YAP INTL, FM

Latitude = 9.50 N
Longitude =138.08 E
Period of Record = 1988 To 2017

Station ID = ICAO_PTYA
Elevation = 91 Feet
Average Pressure = 29.74 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	91	81	143	9.6	E
0.4% Occurrence	91	81	143	9.6	E
1.0% Occurrence	90	81	143	9.6	E
2.0% Occurrence	90	81	143	9.6	E
Mean Daily Range	10	-	-	-	VRB
97.5% Occurrence	76	75	130	5.6	VRB
99.0% Occurrence	75	74	126	4.9	VRB
99.6% Occurrence	74	74	123	4.8	VRB
Median of Extreme Lows	72	72	115	3	VRB

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	85	90	171	7.2	VRB
0.4% Occurrence	82	88	151	9.3	E
1.0% Occurrence	82	88	151	9.3	E
2.0% Occurrence	81	87	147	9.3	E

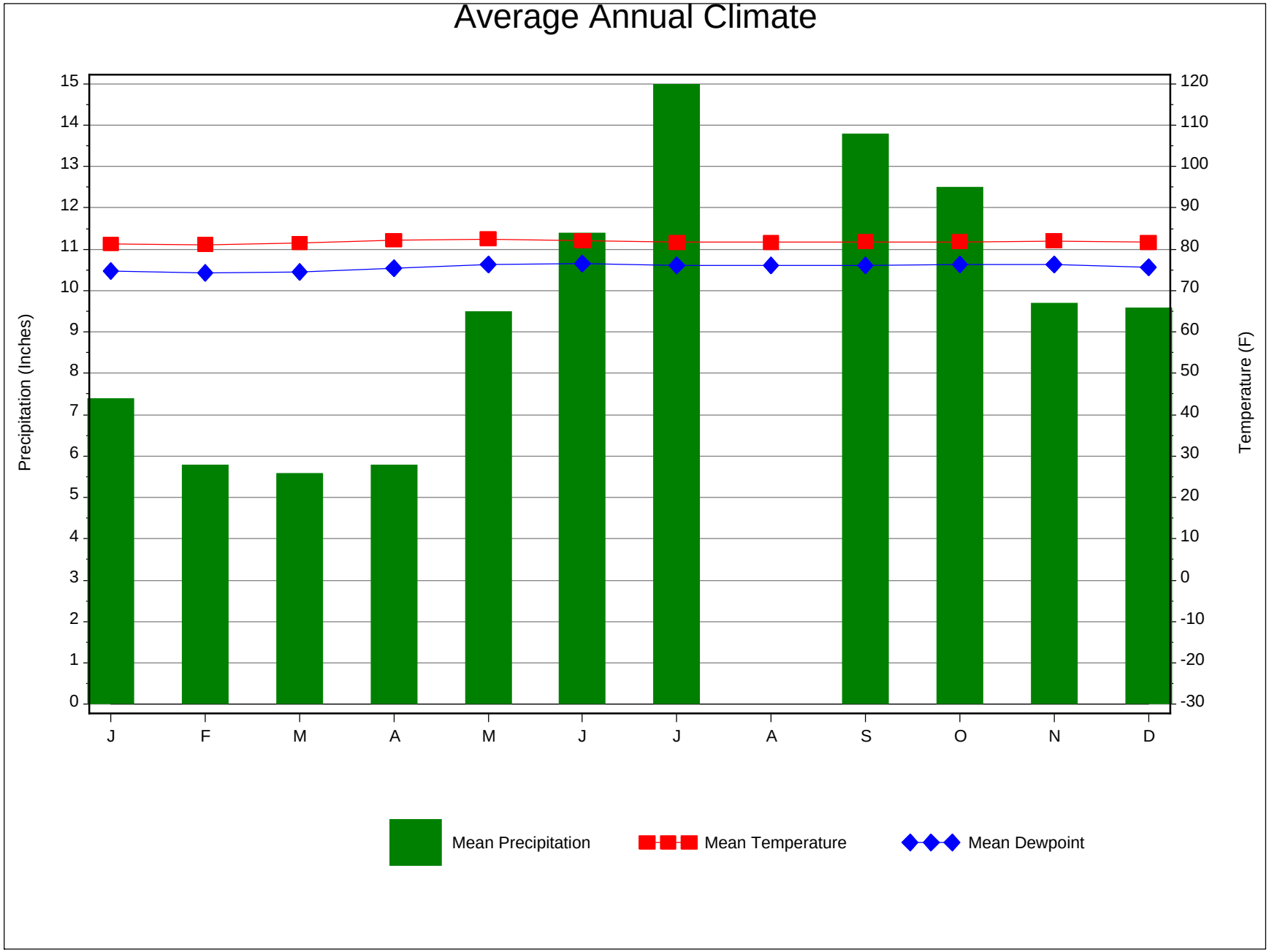
Humidity Ratio (HR)	**Design Value (gr/lb)**	**Dry Bulb Temperature (°F)**	**Vapor Pressure (in. Hg)**	**Wind Speed (mph)**	**Prevailing Direction (NSEW)**
Median of Extreme Highs	181	88	1.18	7.7	VRB
0.4% Occurrence	160	87	1.05	8.5	E
1.0% Occurrence	154	87	1.01	7.9	VRB
2.0% Occurrence	151	85	0.99	8.9	E

Air Conditioning/ Humid Area Criteria	**Threshold**	**T ≥ 93°F**	**T ≥ 80°F**	**Twb ≥ 73°F**	**Twb ≥ 67°F**
	# of Hours	57	5823	8370	8440

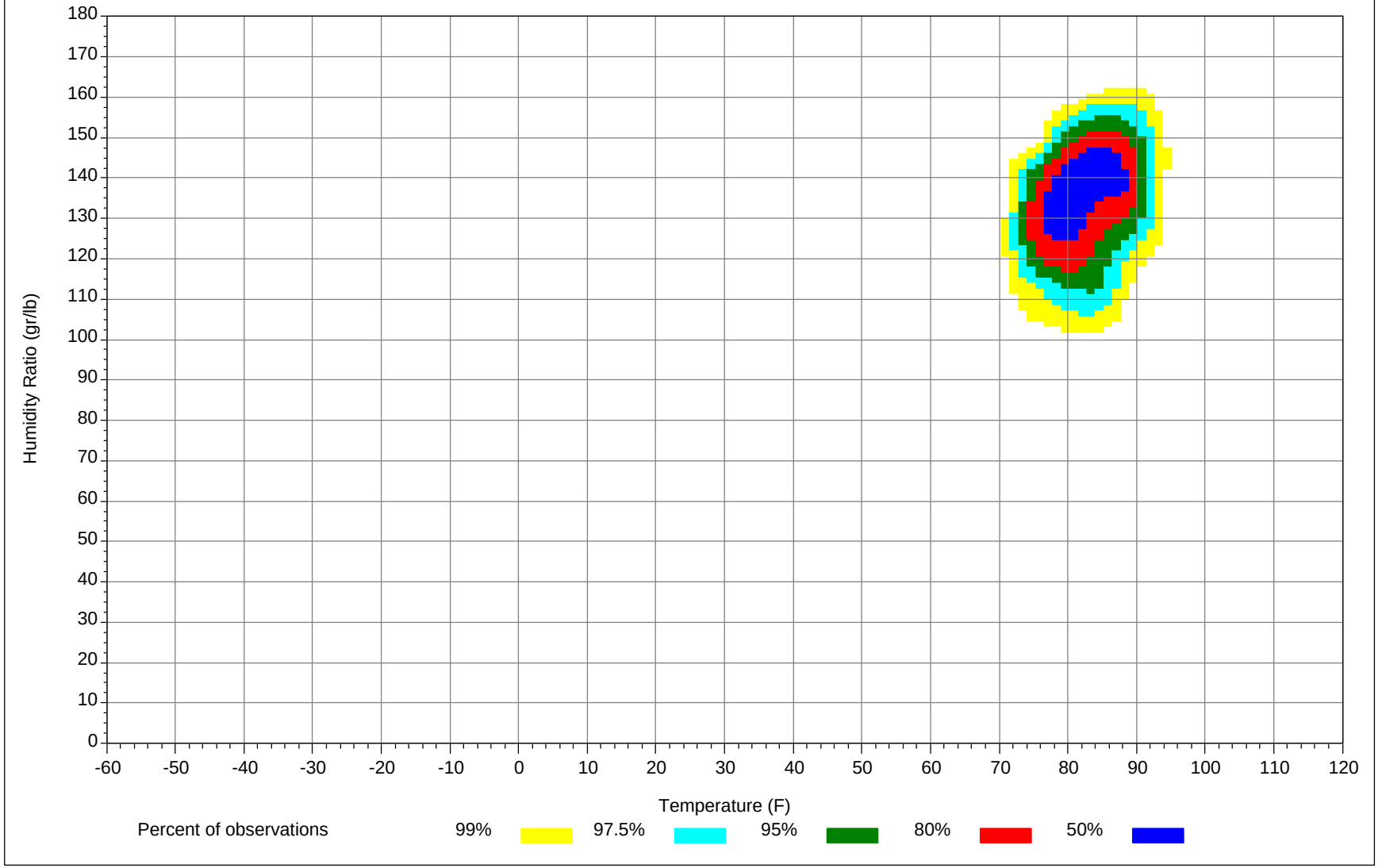
Other Site Data

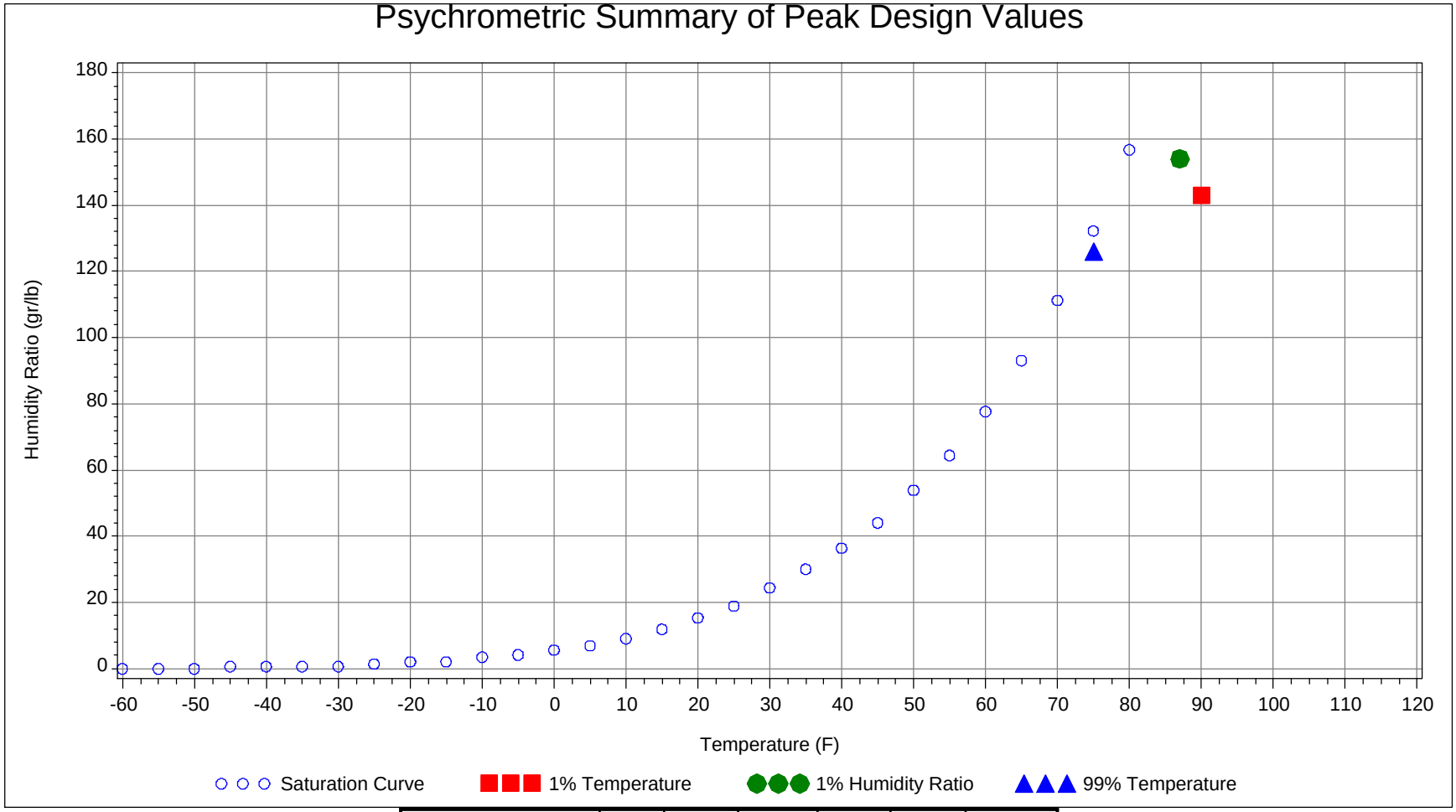
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
10	N/A	N/A	27.8 + 5.3
Ground Water Temperature (°F) 50 Foot Depth*	Frost Depth 50 Year Recurrence (in)	Ground Snow Load 50 Year Recurrence (lb/ft^2)	Average Annual Freeze-Thaw Cycles (#)
84.3	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
Precipitation (Inches)
Temperature (F)
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
J
F
M
A
M
J
J
A
S
O
N
D
Mean Precipitation
Mean Temperature
Mean Dewpoint

Long Term Psychrometric Summary





	(°F) / (gr/lb)	MCDB (°F)	MCWB (°F)	MCDP (°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
1.0% Dry Bulb	90.0		81		143.0	44.1
99.0% Dry Bulb	75.0				126.0	37.4
1.0% Humidity Ratio	154.0	87.0	81.3	79.4		45.1

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	82		0		0	80		0		0	78.3
90/ 94		6	0	6	80.1		4	0	4	79.7	0	11	1	12	79.4
85/ 89	0	100	26	126	78.3	0	87	25	112	77.9	1	116	36	153	78
80/ 84	83	113	156	352	76.7	56	104	129	289	76.4	70	99	147	316	76.6
75/ 79	161	29	65	255	75.3	164	28	69	261	74.9	169	21	63	253	75
70/ 74	3	0	1	4	72.2	4	1	0	5	72.2	8	0	1	9	71.4
65/ 69	0			0	69						0			0	67.1

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		0		0	82.5	0	1		1	83.1		1	0	1	83.1
90/ 94		22	3	25	80.1	0	32	6	38	81.1		28	6	34	81.2
85/ 89	0	130	47	177	78.7	0	129	50	179	79.5	0	111	43	154	79.7
80/ 84	101	76	151	328	77.3	121	72	153	346	77.9	106	79	140	325	78
75/ 79	133	12	39	184	75.8	125	15	38	178	76.4	133	22	51	206	76.4
70/ 74	5		1	6	71.8	1	0	0	1	72.7	1	0	0	1	72.9
65/ 69															

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		0		0	81.8		0		0	82.5		0		0	83
90/ 94		20	5	25	81		15	4	19	80.9		18	4	22	80.6
85/ 89	0	107	41	148	79.4	0	107	40	147	79.3	0	107	40	147	79.4
80/ 84	94	93	140	327	77.8	107	94	143	344	77.6	100	87	134	321	77.7
75/ 79	152	28	62	242	76.1	140	31	61	232	76	138	28	62	228	76
70/ 74	2	0	0	2	73.1	1	1	1	3	73	2	0	0	2	73.4
65/ 69															

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		0		0	82.8		0		0	82		0		0	83
90/ 94		22	3	25	80.8		13	1	14	81.1	0	8	0	8	80.7
85/ 89	0	122	40	162	79.5	0	130	37	167	79.5	0	117	28	145	79
80/ 84	96	83	139	318	77.8	109	81	156	346	77.8	108	102	167	377	77.4
75/ 79	150	21	66	237	76.1	129	14	46	189	76.2	137	21	52	210	75.9
70/ 74	2	0	0	2	73	2	0		2	72.5	3	0	0	3	72.4
65/ 69															

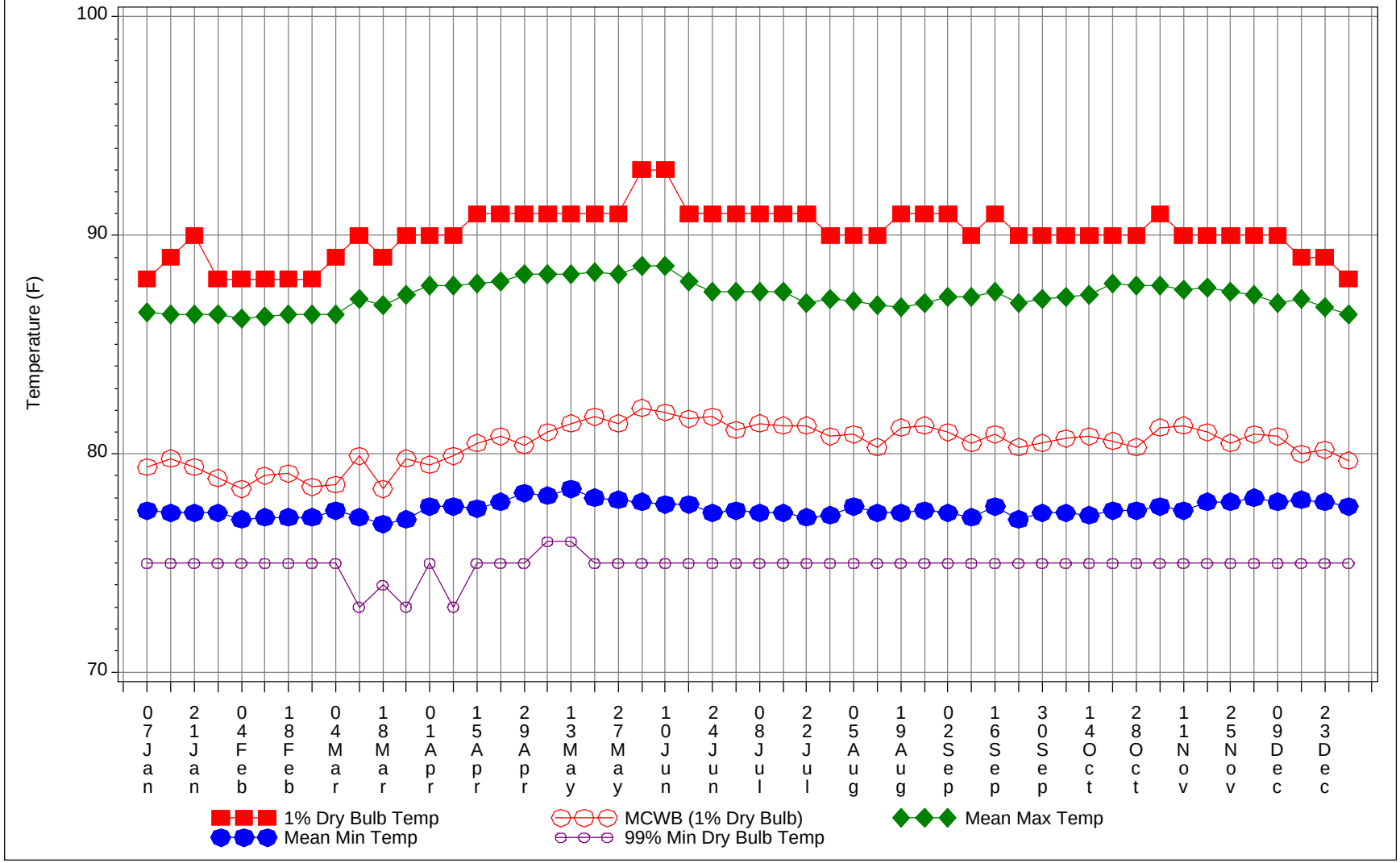
Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary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

Dry-Bulb Temperature Hours For An Average Year

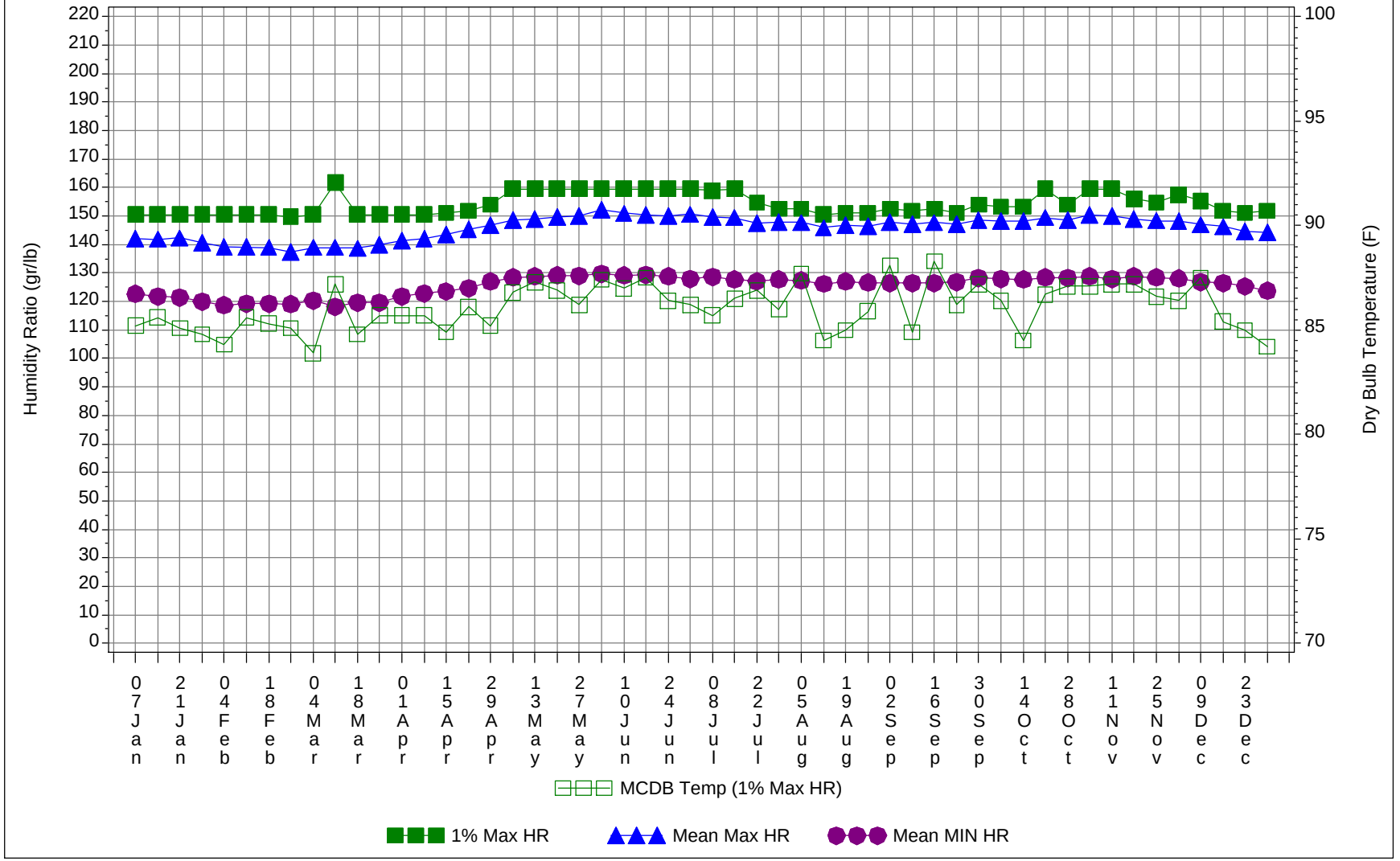
	Annual				
Temperature Range (°F)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**
95/ 99	0	2	0	2	82.5
90/ 94	0	198	33	231	80.8
85/ 89	2	1363	452	1817	79.1
80/ 84	1152	1082	1757	3991	77.4
75/ 79	1732	271	674	2677	75.8
70/ 74	34	4	4	42	72.3
65/ 69	0			0	67.3

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



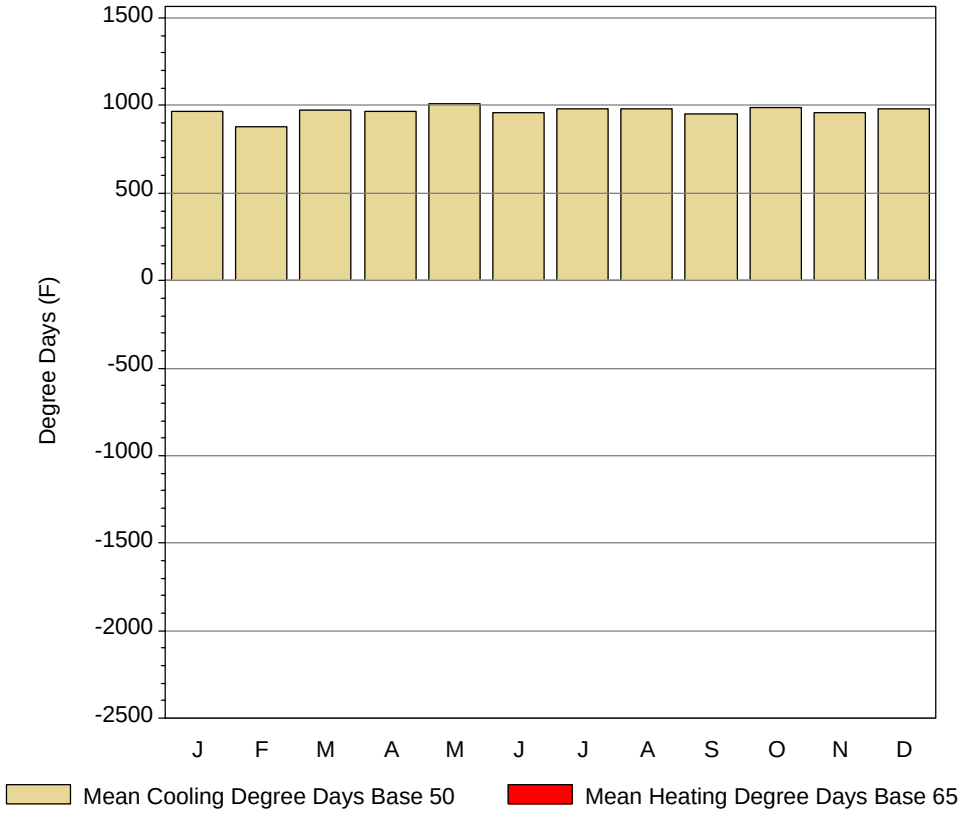
Long Term Humidity and Dry Bulb Temperature Summary



Long Term Humidity and Dry Bulb Temperature Summary

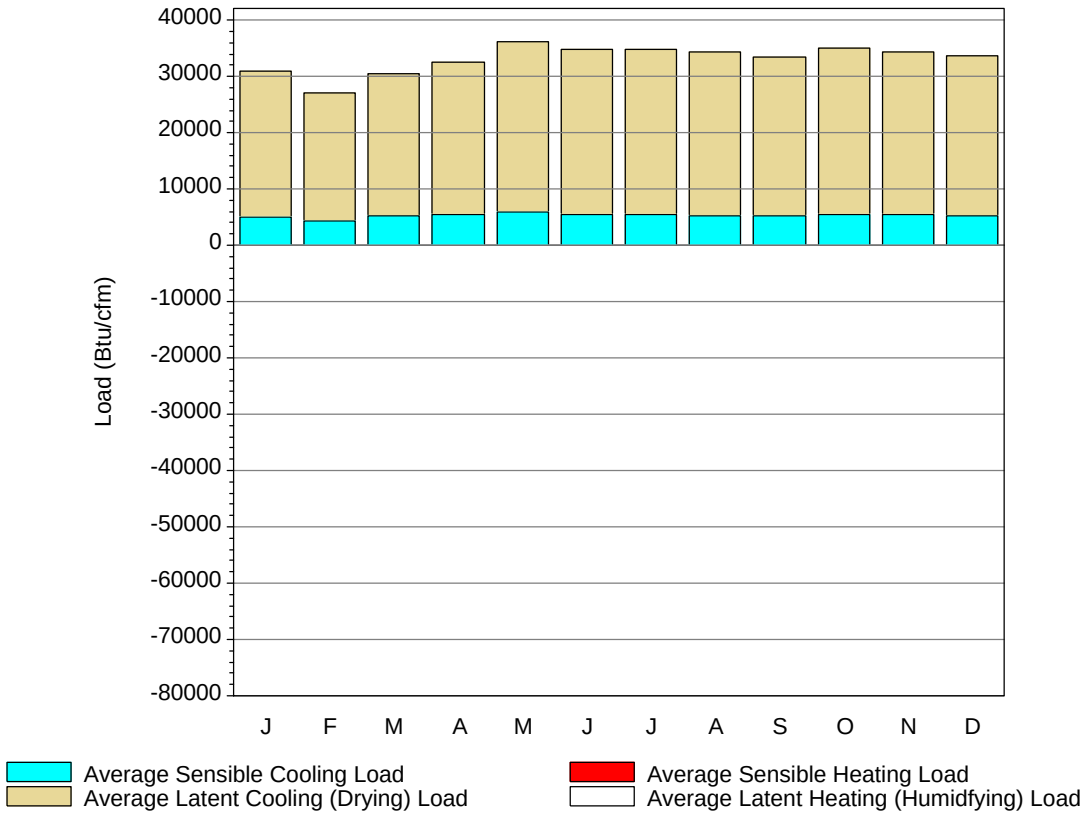
Week Ending	1.0% Temp (°F)	MCWB@ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB@ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	88	79.4	86.5	77.4	75	150.5	85.2	142.1	122.7
14-Jan	89	79.8	86.4	77.3	75	150.5	85.6	141.9	121.7
21-Jan	90	79.4	86.4	77.3	75	150.5	85.1	142.3	121.4
28-Jan	88	78.9	86.4	77.3	75	150.5	84.8	140.7	120
4-Feb	88	78.4	86.2	77	75	150.5	84.3	139.2	118.7
11-Feb	88	79	86.3	77.1	75	150.5	85.6	139.1	119.2
18-Feb	88	79.1	86.4	77.1	75	150.5	85.3	139	119.3
25-Feb	88	78.5	86.4	77.1	75	149.8	85.1	137.5	119.1
4-Mar	89	78.6	86.4	77.4	75	150.5	83.9	139	120.3
11-Mar	90	79.9	87.1	77.1	73	161.7	87.2	139	118.2
18-Mar	89	78.4	86.8	76.8	74	150.5	84.8	138.7	119.6
25-Mar	90	79.8	87.3	77	73	150.5	85.7	139.9	119.6
1-Apr	90	79.5	87.7	77.6	75	150.5	85.7	141.4	121.8
8-Apr	90	79.9	87.7	77.6	73	150.5	85.7	142	122.9
15-Apr	91	80.5	87.8	77.5	75	151.2	84.9	143.6	123.5
22-Apr	91	80.8	87.9	77.8	75	151.9	86.1	145.5	124.6
29-Apr	91	80.4	88.2	78.2	75	154	85.2	146.7	127
6-May	91	81	88.2	78.1	76	159.6	86.8	148.7	128.4
13-May	91	81.4	88.2	78.4	76	159.6	87.3	149.1	128.9
20-May	91	81.7	88.3	78	75	159.6	86.9	149.8	129.2
27-May	91	81.4	88.2	77.9	75	159.6	86.2	150.1	129
4-Jun	93	82.1	88.6	77.8	75	159.6	87.4	152.1	129.8
10-Jun	93	81.9	88.6	77.7	75	159.6	87	151	129.2
17-Jun	91	81.6	87.9	77.7	75	159.6	87.5	150.5	129.4
24-Jun	91	81.7	87.4	77.3	75	159.6	86.4	150.1	128.8
1-Jul	91	81.1	87.4	77.4	75	159.6	86.2	150.6	128
8-Jul	91	81.4	87.4	77.3	75	158.9	85.7	149.7	128.6
15-Jul	91	81.3	87.4	77.3	75	159.6	86.5	149.5	127.7
22-Jul	91	81.3	86.9	77.1	75	154.7	86.9	147.5	127.1
29-Jul	90	80.8	87.1	77.2	75	152.6	86	147.9	127.8
5-Aug	90	80.9	87	77.6	75	152.6	87.7	147.7	127.4
12-Aug	90	80.3	86.8	77.3	75	150.5	84.5	145.9	126.2
19-Aug	91	81.2	86.7	77.3	75	151.2	85	146.9	127
26-Aug	91	81.3	86.9	77.4	75	151.2	85.9	146.5	126.6
2-Sep	91	81	87.2	77.3	75	152.6	88.1	147.9	126.5
9-Sep	90	80.5	87.2	77.1	75	151.9	84.9	147.2	126.4
16-Sep	91	80.9	87.4	77.6	75	152.6	88.3	147.7	126.4
23-Sep	90	80.3	86.9	77	75	151.2	86.2	147.2	126.8
30-Sep	90	80.5	87.1	77.3	75	154	87.2	148.6	128.3
7-Oct	90	80.7	87.2	77.3	75	153.3	86.4	148.3	127.9
14-Oct	90	80.8	87.3	77.2	75	153.3	84.5	148.2	127.7
21-Oct	90	80.6	87.8	77.4	75	159.6	86.7	149.5	128.4
28-Oct	90	80.3	87.7	77.4	75	154	87.1	148.5	128.3
4-Nov	91	81.2	87.7	77.6	75	159.6	87.1	150.4	128.9
11-Nov	90	81.3	87.5	77.4	75	159.6	87.2	150.2	128
18-Nov	90	81	87.6	77.8	75	156.1	87.2	148.9	128.9
25-Nov	90	80.5	87.4	77.8	75	154.7	86.6	148.4	128.4
2-Dec	90	80.9	87.3	78	75	157.5	86.4	148.2	128.1
9-Dec	90	80.8	86.9	77.8	75	155.4	87.5	147	126.8
16-Dec	89	80	87.1	77.9	75	151.9	85.4	146.3	126.4
23-Dec	89	80.2	86.7	77.8	75	151.2	85	144.7	125.3
31-Dec	88	79.7	86.4	77.6	75	151.9	84.2	144.4	123.8

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	966.6	501.8	0
FEB	877.1	453.1	0
MAR	973.7	508.7	0
APR	965	515	0
MAY	1007.5	542.5	0
JUN	962.7	512.7	0
JUL	981.8	516.8	0
AUG	981.1	516.1	0
SEP	951.1	501.1	0
OCT	985.7	520.7	0
NOV	959.9	509.9	0
DEC	980.4	515.4	0
ANN	11592.6	6113.8	0

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	4984	0	26031	0
FEB	4425	0	22706	0
MAR	5172	0	25378	0
APR	5584	0	26882	0
MAY	6029	0	30037	0
JUN	5517	0	29249	0
JUL	5366	0	29336	0
AUG	5347	0	28918	0
SEP	5216	0	28150	0
OCT	5467	0	29580	0
NOV	5445	0	28880	0
DEC	5331	0	28298	0
ANN	63883	0	333445	0

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

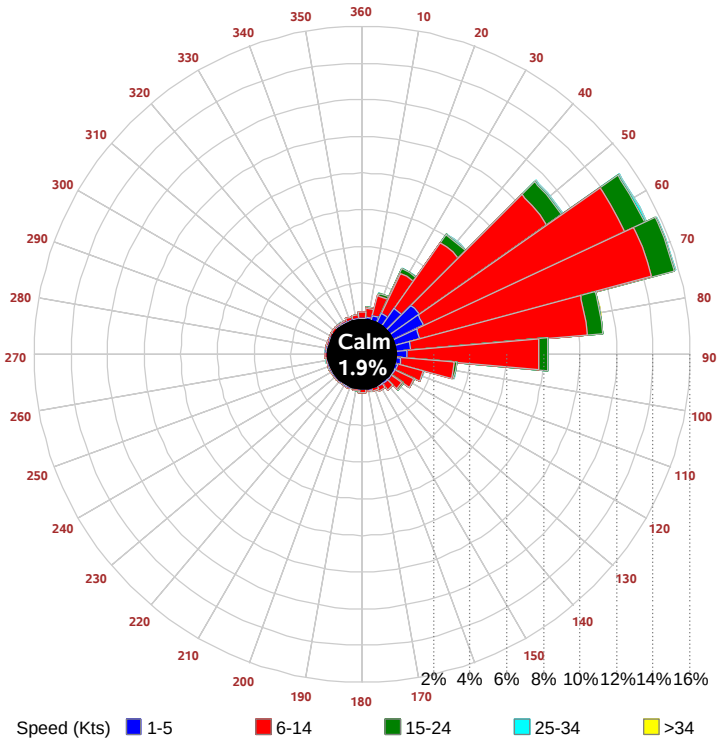
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ.	Global													
	Std.Dev.													
	Minimum													
	Maximum													
	Diffuse													
Clear Day	Global													
NORTH	Global													
	Diffuse													
Clear Day	Global													
EAST	Global												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

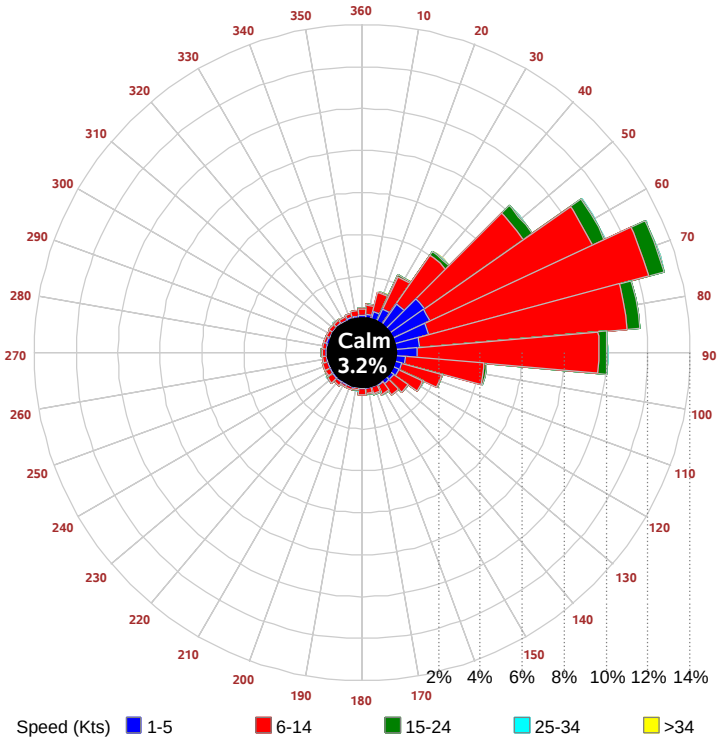
AVERAGE INCIDENT ILLUMINENCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9											
				March					June		
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear										
	M.Cloudy										
NORTH	M.Clear										
	M.Cloudy										
EAST	M.Clear										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

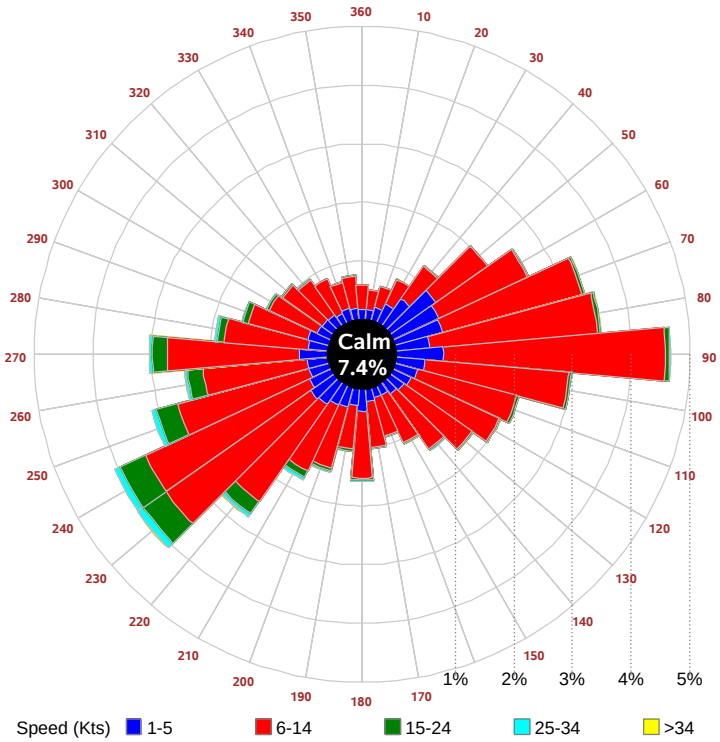
Wind Summary - December, January, and February



Wind Summary - March, April, and May



Wind Summary - June, July, and August



Wind Summary - September, October, and November