

**Global Solar Radiation on a Horizontal Surface**  
**Hourly Integrated and Daily Totals**  
**Watt-Hours per Square Meter**  
**Bethune-Cookman College - May 1999**

Field: GHI

Hour 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	2	68	195	166	295	595	462	580	638	697	227	148	55	11	0	0	0	0	0	4139
2	0	0	0	0	0	2	46	183	211	292	266	323	568	509	872	680	461	231	44	0	0	0	0	0	4688
3	0	0	0	0	0	6	145	366	592	827	988	938	922	920	794	660	469	209	44	0	0	0	0	0	7880
4	0	0	0	0	0	6	129	354	600	834	914	904	958	1015	908	660	413	147	59	0	0	0	0	0	7902
5	0	0	0	0	0	3	71	221	436	547	451	424	336	484	322	338	248	80	29	0	0	0	0	0	3989
6	0	0	0	0	0	4	101	305	524	729	892	910	772	834	705	624	381	124	5	0	0	0	0	0	6910
7	0	0	0	0	0	4	64	237	432	333	433	579	583	412	110 ?	12	10	34	9	0	0	0	0	0	3252
8	0	0	0	0	0	4	86	309	502	739	901	977	810	775	772	416	267	154	62	0	0	0	0	0	6773
9	0	0	0	0	0	4	111	285	489	678	835	878	525	312	217	102	106	42	10	0	0	0	0	0	4596
10	0	0	0	0	0	6	106	400	543	769	921	970	1004	992	857	671	453	223	45	0	0	0	0	0	7959
11	0	0	0	0	0	5	97	343 ?	544	775	942	1007	1046	677	464	660	446	232	48	0	0	0	0	0	7284
12	0	0	0	0	0	9	116	402	506	718	912	994	958	900	692	185	59	45	63	0	0	0	0	0	6561
13	0	0	0	0	0	10	113	285	528	749	838	999	873	614	730	510	381	198	45	0	0	0	0	0	6874
14	0	0	0	0	0	9	115	226	457	473	484 ?	849	684	366	633	444	228	220	49	0	0	0	0	0	5238
15	0	0	0	0	0	10	139	312	520	726	870	854	696	798	703	633	433	222	55	0	0	0	0	0	6973
16	0	0	0	0	0	9	120	344	532	709	864	1019	1018	971	627	628	414	166	53	0	0	0	0	0	7475
17	0	0	0	0	0	16	125	277	503	743	810	1023	871	874	723	660	330	158	41	0	0	0	0	0	7154
18	0	0	0	0	0	9	138	368	556	799	939	1014	992	846	870	689	473	245	55	0	0	0	0	0	7993
19	0	0	0	0	0	7	110	326	502	747	903	708	651	943	870	353	40 ?	10	17	0	0	0	0	0	6188
20	0	0	0	0	0	7	72	306	550	751	907	985	1005	954	788	461	176	87	29	0	0	0	0	0	7078
21	0	0	0	0	0	14	126	314	542	744	897	987	1010	956	831	657	395	222	53	0	0	0	0	0	7748
22	0	0	0	0	0	14	142	283	589	777	918	1000	1021	907	850	677	473	244	60	0	0	0	0	0	7956
23	0	0	0	0	0	13	135	343	554	748	904	998	1022	967	854	672	439	86	31	0	0	0	0	0	7767
24	0	0	0	0	0	13	141	362	534	643	807	758	1069	857	682	233	302	162	68	1	0	0	0	0	6633
25	0	0	0	0	0	12	127	333	485	683	720	861	817	779	409	396	386	259	66	0	0	0	0	0	6332
26	0	0	0	0	0	11	125	395	536	610	799	875	854	803	539	501	405	239	67	1	0	0	0	0	6761
27	0	0	0	0	0	15	144	352	474	752	782	650	1004	629	626	522	444	228	44	1	0	0	0	0	6667
28	0	0	0	0	0	10	125	303	533	608	727	623	964	854	752	426	295	104	46	1	0	0	0	0	6373
29	0	0	0	0	0	18	100	252	473	668	689	715	808	964	713	620	392	161	60	0	0	0	0	0	6631
30	0	0	0	0	0	5	91	140	416	617	896	972	990	855	768	684	448	255	73	1	0	0	0	0	7213
31	0	0	0	0	0	12	115	264	401	779	942	1038	942	1001	731	615	495	199	79	1	0	0	0	0	7614
Avg	0	0	0	0	0	9	111	303	491	673	798	848	850	787	681	504	336	163	46	0	0	0	0	0	6600
S D	0	0	0	0	0	4	26	64	93	143	174	193	185	196	192	190	140	75	20	0	0	0	0	0	1258
S/A	0	0	0	0	0	0.49	0.23	0.21	0.19	0.21	0.22	0.23	0.22	0.25	0.28	0.38	0.42	0.46	0.43	1.25	0	0	0	0	0.19
Min	0	0	0	0	0	2	46	140	166	292	266	323	336	312	110	12	10	10	5	0	0	0	0	0	3252
Max	0	0	0	0	0	18	145	402	600	834	988	1038	1069	1015	908	689	495	259	79	1	0	0	0	0	7993

Daylight Data Recovery: 0% missing; 1% exceed the 15% QC threshold -- 5058 total daylight 5-minute measurements.

Note: Fractional values that do not appear in the hour columns are included in the calculation for daily values.

Data and Flag	Hour Column	Day Column
<value>*	20% < Missing < 100%	10% < Missing < 100%
<value>?	20% < Fail QC < 100%	10% < Fail QC < 100%
<blank>*	100% Missing	100% Missing
<blank>?	100% Fail QC	100% Fail QC

Station:	BC
Latitude:	29.18° N
Longitude:	81.02° W
Elevation:	20 Meters AMSL
Time Zone:	-5

Instrument:	PSP
Calibration Constant:	8.67 uV/Wm-2
Serial Number:	13434F3
Calibration Date:	5/18/98

**Direct Normal Solar Radiation  
Hourly Integrated and Daily Totals  
Watt-Hours per Square Meter  
Bethune-Cookman College - May 1999**

Field: DNI

Hour 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	11	54	70	44	53	92	70	90	52	437	48	41	25	29	0	0	0	0	0	1118
2	0	0	0	0	0	9	37	70	54	58	45	51	61	159	875	832	730	519	156	0	0	0	0	0	3657
3	0	0	0	0	0	11	224	59	53	77	78	3	278	601	552	692	737	450	158	0	0	0	0	0	3972
4	0	0	0	0	0	25	165	43	72	96	20	10	596	964	955	775	524	144	135	0	0	0	0	0	4525
5	0	0	0	0	0	18	47	70	72	97	80	71	40	66	41	68	46	37	33	0	0	0	0	0	786
6	0	0	0	0	0	23	67	34	40	61	76	212	471	573	490	579	417	91	5	1	0	0	0	0	3141
7	0	0	0	0	0	15	45	67	74	66	76	83	165	122	12	2	1	16	9	1	0	0	0	0	755
8	0	0	0	0	0	15	46	32	42	46	69	559	501	445	537	242	146	93	35	0	0	0	0	0	2808
9	0	0	0	0	0	13	90	44	62	65	89	387	163	80	29	20	28	18	16	15	0	0	0	0	1119
10	0	0	0	0	0	8	106	34	43	40	196	813	860	868	830	756	630	382	83	3	0	0	0	0	5652
11	0	0	0	0	0	22	67	252	33	36	348	828	886	448	253	741	645	460	121	6	0	0	0	0	5145
12	0	0	0	0	0	15	124	124	41	71	444	781	674	705	492	103	15	17	60	0	0	0	0	0	3666
13	0	0	0	0	0	27	93	22	26	55	555	797	588	362	531	373	354	250	63	4	0	0	0	0	4100
14	0	0	0	0	0	21	65	58	60	65	124	530	344	112	402	307	112	356	85	3	0	0	0	0	2642
15	0	0	0	0	0	13	167	2	65	220	599	476	264	388	391	543	498	353	116	1	0	0	0	0	4094
16	0	0	0	0	0	13	110	18	59	288	674	902	835	885	321	530	405	184	59	1	0	0	0	0	5285
17	0	0	0	0	0	14	109	78	87	389	532	875	512	557	507	560	234	73	20	8	0	0	0	0	4556
18	0	0	0	0	0	43	97	78	72	622	875	898	739	502	865	808	694	482	125	6	0	0	0	0	6908
19	0	0	0	0	0	32	53	14	122	703	803	464	302	772	791	222	6	5	12	7	0	0	0	0	4308
20	0	0	0	0	0	14	46	51	242	758	802	817	811	788	624	306	47	36	29	1	0	0	0	0	5371
21	0	0	0	0	0	25	81	64	307	671	745	773	788	765	700	608	274	237	37	4	0	0	0	0	6079
22	0	0	0	0	0	32	90	81	319	657	757	790	807	681	743	698	607	399	99	3	0	0	0	0	6763
23	0	0	0	0	0	11	105	62	557	708	764	810	822	802	781	693	514	32	23	6	0	0	0	0	6689
24	0	0	0	0	0	14	149	165	489	455	585	432	843	652	454	71	113	44	69	4	0	0	0	0	4538
25	0	0	0	0	0	21	92	194	368	516	466	563	499	434	130	217	350	382	112	124	0	0	0	0	4466
26	0	0	0	0	0	24	111	473	586	454	578	589	552	494	244	307	334	377	126	16	0	0	0	0	5264
27	0	0	0	0	0	23	185	462	405	675	597	414	816	368	364	340	440	265	27	3	0	0	0	0	5384
28	0	0	0	0	0	30	99	269	543	318	385	245	616	427	425	207	92	36	34	2	0	0	0	0	3728
29	0	0	0	0	0	172	27	117	352	450	272	204	279	555	407	413	283	84	27	4	0	0	0	0	3645
30	0	0	0	0	0	18	38	24	177	349	680	679	664	579	611	731	558	417	134	5	0	0	0	0	5666
31	0	0	0	0	0	39	83	218	221	702	767	837	713	858	568	586	632	225	114	6	0	0	0	0	6566
Avg	0	0	0	0	0	25	93	108	183	317	425	515	535	518	495	431	339	209	69	8	0	0	0	0	4271
S D	0	0	0	0	0	28	46	116	178	262	285	302	264	260	249	263	243	171	48	22	0	0	0	0	1694
S/A	0	0	0	0	0	1.14	0.5	1.07	0.97	0.83	0.67	0.59	0.49	0.5	0.5	0.61	0.72	0.82	0.69	2.87	0	0	0	0	0.4
Min	0	0	0	0	0	8	27	2	26	36	20	3	40	52	12	2	1	5	5	0	0	0	0	0	755
Max	0	0	0	0	0	172	224	473	586	758	875	902	886	964	955	832	737	519	158	124	0	0	0	0	6908

Daylight Data Recovery: 0% missing; 0% exceed the 15% QC threshold -- 128410 total daylight 5-minute measurements.

Note: Fractional values that do not appear in the hour columns are included in the calculation for daily values.

Data and Flag	Hour Column	Day Column
<value>*	20% < Missing < 100%	10% < Missing < 100%
<value>?	20% < Fail QC < 100%	10% < Fail QC < 100%
<blank>*	100% Missing	100% Missing
<blank>?	100% Fail QC	100% Fail QC

Station: BC  
Latitude: 29.18° N  
Longitude: 81.02° W  
Elevation: 20 Meters AMSL  
Time Zone: -5

Instrument: Estimated DNI  
Calibration Constant: 0.00  
Serial Number: XXXXXXXX  
Calibration Date: 1/1/1997

**Diffuse Solar Radiation on a Horizontal Surface (Shadow Band PSP)**  
**Hourly Integrated and Daily Totals**  
**Watt-Hours per Square Meter**  
**Bethune-Cookman College - May 1999**

Field: DHI

Hour 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	2	59	158	141	255	446	395	493	590	327	193	125	47	10	0	0	0	0	0	3242	
2	0	0	0	0	0	1	39	156	180	249	226	275	509	364	140	98	80	63	23	0	0	0	0	0	2404	
3	0	0	0	0	0	5	74 ?	?	?	?	?	?	841 ?	655	360	333	180	84	63	22	0	0	0	0	2617 ?	
4	0	0	0	0	0	6	108	253 ?	?	?	?	?	816 ?	335	118	105	112	135	100	40	0	0	0	0	2126 ?	
5	0	0	0	0	0	3	62	195	289 ?	368 ?	381	356	297	422	287	291	225	68	25	0	0	0	0	0	3268	
6	0	0	0	0	0	4	91	292	421 ?	?	?	?	580 ?	314	299	296	215	157	92	4	0	0	0	0	2765 ?	
7	0	0	0	0	0	3	56	211	344 ?	283	366	500	422	295	93 ?	12	10	30	8	0	0	0	0	0	2634	
8	0	0	0	0	0	4	77	261 ?	418 ?	?	?	?	396	322	356	318	241	182	121	58	0	0	0	0	2755 ?	
9	0	0	0	0	0	4	96	269	416 ?	570 ?	737 ?	507	366	224	192	88	91	37	9	0	0	0	0	0	3605	
10	0	0	0	0	0	5	88	200 ?	415 ?	?	?	?	597 ?	192	164	176	154	134	116	92	32	0	0	0	0	2365 ?
11	0	0	0	0	0	4	85	252 ?	457 ?	?	?	?	476 ?	214	180	250	255	136	98	75	28	0	0	0	0	2510 ?
12	0	0	0	0	0	10	98	302 ?	457 ?	607 ?	445	245	300	236	270	106	51	41	54	0	0	0	0	0	3221	
13	0	0	0	0	0	10	97	259	419 ?	717 ?	340	234	297	271	278	243	188	113	35	0	0	0	0	0	3500	
14	0	0	0	0	0	8	103	203	340 ?	322 ?	328 ?	338	347	262	288	231	171	98	35	0	0	0	0	0	3074	
15	0	0	0	0	0	10	113	290 ?	444 ?	492 ?	339	397	437	432	373	245	164	101	36	0	0	0	0	0	3873	
16	0	0	0	0	0	9	101	270 ?	386 ?	368 ?	264	151	199	134	352	252	195	105	45	0	0	0	0	0	2833	
17	0	0	0	0	0	15	106	229	406 ?	395	340	180	368	349	292	254	202	133	38	0	0	0	0	0	3306	
18	0	0	0	0	0	8	119	234 ?	463 ?	291	159	148	267	376	129	108	95	75	33	0	0	0	0	0	2505	
19	0	0	0	0	0	7	101	290 ?	413	205	187	263	354	214	193	184	34 ?	10	15	0	0	0	0	0	2469	
20	0	0	0	0	0	7	63	286	384	168	192	197	207	207	251	231	150	75	25	0	0	0	0	0	2443	
21	0	0	0	0	0	14	111	287	346	226	233	240	235	231	230	216	243	135	48	0	0	0	0	0	2796	
22	0	0	0	0	0	12	111	229	366	268	242	237	226	259	212	173	139	101	41	0	0	0	0	0	2618	
23	0	0	0	0	0	13	117	308	210	202	221	216	212	206	182	170	151	74	27	0	0	0	0	0	2310	
24	0	0	0	0	0	13	114	280	242	289	284	340	238	240	282	184	242	147	56	1	0	0	0	0	2952	
25	0	0	0	0	0	11	109	245	263	284	305	317	324	364	301	245	195	120	46	0	0	0	0	0	3128	
26	0	0	0	0	0	10	103	183	182	261	283	306	310	330	327	279	221	107	44	1	0	0	0	0	2946	
27	0	0	0	0	0	14	108	151	225	232	253	247	198	278	317	274	199	127	39	1	0	0	0	0	2662	
28	0	0	0	0	0	10	102	191	200	362	387	383	356	448	385	281	241	91	40	1	0	0	0	0	3479	
29	0	0	0	0	0	15	94	198	253	320	450	516	532	436	359	322	228	129	56	0	0	0	0	0	3910	
30	0	0	0	0	0	4	83	130	308	348	288	313	334	304	243	151	129	99	48	1	0	0	0	0	2783	
31	0	0	0	0	0	11	96	180	257	238	254	226	237	184	237	189	139	110	56	1	0	0	0	0	2415	
Avg	0	0	0	0	0	8	93	233	333	333	334	341	324	297	258	195	151	90	35	0	0	0	0	0	0	2888
S D	0	0	0	0	0	4	20	50	96	132	127	168	112	102	78	70	62	33	15	0	0	0	0	0	0	459
S/A	0	0	0	0	0	0.5	0.21	0.21	0.29	0.4	0.38	0.49	0.34	0.34	0.3	0.36	0.41	0.37	0.43	1.28	0	0	0	0	0	0.16
Min	0	0	0	0	0	1	39	130	141	168	159	148	164	118	93	12	10	4	0	0	0	0	0	0	0	2126
Max	0	0	0	0	0	15	119	308	463	717	737	841	655	590	385	322	243	147	58	1	0	0	0	0	0	3910

Daylight Data Recovery: 0% missing; 9% exceed the 15% QC threshold -- 5058 total daylight 5-minute measurements.

Note: Fractional values that do not appear in the hour columns are included in the calculation for daily values.

Data and Flag	Hour Column	Day Column
<value>*	20% < Missing < 100%	10% < Missing < 100%
<value>?	20% < Fail QC < 100%	10% < Fail QC < 100%
<blank>*	100% Missing	100% Missing
<blank>?	100% Fail QC	100% Fail QC

Station:	BC
Latitude:	29.18° N
Longitude:	81.02° W
Elevation:	20 Meters AMSL
Time Zone:	-5

Instrument:	PSP
Calibration Constant:	7.60 uV/Wm-2
Serial Number:	25951F3
Calibration Date:	5/18/98