

RALEIGH-DURHAM NC

Latitude = 35.87 N

Longitude = 78.78 W

Period of Record = 1973 to 1996

WMO No. 723060

Elevation = 440 feet

Average Pressure = 29.57 inches Hg

Design Criteria Data

	Design Value	Mean Coincident (Average) Values			
		Wet Bulb Temperature (°F)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Dry Bulb Temperature (T)	(°F)				
Median of Extreme Highs	97	76	103	9.4	W
0.4% Occurrence	93	76	111	8.9	WSW
1.0% Occurrence	91	75	110	8.6	SW
2.0% Occurrence	89	75	107	8.3	SW
Mean Daily Range	20	-	-	-	-
97.5% Occurrence	26	23	13	6.9	N
99.0% Occurrence	20	18	10	6.9	N
99.6% Occurrence	16	14	8	6.8	N
Median of Extreme Lows	9	8	6	6.1	W
	Design Value	Mean Coincident (Average) Values			
		Dry Bulb Temperature (°F)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Wet Bulb Temperature (T_{wb})	(°F)				
Median of Extreme Highs	81	91	141	7.6	SW
0.4% Occurrence	78	88	127	7.8	S
1.0% Occurrence	77	86	124	7.8	S
2.0% Occurrence	76	85	121	7.6	S
	Design Value	Mean Coincident (Average) Values			
		Dry Bulb Temperature (°F)	Vapor Pressure (in. Hg)	Wind Speed (mph)	Prevailing Direction (NSEW)
Humidity Ratio (HR)	(gr/lb)				
Median of Extreme Highs	150	83	0.97	5.5	ESE
0.4% Occurrence	134	83	0.88	7.0	SSW
1.0% Occurrence	130	81	0.85	7.1	S
2.0% Occurrence	126	80	0.82	6.9	S
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		52	994	880	2334

Other Site Data

Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
8	3.5	90	3.9 + 1.0
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
61.7	N/A	14	52

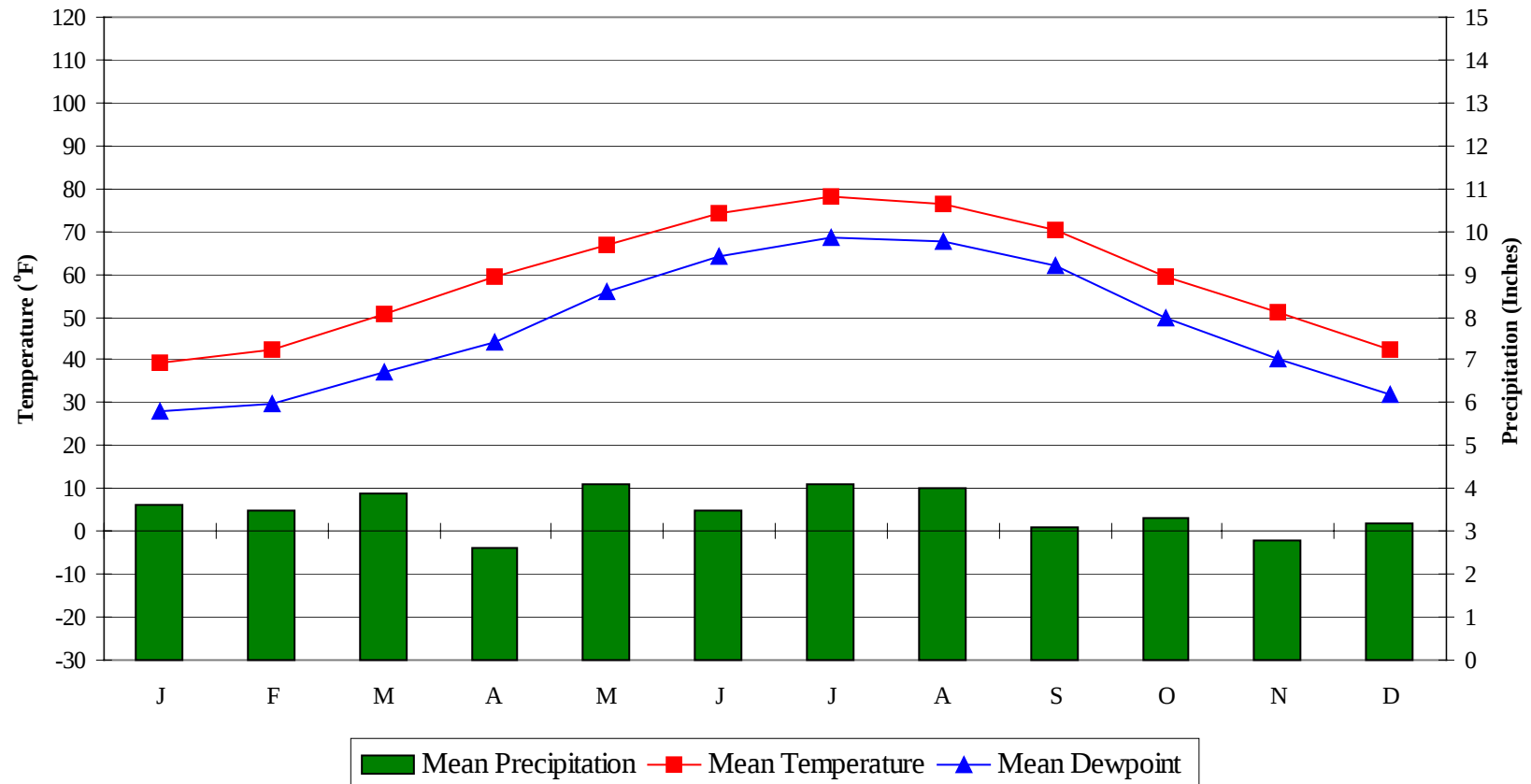
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

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Average Annual Climate

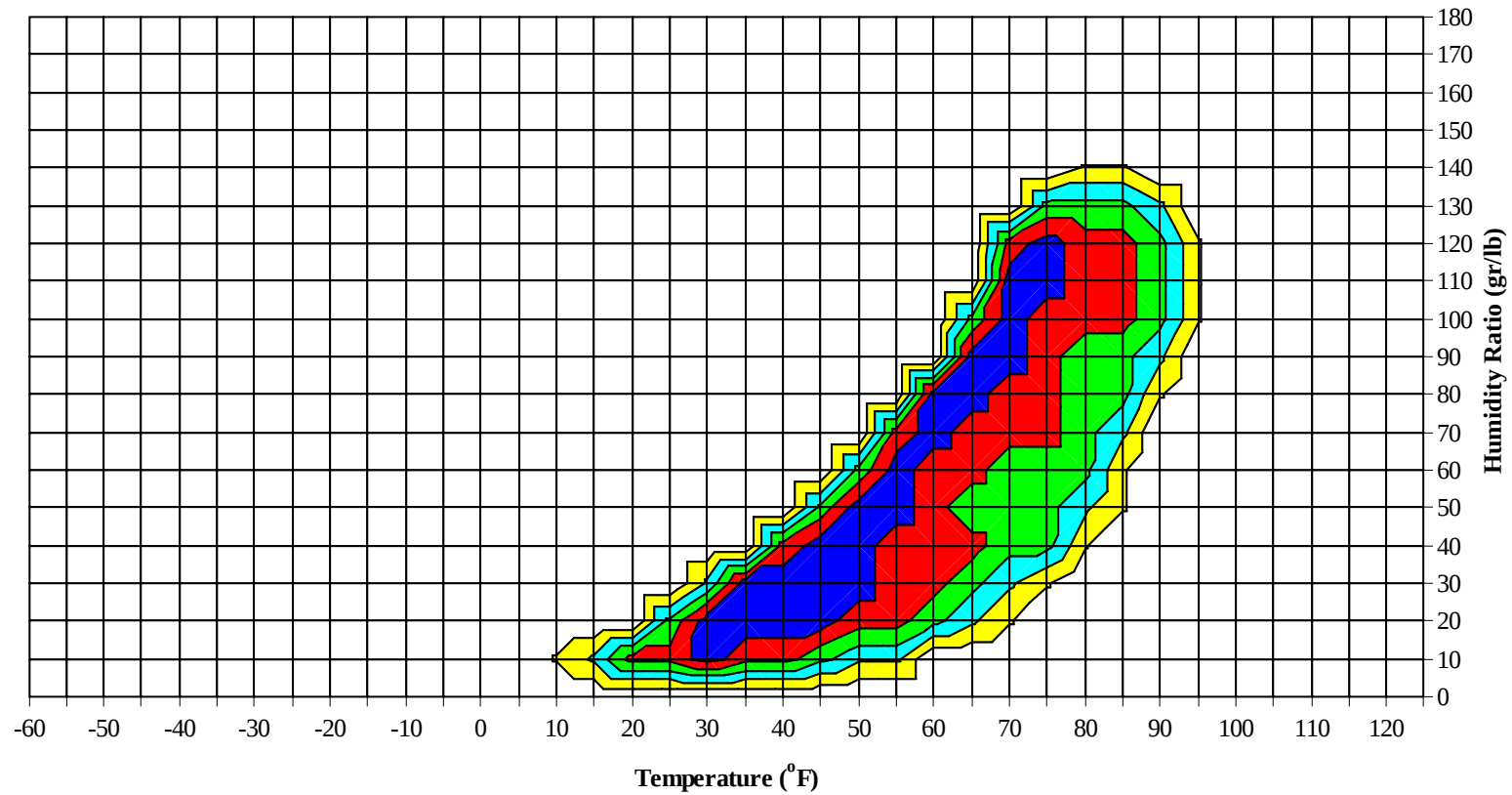


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Long Term Psychrometric Summary



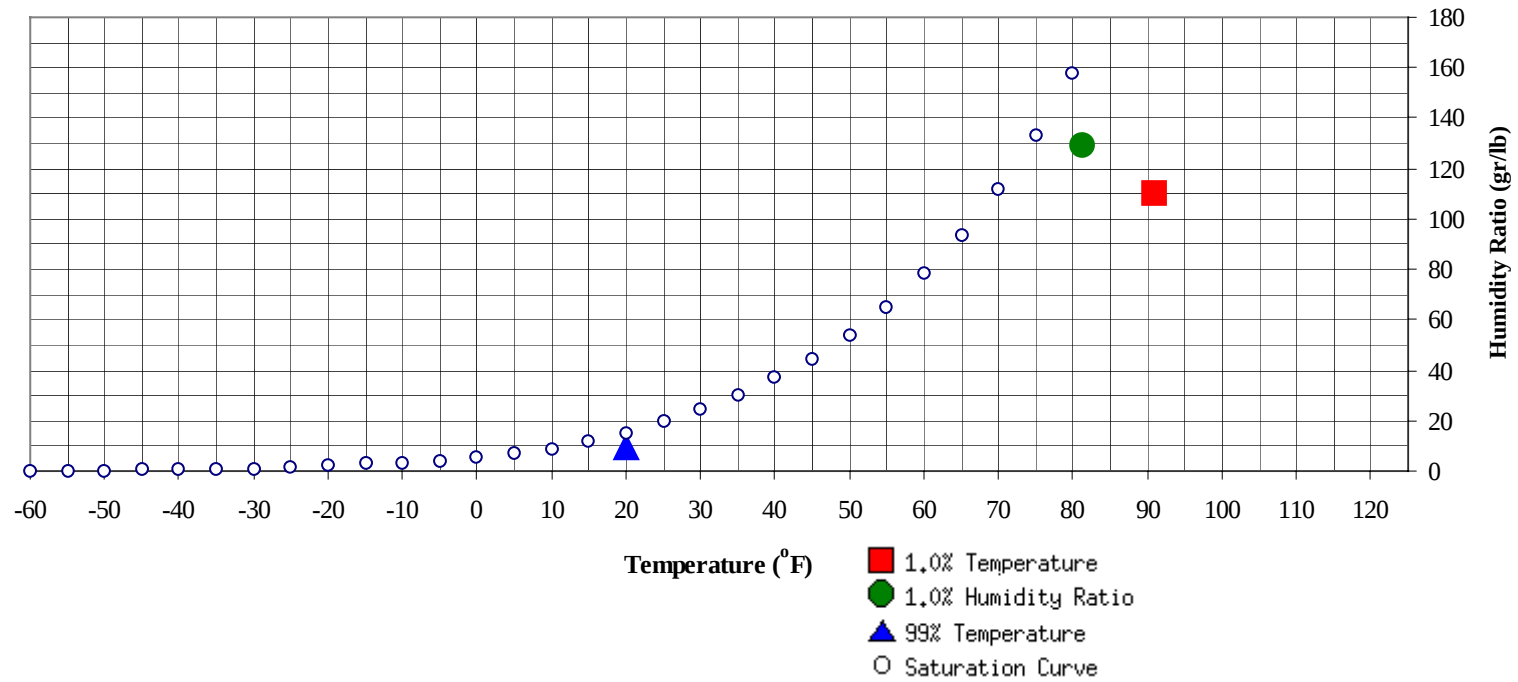
- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

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Psychrometric Summary of Peak Design Values



99% Dry Bulb	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)	1.0% Humidity Ratio	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
	20	9.4	6.2		129.5	81.1	75.9	74	39.8

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	91	110.3	75.6	39.2

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Dry-Bulb Temperature Hours For An Average Year (Sheet 1 of 5)

Period of Record = 1973 to 1996

Temperature Range (°F)	January					February					March				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104															
95 / 99															
90 / 94															
85 / 89												1	0	1	64.6
80 / 84							0	0	0	62.2		4	1	5	63.5
75 / 79		0	0	0	63.1		2	0	2	60.8		12	4	16	61.0
70 / 74		2	0	2	60.3		6	2	8	58.4	1	18	10	29	58.7
65 / 69	1	7	3	11	59.5	1	13	7	21	56.7	4	28	20	52	56.4
60 / 64	4	15	8	27	55.7	5	20	13	38	53.7	17	34	32	84	54.2
55 / 59	6	18	14	38	50.4	12	26	23	61	50.1	25	39	37	102	50.3
50 / 54	12	29	22	63	46.0	18	28	28	74	45.8	34	37	40	112	45.8
45 / 49	20	41	34	95	41.7	20	29	30	79	41.4	37	31	37	106	42.0
40 / 44	32	41	43	116	37.8	26	31	32	89	36.9	41	22	31	95	37.8
35 / 39	44	38	46	128	33.5	41	30	36	107	32.9	37	12	20	69	33.4
30 / 34	50	30	36	116	29.0	41	24	30	95	28.8	31	6	10	47	29.1
25 / 29	35	15	23	73	24.1	32	9	16	57	24.2	16	2	3	21	24.4
20 / 24	21	6	10	37	19.5	16	3	5	24	19.7	4	0	0	4	19.5
15 / 19	14	3	5	22	15.1	9	1	2	12	15.3	1	0	0	1	15.7
10 / 14	7	1	2	10	10.3	5	0	1	6	11.7	0	0	0	0	12.8
5 / 9	3	0	1	4	6.0	0	0		0	7.2					
0 / 4	1	0	0	1	0.4	0			0	1.3					
-5 / -1	0	0	0	0	-4.8										
-10 / -6	0			0	-7.3										

Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

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Dry-Bulb Temperature Hours For An Average Year (Sheet 2 of 5)

Period of Record = 1973 to 1996

Temperature Range (°F)	April					May					June				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104															
95 / 99												2	0	2	76.7
90 / 94		1	0	1	65.7		3	0	3	73.2		18	5	23	75.0
85 / 89		7	2	9	64.9		20	5	25	70.6	0	53	19	72	72.8
80 / 84		19	6	25	63.5	0	42	14	56	68.5	2	70	35	107	71.0
75 / 79		32	14	46	61.7	2	56	31	90	66.0	20	55	51	126	69.5
70 / 74	2	39	27	68	59.5	17	52	48	118	64.1	76	30	73	179	68.1
65 / 69	15	42	43	100	57.5	57	35	61	153	62.0	83	9	39	131	64.6
60 / 64	39	35	41	115	54.9	63	22	40	125	58.2	38	2	13	53	59.8
55 / 59	46	32	39	117	51.0	48	11	26	85	53.9	16	1	4	21	55.1
50 / 54	40	19	31	90	46.5	36	4	16	56	49.5	5		1	6	51.0
45 / 49	37	10	20	67	42.4	18	1	5	24	45.1	1		0	1	46.8
40 / 44	31	4	12	47	38.5	6	0	1	7	40.6	0			0	42.5
35 / 39	20	1	4	25	34.5	2		0	2	36.7					
30 / 34	8	0	1	9	30.0	0			0	33.0					
25 / 29	1			1	26.0										
20 / 24	0			0											
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															

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Dry-Bulb Temperature Hours For An Average Year (Sheet 3 of 5)

Period of Record = 1973 to 1996

Temperature Range (°F)	July					August					September				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104						1	0	1	74.9						
95 / 99		10	2	12	76.5	4	1	5	76.8		1	0	1	73.3	
90 / 94		42	13	55	76.3	29	7	36	75.9		7	1	8	74.9	
85 / 89	0	74	28	102	74.5	0	65	21	86	74.5		30	6	36	73.3
80 / 84	7	68	50	125	73.1	3	69	39	111	73.0	0	56	16	72	71.0
75 / 79	53	38	69	160	72.2	35	48	71	154	71.6	8	60	40	108	69.0
70 / 74	122	13	67	202	69.9	118	24	78	220	69.8	59	44	72	174	67.9
65 / 69	50	2	16	68	65.5	64	6	25	95	65.3	66	25	51	143	63.9
60 / 64	12	0	2	14	60.4	22	2	6	30	60.8	50	12	32	94	59.5
55 / 59	4		0	4	55.9	5	0	1	6	55.8	30	4	14	48	54.5
50 / 54	1			1	50.0	1	0	0	1	50.6	19	2	6	27	49.9
45 / 49											8	0	1	9	45.6
40 / 44											1			1	41.4
35 / 39											0			0	38.0
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															

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Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)

Period of Record = 1973 to 1996

Temperature Range (°F)	October					November					December				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104															
95 / 99															
90 / 94		1	0	1	73.2										
85 / 89		2	0	2	71.8		0		0	70.0					
80 / 84		16	2	18	68.6		1	0	1	66.1					
75 / 79	1	35	8	44	65.8		10	1	11	63.4		1		1	65.8
70 / 74	7	48	24	79	63.5	1	25	7	33	62.3	1	7	1	9	63.5
65 / 69	19	47	41	107	60.7	10	33	21	64	60.0	4	10	7	21	60.9
60 / 64	37	45	48	130	56.8	18	32	30	80	56.4	6	19	12	37	56.1
55 / 59	47	30	46	123	52.9	28	36	33	97	51.3	12	27	17	56	51.4
50 / 54	43	15	37	95	48.5	31	42	36	109	46.6	18	39	30	87	46.2
45 / 49	39	7	27	73	44.3	33	31	41	105	42.3	25	42	39	106	42.1
40 / 44	35	2	12	49	40.5	37	18	33	88	38.2	35	40	44	119	37.9
35 / 39	14	0	3	17	36.0	35	9	23	67	33.8	41	32	40	113	33.4
30 / 34	6		1	7	31.3	31	2	12	45	29.9	45	17	31	93	29.0
25 / 29	1			1	27.4	14	1	3	18	25.7	35	9	17	61	24.3
20 / 24						3	0	0	3	21.0	17	2	6	25	19.7
15 / 19						0			0	17.6	7	1	2	10	15.3
10 / 14											3	0	0	3	10.6
5 / 9											1	0	0	1	5.4
0 / 4											0			0	2.0
-5 / -1															
-10 / -6															

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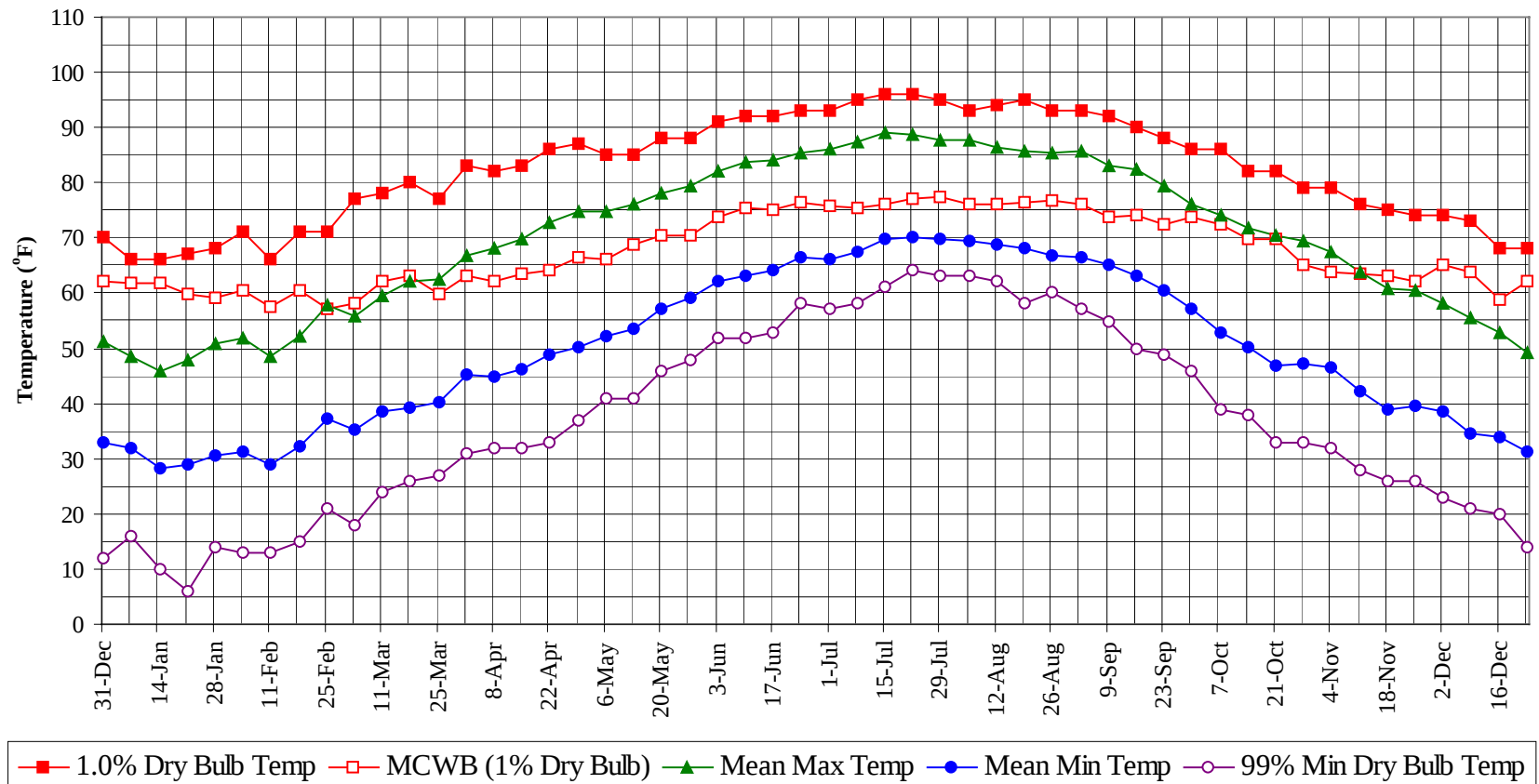
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1973 to 1996

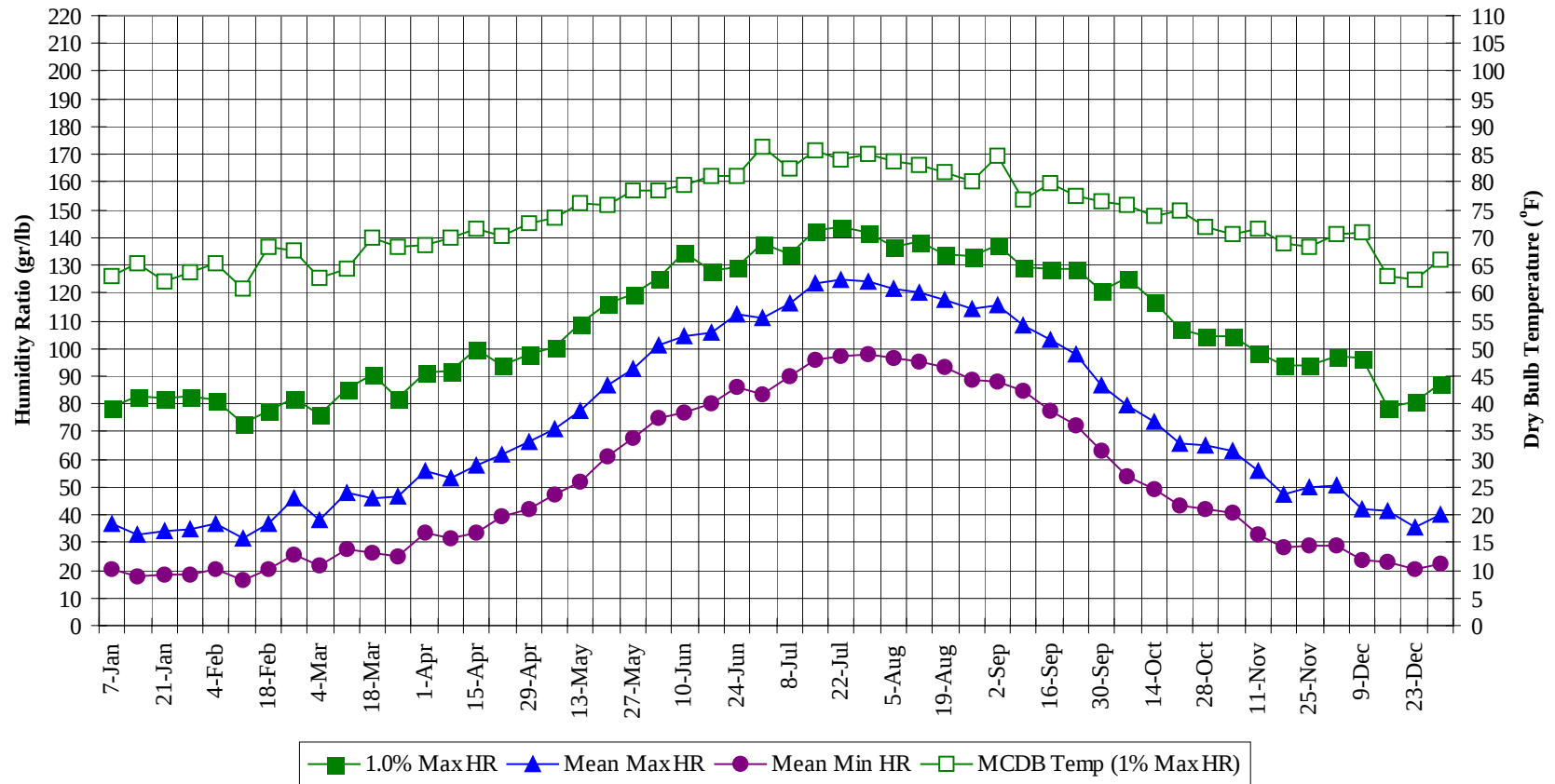
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
100 / 104		1	0	1	74.9
95 / 99		17	4	21	76.3
90 / 94		100	26	126	75.7
85 / 89	0	252	81	333	73.4
80 / 84	13	343	163	519	71.2
75 / 79	119	348	288	755	69.1
70 / 74	399	308	405	1113	66.9
65 / 69	372	257	332	961	62.0
60 / 64	306	238	277	821	56.9
55 / 59	278	226	256	760	51.9
50 / 54	257	217	246	720	46.9
45 / 49	238	194	235	667	42.4
40 / 44	243	159	210	613	38.1
35 / 39	235	124	174	534	33.5
30 / 34	213	80	122	416	29.1
25 / 29	135	35	63	234	24.3
20 / 24	62	13	22	97	19.7
15 / 19	30	6	9	45	15.3
10 / 14	15	2	4	21	10.9
5 / 9	4	0	1	5	6.0
0 / 4	1	0	0	1	0.6
-5 / -1	0	0	0	0	-4.8
-10 / -6	0			0	-7.3

Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary



RALEIGH-DURHAM

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WMO No. 723060

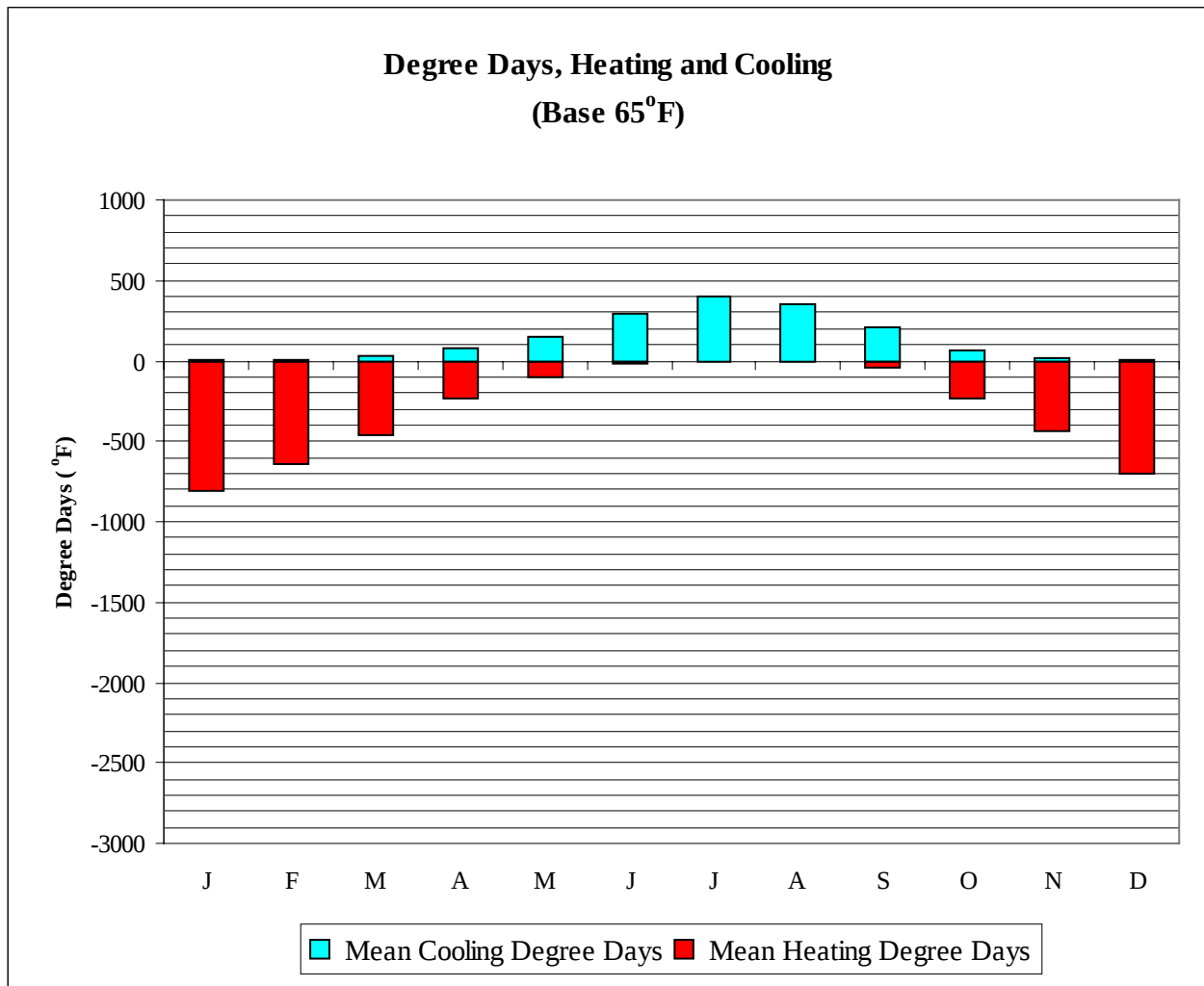
Long Term Dry Bulb Temperature and Humidity Summary

Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	66.0	61.8	48.6	32.0	16.0	79.1	63.2	37.0	20.5
14-Jan	66.0	61.9	45.7	28.3	10.0	82.6	65.2	32.6	17.6
21-Jan	67.0	59.7	47.9	29.0	6.0	81.9	62.1	34.1	18.5
28-Jan	68.0	59.2	50.9	30.5	14.0	82.6	63.8	34.9	18.7
4-Feb	71.0	60.6	51.8	31.2	13.0	81.2	65.3	36.7	20.1
11-Feb	66.0	57.6	48.7	29.0	13.0	72.8	60.8	31.8	16.4
18-Feb	71.0	60.3	52.3	32.3	15.0	77.7	68.3	37.1	20.2
25-Feb	71.0	57.3	57.8	37.1	21.0	81.9	67.6	46.1	25.5
4-Mar	77.0	58.3	56.0	35.1	18.0	76.3	62.7	37.9	21.5
11-Mar	78.0	62.3	59.6	38.7	24.0	85.4	64.5	48.0	27.7
18-Mar	80.0	63.2	62.0	39.1	26.0	90.3	70.1	45.7	26.0
25-Mar	77.0	59.8	62.5	40.1	27.0	81.9	68.5	46.9	25.2
1-Apr	83.0	63.2	66.7	45.1	31.0	91.0	68.5	55.8	33.8
8-Apr	82.0	62.0	68.0	44.7	32.0	91.7	69.9	53.4	31.4
15-Apr	83.0	63.4	69.7	46.2	32.0	100.1	71.6	58.1	33.8
22-Apr	86.0	64.3	72.7	48.9	33.0	93.8	70.4	61.9	39.4
29-Apr	87.0	66.5	74.7	50.2	37.0	98.0	72.6	66.4	42.2
6-May	85.0	66.2	74.7	52.0	41.0	100.8	73.6	71.1	47.5
13-May	85.0	68.9	76.1	53.5	41.0	109.2	76.1	77.2	51.9
20-May	88.0	70.5	78.2	57.1	46.0	116.2	75.8	86.7	61.2
27-May	88.0	70.4	79.5	59.2	48.0	119.7	78.6	92.7	67.9
3-Jun	91.0	73.8	82.1	62.1	52.0	125.3	78.6	101.4	75.0
10-Jun	92.0	75.5	83.7	63.2	52.0	134.4	79.5	104.3	76.6
17-Jun	92.0	75.2	84.1	64.2	53.0	128.1	81.1	105.8	80.1
24-Jun	93.0	76.3	85.6	66.5	58.0	129.5	81.0	112.3	86.0
1-Jul	93.0	75.8	85.9	66.2	57.0	137.9	86.5	111.3	83.4
8-Jul	95.0	75.3	87.4	67.4	58.0	133.7	82.3	116.0	89.9
15-Jul	96.0	76.1	89.2	69.6	61.0	142.8	85.8	123.5	96.2
22-Jul	96.0	77.2	88.9	70.1	64.0	143.5	84.0	124.5	97.5
29-Jul	95.0	77.5	87.7	69.9	63.0	142.1	85.0	124.1	98.2
5-Aug	93.0	76.2	87.7	69.5	63.0	136.5	83.7	121.2	96.4
12-Aug	94.0	76.0	86.3	68.9	62.0	138.6	83.2	120.2	95.0
19-Aug	95.0	76.5	85.9	68.0	58.0	133.7	81.8	117.5	93.3
26-Aug	93.0	76.8	85.3	66.7	60.0	133.0	80.1	114.5	88.7
2-Sep	93.0	76.1	85.8	66.6	57.0	137.2	84.6	115.5	88.1
9-Sep	92.0	73.9	82.9	65.1	55.0	129.5	77.0	108.2	84.6
16-Sep	90.0	74.0	82.3	63.1	50.0	128.8	79.7	103.3	77.6
23-Sep	88.0	72.5	79.4	60.5	49.0	128.8	77.4	97.6	72.4
30-Sep	86.0	73.7	76.0	57.1	46.0	121.1	76.5	86.7	63.3
7-Oct	86.0	72.3	74.2	52.9	39.0	125.3	75.8	79.3	53.9
14-Oct	82.0	69.8	71.7	50.1	38.0	116.9	74.0	73.5	49.4
21-Oct	82.0	69.8	70.5	46.9	33.0	107.1	75.0	65.6	43.3
28-Oct	79.0	65.1	69.4	47.3	33.0	104.3	72.0	65.3	42.3
4-Nov	79.0	63.8	67.3	46.5	32.0	104.3	70.5	63.0	41.0
11-Nov	76.0	63.5	63.7	42.2	28.0	98.7	71.5	55.5	33.2
18-Nov	75.0	63.0	60.9	38.7	26.0	93.8	68.9	47.4	28.4
25-Nov	74.0	62.1	60.5	39.7	26.0	93.8	68.3	49.7	29.2
2-Dec	74.0	65.1	58.3	38.4	23.0	97.3	70.5	50.4	28.7
9-Dec	73.0	63.7	55.6	34.5	21.0	96.6	71.1	42.2	23.4
16-Dec	68.0	58.7	52.7	33.9	20.0	79.1	63.0	41.1	22.7
23-Dec	68.0	62.0	49.1	31.1	14.0	80.5	62.3	35.7	20.1
31-Dec	70.0	62.1	51.1	33.0	12.0	87.5	65.9	40.4	22.6

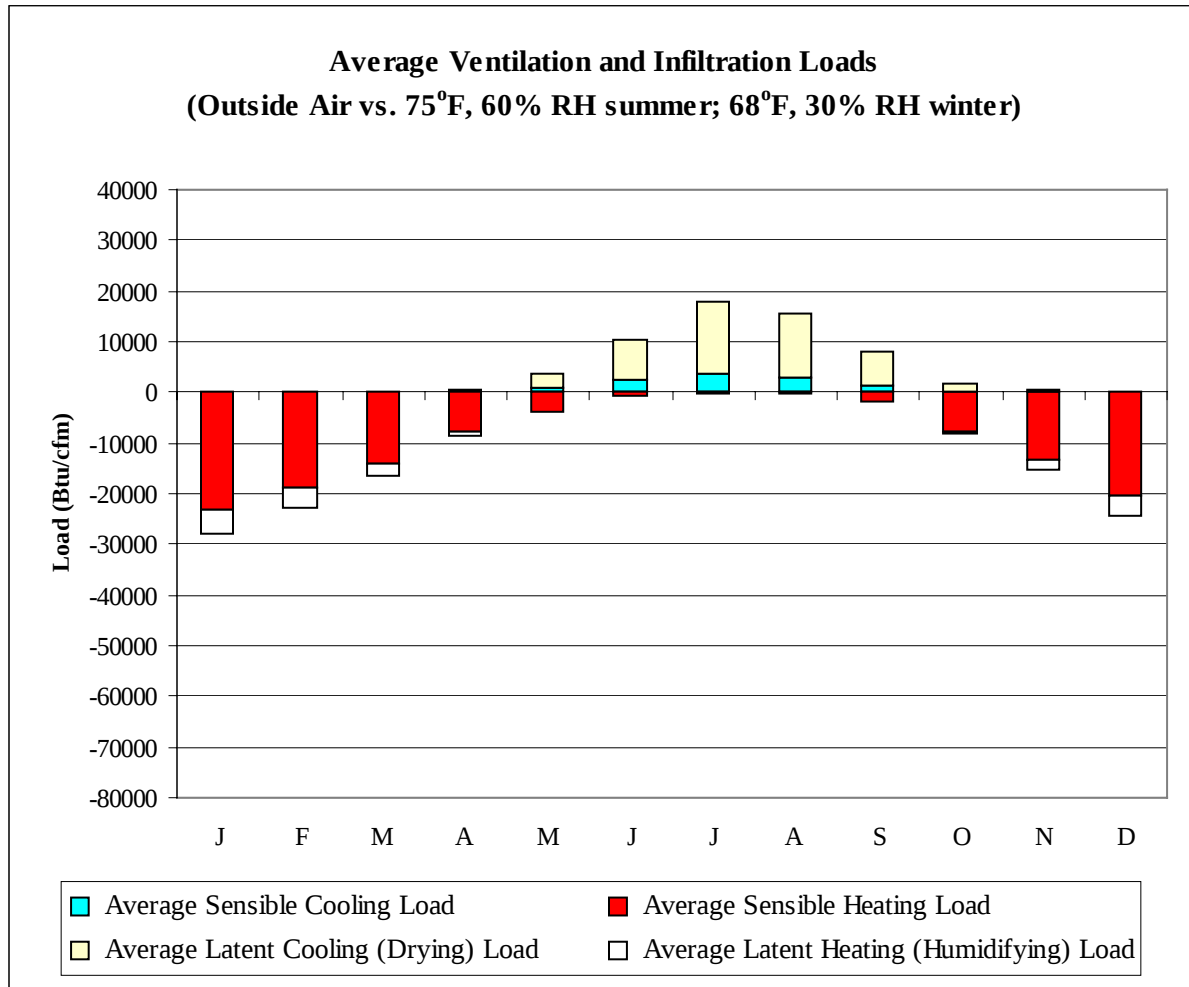
RALEIGH-DURHAM

NC

WMO No. 723060



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	2	804
FEB	5	641
MAR	24	466
APR	74	237
MAY	154	97
JUN	294	16
JUL	405	3
AUG	354	5
SEP	209	47
OCT	66	238
NOV	19	439
DEC	5	698
ANN	1610	3691



	Average Sensible Cooling Load	Average Sensible Heating Load	Average Latent Cooling Load	Average Latent Heating Load
	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)
JAN	0	-23211	28	-4599
FEB	7	-18752	20	-3939
MAR	81	-14234	87	-2405
APR	378	-7825	319	-887
MAY	920	-3685	2681	-45
JUN	2386	-800	8122	0
JUL	3809	-189	14104	0
AUG	2966	-335	12632	0
SEP	1337	-1952	6597	-3
OCT	238	-7938	1303	-257
NOV	24	-13451	363	-1791
DEC	1	-20446	101	-3712
ANN	12147	-112818	46357	-17638

Average Annual Solar Radiation – Nearest Available Site

(Source: National Renewable Energy Laboratory, Golden CO, 1995)

City: RALEIGH
 State: NC
 WBAN No: 13722
 Lat(N): 35.87
 Long(W): 78.78
 Elev(ft): 440

Stn Type: Primary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS
 Window: 1
 Overhang: 0.417
 Vert Gap: 0.293

AVERAGE INCIDENT SOLAR RADIATION (Btu/sq.ft./day), Percentage Uncertainty = 9		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ	Global	770	1030	1380	1730	1900	2000	1920	1740	1470	1190	860	700	1390
	Std Dev	62	93	111	125	103	120	129	128	116	96	82	58	38
	Minimum	640	800	1150	1530	1620	1790	1640	1380	1220	1020	650	520	1280
	Maximum	890	1200	1600	2020	2080	2250	2140	1920	1690	1390	960	830	1450
	Diffuse	340	440	570	720	870	940	950	860	690	490	360	310	630
Clear Day	Global	1080	1410	1860	2280	2520	2600	2520	2290	1920	1480	1110	950	1840
NORTH	Global	220	290	370	460	570	640	600	510	410	320	240	200	400
	Diffuse	220	290	370	450	520	560	540	490	410	320	240	200	380
Clear Day	Global	210	260	340	430	580	680	620	490	380	300	220	190	390
EAST	Global	500	650	820	1000	1040	1080	1040	950	840	720	550	460	810
	Diffuse	270	350	450	550	620	660	650	600	500	390	290	250	470
Clear Day	Global	770	960	1170	1340	1410	1410	1370	1290	1160	960	770	690	1110
SOUTH	Global	1130	1190	1140	980	800	730	750	870	1030	1220	1190	1100	1010
	Diffuse	370	430	500	550	580	580	590	590	550	480	400	350	500
Clear Day	Global	1980	1970	1720	1280	950	800	850	1110	1490	1790	1880	1910	1470
WEST	Global	510	650	830	990	1030	1070	1010	950	850	740	560	470	800
	Diffuse	270	350	450	560	630	670	660	610	510	400	300	250	470
Clear Day	Global	770	960	1170	1340	1410	1410	1370	1290	1160	960	770	690	1110

Average Annual Solar Heat and Illumination – Nearest Available Site

(Source: National Renewable Energy Laboratory, Golden CO, 1995)

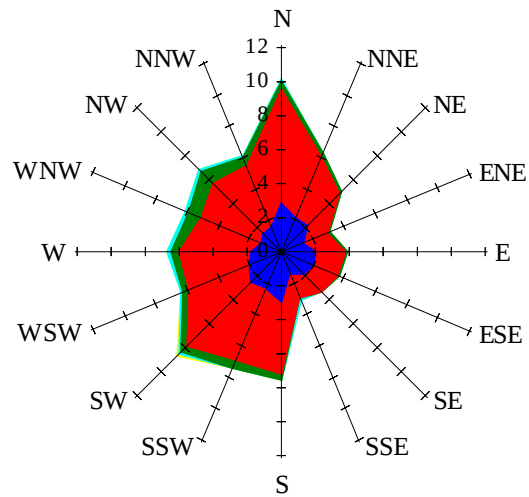
AVERAGE TRANSMITTED SOLAR RADIATION (Btu/sq.ft./day) FOR DOUBLE GLAZING, Percentage Uncertainty = 9		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ	Unshaded	510	710	980	1250	1380	1460	1390	1250	1050	840	580	460	990
NORTH	Unshaded	150	200	250	310	370	410	400	340	280	220	170	140	270
	Shaded	140	180	230	290	340	380	360	310	260	200	150	130	250
EAST	Unshaded	350	460	580	710	740	760	740	680	590	510	380	320	570
	Shaded	320	420	530	640	660	680	650	600	530	460	350	290	510
SOUTH	Unshaded	850	860	780	620	490	450	460	550	690	870	880	830	690
	Shaded	830	810	640	450	370	370	370	400	530	780	860	810	600
WEST	Unshaded	350	460	590	700	730	750	720	670	600	520	390	320	570
	Shaded	320	420	530	630	650	670	640	600	540	470	360	300	510

AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9		March					June				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	38	75	87	71	33	41	82	102	98	71
	M.Cloudy	21	45	54	46	21	27	56	75	73	52
NORTH	M.Clear	10	14	15	14	9	21	17	18	18	17
	M.Cloudy	9	16	17	15	8	14	18	20	20	17
EAST	M.Clear	75	62	15	14	9	70	75	37	18	17
	M.Cloudy	25	32	17	15	8	32	45	31	20	17
SOUTH	M.Clear	35	68	80	65	31	12	25	40	38	20
	M.Cloudy	15	35	42	36	16	11	22	33	32	19
WEST	M.Clear	10	14	18	65	72	12	17	18	49	76
	M.Cloudy	9	16	18	35	29	11	18	20	38	48
M.Clear	(% hrs)	41	39	38	36	37	40	41	34	29	35

		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	24	66	86	81	51	16	45	54	37	5
	M.Cloudy	14	39	60	57	35	9	27	32	22	4
NORTH	M.Clear	8	15	17	17	13	6	10	11	9	3
	M.Cloudy	6	15	19	18	13	4	10	12	9	2
EAST	M.Clear	54	72	34	17	13	44	44	11	9	3
	M.Cloudy	17	33	27	18	13	12	20	12	9	2
SOUTH	M.Clear	16	51	70	65	39	37	80	90	69	15
	M.Cloudy	8	26	43	41	23	11	31	37	26	4
WEST	M.Clear	8	15	17	49	71	6	10	19	51	21
	M.Cloudy	6	15	19	34	37	4	10	14	21	6
M.Clear	(% hrs)	42	44	39	36	40	38	38	37	38	40

Wind Summary - December, January, and February

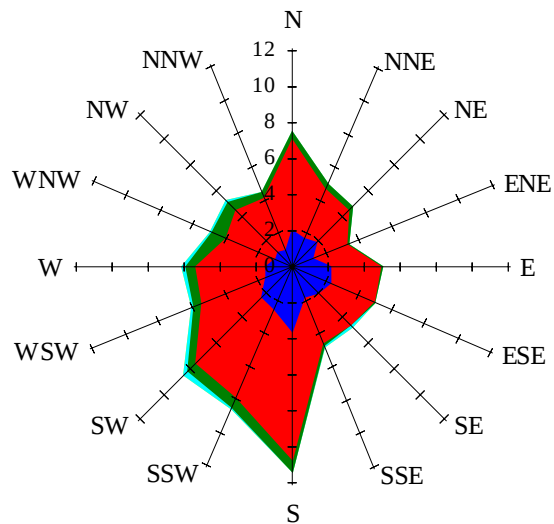
Labels of Percent Frequency on North Axis



Percent Calm = 7.10

Wind Summary - March, April, and May

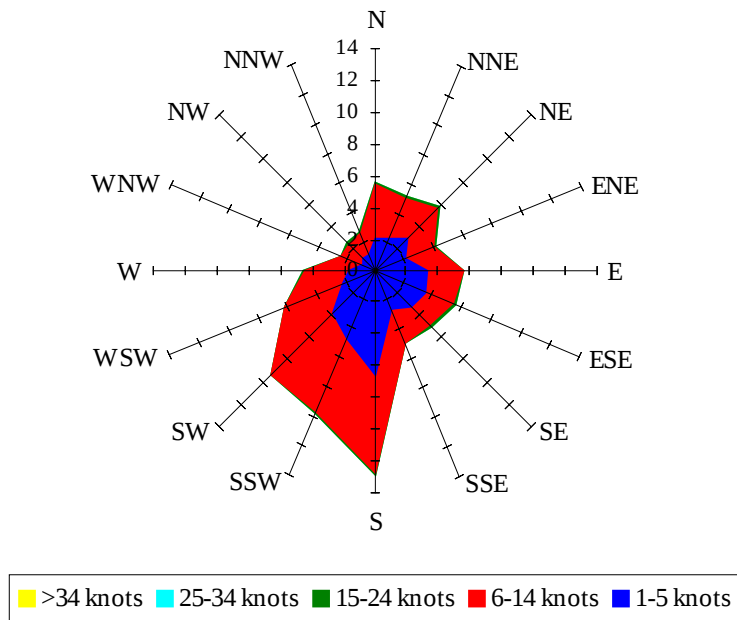
Labels of Percent Frequency on North Axis



Percent Calm = 6.06

Wind Summary - June, July, and August

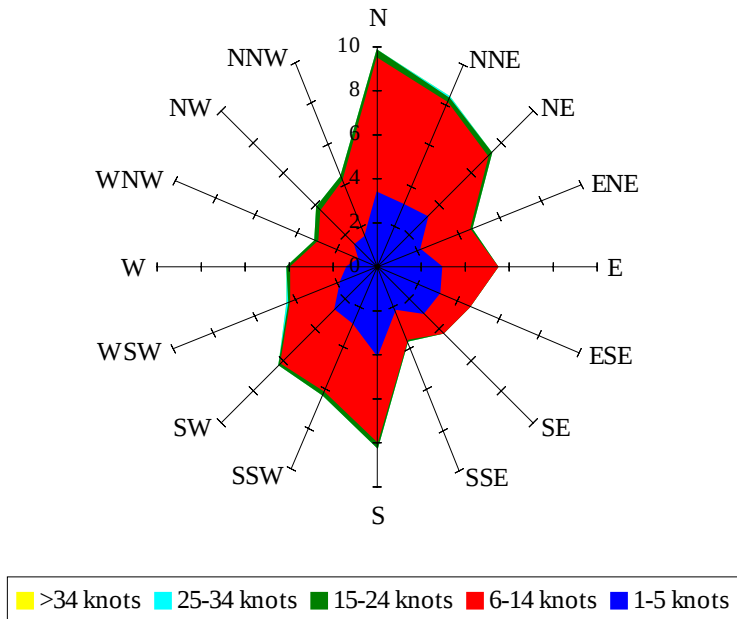
Labels of Percent Frequency on North Axis



Percent Calm = 8.84

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 11.26