

December 2009

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	68	187	318	477	532	527	459	320	161	34	0	0	0	0	0	0	0	3086
2	0	0	0	0	0	0	0	11	24	34 ?	175	209	100	66	44	22	4	0	0	0	0	0	0	0	690
3	0	0	0	0	0	0	0	39	180	313	320	357	475	374	251	134	49	0	0	0	0	0	0	0	2490
4	0	0	0	0	0	0	0	16	181	348	453	500	456	265	130	50	11	0	0	0	0	0	0	0	2409
5	0	0	0	0	0	0	0	3	27 ?	38 ?	67	75	124	87	62	12 ?	4	0	0	0	0	0	0	0	500 ?
6	0	0	0	0	0	0	0	43	192	351	464	527	459	451	300	90	22	0	0	0	0	0	0	0	2898
7	0	0	0	0	0	0	0	41	180	339	447	468	204	147	195	36	11	0	0	0	0	0	0	0	2069
8	0	0	0	0	0	0	0	21	99	248	411	318	205	118	83	39	9	0	0	0	0	0	0	0	1550
9	0	0	0	0	0	0	0	20	70	30 ?	48 ?	165	474	419	304	148	28	0	0	0	0	0	0	0	1707 ?
10	0	0	0	0	0	0	0	11	90	136	335	336	424	380	324	171	39	0	0	0	0	0	0	0	2246
11	0	0	0	0	0	0	0	33	106	240	262	267	320	295	111	67	17	0	0	0	0	0	0	0	1720
12	0	0	0	0	0	0	0	49	164	195	251	316	369	207	164	85	18	0	0	0	0	0	0	0	1818
13	0	0	0	0	0	0	0	6	25 ?	52	46	55 ?	65	57	48	13 ?	6	0	0	0	0	0	0	0	373 ?
14	0	0	0	0	0	0	0	19	95	222	182	166	171	188	144	75	14	0	0	0	0	0	0	0	1277
15	0	0	0	0	0	0	0	14	64	89	168	196	87	91	73	43	10	0	0	0	0	0	0	0	835
16	0	0	0	0	0	0	0	23	152	330	445	513	517	457	332	169	34	0	0	0	0	0	0	0	2970
17	0	0	0	0	0	0	0	39	167	330	445	508	512	449	327	167	35	0	0	0	0	0	0	0	2979
18	0	0	0	0	0	0	0	28	146	246	263	260	185	130	46	18 ?	2	0	0	0	0	0	0	0	1324
19	0	0	0	0	0	0	0	7	23	74	84	98	160	122	61	24	5	0	0	0	0	0	0	0	657
20	0	0	0	0	0	0	0	34	136	256	398	450	456	369	302	163	38	0	0	0	0	0	0	0	2603
21	0	0	0	0	0	0	0	33	160	314	429	494	488	445	330	172	39	0	0	0	0	0	0	0	2905
22	0	0	0	0	0	0	0	48	195	309	420	487	493	430	316	160	34	0	0	0	0	0	0	0	2893
23	0	0	0	0	0	0	0	58	175	305	420	485	486	418	316	162	32	0	0	0	0	0	0	0	2858
24	0	0	0	0	0	0	0	35	158	316	435	502	505	449	335	177	42	0	0	0	0	0	0	0	2954
25	0	0	0	0	0	0	0	11	51	72	114	108	86	93	40	30	3	0	0	0	0	0	0	0	609
26	0	0	0	0	0	0	0	17	55	90	139	154	121	143	98	37	10	0	0	0	0	0	0	0	865
27	0	0	0	0	0	0	0	14	99	227	363	476	507	454	345	191	36	0	0	0	0	0	0	0	2712
28	0	0	0	0	0	0	0	29	159	317	308	216	345	446	323	177	45	0	0	0	0	0	0	0	2365
29	0	0	0	0	0	0	0	33	159	324	450	519	528	472	359	195	48	0	0	0	0	0	0	0	3088
30	0	0	0	0	0	0	0	13	126	224	342	476	332	290	187	126	20	0	0	0	0	0	0	0	2135
31	0	0	0	0	0	0	0	5	29	67	134	244	278	207	116	52	20	0	0	0	0	0	0	0	1152
Avg	0	0	0	0	0	0	0	27	118	218	300	338	337	290	206	102	23	0	0	0	0	0	0	0	1959
S D	0	0	0	0	0	0	0	16	59	114	145	161	165	152	118	65	15	0	0	0	0	0	0	0	911
S/A	0	0	0	0	0	0	5.57	0.62	0.49	0.52	0.48	0.48	0.49	0.52	0.57	0.64	0.65	0	0	0	0	0	0	0	0.46
Min	0	0	0	0	0	0	0	3	23	30	46	55	65	57	40	12	2	0	0	0	0	0	0	0	373
Max	0	0	0	0	0	0	2	68	195	351	477	532	528	472	359	195	49	0	0	0	0	0	0	0	3088
n	0	0	0	0	0	0	1	322	359	350	362	366	369	371	368	352	301	0	0	0	0	0	0	0	3521

Daylight Data Recovery: 0.0% missing; 0.0% untested; 2.2% exceed the 15% QC threshold -- 3600 total daylight measurements.

Instrument: Eppley PSP Serial Number: 31392F3 Calibration Factor: 7.3961 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.

December 2009

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	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	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	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	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	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  $\mu\text{V}/\text{W}/\text{m}^2$  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 2009

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	?	18	36	43	47	47	48	48	45	65	22	0	0	0	0	0	0	0	419
2	0	0	0	0	0	0	0	11	24	28	168	209	100	66	44	22	4	0	0	0	0	0	0	0	676
3	0	0	0	0	0	0	0	34	88	161	221	207	153	152	114	76	27	0	0	0	0	0	0	0	1232
4	0	0	0	0	0	0	0	15	54	62	72	94	152	202	130	50	11	0	0	0	0	0	0	0	840
5	0	0	0	0	0	0	0	3	22 ?	31	67	75	116	82	58	13	4	0	0	0	0	0	0	0	472
6	0	0	0	0	0	0	0	20	48	63	75	82	147	178	111	81	22	0	0	0	0	0	0	0	826
7	0	0	0	0	0	0	0	21	47	57	89	167	204	138	135	36	11	0	0	0	0	0	0	0	904
8	0	0	0	0	0	0	0	22	91	116	155	227	205	118	83	39	9	0	0	0	0	0	0	0	1066
9	0	0	0	0	0	0	0	20	69	26 ?	35	160	86	92	75	55	22	0	0	0	0	0	0	0	641
10	0	0	0	0	0	0	0	11	89	136	174	214	101	89	60	35	14	0	0	0	0	0	0	0	922
11	0	0	0	0	0	0	0	15	46	173	250	262	289	243	108	67	17	0	0	0	0	0	0	0	1471
12	0	0	0	0	0	0	0	33	75	158	239	286	251	197	154	84	18	0	0	0	0	0	0	0	1495
13	0	0	0	0	0	0	0	7	20	50	44	42	58	57	45	14	6	0	0	0	0	0	0	0	343
14	0	0	0	0	0	0	0	21	93	207	182	166	171	188	144	75	14	0	0	0	0	0	0	0	1262
15	0	0	0	0	0	0	0	14	64	89	167	194	87	91	73	43	10	0	0	0	0	0	0	0	831
16	0	0	0	0	0	0	0	21	54	78	62	56	57	52	44	32	11	0	0	0	0	0	0	0	468
17	0	0	0	0	0	0	0	17	35	47	53	59	67	53	47	45	19	0	0	0	0	0	0	0	442
18	0	0	0	0	0	0	0	28	113	183	240	255	184	130	46	15	2	0	0	0	0	0	0	0	1196
19	0	0	0	0	0	0	0	8	23	74	74	98	160	122	61	23	5	0	0	0	0	0	0	0	648
20	0	0	0	0	0	0	0	30	57	58	64	105	132	87	72	50	18	0	0	0	0	0	0	0	672
21	0	0	0	0	0	0	0	16	40	53	68	88	87	85	58	40	15	0	0	0	0	0	0	0	550
22	0	0	0	0	0	0	0	17	42	53	61	67	74	60	50	36	13	0	0	0	0	0	0	0	472
23	0	0	0	0	0	0	0	19	44	54	62	64	69	69	57	41	13	0	0	0	0	0	0	0	492
24	0	0	0	0	0	0	0	15	35	47	52	52	51	48	45	37	16	0	0	0	0	0	0	0	396
25	0	0	0	0	0	0	0	11	51	72	114	108	86	93	38	30	3	0	0	0	0	0	0	0	608
26	0	0	0	0	0	0	0	17	55	90	139	154	121	143	98	37	10	0	0	0	0	0	0	0	865
27	0	0	0	0	0	0	0	14	79	81	87	62	54	45	48	76	14	0	0	0	0	0	0	0	559
28	0	0	0	0	0	0	0	20	53	78	230	216	261	98	92	73	16	0	0	0	0	0	0	0	1137
29	0	0	0	0	0	0	0	15	36	48	55	56	57	53	46	35	14	0	0	0	0	0	0	0	415
30	0	0	0	0	0	0	0	12	96	179	186	253	298	260	185	77	16	0	0	0	0	0	0	0	1562
31	0	0	0	0	0	0	0	5	29	67	134	239	276	207	116	52	20	0	0	0	0	0	0	0	1145
Avg	0	0	0	0	0	0	0	17	55	86	118	141	136	114	80	47	13	0	0	0	0	0	0	0	807
S D	0	0	0	0	0	0	0	7	25	51	69	79	77	62	39	21	6	0	0	0	0	0	0	0	359
S/A	0	0	0	0	0	0	0	0.43	0.45	0.6	0.59	0.56	0.57	0.54	0.49	0.45	0.47	0	0	0	0	0	0	0	0.44
Min	0	0	0	0	0	0	0	3	20	26	35	42	48	45	38	13	2	0	0	0	0	0	0	0	343
Max	0	0	0	0	0	0	0	34	113	207	250	286	298	260	185	84	27	0	0	0	0	0	0	0	1562
n	0	0	0	0	0	0	0	307	366	362	370	372	372	372	371	370	301	0	0	0	0	0	0	0	3563

Daylight Data Recovery: 0.0% missing; 0.0% untested; 1.0% 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 2009**

**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	7.2	6.3	5.4	4.7	3.9	2.6	1.8	2.7	4.6	6.5	8.4	10	10.8	11.7	12.5	12.3	10.6	8.9	8.3	7.7	7.5	7.9	8	7.6	7.4
2	7.4	7.2	7.4	7.5	8	9.2	10.2	11.1	12.1	12.8	14	16.3	17.1	16.3	16.2	15.8	15.5	15.6	16.6	17.6	18.9	20.2	20.7	20.4	13.9
3	20.5	20.1	19.9	19.6	19.2	18.8	17.8	17.1	17.2	17.5	17.5	17.4	17.9	18.2	18.2	18	17.4	16.1	15.1	14.2	13.6	13.1	12.2	11.1	17
4	10.4	9.9	9.6	8.9	8.1	7.8	7.9	7.6	9	11.6	12.9	13.3	13.7	13.2	12.5	11.9	11.2	10.8	10.7	10.8	11.1	11.2	11.6	12	10.7
5	11.5	11.4	11.6	11.6	11.6	11.5	11.3	11.2	11.2	11.3	11.6	11.8	12.2	12.4	12.3	10.2	8.3	7.1	6.2	4.9	3.9	3.6	3.7	3.7	9.4
6	3	2.4	2	1.7	1.5	1.1	0.3	0.2	1.9	2.9	3.8	4.6	5.2	5.7	6.1	5.8	5.2	4.7	4.3	4	3.5	3.4	3	3	3.3
7	3	3	3.1	3.2	2.7	2.2	1.6	1.8	4.5	9.1	10.9	12.1	12.1	11.6	11.4	10.9	10.4	10	9.7	9.6	8.9	8.6	8.2	7.5	7.3
8	7.1	6.3	5.6	5.9	6.3	6.1	5.9	6.6	7.5	8.1	8.7	9.1	9	8.8	8.8	8.7	8.7	8.8	9.2	9.8	9.9	10	11.2	13.1	8.3
9	15.1	16.4	16.8	17	18	18.6	18.9	19.3	20.3	20.5	20.1	19.9	21	22.1	22.6	22.3	21.5	21.1	20.1	20.1	20.6	21.4	21.2	21	19.8
10	20.4	19.2	18.3	17.1	15.6	12.9	11.6	10.9	10.4	9.9	9.8	10.1	9.9	10.5	11.2	10.9	10.1	8.4	7.4	6.7	5.9	5.3	4.6	3.5	10.9
11	2.6	1.6	1.3	0.4	-0.1	-0.8	-1.4	-1.4	-0.7	0.1	1	1.2	1.7	1.8	1.9	1.9	1.6	1	0.6	0.2	-0.1	-0.2	-0.3	-0.4	0.6
12	-0.8	-1.1	-1.1	-1.2	-1.8	-2.8	-2.8	-2.3	-0.3	1.5	3	4.4	5.7	6.1	6.1	6.1	5.6	5.3	5.1	4.9	5.4	6.1	6.7	7.6	2.7
13	8.3	8.8	9.7	10.3	11.2	11.9	12.6	13.4	14.1	14.9	15.1	15.2	15.3	16.1	16.8	16.5	16.8	17.3	13.8	10.6	10	9.6	9	8.2	12.7
14	7.4	6.9	6.3	5.5	5.1	5	4.7	4.3	4.6	5.5	6.1	7.8	8.9	9.8	10.1	10.2	9.8	9.3	9	8.6	8.1	7.7	8.7	9.6	7.5
15	10	10.2	10.5	10.7	11	11.4	11.5	11.7	11.9	12.4	13	13.8	14.1	14.2	14.3	14.3	14.1	13.8	13.4	13.1	12.6	11.9	11.5	10.8	12.3
16	10.1	9.5	9	7.6	6.2	5.4	4.6	4	4.6	5.7	6.3	6.6	6.9	7.2	7.9	7.9	6.9	5.4	4.5	3.7	2.9	2	1.8	1.4	5.8
17	0.7	0.3	0.4	0.6	0.4	0	-0.5	-1.2	0.2	2.2	3.4	4.1	4.7	5.3	5.7	6.1	5.3	4.1	2.8	2	1.7	1.3	0.7	0.2	2.1
18	0.7	1	1.3	1.1	0.7	0.8	0.9	1	2	3.8	5	6.1	6.4	6.4	6.3	6.1	5.9	5.4	5.2	5	5.2	5.7	6.5	7.3	4
19	8.4	9.7	10.2	10.6	10.8	10.6	10.6	10.2	10.4	10.4	10.7	9.3	6	4	2.8	1.6	0.4	-0.4	-0.7	-1.4	-1.7	-1.6	-1.5	-1.6	5.3
20	-1.5	-1.7	-1.5	-1.4	-1.4	-1.3	-1.3	-1.5	-1	0.2	1.3	2.2	3.2	3.9	4.5	4.6	3.7	2.5	1.7	1	0.7	0.2	-0.1	-0.5	0.7
21	-0.9	-1.2	-1.2	-0.8	-1.6	-2.4	-2.7	-2.7	-1.2	1.1	3.2	3.9	4.4	5.2	5.7	6	5.5	4.2	3.3	2.5	1.8	1.6	1.9	1.7	1.5
22	1.4	0.8	0.3	-0.3	-0.7	-1	-1.3	-1.5	0.4	3.2	5.2	6.1	6.9	7.8	8.4	8.6	7.5	4.7	4	3	2.6	2.1	1.6	1	3
23	1	1	0.8	0.4	0.3	0.3	-0.4	0	2.1	4.6	5.9	7.2	8.3	9.2	10	9.7	8.8	6.1	4.6	3.7	3.3	3	2.6	1.9	3.9
24	1.6	1.7	1.7	1.5	1.2	0.8	0.4	0.4	1	1.9	3.2	4.5	5.5	6.4	6.3	4.8	3	1.8	2.1	2.7	3.1	3.7	3.9	3.9	2.8
25	4.5	5.7	6.2	7.2	7.8	8.1	8.4	8.9	10.1	11.2	12	12.5	12.8	13.2	13.2	12.6	12.9	12.7	12.1	13	13.4	13.5	13.7	13.8	10.8
26	13.4	14.4	14.4	14.6	14.9	15.9	15.8	15.4	14.8	14.5	14	13.4	13.1	11.9	11.2	10.9	10.3	10	10.1	10.3	10.1	9.7	9.2	8.7	12.5
27	8.3	8	7.5	6.9	6.4	6.1	5.4	5	5.2	6	8.3	10.3	12	13.2	13.2	12.4	10.9	9.1	7.7	7	6.9	7.5	6.9	6.8	8.2
28	6.6	6.7	7.3	7	7	6.6	6	5.6	6.3	7.5	8.1	7.2	7.5	8.2	8.2	8.1	7	5.3	4.3	3.3	2.7	2.1	1.6	1.4	5.9
29	0.8	0.4	0	-0.2	-0.5	-0.7	-0.8	-0.8	0.2	1.9	3.6	4.3	4.7	4.9	5.1	5.1	4.4	3.2	2.4	1.5	0.7	0.1	-0.5	-1.1	1.6
30	-1.7	-2	-2.1	-2.4	-2.8	-2.8	-2.6	-2.4	-1.4	-0.1	1.4	2.7	2.5	2.8	2.8	3.1	2.4	1.7	1.3	1.5	2.1	2.4	2.6	3	0.5
31	2.8	3	2.7	2.4	2.2	2.6	2.9	3.3	4.4	5.1	5.4	6.4	7.7	8	8.2	8.2	8	7.9	7.9	7.9	7.9	8	8	8	5.8
Avg	6.1	6	5.9	5.7	5.5	5.3	5.1	5.1	6	7.2	8.2	8.8	9.3	9.6	9.7	9.4	8.7	7.8	7.2	6.8	6.6	6.5	6.4	6.3	7
S/D	5.9	6	6	6	6.2	6.3	6.4	6.3	5.9	5.5	5	4.8	4.8	4.8	4.8	4.8	4.9	5.1	5	5.2	5.4	5.6	5.7	5.8	5
S/A	0.97	1	1.02	1.05	1.12	1.19	1.26	1.25	0.99	0.76	0.62	0.54	0.52	0.5	0.5	0.51	0.56	0.66	0.7	0.77	0.83	0.87	0.89	0.93	0.71
Min	-1.7	-2	-2.1	-2.4	-2.8	-2.8	-2.8	-2.7	-1.4	-0.1	1	1.2	1.7	1.8	1.9	1.6	0.4	-0.4	-0.7	-1.4	-1.7	-1.6	-1.5	-1.6	0.5
Max	20.5	20.1	19.9	19.6	19.2	18.8	18.9	19.3	20.3	20.5	20.1	19.9	21	22.1	22.6	22.3	21.5	21.1	20.1	20.1	20.6	21.4	21.2	21	19.8
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.

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 2009**

**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	100.2	97.7	94.3	91.8	95.6	101.6	104.3 ?	103.2	96.4	87.2	73.6	57.9	57	54.6	53.6	54.1	73.3	78.7	77.9	80.9	84.8	87.6	89.3	93.3	82.9	
2	95.8	96.3	99.9	99	95.6	92.1	94.6	96.5	100.2	103.3 ?	103.4 ?	97.2	93.7	98.7	101.4	104.2 ?	?	?	?	?	?	103.9	103.5	104.9 ?	99.2 ?	
3	104.4 ?	103.1	103.2	104.2	103.7	95.7	94.4	94	92.2	90.3	88.4	85.3	83	81.1	81.3	81.1	82.1	87.3	91.7	95.5	96.6	90	87.8	89.9	91.9	
4	91.7	94.1	93.2	95.9	99.5	100.7	99.6	100.3	95.2	85.8	80.8	78.5	79.1	81.4	84.9	89.1	92.8	95.4	97.1	99.4	100.7	101.9	102.6	102	93.4	
5	104.2 ?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	102.5 ?
6	99.5	98.6	99.2	97.8	93.7	94.4	99.4	99.7	90.8	85.7	82.7	78.3	75.3	73.8	72.9	75.2	78	83.1	86.3	88.3	90.7	92.6	96.7	94.8	88.6	
7	96.7	96.6	96.4	95.7	95.4	97	100.1	100.9	94	87.6	85.5	84.6	84.6	86	85.2	88.9	91.6	93.7	94.1	92.8	95.4	96.5	92	92.4	92.7	
8	94	96.5	98.4	97	94.5	96.1	99.4	97.1	87.3	80.8	76.7	77.7	80.5	83.7	85.3	89.1	90.4	94.9	96.5	95.9	99.7	103.8	?	?	91.6	
9	?	?	?	?	104.5 ?	?	104.6	104.6	102.3	103 ?	105 ?	103.7 ?	96.7	90.6	88.4	90.1	95	97.3	100.4	100.3	97.4	93.6	91.7	92.5	98 ?	
10	92.7	76.1	58.7	59.4	60	61.9	60.2	54.5	51.3	51.7	51.7	46.4	47.8	48.3	43.1	44.9	51.3	59.5	61.1	62.8	65.2	65	62	61.6	58.2	
11	60.3	63.6	58.4	61.1	60.3	61	63.8	65.8	61	52.9	46.4	44.4	43.2	41.7	44.9	42.9	47.4	55.1	56.5	59.2	61.9	62.9	62.9	64	55.9	
12	67	68.7	67.2	65.9	69.3	81.7	81.3	80.5	68.6	60.5	54.9	53.3	48.1	44.4	47.1	44.2	43.2	53.1	61	70.8	76.8	80.6	84.8	87.9	65	
13	89.3	94.3	96.9	97.2	94.5	93.9	94.1	94.5	94.9	95.2	99.3	102.4	?	?	104.3 ?	?	?	?	?	?	?	?	?	?	96.2 ?	
14	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?
15	?	?	?	?	?	?	?	?	?	?	?	104.2	103.6	102.7	102.7	102.7	103.6	104.6	?	?	?	?	?	?	?	102.2 ?
16	92	84.8	82.3	82.5	80.2	71.3	74.8	80.5	76.6	65.5	58.1	56.4	52.9	48.5	47.2	47.3	50.6	57.9	66.2	71.9	77.4	83	83.3	86.9	69.9	
17	92.7	93.4	90.4	85.3	76.1	74	77	82.9	73.9	64.5	57	46.8	44.8	45.3	42.5	41.3	46.2	54.9	60.6	64.8	68.5	73.4	76.7	79.5	67.2	
18	80.9	76.6	78.3	81.3	86.9	89.9	88.6	88.3	86.4	84	82.2	80.1	80.3	83.2	84.7	86.7	93.2	98.8	102.2	?	?	?	?	?	85.9 ?	
19	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	104.4 ?	104	104.5 ?	?	?	?	104.8 ?	104.1 ?	102.9	102.9	103.9 ?
20	103.1	104.1	104	103.3	102.7	102.9	103.1	103.1	101.9	97.2	90.2	83.5	77.6	74.6	71.3	70.3	74.5	77.7	80.6	84.9	85.6	85.3	85	86.4	89.7	
21	87.4	87.9	87.5	82.3	88	93.2	95.6	94.8	88.6	81.3	70.7	67.4	68.5	66.2	64.7	61.8	64.1	71.6	76.9	81	83.5	85.9	87.7	90.1	80.3	
22	92.6	95.9	98.3	100.5	102.3	103.4	104.4	?	101.3	92.3	83.6	76.9	72.7	65.6	63.1	63.2	70.4	91.3	94.4	98.3	99.9	102	104.7 ?	?	89.9 ?	
23	?	?	?	?	?	?	?	?	?	100	91.1	84.5	77.3	72.5	66.7	65.1	67.6	72.3	88.3	95.4	95.5	93.4	94.3	97.2	100.1	85.1 ?
24	101.1	98.8	97.6	99.5	102.1	101.7	96.9	90.3	85.5	85.9	84.1	77.2	72.7	68.5	73.4	79.4	87	97.4	100.8	101.6	102.3	102.4	102.8	103.6	92.2	
25	105 ?	104 ?	103.3	100.6	100.1	100.4	102.1	102.2	100.6	99.9	99.7	99.8	100.1	96.8	98.2	102.8	103.7	?	?	?	?	?	?	?	101.1 ?	
26	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?
27	?	102.7	98.3	96.8	96.9	96.6	95.9	93.6	87.8	83.4	75.5	65.2	52.5	48.5	51	59.2	68.9	73.7	80.1	92.3	93.5	83.3	90	93.3	81.7	
28	96.1	94	88.6	87.6	84.5	86.8	90.5	93.2	91	83.2	77.1	76.7	69.5	62.7	58.9	58.2	56	58.8	59.6	64	64.7	68.3	71.5	71.4	75.5	
29	76.5	78.6	81.3	84.4	86.6	86.5	85.9	85.2	80	71.1	60.4	56.1	53.5	49.2	48	45.9	46.3	45.6	46.5	50.3	55.2	62.4	64.9	68.2	65.4	
30	73.5	73.9	73.7	78.4	82.5	83	80.6	84.9	83.9	81.4	78	71.9	70.2	68	68.9	75.6	81.5	89.7	93.1	95.6	96.9	98.4	99.1	99	82.6	
31	100.1	101.2	103.5 ?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	101.6 ?
Avg	91.5	90.9	89.7	89	89.8	89.8	91.3	90.9	87.7	82.6	78	75	71.2	69.2	71.7	71.9	74.7	79.7	81.8	84	86.9	89.1	89.2	89.6	85.9 ?	
S D	11.9	11.8	13.7	13.1	13	12.5	12.5	12.3	13.1	14.3	16.1	18	17.6	18.4	20.6	21	19.8	18.4	17.5	16	15.1	13.8	13.3	12.6	13.8	
S/A	0.13	0.13	0.15	0.15	0.14	0.14	0.14	0.13	0.15	0.17	0.21	0.24	0.25	0.27	0.29	0.29	0.27	0.23	0.21	0.19	0.17	0.15	0.15	0.14	0.16	
Min	60.3	63.6	58.4	59.4	60	61	60.2	54.5	51.3	51.7	46.4	44.4	43.2	41.7	42.5	41.3	43.2	45.6	46.5	50.3	55.2	62.4	62	61.6	55.9	
Max	105	104.1	104	104.2	104.5	103.4	104.6	104.6	102.3	103.3	105	104.2	103.6	102.7	104.4	104.2	104.5	104.6	102.3	102.2	104.8	104.1	104.7	104.9	103.9	
n	263	283	283	276	283	276	280	274	300	292	285	301	300	300	313	304	291	288	274	264	266	294	280	269	6840	

Data Recovery: 0.0% missing; 0.0% untested; 23.4% 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.

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 2009**

**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	7.3	6	4.9	3.9	2.9	1.9	1	1	4.7	9.8	14	16.8	18.4	18.6	18.1	17.5	15.5	11.3	8.2	6.8	6.2	6.2	6.6	6.6	8.9
2	6.1	5.8	6	6.3	6.6	7.5	8.5	9.6	10.7	11.8	12.5	14.7	16.8	17.3	16.5	15.9	15.6	15.5	15.8	16.5	17.4	18.5	19.6	20.1	13
3	20.3	20.2	19.8	19.7	19.4	18.7	18	17.5	17.9	19.7	20.3	20.6	21.1	21.9	21.5	20.7	19.7	17.6	15.3	13.7	12.9	12.4	11.8	10.9	18
4	10	9.4	8.9	7.9	6.8	6.1	5.9	5.9	6.9	12.1	16.2	18.5	19.5	18.9	16.7	14.7	13	11.8	11.1	10.8	10.8	11.2	11.5	11.8	11.5
5	11.9	11.5	11.5	11.6	11.7	11.6	11.6	11.5	11.4	11.5	11.7	12.1	12.5	13	13.1	12.6	10.7	8.9	7.6	6.5	5.3	4.5	4.2	4.1	10.1
6	3.7	2.8	1.7	1	0.6	0.2	-0.5	-1	1.5	5.2	7.7	9.7	10.7	10.7	10.8	10	7.6	5.6	4.4	3.3	2.4	1.8	1.5	1.3	4.3
7	1.4	1.7	1.9	1.9	1.7	1.1	0.2	0	3.2	9.6	15.5	18.9	18.5	15.9	14.7	13.6	12.3	11.2	10.4	10	9.5	8.9	8.5	7.3	8.3
8	6.5	5.7	4.9	4.6	5.2	5.3	5.3	5.7	6.7	8.4	10.8	12.5	12.3	11.5	10.8	10.2	9.6	9.3	9.3	9.6	9.9	9.7	9.9	11	8.5
9	12.9	14.7	15.8	16.4	16.9	17.6	18.2	18.6	19.2	20.2	20.2	20.2	21.2	23.7	24.8	25	24	22.4	21.4	20.5	20.2	20.4	20.7	20.8	19.8
10	20.8	20.2	19	17.9	16.7	15.2	13.3	11.9	11.1	10.9	10.9	12.8	12.9	13.2	13.6	13.7	12.9	10.1	7.5	6.1	5.3	4.3	3.5	2.9	11.9
11	2	0.9	0	-0.4	-1	-1.6	-2.4	-3	-1.3	0.3	2.4	3.4	4.1	4.9	4.3	3.4	2.6	1.4	0.3	-0.6	-1.2	-1.6	-1.7	-1.8	0.5
12	-2	-2.6	-3	-3.2	-3.5	-4.7	-5.5	-5.3	-2.2	1.9	3.5	5.3	7.9	9.5	8.8	8.2	7	5.6	5	4.6	4.6	4.9	5.5	6.1	2.3
13	7	7.8	8.4	9.3	10	10.9	11.8	12.6	13.4	14.2	14.9	14.6	14.8	15.4	16	16.4	16.6	16.9	16.8	13.9	11.7	10.5	9.6	8.7	12.6
14	7.9	7	6.4	5.6	5.1	5.2	5.3	5.1	5.3	6.6	8.6	9.2	10.5	11.8	12.8	12.9	12.1	11.1	10.3	9.7	9.2	8.6	8.4	9.1	8.5
15	9.7	10.2	10.5	10.8	11	11.3	11.6	11.8	12.1	12.7	13.5	15	15.8	15.7	15.6	15.5	15.2	14.6	13.8	13.2	12.8	12.7	12.3	11.9	12.9
16	11.2	10.5	9.8	8.4	6.9	5.6	4.7	3.4	3.6	7	9.9	12	12.9	12.7	12.4	12.1	10.8	7.1	4.1	2.5	1.3	0.3	-0.3	-0.7	7
17	-1	-1.4	-2	-1.8	-1.6	-1.8	-2.1	-2.5	-0.1	4.2	7.1	9	10	10.5	10.7	10.2	9.1	5.7	2.7	0.5	-0.6	-1	-1.5	-2	2.5
18	-2.1	-1.6	-1	-0.3	-0.3	-0.5	-0.2	0.3	1.4	4.3	6.6	7.9	8.6	8.5	8	7.3	6.8	5.8	5.1	4.9	5	5.3	5.8	6.5	3.8
19	7.3	8.4	9.5	10.1	10.6	10.8	10.8	10.8	10.6	10.9	10.8	9.6	7.3	5.3	3.8	2.3	1.1	0.5	-0.2	-0.9	-1.3	-1.5	-1.5	-1.5	6.1
20	-1.6	-1.7	-1.8	-1.7	-1.6	-1.6	-1.5	-1.8	-1	1.4	4	6	7.1	8.1	7.9	7.6	6.9	4.3	2	0.7	-0.2	-0.8	-1.3	-1.9	1.6
21	-2.4	-2.9	-3.2	-3.1	-3	-3.6	-4.2	-4.4	-2	2.6	7.3	10.4	10.9	10.4	9.8	9.3	8.6	5.9	3.1	1.3	0.2	-0.2	-0.2	0	2.1
22	-0.1	-0.4	-1	-1.5	-1.9	-2.3	-2.6	-2.8	-0.6	4.6	9.7	12.9	14.2	14.8	14.7	14.1	12.4	8.4	4.8	2.6	1	0.2	-0.4	-0.9	4.2
23	-1.1	-1.4	-1.3	-1.2	-1.4	-1.6	-1.8	-1.9	0.2	4.6	9.9	13.1	15.7	16.6	16.2	15.5	13.5	9.4	5.8	3.7	2.6	1.6	0.7	0.2	4.9
24	-0.2	-0.3	-0.2	-0.2	-0.1	-0.3	-0.5	-0.6	1.2	4.3	6.9	9.4	11.2	12.4	12.4	11	8.4	4.6	2.3	1.7	1.8	2	2.4	3.2	3.9
25	3.3	3.6	4.3	5.2	6.1	6.9	7.5	8.1	8.8	10	11.4	12.7	13.3	13.7	13.8	13	12.5	12.4	12.3	12.4	13.1	13.4	13.4	13.7	10.2
26	13.8	13.9	14.5	14.7	14.9	15.4	15.9	16	15.8	15.6	15.7	15.5	15.2	14.4	13.5	12.9	12	11.3	10.7	10.6	10.6	10.4	9.8	9.1	13.4
27	8.4	8	7.4	6.6	5.9	5.7	5.2	4.3	4.3	6.3	9.9	13.9	17	19.3	19.6	18.4	16.2	11.9	8.6	6.8	5.9	5.6	5.7	5.4	9.4
28	5.3	5.2	5.5	5.8	5.8	5.9	5.6	5.1	6.1	9	11.5	11.3	10.6	11.4	11.7	11.3	10.3	7.7	5.1	3.5	2.4	1.6	1	0.5	6.6
29	0.1	-0.4	-1	-1.4	-1.7	-2	-2.2	-2.3	-0.4	3.2	6.4	8.6	9.8	10	9.4	8.9	7.9	5.3	2.5	0.8	-0.5	-1.4	-1.8	-2.5	2.3
30	-3.1	-3.7	-3.9	-4.3	-4.6	-4.7	-4.4	-3.9	-2.6	-0.1	3.7	7.5	9.6	8.7	7.5	6.2	5.2	2.9	1.3	0.3	0.9	1.6	1.7	2.3	1
31	2.9	3.2	3.3	3	2.9	2.8	3.1	3.4	3.9	5	6	7.5	10.3	11.4	11.3	10.7	10.1	9.5	8.9	8.6	8.5	8.5	8.5	8.5	6.7
Avg	5.4	5.2	5	4.9	4.7	4.6	4.4	4.3	5.5	8	10.3	12	13	13.3	13	12.3	11.2	9.3	7.6	6.6	6.1	5.8	5.6	5.5	7.6
SD	6.4	6.5	6.6	6.6	6.6	6.8	6.9	6.9	6.2	5.2	4.6	4.3	4.2	4.3	4.5	4.7	4.7	4.9	5.3	5.5	5.7	6	6.2	6.3	4.9
S/A	1.2	1.26	1.31	1.34	1.4	1.48	1.58	1.62	1.13	0.65	0.44	0.36	0.32	0.33	0.35	0.38	0.42	0.52	0.69	0.83	0.94	1.03	1.1	1.14	0.65
Min	-3.1	-3.7	-3.9	-4.3	-4.6	-4.7	-5.5	-5.3	-2.6	-0.1	2.4	3.4	4.1	4.9	4.3	3.4	2.3	1.1	0.3	-0.6	-1.2	-1.6	-1.8	-2.5	0.5
Max	20.8	20.2	19.8	19.7	19.4	18.7	18.2	18.6	19.2	20.2	20.3	20.6	21.2	23.7	24.8	25	24	22.4	21.4	20.5	20.2	20.4	20.7	20.8	19.8
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.

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

**December 2009**

**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	2.7	2.3	2.1	1.6	1	0.9	1.3	0.7	0.9	1	1.4	1.1	1.5	1.4	1.2	1.2	2.1	1	0.5	0.4	0.8	1.5	1.3	0	1.2
2	0	0.7	0.6	0.6	1.9	2.1	2.2	2.8	2.7	1.7	2.6	3.7	5	5.4	6.3	5.8	4.8	2.9	5	4.2	4.2	5.6	5.8	4.8	3.4
3	6.5	7	6.1	4.7	3.9	5	3.5	3.2	3.9	5	4.9	4.6	4.6	4.2	4.6	3.5	2.6	1.1	0.9	0.6	1.4	1.9	2.6	2.1	3.7
4	1.5	0.9	0.4	0.6	0.6	1.1	0.9	1	1.9	2.6	3.4	3.5	2.9	2.9	2.4	2.4	2.7	2.9	2.2	1.8	1.6	2.1	2.1	3	2
5	2.9	3.7	3.2	3.9	3.6	4.3	3.8	2.6	3.1	3	2.2	2.2	2	1.8	2.3	3.7	4.3	4.3	4.3	3.9	3.9	3.1	3.6	3.4	3.3
6	3.4	2.7	2.3	2.5	2.4	1.3	0.7	0.6	2.5	3.6	3.8	3.7	3.5	3.1	2.3	1.4	1.4	1.2	0.6	0.6	0.6	0.6	0.6	1	1.9
7	1.4	1.2	1.1	1.4	1.1	0.8	0.6	0.7	0.5	0.7	1.1	1.7	2.3	2.7	3.1	2.3	1.5	2	1.9	1.8	0.9	1.3	1.1	0.9	1.4
8	1	1	1.2	1.5	1.6	2.2	2.4	3.1	4.1	5	5.3	4.5	4.1	3.6	3.5	3.1	2.5	3.6	4.3	4.5	4.9	3.9	4	4.1	3.3
9	5.7	5.3	5.8	5.3	7	5.5	4.8	5.2	5.6	4.5	4.6	4	5.9	6	6.2	6.5	6.4	6	4.8	5.9	5.4	5.8	5.8	6.1	5.6
10	4.8	5.4	6.3	5.3	4.8	3.8	3.4	3.6	4.1	3.8	4	5.1	5.4	4.5	5	3.9	3.2	1.8	2.3	2.6	2.4	1.9	2.8	2.7	3.9
11	2.3	2.3	3	2.5	3.1	2.2	1.8	1.5	2.4	3.1	3	2.9	2.8	4.1	3.5	3.1	2.6	2	1.7	1.8	1.7	2	2	1.9	2.5
12	1.4	1.3	1.2	1.2	0.3	0.2	0.7	0.7	1.3	1.5	1.9	1.7	1.8	1.5	1.5	1.2	1.4	2	2.2	2.1	2.6	2.5	2.3	2.5	1.5
13	2.5	1.7	2.1	1.5	2.6	3.3	4.7	4.8	5.4	5.2	4.7	5.4	5.5	5.5	4.8	4	4.8	4.3	3.7	3	2.8	2.8	2.7	2.3	3.8
14	1.7	1.2	0.4	0.6	1.7	1.9	1.3	0.4	0.3	0.6	1.6	0.8	0.7	0.9	1.1	0.8	0.5	0.3	0.5	0.3	0.4	0.7	2.1	2.9	1
15	2.6	1.6	2.1	2.2	2.4	2.5	2.4	2.2	2	2.1	2.3	2.2	1.8	2.2	2	2.1	1.8	1.3	0.6	0.6	1.5	1.7	2.8	4.8	2.1
16	3.7	2.8	2.9	3.3	3.4	3.1	1.6	1.3	2.1	3.7	3.6	3.4	3.6	3.1	2.1	1.9	1.6	0.6	0.9	0.8	0.7	0.7	1	1	2.2
17	1.3	0.8	1.2	1.7	1.1	1.4	1.1	1.2	1.4	3.2	3.7	4	3.4	2.5	2.2	1.3	0.7	0.7	0.2	0.3	0.4	0.4	0.3	0.2	1.4
18	0.5	0.7	1.2	1.4	1	1	1.4	1.8	1.8	1.9	2.6	3.4	3.5	3.4	2.9	3.3	3.3	3.2	2.9	3.3	4.3	4.9	5.7	7	2.8
19	6	5.9	6.3	6.1	5.8	6.7	6.7	5.9	5.8	5	4.7	4.5	5.5	5.4	5	4.8	4.5	4.1	3.9	4.1	3.9	3.6	3	3	5
20	2.6	2.1	2.3	2.2	2.4	1.8	1.8	1.8	2.1	2.8	3.5	4.2	4	3.8	4	3.5	3.3	2.3	2.1	1.8	1.8	1.7	1.3	0.8	2.5
21	0.8	0.7	1.1	1.5	0.9	0.7	0.3	1.6	2	1.3	1.5	2.4	3.4	3.9	3.9	3	1.8	0.9	0.4	0.5	0.8	1.3	1.8	1.4	1.6
22	1.6	1.2	0.9	1.1	0.9	0.8	0.7	0.9	0.8	1	1.1	1.7	1.5	1	0.8	0.5	0.9	1.4	0.3	0.1	0.1	0	0	0.1	0.8
23	0	0.1	0.3	0	0	0.1	0.1	0.5	1.2	1.2	1.7	1	0.9	0.9	0.6	1.1	0.4	0.9	0.8	1.1	0.6	0.1	0.2	0.2	0.6
24	0.6	1.4	1	1.6	1.6	1.7	2.1	2.4	2.6	3.6	3	3	2.2	2.1	2.8	3.5	3.8	3	2	1.5	2.4	1	0.4	0.9	2.1
25	1.7	2.1	2.5	1.9	3.1	2.4	2.1	3.1	4.2	4.9	4.4	5.1	4.7	4.3	3.9	4	4.2	2.9	3.4	7	6.5	6.5	6.5	5.5	4
26	4.2	4.6	2.7	1.4	0.6	0.7	0.6	2.6	3.3	2.1	2.1	3.1	3.1	3.7	2.9	2.9	2.4	1.7	1.4	1	2.1	1.6	1.3	1.9	2.3
27	2.4	2.2	1.1	1.2	1.7	1.2	0.9	0.8	1.5	2	1	1.6	1.3	0.7	1.1	2	1.6	1	1	2	1.8	2.6	2.2	2.7	1.6
28	2.6	3.1	3.8	3.1	3.5	3.5	3.1	2.7	3.5	4.3	3.4	3.2	3.6	4.1	5.2	3.7	3.8	3.2	3.2	2.8	2.8	3.3	2.9	3.1	3.4
29	3.1	2.7	2.6	3	2.9	2.6	2.2	2.8	3.4	3.7	4.9	4.1	4	4.1	3.9	3.6	3.2	2.5	1.9	1.5	1.3	1.8	1.7	1.5	2.9
30	1.3	1.7	1.4	1.2	0.4	1.4	2	1.3	1.1	0.6	1	1.2	1.1	1.5	1.7	1.1	1.5	1.1	0.2	1.2	2.2	0.5	0.2	0.6	1.1
31	1.3	1	1.2	1.2	1.9	2.3	0.5	0.9	0.5	0.2	0.1	0.1	1.1	1.8	1.5	1	0.3	0	0.2	0.4	0.4	0.2	0.2	0.1	0.8
Avg	2.4	2.3	2.3	2.2	2.2	2.2	2	2.1	2.5	2.7	2.9	3	3.1	3.1	3	2.8	2.6	2.1	1.9	2	2.2	2.2	2.3	2.3	2.4
SD	1.7	1.7	1.8	1.5	1.6	1.6	1.5	1.4	1.5	1.5	1.4	1.4	1.5	1.5	1.6	1.5	1.5	1.4	1.5	1.7	1.6	1.7	1.8	1.9	1.3
S/A	0.7	0.75	0.78	0.7	0.74	0.71	0.76	0.68	0.61	0.56	0.5	0.47	0.49	0.48	0.52	0.53	0.58	0.65	0.77	0.85	0.76	0.79	0.79	0.79	0.52
Min	0	0.1	0.3	0	0	0.1	0.1	0.4	0.3	0.2	0.1	0.1	0.7	0.7	0.6	0.5	0.3	0	0.2	0.1	0.1	0	0	0	0.6
Max	6.5	7	6.3	6.1	7	6.7	6.7	5.9	5.8	5.2	5.3	5.4	5.9	6	6.3	6.5	6.4	6	5	7	6.5	6.5	6.5	7	5.6
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 2009**

**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	316	313	307	300	285	245	245	291	282	261	273	259	210	216	188	201	181	190	178	201	182	205	206	206	249
2	0	33	44	57	73	64	77	76	79	82	82	101	109	108	115	120	112	126	121	135	148	154	160	173	117
3	168	171	185	191	204	229	222	214	210	227	234	228	219	226	230	236	252	249	259	242	256	290	354	13	216
4	1	311	326	333	302	317	330	317	358	28	45	52	53	50	59	33	34	48	48	43	10	31	20	33	30
5	34	40	42	46	43	43	37	48	52	36	12	19	31	337	337	315	314	313	304	297	296	296	297	303	355
6	309	305	299	302	303	297	274	282	323	338	344	341	1	5	1	7	349	355	356	359	24	14	10	31	335
7	350	0	30	346	338	338	65	294	352	89	81	218	247	262	253	227	230	230	240	267	264	275	282	274	269
8	292	291	300	322	317	358	19	34	37	36	37	37	46	47	55	53	50	62	64	70	72	71	76	99	48
9	122	141	149	143	161	199	185	183	189	192	201	189	197	204	194	190	193	192	185	194	196	216	223	226	187
10	252	249	241	248	265	289	282	271	268	277	277	271	261	257	266	266	263	279	272	271	261	274	277	276	265
11	280	286	291	288	289	288	284	284	283	291	290	284	274	262	264	271	264	256	244	232	241	247	251	259	273
12	250	256	279	280	275	208	234	291	306	325	354	20	27	35	56	67	75	70	63	65	73	75	84	90	43
13	89	86	95	88	104	109	120	120	122	133	140	152	157	164	177	196	207	195	271	272	262	266	268	262	160
14	281	322	236	255	259	266	284	288	301	63	93	98	182	174	221	231	185	129	146	155	172	194	214	222	
15	222	230	207	230	231	232	245	229	234	262	279	233	239	258	256	260	262	278	289	299	355	356	349	354	262
16	342	333	330	340	337	327	316	311	320	342	335	352	332	332	315	306	292	281	273	274	267	258	250	261	325
17	257	289	326	332	307	308	303	267	304	341	348	354	338	338	324	310	330	338	290	313	356	7	44	310	328
18	334	352	11	25	0	354	345	355	22	26	55	55	50	53	49	44	43	52	49	42	31	45	48	48	38
19	46	52	55	50	44	43	37	30	24	12	348	293	294	306	296	286	287	267	262	262	262	262	262	345	
20	262	262	262	262	262	262	262	262	262	262	284	294	294	291	293	293	291	291	289	268	277	283	283	280	279
21	284	288	286	290	278	271	271	268	275	299	312	258	259	270	269	280	281	270	252	221	208	228	249	260	270
22	262	274	273	267	277	279	272	259	297	330	12	16	360	356	328	265	195	182	195	89	88	21	0	98	295
23	0	350	344	346	347	331	321	344	31	7	12	81	332	23	260	206	120	65	56	53	21	340	10	24	
24	343	339	335	352	351	359	10	22	7	26	14	25	28	20	53	53	48	43	39	27	39	21	320	343	23
25	27	37	41	51	59	60	59	59	67	73	74	76	80	90	92	91	107	103	101	106	107	114	111	103	87
26	102	100	103	103	118	207	243	264	271	268	265	262	261	262	255	253	253	244	257	277	264	259	255	261	249
27	259	256	244	250	260	256	261	280	284	284	293	307	357	110	151	177	184	130	118	130	172	193	203	201	224
28	200	197	199	204	211	199	204	222	239	264	281	286	284	277	263	283	285	274	282	269	266	268	273	267	253
29	272	283	278	271	272	270	274	271	270	290	291	295	288	291	297	299	304	301	316	318	324	345	329	322	291
30	311	316	326	341	332	338	8	4	25	6	53	68	140	165	178	158	114	122	336	82	113	107	234	47	52
31	35	352	340	325	18	54	2	61	91	289	276	245	249	253	248	271	281	244	108	75	78	105	93	8	349
Avg	293	295	276	300	293	303	313	305	315	331	335	324	294	281	262	265	263	246	287	225	230	243	259	283	295
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 2009**

**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	5.3	4.7	4.1	3.5	2.1	1.5	2	1.6	2.3	2.3	2.8	2.7	3.1	3.1	2.6	2.2	3.5	1.9	1.2	0.9	1.5	2.3	2	0.2	2.5
2	0	0.9	0.9	1	2.7	3.5	3.4	4.3	4.4	2.8	4.2	6	8.5	8.9	10.3	9.5	7.9	4.9	8.1	7	7	9.6	9.6	8.8	5.6
3	11.5	11.8	10.3	7.7	6.5	8.1	6	5.6	6.7	9.1	8.8	8.1	7.8	6.9	7.4	6.1	4.4	2	1.5	1.1	2.2	3.7	4.6	3.7	6.3
4	2.6	1.7	1	1.3	1.1	1.8	1.6	1.8	3.4	4.6	5.6	6	5.1	4.7	4	4	4.6	5	3.9	3.1	3	3.5	3.5	5.1	3.4
5	4.7	5.9	5.6	7.1	7.1	7.7	6.4	4.9	5.9	5.6	4.2	4.1	4	3.9	4.5	7	8.3	8.4	8.3	8.3	8.5	7.2	7.4	7.6	6.3
6	7.2	6.1	5	5.6	5.3	3.2	1.7	1.8	5.1	6.3	6.6	6.4	5.9	5.6	4.5	2.7	2.6	2.4	1.4	1.2	1.3	1.2	1.2	1.7	3.8
7	2.3	2	2	2.4	1.9	1.5	1.3	1.4	1.1	1.5	2	3.1	4.1	4.8	5.2	3.9	2.7	3.3	3.1	3.2	1.8	2.4	2.2	1.6	2.5
8	1.7	1.9	2.1	2.7	3	4	4.4	4.9	7	8.1	8.7	7.6	7.1	6.1	6.3	5.4	4.7	6	7.1	7.4	7.9	6.4	6.4	7.1	5.6
9	9.1	9.1	9.1	9.2	12.5	9.5	7.8	9.2	9.6	7.4	7.7	7.1	10.2	10.9	10.4	10.6	11	10.7	7.7	9.6	9.2	10	9.8	10	9.5
10	8	9.3	11	9.5	8.5	8	6.8	6.6	7.3	7.3	7.4	9.5	9.2	7.6	8.7	7.1	5.5	3.6	4.5	4.7	3.8	3.4	5.4	5.2	7
11	4.7	4.4	5.9	4.7	6.2	4.3	3.7	3.2	5.1	5.9	5.7	5.6	5.5	7	6.3	6.2	4.8	3.4	2.7	2.9	2.8	3.3	3.1	3	4.6
12	2.1	1.9	2.4	2.1	0.7	0.6	1.3	1.4	2.7	2.9	3.3	2.9	2.7	2.8	2.4	2.2	2.3	3.1	3.6	3.6	3.9	3.9	3.8	4	2.6
13	4.2	2.9	3.6	2.5	4	5.3	7.4	7.3	8.5	8.6	7.7	9.5	9.2	9.1	8.4	7	8.1	7.1	7	5.5	5.1	5.1	4.8	4	6.3
14	3.5	2.4	0.9	1.3	3.1	3.4	3	1.3	1.2	1.3	2.6	1.8	1.9	2.2	2.5	1.8	1.4	1.2	1.4	1.2	1.1	1.8	3.9	5.2	2.1
15	4.5	3.1	3.9	4	4.2	4.4	4.4	3.8	3.8	4.2	4.6	4	3.4	4	3.8	3.7	3.3	2.7	1.7	1.6	2.8	3.3	4.9	8	3.8
16	6.5	5.1	5.1	5.9	5.8	5.8	3.2	2.6	4.1	6.4	6.6	6.5	6.7	6	5	4.4	3.5	1.4	1.5	1.4	1.2	1.1	1.5	1.5	4.1
17	2	1.7	2	3.2	2.3	2.7	2	2.2	3.2	5.6	6.9	6.8	5.9	4.8	4.3	3.2	1.7	1.3	0.7	0.7	0.8	0.9	0.6	0.5	2.8
18	0.9	1.3	2.1	2.4	1.9	1.9	2.5	3.1	3.2	3.4	4.3	5.7	5.8	5.5	4.9	5.2	5.4	5.8	5	5.4	7.1	8.6	9.4	11.8	4.7
19	10.4	10.2	10.6	9.6	10.1	10.8	11.6	10.6	10	8.9	9.3	9	11.1	10.9	10.4	10	9.1	8.7	8.4	8.3	8.1	7.5	6.3	6.9	9.5
20	5.8	5.1	4.6	5.3	5.3	4.4	4.3	4.3	4.9	6	7.7	7.9	8.1	8	8.6	7.3	6.8	4.8	4	3.5	3.8	3.6	3.1	2.4	5.4
21	2.4	2.1	2.8	3.6	2	1.6	1.1	2.8	3.9	3	3.3	4.5	6.1	7.2	6.8	5.9	3.7	1.8	1	0.9	1.4	1.8	2.6	2.3	3.1
22	2.4	2	1.8	1.7	1.7	1.6	1.3	1.5	1.9	2	2.6	3.4	3.2	2.2	2.3	1.6	1.8	2.4	0.9	0.2	0.1	0	0	0.2	1.6
23	0	0.2	0.6	0.2	0	0.4	0.5	1.1	2.4	2.1	3	2.1	2.1	2.3	1.7	2.2	1	1.6	1.4	2	1.3	0.3	0.4	0.6	1.2
24	1	1.8	1.6	2.3	2.4	2.8	3.9	4.3	4.9	6.3	5.1	5.2	4.1	3.6	4.6	5.7	6.2	4.8	3.4	2.5	3.8	2	1.2	1.8	3.5
25	2.6	3.1	3.7	3.1	4.9	3.8	3.4	5.1	6.6	8.1	7.2	8.4	7.5	7	6	6.3	7	5.2	5.7	10.8	11.1	10.5	10.5	8.9	6.5
26	6.9	7.4	4.6	2.9	1.8	1.8	1.4	4.4	5.8	4.5	4.3	5.6	5.8	6.5	5	5.3	4.3	3.3	3.2	2.7	4	3.2	2.6	3.7	4.2
27	3.9	4.1	2.5	2.8	3.4	2.6	2.2	2.4	3.6	4.5	2.5	3.4	2.6	1.7	2.3	3.4	2.9	1.7	1.6	3	3.1	4.4	3.8	4.2	3
28	4.2	4.8	6.3	5.6	6.3	6	5.6	4.6	5.9	7.7	6.9	6.4	6.9	8.4	9.7	7.9	7.8	6.4	5.9	5	5	5.7	5.6	5.6	6.2
29	5.6	5.3	5.2	5.1	4.8	4.8	4.2	5	6.2	7.4	10	8.4	8.3	8.7	7.6	7.4	6.6	5.1	3.6	2.8	2.3	3.2	3	2.5	5.5
30	2.7	3.2	2.8	2.2	1.2	2.4	3.6	2.6	2.4	1.6	2.2	2.6	2.3	3	3	2.3	2.3	1.9	0.6	2	3.6	1.3	0.7	1	2.2
31	2.1	1.9	2.4	2.4	3.3	4.2	1.3	1.9	1.2	1.1	0.6	0.6	2.4	3.2	3.1	2.4	1	0.4	0.8	1	1.2	0.7	0.6	0.5	1.7
Avg	4.2	4.1	4.1	4	4.1	4	3.6	3.8	4.7	5	5.3	5.5	5.7	5.7	5.6	5.2	4.7	3.9	3.6	3.7	3.9	3.9	4	4.2	4.4
S/D	2.9	2.9	2.9	2.5	2.8	2.6	2.5	2.3	2.4	2.5	2.5	2.4	2.6	2.6	2.7	2.5	2.6	2.5	2.6	2.9	2.8	2.9	3	3.2	2.1
S/A	0.69	0.71	0.71	0.64	0.7	0.65	0.68	0.61	0.51	0.5	0.47	0.44	0.46	0.46	0.48	0.49	0.55	0.63	0.71	0.78	0.74	0.75	0.74	0.76	0.48
Min	0	0.2	0.6	0.2	0	0.4	0.5	1.1	1.1	1.1	0.6	0.6	1.9	1.7	1.7	1.6	1	0.4	0.6	0.2	0.1	0	0	0.2	1.2
Max	11.5	11.8	11	9.6	12.5	10.8	11.6	10.6	10	9.1	10	9.5	11.1	10.9	10.4	10.6	11	10.7	8.4	10.8	11.1	10.5	10.5	11.8	9.5
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 2009**

**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	1012	1013	1014	1014	1015	1015	1016	1017	1018	1019	1019	1019	1018	1018	1017	1018	1018	1019	1019	1019	1020	1020	1020	1020	1017
2	1020	1020	1019	1019	1019	1019	1018	1018	1018	1018	1017	1015	1013	1012	1011	1010	1009	1008	1007	1006	1005	1003	1002	1002	1013
3	1000	999	999	1000	1000	1001	1002	1002	1003	1004	1005	1005	1005	1005	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1005
4	1014	1015	1015	1016	1016	1017	1017	1018	1019	1019	1019	1018	1018	1017	1018	1018	1018	1018	1017	1017	1018	1017	1016	1016	1017
5	1014	1013	1013	1011	1011	1010	1010	1010	1009	1009	1008	1007	1005	1004	1004	1005	1007	1008	1010	1011	1013	1014	1015	1016	1010
6	1016	1017	1018	1019	1020	1021	1023	1024	1025	1026	1026	1026	1025	1024	1024	1025	1026	1026	1027	1027	1027	1027	1027	1026	1024
7	1026	1026	1026	1025	1025	1025	1025	1025	1024	1024	1024	1023	1022	1021	1021	1021	1021	1021	1022	1022	1022	1022	1022	1022	1023
8	1022	1022	1022	1023	1023	1024	1024	1025	1025	1026	1026	1025	1024	1024	1023	1023	1023	1021	1020	1019	1017	1015	1013	1010	1022
9	1008	1006	1005	1003	1000	1001	1001	1000	1000	1001	1000	998	997	996	995	995	995	996	996	996	996	997	997	997	999
10	998	999	999	1000	1001	1002	1003	1005	1006	1007	1007	1007	1007	1007	1007	1008	1009	1011	1012	1013	1014	1015	1016	1017	1007
11	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1026	1026	1026	1026	1026	1027	1028	1029	1029	1030	1030	1031	1031	1025
12	1031	1031	1031	1032	1032	1032	1033	1034	1035	1035	1035	1035	1035	1034	1033	1033	1033	1033	1033	1033	1033	1032	1031	1031	1033
13	1029	1029	1028	1027	1026	1025	1023	1022	1021	1020	1019	1017	1015	1014	1013	1012	1012	1011	1012	1013	1013	1013	1014	1014	1018
14	1015	1016	1017	1017	1017	1018	1019	1019	1020	1020	1020	1019	1019	1019	1018	1018	1017	1017	1016	1016	1015	1015	1015	1014	1017
15	1014	1014	1014	1014	1014	1013	1013	1013	1014	1014	1014	1013	1013	1012	1012	1013	1013	1013	1014	1015	1016	1016	1017	1018	1014
16	1019	1020	1020	1021	1021	1022	1023	1024	1025	1026	1026	1025	1024	1024	1024	1024	1025	1025	1025	1025	1025	1025	1025	1024	1024
17	1024	1025	1025	1025	1026	1026	1026	1027	1028	1027	1027	1026	1026	1025	1025	1025	1025	1024	1025	1025	1025	1024	1024	1024	1025
18	1023	1023	1023	1022	1022	1022	1022	1022	1022	1022	1021	1019	1018	1017	1016	1015	1014	1013	1012	1011	1009	1007	1005	1002	1017
19	1000	997	995	994	993	992	991	990	990	990	990	991	992	993	994	996	998	999	1000	1001	1001	1002	1003	1004	996
20	1004	1005	1005	1006	1006	1007	1008	1009	1010	1011	1011	1011	1011	1011	1011	1012	1012	1013	1014	1015	1016	1015	1016	1017	1011
21	1016	1017	1017	1017	1017	1018	1018	1019	1019	1019	1019	1018	1017	1017	1016	1017	1017	1018	1018	1018	1019	1019	1019	1019	1018
22	1019	1019	1020	1020	1020	1020	1021	1022	1022	1023	1023	1022	1022	1021	1021	1021	1021	1021	1022	1022	1022	1023	1023	1023	1021
23	1023	1022	1023	1022	1022	1023	1023	1024	1024	1025	1025	1024	1023	1022	1022	1022	1022	1022	1023	1023	1023	1023	1023	1023	1023
24	1023	1023	1023	1023	1023	1024	1025	1025	1026	1027	1027	1026	1026	1025	1025	1025	1024	1024	1025	1026	1025	1025	1024	1024	1025
25	1024	1023	1023	1022	1021	1021	1021	1021	1020	1020	1020	1018	1016	1015	1014	1014	1013	1014	1014	1012	1010	1010	1010	1009	1017
26	1009	1008	1008	1008	1007	1008	1008	1009	1009	1010	1010	1010	1010	1010	1010	1010	1011	1011	1012	1012	1012	1013	1013	1013	1010
27	1013	1013	1013	1013	1013	1014	1014	1015	1015	1016	1016	1015	1014	1014	1013	1013	1013	1012	1013	1012	1012	1012	1011	1010	1013
28	1010	1009	1009	1008	1008	1008	1008	1008	1008	1008	1008	1008	1007	1007	1007	1007	1008	1009	1010	1010	1011	1011	1012	1012	1009
29	1012	1013	1013	1014	1014	1016	1016	1018	1019	1019	1020	1021	1021	1021	1021	1022	1023	1024	1025	1026	1026	1027	1028	1029	1020
30	1029	1029	1030	1030	1030	1030	1030	1031	1031	1032	1032	1032	1031	1030	1029	1028	1027	1027	1028	1027	1026	1025	1025	1024	1029
31	1023	1022	1022	1022	1021	1020	1020	1020	1019	1020	1020	1018	1017	1016	1016	1016	1016	1016	1015	1015	1014	1014	1014	1013	1018
Avg	1016	1016	1016	1016	1016	1017	1017	1017	1018	1018	1018	1017	1017	1016	1016	1016	1016	1017	1017	1017	1017	1017	1017	1017	1017
S D	9	9	9	9	9	9	9	9	10	10	10	9	9	9	9	9	8	8	8	8	8	8	8	8	8
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	0.01
Min	998	997	995	994	993	992	991	990	990	990	990	991	992	993	994	995	995	996	996	996	996	997	997	997	996
Max	1031	1031	1031	1032	1032	1032	1033	1034	1035	1035	1035	1035	1035	1034	1033	1033	1033	1033	1033	1033	1033	1032	1031	1031	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	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.

**December 2009**

**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	12.6	12.6	12.6	12.6	12.6	12.5	13.8	13.8	13.6	13.5	13.4	13.4	13.4	13.4	13.5	13.1	12.9	12.8	12.8	12.8	12.7	12.7	12.7	13
2	12.7	12.7	12.7	12.7	12.7	12.7	12.6	12.6	12.6	12.6	13.1	13.5	13.2	13	12.9	12.8	12.8	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.8
3	12.7	12.7	12.7	12.6	12.6	12.6	12.6	13	13.4	13.4	13.4	13.4	13.3	13.3	13.4	13.4	13.2	12.9	12.8	12.8	12.8	12.8	12.8	12.7	13
4	12.7	12.7	12.7	12.7	12.7	12.7	12.6	12.7	13.7	13.6	13.5	13.4	13.4	13.4	13.4	13	12.9	12.8	12.8	12.8	12.8	12.8	12.8	12.8	13
5	12.7	12.7	12.7	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.7	12.8	13.2	13	12.9	12.7	12.6	12.6	12.6	12.5	12.5	12.5	12.5	12.5	12.7
6	12.5	12.5	12.5	12.5	12.5	12.4	12.4	13.5	13.9	13.8	13.7	13.6	13.6	13.6	13.6	13.4	12.9	12.8	12.8	12.8	12.7	12.7	12.7	12.7	13
7	12.7	12.7	12.7	12.7	12.6	12.6	12.6	13.5	13.8	13.6	13.4	13.4	13.4	13.3	13.4	12.9	12.9	12.8	12.8	12.8	12.8	12.7	12.7	12.7	13
8	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.6	13.3	13.7	13.6	13.6	13.6	13.4	13.2	12.9	12.8	12.8	12.8	12.8	12.8	12.8	12.7	12.7	12.9
9	12.7	12.7	12.7	12.7	12.7	12.7	12.6	12.6	12.7	12.7	12.6	13.1	13.3	13.2	13.2	13.2	13	12.9	12.8	12.8	12.8	12.8	12.8	12.7	12.8
10	12.7	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.9	13.5	13.6	13.6	13.6	13.6	13.6	13.6	13.3	12.9	12.8	12.8	12.8	12.8	12.7	12.7	13
11	12.7	12.7	12.7	12.6	12.6	12.6	12.6	13.3	14	14	13.9	13.9	13.9	13.8	13.7	13.2	12.9	12.8	12.8	12.8	12.7	12.7	12.7	12.7	13.1
12	12.6	12.6	12.6	12.5	12.5	12.5	12.4	13.1	14	13.9	13.9	13.8	13.7	13.7	13.7	13.4	12.9	12.9	12.8	12.8	12.8	12.8	12.8	12.8	13.1
13	12.7	12.7	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.7	12.7	12.6	12.6	12.6	12.6	12.6	12.6	12.5	12.5	12.5	12.5	12.6
14	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	13	13.7	13.5	13.4	13.4	13.5	13.4	13.1	12.9	12.8	12.8	12.8	12.7	12.7	12.7	12.7	12.9
15	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.6	12.6	12.8	13.3	13.4	13	13	12.9	12.8	12.8	12.7	12.7	12.7	12.6	12.6	12.6	12.5	12.8
16	12.5	12.5	12.5	12.5	12.5	12.5	12.4	12.6	13.6	13.7	13.6	13.6	13.5	13.6	13.6	13.6	13.3	12.9	12.8	12.8	12.7	12.7	12.7	12.7	13
17	12.7	12.6	12.6	12.6	12.6	12.6	12.6	13.5	13.9	13.8	13.7	13.7	13.7	13.6	13.6	13.7	13.3	12.9	12.8	12.8	12.7	12.7	12.7	12.7	13.1
18	12.7	12.7	12.7	12.7	12.6	12.6	12.6	12.8	13.9	13.8	13.8	13.7	13.7	13.6	13	12.9	12.8	12.8	12.8	12.7	12.7	12.7	12.7	12.7	13
19	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.6	12.6	12.7	12.9	12.9	13.4	13.3	13	12.8	12.7	12.7	12.6	12.5	12.5	12.5	12.5	12.5	12.7
20	12.5	12.5	12.5	12.5	12.4	12.4	12.4	13.1	13.8	13.9	13.8	13.8	13.7	13.7	13.7	13.7	13.4	12.9	12.8	12.8	12.8	12.7	12.7	12.7	13.1
21	12.7	12.7	12.6	12.6	12.6	12.6	12.6	13.4	14	13.8	13.7	13.6	13.6	13.7	13.7	13.7	13.4	12.9	12.8	12.8	12.7	12.7	12.7	12.7	13.1
22	12.7	12.7	12.7	12.7	12.6	12.6	12.6	13.4	13.9	13.8	13.6	13.6	13.5	13.5	13.5	13.6	13.4	12.9	12.8	12.8	12.7	12.7	12.7	12.7	13.1
23	12.7	12.7	12.7	12.6	12.6	12.6	12.6	13.3	13.9	13.8	13.6	13.5	13.5	13.5	13.5	13.5	13.3	12.9	12.8	12.8	12.8	12.7	12.7	12.7	13.1
24	12.7	12.7	12.7	12.7	12.6	12.6	12.6	13.4	13.9	13.8	13.7	13.7	13.6	13.6	13.6	13.7	13.5	12.9	12.8	12.8	12.8	12.8	12.8	12.8	13.1
25	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.9	13	13.2	13.1	13.1	12.9	12.8	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.8
26	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.6	12.7	12.8	13	13.2	13.2	13.2	13.1	12.9	12.8	12.8	12.7	12.7	12.6	12.6	12.6	12.6	12.8
27	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	13.2	13.7	13.6	13.5	13.4	13.3	13.4	13.4	13.2	12.9	12.8	12.8	12.8	12.7	12.7	12.7	12.9
28	12.7	12.7	12.7	12.7	12.7	12.7	12.7	13.1	13.7	13.7	13.6	13.7	13.7	13.6	13.6	13.6	13.5	12.9	12.8	12.8	12.8	12.8	12.7	12.7	13.1
29	12.7	12.7	12.7	12.7	12.7	12.6	12.6	13.4	14	13.8	13.8	13.7	13.7	13.7	13.7	13.7	13.6	12.9	12.8	12.8	12.8	12.7	12.7	12.7	13.1
30	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.7	14	14	13.8	13.7	13.7	13.8	13.8	13.8	13.1	12.9	12.8	12.8	12.8	12.8	12.8	12.8	13.1
31	12.7	12.7	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.7	13.3	13.7	13.6	13.7	13.4	13	12.9	12.9	12.8	12.8	12.8	12.8	12.7	12.7	12.9
Avg	12.7	12.7	12.6	12.6	12.6	12.6	12.6	12.9	13.4	13.4	13.5	13.5	13.4	13.4	13.4	13.3	13.1	12.8	12.8	12.7	12.7	12.7	12.7	12.7	13
S D	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.6	0.5	0.4	0.3	0.3	0.3	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
S/A	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.04	0.04	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Min	12.5	12.5	12.5	12.5	12.4	12.4	12.4	12.5	12.6	12.6	12.6	12.6	12.7	12.7	12.6	12.6	12.6	12.6	12.6	12.5	12.5	12.5	12.5	12.5	12.6
Max	12.7	12.7	12.7	12.7	12.7	12.7	12.7	13.8	14	14	13.9	13.9	13.9	13.8	13.8	13.8	13.6	12.9	12.8	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.