

January 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	2	24	65	151	96	199	315	259	134	50	3	0	0	0	0	0	0	1298
2	0	0	0	0	0	0	0	9	47	266	141	208	219	236	201	56	12	3	0	0	0	0	0	0	1396
3	0	0	0	0	0	0	0	1	10	30	182	240	247	320	184	113	22	2	0	0	0	0	0	0	1350
4	0	0	0	0	0	0	0	3	9 ?	25 ?	54	57	89	50 ?	33 ?	37 ?	11	1	0	0	0	0	0	0	369 ?
5	0	0	0	0	0	0	0	7	66	162	270	331	295	234	234	116	54	6	0	0	0	0	0	0	1777
6	0	0	0	0	0	0	0	4	37	32	56 ?	93	177	158	239	111	47	10	0	0	0	0	0	0	964
7	0	0	0	0	0	0	0	4	33	79	110	142	138	178	61	47	16	1	0	0	0	0	0	0	809
8	0	0	0	0	0	0	0	2	2 ?	90 ?	156	265	394	370	181	115	45	7	0	0	0	0	0	0	1627
9	0	0	0	0	0	0	0	6	132	234 ?	393 ?	459	486	453	372	242	89	6	0	0	0	0	0	0	2871
10	0	0	0	0	0	0	0	4	20	67	131	230	214	460	368	212	52	8	0	0	0	0	0	0	1766
11	0	0	0	0	0	0	0	6	49	117	164	234	195	57 ?	84 ?	33 ?	3 ?	1	0	0	0	0	0	0	944 ?
12	0	0	0	0	0	0	0	5	52	132	252	313	474	447	360	260	73	8	0	0	0	0	0	0	2376
13	0	0	0	0	0	0	0	3	54	136	126	352	363	269	262	119	21	6	0	0	0	0	0	0	1711
14	0	0	0	0	0	0	0	2	4 ?	?	57 ?	120	122	197	207	113	58	9	0	0	0	0	0	0	889 ?
15	0	0	0	0	0	0	0	9	73	167	271	352	512	463	375	245	83	13	0	0	0	0	0	0	2564
16	0	0	0	0	0	0	0	11	55	167	385	496	434	189	98	59 ?	21	2	0	0	0	0	0	0	1917
17	0	0	0	0	0	0	0	7	42	126	243	391	473	519	446	294	130	20	0	0	0	0	0	0	2692
18	0	0	0	0	0	0	0	8	62	190	430	517	553	522	433	294	96	24	0	0	0	0	0	0	3129
19	0	0	0	0	0	0	0	1	9 ?	28 ?	43	51	105	126	91	80	37	8	0	0	0	0	0	0	579
20	0	0	0	0	0	0	0	2	16	45	79	87	104	126	135	64	11 ?	2	0	0	0	0	0	0	671
21	0	0	0	0	0	0	0	1	4 ?	?	32 ?	37 ?	?	105 ?	168	129	51	11	0	0	0	0	0	0	538 ?
22	0	0	0	0	0	0	0	4	26	43	52 ?	53 ?	55 ?	48 ?	?	28 ?	21	7	0	0	0	0	0	0	337 ?
23	0	0	0	0	0	0	0	10	65	185	304	410	510	464	402	224	114	25	0	0	0	0	0	0	2712
24	0	0	0	0	0	0	0	8	116 ?	245 ?	407	340	470	237	254	169	80	22	0	0	0	0	0	0	2347 ?
25	0	0	0	0	0	0	0	8	117	285	431	523	562	533	444	311	147	25	0	0	0	0	0	0	3389
26	0	0	0	0	0	0	0	3	46	165	97	80	79	71	48	68	44	8	0	0	0	0	0	0	707
27	0	0	0	0	0	0	0	7	77	197	458	550	580	559	466	330	154	21	0	0	0	0	0	0	3397
28	0	0	0	0	0	0	0	12	121	254	384	386	440	457	483	284	107	19	0	0	0	0	0	0	2947
29	0	0	0	0	0	0	0	5	30	67	76	101	87	50	?	50	42	1	0	0	0	0	0	0	508 ?
30	0	0	0	0	0	0	0	2	22	54	63	113	101	91	50	35 ?	14 ?	5	0	0	0	0	0	0	550
31	0	0	0	0	0	0	0	11	113	324	417	526	547	506	406	301	143	24	0	0	0	0	0	0	3318
Avg	0	0	0	0	0	0	0	5	49	137	207	263	307	284	253	151	60	10	0	0	0	0	0	0	1692
S D	0	0	0	0	0	0	0	3	38	87	143	169	182	175	145	100	44	8	0	0	0	0	0	0	1016
S/A	0	0	0	0	0	0	0	0.59	0.77	0.63	0.69	0.64	0.59	0.62	0.57	0.66	0.74	0.83	0	0	0	0	0	0	0.6
Min	0	0	0	0	0	0	0	1	2	25	32	37	55	48	33	28	3	1	0	0	0	0	0	0	337
Max	0	0	0	0	0	0	0	12	132	324	458	550	580	559	483	330	154	25	0	0	0	0	0	0	3397
n	0	0	0	0	0	0	0	150	345	314	343	355	356	345	340	338	352	179	0	0	0	0	0	0	3420

Daylight Data Recovery: 0.0% missing; 7.0% exceed the 15% QC threshold -- 3677 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.

January 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	3	0	7	100	226	100	91	0	0	0	0	0	0	0	527
2	0	0	0	0	0	0	0	0	20	410	35	9	14	21	33	0	0	0	0	0	0	0	0	0	543
3	0	0	0	0	0	0	0	0	0	0	16	17	62	419	34	11	0	0	0	0	0	0	0	0	559
4	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
5	0	0	0	0	0	0	0	0	84	63	116	146	56	57	73	36	13	0	0	0	0	0	0	0	644
6	0	0	0	0	0	0	0	0	0	0	0	1	5	76	13	0	0	0	0	0	0	0	0	0	96
7	0	0	0	0	0	0	0	0	0	0	0	1	1	6	0	0	0	0	0	0	0	0	0	0	8
8	0	0	0	0	0	0	0	0	0	0	11	127	434	459	31	8	19	9	0	0	0	0	0	0	1097
9	0	0	0	0	0	0	0	0	405	768 ?	921 ?	950	945	930	885	796	499	114	0	0	0	0	0	0	7213
10	0	0	0	0	0	0	0	0	0	0	0	27	17	710	734	429	14	0	0	0	0	0	0	0	1933
11	0	0	0	0	0	0	0	0	2	1	20	37	6	0	0	0	0	0	0	0	0	0	0	0	66
12	0	0	0	0	0	0	0	0	16	33	154	242	769	793	644	645	126	0	0	0	0	0	0	0	3422
13	0	0	0	0	0	0	0	0	0	1	3	146	176	52	133	74	0	0	0	0	0	0	0	0	585
14	0	0	0	0	0	0	0	0	0	0	0	1	1	10	18	3	2	0	0	0	0	0	0	0	36
15	0	0	0	0	0	0	0	0	30	75	206	335	886	672	730	597	189	1	0	0	0	0	0	0	3721
16	0	0	0	0	0	0	0	0	14	146	839	942	462	12	0	0	0	0	0	0	0	0	0	0	2415
17	0	0	0	0	0	0	0	0	0	3	85	321	542	861	956	896	715	349	0	0	0	0	0	0	4728
18	0	0	0	0	0	0	0	0	1	168	947	1009	1022	1018	985	906	347	302	0	0	0	0	0	0	6706
19	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
20	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
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	3
22	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
23	0	0	0	0	0	0	0	0	0	30	93	227	497	354	399	200	7	0	0	0	0	0	0	0	1808
24	0	0	0	0	0	0	0	0	451 ?	385	334	144	263	1	2	1	0	45	0	0	0	0	0	0	1627
25	0	0	0	0	0	0	0	0	579	820	908	955	969	954	919	850	681	312	0	0	0	0	0	0	7948
26	0	0	0	0	0	0	0	0	1	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
27	0	0	0	0	0	0	0	0	108	261	921	1014	1015	1017	971	915	708	176	0	0	0	0	0	0	7106
28	0	0	0	0	0	0	0	1	317	375	452	271	236	335	559	241	16	0	0	0	0	0	0	0	2802
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
31	0	0	0	0	0	0	0	0	144	525	809	855	708	562	359	355	273	0	0	0	0	0	0	0	4591
Avg	0	0	0	0	0	0	0	0	70	132	222	251	293	302	283	228	119	42	0	0	0	0	0	0	1943
S D	0	0	0	0	0	0	0	0	152	230	349	366	375	379	372	337	227	100	0	0	0	0	0	0	2509
S/A	0	0	0	0	0	0	0	3.82	2.17	1.74	1.58	1.46	1.28	1.26	1.31	1.47	1.9	2.37	0	0	0	0	0	0	1.29
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	0	1	579	820	947	1014	1022	1018	985	915	715	349	0	0	0	0	0	0	7948
n	0	0	0	0	0	0	0	150	368	364	366	370	372	372	372	372	372	372	179	0	0	0	0	0	3657

Daylight Data Recovery: 0.0% missing; 0.5% exceed the 15% QC threshold -- 3677 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

January 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	1	25	68	155	101	205	258	152	106	33	3	0	0	0	0	0	0	1108
2	0	0	0	0	0	0	0	8	41	157	124	207	217	236	185	56	11	2	0	0	0	0	0	0	1244
3	0	0	0	0	0	0	0	1	10	31	177	233	217	133	172	114	23	2	0	0	0	0	0	0	1113
4	0	0	0	0	0	0	0	3	10	21 ?	57	60	95	38	30	33 ?	11	1	0	0	0	0	0	0	360
5	0	0	0	0	0	0	0	7	52	150	218	256	267	211	201	108	52	7	0	0	0	0	0	0	1530
6	0	0	0	0	0	0	0	4	39	31	43 ?	88	186	164	202	109	48	10	0	0	0	0	0	0	925
7	0	0	0	0	0	0	0	4	34	84	116	151	144	183	64	50	17	0	0	0	0	0	0	0	846
8	0	0	0	0	0	0	0	2	2	67 ?	159	201	182	156	167	119	46	7	0	0	0	0	0	0	1108
9	0	0	0	0	0	0	0	5	29	41	38	41	48	44	42	36	24	4	0	0	0	0	0	0	353
10	0	0	0	0	0	0	0	4	20	71	138	221	211	136	85	85	48	8	0	0	0	0	0	0	1028
11	0	0	0	0	0	0	0	7	50	123	158	224	203	49	78	32 ?	3 ?	0	0	0	0	0	0	0	927 ?
12	0	0	0	0	0	0	0	5	50	126	182	187	104	84	103	84	49	8	0	0	0	0	0	0	984
13	0	0	0	0	0	0	0	3	56	142	134	282	275	245	220	87	21	5	0	0	0	0	0	0	1470
14	0	0	0	0	0	0	0	2	3 ?	17 ?	47	127	126	199	203	116	61	9	0	0	0	0	0	0	910
15	0	0	0	0	0	0	0	8	61	131	163	178	80	131	77	70	47	13	0	0	0	0	0	0	959
16	0	0	0	0	0	0	0	13	54	118	57	66	205	190	106	54	21	1	0	0	0	0	0	0	884
17	0	0	0	0	0	0	0	7	43	130	210	235	203	118	74	44	29	10	0	0	0	0	0	0	1105
18	0	0	0	0	0	0	0	9	63	132	62	57	61	53	46	37	39	14	0	0	0	0	0	0	574
19	0	0	0	0	0	0	0	1	9	26	44	54	112	134	97	85	39	8	0	0	0	0	0	0	610
20	0	0	0	0	0	0	0	2	16	47	84	93	111	134	143	67	11	1	0	0	0	0	0	0	710
21	0	0	0	0	0	0	0	0	3 ?	18	29	34	26 ?	113 ?	181	138	54	11	0	0	0	0	0	0	608 ?
22	0	0	0	0	0	0	0	4	28	44	44	51	50	37	25 ?	25 ?	21	7	0	0	0	0	0	0	335 ?
23	0	0	0	0	0	0	0	10	67	177	263	280	240	276	229	156	115	25	0	0	0	0	0	0	1840
24	0	0	0	0	0	0	0	6	50 ?	116	219	261	317	252	267	177	83	22	0	0	0	0	0	0	1771
25	0	0	0	0	0	0	0	10	32	50	64	65	68	64	56	46	32	11	0	0	0	0	0	0	498
26	0	0	0	0	0	0	0	2	47	160	104	86	84	76	51	69	46	8	0	0	0	0	0	0	733
27	0	0	0	0	0	0	0	6	47	100	64	50	54	49	46	37	28	9	0	0	0	0	0	0	490
28	0	0	0	0	0	0	0	10	65	126	174	228	304	272	242	190	108	18	0	0	0	0	0	0	1735
29	0	0	0	0	0	0	0	4	31	72	82	108	93	50	27 ?	52	43	1	0	0	0	0	0	0	564
30	0	0	0	0	0	0	0	2	23	58	67	121	109	97	54	31	16	4	0	0	0	0	0	0	581
31	0	0	0	0	0	0	0	11	72	125	89	113	153	197	234	176	87	25	0	0	0	0	0	0	1280
Avg	0	0	0	0	0	0	0	5	37	89	115	144	153	141	125	83	41	8	0	0	0	0	0	0	941
S D	0	0	0	0	0	0	0	3	21	49	65	82	81	77	76	47	27	7	0	0	0	0	0	0	419
S/A	0	0	0	0	0	0	0	0.64	0.56	0.55	0.56	0.57	0.53	0.55	0.61	0.57	0.67	0.84	0	0	0	0	0	0	0.45
Min	0	0	0	0	0	0	0	0	2	17	29	34	26	37	25	25	3	0	0	0	0	0	0	0	335
Max	0	0	0	0	0	0	0	13	72	177	263	282	317	276	267	190	115	25	0	0	0	0	0	0	1840
n	0	0	0	0	0	0	0	145	355	361	367	370	364	367	360	352	366	179	0	0	0	0	0	0	3586

Daylight Data Recovery: 0.0% missing; 2.5% exceed the 15% QC threshold -- 3677 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.