

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Elizabeth City State Universit - July 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	1	50	197	349	628	820	881	808	313	395	730	495	192	97	34	1	0	0	0	0	5990
2	0	0	0	0	0	15	59	192	203	291	428	839	326	475	751	393	177	100	63	5	0	0	0	0	4318
3	0	0	0	0	1	51	208	417	617	781	907	978	983	925	790	564	394	222	72	3	0	0	0	0	7912
4	0	0	0	0	1	55	223	434	630	790	903	964	932	934	830	670	452	274	90	2	0	0	0	0	8184
5	0	0	0	0	0	46	190	387	581	762	892	885	946	920	824	655	310	136	34	0	0	0	0	0	7568
6	0	0	0	0	0	22	63	155	340	520	744	834	855	830	636	657	347	257	88	3	0	0	0	0	6353
7	0	0	0	0	0	52	150	228	518	755	853	234	206	288	260	171	279	157	64	6	0	0	0	0	4222
8	0	0	0	0	0	43	180	368	559	744	892	970	976	923	839	377	342	227	80	5	0	0	0	0	7525
9	0	0	0	0	0	47	139	368	558	669	792	749	891	230	183	283	414	280	81	2	0	0	0	0	5686
10	0	0	0	0	0	20	104	322	446	549	574	336	265	352	164	211	149	111	72	6	0	0	0	0	3682
11	0	0	0	0	0	47	196	421	606	661	1006	797	777	776	871	643	456	368	131	5	0	0	0	0	7763
12	0	0	0	0	0	62	222	418	626	804	935	1001	973	962	830	670	467	250	85	2	0	0	0	0	8307
13	0	0	0	0	0	39	194	397	593	759	892	962	976	916	815	645	459	256	84	3	0	0	0	0	7990
14	0	0	0	0	0	41	182	376	580	736	892	627	815	710	665	622	418	228	69	2	0	0	0	0	6962
15	0	0	0	0	0	35	169	358	549	718	864	941	962	916	622	611	414	223	55	1	0	0	0	0	7439
16	0	0	0	0	0	33	156	305	537	617	841	933	922	885	787	598	345	43	2	0	0	0	0	0	7004
17	0	0	0	0	0	39	188	330	535	681	831	947	951	864	826	635	431	234	61	0	0	0	0	0	7554
18	0	0	0	0	0	35	169	358	554	727	857	955	817	778	762	461	34	89	60	6	0	0	0	0	6662
19	0	0	0	0	0	28	138	288	453	685	848	911	799	384	205	251	25	81	28	1	0	0	0	0	5126
20	0	0	0	0	0	41	141	301	483	652	691	536	745	732	613	374	349	155	18	2	0	0	0	0	5835
21	0	0	0	0	0	37	120	320	292	374	567	635	585	427	388	358	42	24	23	4	0	0	0	0	4196
22	0	0	0	0	0	34	163	343	528	524	686	948	871	685	248	179	29	13	2	0	0	0	0	0	5253
23	0	0	0	0	0	8	69	235	167	155	144	160	199	267	307	284	108	75	11	0	0	0	0	0	2190
24	0	0	0	0	0	23	105	244	200	170	239	184	45	26	24	41	190	175	27	1	0	0	0	0	1693
25	0	0	0	0	0	4	44	60	201	175	198	296	376	375	403	265	175	89	44	1	0	0	0	0	2705
26	0	0	0	0	0	33	180	367	549	580	595	919	719	399	397	405	344	198	42	1	0	0	0	0	5727
27	0	0	0	0	0	26	64	184	305	564	801	881	808	855	664	424	293	144	38	1	0	0	0	0	6051
28	0	0	0	0	0	22	150	350	533	715	833	897	681	762	643	562	345	190	49	1	0	0	0	0	6734
29	0	0	0	0	0	23	137	164	350	428	451	682	831	652	281	160	194	136	26	1	0	0	0	0	4515
30	0	0	0	0	0	7	52	93	94	109	181	87	72	171	210	127	99	52	19	0	0	0	0	0	1374
31	0	0	0	0	0	28	120	422	605	712	688	717	710	602	570	447	493	245	54	0	0	0	0	0	6414
Avg	0	0	0	0	0	34	144	308	465	588	707	730	688	626	553	427	283	165	52	2	0	0	0	0	5772
S D	0	0	0	0	0	14	52	99	157	208	241	278	294	271	255	188	146	86	29	2	0	0	0	0	1929
S/A	0	0	0	0	1.54	0.42	0.36	0.32	0.34	0.35	0.34	0.38	0.43	0.43	0.46	0.44	0.52	0.52	0.57	0.91	0	0	0	0	0.33
Min	0	0	0	0	0	4	44	60	94	109	144	87	45	26	24	41	25	13	2	0	0	0	0	0	1374
Max	0	0	0	0	1	62	223	434	630	820	1006	1001	983	962	871	670	493	368	131	6	0	0	0	0	8307

Daylight Data Recovery: 0% missing; 38% exceed the 15% QC threshold -- 32358 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 - July 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	35	207	287	625	668	470	462	16	28	339	265	2	0	0	0	0	0	0	0	3405
2	0	0	0	0	0	0	1	4	2	3	25	260	34	173	592	230	53	0	21	1	0	0	0	0	1397
3	0	0	0	0	0	99	389	635	713	731	735	744	715	665	574	413	352	230	90	0	0	0	0	0	7084
4	0	0	0	0	0	252	577	721	801	823	796	750	670	777	795	776	659	603	358	12	0	0	0	0	9371
5	0	0	0	0	0	122	334	464	548	636	643	492	604	702	734	658	111	1	0	0	0	0	0	0	6050
6	0	0	0	0	0	0	1	1	73	155	233	262	363	435	329	572	258	356	228	4	0	0	0	0	3273
7	0	0	0	0	0	37	87	70	372	563	506	28	24	5	5	5	49	76	20	1	0	0	0	0	1848
8	0	0	0	0	0	66	242	390	440	552	635	659	658	639	542	181	228	248	103	3	0	0	0	0	5585
9	0	0	0	0	0	100	191	389	390	363	291	311	502	46	1	21	204	317	137	4	0	0	0	0	3267
10	0	0	0	0	0	0	48	204	224	196	151	32	16	19	1	2	0	0	1	0	0	0	0	0	897
11	0	0	0	0	0	126	422	651	664	532	853	457	352	416	747	543	462	688	451	17	0	0	0	0	7379
12	0	0	0	0	0	244	554	733	812	845	856	857	788	813	761	757	657	535	363	12	0	0	0	0	9587
13	0	0	0	0	0	146	464	630	703	732	768	776	768	761	773	723	645	497	263	7	0	0	0	0	8658
14	0	0	0	0	0	107	338	499	602	607	682	267	436	390	405	518	452	330	157	3	0	0	0	0	5793
15	0	0	0	0	0	58	232	380	467	536	596	600	603	588	353	508	413	288	89	2	0	0	0	0	5713
16	0	0	0	0	0	24	130	201	270	250	412	498	414	528	575	457	247	1	0	0	0	0	0	0	4007
17	0	0	0	0	0	51	226	252	467	470	446	621	560	570	615	549	463	354	118	0	0	0	0	0	5762
18	0	0	0	0	0	64	258	410	517	590	624	600	406	420	426	337	1	2	38	1	0	0	0	0	4694
19	0	0	0	0	0	5	70	183	276	478	620	598	395	45	16	86	0	1	0	0	0	0	0	0	2771
20	0	0	0	0	0	24	74	186	233	255	137	13	131	271	217	85	101	24	0	0	0	0	0	0	1749
21	0	0	0	0	0	18	54	188	19	10	100	84	119	56	25	63	0	0	7	0	0	0	0	0	744
22	0	0	0	0	0	59	275	425	457	84	264	594	506	376	8	1	0	0	0	0	0	0	0	0	3049
23	0	0	0	0	0	1	2	54	1	0	0	1	2	1	2	5	0	0	0	0	0	0	0	0	70
24	0	0	0	0	0	2	9	40	26	1	0	0	0	0	1	2	31	0	0	0	0	0	0	0	111
25	0	0	0	0	0	0	1	0	2	1	2	2	22	3	16	0	0	85	0	0	0	0	0	0	136
26	0	0	0	0	0	55	268	421	490	294	190	434	230	15	41	136	153	103	8	0	0	0	0	0	2837
27	0	0	0	0	0	1	1	15	36	155	340	412	308	381	215	127	93	8	2	0	0	0	0	0	2093
28	0	0	0	0	0	21	200	411	481	562	514	444	151	311	301	345	242	140	26	0	0	0	0	0	4150
29	0	0	0	0	0	8	59	35	63	57	59	162	276	116	2	1	3	7	1	0	0	0	0	0	848
30	0	0	0	0	0	0	1	1	0	1	1	0	0	2	1	0	0	0	0	0	0	0	0	0	9
31	0	0	0	0	0	118	306	713	821	582	362	265	227	200	211	214	639	558	196	0	0	0	0	0	5412
Avg	0	0	0	0	0	59	194	310	374	378	397	377	332	315	310	277	209	174	89	2	0	0	0	0	3798
S D	0	0	0	0	0	66	168	239	270	274	278	265	254	273	285	259	227	215	123	4	0	0	0	0	2764
S/A	0	0	0	0	2.19	1.12	0.87	0.77	0.72	0.72	0.7	0.77	0.87	0.92	0.93	1.08	1.24	1.38	1.92	0	0	0	0	0	0.73
Min	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Max	0	0	0	0	0	252	577	733	821	845	856	857	788	813	795	776	659	688	451	17	0	0	0	0	9587

Daylight Data Recovery: 0% missing; 27% exceed the 15% QC threshold -- 32358 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 - July 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	1	45	135	189	189	234	389	339	276	334	417	280	165	82	29	1	0	0	0	0	3105
2	0	0	0	0	0	14	58	181	174	265	364	519	257	283	212	213	138	88	55	5	0	0	0	0	2826
3	0	0	0	0	0	37	73	101	122	153	180	190	218	254	278	253	210	146	60	3	0	0	0	0	2280
4	0	0	0	0	0	29	59	73	77	85	117	162	198	149	126	102	94	67	38	2	0	0	0	0	1377
5	0	0	0	0	0	33	98	158	202	214	251	341	285	210	173	172	232	128	29	0	0	0	0	0	2528
6	0	0	0	0	0	19	58	134	272	369	480	525	447	372	339	226	195	126	55	3	0	0	0	0	3618
7	0	0	0	0	0	48	122	199	266	271	339	192	172	262	246	152	246	121	61	5	0	0	0	0	2702
8	0	0	0	0	0	37	117	185	258	270	263	277	272	285	356	224	226	138	67	4	0	0	0	0	2978
9	0	0	0	0	0	36	92	174	279	326	475	392	344	177	165	262	279	168	61	2	0	0	0	0	3232
10	0	0	0	0	0	17	83	221	280	370	417	283	224	304	147	201	143	100	62	5	0	0	0	0	2856
11	0	0	0	0	0	36	78	105	147	186	167	288	364	334	210	229	204	132	65	5	0	0	0	0	2551
12	0	0	0	0	0	37	60	64	72	82	93	98	127	146	159	123	113	69	34	2	0	0	0	0	1280
13	0	0	0	0	0	25	72	98	119	139	143	151	161	156	142	126	115	89	48	3	0	0	0	0	1589
14	0	0	0	0	0	31	94	143	177	221	230	337	346	301	301	249	177	119	49	2	0	0	0	0	2778
15	0	0	0	0	0	30	111	181	238	265	283	312	322	326	314	247	195	130	43	1	0	0	0	0	2999
16	0	0	0	0	0	31	125	214	357	383	430	407	458	353	283	264	208	40	2	0	0	0	0	0	3556
17	0	0	0	0	0	34	122	216	241	282	371	289	343	281	284	232	186	118	45	1	0	0	0	0	3045
18	0	0	0	0	0	30	105	168	211	235	256	332	386	365	390	252	30	79	54	5	0	0	0	0	2896
19	0	0	0	0	0	24	120	203	268	281	250	288	370	320	176	174	23	74	24	1	0	0	0	0	2594
20	0	0	0	0	0	39	125	219	332	437	534	506	579	450	395	300	290	144	16	1	0	0	0	0	4368
21	0	0	0	0	0	38	104	241	263	341	465	529	442	353	337	297	39	22	22	4	0	0	0	0	3498
22	0	0	0	0	0	28	93	142	211	434	382	307	310	306	223	166	26	12	2	0	0	0	0	0	2643
23	0	0	0	0	0	8	59	202	143	134	123	138	171	230	268	250	93	67	9	0	0	0	0	0	1893
24	0	0	0	0	0	20	98	224	166	142	216	157	40	24	21	35	171	151	23	1	0	0	0	0	1490
25	0	0	0	0	0	4	41	54	179	150	172	259	314	334	353	237	147	78	36	1	0	0	0	0	2359
26	0	0	0	0	0	26	100	165	224	326	402	456	454	349	342	298	261	166	38	1	0	0	0	0	3608
27	0	0	0	0	0	22	57	163	265	415	454	433	458	454	465	313	243	130	34	1	0	0	0	0	3908
28	0	0	0	0	0	20	101	163	215	243	329	420	502	434	369	306	210	145	43	1	0	0	0	0	3502
29	0	0	0	0	0	21	125	142	295	369	373	489	511	509	263	140	176	122	22	1	0	0	0	0	3556
30	0	0	0	0	0	7	47	80	81	93	159	80	70	165	179	108	84	46	17	0	0	0	0	0	1215
31	0	0	0	0	0	22	46	101	66	218	324	412	439	378	364	283	163	71	34	0	0	0	0	0	2920
Avg	0	0	0	0	0	27	90	158	206	256	304	320	318	297	268	217	164	102	38	2	0	0	0	0	2766
S D	0	0	0	0	0	10	28	51	76	102	122	129	132	103	101	69	73	41	18	2	0	0	0	0	784
S/A	0	0	0	0	1.51	0.38	0.31	0.32	0.37	0.4	0.4	0.4	0.41	0.35	0.38	0.32	0.45	0.4	0.48	0.86	0	0	0	0	0.28
Min	0	0	0	0	0	4	41	54	66	82	93	80	40	24	21	35	23	12	2	0	0	0	0	0	1215
Max	0	0	0	0	1	48	135	241	357	437	534	529	579	509	465	313	290	168	67	5	0	0	0	0	4368

Daylight Data Recovery: 0% missing; 26% exceed the 15% QC threshold -- 32358 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