

February 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	17	158	391	415	543	571	516	464	301	115	29	0	0	0	0	0	0	3521
2	0	0	0	0	0	0	0	8	28	32	44	70	97	92	82	75	40	7	0	0	0	0	0	0	575
3	0	0	0	0	0	0	0	4	18	46	81	107	130	169	146	111	50	11	0	0	0	0	0	0	873
4	0	0	0	0	0	0	0	14	77	176	306	318	323	274	181	114	56	15	0	0	0	0	0	0	1853
5	0	0	0	0	0	0	0	3	19	39	75	84	115	113	106	45	40	12	0	0	0	0	0	0	652
6	0	0	0	0	0	0	0	8	49	81	184	180	163	120	50	51	16 ?	4	0	0	0	0	0	0	907
7	0	0	0	0	0	0	0	5	21	65	113	149	160	188	148	150	88	19	0	0	0	0	0	0	1107
8	0	0	0	0	0	0	0	11	45 ?	161 ?	188	278	374	527	483	201	96	20	0	0	0	0	0	0	2386 ?
9	0	0	0	0	0	0	0	2	17 ?	45	57	178	199	278	169	108	43	5	0	0	0	0	0	0	1101
10	0	0	0	0	0	0	0	20	72	149	208	206	223	230	185	108	51	14	0	0	0	0	0	0	1466
11	0	0	0	0	0	0	0	5	25	61	113	171	194	160	120	84	43	8	0	0	0	0	0	0	985
12	0	0	0	0	0	0	0	13	61	200	358	460	423	346 ?	226	210	81	15	0	0	0	0	0	0	2392
13	0	0	0	0	0	0	0	14	121	246	244	318	562	371	279	279	117	30	0	0	0	0	0	0	2579
14	0	0	0	0	0	0	0	28	101	247	512	622	660	633	543	409	224	31	0	0	0	0	0	0	4010
15	0	0	0	0	0	0	0	17	55	57	97	137	435	421	415	264	145	32	0	0	0	0	0	0	2075
16	0	0	0	0	0	0	0	12	75	213	270	261	276	219	227	189	78	22	0	0	0	0	0	0	1843
17	0	0	0	0	0	0	0	7	39	99	130	159	161	168	199	103	51	19	3	0	0	0	0	0	1137
18	0	0	0	0	0	0	0	7	30	88	114	177	234	225	184	139	86	28	3	0	0	0	0	0	1316
19	0	0	0	0	0	0	0	12	69	267	532	653 ?	680	654	563	419	240	67	2	0	0	0	0	0	4157
20	0	0	0	0	0	0	0	58	248	406	523 ?	650 ?	672	630	508 ?	419	208	63	2	0	0	0	0	0	4387
21	0	0	0	0	0	0	0	37	119 ?	371	506	576	614	566	517 ?	375 ?	?	46 ?	0	0	0	0	0	0	3728 ?
22	0	0	0	0	0	0	0	11	?	?	?	111 ?	204 ?	198 ?	226	140	79	26	4	0	0	0	0	0	1001 ?
23	0	0	0	0	0	0	0	4	32 ?	39 ?	59	74	109	73 ?	74	68	30 ?	5	0	0	0	0	0	0	565 ?
24	0	0	0	0	0	0	0	17	52	61	72	115 ?	85 ?	?	?	133 ?	73	35	5	0	0	0	0	0	648 ?
25	0	0	0	0	0	0	0	30	133	292 ?	384	351 ?	396 ?	373	332	147 ?	107	37	6	0	0	0	0	0	2589 ?
26	0	0	0	0	0	0	0	13	81	143	209	232	262	242	193	207	125	48	8	0	0	0	0	0	1763
27	0	0	0	0	0	0	0	24	37	65	87	105	122	125	140	96	42	15	2	0	0	0	0	0	859
28	0	0	0	0	0	0	2	11	37	66	97	114 ?	142	190 ?	140	66 ?	29	9	1	0	0	0	0	0	903 ?

Avg	0	0	0	0	0	0	0	15	67	152	221	264	307	300	256	179	87	24	1	0	0	0	0	0	0	1835
S D	0	0	0	0	0	0	0	12	53	116	163	188	197	180	160	115	59	17	2	0	0	0	0	0	0	1184
S/A	0	0	0	0	0	0	5.29	0.81	0.78	0.76	0.73	0.71	0.64	0.6	0.63	0.64	0.68	0.69	1.65	0	0	0	0	0	0	0.65
Min	0	0	0	0	0	0	0	2	17	32	44	70	85	73	50	45	16	4	0	0	0	0	0	0	0	565
Max	0	0	0	0	0	0	2	58	248	406	532	653	680	654	563	419	240	67	8	0	0	0	0	0	0	4387
n	0	0	0	0	0	0	1	264	297	299	318	298	315	303	313	308	307	309	21	0	0	0	0	0	0	3355

Daylight Data Recovery: 0.0% missing; 0.0% untested; 7.5% exceed the 15% QC threshold -- 3626 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.

February 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	*	*	*	*	*	*	*	?	*	*	84 ?	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	444	629 ?	181 ?	*	*	*	*	*	*	*	*	0	0	0	0	0	0	1255 *?
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	*
18	0	0	0	0	0	0	0	*	*	*	*	*	*	?	*	*	*	?	?	0	0	0	0	0	*
19	0	0	0	0	0	0	0	*	*	*	793 *?	615 ?	676 ?	?	?	?	?	?	?	0	0	0	0	0	?
20	0	0	0	0	0	0	0	*	*	?	593 ?	823 ?	730 ?	?	?	?	?	*	*	0	0	0	0	0	2145 *?
21	0	0	0	0	0	0	0	170 ?	781 ?	?	*	*	*	792 ?	462 ?	106 ?	?	644 ?	573	0	0	0	0	0	3528 *?
22	0	0	0	0	0	0	0	293	?	?	?	?	?	?	?	?	*	982 ?	1008 ?	0	0	0	0	0	2284 ?
23	0	0	0	0	0	0	0	*	?	?	?	?	39 ?	?	?	?	?	?	?	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	*	90 ?	?	?	?	?	651 ?	?	?	?	*	?	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	?

Avg	0	0	0	0	0	0	0	303	500	181	693	719	482	722	462	106	N/A	570	88	0	0	0	0	0	2284 *?
S D	0	0	0	0	0	0	0	137	363	0	141	147	385	99	0	0	0	454	266	0	0	0	0	0	0
S/A	0	0	0	0	0	0	0	0.45	0.73	0	0.2	0.2	0.8	0.14	0	0	0	0.8	3.03	0	0	0	0	0	0
Min	0	0	0	0	0	0	0	170	90	181	593	615	39	651	462	106	N/A	84	0	0	0	0	0	0	2284
Max	0	0	0	0	0	0	0	444	781	181	793	823	730	792	462	106	N/A	982	1008	0	0	0	0	0	2284
n	0	0	0	0	0	0	0	21	10	2	4	9	11	8	8	5	0	11	2	0	0	0	0	0	14

Daylight Data Recovery: 68.5% missing; 0.0% untested; 28.8% exceed the 15% QC threshold -- 3626 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

February 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	16	51	99	122	118	129	147	66	83	104	29	0	0	0	0	0	0	964
2	0	0	0	0	0	0	0	8	29	33	46	73	103	100	88	81	43	7	0	0	0	0	0	0	612
3	0	0	0	0	0	0	0	4	19	49	87	116	140	182	157	121	53	11	0	0	0	0	0	0	938
4	0	0	0	0	0	0	0	14	80	175	272	315	329	288	195	123	60	16	0	0	0	0	0	0	1868
5	0	0	0	0	0	0	0	3	20	42	82	92	126	124	115	49	43	13	0	0	0	0	0	0	708
6	0	0	0	0	0	0	0	9	52	87	189	170	134	97	38	42	13 ?	2	0	0	0	0	0	0	834
7	0	0	0	0	0	0	0	4	17	52	91	121	129	152	121	122	73	16	0	0	0	0	0	0	897
8	0	0	0	0	0	0	0	8	38	79	124	180	209	195	180	147	87	17	0	0	0	0	0	0	1265
9	0	0	0	0	0	0	0	1	14 ?	38	49	194	214	298	182	116	45	5	0	0	0	0	0	0	1154
10	0	0	0	0	0	0	0	20	77	159	224	223	242	250	202	118	54	14	0	0	0	0	0	0	1583
11	0	0	0	0	0	0	0	5	26	66	123	186	211	174	131	92	47	9	0	0	0	0	0	0	1070
12	0	0	0	0	0	0	0	15	66	205	285	324	398	342	247	226	88	16	0	0	0	0	0	0	2213
13	0	0	0	0	0	0	0	14	104	192	242	336	448	329	291	230 ?	124	31	0	0	0	0	0	0	2342
14	0	0	0	0	0	0	0	32	106	213	158	101	97	276	?	?	192 ?	31	0	0	0	0	0	0	1206 ?
15	0	0	0	0	0	0	0	17	59	56	90	122	376	405 ?	343	286	142	32	0	0	0	0	0	0	1930
16	0	0	0	0	0	0	0	14	81	214	279	284	301	239	248	206	84	23	0	0	0	0	0	0	1971
17	0	0	0	0	0	0	0	7	42	108	142	174	177	184	216	113	56	21	2	0	0	0	0	0	1241
18	0	0	0	0	0	0	0	7	32	96	125	195	257	247	202	152	94	29	3	0	0	0	0	0	1440
19	0	0	0	0	0	0	0	12	74	210	170	408 ?	?	?	?	?	203 ?	71	1	0	0	0	0	0	1151 ?
20	0	0	0	0	0	0	0	37	99	107	123 ?	?	?	?	345 ?	?	210 ?	68	1	0	0	0	0	0	991 ?
21	0	0	0	0	0	0	0	40	112	108	287	559 ?	?	?	?	394 ?	?	48 ?	0	0	0	0	0	0	1549 ?
22	0	0	0	0	0	0	0	12	36	97	148	118	203	218	245	150	87	29	3	0	0	0	0	0	1345
23	0	0	0	0	0	0	0	3	21 ?	32	60	82	119	66	78	73	27	6	0	0	0	0	0	0	566
24	0	0	0	0	0	0	0	19	56	66	78	123	78	110	72	191	88	37	4	0	0	0	0	0	923
25	0	0	0	0	0	0	0	32	130	232	341 ?	379	397	346 ?	322	191	117	40	5	0	0	0	0	0	2532
26	0	0	0	0	0	0	0	14	89	158	231	257	290	268	214	228	136	52	8	0	0	0	0	0	1944
27	0	0	0	0	0	0	0	26	40	72	96	116	135	139	155	106	45	16	2	0	0	0	0	0	949
28	0	0	0	0	0	0	?	11	41	73	108	130	159	218	156	80	32	10	1	0	0	0	0	0	1021

Avg	0	0	0	0	0	0	0	14	58	111	156	204	216	216	184	149	87	25	1	0	0	0	0	0	1329
S D	0	0	0	0	0	0	0	10	33	64	83	119	107	89	86	81	53	18	2	0	0	0	0	0	534
S/A	0	0	0	0	0	0	0	0.72	0.57	0.58	0.53	0.58	0.5	0.41	0.47	0.54	0.61	0.73	1.78	0	0	0	0	0	0.4
Min	0	0	0	0	0	0	0	1	14	32	46	73	78	66	38	42	13	2	0	0	0	0	0	0	566
Max	0	0	0	0	0	0	0	40	130	232	341	559	448	405	345	394	210	71	8	0	0	0	0	0	2532
n	0	0	0	0	0	0	0	254	326	332	328	308	300	291	289	286	300	313	21	0	0	0	0	0	3350

Daylight Data Recovery: 0.0% missing; 0.0% untested; 7.6% exceed the 15% QC threshold -- 3626 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.