

February 2005

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	3	19	64	198	295	347	235	206	200	86	19	0	0	0	0	0	0	1671
2	0	0	0	0	0	0	0	13	145	296	441	349	230	211	199	87	38	15	0	0	0	0	0	0	2025
3	0	0	0	0	0	0	0	5	29	100	111	110	113	143	111	31 ?	14 ?	3	0	0	0	0	0	0	770 ?
4	0	0	0	0	0	0	0	5	29	82	247	441	566	566	495	352	177	39	0	0	0	0	0	0	2998
5	0	0	0	0	0	0	0	16	300 ?	348 ?	551	574	612	581	491	358	160	29	0	0	0	0	0	0	4021 ?
6	0	0	0	0	0	0	0	17	159	338	487	580	507	530	422	174	79	33	0	0	0	0	0	0	3327
7	0	0	0	0	0	0	0	33	139	328	462	433	504	505	439	184	95	33	0	0	0	0	0	0	3155
8	0	0	0	0	0	0	0	4	17 ?	36	59	86	104	89	194	163	94	16	0	0	0	0	0	0	861
9	0	0	0	0	0	0	0	5	44	104	169	153	188	251	108	200	105	25	0	0	0	0	0	0	1353
10	0	0	0	0	0	0	0	4	24	87	137	262	170	131	177	122	54	13	0	0	0	0	0	0	1180
11	0	0	0	0	0	0	0	12	61	191	329	535	528	369	410	186	36	9	0	0	0	0	0	0	2666
12	0	0	0	0	0	0	0	19	154	360	509	612	651	624	535	387	194	44	0	0	0	0	0	0	4089
13	0	0	0	0	0	0	0	17	46	66	85	122	125	152	120	54	?	4	0	0	0	0	0	0	790
14	0	0	0	0	0	0	0	7	32	92	219	140	131	176	106	59	86	10	0	0	0	0	0	0	1058
15	0	0	0	0	0	0	0	15	79	247	345	369	458	437	434	308	195	57	0	0	0	0	0	0	2945
16	0	0	0	0	0	0	0	15	91	174	128	68 ?	71 ?	166	297	155	40	7	0	0	0	0	0	0	1211 ?
17	0	0	0	0	0	0	0	13	113	131	385	337	351	408	375	301	227	62	3	0	0	0	0	0	2707
18	0	0	0	0	0	0	0	48	183	268	288	570	448	389	251	251	197	45	7	0	0	0	0	0	2942
19	0	0	0	0	0	0	0	28	235	243	597	603	691	632	381	380	218	48	2	0	0	0	0	0	4059
20	0	0	0	0	0	0	0	10	47	103	145	102	98	170	238	87	34	12	1	0	0	0	0	0	1045
21	0	0	0	0	0	0	0	12	29	82	99	108	103	179	136	127	85	32	1	0	0	0	0	0	993
22	0	0	0	0	0	0	0	14	115	254	524	655	699	670	572	405	255	71	1	0	0	0	0	0	4236
23	0	0	0	0	0	0	0	19	128	397	554	657	699	658	411	344	189	72	1	0	0	0	0	0	4130
24	0	0	0	0	0	0	0	3	29 ?	40 ?	53 ?	69	81	58 ?	70	58	24 ?	3 ?	1	0	0	0	0	0	489 ?
25	0	0	0	0	0	0	0	5	37	66	131	198	206	283	474	436	261	85	5	0	0	0	0	0	2188
26	0	0	0	0	0	0	0	75 ?	366 ?	451	651	685	746	708	605	455	275	84	4	0	0	0	0	0	5105 ?
27	0	0	0	0	0	0	0	41	157	290	368	426	435	400	327	199	92	24	3	0	0	0	0	0	2763
28	0	0	0	0	0	0	1	17	141	198	98	223	254	128	225	161	45	11	2	0	0	0	0	0	1505

Avg	0	0	0	0	0	0	0	17	105	194	299	349	361	352	315	222	124	32	1	0	0	0	0	0	0	2367
S D	0	0	0	0	0	0	0	16	88	123	188	213	229	207	160	128	82	25	2	0	0	0	0	0	0	1319
S/A	0	0	0	0	0	0	5.29	0.93	0.84	0.63	0.63	0.61	0.63	0.59	0.51	0.58	0.66	0.77	1.59	0	0	0	0	0	0	0.56
Min	0	0	0	0	0	0	0	3	17	36	53	68	71	58	70	31	14	3	0	0	0	0	0	0	0	489
Max	0	0	0	0	0	0	1	75	366	451	651	685	746	708	605	455	275	85	7	0	0	0	0	0	0	5105
n	0	0	0	0	0	0	2	260	303	325	328	328	330	333	336	328	308	309	21	0	0	0	0	0	0	3512

Daylight Data Recovery: 0.0% missing; 3.2% exceed the 15% QC threshold -- 3627 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 2005

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	2	5	7	1	1	94	91	0	0	0	0	0	0	0	202
2	0	0	0	0	0	0	0	23	671	702	773	250	6	10	22	0	0	0	0	0	0	0	0	0	2458
3	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	4
4	0	0	0	0	0	0	0	0	0	0	81	493	777	850	855	788	631	292	0	0	0	0	0	0	4766
5	0	0	0	0	0	0	0	29	514 ?	883	977	982	1010	999	960	889	591	199	0	0	0	0	0	0	8033
6	0	0	0	0	0	0	0	62	690	891	956	934	506	641	478	28	27	5	0	0	0	0	0	0	5218
7	0	0	0	0	0	0	0	102	457	695	587	352	320	453	683	13	0	0	0	0	0	0	0	0	3662
8	0	0	0	0	0	0	0	0	0	0	0	0	1	1	8	9	16	0	0	0	0	0	0	0	36
9	0	0	0	0	0	0	0	0	1	1	2	1	5	24	0	43	5	4	0	0	0	0	0	0	85
10	0	0	0	0	0	0	0	0	0	1	1	31	1	0	0	1	0	0	0	0	0	0	0	0	36
11	0	0	0	0	0	0	0	0	0	95	153	407	280	62	240	30	0	0	0	0	0	0	0	0	1266
12	0	0	0	0	0	0	0	0	430	872	956	998	1005	990	961	859	595	165	0	0	0	0	0	0	7832
13	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3
14	0	0	0	0	0	0	0	0	0	4	6	0	0	1	1	0	7	0	0	0	0	0	0	0	19
15	0	0	0	0	0	0	0	0	2	143	113	65	204	200	328	308	298	168	0	0	0	0	0	0	1829
16	0	0	0	0	0	0	0	0	7	55	48	0	0	15	64	47	1	0	0	0	0	0	0	0	236
17	0	0	0	0	0	0	0	0	16	23	212	89	100	239	245	309	512	247	0	0	0	0	0	0	1993
18	0	0	0	0	0	0	0	224	473	305	75	276	117	88	35	50	152	20	0	0	0	0	0	0	1816
19	0	0	0	0	0	0	0	1	474	155	863	780	945	838	244	457	561	93	0	0	0	0	0	0	5410
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
21	0	0	0	0	0	0	0	0	0	0	1	0	0	9	2	2	1	0	0	0	0	0	0	0	15
22	0	0	0	0	0	0	0	0	35	196	599	902	999	984	913	727	680	354	0	0	0	0	0	0	6390
23	0	0	0	0	0	0	0	0	30	656	896	927	958	811	250	138	99	48	0	0	0	0	0	0	4813
24	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
25	0	0	0	0	0	0	0	0	0	0	0	1	1	18	387	737	546	399	1	0	0	0	0	0	2090
26	0	0	0	0	0	0	0	57	743 ?	823	894	897	953	928	926	870	764	432	5	0	0	0	0	0	8293
27	0	0	0	0	0	0	0	39	118	116	95	83	70	51	30	3	0	0	0	0	0	0	0	0	604
28	0	0	0	0	0	0	0	0	4	0	0	11	2	0	1	0	0	0	0	0	0	0	0	0	18

Avg	0	0	0	0	0	0	0	19	167	236	296	303	295	293	273	229	199	87	0	0	0	0	0	0	2397
S D	0	0	0	0	0	0	0	47	260	336	389	387	404	395	354	330	275	138	1	0	0	0	0	0	2812
S/A	0	0	0	0	0	0	2.47	1.56	1.42	1.31	1.28	1.37	1.35	1.3	1.45	1.38	1.59	4.54	0	0	0	0	0	0	1.17
Min	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
Max	0	0	0	0	0	0	224	743	891	977	998	1010	999	961	889	764	432	5	0	0	0	0	0	0	8293
n	0	0	0	0	0	0	2	263	324	334	333	336	336	336	336	336	336	316	21	0	0	0	0	0	3609

Daylight Data Recovery: 0.0% missing; 0.5% exceed the 15% QC threshold -- 3627 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

February 2005

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	20	68	210	308	357	252	220	168	63	20	0	0	0	0	0	0	1688
2	0	0	0	0	0	0	0	12	35	72	93	222	240	214	197	94	40	16	0	0	0	0	0	0	1236
3	0	0	0	0	0	0	0	5	29	108	119	118	121	150	116	28	15 ?	2	0	0	0	0	0	0	811
4	0	0	0	0	0	0	0	4	30	88	219	174	131	111	99	74	48	18	0	0	0	0	0	0	996
5	0	0	0	0	0	0	0	12	40 ?	53	47	55	54	49	44	42	33	11	0	0	0	0	0	0	439
6	0	0	0	0	0	0	0	12	34	44	57	86	205	163	177	166	77	33	0	0	0	0	0	0	1054
7	0	0	0	0	0	0	0	27	46	89	177	213	304	238	90	187	101	35	0	0	0	0	0	0	1507
8	0	0	0	0	0	0	0	3	17	37	64	93	112	95	200	167	95	17	0	0	0	0	0	0	901
9	0	0	0	0	0	0	0	5	47	113	184	167	198	245	116	190	108	25	0	0	0	0	0	0	1399
10	0	0	0	0	0	0	0	4	23	91	146	250	182	142	190	129	57	13	0	0	0	0	0	0	1226
11	0	0	0	0	0	0	0	13	64	160	255	299	344	324	288	177	38	9	0	0	0	0	0	0	1972
12	0	0	0	0	0	0	0	22	58	56	62	63	64	64	59	53	45	27	0	0	0	0	0	0	573
13	0	0	0	0	0	0	0	17	49	71	91	132	135	167	130	58	17 ?	4	0	0	0	0	0	0	871
14	0	0	0	0	0	0	0	8	34	89	227	149	140	189	114	57	88	10	0	0	0	0	0	0	1105
15	0	0	0	0	0	0	0	16	84	205	296	339	329	317	265	178	121	40	0	0	0	0	0	0	2190
16	0	0	0	0	0	0	0	16	86	154	113	54	69	167	267	139	43	8	0	0	0	0	0	0	1117
17	0	0	0	0	0	0	0	13	116	130	276	286	281	261	241	187	94	32	3	0	0	0	0	0	1919
18	0	0	0	0	0	0	0	29	71	146	245	367	350	319	235	229	153	43	6	0	0	0	0	0	2192
19	0	0	0	0	0	0	0	26	77	153	96	123	102	111	227	182	61	32	2	0	0	0	0	0	1192
20	0	0	0	0	0	0	0	10	49	109	156	109	105	182	254	92	34	12	0	0	0	0	0	0	1112
21	0	0	0	0	0	0	0	14	31	88	105	116	111	180	144	135	89	32	1	0	0	0	0	0	1046
22	0	0	0	0	0	0	0	15	112	171	207	101	65	64	72	82	64	25	1	0	0	0	0	0	978
23	0	0	0	0	0	0	0	20	119	124	85	95	88	145	243	274	165	65	1	0	0	0	0	0	1423
24	0	0	0	0	0	0	0	2	25 ?	39	52	72	77	58	73	62	22	5	0	0	0	0	0	0	486
25	0	0	0	0	0	0	0	5	39	68	139	208	213	277	199	91	107	35	5	0	0	0	0	0	1386
26	0	0	0	0	0	0	0	26	76 ?	89	101	123	122	121	89	73	55	27	3	0	0	0	0	0	905
27	0	0	0	0	0	0	0	34	120	236	314	376	396	378	323	274	165	65	6	0	0	0	0	0	2518
28	0	0	0	0	0	0	0	13	143	213	101	188	246	137	250	182	49	11	2	0	0	0	0	0	1534

Avg	0	0	0	0	0	0	0	14	60	109	151	174	184	183	176	132	71	23	1	0	0	0	0	0	1278
S D	0	0	0	0	0	0	0	9	35	53	80	98	105	89	79	65	39	14	2	0	0	0	0	0	520
S/A	0	0	0	0	0	0	0	0.64	0.59	0.49	0.53	0.56	0.57	0.49	0.45	0.49	0.55	0.63	1.71	0	0	0	0	0	0.41
Min	0	0	0	0	0	0	0	2	17	37	47	54	54	49	44	28	15	2	0	0	0	0	0	0	439
Max	0	0	0	0	0	0	0	34	143	236	314	376	396	378	323	274	165	65	6	0	0	0	0	0	2518
n	0	0	0	0	0	0	2	254	320	334	333	334	334	336	336	336	326	315	21	0	0	0	0	0	3581

Daylight Data Recovery: 0.0% missing; 1.3% exceed the 15% QC threshold -- 3627 total daylight measurements.

Instrument: Eppley PSP Serial Number: 17860F3 Calibration Factor: 7.010 $\mu\text{V}/\text{W}/\text{m}^2$ 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.