

**Savannah State College**  
**32.03 N Latitude 81.07 W Longitude 11 Meters AMSL Time Zone -5**

**June 2002**

**Global Solar Radiation on a Horizontal Surface**  
**Hourly Integrated and Daily Totals**  
**Instrument: Eppley PSP**  
**Watt-Hours per Square Meter**

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	28	138	340	516	701	794	850	749	437	421	630	461	253	47	3	0	0	0	0	6368	
2	0	0	0	0	0	21	126	314	507	683	825	916	935	897	803	598	406	251	82	8	0	0	0	0	7372	
3	0	0	0	0	0	27	128	290	476	653	807	780	848	873	776	611	173	88	40	5	0	0	0	0	6575	
4	0	0	0	0	0	17	68	172	385	478	713	804	532	653	641	331	259	108	40	4	0	0	0	0	5205	
5	0	0	0	0	0	14	90	268	248	707	809	910	917	741	591	607	340	176	95	13	0	0	0	0	6527	
6	0	0	0	0	0	23	150	293	271	376	646	630	580	827	817	661	411	34	35	3	0	0	0	0	5757	
7	0	0	0	0	0	14	124	300	431	516	289	274	438	811	426	124 ?	?	?	26 ?	8	0	0	0	0	3780 ?	
8	0	0	0	0	0	2	4 ?	68	168	493	575	758	848	705	600	530	483	251	95	13	0	0	0	0	5593	
9	0	0	0	0	0	24	142	298	415	349	815	969	877	946	846	695	510	301	102	11	0	0	0	0	7300	
10	0	0	0	0	0	22	138	344	557	738	863	951	990	947	850	696	475	293	100	13	0	0	0	0	7977	
11	0	0	0	0	0	20	141	302	410	436	667	877	888	906	861	613	509	274	87	14	0	0	0	0	7007	
12	0	0	0	0	0	27	147	284	556	539	837	994	978	936	836	688	501	285	96	13	0	0	0	0	7716	
13	0	0	0	0	0	25	116	334	534	713	844	941	900	966	833	672	492	282	97	17	0	0	0	0	7765	
14	0	0	0	0	0	21	126	317	515	687	824	921	788	822	588	563	492	229	35	5	0	0	0	0	6934	
15	0	0	0	0	0	23	139	348	549	729	869	961	982	959	861	711	518	304	105	11	0	0	0	0	8067	
16	0	0	0	0	0	23	141	341	538	735	869	888	952	926	830	664	396	261	70	15	0	0	0	0	7651	
17	0	0	0	0	0	14	43	132	289	618	491	661	647	597	360	514	352	121	33	4	0	0	0	0	4876	
18	0	0	0	0	0	0	20	108	334	384	413	372	316	209	200 ?	74	67	32	18	5	0	0	0	0	2553	
19	0	0	0	0	0	15	141	338	485	628	693	557	528	597	695	528	295	99	38	9	0	0	0	0	5645	
20	0	0	0	0	0	17	93	324	287	641	496	763	241 ?	150	214	134 ?	?	?	11 ?	1	0	0	0	0	3372 ?	
21	0	0	0	0	0	7	56	116	129	194	137 ?	119	152	116 ?	163	144	152	85	33	4	0	0	0	0	1608	
22	0	0	0	0	0	4	31	67	126	172	228	393	465	343	174	265	211	135	53	7	0	0	0	0	2673	
23	0	0	0	0	0	21	72	52 ?	55 ?	105	204	306	416	409	395	536	389	186	62	13	0	0	0	0	3225	
24	0	0	0	0	0	7	15 ?	29 ?	139	618	698	853	1000	926	810	605	299	95	25	5	0	0	0	0	6123	
25	0	0	0	0	0	3	25	71	188	353	543	676	613	466	459	234	242	279	72	9	0	0	0	0	4232	
26	0	0	0	0	0	20	85	128	326	329	663	671	664	529	200	149	81	79	30	10	0	0	0	0	3964	
27	0	0	0	0	0	13	95	323	470	544	599	930	888	796	616	403	338	173	113	31	0	0	0	0	6331	
28	0	0	0	0	0	13	110	306	509	674	556	903	955	404	164	453	186	190	47	2	0	0	0	0	5472	
29	0	0	0	0	0	12	72	139	204	304	326	372	378	388	325	207	211	172	49	13	0	0	0	0	3172	
30	0	0	0	0	0	11	111	297	497	627	781	597	500	573	583	161	92	51	24	6	0	0	0	0	4910	
Avg	0	0	0	0	0	16	96	235	370	524	629	720	699	662	565	460	334	182	59	9	0	0	0	0	5525	
S D	0	0	0	0	0	8	45	110	156	184	219	244	253	263	252	215	146	90	31	6	0	0	0	0	1832	
S/A	0	0	0	0	0	0.48	0.47	0.47	0.42	0.35	0.35	0.34	0.36	0.4	0.45	0.47	0.44	0.5	0.53	0.66	0	0	0	0	0	0.33
Min	0	0	0	0	0	0	4	29	55	105	137	119	152	116	163	74	67	32	11	1	0	0	0	0	1608	
Max	0	0	0	0	0	28	150	348	557	738	869	994	1000	966	861	711	518	304	113	31	0	0	0	0	8067	
n	0	0	0	0	0	258	341	341	356	358	350	360	357	353	354	341	336	336	352	165	0	0	0	0	0	4959

Daylight Data Recovery: 0.0% missing; 2.8% exceed the 15% QC threshold -- 5103 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 28401F3    Calibration Factor: 7.980  $\mu\text{V}/\text{W}/\text{m}^2$     Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.

June 2002

Estimated Direct Normal Solar Radiation  
 Hourly Integrated and Daily Totals  
 Instrument: Calculated  
 Watt-Hours per Square Meter

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	0	*	
2	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
3	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
4	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
5	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
6	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
7	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
8	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
9	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
10	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
11	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
12	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
13	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
14	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
15	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
16	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
17	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
18	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
19	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
20	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
21	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
22	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
23	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
24	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
25	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
26	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
27	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
28	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
29	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
30	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
Avg	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	*
SD	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	0
S/A	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	0
Min	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	
Max	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	
n	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	0

Daylight Data Recovery: 100.0% missing; 0.0% exceed the 15% QC threshold -- 5103 total daylight measurements.

Instrument: Calculated Serial Number: Estimated Calibration Factor: Global = Diffuse + Direct \* COS (Zenith Angle) Calibration Date: N/A

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.

**Savannah State College**  
**32.03 N Latitude 81.07 W Longitude 11 Meters AMSL Time Zone -5**

**June 2002**

**Diffuse Solar Radiation (Shadow Band) on a Horizontal Surface**  
**Hourly Integrated and Daily Totals**  
**Instrument: Eppley PSP**  
**Watt-Hours per Square Meter**

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	32	151	?	?	?	648 ?	?	546 ?	309 ?	280 ?	?	?	219 ?	56	3	0	0	0	0	2243 ?
2	0	0	0	0	0	24	146	277 ?	?	?	?	?	?	?	?	546 ?	422 ?	254 ?	98	10	0	0	0	0	1777 ?
3	0	0	0	0	0	33	146	303 ?	?	?	?	616 ?	?	?	?	?	196	98	44	5	0	0	0	0	1441 ?
4	0	0	0	0	0	21	75	191	428	404 ?	645 ?	693 ?	599	609 ?	645 ?	339	289	119	44	4	0	0	0	0	5105 ?
5	0	0	0	0	0	17	98	264 ?	278	?	610 ?	?	?	601 ?	502 ?	380 ?	288 ?	200	105	15	0	0	0	0	3360 ?
6	0	0	0	0	0	28	142 ?	289 ?	296	416	511 ?	629 ?	595	744 ?	?	?	91 ?	38	39	4	0	0	0	0	3821 ?
7	0	0	0	0	0	16	139	294 ?	375 ?	393 ?	317	307	323 ?	498 ?	337 ?	89 ?	?	17 ?	25	9	0	0	0	0	3139 ?
8	0	0	0	0	0	2	11	77	183	423 ?	578 ?	664 ?	725 ?	646 ?	591 ?	441 ?	?	265 ?	102	15	0	0	0	0	4723 ?
9	0	0	0	0	0	30	160	262 ?	381 ?	348	?	?	?	?	?	?	?	?	118	14	0	0	0	0	1312 ?
10	0	0	0	0	0	33	136 ?	?	?	?	?	?	?	?	?	?	?	?	125	15	0	0	0	0	309 ?
11	0	0	0	0	0	24	150	278 ?	363 ?	393 ?	505 ?	642 ?	?	?	?	446 ?	?	254 ?	107	17	0	0	0	0	3179 ?
12	0	0	0	0	0	36	160	215 ?	?	428 ?	?	?	?	?	?	?	?	243 ?	119	15	0	0	0	0	1217 ?
13	0	0	0	0	0	32	126	306 ?	?	?	?	?	654 ?	?	?	?	?	242 ?	119	19	0	0	0	0	1498 ?
14	0	0	0	0	0	26	141	274 ?	?	?	?	?	603 ?	672 ?	448 ?	471 ?	?	166 ?	39	5	0	0	0	0	2846 ?
15	0	0	0	0	0	29	152	?	?	?	?	?	?	?	?	?	?	?	127	13	0	0	0	0	320 ?
16	0	0	0	0	0	30	147	?	?	?	?	?	?	?	?	?	315 ?	244 ?	81	17	0	0	0	0	835 ?
17	0	0	0	0	0	17	47	145	268	534 ?	542	639 ?	678 ?	514 ?	396	462 ?	308 ?	129	36	5	0	0	0	0	4720 ?
18	0	0	0	0	0	0	20	116	310	421	454	416	353	230	179	80	73	34	20	5	0	0	0	0	2711
19	0	0	0	0	0	18	131	258 ?	353 ?	490 ?	563 ?	497 ?	500 ?	522 ?	488 ?	382 ?	226 ?	111	42	10	0	0	0	0	4592 ?
20	0	0	0	0	0	18	103	229 ?	260 ?	520 ?	423 ?	613 ?	218	165	239	139 ?	?	21 ?	12	1	0	0	0	0	2963 ?
21	0	0	0	0	0	8	62	127	141	219	130 ?	130	168	91	177	159	168	94	36	5	0	0	0	0	1715
22	0	0	0	0	0	5	33	73	137	187	233	434	511	378	189	289	231	147	57	7	0	0	0	0	2911
23	0	0	0	0	0	22	79	35	51	103	204	340	450	449	436	542 ?	338 ?	208	70	14	0	0	0	0	3341
24	0	0	0	0	0	7	15	28	149	465 ?	572 ?	?	?	?	680 ?	366 ?	266 ?	107	28	6	0	0	0	0	2688 ?
25	0	0	0	0	0	3	27	77	201	382	512 ?	594 ?	594	533	501	264	182 ?	243 ?	82	10	0	0	0	0	4206 ?
26	0	0	0	0	0	22	94	111	320 ?	334	541 ?	557 ?	558 ?	470 ?	210	148	89	88	32	9	0	0	0	0	3585 ?
27	0	0	0	0	0	14	101	253 ?	408 ?	511 ?	611	?	?	675 ?	505 ?	378 ?	322 ?	150	134	35	0	0	0	0	4099 ?
28	0	0	0	0	0	16	123	292 ?	?	?	580 ?	?	?	245 ?	156	388 ?	202	189	53	2	0	0	0	0	2245 ?
29	0	0	0	0	0	13	79	152	223	340	359	405	416	431	359	227	235	192	54	15	0	0	0	0	3501
30	0	0	0	0	0	12	124	297 ?	?	?	?	347 ?	359 ?	379 ?	438 ?	176	104	57	27	6	0	0	0	0	2327 ?

Avg	0	0	0	0	0	20	104	201	270	385	477	501	492	458	388	320	229	153	68	10	0	0	0	0	0	2758 ?
S D	0	0	0	0	0	10	48	93	105	113	152	159	157	181	162	146	96	80	38	7	0	0	0	0	0	1315
S/A	0	0	0	0	0	0.52	0.46	0.47	0.39	0.29	0.32	0.32	0.32	0.39	0.42	0.46	0.42	0.52	0.56	0.67	0	0	0	0	0	0.48
Min	0	0	0	0	0	0	11	28	51	103	130	130	168	91	156	80	73	17	12	1	0	0	0	0	0	309
Max	0	0	0	0	0	36	160	306	428	534	648	693	725	744	680	546	422	265	134	35	0	0	0	0	0	5105
n	0	0	0	0	0	243	343	208	182	164	156	133	161	160	177	159	176	255	357	165	0	0	0	0	0	3053

Daylight Data Recovery: 0.0% missing; 40.2% exceed the 15% QC threshold -- 5103 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 17862F3    Calibration Factor: 7.530 μV/W/m<sup>2</sup>    Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.