

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Elizabeth City State University - June 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	42	211	337	328	545	512	352	153	436	390	50	123	133	35	1	0	0	0	0	3647
2	0	0	0	0	0	18	45	83	50	152	293	370	251	181	251	310	347	296	93	0	0	0	0	0	2739
3	0	0	0	0	0	14	31	63	119	154	223	258	194	190	144	107	76	37	14	1	0	0	0	0	1625
4	0	0	0	0	0	10	28	73	92	141	302	502	733	612	638	625	467	205	78	2	0	0	0	0	4507
5	0	0	0	0	1	77	262	488	697	880	1014	1084	1087	1028	889	704	448	284	64	1	0	0	0	0	9007
6	0	0	0	0	1	54	191	284	454	706	824	516	405	205	214	195	104	45	11	0	0	0	0	0	4208
7	0	0	0	0	0	13	42	136	192	203	238	252	424	510	209	135	63	33	11	0	0	0	0	0	2463
8	0	0	0	0	1	67	250	433	576	850	985	1061	1073	988	842	664	406	264	88	2	0	0	0	0	8550
9	0	0	0	0	1	43	157	448	402	660	927	941	1036	954	828	682	421	167	61	4	0	0	0	0	7731
10	0	0	0	0	1	73	248	455	660	835	965	1028	1027	973	852	684	466	269	81	0	0	0	0	0	8618
11	0	0	0	0	1	68	247	470	623	830	791	902	774	460	571	388	240	252	87	1	0	0	0	0	6707
12	0	0	0	0	2	54	158	279	488	567	901	968	933	654	105	342	141	127	67	1	0	0	0	0	5787
13	0	0	0	0	1	50	198	312	322	308	330	386	499	557	627	503	327	253	81	1	0	0	0	0	4754
14	0	0	0	0	1	50	156	404	603	756	889	943	803	593	161	273	111	32	10	1	0	0	0	0	5786
15	0	0	0	0	1	24	77	219	622	685	772	816	682	642	699	617	470	278	89	2	0	0	0	0	6697
16	0	0	0	0	1	47	218	457	673	839	985	1061	1043	995	798	691	452	263	100	2	0	0	0	0	8625
17	0	0	0	0	1	49	219	409	609	707	634	887	902	913	741	428	345	209	72	3	0	0	0	0	7128
18	0	0	0	0	1	57	110	210	308	693	878	663	512	579	817	637	450	276	71	2	0	0	0	0	6265
19	0	0	0	0	1	54	122	348	587	797	880	586	577	763	395	178	200	85	69	4	0	0	0	0	5647
20	0	0	0	0	2	70	234	393	585	731	859	954	855	835	780	625	400	233	78	3	0	0	0	0	7637
21	0	0	0	0	1	61	214	393	585	762	894	974	981	910	801	638	441	243	74	2	0	0	0	0	7976
22	0	0	0	0	1	53	184	395	591	777	913	989	1000	716	700	621	322	207	100	5	0	0	0	0	7575
23	0	0	0	0	1	51	186	372	505	595	809	462	732	908	797	687	482	284	94	1	0	0	0	0	6966
24	0	0	0	0	1	60	224	434	627	775	926	938	950	931	823	657	468	258	87	3	0	0	0	0	8164
25	0	0	0	0	1	57	204	381	579	755	918	873	893	796	629	593	409	213	68	2	0	0	0	0	7370
26	0	0	0	0	1	48	204	404	586	763	645	626	791	912	817	660	442	277	75	2	0	0	0	0	7253
27	0	0	0	0	1	17	49	129	297	175	384	517	799	548	353	412	407	318	124	4	0	0	0	0	4532
28	0	0	0	0	2	86	248	420	593	701	944	916	934	998	860	689	446	274	69	4	0	0	0	0	8183
29	0	0	0	0	1	74	243	424	665	870	911	1052	1016	1006	849	708	471	247	88	2	0	0	0	0	8627
30	0	0	0	0	1	55	161	441	566	618	801	504	533	611	365	303	264	152	86	3	0	0	0	0	5464
Avg	0	0	0	0	1	50	171	336	486	628	745	746	753	713	598	493	340	207	71	2	0	0	0	0	6341
S/D	0	0	0	0	0	20	73	127	183	236	250	268	268	251	258	209	138	85	28	1	0	0	0	0	1987
S/A	0	0	0	0	0.41	0.4	0.43	0.38	0.38	0.38	0.34	0.36	0.36	0.35	0.43	0.42	0.41	0.41	0.39	0.64	0	0	0	0	0.31
Min	0	0	0	0	0	10	28	63	50	141	223	252	153	181	105	50	63	32	10	0	0	0	0	0	1625
Max	0	0	0	0	2	86	262	488	697	880	1014	1084	1087	1028	889	708	482	318	124	5	0	0	0	0	9007

Daylight Data Recovery: 0% missing; 46% exceed the 15% QC threshold -- 27012 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 - June 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	8	277	222	77	73	25	2	0	28	76	0	35	32	0	0	0	0	0	0	855
2	0	0	0	0	0	0	1	1	0	1	4	6	1	1	2	45	162	520	366	0	0	0	0	0	1109
3	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3
4	0	0	0	0	0	0	0	0	0	0	2	11	248	191	328	610	688	130	123	0	0	0	0	0	2331
5	0	0	0	0	8	393	699	825	877	912	940	955	951	952	952	838	570	663	110	0	0	0	0	0	10645
6	0	0	0	0	0	30	127	11	54	215	278	13	3	0	0	0	0	0	0	0	0	0	0	0	734
7	0	0	0	0	0	0	0	1	1	0	1	1	7	20	0	0	0	0	0	0	0	0	0	0	30
8	0	0	0	0	0	184	609	586	548	830	895	903	876	838	784	732	508	595	397	2	0	0	0	0	9288
9	0	0	0	0	3	5	60	494	57	323	725	644	726	678	577	658	343	46	19	0	0	0	0	0	5358
10	0	0	0	0	8	354	643	770	830	876	897	898	886	888	882	858	764	659	378	1	0	0	0	0	10591
11	0	0	0	0	5	313	613	756	692	756	460	422	243	36	130	73	26	203	317	1	0	0	0	0	5047
12	0	0	0	0	4	29	40	30	102	200	675	631	581	226	0	64	22	38	79	0	0	0	0	0	2720
13	0	0	0	0	0	25	166	125	24	11	5	30	26	180	292	317	271	396	277	3	0	0	0	0	2148
14	0	0	0	0	0	16	207	422	559	581	602	541	370	101	0	10	0	0	0	0	0	0	0	0	3410
15	0	0	0	0	0	1	10	362	256	287	246	134	133	317	544	586	606	372	6	0	0	0	0	0	3859
16	0	0	0	0	0	8	433	778	839	878	900	906	865	886	708	795	647	328	351	4	0	0	0	0	9326
17	0	0	0	0	1	48	368	477	531	393	169	391	455	592	478	188	240	183	40	0	0	0	0	0	4553
18	0	0	0	0	0	2	7	13	12	470	583	91	70	164	769	722	647	513	181	0	0	0	0	0	4245
19	0	0	0	0	0	29	32	165	414	621	602	264	135	328	74	3	45	4	15	1	0	0	0	0	2730
20	0	0	0	0	1	97	358	496	581	593	640	680	520	545	621	538	350	352	168	3	0	0	0	0	6543
21	0	0	0	0	1	112	325	473	568	650	689	730	737	721	726	673	584	449	186	3	0	0	0	0	7628
22	0	0	0	0	0	55	146	377	538	639	711	750	681	375	453	434	179	162	134	0	0	0	0	0	5634
23	0	0	0	0	0	67	207	317	272	106	257	25	244	606	675	794	763	691	461	13	0	0	0	0	5498
24	0	0	0	0	2	186	536	716	779	783	833	768	771	808	815	771	707	557	340	9	0	0	0	0	9382
25	0	0	0	0	0	82	248	349	460	537	633	508	512	466	387	458	379	232	104	1	0	0	0	0	5355
26	0	0	0	0	0	93	357	512	553	583	177	161	421	742	753	671	569	502	118	0	0	0	0	0	6213
27	0	0	0	0	0	1	1	1	11	1	13	88	239	49	6	100	325	689	473	18	0	0	0	0	2016
28	0	0	0	0	1	167	424	563	635	523	691	582	611	812	849	794	594	490	137	6	0	0	0	0	7880
29	0	0	0	0	3	242	493	570	729	802	662	795	783	912	860	870	751	513	291	0	0	0	0	0	9276
30	0	0	0	0	0	147	194	484	367	258	376	38	38	152	7	7	24	0	97	0	0	0	0	0	2188
Avg	0	0	0	0	1	90	252	351	382	429	458	403	404	414	417	419	359	318	184	2	0	0	0	0	4886
S/D	0	0	0	0	2	110	221	278	300	310	321	340	321	336	340	333	276	250	152	4	0	0	0	0	3186
S/A	0	0	0	0	1.72	1.23	0.88	0.79	0.78	0.72	0.7	0.85	0.79	0.81	0.81	0.79	0.77	0.78	0.82	1.75	0	0	0	0	0.65
Min	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3
Max	0	0	0	0	8	393	699	825	877	912	940	955	951	952	952	870	764	691	473	18	0	0	0	0	10645

Daylight Data Recovery: 0% missing; 32% exceed the 15% QC threshold -- 27012 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 - June 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	38	127	202	270	455	455	329	129	394	297	44	104	113	30	1	0	0	0	0	2988
2	0	0	0	0	0	17	39	74	47	131	281	337	217	168	221	262	252	141	45	0	0	0	0	0	2232
3	0	0	0	0	0	13	31	63	118	153	218	255	193	189	143	107	75	36	13	1	0	0	0	0	1608
4	0	0	0	0	0	9	27	72	79	120	279	482	451	400	339	179	101	154	55	2	0	0	0	0	2749
5	0	0	0	0	1	29	53	64	76	89	88	85	88	85	76	102	130	72	42	1	0	0	0	0	1081
6	0	0	0	0	1	45	151	266	407	477	488	475	374	187	197	175	89	40	10	0	0	0	0	0	3383
7	0	0	0	0	0	13	38	135	176	185	223	237	397	477	190	130	62	32	11	0	0	0	0	0	2306
8	0	0	0	0	1	39	64	124	172	124	104	112	148	150	148	135	128	70	33	2	0	0	0	0	1553
9	0	0	0	0	1	37	127	177	350	354	192	239	258	237	287	203	219	144	58	4	0	0	0	0	2885
10	0	0	0	0	1	31	59	69	82	84	85	91	102	96	86	77	74	56	30	0	0	0	0	0	1023
11	0	0	0	0	1	32	64	86	133	170	313	438	496	403	434	314	212	187	44	1	0	0	0	0	3330
12	0	0	0	0	2	47	138	260	402	354	222	297	308	410	93	277	112	109	55	1	0	0	0	0	3088
13	0	0	0	0	1	43	141	243	294	275	307	325	440	355	357	268	182	124	44	1	0	0	0	0	3399
14	0	0	0	0	1	47	91	180	202	243	283	356	396	461	140	253	95	28	9	1	0	0	0	0	2785
15	0	0	0	0	1	21	66	197	356	440	461	525	518	487	410	211	158	77	37	2	0	0	0	0	3966
16	0	0	0	0	1	43	98	77	84	88	99	108	126	122	168	122	99	164	50	2	0	0	0	0	1451
17	0	0	0	0	1	44	110	171	232	356	450	442	392	305	298	284	207	143	66	3	0	0	0	0	3504
18	0	0	0	0	1	55	102	196	293	260	283	526	407	384	139	116	101	103	40	2	0	0	0	0	3008
19	0	0	0	0	1	48	114	253	276	246	273	290	409	412	301	162	158	80	65	4	0	0	0	0	3092
20	0	0	0	0	2	46	111	135	181	210	218	232	296	287	239	234	216	116	54	3	0	0	0	0	2581
21	0	0	0	0	1	44	110	159	192	203	214	206	200	196	171	154	129	91	47	2	0	0	0	0	2120
22	0	0	0	0	1	48	137	203	213	221	208	193	271	324	298	302	221	144	77	5	0	0	0	0	2865
23	0	0	0	0	1	43	130	213	305	483	517	410	449	281	188	108	70	46	26	1	0	0	0	0	3271
24	0	0	0	0	1	37	68	76	88	101	106	132	132	124	110	96	82	64	34	2	0	0	0	0	1255
25	0	0	0	0	1	45	124	205	256	284	287	323	337	310	269	240	189	127	50	1	0	0	0	0	3050
26	0	0	0	0	1	37	98	143	198	248	436	413	313	155	148	161	120	98	53	2	0	0	0	0	2624
27	0	0	0	0	1	15	41	110	272	150	335	400	513	477	343	325	242	85	56	4	0	0	0	0	3370
28	0	0	0	0	1	64	114	136	141	229	248	280	264	192	122	113	116	103	46	3	0	0	0	0	2172
29	0	0	0	0	1	46	94	136	151	174	249	212	175	97	92	77	71	58	39	2	0	0	0	0	1672
30	0	0	0	0	1	38	116	190	306	373	411	453	485	430	335	278	234	130	70	3	0	0	0	0	3852
Avg	0	0	0	0	1	37	93	154	212	243	278	307	310	286	221	184	142	98	43	2	0	0	0	0	2609
S/D	0	0	0	0	0	13	36	62	100	118	121	129	133	130	101	80	59	42	17	1	0	0	0	0	812
S/A	0	0	0	0	0.4	0.35	0.39	0.41	0.47	0.49	0.44	0.42	0.43	0.45	0.46	0.44	0.42	0.43	0.4	0.6	0	0	0	0	0.31
Min	0	0	0	0	0	9	27	63	47	84	85	85	88	85	76	44	62	28	9	0	0	0	0	0	1023
Max	0	0	0	0	2	64	151	266	407	483	517	526	518	487	434	325	252	187	77	5	0	0	0	0	3966

Daylight Data Recovery: 0% missing; 31% exceed the 15% QC threshold -- 27012 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