

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Bluefield State College - January 1997

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	3	64	174	233	289	307	183	69	60	31	2	0	0	0	0	0	0	1415
2	0	0	0	0	0	0	0	0	12	60	124	274	291	404	230	91	49	2	0	0	0	0	0	0	1537
3	0	0	0	0	0	0	0	1	25	97	170	232	327	438	367	236	79	2	0	0	0	0	0	0	1974
4	0	0	0	0	0	0	0	2	78	245	226	417	400	425	302	207	59	2	0	0	0	0	0	0	2364
5	0	0	0	0	0	0	0	1	20	127	373	387	540	499	417	211	57	2	0	0	0	0	0	0	2632
6	0	0	0	0	0	0	0	2	74	267	411	500	533	361	306	182	79	3	0	0	0	0	0	0	2717
7	0	0	0	0	0	0	0	2	59	132	272	475	546	516	413	271	100	3	0	0	0	0	0	0	2789
8	0	0	0	0	0	0	0	3	93	263	442	498	500	321	149	108	32	2	0	0	0	0	0	0	2411
9	0	0	0	0	0	0	0	0	7	37	42	86	86	134	140	47	21	1	0	0	0	0	0	0	604
10	0	0	0	0	0	0	0	5	39	200	397	550	574	528	438	213	65	5	0	0	0	0	0	0	3011
11	0	0	0	0	0	0	0	3	50	171	240	373	277	260	255	160	83	6	0	0	0	0	0	0	1877
12	0	0	0	0	0	0	0	2	38	132	197	292	498	525	436	289	116	6	0	0	0	0	0	0	2532
13	0	0	0	0	0	0	0	3	131	335	442	526	568	537	443	292	121	7	0	0	0	0	0	0	3406
14	0	0	0	0	0	0	0	3	144	323	438	530	569	536	444	288	123	9	0	0	0	0	0	0	3407
15	0	0	0	0	0	0	0	7	99	203	406	502	453	439	359	272	103	7	0	0	0	0	0	0	2849
16	0	0	0	0	0	0	0	0	17	21	30	62	135	157	85	108	46	5	0	0	0	0	0	0	665
17	0	0	0	0	0	0	0	4	117	305	464	564	603	569	474	323	141	12	0	0	0	0	0	0	3577
18	0	0	0	0	0	0	0	4	108	245	390	545	593	560	464	320	142	12	0	0	0	0	0	0	3384
19	0	0	0	0	0	0	0	3	99	285	440	538	590	358	151	65	27	3	0	0	0	0	0	0	2560
20	0	0	0	0	0	0	0	2	30	87	199	368	578	527	435	232	67	7	0	0	0	0	0	0	2533
21	0	0	0	0	0	0	0	4	113	275	267	518	562	532	442	301	133	12	0	0	0	0	0	0	3158
22	0	0	0	0	0	0	0	1	44	231	295	245	190	146	53	24	24	3	0	0	0	0	0	0	1255
23	0	0	0	0	0	0	0	1	28	73	415	545	570	565	431	262	78	11	0	0	0	0	0	0	2978
24	0	0	0	0	0	0	0	1	21	79	194	213	282	130	118	59	12	4	0	0	0	0	0	0	1112
25	0	0	0	0	0	0	0	1	16	124	260	329	540	449	403	250	129	18	0	0	0	0	0	0	2518
26	0	0	0	0	0	0	0	7	99	233	107	71	115	179	216	236	145	12	0	0	0	0	0	0	1420
27	0	0	0	0	0	0	0	3	52	121	143	113	86	101	169	107	45	8	0	0	0	0	0	0	946
28	0	0	0	0	0	0	0	0	6	28	178	306	244	313	240	236	104	17	0	0	0	0	0	0	1675
29	0	0	0	0	0	0	0	5	113	?	?	574	597	629	600	508	362	175	23	0	0	0	0	0	3585
30	0	0	0	0	0	0	0	7	102	267	263	481	576	579	492	357	156	19	0	0	0	0	0	0	3298
31	0	0	0	0	0	0	0	10	97	252	265	301	446	524	467	319	143	13	0	0	0	0	0	0	2836
Avg	0	0	0	0	0	0	0	3	64	180	287	378	426	400	320	209	87	8	0	0	0	0	0	0	2356
S D	0	0	0	0	0	0	0	2	41	92	133	159	173	160	143	98	46	6	0	0	0	0	0	0	872
S/A	0	0	0	0	0	0	0	0.82	0.63	0.51	0.46	0.42	0.41	0.4	0.45	0.47	0.53	0.76	0	0	0	0	0	0	0.37
Min	0	0	0	0	0	0	0	0	6	21	30	62	86	101	53	24	12	1	0	0	0	0	0	0	604
Max	0	0	0	0	0	0	0	10	144	335	574	597	629	600	508	362	175	23	0	0	0	0	0	0	3585

Daylight Data Recovery: 0% missing; 1% exceed the 15% QC threshold -- 3684 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 - January 1997**

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	3	43	35	58	59	1	0	0	0	0	0	0	0	0	0	0	199
2	0	0	0	0	0	0	0	0	0	0	3	90	118	470	128	1	2	0	0	0	0	0	0	0	814
3	0	0	0	0	0	0	0	0	0	1	9	77	269	637	646	708	393	5	0	0	0	0	0	0	2743
4	0	0	0	0	0	0	0	0	335	590	257	566	416	656	436	388	141	0	0	0	0	0	0	0	3787
5	0	0	0	0	0	0	0	0	0	60	535	386	754	855	876	449	243	5	0	0	0	0	0	0	4163
6	0	0	0	0	0	0	0	0	312	825	925	971	984	500	416	217	299	12	0	0	0	0	0	0	5463
7	0	0	0	0	0	0	0	0	0	16	286	845	1004	999	909	861	604	29	0	0	0	0	0	0	5552
8	0	0	0	0	0	0	0	0	524	793	770	638	553	194	1	4	0	0	0	0	0	0	0	0	3475
9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3
10	0	0	0	0	0	0	0	0	0	434	730	948	958	971	877	361	14	0	0	0	0	0	0	0	5295
11	0	0	0	0	0	0	0	0	0	9	3	50	0	2	27	2	11	7	0	0	0	0	0	0	111
12	0	0	0	0	0	0	0	0	0	1	1	42	689	969	950	873	631	76	0	0	0	0	0	0	4232
13	0	0	0	0	0	0	0	0	507	844	935	986	1014	1004	961	876	668	122	0	0	0	0	0	0	7916
14	0	0	0	0	0	0	0	0	581	890	977	1011	1026	1016	964	852	649	110	0	0	0	0	0	0	8077
15	0	0	0	0	0	0	0	0	452	521	813	851	468	546	449	596	304	1	0	0	0	0	0	0	5000
16	0	0	0	0	0	0	0	0	0	0	0	0	1	9	0	58	20	0	0	0	0	0	0	0	89
17	0	0	0	0	0	0	0	0	626	926	1016	1053	1062	1047	1012	928	718	163	0	0	0	0	0	0	8550
18	0	0	0	0	0	0	0	0	518	440	689	965	1022	1003	969	902	708	162	0	0	0	0	0	0	7378
19	0	0	0	0	0	0	0	0	451	844	931	960	943	218	0	0	0	0	0	0	0	0	0	0	4348
20	0	0	0	0	0	0	0	0	0	0	3	165	897	878	745	183	0	0	0	0	0	0	0	0	2872
21	0	0	0	0	0	0	0	0	534	796	195	897	952	945	906	820	635	150	0	0	0	0	0	0	6829
22	0	0	0	0	0	0	0	0	18	217	116	40	13	0	0	0	0	0	0	0	0	0	0	0	405
23	0	0	0	0	0	0	0	0	2	6	500	798	801	891	717	348	8	11	0	0	0	0	0	0	4081
24	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	8
25	0	0	0	0	0	0	0	0	0	67	260	272	612	559	585	422	381	110	0	0	0	0	0	0	3267
26	0	0	0	0	0	0	0	0	228	271	0	0	0	1	9	178	246	1	0	0	0	0	0	0	933
27	0	0	0	0	0	0	0	0	0	3	4	0	0	0	2	0	0	0	0	0	0	0	0	0	10
28	0	0	0	0	0	0	0	0	0	0	79	49	27	61	27	87	18	1	0	0	0	0	0	0	349
29	0	0	0	0	0	0	0	1	666	910	1002	1039	1043	1034	1004	937	775	271	0	0	0	0	0	0	8683
30	0	0	0	0	0	0	0	1	155	500	125	488	588	949	927	825	423	12	0	0	0	0	0	0	4993
31	0	0	0	0	0	0	0	5	92	247	68	45	213	489	685	488	215	0	0	0	0	0	0	0	2548
Avg	0	0	0	0	0	0	0	0	194	331	363	461	532	545	491	399	261	40	0	0	0	0	0	0	3618
S/D	0	0	0	0	0	0	0	1	241	355	385	418	413	410	408	358	277	68	0	0	0	0	0	0	2795
S/A	0	0	0	0	0	0	0	3.65	1.24	1.07	1.06	0.91	0.78	0.75	0.83	0.9	1.06	1.7	0	0	0	0	0	0	0.77
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	3
Max	0	0	0	0	0	0	0	5	666	926	1016	1053	1062	1047	1012	937	775	271	0	0	0	0	0	0	8683

Daylight Data Recovery: 0% missing; 0% exceed the 15% QC threshold -- 3684 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 - January 1997

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	3	61	159	217	257	273	176	66	57	30	1	0	0	0	0	0	0	1300
2	0	0	0	0	0	0	0	0	12	58	117	224	228	187	168	87	47	2	0	0	0	0	0	0	1131
3	0	0	0	0	0	0	0	1	24	92	162	192	183	133	117	51	29	1	0	0	0	0	0	0	986
4	0	0	0	0	0	0	0	2	32	88	120	135	180	112	127	103	35	2	0	0	0	0	0	0	937
5	0	0	0	0	0	0	0	1	19	101	155	199	168	104	78	77	29	1	0	0	0	0	0	0	932
6	0	0	0	0	0	0	0	2	25	42	47	50	53	106	131	114	41	2	0	0	0	0	0	0	615
7	0	0	0	0	0	0	0	1	56	123	138	74	58	56	54	40	22	2	0	0	0	0	0	0	624
8	0	0	0	0	0	0	0	3	25	49	129	189	207	218	143	103	31	1	0	0	0	0	0	0	1097
9	0	0	0	0	0	0	0	0	6	36	41	83	82	129	133	45	21	1	0	0	0	0	0	0	578
10	0	0	0	0	0	0	0	5	37	66	103	108	101	73	85	95	60	5	0	0	0	0	0	0	738
11	0	0	0	0	0	0	0	2	47	163	232	333	265	247	239	150	79	5	0	0	0	0	0	0	1763
12	0	0	0	0	0	0	0	2	36	125	186	258	133	69	57	43	28	4	0	0	0	0	0	0	940
13	0	0	0	0	0	0	0	3	36	58	63	64	65	62	56	42	27	4	0	0	0	0	0	0	480
14	0	0	0	0	0	0	0	3	34	49	53	56	56	52	51	42	29	5	0	0	0	0	0	0	429
15	0	0	0	0	0	0	0	6	35	59	75	88	198	154	155	92	48	6	0	0	0	0	0	0	917
16	0	0	0	0	0	0	0	0	16	19	28	58	129	147	81	89	42	5	0	0	0	0	0	0	615
17	0	0	0	0	0	0	0	3	29	44	53	59	64	61	54	45	30	6	0	0	0	0	0	0	449
18	0	0	0	0	0	0	0	3	34	107	95	75	68	66	56	46	30	5	0	0	0	0	0	0	585
19	0	0	0	0	0	0	0	2	27	44	55	67	93	234	143	62	26	3	0	0	0	0	0	0	757
20	0	0	0	0	0	0	0	2	28	84	191	269	103	91	104	156	64	7	0	0	0	0	0	0	1097
21	0	0	0	0	0	0	0	4	31	43	173	68	59	54	51	43	28	5	0	0	0	0	0	0	557
22	0	0	0	0	0	0	0	1	38	156	242	220	179	141	51	22	22	3	0	0	0	0	0	0	1074
23	0	0	0	0	0	0	0	1	27	68	188	132	134	105	103	135	72	10	0	0	0	0	0	0	976
24	0	0	0	0	0	0	0	0	20	75	185	202	264	124	111	55	11	4	0	0	0	0	0	0	1052
25	0	0	0	0	0	0	0	0	15	94	130	182	203	145	128	95	55	11	0	0	0	0	0	0	1059
26	0	0	0	0	0	0	0	6	49	151	103	68	111	172	205	169	88	11	0	0	0	0	0	0	1134
27	0	0	0	0	0	0	0	3	49	115	137	106	83	97	160	102	42	7	0	0	0	0	0	0	900
28	0	0	0	0	0	0	0	0	5	26	144	280	223	271	218	201	97	17	0	0	0	0	0	0	1483
29	0	0	0	0	0	0	0	5	44	57	54	52	53	50	44	37	26	7	0	0	0	0	0	0	427
30	0	0	0	0	0	0	0	7	66	88	188	188	214	65	57	60	59	17	0	0	0	0	0	0	1009
31	0	0	0	0	0	0	0	10	76	162	230	269	314	246	129	122	91	12	0	0	0	0	0	0	1661
Avg	0	0	0	0	0	0	0	3	34	84	130	149	147	127	108	83	43	6	0	0	0	0	0	0	913
S D	0	0	0	0	0	0	0	2	16	42	62	84	76	64	53	44	22	4	0	0	0	0	0	0	338
S/A	0	0	0	0	0	0	0	0.86	0.49	0.5	0.48	0.57	0.52	0.5	0.49	0.53	0.52	0.76	0	0	0	0	0	0	0.37
Min	0	0	0	0	0	0	0	0	5	19	28	50	53	50	44	22	11	1	0	0	0	0	0	0	427
Max	0	0	0	0	0	0	0	10	76	163	242	333	314	271	239	201	97	17	0	0	0	0	0	0	1763

Daylight Data Recovery: 0% missing; 0% exceed the 15% QC threshold -- 3684 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