

December 2011

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	0	2	54	207	363	474	527	523	458	337	172	37	0	0	0	0	0	0	0	3155
2	0	0	0	0	0	0	2	53	206	362	476	532	517	454	274	151	36	0	0	0	0	0	0	0	3061
3	0	0	0	0	0	0	0	48	194	349	464	518	516	450	325	158	34	0	0	0	0	0	0	0	3056
4	0	0	0	0	0	0	0	32	179	337	383	404	387	269	220	128	31	0	0	0	0	0	0	0	2371
5	0	0	0	0	0	0	0	37	68	88	281	391	162	138	234	72	26	0	0	0	0	0	0	0	1497
6	0	0	0	0	0	0	0	46	166	277	321	422	418	305	241	133	29	0	0	0	0	0	0	0	2357
7	0	0	0	0	0	0	0	34	129	262	360	409	374	336	262	147	25	0	0	0	0	0	0	0	2338
8	0	0	0	0	0	0	0	52	189	345	457	513	508	441	280	168	31	0	0	0	0	0	0	0	2984
9	0	0	0	0	0	0	0	30	123	244	468	325	438	239	228	66	26	0	0	0	0	0	0	0	2188
10	0	0	0	0	0	0	0	8	63	174	329	248	272	247	187	83	25	0	0	0	0	0	0	0	1635
11	0	0	0	0	0	0	0	42	182	337	451	469	461	392	284	161	32	0	0	0	0	0	0	0	2810
12	0	0	0	0	0	0	0	42	154	165	222	308	245	174	95	53	24	0	0	0	0	0	0	0	1482
13	0	0	0	0	0	0	0	36	166	322	432	490	492	433	318	162	35	0	0	0	0	0	0	0	2887
14	0	0	0	0	0	0	0	22	130	315	426	484	487	384	189	124	20	0	0	0	0	0	0	0	2580
15	0	0	0	0	0	0	0	46	111	277	373	452	469	422	314	161	35	0	0	0	0	0	0	0	2662
16	0	0	0	0	0	0	0	47	162	314	396	332	251	139	92	71	8	0	0	0	0	0	0	0	1813
17	0	0	0	0	0	0	0	17	80	213	321	211	224	159	107	82	18	0	0	0	0	0	0	0	1431
18	0	0	0	0	0	0	0	35	157	308	428	430	473	346	263	170	35	0	0	0	0	0	0	0	2644
19	0	0	0	0	0	0	0	63	175	316	430	495	499	440	326	168	36	0	0	0	0	0	0	0	2948
20	0	0	0	0	0	0	0	27	146	256	279	407	417	233	211	56	15	0	0	0	0	0	0	0	2047
21	0	0	0	0	0	0	0	26	63	68	113	108	84	41 ?	49	27	4	0	0	0	0	0	0	0	583
22	0	0	0	0	0	0	0	27	87	238	238	216	100	120	155	52	10	0	0	0	0	0	0	0	1244
23	0	0	0	0	0	0	0	8	23	92	221	283	390	406	162	62	8	0	0	0	0	0	0	0	1653
24	0	0	0	0	0	0	0	14	73	225	318	353	277	264	193	106	25	0	0	0	0	0	0	0	1847
25	0	0	0	0	0	0	0	21	171	310	441	400	499	255	180	65	13	0	0	0	0	0	0	0	2354
26	0	0	0	0	0	0	0	32	155	315	438	507	515	463	340	194	57	0	0	0	0	0	0	0	3017
27	0	0	0	0	0	0	0	8	40	54	69	86	82 ?	53	37 ?	27	7 ?	0	0	0	0	0	0	0	461 ?
28	0	0	0	0	0	0	0	33	161	313	435	502	517	455	345	190	46	0	0	0	0	0	0	0	2997
29	0	0	0	0	0	0	0	32	152	309	431	500	515	402	309	146	32	0	0	0	0	0	0	0	2827
30	0	0	0	0	0	0	0	31	149	307	425	496	502	447	340	186	44	0	0	0	0	0	0	0	2926
31	0	0	0	0	0	0	0	35	116	159	407	493	491	444	351	200	47	0	0	0	0	0	0	0	2744
Avg	0	0	0	0	0	0	0	33	135	258	365	397	390	316	234	121	27	0	0	0	0	0	0	0	2277
S D	0	0	0	0	0	0	1	14	50	90	106	123	144	133	92	54	13	0	0	0	0	0	0	0	741
S/A	0	0	0	0	0	0	3.87	0.42	0.37	0.35	0.29	0.31	0.37	0.42	0.39	0.45	0.47	0	0	0	0	0	0	0	0.33
Min	0	0	0	0	0	0	0	8	23	54	69	86	82	41	37	27	4	0	0	0	0	0	0	0	461
Max	0	0	0	0	0	0	2	63	207	363	476	532	523	463	351	200	57	0	0	0	0	0	0	0	3155
n	0	0	0	0	0	0	2	323	372	372	372	372	369	366	366	370	295	0	0	0	0	0	0	0	3579

Daylight Data Recovery: 0.0% missing; 0.0% untested; 0.6% exceed the 15% QC threshold -- 3600 total daylight measurements.

Instrument: Eppley PSP Serial Number: 31392F3 Calibration Factor: 7.3961  $\mu\text{V}/\text{W}/\text{m}^2$  Calibration Date: 07/2007

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.

December 2011

Direct Normal Solar Radiation  
 Hourly Integrated and Daily Totals  
 Instrument: Eppley NIP  
 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	0	0	0	0	0	*
2	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
3	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
4	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
5	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
6	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
7	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
8	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
9	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
10	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
11	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
12	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
13	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
14	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
15	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
16	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
17	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
18	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
19	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
20	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
21	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
22	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
23	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
24	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
25	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
26	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
27	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
28	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
29	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
30	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
31	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0	*
Avg	0	0	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	0	0	0	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	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	N/A
Max	0	0	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	0	0	0	0	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% untested; 0.0% exceed the 15% QC threshold -- 3600 total daylight measurements.

Instrument: Eppley NIP Serial Number: 23398E6 Calibration Factor: 7.1447 μV/W/m² Calibration Date: 07/2007

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.

**Elizabeth City State University**  
**36.28 N Latitude 76.22 W Longitude 26 Meters AMSL Time Zone -5**

**December 2011**

**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	0	?	19	43	52	57	57	53	48	41	29	9	0	0	0	0	0	0	0	408
2	0	0	0	0	0	0	?	17	34	39	44	45	59	111	83	48	9	0	0	0	0	0	0	0	489
3	0	0	0	0	0	0	0	22	47	56	63	67	69	78	75	63	21	0	0	0	0	0	0	0	562
4	0	0	0	0	0	0	0	23	76	158	176	194	213	205	169	56	23	0	0	0	0	0	0	0	1293
5	0	0	0	0	0	0	0	40	68	88	203	251	162	138	196	72	25	0	0	0	0	0	0	0	1242
6	0	0	0	0	0	0	0	34	99	140	194	246	266	228	129	80	27	0	0	0	0	0	0	0	1443
7	0	0	0	0	0	0	0	33	113	179	181	200	249	210	153	81	24	0	0	0	0	0	0	0	1424
8	0	0	0	0	0	0	0	16	34	45	53	54	51	53	83	48	17	0	0	0	0	0	0	0	454
9	0	0	0	0	0	0	0	18	69	170	194	228	213	219	172	65	26	0	0	0	0	0	0	0	1373
10	0	0	0	0	0	0	0	8	63	148	208	226	251	229	173	83	24	0	0	0	0	0	0	0	1412
11	0	0	0	0	0	0	0	18	42	57	67	135	150	144	99	44	15	0	0	0	0	0	0	0	770
12	0	0	0	0	0	0	0	30	108	158	200	228	238	174	95	53	24	0	0	0	0	0	0	0	1307
13	0	0	0	0	0	0	0	19	43	51	54	55	56	52	44	32	11	0	0	0	0	0	0	0	417
14	0	0	0	0	0	0	0	25	63	47	50	55	58	175	182	105	16	0	0	0	0	0	0	0	778
15	0	0	0	0	0	0	0	30	73	94	114	109	84	102	58	37	15	0	0	0	0	0	0	0	716
16	0	0	0	0	0	0	0	34	60	142	194	231	242	139	92	71	8	0	0	0	0	0	0	0	1212
17	0	0	0	0	0	0	0	18	80	192	237	191	221	159	107	77	18	0	0	0	0	0	0	0	1301
18	0	0	0	0	0	0	0	22	49	68	74	90	137	191	114	59	17	0	0	0	0	0	0	0	821
19	0	0	0	0	0	0	0	19	39	48	59	60	60	56	48	36	13	0	0	0	0	0	0	0	438
20	0	0	0	0	0	0	0	24	82	171	251	277	243	195	180	55	15	0	0	0	0	0	0	0	1493
21	0	0	0	0	0	0	0	26	63	68	113	108	84	38	49	27	4	0	0	0	0	0	0	0	580
22	0	0	0	0	0	0	0	30	87	205	225	216	100	120	153	52	10	0	0	0	0	0	0	0	1198
23	0	0	0	0	0	0	0	8	23	90	197	261	243	133	140	62	8	0	0	0	0	0	0	0	1165
24	0	0	0	0	0	0	0	13	71	146	193	200	220	223	186	103	25	0	0	0	0	0	0	0	1380
25	0	0	0	0	0	0	0	13	56	71	74	182	223	239	169	65	13	0	0	0	0	0	0	0	1105
26	0	0	0	0	0	0	0	13	35	46	52	52	50	46	42	36	24	0	0	0	0	0	0	0	395
27	0	0	0	0	0	0	0	8	40	54	69	86	69	49	29	25	7 ?	0	0	0	0	0	0	0	435
28	0	0	0	0	0	0	0	17	45	48	52	55	75	59	52	38	16	0	0	0	0	0	0	0	456
29	0	0	0	0	0	0	0	13	33	44	48	52	61	201	141	101	29	0	0	0	0	0	0	0	723
30	0	0	0	0	0	0	0	14	34	45	50	57	56	51	45	35	14	0	0	0	0	0	0	0	401
31	0	0	0	0	0	0	0	29	88	111	90	101	88	106	77	56	16	0	0	0	0	0	0	0	762
Avg	0	0	0	0	0	0	0	21	60	98	124	141	140	135	109	58	17	0	0	0	0	0	0	0	902
S D	0	0	0	0	0	0	0	8	24	54	72	81	82	68	54	22	7	0	0	0	0	0	0	0	402
S/A	0	0	0	0	0	0	0	0.4	0.39	0.55	0.59	0.57	0.58	0.51	0.49	0.39	0.41	0	0	0	0	0	0	0	0.45
Min	0	0	0	0	0	0	0	8	23	39	44	45	50	38	29	25	4	0	0	0	0	0	0	0	395
Max	0	0	0	0	0	0	0	40	113	205	251	277	266	239	196	105	29	0	0	0	0	0	0	0	1493
n	0	0	0	0	0	0	0	305	372	372	372	372	372	371	372	371	295	0	0	0	0	0	0	0	3574

Daylight Data Recovery: 0.0% missing; 0.0% untested; 0.7% exceed the 15% QC threshold -- 3600 total daylight measurements.

Instrument: Eppley PSP Serial Number: 31393F3 Calibration Factor: 7.6820 μV/W/m² Calibration Date: 07/2007

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.

**Elizabeth City State University**  
**36.28 N Latitude 76.22 W Longitude 26 Meters AMSL Time Zone -5**

**December 2011**

**Dry Bulb Temperature (Roof)**  
**Hourly and Daily Averages**  
**Instrument: CSI HMP-35C**  
**Degrees Celsius**

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	4.7	4.8	4.9	4.9	4.5	4.1	3.8	3.7	4.9	6.3	7.6	8.7	10	11.1	11.5	11.5	10.9	9	8	6.8	6	5.2	4.8	4.5	6.7
2	2.9	2.9	2.7	2.3	1.6	1.6	1.6	2.2	4.4	8.8	10.8	12.7	14	14.7	14.8	14.9	13.6	11.5	10.3	9.1	8.3	7.8	6.8	6.2	7.8
3	5.8	6.3	6.6	6.5	6.5	6.2	5.7	5.7	7.2	9.8	11.8	12.3	12.6	12.7	12.5	12.1	10.8	9.8	9	8.3	7.5	7.2	7.1	7.4	8.6
4	7.3	7.3	7.3	7	6.7	7.1	7.6	7.3	9.2	12.9	15.7	17.1	17.6	17.8	18.2	17.9	16.2	14.4	13.3	12.4	12	11.6	10.5	10.5	11.9
5	10.6	10.8	11.7	13	13.8	14.1	14.2	14.6	15.6	16.7	17.8	19.8	19.6	18.9	19.7	19.5	18.7	17.6	16.3	16.2	16.7	15.9	15.1	15.7	15.9
6	15.6	15.6	15.5	15.2	14.7	14.6	14.4	14.6	15.7	17.3	19.4	20.9	22.5	22.2	22.4	22.4	21	19.6	18.8	18.1	17.3	17.1	17	16.7	17.9
7	16	15.6	15.5	15.8	16	16	16.6	16.7	17.8	19.3	20.7	21.6	22.4	22.8	22.9	22.7	21.5	21	20.4	19.7	17.9	14	12.9	10.7	18.2
8	8.8	7.3	6.7	5.9	5.2	4.4	4.2	4.2	5	6.7	7.6	8.8	9.7	10.3	10.6	11.1	10	8.7	7.5	6.9	6.2	5.5	5.6	5.2	7.2
9	5.3	4.3	3.8	3.1	3.2	3.8	4.4	4.8	6.9	9.8	13	14.7	15.7	16.2	16.3	16.1	15.5	15.1	12.9	10.6	10.3	10.1	10.4	10	9.8
10	9.8	9.3	8.5	8.4	8.5	8.6	8.7	8.7	8.7	9	9.6	9.8	9.1	9.2	9	8.6	8.1	7.4	7.1	6.7	6.1	5.1	5.1	4.8	8.1
11	4.5	4.3	3.8	3.7	3.3	2.9	2.5	2.3	3.2	4.9	6.6	7.9	8.4	8.3	8	7.6	6.8	5.8	5	4.3	3.8	3.6	3.5	3.9	5
12	4.2	4.5	4.9	5.2	5.6	5.3	5.3	5.4	6.6	8.3	9.7	12.2	12.5	12.8	12.4	12.2	11.8	10.2	9.2	9	8.9	8.7	8.6	8.3	8.4
13	7.9	8	7.7	7.1	7.1	7	6.9	6.3	6.9	8.1	9.7	11.2	12.4	12.8	12.9	12.7	11.9	10.2	9.5	8.4	7.4	6.4	5.9	5.9	8.8
14	6	5.2	2.6	2.6	2	2	2.3	3	4.6	8	10.2	11.7	13	13.9	13.4	13	11.5	10.4	9.9	9.6	9.6	9.5	9.1	8.6	8
15	8.2	8	7.8	7.8	8.2	8.1	7.9	7.8	9.2	11.7	14.5	15.8	17.4	18.7	19.7	19.5	18.5	16.7	15.8	15.3	15	15.1	15.6	15.9	13.3
16	15.1	14.7	15	15.6	15.4	14.6	14.1	13.9	14.8	16.5	18.3	19.2	18	14.4	12.9	11.7	10.8	10.4	10.1	9.9	9.6	8.7	6.6	5.3	13.2
17	5.1	5.3	5.5	5.5	5.5	5.5	5.4	5	5.1	5.6	6.5	6.8	6.8	6.7	6.6	6.3	6.1	5.8	5.2	4.7	4.2	3.2	2.7	1.1	5.3
18	0.8	0.8	1.3	1.8	1.3	1	0.6	0.1	1.7	4	5.1	5.9	6.6	7	7.1	7	6.2	5.4	4.5	3.7	3.3	2.2	1.5	0.3	3.3
19	0.6	0.6	0.4	0.9	0	-0.3	-0.1	0.4	3.4	6.6	8.1	9.5	10.7	11.7	12.7	13	12.2	10.5	9.4	8.7	8.6	8.6	8.8	9.4	6.4
20	9.4	9.2	8.7	9.2	9.6	9.2	9	8.9	9.4	11.5	13.2	14.6	15.6	15.5	15.6	15.4	14.9	13.9	13.4	13.4	13.4	13.8	13.8	13.7	12.3
21	14	13.9	13.8	13.8	14	14.3	14.2	14.1	14.9	16.2	17.7	18.2	18.3	17.4	17.2	17.6	17.3	17.3	17	17.3	17.6	17.7	17.1	16.9	16.2
22	16.7	16.2	15.9	15.9	15.8	15.3	15	15.3	16	17.8	18.8	18.7	18.6	18.7	18.8	19	18.1	17.2	17	18.2	18.9	19.1	18.7	18.7	17.4
23	18.5	18.2	18.5	18.7	19.4	19.8	20.1	19.9	19.2	17.4	15.8	15.6	16.2	17.1	16.8	16.1	14.8	12.7	11.7	11	10.1	9.9	10	9.8	15.7
24	9.5	9.1	8.4	8.5	8.5	8.2	8.1	7.6	7.9	9.5	10.7	11.3	11.4	11.4	9.5	8.3	7.7	7	6.6	6	5.7	5.2	4.7	4	8.1
25	3.2	2.7	2.2	2.2	1.6	2.2	2.6	2.5	5.4	8.3	10	10.9	11.7	12	12.2	11.9	11.6	11.1	10.8	10.6	10.5	10.2	9.8	9.5	7.7
26	8.7	7.7	6.9	6.2	5.6	5.6	6.2	5.6	5.6	7.5	9.2	9.8	10.4	10.7	11.1	10.7	9.7	8.2	7.2	6.6	5.9	5.3	6	5.8	7.6
27	4.9	5	4	3.7	4.1	4.5	5	5.5	7.2	9.5	11.1	12.3	14.7	15.4	15.3	15.8	16.1	16.8	15.9	15.1	14.8	14.3	13.1	12	10.7
28	11	9.8	8.8	7.7	7	6.4	6.3	5.9	6.7	8.1	9.6	10.6	11.1	11.3	11.5	11.4	10.6	9.2	8.1	7.4	6.3	5.7	5.1	4.6	8.4
29	4.1	3.5	2.4	1.7	1.1	0.2	0	0.4	2.4	5.6	8.1	9.1	9.6	10	10.5	10.5	9	8.3	8.5	8.8	8.6	7.9	7.2	7	6
30	6.8	6.8	6.8	6.5	5.9	5.2	5	5.1	6.7	9.2	11.7	13.2	14.6	15.6	15.9	15.8	14.9	12.9	11.9	11.3	11.5	11.4	11.2	11.5	10.3
31	12.6	12.4	12.3	12.3	12.1	12.1	11.7	11.5	12.9	13.7	14.7	16.2	17.3	17.8	18.1	18	16.9	15.3	14.1	12.7	12.3	11.6	11.8	10.1	13.8
Avg	8.3	8.1	7.8	7.7	7.5	7.4	7.4	7.4	8.6	10.5	12	13.1	13.8	14	14.1	13.9	13	11.9	11.1	10.5	10.1	9.6	9.2	8.8	10.3
SD	4.8	4.7	4.9	5	5.2	5.3	5.3	5.2	4.9	4.3	4.3	4.3	4.3	4.1	4.3	4.4	4.3	4.2	4.2	4.3	4.5	4.5	4.5	4.7	4.1
S/A	0.57	0.58	0.63	0.65	0.7	0.71	0.71	0.71	0.57	0.41	0.35	0.33	0.31	0.29	0.3	0.31	0.33	0.36	0.38	0.41	0.44	0.47	0.49	0.53	0.4
Min	0.6	0.6	0.4	0.9	0	-0.3	-0.1	0.1	1.7	4	5.1	5.9	6.6	6.7	6.6	6.3	6.1	5.4	4.5	3.7	3.3	2.2	1.5	0.3	3.3
Max	18.5	18.2	18.5	18.7	19.4	19.8	20.1	19.9	19.2	19.3	20.7	21.6	22.5	22.8	22.9	22.7	21.5	21	20.4	19.7	18.9	19.1	18.7	18.7	18.2
n	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	8928

Data Recovery: 0.0% missing; 0.0% untested; 0.0% failed QC -- 8928 total measurements.

Instrument: CSI HMP-35C    Serial Number: P0520031    Calibration Factor: 1.00 deg C/mV    Calibration Date: 03/1988

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.

**Elizabeth City State University**  
**36.28 N Latitude 76.22 W Longitude 26 Meters AMSL Time Zone -5**

**December 2011**

**Relative Humidity (Roof)**  
**Hourly and Daily Averages**  
**Instrument: CSI HMP-35C**  
**Percent**

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	96	95.9	94.7	91.8	91.8	91.3	89.9	90.4	85	80.2	77.4	73.3	68.1	61.5	58.1	55.4	57.1	65	70.7	77	81.6	86	87.7	88	79.8
2	96.7	96.5	96.7	97.6	100.2	100	99.4	96.6	90.6	78.2	65.4	55	54.4	51.7	50.9	57.2	61.3	68.9	73.8	78	81.3	95.4	98.3	101.3 ?	81.1
3	100.3 ?	91.3	94	99	100	99.6	101.1	102	99	93.3	80.3	78	77.7	77.7	77.5	79.7	85.9	90.6	95.3	98.3	100.4	101.7	102.8	102.5	92.8
4	102.2	102.9	103.6	104.9 ?	?	?	?	?	104.3 ?	101.2	96.1	92.6	91.1	90.7	89.3	92.5	98.7	103.8 ?	?	?	?	?	?	?	98.1 ?
5	?	?	?	103.5 ?	100.9	99.7	99.5	98.3	96.8	93.9	91.3	84.8	87.1	91.9	90.2	90.6	90.9	96	101.3	103.3 ?	103.4	104.1 ?	?	104.7 ?	96.6 ?
6	?	?	?	?	?	?	?	?	?	102.4 ?	97.3	92.1	85.3	85.2	84.6	83.8	90.9	96.4	100.8	102.1	102.7	102.9	103.1	104.2	95.6 ?
7	?	?	?	?	?	?	?	?	103.9 ?	100.6	97.5	94.3	89.3	86.4	85.2	88	90.6	88.9	93.6	99.5	100.3	102.1	103.1	102.6	95.4 ?
8	100.3	97	93.2	97.2	100.4	103.8	103.8	102.3	97.4	88.3	83.4	74.8	68.3	68.5	66	64.2	68.2	72.6	82.2	84.6	85.4	92.1	95.4	97.6	87
9	98.2	102	103.5	105 ?	?	?	105 ?	105 ?	103.8	101.1	96.9	91.3	87.7	84.2	85.6	88	89.6	92.3	98.1	102.9	103.4	103.2	102.8	?	97.6 ?
10	?	?	?	103	102.5	100.1	94	89.9	82.7	83.7	79.9	75.8	73.4	71	71.4	71.7	80.4	85.9	87.7	90.1	93	96.7	90.7	86.5	86.2 ?
11	83.2	79.5	79.3	75.9	76.4	76.6	75.4	75.6	75.4	79.1	79	79.2	75.4	77	79	80.4	87.8	92.8	96	97.5	99.3	100.7	102.1	102.3	84.4
12	102	102	101.3	102.2	103	104.1 ?	?	?	?	103.9	102.1	98.2	98.1	98.3	99.5	100	100.5	101.9	103.4	103.5	103.9	104.3	104.8	?	101.8 ?
13	?	?	?	?	?	?	?	?	102.4 ?	92.1	82.2	70.8	60.9	58.2	56.6	54.4	57.2	66.4	69.4	75.5	83.2	90.2	94.8	91.7	75.4 ?
14	88.9	90.5	99	98.1	100.2	99.3	98.5	98	95.9	85	67.7	60	57.2	56.7	61.7	69.1	82.6	87.2	99	101.9	102.2	103.3	104.2	?	87.2
15	?	?	?	?	?	?	?	?	?	97.6	84	76.3	70.3	67.7	65.4	64.7	70.8	80.5	87.8	93.5	98.8	98.1	96.6	96.7	83.3 ?
16	99.8	101.7	101	99.7	100.7	103.1	104.7 ?	?	103.6	98.8	90.9	82.8	74.3	65.4	71.9	73.4	73.7	72.6	71.2	74.1	76.9	82.6	98.3 ?	?	87.3 ?
17	?	?	?	?	?	?	?	?	101.6	95.5	89.6	85.5	81.3	78.5	77.1	77	75.3	76.2	77.1	80.5	84.3	89.5	92.1	98.6	85 ?
18	99.8	98.5	94.1	91	93.6	96.5	98.1	99.7	93.3	79.6	68.7	67.6	64.7	62.9	59.7	59.7	67	71.6	76.5	81.5	83.2	89	94.5	98.2	82.9
19	97.9	97	97.5	100	101.9	102.2	103.8 ?	104.5 ?	97.6	82.1	72.7	65.2	63.4	61.2	57.6	56.7	61.2	72.1	81.4	86.7	88.7	89.6	89.3	90.2	84.2
20	90.9	92	95.7	96.3	98	100.7	102.8	104.1	103.8	98.4	93.9	88.8	84	80	78.6	78.7	82.4	89.8	94.6	96.5	99.3	101.3	103.1	102.1	94
21	100.1	99.9	101.3	102.2	102.5	102.4	103.3	104.7 ?	104.5 ?	102.4	98.5	98.2	99.6	103.3 ?	?	104.5	?	?	?	104.1 ?	100.8	97.8	98.1	98.2	101.3 ?
22	99.5	102	103.8	104.4	105	?	?	?	?	102.3	99.4	99.7	100.4	100.5	99.8	99.7	102.6	104.4 ?	104.9 ?	103.5	102.7	100.1	100.2	100	101.7 ?
23	101.6	103.5	103.4	101.9	99	95.9	93.5	93.6	97	90.3	83.3	80.6	78.4	73.6	74.1	76.7	78.5	83.3	85.1	84.8	84.7	88.2	85.7	85.8	88.4
24	86.9	88.2	91.5	89.8	86.9	86.6	86.6	88.3	85.4	72.2	66.2	67.7	68	68	82.8	87.5	86.2	88.8	90.8	92.2	92.1	92.8	96.7	100.1	85.1
25	101.5	102.5	104 ?	104.3	103.4 ?	?	?	?	98.4	93.4	83.1	78.5	74.1	71	73.8	78.7	82	86.5	87.7	89.7	92.1	93.2	92.4	92.1	89.6 ?
26	94.8	95.8	94.1	93	92.4	85.5	77.2	79.3	81.9	73.8	63.1	58.2	53.4	51.7	52.9	56.1	58.5	65	74.3	80.2	87.8	92.6	93.6	93.2	77
27	95.6	93.1	97.3	100.5	101.4	103.3	103.6	101.7	99.6	102.7	103.2 ?	?	101.8	102.6	104.7	103.9	104.8 ?	101.8	99.4	99.7	98.1	82.9	84.3	87.6	98.9 ?
28	88.7	90	86	86.4	85.9	87.6	87.7	89.1	85.8	79.6	70.7	63.3	60.5	57.3	55.8	53.3	55.6	60.1	62.7	64.3	68.6	71.2	73	75.5	73.3
29	76.9	78.6	84.1	88	91	96.8	96	93.7	86.2	74.9	63	56.9	57.8	56.8	53.1	56.8	71.2	81.8	85.5	80.3	80.7	87.7	95.3	99.2	78.8
30	101.1	94.5	92.5	92.7	96.1	97.8	98.1	97.8	95.6	86.8	78.6	71.2	65	63	60.3	62.3	64.5	73.6	78.4	81.7	87.1	89.9	93	94.5	84
31	92.9	95.7	97.6	97.9	99.6	99.6	100.9	101.5	97.6	96.4	93.3	85.8	73.1	63.5	59.2	59.3	61.9	66.5	70.7	76	77	78.5	76.8	83	83.5
Avg	95.7	95.4	96.2	97.2	97.2	96.9	96.5	96	95.2	90.6	83.8	78.2	75.6	73.7	72.7	75	77.9	82.8	86.2	89.5	91.4	93.6	94.9	95.2	88.3 ?
S D	6.6	6.8	6.5	7	6.8	7.1	8.5	8.2	8.2	10	12.4	13	14.1	15.3	15.2	16	14.7	13	12	11.3	9.9	8.3	7.9	7.4	8.1
S/A	0.07	0.07	0.07	0.07	0.07	0.07	0.09	0.09	0.09	0.11	0.15	0.17	0.19	0.21	0.21	0.21	0.19	0.16	0.14	0.13	0.11	0.09	0.08	0.08	0.09
Min	76.9	78.6	79.3	75.9	76.4	76.6	75.4	75.6	75.4	72.2	63	55	53.4	51.7	50.9	53.3	55.6	60.1	62.7	64.3	68.6	71.2	73	75.5	73.3
Max	102.2	103.5	104	105	105	104.1	105	105	104.5	103.9	103.2	99.7	101.8	103.3	104.7	104.5	104.8	104.4	104.9	104.1	103.9	104.3	104.8	104.7	101.8
n	283	288	284	285	279	261	247	225	296	364	364	360	372	363	360	372	350	347	341	350	360	356	339	302	7756

Data Recovery: 0.0% missing; 0.0% untested; 13.1% failed QC -- 8928 total measurements.

Instrument: CSI HMP-35C    Serial Number: P0520031    Calibration Factor: 0.10 %/mV    Calibration Date: 01/1999

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.

**Elizabeth City State University**  
**36.28 N Latitude 76.22 W Longitude 26 Meters AMSL Time Zone -5**

**December 2011**

**Dry Bulb Temperature (CR10)**  
**Hourly and Daily Averages**  
**Instrument: CSI**  
**Degrees Celsius**

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	3.5	3.3	3.3	3.5	3.6	3.2	2.9	2.7	5	8.3	11.2	13.2	14.6	15.6	15.8	15.5	14.5	11.1	7.5	5.7	4.5	3.4	2.6	2.2	7.4
2	1.4	0.7	0.4	-0.1	-0.7	-0.9	-0.8	-0.2	3.9	10.2	15.5	18.1	20	20.4	19.6	18.6	17.4	13.5	9.6	7.4	5.8	4.9	4.3	3.5	8
3	3.5	3.6	4.2	4.9	5.2	5.2	5.1	4.8	6.9	11	14.7	16.7	17.8	18.1	17.7	16.8	14.8	11.5	8.8	7.2	6.6	6.2	6.1	6.2	9.3
4	6.4	6.3	6.1	5.9	5.7	5.7	6.2	6.6	7.9	13.3	18.2	21.2	22.3	22.4	21.6	21.7	20.2	16.9	14.3	12.8	11.8	11.1	10.5	10.3	12.7
5	10.5	10.8	11.1	11.7	12.3	13	13.2	13.8	14.8	16	17.7	22	23.5	22.5	21.9	22.6	21.3	19.6	18.3	17.1	16.5	16.2	15.3	14.8	16.5
6	15	15.1	15.1	15	14.8	14.7	14.6	14.6	15.7	18.2	21.2	23.2	25.4	25.7	25.5	25.1	23.9	21.5	19.6	18.5	17.6	16.8	16.5	16.4	18.7
7	16	15.5	15.2	15.1	15.2	15.4	15.7	16.1	17.1	19.2	21.9	23.9	25.1	25.6	25.7	25.5	24.3	22.3	21.1	20.4	19.5	16.8	14.4	12.9	19.2
8	10.9	9	7.7	6.3	4.9	3.7	3	2.9	5.1	8.5	11.8	14.2	15.9	16.4	15.8	15.5	14	10.6	7.5	5.8	4.9	4.1	3.3	2.7	8.5
9	2.3	2.5	2.2	1.7	1.6	1.8	2.4	3	4.6	8.1	12.6	16.7	17.9	19.1	18.7	18.5	17.3	16.1	14.9	12.7	11.2	10.6	10.6	10.6	9.9
10	10.3	9.9	9.3	8.6	8.3	8.4	8.6	8.7	8.8	9.1	10.5	12	11.7	11.6	11.4	10.6	9.6	8.1	6.8	6.1	5	4	3.2	3.2	8.5
11	3	2.8	2.5	2.2	2.1	2	1.7	1.4	3.1	6.2	9.4	11.8	12.9	13.1	12.4	11.4	10.1	7.3	5.2	4.1	3.3	2.8	2.4	2.4	5.7
12	2.8	3.2	3.8	4.2	4.6	4.8	4.6	4.5	5.8	8.2	9.7	12.1	14.2	14.9	14.7	14	13.3	12.3	10.9	9.9	9.6	9.5	9.2	8.8	8.7
13	8.3	8.3	8.4	8.1	7.8	7.7	7.6	7.1	7.7	10.6	13.6	16.4	17.8	18.2	17.8	17.1	15.6	12.1	9.2	7.5	6.2	5.2	4.2	3.5	10.2
14	3.8	4	3.1	1.9	1.1	0.7	0.8	1.7	3.1	7.9	13.3	16.6	18.2	19.3	19	17.3	15.6	13	11.4	10.4	9.7	9.6	9.3	8.4	9.1
15	7.8	7.5	7	6.8	7	7.4	7.2	6.8	8	10.7	15.4	18.6	20.8	22	22.6	22.6	21.6	18.8	16.5	15.3	14.7	14.5	14.7	15	13.7
16	15.1	14.6	14.2	14.4	14.8	14.7	14.2	13.8	15	17.7	20.6	22.3	22.7	20.2	17.2	15.1	13.4	12.1	11.3	10.8	10.4	10	8.6	6.9	14.6
17	6	5.7	5.7	5.7	5.7	5.6	5.7	5.5	5.4	6.1	8.1	9.7	9.4	9.4	8.9	8.3	7.6	6.6	5.8	4.7	3.8	2.3	0.6	-0.8	5.9
18	-1.2	-1.1	-0.9	-0.1	0.2	-0.2	-0.6	-1.3	0.6	4.9	8.5	10.6	11.5	11.5	11.2	10.3	9.3	6.7	4.7	3	1.7	0.5	-0.8	-1.6	3.6
19	-2	-2.5	-2.4	-2.1	-2.4	-2.8	-2.9	-2.6	0.4	6	10.3	12.7	14.2	15.1	15.6	15.8	15.1	12.3	9.6	8.4	7.5	7.3	7.4	7.8	6.1
20	8.2	8.3	8.2	8	8.5	8.7	8.5	8.4	9	11.7	13.9	15.6	17.9	18.7	18.2	17.6	16.4	14.8	13.3	13.1	13.2	13.6	13.9	13.8	12.6
21	13.5	13.7	13.8	13.9	14	14.2	14.2	14.1	14.4	15.5	16.9	18.3	19.1	18.9	17.9	17.4	17.3	17.4	17.4	17.1	17.1	17.2	17.2	16.9	16.1
22	16.7	16.7	16.4	16.3	16.1	15.7	15.2	15.1	15.7	17.5	20.4	21.2	21.2	20.8	20.9	21.2	20.5	19	17.8	17.7	18.3	18.9	18.9	18.5	18.2
23	18.5	18.3	18.3	18.4	18.7	19.2	19.7	20.1	19.9	19.2	18.7	18.4	19.1	20.6	20.8	19.4	17.7	15.6	13.8	12.5	11.1	10.3	10.1	9.9	17
24	9.8	9.3	8.3	7.7	8.2	8.1	7.7	7.2	7.3	8.9	12	14.2	15.2	15.1	13.9	11.8	9.8	8	6.5	5.4	4.7	4.1	3	2.2	8.7
25	1.2	0.5	0	-0.3	-0.6	-0.7	-0.4	0	1.9	8	12.7	15.1	16.1	16.6	15.4	14.2	13.1	12	11.2	10.7	10.3	9.9	9.2	8.8	7.7
26	8.4	7.6	6.7	5.7	4.8	4.1	4.1	4.5	5.9	9.1	12.1	13.9	14.9	15.2	15.1	14.8	13.6	10.2	6.7	4.8	4.3	3.1	3.1	3.5	8.2
27	2.9	2.7	3	2.9	2.9	3.5	4.3	5	5.9	7.6	9.5	10.7	12.2	13.7	14.5	15	15.4	15.9	15.7	14.9	14.5	14.6	14.2	13	9.8
28	11.6	10.4	9.2	8.1	7	6.2	5.8	5.5	6.6	9.2	11.9	14	14.9	15	14.6	14.1	13.3	11.1	8.7	7	5.8	4.7	3.9	3.3	9.3
29	2.9	2.5	1.9	0.9	-0.4	-1.6	-2.4	-2.4	0.5	6.4	11.4	15	16.5	16.1	14.8	14.4	12.5	10.2	8.6	8.1	8	7.5	6.4	5.7	6.8
30	5.3	5.2	5.3	5.4	5	4.3	3.7	3.3	5.3	9.3	13.7	16.9	18.6	19.5	19.5	19.1	18.2	15.5	12.7	11.1	10.4	10.3	10.2	10.4	10.8
31	11.4	12.2	12.4	12.4	12.1	11.8	11.3	10.8	12.1	13.9	15.8	18.5	20.6	21.4	21.5	21.2	20.3	17.6	14.8	12.7	11.3	10.3	9.8	9.3	14.4
Avg	7.5	7.3	7.1	6.9	6.7	6.6	6.5	6.5	7.9	10.9	14	16.2	17.5	17.8	17.4	16.9	15.7	13.5	11.6	10.4	9.7	9	8.5	8	10.8
S D	5.5	5.5	5.4	5.5	5.7	5.8	5.9	5.9	5.3	4.2	3.9	3.9	4	4	4	4.3	4.3	4.3	4.5	4.7	4.9	5.1	5.3	5.4	4.2
S/A	0.73	0.75	0.77	0.8	0.85	0.89	0.91	0.9	0.67	0.39	0.28	0.24	0.23	0.22	0.23	0.25	0.27	0.32	0.39	0.46	0.51	0.57	0.63	0.67	0.39
Min	-2	-2.5	-2.4	-2.1	-2.4	-2.8	-2.9	-2.6	0.4	4.9	8.1	9.7	9.4	9.4	8.9	8.3	7.6	6.6	4.7	3	1.7	0.5	-0.8	-1.6	3.6
Max	18.5	18.3	18.3	18.4	18.7	19.2	19.7	20.1	19.9	19.2	21.9	23.9	25.4	25.7	25.7	25.5	24.3	22.3	21.1	20.4	19.5	18.9	18.9	18.5	19.2
n	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	8928

Data Recovery: 0.0% missing; 0.0% untested; 0.0% failed QC -- 8928 total measurements.

Instrument: CSI    Serial Number: Internal Temp    Calibration Factor: N/A    Calibration Date: 06/1995

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.

Prepared by: Afshin M. Andreas, NREL

**Elizabeth City State University**  
**36.28 N Latitude 76.22 W Longitude 26 Meters AMSL Time Zone -5**

**December 2011**

**Wind Speed**  
**Hourly and Daily Averages**  
**Instrument: NRG MAX-40**  
**Meters per Second**

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	2	1.9	2.4	2.8	2.3	2.2	2	1.7	2.6	2.7	3.4	3.5	2.3	2.5	2.8	2	1	0.3	0.4	0.5	0.3	0.2	0.5	0.1	1.8
2	0.1	0.5	0	0	0.3	0.6	0.8	0.2	0.3	0.3	1.4	1.2	1.4	1.8	1.2	1.3	1.3	0.3	0.3	0	0	0	0	0.1	0.6
3	0.8	1.7	2.8	2.5	2.6	2.7	1.7	1.8	1.7	1.6	3.8	3.4	2.9	2.7	2.8	2.4	1.8	0.8	0	0.4	0.4	0.6	0.5	1.2	1.8
4	1.4	0.7	0.8	0.8	0.7	1.1	0.9	0.7	0.5	1.3	1.7	2.1	1.8	1.7	1.1	1.3	1.5	0.8	0.9	0.8	0.1	0	0	0	0.9
5	0	0	0.3	0.3	1	0.9	0.6	0.6	0.8	1.2	0.8	2.3	1.1	1.2	0.9	0.5	2.1	0.7	1.5	2.6	2.1	1.4	0.6	1.3	1
6	1.4	1.5	0.7	0.1	0.9	1.2	1.4	0.8	2	2	2.3	3	3.6	4	3.8	2.4	1.7	1.5	2.2	2.1	1.6	1.9	2.1	1.9	1.9
7	1.6	1.5	1.6	1.9	2.4	2.2	3	3.5	4	4.1	4.8	4.9	5.4	5.1	5	4.9	4.9	5.1	5.3	6.6	7.9	6.3	4.2	4.4	4.2
8	5.1	4.4	3.6	2	0.7	0.8	1.5	1.5	2.7	2.2	2.5	1.7	1.6	1.8	0.8	0.8	0.7	0.7	0.9	1.1	0.9	0.2	0.2	0	1.6
9	0.5	0.2	0.1	0.3	0.8	0.9	0.9	1.1	1.5	1.8	3.2	3.7	3.8	3.7	3.4	2.1	1.9	1	1.2	1.4	0.3	0.9	0.7	0.5	1.5
10	1.2	1.4	1.8	2	1.8	1.9	2.1	3.5	3.8	3	4.7	5	5.2	4.1	3.6	3.1	2.3	0.8	1.2	0.8	0.9	0.8	1.7	1.9	2.4
11	2.1	2	2.1	2.8	3.3	3.5	3.1	2.7	3.4	3.3	3.8	3.9	3.9	3.6	3.7	3.7	2.7	1.9	2.2	2.4	2.1	1.6	1.3	1.9	2.8
12	2	2.1	2.3	2.4	2.4	2.5	2.2	2.1	2.3	2.6	2	3.2	3.3	2.7	2.5	2.4	2.4	3.3	2.7	2.6	1.9	1.7	1.3	1	2.3
13	1.6	2	2.1	2.1	1.9	2.2	2.1	1.5	1.8	2.5	1.6	2.1	2.5	2.6	2.3	2.3	1.4	0.7	0.9	0.6	0.6	0.4	0.2	1.3	1.6
14	1.6	0.9	1.3	0.8	0.9	1.1	0.3	1	0.4	1.2	1.6	2.4	2.1	1.4	1.7	1.6	1.9	1.5	1.2	0.2	0.2	0	0	0.3	1.1
15	0.5	0	0.1	0	0.6	0.1	0	0.3	0.8	2.5	2.8	3.2	3.3	3.9	4.2	4.2	3.3	2.3	2.4	3	3.1	3	4	3.4	2.1
16	3.7	2.7	2.5	3.3	3.5	2.7	2.5	2.5	2.8	3.5	3.3	2.7	3.8	3.7	3.3	3.4	3.1	2.9	2.8	2.8	1.9	2.5	3.1	2	3
17	1.7	1.8	1.8	1.5	2	1.2	1.7	1.5	2.1	2.9	3.6	3.1	3	3.1	2.4	2.8	2	2.1	1.5	0.9	0.6	0.1	0	0.5	1.8
18	1.3	0.8	1.3	1.7	0.9	0.7	0.4	0.4	0.9	1.9	2.8	2.5	3.2	2.7	3.4	3	1.9	1.6	1.3	0.4	0.2	0	0	0.4	1.4
19	0	0.2	0.7	0	0	0.2	0.2	0.3	1.2	2.3	3.9	4.1	4.1	3.5	3.5	3.2	2.1	1.3	2	1.6	2.2	2.4	2.9	2.8	1.9
20	2.5	2.1	1.9	2.8	2.9	2.6	2	1.5	1.8	3	3	3.5	3.1	2.5	1.9	1.1	0.8	0.2	0.5	0.2	0.6	1.1	1.4	1.3	1.9
21	1.6	1.5	1.1	1.7	1.9	1.7	1.4	1.9	2.7	3.7	3.6	2.4	1.6	1.1	2.3	2.5	3.4	2.6	3.2	5.3	5.6	4	3.1	2.6	2.6
22	2.5	2	1.2	1	1.3	0.9	0.8	1	1.4	1.6	2.6	3.1	1.2	1.1	0.7	0.3	1.5	2.6	2.5	3.2	3.8	3.2	3.8	4.7	2
23	4.8	5.6	6.5	5.2	4	4.3	3.8	3.4	2.9	3.7	4	3.7	2.7	2.6	2.1	2.1	2.8	3.5	3.3	3.1	2.1	1.4	2	1.6	3.4
24	1.3	0.3	0.5	0.8	1.2	1.2	1.2	1	0.9	0.9	1.7	1.7	1.6	3	4.4	3.5	2.4	1.2	0.8	0.7	0.7	0	0	0	1.3
25	0	0	0	0	0	0.1	0.1	0.4	0.2	1.7	2.8	2.6	2.5	3	2.3	2	1.5	1.1	1.9	2.6	1.8	2.6	2.9	3.7	1.5
26	3.8	3.3	2.7	2.3	2.1	2.2	2.8	1.5	1.5	2.3	4.3	4.3	4.3	3.9	3.1	3	2	0.2	0.1	1.1	0	0.5	0.8	0	2.2
27	0	0	0.1	0.2	0	0.1	0.1	2.1	2.1	2.4	3.2	3.7	4.8	7	8	8.6	7	6	3.9	3.5	4.4	5.1	4.5	4.2	3.4
28	3.9	3.8	3.7	3.7	3.8	4.6	4.8	4.6	4.6	4.8	4.8	5.2	5.6	6.3	6	5.6	4.3	3.5	2.2	2.3	1.7	1.5	1.3	1.7	3.9
29	1.7	0.9	0.9	0.4	0.3	0.2	0.6	0.7	0.3	1.2	0.7	1.3	2	2.6	2.7	2	2	1.1	0.7	1.1	1.2	1.6	1.7	2	1.2
30	2.2	2.4	2.8	2.1	1.5	1.2	1.4	1.7	2.4	2.4	2.5	3.1	3.3	3.4	3.7	3.4	2.5	2.3	2.7	2.6	3.6	3.1	2.8	3.2	2.6
31	3.5	3	2.9	2.8	2.3	2.4	2	1.8	3.1	3.5	4.9	4.4	4.6	4.1	4.2	3.3	2.7	1.8	0.8	0.9	0.7	0.8	1	0.4	2.6
Avg	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.9	2.4	3	3.1	3.1	3.1	3	2.7	2.4	1.8	1.7	1.9	1.7	1.6	1.6	1.6	2.1
S D	1.4	1.4	1.4	1.3	1.1	1.2	1.1	1.1	1.2	1	1.2	1.1	1.3	1.4	1.6	1.6	1.3	1.4	1.2	1.5	1.8	1.6	1.4	1.4	0.9
S/A	0.76	0.83	0.82	0.8	0.71	0.73	0.73	0.68	0.61	0.43	0.4	0.34	0.41	0.44	0.51	0.59	0.54	0.77	0.7	0.81	1.04	0.99	0.9	0.87	0.42
Min	0	0	0	0	0	0.1	0	0.2	0.2	0.3	0.7	1.2	1.1	1.1	0.7	0.3	0.7	0.2	0	0	0	0	0	0	0.6
Max	5.1	5.6	6.5	5.2	4	4.6	4.8	4.6	4.6	4.8	4.9	5.2	5.6	7	8	8.6	7	6	5.3	6.6	7.9	6.3	4.5	4.7	4.2
n	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	8928

Data Recovery: 0.0% missing; 0.0% untested; 0.0% failed QC -- 8928 total measurements.

Instrument: NRG MAX-40 Serial Number: 0 Calibration Factor: 0.76171 m/s/mV Calibration Date: 06/1995

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.

**Elizabeth City State University**  
**36.28 N Latitude 76.22 W Longitude 26 Meters AMSL Time Zone -5**

**December 2011**

**Wind Direction**  
**Hourly and Daily Averages**  
**Instrument: NRG Vane**  
**Degrees from North**

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	356	7	17	22	20	16	19	15	18	30	39	42	25	33	47	33	23	353	337	330	344	329	6	12	23	
2	330	326	326	327	323	332	338	337	306	324	303	314	315	259	282	248	247	257	248	218	0	357	0	52	291	
3	43	42	57	56	58	57	59	51	56	78	99	107	95	98	107	106	94	83	42	49	31	39	38	43	76	
4	63	86	79	56	52	71	63	81	66	104	115	116	135	149	135	119	119	109	81	84	97	92	358	99	102	
5	74	0	145	164	136	127	153	150	143	171	190	146	144	212	239	154	191	188	160	190	191	169	186	197	173	
6	188	196	213	210	191	197	196	208	217	223	227	237	248	244	245	238	234	219	221	224	227	228	236	228	227	
7	222	240	235	237	245	243	237	237	238	241	241	241	239	239	241	235	235	233	229	238	286	311	308	18	250	
8	5	1	4	2	333	334	344	342	357	22	47	78	19	333	76	29	5	30	92	76	114	148	143	133	14	
9	80	35	294	356	26	49	56	67	106	130	143	161	167	182	177	166	184	204	314	352	352	10	21	354	150	
10	4	15	35	34	38	30	28	42	46	41	52	45	52	52	53	46	66	66	62	65	55	44	56	54	46	
11	58	63	51	58	55	58	56	49	53	55	55	67	86	88	88	80	84	52	49	45	47	50	42	48	62	
12	48	47	56	58	58	54	69	52	56	63	69	110	104	84	73	72	59	46	48	47	30	24	38	27	61	
13	21	27	37	40	55	49	39	30	35	41	39	45	48	54	60	51	41	17	23	40	53	34	23	39	42	
14	60	333	337	335	325	353	352	346	15	64	69	80	81	80	124	127	117	126	124	114	148	182	0	259	73	
15	205	200	288	241	259	212	187	212	221	238	244	245	248	244	247	249	242	241	240	238	242	254	254	257	245	
16	251	253	264	281	287	284	282	286	289	315	329	3	64	109	105	104	104	94	97	83	80	66	45	49	15	
17	39	36	51	35	45	57	27	20	19	38	42	36	38	36	19	32	11	19	18	360	14	338	358	331	31	
18	330	347	5	16	352	11	16	338	8	22	35	30	354	0	17	19	46	40	54	61	78	72	241	266	16	
19	246	277	269	269	0	300	255	252	238	243	248	251	249	252	247	248	247	242	250	236	247	254	252	258	249	
20	277	278	283	285	287	286	291	291	282	298	314	317	324	326	325	311	235	253	257	253	235	221	216	226	291	
21	242	231	229	227	234	238	230	224	228	241	245	263	259	259	228	240	265	243	245	246	249	265	274	254	246	
22	249	247	257	253	251	243	246	244	249	252	313	313	322	256	298	163	150	165	182	220	233	238	234	238	242	
23	241	237	240	249	265	281	273	287	325	42	49	45	49	29	39	70	100	98	87	84	89	76	60	51	346	
24	43	42	25	47	47	38	56	61	84	85	82	62	52	73	95	98	97	95	68	59	66	93	0	0	74	
25	0	0	0	0	225	216	47	216	221	226	241	252	261	268	264	262	269	258	254	252	268	290	303	314	268	
26	320	321	326	347	351	360	15	18	321	19	36	37	39	39	43	70	69	14	106	132	145	157	166	195	19	
27	306	0	338	333	2	134	80	127	146	158	167	180	199	210	210	216	222	243	251	256	292	318	313	310	229	
28	309	317	319	323	321	323	324	324	321	325	330	327	322	321	320	323	322	325	322	322	330	314	317	308	314	322
29	319	342	317	323	290	258	279	312	305	228	206	222	214	234	239	212	170	164	164	195	234	242	245	245	235	
30	246	252	252	253	256	264	250	250	244	245	243	242	247	236	241	234	228	219	223	234	239	239	240	244	241	
31	248	242	240	236	243	244	248	276	295	301	317	324	324	335	325	325	330	339	337	322	332	352	38	303	299	
Avg	309	309	319	330	330	341	338	336	330	340	4	9	356	299	263	209	193	214	222	240	267	288	288	295	319	
n	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	8928	

Data Recovery: 0.0% missing; 0.0% untested; 0.0% failed QC -- 8928 total measurements.

Instrument: NRG Vane    Serial Number: 0    Calibration Factor: 0.1408 deg/mV    Calibration Date: 06/1995

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.



**Elizabeth City State University**  
**36.28 N Latitude 76.22 W Longitude 26 Meters AMSL Time Zone -5**

**December 2011**

**Peak Wind Speed (1-Minute Gust)**  
**Hourly and Daily Averages**  
**Instrument: NRG MAX-40**  
**Meters per Second**

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	4	4.1	4.9	5.3	4.6	4.7	4.2	3.8	5.4	5.6	6.1	6.2	4.8	5.3	5.2	3.9	2.7	1	1.1	1.1	1.1	0.7	1.1	0.2	3.6
2	0.3	1.1	0.3	0.1	0.5	1.3	1.7	0.4	0.6	1.1	2.6	2.4	3.3	3.3	2.4	2.3	2	0.8	0.7	0.1	0	0	0	0.3	1.2
3	1.2	2.5	4.7	4.3	4.7	4.6	3.4	3.1	3.2	3.6	6.7	6	5.5	4.9	4.9	4.5	3.6	1.8	0.3	0.9	1	1.4	1.2	2.3	3.4
4	2.6	1.8	1.4	1.4	1.5	2	1.7	1.3	1.3	2.5	3	3.5	3.1	2.9	2.1	2.3	2.7	1.5	1.6	1.7	0.6	0	0.1	0	1.8
5	0	0	0.9	0.7	1.8	1.8	1.3	1.3	1.7	2.2	1.5	4	2	2.3	1.8	1.2	3.4	1.5	2.5	4.4	3.5	2.4	1.3	2.4	1.9
6	2.7	2.7	1.7	0.7	1.6	2.1	2.6	1.7	3.4	3.4	3.9	5	6	6.1	5.8	3.9	2.9	2.7	3.7	3.4	2.8	3	3.7	3.3	3.3
7	2.6	2.7	2.9	3.5	3.9	3.7	5.1	5.8	6.4	6.9	8.5	8.1	8.8	8.5	8.1	8.3	8.2	8.6	8.8	10.8	13.1	10.6	7.3	8.9	7.1
8	10.3	8.9	7.2	4.5	1.6	1.9	3.1	3.1	5.2	4.5	4.5	3.5	3.5	4.1	2.1	2	1.9	2	1.7	2.2	1.6	0.4	0.5	0.1	3.4
9	0.8	0.6	0.4	0.7	1.3	1.5	1.5	1.7	2.4	3.2	5.1	5.9	6.7	6.1	5.2	3.5	3.1	1.7	2.2	2.6	1.2	2.3	1.8	1.7	2.6
10	3.1	3.4	3.7	4.1	3.3	4	4.3	6	6.7	5.7	8	8.5	8.6	7.4	6.2	6	4.2	1.9	2.4	1.7	1.6	1.7	2.7	2.9	4.5
11	3.4	3.5	3.5	4.8	5.8	5.7	5.5	4.4	5.7	5.9	6.3	6.5	7.1	6.2	6.6	6.5	5	3.3	3.6	3.9	3.3	2.7	2.4	3.1	4.8
12	3.2	3.4	3.5	3.8	4	4	3.9	3.5	4	4.3	3.6	5.2	5.5	4.8	4.3	4.4	4.4	5.2	4.4	4.3	3.5	3.4	2.5	2.1	4
13	3.4	3.9	3.9	4.2	3.5	3.9	3.9	3.1	3.5	4.2	3.3	4.1	4.3	4.6	4.2	4.2	2.6	1.7	2	1.2	1.2	1.1	0.8	2.4	3.1
14	3.3	1.8	2.4	1.6	1.8	2.1	1.1	2.2	1.3	2.3	2.9	4.1	3.7	2.8	3	3	3.5	3	2.2	0.6	0.4	0.5	0	0.6	2.1
15	0.9	0	0.4	0.5	1.2	0.5	0	0.8	1.8	4.2	4.5	5.1	5.6	6.1	6.4	6.8	5.3	3.6	4.1	5	5.1	5.1	6.6	5.7	3.6
16	5.9	4.4	4.6	6.2	5.8	4.6	4.6	4.5	4.8	5.9	6.3	6.1	7	6.5	5.9	6.4	5.5	5.1	4.8	5.2	4	4.5	5.3	4	5.3
17	3.8	4.2	3.6	3.3	3.9	2.9	4	3.9	4.5	5.3	6.3	5.8	5.2	5.7	4.9	5.2	4.3	4.5	3.1	2.1	1.4	0.6	0	0.8	3.7
18	2.1	2	2.7	3.6	1.9	1.9	1.3	1.1	2.4	4.3	5.3	5	6.2	5.7	6.4	5.8	3.7	3.4	2.7	1.2	0.6	0	0.1	0.9	2.9
19	0.1	0.6	1.2	0	0	0.5	0.7	1	2.2	3.9	6.1	6.6	6.4	5.7	5.6	5.4	3.2	2.1	3	2.6	3.4	3.6	4.8	5.3	3.1
20	4.8	3.8	3.2	4.8	4.8	4.6	3.7	2.7	3.5	5.5	5.2	6.1	5.7	4.8	3.9	2.2	1.5	0.7	1.2	0.6	1.3	1.7	2.3	2.2	3.4
21	2.7	2.5	2	2.8	3.2	3	2.7	3.4	4.3	5.9	5.9	4.1	2.8	2.3	4	4.5	6.1	4.3	5.5	8.3	8.7	7.3	5.6	4.3	4.4
22	3.9	3.2	2.3	2	2.3	1.9	1.7	2	2.5	3	4.3	4.9	2.5	2	1.8	0.7	2.5	3.8	3.9	5.4	6.2	5.4	6.2	7.9	3.4
23	7.8	9	10.8	8.2	6.9	7.5	7.4	5.9	5.2	6.3	6.9	6.6	4.6	5.2	4.4	3.8	5.1	6	6.3	6.3	4	3.3	3.8	3.8	6
24	2.6	1	1.3	2	2.4	2.4	2.7	2.4	2.1	2.3	3.1	3.5	3.6	5.3	7.2	6	4.2	2.6	2.1	1.8	1.8	0.3	0	0	2.6
25	0	0	0	0	0.3	0.3	0.2	0.9	0.7	2.7	4.4	4.1	4.5	5.2	4.3	3.8	3.1	2.2	3.1	4.2	3.5	4.7	5.4	6.4	2.7
26	6.3	5.5	4.8	4.7	4.4	4.8	5.9	3.5	3	4.8	7.8	7.3	7.7	6.8	6	6.3	3.7	0.7	0.5	1.8	0.2	0.8	1.4	0.3	4.1
27	0.2	0	0.3	0.6	0.2	0.5	0.2	3.4	3.6	4.4	5.4	5.7	7.7	11.3	12.9	14.1	11.1	9.1	6.1	6.1	7.9	8.8	7.8	7.3	5.6
28	6.5	6.5	6.4	6.2	6.6	7.4	8	8.1	8	8.5	9.7	10.2	10.4	10.6	10.4	9.9	7.5	6.1	3.7	4.4	2.6	2.3	2	2.6	6.9
29	2.7	1.9	1.7	0.9	0.6	0.5	1	1	0.6	2.1	1.7	2.6	3.8	4.4	4.4	3.4	3.2	1.9	1.2	2	2	2.4	2.4	2.8	2.1
30	3.3	3.4	4	3.2	2.5	2.3	2.1	2.7	3.7	3.9	3.9	5	5.3	5.8	6.1	5.5	4	3.6	4.3	4.3	5.7	5	4.5	5.2	4.1
31	5.9	4.9	4.8	4.6	3.8	3.9	3.1	3	5.3	6	8	8.1	8.1	7.2	7.8	6.4	5.6	3.7	2	1.6	1.7	1.8	1.7	0.8	4.6
Avg	3.2	3	3.1	3	2.9	3	3	3	3.5	4.3	5.2	5.5	5.5	5.5	5.3	4.9	4.2	3.2	3.1	3.3	3.1	2.8	2.8	2.9	3.7
SD	2.4	2.3	2.3	2.1	1.9	1.9	2	1.8	1.9	1.7	2	1.8	2.1	2.1	2.4	2.6	2	2.1	1.9	2.4	2.9	2.6	2.4	2.5	1.4
S/A	0.75	0.77	0.76	0.71	0.66	0.64	0.68	0.61	0.54	0.38	0.39	0.32	0.37	0.39	0.46	0.54	0.48	0.66	0.62	0.74	0.94	0.92	0.86	0.84	0.38
Min	0	0	0	0	0	0.3	0	0.4	0.6	1.1	1.5	2.4	2	2	1.8	0.7	1.5	0.7	0.3	0.1	0	0	0	0	1.2
Max	10.3	9	10.8	8.2	6.9	7.5	8	8.1	8	8.5	9.7	10.2	10.4	11.3	12.9	14.1	11.1	9.1	8.8	10.8	13.1	10.6	7.8	8.9	7.1
n	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	8928

Data Recovery: 0.0% missing; 0.0% untested; 0.0% failed QC -- 8928 total measurements.

Instrument: NRG MAX-40 Serial Number: 0 Calibration Factor: 0.76171 m/s/mV Calibration Date: 06/1995

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.

Prepared by: Afshin M. Andreas, NREL

**Elizabeth City State University**  
**36.28 N Latitude 76.22 W Longitude 26 Meters AMSL Time Zone -5**

**December 2011**

**Station Pressure**  
**Hourly and Daily Averages**  
**Instrument: Viasala PTA-427**  
**Millibars**

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	1016	1017	1017	1018	1019	1019	1020	1021	1023	1023	1023	1023	1022	1022	1022	1023	1023	1024	1024	1024	1025	1025	1025	1026	1022	
2	1025	1025	1026	1025	1025	1026	1026	1027	1027	1028	1028	1027	1026	1026	1025	1026	1026	1027	1027	1028	1028	1029	1029	1029	1029	1027
3	1030	1030	1031	1031	1031	1032	1032	1033	1034	1034	1034	1034	1033	1033	1033	1033	1033	1033	1033	1033	1033	1033	1033	1032	1033	
4	1032	1031	1031	1031	1030	1031	1031	1031	1031	1031	1031	1030	1029	1028	1028	1027	1027	1027	1027	1027	1027	1027	1027	1027	1029	
5	1026	1026	1026	1025	1025	1025	1025	1025	1025	1026	1026	1025	1024	1023	1022	1022	1022	1022	1022	1022	1022	1022	1022	1021	1024	
6	1021	1020	1020	1020	1020	1019	1020	1019	1019	1019	1019	1018	1017	1016	1016	1016	1016	1016	1016	1016	1016	1016	1015	1014	1018	
7	1014	1014	1013	1013	1012	1012	1012	1011	1011	1011	1010	1008	1006	1005	1004	1002	1001	1000	999	998	999	1002	1003	1005	1007	
8	1007	1010	1012	1013	1015	1016	1018	1020	1021	1022	1022	1023	1022	1023	1022	1022	1023	1023	1024	1025	1026	1026	1026	1026	1020	
9	1025	1025	1025	1025	1024	1024	1024	1025	1024	1024	1024	1023	1022	1022	1021	1021	1021	1021	1021	1021	1021	1021	1021	1021	1023	
10	1021	1020	1020	1020	1020	1020	1021	1022	1023	1024	1025	1025	1024	1024	1024	1025	1026	1026	1027	1028	1028	1029	1029	1030	1024	
11	1030	1030	1030	1031	1031	1032	1032	1033	1034	1034	1035	1034	1033	1033	1033	1033	1033	1033	1033	1033	1033	1032	1032	1032	1032	
12	1032	1031	1031	1031	1030	1030	1030	1030	1031	1031	1031	1031	1030	1029	1029	1028	1028	1028	1028	1028	1028	1029	1029	1029	1030	
13	1028	1028	1028	1028	1027	1027	1028	1028	1028	1028	1028	1028	1027	1026	1026	1025	1026	1026	1026	1026	1026	1027	1027	1027	1027	
14	1026	1026	1026	1026	1026	1026	1027	1027	1027	1027	1027	1027	1026	1026	1025	1025	1026	1026	1026	1026	1026	1026	1026	1026	1026	
15	1025	1024	1024	1023	1023	1023	1023	1023	1023	1023	1023	1022	1020	1019	1018	1017	1017	1017	1017	1017	1016	1016	1016	1016	1020	
16	1016	1016	1015	1015	1016	1016	1016	1017	1017	1018	1018	1018	1018	1018	1018	1019	1019	1019	1019	1019	1019	1020	1019	1019	1018	
17	1019	1018	1018	1018	1018	1018	1019	1019	1020	1020	1020	1020	1019	1019	1018	1018	1019	1020	1020	1021	1021	1021	1020	1020	1019	
18	1020	1020	1021	1021	1021	1021	1021	1022	1023	1024	1024	1023	1023	1022	1022	1022	1023	1024	1025	1026	1026	1026	1026	1026	1023	
19	1025	1025	1025	1025	1025	1025	1026	1026	1026	1026	1026	1025	1024	1022	1021	1021	1021	1021	1021	1021	1021	1021	1020	1020	1023	
20	1020	1019	1019	1019	1019	1019	1020	1020	1021	1021	1021	1020	1020	1019	1019	1019	1019	1019	1019	1020	1020	1020	1020	1019	1020	
21	1019	1019	1019	1018	1018	1018	1018	1018	1018	1018	1017	1017	1016	1015	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1016	
22	1014	1014	1015	1015	1015	1016	1017	1017	1018	1019	1019	1018	1017	1017	1017	1016	1016	1015	1015	1014	1014	1014	1013	1013	1016	
23	1012	1011	1009	1010	1010	1011	1012	1013	1014	1016	1017	1016	1016	1016	1016	1017	1018	1019	1020	1020	1021	1021	1021	1022	1016	
24	1022	1022	1022	1022	1023	1023	1024	1025	1026	1027	1028	1027	1027	1026	1027	1027	1027	1028	1028	1029	1029	1029	1029	1028	1026	
25	1028	1027	1027	1027	1026	1026	1027	1027	1027	1027	1026	1025	1023	1022	1021	1021	1020	1019	1019	1018	1017	1017	1017	1016	1023	
26	1016	1016	1017	1018	1018	1019	1020	1021	1023	1024	1025	1025	1024	1023	1024	1024	1024	1025	1025	1025	1025	1024	1024	1022	1022	
27	1023	1022	1022	1021	1020	1019	1019	1017	1016	1014	1012	1009	1006	1004	1001	1000	999	998	999	999	999	999	999	1000	1009	
28	1000	1001	1002	1002	1003	1004	1005	1006	1008	1008	1009	1008	1008	1008	1008	1009	1010	1011	1012	1013	1014	1014	1014	1015	1008	
29	1015	1015	1016	1016	1016	1016	1016	1017	1018	1018	1018	1017	1016	1016	1016	1015	1015	1014	1014	1014	1015	1015	1015	1015	1016	
30	1015	1015	1016	1016	1016	1016	1016	1017	1017	1018	1018	1017	1016	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1014	1016	
31	1014	1013	1013	1012	1011	1011	1011	1011	1011	1012	1012	1012	1011	1011	1011	1012	1013	1015	1016	1016	1017	1018	1018	1018	1013	
Avg	1020	1020	1020	1020	1020	1021	1021	1022	1022	1022	1022	1022	1021	1020	1020	1020	1020	1020	1020	1021	1021	1021	1021	1021	1021	
SD	7	7	7	7	7	7	7	7	6	6	7	7	7	7	8	8	8	8	8	8	8	8	8	7		
S/A	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		
Min	1000	1001	1002	1002	1003	1004	1005	1006	1008	1008	1009	1008	1006	1004	1001	1000	999	998	999	998	999	999	999	1000	1007	
Max	1032	1031	1031	1031	1031	1032	1032	1033	1034	1034	1035	1034	1033	1033	1033	1033	1033	1033	1033	1033	1033	1033	1033	1032	1033	
n	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	8928		

Data Recovery: 0.0% missing; 0.0% untested; 0.0% failed QC -- 8928 total measurements.

Instrument: Viasala PTA-427    Serial Number: 493926    Calibration Factor: 0.104 mBar/mV + 800 mBar    Calibration Date: 06/1995

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.

Prepared by: Afshin M. Andreas, NREL

**December 2011**

**Battery Voltage (CR10)**  
**Hourly and Daily Averages**  
**Instrument: CSI**  
**Volts DC**

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	12.7	12.7	12.6	12.6	12.6	12.6	12.6	13.7	13.8	13.7	13.6	13.6	13.5	13.5	13.5	13.5	13.3	12.9	12.8	12.8	12.7	12.7	12.7	12.7	13.1
2	12.7	12.7	12.6	12.6	12.6	12.6	12.6	13.8	13.8	13.6	13.5	13.4	13.4	13.4	13.4	13.4	13.3	12.9	12.8	12.8	12.7	12.7	12.7	12.7	13
3	12.7	12.7	12.7	12.7	12.6	12.6	12.6	13.5	13.7	13.6	13.5	13.5	13.4	13.4	13.5	13.5	13.2	12.9	12.8	12.8	12.8	12.7	12.7	12.7	13
4	12.7	12.7	12.7	12.7	12.6	12.6	12.6	12.9	13.7	13.5	13.4	13.3	13.3	13.3	13.4	13.4	13.1	12.9	12.8	12.8	12.8	12.8	12.7	12.7	13
5	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.8	12.9	13.4	13.3	13.3	13.3	13.3	13.1	12.9	12.8	12.8	12.8	12.8	12.7	12.7	12.7	12.9
6	12.7	12.7	12.7	12.6	12.6	12.6	12.6	13	13.5	13.4	13.3	13.3	13.2	13.3	13.3	13.3	13	12.9	12.8	12.8	12.8	12.8	12.8	12.8	12.9
7	12.7	12.7	12.7	12.7	12.7	12.7	12.6	12.8	13.4	13.4	13.3	13.3	13.3	13.2	13.2	13.3	13	12.9	12.8	12.8	12.8	12.8	12.7	12.7	12.9
8	12.7	12.7	12.6	12.6	12.6	12.6	12.5	13.6	13.8	13.7	13.6	13.5	13.5	13.5	13.5	13.5	13.3	12.9	12.8	12.8	12.7	12.7	12.7	12.7	13
9	12.7	12.7	12.6	12.6	12.6	12.6	12.5	13.3	13.8	13.7	13.5	13.5	13.4	13.4	13.5	13.2	12.9	12.9	12.8	12.8	12.8	12.8	12.8	12.7	13
10	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.6	12.7	13.6	13.6	13.6	13.7	13.7	13.7	13.3	13	12.8	12.8	12.8	12.8	12.7	12.7	12.7	13
11	12.7	12.6	12.6	12.6	12.5	12.5	12.5	13.5	13.9	13.8	13.7	13.6	13.6	13.6	13.6	13.7	13.3	12.9	12.8	12.8	12.8	12.7	12.7	12.7	13.1
12	12.7	12.7	12.7	12.7	12.7	12.6	12.6	13.2	13.8	13.7	13.7	13.6	13.6	13.5	13.3	13	12.9	12.9	12.8	12.8	12.8	12.8	12.8	12.7	13
13	12.7	12.7	12.7	12.6	12.6	12.6	12.6	13.2	13.7	13.6	13.5	13.5	13.4	13.4	13.5	13.5	13.3	12.9	12.8	12.8	12.8	12.7	12.7	12.7	13
14	12.7	12.7	12.7	12.7	12.6	12.6	12.6	12.6	13.3	13.7	13.5	13.5	13.4	13.4	13.4	13.5	13	12.9	12.8	12.8	12.8	12.8	12.8	12.7	13
15	12.7	12.7	12.7	12.7	12.6	12.6	12.6	13	13.7	13.6	13.5	13.4	13.3	13.3	13.3	13.3	13.2	12.9	12.9	12.8	12.8	12.8	12.8	12.8	13
16	12.8	12.8	12.7	12.7	12.7	12.7	12.7	13.1	13.5	13.4	13.3	13.3	13.3	13.4	13.3	13.2	12.9	12.8	12.8	12.8	12.8	12.8	12.7	12.7	13
17	12.7	12.7	12.6	12.6	12.6	12.6	12.6	12.6	12.9	13.8	13.7	13.6	13.7	13.7	13.5	13.5	12.9	12.9	12.8	12.8	12.8	12.7	12.7	12.7	13
18	12.6	12.6	12.5	12.5	12.5	12.5	12.5	13.3	13.9	13.8	13.7	13.6	13.6	13.7	13.7	13.3	12.9	12.8	12.8	12.8	12.7	12.7	12.7	12.7	13.1
19	12.7	12.7	12.6	12.6	12.6	12.6	12.5	13.5	13.9	13.7	13.6	13.6	13.5	13.5	13.5	13.5	13.3	12.9	12.9	12.8	12.8	12.8	12.8	12.8	13.1
20	12.8	12.8	12.7	12.7	12.7	12.7	12.7	12.9	13.7	13.6	13.6	13.5	13.4	13.5	13.5	13.1	12.9	12.9	12.8	12.8	12.8	12.8	12.8	12.8	13
21	12.8	12.7	12.7	12.7	12.7	12.7	12.7	12.8	12.8	12.9	13.2	13.2	13.1	12.9	12.8	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.6	12.6	12.8
22	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.9	13.4	13.3	13.3	13.1	13.2	13.3	13	12.9	12.8	12.8	12.8	12.8	12.7	12.7	12.7	12.9
23	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.6	12.6	12.8	13.4	13.4	13.4	13.3	13.4	13	12.9	12.8	12.8	12.8	12.8	12.7	12.7	12.7	12.9
24	12.7	12.7	12.6	12.6	12.6	12.6	12.5	12.5	12.9	13.7	13.6	13.5	13.5	13.5	13.6	13.5	12.9	12.8	12.8	12.8	12.7	12.7	12.7	12.7	12.9
25	12.7	12.6	12.6	12.6	12.6	12.6	12.5	13	13.9	13.7	13.6	13.5	13.5	13.5	13.5	13.1	12.9	12.8	12.8	12.8	12.8	12.8	12.8	12.7	13
26	12.7	12.7	12.7	12.6	12.6	12.6	12.6	13.3	13.8	13.7	13.6	13.5	13.5	13.5	13.5	13.5	13.4	12.9	12.8	12.8	12.8	12.7	12.7	12.7	13.1
27	12.7	12.7	12.7	12.7	12.7	12.7	12.6	12.6	12.7	12.8	12.9	13	12.7	12.6	12.6	12.6	12.7	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.7
28	12.5	12.5	12.5	12.5	12.5	12.5	12.5	13.1	13.7	13.6	13.6	13.5	13.5	13.5	13.5	13.6	13.4	12.9	12.8	12.8	12.8	12.8	12.7	12.7	13
29	12.7	12.7	12.7	12.7	12.6	12.6	12.6	13.4	13.9	13.7	13.6	13.5	13.5	13.5	13.5	13.6	13.1	12.9	12.8	12.8	12.8	12.8	12.7	12.7	13.1
30	12.7	12.7	12.7	12.7	12.7	12.7	12.6	13.3	13.8	13.7	13.5	13.5	13.4	13.4	13.4	13.4	13.3	12.9	12.8	12.8	12.8	12.8	12.8	12.8	13
31	12.8	12.8	12.7	12.7	12.7	12.7	12.7	13	13.5	13.4	13.5	13.4	13.4	13.3	13.4	13.4	13.3	12.9	12.8	12.8	12.8	12.8	12.8	12.7	13
Avg	12.7	12.7	12.7	12.6	12.6	12.6	12.6	13.1	13.5	13.5	13.5	13.4	13.4	13.4	13.4	13.3	13.1	12.9	12.8	12.8	12.8	12.7	12.7	12.7	13
S D	0	0	0.1	0.1	0.1	0.1	0.1	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0	0	0	0	0.1	
S/A	0	0	0	0	0	0	0	0.03	0.03	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0	0	0	0	0	0	0.01	
Min	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.6	12.7	12.8	12.9	13	12.7	12.6	12.6	12.7	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.7
Max	12.8	12.8	12.7	12.7	12.7	12.7	12.7	13.8	13.9	13.8	13.7	13.6	13.7	13.7	13.7	13.7	13.4	12.9	12.9	12.8	12.8	12.8	12.8	12.8	13.1
n	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	8928

Data Recovery: 0.0% missing; 0.0% untested; 0.0% failed QC -- 8928 total measurements.

Instrument: CSI    Serial Number: Battery    Calibration Factor: N/A    Calibration Date: 06/1995

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.