

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Watt-Hours per Square Meter
Elizabeth City State Universit - November 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	6	92	239	253	541	304	118	260	189	62	0	0	0	0	0	0	0	2064
2	0	0	0	0	0	0	2	46	137	329	154	288	456	514	241	231	63	0	0	0	0	0	0	0	2463
3	0	0	0	0	0	0	10	136	321	484	600	653	640	558	418	237	57	0	0	0	0	0	0	0	4115
4	0	0	0	0	0	0	8	129	308	464	576	633	618	522	276	215	52	0	0	0	0	0	0	0	3800
5	0	0	0	0	0	0	7	124	306	447	567	625	624	524	293	248	59	0	0	0	0	0	0	0	3825
6	0	0	0	0	0	0	4	43	111	231	175	130	83	60	76	44	12	0	0	0	0	0	0	0	970
7	0	0	0	0	0	0	2	30	98	123	89	203	139	156	34	15	22	0	0	0	0	0	0	0	912
8	0	0	0	0	0	0	2	23	65	105	150	160	143	68	61	23	23	0	0	0	0	0	0	0	824
9	0	0	0	0	0	0	1	16	37	55	138	397	303	119	88	25	15	0	0	0	0	0	0	0	1193
10	0	0	0	0	0	0	6	92	237	349	496	592	559	495	333	163	19	0	0	0	0	0	0	0	3341
11	0	0	0	0	0	0	3	73	240	403	501	550	465	248	252	158	38	0	0	0	0	0	0	0	2933
12	0	0	0	0	0	0	2	36	120	186	315	357	361	226	166	86	20	0	0	0	0	0	0	0	1874
13	0	0	0	0	0	0	0	13	35	59	61	74	70	41	41	13	3	0	0	0	0	0	0	0	410
14	0	0	0	0	0	0	2	30	100	153	166	120	115	113	88	39	8	0	0	0	0	0	0	0	934
15	0	0	0	0	0	0	4	105	254	419	531	564	513	484	360	182	34	0	0	0	0	0	0	0	3449
16	0	0	0	0	0	0	3	96	271	439	555	607	592	509	373	196	36	0	0	0	0	0	0	0	3678
17	0	0	0	0	0	0	3	94	266	432	548	607	592	508	373	196	36	0	0	0	0	0	0	0	3656
18	0	0	0	0	0	0	4	120	261	426	540	592	576	497	363	189	34	0	0	0	0	0	0	0	3603
19	0	0	0	0	0	0	1	21	75	172	216	367	348	464	225	170	24	0	0	0	0	0	0	0	2084
20	0	0	0	0	0	0	2	82	242	404	516	568	552	476	345	176	27	0	0	0	0	0	0	0	3390
21	0	0	0	0	0	0	1	56	198	292	268	278	346	261	183	71	11	0	0	0	0	0	0	0	1964
22	0	0	0	0	0	0	1	28	75	219	248	494	485	453	316	163	24	0	0	0	0	0	0	0	2505
23	0	0	0	0	0	0	0	13	65	150	74	97	88	70	37	16	5	0	0	0	0	0	0	0	616
24	0	0	0	0	0	0	1	70	234	405	522	579	564	484	352	182	30	0	0	0	0	0	0	0	3422
25	0	0	0	0	0	0	1	70	230	393	503	560	551	476	347	178	29	0	0	0	0	0	0	0	3338
26	0	0	0	0	0	0	1	68	228	382	457	470	459	361	225	107	32	0	0	0	0	0	0	0	2789
27	0	0	0	0	0	0	0	63	220	382	496	555	542	469	338	171	25	0	0	0	0	0	0	0	3261
28	0	0	0	0	0	0	1	67	186	300	422	475	479	409	245	93	16	0	0	0	0	0	0	0	2692
29	0	0	0	0	0	0	0	53	189	295	424	439	350	325	219	76	11	0	0	0	0	0	0	0	2380
30	0	0	0	0	0	0	0	3	6	25	64	55	50	44	26	24	4	0	0	0	0	0	0	0	301
Avg	0	0	0	0	0	0	2	60	174	292	354	421	399	335	232	129	28	0	0	0	0	0	0	0	2426
S D	0	0	0	0	0	0	2	38	91	136	184	192	190	182	121	76	17	0	0	0	0	0	0	0	1159
S/A	0	0	0	0	0	0	1.02	0.64	0.53	0.47	0.52	0.46	0.48	0.54	0.52	0.59	0.61	2.39	0	0	0	0	0	0	0.48
Min	0	0	0	0	0	0	0	3	6	25	61	55	50	41	26	13	3	0	0	0	0	0	0	0	301
Max	0	0	0	0	0	0	10	136	321	484	600	653	640	558	418	248	63	0	0	0	0	0	0	0	4115

Daylight Data Recovery: 0% missing; 25% exceed the 15% QC threshold -- 49785 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 - November 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	1	11	22	313	124	1	290	302	322	0	0	0	0	0	0	0	1385
2	0	0	0	0	0	0	0	1	4	218	1	101	484	740	233	598	417	0	0	0	0	0	0	0	2795
3	0	0	0	0	0	0	120	627	806	879	911	923	933	922	865	749	378	0	0	0	0	0	0	0	8113
4	0	0	0	0	0	0	64	557	740	817	858	878	886	785	338	487	310	0	0	0	0	0	0	0	6718
5	0	0	0	0	0	0	54	530	738	732	639	754	809	725	227	477	144	0	0	0	0	0	0	0	5829
6	0	0	0	0	0	0	0	1	4	29	1	0	0	0	0	0	0	0	0	0	0	0	0	0	36
7	0	0	0	0	0	0	0	0	1	1	0	1	1	4	0	0	4	0	0	0	0	0	0	0	12
8	0	0	0	0	0	0	0	1	1	1	1	1	3	0	0	0	0	0	0	0	0	0	0	0	7
9	0	0	0	0	0	0	0	0	0	0	1	81	100	5	0	0	0	0	0	0	0	0	0	0	189
10	0	0	0	0	0	0	1	115	465	436	618	849	810	825	611	339	0	0	0	0	0	0	0	0	5068
11	0	0	0	0	0	0	0	115	503	577	614	635	323	65	113	61	50	0	0	0	0	0	0	0	3054
12	0	0	0	0	0	0	0	0	4	4	35	53	90	17	2	0	0	0	0	0	0	0	0	0	205
13	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
14	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
15	0	0	0	0	0	0	29	452	666	811	830	784	698	707	746	639	266	0	0	0	0	0	0	0	6629
16	0	0	0	0	0	0	34	528	769	861	909	929	931	906	843	709	309	0	0	0	0	0	0	0	7727
17	0	0	0	0	0	0	35	552	794	890	932	957	955	935	874	740	336	0	0	0	0	0	0	0	7999
18	0	0	0	0	0	0	33	533	778	875	920	934	930	838	697	286	0	0	0	0	0	0	0	0	7732
19	0	0	0	0	0	0	0	1	1	15	7	209	189	784	289	440	177	0	0	0	0	0	0	0	2113
20	0	0	0	0	0	0	20	451	709	816	869	890	885	873	806	656	233	0	0	0	0	0	0	0	7208
21	0	0	0	0	0	0	0	58	86	181	31	17	93	41	20	0	0	0	0	0	0	0	0	0	525
22	0	0	0	0	0	0	0	1	17	141	66	360	653	769	667	554	171	0	0	0	0	0	0	0	3399
23	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
24	0	0	0	0	0	0	4	390	706	847	896	919	925	890	832	698	269	0	0	0	0	0	0	0	7377
25	0	0	0	0	0	0	5	458	754	865	913	939	952	918	857	710	270	0	0	0	0	0	0	0	7641
26	0	0	0	0	0	0	3	420	672	766	636	335	327	248	130	56	156	0	0	0	0	0	0	0	3750
27	0	0	0	0	0	0	1	397	698	816	871	908	912	896	820	699	263	0	0	0	0	0	0	0	7282
28	0	0	0	0	0	0	1	233	191	266	454	387	411	504	225	11	25	0	0	0	0	0	0	0	2709
29	0	0	0	0	0	0	0	244	500	486	604	481	242	231	204	2	0	0	0	0	0	0	0	0	2995
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Avg	0	0	0	0	0	0	14	222	354	411	421	455	456	457	361	321	146	0	0	0	0	0	0	0	3617
S D	0	0	0	0	0	0	26	232	343	373	399	388	384	399	349	309	143	0	0	0	0	0	0	0	3105
S/A	0	0	0	0	0	0	1.94	1.05	0.97	0.91	0.95	0.85	0.84	0.87	0.97	0.96	0.98	5.39	0	0	0	0	0	0	0.86
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	1
Max	0	0	0	0	0	0	120	627	806	890	932	957	955	935	874	749	417	0	0	0	0	0	0	0	8113

Daylight Data Recovery: 0% missing; 17% exceed the 15% QC threshold -- 49785 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 - November 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	6	88	221	224	311	203	108	134	101	25	0	0	0	0	0	0	0	1420
2	0	0	0	0	0	0	2	44	127	196	143	202	141	97	132	62	18	0	0	0	0	0	0	0	1163
3	0	0	0	0	0	0	5	27	38	44	48	50	51	47	43	36	17	0	0	0	0	0	0	0	405
4	0	0	0	0	0	0	4	35	54	62	61	64	62	88	119	91	19	0	0	0	0	0	0	0	661
5	0	0	0	0	0	0	5	36	52	84	167	130	109	110	174	113	40	0	0	0	0	0	0	0	1019
6	0	0	0	0	0	0	4	40	105	212	163	121	77	56	71	41	11	0	0	0	0	0	0	0	900
7	0	0	0	0	0	0	2	29	91	116	84	190	130	146	32	14	21	0	0	0	0	0	0	0	857
8	0	0	0	0	0	0	1	22	61	99	140	149	135	64	57	22	22	0	0	0	0	0	0	0	772
9	0	0	0	0	0	0	1	15	34	51	128	319	219	109	82	23	14	0	0	0	0	0	0	0	996
10	0	0	0	0	0	0	6	63	74	130	130	67	70	61	78	73	19	0	0	0	0	0	0	0	769
11	0	0	0	0	0	0	2	48	95	131	143	148	252	204	205	141	35	0	0	0	0	0	0	0	1404
12	0	0	0	0	0	0	2	34	112	174	293	323	301	210	154	81	19	0	0	0	0	0	0	0	1701
13	0	0	0	0	0	0	0	12	32	55	56	69	65	39	39	12	3	0	0	0	0	0	0	0	383
14	0	0	0	0	0	0	2	29	94	143	155	114	108	106	83	37	8	0	0	0	0	0	0	0	878
15	0	0	0	0	0	0	3	33	56	56	75	89	96	119	71	37	14	0	0	0	0	0	0	0	649
16	0	0	0	0	0	0	2	29	48	58	62	61	59	57	50	37	13	0	0	0	0	0	0	0	475
17	0	0	0	0	0	0	2	26	42	46	48	48	49	46	41	32	11	0	0	0	0	0	0	0	391
18	0	0	0	0	0	0	2	38	43	49	51	53	53	51	48	37	13	0	0	0	0	0	0	0	439
19	0	0	0	0	0	0	1	20	71	162	205	236	235	82	98	77	12	0	0	0	0	0	0	0	1200
20	0	0	0	0	0	0	1	29	47	55	56	55	55	51	46	35	10	0	0	0	0	0	0	0	441
21	0	0	0	0	0	0	1	46	164	196	244	263	288	232	168	67	11	0	0	0	0	0	0	0	1678
22	0	0	0	0	0	0	1	26	67	163	202	269	112	77	64	42	11	0	0	0	0	0	0	0	1036
23	0	0	0	0	0	0	0	12	61	141	69	91	83	65	35	15	5	0	0	0	0	0	0	0	578
24	0	0	0	0	0	0	1	27	49	55	61	63	61	58	50	35	11	0	0	0	0	0	0	0	470
25	0	0	0	0	0	0	1	22	39	43	41	41	40	42	40	31	10	0	0	0	0	0	0	0	351
26	0	0	0	0	0	0	1	26	59	70	131	274	270	235	169	96	20	0	0	0	0	0	0	0	1350
27	0	0	0	0	0	0	0	23	48	57	59	56	54	47	30	7	0	0	0	0	0	0	0	0	429
28	0	0	0	0	0	0	0	47	143	183	184	234	240	161	153	86	15	0	0	0	0	0	0	0	1446
29	0	0	0	0	0	0	0	29	69	100	119	164	204	206	135	73	10	0	0	0	0	0	0	0	1107
30	0	0	0	0	0	0	0	2	6	23	61	52	47	42	25	23	4	0	0	0	0	0	0	0	285
Avg	0	0	0	0	0	0	2	29	69	106	120	144	129	101	88	53	15	0	0	0	0	0	0	0	855
S D	0	0	0	0	0	0	2	13	34	59	67	93	83	61	51	32	8	0	0	0	0	0	0	0	415
S/A	0	0	0	0	0	0	0.86	0.44	0.5	0.56	0.56	0.65	0.64	0.6	0.58	0.61	0.54	2.23	0	0	0	0	0	0	0.49
Min	0	0	0	0	0	0	0	2	6	23	41	41	40	39	25	12	3	0	0	0	0	0	0	0	285
Max	0	0	0	0	0	0	6	63	164	221	293	323	301	235	205	141	40	0	0	0	0	0	0	0	1701

Daylight Data Recovery: 0% missing; 17% exceed the 15% QC threshold -- 49785 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