

**April 2001**

**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	41	89	69	31	112	208	186	175	209	177	111	184	36	0	0	0	0	0	1628
2	0	0	0	0	0	0	48	223	437	635	791	872	925	874	756	636	319	134	22	0	0	0	0	0	6671
3	0	0	0	0	0	0	5	36	76	135	106	159	116	101	105	61	33	45	11	0	0	0	0	0	990
4	0	0	0	0	0	0	27	119	168	410	638	590	578	891	653	551	327	112	24	0	0	0	0	0	5089
5	0	0	0	0	0	0	39	157	247	289	289	577	541	374	346	230	230	97	18	0	0	0	0	0	3433
6	0	0	0	0	0	0	13	71	275	387	556	730	403	574	330	323	185	117	24	0	0	0	0	0	3990
7	0	0	0	0	0	0	22	137	191	529	575	566	501	437	429	326	271	116	26	0	0	0	0	0	4128
8	0	0	0	0	0	0	19	117	366	528	586	780	761	675	620	544	382	205 ?	33	0	0	0	0	0	5617
9	0	0	0	0	0	0	26	174	313	328	536	737	647	681	758	598	389	185 ?	36	0	0	0	0	0	5409
10	0	0	0	0	0	0	17	192	292	597	746	475	567	412	314	158	60	19	0	0	0	0	0	0	3852
11	0	0	0	0	0	2	38	162	270	636	753	800	513	741	495	308	204	93	29	0	0	0	0	0	5042
12	0	0	0	0	0	4	30	155	307	472	631	734	263	178	253	262	167	56	25	0	0	0	0	0	3539
13	0	0	0	0	0	0	8	33	81	361	440	386	737	714	740	317	409	211	38	0	0	0	0	0	4476
14	0	0	0	0	0	7	60	262	446	670	830	920	900	710	520	395	297	130	26	0	0	0	0	0	6173
15	0	0	0	0	0	1	51	202	351	267	227	155	208	181	89	111	208	96	38	0	0	0	0	0	2184
16	0	0	0	0	0	4	16	44	66	169	308	749	944	932	807	634	398	136	24	0	0	0	0	0	5232
17	0	0	0	0	0	0	24	101	87	135	249	448	404	442	362	151	190	136	9	0	0	0	0	0	2740
18	0	0	0	0	0	3	52	307	430	519	458	749	917	908	815	578	402	228	51	0	0	0	0	0	6417
19	0	0	0	0	0	8	85	284	499	641	826	921	950	915	803	626	374	199	47	0	0	0	0	0	7178
20	0	0	0	0	0	17 ?	70	135	280	395	453	534	471	458	356	214	141	51	10	0	0	0	0	0	3586
21	0	0	0	0	0	2	14	51	118	243	120	418	572	853	498	448	416	217	42	0	0	0	0	0	4011
22	0	0	0	0	0	5	59	131	214	432	753	895	896	876	599	569	434	195	57	0	0	0	0	0	6115
23	0	0	0	0	0	14	136	290	503	689	825	902	954	896	777	608	369	125	29	0	0	0	0	0	7116
24	0	0	0	0	0	8	89	298	402	193	49	53	103	296	249	340	214	124	33	2	0	0	0	0	2453
25	0	0	0	0	0	3	43	149	378	703	878	971	989	942	833	661	466	248	48	0	0	0	0	0	7313
26	0	0	0	0	0	15	120	327	538	729	872	965	982	939	834	669	474	262	52	0	0	0	0	0	7779
27	0	0	0	0	0	18	125	331	538	719	862	947	967	920	810	640	445	235	57	1	0	0	0	0	7613
28	0	0	0	0	0	9	107	306	519	733	877	955	973	933	835	652	460	243	50	1	0	0	0	0	7652
29	0	0	0	0	0	14	119	322	527	716	862	946	970	927	825	659	460	250	59	2	0	0	0	0	7660
30	0	0	0	0	0	13	105	283	271	349	639	759	860	843	679	526	281	182	43	1	0	0	0	0	5835
Avg	0	0	0	0	0	5	54	183	309	455	562	663	660	660	557	432	304	154	33	0	0	0	0	0	5031
S D	0	0	0	0	0	6	39	97	155	210	270	272	294	281	245	199	129	68	16	1	0	0	0	0	1946
S/A	0	0	0	0	0	1.21	0.73	0.53	0.5	0.46	0.48	0.41	0.44	0.43	0.44	0.46	0.42	0.44	0.47	2.6	0	0	0	0	0.39
Min	0	0	0	0	0	0	5	33	66	31	49	53	103	101	89	61	33	19	0	0	0	0	0	0	990
Max	0	0	0	0	0	18	136	331	538	733	878	971	989	942	835	669	474	262	59	2	0	0	0	0	7779
n	0	0	0	0	0	73	353	360	360	360	360	360	360	360	360	360	360	348	329	12	0	0	0	0	4715

Daylight Data Recovery: 0.0% missing; 0.3% exceed the 15% QC threshold -- 4728 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.

**April 2001**

**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	3	1	0	0	0	1	1	1	1	4	9	267	50	0	0	0	0	0	338
2	0	0	0	0	0	0	279	668	844	922	953	926	974	955	845	853	448	221	1	0	0	0	0	0	8890
3	0	0	0	0	0	0	0	0	1	2	1	2	1	1	1	0	0	0	0	0	0	0	0	0	8
4	0	0	0	0	0	0	0	1	1	67	404	308	253	751	567	669	438	96	0	0	0	0	0	0	3557
5	0	0	0	0	0	0	1	99	41	27	4	74	79	23	59	14	59	32	0	0	0	0	0	0	512
6	0	0	0	0	0	0	0	0	65	75	158	296	22	144	22	24	15	39	0	0	0	0	0	0	863
7	0	0	0	0	0	0	0	67	16	362	267	139	52	30	59	44	100	39	1	0	0	0	0	0	1175
8	0	0	0	0	0	0	2	43	373	422	412	600	562	488	501	602	574	369 ?	0	0	0	0	0	0	4948
9	0	0	0	0	0	0	0	157	211	114	330	514	406	492	650	731	594	205 ?	1	0	0	0	0	0	4405
10	0	0	0	0	0	0	0	277	211	612	623	72	125	52	13	1	0	0	0	0	0	0	0	0	1986
11	0	0	0	0	0	0	8	63	96	487	611	627	141	414	154	32	24	3	0	0	0	0	0	0	2661
12	0	0	0	0	0	0	6	96	158	278	327	285	21	0	1	9	15	0	2	0	0	0	0	0	1198
13	0	0	0	0	0	0	0	0	0	53	85	69	413	506	693	246	636	580	85	0	0	0	0	0	3365
14	0	0	0	0	0	0	110	439	583	763	866	889	769	393	144	81	146	16	0	0	0	0	0	0	5200
15	0	0	0	0	0	0	47	134	137	11	1	1	1	1	0	0	21	38	23	0	0	0	0	0	416
16	0	0	0	0	0	0	0	0	0	1	6	432	805	864	845	766	552	83	0	0	0	0	0	0	4354
17	0	0	0	0	0	0	0	9	0	1	2	31	130	84	168	7	37	94	0	0	0	0	0	0	563
18	0	0	0	0	0	0	2	389	436	281	84	361	704	763	811	555	437	290	37	0	0	0	0	0	5151
19	0	0	0	0	0	2	191	528	703	689	763	805	880	895	845	686	372	265	91	0	0	0	0	0	7716
20	0	0	0	0	0	4	24	4	55	106	52	53	27	90	6	4	0	0	0	0	0	0	0	0	424
21	0	0	0	0	0	0	0	0	1	5	0	70	178	662	192	244	499	474	95	0	0	0	0	0	2420
22	0	0	0	0	0	2	2	6	2	45	599	827	755	696	349	509	613	238	48	0	0	0	0	0	4689
23	0	0	0	0	0	24	343	588	786	861	883	874	929	884	789	658	396	78	1	0	0	0	0	0	8096
24	0	0	0	0	0	0	112	504	340	3	0	0	0	3	2	26	15	4	0	0	0	0	0	0	1010
25	0	0	0	0	0	0	0	4	362	780	931	976	971	961	934	867	800	645	158	0	0	0	0	0	8389
26	0	0	0	0	0	88	472	735	857	923	951	970	971	966	938	896	824	696	183	0	0	0	0	0	10470
27	0	0	0	0	0	112	516	770	850	890	921	935	924	904	871	746	682	466	145	0	0	0	0	0	9731
28	0	0	0	0	0	23	287	563	604	864	930	923	925	926	907	824	752	556	127	0	0	0	0	0	9211
29	0	0	0	0	0	24	262	540	675	761	816	843	851	848	833	773	677	508	112	0	0	0	0	0	8524
30	0	0	0	0	0	13	200	382	25	22	336	502	635	649	543	498	251	256	39	0	0	0	0	0	4350
Avg	0	0	0	0	0	10	96	236	281	348	411	447	450	482	425	379	333	219	40	0	0	0	0	0	4154
S D	0	0	0	0	0	26	151	265	311	358	372	370	387	377	373	352	292	222	57	0	0	0	0	0	3334
S/A	0	0	0	0	0	2.64	1.58	1.13	1.11	1.03	0.91	0.83	0.86	0.78	0.88	0.93	0.88	1.01	1.41	0	0	0	0	0	0.8
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	8
Max	0	0	0	0	0	112	516	770	857	923	953	976	974	966	938	896	824	696	183	0	0	0	0	0	10470
n	0	0	0	0	0	74	353	360	360	360	360	360	360	360	360	360	360	348	329	12	0	0	0	0	4716

Daylight Data Recovery: 0.0% missing; 0.3% exceed the 15% QC threshold -- 4728 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.

**Bluefield State College**  
**37.27 N Latitude 81.24 W Longitude 803 Meters AMSL Time Zone -5**

**April 2001**

**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	36	78	62	28	100	185	167	156	185	156	98	115	31	0	0	0	0	0	1397
2	0	0	0	0	0	0	25	60	76	88	105	130	124	114	154	137	130	70	21	0	0	0	0	0	1235
3	0	0	0	0	0	0	5	32	68	122	95	143	104	91	94	55	29	40	10	0	0	0	0	0	887
4	0	0	0	0	0	0	26	106	150	360	332	341	361	283	239	161	139	83	21	0	0	0	0	0	2601
5	0	0	0	0	0	0	37	124	223	259	256	505	438	333	289	204	204	84	15	0	0	0	0	0	2972
6	0	0	0	0	0	0	12	64	246	348	437	486	362	447	297	295	167	99	21	0	0	0	0	0	3281
7	0	0	0	0	0	0	20	111	172	297	364	460	466	403	383	294	221	103	23	0	0	0	0	0	3316
8	0	0	0	0	0	0	17	104	182	261	274	271	269	276	254	185	139	95 ?	24	0	0	0	0	0	2351
9	0	0	0	0	0	0	23	128	205	253	280	312	295	275	272	160	129	94 ?	27	0	0	0	0	0	2453
10	0	0	0	0	0	0	15	111	171	202	263	413	467	345	282	139	54	17	0	0	0	0	0	0	2479
11	0	0	0	0	0	1	35	142	221	326	287	276	382	390	384	273	181	83	25	0	0	0	0	0	3008
12	0	0	0	0	0	4	27	126	232	292	377	470	221	161	228	230	148	50	22	0	0	0	0	0	2587
13	0	0	0	0	0	0	7	29	73	309	351	316	370	286	230	159	137	63	27	0	0	0	0	0	2357
14	0	0	0	0	0	8 ?	42	103	148	160	151	160	221	366	412	344	230	118	23	0	0	0	0	0	2484
15	0	0	0	0	0	1	42	165	274	253	203	139	186	161	80	99	188	80	33	0	0	0	0	0	1904
16	0	0	0	0	0	3	14	38	58	149	278	360	230	204	167	153	135	102	21	0	0	0	0	0	1912
17	0	0	0	0	0	0	21	89	76	119	220	400	280	372	235	133	158	102	7	0	0	0	0	0	2212
18	0	0	0	0	0	3	47	184	214	330	376	421	271	247	188	208	188	141	44	0	0	0	0	0	2865
19	0	0	0	0	0	7	56	108	137	173	211	212	166	153	154	185	190	130	34	0	0	0	0	0	1916
20	0	0	0	0	0	16 ?	64	117	238	314	413	476	413	361	314	189	124	45	8	0	0	0	0	0	3094
21	0	0	0	0	0	1	13	44	105	217	108	337	385	281	349	288	193	89	28	0	0	0	0	0	2439
22	0	0	0	0	0	5	52	117	188	367	256	167	213	272	323	255	140	128	49	0	0	0	0	0	2531
23	0	0	0	0	0	12	92	90	93	99	113	126	115	130	164	181	174	97	25	0	0	0	0	0	1511
24	0	0	0	0	0	9	67	127	230	176	43	46	90	258	216	308	187	110	29	0	0	0	0	0	1895
25	0	0	0	0	0	3	37	131	164	157	124	111	115	112	106	102	86	66	25	0	0	0	0	0	1339
26	0	0	0	0	0	13	51	77	87	96	105	110	108	105	102	94	83	65	25	0	0	0	0	0	1122
27	0	0	0	0	0	14	49	69	88	105	117	123	137	140	134	163	121	101	36	1	0	0	0	0	1398
28	0	0	0	0	0	10	64	111	202	131	119	137	134	128	123	123	101	80	30	0	0	0	0	0	1493
29	0	0	0	0	0	13	75	125	155	177	188	192	192	183	166	153	129	97	41	2	0	0	0	0	1888
30	0	0	0	0	0	13	72	152	233	321	357	307	282	275	248	203	161	111	37	1	0	0	0	0	2771
Avg	0	0	0	0	0	5	38	102	159	216	230	271	252	244	226	188	145	89	25	0	0	0	0	0	2190
S D	0	0	0	0	0	5	23	38	66	96	112	138	118	103	92	71	47	28	11	0	0	0	0	0	676
S/A	0	0	0	0	0	1.19	0.6	0.38	0.42	0.44	0.49	0.51	0.47	0.42	0.41	0.38	0.32	0.32	0.42	2.95	0.41	0.0	0.0	0.0	0.31
Min	0	0	0	0	0	0	5	29	58	28	43	46	90	91	80	55	29	17	0	0	0	0	0	0	887
Max	0	0	0	0	0	16	92	184	274	367	437	505	467	447	412	344	230	141	49	2	0	0	0	0	3316
n	0	0	0	0	0	69	351	360	360	360	360	360	360	360	360	360	360	348	329	12	0	0	0	0	4709

Daylight Data Recovery: 0.0% missing; 0.4% exceed the 15% QC threshold -- 4728 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 17860F3    Calibration Factor: 7.010 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.