

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Elizabeth City State Universit - December 1997

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	7	35	23	75	350	542	468	339	175	27	0	0	0	0	0	0	0	2041
2	0	0	0	0	0	0	0	55	214	360	479	547	539	470	334	170	25	0	0	0	0	0	0	0	3193
3	0	0	0	0	0	0	0	48	165	293	359	379	602	407	217	95	20	0	0	0	0	0	0	0	2584
4	0	0	0	0	0	0	0	8	19	44	45	87	231	365	244	42	10	0	0	0	0	0	0	0	1095
5	0	0	0	0	0	0	0	21	138	281	294	531	475	319	243	159	26	0	0	0	0	0	0	0	2487
6	0	0	0	0	0	0	0	47	196	345	476	541	569	443	327	168	27	0	0	0	0	0	0	0	3139
7	0	0	0	0	0	0	0	46	195	350	469	528	522	452	326	166	25	0	0	0	0	0	0	0	3080
8	0	0	0	0	0	0	0	44	188	337	461	504	464	396	220	77	8	0	0	0	0	0	0	0	2700
9	0	0	0	0	0	0	0	5	25	47	70	114	77	147	125	58	8	0	0	0	0	0	0	0	675
10	0	0	0	0	0	0	0	9	35	64	38	32	43	29	22	19	4	0	0	0	0	0	0	0	294
11	0	0	0	0	0	0	0	12	42	122	108	110	103	92	51	28	7	0	0	0	0	0	0	0	676
12	0	0	0	0	0	0	0	7	58	126	55	88	77	102	101	94	13	0	0	0	0	0	0	0	721
13	0	0	0	0	0	0	0	14	124	278	389	416	429	324	205	62	18	0	0	0	0	0	0	0	2260
14	0	0	0	0	0	0	0	11	58	123	136	176	207	189	129	63	14	0	0	0	0	0	0	0	1106
15	0	0	0	0	0	0	0	44	174	305	446	509	532	449	323	167	25	0	0	0	0	0	0	0	2974
16	0	0	0	0	0	0	0	36	186	331	450	480	502	449	228	67	18	0	0	0	0	0	0	0	2749
17	0	0	0	0	0	0	0	22	139	279	439	495	498	440	317	161	25	0	0	0	0	0	0	0	2814
18	0	0	0	0	0	0	0	28	162	315	439	500	497	434	308	157	23	0	0	0	0	0	0	0	2863
19	0	0	0	0	0	0	0	35	144	310	434	512	453	440	320	163	26	0	0	0	0	0	0	0	2835
20	0	0	0	0	0	0	0	35	154	300	430	483	457	377	280	130	24	0	0	0	0	0	0	0	2669
21	0	0	0	0	0	0	0	21	140	294	424	489	495	437	284	189	28	0	0	0	0	0	0	0	2801
22	0	0	0	0	0	0	0	2	15	42	37	25	37	36	27	13	2	0	0	0	0	0	0	0	236
23	0	0	0	0	0	0	0	11	62	134	266	500	514	440	323	166	14	0	0	0	0	0	0	0	2429
24	0	0	0	0	0	0	0	10	61	143	164	134	227	166	40	11	3	0	0	0	0	0	0	0	959
25	0	0	0	0	0	0	0	20	137	163	320	395	469	429	327	175	32	0	0	0	0	0	0	0	2468
26	0	0	0	0	0	0	0	21	138	?	255	?	396	448	490	407	265	160	32	0	0	0	0	0	2612
27	0	0	0	0	0	0	0	4	7	19	28	49	38	37	28	9	3	0	0	0	0	0	0	0	221
28	0	0	0	0	0	0	0	23	162	327	?	447	478	432	442	364	177	37	0	0	0	0	0	0	2888
29	0	0	0	0	0	0	0	28	146	96	73	51	24	30	60	100	16	0	0	0	0	0	0	0	624
30	0	0	0	0	0	0	0	23	114	281	440	468	421	300	236	171	38	0	0	0	0	0	0	0	2491
31	0	0	0	0	0	0	0	24	157	316	449	520	531	472	357	195	41	0	0	0	0	0	0	0	3062
Avg	0	0	0	0	0	0	0	23	116	216	295	353	371	322	225	116	20	0	0	0	0	0	0	0	2056
S D	0	0	0	0	0	0	0	15	62	115	171	191	192	156	112	62	11	0	0	0	0	0	0	0	1008
S/A	0	0	0	0	0	0	3.94	0.64	0.54	0.53	0.58	0.54	0.52	0.48	0.5	0.53	0.54	0	0	0	0	0	0	0	0.49
Min	0	0	0	0	0	0	0	2	7	19	28	25	24	29	22	9	2	0	0	0	0	0	0	0	221
Max	0	0	0	0	0	0	0	55	214	360	479	547	602	472	364	195	41	0	0	0	0	0	0	0	3193

Daylight Data Recovery: 0% missing; 23% exceed the 15% QC threshold -- 53406 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 - December 1997

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	0	1	244	917	904	847	712	272	0	0	0	0	0	0	0	3896
2	0	0	0	0	0	0	0	423	755	812	862	902	930	930	859	712	254	0	0	0	0	0	0	0	7439
3	0	0	0	0	0	0	0	188	328	447	244	248	702	466	113	7	2	0	0	0	0	0	0	0	2745
4	0	0	0	0	0	0	0	0	0	0	0	0	32	330	261	0	0	0	0	0	0	0	0	0	623
5	0	0	0	0	0	0	0	0	54	214	118	854	659	383	448	477	247	0	0	0	0	0	0	0	3454
6	0	0	0	0	0	0	0	343	681	776	880	915	865	728	801	679	257	0	0	0	0	0	0	0	6926
7	0	0	0	0	0	0	0	348	713	839	902	930	932	900	836	695	267	0	0	0	0	0	0	0	7361
8	0	0	0	0	0	0	0	333	700	820	826	822	623	475	169	1	0	0	0	0	0	0	0	0	4769
9	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	6
10	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
11	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	11	0	0	0	0	0	0	0	0	16
13	0	0	0	0	0	0	0	1	215	253	351	329	338	159	77	0	2	0	0	0	0	0	0	0	1724
14	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	4
15	0	0	0	0	0	0	0	71	444	673	819	671	875	786	813	697	276	0	0	0	0	0	0	0	6125
16	0	0	0	0	0	0	0	243	714	848	903	754	895	848	227	0	98	0	0	0	0	0	0	0	5530
17	0	0	0	0	0	0	0	73	278	451	869	881	895	881	844	680	292	0	0	0	0	0	0	0	6144
18	0	0	0	0	0	0	0	210	608	761	832	862	865	840	766	620	238	0	0	0	0	0	0	0	6601
19	0	0	0	0	0	0	0	155	380	683	776	767	575	848	787	623	217	0	0	0	0	0	0	0	5810
20	0	0	0	0	0	0	0	171	440	595	758	716	631	487	418	203	77	0	0	0	0	0	0	0	4496
21	0	0	0	0	0	0	0	49	308	528	737	781	805	730	525	371	13	0	0	0	0	0	0	0	4847
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3
23	0	0	0	0	0	0	0	0	1	2	75	797	858	853	803	661	73	0	0	0	0	0	0	0	4124
24	0	0	0	0	0	0	0	0	0	2	0	0	9	1	0	0	0	0	0	0	0	0	0	0	13
25	0	0	0	0	0	0	0	36	342	139	290	526	630	734	808	679	300	0	0	0	0	0	0	0	4485
26	0	0	0	0	0	0	0	7	318	749	832	735	643	579	349	504	232	0	0	0	0	0	0	0	4947
27	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
28	0	0	0	0	0	0	0	210	675	846	875	710	557	769	850	613	333	0	0	0	0	0	0	0	6439
29	0	0	0	0	0	0	0	48	277	1	1	0	0	0	5	26	0	0	0	0	0	0	0	0	359
30	0	0	0	0	0	0	0	99	219	534	619	657	498	328	342	463	248	0	0	0	0	0	0	0	4007
31	0	0	0	0	0	0	0	189	634	807	887	923	942	921	877	735	325	0	0	0	0	0	0	0	7240
Avg	0	0	0	0	0	0	0	103	293	380	434	485	506	480	414	328	130	0	0	0	0	0	0	0	3553
S D	0	0	0	0	0	0	0	126	273	348	391	375	373	362	355	313	130	0	0	0	0	0	0	0	2697
S/A	0	0	0	0	0	0	0	1.23	0.93	0.92	0.9	0.77	0.74	0.75	0.86	0.95	1	0	0	0	0	0	0	0	0.76
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	2
Max	0	0	0	0	0	0	0	423	755	848	903	930	942	930	877	735	333	0	0	0	0	0	0	0	7439

Daylight Data Recovery: 0% missing; 16% exceed the 15% QC threshold -- 53406 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 University - December 1997

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	7	33	22	71	202	60	51	45	33	9	0	0	0	0	0	0	0	534
2	0	0	0	0	0	0	0	19	39	52	63	69	55	45	39	30	8	0	0	0	0	0	0	0	418
3	0	0	0	0	0	0	0	26	87	124	235	236	244	179	170	92	19	0	0	0	0	0	0	0	1411
4	0	0	0	0	0	0	0	8	18	42	43	83	208	206	145	40	9	0	0	0	0	0	0	0	802
5	0	0	0	0	0	0	0	20	117	189	232	82	129	140	93	66	10	0	0	0	0	0	0	0	1079
6	0	0	0	0	0	0	0	19	45	61	63	68	128	109	55	36	10	0	0	0	0	0	0	0	594
7	0	0	0	0	0	0	0	18	39	47	49	49	47	46	43	31	9	0	0	0	0	0	0	0	379
8	0	0	0	0	0	0	0	17	40	50	76	77	127	162	148	73	8	0	0	0	0	0	0	0	778
9	0	0	0	0	0	0	0	5	24	45	67	109	74	140	119	57	8	0	0	0	0	0	0	0	647
10	0	0	0	0	0	0	0	9	33	61	36	30	40	28	21	18	4	0	0	0	0	0	0	0	279
11	0	0	0	0	0	0	0	11	40	116	103	104	98	88	49	27	7	0	0	0	0	0	0	0	642
12	0	0	0	0	0	0	0	6	55	119	52	84	73	97	96	88	12	0	0	0	0	0	0	0	683
13	0	0	0	0	0	0	0	13	75	176	213	233	236	234	167	59	18	0	0	0	0	0	0	0	1423
14	0	0	0	0	0	0	0	11	55	116	129	166	195	178	123	60	13	0	0	0	0	0	0	0	1046
15	0	0	0	0	0	0	0	42	79	67	72	154	87	95	45	30	8	0	0	0	0	0	0	0	677
16	0	0	0	0	0	0	0	12	33	37	40	88	48	61	129	64	12	0	0	0	0	0	0	0	523
17	0	0	0	0	0	0	0	14	90	97	43	48	46	42	29	25	5	0	0	0	0	0	0	0	440
18	0	0	0	0	0	0	0	13	39	54	61	63	61	55	45	31	6	0	0	0	0	0	0	0	427
19	0	0	0	0	0	0	0	17	66	70	77	114	144	56	49	36	10	0	0	0	0	0	0	0	641
20	0	0	0	0	0	0	0	22	65	89	80	108	122	139	121	81	17	0	0	0	0	0	0	0	844
21	0	0	0	0	0	0	0	16	74	106	86	87	83	98	92	104	26	0	0	0	0	0	0	0	772
22	0	0	0	0	0	0	0	2	14	39	34	23	34	34	25	12	2	0	0	0	0	0	0	0	220
23	0	0	0	0	0	0	0	11	58	127	215	91	80	53	44	29	7	0	0	0	0	0	0	0	716
24	0	0	0	0	0	0	0	9	58	134	154	125	211	158	38	11	3	0	0	0	0	0	0	0	900
25	0	0	0	0	0	0	0	15	61	103	171	120	136	92	44	32	10	0	0	0	0	0	0	0	783
26	0	0	0	0	0	0	0	19	50	49	46	67	154	133	133	53	14	0	0	0	0	0	0	0	719
27	0	0	0	0	0	0	0	4	7	18	26	45	36	34	26	8	3	0	0	0	0	0	0	0	207
28	0	0	0	0	0	0	0	11	36	47	60	111	135	83	61	43	11	0	0	0	0	0	0	0	598
29	0	0	0	0	0	0	0	23	88	90	68	48	22	28	57	87	15	0	0	0	0	0	0	0	526
30	0	0	0	0	0	0	0	16	74	97	158	128	156	141	112	70	18	0	0	0	0	0	0	0	969
31	0	0	0	0	0	0	0	11	39	51	56	56	53	50	42	33	12	0	0	0	0	0	0	0	403
Avg	0	0	0	0	0	0	0	14	53	81	93	99	107	98	78	47	10	0	0	0	0	0	0	0	680
S D	0	0	0	0	0	0	0	8	25	42	61	53	62	56	46	25	5	0	0	0	0	0	0	0	291
S/A	0	0	0	0	0	0	5.48	0.53	0.47	0.52	0.66	0.53	0.58	0.57	0.59	0.54	0.49	0	0	0	0	0	0	0	0.43
Min	0	0	0	0	0	0	0	2	7	18	26	23	22	28	21	8	2	0	0	0	0	0	0	0	207
Max	0	0	0	0	0	0	0	42	117	189	235	236	244	234	170	104	26	0	0	0	0	0	0	0	1423

Daylight Data Recovery: 0% missing; 16% exceed the 15% QC threshold -- 53406 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