

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

December 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	0	0	56	199	386	510	600	628	571	455	275	96	10	0	0	0	0	0	0	3786
2	0	0	0	0	0	0	0	81	238	374	501	588	613	514	390	273	95	15	0	0	0	0	0	0	3681
3	0	0	0	0	0	0	0	42	192	368	449	562	617	563	434	177	56	6	0	0	0	0	0	0	3467
4	0	0	0	0	0	0	0	47	206	384	508	553	447	224	67	67	37	9	0	0	0	0	0	0	2551
5	0	0	0	0	0	0	0	45	210	379	505	573	587	377	349	273	96	14	0	0	0	0	0	0	3409
6	0	0	0	0	0	0	0	24	155	227	495	544	517	443	370	253	118	21	0	0	0	0	0	0	3166
7	0	0	0	0	0	0	0	16	177	264	496	580	614	559	267	91	44	9	0	0	0	0	0	0	3118
8	0	0	0	0	0	0	0	45	199	339	411	311	217	247	504	261	67	7	0	0	0	0	0	0	2609
9	0	0	0	0	0	0	0	43	166	349	460	469	441	223	134	156	82	11	0	0	0	0	0	0	2533
10	0	0	0	0	0	0	0	44	179	363	450	404	220	361	218	208	78	9	0	0	0	0	0	0	2532
11	0	0	0	0	0	0	0	51	144	350	483	305	222	560	404	279	97	8	0	0	0	0	0	0	2903
12	0	0	0	0	0	0	0	47	132	297	454	571	621	536	426	259	101	11	0	0	0	0	0	0	3456
13	0	0	0	0	0	0	0	28	191	346	504	582	610	566	457	273	106	20	0	0	0	0	0	0	3684
14	0	0	0	0	0	0	0	31	180	279	453	432	545	517	441	243	84	9	0	0	0	0	0	0	3215
15	0	0	0	0	0	0	0	36	162	230	384	470	533	393	325	196	56	12	0	0	0	0	0	0	2795
16	0	0	0	0	0	0	0	34	184	329	409	451	463	278	146	72	13	5	0	0	0	0	0	0	2383
17	0	0	0	0	0	0	0	36	160	320	295	367	367	254	243	267	72	12	0	0	0	0	0	0	2393
18	0	0	0	0	0	0	0	21	171	374	510	601	640	587	477	303	115	13	0	0	0	0	0	0	3812
19	0	0	0	0	0	0	0	38	201	335	487	607	590	490	469	296	115	15	0	0	0	0	0	0	3642
20	0	0	0	0	0	0	0	34	179	366	506	596	642	590	482	310	120	15	0	0	0	0	0	0	3840
21	0	0	0	0	0	0	0	21	166	360	495	588	631	585	475	306	121	17	0	0	0	0	0	0	3766
22	0	0	0	0	0	0	0	35	148	325	415	592	612	553	332	252	122	22	0	0	0	0	0	0	3407
23	0	0	0	0	0	0	0	40	127	257	346	594	483	279	157	84	41	5	0	0	0	0	0	0	2413
24	0	0	0	0	0	0	0	9	51	91	233	479	534	458	466	303	94	7	0	0	0	0	0	0	2725
25	0	0	0	0	0	0	0	14	77	93	144	103	90	70	78	56	28	1	0	0	0	0	0	0	754
26	0	0	0	0	0	0	0	31	179	390	498	617	664	616	502	333	137	20	0	0	0	0	0	0	3988
27	0	0	0	0	0	0	0	41	184	248	351	522	494	468	270	150	56	7	0	0	0	0	0	0	2792
28	0	0	0	0	0	0	0	25	162	359	444	580	650	355	162	84	84	9	0	0	0	0	0	0	2915
29	0	0	0	0	0	0	0	12	77	164	362	471	629	426	462	285	125	15	0	0	0	0	0	0	3029
30	0	0	0	0	0	0	0	23	115	390	473	525	557	480	365	257	108	22	0	0	0	0	0	0	3314
31	0	0	0	0	0	0	0	11	47	133	157	188	144	214	222	67	22	2	0	0	0	0	0	0	1207
Avg	0	0	0	0	0	0	0	34	160	305	425	498	504	431	340	216	83	12	0	0	0	0	0	0	3009
S D	0	0	0	0	0	0	0	15	46	87	100	128	163	145	136	89	34	6	0	0	0	0	0	0	734
S/A	0	0	0	0	0	0	0	0.45	0.29	0.29	0.24	0.26	0.32	0.34	0.4	0.41	0.4	0.49	0	0	0	0	0	0	0.24
Min	0	0	0	0	0	0	0	9	47	91	144	103	90	70	67	56	13	1	0	0	0	0	0	0	754
Max	0	0	0	0	0	0	0	81	238	390	510	617	664	616	504	333	137	22	0	0	0	0	0	0	3988
n	0	0	0	0	0	0	0	314	371	372	372	372	372	372	372	372	372	372	156	0	0	0	0	0	3817

Daylight Data Recovery: 0.0% missing; 0.0% exceed the 15% QC threshold -- 3818 total daylight measurements.

Instrument: Eppley PSP Serial Number: 13434F3 Calibration Factor: 8.670 $\mu\text{V}/\text{W}/\text{m}^2$ 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.

December 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	0	0	35 ?	62 ?	28	5	6	29	34	48	41	33	32	0	0	0	0	0	0	353
2	0	0	0	0	0	0	0	45	40	16	13	14	37	49	56	46	30	35	0	0	0	0	0	0	382
3	0	0	0	0	0	0	0	35 ?	88 ?	20	23	24	46	43	55	30	18	13	0	0	0	0	0	0	396 ?
4	0	0	0	0	0	0	0	19	29	15	18	37	33	20	9	11	9	10	0	0	0	0	0	0	209
5	0	0	0	0	0	0	0	21	33	23	16	24	43	39	46	46	32	24	0	0	0	0	0	0	345
6	0	0	0	0	0	0	0	15	33	26	24	13	44	44	44	38	42	44	0	0	0	0	0	0	365
7	0	0	0	0	0	0	0	9	70	28	16	11	34	38	38	17	17	18	0	0	0	0	0	0	298
8	0	0	0	0	0	0	0	44	34	28	39	25	12	21	72	45	24	26	0	0	0	0	0	0	371
9	0	0	0	0	0	0	0	32 ?	29 ?	33	29	22	45	24	13	27	19	26	0	0	0	0	0	0	301 ?
10	0	0	0	0	0	0	0	22	29	27	41	33	11	28	18	14	15	35	0	0	0	0	0	0	273
11	0	0	0	0	0	0	0	34	35	20	19	15	21	41	54	48	32	44	0	0	0	0	0	0	364
12	0	0	0	0	0	0	0	29	13 ?	37	28	26	44	47	51	49	33	46	0	0	0	0	0	0	402
13	0	0	0	0	0	0	0	21	16	29 ?	17	16	40	40	54	49	23	29	0	0	0	0	0	0	333
14	0	0	0	0	0	0	0	17	33	23	27	37	44	48	62	46	17	29	0	0	0	0	0	0	383
15	0	0	0	0	0	0	0	20	43	30	37	40	47	38	36	33	15	15	0	0	0	0	0	0	355
16	0	0	0	0	0	0	0	36	34	29	35	29	42	16	18	12	6	8	0	0	0	0	0	0	264
17	0	0	0	0	0	0	0	26	23	26	22	10	27	16	21	50	23	21	0	0	0	0	0	0	266
18	0	0	0	0	0	0	0	12	42	21	15	7	35	32	44	42	36	27	0	0	0	0	0	0	314
19	0	0	0	0	0	0	0	44	129 ?	23	19	13	41	35	49	48	38	32	0	0	0	0	0	0	470
20	0	0	0	0	0	0	0	19 ?	22	16	18	5	31	32	49	45	37	29	0	0	0	0	0	0	303
21	0	0	0	0	0	0	0	21	24	20	19	7	33	35	51	43	39	29	0	0	0	0	0	0	322
22	0	0	0	0	0	0	0	11	22	32	34	16	48	39	45	40	41	43	0	0	0	0	0	0	370
23	0	0	0	0	0	0	0	20	24	38	36	28	39	21	18	12	14	18	0	0	0	0	0	0	269
24	0	0	0	0	0	0	0	10	10	12	30	21	37	41	50	40	27	42	0	0	0	0	0	0	321
25	0	0	0	0	0	0	0	10	17	13	13	11	10	10	11	11	11	1	0	0	0	0	0	0	118
26	0	0	0	0	0	0	0	27	29	44	18	4	33	36	46	41	40	34	0	0	0	0	0	0	352
27	0	0	0	0	0	0	0	206	23	27	35	32	49	49	17	21	17	15	0	0	0	0	0	0	490
28	0	0	0	0	0	0	0	42	25	28	27	4	27	25	19	13	22	26	0	0	0	0	0	0	259
29	0	0	0	0	0	0	0	5	19	24	38	32	44	41	60	46	44	29	0	0	0	0	0	0	381
30	0	0	0	0	0	0	0	11	19	156	77	17	41	44	33	33	14	25	0	0	0	0	0	0	471
31	0	0	0	0	0	0	0	10	12	18	17	16	14	19	21	12	9	7	0	0	0	0	0	0	157
Avg	0	0	0	0	0	0	0	29	34	29	26	19	35	34	39	34	25	26	0	0	0	0	0	0	331
S D	0	0	0	0	0	0	0	35	24	25	13	11	11	11	17	14	11	12	0	0	0	0	0	0	82
S/A	0	0	0	0	0	0	0	1.19	0.71	0.84	0.51	0.55	0.32	0.33	0.45	0.42	0.45	0.44	0	0	0	0	0	0	0.25
Min	0	0	0	0	0	0	0	5	10	12	5	4	10	10	9	11	6	1	0	0	0	0	0	0	118
Max	0	0	0	0	0	0	0	206	129	156	77	40	49	49	72	50	44	46	0	0	0	0	0	0	490
n	0	0	0	0	0	0	0	286	335	366	370	371	372	372	372	372	372	156	0	0	0	0	0	0	3744

Daylight Data Recovery: 0.0% missing; 1.9% exceed the 15% QC threshold -- 3818 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

December 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	0	0	55	178 ?	375	464 ?	?	?	?	414 ?	261	90	9	0	0	0	0	0	0	1845 ?
2	0	0	0	0	0	0	0	51 ?	242 ?	370	468 ?	?	?	459 ?	351	257	89	14	0	0	0	0	0	0	2301 ?
3	0	0	0	0	0	0	0	30 ?	205 ?	362	400 ?	411 ?	?	?	408	166	52	5	0	0	0	0	0	0	2040 ?
4	0	0	0	0	0	0	0	46	198	397 ?	487 ?	488 ?	395	212	63	64	36	9	0	0	0	0	0	0	2396 ?
5	0	0	0	0	0	0	0	43	194	380	458 ?	464 ?	498 ?	284 ?	315	257	90	13	0	0	0	0	0	0	2996 ?
6	0	0	0	0	0	0	0	23	101 ?	217	284 ?	376 ?	431 ?	337 ?	296 ?	229	110	19	0	0	0	0	0	0	2422 ?
7	0	0	0	0	0	0	0	15	162	206	456 ?	?	?	?	249	85	41	9	0	0	0	0	0	0	1221 ?
8	0	0	0	0	0	0	0	41	191	305 ?	272 ?	296	210	235	407 ?	245	63	6	0	0	0	0	0	0	2271 ?
9	0	0	0	0	0	0	0	42	173 ?	336	363 ?	237 ?	239 ?	209	127	146	78	10	0	0	0	0	0	0	1961 ?
10	0	0	0	0	0	0	0	45	171	349 ?	315 ?	355	213	345	209	194	75	8	0	0	0	0	0	0	2280
11	0	0	0	0	0	0	0	49	135	342	438 ?	244	209	495 ?	377	262	91	7	0	0	0	0	0	0	2650 ?
12	0	0	0	0	0	0	0	45	134	282	405 ?	477 ?	?	410 ?	381	242	94	10	0	0	0	0	0	0	2480 ?
13	0	0	0	0	0	0	0	26	187	342 ?	?	499 ?	547 ?	?	381 ?	256	102	19	0	0	0	0	0	0	2360 ?
14	0	0	0	0	0	0	0	30	167	267	415	352 ?	424 ?	402 ?	371 ?	221	81	8	0	0	0	0	0	0	2737 ?
15	0	0	0	0	0	0	0	34	136	218	365	428	486	371	307	184	53	11	0	0	0	0	0	0	2593
16	0	0	0	0	0	0	0	32	153	320	384	377 ?	389 ?	244	137	68	12	5	0	0	0	0	0	0	2121
17	0	0	0	0	0	0	0	35	154	292	284	361	351	245	209	243	67	11	0	0	0	0	0	0	2251
18	0	0	0	0	0	0	0	20	140	?	?	?	?	?	?	259 ?	108	12	0	0	0	0	0	0	539 ?
19	0	0	0	0	0	0	0	38	183 ?	299 ?	446 ?	?	511 ?	427 ?	417 ?	253 ?	108	14	0	0	0	0	0	0	2697 ?
20	0	0	0	0	0	0	0	36	174	?	?	?	?	?	?	275 ?	113	14	0	0	0	0	0	0	610 ?
21	0	0	0	0	0	0	0	20	160	?	?	?	?	?	?	397 ?	274 ?	114	16	0	0	0	0	0	981 ?
22	0	0	0	0	0	0	0	34	142	150 ?	326 ?	457 ?	439 ?	296 ?	262	200 ?	114	20	0	0	0	0	0	0	2439 ?
23	0	0	0	0	0	0	0	39	122	242	294	514 ?	350 ?	267	148	79	38	5	0	0	0	0	0	0	2098 ?
24	0	0	0	0	0	0	0	8	49	86	217	405 ?	386 ?	363 ?	418 ?	277 ?	80	6	0	0	0	0	0	0	2295 ?
25	0	0	0	0	0	0	0	13	73	87	138	96	84	64	73	53	26	1	0	0	0	0	0	0	708
26	0	0	0	0	0	0	0	30	146 ?	290 ?	?	?	?	?	?	236 ?	129	19	0	0	0	0	0	0	850 ?
27	0	0	0	0	0	0	0	40	152 ?	205 ?	333	469 ?	454	415	262	143	53	6	0	0	0	0	0	0	2533 ?
28	0	0	0	0	0	0	0	23	159	309 ?	364 ?	?	?	319	152	79	80	8	0	0	0	0	0	0	1493 ?
29	0	0	0	0	0	0	0	12	73	155	342	396 ?	?	385	416 ?	268	116	14	0	0	0	0	0	0	2177 ?
30	0	0	0	0	0	0	0	23	110	281 ?	374 ?	455 ?	468 ?	435	348	244	105	21	0	0	0	0	0	0	2863 ?
31	0	0	0	0	0	0	0	10	44	126	149	179	136	203	212	62	20	1	0	0	0	0	0	0	1142
Avg	0	0	0	0	0	0	0	32	149	271	355	379	361	323	290	196	78	11	0	0	0	0	0	0	2011 ?
S D	0	0	0	0	0	0	0	13	45	89	94	110	134	103	114	78	32	5	0	0	0	0	0	0	704
S/A	0	0	0	0	0	0	0	0.4	0.31	0.33	0.26	0.29	0.37	0.32	0.39	0.4	0.4	0.51	0	0	0	0	0	0	0.35
Min	0	0	0	0	0	0	0	8	44	86	138	96	84	64	63	53	12	1	0	0	0	0	0	0	539
Max	0	0	0	0	0	0	0	55	242	397	487	514	547	495	418	277	129	21	0	0	0	0	0	0	2996
n	0	0	0	0	0	0	0	303	326	279	206	158	167	216	276	334	371	156	0	0	0	0	0	0	2800

Daylight Data Recovery: 0.0% missing; 26.7% exceed the 15% QC threshold -- 3818 total daylight measurements.

Instrument: Eppley PSP Serial Number: 25951F3 Calibration Factor: 7.600 μV/W/m² 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.