

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Bluefield State College - February 1998

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	0	6	101 ?	?	?	265 ?	?	?	?	?	115 ?	28	0	0	0	0	0	0	516 ?
2	0	0	0	0	0	0	0	8	81 ?	138 ?	247	318	306	358	359	203	65	10	0	0	0	0	0	0	2093
3	0	0	0	0	0	0	0	2	13	34	58	95	127	110	50	29	12	2	0	0	0	0	0	0	532
4	0	0	0	0	0	0	0	1	12	34	63	84	101	90	79	43	30	6	0	0	0	0	0	0	542
5	0	0	0	0	0	0	0	4	22	74	85	110	154	131	75	65	34	7	0	0	0	0	0	0	761
6	0	0	0	0	0	0	0	5	33	55	82	129	135	127	99	76	39	8	0	0	0	0	0	0	789
7	0	0	0	0	0	0	0	4	56	127	194	268	307	247	184	129	67	13	0	0	0	0	0	0	1596
8	0	0	0	0	0	0	0	8	58	147	250	410	424 ?	?	?	198 ?	128 ?	25	0	0	0	0	0	0	1648 ?
9	0	0	0	0	0	0	0	26	115 ?	153 ?	?	363 ?	?	?	318 ?	247	118	23	0	0	0	0	0	0	1363 ?
10	0	0	0	0	0	0	0	30	184 ?	?	?	?	383 ?	358 ?	228 ?	182 ?	72 ?	33	0	0	0	0	0	0	1469 ?
11	0	0	0	0	0	0	0	9	36	71	207	360	183	110	214	210 ?	118 ?	29	0	0	0	0	0	0	1547
12	0	0	0	0	0	0	0	5	15	54	83	68	53	46	43	36	16	5	0	0	0	0	0	0	425
13	0	0	0	0	0	0	0	1	22	122	141	155	127	158	180	159	105	35	0	0	0	0	0	0	1206
14	0	0	0	0	0	0	0	7	41	51	91	137	233	490 ?	402 ?	226 ?	94 ?	46	0	0	0	0	0	0	1819
15	0	0	0	0	0	0	0	47	175 ?	?	?	?	?	599 ?	525 ?	446 ?	131 ?	62	0	0	0	0	0	0	1984 ?
16	0	0	0	0	0	0	0	5	53	124	187	213	258	192	279	156	124	20	0	0	0	0	0	0	1612
17	0	0	0	0	0	0	0	11	42	88	244	262	23	378 ?	303	80	91	17	0	0	0	0	0	0	1541
18	0	0	0	0	0	0	0	2	40	42	37	61	79	140	199	124	32	8	0	0	0	0	0	0	764
19	0	0	0	0	0	0	0	5	19	41	90	191	192	73	111	83	19	6	0	0	0	0	0	0	831
20	0	0	0	0	0	0	0	5	19	59	122	72	107	107	59	45	52	7	0	0	0	0	0	0	654
21	0	0	0	0	0	0	0	3	21	67	109	115	131	99	171	111	46	15	0	0	0	0	0	0	889
22	0	0	0	0	0	0	0	39	177	381	539 ?	618 ?	609	489	320	214	62	23	0	0	0	0	0	0	3471
23	0	0	0	0	0	0	0	2	11	31	80	183	244	144	124	96	48	16	0	0	0	0	0	0	980
24	0	0	0	0	0	0	0	9	38	109	116	99	93	91	45	36	40	18	1	0	0	0	0	0	696
25	0	0	0	0	0	0	0	23	143	335 ?	432 ?	?	?	?	?	441 ?	237	90	1	0	0	0	0	0	1701 ?
26	0	0	0	0	0	0	0	45	259 ?	441	598	699	703	654	577	402	264	55	1	0	0	0	0	0	4697
27	0	0	0	0	0	0	0	23	86	108	61	476	708	653	342	345	203	88	1	0	0	0	0	0	3094
28	0	0	0	0	0	0	0	30	164	434	593	633	782	578	453	395	281	57	2	0	0	0	0	0	4402
Avg	0	0	0	0	0	0	0	13	73	133	196	255	269	267	230	177	94	27	0	0	0	0	0	0	1558
S D	0	0	0	0	0	0	0	14	66	122	168	184	217	201	151	127	72	24	0	0	0	0	0	0	1100
S/A	0	0	0	0	0	0	0	1.05	0.9	0.92	0.85	0.72	0.81	0.75	0.66	0.72	0.77	0.87	1.66	0	0	0	0	0	0.71
Min	0	0	0	0	0	0	0	1	11	31	37	61	23	46	43	29	12	2	0	0	0	0	0	0	425
Max	0	0	0	0	0	0	0	47	259	441	598	699	782	654	577	446	281	90	2	0	0	0	0	0	4697

Daylight Data Recovery: 0% missing; 10% exceed the 15% QC threshold -- 7311 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: BS
Latitude: 37.27° N
Longitude: 81.24° W
Elevation: 803 Meters AMSL
Time Zone: -5

Instrument: PSP
Calibration Constant: 8.99 uV/Wm-2
Serial Number: 25765F3
Calibration Date: 9/13/96

**Direct Normal Solar Radiation
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Bluefield State College - February 1998**

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	0	0	0 ?	?	?	0 ?	?	?	?	?	0 ?	0	0	0	0	0	0	0	0 ?
2	0	0	0	0	0	0	0	0	0 ?	0 ?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0 ?	?	?	0 ?	0 ?	0	0	0	0	0	0	0	0 ?
9	0	0	0	0	0	0	0	0	1 ?	0 ?	?	0 ?	?	?	0 ?	0	0	0	0	0	0	0	0	0	1 ?
10	0	0	0	0	0	0	0	0	1 ?	?	?	?	0 ?	?	0 ?	0 ?	0 ?	0	0	0	0	0	0	0	1 ?
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 ?	0 ?	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0 ?	0 ?	0 ?	0 ?	0 ?	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0 ?	?	?	?	?	0 ?	0 ?	0 ?	0 ?	0 ?	0	0	0	0	0	0	0 ?
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0 ?	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0 ?	0 ?	0	0	0	1	1	1	0	0	0	0	0	0	4
23	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0	6
24	0	0	0	0	0	0	0	1	1	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	8
25	0	0	0	0	0	0	0	1	1	0 ?	0 ?	?	?	?	?	1 ?	1	1	0	0	0	0	0	0	4 ?
26	0	0	0	0	0	0	0	0	592 ?	864	937	961	903	859	765	477	662	122	0	0	0	0	0	7142	
27	0	0	0	0	0	0	0	0	0	0	0	327	732	644	217	479	421	400	0	0	0	0	0	3221	
28	0	0	0	0	0	0	0	2	166	774	894	690	896	546	451	446	527	138	0	0	0	0	0	5530	
Avg	0	0	0	0	0	0	0	0	27	66	76	79	106	85	57	52	58	24	0	0	0	0	0	569	
S D	0	0	0	0	0	0	0	0	113	223	253	232	280	231	174	147	169	80	0	0	0	0	0	1721	
S/A	0	0	0	0	0	0	0	2.28	4.14	3.39	3.32	2.94	2.66	2.7	3.02	2.82	2.93	3.37	2.39	0	0	0	0	3.03	
Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Max	0	0	0	0	0	0	0	2	592	864	937	961	903	859	765	479	662	400	0	0	0	0	0	7142	

Daylight Data Recovery: 0% missing; 10% exceed the 15% QC threshold -- 7311 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: BS
Latitude: 37.27° N
Longitude: 81.24° W
Elevation: 803 Meters AMSL
Time Zone: -5

Instrument: NIP
Calibration Constant: 8.52 uV/Wm-2
Serial Number: 19791E6
Calibration Date: 9/13/96

Diffuse Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Bluefield State College - February 1998

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	0	5	28 ?	?	?	202 ?	?	?	?	?	31 ?	11	0	0	0	0	0	0	277 ?
2	0	0	0	0	0	0	0	7	54 ?	123 ?	226	302	294	334	304	189	63	10	0	0	0	0	0	0	1907
3	0	0	0	0	0	0	0	2	12	33	55	92	123	106	49	28	11	2	0	0	0	0	0	0	513
4	0	0	0	0	0	0	0	1	10	33	62	86	99	84	77	41	28	6	0	0	0	0	0	0	529
5	0	0	0	0	0	0	0	3	21	71	82	106	144	120	70	60	32	6	0	0	0	0	0	0	715
6	0	0	0	0	0	0	0	4	26	43	65	102	107	99	77	59	30	6	0	0	0	0	0	0	618
7	0	0	0	0	0	0	0	2	44	100	151	204	249	213	167	120	64	11	0	0	0	0	0	0	1325
8	0	0	0	0	0	0	0	8	56	137	236	348	345 ?	?	?	134 ?	108 ?	23	0	0	0	0	0	0	1396 ?
9	0	0	0	0	0	0	0	20	63 ?	142 ?	?	310 ?	?	?	284 ?	238	105	23	0	0	0	0	0	0	1185 ?
10	0	0	0	0	0	0	0	20	98 ?	?	?	?	298 ?	315 ?	187 ?	122 ?	53 ?	18	0	0	?	0	0	0	1111 ?
11	0	0	0	0	0	0	0	9	35	68	196	329	176	107	204	192 ?	100 ?	27	0	0	0	0	0	0	1442
12	0	0	0	0	0	0	0	4	14	52	80	65	51	44	41	34	14	5	0	0	0	0	0	0	405
13	0	0	0	0	0	0	0	1	21	118	137	150	121	152	173	154	100	33	0	0	0	0	0	0	1161
14	0	0	0	0	0	0	0	6	39	49	87	132	222	452 ?	377 ?	202 ?	83 ?	23	0	0	0	0	0	0	1671
15	0	0	0	0	0	0	0	12 ?	?	?	?	?	?	553 ?	484 ?	351 ?	104 ?	48	0	0	0	0	0	0	1552 ?
16	0	0	0	0	0	0	0	4	50	121	185	208	250	187	271	152	119	19	0	0	0	0	0	0	1566
17	0	0	0	0	0	0	0	11	40	84	227	249	22	357 ?	286	75	84	9	0	0	0	0	0	0	1445
18	0	0	0	0	0	0	0	2	39	40	36	58	76	136	189	117	30	7	0	0	0	0	0	0	730
19	0	0	0	0	0	0	0	4	18	39	87	184	185	71	108	79	18	6	0	0	0	0	0	0	798
20	0	0	0	0	0	0	0	5	18	56	118	69	102	103	56	44	50	6	0	0	0	0	0	0	627
21	0	0	0	0	0	0	0	3	19	64	105	110	125	95	164	105	43	14	0	0	0	0	0	0	849
22	0	0	0	0	0	0	0	37	173	326 ?	551 ?	?	555 ?	460	303	204	59	22	0	0	0	0	0	0	2690 ?
23	0	0	0	0	0	0	0	2	11	29	77	176	238	140	119	92	46	15	0	0	0	0	0	0	945
24	0	0	0	0	0	0	0	8	35	102	110	93	89	86	43	34	38	17	1	0	0	0	0	0	655
25	0	0	0	0	0	0	0	21	134	316 ?	422 ?	?	?	?	?	380 ?	218	82	1	0	0	0	0	0	1574 ?
26	0	0	0	0	0	0	0	43	76 ?	67	69	76	90	85	120	188	73	33	1	0	0	0	0	0	920
27	0	0	0	0	0	0	0	21	80	101	56	249	200	210	208	122	85	32	1	0	0	0	0	0	1365
28	0	0	0	0	0	0	0	28	103	89	79	177	162	206	173	175	129	30	1	0	0	0	0	0	1352
Avg	0	0	0	0	0	0	0	10	49	96	146	170	180	197	181	137	69	19	0	0	0	0	0	0	1119
S D	0	0	0	0	0	0	0	11	39	74	119	88	113	138	111	88	44	16	0	0	0	0	0	0	523
S/A	0	0	0	0	0	0	0	1.04	0.81	0.77	0.82	0.52	0.63	0.7	0.61	0.64	0.64	0.84	1.78	0	0	0	0	0	0.47
Min	0	0	0	0	0	0	0	1	10	29	36	58	22	44	41	28	11	2	0	0	0	0	0	0	277
Max	0	0	0	0	0	0	0	43	173	326	551	348	555	553	484	380	218	82	1	0	0	0	0	0	2690

Daylight Data Recovery: 0% missing; 10% exceed the 15% QC threshold -- 7311 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: BS
Latitude: 37.27° N
Longitude: 81.24° W
Elevation: 803 Meters AMSL
Time Zone: -5

Instrument: PSP
Calibration Constant: 8.27 uV/Wm-2
Serial Number: 17880F3
Calibration Date: 9/13/96