

May 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	0	0	0	*
2	0	0	0	0	0	*	*	*	*	*	*	*	*	744	332	156 ?	108	42	15	1	0	0	0	0	1398 *
3	0	0	0	0	0	1	10 ?	38	57 ?	?	77 ?	98 ?	95	98 ?	85	59 ?	71	57	9	0	0	0	0	0	755 ?
4	0	0	0	0	0	11	93	303	350	405	394	206	192	99	141	214	149	57	16	3	0	0	0	0	2635
5	0	0	0	0	0	12	89	88	87	73 ?	182	270	191	168	212	294	142	113	11 ?	2	0	0	0	0	1934
6	0	0	0	0	0	12	106	174	211	369	624	911	989	910	810	683	500	285	64	2	0	0	0	0	6651
7	0	0	0	0	0	23	142	344	561	748	878	961	990	942	836	682	493	285	71	6	0	0	0	0	7962
8	0	0	0	0	0	22	157	369	576	758	888	968	986	931	825	667	458	267	68	6	0	0	0	0	7946
9	0	0	0	0	0	13	61	365	591	709	628	842	675	809	551	512	413	272	69	6	0	0	0	0	6516
10	0	0	0	0	0	20	145	335	528	706	868	728	684	972	783	457	219	287	90	8	0	0	0	0	6829
11	0	0	0	0	0	22	132	317	501	698	798	734	750	454	554	94	154	165	56	8	0	0	0	0	5438
12	0	0	0	0	0	30	77	156	361	285	260	247	751	833	749	459	134	199	68	5	0	0	0	0	4613
13	0	0	0	0	0	18	150	350	558	735	871	952	980	924	807	621	386	266	71	4	0	0	0	0	7693
14	0	0	0	0	0	27	161	337	534	716	846	949	935	907	825	644	466	267	71	7	0	0	0	0	7692
15	0	0	0	0	0	25	138	315	514	600	619	650	687	854	666	577	425	200	70	7	0	0	0	0	6346
16	0	0	0	0	0	21	142	319	203	385	327	207	277	115 ?	78 ?	93	193	212	73	12	0	0	0	0	2655
17	0	0	0	0	0	30	173	356	543	738	867	772	735	673	485	442	327	178	63	0	0	0	0	0	6382
18	0	0	0	0	0	7	72	278	274	255	196	159	496	496	439	367	129	136	59	11	0	0	0	0	3374
19	0	0	0	0	0	28	136	343	569	753	890	971 ?	986 ?	920 ?	828	532	505	290	88	10	0	0	0	0	7851 ?
20	0	0	0	0	0	32	164	355	534 ?	700 ?	843 ?	955	967 ?	934 ?	823	679	487	282	84	9	0	0	0	0	7846 ?
21	0	0	0	0	0	22	145	335	541	633 ?	870 ?	897 ?	938 ?	882 ?	737	704	515	327	91	13	0	0	0	0	7650 ?
22	0	0	0	0	0	21	117	251	517	709	788	785	937	542	539	449	445	195	80	16	0	0	0	0	6391
23	0	0	0	0	0	33	141	275	319	261	614	711	245	180	621	537	114	225	51	6	0	0	0	0	4333
24	0	0	0	0	0	21	174	223	465	708	833	853	882	656	738	698	337	261	84	9	0	0	0	0	6946
25	0	0	0	0	0	31	167	332	461	690	851	916	892	781	580	223	238	287	88	6	0	0	0	0	6543
26	0	0	0	0	0	18	105	240	492	637	574	687	549	214	557	437	396	236	53	4	0	0	0	0	5199
27	0	0	0	0	0	22	97	286	448	679	715	851	932	881	714	591	422	279	77	12	0	0	0	0	7008
28	0	0	0	0	0	15	95	102	144	118	263	704	687	716	608	526	445	247	61	9	0	0	0	0	4740
29	0	0	0	0	0	24	154	341	514	685	818	834	646	636	281	376	122	82	76	10	0	0	0	0	5600
30	0	0	0	0	0	26	146	328	522	701	859	910	948	918	688	409	334	337	96	13	0	0	0	0	7234
31	0	0	0	0	0	34	119	255	504	545	699	822	580	333	393	295	135	48 ?	72	19	0	0	0	0	4852
Avg	0	0	0	0	0	21	124	280	430	571	653	709	710	651	576	449	309	213	65	7	0	0	0	0	5780
S D	0	0	0	0	0	8	38	89	157	209	258	282	280	302	236	197	154	88	24	5	0	0	0	0	1975
S/A	0	0	0	0	0	0.38	0.31	0.32	0.36	0.37	0.39	0.4	0.39	0.46	0.41	0.44	0.5	0.41	0.37	0.61	0	0	0	0	0.34
Min	0	0	0	0	0	1	10	38	57	73	77	98	95	98	78	59	71	42	9	0	0	0	0	0	755
Max	0	0	0	0	0	34	174	369	591	758	890	971	990	972	836	704	515	337	96	19	0	0	0	0	7962
n	0	0	0	0	0	264	342	345	333	319	326	331	331	331	356	348	360	356	354	141	0	0	0	0	4769

Daylight Data Recovery: 4.9% missing; 0.0% untested; 3.1% exceed the 15% QC threshold -- 5255 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 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	*	
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	*	*	*	*	*	*	*	*	*	?	?	?	?	622 ?	294	0	0	0	0	*	
15	0	0	0	0	0	*	?	?	?	?	?	?	?	?	?	?	?	*	*	*	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	?	?	?	?	?	852 ?	839 ?	?	?	?	?	?	?	?	?	0	0	0	0	?	
20	0	0	0	0	0	*	?	?	?	748 ?	755 ?	802 ?	880 ?	751 ?	?	?	?	?	?	?	0	0	0	0	3934 ?	
21	0	0	0	0	0	*	*	?	?	256 ?	?	?	813 ?	643 ?	?	?	*	*	*	*	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	N/A	N/A	N/A	N/A	502	755	827	844	697	N/A	N/A	N/A	N/A	622	294	0	0	0	0	3934 *?	
SD	0	0	0	0	0	0	0	0	0	348	0	36	34	76	0	0	0	0	0	0	0	0	0	0	0	
S/A	0	0	0	0	0	0	0	0	0	0.69	0	0.04	0.04	0.11	0	0	0	0	0	0	0	0	0	0	0	
Min	0	0	0	0	0	N/A	N/A	N/A	N/A	256	755	802	813	643	N/A	N/A	N/A	N/A	622	294	0	0	0	0	3934	
Max	0	0	0	0	0	N/A	N/A	N/A	N/A	748	755	852	880	751	N/A	N/A	N/A	N/A	622	294	0	0	0	0	3934	
n	0	0	0	0	0	0	0	0	0	6	3	11	16	4	0	0	0	0	6	4	0	0	0	0	20	

Daylight Data Recovery: 85.2% missing; 0.0% untested; 13.8% exceed the 15% QC threshold -- 5255 total daylight measurements.

Instrument: Eppley NIP Serial Number: 17664E6 Calibration Factor: 8.480 $\mu\text{V}/\text{W}/\text{m}^2$ 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 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	0	0	0	*
2	0	0	0	0	0	?	?	?	?	?	?	?	578 ?	412	298	137 ?	111	44	15	1	0	0	0	0	1596 ?
3	0	0	0	0	0	0	11 ?	39	53 ?	33 ?	63	73	95	84	88	49	76	60	9	0	0	0	0	0	732 ?
4	0	0	0	0	0	13	92	247	303	415	384	221	206	107	152	232	160	60	16	3	0	0	0	0	2611
5	0	0	0	0	0	12	90	94	88	64	172	291	207	181	228	315	152	119	11	1	0	0	0	0	2025
6	0	0	0	0	0	14	91	149	197	318	317	182	145	149	133	87	74	63	29	2	0	0	0	0	1950
7	0	0	0	0	0	18	62	83	92	89	95	98	84	80	76	70	64	57	30	6	0	0	0	0	1005
8	0	0	0	0	0	17	48	60	66	73	76	81	76	74	71	67	62	55	31	7	0	0	0	0	862
9	0	0	0	0	0	15	65	191	182	150	318	150	340	292	316	223	93	63	32	7	0	0	0	0	2438
10	0	0	0	0	0	17	56	76	81	88	134	253	227	233	269	247	192	188	82	8	0	0	0	0	2153
11	0	0	0	0	0	20	76	118	149	203	276	269	296	293	282	101	161	151	53	8	0	0	0	0	2456
12	0	0	0	0	0	29	81	164	331	305	280	264	564	393	292	298	115	118	50	5	0	0	0	0	3288
13	0	0	0	0	0	19	75	89	88	96	104	122	132	131	143	179	152	91	42	4	0	0	0	0	1467
14	0	0	0	0	0	25	89	123	146	191	186	158	177	151	165	161	122	93	44	7	0	0	0	0	1837
15	0	0	0	0	0	23	81	153	196	268	396	434	423	389	368	278	229	125	56	7	0	0	0	0	3426
16	0	0	0	0	0	18	97	186	215	392	329	220	292	107	82	100	203	194	68	12	0	0	0	0	2514
17	0	0	0	0	0	23	75	106	137	142	167	311	344	363	302	317	240	128	46	0	0	0	0	0	2702
18	0	0	0	0	0	6	75	225	235	220	206	169	402	387	280	281	136	120	61	11	0	0	0	0	2814
19	0	0	0	0	0	28	92	87	99	108	121	124 ?	132 ?	145 ?	147	252	159	90	51	10	0	0	0	0	1644 ?
20	0	0	0	0	0	28	78	101	122 ?	138 ?	176 ?	154	142 ?	137 ?	127	117	113	100	54	10	0	0	0	0	1597 ?
21	0	0	0	0	0	23	87	129	172	272 ?	184 ?	237 ?	176 ?	240 ?	237	214	205	188	73	13	0	0	0	0	2450 ?
22	0	0	0	0	0	23	96	150	193	205	271	297	245	244	251	255	268	166	79	17	0	0	0	0	2758
23	0	0	0	0	0	33	111	225	268	277	442	482	257	187	354	345	116	180	47	5	0	0	0	0	3329
24	0	0	0	0	0	20	125	188	300	194	215	273	340	304	301	249	176	120	59	10	0	0	0	0	2876
25	0	0	0	0	0	25	84	139	252	304	339	351	318	248	253	204	193	164	63	7	0	0	0	0	2943
26	0	0	0	0	0	18	104	213	217	409	284	409	403	214	399	323	202	148	55	4	0	0	0	0	3402
27	0	0	0	0	0	22	98	232	316	285	381	381	393	339	309	316	242	139	61	13	0	0	0	0	3528
28	0	0	0	0	0	16	90	109	153	126	278	599	492	496	430	340	268	185	54	9	0	0	0	0	3646
29	0	0	0	0	0	23	94	150	189	227	251	301	334	351	274	297	131	86	80	10	0	0	0	0	2797
30	0	0	0	0	0	23	96	152	194	238	307	293	306	347	376	284	234	245	84	13	0	0	0	0	3192
31	0	0	0	0	0	32	121	228	376	351	388	384	361	319	348	309	144	46	68	20	0	0	0	0	3496
Avg	0	0	0	0	0	20	84	145	187	213	246	261	283	247	245	222	160	119	50	8	0	0	0	0	2451
S D	0	0	0	0	0	7	22	57	86	108	106	126	136	116	103	92	60	53	21	5	0	0	0	0	830
S/A	0	0	0	0	0	0.35	0.27	0.39	0.46	0.51	0.43	0.48	0.48	0.47	0.42	0.42	0.38	0.44	0.42	0.64	0	0	0	0	0.34
Min	0	0	0	0	0	0	11	39	53	33	63	73	76	74	71	49	62	44	9	0	0	0	0	0	732
Max	0	0	0	0	0	33	125	247	376	415	442	599	578	496	430	345	268	245	84	20	0	0	0	0	3646
n	0	0	0	0	0	251	345	348	335	325	336	337	338	341	358	356	360	358	358	141	0	0	0	0	4887

Daylight Data Recovery: 3.1% missing; 0.0% untested; 3.9% exceed the 15% QC threshold -- 5255 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.