VENEZIA TESSERA, IT	
Latitude = 45.51 N	Station ID = ICAO_LIPZ
Longitude = 12.35 E	Elevation = 7 Feet
Period of Record = 1988 To 2017	Average Pressure = 29.98 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	75	105	6.8	SSE
0.4% Occurrence	88	74	104	6.6	SSE
1.0% Occurrence	86	73	102	6.5	SE
2.0% Occurrence	84	72	99	6.3	SE
Mean Daily Range	14	-	-	-	VRB
97.5% Occurrence	30	28	18	3.8	VRB
99.0% Occurrence	28	26	16	3.9	VRB
99.6% Occurrence	27	26	16	3.9	VRB
Median of Extreme Lows	21	19	11	5.3	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	80	86	141	6.5	SE
0.4% Occurrence	78	85	132	6.1	SE
1.0% Occurrence	76	83	121	6	SE
2.0% Occurrence	74	81	113	5.8	VRB

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	150	84	0.99	5.8	SE
0.4% Occurrence	132	82	0.88	5.7	VRB
1.0% Occurrence	124	81	0.83	5.4	VRB
2.0% Occurrence	117	80	0.78	5.5	VRB

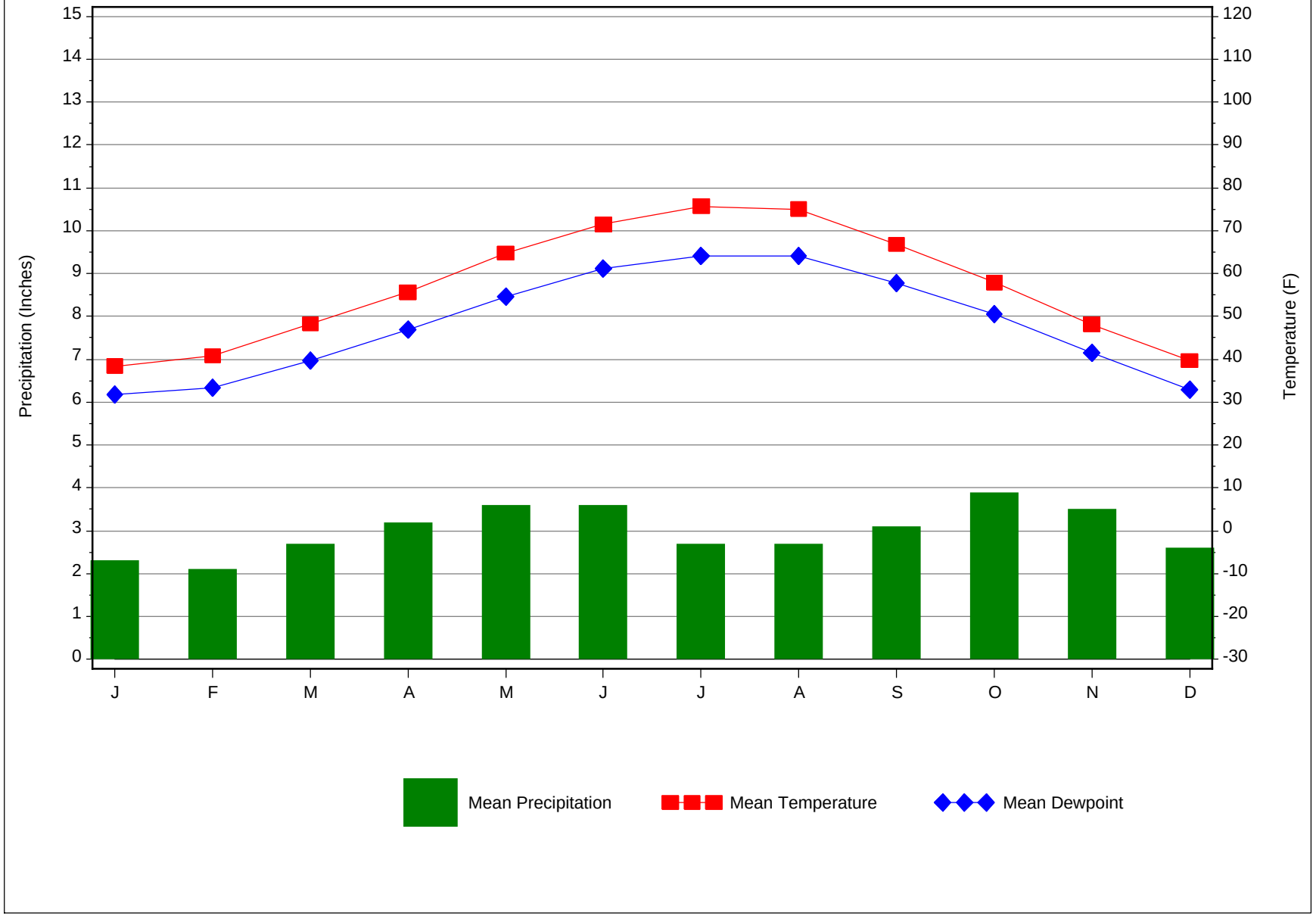
Air Conditioning/ Humid Area Criteria	**Threshold**	**T ≥ 93°F**	**T ≥ 80°F**	**Twb ≥ 73°F**	**Twb ≥ 67°F**
	# of Hours	9	553	345	1397

Other Site Data

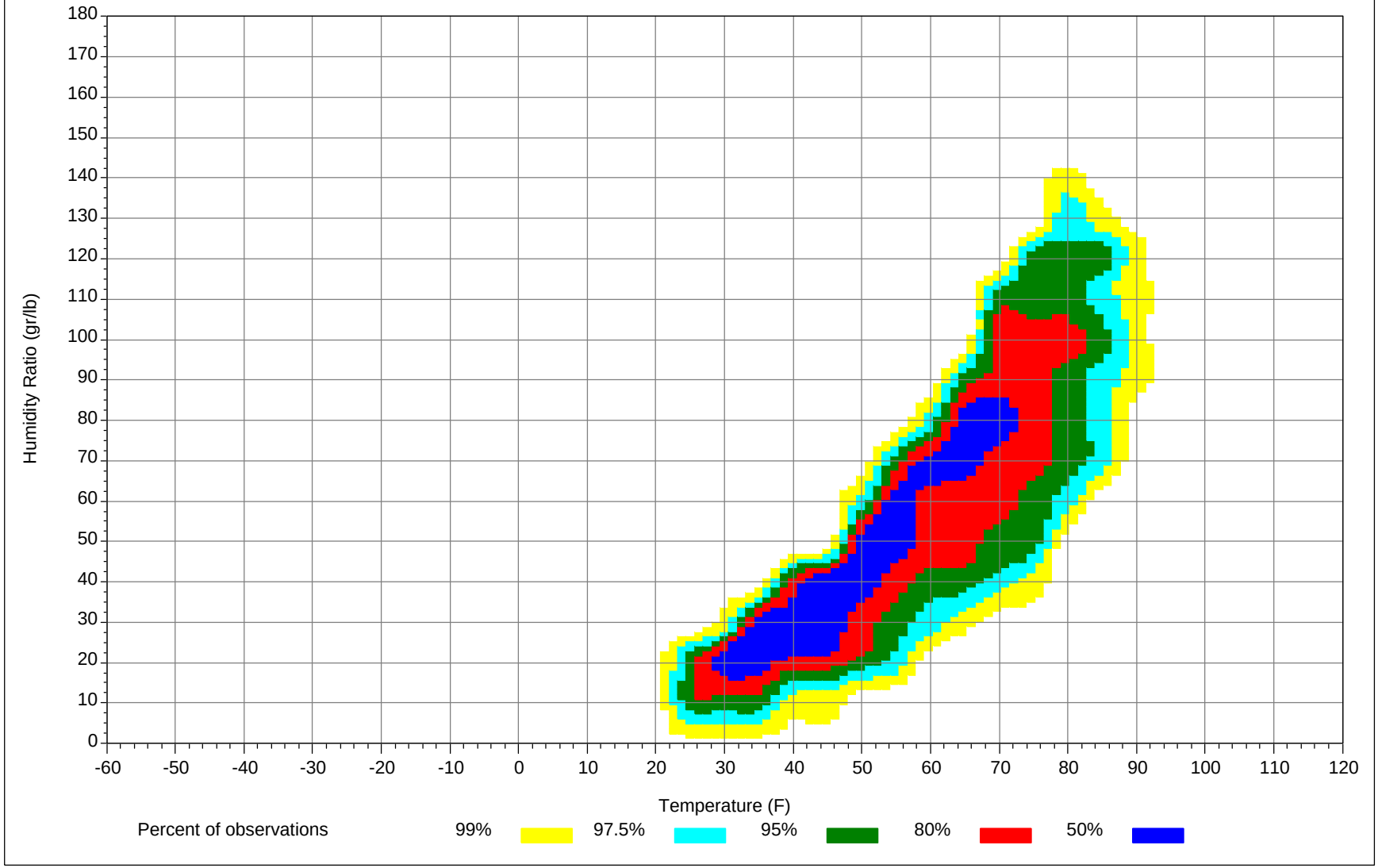
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
7	N/A	N/A	2.0 + 0.5
Ground Water Temperature (°F) 50 Foot Depth*	Frost Depth 50 Year Recurrence (in)	Ground Snow Load 50 Year Recurrence (lb/ft^2)	Average Annual Freeze-Thaw Cycles (#)
59.5	N/A	N/A	32

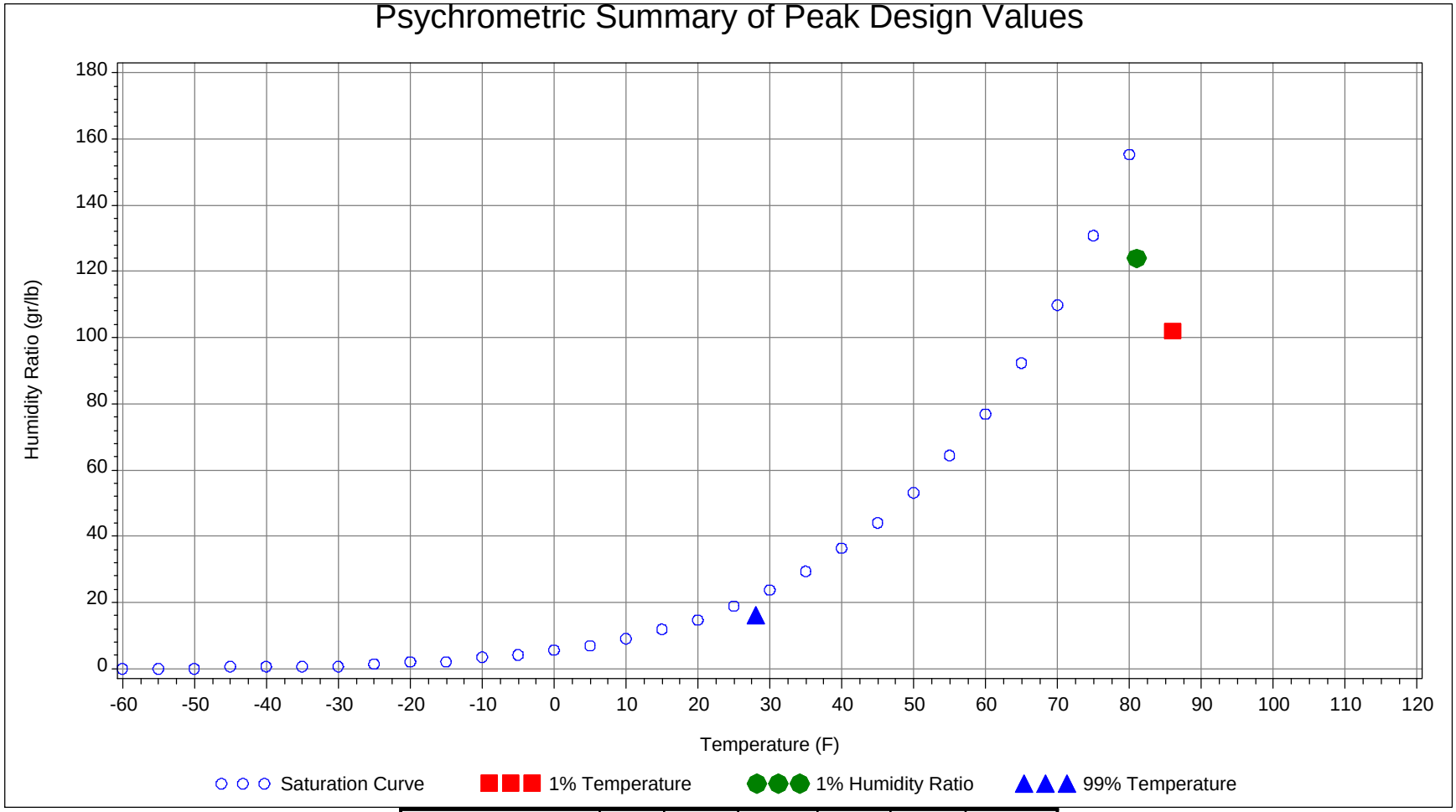
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

Average Annual Climate



Long Term Psychrometric Summary





	(°F) / (gr/lb)	MCDB (°F)	MCWB (°F)	MCDP (°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
1.0% Dry Bulb	86.0		73		102.0	36.6
99.0% Dry Bulb	28.0				16.0	9.2
1.0% Humidity Ratio	124.0	81.0	75.5	73.4		38.9

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)**
100/104															
95/ 99															
90/ 94															
85/ 89															
80/ 84															
75/ 79															
70/ 74							0	0	0	53.7		1	0	1	54.4
65/ 69							0	0	0	51.5		4	1	5	54.4
60/ 64	0			0	53		1	0	1	50.8		22	7	29	52.7
55/ 59	0	2	0	2	50.6		8	2	10	48	3	61	37	101	50.5
50/ 54	3	18	6	27	47.1	2	40	20	62	45.9	41	81	90	212	47.7
45/ 49	22	63	43	128	43	30	67	67	164	43.1	83	50	73	206	43.5
40/ 44	39	61	57	157	39.2	38	44	56	138	39.1	57	19	27	103	39.3
35/ 39	63	61	80	204	34.8	69	41	55	165	34.9	47	9	12	68	34.9
30/ 34	80	34	53	167	30.1	64	18	19	101	30.1	15	2	2	19	30.2
25/ 29	38	8	7	53	25.7	18	4	4	26	24.6	1	0	0	1	25
20/ 24	3	1	0	4	20.4	2	0	0	2	20.3	0			0	19.8
15/ 19	1	0		1	17.7	1	0	0	1	16.3					
10/ 14															

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)**
100/104															
95/ 99												0		0	78
90/ 94												2	1	3	74.4
85/ 89							1	0	1	69.5		10	4	14	73.3
80/ 84							8	3	11	68.6	1	47	27	75	70.9
75/ 79		1	0	1	62.1	1	33	15	49	64.9	18	80	66	164	68
70/ 74		13	5	18	59.2	10	81	53	144	62.7	59	64	76	199	65.2
65/ 69	1	29	12	42	57.6	27	58	62	147	60.4	65	22	35	122	62.8
60/ 64	9	68	50	127	55.6	91	49	75	215	58	69	12	25	106	59.6
55/ 59	52	78	87	217	52.6	83	15	32	130	54.3	24	3	6	33	55.4
50/ 54	95	40	64	199	49	34	4	7	45	50.3	3	0	1	4	50.5
45/ 49	62	10	17	89	44.5	3	0	1	4	46.1	0			0	46.7
40/ 44	17	2	3	22	40.2	0			0	40					
35/ 39	4	0	0	4	36.3										
30/ 34	0	0	0	0	31.3										
25/ 29															
20/ 24															
15/ 19															
10/ 14															

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)**
100/104								0	0	76					
95/ 99		0	0	0	77		0	0	0	74.7					
90/ 94		8	3	11	75.9		12	4	16	74.3		0		0	73
85/ 89		32	16	48	73.4	0	29	14	43	73.8		1	0	1	71.6
80/ 84	4	93	66	163	71.4	3	85	60	148	71.6		15	4	19	70.2
75/ 79	44	78	90	212	68.9	32	74	85	191	69.2	1	55	27	83	67.3
70/ 74	102	28	48	178	66.5	94	34	56	184	66.7	16	82	74	172	64.5
65/ 69	59	7	16	82	63.8	72	11	20	103	63.9	42	46	60	148	62.1
60/ 64	35	2	8	45	60.3	40	3	8	51	60.2	96	31	52	179	58.9
55/ 59	5	0	0	5	56.4	6	0	1	7	55.3	65	9	19	93	54.5
50/ 54	0			0	53	1	0		1	51.9	19	1	3	23	50.4
45/ 49											1			1	46
40/ 44											0			0	42
35/ 39															
30/ 34															
25/ 29															
20/ 24															
15/ 19															
10/ 14															

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)**
100/104															
95/ 99															
90/ 94															
85/ 89															
80/ 84		0		0	70.3										
75/ 79		3	0	3	66.4										
70/ 74	0	26	10	36	64.1		1		1	64.5					
65/ 69	6	42	26	74	61.8	0	1	0	1	61.5					
60/ 64	40	77	68	185	58.1	4	19	8	31	57.7	0	0		0	58.3
55/ 59	72	61	80	213	53.7	21	56	36	113	53.1	1	4	1	6	51.5
50/ 54	71	29	48	148	49	50	73	71	194	48.5	6	29	11	46	47
45/ 49	43	8	14	65	43.8	63	52	65	180	43.7	37	73	54	164	43.1
40/ 44	12	1	2	15	39.1	38	21	32	91	39.2	36	57	57	150	39
35/ 39	3	0	1	4	35.2	42	14	23	79	34.9	68	52	76	196	34.7
30/ 34	0			0	29.9	20	4	5	29	30.5	70	26	41	137	30.3
25/ 29						2	0	0	2	26.3	26	6	6	38	25.5
20/ 24						0	0		0	21.8	2	1	1	4	20.5
15/ 19											1	0	0	1	15.9
10/ 14											0	0		0	11

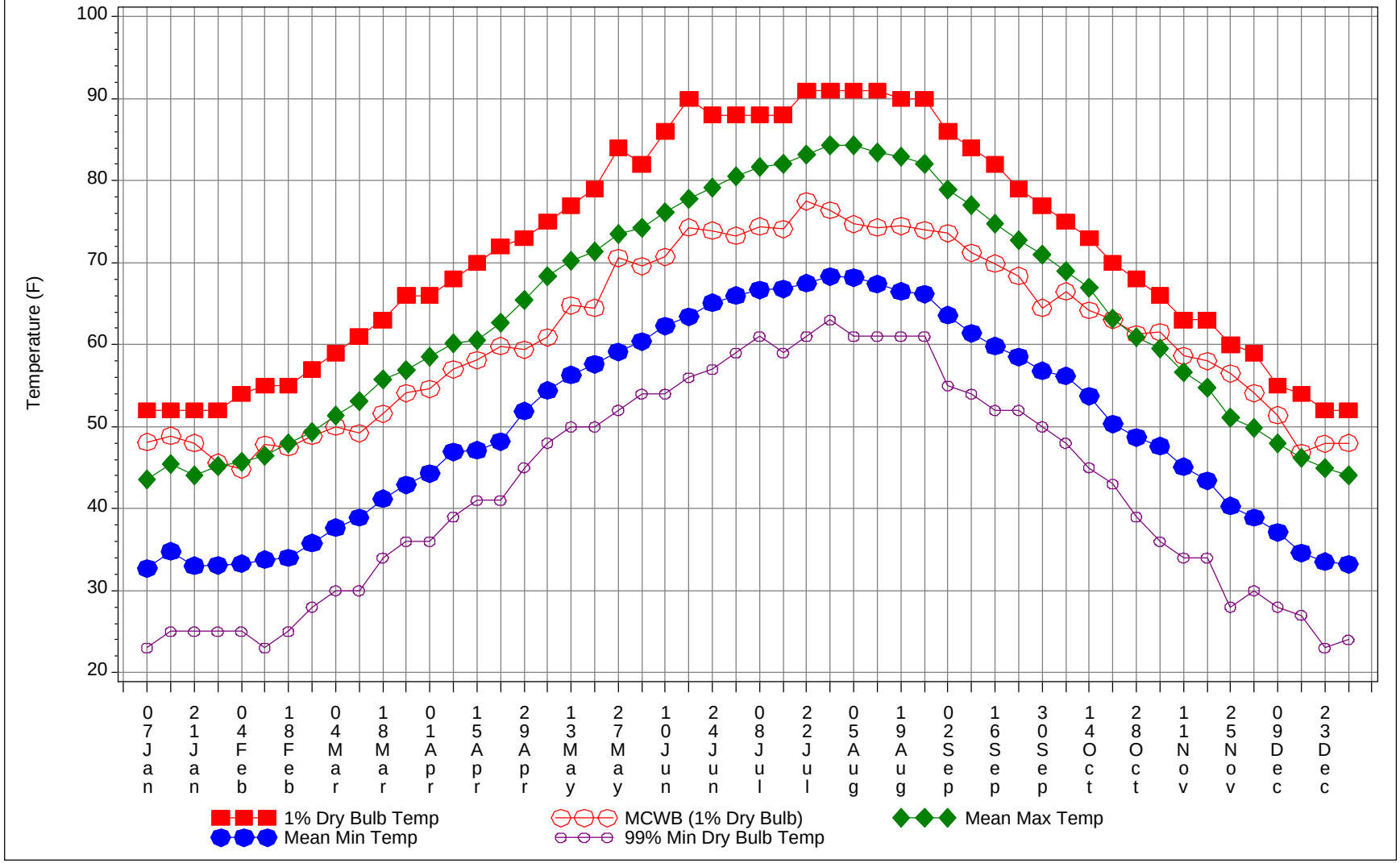
Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary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

Dry-Bulb Temperature Hours For An Average Year

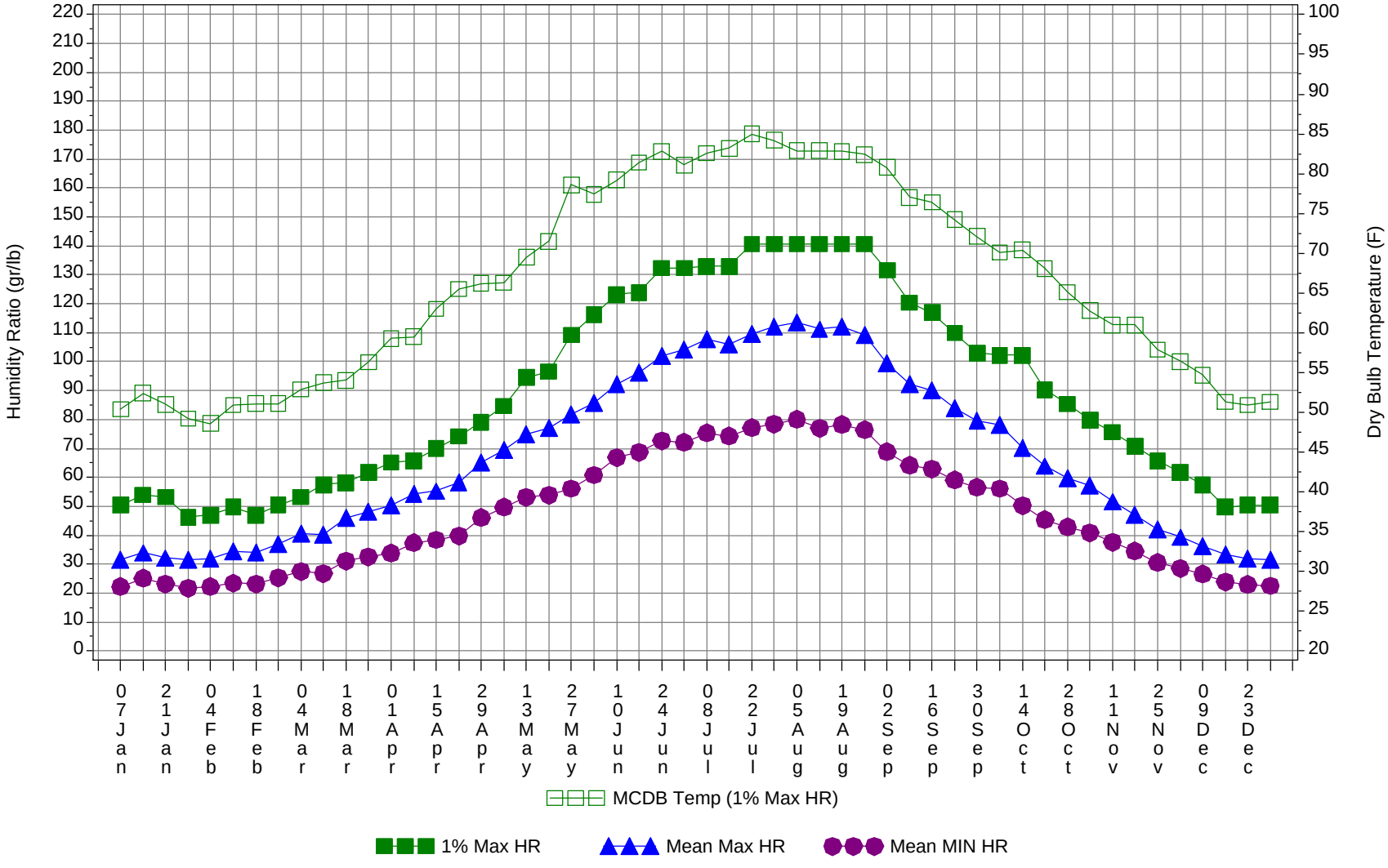
	Annual				
Temperature Range (°F)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**
100/104			0	0	76
95/ 99		1	0	1	76.2
90/ 94		22	8	30	74.9
85/ 89	0	73	35	108	73.4
80/ 84	8	247	160	415	71.3
75/ 79	95	324	284	703	68.3
70/ 74	280	329	321	930	65
65/ 69	271	218	233	722	62
60/ 64	384	283	302	969	58.1
55/ 59	330	299	303	932	53.2
50/ 54	324	313	321	958	48.3
45/ 49	344	324	333	1001	43.5
40/ 44	238	204	235	677	39.2
35/ 39	298	178	248	724	34.8
30/ 34	250	84	119	453	30.2
25/ 29	86	19	18	123	25.4
20/ 24	9	2	1	12	20.4
15/ 19	2	0	0	2	16.4
10/ 14	0	0		0	11

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



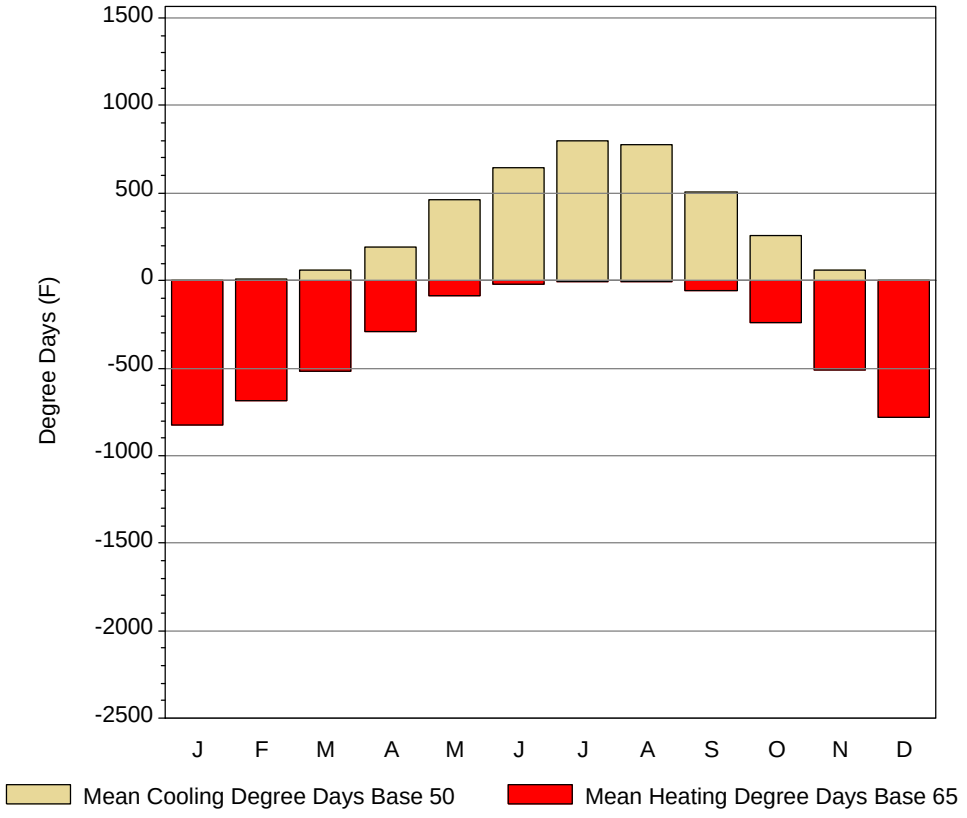
Long Term Humidity and Dry Bulb Temperature Summary



Long Term Humidity and Dry Bulb Temperature Summary

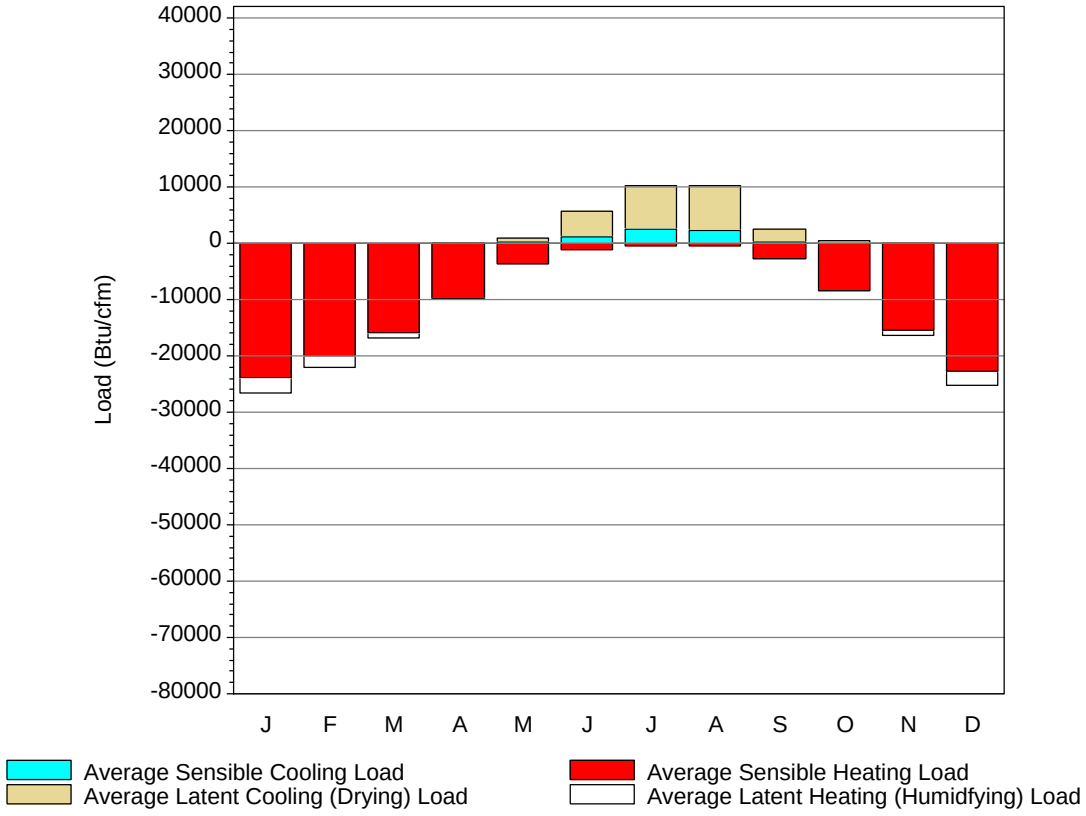
Week Ending	1.0% Temp (°F)	MCWB@ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB@ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	52	48.1	43.6	32.7	23	50.4	50.4	31.4	22.3
14-Jan	52	48.9	45.4	34.8	25	53.9	52.4	33.9	25.1
21-Jan	52	48	44	33	25	53.2	51	32.1	23.2
28-Jan	52	45.6	45.2	33.1	25	46.2	49.2	31.5	21.7
4-Feb	54	44.8	45.7	33.3	25	46.9	48.6	32	22.2
11-Feb	55	47.8	46.5	33.8	23	49.7	50.9	34.4	23.4
18-Feb	55	47.5	48	34	25	46.9	51.1	34	23.2
25-Feb	57	48.9	49.3	35.8	28	50.4	51.1	36.9	25.3
4-Mar	59	50	51.3	37.7	30	53.2	52.9	40.6	27.4
11-Mar	61	49.2	53.1	38.9	30	57.4	53.7	40.1	26.8
18-Mar	63	51.6	55.8	41.2	34	58.1	54	46	31.1
25-Mar	66	54.1	56.9	42.9	36	61.6	56.3	48.1	32.5
1-Apr	66	54.6	58.5	44.3	36	65.1	59.3	50.2	33.8
8-Apr	68	57	60.2	46.9	39	65.8	59.5	54.4	37.4
15-Apr	70	58.1	60.6	47.1	41	70	63	55.2	38.4
22-Apr	72	59.8	62.7	48.2	41	74.2	65.5	58.2	39.8
29-Apr	73	59.4	65.4	51.9	45	79.1	66.2	65	46.1
6-May	75	60.9	68.3	54.4	48	84.7	66.3	69.6	49.7
13-May	77	64.8	70.2	56.3	50	94.5	69.5	74.8	53.2
20-May	79	64.5	71.4	57.6	50	96.6	71.5	77.1	53.9
27-May	84	70.6	73.5	59.1	52	109.2	78.6	81.7	56.1
4-Jun	82	69.6	74.3	60.4	54	116.2	77.4	85.8	60.8
10-Jun	86	70.7	76.2	62.3	54	123.2	79.2	92.2	66.8
17-Jun	90	74.3	77.8	63.4	56	123.9	81.4	96.3	68.7
24-Jun	88	73.9	79.2	65.1	57	132.3	82.8	102.1	72.7
1-Jul	88	73.3	80.6	66	59	132.3	81.1	104.2	72.1
8-Jul	88	74.4	81.7	66.7	61	133	82.6	107.9	75.3
15-Jul	88	74.1	82	66.8	59	133	83.2	105.9	74.3
22-Jul	91	77.5	83.2	67.5	61	140.7	85	109.6	77.1
29-Jul	91	76.4	84.3	68.3	63	140.7	84.2	112.2	78.4
5-Aug	91	74.7	84.3	68.2	61	140.7	82.9	113.6	80.1
12-Aug	91	74.3	83.5	67.4	61	140.7	82.9	111.2	76.9
19-Aug	90	74.5	83	66.5	61	140.7	82.8	112.2	78.3
26-Aug	90	74	82	66.2	61	140.7	82.4	109.1	76.5
2-Sep	86	73.6	78.9	63.6	55	131.6	80.8	99.5	68.9
9-Sep	84	71.2	77	61.4	54	120.4	77	92.1	64.1
16-Sep	82	69.9	74.8	59.8	52	116.9	76.4	90	62.9
23-Sep	79	68.4	72.7	58.5	52	109.9	74.2	83.9	59.1
30-Sep	77	64.5	71	56.8	50	102.9	72.1	79.7	56.5
7-Oct	75	66.5	69	56.2	48	102.2	70.1	78.1	56.1
14-Oct	73	64.2	67	53.7	45	102.2	70.4	70.2	50.3
21-Oct	70	63	63.2	50.3	43	90.3	68.1	63.9	45.4
28-Oct	68	61.3	60.9	48.7	39	85.4	65.1	59.8	42.9
4-Nov	66	61.5	59.5	47.6	36	79.8	62.8	57.2	40.8
11-Nov	63	58.6	56.7	45.1	34	75.6	61	51.6	37.5
18-Nov	63	58	54.7	43.4	34	70.7	61	47.1	34.5
25-Nov	60	56.5	51.1	40.3	28	65.8	57.9	41.9	30.5
2-Dec	59	54.1	49.9	38.9	30	61.6	56.4	39.3	28.6
9-Dec	55	51.4	48	37.1	28	57.4	54.7	36.2	26.5
16-Dec	54	46.8	46.2	34.6	27	49.7	51.3	33.4	23.9
23-Dec	52	47.9	45	33.5	23	50.4	50.9	31.8	22.9
31-Dec	52	48	44.1	33.2	24	50.4	51.3	31.5	22.5

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	1.7	0	825.1
FEB	6.9	0	683.2
MAR	61	0.5	517.8
APR	191.7	8.2	287.8
MAY	459.1	82.2	88.4
JUN	644	215.4	21.4
JUL	796	335.9	4.9
AUG	775.4	317.1	6.7
SEP	505.1	114	58.9
OCT	259	16.6	238.2
NOV	61.9	0.2	508.2
DEC	3.9	0	783.5
ANN	3765.7	1090.1	4024.1

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	0	-23796	0	-2828
FEB	0	-19905	0	-2100
MAR	0	-15823	0	-988
APR	1	-9649	7	-149
MAY	162	-3723	772	-6
JUN	1104	-1136	4499	0
JUL	2502	-358	7833	0
AUG	2348	-462	7986	0
SEP	282	-2640	2347	-1
OCT	6	-8307	500	-138
NOV	0	-15502	7	-828
DEC	0	-22718	0	-2489
ANN	6405	-124019	23951	-9527

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

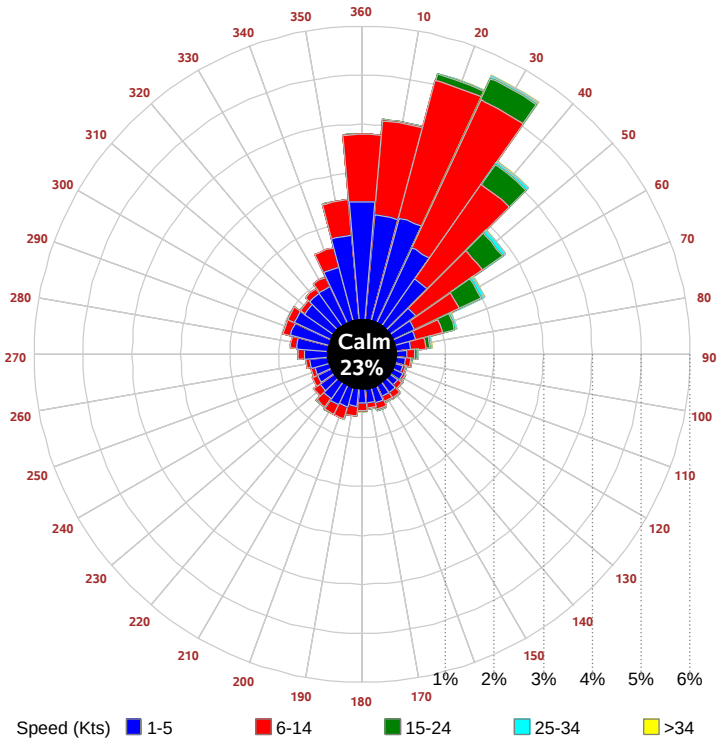
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ.	Global													
	Std.Dev.													
	Minimum													
	Maximum													
	Diffuse													
Clear Day	Global													
NORTH	Global													
	Diffuse													
Clear Day	Global													
EAST	Global												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

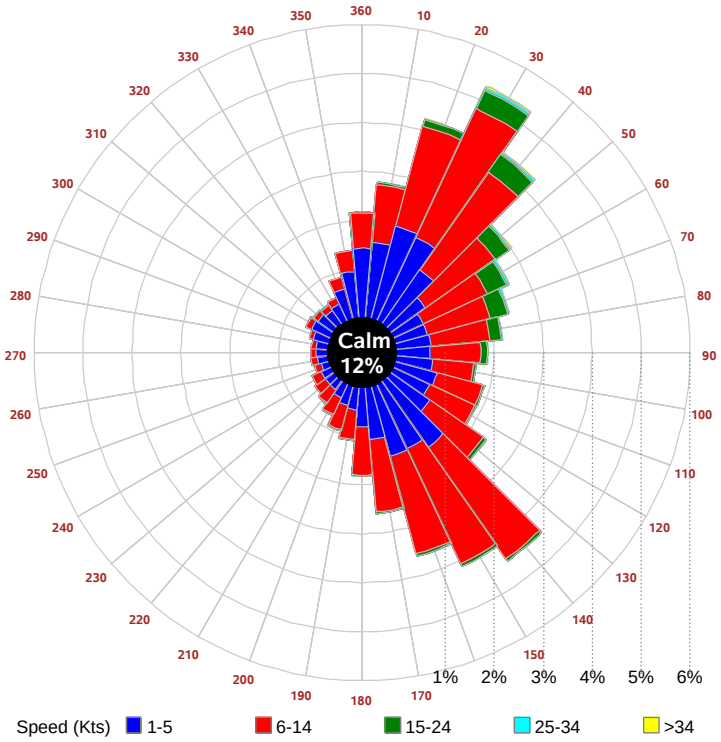
AVERAGE INCIDENT ILLUMINENCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9											
				March					June		
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear										
	M.Cloudy										
NORTH	M.Clear										
	M.Cloudy										
EAST	M.Clear										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

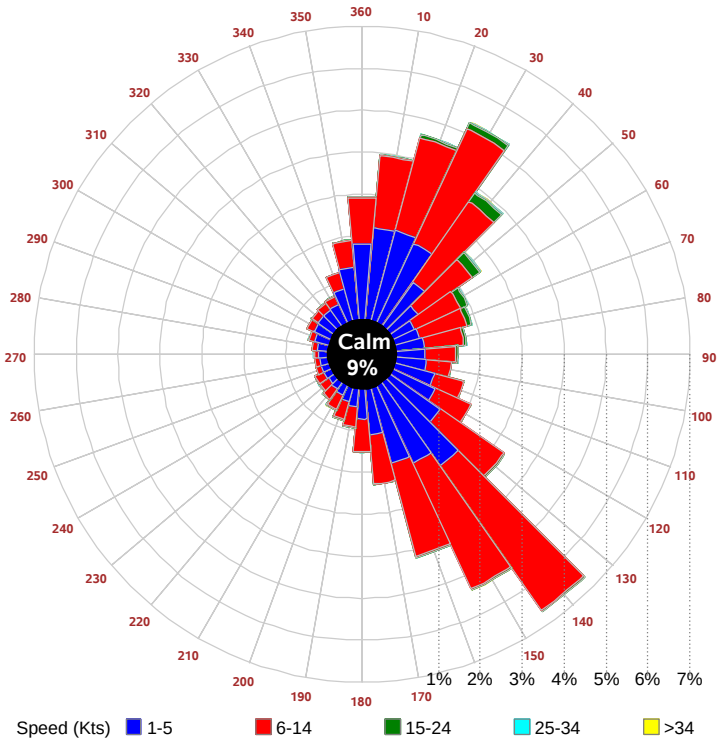
Wind Summary - December, January, and February



Wind Summary - March, April, and May



Wind Summary - June, July, and August



Wind Summary - September, October, and November