

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

**August 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	5	43	152	401	481	656	779	708	241	275	492	386	106	38	3	0	0	0	0	4766
2	0	0	0	0	0	2	30	175	305	376	432	353	309	141	135	281	94	55	18	1	0	0	0	0	2706
3	0	0	0	0	0	1	17	48	56	146	287	301	608	894	873	637	438	152	15	2	0	0	0	0	4476
4	0	0	0	0	0	8	96	280	451	669	850	745	560	767	429	486	22	8	2	0	0	0	0	0	5372
5	0	0	0	0	0	2	29	95	145	252	593	322	386	634	344	20	23	44	11	1	0	0	0	0	2901
6	0	0	0	0	0	4	46	143	346	489	414	562	655	576	650	562	444	190	28	0	0	0	0	0	5109
7	0	0	0	0	0	8	64	162	528	690	769	917	816	940	826	632	334	248	56	0	0	0	0	0	6989
8	0	0	0	0	0	5	76	260	476	674	836	949	986	942	834	664	451	242	58	2	0	0	0	0	7454
9	0	0	0	0	0	3	69	252	466	663	824	958	951	920	791	243	90	46	20	6	0	0	0	0	6302
10	0	0	0	0	0	5	70	251	458	662	811	902	923	649	619	607	440	158	10	0	0	0	0	0	6566
11	0	0	0	0	0	6	80	279	454	600	534	713	916	254	638	692	479	225	21	2	0	0	0	0	5892
12	0	0	0	0	0	6	70	242	461	519	408	850	968	914	811	638	412	183	38	1	0	0	0	0	6521
13	0	0	0	0	0	6	71	218	438	632	707	679	869	820	144	71	204	172	23	0	0	0	0	0	5054
14	0	0	0	0	0	4	62	220	401	655	790	875	679	776	593	269	243	176	31	0	0	0	0	0	5773
15	0	0	0	0	0	3	86	178	341	540	759	604	268	344	169	255	45	29	19	0	0	0	0	0	3640
16	0	0	0	0	0	1	35	121	429	689	557	844	730	506	167	80	125	63	19	0	0	0	0	0	4366
17	0	0	0	0	0	3	18	93	301	496	728	557	937	738	218	124	144	87	27	0	0	0	0	0	4473
18	0	0	0	0	0	5	58	234	432	644	810	851	693	273	670	171	9 ?	5	0	0	0	0	0	0	4854
19	0	0	0	0	0	4	39	199	433	648	750	910	791	659	700	567	369	131	22	0	0	0	0	0	6222
20	0	0	0	0	0	2	55	250	463	536	748	646	546	859	509	283	434	119	33	0	0	0	0	0	5482
21	0	0	0	0	0	3	64	241	448	671	773	880	303	170	441	320	47	33	34	0	0	0	0	0	4428
22	0	0	0	0	0	2	67	243	454	656	817	931	964	912	810	470	226	172	29	0	0	0	0	0	6752
23	0	0	0	0	0	4	52	210	365	750	830	939	970	918	816	647	416	195	38	0	0	0	0	0	7149
24	0	0	0	0	0	2	61	231	453	450	641	938	972	918	812	638	413	192	34	0	0	0	0	0	6755
25	0	0	0	0	0	1	47	205	407	598	746	858	884	835	744	227	116	123	21	0	0	0	0	0	5812
26	0	0	0	0	0	0	50	230	445	601	819	747	782	876	802	569	334	144	16	0	0	0	0	0	6416
27	0	0	0	0	0	0	50	211	402	588	698	802	866	847	753	584	351	157	13	0	0	0	0	0	6322
28	0	0	0	0	0	0	42	190	402	606	762	877	912	866	761	587	361	150	22	0	0	0	0	0	6537
29	0	0	0	0	0	0	62	228	410	605	806	917	945	887	771	601	385	89	52	0	0	0	0	0	6759
30	0	0	0	0	0	0	49	219	428	549	652	689	950	885	738	451	206	157	26	0	0	0	0	0	5999
31	0	0	0	0	0	0	50	216	422	579	732	841	837	651	642	329	64	35	4	0	0	0	0	0	5403
Avg	0	0	0	0	0	3	55	202	401	571	695	766	764	697	596	426	261	125	25	1	0	0	0	0	5589
S D	0	0	0	0	0	2	19	56	95	129	147	186	217	257	242	208	161	70	14	1	0	0	0	0	1206
S/A	0	0	0	0	0	0.76	0.34	0.28	0.24	0.23	0.21	0.24	0.28	0.37	0.41	0.49	0.62	0.56	0.57	2.21	0	0	0	0	0.22
Min	0	0	0	0	0	0	17	48	56	146	287	301	268	141	135	20	9	5	0	0	0	0	0	0	2706
Max	0	0	0	0	0	8	96	280	528	750	850	958	986	942	873	692	479	248	58	6	0	0	0	0	7454
n	0	0	0	0	0	50	372	372	372	372	372	372	372	372	372	370	368	372	345	18	0	0	0	0	4871

Daylight Data Recovery: 0.0% missing; 0.1% exceed the 15% QC threshold -- 4877 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.

August 2001

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	18	42	60	92	96	95	314	264	33	50	182	239	44	24	10	0	0	0	0	1565
2	0	0	0	0	0	9	26	56	52	43	58	31	30	24	25	49	13	18	4	?	0	0	0	0	439
3	0	0	0	0	0	5 ?	10	12	15	29	41	45	99	559	753	542	398	103	7	4	0	0	0	0	2623
4	0	0	0	0	0	163	140	2 ?	18	23	56	142	189	453	57	266	1	2	1	0	0	0	0	0	1512
5	0	0	0	0	0	12 ?	26	42	39	49	72	45	56	112	74	4	6	20	6	?	0	0	0	0	562
6	0	0	0	0	0	37 ?	48	59	68	77	74	69	125	105	337	348	329	129	20	13	0	0	0	0	1837
7	0	0	0	0	0	71 ?	59	60	62	19	68	97	199	750	782	588	253	334	99	25	0	0	0	0	3468
8	0	0	0	0	0	31	77	0	11	13	21	46	555	862	828	760	637	464	132	17	0	0	0	0	4455
9	0	0	0	0	0	18	63	3	14	15	29	45	314	759	631	94	9	19	24	26	0	0	0	0	2063
10	0	0	0	0	0	32	62	1	18	29	24	47	192	401	434	585	537	229	3	2	0	0	0	0	2597
11	0	0	0	0	0	33 ?	69	16	23	57	75	44	59	25	499	677	539	297	22	13	0	0	0	0	2448
12	0	0	0	0	0	132	65	4	21	31	41	52	55	512	713	620	441	188	34	20	0	0	0	0	2927
13	0	0	0	0	0	218	53	25	38	41	53	53	79	208	19	13	58	112	8	0	0	0	0	0	980
14	0	0	0	0	0	51 ?	44	52	43	27	30	50	66	148	336	99	138	120	24	0	0	0	0	0	1227
15	0	0	0	0	0	11	57	59	78	70	47	68	42	46	25	39	10	10	18	0	0	0	0	0	578
16	0	0	0	0	0	14	21	40	48	54	68	78	91	60	25	17	33	29	18	0	0	0	0	0	595
17	0	0	0	0	0	35	19	42	76	78	78	61	76	67	27	26	40	40	30	0	0	0	0	0	695
18	0	0	0	0	0	72	42	24	31	24	32	64	19	40	94	12	2	0	0	0	0	0	0	0	456
19	0	0	0	0	0	34	46	37	31	28	47	60	18 ?	35 ?	84	88	119	43	17	0	0	0	0	0	687
20	0	0	0	0	0	31	54	15	26	44	46	61	30	62	61	53	77	42	38	0	0	0	0	0	642
21	0	0	0	0	0	25	41	13	15	30	49	77	42	25	63	58	9	16	30	0	0	0	0	0	493
22	0	0	0	0	0	?	26	1	8	5	23	41	28	19	39	57	32	43	41	0	0	0	0	0	363
23	0	0	0	0	0	?	37	36	46	29	6	25	28	17	39	40	14	14	78	0	0	0	0	0	411
24	0	0	0	0	0	?	64	42 ?	23 ?	36	27	28	30	19	30	32	12	16 ?	86	0	0	0	0	0	445
25	0	0	0	0	0	14	34	30	40	42	48	58	64	59	66	33	32	60	24	0	0	0	0	0	605
26	0	0	0	0	0	9	31	22	21	36	28	48	55	32	41	52	30	27	15	0	0	0	0	0	447
27	0	0	0	0	0	0	24	30	58	63	79	83	80	67	61	56	40	30	12	0	0	0	0	0	683
28	0	0	0	0	0	0	37	45	48	43	45	60	63	51	53	54	40	34	16	0	0	0	0	0	588
29	0	0	0	0	0	0	49	33	45	26	29	46	44	37	44	43	24	26	65	0	0	0	0	0	511
30	0	0	0	0	0	0	28	15	29	47	42	46	39	35	45	60	36	36	32	0	0	0	0	0	491
31	0	0	0	0	0	0	39	12	16	15	32	40	49	43	49	53	19	21	10	0	0	0	0	0	399
Avg	0	0	0	0	0	38	46	29	37	39	47	65	99	183	206	181	134	83	30	5	0	0	0	0	1219
S/D	0	0	0	0	0	52	24	20	22	21	21	51	112	253	270	236	188	110	31	8	0	0	0	0	1070
S/A	0	0	0	0	0	1.35	0.52	0.7	0.59	0.54	0.44	0.79	1.12	1.38	1.31	1.31	1.4	1.33	1.02	1.82	0	0	0	0	0.88
Min	0	0	0	0	0	0	10	0	8	5	6	25	18	17	19	4	1	0	0	0	0	0	0	0	363
Max	0	0	0	0	0	218	140	60	92	96	95	314	555	862	828	760	637	464	132	26	0	0	0	0	4455
n	0	0	0	0	0	41	368	359	369	372	372	372	363	366	372	372	372	369	343	14	0	0	0	0	4824

Daylight Data Recovery: 0.0% missing; 1.1% exceed the 15% QC threshold -- 4877 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**

**August 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	5	36	129	349	410	575	479	450	209	232	361	244	89	33	3	0	0	0	0	3603	
2	0	0	0	0	0	2	25	154	275	345	382	324	279	119	113	246	86	48	17	1	0	0	0	0	2415	
3	0	0	0	0	0	1	15	43	48	125	251	258	511	366	217	238	211	109	15	2	0	0	0	0	2410	
4	0	0	0	0	0	7	64	297 ?	433 ?	569 ?	546 ?	352 ?	374	337	380	290	21	8	2	0	0	0	0	0	3680 ?	
5	0	0	0	0	0	2	25	80	123	217	510	280	332	529	279	17	20	37	10	1	0	0	0	0	2459	
6	0	0	0	0	0	4	39	121	308	399	350	497	533	477	360	307	254	138	24	0	0	0	0	0	3812	
7	0	0	0	0	0	8 ?	56	141	320 ?	?	605 ?	677 ?	589	233	152	199	190	129	37	0	0	0	0	0	3335 ?	
8	0	0	0	0	0	4	66	259	428 ?	?	?	?	306 ?	128	120	109	94	73	33	2	0	0	0	0	1622 ?	
9	0	0	0	0	0	3	61	252	441	?	?	?	439 ?	204	246	173	84	40	17	5	0	0	0	0	1964 ?	
10	0	0	0	0	0	5	62	251	441	557 ?	574 ?	679 ?	540 ?	271	249	185	141	67	10	0	0	0	0	0	4031 ?	
11	0	0	0	0	0	5	71	227 ?	419	454 ?	417	491 ?	577 ?	230	219	201	181	115	18	1	0	0	0	0	3627 ?	
12	0	0	0	0	0	5	61	241	427	256 ?	299	665 ?	?	399	201	190	167	114	33	1	0	0	0	0	3059 ?	
13	0	0	0	0	0	5	64	209	417	561 ?	450 ?	394 ?	664 ?	500 ?	128	61	174	128	22	0	0	0	0	0	3777 ?	
14	0	0	0	0	0	4	57	201	378	571 ?	720 ?	566 ?	499 ?	552 ?	306	198	172	133	28	0	0	0	0	0	4383 ?	
15	0	0	0	0	0	3	72	158	299	362 ?	566 ?	501	228	301	148	227	40	25	17	0	0	0	0	0	2946	
16	0	0	0	0	0	1	32	107	403	576 ?	477	717 ?	643	373	145	68	107	53	17	0	0	0	0	0	3720 ?	
17	0	0	0	0	0	3	16	78	259	395	575 ?	428	719 ?	518 ?	195	106	123	74	23	0	0	0	0	0	3514 ?	
18	0	0	0	0	0	4	53	226	415	540 ?	?	617 ?	480 ?	237	493 ?	97 ?	8 ?	6	0	0	0	0	0	0	3176 ?	
19	0	0	0	0	0	4	34	188	416	553 ?	497 ?	716 ?	613 ?	588 ?	551 ?	497	304	116	19	0	0	0	0	0	5097 ?	
20	0	0	0	0	0	2	49	241	385 ?	420 ?	542 ?	450 ?	424	523 ?	338 ?	217	380	104	29	0	0	0	0	0	4105 ?	
21	0	0	0	0	0	3	60	237	431	643 ?	573 ?	700 ?	263	147	389	235	42	29	30	0	0	0	0	0	3781 ?	
22	0	0	0	0	0	2	56	244	424 ?	?	?	?	?	?	381	182	159	23	0	0	0	0	0	0	1470 ?	
23	0	0	0	0	0	4	49	199	191 ?	?	?	?	?	?	?	408	191	26	0	0	0	0	0	0	1068 ?	
24	0	0	0	0	0	2	55	244 ?	386 ?	310 ?	316 ?	?	?	?	?	406	190	23	0	0	0	0	0	0	1931 ?	
25	0	0	0	0	0	1	43	195	385	568	705	?	?	784 ?	644 ?	161	100	104	18	0	0	0	0	0	3710 ?	
26	0	0	0	0	0	0	46	224	427	492 ?	627 ?	638 ?	687 ?	665 ?	662 ?	505 ?	319	135	14	0	0	0	0	0	5439 ?	
27	0	0	0	0	0	0	47	201	371	532	613	677 ?	735 ?	739 ?	687 ?	546	330	148	12	0	0	0	0	0	5640 ?	
28	0	0	0	0	0	0	38	175	376	576	682 ?	?	?	?	?	550	341	140	20	0	0	0	0	0	2898 ?	
29	0	0	0	0	0	0	57	210	365 ?	472 ?	?	?	?	?	?	551 ?	373	82	44	0	0	0	0	0	2154 ?	
30	0	0	0	0	0	0	46	215	412	456 ?	344 ?	383 ?	?	?	535 ?	411	189	147	23	0	0	0	0	0	3161 ?	
31	0	0	0	0	0	0	47	212	414	500 ?	508 ?	623 ?	531 ?	423 ?	548 ?	293	54	30	3	0	0	0	0	0	4186 ?	
Avg	0	0	0	0	0	3	48	192	360	456	508	526	496	394	328	263	185	95	21	1	0	0	0	0	3296 ?	
S D	0	0	0	0	0	2	15	60	95	128	129	148	149	189	182	155	123	52	10	1	0	0	0	0	1105	
S/A	0	0	0	0	0	0.76	0.31	0.31	0.26	0.28	0.25	0.28	0.3	0.48	0.55	0.59	0.66	0.54	0.49	2.15	0	0	0	0	0	0.34
Min	0	0	0	0	0	0	15	43	48	125	251	258	228	119	113	17	8	6	0	0	0	0	0	0	1068	
Max	0	0	0	0	0	8	72	297	441	643	720	717	735	784	687	551	408	191	44	5	0	0	0	0	5640	
n	0	0	0	0	0	49	369	357	328	190	177	171	199	247	264	333	366	372	345	18	0	0	0	0	3790	

Daylight Data Recovery: 0.0% missing; 22.3% exceed the 15% QC threshold -- 4877 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 25951F3    Calibration Factor: 7.600  $\mu\text{V}/\text{W}/\text{m}^2$     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.