YOKOTA AB, JA

Latitude = 35.75 N	Station ID = ICAO_RJTY
Longitude =139.35 E	Elevation = 463 Feet
Period of Record = 1988 To 2017	Average Pressure = 29.46 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	98	79	121	8.3	VRB
0.4% Occurrence	93	78	125	8.9	S
1.0% Occurrence	90	77	123	8.8	S
2.0% Occurrence	88	76	121	8.2	S
Mean Daily Range	16	-	-	-	W
97.5% Occurrence	30	27	16	4.2	W
99.0% Occurrence	27	25	15	3.5	VRB
99.6% Occurrence	25	23	13	3	VRB
Median of Extreme Lows	21	19	11	2.6	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	81	91	144	8	S
0.4% Occurrence	80	89	139	7.8	S
1.0% Occurrence	79	87	136	7.4	S
2.0% Occurrence	78	86	133	7.4	S

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	154	86	0.99	7.4	S
0.4% Occurrence	144	84	0.94	6.6	S
1.0% Occurrence	139	84	0.91	6.2	S
2.0% Occurrence	134	83	0.88	6.6	S

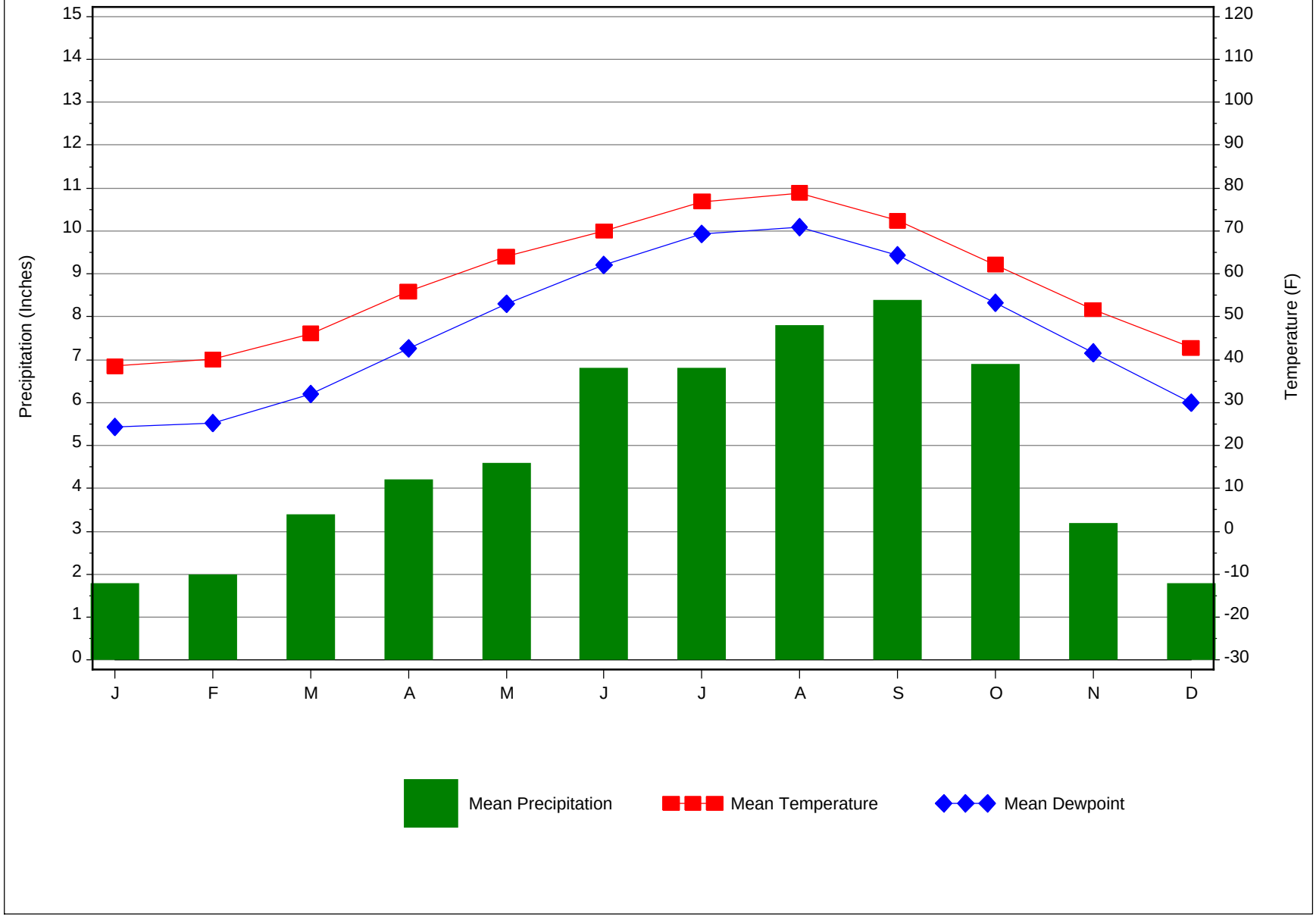
Air Conditioning/ Humid Area Criteria	**Threshold**	**T ≥ 93°F**	**T ≥ 80°F**	**Twb ≥ 73°F**	**Twb ≥ 67°F**
	# of Hours	47	751	1007	2077

Other Site Data

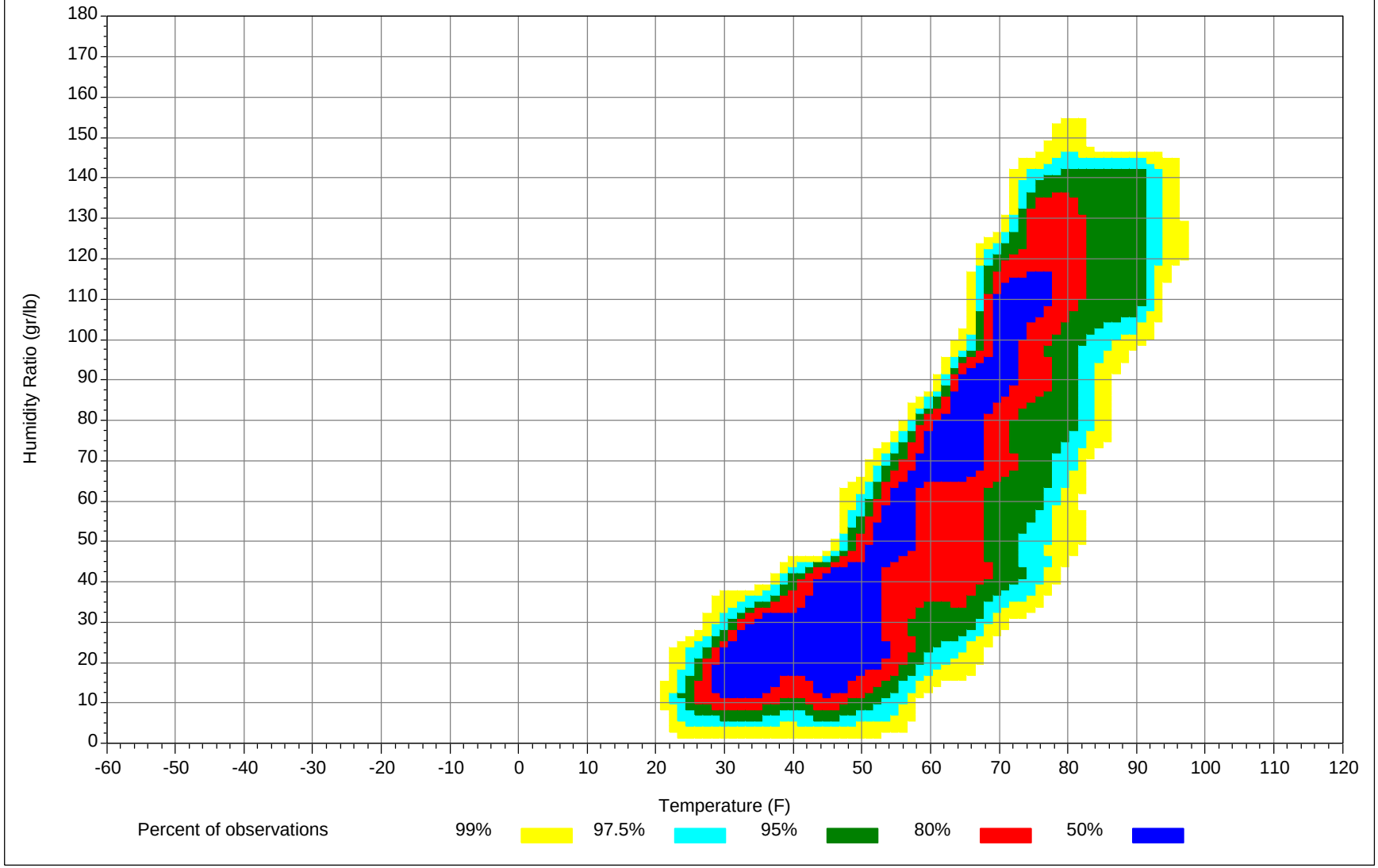
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
8	N/A	100	4.2 + 0.8
Ground Water Temperature (°F) 50 Foot Depth*	Frost Depth 50 Year Recurrence (in)	Ground Snow Load 50 Year Recurrence (lb/ft^2)	Average Annual Freeze-Thaw Cycles (#)
60.9	6	21	51

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

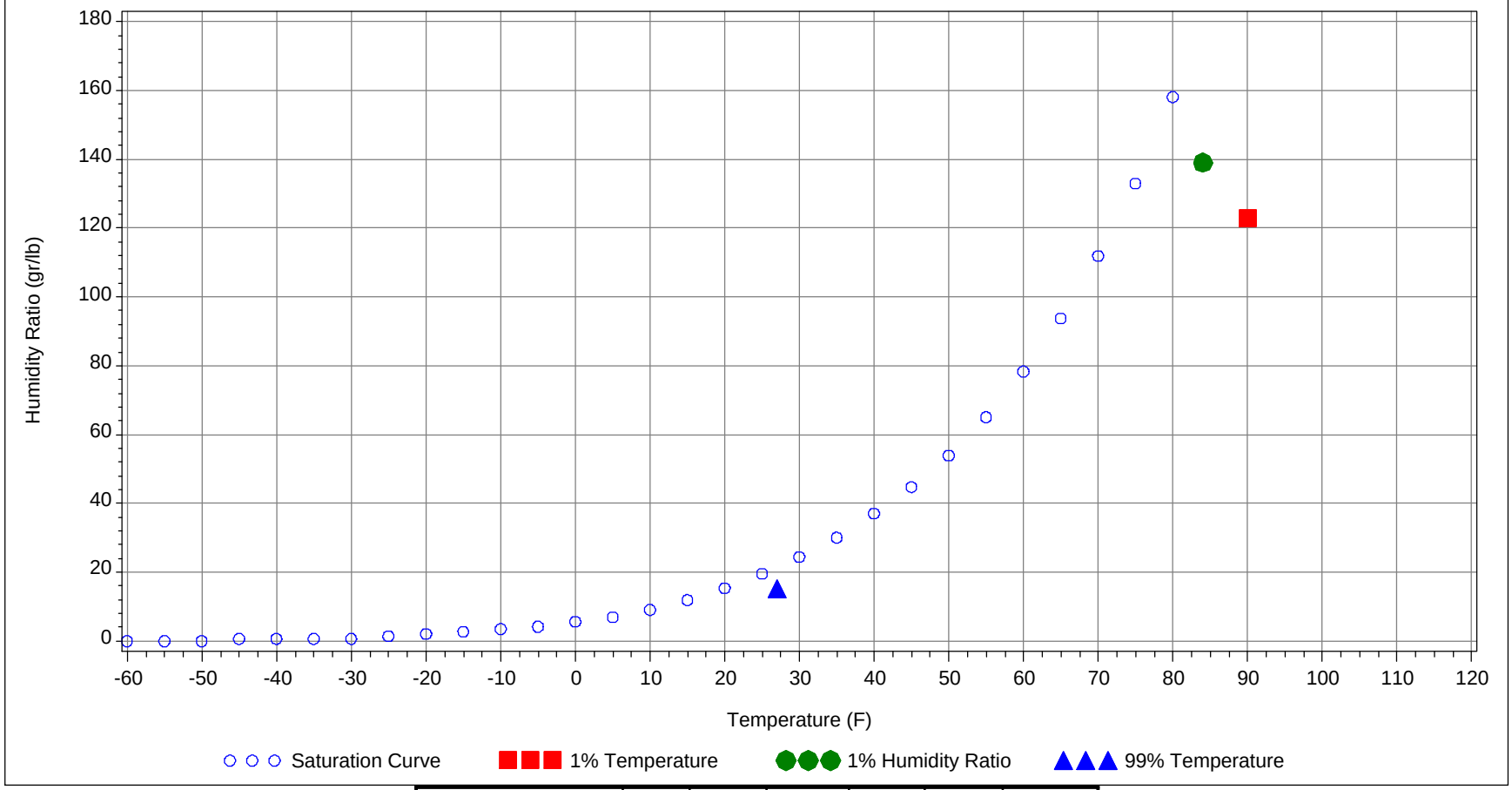
Average Annual Climate



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	90.0		77		123.0	40.8
99.0% Dry Bulb	27.0				15.0	8.7
1.0% Humidity Ratio	139.0	84.0	78.1	76.1		41.9

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												0		0	58
75/ 79							0		0	57.7		1		1	57.4
70/ 74		0		0	57		1		1	55.9	0	5	1	6	55.7
65/ 69		0	0	0	59.3		2	0	2	54.4	0	9	2	11	53.2
60/ 64		2	0	2	49.9	0	5	1	6	51.2	1	27	8	36	50.6
55/ 59		11	1	12	45.7	0	16	4	20	45.7	5	45	23	73	47.5
50/ 54	0	48	5	53	41.2	2	43	13	58	41.8	18	67	45	130	43.9
45/ 49	7	87	30	124	38.1	11	75	38	124	38.5	47	55	68	170	41
40/ 44	14	53	47	114	35.6	23	42	45	110	36.2	51	25	47	123	37.7
35/ 39	57	38	93	188	32.9	62	33	76	171	33	76	13	43	132	34.2
30/ 34	99	9	59	167	29	79	8	40	127	29.1	41	2	11	54	29.7
25/ 29	62	0	13	75	24.6	43	0	7	50	24.5	8		1	9	25.1
20/ 24	7	0	0	7	20.6	4		0	4	20.2	1			1	20.9
15/ 19	1			1	17.6	0			0	17.6					

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							0		0	72					
95/ 99							0		0	72		0		0	77.4
90/ 94							0	0	0	72		3	1	4	75.7
85/ 89		0		0	64.5		2	0	2	66.9	0	9	1	10	72.7
80/ 84		2	0	2	62.2	0	17	1	18	65.6	1	40	9	50	70.3
75/ 79	0	12	1	13	59.9	1	52	9	62	63.1	10	71	35	116	68.3
70/ 74	1	35	7	43	57.8	6	69	33	108	61.3	50	65	81	196	66.7
65/ 69	2	41	14	57	55.7	25	41	51	117	60.3	75	29	63	167	64.2
60/ 64	15	58	45	118	53.6	79	42	87	208	58	78	18	41	137	60.6
55/ 59	45	47	67	159	51	87	18	50	155	54	23	4	9	36	56.1
50/ 54	73	29	58	160	47.7	40	6	15	61	49.4	3	0	1	4	51.2
45/ 49	62	12	34	108	43	9	0	2	11	44.1	0			0	45
40/ 44	25	2	9	36	38.8	1	0	0	1	39.2					
35/ 39	15	1	4	20	35	0			0	34.5					
30/ 34	3	0	1	4	31.2										
25/ 29	0			0	27.7										
20/ 24															
15/ 19															

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		1	0	1	76.9		0	0	0	77.7		0		0	77
95/ 99		7	0	7	78.9		9	1	10	79.1		1	0	1	77.1
90/ 94	0	40	6	46	77.6	0	55	6	61	77.9		10	0	10	75.8
85/ 89	2	45	15	62	76.1	2	56	19	77	76.5	0	24	3	27	75
80/ 84	17	56	51	124	74.5	26	63	70	159	75.1	3	53	19	75	72.4
75/ 79	77	48	85	210	72.7	114	36	103	253	73.4	35	60	64	159	70.7
70/ 74	93	34	60	187	69.3	79	21	37	137	69.7	76	56	76	208	67.5
65/ 69	39	14	23	76	65.5	20	6	10	36	65.6	63	22	44	129	64.2
60/ 64	19	5	8	32	61.6	6	2	3	11	62.4	47	13	27	87	60.4
55/ 59	1	0	0	1	57.5	0	0	0	0	58.1	13	2	5	20	55.4
50/ 54											2	0	1	3	50.8
45/ 49											0		0	0	45.1
40/ 44															
35/ 39															
30/ 34															
25/ 29															
20/ 24															
15/ 19															

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		0		0	72										
85/ 89		1		1	71.4										
80/ 84		6	0	6	69.4										
75/ 79	1	25	4	30	65.5		1		1	60.7		0		0	63
70/ 74	6	58	22	86	62.9		8	0	8	58.5	0	0		0	58.8
65/ 69	20	56	38	114	60.7	0	23	1	24	56.4	0	1	0	1	54
60/ 64	73	69	89	231	58.2	3	58	17	78	54	0	10	1	11	50.7
55/ 59	84	28	65	177	54.1	28	75	52	155	51.2	1	39	4	44	46.8
50/ 54	45	5	25	75	49.4	58	53	76	187	47.5	7	75	23	105	43.5
45/ 49	16	0	5	21	44.4	67	20	61	148	43.3	28	77	60	165	40.5
40/ 44	3		0	3	39.6	44	2	23	69	39.2	40	30	64	134	37.5
35/ 39	1		0	1	36.5	33	0	9	42	35.4	80	14	68	162	33.8
30/ 34						7	0	1	8	30.8	67	2	27	96	29.5
25/ 29						0			0	26.8	24	0	3	27	25.1
20/ 24											1		0	1	20.5
15/ 19															

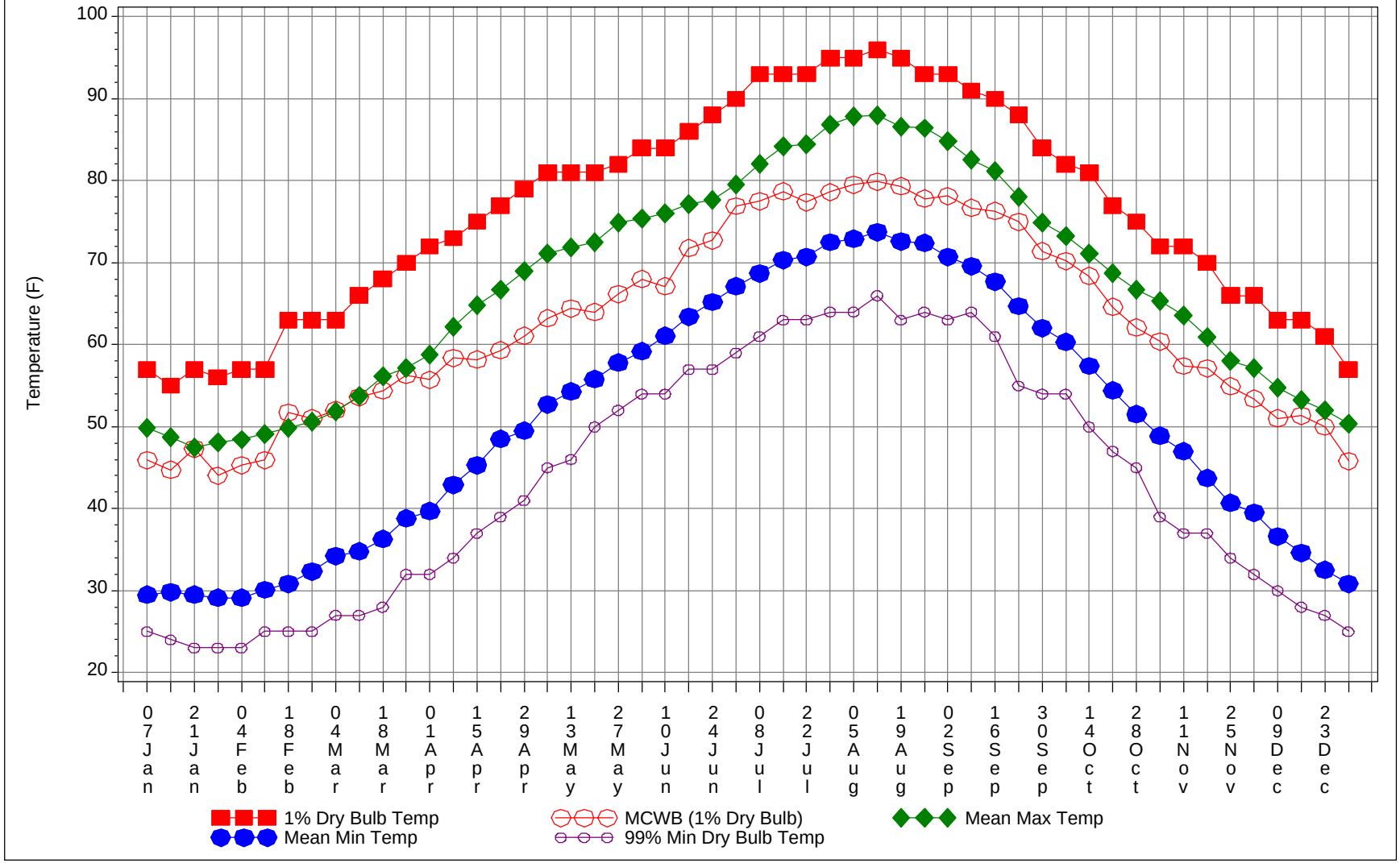
Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary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

Dry-Bulb Temperature Hours For An Average Year

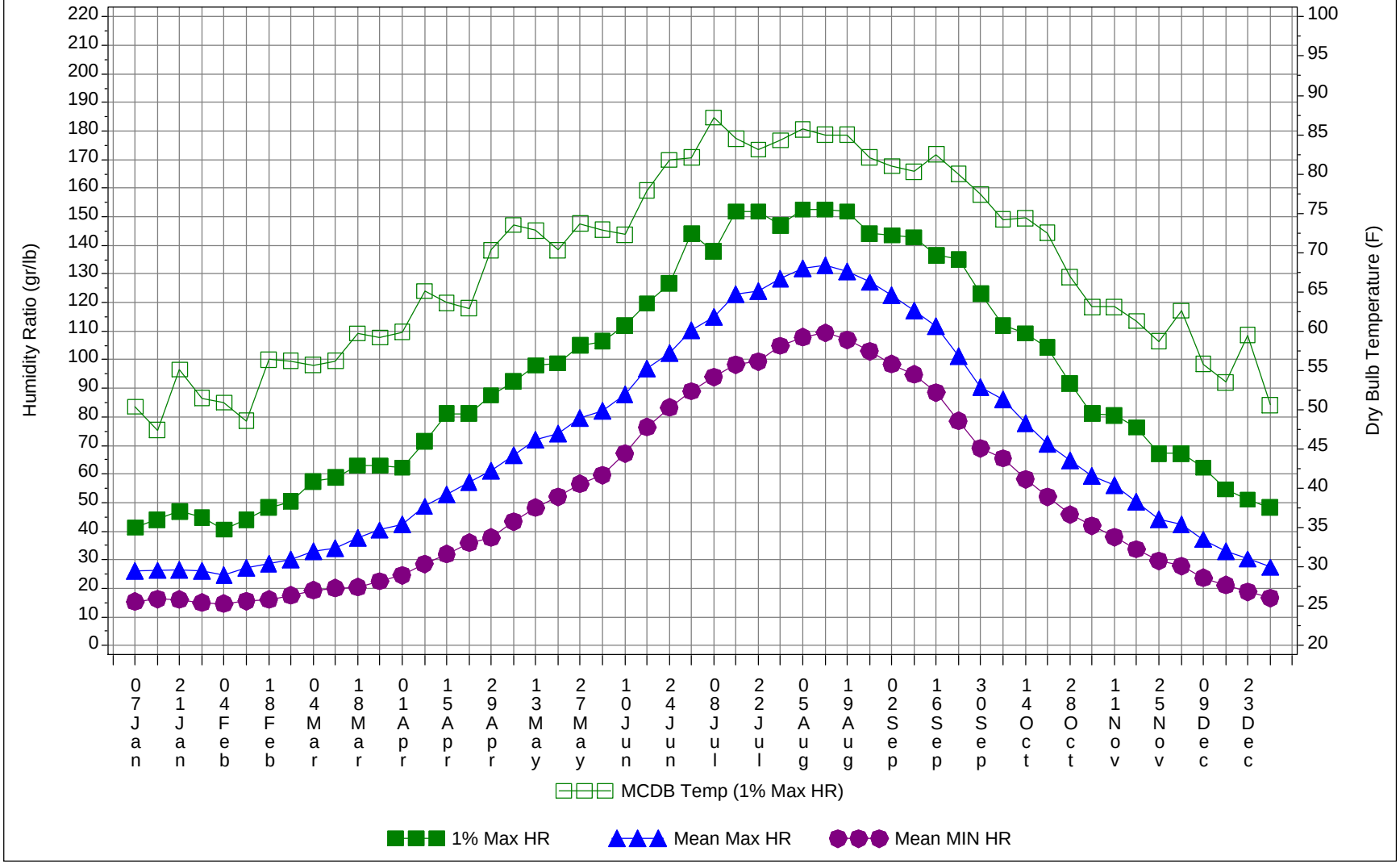
	Annual				
Temperature Range (°F)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**
100/104		1	0	1	77
95/ 99		17	1	18	78.8
90/ 94	0	107	12	119	77.5
85/ 89	4	137	39	180	75.8
80/ 84	48	236	150	434	73.4
75/ 79	238	307	299	844	70.7
70/ 74	311	352	316	979	66.3
65/ 69	243	243	247	733	62.1
60/ 64	322	309	329	960	57.5
55/ 59	286	285	280	851	51.8
50/ 54	248	325	260	833	46
45/ 49	248	327	298	873	40.9
40/ 44	202	153	235	590	37.2
35/ 39	324	98	292	714	33.6
30/ 34	295	21	137	453	29.2
25/ 29	137	1	24	162	24.7
20/ 24	12	0	0	12	20.5
15/ 19	1			1	17.6

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



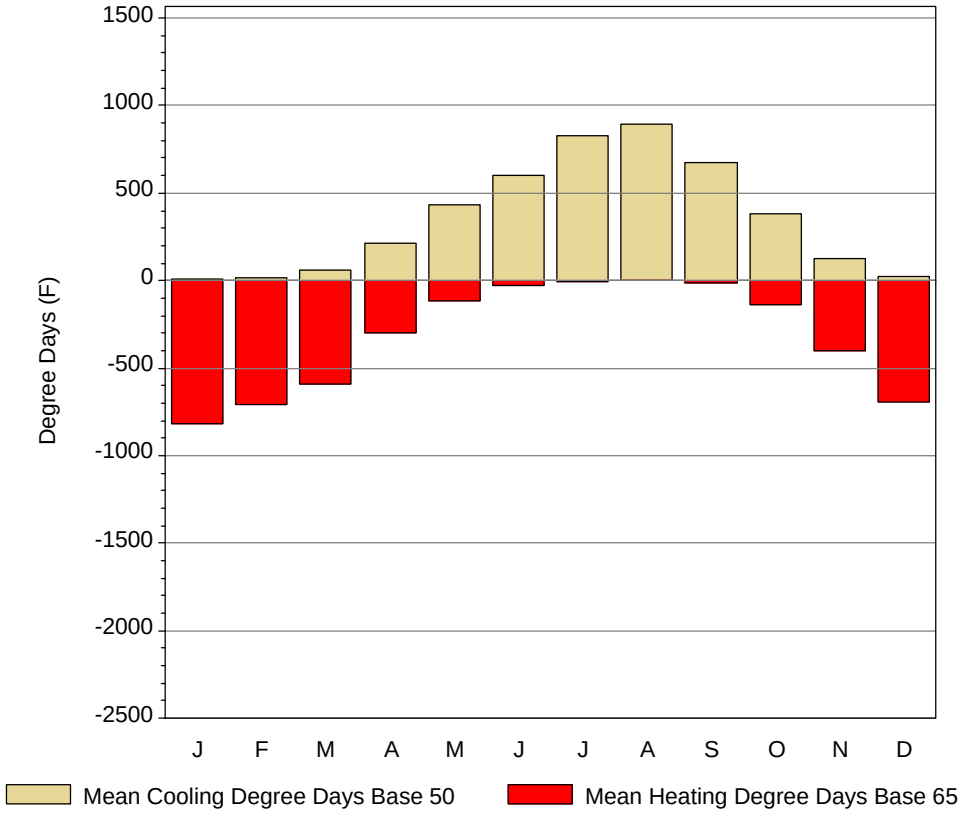
Long Term Humidity and Dry Bulb Temperature Summary



Long Term Humidity and Dry Bulb Temperature Summary

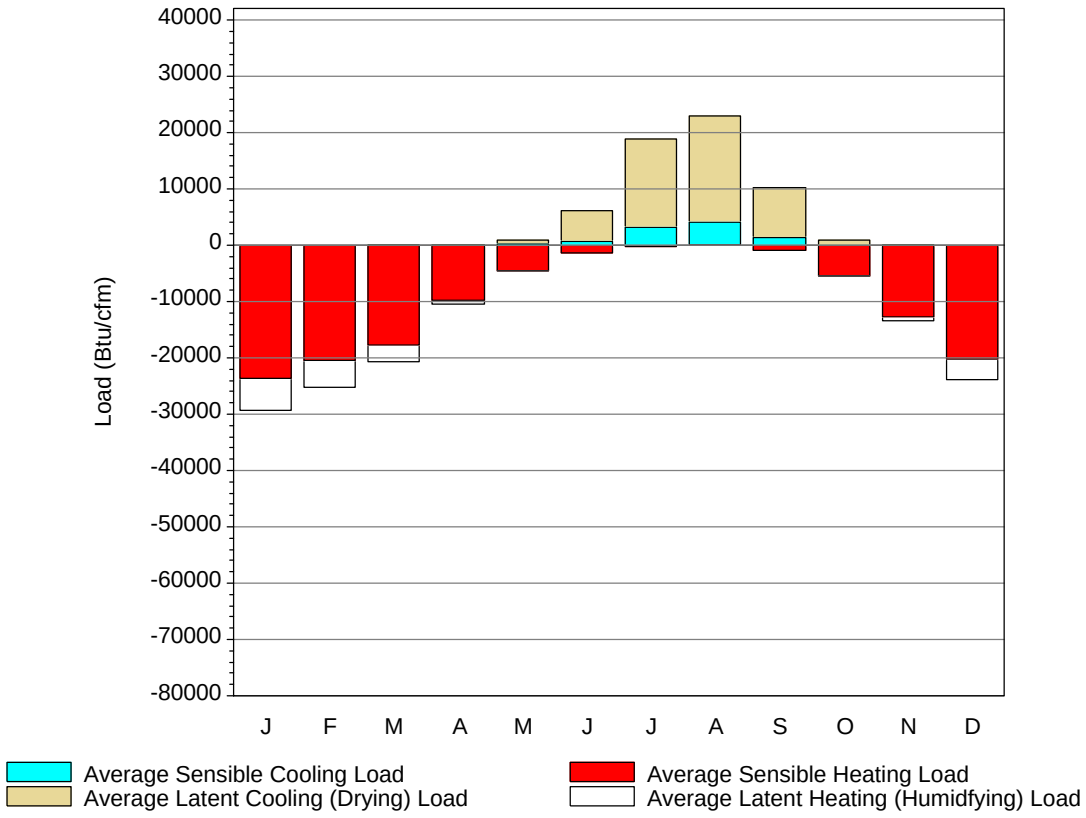
Week Ending	1.0% Temp (°F)	MCWB@ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB@ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	57	45.9	49.8	29.5	25	41.3	50.4	26	15.3
14-Jan	55	44.7	48.7	29.8	24	44.1	47.4	26.3	16.3
21-Jan	57	47.3	47.5	29.5	23	46.9	55.1	26.6	16.1
28-Jan	56	44	48.1	29.1	23	44.8	51.5	26.2	15
4-Feb	57	45.3	48.4	29.1	23	40.6	50.9	24.8	14.6
11-Feb	57	45.9	49.1	30.1	25	44.1	48.6	27.2	15.6
18-Feb	63	51.7	49.8	30.8	25	48.3	56.4	28.7	16.1
25-Feb	63	51	50.6	32.3	25	50.4	56.2	30.2	17.6
4-Mar	63	52	51.9	34.2	27	57.4	55.7	33.1	19.3
11-Mar	66	53.6	53.8	34.8	27	58.8	56.2	34.2	20
18-Mar	68	54.4	56.1	36.3	28	63	59.7	37.8	20.4
25-Mar	70	56.3	57.1	38.8	32	63	59.2	40.4	22.5
1-Apr	72	55.7	58.8	39.7	32	62.3	59.9	42.4	24.5
8-Apr	73	58.4	62.2	42.9	34	71.4	65.1	48.7	28.5
15-Apr	75	58.2	64.8	45.3	37	81.2	63.6	52.8	32
22-Apr	77	59.3	66.7	48.5	39	81.2	62.9	57.3	35.9
29-Apr	79	61.1	69	49.5	41	87.5	70.3	61.1	37.7
6-May	81	63.2	71.1	52.7	45	92.4	73.5	66.5	43.4
13-May	81	64.4	71.9	54.3	46	98	72.8	72	48.2
20-May	81	64	72.5	55.8	50	98.7	70.3	74.3	52.1
27-May	82	66.2	74.9	57.8	52	105	73.7	79.7	56.5
4-Jun	84	68	75.4	59.2	54	106.4	72.9	82.2	59.6
10-Jun	84	67.1	76	61.1	54	112	72.3	87.8	67.2
17-Jun	86	71.8	77.1	63.4	57	119.7	77.9	97	76.4
24-Jun	88	72.7	77.6	65.2	57	126.7	81.8	102.4	83.3
1-Jul	90	76.9	79.5	67.1	59	144.2	82.1	110.2	89
8-Jul	93	77.5	82.1	68.7	61	137.9	87.2	115.1	94
15-Jul	93	78.7	84.2	70.3	63	151.9	84.5	123	98.3
22-Jul	93	77.4	84.4	70.7	63	151.9	83.1	124.1	99.3
29-Jul	95	78.6	86.8	72.5	64	147	84.3	128.5	104.9
5-Aug	95	79.5	87.9	72.9	64	152.6	85.7	131.9	107.9
12-Aug	96	79.9	88	73.7	66	152.6	85	133	109.4
19-Aug	95	79.3	86.6	72.6	63	151.9	85	130.9	107
26-Aug	93	77.8	86.4	72.4	64	144.2	82.1	127.1	103
2-Sep	93	78.1	84.8	70.7	63	143.5	81	122.7	98.4
9-Sep	91	76.7	82.5	69.6	64	142.8	80.3	117.3	94.8
16-Sep	90	76.3	81.2	67.7	61	136.5	82.5	111.8	88.6
23-Sep	88	75	78	64.7	55	135.1	80	101.3	78.6
30-Sep	84	71.4	74.9	62	54	123.2	77.4	90.3	69
7-Oct	82	70.2	73.2	60.3	54	112	74.2	86.2	65.5
14-Oct	81	68.4	71.1	57.4	50	109.2	74.4	77.7	58.2
21-Oct	77	64.6	68.7	54.4	47	104.3	72.5	70.5	52.1
28-Oct	75	62.1	66.7	51.5	45	91.7	66.9	64.8	45.8
4-Nov	72	60.4	65.3	48.9	39	81.2	63.1	59.3	41.9
11-Nov	72	57.4	63.6	47	37	80.5	63.1	56	37.9
18-Nov	70	57.1	60.9	43.7	37	76.3	61.3	50.3	33.7
25-Nov	66	54.9	58	40.7	34	67.2	58.7	44.2	29.6
2-Dec	66	53.4	57.1	39.5	32	67.2	62.6	42.3	27.8
9-Dec	63	51	54.8	36.6	30	62.3	55.8	37.1	23.7
16-Dec	63	51.3	53.3	34.6	28	54.6	53.5	33.1	21.1
23-Dec	61	50	52	32.5	27	51.1	59.5	30.3	18.8
31-Dec	57	45.8	50.3	30.8	25	48.3	50.6	27.4	16.6

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	7.2	0	820.9
FEB	14.6	0.4	705
MAR	61.3	2.6	588.8
APR	216.5	24.1	297
MAY	436.2	82.9	113.4
JUN	599.9	174.1	24.2
JUL	831	368.5	2.5
AUG	896.4	432.2	0.8
SEP	671.7	236.9	15.2
OCT	379.9	51.3	140.4
NOV	122.5	4.3	402.6
DEC	25.8	0.3	690.9
ANN	4263	1377.6	3801.7

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	-23687	0	-5705
FEB	0	-20464	0	-4784
MAR	1	-17633	1	-2973
APR	42	-9723	64	-807
MAY	264	-4492	612	-83
JUN	791	-1359	5277	0
JUL	3132	-235	15696	0
AUG	4023	-87	18906	0
SEP	1404	-878	8907	0
OCT	103	-5411	908	-32
NOV	1	-12692	13	-681
DEC	0	-20315	0	-3628
ANN	9761	-116976	50384	-18693

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

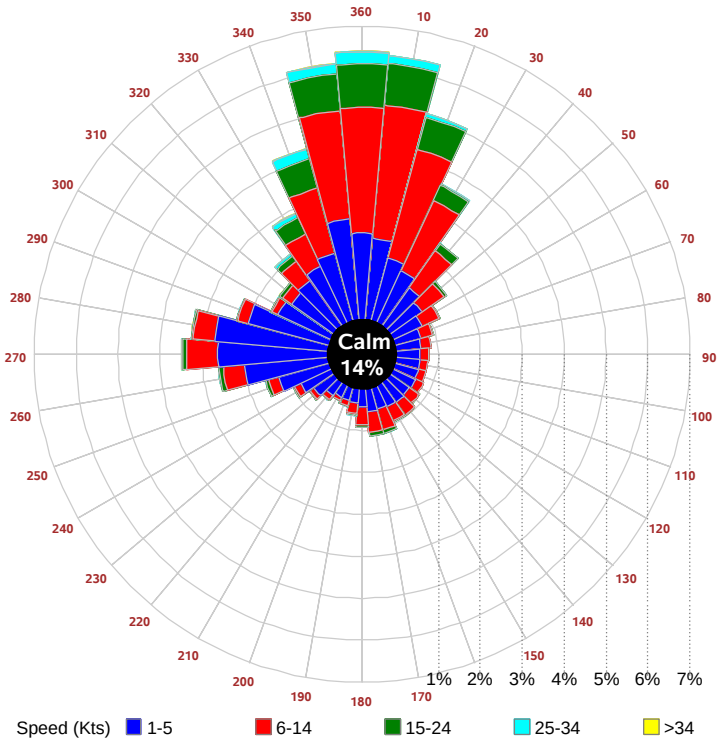
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ.	Global													
	Std.Dev.													
	Minimum													
	Maximum													
	Diffuse													
Clear Day	Global													
NORTH	Global													
	Diffuse													
Clear Day	Global													
EAST	Global												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

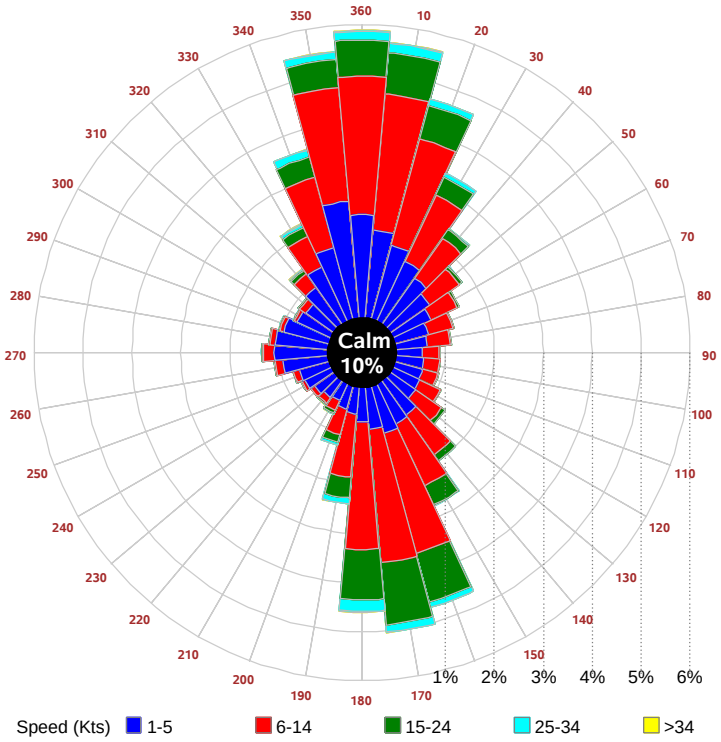
AVERAGE INCIDENT ILLUMINENCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9											
				March					June		
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear										
	M.Cloudy										
NORTH	M.Clear										
	M.Cloudy										
EAST	M.Clear										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

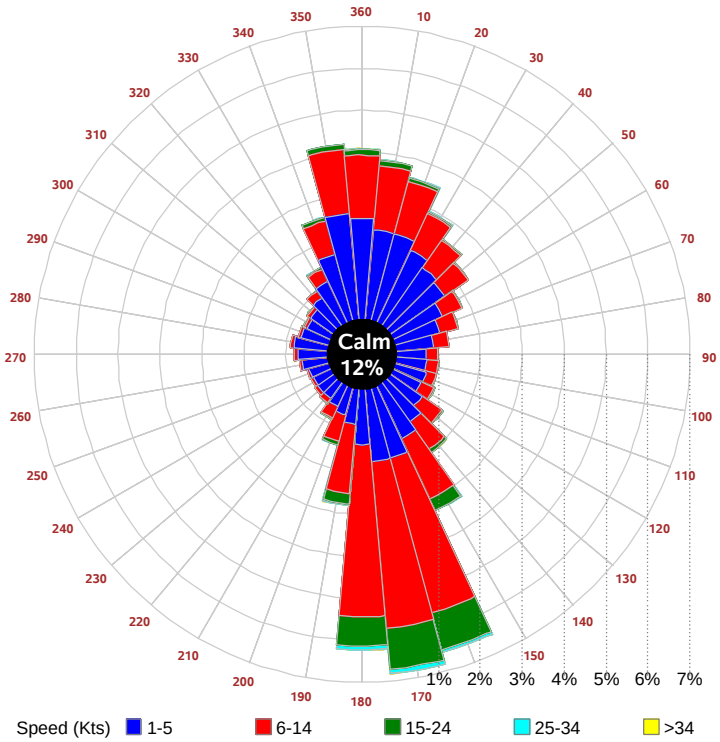
Wind Summary - December, January, and February



Wind Summary - March, April, and May



Wind Summary - June, July, and August



Wind Summary - September, October, and November