

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Elizabeth City State Universit - October 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	54	234	424	593	647	490	738	717	475	386	175	24	0	0	0	0	0	0	4956
2	0	0	0	0	0	0	56	246	453	606	648	808	740	713	593	314	177	33	0	0	0	0	0	0	5386
3	0	0	0	0	0	0	73	154 ?	369	534	679	624	766	721	587	391	173	20	0	0	0	0	0	0	5090
4	0	0	0	0	0	0	46	133 ?	430 ?	569	704	758	736	663	527	317	149	16	0	0	0	0	0	0	5048
5	0	0	0	0	0	0	44	170	376	554	677	737	731	653	520	343	149	14	0	0	0	0	0	0	4968
6	0	0	0	0	0	0	47	192	320 ?	541	663	719	706	609	495	329	139	13	0	0	0	0	0	0	4771
7	0	0	0	0	0	0	43	201	389	556	678	736	722	643	486	304	130	13	0	0	0	0	0	0	4900
8	0	0	0	0	0	0	36	186	372	543	666	723	715	631	495	316	128	11	0	0	0	0	0	0	4823
9	0	0	0	0	0	0	40	173	349	545	660	732	717	650	516	328	135	10	0	0	0	0	0	0	4855
10	0	0	0	0	0	0	40	254	230	404	644	697	479	518	466	282	113	8	0	0	0	0	0	0	4136
11	0	0	0	0	0	0	22	168	302	523	669	680	671	633	499	323	133	10	0	0	0	0	0	0	4635
12	0	0	0	0	0	0	38	202	399	548	685	798	797	624	507	328	131	9	0	0	0	0	0	0	5066
13	0	0	0	0	0	0	18	135	288	547 ?	681	724	671	597	553	320	119	6	0	0	0	0	0	0	4661
14	0	0	0	0	0	0	26	196	320	481	578	655	672	491	303	160	102	5	0	0	0	0	0	0	3987
15	0	0	0	0	0	0	12	58	91	86	116	178	160	116	63	43	12	1	0	0	0	0	0	0	935
16	0	0	0	0	0	0	4	20	63	65	131	137	112	74	99	74	8	0	12	0	0	0	0	0	789
17	0	0	0	0	0	0	19	78	88	148	242	85	118	75	57	43	21	2	0	0	0	0	0	0	977
18	0	0	0	0	0	0	9	50	60	65	67	72	47	46	47	29	7	0	0	0	0	0	0	0	499
19	0	0	0	0	0	0	2	21	56	42	71	88	82	48	61	62	21	1	0	0	0	0	0	0	555
20	0	0	0	0	0	0	26	158	359 ?	504	647	705	692	612	461	272	90	2	0	0	0	0	0	0	4528
21	0	0	0	0	0	0	22	160	353	520	641	689	693	630	412	281	87	2	0	0	0	0	0	0	4489
22	0	0	0	0	0	0	3	22	75	92	306	419	420	586	361	162	96	1	0	0	0	0	0	0	2544
23	0	0	0	0	0	0	21	171	371	539	656	715	703	617	471	287	91	1	0	0	0	0	0	0	4643
24	0	0	0	0	0	0	29	166	367	551	634	630	658	347	144	88	22	1	0	0	0	0	0	0	3638
25	0	0	0	0	0	0	11	146	294	428	570	645	585	434	393	235	44	0	0	0	0	0	0	0	3785
26	0	0	0	0	0	0	6	53	74	87	76	95	68	63	70	42	18	0	0	0	0	0	0	0	652
27	0	0	0	0	0	0	7	26	37	88	78	34	39	67	43	42	7	0	0	0	0	0	0	0	468
28	0	0	0	0	0	0	16	157	353	526	645	702	684	591	449	261	61	0	0	0	0	0	0	0	4444
29	0	0	0	0	0	0	7	92	206	289	591	616	663	590	420	256	70	0	0	0	0	0	0	0	3803
30	0	0	0	0	0	0	18	160	334	476	590	645	629	549	418	241	65	0	0	0	0	0	0	0	4126
31	0	0	0	0	0	0	10	100	181	94	201	152	371	295	141	60	14	0	0	0	0	0	0	0	1620
Avg	0	0	0	0	0	0	26	138	270	392	501	532	535	471	359	223	87	7	0	0	0	0	0	0	3541
S/D	0	0	0	0	0	0	18	67	133	205	235	263	257	235	188	119	56	8	0	0	0	0	0	0	1705
S/A	0	0	0	0	0	0	0.69	0.49	0.49	0.52	0.47	0.5	0.48	0.5	0.52	0.53	0.64	1.23	0	0	0	0	0	0	0.48
Min	0	0	0	0	0	0	2	20	37	42	67	34	39	46	43	29	7	0	0	0	0	0	0	0	468
Max	0	0	0	0	0	0	73	254	453	606	704	808	797	721	593	391	177	33	0	0	0	0	0	0	5386

Daylight Data Recovery: 0% missing; 27% exceed the 15% QC threshold -- 46084 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 - October 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	291	643	757	791	523	215	624	836	601	708	538	155	0	0	0	0	0	0	6681
2	0	0	0	0	0	0	331	690	805	785	650	806	777	885	888	460	383	205	0	0	0	0	0	0	7666
3	0	0	0	0	0	0	272	529 ?	425	437	487	414	765	901	911	805	597	196	0	0	0	0	0	0	6739
4	0	0	0	0	0	0	86	297 ?	643 ?	714	790	790	763	763	704	468	401	83	0	0	0	0	0	0	6502
5	0	0	0	0	0	0	143	499	649	727	766	786	792	786	753	667	488	116	0	0	0	0	0	0	7174
6	0	0	0	0	0	0	156	467	603 ?	707	749	760	751	673	650	593	409	83	0	0	0	0	0	0	6602
7	0	0	0	0	0	0	170	521	691	768	798	813	810	797	696	523	345	60	0	0	0	0	0	0	6993
8	0	0	0	0	0	0	108	396	565	651	697	709	720	690	630	513	318	43	0	0	0	0	0	0	6041
9	0	0	0	0	0	0	71	463	663	714	716	797	805	824	787	660	411	40	0	0	0	0	0	0	6952
10	0	0	0	0	0	0	69	290	76	191	486	574	171	272	543	417	237	20	0	0	0	0	0	0	3346
11	0	0	0	0	0	0	17	252	231	565	673	610	658	736	729	662	457	60	0	0	0	0	0	0	5651
12	0	0	0	0	0	0	182	593	754	731	719	812	825	740	815	752	536	76	0	0	0	0	0	0	7533
13	0	0	0	0	0	0	0	7	126	839 ?	864	850	727	735	791	682	418	33	0	0	0	0	0	0	6074
14	0	0	0	0	0	0	56	449	312	389	300	559	703	376	172	100	134	11	0	0	0	0	0	0	3560
15	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
16	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
17	0	0	0	0	0	0	6	12	1	2	14	0	1	0	1	0	0	0	0	0	0	0	0	0	37
18	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
19	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
20	0	0	0	0	0	0	128	496	661 ?	763	803	829	839	838	764	607	364	22	0	0	0	0	0	0	7113
21	0	0	0	0	0	0	106	477	684	779	832	842	808	789	541	624	344	14	0	0	0	0	0	0	6841
22	0	0	0	0	0	0	0	0	0	1	30	118	277	625	449	231	399	26	0	0	0	0	0	0	2157
23	0	0	0	0	0	0	179	645	814	888	920	937	952	938	893	790	540	40	0	0	0	0	0	0	8536
24	0	0	0	0	0	0	140	522	543	795	797	556	588	58	0	0	0	0	0	0	0	0	0	0	4000
25	0	0	0	0	0	0	0	261	396	440	608	724	618	359	581	462	87	0	0	0	0	0	0	0	4536
26	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
27	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
28	0	0	0	0	0	0	159	635	812	891	924	942	950	918	875	744	276	0	0	0	0	0	0	0	8128
29	0	0	0	0	0	0	9	8	53	122	718	526	730	840	675	746	470	6	0	0	0	0	0	0	4902
30	0	0	0	0	0	0	118	559	737	824	865	874	866	856	813	708	413	3	0	0	0	0	0	0	7636
31	0	0	0	0	0	0	4	101	94	1	2	0	59	45	0	0	0	0	0	0	0	0	0	0	308
Avg	0	0	0	0	0	0	90	317	390	468	507	511	535	525	492	417	276	42	0	0	0	0	0	0	4572
S/D	0	0	0	0	0	0	94	249	316	347	346	352	347	361	345	305	205	56	0	0	0	0	0	0	3013
S/A	0	0	0	0	0	0	1.04	0.79	0.81	0.74	0.68	0.69	0.65	0.69	0.7	0.73	0.74	1.35	0	0	0	0	0	0	0.66
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	331	690	814	891	924	942	952	938	911	805	597	205	0	0	0	0	0	0	8536

Daylight Data Recovery: 0% missing; 19% exceed the 15% QC threshold -- 46084 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 - October 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	23	51	64	83	227	299	219	103	102	78	46	12	0	0	0	0	0	0	1306
2	0	0	0	0	0	0	21	47	62	92	135	133	108	70	63	100	99	17	0	0	0	0	0	0	947
3	0	0	0	0	0	0	32	51 ?	169	239	285	260	141	71	51	49	37	8	0	0	0	0	0	0	1392
4	0	0	0	0	0	0	26	58 ?	152 ?	106	105	114	122	116	111	113	60	12	0	0	0	0	0	0	1094
5	0	0	0	0	0	0	25	66	85	94	100	103	100	95	83	69	45	8	0	0	0	0	0	0	873
6	0	0	0	0	0	0	25	68	86	100	103	109	112	129	119	87	53	9	0	0	0	0	0	0	1001
7	0	0	0	0	0	0	23	59	73	80	88	91	89	90	90	94	60	10	0	0	0	0	0	0	846
8	0	0	0	0	0	0	25	81	111	135	147	156	151	148	134	110	62	9	0	0	0	0	0	0	1270
9	0	0	0	0	0	0	24	66	83	101	128	104	95	86	77	70	50	8	0	0	0	0	0	0	891
10	0	0	0	0	0	0	33	183	192	251	274	238	323	279	161	121	67	8	0	0	0	0	0	0	2130
11	0	0	0	0	0	0	19	101	189	161	169	184	151	125	93	68	42	7	0	0	0	0	0	0	1309
12	0	0	0	0	0	0	19	49	60	98	152	160	170	119	66	47	32	5	0	0	0	0	0	0	977
13	0	0	0	0	0	0	19	130	215	65	64	76	117	102	127	74	41	5	0	0	0	0	0	0	1037
14	0	0	0	0	0	0	19	79	180	222	329	204	138	222	189	119	75	4	0	0	0	0	0	0	1781
15	0	0	0	0	0	0	10	51	81	76	103	158	143	103	56	38	11	1	0	0	0	0	0	0	833
16	0	0	0	0	0	0	4	18	56	58	119	123	101	67	89	67	8	0	0	0	0	0	0	0	709
17	0	0	0	0	0	0	17	72	82	135	217	79	107	69	52	40	20	2	0	0	0	0	0	0	892
18	0	0	0	0	0	0	8	45	55	59	61	66	43	43	27	7	0	0	0	0	0	0	0	0	457
19	0	0	0	0	0	0	2	19	51	38	64	79	74	43	55	56	19	1	0	0	0	0	0	0	500
20	0	0	0	0	0	0	14	55	78 ?	92	102	102	99	88	80	69	36	2	0	0	0	0	0	0	816
21	0	0	0	0	0	0	14	55	72	80	80	83	127	133	139	77	36	1	0	0	0	0	0	0	895
22	0	0	0	0	0	0	3	20	68	83	276	310	197	194	136	93	42	1	0	0	0	0	0	0	1424
23	0	0	0	0	0	0	9	36	46	50	51	52	53	48	42	35	19	0	0	0	0	0	0	0	441
24	0	0	0	0	0	0	20	53	161	113	105	198	230	286	131	80	20	1	0	0	0	0	0	0	1399
25	0	0	0	0	0	0	10	75	143	185	159	130	145	191	110	85	28	0	0	0	0	0	0	0	1261
26	0	0	0	0	0	0	5	48	67	78	69	86	61	57	63	38	16	0	0	0	0	0	0	0	589
27	0	0	0	0	0	0	7	24	34	80	71	31	36	60	40	39	6	0	0	0	0	0	0	0	426
28	0	0	0	0	0	0	8	34	47	54	57	59	56	56	47	40	23	0	0	0	0	0	0	0	480
29	0	0	0	0	0	0	7	87	180	205	123	243	172	104	105	41	18	0	0	0	0	0	0	0	1286
30	0	0	0	0	0	0	7	36	49	49	51	58	64	60	52	39	19	0	0	0	0	0	0	0	484
31	0	0	0	0	0	0	9	75	145	86	186	138	320	253	130	55	13	0	0	0	0	0	0	0	1411
Avg	0	0	0	0	0	0	16	61	101	108	135	136	131	116	91	68	36	4	0	0	0	0	0	0	1005
S D	0	0	0	0	0	0	9	33	53	56	75	73	69	67	38	27	22	5	0	0	0	0	0	0	405
S/A	0	0	0	0	0	0	0.55	0.54	0.52	0.52	0.56	0.53	0.53	0.58	0.42	0.39	0.62	1.06	0	0	0	0	0	0	0.4
Min	0	0	0	0	0	0	2	18	34	38	51	31	36	43	40	27	6	0	0	0	0	0	0	0	426
Max	0	0	0	0	0	0	33	183	215	251	329	310	323	286	189	121	99	17	0	0	0	0	0	0	2130

Daylight Data Recovery: 0% missing; 18% exceed the 15% QC threshold -- 46084 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