

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Elizabeth City State Universit - January 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	0	25	164	327	458	528	536	478	359	198	43	0	0	0	0	0	0	0	3117		
2	0	0	0	0	0	0	0	24	158	315	445	517	524	467	354	198	44	0	0	0	0	0	0	0	3045		
3	0	0	0	0	0	0	0	24	153	304	434	507	511	451	351	193	44	0	0	0	0	0	0	0	2971		
4	0	0	0	0	0	0	0	27	171	301	424	498	506	455	343	191	42	0	0	0	0	0	0	0	2957		
5	0	0	0	0	0	0	0	27	166	299	427	498	513	307	250	103	45	0	0	0	0	0	0	0	2636		
6	0	0	0	0	0	0	0	9	109	259	396	501	384	328	232	137	28	0	0	0	0	0	0	0	2385		
7	0	0	0	0	0	0	0	14	141	226	241	268	349	373	224	106	30	0	0	0	0	0	0	0	1973		
8	0	0	0	0	0	0	0	16	46	106	190	149	111	92	72	41	12	0	0	0	0	0	0	0	836		
9	0	0	0	0	0	0	0	13	114	306	406	541	466	381	348	192	57	0	0	0	0	0	0	0	2825		
10	0	0	0	0	0	0	0	24	150	282	351	474	531	482	367	212	53	0	0	0	0	0	0	0	2926		
11	0	0	0	0	0	0	0	37	109	172	442	?	520	529	475	364	208	52	0	0	0	0	0	0	2907		
12	0	0	0	0	0	0	0	27	114	?	131	?	?	302	?	192	?	115	36	0	0	0	0	0	1157	?	
13	0	0	0	0	0	0	0	4	36	82	165	57	87	119	159	108	30	0	0	0	0	0	0	0	848		
14	0	0	0	0	0	0	0	18	109	196	?	341	212	138	148	128	?	38	1	0	0	0	0	0	1329		
15	0	0	0	0	0	0	0	2	13	52	69	55	53	27	22	23	7	0	0	0	0	0	0	0	324		
16	0	0	0	0	0	0	0	1	17	59	63	69	123	63	35	13	24	0	0	0	0	0	0	0	467		
17	0	0	0	0	0	0	0	6	32	46	74	75	110	109	91	67	32	1	0	0	0	0	0	0	643		
18	0	0	0	0	0	0	0	28	107	?	?	?	?	293	?	216	122	?	51	0	0	0	0	0	818	?	
19	0	0	0	0	0	0	0	3	15	25	30	30	25	29	36	44	21	1	0	0	0	0	0	0	260		
20	0	0	0	0	0	0	0	7	42	153	239	?	?	250	?	137	?	165	?	?	55	?	1	0	0	1049	?
21	0	0	0	0	0	0	0	30	109	?	?	?	?	?	?	?	?	55	?	2	0	0	0	0	0	196	?
22	0	0	0	0	0	0	0	17	68	140	161	153	137	142	163	126	52	2	0	0	0	0	0	0	1161		
23	0	0	0	0	0	0	0	2	14	28	48	74	65	51	39	21	6	0	0	0	0	0	0	0	348		
24	0	0	0	0	0	0	0	9	27	71	95	166	147	113	93	29	12	0	0	0	0	0	0	0	764		
25	0	0	0	0	0	0	0	35	113	?	?	?	?	?	?	171	?	61	3	0	0	0	0	0	383	?	
26	0	0	0	0	0	0	0	38	117	?	?	?	?	?	?	?	?	72	?	4	0	0	0	0	0	230	?
27	0	0	0	0	0	0	0	37	158	?	236	?	264	152	95	52	44	32	9	1	0	0	0	0	0	1080	
28	0	0	0	0	0	0	0	9	20	66	92	79	54	69	65	46	19	3	0	0	0	0	0	0	0	520	
29	0	0	0	0	0	0	0	37	119	?	?	530	?	593	609	564	431	244	59	4	0	0	0	0	0	3190	
30	0	0	0	0	0	0	0	25	179	270	334	563	363	522	387	192	80	5	0	0	0	0	0	0	2921		
31	0	0	0	0	0	0	0	41	197	378	515	369	230	182	138	101	40	3	0	0	0	0	0	0	2194		
Avg	0	0	0	0	0	0	0	20	100	186	276	311	290	253	205	120	39	1	0	0	0	0	0	0	1563		
S/D	0	0	0	0	0	0	0	12	57	109	163	204	191	177	129	70	19	1	0	0	0	0	0	0	1088		
S/A	0	0	0	0	0	0	0	0.62	0.57	0.59	0.59	0.65	0.66	0.7	0.63	0.58	0.49	1.32	0	0	0	0	0	0	0.7		
Min	0	0	0	0	0	0	0	1	13	25	30	30	25	27	22	13	6	0	0	0	0	0	0	0	196		
Max	0	0	0	0	0	0	0	41	197	378	530	593	609	564	431	244	80	5	0	0	0	0	0	0	3190		

Daylight Data Recovery: 0% missing; 23% exceed the 15% QC threshold -- 57126 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 - January 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	277	744	889	950	973	974	951	897	772	414	0	0	0	0	0	0	0	7840		
2	0	0	0	0	0	0	0	223	659	816	884	918	922	904	853	736	385	0	0	0	0	0	0	0	7302		
3	0	0	0	0	0	0	0	204	639	791	860	888	873	835	815	679	328	0	0	0	0	0	0	0	6912		
4	0	0	0	0	0	0	0	156	613	782	852	880	883	867	817	690	346	0	0	0	0	0	0	0	6885		
5	0	0	0	0	0	0	0	138	609	768	842	873	881	111	99	5	110	0	0	0	0	0	0	0	4437		
6	0	0	0	0	0	0	0	0	151	396	648	686	230	202	68	53	0	0	0	0	0	0	0	0	2434		
7	0	0	0	0	0	0	0	0	150	239	18	15	206	191	62	0	0	0	0	0	0	0	0	0	882		
8	0	0	0	0	0	0	0	0	0	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	7		
9	0	0	0	0	0	0	0	2	256	722	681	791	577	456	695	561	337	1	0	0	0	0	0	0	5078		
10	0	0	0	0	0	0	0	107	334	496	430	609	758	887	850	740	410	2	0	0	0	0	0	0	5622		
11	0	0	0	0	0	0	0	75	19	57	772	?	877	903	893	843	717	380	2	0	0	0	0	0	5537		
12	0	0	0	0	0	0	0	41	115	?	2	?	?	46	?	8	?	9	0	0	0	0	0	0	242	?	
13	0	0	0	0	0	0	0	0	1	3	4	0	0	1	3	5	3	0	0	0	0	0	0	0	0	22	
14	0	0	0	0	0	0	0	1	3	6	?	8	0	0	0	3	?	0	0	0	0	0	0	0	0	21	
15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
17	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	
18	0	0	0	0	0	0	0	4	10	?	?	?	?	7	?	3	2	?	5	0	0	0	0	0	0	32	?
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	
20	0	0	0	0	0	0	0	0	0	2	6	?	?	1	?	2	?	3	?	?	4	?	0	0	0	18	?
21	0	0	0	0	0	0	0	4	10	?	?	?	?	?	?	?	3	?	0	0	0	0	0	0	0	17	?
22	0	0	0	0	0	0	0	2	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	7	
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
24	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
25	0	0	0	0	0	0	0	3	7	?	?	?	?	?	?	5	?	0	0	0	0	0	0	0	0	16	?
26	0	0	0	0	0	0	0	6	16	?	?	?	?	?	?	?	3	?	0	0	0	0	0	0	0	26	?
27	0	0	0	0	0	0	0	1	7	?	6	?	1	0	0	0	0	0	0	0	0	0	0	0	0	16	
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	0	0	0	0	0	0	0	4	8	?	?	907	?	929	930	915	742	435	16	0	0	0	0	0	0	4885	
30	0	0	0	0	0	0	0	85	459	218	191	757	231	573	444	172	207	54	0	0	0	0	0	0	3391		
31	0	0	0	0	0	0	0	273	648	788	842	241	25	0	0	0	0	0	0	0	0	0	0	0	2817		
Avg	0	0	0	0	0	0	0	52	176	269	356	378	313	279	258	199	95	2	0	0	0	0	0	0	2079		
S/D	0	0	0	0	0	0	0	86	257	343	396	413	395	380	363	302	155	9	0	0	0	0	0	0	2746		
S/A	0	0	0	0	0	0	0	1.65	1.46	1.28	1.11	1.09	1.26	1.36	1.41	1.51	1.63	5.04	0	0	0	0	0	0	1.32		
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	0		
Max	0	0	0	0	0	0	0	277	744	889	950	973	974	951	897	772	414	54	0	0	0	0	0	0	7840		

Daylight Data Recovery: 0% missing; 16% exceed the 15% QC threshold -- 57126 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 - January 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	0	9	29	37	39	41	43	42	36	28	11	0	0	0	0	0	0	0	0	314	
2	0	0	0	0	0	0	0	11	35	46	51	52	51	49	43	33	13	0	0	0	0	0	0	0	0	384	
3	0	0	0	0	0	0	0	12	35	46	51	56	59	58	51	37	16	0	0	0	0	0	0	0	0	421	
4	0	0	0	0	0	0	0	11	37	44	44	50	51	49	42	33	12	0	0	0	0	0	0	0	0	373	
5	0	0	0	0	0	0	0	12	36	44	48	52	54	229	189	99	34	0	0	0	0	0	0	0	0	797	
6	0	0	0	0	0	0	0	9	79	130	93	133	240	213	199	122	27	0	0	0	0	0	0	0	0	1246	
7	0	0	0	0	0	0	0	13	99	143	226	249	216	266	186	102	28	0	0	0	0	0	0	0	0	1529	
8	0	0	0	0	0	0	0	16	44	100	182	140	105	86	68	39	11	0	0	0	0	0	0	0	0	790	
9	0	0	0	0	0	0	0	12	59	62	90	124	150	150	78	54	23	0	0	0	0	0	0	0	0	804	
10	0	0	0	0	0	0	0	14	88	103	142	144	124	58	42	34	15	0	0	0	0	0	0	0	0	764	
11	0	0	0	0	0	0	0	25	104	151	118	?	65	51	47	40	32	14	0	0	0	0	0	0	0	647	
12	0	0	0	0	0	0	0	18	60	?	123	?	?	214	?	173	?	210	?	103	34	0	0	0	0	0	936
13	0	0	0	0	0	0	0	3	34	78	154	54	82	112	149	100	28	0	0	0	0	0	0	0	0	795	
14	0	0	0	0	0	0	0	17	103	169	?	299	199	130	138	116	?	37	1	0	0	0	0	0	0	1208	
15	0	0	0	0	0	0	0	2	12	48	64	52	50	25	21	21	7	0	0	0	0	0	0	0	0	304	
16	0	0	0	0	0	0	0	1	16	55	59	65	115	59	33	13	23	0	0	0	0	0	0	0	0	440	
17	0	0	0	0	0	0	0	6	30	43	70	71	104	103	87	64	31	1	0	0	0	0	0	0	0	611	
18	0	0	0	0	0	0	0	14	34	?	?	?	?	248	?	193	114	?	24	0	0	0	0	0	0	628	
19	0	0	0	0	0	0	0	3	14	24	28	28	24	27	34	41	20	1	0	0	0	0	0	0	0	243	
20	0	0	0	0	0	0	0	7	40	142	206	?	?	225	?	113	?	123	?	?	21	?	1	0	0	0	877
21	0	0	0	0	0	0	0	18	39	?	?	?	?	?	?	?	34	?	2	0	0	0	0	0	0	93	
22	0	0	0	0	0	0	0	15	64	131	151	143	129	133	153	119	50	2	0	0	0	0	0	0	0	1089	
23	0	0	0	0	0	0	0	2	13	26	44	70	61	48	36	20	6	0	0	0	0	0	0	0	0	326	
24	0	0	0	0	0	0	0	8	26	67	90	157	139	107	89	28	11	0	0	0	0	0	0	0	0	723	
25	0	0	0	0	0	0	0	17	41	?	?	?	?	?	?	133	?	55	3	0	0	0	0	0	0	249	
26	0	0	0	0	0	0	0	23	51	?	?	?	?	?	?	?	29	?	3	0	0	0	0	0	0	106	
27	0	0	0	0	0	0	0	32	105	?	186	?	251	143	89	49	41	30	8	1	0	0	0	0	0	935	
28	0	0	0	0	0	0	0	9	19	62	86	74	50	64	61	43	17	3	0	0	0	0	0	0	0	488	
29	0	0	0	0	0	0	0	18	36	?	?	54	?	53	54	57	79	88	51	3	0	0	0	0	0	497	
30	0	0	0	0	0	0	0	15	72	168	199	109	208	190	169	122	49	3	0	0	0	0	0	0	0	1304	
31	0	0	0	0	0	0	0	19	49	67	81	219	201	172	127	93	36	3	0	0	0	0	0	0	0	1067	
Avg	0	0	0	0	0	0	0	13	49	88	105	106	114	109	97	66	25	1	0	0	0	0	0	0	0	677	
S D	0	0	0	0	0	0	0	7	28	49	64	68	67	70	61	39	13	1	0	0	0	0	0	0	0	363	
S/A	0	0	0	0	0	0	0	0.55	0.57	0.56	0.61	0.65	0.59	0.64	0.63	0.59	0.54	1.22	0	0	0	0	0	0	0	0.54	
Min	0	0	0	0	0	0	0	1	12	24	28	28	24	25	21	13	6	0	0	0	0	0	0	0	0	93	
Max	0	0	0	0	0	0	0	32	105	186	251	299	240	266	210	133	55	3	0	0	0	0	0	0	0	1529	

Daylight Data Recovery: 0% missing; 16% exceed the 15% QC threshold -- 57126 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