

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Bethune-Cookman College - July 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	7	49	143	324	657	403	472	561	958	736	705	512	303	44	1	0	0	0	0	5876
2	0	0	0	0	0	9	99	209	203	394	838	966	847	1019	834	678	469	311	80	3	0	0	0	0	6960
3	0	0	0	0	0	12	133	288	538	618	773	684	1033	919	889	668	285	301	144	4	0	0	0	0	7287
4	0	0	0	0	0	10	120	339	434	589	898	850	985	921	680	514	234	214	107	4	0	0	0	0	6900
5	0	0	0	0	0	13	115	335	511	743	841	959	1031	942	861	661	448	280	92	4	0	0	0	0	7834
6	0	0	0	0	0	13	107	274	342	638	638	1019	1033	994	891	724	527	305	101	2	0	0	0	0	7609
7	0	0	0	0	0	15	137	336	574	765	922	1021	1042	998	890	724	520	284	99	2	0	0	0	0	8328
8	0	0	0	0	0	9	120	327	538	695	885	977	1026	994	867	697	479	122	24	0	0	0	0	0	7760
9	0	0	0	0	0	9	135	329	531	721	827	722	1021	867	850	674	273	1	1	0	0	0	0	0	6959
10	0	0	0	0	0	16	120	343	345	673	667	498	612	527	523	359	374	231	36	3	0	0	0	0	5325
11	0	0	0	0	0	3	41	111	243	391	643	812	585	590	671	73	85	84	32	1	0	0	0	0	4365
12	0	0	0	0	0	7	73	158	201	444	671	557	811	876	844	675	485	160	25	1	0	0	0	0	5987
13	0	0	0	0	0	8	103	299	516	685	872	991	994	957	848	667	346	46	27	1	0	0	0	0	7358
14	0	0	0	0	0	8	117	316	529	729	882	982	1011	968	866	716	480	211	25	1	0	0	0	0	7843
15	0	0	0	0	0	2	87	238	535	714	893	1000	1029	1003	889	716	513	294	42	1	0	0	0	0	7956
16	0	0	0	0	0	6	114	309	556	723	894	1016	856	945	812	708	477	276	94	4	0	0	0	0	7792
17	0	0	0	0	0	6	121	182	577	726	903	1012	1010	976	871	706	500	248	43	1	0	0	0	0	7883
18	0	0	0	0	0	6	106	324	488	698	899	1055	1019	1018	735	645	525	114	28	1	0	0	0	0	7659
19	0	0	0	0	0	5	86	275	176	610	962	1023	1025	983	874	717	442	240	79	1	0	0	0	0	7498
20	0	0	0	0	0	6	105	298	500	645	588	955	883	895	135	344	468	266	78	2	0	0	0	0	6165
21	0	0	0	0	0	9	95	297	515	626	479	580	636	558	495	559	441	251	68	1	0	0	0	0	5611
22	0	0	0	0	0	4	75	256	444	657	802	864	910	896	776	644	449	243	61	0	0	0	0	0	7081
23	0	0	0	0	0	4	88	270	479	671	823	917	961	913	803	631	419	213	36	0	0	0	0	0	7229
24	0	0	0	0	0	5	92	262	460	677	777	871	612	473	528	573	378	242	61	1	0	0	0	0	6013
25	0	0	0	0	0	4	96	299	520	567	680	760	762	877	495	565	158	12	14	0	0	0	0	0	5809
26	0	0	0	0	0	4	99	299	495	646	776	756	860	879	128	222	458	121	42	2	0	0	0	0	5787
27	0	0	0	0	0	4	94	290	506	705	892	967	979	974	860	678	478	241	57	1	0	0	0	0	7227
28	0	0	0	0	0	4	103	303	529	721	884	942	823	734	608	636	408	216	52	1	0	0	0	0	6965
29	0	0	0	0	0	3	92	292	539	741	874	836	812	802	681	571	302	126	70	0	0	0	0	0	6741
30	0	0	0	0	0	3	94	275	513	748	875	913	719	865	859	658	455	233	38	0	0	0	0	0	7249
31	0	0	0	0	0	3	85	274	502	724	884	621	657	834	879	691	465	254	70	0	0	0	0	0	6942
Avg	0	0	0	0	0	7	100	276	457	656	795	858	876	876	732	606	415	208	57	1	0	0	0	0	6919
S/D	0	0	0	0	0	4	22	58	114	94	133	167	158	146	201	153	108	86	31	1	0	0	0	0	923
S/A	0	0	0	0	0	0.52	0.22	0.21	0.25	0.14	0.17	0.19	0.18	0.17	0.27	0.25	0.26	0.42	0.55	0.85	0	0	0	0	0.13
Min	0	0	0	0	0	2	41	111	176	391	403	472	561	473	128	73	85	1	1	0	0	0	0	0	4365
Max	0	0	0	0	0	16	137	343	577	765	962	1055	1042	1019	891	724	527	311	144	4	0	0	0	0	8328

Daylight Data Recovery: 0% missing; 0% exceed the 15% QC threshold -- 5136 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 - July 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	36	51	39	399	153	61	101	673	472	491	564	312	28	3	0	0	0	0	3400
2	0	0	0	0	0	28	216	170	47	200	593	759	561	771	741	635	451	552	189	4	0	0	0	0	5917
3	0	0	0	0	0	36	328	279	560	430	420	274	865	706	841	528	188	357	193	11	0	0	0	0	6018
4	0	0	0	0	0	33	100	478	340	240	665	535	742	670	453	388	115	150	105	3	0	0	0	0	5019
5	0	0	0	0	0	17	93	416	517	625	691	794	835	798	805	617	539	487	206	5	0	0	0	0	7446
6	0	0	0	0	0	76	257	489	247	496	478	922	937	933	908	845	760	597	275	6	0	0	0	0	8224
7	0	0	0	0	0	67	356	654	784	886	938	967	961	941	900	837	737	493	236	7	0	0	0	0	9764
8	0	0	0	0	0	58	288	596	740	747	754	838	875	846	806	735	600	99	11	5	0	0	0	0	7999
9	0	0	0	0	0	15	370	605	724	808	703	405	815	702	752	640	223	2	0	0	0	0	0	0	6763
10	0	0	0	0	0	45	144	355	218	499	313	87	138	71	99	32	196	236	18	3	0	0	0	0	2453
11	0	0	0	0	0	10	29	34	51	52	118	260	137	74	352	31	18	22	20	3	0	0	0	0	1212
12	0	0	0	0	0	22	53	46	54	164	284	237	512	643	700	648	576	191	11	4	0	0	0	0	4146
13	0	0	0	0	0	25	65	335	582	673	790	797	799	801	737	589	320	11	5	8	0	0	0	0	6536
14	0	0	0	0	0	24	211	516	694	808	872	898	908	888	850	795	625	319	16	6	0	0	0	0	8431
15	0	0	0	0	0	4	127	299	599	644	866	923	921	900	866	795	680	493	52	4	0	0	0	0	8171
16	0	0	0	0	0	14	164	381	745	790	884	920	610	801	686	775	578	495	182	13	0	0	0	0	8035
17	0	0	0	0	0	9	151	70	654	719	879	905	895	910	871	809	690	414	28	9	0	0	0	0	8014
18	0	0	0	0	0	13	128	255	551	634	769	806	781	917	585	653	698	110	26	8	0	0	0	0	6933
19	0	0	0	0	0	13	34	77	51	445	832	875	886	877	859	808	584	381	151	40	0	0	0	0	6911
20	0	0	0	0	0	9	110	67	508	590	380	706	618	638	24	258	594	441	146	5	0	0	0	0	5094
21	0	0	0	0	0	28	113	67	403	524	101	127	154	101	129	358	420	245	67	5	0	0	0	0	2842
22	0	0	0	0	0	17	35	71	164	442	458	371	483	509	498	480	398	256	46	5	0	0	0	0	4233
23	0	0	0	0	0	17	51	53	162	546	614	607	613	584	553	452	303	135	13	5	0	0	0	0	4709
24	0	0	0	0	0	28	48	61	100	414	505	498	260	141	200	363	234	227	46	12	0	0	0	0	3139
25	0	0	0	0	0	12	90	19	48	378	503	513	483	589	231	489	76	4	15	2	0	0	0	0	3452
26	0	0	0	0	0	24	104	21	54	353	587	499	543	584	62	109	443	60	38	5	0	0	0	0	3487
27	0	0	0	0	0	121	86	48	60	289	720	758	765	798	751	654	550	308	61	12	0	0	0	0	5982
28	0	0	0	0	0	13	125	73	92	211	731	705	503	450	408	543	375	187	41	15	0	0	0	0	4472
29	0	0	0	0	0	18	98	72	89	148	686	645	585	604	525	432	227	58	44	67	0	0	0	0	4298
30	0	0	0	0	0	20	109	76	103	97	569	636	403	605	693	570	466	281	40	4	0	0	0	0	4673
31	0	0	0	0	0	14	64	58	75	102	456	315	331	570	757	674	527	333	90	4	0	0	0	0	4370
Avg	0	0	0	0	0	27	135	219	324	463	591	601	614	648	584	549	444	266	77	9	0	0	0	0	5553
S D	0	0	0	0	0	24	95	203	268	234	230	272	262	250	271	222	203	173	77	13	0	0	0	0	2074
S/A	0	0	0	0	0	0.87	0.7	0.93	0.83	0.5	0.39	0.45	0.43	0.39	0.46	0.4	0.46	0.65	0.99	1.38	0	0	0	0	0.37
Min	0	0	0	0	0	4	29	19	39	52	101	61	101	71	24	31	18	2	0	0	0	0	0	0	1212
Max	0	0	0	0	0	121	370	654	784	886	938	967	961	941	908	845	760	597	275	67	0	0	0	0	9764

Daylight Data Recovery: 0% missing; 0% exceed the 15% QC threshold -- 138576 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 - July 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	6	42	123	301	346	271	413	461	309	325	330	178	171	38	1	0	0	0	0	3315
2	0	0	0	0	0	8	57	136	174	234	317	231	290	276	185	193	196	94	38	3	0	0	0	0	2433
3	0	0	0	0	0	11	61	168	205	284	391	417	174	240	147	265	174	165	101	4	0	0	0	0	2806
4	0	0	0	0	0	10	98	141	234	404	305	333	249	275	277	224	166	155	84	4	0	0	0	0	2957
5	0	0	0	0	0	14	94	161	199	267	224	192	203	173	150	193	131	84	49	3	0	0	0	0	2137
6	0	0	0	0	0	11	48	80	200	252	206	129	103	96	91	88	80	67	42	2	0	0	0	0	1495
7	0	0	0	0	0	12	59	71	106	91	90	88	89	92	96	92	86	85	48	1	0	0	0	0	1108
8	0	0	0	0	0	8	58	85	98	132	213	168	159	179	156	143	125	80	22	0	0	0	0	0	1625
9	0	0	0	0	0	8	57	86	101	108	210	329	213	190	187	190	131	1	?	1	0	0	0	0	1812
10	0	0	0	0	0	15	86	189	216	297	397	414	476	458	435	335	267	131	33	2	0	0	0	0	3750
11	0	0	0	0	0	3	36	97	212	352	538	561	449	518	369	48	74	75	28	1	0	0	0	0	3361
12	0	0	0	0	0	6	63	141	169	316	419	327	304	256	228	187	145	74	23	1	0	0	0	0	2659
13	0	0	0	0	0	7	89	162	172	176	174	223	203	186	198	221	149	42	26	1	0	0	0	0	2029
14	0	0	0	0	0	7	72	109	120	119	113	117	113	114	117	117	111	76	22	1	0	0	0	0	1329
15	0	0	0	0	0	2	58	117	186	221	131	113	118	137	126	117	113	95	29	1	0	0	0	0	1566
16	0	0	0	0	0	5	81	155	118	129	115	132	254	176	204	126	137	79	53	4	0	0	0	0	1768
17	0	0	0	0	0	6	93	146	189	184	128	142	125	102	105	98	93	81	38	1	0	0	0	0	1532
18	0	0	0	0	0	6	81	215	172	226	218	283	247	138	219	156	115	69	22	1	0	0	0	0	2167
19	0	0	0	0	0	5	80	243	147	269	232	184	150	141	119	110	96	83	46	1	0	0	0	0	1905
20	0	0	0	0	0	6	86	271	200	208	260	277	273	282	114	160	122	91	47	2	0	0	0	0	2396
21	0	0	0	0	0	9	76	270	270	237	392	457	484	462	381	293	196	151	53	1	0	0	0	0	3729
22	0	0	0	0	0	3	69	229	344	325	401	508	434	407	339	284	216	141	50	0	0	0	0	0	3752
23	0	0	0	0	0	4	79	249	380	263	286	336	357	353	317	291	241	158	32	0	0	0	0	0	3347
24	0	0	0	0	0	5	84	239	401	367	336	393	356	338	356	298	245	152	51	1	0	0	0	0	3621
25	0	0	0	0	0	4	81	292	473	?	283	238	270	286	311	288	200	112	10	12	0	0	0	0	2860
26	0	0	0	0	0	4	83	291	424	?	352	266	278	326	318	71	147	196	96	36	2	0	0	0	2889
27	0	0	0	0	0	3	80	272	472	468	264	243	227	212	203	191	159	120	44	1	0	0	0	0	2957
28	0	0	0	0	0	4	82	276	451	?	530	?	247	270	328	304	252	231	192	143	43	1	0	0	3354
29	0	0	0	0	0	3	76	265	441	?	611	?	276	221	238	226	221	247	182	102	61	0	0	0	3169
30	0	0	0	0	0	3	76	247	428	?	?	377	309	324	289	254	234	187	124	29	0	0	0	0	2881
31	0	0	0	0	0	3	75	253	459	567	?	422	323	333	292	220	190	163	127	51	0	0	0	0	3477
Avg	0	0	0	0	0	6	73	186	260	287	273	280	269	253	218	193	154	101	40	1	0	0	0	0	2587
S D	0	0	0	0	0	3	15	71	125	129	106	119	113	110	96	75	49	42	19	1	0	0	0	0	796
S/A	0	0	0	0	0	0.52	0.21	0.38	0.48	0.45	0.39	0.42	0.42	0.43	0.44	0.39	0.32	0.42	0.47	0.88	0	0	0	0	0.31
Min	0	0	0	0	0	2	36	71	98	91	90	88	89	92	71	48	74	1	1	0	0	0	0	0	1108
Max	0	0	0	0	0	15	98	292	473	611	538	561	484	518	435	335	267	171	101	4	0	0	0	0	3752

Daylight Data Recovery: 0% missing; 1% exceed the 15% QC threshold -- 5136 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