

**January 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	33	171	346	488	568	623	550	500	331	127	16	0	0	0	0	0	0	3753
2	0	0	0	0	0	0	0	3	21	43	105	56	22	22	38	56	46	15	0	0	0	0	0	0	427
3	0	0	0	0	0	0	0	9	87	172	183	455	439	320	253	92	84	19	0	0	0	0	0	0	2112
4	0	0	0	0	0	0	0	40	183	372	515	617	667	624	517	347	158	40	0	0	0	0	0	0	4079
5	0	0	0	0	0	0	0	31	140	248	404	434	467	445	270	146	89	30	0	0	0	0	0	0	2705
6	0	0	0	0	0	0	0	22	56	65	122	212	399	568	497	328	135	15	0	0	0	0	0	0	2417
7	0	0	0	0	0	0	0	36	176	367	512	581	258	294	159	240	126	30	0	0	0	0	0	0	2778
8	0	0	0	0	0	0	0	38	182	375	525	623	676	635	521	354	156	27	0	0	0	0	0	0	4113
9	0	0	0	0	0	0	0	46	193	372	520	620	665	614	503	331	144	27	0	0	0	0	0	0	4036
10	0	0	0	0	0	0	0	42	191	363	486	606	656	617	513	348	155	30	0	0	0	0	0	0	4007
11	0	0	0	0	0	0	0	50	220	374	504	605	658	531	299	307	131	20	0	0	0	0	0	0	3698
12	0	0	0	0	0	0	0	34	143	339	496	534	453	462	287	200	79	12	0	0	0	0	0	0	3038
13	0	0	0	0	0	0	0	52	195	336	533	584	652	604	550	401	177	23	0	0	0	0	0	0	4107
14	0	0	0	0	0	0	0	6	13	31	71	119	58	86	50	24	17	9	0	0	0	0	0	0	484
15	0	0	0	0	0	0	0	5	26	80	257	417	385	432	430	363	167	32	0	0	0	0	0	0	2596
16	0	0	0	0	0	0	0	54	219 ?	356	521	628	685	651	546	384	177	27	0	0	0	0	0	0	4248
17	0	0	0	0	0	0	0	26	176 ?	311	410	228	492	416	464	191	149	38	0	0	0	0	0	0	2901
18	0	0	0	0	0	0	0	21	161	362	518	620	672	637	527	370	182	47	0	0	0	0	0	0	4118
19	0	0	0	0	0	0	0	39	177	351	505	607	663	635	540	382	178	34	0	0	0	0	0	0	4112
20	0	0	0	0	0	0	0	7	29	89	158	190	205	219	272	289	117	22	0	0	0	0	0	0	1598
21	0	0	0	0	0	0	0	34	165	205	206	395	508	492	442	305	148	29	0	0	0	0	0	0	2929
22	0	0	0	0	0	0	0	16	79	175	241	254	189	191	95	73	45	11	0	0	0	0	0	0	1369
23	0	0	0	0	0	0	0	32	139	352	507	622	665	521	369	276	180	37	0	0	0	0	0	0	3701
24	0	0	0	0	0	0	0	26	170	368	528	543	677	624	546	396	185	42	0	0	0	0	0	0	4106
25	0	0	0	0	0	0	0	37	176	367	522	612	608	444	242	83	38	17	0	0	0	0	0	0	3146
26	0	0	0	0	0	0	0	10	36	63	97	107	98	180	224	171	89	18	0	0	0	0	0	0	1093
27	0	0	0	0	0	0	0	18	61	115	154	142	173	367	223	165	100	24	0	0	0	0	0	0	1542
28	0	0	0	0	0	0	0	23	93	146	215	370	501	414	474	329	200	44	0	0	0	0	0	0	2809
29	0	0	0	0	0	0	0	27	113	197	319	519	707	668	575	414	209	43	0	0	0	0	0	0	3789
30	0	0	0	0	0	0	0	42	176	374	537	656	709	678	580	413	208	52	0	0	0	0	0	0	4427
31	0	0	0	0	0	0	0	32	194	390	546	651	714	680	587	429	217	33	0	0	0	0	0	0	4473
Avg	0	0	0	0	0	0	0	29	134	261	377	457	495	472	390	275	136	28	0	0	0	0	0	0	3055
S D	0	0	0	0	0	0	0	14	65	126	170	194	218	184	168	121	54	11	0	0	0	0	0	0	1185
S/A	0	0	0	0	0	0	0	0.5	0.48	0.48	0.45	0.42	0.44	0.39	0.43	0.44	0.4	0.41	0	0	0	0	0	0	0.39
Min	0	0	0	0	0	0	0	3	13	31	71	56	22	22	38	24	17	9	0	0	0	0	0	0	427
Max	0	0	0	0	0	0	0	54	220	390	546	656	714	680	587	429	217	52	0	0	0	0	0	0	4473
n	0	0	0	0	0	0	0	264	363	371	372	372	372	372	372	372	372	372	282	0	0	0	0	0	3884

Daylight Data Recovery: 0.0% missing; 0.3% exceed the 15% QC threshold -- 3895 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 13434F3    Calibration Factor: 8.670 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.

**January 2002**

**Estimated Direct Normal Solar Radiation**  
**Hourly Integrated and Daily Totals**  
**Instrument: Calculated**  
**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	14	23	30	23	9	34	40	64	60	34	28	0	0	0	0	0	0	359
2	0	0	0	0	0	0	0	4	5	6	12	5	2	3	5	9	12	14	0	0	0	0	0	0	77
3	0	0	0	0	0	0	0	9	15	14	15	29	36	24	26	14	23	23	0	0	0	0	0	0	228
4	0	0	0	0	0	0	0	17	20	22	18	5	36	42	57	49	54	50	0	0	0	0	0	0	371
5	0	0	0	0	0	0	0	24	29	35	53	45	50	42	26	22	21	37	0	0	0	0	0	0	383
6	0	0	0	0	0	0	0	24	14	12	13	15	26	46	50	48	38	18	0	0	0	0	0	0	304
7	0	0	0	0	0	0	0	19	22	20	15	7	20	20	11	31	35	38	0	0	0	0	0	0	238
8	0	0	0	0	0	0	0	11	19	20	13	2	30	36	47	43	27	41	0	0	0	0	0	0	289
9	0	0	0	0	0	0	0	?	35 ?	24	9	1	23	14	30	43	32	45	0	0	0	0	0	0	256 ?
10	0	0	0	0	0	0	0	19 ?	36 ?	23	12	1	24	26	36	41	27	33	0	0	0	0	0	0	277
11	0	0	0	0	0	0	0	11	34	25	8	1	29	50	29	41	35	31	0	0	0	0	0	0	294
12	0	0	0	0	0	0	0	36	40	35	24	12	22	50	31	19	16	16	0	0	0	0	0	0	301
13	0	0	0	0	0	0	0	184 ?	39	32	14	5	39	43	51	50	34	54	0	0	0	0	0	0	546
14	0	0	0	0	0	0	0	4	4	4	8	12	6	8	5	4	5	11	0	0	0	0	0	0	69
15	0	0	0	0	0	0	0	6	7	10	17	49	19	35	48	50	40	48	0	0	0	0	0	0	330
16	0	0	0	0	0	0	0	41 ?	173	31	5	2	27	32	43	46	35	29	0	0	0	0	0	0	463
17	0	0	0	0	0	0	0	31	443	110 ?	33	13	43	39	59	20	25	36	0	0	0	0	0	0	850
18	0	0	0	0	0	0	0	14	10	20	7	4	32	38	44	44	39	28	0	0	0	0	0	0	278
19	0	0	0	0	0	0	0	19	16 ?	16	6	3	28	36	45	49	31	51	0	0	0	0	0	0	300
20	0	0	0	0	0	0	0	11	7	11	15	15	16	17	21	47	21	37	0	0	0	0	0	0	217
21	0	0	0	0	0	0	0	23	37	29	12	29	54	54	63	51	12	31	0	0	0	0	0	0	395
22	0	0	0	0	0	0	0	15	14	16	16	19	14	15	9	9	10	8	0	0	0	0	0	0	145
23	0	0	0	0	0	0	0	21	38	43	4	7	40	53	45	41	31	31	0	0	0	0	0	0	354
24	0	0	0	0	0	0	0	8	113	39	3	20	36	42	59	50	18	36	0	0	0	0	0	0	425
25	0	0	0	0	0	0	0	16	15	19	5	9	45	42	10	12	11	19	0	0	0	0	0	0	203
26	0	0	0	0	0	0	0	16	7	7	8	9	8	12	18	17	14	10	0	0	0	0	0	0	127
27	0	0	0	0	0	0	0	17	10	12	12	10	11	12	17	14	16	20	0	0	0	0	0	0	150
28	0	0	0	0	0	0	0	22	11	13	15	33	39	33	53	48	54	30	0	0	0	0	0	0	352
29	0	0	0	0	0	0	0	9	10	15	16	42	41	40	49	55	38	27	0	0	0	0	0	0	341
30	0	0	0	0	0	0	0	212 ?	67 ?	48	7	15	34	39	47	54	36	38	0	0	0	0	0	0	597
31	0	0	0	0	0	0	0	14 ?	87	27	23	26	37	40	48	53	36	34	0	0	0	0	0	0	425
Avg	0	0	0	0	0	0	0	29	45	25	14	15	29	33	37	37	28	31	0	0	0	0	0	0	321
S D	0	0	0	0	0	0	0	47	82	19	10	14	13	14	18	17	12	12	0	0	0	0	0	0	157
S/A	0	0	0	0	0	0	0	1.61	1.82	0.78	0.69	0.92	0.44	0.43	0.49	0.46	0.45	0.4	0	0	0	0	0	0	0.49
Min	0	0	0	0	0	0	0	4	4	4	3	1	2	3	5	4	5	8	0	0	0	0	0	0	69
Max	0	0	0	0	0	0	0	212	443	110	53	49	54	54	64	60	54	54	0	0	0	0	0	0	850
n	0	0	0	0	0	0	0	235	349	369	372	372	372	372	372	372	372	282	0	0	0	0	0	0	3839

Daylight Data Recovery: 0.0% missing; 1.4% exceed the 15% QC threshold -- 3895 total daylight measurements.

Instrument: Calculated    Serial Number: Estimated    Calibration Factor: Global = Diffuse + Direct \* COS (Zenith Angle)    Calibration Date: N/A

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.

**Bethune-Cookman College**  
**29.18 N Latitude 81.02 W Longitude 20 Meters AMSL Time Zone -5**

**January 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	33	166	335	?	?	?	377 ?	406 ?	309	119	15	0	0	0	0	0	0	1760 ?
2	0	0	0	0	0	0	0	3	20	40	99	53	20	20	35	53	43	15	0	0	0	0	0	0	402
3	0	0	0	0	0	0	0	9	83	167	175	309 ?	393	306	240	86	79	18	0	0	0	0	0	0	1865
4	0	0	0	0	0	0	0	39	170	?	?	?	?	?	392 ?	277 ?	146	37	0	0	0	0	0	0	1062 ?
5	0	0	0	0	0	0	0	30	133	234	377	408	437	421	257	138	84	28	0	0	0	0	0	0	2547
6	0	0	0	0	0	0	0	21	53	61	115	203	383	416 ?	424 ?	309	126	14	0	0	0	0	0	0	2124 ?
7	0	0	0	0	0	0	0	35	171	?	?	?	245	282	153	187 ?	118	28	0	0	0	0	0	0	1220 ?
8	0	0	0	0	0	0	0	38	169	?	?	?	?	?	?	311 ?	150	25	0	0	0	0	0	0	693 ?
9	0	0	0	0	0	0	0	8 ?	165 ?	?	?	?	?	?	?	314	137	25	0	0	0	0	0	0	649 ?
10	0	0	0	0	0	0	0	42	141 ?	?	479 ?	?	?	?	?	324	150	27	0	0	0	0	0	0	1163 ?
11	0	0	0	0	0	0	0	50	?	305 ?	?	?	?	374 ?	284	289	122	18	0	0	0	0	0	0	1441 ?
12	0	0	0	0	0	0	0	32	133	280 ?	439 ?	469 ?	394	431	271	192	75	11	0	0	0	0	0	0	2728 ?
13	0	0	0	0	0	0	0	44	172 ?	310 ?	?	466 ?	542 ?	473 ?	424 ?	?	169	21	0	0	0	0	0	0	2622 ?
14	0	0	0	0	0	0	0	6	12	29	67	112	55	81	48	22	16	9	0	0	0	0	0	0	456
15	0	0	0	0	0	0	0	5	24	76	249	387	373	358	358 ?	343	158	29	0	0	0	0	0	0	2360
16	0	0	0	0	0	0	0	26 ?	177 ?	270 ?	?	?	?	?	?	314 ?	169	25	0	0	0	0	0	0	981 ?
17	0	0	0	0	0	0	0	24	136	283 ?	363	221	373 ?	329 ?	394 ?	182	143	35	0	0	0	0	0	0	2484 ?
18	0	0	0	0	0	0	0	23	159	324 ?	?	?	?	?	447 ?	351	173	44	0	0	0	0	0	0	1521 ?
19	0	0	0	0	0	0	0	43	180	337	?	?	?	?	?	355	170	32	0	0	0	0	0	0	1116 ?
20	0	0	0	0	0	0	0	7	28	85	150	181	195	209	260	270	112	19	0	0	0	0	0	0	1515
21	0	0	0	0	0	0	0	36	156	194	200	354	442	424	355 ?	273	145	27	0	0	0	0	0	0	2605
22	0	0	0	0	0	0	0	15	76	169	233	242	179	182	89	70	43	10	0	0	0	0	0	0	1307
23	0	0	0	0	0	0	0	30	131	296 ?	?	?	490 ?	421 ?	276 ?	188 ?	160	34	0	0	0	0	0	0	2025 ?
24	0	0	0	0	0	0	0	26	139	329 ?	?	407 ?	492 ?	460 ?	519 ?	367	180	39	0	0	0	0	0	0	2957 ?
25	0	0	0	0	0	0	0	37	173	352	?	533 ?	462 ?	400	236	78	36	16	0	0	0	0	0	0	2322 ?
26	0	0	0	0	0	0	0	10	34	60	92	102	92	172	214	163	85	17	0	0	0	0	0	0	1042
27	0	0	0	0	0	0	0	17	58	111	147	136	165	360	213	159	96	22	0	0	0	0	0	0	1484
28	0	0	0	0	0	0	0	22	90	141	178	324	327 ?	337	372 ?	300	185	41	0	0	0	0	0	0	2317 ?
29	0	0	0	0	0	0	0	26	110	190	310	422 ?	?	?	?	382	198	41	0	0	0	0	0	0	1679 ?
30	0	0	0	0	0	0	0	38	167	347	?	?	?	?	?	381	198	48	0	0	0	0	0	0	1178 ?
31	0	0	0	0	0	0	0	37	177	335 ?	437 ?	436 ?	?	?	?	382 ?	206	31	0	0	0	0	0	0	2040 ?
Avg	0	0	0	0	0	0	0	26	120	218	242	303	319	325	290	246	129	26	0	0	0	0	0	0	1667 ?
S D	0	0	0	0	0	0	0	13	57	112	134	144	159	125	129	110	51	11	0	0	0	0	0	0	717
S/A	0	0	0	0	0	0	0	0.51	0.47	0.51	0.56	0.47	0.5	0.38	0.44	0.45	0.4	0.41	0	0	0	0	0	0	0.43
Min	0	0	0	0	0	0	0	3	12	29	67	53	20	20	35	22	16	9	0	0	0	0	0	0	402
Max	0	0	0	0	0	0	0	50	180	352	479	533	542	473	519	382	206	48	0	0	0	0	0	0	2957
n	0	0	0	0	0	0	0	251	335	266	176	177	181	198	202	322	371	282	0	0	0	0	0	0	2771

Daylight Data Recovery: 0.0% missing; 28.9% exceed the 15% QC threshold -- 3895 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 25951F3    Calibration Factor: 7.600 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.