

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Elizabeth City State Universit - April 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	1	23	137	288	340	534	245	155	298	202	37	9	27	8	0	0	0	0	0	2303
2	0	0	0	0	0	1	93	293	506	702	849	930	938	868	737	553	331	117	4	0	0	0	0	0	6923
3	0	0	0	0	0	1	89	295	517	706	609	613	458	297	237	188	70	28	1	0	0	0	0	0	4109
4	0	0	0	0	0	0	9	55	54	149	163	82	50	100	177	108	122	20	0	0	0	0	0	0	1090
5	0	0	0	0	0	1	13	49	93	133	198	404	625	904	736	586	350	127	5	0	0	0	0	0	4225
6	0	0	0	0	0	3	103	317	538	729	872	953	962	870	730	559	340	123	5	0	0	0	0	0	7102
7	0	0	0	0	0	4	94	313	525	693	835	921	707	681	458	358	331	103	6	0	0	0	0	0	6028
8	0	0	0	0	0	3	77	266	444	641	789	870	854	816	690	524	257	72	10	0	0	0	0	0	6314
9	0	0	0	0	0	0	6	6	63	70	81	457	446	542	648	384	333	99	5	0	0	0	0	0	3142
10	0	0	0	0	0	2	40	71	116	190	118	71	57	125	98	131	67	64	6	0	0	0	0	0	1158
11	0	0	0	0	0	7	70 ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	76 ?	9	0	0	0	0	0	163 ?
12	0	0	0	0	0	9	84 ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	81 ?	10	0	0	0	0	0	185 ?
13	0	0	0	0	0	9	83 ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	72 ?	7	0	0	0	0	0	171 ?
14	0	0	0	0	0	6	74	185	224	448 ?	285	276	168	192	166	87	59	26	2	0	0	0	0	0	2197
15	0	0	0	0	0	12	91 ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	? ?	100 ?	10	0	0	0	0	0	213 ?
16	0	0	0	0	0	11	91	133	302 ?	497 ?	? ?	? ?	? ?	417 ?	445 ?	505	149	127	7	0	0	0	0	0	2685 ?
17	0	0	0	0	0	3	21	38	50	137	352	343	543	749	752	371	85	70	6	0	0	0	0	0	3519
18	0	0	0	0	0	2	51	124	221	300	275	296	475	222	185	131	85	27	4	0	0	0	0	0	2398
19	0	0	0	0	0	5	46	79	382	671	814	902	704	548	421	419	223	82	9	0	0	0	0	0	5304
20	0	0	0	0	0	4	146	342	601	760	805	576	571	851	712	646	367	164	12	0	0	0	0	0	6557
21	0	0	0	0	0	21	177	379	601	797	939	954	968	781	507	504	379	169	11	0	0	0	0	0	7188
22	0	0	0	0	0	7	47	96	155	196	125	64	79	139	138	83	82	56	11	0	0	0	0	0	1277
23	0	0	0	0	0	3	27	158	133	510	414	373	438	475	497	417	369	111	8	0	0	0	0	0	3933
24	0	0	0	0	0	24	140	367	592	769	896	971	954	715	685	473	358	151	17	0	0	0	0	0	7114
25	0	0	0	0	0	20	157	363	569	756	885	951	952	918	699	550	333	141	14	0	0	0	0	0	7307
26	0	0	0	0	0	21	143	355	567	739	870	944	899	722	720	570	309	131	30	0	0	0	0	0	7020
27	0	0	0	0	0	6	45	144	135	146	64	111	117	60	68	64	67	46	6	0	0	0	0	0	1078
28	0	0	0	0	0	32	189	408	624	803	913	1011	1021	950	824	615	395	157	22	0	0	0	0	0	7965
29	0	0	0	0	0	40	166	379	594	798	901	1000	998	874	590	513	282	138	15	0	0	0	0	0	7289
30	0	0	0	0	0	15	93	215	300	525	750	628	813	922	687	439	177	106	13	0	0	0	0	0	5685
Avg	0	0	0	0	0	9	83	214	354	508	574	598	598	578	493	377	228	94	9	0	0	0	0	0	4055
S D	0	0	0	0	0	10	51	127	205	256	319	341	332	301	245	197	128	44	6	0	0	0	0	0	2629
S/A	0	0	0	0	0	1.09	0.62	0.59	0.58	0.5	0.56	0.57	0.56	0.52	0.5	0.52	0.56	0.47	0.66	0	0	0	0	0	0.65
Min	0	0	0	0	0	0	6	6	50	70	64	64	50	60	68	37	9	20	0	0	0	0	0	0	163
Max	0	0	0	0	0	40	189	408	624	803	939	1011	1021	950	824	646	395	169	30	0	0	0	0	0	7965

Daylight Data Recovery: 0% missing; 20% exceed the 15% QC threshold -- 69929 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 - April 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	1	11	78	7	87	20	0	4	2	0	0	1	0	0	0	0	0	0	211
2	0	0	0	0	0	5	383	707	833	891	923	945	947	940	915	864	748	496	46	0	0	0	0	0	9643
3	0	0	0	0	0	6	432	683	820	779	216	113	26	1	1	0	0	0	0	0	0	0	0	0	3078
4	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	0	0	0	0	0	0	0	0	0	0	1	6	149	732	805	876	768	549	77	0	0	0	0	0	3963
6	0	0	0	0	0	28	483	748	849	896	919	939	933	852	811	815	711	486	59	0	0	0	0	0	9528
7	0	0	0	0	0	11	415	659	773	780	802	790	306	344	132	193	635	282	17	0	0	0	0	0	6139
8	0	0	0	0	0	0	89	341	319	529	646	638	560	619	676	604	235	4	8	0	0	0	0	0	5266
9	0	0	0	0	0	0	0	0	1	1	1	59	54	122	601	376	587	165	5	0	0	0	0	0	1972
10	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	1	2	0	0	0	0	0	6
11	0	0	0	0	0	0	4 ?	8 ?	?	?	?	?	?	?	?	?	?	?	1 ?	0	0	0	0	0	13 ?
12	0	0	0	0	0	1	6 ?	?	?	?	?	?	?	?	?	?	?	?	1 ?	0	0	0	0	0	8 ?
13	0	0	0	0	0	1	6 ?	?	?	?	?	?	?	?	?	?	?	?	0 ?	0	0	0	0	0	7 ?
14	0	0	0	0	0	0	1	3	1	3 ?	0	1	0	0	0	0	0	0	0	0	0	0	0	0	10
15	0	0	0	0	0	0	3 ?	?	?	?	?	?	?	?	?	?	?	?	0 ?	0	0	0	0	0	4 ?
16	0	0	0	0	0	0	2	1	3 ?	2 ?	?	?	?	1 ?	288 ?	467	92	214	2	0	0	0	0	0	1073 ?
17	0	0	0	0	0	0	0	0	0	1	28	7	86	459	775	184	0	13	0	0	0	0	0	0	1553
18	0	0	0	0	0	0	0	1	2	3	1	2	18	3	1	1	0	0	0	0	0	0	0	0	33
19	0	0	0	0	0	0	1	1	126	363	532	538	208	90	46	118	32	5	0	0	0	0	0	0	2059
20	0	0	0	0	0	0	413	674	835	814	619	218	133	602	650	784	564	579	71	0	0	0	0	0	6957
21	0	0	0	0	0	130	577	759	841	875	896	712	746	514	189	338	643	587	56	0	0	0	0	0	7862
22	0	0	0	0	0	5	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7
23	0	0	0	0	0	0	0	7	1	75	20	1	31	162	244	349	567	192	1	0	0	0	0	0	1650
24	0	0	0	0	0	55	267	578	708	758	777	786	659	425	518	406	490	354	80	0	0	0	0	0	6863
25	0	0	0	0	0	74	403	580	664	731	748	755	750	748	573	541	441	284	27	0	0	0	0	0	7318
26	0	0	0	0	0	55	273	512	642	676	708	686	600	422	588	593	298	112	40	0	0	0	0	0	6203
27	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
28	0	0	0	0	0	145	553	744	833	847	829	858	877	796	851	804	697	363	54	0	0	0	0	0	9250
29	0	0	0	0	0	91	349	544	710	821	774	818	812	682	368	347	146	95	2	0	0	0	0	0	6560
30	0	0	0	0	0	1	6	24	19	121	289	72	329	726	440	174	9	33	0	0	0	0	0	0	2241
Avg	0	0	0	0	0	20	156	281	348	384	393	359	329	356	364	340	295	161	18	0	0	0	0	0	3316
S D	0	0	0	0	0	39	205	320	373	382	372	375	347	328	324	306	297	203	27	0	0	0	0	0	3376
S/A	0	0	0	0	0	1.93	1.32	1.14	1.07	1	0.95	1.05	1.06	0.92	0.89	0.9	1.01	1.27	1.48	0	0	0	0	0	1.02
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	4
Max	0	0	0	0	0	145	577	759	849	896	923	945	947	940	915	876	768	587	80	0	0	0	0	0	9643

Daylight Data Recovery: 0% missing; 14% exceed the 15% QC threshold -- 69929 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 - April 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	19	121	234	312	441	204	134	273	180	32	8	23	7	0	0	0	0	0	1988
2	0	0	0	0	0	1	34	53	63	70	76	77	78	72	70	62	52	33	3	0	0	0	0	0	744
3	0	0	0	0	0	1	31	59	74	146	403	490	430	256	212	160	60	24	1	0	0	0	0	0	2348
4	0	0	0	0	0	0	8	47	48	127	139	70	42	85	150	92	105	19	0	0	0	0	0	0	933
5	0	0	0	0	0	1	12	42	79	112	168	349	462	249	125	79	57	33	3	0	0	0	0	0	1772
6	0	0	0	0	0	2	34	56	70	79	86	90	99	127	119	84	65	36	3	0	0	0	0	0	949
7	0	0	0	0	0	3	39	70	90	119	139	182	389	351	338	245	82	45	5	0	0	0	0	0	2098
8	0	0	0	0	0	2	61	139	260	232	213	259	307	255	170	159	154	64	9	0	0	0	0	0	2283
9	0	0	0	0	0	0	5	6	54	60	71	380	360	419	180	157	97	59	5	0	0	0	0	0	1854
10	0	0	0	0	0	2	35	61	99	162	102	61	50	108	86	117	63	56	5	0	0	0	0	0	1008
11	0	0	0	0	0	5	35 ?	66 ?	?	?	?	?	?	?	?	?	?	30 ?	6	0	0	0	0	0	143 ?
12	0	0	0	0	0	6	37 ?	?	?	?	?	?	?	?	?	?	?	27 ?	6	0	0	0	0	0	76 ?
13	0	0	0	0	0	7	41 ?	?	?	?	?	?	?	?	?	?	?	35 ?	6	0	0	0	0	0	89 ?
14	0	0	0	0	0	5	68	167	192	403 ?	252	242	144	165	141	74	50	22	1	0	0	0	0	0	1926
15	0	0	0	0	0	10	61 ?	?	?	?	?	?	?	?	?	?	?	77 ?	9	0	0	0	0	0	157 ?
16	0	0	0	0	0	10	79	117	262 ?	408 ?	?	?	?	353 ?	219 ?	203	103	79	6	0	0	0	0	0	1840 ?
17	0	0	0	0	0	3	18	32	43	119	301	303	432	304	138	232	72	61	5	0	0	0	0	0	2062
18	0	0	0	0	0	1	43	107	203	286	256	253	432	199	173	123	78	26	4	0	0	0	0	0	2186
19	0	0	0	0	0	5	38	66	265	361	297	346	472	449	373	325	208	74	7	0	0	0	0	0	3286
20	0	0	0	0	0	4	51	83	88	119	238	345	412	295	179	156	115	39	6	0	0	0	0	0	2129
21	0	0	0	0	0	10	45	60	77	100	116	231	215	274	331	275	104	42	7	0	0	0	0	0	1889
22	0	0	0	0	0	6	40	82	133	175	107	57	73	130	116	71	68	47	11	0	0	0	0	0	1114
23	0	0	0	0	0	3	24	142	117	426	365	319	384	304	277	197	122	70	9	0	0	0	0	0	2759
24	0	0	0	0	0	22	76	118	146	160	173	191	296	311	253	200	141	73	12	0	0	0	0	0	2174
25	0	0	0	0	0	15	69	112	150	169	191	199	206	223	227	199	142	75	12	0	0	0	0	0	1989
26	0	0	0	0	0	19	83	130	159	192	209	252	285	299	229	185	165	104	27	0	0	0	0	0	2338
27	0	0	0	0	0	5	38	134	117	122	56	95	97	52	63	55	59	41	5	0	0	0	0	0	939
28	0	0	0	0	0	21	61	78	89	112	132	145	139	194	132	95	80	64	17	0	0	0	0	0	1358
29	0	0	0	0	0	29	77	141	133	131	167	172	176	212	249	273	206	115	14	0	0	0	0	0	2095
30	0	0	0	0	0	13	80	199	278	412	458	526	442	222	299	303	160	90	11	0	0	0	0	0	3493
Avg	0	0	0	0	0	7	45	92	136	197	206	234	262	238	194	160	101	53	7	0	0	0	0	0	1667
S D	0	0	0	0	0	7	22	45	73	116	114	126	148	101	82	81	49	25	5	0	0	0	0	0	876
S/A	0	0	0	0	0	1.04	0.49	0.49	0.54	0.59	0.55	0.54	0.56	0.42	0.42	0.51	0.48	0.47	0.71	0	0	0	0	0	0.53
Min	0	0	0	0	0	0	5	6	43	60	56	57	42	52	63	32	8	19	0	0	0	0	0	0	76
Max	0	0	0	0	0	29	83	199	278	426	458	526	472	449	373	325	208	115	27	0	0	0	0	0	3493

Daylight Data Recovery: 0% missing; 14% exceed the 15% QC threshold -- 69929 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