

March 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	2	29	133	204	271	505	329	383	206	190	159	36	7	0	0	0	0	0	2454
2	0	0	0	0	0	0	4	38	118	285	460	703	787	715	620	341	139	49	12	0	0	0	0	0	4272
3	0	0	0	0	0	0	3	78	270	477	634	737	777	746	651	499	310	109	8	0	0	0	0	0	5300
4	0	0	0	0	0	0	3	100	270	430	419	839	416	282	244	177	185	93	5	0	0	0	0	0	3463
5	0	0	0	0	0	0	1	7	67	297	229	452	515	171 ?	77 ?	39 ?	26 ?	4 ?	1	0	0	0	0	0	1886 ?
6	0	0	0	0	0	0	4	31	132	344	632	738	775	749	653	503	315	115	10	0	0	0	0	0	5001
7	0	0	0	0	0	0	1	53	250	474	571	362	133	496	567	364	160	42	3	0	0	0	0	0	3477
8	0	0	0	0	0	0	1	20	69	104	242	288	417	284	205	187	99	39	8	0	0	0	0	0	1962
9	0	0	0	0	0	0	7	56	297	490	623	745	762	721	705	417	358	107	10	0	0	0	0	0	5299
10	0	0	0	0	0	0	5	70	290	510	664	767	807	742	597	308	149	80	11	0	0	0	0	0	5000
11	0	0	0	0	0	0	3	22	128	85	245	332	106	134	112	147	78	17	6	0	0	0	0	0	1416
12	0	0	0	0	0	0	4	18	75	185	598	580	586	607	209	62	40	21	5	0	0	0	0	0	2990
13	0	0	0	0	0	0	11	92	325	344	447	630	755	767	629	349	120	14 ?	1	0	0	0	0	0	4482
14	0	0	0	0	0	0	2	46	210	506	581	742	821	789	689	537	344	134	13	0	0	0	0	0	5416
15	0	0	0	0	0	0	18	175	390	526	683	780	805	778	683	530	262	72	17	0	0	0	0	0	5719
16	0	0	0	0	0	0	2	11 ?	23 ?	43 ?	49 ?	56 ?	60 ?	62 ?	58 ?	48 ?	29 ?	8 ?	2	0	0	0	0	0	450 ?
17	0	0	0	0	0	0	0	2 ?	?	42 ?	61	97	266	339	487	374	246	131	18	0	0	0	0	0	2061 ?
18	0	0	0	0	0	0	27	185 ?	335 ?	556	675	776	766	637	615	478	243	95	13	0	0	0	0	0	5403
19	0	0	0	0	0	0	22	120	277	430	551	554	425	517	317	197	114	33	6	0	0	0	0	0	3563
20	0	0	0	0	0	0	5	36	187	304	490	720	800	791	701	546	356	147	17	0	0	0	0	0	5100
21	0	0	0	0	0	0	11	76	313	516	703	669	706	747	651	549	367	153	16	0	0	0	0	0	5476
22	0	0	0	0	0	0	20	115	288	467	660	820	728	645	599	162	27 ?	26	3	0	0	0	0	0	4560
23	0	0	0	0	0	0	1	16	68	204	621	532	651	690	463	381	188 ?	20 ?	4	0	0	0	0	0	3839 ?
24	0	0	0	0	0	0	2	9 ?	43 ?	61	96	108	161	140	126	111	111	68	13	0	0	0	0	0	1051 ?
25	0	0	0	0	0	0	4	16 ?	38	92	389	553	626	779	405	301	228 ?	41 ?	18	0	0	0	0	0	3489 ?
26	0	0	0	0	0	0	32	152	365	553	512	561	476	606	590	297	230	179	22	0	0	0	0	0	4575
27	0	0	0	0	0	0	4	21	94	305	299	232	256	135	209	78	86	19 ?	3	0	0	0	0	0	1741
28	0	0	0	0	0	0	6	22 ?	264	542	142	151	270	206	151	84	63	13 ?	2	0	0	0	0	0	1915 ?
29	0	0	0	0	0	0	6	17 ?	44 ?	87	120	195	685	828	719	567	372	134	28	0	0	0	0	0	3801
30	0	0	0	0	0	0	23	145	350	560	653	749	821	756	716	573	378	173	24	0	0	0	0	0	5922
31	0	0	0	0	0	0	3	63 ?	111	378	394	358	229	215	284	285	221	111	26	0	0	0	0	0	2679
Avg	0	0	0	0	0	0	8	59	194	336	442	527	539	531	450	312	194	74	11	0	0	0	0	0	3670
S D	0	0	0	0	0	0	9	52	117	179	211	244	254	256	231	176	115	54	8	0	0	0	0	0	1560
S/A	0	0	0	0	0	0	1.13	0.88	0.6	0.53	0.48	0.46	0.47	0.48	0.51	0.56	0.59	0.73	0.72	0	0	0	0	0	0.43
Min	0	0	0	0	0	0	0	2	23	42	49	56	60	62	58	39	26	4	1	0	0	0	0	0	450
Max	0	0	0	0	0	0	32	185	390	560	703	839	821	828	719	573	378	179	28	0	0	0	0	0	5922
n	0	0	0	0	0	0	167	326	333	354	363	362	365	364	358	355	342	321	182	0	0	0	0	0	4192

Daylight Data Recovery: 0.0% missing; 5.6% exceed the 15% QC threshold -- 4441 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.

March 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	5	21	65	282	61	133	2	19	11	0	0	0	0	0	0	0	598
2	0	0	0	0	0	0	0	0	0	48	133	535	695 ?	852	758	231	16	4	0	0	0	0	0	0	3273
3	0	0	0	0	0	0	0	429	767	947	1003	1024	1029 ?	1022	1004	966	867 ?	631	157	0	0	0	0	0	9844
4	0	0	0	0	0	0	0	378	605	657	94	573	63	12	4	3	112	244	0	0	0	0	0	0	2746
5	0	0	0	0	0	0	0	0	0	266	129	266	277	1	0	0	0	0	0	0	0	0	0	0	938
6	0	0	0	0	0	0	0	0	6	269	864	982	1002	1007	988	942	839	588	69	0	0	0	0	0	7554
7	0	0	0	0	0	0	0	66	594	766	658	102	2	331	414	239	87	0	0	0	0	0	0	0	3259
8	0	0	0	0	0	0	0	0	0	0	28	31	64	28	10	18	5	0	0	0	0	0	0	0	185
9	0	0	0	0	0	0	0	36	657	837	783	943	773 ?	662	781	493	791	457	62	0	0	0	0	0	7277
10	0	0	0	0	0	0	0	160	635	941	1005	1020 ?	834 ?	786	441	51	1	16	0	0	0	0	0	0	5890
11	0	0	0	0	0	0	0	0	51	0	24	28	0	1	0	0	0	0	0	0	0	0	0	0	106
12	0	0	0	0	0	0	0	0	0	25	546	347	359	336	4	0	0	0	0	0	0	0	0	0	1617
13	0	0	0	0	0	0	3	219	633	385	168	326	683	881	647	204	20	0	0	0	0	0	0	0	4169
14	0	0	0	0	0	0	0	0	84	514	491	862	1012	1005	987	941	841	589	82	0	0	0	0	0	7409
15	0	0	0	0	0	0	61	571	801	913	956	983	971	994	957	903	250	22	6	0	0	0	0	0	8390
16	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	2
17	0	0	0	0	0	0	0	0	0	0	0	3	7	11	251	122	116	254	60	0	0	0	0	0	824
18	0	0	0	0	0	0	23	330 ?	748 ?	867	902	912	762	366	541	459	138	49	0	0	0	0	0	0	6096
19	0	0	0	0	0	0	57	287	324	300	304	117	71	182	16	1	1	0	0	0	0	0	0	0	1659
20	0	0	0	0	0	0	0	0	76	169	255	575	804	873	886	856	770	533	71	0	0	0	0	0	5870
21	0	0	0	0	0	0	0	16	385	610	799	447	468	658	716	862	842	628	89	0	0	0	0	0	6520
22	0	0	0	0	0	0	14	101	348	466	756	810	500	415	463	1	0	0	0	0	0	0	0	0	3874
23	0	0	0	0	0	0	0	0	0	5	535	287	446	620	377	346	88	0	0	0	0	0	0	0	2703
24	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	1	0	0	0	0	0	0	6
25	0	0	0	0	0	0	0	0	0	0	80	221	324	760	123	117	82	3	1	0	0	0	0	0	1711
26	0	0	0	0	0	0	70	261	562	467	204	189	205	221	350	31	99	552	70	0	0	0	0	0	3282
27	0	0	0	0	0	0	0	0	0	42	27	1	3	1	1	0	0	0	0	0	0	0	0	0	75
28	0	0	0	0	0	0	0	0	140	479	1	1	2	1	0	0	0	0	0	0	0	0	0	0	625
29	0	0	0	0	0	0	0	0	0	0	1	2	395	884	858	766	649	158	11	0	0	0	0	0	3724
30	0	0	0	0	0	0	1	209	376	666	575	651	777	689	882	908	813	626	103	0	0	0	0	0	7277
31	0	0	0	0	0	0	0	0	2	121	43	13	1	1	5	11	84	34	2	0	0	0	0	0	319
Avg	0	0	0	0	0	0	7	99	252	348	369	404	406	443	402	306	243	174	25	0	0	0	0	0	3478
S D	0	0	0	0	0	0	19	157	297	342	364	375	373	390	387	377	341	251	42	0	0	0	0	0	2960
S/A	0	0	0	0	0	0	2.58	1.59	1.18	0.98	0.99	0.93	0.92	0.88	0.96	1.23	1.41	1.44	1.65	0	0	0	0	0	0.85
Min	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Max	0	0	0	0	0	0	70	571	801	947	1005	1024	1029	1022	1004	966	867	631	157	0	0	0	0	0	9844
n	0	0	0	0	0	0	167	368	369	372	372	364	351	372	372	372	369	372	182	0	0	0	0	0	4402

Daylight Data Recovery: 0.0% missing; 0.9% exceed the 15% QC threshold -- 4441 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

March 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	1	31	140	209	244	311	297	306	222	192	164	38	6	0	0	0	0	0	2160
2	0	0	0	0	0	0	3	40	126	269	384	355	222	154	176	221	139	48	12	0	0	0	0	0	2150
3	0	0	0	0	0	0	4 ?	26	62	73	84	93	96	94	82	65	48	26	5	0	0	0	0	0	758
4	0	0	0	0	0	0	3	36	80	150	372	493	380	290	258	185	160	62	5	0	0	0	0	0	2474
5	0	0	0	0	0	0	0	8	67	168	145	253	286	158	69	33	24	7	0	0	0	0	0	0	1217
6	0	0	0	0	0	0	4	33	136	214	134	95	89	83	74	63	51	30	7	0	0	0	0	0	1014
7	0	0	0	0	0	0	1	40	64	129	181	288	141	282	317	239	128	45	4	0	0	0	0	0	1856
8	0	0	0	0	0	0	0	20	73	113	220	271	366	268	214	192	105	40	8	0	0	0	0	0	1889
9	0	0	0	0	0	0	6	50	92	103	149	115	161	278	237	181	99	40	8	0	0	0	0	0	1519
10	0	0	0	0	0	0	6 ?	39	81	73	70	75	146	181	310	287	159	79	11	0	0	0	0	0	1518
11	0	0	0	0	0	0	2 ?	23	117	93	238	325	113	144	118	146	83	17	6	0	0	0	0	0	1425
12	0	0	0	0	0	0	3	20	82	185	267	346	321	349	222	68	43	22	4	0	0	0	0	0	1931
13	0	0	0	0	0	0	11	52	86	164	325	390	248	147	202	236	118	14	0	0	0	0	0	0	1993
14	0	0	0	0	0	0	2	50	174	222	250	125	84	84	74	66	54	35	9	0	0	0	0	0	1229
15	0	0	0	0	0	0	12	40	62	69	90	92	102	84	87	78	158	73	16	0	0	0	0	0	964
16	0	0	0	0	0	0	1	12	25	38	47	52	60	61	44	43	28	10	1	0	0	0	0	0	420
17	0	0	0	0	0	0	0	2 ?	25 ?	32	63	99	275	340	315	301	202	86	14	0	0	0	0	0	1754 ?
18	0	0	0	0	0	0	11	49 ?	81 ?	98	108	125	193	355	255	228	190	85	14	0	0	0	0	0	1792
19	0	0	0	0	0	0	19	73	155	273	341	457	362	383	322	210	121	35	6	0	0	0	0	0	2755
20	0	0	0	0	0	0	5	38	164	218	327	289	194	160	129	101	77	48	12	0	0	0	0	0	1763
21	0	0	0	0	0	0	11	72	171	186	173	323	334	254	173	95	60	35	9	0	0	0	0	0	1896
22	0	0	0	0	0	0	19	94	148	214	159	229	332	321	282	166	23 ?	27	2	0	0	0	0	0	2015
23	0	0	0	0	0	0	1	16	69	215	276	316	313	229	213	189	85 ?	18	3	0	0	0	0	0	1943
24	0	0	0	0	0	0	1	12	31	66	104	117	172	151	136	120	119	71	13	0	0	0	0	0	1114
25	0	0	0	0	0	0	3	15	41	101	333	375	337	193	319	252	160 ?	30 ?	19	0	0	0	0	0	2177
26	0	0	0	0	0	0	25	92	140	231	362	399	307	407	347	284	190	66	15	0	0	0	0	0	2864
27	0	0	0	0	0	0	4	22	99	286	295	247	268	143	222	83	90	16	2	0	0	0	0	0	1776
28	0	0	0	0	0	0	6	15 ?	191	249	151	162	286	220	163	90	67	15	2	0	0	0	0	0	1614
29	0	0	0	0	0	0	5	18	37	92	128	207	369	146	120	131	103	91	27	0	0	0	0	0	1476
30	0	0	0	0	0	0	28	85	190	167	234	236	195	219	115	70	58	41	15	0	0	0	0	0	1653
31	0	0	0	0	0	0	4	52	115	315	380	372	249	233	303	296	190	110	27	0	0	0	0	0	2646
Avg	0	0	0	0	0	0	6	38	101	162	214	246	235	217	197	158	106	44	9	0	0	0	0	0	1734
S D	0	0	0	0	0	0	7	25	50	78	106	124	98	97	91	83	54	27	7	0	0	0	0	0	563
S/A	0	0	0	0	0	0	1.11	0.65	0.49	0.48	0.49	0.5	0.42	0.45	0.46	0.52	0.51	0.62	0.76	0	0	0	0	0	0.32
Min	0	0	0	0	0	0	0	2	25	32	47	52	60	61	44	33	23	7	0	0	0	0	0	0	420
Max	0	0	0	0	0	0	28	94	191	315	384	493	380	407	347	301	202	110	27	0	0	0	0	0	2864
n	0	0	0	0	0	0	159	356	361	372	372	371	370	370	372	370	363	356	182	0	0	0	0	0	4374

Daylight Data Recovery: 0.0% missing; 1.5% exceed the 15% QC threshold -- 4441 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.