

MONROE LA	
Latitude = 32.52 N	WMO No. 722486
Longitude = 92.03 W	Elevation = 79 feet
Period of Record = 1973 to 1996	Average Pressure = 29.93 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	99	79	115	6.5	W
0.4% Occurrence	96	78	118	7.4	S
1.0% Occurrence	94	78	119	7.5	S
2.0% Occurrence	93	78	119	7.4	S
Mean Daily Range	20	-	-	-	-
97.5% Occurrence	30	28	18	6.2	N
99.0% Occurrence	26	24	15	7.0	N
99.6% Occurrence	22	20	12	7.3	N
Median of Extreme Lows	18	16	9	8.5	N
	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	84	93	156	6.6	S
0.4% Occurrence	81	91	141	6.6	S
1.0% Occurrence	81	91	141	6.6	S
2.0% Occurrence	80	90	137	6.8	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	162	87	1.07	3.4	ESE
0.4% Occurrence	151	87	1.00	5.6	S
1.0% Occurrence	146	86	0.97	6.1	S
2.0% Occurrence	141	85	0.94	6.1	S
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		184	1671	2002	3463

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
11	4.0	90	6.9 + 1.9
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 (#)
67.1	N/A	N/A	24

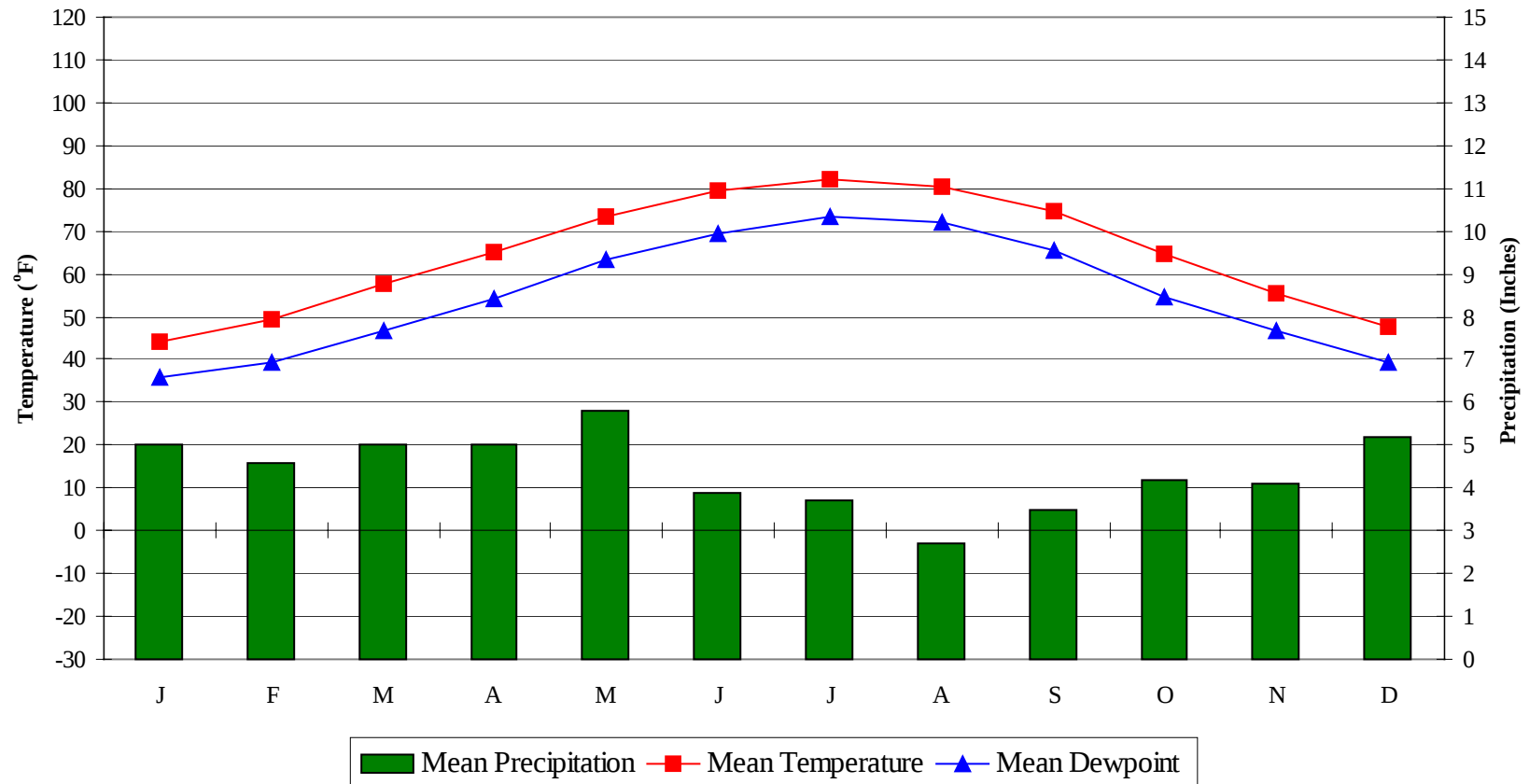
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

MONROE

LA

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Average Annual Climate

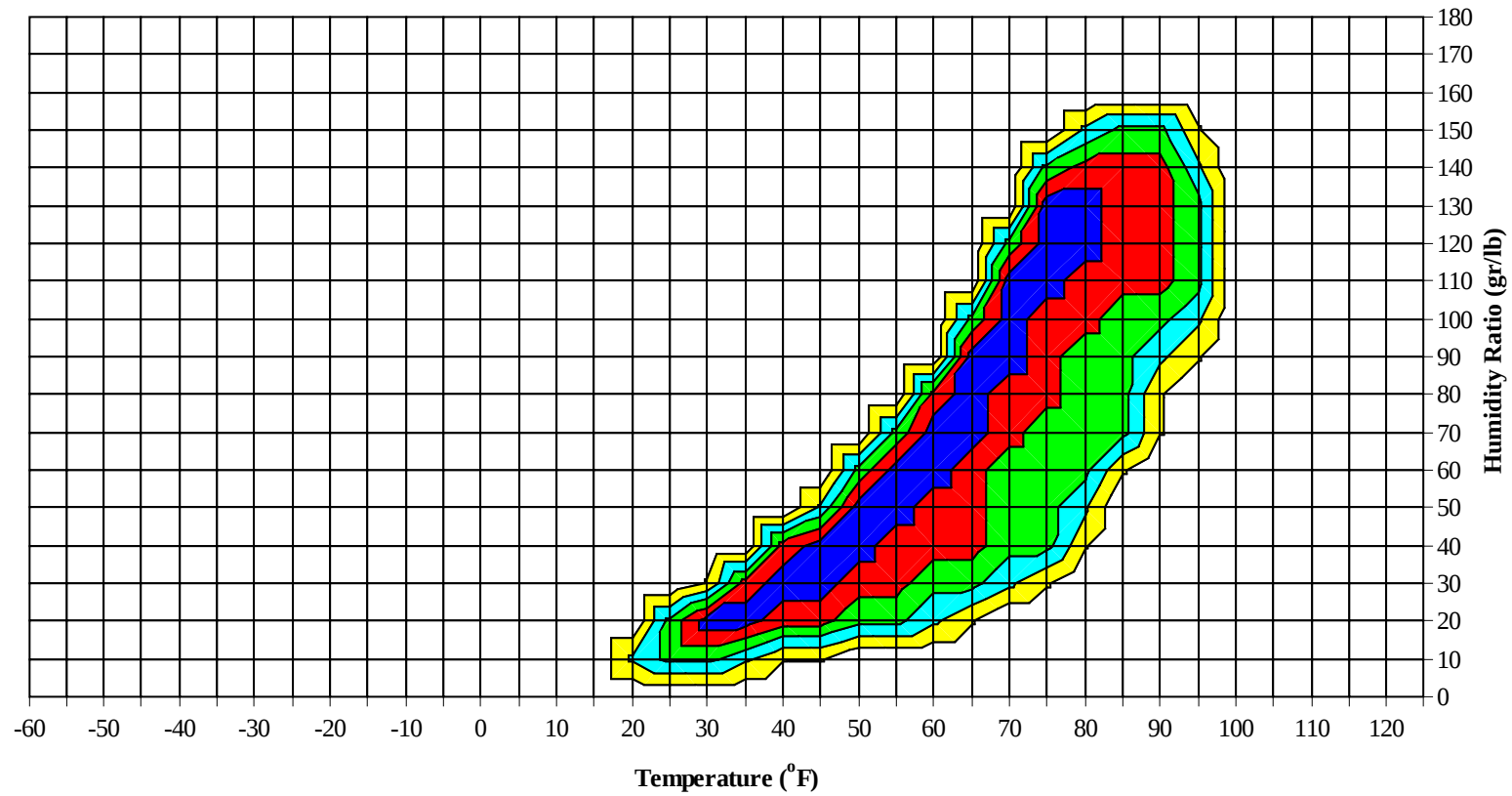


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Long Term Psychrometric Summary



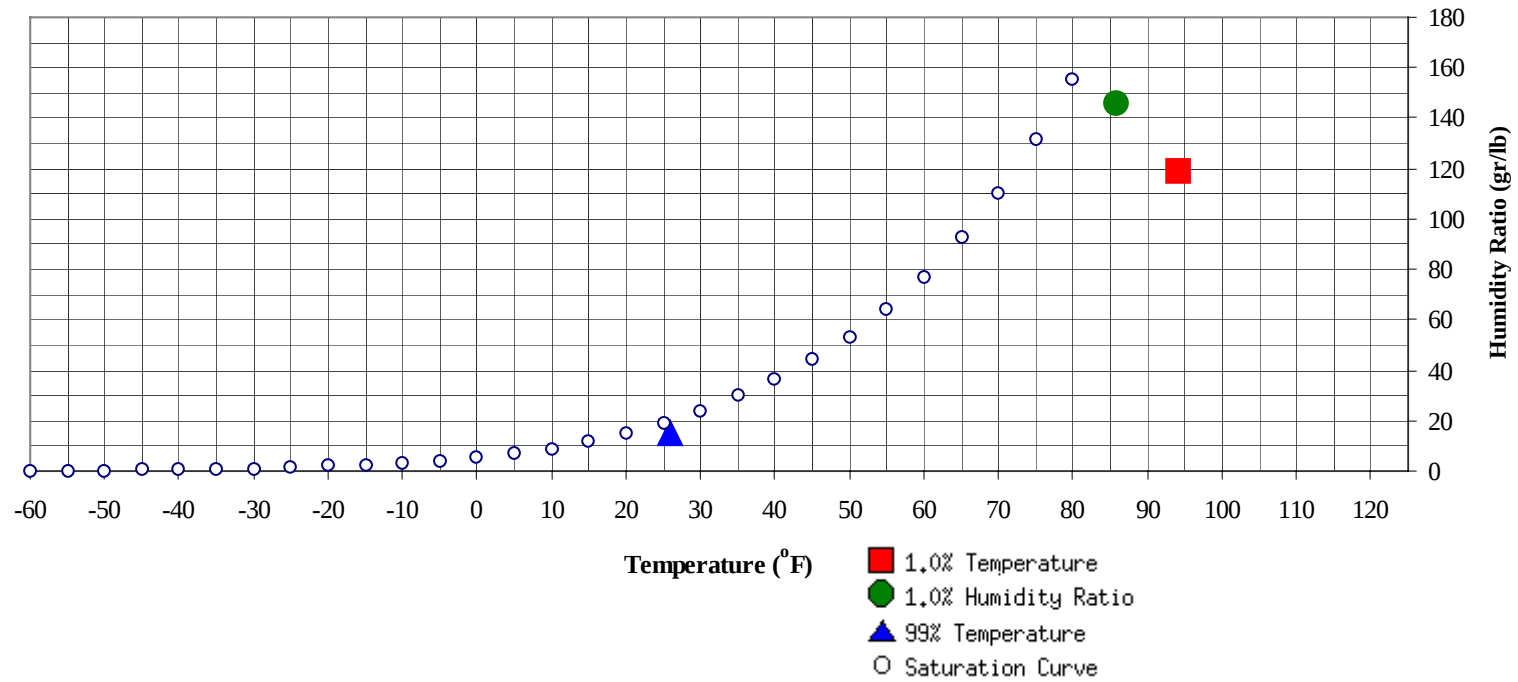
- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

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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)
	26	14.7	8.5		145.6	85.8	80	78	43.5

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	94	119	78	41.3

MONROE LA

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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							0		0	64.0		0		0	70.0
80 / 84							2	1	3	65.5		2	0	2	69.5
75 / 79		3	1	4	66.2		8	2	10	63.7		10	3	13	66.6
70 / 74	0	8	3	11	63.1							1	28	12	41
65 / 69	6	15	9	30	60.6	2	19	9	30	62.5	10	35	26	71	63.4
60 / 64	9	23	17	49	56.5	8	25	19	52	59.6	18	40	37	95	59.8
55 / 59	11	29	23	63	51.7	13	29	27	69	55.6	28	40	42	110	56.1
50 / 54	20	34	30	84	47.5	21	29	29	79	51.6	40	36	39	115	52.0
45 / 49	28	38	41	107	43.3	29	29	35	92	47.4	42	27	38	107	47.7
40 / 44	40	35	39	114	38.9	33	28	30	90	43.0	38	17	25	80	43.2
35 / 39	43	31	34	107	34.3	36	23	27	86	38.5	36	9	15	60	39.1
30 / 34	42	21	28	90	29.8	29	17	21	66	33.8	21	5	6	32	34.9
25 / 29	32	10	17	59	25.5	29	10	16	54	29.5	8	1	2	11	30.1
20 / 24	11	2	5	18	20.5	17	5	6	28	25.2	3	0	1	4	25.0
15 / 19	3	1	1	5	15.7	6	1	1	8	20.8	1		0	1	20.7
10 / 14	1	0	0	1	11.2	2	0	1	3	15.6	0			0	19.0
5 / 9	1	0	0	1	6.5	0			0	12.0					
0 / 4	0			0	2.0										

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.

MONROE LA

WMO No. 722486

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												1	0	1	76.4
95 / 99							1	0	1	76.4		13	3	16	77.0
90 / 94		2	0	2	68.7		16	4	20	74.4	0	59	19	78	76.1
85 / 89	0	11	3	14	69.8	0	49	18	67	72.6	2	77	33	112	75.4
80 / 84	0	35	14	49	67.9	2	65	36	103	71.3	21	53	57	131	74.4
75 / 79	3	49	26	78	66.4	24	50	56	130	69.9	76	28	72	176	73.1
70 / 74	20	48	45	113	64.3	67	38	62	167	67.4	95	8	45	148	70.1
65 / 69	42	43	51	136	61.3	74	19	44	137	63.9	32	1	10	43	64.9
60 / 64	50	27	43	120	57.3	45	7	19	71	59.1	12		1	13	60.3
55 / 59	44	14	28	86	52.8	23	2	8	33	54.6	2		0	2	54.4
50 / 54	38	9	19	66	48.4	11	0	1	12	50.4	0			0	50.7
45 / 49	28	2	7	37	44.6	1		0	1	46.1					
40 / 44	10	1	3	14	40.4	0			0	43.0					
35 / 39	4	0	1	5	36.1										
30 / 34	1			1	32.3										
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															

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MONROE LA

WMO No. 722486

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		2	0	2	79.8		1	0	1	79.1		1		1	76.0
95 / 99	0	27	5	32	79.2		21	2	23	79.1		6	1	7	76.3
90 / 94	0	89	27	116	78.6	0	77	17	94	78.7		36	5	41	76.1
85 / 89	5	74	36	115	77.7	1	81	32	114	77.2		63	15	78	74.7
80 / 84	31	39	70	140	76.4	17	44	57	119	75.8	4	58	31	93	72.9
75 / 79	118	14	82	214	74.4	92	20	90	202	74.0	37	39	65	140	71.8
70 / 74	84	3	27	114	71.3	108	4	43	155	70.8	84	23	63	170	69.1
65 / 69	9	0	1	10	66.3	22	0	5	27	65.6	46	10	29	85	63.9
60 / 64	1		0	1	62.2	6		1	7	60.6	32	4	18	54	59.2
55 / 59	0			0	58.0	2		0	2	56.0	20	1	10	31	54.7
50 / 54						0			0	52.2	11	0	3	14	50.5
45 / 49											4		1	5	46.3
40 / 44											1		0	1	42.1
35 / 39															
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															

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MONROE LA

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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		3	0	3	73.7										
85 / 89		21	2	23	70.7		0		0	71.5					
80 / 84	0	44	8	52	68.4	0	9	0	9	68.4		0	0	0	70.9
75 / 79	4	48	20	72	66.6	1	24	5	30	67.7	0	6	1	7	68.1
70 / 74	20	49	40	110	64.9	9	34	19	62	65.0	2	16	7	25	65.3
65 / 69	38	37	48	123	61.9	20	35	29	84	61.4	11	21	17	49	62.1
60 / 64	41	24	45	109	58.0	25	36	35	96	57.2	15	31	23	69	57.3
55 / 59	43	14	38	95	53.9	29	35	35	99	52.2	18	34	26	78	51.8
50 / 54	44	7	28	79	49.8	32	33	34	99	47.8	23	37	31	91	47.6
45 / 49	32	1	14	47	45.5	34	20	39	93	43.7	26	37	40	103	43.1
40 / 44	19	0	4	23	40.9	36	10	24	70	39.6	41	33	40	113	39.0
35 / 39	6	0	1	7	36.6	26	4	15	45	35.1	39	19	32	89	34.5
30 / 34	1		0	1	31.1	18	1	5	24	31.0	39	9	19	66	30.2
25 / 29						7	0	1	8	26.8	21	5	8	34	25.4
20 / 24						1		0	1	21.7	7	2	3	12	20.5
15 / 19											3	1	1	5	15.2
10 / 14											1	0	1	2	10.0
5 / 9											1	0	0	1	6.2
0 / 4															

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MONROE LA**WMO No. 722486****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		5	1	6	78.6
95 / 99	0	68	12	79	78.4
90 / 94	0	281	73	354	77.5
85 / 89	8	377	139	524	75.4
80 / 84	76	359	276	711	73.2
75 / 79	357	317	433	1107	71.5
70 / 74	505	284	388	1177	67.7
65 / 69	327	245	299	872	62.2
60 / 64	280	219	271	770	57.4
55 / 59	254	193	234	681	52.6
50 / 54	250	174	220	645	48.1
45 / 49	223	142	196	561	43.5
40 / 44	219	110	152	481	39.1
35 / 39	167	75	108	350	34.5
30 / 34	136	42	71	249	30.0
25 / 29	80	21	34	135	25.5
20 / 24	26	5	9	40	20.6
15 / 19	8	2	3	13	15.5
10 / 14	2	1	1	4	10.4
5 / 9	1	0	0	1	6.4
0 / 4	0			0	2.0

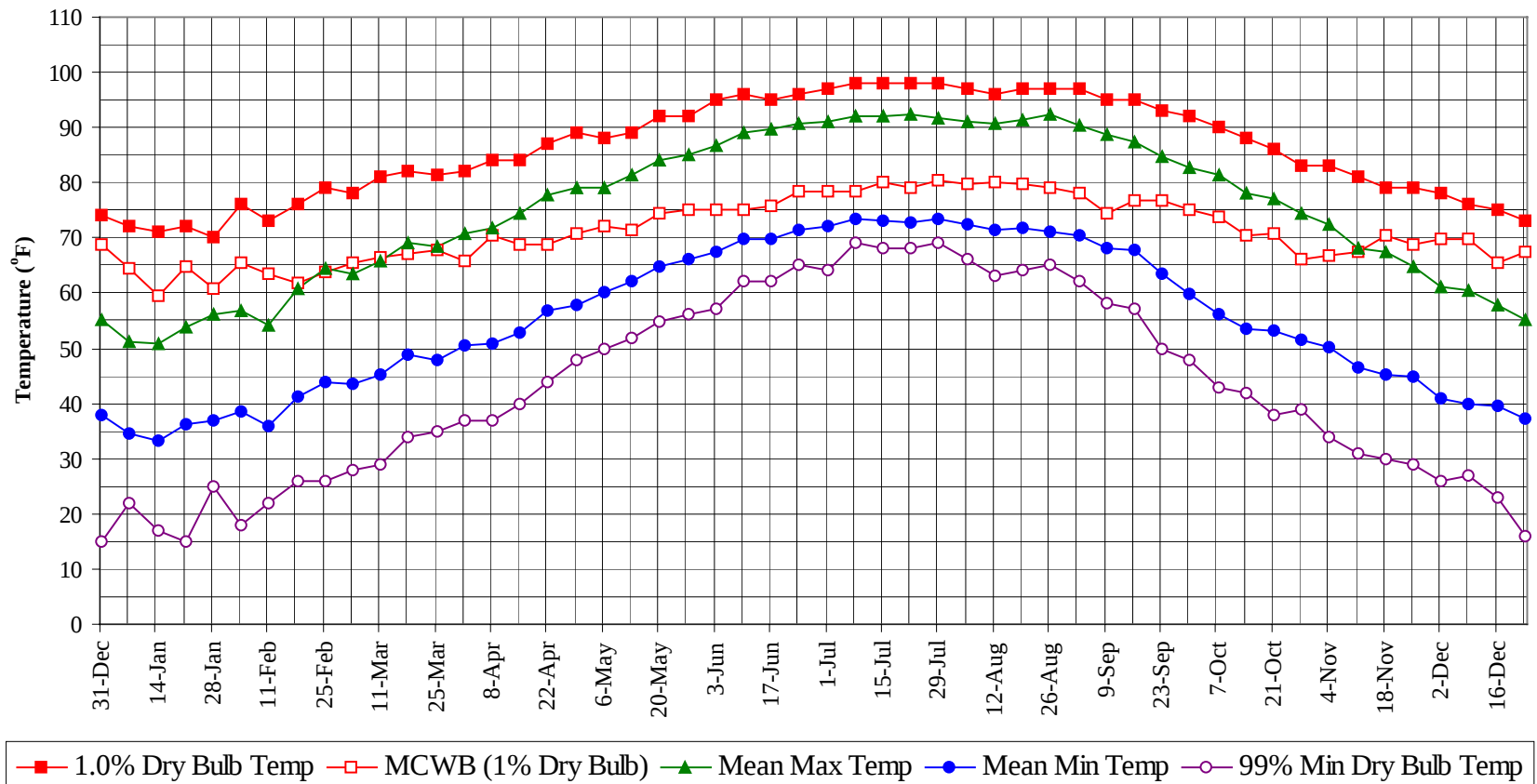
Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary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

MONROE

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WMO No. 722486

Annual Summary of Temperatures

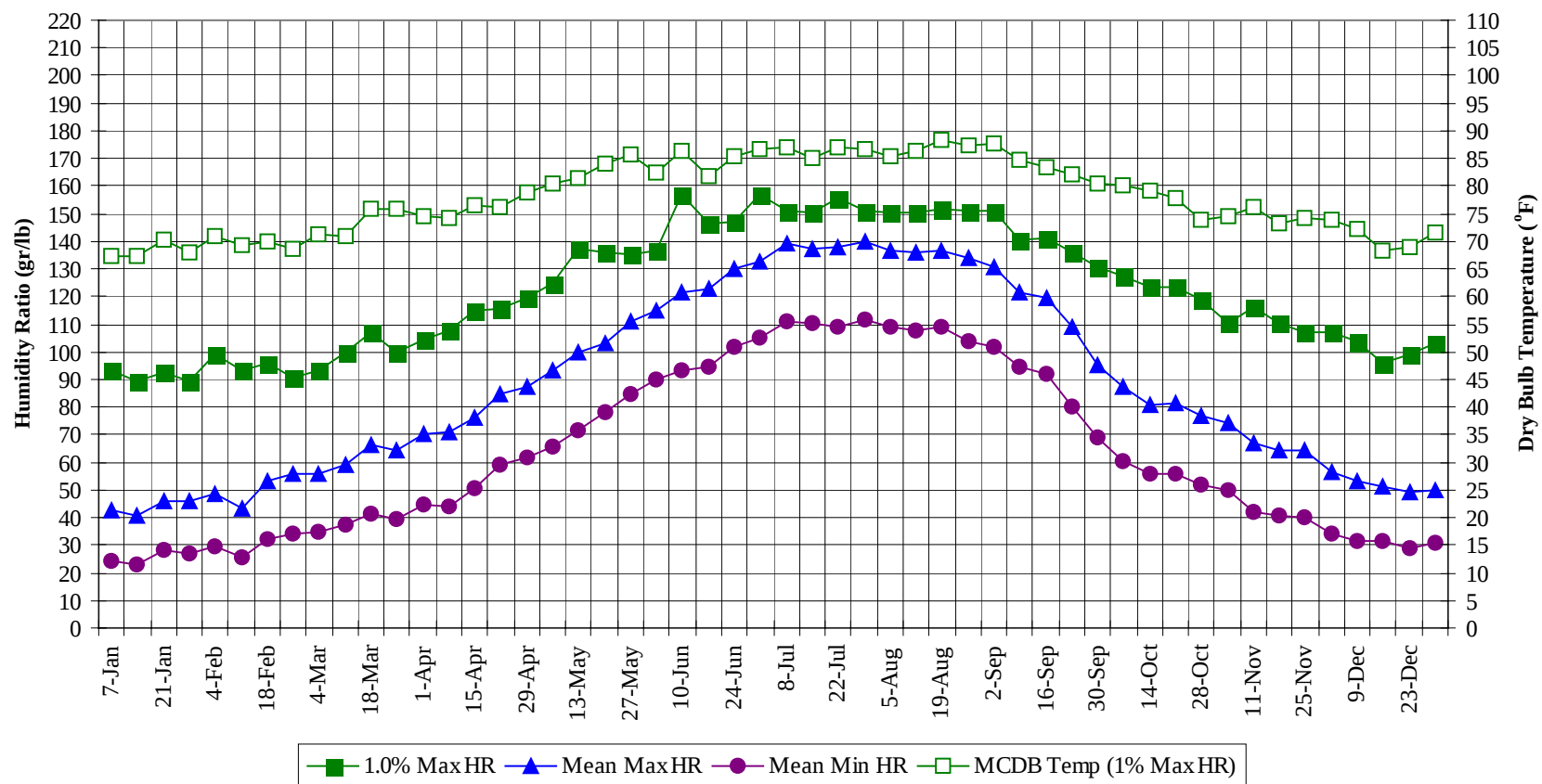


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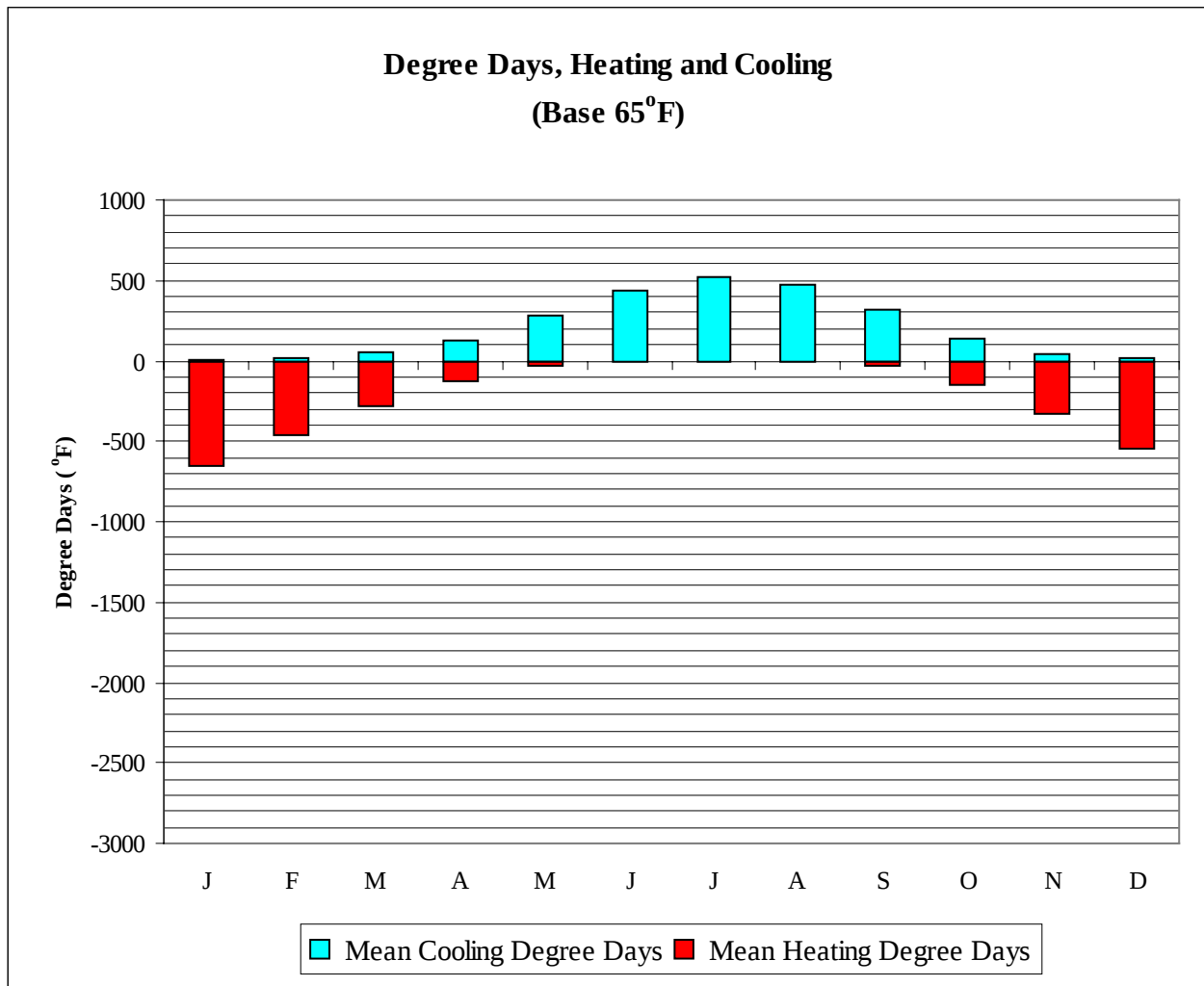
WMO No. 722486

Long Term Humidity and Dry Bulb Temperature Summary



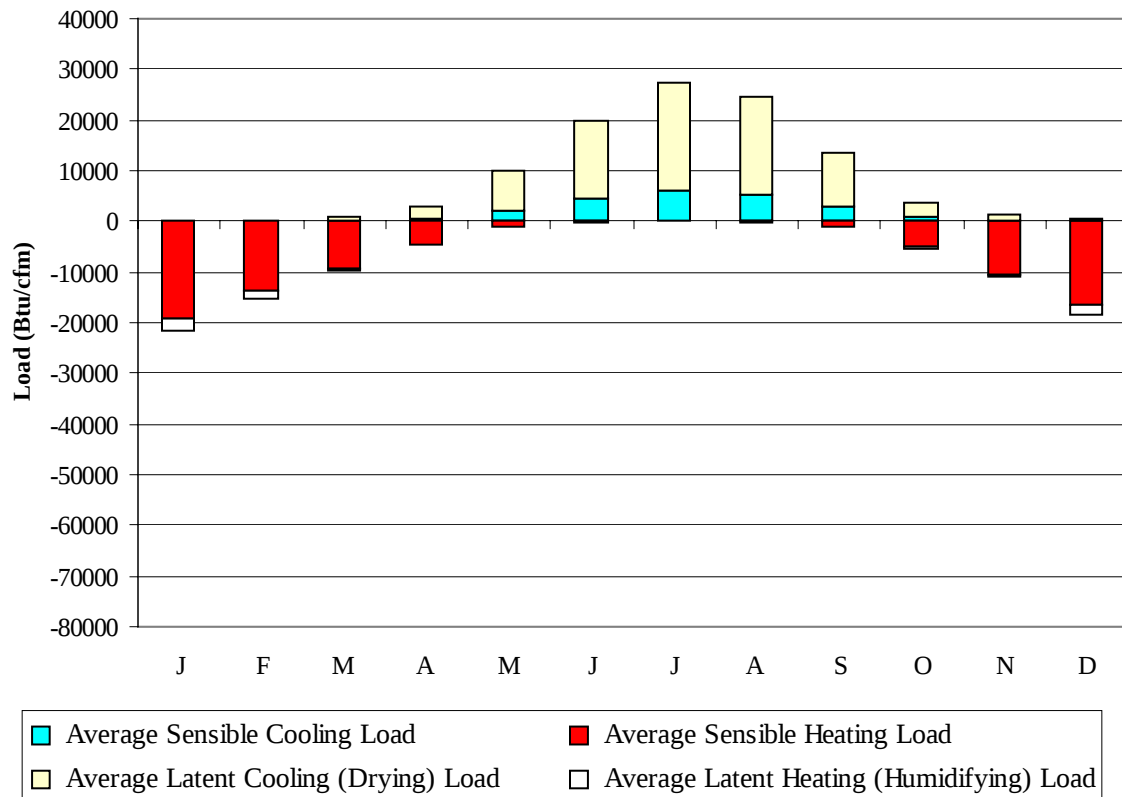
MONROE**LA****WMO No. 722486****Long Term Dry Bulb Temperature and Humidity Summary**

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	72.0	64.3	51.3	34.6	22.0	93.1	67.4	42.6	24.6
14-Jan	71.0	59.4	51.0	33.3	17.0	89.6	67.4	40.5	22.9
21-Jan	72.0	64.7	54.0	36.3	15.0	92.4	70.3	46.2	28.5
28-Jan	70.0	60.8	56.1	37.0	25.0	89.6	67.9	46.1	27.2
4-Feb	76.0	65.4	57.0	38.5	18.0	99.4	71.0	48.6	29.5
11-Feb	73.0	63.5	54.2	35.8	22.0	93.1	69.2	43.2	25.9
18-Feb	76.0	61.9	60.8	41.2	26.0	95.9	69.9	53.4	32.4
25-Feb	79.0	63.7	64.6	44.0	26.0	90.3	68.5	55.5	33.9
4-Mar	78.0	65.4	63.4	43.6	28.0	93.1	71.1	55.8	35.0
11-Mar	81.0	66.6	65.7	45.1	29.0	100.1	71.1	58.9	37.3
18-Mar	82.0	67.0	69.0	48.7	34.0	107.1	76.0	66.3	41.4
25-Mar	81.5	67.9	68.6	48.0	35.0	100.1	75.8	64.5	39.6
1-Apr	82.0	65.7	70.9	50.5	37.0	104.3	74.5	70.3	44.8
8-Apr	84.0	70.6	71.7	50.8	37.0	107.8	74.3	70.8	44.2
15-Apr	84.0	68.9	74.3	52.9	40.0	114.8	76.4	75.9	50.7
22-Apr	87.0	68.9	77.9	56.8	44.0	115.5	76.2	84.7	59.3
29-Apr	89.0	70.9	79.1	57.9	48.0	119.7	78.8	87.1	61.4
6-May	88.0	72.2	79.1	60.1	50.0	124.6	80.4	93.1	65.7
13-May	89.0	71.6	81.4	62.1	52.0	137.2	81.4	100.1	71.6
20-May	92.0	74.5	84.2	64.7	55.0	135.8	84.1	103.4	78.0
27-May	92.0	75.3	85.2	66.2	56.0	135.1	85.8	111.0	84.4
3-Jun	95.0	75.0	86.6	67.6	57.0	136.5	82.5	114.9	89.7
10-Jun	96.0	75.0	89.0	69.7	62.0	156.8	86.5	121.7	93.0
17-Jun	95.0	75.8	89.6	69.7	62.0	146.3	81.7	123.0	94.8
24-Jun	96.0	78.5	90.8	71.5	65.0	147.0	85.5	129.8	102.0
1-Jul	97.0	78.4	91.1	72.3	64.0	156.8	86.8	132.4	105.3
8-Jul	98.0	78.4	92.0	73.3	69.0	151.2	86.9	139.1	110.8
15-Jul	98.0	80.1	92.0	73.2	68.0	150.5	85.1	137.4	110.5
22-Jul	98.0	79.0	92.5	72.9	68.0	155.4	87.1	138.2	109.3
29-Jul	98.0	80.3	91.9	73.4	69.0	151.2	86.7	140.2	111.8
5-Aug	97.0	79.8	91.2	72.5	66.0	150.5	85.2	136.4	108.8
12-Aug	96.0	80.0	90.7	71.4	63.0	150.5	86.4	135.7	107.7
19-Aug	97.0	79.8	91.5	71.7	64.0	151.9	88.3	136.9	108.8
26-Aug	97.0	79.2	92.2	71.1	65.0	151.2	87.4	134.1	103.9
2-Sep	97.0	78.0	90.3	70.4	62.0	151.2	87.7	130.8	101.6
9-Sep	95.0	74.6	88.7	68.3	58.0	140.7	84.8	121.2	94.4
16-Sep	95.0	76.8	87.4	67.8	57.0	141.4	83.5	119.8	91.8
23-Sep	93.0	76.7	84.8	63.6	50.0	135.8	82.2	109.0	80.1
30-Sep	92.0	75.1	82.8	59.7	48.0	130.9	80.4	95.3	69.0
7-Oct	90.0	73.8	81.4	56.2	43.0	127.4	80.2	87.3	60.5
14-Oct	88.0	70.4	78.0	53.5	42.0	123.2	79.1	80.8	55.9
21-Oct	86.0	70.9	77.1	53.1	38.0	123.2	77.7	81.3	56.0
28-Oct	83.0	66.0	74.4	51.4	39.0	119.0	73.8	76.7	51.9
4-Nov	83.0	66.8	72.4	50.1	34.0	110.6	74.5	74.1	50.1
11-Nov	81.0	67.6	68.3	46.4	31.0	116.2	76.2	66.9	41.7
18-Nov	79.0	70.4	67.4	45.2	30.0	110.6	73.3	64.4	41.0
25-Nov	79.0	68.6	64.9	45.0	29.0	107.1	74.1	64.6	40.0
2-Dec	78.0	69.7	61.3	41.0	26.0	107.1	74.0	56.5	33.9
9-Dec	76.0	69.8	60.6	39.9	27.0	103.6	72.2	53.2	31.8
16-Dec	75.0	65.6	57.7	39.4	23.0	95.9	68.4	51.4	31.6
23-Dec	73.0	67.6	55.1	37.2	16.0	99.4	68.9	49.1	29.2
31-Dec	74.0	68.7	55.2	37.8	15.0	102.9	71.4	49.8	31.2



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	7	650
FEB	19	456
MAR	57	287
APR	128	124
MAY	280	26
JUN	441	2
JUL	523	0
AUG	479	1
SEP	322	26
OCT	136	149
NOV	45	330
DEC	14	550
ANN	2451	2601

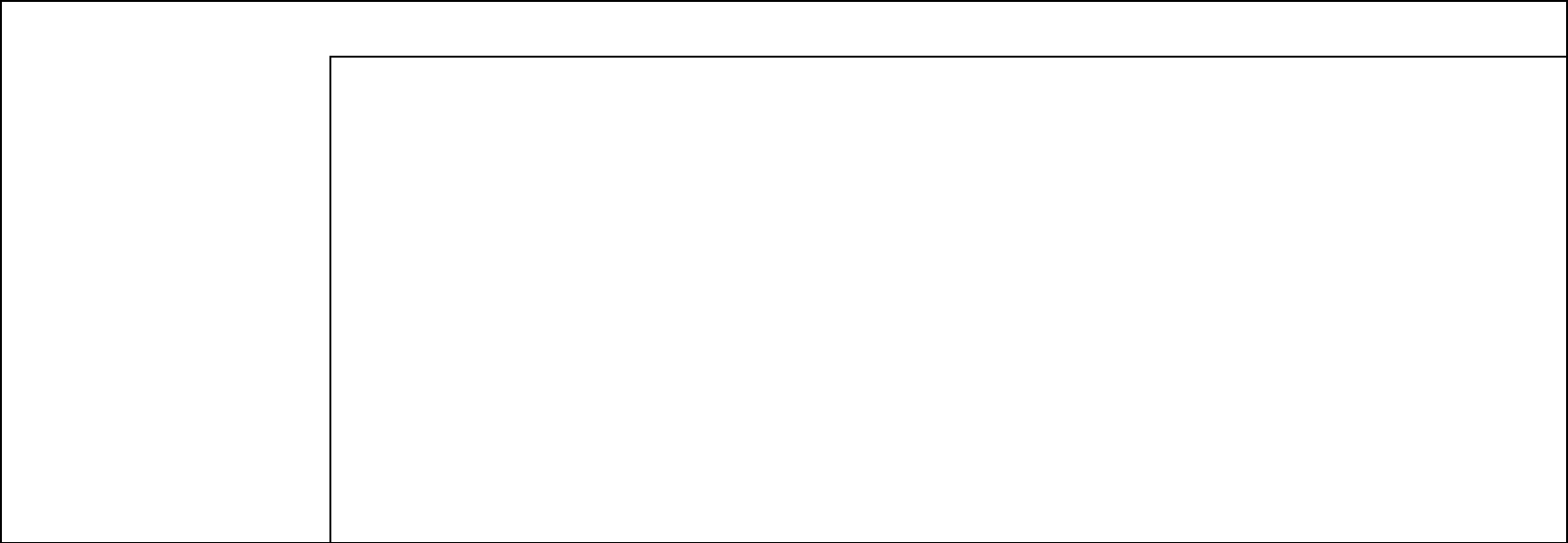
Average Ventilation and Infiltration Loads
(Outside Air vs. 75°F, 60% RH summer; 68°F, 30% RH winter)



	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	4	-19153	153	-2419
FEB	33	-13786	253	-1653
MAR	188	-9262	817	-576
APR	676	-4449	2255	-66
MAY	2202	-1199	7658	-2
JUN	4559	-141	15435	0
JUL	5886	-12	21506	0
AUG	5085	-86	19382	0
SEP	2849	-1075	10828	0
OCT	834	-5185	2962	-75
NOV	117	-10414	1194	-685
DEC	13	-16481	465	-1843
ANN	22446	-81243	82908	-7319

Average Annual Solar Radiation – Nearest Available Site
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

No Solar Radiation
Data Available

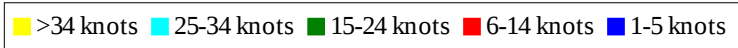
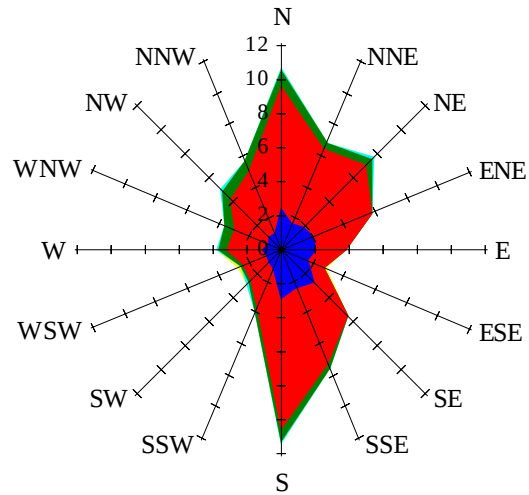


Average Annual Solar Heat and Illumination – Nearest Available Site

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

Wind Summary - December, January, and February

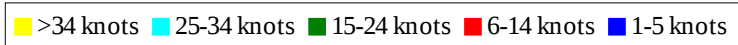
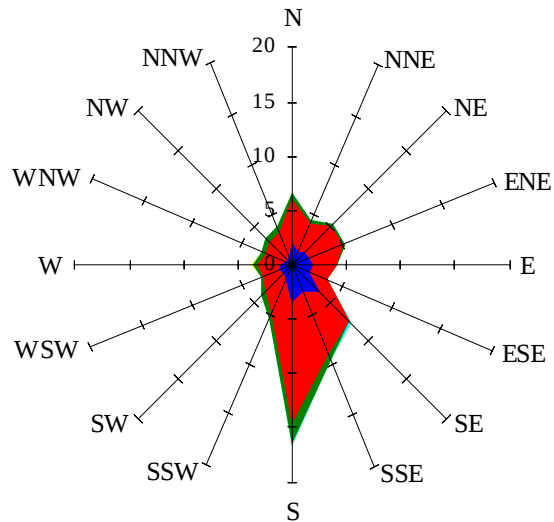
Labels of Percent Frequency on North Axis



Percent Calm = 11.96

Wind Summary - March, April, and May

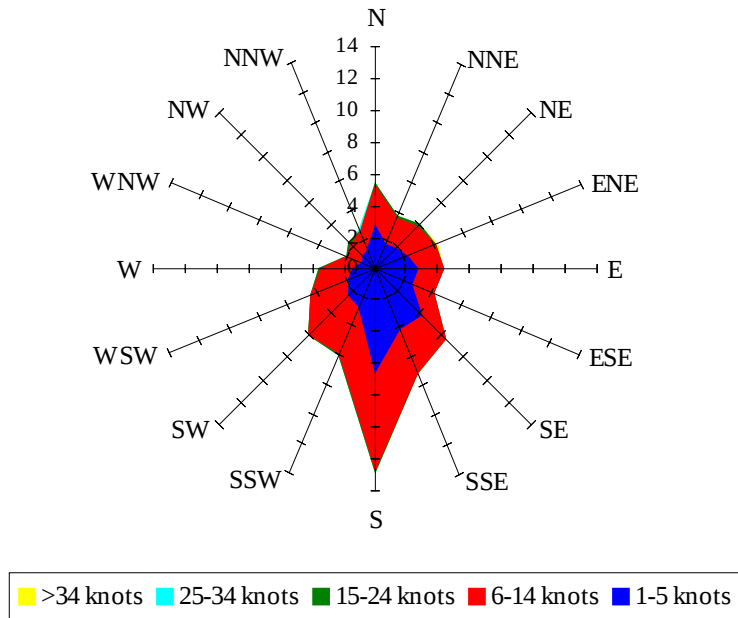
Labels of Percent Frequency on North Axis



Percent Calm = 12.20

Wind Summary - June, July, and August

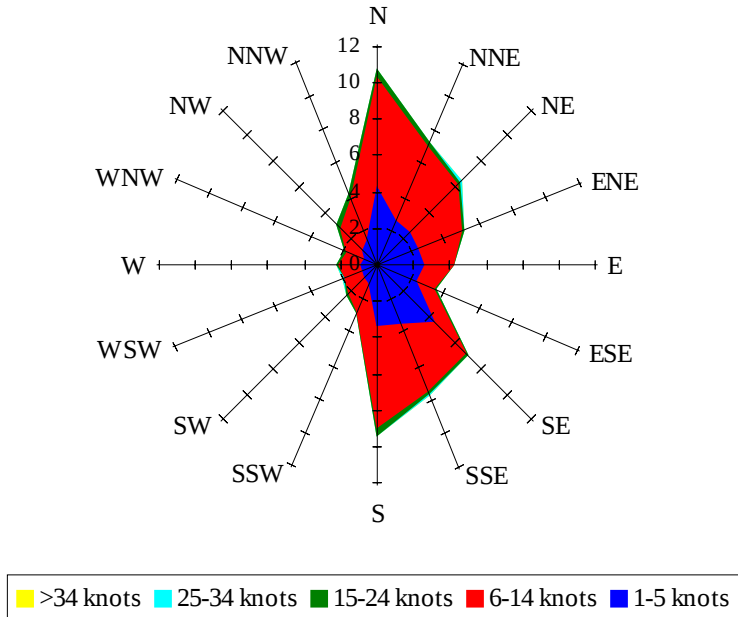
Labels of Percent Frequency on North Axis



Percent Calm = 22.36

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 21.15