

**Global Solar Radiation on a Horizontal Surface**  
**Hourly Integrated and Daily Totals**  
**Watt-Hours per Square Meter**  
**Bethune-Cookman College - August 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	70	241	452	631	718	756	753	614	726	627	401	265	66	1	0	0	0	0	6323
2	0	0	0	0	0	3	83	259	472	685	868	910	760	566	661	569	376	133	21	0	0	0	0	0	6368
3	0	0	0	0	0	0	15	85	183	330	307	484	365	286	317	350	493	246	59	1	0	0	0	0	3521
4	0	0	0	0	0	1	45	176	314	466	772	469	864	909	687	271	118	81	30	0	0	0	0	0	5203
5	0	0	0	0	0	2	69	296	494	671	697	605	935	937	859	467	393	190	58	0	0	0	0	0	6672
6	0	0	0	0	0	2	90	288	509	722	697	962	989	579	559	215	315	60	11	0	0	0	0	0	5997
7	0	0	0	0	0	1	90	286	512	710	774	781	739	491	248	195	37	35	8	0	0	0	0	0	4906
8	0	0	0	0	0	1	56	243	400	667	824	918	865	912	772	566	213	206	43	0	0	0	0	0	6683
9	0	0	0	0	0	1	81	272	386	639	721	571	165	209	375	354	236	153	29	0	0	0	0	0	4194
10	0	0	0	0	0	1	74	279	501	606	777	740	390	511	442	522	402	236	45	0	0	0	0	0	5527
11	0	0	0	0	0	1	74	262	412	542	88	312	917	630	804	484	379	184	25	0	0	0	0	0	5114
12	0	0	0	0	0	2	79	229	441	636	822	912	954	922	809	622	409	190	30	0	0	0	0	0	7057
13	0	0	0	0	0	1	73	253	462	666	833	937	967	901	816	642	444	205	46	0	0	0	0	0	7245
14	0	0	0	0	0	1	81	269	487	692	858	963	984	935	818	651	483	244	24	0	0	0	0	0	7491
15	0	0	0	0	0	1	77	284	443	643	792	748	733	900	456	554	146	9	9	0	0	0	0	0	5794
16	0	0	0	0	0	1	80	309	525	741	807	855	1068	960	825	573	255	109	29	0	0	0	0	0	7137
17	0	0	0	0	0	1	58	293	509	718	871	961	878	507	341	393	276	101	30	0	0	0	0	0	5938
18	0	0	0	0	0	1	82	272	493	699	890	954	975	937	828	658	452	166	15	0	0	0	0	0	7422
19	0	0	0	0	0	0	74	271	492	698	794	786	795	301	492	153	103	72	16	0	0	0	0	0	5048
20	0	0	0	0	0	0	59	310	409	544	507	574	554	433	60	82	5	3	2	0	0	0	0	0	3541
21	0	0	0	0	0	0	51	196	409	650	762	631	444	820	759	636	232	38	2	0	0	0	0	0	5629
22	0	0	0	0	0	0	51	236	472	575	662	891	958	926	819	603	254	23	1	0	0	0	0	0	6470
23	0	0	0	0	0	0	68	222	577	687	892	885	984	929	822	641	279	120	24	0	0	0	0	0	7131
24	0	0	0	0	0	0	69	263	484	611	849	956	975	930	811	635	419	204	22	0	0	0	0	0	7227
25	0	0	0	0	0	0	68	258	464	692	570	939	963	910	790	612	404	115	8	0	0	0	0	0	6794
26	0	0	0	0	0	0	69	249	467	703	834	932	963	848	578	632	388	77	20	0	0	0	0	0	6760
27	0	0	0	0	0	0	69	247	416	754	867	939	963	914	795	621	369	103	29	0	0	0	0	0	7086
28	0	0	0	0	0	0	75	250	479	688	853	948	966	872	746	577	394	244	51	0	0	0	0	0	7143
29	0	0	0	0	0	0	12	106	302	382	614	675	778	642	591	524	397	211	26	0	0	0	0	0	5260
30	0	0	0	0	0	0	69	236	451	660	817	826	808	895	689	214	189	170	29	0	0	0	0	0	6052
31	0	0	0	0	0	0	36	207	439	644	572	658	882	837	437	580	217	80	17	0	0	0	0	0	5606

Avg	0	0	0	0	0	1	66	247	447	637	733	790	817	741	637	491	306	138	27	0	0	0	0	0	6076
S D	0	0	0	0	0	1	18	50	74	96	174	174	214	226	207	170	129	77	17	0	0	0	0	0	1077
S/A	0	0	0	0	0	0.87	0.28	0.2	0.17	0.15	0.24	0.22	0.26	0.3	0.33	0.35	0.42	0.56	0.64	2.55	0	0	0	0	0.18
Min	0	0	0	0	0	0	12	85	183	330	88	312	165	209	60	82	5	3	1	0	0	0	0	0	3521
Max	0	0	0	0	0	3	90	310	577	754	892	963	1068	960	859	658	493	265	66	1	0	0	0	0	7491

Daylight Data Recovery: 0% missing; 0% exceed the 15% QC threshold -- 4909 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 - August 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	16	41	73	83	102	216	330	259	226	446	522	389	312	73	5	0	0	0	0	3095
2	0	0	0	0	0	28	62	54	59	71	189	607	358	146	258	269	143	30	9	1	0	0	0	0	2283
3	0	0	0	0	0	0	11	32	45	67	55	70	66	36	49	102	237	160	42	7	0	0	0	0	980
4	0	0	0	0	0	31	30	63	54	40	84	194	464	632	303	54	31	31	23	3	0	0	0	0	2036
5	0	0	0	0	0	10	41	72	52	57	76	163	583	709	605	248	308	187	55	29	0	0	0	0	3195
6	0	0	0	0	0	12	126	0	16	32	44	228	798	306	279	68	201	50	2	2	0	0	0	0	2165
7	0	0	0	0	0	10	122	4	17	36	50	77	375	183	54	87	10	15	4	8	0	0	0	0	1052
8	0	0	0	0	0	4	38	38	55	60	52	74	427	709	593	400	46	116	29	7	0	0	0	0	2647
9	0	0	0	0	0	11	73	25	49	80	69	62	25	30	44	83	50	60	24	6	0	0	0	0	692
10	0	0	0	0	0	17	62	17	28	55	57	50	40	229	233	367	459	409	88	9	0	0	0	0	2120
11	0	0	0	0	0	20	70	36	65	61	14	42	102	249	655	245	419	188	26	3	0	0	0	0	2196
12	0	0	0	0	0	31	61	69	63	69	69	64	75	489	619	519	373	179	19	1	0	0	0	0	2698
13	0	0	0	0	0	41	49	34	49	51	49	47	48	302	682	623	524	266	43	1	0	0	0	0	2808
14	0	0	0	0	0	5	97	1	26	40	32	31	37	151	639	640	555	353	33	1	0	0	0	0	2640
15	0	0	0	0	0	8	64	42	51	44	45	54	64	75	215	506	98	2	9	0	0	0	0	0	1279
16	0	0	0	0	0	7	61	5	27	31	55	80	70	56	290	539	227	85	42	1	0	0	0	0	1576
17	0	0	0	0	0	15	75	40	13	22	21	21	41	57	47	74	160	33	31	117	0	0	0	0	768
18	0	0	0	0	0	11	148	0	7	15	22	13	10	23	25	137	308	89	27	0	0	0	0	0	836
19	0	0	0	0	0	7	124	0	4	11	40	39	38	29	76	27	25	30	15	1	0	0	0	0	465
20	0	0	0	0	0	1	57	35	67	73	79	60	64	37	9	12	1	1	5	0	0	0	0	0	501
21	0	0	0	0	0	14	53	33	45	40	40	53	53	78	53	41	30	14	3	0	0	0	0	0	550
22	0	0	0	0	0	34	37	14	18	31	56	40	37	26	27	36	45	7	2	0	0	0	0	0	409
23	0	0	0	0	0	0	18	43	44	36	34	29	17	20	26	17	9	18	11	0	0	0	0	0	322
24	0	0	0	0	0	0	116	0	6	29	25	19	16	19	17	13	4	6	55	0	0	0	0	0	325
25	0	0	0	0	0	0	84	2	12	21	35	24	24	29	25	28	14	21	8	0	0	0	0	0	327
26	0	0	0	0	0	0	91	0	10	32	24	26	28	43	62	27	25	21	26	0	0	0	0	0	417
27	0	0	0	0	0	0	93	0	36	58	26	20	19	23	23	18	21	47	27	0	0	0	0	0	411
28	0	0	0	0	0	0	67	2	12	21	25	30	27	39	44	52	41	40	67	0	0	0	0	0	468
29	0	0	0	0	0	0	13	45	64	67	64	69	71	72	72	73	64	64	44	0	0	0	0	0	781
30	0	0	0	0	0	0	73	18	29	33	39	55	50	46	43	17	41	61	81	0	0	0	0	0	586
31	0	0	0	0	0	0	55	64	71	81	87	96	62	54	64	48	53	39	76	0	0	0	0	0	849

Avg	0	0	0	0	0	11	68	28	38	47	57	89	140	165	212	190	158	95	32	7	0	0	0	0	1338
S D	0	0	0	0	0	11	34	24	22	22	43	116	194	202	232	207	170	108	25	21	0	0	0	0	954
S/A	0	0	0	0	0	1.06	0.49	0.87	0.59	0.46	0.75	1.3	1.38	1.22	1.09	1.09	1.07	1.14	0.76	3.2	0	0	0	0	0.71
Min	0	0	0	0	0	0	11	0	4	11	14	13	10	19	9	12	1	1	2	0	0	0	0	0	322
Max	0	0	0	0	0	41	148	73	83	102	216	607	798	709	682	640	555	409	88	117	0	0	0	0	3195

Daylight Data Recovery: 0% missing; 0% exceed the 15% QC threshold -- 143485 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 - August 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	64	214	405	555	526	444	500	401	340	234	185	146	51	1	0	0	0	0	4066
2	0	0	0	0	0	3	73	240	439	574 ?	564 ?	334	410	427	438	370	291	123	19	0	0	0	0	0	4305
3	0	0	0	0	0	0	13	73	157	280	259	417	326	252	275	278	361	183	53	1	0	0	0	0	2930
4	0	0	0	0	0	1	41	152	285	377	585 ?	282	410	309	421	230	101	70	26	0	0	0	0	0	3290
5	0	0	0	0	0	2	63	265 ?	464	540 ?	481 ?	449	366	265	333	286	219	121	46	0	0	0	0	0	3901
6	0	0	0	0	0	2	72	279 ?	?	?	485 ?	579 ?	211	287	313	168	204	37	11	0	0	0	0	0	2649 ?
7	0	0	0	0	0	1	74	288 ?	?	614 ?	546 ?	475 ?	374	318	202	127	32	30	7	0	0	0	0	0	3087 ?
8	0	0	0	0	0	1	49	230	369	571 ?	682 ?	732 ?	407	243	261	266	186	166	37	0	0	0	0	0	4200
9	0	0	0	0	0	1	72	260	295 ?	441 ?	467 ?	403 ?	141	180	337	293	209	131	26	0	0	0	0	0	3255
10	0	0	0	0	0	1	66	270 ?	408 ?	515 ?	573 ?	379 ?	241	295	250	254	157	88	29	0	0	0	0	0	3526 ?
11	0	0	0	0	0	1	65	249	375	348 ?	76	273	583 ?	398	245	305	153	114	21	0	0	0	0	0	3205
12	0	0	0	0	0	1	72	205	407	569 ?	?	799 ?	807 ?	428	279	248	203	125	27	0	0	0	0	0	4170 ?
13	0	0	0	0	0	1	67	241	435	558 ?	?	?	?	504 ?	234	193	157	108	39	0	0	0	0	0	2536 ?
14	0	0	0	0	0	0	60	337 ?	422 ?	603 ?	?	?	?	568 ?	275	191	181	120	18	0	0	0	0	0	2776 ?
15	0	0	0	0	0	1	69	249 ?	378 ?	540 ?	573 ?	579 ?	535 ?	562 ?	274	193	75	8	7	0	0	0	0	0	4042 ?
16	0	0	0	0	0	1	52	185 ?	440 ?	?	675 ?	702 ?	?	521 ?	192	122	86	21	0	0	0	0	0	0	2997 ?
17	0	0	0	0	0	0	51	238 ?	376 ?	?	?	?	705 ?	454	302	342	185	91	25	0	0	0	0	0	2767 ?
18	0	0	0	0	0	1	67	239 ?	?	?	?	?	?	?	530 ?	289	132	12	0	0	0	0	0	0	1269 ?
19	0	0	0	0	0	0	62	186 ?	?	?	451 ?	570 ?	401 ?	219	388	133	90	62	14	0	0	0	0	0	2576 ?
20	0	0	0	0	0	0	51	162 ?	299 ?	433 ?	440	518	493	227 ?	53	73	4	3	2	0	0	0	0	0	2758
21	0	0	0	0	0	0	45	161	263 ?	392 ?	527 ?	517	393	481 ?	647 ?	497 ?	216	33	1	0	0	0	0	0	4173 ?
22	0	0	0	0	0	0	47	220	328 ?	439 ?	452 ?	521 ?	564 ?	?	?	471 ?	230	21	1	0	0	0	0	0	3294 ?
23	0	0	0	0	0	0	18 ?	206	?	?	?	756 ?	?	?	?	525 ?	230	115	24	0	0	0	0	0	1874 ?
24	0	0	0	0	0	0	60	247 ?	?	519 ?	629 ?	?	?	?	?	?	400	196	14	0	0	0	0	0	2065 ?
25	0	0	0	0	0	0	60	249 ?	365 ?	?	310 ?	?	?	?	?	521 ?	397	109	7	0	0	0	0	0	2017 ?
26	0	0	0	0	0	0	64	242 ?	399 ?	?	?	?	?	552 ?	527	524 ?	375	71	17	0	0	0	0	0	2771 ?
27	0	0	0	0	0	0	62	241 ?	352 ?	460 ?	?	?	?	?	?	511 ?	329	89	25	0	0	0	0	0	2071 ?
28	0	0	0	0	0	0	67	231 ?	376 ?	?	?	?	?	189 ?	559 ?	474 ?	377	?	45	0	0	0	0	0	2317 ?
29	0	0	0	0	0	0	10	91	268	335	476 ?	572	712	577	532	475	365	192	24	0	0	0	0	0	4628
30	0	0	0	0	0	0	70	229	409 ?	?	?	638 ?	591 ?	?	553 ?	162	135	138	24	0	0	0	0	0	2948 ?
31	0	0	0	0	0	0	31	187	402	533 ?	456	522	534 ?	521 ?	357	519 ?	190	69	15	0	0	0	0	0	4336 ?
Avg	0	0	0	0	0	1	56	221	365	485	487	521	462	376	356	319	214	99	22	0	0	0	0	0	3123
S D	0	0	0	0	0	1	17	53	69	94	136	143	164	131	135	145	105	51	14	0	0	0	0	0	835
S/A	0	0	0	0	0	1.04	0.31	0.24	0.19	0.19	0.28	0.27	0.35	0.35	0.38	0.45	0.49	0.52	0.63	2.61	0	0	0	0	0.27
Min	0	0	0	0	0	0	10	73	157	280	76	273	141	180	53	73	4	3	1	0	0	0	0	0	1269
Max	0	0	0	0	0	3	74	337	464	614	682	799	807	577	647	530	400	196	53	1	0	0	0	0	4628

Daylight Data Recovery: 0% missing; 31% exceed the 15% QC threshold -- 4909 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