

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Bluefield State College - February 2000

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	4	68	180	220	188	231	254	168	178	71	9	0	0	0	0	0	0	1570
2	0	0	0	0	0	0	0	6	66	196	393	599	636	606	515	371	186	28	0	0	0	0	0	0	3600
3	0	0	0	0	0	0	0	10	152	275	422	624	577	585	285	156	81	15	0	0	0	0	0	0	3181
4	0	0	0	0	0	0	0	4	70	160	287	103	141	83	125	79	43	12	0	0	0	0	0	0	1108
5	0	0	0	0	0	0	0	2	48	133	284	187	314	325	365	385	195	35	0	0	0	0	0	0	2273
6	0	0	0	0	0	0	0	11	100	233	339	454	462	429	457	340	177	19	0	0	0	0	0	0	3021
7	0	0	0	0	0	0	0	6	158	346	500	600	640	606	514	373	194	37	0	0	0	0	0	0	3973
8	0	0	0	0	0	0	0	22	144 ?	455 ?	515	607	651	621	530	385	198	37	0	0	0	0	0	0	4163
9	0	0	0	0	0	0	0	26	191 ?	356	504	609	645	618	525	374	199	35	0	0	0	0	0	0	4083
10	0	0	0	0	0	0	0	9	172	344	371	419	564	486	516	378	193	32	0	0	0	0	0	0	3483
11	0	0	0	0	0	0	0	19	14	52	130	102	125	143	84	28	14	3	0	0	0	0	0	0	714
12	0	0	0	0	0	0	0	7	15	15	23	61	63	56	94	69	47	15	0	0	0	0	0	0	465
13	0	0	0	0	0	0	0	38	192	290	408	389	496	218	173	96	61	15	0	0	0	0	0	0	2375
14	0	0	0	0	0	0	0	9	65	138	123	139	150	81	198	136	23	5	0	0	0	0	0	0	1067
15	0	0	0	0	0	0	0	7	71	184	265	523	675	628	546	410	228	43	0	0	0	0	0	0	3581
16	0	0	0	0	0	0	0	21	186	229	491	584	585	628	546	416	231	54	0	0	0	0	0	0	3972
17	0	0	0	0	0	0	0	22	188	398	513	657	671	568	443	268	183	17	0	0	0	0	0	0	3929
18	0	0	0	0	0	0	0	9	87	149	177	167	124	144	141	264	112	45	0	0	0	0	0	0	1419
19	0	0	0	0	0	0	0	15	193	114	78	44	64	62	60	33	19	3	0	0	0	0	0	0	686
20	0	0	0	0	0	0	0	10	42	90	119	109	141	167	187	159	86	25	0	0	0	0	0	0	1136
21	0	0	0	0	0	0	0	25	195	399	563	680	718	687	588	442	264	70	0	0	0	0	0	0	4631
22	0	0	0	0	0	0	0	17	63	113	221	314	553	317	144	136	49	12	0	0	0	0	0	0	1939
23	0	0	0	0	0	0	0	28	96	263	545	605	685	570	520	286	175	43	0	0	0	0	0	0	3816
24	0	0	0	0	0	0	0	40	214	407	537	477	472	248	251	209	144	79	1	0	0	0	0	0	3077
25	0	0	0	0	0	0	0	58	230	379	309	240	736	470	271	354	159	66	0	0	0	0	0	0	3272
26	0	0	0	0	0	0	0	54	234	448	540	600	664	679	608	455	270	79	1	0	0	0	0	0	4631
27	0	0	0	0	0	0	0	46	174	161	55	71	50	123	156	85	18	6	1	0	0	0	0	0	946
28	0	0	0	0	0	0	0	45	218	456	576	735	771	740	644	489	298	96	1	0	0	0	0	0	5068
29	0	0	0	0	0	0	0	91	301	473	632	730	773	746	647	493	298	94	0	0	0	0	0	0	5278
Avg	0	0	0	0	0	0	0	23	136	256	350	401	461	410	355	270	145	35	0	0	0	0	0	0	2843
S D	0	0	0	0	0	0	0	20	74	133	178	233	248	233	194	146	88	27	0	0	0	0	0	0	1434
S/A	0	0	0	0	0	0	5.29	0.88	0.55	0.52	0.51	0.58	0.54	0.57	0.55	0.54	0.6	0.76	1.78	0	0	0	0	0	0.5
Min	0	0	0	0	0	0	0	2	14	15	23	44	50	56	60	28	14	3	0	0	0	0	0	0	465
Max	0	0	0	0	0	0	0	91	301	473	632	735	773	746	647	493	298	96	1	0	0	0	0	0	5278

Daylight Data Recovery: 0% missing; 1% exceed the 15% QC threshold -- 3763 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:	9.02 uV/Wm-2
Serial Number:	25821F3
Calibration Date:	5/21/1998

**Direct Normal Solar Radiation
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Bluefield State College - February 2000**

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	1	3	1	1	7	3	29	11	0	0	0	0	0	0	0	56
2	0	0	0	0	0	0	0	0	0	87	401	941	990	985	954	898	747	302	0	0	0	0	0	0	6304
3	0	0	0	0	0	0	0	0	406	387	624	801	496	702	13	2	0	0	0	0	0	0	0	0	3429
4	0	0	0	0	0	0	0	0	0	1	74	0	1	0	0	0	0	0	0	0	0	0	0	0	78
5	0	0	0	0	0	0	0	0	0	3	62	11	23	27	192	808	701	292	0	0	0	0	0	0	2117
6	0	0	0	0	0	0	0	0	15	91	162	237	155	166	525	615	444	10	0	0	0	0	0	0	2420
7	0	0	0	0	0	0	0	6	586	781	870	901	903	868	838	775	601	198	0	0	0	0	0	0	7326
8	0	0	0	0	0	0	0	45	577	813	903	938	954	949	919	848	689	288	0	0	0	0	0	0	7922
9	0	0	0	0	0	0	0	79	553	781	860	894	888	894	877	769	646	200	0	0	0	0	0	0	7441
10	0	0	0	0	0	0	0	6	514	386	154	210	502	346	777	717	629	171	0	0	0	0	0	0	4412
11	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	5
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	1
13	0	0	0	0	0	0	0	50	224	202	360	224	329	2	1	1	0	0	0	0	0	0	0	0	1393
14	0	0	0	0	0	0	0	0	0	0	2	1	6	0	30	4	0	0	0	0	0	0	0	0	43
15	0	0	0	0	0	0	0	0	0	4	15	497	911	835	895	875	742	252	0	0	0	0	0	0	5027
16	0	0	0	0	0	0	0	41	403	28	557	562	630	821	846	811	647	277	0	0	0	0	0	0	5624
17	0	0	0	0	0	0	0	57	435	628	728	915	744	489	319	165	217	0	0	0	0	0	0	0	4698
18	0	0	0	0	0	0	0	0	0	1	1	2	1	1	1	101	34	64	0	0	0	0	0	0	205
19	0	0	0	0	0	0	0	0	451	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	502
20	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	8	1	0	0	0	0	0	0	0	12
21	0	0	0	0	0	0	0	34	326	631	862	980	988	980	939	892	773	451	0	0	0	0	0	0	7855
22	0	0	0	0	0	0	0	0	2	1	4	7	379	14	0	1	0	0	0	0	0	0	0	0	408
23	0	0	0	0	0	0	0	3	1	121	504	541	683	429	542	254	108	3	0	0	0	0	0	0	3189
24	0	0	0	0	0	0	0	115	327	676	690	408	270	22	15	20	29	185	0	0	0	0	0	0	2757
25	0	0	0	0	0	0	0	165	490	543	171	83	787	344	108	409	237	264	0	0	0	0	0	0	3600
26	0	0	0	0	0	0	0	257	679	842	545	479	666	828	916	856	727	364	0	0	0	0	0	0	7158
27	0	0	0	0	0	0	0	8	162	79	0	0	0	1	1	0	0	0	0	0	0	0	0	0	252
28	0	0	0	0	0	0	0	79	380	830	820	1016	1026	1020	998	946	843	565	1	0	0	0	0	0	8524
29	0	0	0	0	0	0	0	433	854	966	1024	1035	1033	1035	1010	957	827	516	4	0	0	0	0	0	9695
Avg	0	0	0	0	0	0	0	48	255	308	359	403	461	406	404	406	333	152	0	0	0	0	0	0	3533
S D	0	0	0	0	0	0	0	93	259	342	356	399	398	414	418	395	337	173	1	0	0	0	0	0	3123
S/A	0	0	0	0	0	0	5.29	1.96	1.02	1.11	0.99	0.99	0.86	1.02	1.03	0.97	1.01	1.14	4.07	0	0	0	0	0	0.88
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	1
Max	0	0	0	0	0	0	0	433	854	966	1024	1035	1033	1035	1010	957	843	565	4	0	0	0	0	0	9695

Daylight Data Recovery: 0% missing; 0% exceed the 15% QC threshold -- 3763 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: 8.48 uV/Wm-2
Serial Number: 17664E6
Calibration Date: 5/21/1998

Diffuse Solar Radiation on a Horizontal Surface (Shadow Band PSP)
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Bluefield State College - February 2000

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	4	63	169	207	179	221	241	158	161	66	8	0	0	0	0	0	0	1477
2	0	0	0	0	0	0	0	5	62	159	201	100	82	76	70	54	35	9	0	0	0	0	0	0	853
3	0	0	0	0	0	0	0	10	70	129	124	185	286	191	263	145	76	14	0	0	0	0	0	0	1493
4	0	0	0	0	0	0	0	4	66	148	240	99	133	79	119	72	38	11	0	0	0	0	0	0	1006
5	0	0	0	0	0	0	0	2	44	126	241	174	293	305	270	88	47	13	0	0	0	0	0	0	1602
6	0	0	0	0	0	0	0	11	94	186	253	307	360	324	179	96	68	16	0	0	0	0	0	0	1895
7	0	0	0	0	0	0	0	5	48	75	93	104	113	117	102	81	59	19	0	0	0	0	0	0	817
8	0	0	0	0	0	0	0	11	64	86	82	87	92	85	77	63	44	13	0	0	0	0	0	0	704
9	0	0	0	0	0	0	0	11	50	73	93	106	114	103	85	74	52	16	0	0	0	0	0	0	777
10	0	0	0	0	0	0	0	7	72	206	298	283	252	283	119	91	48	14	0	0	0	0	0	0	1671
11	0	0	0	0	0	0	0	18	13	49	122	95	117	135	79	26	13	3	0	0	0	0	0	0	669
12	0	0	0	0	0	0	0	6	14	14	21	58	60	52	88	64	44	13	0	0	0	0	0	0	435
13	0	0	0	0	0	0	0	27	125	202	218	234	275	205	163	90	56	14	0	0	0	0	0	0	1610
14	0	0	0	0	0	0	0	9	62	131	113	131	139	77	179	127	21	4	0	0	0	0	0	0	993
15	0	0	0	0	0	0	0	6	65	171	242	215	102	114	70	52	39	15	0	0	0	0	0	0	1090
16	0	0	0	0	0	0	0	17	98	208	188	235	168	123	90	77	62	24	0	0	0	0	0	0	1290
17	0	0	0	0	0	0	0	14	91	151	126	105	186	235	237	181	112	15	0	0	0	0	0	0	1453
18	0	0	0	0	0	0	0	9	82	141	169	158	114	132	131	220	100	36	0	0	0	0	0	0	1291
19	0	0	0	0	0	0	0	14	79	93	73	41	59	57	56	30	18	2	0	0	0	0	0	0	522
20	0	0	0	0	0	0	0	9	38	82	110	101	131	154	172	148	79	24	0	0	0	0	0	0	1049
21	0	0	0	0	0	0	0	22	102	132	97	71	72	69	63	55	49	17	0	0	0	0	0	0	751
22	0	0	0	0	0	0	0	15	59	104	207	295	343	295	135	127	46	11	0	0	0	0	0	0	1637
23	0	0	0	0	0	0	0	27	88	186	252	248	219	270	194	153	133	39	0	0	0	0	0	0	1809
24	0	0	0	0	0	0	0	26	128	118	142	209	276	226	226	190	133	53	1	0	0	0	0	0	1728
25	0	0	0	0	0	0	0	42	97	136	208	176	199	236	199	169	87	33	0	0	0	0	0	0	1582
26	0	0	0	0	0	0	0	23	56	89	230	277	193	128	80	67	54	29	0	0	0	0	0	0	1225
27	0	0	0	0	0	0	0	44	121	127	51	67	46	114	147	77	17	5	1	0	0	0	0	0	818
28	0	0	0	0	0	0	0	27	91	90	103	74	72	68	61	53	41	22	1	0	0	0	0	0	704
29	0	0	0	0	0	0	0	23	43	49	51	55	63	59	53	49	42	28	0	0	0	0	0	0	515
Avg	0	0	0	0	0	0	0	15	72	125	157	154	165	157	133	99	58	18	0	0	0	0	0	0	1154
S D	0	0	0	0	0	0	0	11	29	49	73	79	90	84	64	51	31	11	0	0	0	0	0	0	432
S/A	0	0	0	0	0	0	5.29	0.69	0.4	0.39	0.47	0.52	0.55	0.54	0.48	0.51	0.53	0.64	1.83	0	0	0	0	0	0.37
Min	0	0	0	0	0	0	0	2	13	14	21	41	46	52	53	26	13	2	0	0	0	0	0	0	435
Max	0	0	0	0	0	0	0	44	128	208	298	307	360	324	270	220	133	53	1	0	0	0	0	0	1895

Daylight Data Recovery: 0% missing; 0% exceed the 15% QC threshold -- 3763 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: 7.01 uV/Wm-2
Serial Number: 17860F3
Calibration Date: 5/21/1998