

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Elizabeth City State Universit - May 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	5	12	58	156	196	245	386	623	566	526	320	164	18	0	0	0	0	0	3277
2	0	0	0	0	0	33	105 ?	? ?	629 ?	802	889	830	782	901	647	494	315	119	4	0	0	0	0	0	6549
3	0	0	0	0	0	28	61 ?	319 ?	634 ?	770	901	971	974	890	769	603	318	110	12	0	0	0	0	0	7359
4	0	0	0	0	0	27	67	100	135	389	654	1015	772	732	563	377	110	32	2	0	0	0	0	0	4974
5	0	0	0	0	0	8	36	180	437	629	608	697	820	719	538	443	192	61	29	0	0	0	0	0	5395
6	0	0	0	0	0	38	149 ?	425 ?	620	805	918	1012	891	972	794	619	293	189	25	0	0	0	0	0	7750
7	0	0	0	0	0	20	143	334	597	764	894	988	788	602	547	234	119	93	19	0	0	0	0	0	6144
8	0	0	0	0	0	12	50	184	415	488	627	633	962	829	203	5	151	206	56	0	0	0	0	0	4823
9	0	0	0	0	0	21	71	87	180	253	197	163	237	190	205	209	232	59	7	0	0	0	0	0	2111
10	0	0	0	0	0	15	76	187	231	265	561	585	366	476	466	281	199	106	12	0	0	0	0	0	3825
11	0	0	0	0	0	14	95	128	153	185	225	220	152	167	149	94	42	19	4	0	0	0	0	0	1646
12	0	0	0	0	0	30	72	128	157	137	104	181	197	139	108	156	94	66	10	0	0	0	0	0	1579
13	0	0	0	0	0	10	71	134	161	139	152	193	287	295	224	253	185	104	19	0	0	0	0	0	2227
14	0	0	0	0	0	27	76	100	158	262	522	1066	1059	982	845	647	433	212	36	0	0	0	0	0	6426
15	0	0	0	0	0	39	151 ?	436	608 ?	851	973	1028	1022	952	816	629	410	194	39	0	0	0	0	0	8148
16	0	0	0	0	0	46	203	405	544	741	829	938	949	877	778	600	392	188	34	0	0	0	0	0	7523
17	0	0	0	0	0	19	78	276	581	629	470	419	298	456	436	347	289	82	25	0	0	0	0	0	4407
18	0	0	0	0	0	20	161	349	383	622	812	791	762	794	727	617	448	229	51	0 ?	0	0	0	0	6767
19	0	0	0	0	0	53	217	423	625	797	928	992	984	921	804	627	411	206	43	0	0	0	0	0	8029
20	0	0	0	0	0	62	162	192	480 ?	578	472	136	157	111	69	61	29	116	55	0	0	0	0	0	2679
21	0	0	0	0	0	28	143	164	186	102	317	895	961	886	747	590	342	184	46	0	0	0	0	0	5593
22	0	0	0	0	0	39	210	400	523	801	909	969	956	927	759	634	433	212	47	0	0	0	0	0	7817
23	0	0	0	0	0	49	176	165	186	204	234	70	78	54	64	58	66	46	9	0	0	0	0	0	1460
24	0	0	0	0	1	57	209	257	112	161	344	688	604	746	668	581	381	175	43	0	0	0	0	0	5025
25	0	0	0	0	0	40	193	383	533	662	889	957	940	873	740	586	397	162	31	0	0	0	0	0	7386
26	0	0	0	0	0	15	140	317	525	740	882	924	886	788	558	369	193	117	38	0	0	0	0	0	6493
27	0	0	0	0	1	13	76	120	386	572	350	523	673	754	402	199	214	68	18	1	0	0	0	0	4372
28	0	0	0	0	0	24	68	70	373	240	319	488	643	532	830	541	371	232	64	1	0	0	0	0	4795
29	0	0	0	0	1	67	212	421	630	620	911	885	411	846	638	590	391	213	55	1	0	0	0	0	6893
30	0	0	0	0	2	83	199	343	349	719	852	939	626	507	668	503	408	165	26	0	0	0	0	0	6391
31	0	0	0	0	1	33	195	441	449	780	904	969	937	894	650	420	372	198	56	1	0	0	0	0	7298
Avg	0	0	0	0	0	31	125	249	388	512	608	691	663	659	548	416	276	140	30	0	0	0	0	0	5328
S D	0	0	0	0	0	19	62	131	191	258	289	326	307	285	246	202	128	64	18	0	0	0	0	0	2074
S/A	0	0	0	0	1.57	0.6	0.49	0.52	0.49	0.5	0.48	0.47	0.46	0.43	0.45	0.49	0.46	0.46	0.6	1.94	0	0	0	0	0.39
Min	0	0	0	0	0	1	5	12	58	102	104	70	78	54	64	5	29	19	2	0	0	0	0	0	1460
Max	0	0	0	0	2	83	217	441	634	851	973	1066	1059	982	845	647	448	232	64	1	0	0	0	0	8148

Daylight Data Recovery: 0% missing; 18% exceed the 15% QC threshold -- 75166 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 - May 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	1	4	9	137	326	501	350	250	43	0	0	0	0	0	1624
2	0	0	0	0	0	104	325 ?	? ?	777 ?	825	749	542	471	695	401	459	392	211	0	0	0	0	0	0	5951
3	0	0	0	0	0	87	99 ?	321 ?	661 ?	707	745	770	793	721	719	551	376	49	0	0	0	0	0	0	6600
4	0	0	0	0	0	28	1	1	1	13	223	795	450	403	284	270	2	0	0	0	0	0	0	0	2471
5	0	0	0	0	0	0	0	7	101	202	111	180	402	351	143	162	93	0	0	0	0	0	0	0	1754
6	0	0	0	0	0	99	367 ?	698 ?	790	828	821	835	630	813	753	732	288	368	96	0	0	0	0	0	8118
7	0	0	0	0	0	20	123	406	671	698	688	587	288	111	216	10	0	1	0	0	0	0	0	0	3818
8	0	0	0	0	0	1	1	10	136	86	192	206	634	528	42	0	104	356	190	0	0	0	0	0	2487
9	0	0	0	0	0	0	0	0	2	4	1	1	2	1	2	2	64	0	0	0	0	0	0	0	80
10	0	0	0	0	0	0	1	35	1	4	52	85	15	78	95	21	24	0	0	0	0	0	0	0	411
11	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	5
12	0	0	0	0	0	1	1	0	1	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	8
13	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	4	2	5	0	0	0	0	0	0	15
14	0	0	0	0	0	0	0	0	1	2	114	899	902	890	867	809	721	556	149	0	0	0	0	0	5910
15	0	0	0	0	0	8	139 ?	730	824 ?	878	898	895	895	886	849	788	676	497	174	0	0	0	0	0	9137
16	0	0	0	0	0	132	422	573	562	642	588	668	687	697	721	658	554	391	91	0	0	0	0	0	7386
17	0	0	0	0	0	1	2	66	284	168	33	14	1	29	36	14	93	8	0	0	0	0	0	0	749
18	0	0	0	0	0	1	86	162	100	240	381	348	320	462	579	667	627	402	141	0	0	0	0	0	4516
19	0	0	0	0	0	194	501	642	715	773	812	830	826	812	808	767	647	519	186	0	0	0	0	0	9032
20	0	0	0	0	0	86	159	250	221	317	164	1	1	1	0	0	146	199	0	0	0	0	0	0	1546
21	0	0	0	0	0	13	64	4	1	0	15	601	610	683	575	586	375	255	126	0	0	0	0	0	3909
22	0	0	0	0	1	16	257	392	381	805	797	798	765	810	743	768	692	450	144	0	0	0	0	0	7818
23	0	0	0	0	0	57	144	5	2	3	6	0	0	0	0	0	0	0	0	0	0	0	0	0	217
24	0	0	0	0	0	27	278	75	1	2	11	181	130	259	343	493	448	210	8	0	0	0	0	0	2466
25	0	0	0	0	0	16	170	334	314	328	620	661	655	615	543	524	475	132	1	0	0	0	0	0	5388
26	0	0	0	0	0	1	93	182	344	543	694	638	595	498	246	147	48	55	21	0	0	0	0	0	4105
27	0	0	0	0	0	1	1	1	51	73	10	20	171	321	15	1	24	0	0	0	0	0	0	0	689
28	0	0	0	0	0	1	0	0	76	2	4	29	124	94	721	444	356	461	232	0	0	0	0	0	2543
29	0	0	0	0	1	85	374	557	579	335	642	507	91	571	420	529	418	326	98	0	0	0	0	0	5533
30	0	0	0	0	0	52	123	184	107	490	569	529	197	113	283	240	359	93	0	0	0	0	0	0	3339
31	0	0	0	0	0	0	233	524	351	657	716	709	671	634	368	159	236	196	43	0	0	0	0	0	5499
Avg	0	0	0	0	0	33	128	205	260	311	344	398	366	394	358	333	272	192	63	0	0	0	0	0	3649
S D	0	0	0	0	0	48	145	244	286	322	334	337	317	314	300	298	245	188	77	0	0	0	0	0	2840
S/A	0	0	0	0	2.66	1.45	1.14	1.19	1.1	1.04	0.97	0.85	0.87	0.8	0.84	0.9	0.9	0.98	1.23	3.88	0	0	0	0	0.78
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	5
Max	0	0	0	0	1	194	501	730	824	878	898	899	902	890	867	809	721	556	232	0	0	0	0	0	9137

Daylight Data Recovery: 0% missing; 13% exceed the 15% QC threshold -- 75166 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 - May 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	1	4	11	53	142	174	229	360	467	290	181	145	109	16	0	0	0	0	0	2181
2	0	0	0	0	0	31	95 ?	? 122 ?	124	179	277	297	233	294	175	128	71	4	0	0	0	0	0	0	2028
3	0	0	0	0	0	28	55 ?	206 ?	234 ?	194	196	189	172	204	173	239	135	95	11	0	0	0	0	0	2131
4	0	0	0	0	0	27	57	84	121	358	436	207	299	324	308	173	96	25	2	0	0	0	0	0	2519
5	0	0	0	0	0	8	30	154	422	527	501	500	395	364	414	309	140	53	25	0	0	0	0	0	3843
6	0	0	0	0	0	28	69 ?	86 ?	92	111	130	159	234	204	174	138	149	96	17	0	0	0	0	0	1686
7	0	0	0	0	0	18	111	130	152	183	233	383	457	470	346	205	102	79	17	0	0	0	0	0	2886
8	0	0	0	0	0	11	43	167	310	408	427	385	266	289	151	5	102	113	41	0	0	0	0	0	2718
9	0	0	0	0	0	19	60	73	154	226	177	140	199	160	184	180	189	51	6	0	0	0	0	0	1817
10	0	0	0	0	0	14	63	156	198	235	494	474	329	378	364	255	174	90	10	0	0	0	0	0	3232
11	0	0	0	0	0	13	80	106	133	164	193	197	134	146	136	83	37	16	4	0	0	0	0	0	1442
12	0	0	0	0	0	25	63	107	135	126	93	169	180	128	104	134	83	55	8	0	0	0	0	0	1412
13	0	0	0	0	0	9	68	127	138	131	149	189	243	246	187	224	170	92	16	0	0	0	0	0	1990
14	0	0	0	0	0	23	63	83	131	219	365	129	121	116	108	94	81	62	21	0	0	0	0	0	1616
15	0	0	0	0	0	33	130 ?	? 140 ?	140	100	99	99	89	91	90	82	60	23	0	0	0	0	0	0	1036 ?
16	0	0	0	0	0	32	84	120	149	189	234	227	224	192	164	149	122	80	25	0	0	0	0	0	1994
17	0	0	0	0	0	17	68	242	388	479	435	394	260	425	401	320	247	71	22	0	0	0	0	0	3768
18	0	0	0	0	0	17	136	269	308	397	420	399	401	328	224	147	133	107	36	0	0	0	0	0	3320
19	0	0	0	0	0	31	71	97	118	123	121	118	121	122	106	91	88	59	23	0	0	0	0	0	1288
20	0	0	0	0	0	54	108	69	140	297	302	117	135	97	60	53	26	78	32	0	0	0	0	0	1568
21	0	0	0	0	0	25	113	145	160	89	278	303	360	249	261	191	149	113	31	0	0	0	0	0	2467
22	0	0	0	0	0	34	122	193	245	139	164	178	200	167	133	113	91	75	28	0	0	0	0	0	1884
23	0	0	0	0	0	41	138	144	161	181	204	61	68	46	55	50	56	40	8	0	0	0	0	0	1254
24	0	0	0	0	1	45	130	230	96	139	292	487	457	478	374	251	161	110	39	0	0	0	0	0	3289
25	0	0	0	0	0	37	143	219	326	385	306	302	286	289	281	228	160	115	26	0	0	0	0	0	3103
26	0	0	0	0	0	13	103	227	302	290	235	287	292	311	341	259	162	95	35	0	0	0	0	0	2952
27	0	0	0	0	1	11	66	103	340	498	323	470	492	447	357	172	187	59	16	1	0	0	0	0	3542
28	0	0	0	0	0	20	59	61	300	208	274	426	488	423	224	223	188	89	35	1	0	0	0	0	3020
29	0	0	0	0	1	45	110	154	240	327	307	379	300	299	285	227	179	111	42	1	0	0	0	0	3008
30	0	0	0	0	1	76	164	258	260	312	318	412	420	383	424	339	225	130	23	0	0	0	0	0	3746
31	0	0	0	0	1	29	118	181	207	234	229	260	260	287	329	307	250	134	50	1	0	0	0	0	2876
Avg	0	0	0	0	0	26	88	145	205	244	267	276	276	270	237	181	137	82	22	0	0	0	0	0	2439
S/D	0	0	0	0	0	15	36	64	94	122	113	128	117	124	110	83	55	29	12	0	0	0	0	0	819
S/A	0	0	0	0	1.42	0.58	0.42	0.44	0.46	0.5	0.42	0.47	0.43	0.46	0.46	0.46	0.4	0.35	0.55	1.94	0	0	0	0	0.34
Min	0	0	0	0	0	1	4	11	53	89	93	61	68	46	55	5	26	16	2	0	0	0	0	0	1036
Max	0	0	0	0	1	76	164	269	422	527	501	500	492	478	424	339	250	134	50	1	0	0	0	0	3843

Daylight Data Recovery: 0% missing; 13% exceed the 15% QC threshold -- 75166 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