

**May 2008**

**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	15	112	278	508	686	698	561	800	709	558	392	189	114	31	1	0	0	0	0	5653
2	0	0	0	0	0	12	60	296	507	697	820	917	938	882	737	587	304	121	35	0	0	0	0	0	6914
3	0	0	0	0	0	15	78	153	337	455	645	332	384	159	93	102 ?	101 ?	111	81	6	0	0	0	0	3052
4	0	0	0	0	0	11	34	130	218	488	828	948	971	866	767	635	455	273	66	5	0	0	0	0	6695
5	0	0	0	0	0	22	127	317	511	691	840	588	618	783	776	538	433	261	65	5	0	0	0	0	6574
6	0	0	0	0	0	22	136	320	510	666	667	498	649	757	567	410	358	231	54	3	0	0	0	0	5849
7	0	0	0	0	0	19	133	316	546	711	865	800	744	863	726	276	65	50	67	13	0	0	0	0	6194
8	0	0	0	0	0	9	32	65	160	199	313	520	464	623	478	218	103 ?	34 ?	17	1	0	0	0	0	3236
9	0	0	0	0	0	4	16 ?	40	69	102	216	291	457	344	268	181	248	160	53	1	0	0	0	0	2450
10	0	0	0	0	0	5	46	218	295	543	809	969	974	910	782	580	458	276	71	5	0	0	0	0	6940
11	0	0	0	0	0	1	22	76	111	279	364	279 ?	393 ?	689	273	539	107	43	22	4	0	0	0	0	3201
12	0	0	0	0	0	3	12 ?	?	48 ?	77	80	79	73	64 ?	62 ?	109 ?	71	48	16	5	0	0	0	0	747 ?
13	0	0	0	0	0	27	154	356	559	740	871	948	968	921	807	665	466	273	71	4	0	0	0	0	7830
14	0	0	0	0	0	19	61	183	377	447	564	527	392	475	178	90	51	46	17	1	0	0	0	0	3428
15	0	0	0	0	0	4	27	78	153	228	286	283	155	161	88	67	53 ?	46	17	3	0	0	0	0	1650
16	0	0	0	0	0	3	44	175	95 ?	265	155	192	263	125	71 ?	?	49 ?	33	17	2	0	0	0	0	1490 ?
17	0	0	0	0	0	10	60	287	517	516	762	952	975	838	673	341	293	143	78	11	0	0	0	0	6458
18	0	0	0	0	0	6	23 ?	217	100	189	?	136	219	478	505 ?	94	191	260	94	9	0	0	0	0	2521 ?
19	0	0	0	0	0	34	164	366	587	682	825	852	969	891	804	470	192	54	5 ?	2	0	0	0	0	6897
20	0	0	0	0	0	20	126	217	293	378	396	232	458	473	416	483	336	118	28	11	0	0	0	0	3984
21	0	0	0	0	0	10	64	206	528	709	684	781	717	645	519	530	274	204	40	8	0	0	0	0	5920
22	0	0	0	0	0	38	110	366	567	760	893	971	996	945	845	683	501	243	102	7	0	0	0	0	8028
23	0	0	0	0	0	8	26	87	156	277	407	468	432	324	432	591	374	107	33	3	0	0	0	0	3725
24	0	0	0	0	0	41	184	346	579	755	914	978	995	940	842	690	508	311	96	5	0	0	0	0	8184
25	0	0	0	0	0	38	161	343	571	753	888	963	979	937	840	687	493	297	94	9	0	0	0	0	8052
26	0	0	0	0	0	37	190	323	537	527	769	736	720	385	325	555	453	254	81	9	0	0	0	0	5901
27	0	0	0	0	0	14	93	126	149	268	255	387	450	214	215	172	128	150	42	19	0	0	0	0	2682
28	0	0	0	0	0	6	19 ?	60	92	134	139	261	311	93	121 ?	131	90	48	18	2	0	0	0	0	1524
29	0	0	0	0	0	44	141	240	487	446	743	656	850	825	706	679	532	318	104	5	0	0	0	0	6777
30	0	0	0	0	0	37	145	331	513	607	721	752	776	780	771	697	501	295	78	26	0	0	0	0	7030
31	0	0	0	0	0	22	95	207	331	487	482	428	448	372	445	464	384	206	94	17	0	0	0	0	4483
Avg	0	0	0	0	0	18	87	224	355	476	597	590	630	596	506	422	283	165	54	6	0	0	0	0	4970
S/D	0	0	0	0	0	13	56	106	194	222	266	294	289	298	272	221	170	100	31	6	0	0	0	0	2265
S/A	0	0	0	0	0	0.73	0.64	0.47	0.55	0.47	0.45	0.5	0.46	0.5	0.54	0.52	0.6	0.6	0.57	0.91	0	0	0	0	0.46
Min	0	0	0	0	0	1	12	40	48	77	80	79	73	64	62	67	49	33	5	0	0	0	0	0	747
Max	0	0	0	0	0	44	190	366	587	760	914	978	996	945	845	697	532	318	104	26	0	0	0	0	8184
n	0	0	0	0	0	279	345	356	363	370	360	365	366	361	346	345	342	360	364	147	0	0	0	0	5070

Daylight Data Recovery: 0.0% missing; 0.0% untested; 3.6% exceed the 15% QC threshold -- 5262 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.

**May 2008**

**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	79 *	95 *	*	*	*	*	*	*	*	*	*	*	*	*	*	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	761 ?	?	741 ?	840 *?	*	*	*	*	*	*	*	*	*	*	*	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	420	95	741	840	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	N/A *
SD	0	0	0	0	0	483	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	1.15	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	79	95	741	840	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	N/A
Max	0	0	0	0	0	761	95	741	840	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	N/A
n	0	0	0	0	0	10	7	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daylight Data Recovery: 97.5% missing; 0.0% untested; 2.0% exceed the 15% QC threshold -- 5262 total daylight measurements.

Instrument: Eppley NIP    Serial Number: 17664E6    Calibration Factor: 8.480 μV/W/m<sup>2</sup>    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**

**May 2008**

**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	13	59	116	125	167	339	454	392	381	434	347	200	112	33	1	0	0	0	0	3173
2	0	0	0	0	0	12	55	133	137	145	197	166	166	181	220	233	191	128	37	0	0	0	0	0	2002
3	0	0	0	0	0	16	78	159	202	282	430	314	370	165	99	103	95	118	60	6	0	0	0	0	2496
4	0	0	0	0	0	11	34	136	228	359	267	138	134	212	223	176	154	199	52	5	0	0	0	0	2329
5	0	0	0	0	0	24	64	101	134	138	173	298	361	263	205	175	185	240	59	5	0	0	0	0	2424
6	0	0	0	0	0	18	68	97	134	186	231	351	377	409	327	290	284	235	56	3	0	0	0	0	3068
7	0	0	0	0	0	17	65	95	204	131	169	485	358	187	310	285	63	53	71	13	0	0	0	0	2507
8	0	0	0	0	0	9	33	69	167	208	324	461	453	435	394	224	108 ?	24	17	1	0	0	0	0	2926
9	0	0	0	0	0	4	16	40	73	109	230	289	417	345	276	190	258	171	57	1	0	0	0	0	2474
10	0	0	0	0	0	4	45	187	244	270	187	137	142	158	166	359	?	?	82	5	0	0	0	0	1985 ?
11	0	0	0	0	0	1	21	74	116	280	365	224 ?	247 ?	325	282	407 ?	107	45	23	3	0	0	0	0	2520
12	0	0	0	0	0	2	12	22	47	81	85	84	78	59	60	79	66	44	16	5	0	0	0	0	740
13	0	0	0	0	0	21	63	77	91	111	120	130	141	137	260	?	?	220 ?	84	4	0	0	0	0	1459 ?
14	0	0	0	0	0	17	65	180	323	402	451	477	398	454	192	87	53	50	18	1	0	0	0	0	3167
15	0	0	0	0	0	4	28	83	161	241	302	297	155	172	93	66	45	48	17	2	0	0	0	0	1716
16	0	0	0	0	0	2	46	141	80	273	164	203	274	133	60 ?	34 ?	40	34	17	1	0	0	0	0	1503
17	0	0	0	0	0	9	61	149	158	277	206	142	145	231	507 ?	375	242 ?	155	76	11	0	0	0	0	2745
18	0	0	0	0	0	6	16 ?	138	101	172	56 ?	145	233	416	306 ?	88	161	246 ?	78 ?	9	0	0	0	0	2171 ?
19	0	0	0	0	0	23	57	73	90	191	241	250	172	367	?	439 ?	204	57	6 ?	1	0	0	0	0	2173 ?
20	0	0	0	0	0	24	98	192	240	294	355	244	343	418	402	446 ?	323	127	29	11	0	0	0	0	3547
21	0	0	0	0	0	9	65	167	195	163	267	315	292	448	469 ?	501 ?	244	182	43	7	0	0	0	0	3367
22	0	0	0	0	0	30	85	78	84	94	99	102	112	424 ?	?	?	?	238 ?	51 ?	8	0	0	0	0	1404 ?
23	0	0	0	0	0	8	27	95	163	283	421	480	445	344	456	508 ?	331 ?	113	35	2	0	0	0	0	3711
24	0	0	0	0	0	26	52	64	74	81	168	98	165	641 ?	?	?	?	?	78 ?	5	0	0	0	0	1453 ?
25	0	0	0	0	0	23	54	65	82	86	89	96	217	?	?	?	?	223 ?	69 ?	9	0	0	0	0	1013 ?
26	0	0	0	0	0	30	97	129	156	334	349	429	459	369	345	539 ?	435 ?	272	90	10	0	0	0	0	4043 ?
27	0	0	0	0	0	16	95	134	153	284	270	388	451	232	224	178	135	146	43	19	0	0	0	0	2768
28	0	0	0	0	0	6	18 ?	63	97	142	147	280	327	89	82 ?	138	96	51	18	2	0	0	0	0	1554
29	0	0	0	0	0	38	102	201	251	377	273	409	534 ?	712 ?	524 ?	?	?	?	89 ?	5	0	0	0	0	3518 ?
30	0	0	0	0	0	32	78	126	151	270	268	302	526 ?	496 ?	400 ?	?	?	186 ?	85	27	0	0	0	0	2946 ?
31	0	0	0	0	0	22	99	190	296	359	432	433	449	364	452	407 ?	380 ?	210	102	18	0	0	0	0	4213
Avg	0	0	0	0	0	15	57	115	153	219	248	278	301	319	288	267	183	140	51	6	0	0	0	0	2488
S D	0	0	0	0	0	10	27	48	69	96	110	133	135	157	141	156	111	79	28	6	0	0	0	0	882
S/A	0	0	0	0	0	0.65	0.48	0.42	0.45	0.44	0.44	0.48	0.45	0.49	0.49	0.59	0.6	0.56	0.54	0.96	0	0	0	0	0.35
Min	0	0	0	0	0	1	12	22	47	81	56	84	78	59	60	34	40	24	6	0	0	0	0	0	740
Max	0	0	0	0	0	38	102	201	323	402	451	485	534	712	524	539	435	272	102	27	0	0	0	0	4213
n	0	0	0	0	0	267	366	372	372	372	365	368	361	326	287	255	252	289	350	147	0	0	0	0	4754

Daylight Data Recovery: 0.0% missing; 0.0% untested; 9.7% exceed the 15% QC threshold -- 5262 total daylight measurements.

Instrument: Eppley PSP Serial Number: 17860F3 Calibration Factor: 7.010 μV/W/m<sup>2</sup> 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.