

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Elizabeth City State Universit - March 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	3	23	92	130	201	197	308	322	570	409	179	32	0	0	0	0	0	0	2466
2	0	0	0	0	0	0	2	19	74	103	140	138	224	272	254 ?	109 ?	?	28	0	0	0	0	0	0	1363
3	0	0	0	0	0	0	6	83	137 ?	258 ?	?	281 ?	254 ?	234	284 ?	122 ?	120 ?	26	0	0	0	0	0	0	1806 ?
4	0	0	0	0	0	0	11	84 ?	?	?	?	806 ?	655	480	340	118	139	60	0	0	0	0	0	0	2693 ?
5	0	0	0	0	0	0	5	68	194	502	674	766	841	686	523	294	112	41	0	0	0	0	0	0	4706
6	0	0	0	0	0	0	11	106	179	255	309	507	726	727	594	260	138	34	0	0	0	0	0	0	3845
7	0	0	0	0	0	0	1	28	82	100	80	157	149	230	275	145	34	8	0	0	0	0	0	0	1289
8	0	0	0	0	0	0	3	24	44	64	73	77	66	78	57	77	67	14	0	0	0	0	0	0	644
9	0	0	0	0	0	0	2	38	95	89	93	88	90	140	381	452	244	60	0	0	0	0	0	0	1772
10	0	0	0	0	0	0	10	89	220	582	716	856	812	703	606	345	112	23	0	0	0	0	0	0	5074
11	0	0	0	0	0	0	22	184	411	611	768	858	872	808	677	470	248	61	0	0	0	0	0	0	5991
12	0	0	0	0	0	0	23	183	416	628	785	876	893	831	700	513	286	76	0	0	0	0	0	0	6211
13	0	0	0	0	0	0	24	187	417	620	682	695	781	800	580	495	280	71	0	0	0	0	0	0	5633
14	0	0	0	0	0	0	26	185	404	600	743	822	839	786	657	467	256	66	0	0	0	0	0	0	5852
15	0	0	0	0	0	0	28	194	419	614	752	844	856	792	661	481	268	73	0	0	0	0	0	0	5982
16	0	0	0	0	0	0	9	31	116	235	442	371	272	178	125	84	33	17	0	0	0	0	0	0	1912
17	0	0	0	0	0	0	7	26	34	54	96	124	238	107	135	69	31	18	0	0	0	0	0	0	939
18	0	0	0	0	0	0	9	44	143	346	422	348	516	619	463	356	144	27	0	0	0	0	0	0	3438
19	0	0	0	0	0	0	6	36	62	81	92	58	112	47	19	165	225	45	1	0	0	0	0	0	946
20	0	0	0	0	0	0	8	62	101	212	228	252	250	288	204	139	58	14	1	0	0	0	0	0	1817
21	0	0	0	0	0	0	15	64	260	447	723	684	568	515	460	127	37	15	0	0	0	0	0	0	3913
22	0	0	0	0	0	0	9	134	338	588	505	586	393	381	250	128	106	70	2	0	0	0	0	0	3488
23	0	0	0	0	0	0	31	180	450	648	821	810	791	398	355	241	172	92	1	0	0	0	0	0	4991
24	0	0	0	0	0	0	9	106	173	247	540	402	253	386	293	161	126	74	1	0	0	0	0	0	2770
25	0	0	0	0	0	0	62	255	474	656	750	832	891	844	715	522	298	62	2	0	0	0	0	0	6363
26	0	0	0	0	0	0	35	203	391	590	739	803	872	558	561	375	161	107	2	0	0	0	0	0	5396
27	0	0	0	0	0	0	50	251	443	645	787	867	874	813	687	464	262	102	2	0	0	0	0	0	6245
28	0	0	0	0	0	0	52	271	459	560	785	903	890	848	699	510	293	99	4	0	0	0	0	0	6371
29	0	0	0	0	0	0	57	238	454	642	784	861	867	800	669	488	282	89	2	0	0	0	0	0	6234
30	0	0	0	0	0	0	64	247	456	643	780	844	859	802	605	447	285	88	2	0	0	0	0	0	6122
31	0	0	0	0	0	0	84	257	467	643	821	903	893	848	715	522	298	107	5	0	0	0	0	0	6371
Avg	0	0	0	0	0	0	22	126	267	406	521	559	575	525	454	307	175	55	1	0	0	0	0	0	3932
S D	0	0	0	0	0	0	22	85	160	223	274	300	302	271	213	164	91	30	1	0	0	0	0	0	1976
S/A	0	0	0	0	0	3.58	0.99	0.68	0.6	0.55	0.53	0.54	0.52	0.52	0.47	0.53	0.52	0.56	1.47	0	0	0	0	0	0.5
Min	0	0	0	0	0	0	1	19	34	54	73	58	66	47	19	69	31	8	0	0	0	0	0	0	644
Max	0	0	0	0	0	0	84	271	474	656	821	903	893	848	715	522	298	107	5	0	0	0	0	0	6371

Daylight Data Recovery: 0% missing; 20% exceed the 15% QC threshold -- 65213 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: EC
Latitude: 36.30° N
Longitude: 76.25° W
Elevation: 4 Meters AMSL
Time Zone: -5

Instrument: PSP
Calibration Constant: 7.12 uV/Wm-2
Serial Number: 17897F3
Calibration Date: 9/13/96

**Direct Normal Solar Radiation
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Elizabeth City State Universit - March 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	1	2	1	2	41	623	692	295	1	0	0	0	0	0	0	1656
2	0	0	0	0	0	0	0	0	0	1	1	1	3	1	0	?	?	?	0	0	0	0	0	0	7
3	0	0	0	0	0	0	0	1	?	0	?	?	0	?	1	0	?	0	?	0	0	0	0	0	3
4	0	0	0	0	0	0	1	4	?	?	?	907	632	270	180	4	33	181	0	0	0	0	0	0	2212
5	0	0	0	0	0	0	0	14	82	668	835	823	743	608	449	232	128	149	0	0	0	0	0	0	4732
6	0	0	0	0	0	0	15	24	10	8	11	178	528	759	706	97	1	0	0	0	0	0	0	0	2337
7	0	0	0	0	0	0	0	0	1	0	1	1	1	5	2	0	0	0	0	0	0	0	0	0	12
8	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	3
9	0	0	0	0	0	0	1	0	0	1	0	0	0	0	204	716	586	300	0	0	0	0	0	0	1809
10	0	0	0	0	0	0	0	41	21	823	661	979	875	745	722	474	23	0	0	0	0	0	0	0	5365
11	0	0	0	0	0	0	193	689	864	944	983	1002	1007	992	962	757	498	305	1	0	0	0	0	0	9198
12	0	0	0	0	0	0	163	625	848	966	1004	1020	?	?	1019	999	947	820	515	4	0	0	0	0	8929
13	0	0	0	0	0	0	167	634	849	924	597	412	516	780	542	867	780	388	3	0	0	0	0	0	7459
14	0	0	0	0	0	0	178	591	783	864	875	876	889	905	864	744	595	264	0	0	0	0	0	0	8428
15	0	0	0	0	0	0	192	641	820	895	910	934	933	915	868	780	656	363	2	0	0	0	0	0	8908
16	0	0	0	0	0	0	0	1	1	2	21	13	0	0	0	0	0	0	0	0	0	0	0	0	40
17	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	4
18	0	0	0	0	0	0	0	0	3	161	57	7	19	163	78	142	9	0	0	0	0	0	0	0	640
19	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	54	144	2	0	0	0	0	0	0	202
20	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	5
21	0	0	0	0	0	0	0	0	76	347	703	493	270	315	325	38	0	0	0	0	0	0	0	0	2568
22	0	0	0	0	0	0	0	92	275	649	260	308	32	39	1	0	0	86	0	0	0	0	0	0	1743
23	0	0	0	0	0	0	2	239	719	822	870	710	536	53	125	124	117	257	1	0	0	0	0	0	4575
24	0	0	0	0	0	0	1	7	4	3	71	9	0	6	11	0	45	192	15	0	0	0	0	0	365
25	0	0	0	0	0	0	317	673	802	745	630	637	793	923	890	814	653	129	0	0	0	0	0	0	8005
26	0	0	0	0	0	0	20	199	288	579	616	666	689	310	394	223	102	201	10	0	0	0	0	0	4298
27	0	0	0	0	0	0	190	573	686	795	837	859	866	860	836	652	317	381	19	0	0	0	0	0	7872
28	0	0	0	0	0	0	45	383	417	493	781	883	804	845	809	729	584	331	13	0	0	0	0	0	7117
29	0	0	0	0	0	0	70	386	648	728	779	800	797	780	746	663	537	252	7	0	0	0	0	0	7194
30	0	0	0	0	0	0	196	501	648	732	771	733	782	790	568	530	490	195	0	0	0	0	0	0	6935
31	0	0	0	0	0	1	181	468	603	213	455	364	590	714	738	676	459	257	8	0	0	0	0	0	5728
Avg	0	0	0	0	0	0	62	219	315	412	439	439	410	414	408	353	262	153	3	0	0	0	0	0	3818
S D	0	0	0	0	0	0	91	266	350	382	385	397	380	394	363	344	280	152	5	0	0	0	0	0	3336
S/A	0	0	0	0	0	3.96	1.45	1.22	1.11	0.93	0.88	0.9	0.93	0.95	0.89	0.97	1.07	0.99	1.85	0	0	0	0	0	0.87
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	1	317	689	864	966	1004	1020	1007	1019	999	947	820	515	19	0	0	0	0	0	9198

Daylight Data Recovery: 0% missing; 14% exceed the 15% QC threshold -- 65213 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: EC
Latitude: 36.30° N
Longitude: 76.25° W
Elevation: 4 Meters AMSL
Time Zone: -5

Instrument: NIP
Calibration Constant: 6.83 uV/Wm-2
Serial Number: 17828E6
Calibration Date: 9/13/96

Diffuse Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Elizabeth City State Universit - March 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	2	21	81	115	179	175	274	268	181	90	87	30	0	0	0	0	0	0	1503
2	0	0	0	0	0	0	2	17	66	91	124	123	205	246	242 ?	102 ?	?	20	0	0	0	0	0	0	1238
3	0	0	0	0	0	0	6	78	112 ?	196 ?	?	253 ?	227 ?	207	239 ?	111 ?	109 ?	18	0	0	0	0	0	0	1557 ?
4	0	0	0	0	0	0	7	34 ?	?	?	?	104 ?	159	268	218	112	123	36	0	0	0	0	0	0	1062 ?
5	0	0	0	0	0	0	5	60	149	122	102	139	259	217	222	167	77	24	0	0	0	0	0	0	1543
6	0	0	0	0	0	0	11	99	175	242	296	338	264	152	133	182	132	30	0	0	0	0	0	0	2053
7	0	0	0	0	0	0	1	26	74	88	72	140	133	210	250	132	31	7	0	0	0	0	0	0	1162
8	0	0	0	0	0	0	3	21	39	56	64	68	58	68	50	67	59	14	0	0	0	0	0	0	565
9	0	0	0	0	0	0	2	34	84	78	82	77	79	126	237	95	67	26	0	0	0	0	0	0	987
10	0	0	0	0	0	0	9	77	195	112	222	85	94	128	126	113	96	20	0	0	0	0	0	0	1277
11	0	0	0	0	0	0	10	38	52	58	63	64	63	62	58	86	91	28	0	0	0	0	0	0	674
12	0	0	0	0	0	0	12	47	58	58	60	61	61	61	55	48	37	18	0	0	0	0	0	0	575
13	0	0	0	0	0	0	13	44	55	68	228	333	318	185	189	65	43	22	0	0	0	0	0	0	1565
14	0	0	0	0	0	0	14	51	66	78	99	113	107	91	86	88	67	31	0	0	0	0	0	0	891
15	0	0	0	0	0	0	15	45	60	68	76	82	85	82	85	86	62	28	1	0	0	0	0	0	774
16	0	0	0	0	0	0	8	27	101	205	399	339	238	158	110	75	29	16	0	0	0	0	0	0	1706
17	0	0	0	0	0	0	6	23	30	49	84	110	211	92	116	60	27	16	0	0	0	0	0	0	823
18	0	0	0	0	0	0	8	39	128	226	349	328	474	438	380	260	130	24	0	0	0	0	0	0	2785
19	0	0	0	0	0	0	5	31	53	70	79	50	97	41	17	133	163	41	1	0	0	0	0	0	782
20	0	0	0	0	0	0	7	53	87	184	199	219	216	254	177	121	50	12	0	0	0	0	0	0	1581
21	0	0	0	0	0	0	14	55	197	211	164	242	318	244	234	93	33	13	0	0	0	0	0	0	1819
22	0	0	0	0	0	0	8	97	185	146	284	305	336	326	235	115	96	54	2	0	0	0	0	0	2189
23	0	0	0	0	0	0	28	95	104	113	142	212	340	331	251	159	130	53	1	0	0	0	0	0	1961
24	0	0	0	0	0	0	9	99	159	219	449	359	219	364	261	144	105	51	1	0	0	0	0	0	2441
25	0	0	0	0	0	0	29	56	81	150	217	250	172	90	90	81	68	33	1	0	0	0	0	0	1318
26	0	0	0	0	0	0	35	131	233	184	228	203	248	278	258	249	118	74	2	0	0	0	0	0	2243
27	0	0	0	0	0	0	31	73	91	103	110	111	109	103	92	95	161	42	2	0	0	0	0	0	1125
28	0	0	0	0	0	0	42	140	231	191	137	119	163	137	114	100	79	43	3	0	0	0	0	0	1498
29	0	0	0	0	0	0	44	104	113	131	138	141	143	137	126	112	85	46	2	0	0	0	0	0	1322
30	0	0	0	0	0	0	38	84	114	129	141	176	149	134	173	146	103	53	2	0	0	0	0	0	1441
31	0	0	0	0	0	0	63	93	140	268	228	276	269	173	131	109	80	52	5	0	0	0	0	0	1886
Avg	0	0	0	0	0	0	16	61	111	134	173	180	196	183	166	116	85	31	1	0	0	0	0	0	1430
S D	0	0	0	0	0	0	15	33	56	63	102	96	99	98	82	48	37	16	1	0	0	0	0	0	551
S/A	0	0	0	0	0	5.48	0.96	0.54	0.51	0.47	0.59	0.53	0.5	0.54	0.49	0.41	0.44	0.5	1.41	0	0	0	0	0	0.39
Min	0	0	0	0	0	0	1	17	30	49	60	50	58	41	17	48	27	7	0	0	0	0	0	0	565
Max	0	0	0	0	0	0	63	140	233	268	449	359	474	438	380	260	163	74	5	0	0	0	0	0	2785

Daylight Data Recovery: 0% missing; 14% exceed the 15% QC threshold -- 65213 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: EC
Latitude: 36.30° N
Longitude: 76.25° W
Elevation: 4 Meters AMSL
Time Zone: -5

Instrument: PSP
Calibration Constant: 9.38 uV/Wm-2
Serial Number: 25782F3
Calibration Date: 9/13/96