

**May 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	17	114	303	500	699	754	526	781	471	339	503	379	130	27	3	0	0	0	0	5546
2	0	0	0	0	0	20	88	253	358	461	759	725	340	148	306	339	352	175	21	1	0	0	0	0	4347
3	0	0	0	0	0	14	110	258	409	657	804	873	770	579	331	384	365	171	20	1	0	0	0	0	5747
4	0	0	0	0	0	15	110	288	479	656	625	773	603	608	587	424	331	179	34	4	0	0	0	0	5716
5	0	0	0	0	0	16	82	234	497	644	769	911	914	792	470	524	395	257	60	1	0	0	0	0	6566
6	0	0	0	0	0	8	40	86	254	563	715	843	887	777	790	525	264	200	87	8	0	0	0	0	6047
7	0	0	0	0	0	11	76	235	408	635	857	920	924	701	758	583	443	162	31	3	0	0	0	0	6747
8	0	0	0	0	0	7	22	62	135	137	229	595	251	113	81	51	40	20	11	6	0	0	0	0	1759
9	0	0	0	0	0	12	60	241	414	522	819	754	933	798	814	684	411	276	73	5	0	0	0	0	6816
10	0	0	0	0	0	18	134	327	535	724	845	905	675	721	605	576	416	212	62	6	0	0	0	0	6760
11	0	0	0	0	0	30	136	348	532	698	920	954	971	632	482	654	356	113	26	7	0	0	0	0	6860
12	0	0	0	0	0	19	53	54	183	217	284	177	126	481	474	467	364	211	58	17	0	0	0	0	3185
13	0	0	0	0	0	16	166	413	594	785	928	1011	1032	989	882	722	519	308	86	7	0	0	0	0	8458
14	0	0	0	0	0	30	181	381	591	777	919	999	981	955	864	681	484	239	57	5	0	0	0	0	8145
15	0	0	0	0	0	8	20	13	91	182	367	301	348	390	597	504	387	181	83	9	0	0	0	0	3481
16	0	0	0	0	0	2	5	27	127	119	114	167	334	387	286	273	254	25	6	1	0	0	0	0	2127
17	0	0	0	0	0	9	77	229	366	406	639	678	425	379	466	209	73	5	2	3	0	0	0	0	3966
18	0	0	0	0	0	12	74	185	320	603	667	751	951	903	763	650	443	252	90	14	0	0	0	0	6680
19	0	0	0	0	0	18	118	339	538	652	746	827	843	349	324	144	17	23	25	1	0	0	0	0	4965
20	0	0	0	0	0	28	88	232	278	381	402	461	571	650	414	227	176	113	38	11	0	0	0	0	4069
21	0	0	0	0	0	7	64	139	364	581	701	939	694	636	191	497	183	144	44	2	0	0	0	0	5184
22	0	0	0	0	0	21	42	80	63	145	496	720	720	84	34	57	125	185	109	13	0	0	0	0	2893
23	0	0	0	0	0	32	181	387 ?	571 ?	765	861	832	836	855	526	573	508	180	72	9	0	0	0	0	7192
24	0	0	0	0	0	39	194	341	134	192	226	265	382	306	536	265	178	149	108	10	0	0	0	0	3325
25	0	0	0	0	0	3	19	32	51	194	187	167	126	401	595	682	472	279	108	7	0	0	0	0	3321
26	0	0	0	0	0	42	117 ?	?	592	702	766	842	951	971	840	695	525	273	109	8	0	0	0	0	7432 ?
27	0	0	0	0	0	18	96	207	293	301	440	589	374	331	309	359	71	53	40	9	0	0	0	0	3492
28	0	0	0	0	0	5	59	136	123	205	252	287	561	506	523	349	309	168	95	34	0	0	0	0	3612
29	0	0	0	0	0	24	83	307	503	763	585	1026	619	800	788	605	395	246	112	10	0	0	0	0	6867
30	0	0	0	0	0	37	155	320	562	662	841	860	1072	733	657	590	398	271	116	16	0	0	0	0	7291
31	0	0	0	0	0	28	163	354	574	684	472	424	389	328	227	291	262	170	83	22	0	0	0	0	4473
Avg	0	0	0	0	0	18	94	227	369	507	613	681	658	573	512	455	319	173	61	8	0	0	0	0	5260
S D	0	0	0	0	0	11	52	120	181	230	249	272	282	256	233	194	147	83	36	7	0	0	0	0	1836
S/A	0	0	0	0	0	0.59	0.55	0.53	0.49	0.45	0.41	0.4	0.43	0.45	0.46	0.43	0.46	0.48	0.58	0.88	0	0	0	0	0.35
Min	0	0	0	0	0	2	5	13	51	119	114	167	126	84	34	51	17	5	2	1	0	0	0	0	1759
Max	0	0	0	0	0	42	194	413	594	785	928	1026	1072	989	882	722	525	308	116	34	0	0	0	0	8458
n	0	0	0	0	0	276	364	353	365	372	372	372	372	372	372	372	372	368	372	145	0	0	0	0	5219

Daylight Data Recovery: 0.0% missing; 0.7% exceed the 15% QC threshold -- 5257 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.

**May 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	21	216	460	581	630	565	263	408	141	108	339	298	50	0	0	0	0	0	0	4080
2	0	0	0	0	0	14	114	296	209	98	491	439	81	1	8	69	273	117	0	0	0	0	0	0	2210
3	0	0	0	0	0	17	171	225	244	530	608	574	437	299	92	194	271	193	0	0	0	0	0	0	3855
4	0	0	0	0	0	15	189	392	492	552	379	422	263	244	276	172	115	36	20	0	0	0	0	0	3567
5	0	0	0	0	0	13	10	197	477	529	531	560	548	363	91	371	397	367	95	0	0	0	0	0	4549
6	0	0	0	0	0	0	0	0	35	225	261	423	516	390	488	308	77	57	29	0	0	0	0	0	2811
7	0	0	0	0	0	0	19	118	238	326	534	636	585	325	401	224	464	89	0	0	0	0	0	0	3960
8	0	0	0	0	0	0	0	0	1	1	3	74	2	1	0	0	0	0	0	0	0	0	0	0	80
9	0	0	0	0	0	0	0	163	287	377	689	504	727	658	790	792	530	537	157	0	0	0	0	0	6210
10	0	0	0	0	0	1	266	499	622	731	727	667	420	488	351	407	314	154	14	0	0	0	0	0	5663
11	0	0	0	0	0	56	274	482	596	575	790	804	792	334	161	545	243	53	0	0	0	0	0	0	5707
12	0	0	0	0	0	0	0	0	1	3	10	5	1	61	87	150	187	186	21	0	0	0	0	0	711
13	0	0	0	0	0	6	171	582	849	929	962	976	975	967	948	910	845	725	274	0	0	0	0	0	10121
14	0	0	0	0	0	118	506	771	871	924	953	960	837	822	914	688	571	266	38	0	0	0	0	0	9240
15	0	0	0	0	0	0	0	0	1	3	16	11	6	20	163	308	330	171	113	0	0	0	0	0	1142
16	0	0	0	0	0	0	0	0	1	1	0	1	4	14	10	4	28	0	0	0	0	0	0	0	62
17	0	0	0	0	0	0	6	109	167	31	139	169	43	34	102	18	1	0	0	0	0	0	0	0	818
18	0	0	0	0	0	0	1	7	64	270	229	383	644	617	553	629	458	364	129	0	0	0	0	0	4348
19	0	0	0	0	0	7	184	382	487	395	485	571	509	98	85	2	0	0	0	0	0	0	0	0	3206
20	0	0	0	0	0	91	84	165	57	74	36	29	113	248	23	1	8	3	0	0	0	0	0	0	929
21	0	0	0	0	0	0	1	6	144	381	305	638	182	193	4	174	25	30	3	0	0	0	0	0	2085
22	0	0	0	0	0	9	1	1	0	1	49	200	285	0	0	0	0	146	210	0	0	0	0	0	902
23	0	0	0	0	0	78	364	818 ?	918 ?	951	862	719	693	737	365	387	565	43	54	0	0	0	0	0	7554
24	0	0	0	0	0	210	622	476	1	2	3	4	4	7	311	26	14	150	317	0	0	0	0	0	2143
25	0	0	0	0	0	0	0	0	0	4	2	1	1	40	349	700	580	599	358	0	0	0	0	0	2635
26	0	0	0	0	0	120	411 ?	?	888	647	551	568	756	843	744	738	731	519	329	0	0	0	0	0	7846 ?
27	0	0	0	0	0	13	8	24	41	15	83	116	72	97	24	44	0	0	1	0	0	0	0	0	537
28	0	0	0	0	0	0	1	11	1	2	6	9	63	76	129	41	42	35	32	0	0	0	0	0	446
29	0	0	0	0	0	5	32	234	556	809	382	880	245	519	628	588	456	376	327	0	0	0	0	0	6036
30	0	0	0	0	0	66	401	521	673	457	599	593	803	442	402	425	303	285	187	0	0	0	0	0	6158
31	0	0	0	0	0	63	374	616	704	509	37	12	7	3	1	2	37	53	43	0	0	0	0	0	2460
Avg	0	0	0	0	0	30	143	252	329	354	364	394	355	293	278	299	263	181	89	0	0	0	0	0	3615
S D	0	0	0	0	0	49	179	255	321	321	318	317	315	290	286	280	245	200	119	0	0	0	0	0	2757
S/A	0	0	0	0	0	1.65	1.25	1.01	0.98	0.91	0.87	0.8	0.89	0.99	1.03	0.94	0.93	1.1	1.34	4.66	0	0	0	0	0.76
Min	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	62
Max	0	0	0	0	0	210	622	818	918	951	962	976	975	967	948	910	845	725	358	0	0	0	0	0	10121
n	0	0	0	0	0	276	362	352	364	372	372	372	372	372	372	372	372	371	372	145	0	0	0	0	5218

Daylight Data Recovery: 0.0% missing; 0.7% exceed the 15% QC threshold -- 5257 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**

**May 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	18	79	137	186	264	296	289	410	341	252	286	232	113	24	2	0	0	0	0	2929	
2	0	0	0	0	0	19	75	165	257	379	350	330	251	137	274	283	227	138	19	1	0	0	0	0	2905	
3	0	0	0	0	0	13	83	191	269	295	316	373	375	315	252	258	245	117	18	0	0	0	0	0	3119	
4	0	0	0	0	0	14	80	153	219	274	323	401	373	395	382	314	275	151	31	3	0	0	0	0	3389	
5	0	0	0	0	0	15	72	160	239	271	328	412	417	477	387	289	202	152	45	1	0	0	0	0	3467	
6	0	0	0	0	0	7	35	76	221	402	494	452	408	427	406	318	229	188	78	7	47	0	0	0	3749	
7	0	0	0	0	0	10	65	184	277	398	421	355	392	403	433	430	222	126	27	2	0	0	0	0	3745	
8	0	0	0	0	0	6	19	54	119	121	201	514	222	100	71	44	34	18	11	5	0	0	0	0	1539	
9	0	0	0	0	0	11	52	168	227	254	233	291	256	198	172	149	132	104	46	4	0	0	0	0	2296	
10	0	0	0	0	0	15	82	137	186	193	232	290	276	274	305	292	250	158	56	6	0	0	0	0	2751	
11	0	0	0	0	0	25	76	146	192	272	258	224	241	332	349	293	242	85	23	6	0	0	0	0	2763	
12	0	0	0	0	0	17	47	47	162	190	254	156	111	413	409	374	272	155	49	17 ?	0	0	0	0	2670	
13	0	0	0	0	0	14	120	180	109	107	114	117	121	118	111	103	89	75	39	6	0	0	0	0	1423	
14	0	0	0	0	0	24	66	81	95	104	112	119	189	210	121	207	184	157	46	5	0	0	0	0	1719	
15	0	0	0	0	0	7	17	12	80	159	322	268	313	357	462	295	212	137	59	9	0	0	0	0	2710	
16	0	0	0	0	0	1	5	24	112	105	101	147	292	352	256	244	227	22	5	1	0	0	0	0	1892	
17	0	0	0	0	0	7	67	167	264	351	523	527	379	322	374	194	65	4	2	2	0	0	0	0	3249	
18	0	0	0	0	0	10	65	161	268	392	467	386	342	347	310	215	205	129	65	12	0	0	0	0	3375	
19	0	0	0	0	0	16	82	187	249	360	329	303	363	247	244	128	16	19	22	1	0	0	0	0	2565	
20	0	0	0	0	0	23	73	168	222	320	345	407	439	398	374	202	155	100	34	9	0	0	0	0	3269	
21	0	0	0	0	0	6	56	125	278	282	428	346	519	463	171	374	155	129	38	2	0	0	0	0	3371	
22	0	0	0	0	0	20	37	70	56	129	434	520	432	75	29	50	109	147	63	11	0	0	0	0	2180	
23	0	0	0	0	0	25	60	72	71	73	113	145	163	177	209	300	211	151	57	8	0	0	0	0	1835	
24	0	0	0	0	0	27	64	161	120	174	197	231	339	271	266	224	158	106	48	8	0	0	0	0	2394	
25	0	0	0	0	0	3	16	28	44	173	164	147	112	349	301	196	162	83	41	6	0	0	0	0	1825	
26	0	0	0	0	0	26	59 ?	72	87	223	293	312	229	206	223	184	144	84	48	7	0	0	0	0	2196	
27	0	0	0	0	0	16	85	182	253	275	334	481	296	229	265	299	63	47	35	8	0	0	0	0	2866	
28	0	0	0	0	0	4	51	121	108	183	223	259	500	437	401	314	281	149	83	33	0	0	0	0	3147	
29	0	0	0	0	0	22	72	210	203	173	260	203	378	326	263	195	146	120	51	9	0	0	0	0	2630	
30	0	0	0	0	0	30	85	148	171	311	332	314	320	329	334	296	239	175	81	14	0	0	0	0	3180	
31	0	0	0	0	0	24	85	107	158	305	411	366	340	289	203	260	233	141	69	19	0	0	0	0	3009	
Avg	0	0	0	0	0	15	62	126	177	242	297	312	316	300	278	246	181	112	42	7	0	0	0	0	2715	
S D	0	0	0	0	0	8	25	56	74	97	114	121	108	108	109	90	72	49	22	7	0	0	0	0	646	
S/A	0	0	0	0	0	0.52	0.4	0.45	0.42	0.4	0.38	0.39	0.34	0.36	0.39	0.36	0.4	0.43	0.51	0.93	0	0	0	0	0.24	
Min	0	0	0	0	0	1	5	12	44	73	101	117	111	75	29	44	16	4	2	0	0	0	0	0	1423	
Max	0	0	0	0	0	30	120	210	278	402	523	527	519	477	462	430	281	188	83	33	0	0	0	0	3749	
n	0	0	0	0	0	274	365	367	369	372	372	372	372	372	372	372	372	372	368	372	143	0	0	0	0	5234

Daylight Data Recovery: 0.0% missing; 0.4% exceed the 15% QC threshold -- 5257 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.