TONCONTIN INTL, HO	
Latitude = 14.06 N	Station ID = ICAO_MHTG
Longitude = 87.22 W	Elevation = 3294 Feet
Period of Record = 1988 To 2017	Average Pressure = 26.67 inches Hg

Design Criteria Data

	Mean Coincident (Average) Values				
Dry Bulb Temperature (T)	**Design Value (°F)**	**Wet Bulb Temperature (°F)**	**Humidity Ratio (gr/lb)**	**Wind Speed (mph)**	**Prevailing Direction (NSEW)**
Median of Extreme Highs	93	68	73	8.2	S
0.4% Occurrence	90	67	76	8.6	N
1.0% Occurrence	88	68	81	8.8	E
2.0% Occurrence	86	68	85	8.8	E
Mean Daily Range	19	-	-	-	N
97.5% Occurrence	58	57	73	4.2	N
99.0% Occurrence	55	54	66	2.7	N
99.6% Occurrence	53	52	62	2.4	N
Median of Extreme Lows	48	47	52	1.5	S

Wet Bulb Temperature (T_{wb})	**Design Value (°F)**	**Dry Bulb Temperature (°F)**	**Humidity Ratio (gr/lb)**	**Wind Speed (mph)**	**Prevailing Direction (NSEW)**
Median of Extreme Highs	78	83	152	6.8	S
0.4% Occurrence	73	82	119	7.3	S
1.0% Occurrence	72	81	115	7.3	N
2.0% Occurrence	71	79	111	7.1	N

Humidity Ratio (HR)	**Design Value (gr/lb)**	**Dry Bulb Temperature (°F)**	**Vapor Pressure (in. Hg)**	**Wind Speed (mph)**	**Prevailing Direction (NSEW)**
Median of Extreme Highs	156	79	0.92	9.8	-
0.4% Occurrence	124	75	0.73	4.9	S
1.0% Occurrence	123	75	0.73	4.9	N
2.0% Occurrence	118	74	0.7	5.2	N

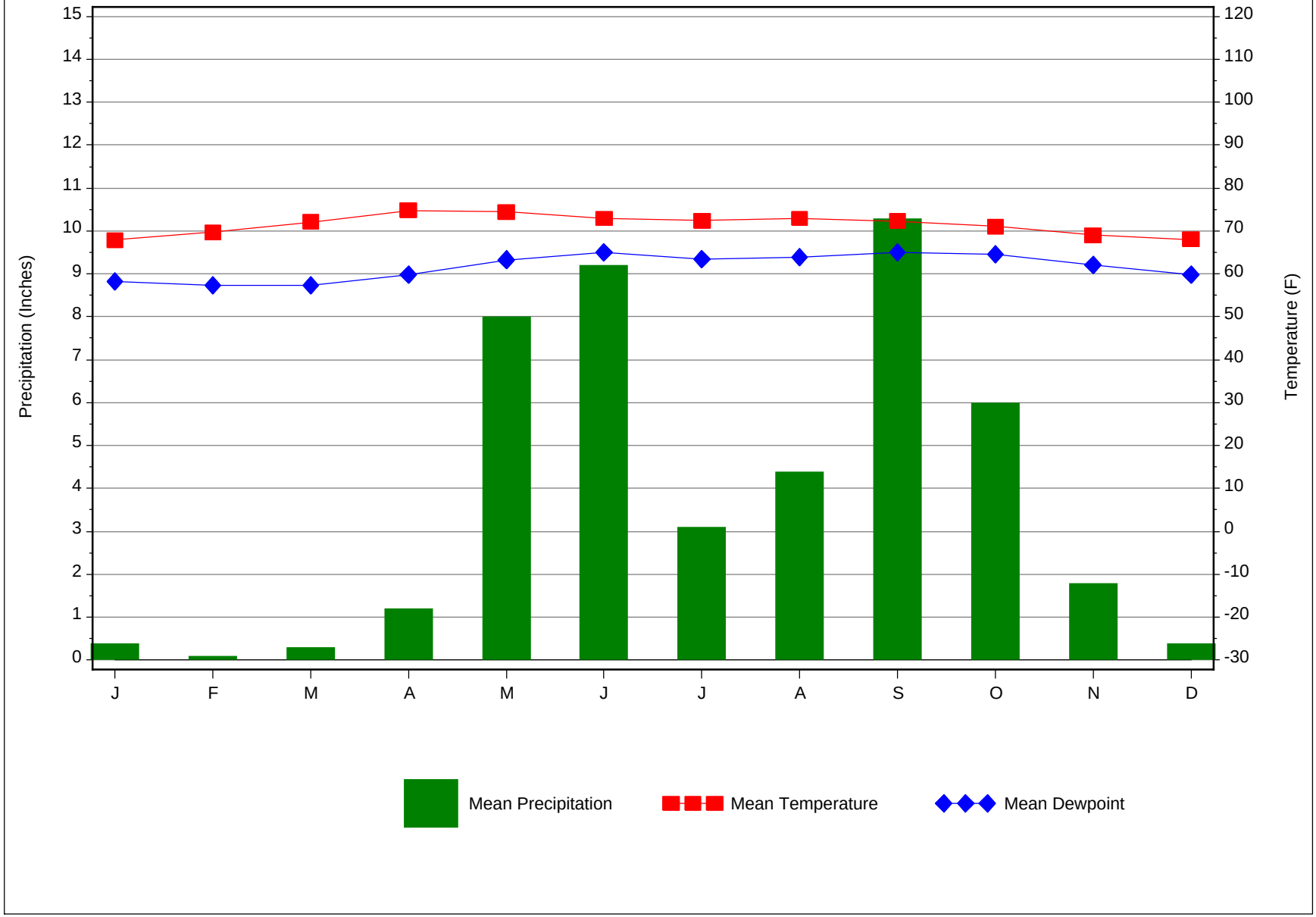
Air Conditioning/ Humid Area Criteria	**Threshold**	**T ≥ 93°F**	**T ≥ 80°F**	**Twb ≥ 73°F**	**Twb ≥ 67°F**
	# of Hours	8	1438	54	3262

Other Site Data

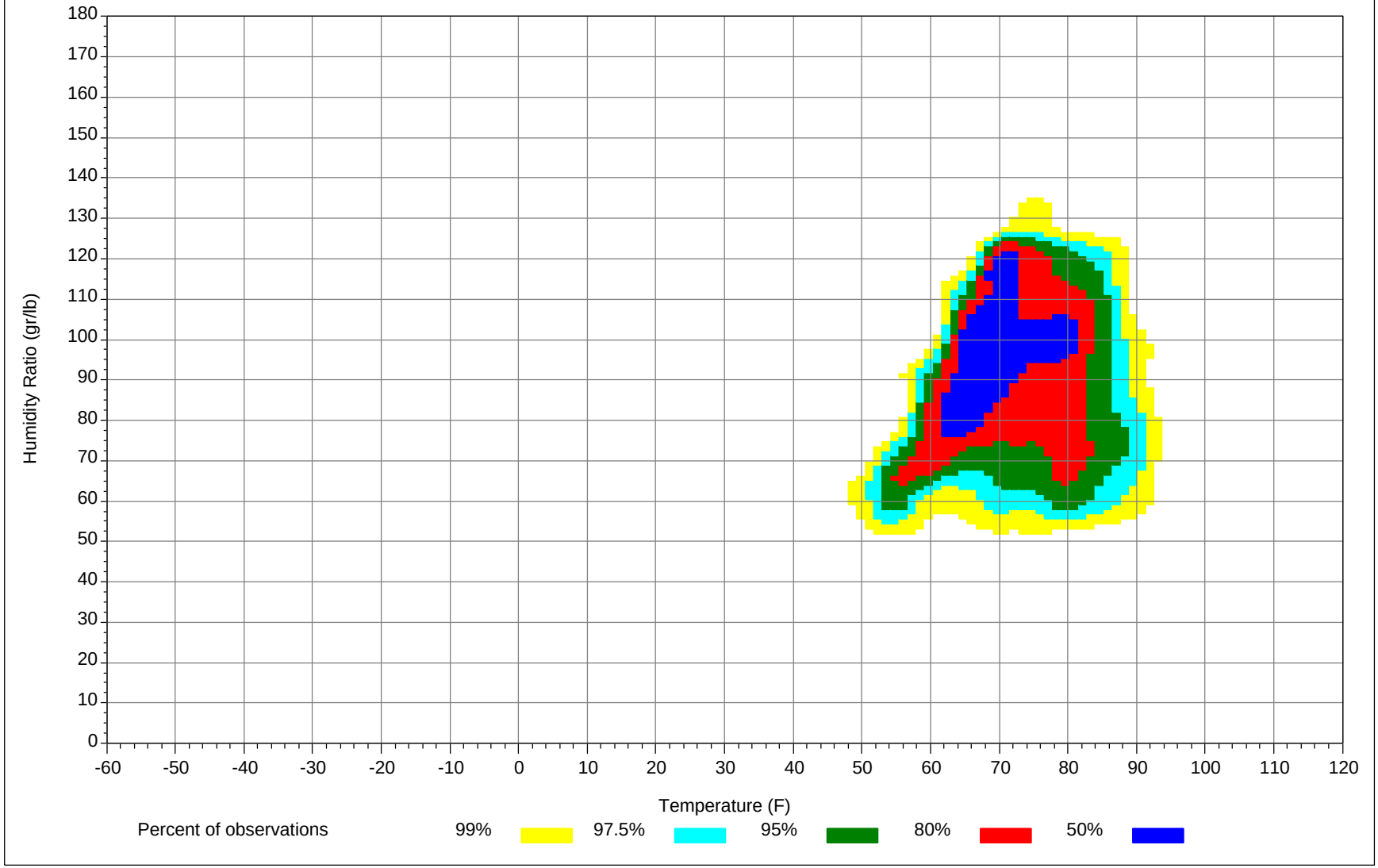
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
10	N/A	N/A	4.5 + 1.3
Ground Water Temperature (°F) 50 Foot Depth*	Frost Depth 50 Year Recurrence (in)	Ground Snow Load 50 Year Recurrence (lb/ft^2)	Average Annual Freeze-Thaw Cycles (#)
73.9	N/A	N/A	0

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

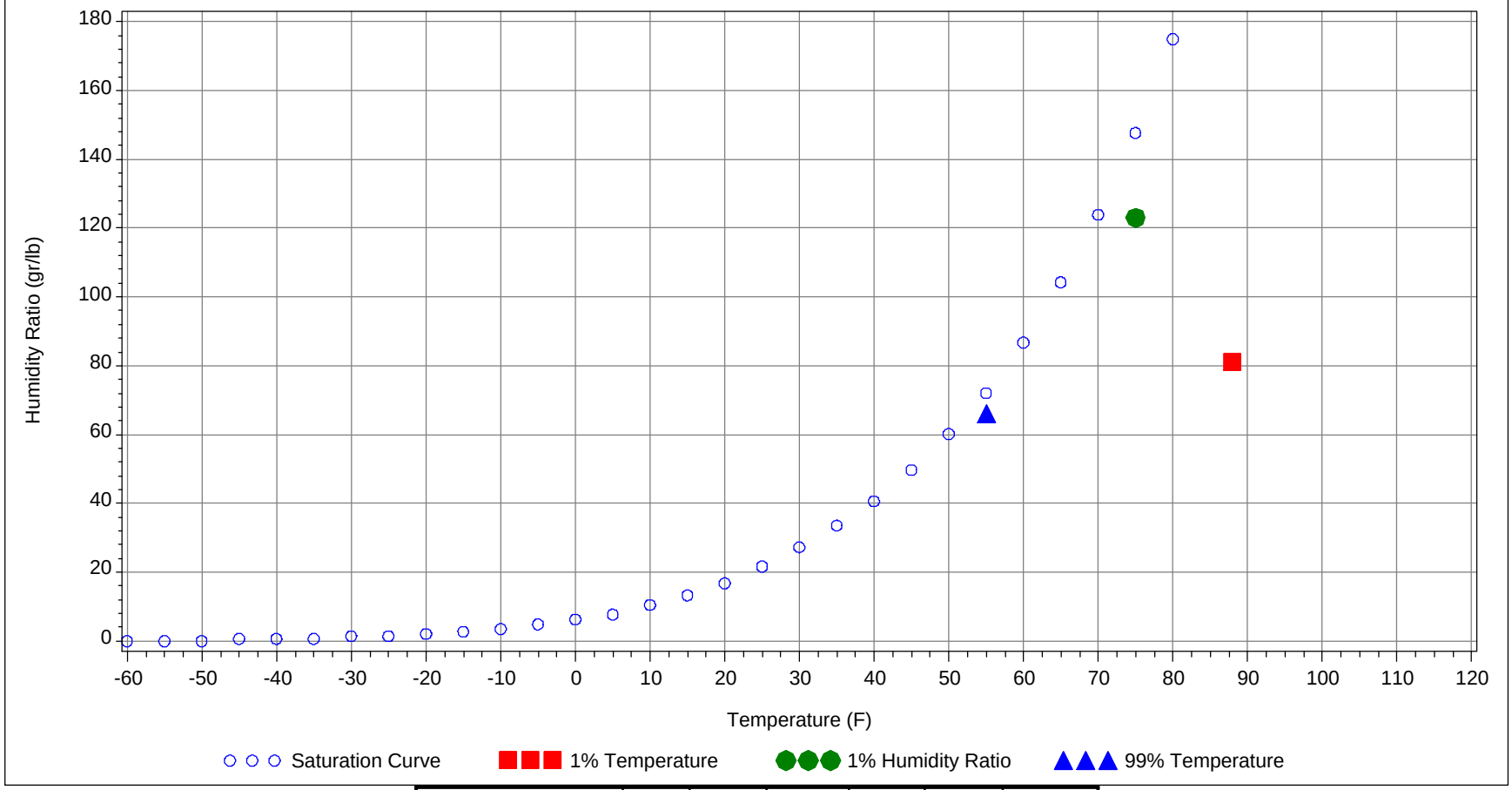
Average Annual Climate



Long Term Psychrometric Summary



Psychrometric Summary of Peak Design Values



	(°F) / (gr/lb)	MCDB (°F)	MCWB (°F)	MCDP (°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
1.0% Dry Bulb	88.0		68		81.0	33.9
99.0% Dry Bulb	55.0				66.0	23.4
1.0% Humidity Ratio	123.0	75.0	71.2	69.8		37.3

Dry-Bulb Temperature Hours For An Average Year

	January					February					March				
Temperature Range (°F)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**
95/ 99							0		0	66		0		0	68
90/ 94		0		0	66.6		3	0	3	68.1		13	0	13	66.8
85/ 89		4	0	4	66.8		17	1	18	66	0	44	5	49	65.9
80/ 84	0	43	3	46	65.2		65	13	78	64.6	0	84	29	113	64.7
75/ 79	0	89	25	114	64.3	0	70	37	107	63.9	1	60	56	117	64.2
70/ 74	1	67	60	128	63.5	5	45	65	115	63.1	24	35	83	142	63.7
65/ 69	40	34	82	156	62.5	48	19	62	129	62.1	79	10	52	141	62.3
60/ 64	127	9	62	198	60.2	111	5	38	154	59.8	98	2	19	119	59.3
55/ 59	60	1	14	75	56	50	0	6	56	55.7	40	0	4	44	55.4
50/ 54	17	0	1	18	51.7	10		1	11	51.6	6		0	6	51.1
45/ 49	2			2	46.8	0			0	46.4	0			0	46.6
40/ 44	0			0	42.3	0			0	40	0			0	43

Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure 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.

Dry-Bulb Temperature Hours For An Average Year

	April					May					June				
Temperature Range (°F)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**
95/ 99		1		1	66.7		0		0	64.7					
90/ 94		22	1	23	67.3	0	10	0	10	67.4		1		1	71.9
85/ 89	0	69	7	76	67	0	51	4	55	68.4	0	17	0	17	70.4
80/ 84	0	84	38	122	66.4	0	100	31	131	68.4	0	104	13	117	69.5
75/ 79	5	48	73	126	66.1	5	65	67	137	68	4	86	44	134	68.9
70/ 74	61	15	88	164	65.3	76	19	100	195	67	54	30	105	189	67.6
65/ 69	105	2	30	137	63.6	130	3	44	177	65.4	148	2	76	226	65.9
60/ 64	60	0	3	63	60	35	0	1	36	61.6	34		2	36	62.5
55/ 59	9	0	0	9	55.7	1			1	57.1	1		0	1	57.9
50/ 54	0			0	52										
45/ 49															
40/ 44															

Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure 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.

Dry-Bulb Temperature Hours For An Average Year

	July					August					September				
Temperature Range (°F)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**
95/ 99															
90/ 94		0		0	68		1	0	1	69.8		1		1	69.6
85/ 89		10	0	10	68.5		25	0	25	69	0	20	0	20	69.7
80/ 84	0	102	14	116	68.3	0	113	18	131	68.8	0	103	9	112	69.6
75/ 79	1	96	44	141	67.9	2	79	47	128	68.2	2	83	34	119	69
70/ 74	46	38	101	185	66.7	45	27	100	172	67.1	33	30	94	157	67.8
65/ 69	154	2	84	240	65.3	148	2	79	229	65.6	148	2	99	249	66
60/ 64	45	0	4	49	62.2	51	0	4	55	62.4	56	0	4	60	62.7
55/ 59	2			2	58.2	1		0	1	57.6	1		0	1	58.3
50/ 54															
45/ 49															
40/ 44															

Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure 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.

Dry-Bulb Temperature Hours For An Average Year

	October					November					December				
Temperature Range (°F)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**
95/ 99															
90/ 94												0		0	70.3
85/ 89		5	0	5	70.4		1		1	70.6		2		2	68.2
80/ 84	0	81	2	83	69.6	0	42	0	42	68.1	0	34	1	35	66.7
75/ 79	1	103	26	130	68.8	0	106	15	121	67.4	0	98	16	114	65.6
70/ 74	27	49	89	165	67.5	10	68	63	141	66.1	3	78	60	141	64.7
65/ 69	144	9	113	266	65.8	95	20	104	219	64.7	60	30	96	186	63.6
60/ 64	68	1	18	87	62	100	4	50	154	61.1	126	7	61	194	60.7
55/ 59	7		0	7	57.1	27		7	34	56.5	45	0	14	59	56.1
50/ 54	0			0	53.2	7		1	8	52.2	12		1	13	51.7
45/ 49						1			1	47.3	1			1	47.2
40/ 44											0			0	43

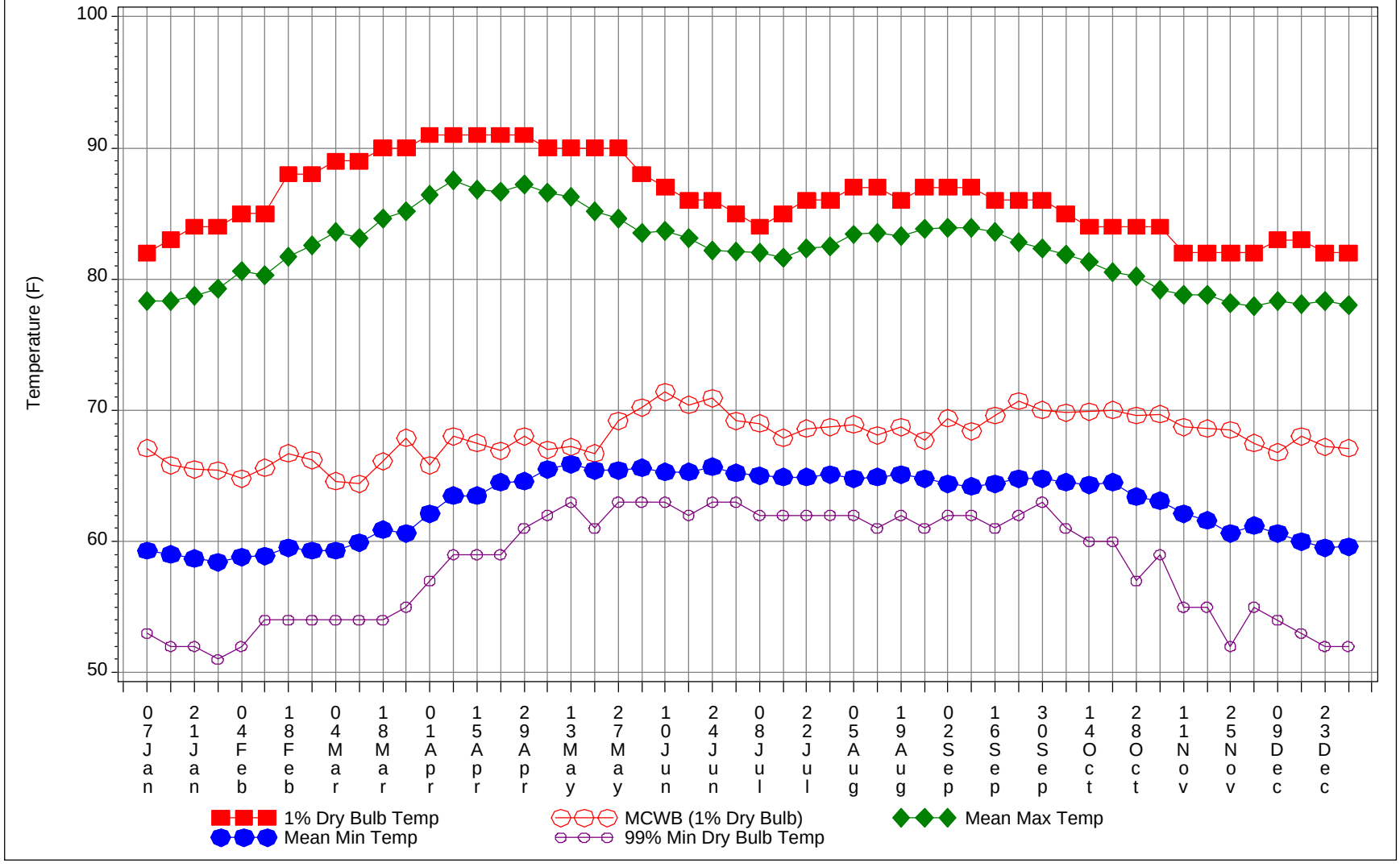
Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary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

Dry-Bulb Temperature Hours For An Average Year

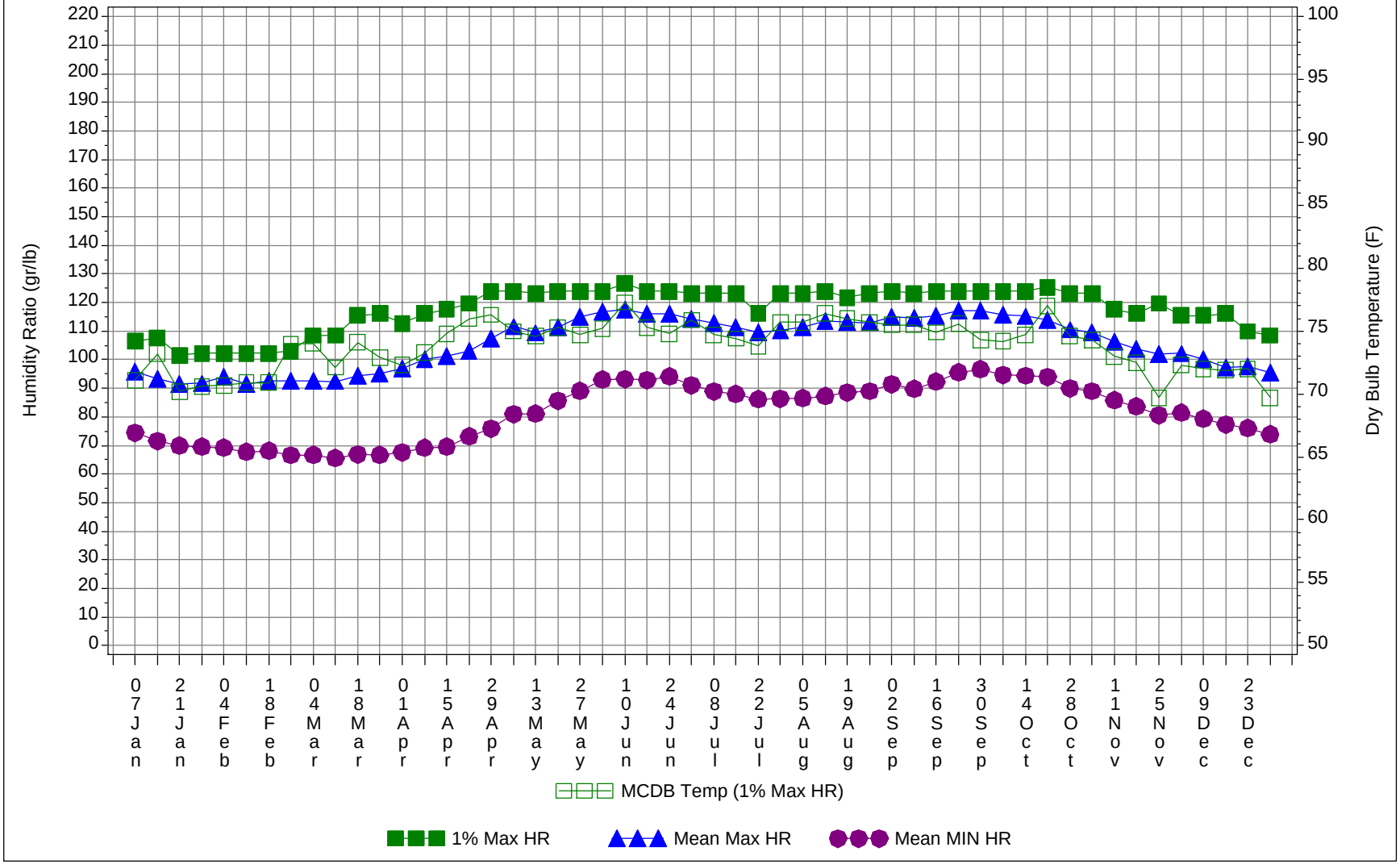
	Annual				
Temperature Range (°F)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**
95/ 99		1		1	66.3
90/ 94	0	50	2	52	67.4
85/ 89	0	265	19	284	67.7
80/ 84	1	954	171	1126	67.7
75/ 79	22	984	482	1488	66.9
70/ 74	383	502	1007	1892	66
65/ 69	1296	134	920	2350	64.7
60/ 64	912	28	270	1210	60.8
55/ 59	246	2	46	294	56
50/ 54	54	0	3	57	51.7
45/ 49	5			5	46.9
40/ 44	0			0	42

Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure 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



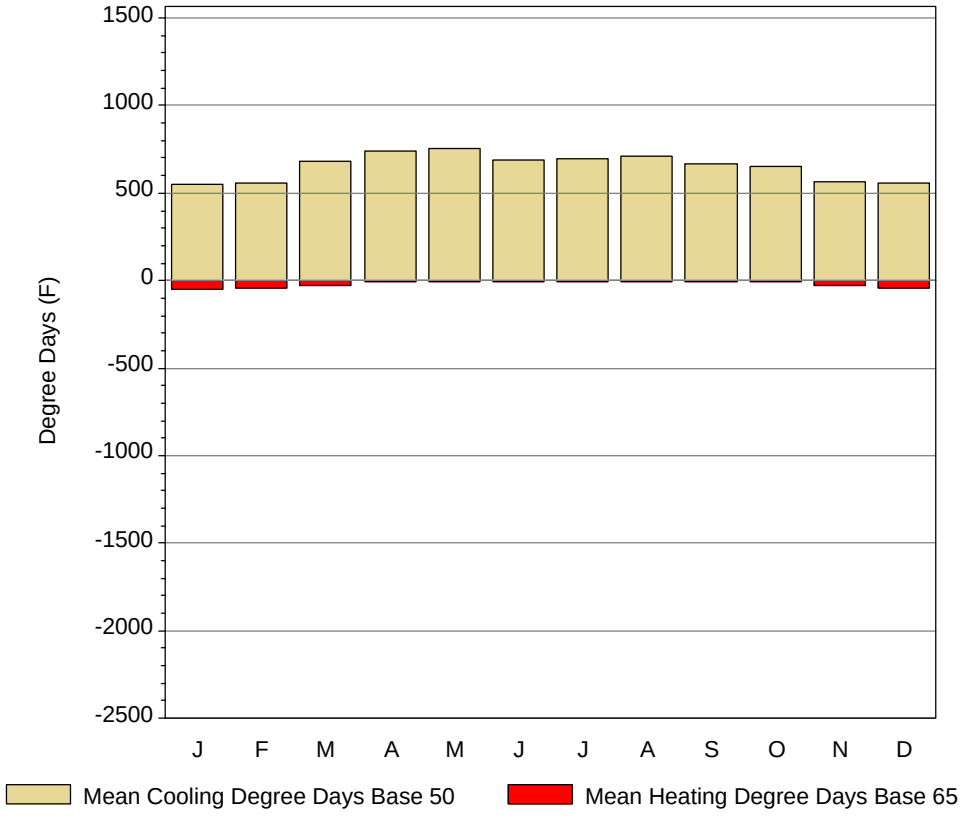
Long Term Humidity and Dry Bulb Temperature Summary



Long Term Humidity and Dry Bulb Temperature Summary

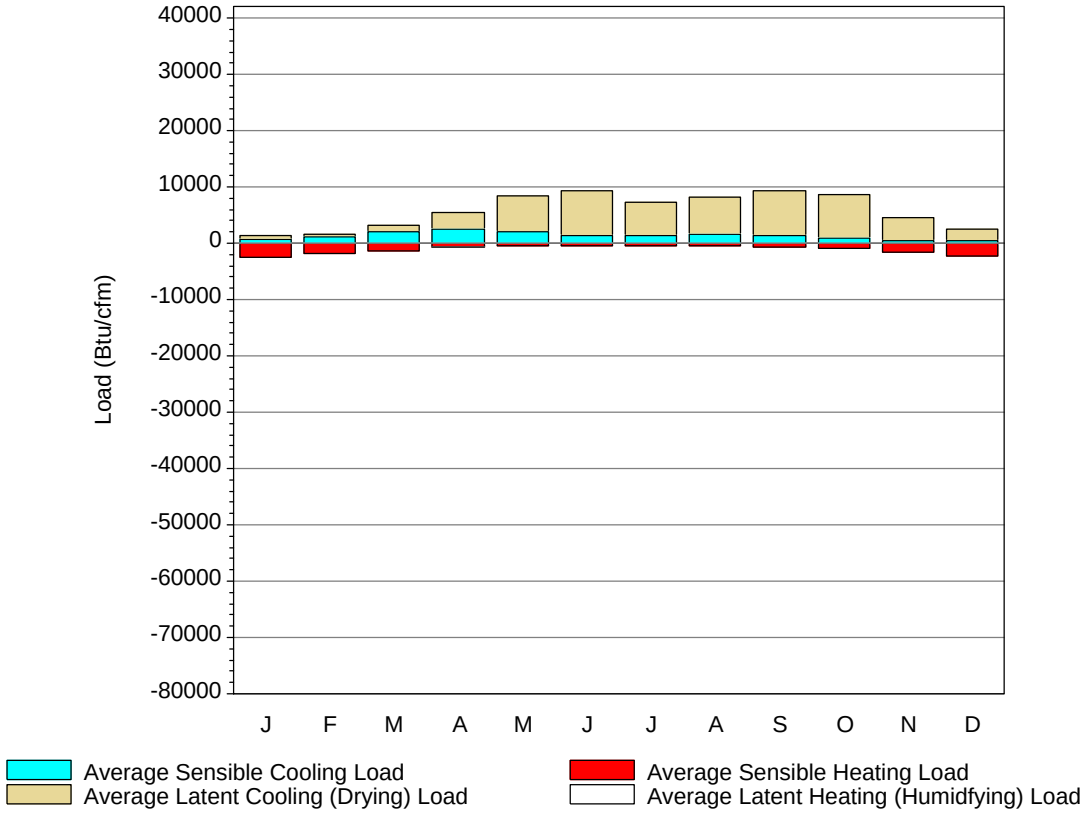
Week Ending	1.0% Temp (°F)	MCWB@ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB@ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	82	67.1	78.3	59.3	53	106.4	71.1	95.8	74.5
14-Jan	83	65.8	78.3	59	52	107.8	73.2	93.4	71.5
21-Jan	84	65.5	78.7	58.7	52	101.5	70.2	91.4	69.9
28-Jan	84	65.4	79.3	58.4	51	102.2	70.6	91.7	69.5
4-Feb	85	64.8	80.6	58.8	52	102.2	70.7	94.1	69.2
11-Feb	85	65.6	80.3	58.9	54	102.2	70.9	91.5	67.8
18-Feb	88	66.7	81.7	59.5	54	102.2	70.9	92.7	68.1
25-Feb	88	66.2	82.6	59.3	54	102.9	74	92.5	66.6
4-Mar	89	64.6	83.6	59.3	54	108.5	74	92.6	66.7
11-Mar	89	64.4	83.1	59.9	54	108.5	72.1	92.4	65.6
18-Mar	90	66.1	84.6	60.9	54	115.5	74.1	94.3	66.9
25-Mar	90	67.9	85.2	60.6	55	116.2	72.9	95.1	66.7
1-Apr	91	65.8	86.4	62.1	57	112.7	72.3	96.8	67.5
8-Apr	91	68	87.5	63.5	59	116.2	73.3	100.1	69.2
15-Apr	91	67.5	86.8	63.5	59	117.6	74.8	101.4	69.5
22-Apr	91	66.9	86.7	64.5	59	119.7	76	103.2	73.2
29-Apr	91	68	87.2	64.6	61	123.9	76.3	107.3	75.9
6-May	90	67	86.6	65.5	62	123.9	75	111.6	80.9
13-May	90	67.2	86.3	65.9	63	123.2	74.6	109.4	81.2
20-May	90	66.7	85.2	65.4	61	123.9	75.3	111.5	85.7
27-May	90	69.2	84.6	65.4	63	123.9	74.7	115	89.1
4-Jun	88	70.2	83.5	65.6	63	123.9	75.2	116.9	93
10-Jun	87	71.4	83.7	65.3	63	126.7	77.3	117.4	93.3
17-Jun	86	70.4	83.1	65.3	62	123.9	75.3	116.2	92.9
24-Jun	86	70.9	82.2	65.7	63	123.9	74.8	116.2	94.2
1-Jul	85	69.2	82.1	65.2	63	123.2	75.9	114.2	91
8-Jul	84	69	82	65	62	123.2	74.7	112.7	88.9
15-Jul	85	67.9	81.6	64.9	62	123.2	74.4	111.3	88
22-Jul	86	68.6	82.3	64.9	62	116.2	73.8	109.7	86.2
29-Jul	86	68.7	82.5	65.1	62	123.2	75.7	110.4	86.3
5-Aug	87	68.9	83.4	64.8	62	123.2	75.7	111.4	86.5
12-Aug	87	68.1	83.5	64.9	61	123.9	76.4	113.6	87.3
19-Aug	86	68.7	83.3	65.1	62	121.8	76	113.2	88.6
26-Aug	87	67.7	83.8	64.8	61	123.2	75.7	113	89
2-Sep	87	69.4	83.9	64.4	62	123.9	75.5	115	91.5
9-Sep	87	68.4	83.9	64.2	62	123.2	75.5	114.7	89.8
16-Sep	86	69.6	83.6	64.4	61	123.9	74.9	115.5	92.4
23-Sep	86	70.7	82.8	64.8	62	123.9	75.6	117.1	95.6
30-Sep	86	70	82.3	64.8	63	123.9	74.3	117.2	96.7
7-Oct	85	69.8	81.9	64.5	61	123.9	74.2	115.6	94.7
14-Oct	84	69.9	81.3	64.3	60	123.9	74.7	115.2	94.4
21-Oct	84	70	80.5	64.5	60	125.3	77	113.9	94
28-Oct	84	69.6	80.2	63.4	57	123.2	74.6	110.5	90
4-Nov	84	69.7	79.2	63.1	59	123.2	74.3	109.7	89
11-Nov	82	68.7	78.8	62.1	55	117.6	73	106.3	85.8
18-Nov	82	68.6	78.8	61.6	55	116.2	72.5	103.7	83.6
25-Nov	82	68.5	78.2	60.6	52	119.7	69.7	101.9	80.6
2-Dec	82	67.5	77.9	61.2	55	115.5	72.3	102.2	81.5
9-Dec	83	66.8	78.3	60.6	54	115.5	72	100.2	79.3
16-Dec	83	68	78.1	60	53	116.2	71.9	97.4	77.3
23-Dec	82	67.2	78.3	59.5	52	109.9	72	97.7	76.1
31-Dec	82	67.1	78	59.6	52	108.5	69.7	95.6	73.9

Degree Days, Heating and Cooling
(Base 65 F) & Cooling (Base 50F)



Month	Mean Cooling Degree Days (°F) Base 50	Mean Cooling Degree Days (°F) Base 65	Mean Heating Degree Days (°F) Base 65
JAN	553.1	140.9	53
FEB	557.2	171.8	38.7
MAR	685.2	248.6	28.4
APR	742.2	300.4	8.2
MAY	755.3	293.2	3
JUN	686.2	238.7	2.5
JUL	693.5	232.2	3.7
AUG	708.6	247.7	4.1
SEP	666.6	221.2	4.5
OCT	651.8	196	9.3
NOV	567.4	145.9	28.6
DEC	555.9	134.9	44.1
ANN	7823	2571.5	228.1

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



Month	Average Sensible Cooling Load (Btu/cfm)	Average Sensible Heating Load (Btu/cfm)	Average Latent Cooling Load (Btu/cfm)	Average Latent Heating Load (Btu/cfm)
JAN	619	-2525	867	0
FEB	1096	-1885	565	0
MAR	1965	-1446	1173	0
APR	2555	-588	2963	-1
MAY	2162	-350	6251	0
JUN	1400	-385	7977	0
JUL	1278	-495	5938	0
AUG	1606	-522	6571	0
SEP	1361	-580	7962	0
OCT	955	-826	7614	0
NOV	543	-1643	4071	0
DEC	485	-2248	1975	0
ANN	16025	-13493	53927	-1

Station Information		Shading Geometry in Dimensionless Units	
City, State, WBAN	N/A	N/A	N/A
Lat, Lon, Elev	N/A	N/A	N/A
Press Stn Type	N/A	N/A	N/A

AVERAGE INCIDENT SOLAR RADIATION
(Btu/sq.ft./day), Percentage Uncertainty = 9

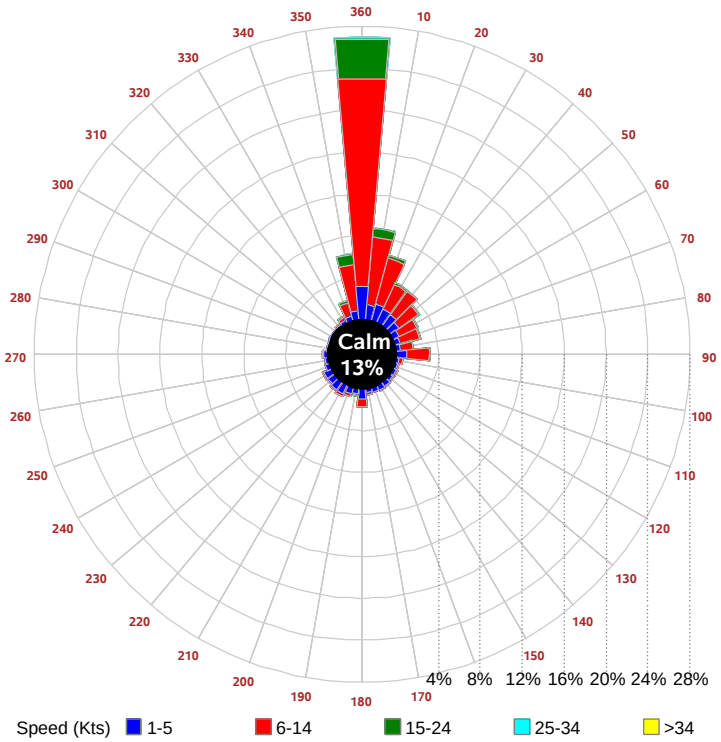
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ.	Global													
	Std.Dev.													
	Minimum													
	Maximum													
	Diffuse													
Clear Day	Global													
NORTH	Global													
	Diffuse													
Clear Day	Global													
EAST	Global													
	Diffuse													
Clear Day	Global													
SOUTH	Global													
	Diffuse													
Clear Day	Global													
WEST	Global													
	Diffuse													
Clear Day	Global													

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													
NORTH	Unshaded													
	Shaded													
EAST	Unshaded													
	Shaded													
SOUTH	Unshaded													
	Shaded													
WEST	Unshaded													
	Shaded													

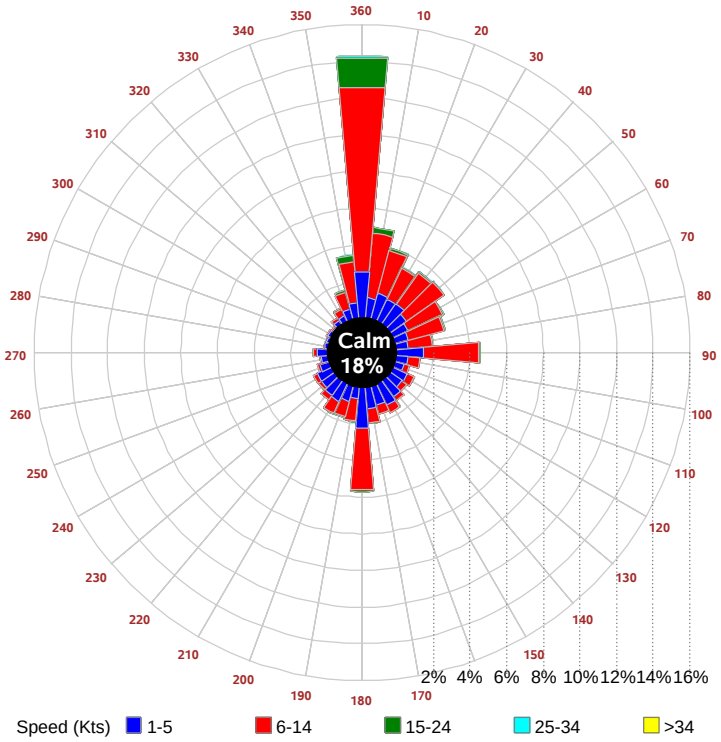
AVERAGE INCIDENT ILLUMINENCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9											
				March					June		
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear										
	M.Cloudy										
NORTH	M.Clear										
	M.Cloudy										
EAST	M.Clear										
	M.Cloudy										
SOUTH	M.Clear										
	M.Cloudy										
WEST	M.Clear										
	M.Cloudy										
M.Clear	(% hrs)										

				Sept					Dec		
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear										
	M.Cloudy										
NORTH	M.Clear										
	M.Cloudy										
EAST	M.Clear										
	M.Cloudy										
SOUTH	M.Clear										
	M.Cloudy										
WEST	M.Clear										
	M.Cloudy										
M.Clear	(% hrs)										

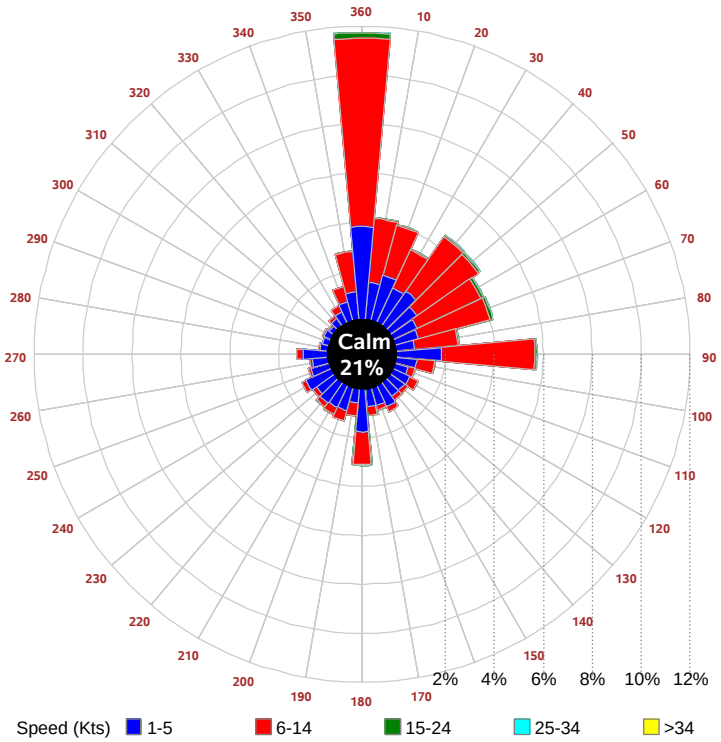
Wind Summary - December, January, and February



Wind Summary - March, April, and May



Wind Summary - June, July, and August



Wind Summary - September, October, and November