

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Bethune-Cookman College - April 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	0	14	77	330	498	795	870	872	646	527	310	118	67	8	0	0	0	0	0	5133
2	0	0	0	0	0	0	33	201	420	605	727	915	711	183	423	533	319	151	16	0	0	0	0	0	5239
3	0	0	0	0	0	0	44	213	431	645	825	932	955	892	763	608	310	138	15	0	0	0	0	0	6770
4	0	0	0	0	0	0	53	230	467	695	813	936	969	898	784	600	403	160	12	0	0	0	0	0	7020
5	0	0	0	0	0	0	16	174	385	641	806	919	940	877	761	588	376	156	17	0	0	0	0	0	6654
6	0	0	0	0	0	0	42	160	399	525	746	913	962	900	755	530	416	159	16	0	0	0	0	0	6523
7	0	0	0	0	0	0	38	224	438	646	831	934	965	919	792	608	390	167	19	0	0	0	0	0	6971
8	0	0	0	0	0	0	40	213	434	654	825	896	779	701	609	509	290	125	13	0	0	0	0	0	6088
9	0	0	0	0	0	0	27	213	447	675	803	934	945	915	777	492	350	185	11	0	0	0	0	0	6775
10	0	0	0	0	0	0	55	151	326	539	616	726	950	926	794	616	391	170	18	0	0	0	0	0	6277
11	0	0	0	0	0	0	38	208	490	614	859	912	951	927	787	613	403	174	23	0	0	0	0	0	6999
12	0	0	0	0	0	0	60	265	483	711	876	981	1008	960	840	653	430	198	24	0	0	0	0	0	7489
13	0	0	0	0	0	0	59	248	498	729	898	1003	1031	978	848	657	427	191	23	0	0	0	0	0	7590
14	0	0	0	0	0	0	49	248	447	713	817	942	980	877	782	599	402	190	26	0	0	0	0	0	7072
15	0	0	0	0	0	0	45	232	274	383	678	793	810	737	668	542	284	123	21	0	0	0	0	0	5588
16	0	0	0	0	0	0	61	256	396	682	857	959	861	507	363	265	194	106	12	0	0	0	0	0	5520
17	0	0	0	0	0	0	23	109	106	69	78	146	269	178	329	222	127	60	12	0	0	0	0	0	1727
18	0	0	0	0	0	0	76	300	544	768	936	1034	1060	1005	871	682	455	216	30	0	0	0	0	0	7975
19	0	0	0	0	0	0	81	298	530	747	919	1046	1033	979	851	669	442	210	30	0	0	0	0	0	7835
20	0	0	0	0	0	1	83	295	527	741	896	1001	1030	974	850	666	440	206	30	0	0	0	0	0	7741
21	0	0	0	0	0	1	80	282	510	721	881	981	1014	954	826	642	424	198	30	0	0	0	0	0	7544
22	0	0	0	0	0	2	94	294	531	752	910	977	1039	973	836	652	430	200	32	0	0	0	0	0	7721
23	0	0	0	0	0	1	78	284	502	726	878	974	1000	939	806	604	412	194	31	0	0	0	0	0	7428
24	0	0	0	0	0	1	80	275	497	704	863	963	989	961	808	637	415	209	43	0	0	0	0	0	7444
25	0	0	0	0	0	0	45	171	433	530	297	950	930	926	790	594	349	175	22	0	0	0	0	0	6212
26	0	0	0	0	0	1	72	208	423	556	642	963	926	926	790	604	402	191	18	0	0	0	0	0	6722
27	0	0	0	0	0	2	66	276	422	631	816	967	631	705	486	421	336	110	17	0	0	0	0	0	5887
28	0	0	0	0	0	2	79	269	529	724	869	963	442	92	181	96	58	1	0	0	0	0	0	0	4306
29	0	0	0	0	0	2	78	337	498	386	650	744	975	979	542	195	180	62	7	0	0	0	0	0	5635
30	0	0	0	0	0	2	24	61	253	347	600	503	558	396	313	199	93	67	14	0	0	0	0	0	3431
Avg	0	0	0	0	0	1	54	226	432	612	767	893	886	794	685	520	335	152	20	0	0	0	0	0	6377
S D	0	0	0	0	0	1	22	66	95	151	181	174	185	257	191	165	114	54	9	0	0	0	0	0	1373
S/A	0	0	0	0	0	1.31	0.41	0.29	0.22	0.25	0.24	0.19	0.21	0.32	0.28	0.32	0.34	0.36	0.45	0	0	0	0	0	0.22
Min	0	0	0	0	0	0	14	61	106	69	78	146	269	92	181	96	58	1	0	0	0	0	0	0	1727
Max	0	0	0	0	0	2	94	337	544	768	936	1046	1060	1005	871	682	455	216	43	0	0	0	0	0	7975

Daylight Data Recovery: 0% missing; 1% exceed the 15% QC threshold -- 4632 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: 8.33 uV/Wm-2
Serial Number: 17800F3
Calibration Date: 9/13/96
Note: Instrument was changed during month.

**Direct Normal Solar Radiation
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Bethune-Cookman College - April 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	0	30	36	60	51	44	42	45	57	69	59	36	31	12	0	0	0	0	0	573
2	0	0	0	0	0	0	32	53	39	52	71	58	52	23	46	63	78	57	18	0	0	0	0	0	641
3	0	0	0	0	0	0	55	64	35	29	36	32	31	40	43	42	68	60	18	0	0	0	0	0	554
4	0	0	0	0	0	0	68	75	39	45	35	33	32	34	38	47	67	40	16	0	0	0	0	0	571
5	0	0	0	0	0	0	30	57	47	37	43	47	46	46	47	49	63	47	73	0	0	0	0	0	632
6	0	0	0	0	0	0	67	66	62	81	76	56	56	68	60	74	86	60	15	0	0	0	0	0	828
7	0	0	0	0	0	0	33	56	37	47	42	44	41	36	41	48	58	40	32	0	0	0	0	0	554
8	0	0	0	0	0	0	36	36	27	34	40	46	60	57	58	72	67	46	23	0	0	0	0	0	602
9	0	0	0	0	0	0	53	50	15	27	46	39	37	58	69	71	23	10	0	0	0	0	0	0	538
10	0	0	0	0	0	0	63	65	60	72	85	76	42	38	37	42	52	37	39	0	0	0	0	0	708
11	0	0	0	0	0	0	49	57	60	62	25	50	44	34	45	36	51	26	60	0	0	0	0	0	598
12	0	0	0	0	0	0	59	38	8	17	19	29	27	26	23	22	46	12	92	0	0	0	0	0	417
13	0	0	0	0	0	0	288	3	11	19	18	28	26	26	29	31	48	20	65	0	0	0	0	0	612
14	0	0	0	0	0	0	78	1	30	33	44	41	43	54	53	50	55	38	67	0	0	0	0	0	585
15	0	0	0	0	0	0	50	38	72	72	74	73	74	67	64	58	65	51	29	0	0	0	0	0	787
16	0	0	0	0	0	0	66	14	49	52	31	45	66	82	67	62	62	53	19	0	0	0	0	0	669
17	0	0	0	0	0	0	26	48	32	4	13	23	43	29	62	49	37	33	22	0	0	0	0	0	422
18	0	0	0	0	0	0	93	0	4	16	14	17	18	19	19	20	13	11	110	0	0	0	0	0	353
19	0	0	0	0	0	11	108	0	7	20	18	28	27	25	24	25	17	15	94	0	0	0	0	0	418
20	0	0	0	0	0	5	102	0	8	21	21	24	23	23	25	25	19	17	85	0	0	0	0	0	397
21	0	0	0	0	0	6	64	1	15	25	24	28	28	30	33	36	30	22	60	0	0	0	0	0	401
22	0	0	0	0	0	10	100	25	9	24	23	34	27	26	34	37	31	27	55	0	0	0	0	0	463
23	0	0	0	0	0	21	54	56	31	41	43	39	41	43	50	59	50	38	73	0	0	0	0	0	640
24	0	0	0	0	0	14	56	1	21	30	32	38	42	59	45	41	44	43	81	0	0	0	0	0	546
25	0	0	0	0	0	3	33	54	54	83	52	70	75	66	67	73	72	62	19	0	0	0	0	0	782
26	0	0	0	0	0	8	40	46	45	56	53	51	60	51	62	99	111	62	15	0	0	0	0	0	760
27	0	0	0	0	0	9	40	28	71	61	57	59	85	83	59	81	143	41	21	0	0	0	0	0	837
28	0	0	0	0	0	26	26	70	31	32	72	51	47	10	16	19	4	0	1	0	0	0	0	0	406
29	0	0	0	0	0	11	62	69	14	61	80	92	83	111	179	85	47	19	7	0	0	0	0	0	919
30	0	0	0	0	0	8	27	26	63	71	97	78	50	51	57	43	28	33	9	0	0	0	0	0	641
Avg	0	0	0	0	0	4	63	38	35	42	44	46	46	45	50	51	54	35	41	0	0	0	0	0	595
S D	0	0	0	0	0	7	48	25	21	21	23	18	17	22	28	20	28	17	31	0	0	0	0	0	145
S/A	0	0	0	0	0	1.52	0.76	0.66	0.59	0.49	0.51	0.39	0.38	0.49	0.56	0.4	0.52	0.47	0.75	0	0	0	0	0	0.24
Min	0	0	0	0	0	0	26	0	4	4	13	17	18	10	16	19	4	0	1	0	0	0	0	0	353
Max	0	0	0	0	0	26	288	75	72	83	97	92	85	111	179	99	143	62	110	0	0	0	0	0	919

Daylight Data Recovery: 0% missing; 0% exceed the 15% QC threshold -- 123352 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: XXXXXXX
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 - April 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	0	12	67	277	376 ?	503 ?	610 ?	703 ?	527	454	272	101	59	7	0	0	0	0	0	3968 ?
2	0	0	0	0	0	0	30	188	391	455 ?	397 ?	734 ?	548 ?	163	288 ?	480	283	136	15	0	0	0	0	0	4109 ?
3	0	0	0	0	0	0	43	196	406	?	?	?	?	?	679 ?	495 ?	278	122	14	0	0	0	0	0	2232 ?
4	0	0	0	0	0	0	50	208	382 ?	504 ?	482 ?	?	?	602 ?	520 ?	484 ?	371	149	11	0	0	0	0	0	3763 ?
5	0	0	0	0	0	0	14	157	363	?	?	?	?	?	749 ?	530 ?	346	143	15	0	0	0	0	0	2317 ?
6	0	0	0	0	0	0	40	141	356	429 ?	630 ?	775 ?	?	742 ?	590 ?	471	375	143	15	0	0	0	0	0	4708 ?
7	0	0	0	0	0	0	34	208	419	514 ?	?	?	?	?	?	525 ?	362	157	17	0	0	0	0	0	2236 ?
8	0	0	0	0	0	0	38	202	420	?	?	752 ?	624 ?	503 ?	525	461	258	112	11	0	0	0	0	0	3907 ?
9	0	0	0	0	0	0	24	200	377 ?	?	701 ?	810 ?	832 ?	?	607 ?	446	315	179	10	0	0	0	0	0	4499 ?
10	0	0	0	0	0	0	55	131	295	470	546	606	804 ?	?	?	530 ?	366	160	14	0	0	0	0	0	3976 ?
11	0	0	0	0	0	0	35	191	392 ?	518 ?	?	696 ?	712 ?	?	?	535 ?	378	166	16	0	0	0	0	0	3640 ?
12	0	0	0	0	0	0	55	257	377 ?	?	?	?	?	?	?	?	387	195	13	0	0	0	0	0	1284 ?
13	0	0	0	0	0	0	53	235	?	?	?	?	?	?	?	?	384	185	15	0	0	0	0	0	872 ?
14	0	0	0	0	0	0	47	251	371 ?	?	737 ?	757 ?	?	765 ?	683 ?	540 ?	375	178	21	0	0	0	0	0	4725 ?
15	0	0	0	0	0	0	39	205	236	332	550 ?	535 ?	710	624 ?	600	490	252	108	19	0	0	0	0	0	4700
16	0	0	0	0	0	0	55	242	323 ?	401 ?	?	?	561 ?	432	308	224	163	91	11	0	0	0	0	0	2810 ?
17	0	0	0	0	0	0	20	93	89	64 ?	66	124	228	152	278	189	108	51	12	0	0	0	0	0	1474
18	0	0	0	0	0	0	68	214 ?	?	?	?	?	?	?	?	?	364 ?	208	18	0	0	0	0	0	872 ?
19	0	0	0	0	0	0	73	223 ?	?	?	?	?	?	?	?	?	378 ?	210	18	0	0	0	0	0	902 ?
20	0	0	0	0	0	1	74	231 ?	?	?	?	?	?	?	?	?	384 ?	203	20	0	0	0	0	0	913 ?
21	0	0	0	0	0	1	74	283	401 ?	?	?	?	?	?	?	?	409	192	22	0	0	0	0	0	1382 ?
22	0	0	0	0	0	1	83	240 ?	?	?	?	814 ?	?	?	?	?	404	193	24	0	0	0	0	0	1760 ?
23	0	0	0	0	0	1	72	264	403 ?	470 ?	713 ?	773 ?	?	?	?	535 ?	386	183	24	0	0	0	0	0	3824 ?
24	0	0	0	0	0	1	73	276	442 ?	?	?	?	?	739 ?	?	537 ?	393	197	34	0	0	0	0	0	2692 ?
25	0	0	0	0	0	0	40	151	403	449	252	786 ?	814 ?	848 ?	725 ?	544	313	156	20	0	0	0	0	0	5502 ?
26	0	0	0	0	0	1	67	191	397	448 ?	452 ?	658 ?	656 ?	751 ?	720 ?	536	345	171	16	0	0	0	0	0	5410 ?
27	0	0	0	0	0	2	61	266	373	456 ?	667 ?	?	549	573	436	366	262	97	15	0	0	0	0	0	4123 ?
28	0	0	0	0	0	2	77	244	440 ?	?	680 ?	628 ?	134 ?	83	166 ?	83	50 ?	1	0	0	0	0	0	0	2587 ?
29	0	0	0	0	0	1	67	233 ?	518 ?	288	485 ?	548 ?	673 ?	806 ?	390	141	154	56	7	0	0	0	0	0	4368 ?
30	0	0	0	0	0	2	20	52	217	295	485	429	474	349	266	169	79	57	13	0	0	0	0	0	2904
Avg	0	0	0	0	0	0	50	201	363	404	522	649	602	541	499	417	301	142	16	0	0	0	0	0	3082
S D	0	0	0	0	0	1	20	58	85	112	173	169	194	238	178	149	106	54	6	0	0	0	0	0	1424
S/A	0	0	0	0	0	1.32	0.41	0.29	0.23	0.28	0.33	0.26	0.32	0.44	0.36	0.36	0.35	0.38	0.39	0	0	0	0	0	0.46
Min	0	0	0	0	0	0	12	52	89	64	66	124	134	83	166	83	50	1	0	0	0	0	0	0	872
Max	0	0	0	0	0	2	83	283	518	518	737	814	832	848	749	544	409	210	34	0	0	0	0	0	5502

Daylight Data Recovery: 0% missing; 41% exceed the 15% QC threshold -- 4632 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: 8.08 uV/Wm-2
Serial Number: 17879F3
Calibration Date: 9/13/96
Note: Instrument was changed during month.