

**February 2002**

**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	16 ?	31	53	77	80	155	440	375	156	88	23	0	0	0	0	0	0	1495
2	0	0	0	0	0	0	0	8	63	244	495	580	604	560	442	304	187	38	0	0	0	0	0	0	3524
3	0	0	0	0	0	0	0	12	71	146	190	253	256	171	139	123	54	13	0	0	0	0	0	0	1428
4	0	0	0	0	0	0	0	8	65	131	290	181	257	256	236	245	109	19	0	0	0	0	0	0	1797
5	0	0	0	0	0	0	0	20	120	320	491	576	608	616	478	368	208	32	0	0	0	0	0	0	3837
6	0	0	0	0	0	0	0	14	74	127	159	160	128	95	55	43	24	7	0	0	0	0	0	0	886
7	0	0	0	0	0	0	0	4	30	57	68	158	184	66	54	45	22	5	0	0	0	0	0	0	692
8	0	0	0	0	0	0	0	10	74	358	517	606	650	624	530	389	205	43	0	0	0	0	0	0	4006
9	0	0	0	0	0	0	0	19 ?	?	415 ?	521	622	660	629	537	393	212	47	0	0	0	0	0	0	4057 ?
10	0	0	0	0	0	0	0	13	60	82	64	429	409	556	525	375	116	8	0	0	0	0	0	0	2634
11	0	0	0	0	0	0	0	1	27	66	116	148	274	294	284	297	196	48	0	0	0	0	0	0	1752
12	0	0	0	0	0	0	0	18 ?	?	393	525	632	670	645	547	402	223	52	0	0	0	0	0	0	4109 ?
13	0	0	0	0	0	0	0	8	67	183	365	544	568	564	499	371	203	51	0	0	0	0	0	0	3423
14	0	0	0	0	0	0	0	63	270 ?	414	536	637	676	650	555	408	228	52	0	0	0	0	0	0	4490
15	0	0	0	0	0	0	0	23	101	174	269	382	505	459	348	258	193	50	0	0	0	0	0	0	2761
16	0	0	0	0	0	0	0	15	117	346	542	649	687	662	570	408	195	40	0	0	0	0	0	0	4230
17	0	0	0	0	0	0	0	17	107	238	174	175	198	236	294	310	176	65	3	0	0	0	0	0	1995
18	0	0	0	0	0	0	0	25 ?	?	532 ?	579	659	701	677	578	436	252	67	0	0	0	0	0	0	4506 ?
19	0	0	0	0	0	0	0	43	217	356	544	656	657	554	303	195	79	15	0	0	0	0	0	0	3620
20	0	0	0	0	0	0	0	7	51	141	166	109	199	300	378	177	164	42	5	0	0	0	0	0	1738
21	0	0	0	0	0	0	0	46	214	401	567	595	695	583	416	380	241	72	4	0	0	0	0	0	4215
22	0	0	0	0	0	0	0	3	14	31	43	87	75	79	86	51	30	8	0	0	0	0	0	0	507
23	0	0	0	0	0	0	0	5	25	57	107	144	176	233	499	466	269	76	0	0	0	0	0	0	2057
24	0	0	0	0	0	0	0	14 ?	349 ?	475 ?	601	690	732	702	606	448	278	80	1	0	0	0	0	0	4976 ?
25	0	0	0	0	0	0	0	48	238	426	581	692	656	594	482	374	194	57	6	0	0	0	0	0	4347
26	0	0	0	0	0	0	0	2	60	169	272	715	395	367	435	167	218	88	6	0	0	0	0	0	2895
27	0	0	0	0	0	0	0	22	114	306	412	358	373	395	333	178	154	42	5	0	0	0	0	0	2693
28	0	0	0	0	0	0	3	46	176	286	389	629	673	747	653	492	301	103	4	0	0	0	0	0	4504

Avg	0	0	0	0	0	0	0	19	109	247	345	434	458	456	401	295	172	44	1	0	0	0	0	0	2970
S D	0	0	0	0	0	0	1	16	87	148	197	233	225	209	169	135	78	26	2	0	0	0	0	0	1332
S/A	0	0	0	0	0	0	5.29	0.84	0.79	0.6	0.57	0.54	0.49	0.46	0.42	0.46	0.45	0.59	1.77	0	0	0	0	0	0.45
Min	0	0	0	0	0	0	0	1	14	31	43	80	75	66	54	43	22	5	0	0	0	0	0	0	507
Max	0	0	0	0	0	0	3	63	349	532	601	715	732	747	653	492	301	103	6	0	0	0	0	0	4976
n	0	0	0	0	0	0	1	244	288	320	335	336	336	336	334	335	336	316	21	0	0	0	0	0	3538

Daylight Data Recovery: 0.0% missing; 2.4% exceed the 15% QC threshold -- 3625 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 25821F3    Calibration Factor: 9.020 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**

**February 2002**

**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	5	11	439	384	100	63	3	0	0	0	0	0	0	0	1006
2	0	0	0	0	0	0	0	0	1	270	888	988	935	754	593	415	401	102	0	0	0	0	0	0	5347
3	0	0	0	0	0	0	0	0	1	6	3	8	4	1	0	0	0	0	0	0	0	0	0	0	23
4	0	0	0	0	0	0	0	0	1	40	232	79	87	72	106	202	41	0	0	0	0	0	0	0	860
5	0	0	0	0	0	0	0	1	122	583	853	844	873	978	736	725	628	38	0	0	0	0	0	0	6381
6	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	5
7	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3
8	0	0	0	0	0	0	0	0	4	392	882	973	1002	994	970	898	740	357	0	0	0	0	0	0	7212
9	0	0	0	0	0	0	0	74	714	925	998	1025	1037	1032	997	936	812	434	0	0	0	0	0	0	8983
10	0	0	0	0	0	0	0	0	0	0	0	116	113	489	898	811	165	0	0	0	0	0	0	0	2592
11	0	0	0	0	0	0	0	0	0	0	0	0	22	34	84	288	357	337	0	0	0	0	0	0	1122
12	0	0	0	0	0	0	0	168	671	877	951	987	1001	995	959	891	759	362	0	0	0	0	0	0	8622
13	0	0	0	0	0	0	0	0	0	10	270	489	575	633	701	568	525	247	0	0	0	0	0	0	4018
14	0	0	0	0	0	0	0	213	726 ?	899	977	1006	1017	1009	976	902	780	401	0	0	0	0	0	0	8905
15	0	0	0	0	0	0	0	1	11	11	29	82	303	280	108	89	307	145	0	0	0	0	0	0	1365
16	0	0	0	0	0	0	0	0	98	445	745	965	995	994	972	702	249	10	0	0	0	0	0	0	6177
17	0	0	0	0	0	0	0	0	11	99	8	10	7	21	173	274	208	15	0	0	0	0	0	0	826
18	0	0	0	0	0	0	0	310	738 ?	938 ?	860	1014	1045	1042	1002	953	800	468	1	0	0	0	0	0	9171
19	0	0	0	0	0	0	0	143	669	495	921	871	770	343	41	6	0	0	0	0	0	0	0	0	4259
20	0	0	0	0	0	0	0	0	0	2	8	2	3	56	209	32	130	36	0	0	0	0	0	0	478
21	0	0	0	0	0	0	0	284	703	788	874	712	766	588	359	556	527	299	0	0	0	0	0	0	6457
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	1
23	0	0	0	0	0	0	0	0	0	0	0	1	1	1	365	886	776	465	1	0	0	0	0	0	2496
24	0	0	0	0	0	0	0	321	806	951	1014	1040	1048	1037	1011	896	807	510	2	0	0	0	0	0	9441
25	0	0	0	0	0	0	0	277	689	876	796	789	615	437	378	356	147	7	1	0	0	0	0	0	5366
26	0	0	0	0	0	0	0	0	1	48	177	846	162	199	395	78	319	330	0	0	0	0	0	0	2554
27	0	0	0	0	0	0	0	0	13	152	136	47	36	89	57	15	57	0	0	0	0	0	0	0	602
28	0	0	0	0	0	0	0	18	184	97	110	426	590	886	976	961	841	578	15	0	0	0	0	0	5682

Avg	0	0	0	0	0	0	0	65	220	318	419	476	465	479	480	448	373	184	1	0	0	0	0	0	3927
S D	0	0	0	0	0	0	0	112	322	377	430	448	441	418	398	381	317	202	3	0	0	0	0	0	3322
S/A	0	0	0	0	0	0	0	1.73	1.46	1.18	1.03	0.94	0.95	0.87	0.83	0.85	0.85	1.1	4.09	0	0	0	0	0	0.85
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	1
Max	0	0	0	0	0	0	0	321	806	951	1014	1040	1048	1042	1011	961	841	578	15	0	0	0	0	0	9441
n	0	0	0	0	0	0	1	263	325	332	335	336	336	336	334	335	336	316	21	0	0	0	0	0	3606

Daylight Data Recovery: 0.0% missing; 0.5% exceed the 15% QC threshold -- 3625 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.

**February 2002**

**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	15 ?	29	51	73	75	143	199	182	118	70	21	0	0	0	0	0	0	977
2	0	0	0	0	0	0	0	7	58	150	95	63	81	145	154	145	102	28	0	0	0	0	0	0	1029
3	0	0	0	0	0	0	0	11	65	134	178	232	239	163	132	116	51	12	0	0	0	0	0	0	1334
4	0	0	0	0	0	0	0	7	62	113	177	134	204	206	183	161	95	18	0	0	0	0	0	0	1360
5	0	0	0	0	0	0	0	19	91	114	98	115	106	79	98	91	66	26	0	0	0	0	0	0	902
6	0	0	0	0	0	0	0	13	68	119	150	153	122	91	52	39	22	7	0	0	0	0	0	0	835
7	0	0	0	0	0	0	0	3	28	54	65	152	175	63	51	42	21	4	0	0	0	0	0	0	658
8	0	0	0	0	0	0	0	11	73	179	101	69	64	66	58	51	38	14	0	0	0	0	0	0	724
9	0	0	0	0	0	0	0	15	48	51	52	56	56	51	50	41	30	13	0	0	0	0	0	0	462
10	0	0	0	0	0	0	0	12	56	78	60	338	328	281	83	65	65	7	0	0	0	0	0	0	1373
11	0	0	0	0	0	0	0	1	26	62	109	139	249	267	234	180	114	21	0	0	0	0	0	0	1400
12	0	0	0	0	0	0	0	20	51	54	63	70	70	71	64	55	42	18	0	0	0	0	0	0	578
13	0	0	0	0	0	0	0	7	62	169	224	250	206	165	120	128	69	28	0	0	0	0	0	0	1427
14	0	0	0	0	0	0	0	20	49 ?	55	58	62	62	61	57	50	39	16	0	0	0	0	0	0	528
15	0	0	0	0	0	0	0	21	94	162	253	332	309	280	287	218	118	32	0	0	0	0	0	0	2104
16	0	0	0	0	0	0	0	14	89	172	160	81	72	69	62	109	123	37	0	0	0	0	0	0	988
17	0	0	0	0	0	0	0	16	99	188	160	162	185	211	189	185	112	61	2	0	0	0	0	0	1571
18	0	0	0	0	0	0	0	23	55 ?	60 ?	94	64	56	54	50	43	42	17	0	0	0	0	0	0	558
19	0	0	0	0	0	0	0	30	60	145	72	132	155	318	261	181	74	14	0	0	0	0	0	0	1442
20	0	0	0	0	0	0	0	6	46	130	156	100	188	254	249	159	129	38	4	0	0	0	0	0	1459
21	0	0	0	0	0	0	0	17	48	92	108	159	204	219	207	135	102	33	4	0	0	0	0	0	1329
22	0	0	0	0	0	0	0	2	13	28	39	80	70	72	79	47	28	7	0	0	0	0	0	0	464
23	0	0	0	0	0	0	0	5	23	53	100	134	164	216	298	85	52	23	0	0	0	0	0	0	1152
24	0	0	0	0	0	0	0	25	55	60	51	51	52	51	46	51	48	20	1	0	0	0	0	0	511
25	0	0	0	0	0	0	0	17	59	64	141	186	230	297	253	205	142	51	6	0	0	0	0	0	1651
26	0	0	0	0	0	0	0	1	54	142	160	182	293	231	202	128	132	42	6	0	0	0	0	0	1574
27	0	0	0	0	0	0	0	21	106	234	337	315	340	329	292	164	137	38	5	0	0	0	0	0	2317
28	0	0	0	0	0	0	?	40	123	236	315	339	261	176	96	59	49	27	4	0	0	0	0	0	1726

Avg	0	0	0	0	0	0	0	14	60	112	130	151	167	167	146	109	75	24	1	0	0	0	0	0	1158
S D	0	0	0	0	0	0	0	9	26	59	77	91	91	94	88	57	39	14	2	0	0	0	0	0	501
S/A	0	0	0	0	0	0	0	0.64	0.43	0.53	0.59	0.61	0.54	0.56	0.6	0.53	0.52	0.57	1.77	0	0	0	0	0	0.43
Min	0	0	0	0	0	0	0	1	13	28	39	51	52	51	46	39	21	4	0	0	0	0	0	0	462
Max	0	0	0	0	0	0	0	40	123	236	337	339	340	329	298	218	142	61	6	0	0	0	0	0	2317
n	0	0	0	0	0	0	0	258	325	332	335	336	336	336	334	335	335	316	21	0	0	0	0	0	3599

Daylight Data Recovery: 0.0% missing; 0.7% exceed the 15% QC threshold -- 3625 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.