

# Global Solar Radiation on a Horizontal Surface

## Savannah State College - September 2000

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	43	240	368	563	444	370	672	374	570	206	41	34	13	0	0	0	0	0	3938
2	0	0	0	0	0	0	64	202	283	353	550	566	691	403	482	429	203	29	4	0	0	0	0	0	4259
3	0	0	0	0	0	0	18	99	247	411	427	739	462	327	341	68	8	5	3	0	0	0	0	0	3157
4	0	0	0	0	0	0	12	86	158	421	538	775	282	65	69	17	38	57	5	0	0	0	0	0	2523
5	0	0	0	0	0	0	12	170	261	150	145	174	390	274	71	48	51	22	8	0	0	0	0	0	1778
6	0	0	0	0	0	0	7	30	57	65	88	130	155	124	91	86	89	34	4	0	0	0	0	0	958
7	0	0	0	0	0	0	12	60	132	202	213	216	255	284	168	239	109	12	1	0	0	0	0	0	1903
8	0	0	0	0	0	0	29	197	176	426	458	543	253	301	616	515	327	142	15	0	0	0	0	0	3997
9	0	0	0	0	0	0	23	104	178	266	347	353	333	379	516	543	233	167	11	0	0	0	0	0	3454
10	0	0	0	0	0	0	42	202	400	552	540	711	868	647	550	498	303	145	11	0	0	0	0	0	5468
11	0	0	0	0	0	0	39	218	421	573	795	887	845	873	737	559	364	143	7	0	0	0	0	0	6462
12	0	0	0	0	0	0	35	216	364	547	554	846	928	854	600	512	217	26	2	0	0	0	0	0	5702
13	0	0	0	0	0	0	42	200	399	585	461	444	766	421	456	345	305	154	6	0	0	0	0	0	4584
14	0	0	0	0	0	0	33	219	401	589	724	576	800	484	654	426	237	88	3	0	0	0	0	0	5235
15	0	0	0	0	0	0	32	163	365	561	700	845	844	800	667	501	300	101	6	0	0	0	0	0	5885
16	0	0	0	0	0	0	23	158	397	598	748	845	785	560	599	515	334	114	6	0	0	0	0	0	5683
17	0	0	0	0	0	0	9	89	127	212	310	377	249	302	172	54	30	9	1	0	0	0	0	0	1941
18	0	0	0	0	0	0	19	35	114	129	134	184	368	308	129	86	85	8	1	0	0	0	0	0	1599
19	0	0	0	0	0	0	34	132	244	472	758	877	753	676	652	515	328	105	2	0	0	0	0	0	5548
20	0	0	0	0	0	0	21	147	267	367	241	90	66	251	150	57	49	24	1	0	0	0	0	0	1733
21	0	0	0	0	0	0	26	169	324	423	533	441	428	413	45	84	124	38	1	0	0	0	0	0	3047
22	0	0	0	0	0	0	13	73	148	197	186	169	261	89	56	100	79	29	1	0	0	0	0	0	1400
23	0	0	0	0	0	0	16	187	277	318	320	440	526	490	467	321	192	60	1	0	0	0	0	0	3614
24	0	0	0	0	0	0	19	145	368	563	570	787	758	701	598	452	151	6	?	2	0	0	0	0	5120
25	0	0	0	0	0	0	27	145	328	508	648	814	825	462	442	412	270	81	1	0	0	0	0	0	4963
26	0	0	0	0	0	0	9	101	338	574	721	813	841	803	682	507	295	84	0	0	0	0	0	0	5770
27	0	0	0	0	0	0	26	186	407	593	738	833	770	733	630	523	294	68	0	0	0	0	0	0	5801
28	0	0	0	0	0	0	27	183	401	534	696	825	861	690	545	365	257	72	0	0	0	0	0	0	5455
29	0	0	0	0	0	0	20	174	389	572	710	798	769	415	274	185	96	48	2	0	0	0	0	0	4451
30	0	0	0	0	0	0	5	17	74	178	229	591	415	404	311	124	42	55	2	0	0	0	0	0	2449
Avg	0	0	0	0	0	0	25	145	280	417	484	569	574	464	411	310	182	65	4	0	0	0	0	0	3929
S D	0	0	0	0	0	0	13	61	112	166	214	262	258	221	226	192	113	48	4	0	0	0	0	0	1630
S/A	0	0	0	0	0	0	0.53	0.42	0.4	0.4	0.44	0.46	0.45	0.48	0.55	0.62	0.62	0.74	1	0	0	0	0	0	0.41
Min	0	0	0	0	0	0	5	17	57	65	88	90	66	65	45	17	8	5	0	0	0	0	0	0	958
Max	0	0	0	0	0	0	64	240	421	598	795	887	928	873	737	559	364	167	15	0	0	0	0	0	6462

Daylight Data Recovery: 0% missing; 0% exceed the 15% QC threshold -- 4465 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: SS  
 Latitude: 32.03° N  
 Longitude: 81.07° W  
 Elevation: 11 Meters AMSL  
 Time Zone: -5

Instrument: PSP  
 Calibration Constant: 7.98 uV/Wm-2  
 Serial Number: 28401F3  
 Calibration Date: 5/19/1998

	1	2	3	4	5	6	7	8	9															
1	0	0	0	0	0	0	36	69	50	39	37	32	45	39	56	36	7	16	19	0	0	0	0	480
2	0	0	0	0	0	0	69	54	40	31	51	59	39	43	48	52	35	9	100	0	0	0	0	630
3	0	0	0	0	0	0	19	33	42	33	25	35	31	24	37	9	2	2	0	0	0	0	0	295
4	0	0	0	0	0	0	11	35	37	78	64	46	23	8	9	3	9	26	6	0	0	0	0	354
5	0	0	0	0	0	0	12	62	53	24	18	21	47	30	4	6	12	9	10	0	0	0	0	310
6	0	0	0	0	0	0	5	8	11	10	12	16	19	15	12	15	23	14	2	0	0	0	0	164
7	0	0	0	0	0	0	12	22	29	34	29	27	31	34	23	44	22	4	1	0	0	0	0	313
8	0	0	0	0	0	0	37	79	37	61	45	51	29	31	31	24	29	10	22	0	0	0	0	486
9	0	0	0	0	0	0	29	40	40	43	46	45	40	52	59	60	41	16	17	0	0	0	0	527
10	0	0	0	0	0	0	76	40	23	34	40	32	0	47	62	29	15	21	112	0	0	0	0	531
11	0	0	0	0	0	0	17	110	41	21	7	0	7	0	8	0	6	20	19	0	0	0	0	256
12	0	0	0	0	0	0	51	172	22	5	27	7	4	0	11	8	21	9	1	0	0	0	0	339
13	0	0	0	0	0	0	88	14	23	5	23	20	21	23	28	34	31	41	6	0	0	0	0	356
14	0	0	0	0	0	0	36	146	50	5	7	28	20	19	21	27	43	32	20	0	0	0	0	454
15	0	0	0	0	0	0	35	33	41	41	20	1	0	3	3	12	31	41	11	0	0	0	0	274
16	0	0	0	0	0	0	27	34	33	10	6	1	27	61	49	24	15	29	11	0	0	0	0	328
17	0	0	0	0	0	0	8	35	28	35	41	46	31	41	25	9	9	4	1	0	0	0	0	313
18	0	0	0	0	0	0	22	15	24	21	20	24	48	41	19	16	24	3	2	0	0	0	0	278
19	0	0	0	0	0	0	44	57	53	35	3	2	14	52	39	20	29	10	9	0	0	0	0	366
20	0	0	0	0	0	0	26	55	52	52	34	11	9	35	27	13	15	15	14	0	0	0	0	357
21	0	0	0	0	0	0	38	52	60	23	13	17	11	28	7	14	35	24	3	0	0	0	0	324
22	0	0	0	0	0	0	18	28	37	35	28	21	30	10	8	19	21	14	5	0	0	0	0	274
23	0	0	0	0	0	0	17	50	40	50	35	37	16	32	19	38	44	23	0	0	0	0	0	399
24	0	0	0	0	0	0	28	11	18	5	6	0	3	5	11	10	23	2	13	0	0	0	0	136
25	0	0	0	0	0	0	29	29	42	3	0	0	5	18	21	15	17	11	76	0	0	0	0	265
26	0	0	0	0	0	0	10	38	33	1	0	0	0	0	1	10	9	10	0	0	0	0	0	113
27	0	0	0	0	0	0	31	18	6	0	0	0	1	1	5	5	20	9	0	0	0	0	0	96
28	0	0	0	0	0	0	35	24	6	7	13	0	9	4	6	19	21	7	0	0	0	0	0	152
29	0	0	0	0	0	0	25	22	5	0	0	0	12	34	39	28	29	46	11	0	0	0	0	253
30	0	0	0	0	0	0	8	7	18	33	34	48	42	46	45	23	13	40	17	0	0	0	0	374
Avg	0	0	0	0	0	0	30	46	33	26	23	21	20	26	24	20	22	17	17	0	0	0	0	326
S/D	0	0	0	0	0	0	20	38	15	19	17	19	15	18	18	15	11	12	27	0	0	0	0	125
S/A	0	0	0	0	0	0	0.65	0.81	0.44	0.76	0.75	0.89	0.74	0.69	0.74	0.71	0.51	0.72	1.59	0	0	0	0	0.38
Min	0	0	0	0	0	0	5	7	5	0	0	0	0	0	0	2	2	0	0	0	0	0	0	96
Max	0	0	0	0	0	0	88	172	60	78	64	59	48	61	62	60	44	46	112	0	0	0	0	630

Daylight Data Recovery: 0% missing; 0% exceed the 15% QC threshold -- 4465 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: SS  
Latitude: 32.03° N  
Longitude: 81.07° W  
Elevation: 11 Meters AMSL  
Time Zone: -5

Instrument: Estimated DNI  
Calibration Constant: 0.00  
Serial Number: XXXXXXXX  
Calibration Date: 1/1/1997

**Diffuse Solar Radiation on a Horizontal Surface (Shadow Band PSP)**  
**Hourly Integrated and Daily Totals**  
**Watt-Hours per Square Meter**  
**Savannah State College - September 2000**

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	39	197 ?	325	504 ?	414	306	560 ?	298	421 ?	183	37	30	11	0	0	0	0	0	3325
2	0	0	0	0	0	0	57	187	262	289	413	488	502 ?	366	413	356	186	26	4	0	0	0	0	0	3550
3	0	0	0	0	0	0	16	88	226	364	244 ?	513 ?	333	133 ?	274	62	8 ?	5	3	0	0	0	0	0	2268
4	0	0	0	0	0	0	11	75	139	367	487	605 ?	261	59	62	16	34	50	4	0	0	0	0	0	2169
5	0	0	0	0	0	0	11	150	235	134	130	156	347	248	68	44	45	20	7	0	0	0	0	0	1596
6	0	0	0	0	0	0	6	27	51	58	78	116	138	111	81	76	78	30	3	0	0	0	0	0	854
7	0	0	0	0	0	0	11	53	117	180	190	192	227	254	150	212	98	11	1	0	0	0	0	0	1695
8	0	0	0	0	0	0	27	164 ?	157	362	394	459	227	274	450 ?	422 ?	316	139	13	0	0	0	0	0	3405
9	0	0	0	0	0	0	21	92	158	237	310	314	298	334	319 ?	390 ?	188	125 ?	9	0	0	0	0	0	2796
10	0	0	0	0	0	0	38	190	353 ?	411 ?	449	537 ?	687 ?	450 ?	454 ?	419 ?	285	140	9	0	0	0	0	0	4421 ?
11	0	0	0	0	0	0	32	192	369 ?	451 ?	575 ?	?	498 ?	?	?	?	374 ?	139	6	0	0	0	0	0	2636 ?
12	0	0	0	0	0	0	34	155 ?	346	467 ?	412 ?	560 ?	677 ?	?	336 ?	455 ?	208	24	1	0	0	0	0	0	3675 ?
13	0	0	0	0	0	0	39	196	388	533 ?	358 ?	344	626 ?	333	377	324	263 ?	114 ?	6	0	0	0	0	0	3902 ?
14	0	0	0	0	0	0	30	171	378	521 ?	?	497	509 ?	329 ?	309 ?	299 ?	210	80	3	0	0	0	0	0	3336 ?
15	0	0	0	0	0	0	29	154	345	498 ?	571 ?	?	?	?	637 ?	485	287	93	5	0	0	0	0	0	3104 ?
16	0	0	0	0	0	0	20	149	381	504 ?	?	?	586 ?	451	447 ?	426 ?	320 ?	108	6	0	0	0	0	0	3398 ?
17	0	0	0	0	0	0	8	79	113	189	278	338	223	268	154	49	26	9	1	0	0	0	0	0	1733
18	0	0	0	0	0	0	17	32	102	116	119	164	326	274	115	76	75	7	1	0	0	0	0	0	1423
19	0	0	0	0	0	0	33	106	219	398 ?	356 ?	?	609 ?	569 ?	591 ?	397 ?	269 ?	104	2	0	0	0	0	0	3653 ?
20	0	0	0	0	0	0	19	133	227	307	215	81	59	223	130	49	43	21	0	0	0	0	0	0	1509
21	0	0	0	0	0	0	24	155	296	345 ?	391 ?	342	325 ?	306	48	76	110	33	1	0	0	0	0	0	2453
22	0	0	0	0	0	0	12	65	131	175	165	151	235	81	50	89	71	26	1	0	0	0	0	0	1252
23	0	0	0	0	0	0	14	150 ?	258	286	294	212 ?	408 ?	384	408	300	175	55	1	0	0	0	0	0	2946
24	0	0	0	0	0	0	17	155	360	499 ?	475 ?	?	525 ?	578 ?	547 ?	446	141	5	2	0	0	0	0	0	3750 ?
25	0	0	0	0	0	0	25	138	316	516	550 ?	?	606 ?	424	381	357 ?	264	80	1	0	0	0	0	0	3658 ?
26	0	0	0	0	0	0	8	90	304	488 ?	?	?	?	?	?	?	276 ?	86	0	0	0	0	0	0	1253 ?
27	0	0	0	0	0	0	23	164	353 ?	?	?	?	589 ?	470 ?	464 ?	?	253 ?	68	0	0	0	0	0	0	2385 ?
28	0	0	0	0	0	0	24	159	374 ?	287 ?	598 ?	?	574 ?	393 ?	373 ?	282 ?	166 ?	73	0	0	0	0	0	0	3303 ?
29	0	0	0	0	0	0	18	160	388 ?	?	?	?	531 ?	316	247	170	85	42	2	3	0	0	0	0	1959 ?
30	0	0	0	0	0	0	5	15	66	158	204	480 ?	381	368	281	111	37	49	2	0	0	0	0	0	2157
Avg	0	0	0	0	0	0	22	128	258	344	347	343	424	319	307	243	164	60	4	0	0	0	0	0	2652
S D	0	0	0	0	0	0	12	53	107	142	149	162	172	130	170	156	106	44	3	0	0	0	0	0	942
S/A	0	0	0	0	0	0	0.53	0.41	0.42	0.41	0.43	0.47	0.4	0.41	0.55	0.64	0.64	0.73	0.97	0	0	0	0	0	0.36
Min	0	0	0	0	0	0	5	15	51	58	78	81	59	59	48	16	8	5	0	0	0	0	0	0	854
Max	0	0	0	0	0	0	57	197	388	533	598	605	687	578	637	485	374	140	13	0	0	0	0	0	4421

Daylight Data Recovery: 0% missing; 22% exceed the 15% QC threshold -- 4465 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: SS  
Latitude: 32.03° N  
Longitude: 81.07° W  
Elevation: 11 Meters AMSL  
Time Zone: -5

Instrument: PSP  
Calibration Constant: 7.53 uV/Wm-2  
Serial Number: 17862F3  
Calibration Date: 5/19/1998