	0	0	0	3541
6	0	0	0	0	0	0	4	36	181	376	483	567	528	519	399	268	80	10	0	0	0	0	0	0	3451
7	0	0	0	0	0	0	3	24	130	198	184	229	281	403	226	157	40	5	0	0	0	0	0	0	1881
8	0	0	0	0	0	0	2	26	209	283	396	360	609	399	381	219	71	10	0	0	0	0	0	0	2966
9	0	0	0	0	0	0	0	17	146	232	268	79 ?	104	149	192 ?	?	17 ?	2	0	0	0	0	0	0	1204 ?
10	0	0	0	0	0	0	0	11	?	?	?	?	491 ?	328	163	124	15 ?	3	0	0	0	0	0	0	1135 ?
11	0	0	0	0	0	0	0	74	268	355	474	540	384	380	337	251	92	10	0	0	0	0	0	0	3164
12	0	0	0	0	0	0	0	21	53	145	256	230	385	407	352	206	51	6	0	0	0	0	0	0	2112
13	0	0	0	0	0	0	0	6	51	54 ?	92	138	88	?	89 ?	60	30	4	0	0	0	0	0	0	613 ?
14	0	0	0	0	0	0	0	19	67	107	185	131	242	?	130	36 ?	50	4	0	0	0	0	0	0	971 ?
15	0	0	0	0	0	0	0	19	79	99	55	94	85	55 ?	65	47	18	5	0	0	0	0	0	0	622
16	0	0	0	0	0	0	0	26	88	187	325	559	544	486	390	225	60	3	0	0	0	0	0	0	2893
17	0	0	0	0	0	0	0	20	180	309	354	448	364	338	211	154	37	6	0	0	0	0	0	0	2420
18	0	0	0	0	0	0	0	34	166	304	440	511	516	477	342	152	56	2	0	0	0	0	0	0	3001
19	0	0	0	0	0	0	0	15	153	307	341	118	174	216	112	104	14	2	0	0	0	0	0	0	1556
20	0	0	0	0	0	0	0	32	89	186	301	311	446	353	357	204	61	2	0	0	0	0	0	0	2342
21	0	0	0	0	0	0	0	32	150	290	356	394	492	442	355	207	71	8	0	0	0	0	0	0	2797
22	0	0	0	0	0	0	0	20	70	64	49	64	67	45	36 ?	?	25	6	0	0	0	0	0	0	445 ?
23	0	0	0	0	0	0	0	3	21 ?	54	64	190	280	133	129	68	23	2	0	0	0	0	0	0	968
24	0	0	0	0	0	0	0	35	176	309	438	487 ?	486 ?	421 ?	340	181	27	2	0	0	0	0	0	0	2903 ?
25	0	0	0	0	0	0	0	7	39	114	221	235	238	267	183	120	37	2	0	0	0	0	0	0	1464
26	0	0	0	0	0	0	0	4	20	61	94	101	138	144	47	50	16	2	0	0	0	0	0	0	676
27	0	0	0	0	0	0	0	1	10 ?	108	157	393	511	429	355	208	59	2	0	0	0	0	0	0	2233
28	0	0	0	0	0	0	0	32	235	329	420	500	509	459	340	174	57	0	0	0	0	0	0	0	3056
29	0	0	0	0	0	0	0	10	32	134	163	170	269	257	331	206	56	1	0	0	0	0	0	0	1629
30	0	0	0	0	0	0	0	21	142	297	418	477	497	452	352	206	53	0	0	0	0	0	0	0	2914
Avg	0	0	0	0	0	0	1	29	134	225	302	340	375	346	265	168	50	5	0	0	0	0	0	0	2173
S D	0	0	0	0	0	0	2	23	81	118	159	189	183	151	133	74	27	4	0	0	0	0	0	0	1069
S/A	0	0	0	0	0	0	1.78	0.79	0.61	0.52	0.53	0.56	0.49	0.43	0.5	0.44	0.53	0.78	0	0	0	0	0	0	0.49
Min	0	0	0	0	0	0	0	1	10	54	49	64	67	45	36	36	14	0	0	0	0	0	0	0	445
Max	0	0	0	0	0	0	5	87	309	430	545	614	616	558	439	282	105	16	0	0	0	0	0	0	3946
n	0	0	0	0	0	0	14	320	334	338	344	339	342	325	339	329	352	69	0	0	0	0	0	0	3446

Daylight Data Recovery: 0.0% missing; 0.0% untested; 5.6% exceed the 15% QC threshold -- 3649 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.

November 2007

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	*
2	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	*
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	*	*	*	*	*	?	76 ?	28 ?	62 ?	?	810 ?	895	0	0	0	0	0	0	1873 *?
10	0	0	0	0	0	0	0	606	?	?	?	?	323 ?	84 ?	?	100 ?	461 ?	325	0	0	0	0	0	0	1898 ?
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	?	?	?	?	?	50 ?	614 ?	517 ?	?	?	?	0	0	0	0	0	0	1181 ?
14	0	0	0	0	0	0	0	*	*	*	*	?	?	?	112 ?	?	?	*	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	*	*	*	?	*	*	*	610 *?	*	*	*	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	?	?	303	794 ?	807 ?	312 ?	?	583	45 ?	?	?	0	0	0	0	0	0	2843 ?
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	?	?	?	?	?	?	66 ?	?	?	?	?	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	*
Avg	0	0	0	0	0	0	0	606	N/A	303	794	807	190	198	377	72	636	610	0	0	0	0	0	0	1974 *?
S/D	0	0	0	0	0	0	0	0	0	0	0	147	278	267	39	247	403	0	0	0	0	0	0	0	834
S/A	0	0	0	0	0	0	0	0	0	0	0	0.77	1.4	0.71	0.54	0.39	0.66	0	0	0	0	0	0	0	0.42
Min	0	0	0	0	0	0	0	606	N/A	303	794	807	50	28	62	45	461	325	0	0	0	0	0	0	1181
Max	0	0	0	0	0	0	0	606	N/A	303	794	807	323	614	610	100	810	895	0	0	0	0	0	0	2843
n	0	0	0	0	0	0	0	12	0	10	8	7	16	15	26	7	16	6	0	0	0	0	0	0	92

Daylight Data Recovery: 71.5% missing; 0.0% untested; 25.0% exceed the 15% QC threshold -- 3649 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

November 2007

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	2	36 ?	160	119	146	195	149	149	59	67	21	4	0	0	0	0	0	0	1108
2	0	0	0	0	0	0	5 ?	30	157 ?	388 ?	?	?	?	?	?	?	97	10	0	0	0	0	0	0	687 ?
3	0	0	0	0	0	0	2	12 ?	?	?	?	?	?	?	?	?	98	10	0	0	0	0	0	0	122 ?
4	0	0	0	0	0	0	3 ?	45 ?	?	?	?	?	?	278 ?	370 ?	200 ?	90	9	0	0	0	0	0	0	995 ?
5	0	0	0	0	0	0	5 ?	66	?	?	?	?	?	?	?	164 ?	63 ?	15	0	0	0	0	0	0	312 ?
6	0	0	0	0	0	0	3	35	162 ?	301 ?	387 ?	458 ?	432 ?	366 ?	256 ?	207 ?	75	10	0	0	0	0	0	0	2691 ?
7	0	0	0	0	0	0	2	24	128	194	188	234	280	282 ?	191	142	41	4	0	0	0	0	0	0	1709
8	0	0	0	0	0	0	1	25	134 ?	259	365 ?	351	?	309 ?	342 ?	207 ?	70	9	0	0	0	0	0	0	2072 ?
9	0	0	0	0	0	0	0	17	111 ?	161 ?	135 ?	77	107	153	177 ?	90	25	1	0	0	0	0	0	0	1055 ?
10	0	0	0	0	0	0	0	10	54	140	168	134	275 ?	321	165	127 ?	20	2	0	0	0	0	0	0	1418 ?
11	0	0	0	0	0	0	0	10 ?	?	?	?	?	291 ?	339 ?	302 ?	?	80	9	0	0	0	0	0	0	1031 ?
12	0	0	0	0	0	0	0	20	54	145	238	229	254 ?	276 ?	230 ?	173 ?	50	4	0	0	0	0	0	0	1674 ?
13	0	0	0	0	0	0	0	5	52	44	93	140	84	41	68	62	30	3	0	0	0	0	0	0	622
14	0	0	0	0	0	0	0	17	65	108	186	135	233	142	109	29	38	4	0	0	0	0	0	0	1066
15	0	0	0	0	0	0	0	19	78	86	55	95	86	46	67	47	18	4	0	0	0	0	0	0	602
16	0	0	0	0	0	0	0	25	86	184	241 ?	?	?	?	?	175 ?	63	4	0	0	0	0	0	0	776 ?
17	0	0	0	0	0	0	0	19	141 ?	300 ?	302 ?	375 ?	333	318	196	153	36	5	0	0	0	0	0	0	2179 ?
18	0	0	0	0	0	0	0	37	143 ?	?	?	?	?	?	266 ?	155	54	2	0	0	0	0	0	0	657 ?
19	0	0	0	0	0	0	0	15	113 ?	?	252 ?	118	176	218	117	91	14	2	0	0	0	0	0	0	1117 ?
20	0	0	0	0	0	0	0	30	88	181	282	296	379 ?	318 ?	?	186 ?	65	2	0	0	0	0	0	0	1827 ?
21	0	0	0	0	0	0	0	35	137 ?	274 ?	298 ?	337 ?	364 ?	?	?	156 ?	72	8	0	0	0	0	0	0	1682 ?
22	0	0	0	0	0	0	0	22	69	67	50	65	67	45	26	14	23	5	0	0	0	0	0	0	453
23	0	0	0	0	0	0	0	2	18	50	65	190	247	136	129	68	22	1	0	0	0	0	0	0	928
24	0	0	0	0	0	0	0	42	?	?	?	378 ?	413 ?	360 ?	291 ?	171 ?	26	1	0	0	0	0	0	0	1683 ?
25	0	0	0	0	0	0	0	7	39	113	198	231	233	255	177	120	35	2	0	0	0	0	0	0	1411
26	0	0	0	0	0	0	0	3	19	59	92	99	135	143	48	50	16	2	0	0	0	0	0	0	665
27	0	0	0	0	0	0	0	0	10 ?	106	157	300 ?	372 ?	?	?	155 ?	64	2	0	0	0	0	0	0	1167 ?
28	0	0	0	0	0	0	0	15 ?	?	?	?	?	?	?	?	154 ?	56	0	0	0	0	0	0	0	225 ?
29	0	0	0	0	0	0	0	10	32	120	161	171	239	218	?	153 ?	61	1	0	0	0	0	0	0	1164 ?
30	0	0	0	0	0	0	0	20	102 ?	?	?	?	?	?	?	150 ?	57	0	0	0	0	0	0	0	329 ?
Avg	0	0	0	0	0	0	1	22	90	162	193	219	245	224	179	128	49	5	0	0	0	0	0	0	1114 ?
S D	0	0	0	0	0	0	1	15	49	94	98	114	112	106	102	57	25	4	0	0	0	0	0	0	624
S/A	0	0	0	0	0	0	1.93	0.67	0.54	0.58	0.5	0.52	0.46	0.47	0.57	0.44	0.51	0.83	0	0	0	0	0	0	0.56
Min	0	0	0	0	0	0	0	0	10	44	50	65	67	41	26	14	14	0	0	0	0	0	0	0	122
Max	0	0	0	0	0	0	5	66	162	388	387	458	432	366	370	207	98	15	0	0	0	0	0	0	2691
n	0	0	0	0	0	0	11	295	236	209	207	215	184	199	171	230	348	69	0	0	0	0	0	0	2385

Daylight Data Recovery: 0.0% missing; 0.0% untested; 34.6% exceed the 15% QC threshold -- 3649 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.