ADELAIDE INTL, AS	
Latitude = 34.95 S	Station ID = ICAO_YPAD
Longitude =138.53 E	Elevation = 20 Feet
Period of Record = 1988 To 2017	Average Pressure = 30.02 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	106	67	37	13.2	NNW
0.4% Occurrence	97	65	41	12.9	N
1.0% Occurrence	93	64	45	12.2	N
2.0% Occurrence	89	64	48	11.9	N
Mean Daily Range	17	-	-	-	NE
97.5% Occurrence	44	42	37	4.3	NE
99.0% Occurrence	41	40	34	3.6	NE
99.6% Occurrence	39	38	31	3.3	NE
Median of Extreme Lows	35	34	27	2.8	E

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	74	85	106	9.7	SW
0.4% Occurrence	71	83	93	10.6	SW
1.0% Occurrence	69	82	84	10.7	SW
2.0% Occurrence	67	80	76	10.8	SW

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	117	77	0.78	7.6	SW
0.4% Occurrence	102	75	0.68	8.4	NE
1.0% Occurrence	92	75	0.62	10.4	SW
2.0% Occurrence	85	73	0.57	10	SW

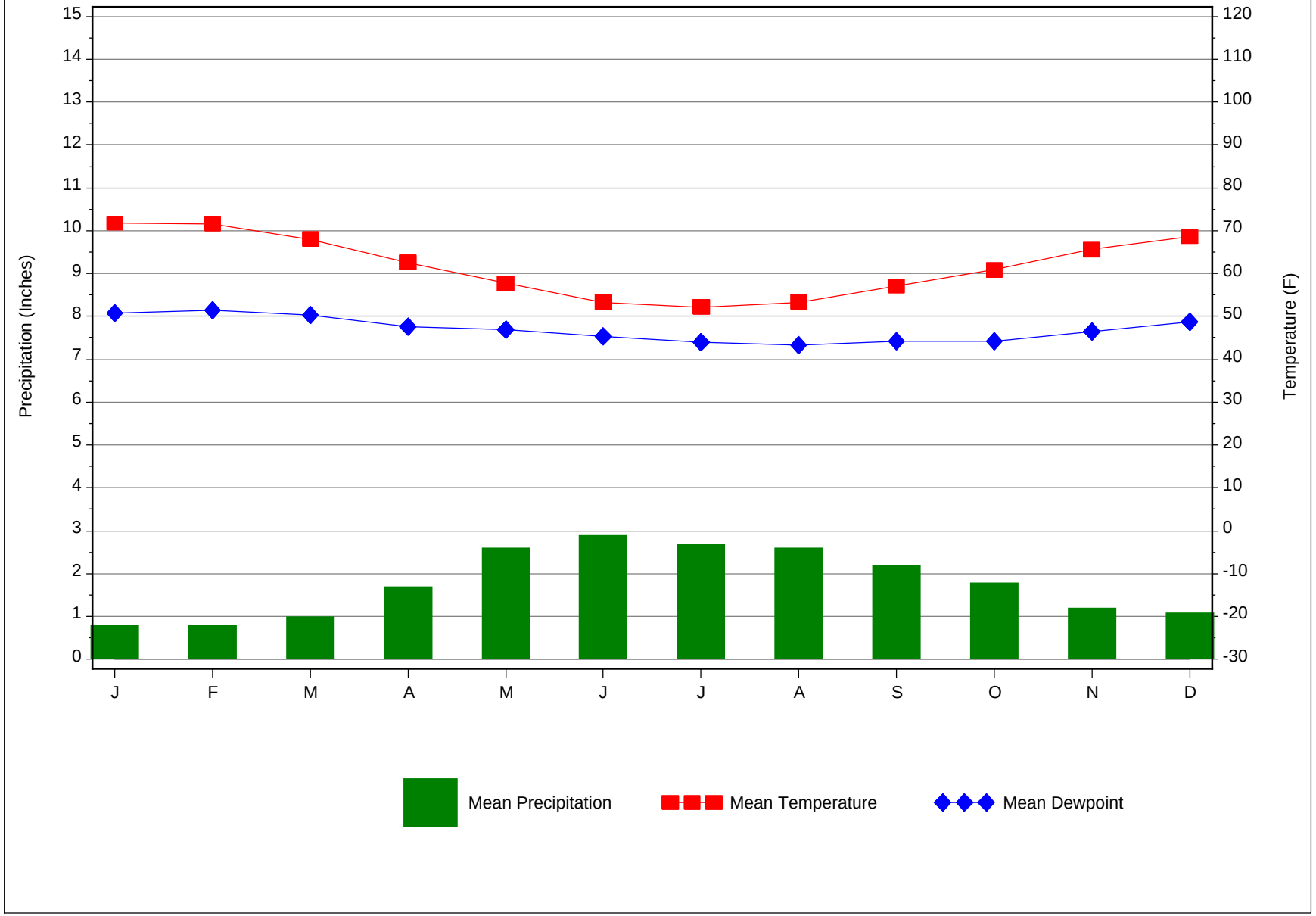
Air Conditioning/ Humid Area Criteria	**Threshold**	**T ≥ 93°F**	**T ≥ 80°F**	**Twb ≥ 73°F**	**Twb ≥ 67°F**
	# of Hours	98	631	14	251

Other Site Data

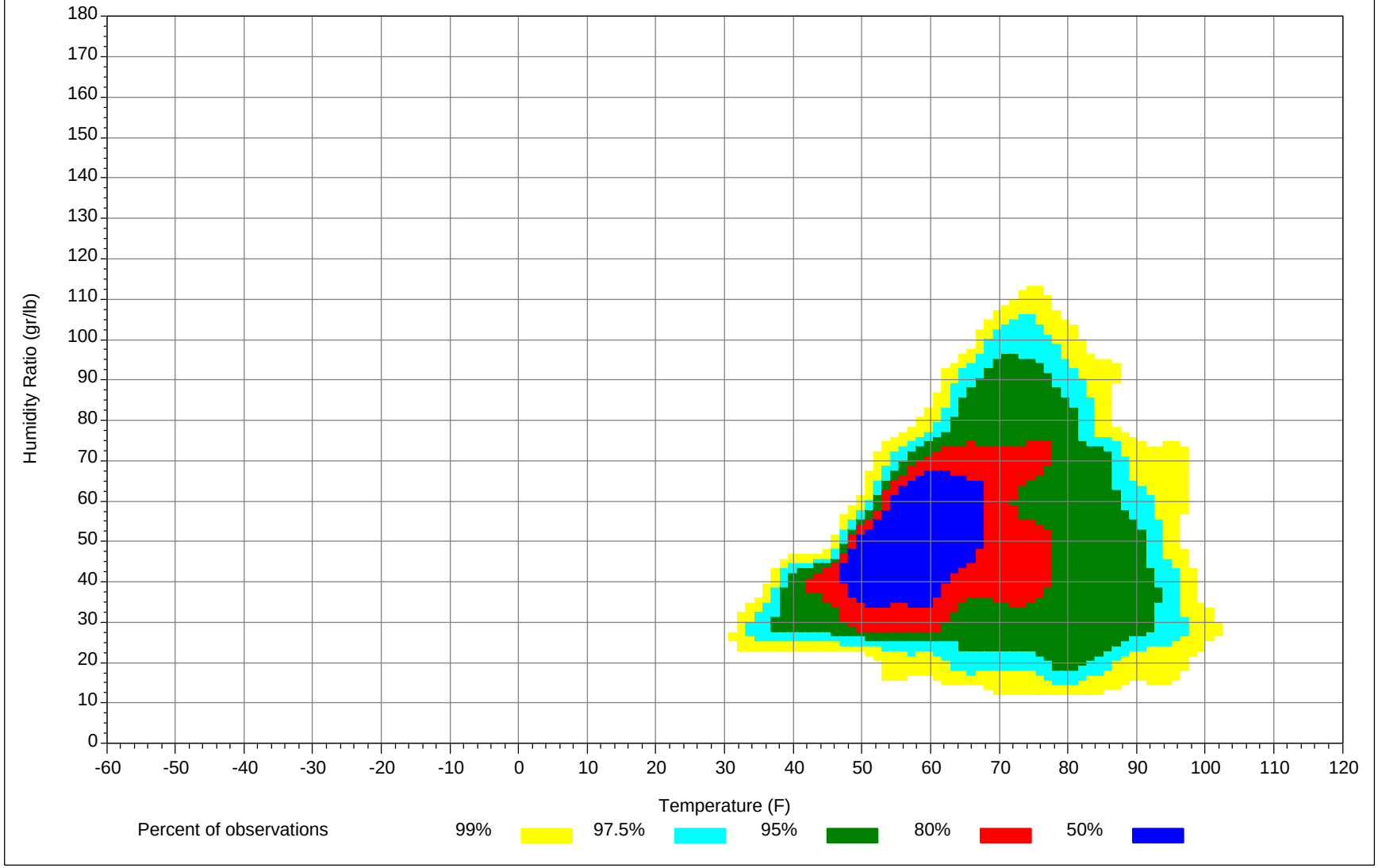
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
8	N/A	N/A	0.2 + 0.7
Ground Water Temperature (°F) 50 Foot Depth*	Frost Depth 50 Year Recurrence (in)	Ground Snow Load 50 Year Recurrence (lb/ft^2)	Average Annual Freeze-Thaw Cycles (#)
64.3	N/A	N/A	0

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

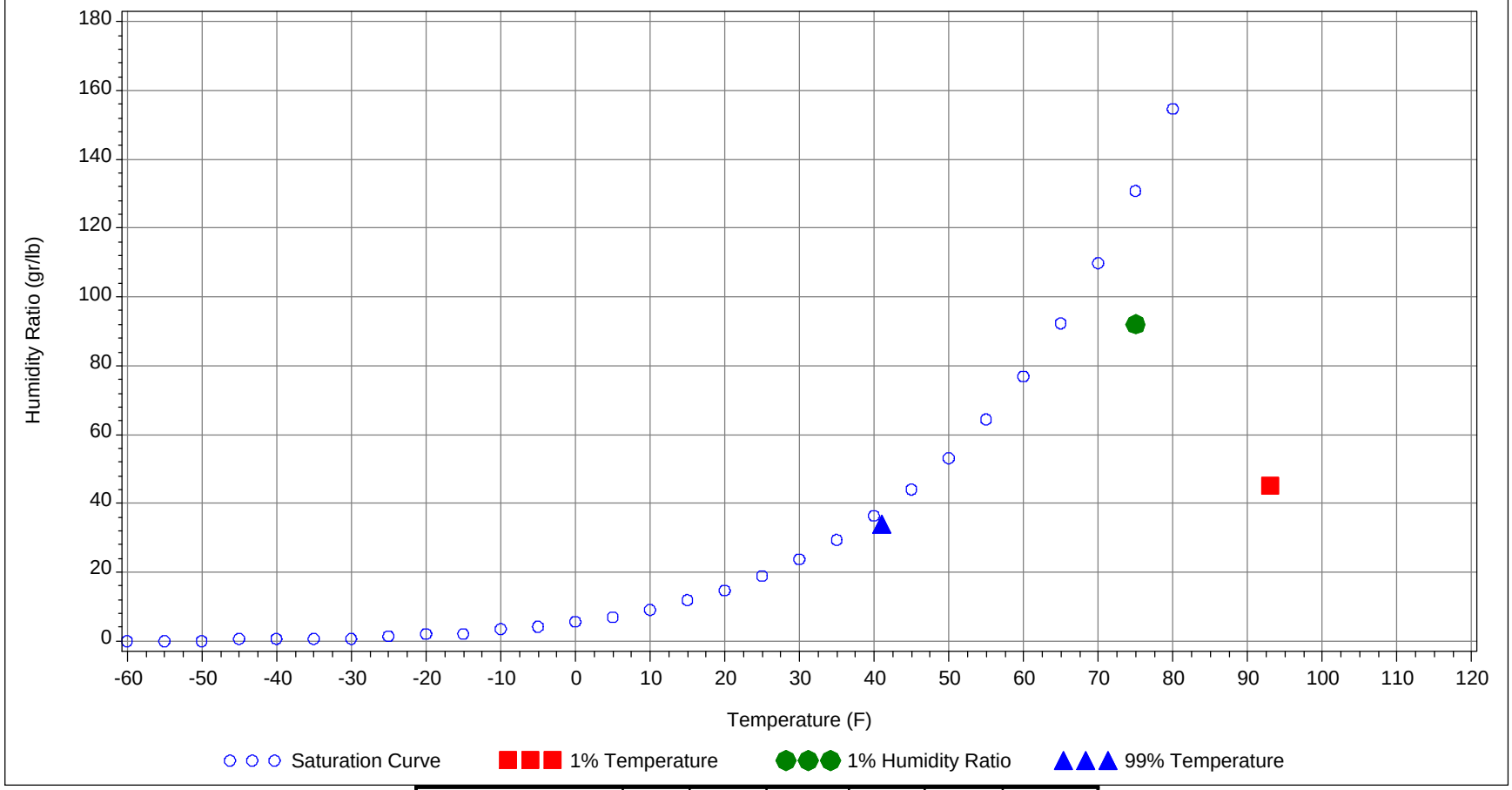
Average Annual Climate



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	93.0		64		45.0	29.3
99.0% Dry Bulb	41.0				34.0	15.1
1.0% Humidity Ratio	92.0	75.0	68	64.8		32.3

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)**
110/114		0	0	0	65.5										
105/109		2	1	3	67.2		0	0	0	69.4					
100/104	0	5	2	7	66		3	1	4	68		1	0	1	65
95/ 99	1	10	5	16	65.7	0	9	4	13	66.7		4	2	6	64.4
90/ 94	2	15	10	27	64.9	1	13	8	22	65.3	0	11	4	15	64.5
85/ 89	6	17	13	36	64.1	5	17	13	35	65	2	14	8	24	63.4
80/ 84	12	30	24	66	63.7	11	30	25	66	63.9	6	20	17	43	62.7
75/ 79	18	48	35	101	63	18	44	31	93	62.9	13	35	24	72	62.1
70/ 74	29	63	46	138	60.8	27	56	42	125	61	22	64	40	126	60.6
65/ 69	48	45	51	144	58.1	37	38	44	119	58.4	33	63	55	151	58.2
60/ 64	81	13	53	147	55.5	73	12	48	133	55.5	73	31	70	174	55.4
55/ 59	46	1	8	55	52.4	44	1	7	52	52.5	70	3	26	99	52.2
50/ 54	6		0	6	49.2	6		0	6	49.6	25		2	27	49.2
45/ 49	0			0	46	0			0	45.7	3		0	3	45.4
40/ 44															
35/ 39															
30/ 34															

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)**
110/114															
105/109															
100/104															
95/ 99		0		0	68.2										
90/ 94		1	0	1	64.5										
85/ 89		4	1	5	60.8		0		0	60.5					
80/ 84	0	13	4	17	59.9		2	0	2	57.9					
75/ 79	2	22	9	33	58.6		7	1	8	58		0		0	55
70/ 74	8	43	22	73	58.4	1	17	5	23	56.9		2	0	2	57
65/ 69	18	72	40	130	57.5	5	42	16	63	56.4	0	7	2	9	55.8
60/ 64	46	67	81	194	55	30	99	60	189	55	5	51	14	70	54
55/ 59	77	16	66	159	51.9	70	70	97	237	52.1	47	123	87	257	51.8
50/ 54	61	1	16	78	48.7	73	11	53	137	48.9	82	49	92	223	48.7
45/ 49	24	0	2	26	45.3	48	1	14	63	45.1	58	8	34	100	45
40/ 44	2			2	41.4	18		2	20	41.3	33	1	9	43	40.9
35/ 39	0			0	37.3	3			3	37.6	14		1	15	37
30/ 34											1			1	32.8

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)**
110/114															
105/109															
100/104															
95/ 99															
90/ 94												0		0	59
85/ 89							0		0	58		1	0	1	58.7
80/ 84							0	0	0	55.4	0	4	1	5	58
75/ 79	0			0	60		2	0	2	56.9	0	11	3	14	56.6
70/ 74	0	1	0	1	56.3	0	7	2	9	54.7	3	19	10	32	54.9
65/ 69	0	5	1	6	53.4	1	14	5	20	53.3	6	26	14	46	54.2
60/ 64	2	31	9	42	52.1	5	37	17	59	51.8	16	62	32	110	53.3
55/ 59	26	123	67	216	51.1	28	121	66	215	50.7	56	98	91	245	51.3
50/ 54	96	73	110	279	48.4	96	62	110	268	48.2	88	19	71	178	48.4
45/ 49	68	14	48	130	44.8	68	6	39	113	44.6	50	0	16	66	44.8
40/ 44	38	1	12	51	40.9	38	0	8	46	40.8	19		1	20	41
35/ 39	17	0	1	18	37.1	12		1	13	37	2			2	37.4
30/ 34	1			1	33	0			0	33.1					

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

	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)**
110/114															
105/109							0	0	0	65		0	0	0	64
100/104							0	0	0	64.7		3	1	4	65.2
95/ 99		0		0	59.5	0	4	1	5	62.9	0	6	2	8	63.2
90/ 94		3	1	4	59.3	0	10	3	13	61.9	1	12	6	19	62.6
85/ 89	0	6	2	8	59	2	14	7	23	61.3	3	12	11	26	62.2
80/ 84	1	14	6	21	57.7	6	19	14	39	60.4	8	20	17	45	61.6
75/ 79	5	18	11	34	56.7	12	23	18	53	59.5	15	35	24	74	61.2
70/ 74	9	24	17	50	56.1	17	34	26	77	58.6	21	58	38	117	60.3
65/ 69	13	36	22	71	55.6	23	54	33	110	56.9	33	66	52	151	57.9
60/ 64	31	90	53	174	54	46	65	67	178	54.6	74	35	68	177	55
55/ 59	77	51	92	220	51.2	80	16	59	155	51.4	70	3	28	101	51.7
50/ 54	69	4	40	113	47.8	43	1	12	56	48.1	20	0	1	21	48.4
45/ 49	35	0	4	39	44.6	10	0	0	10	45.1	2			2	45
40/ 44	6		0	6	41.3	1			1	41.8					
35/ 39	0			0	37.8										
30/ 34															

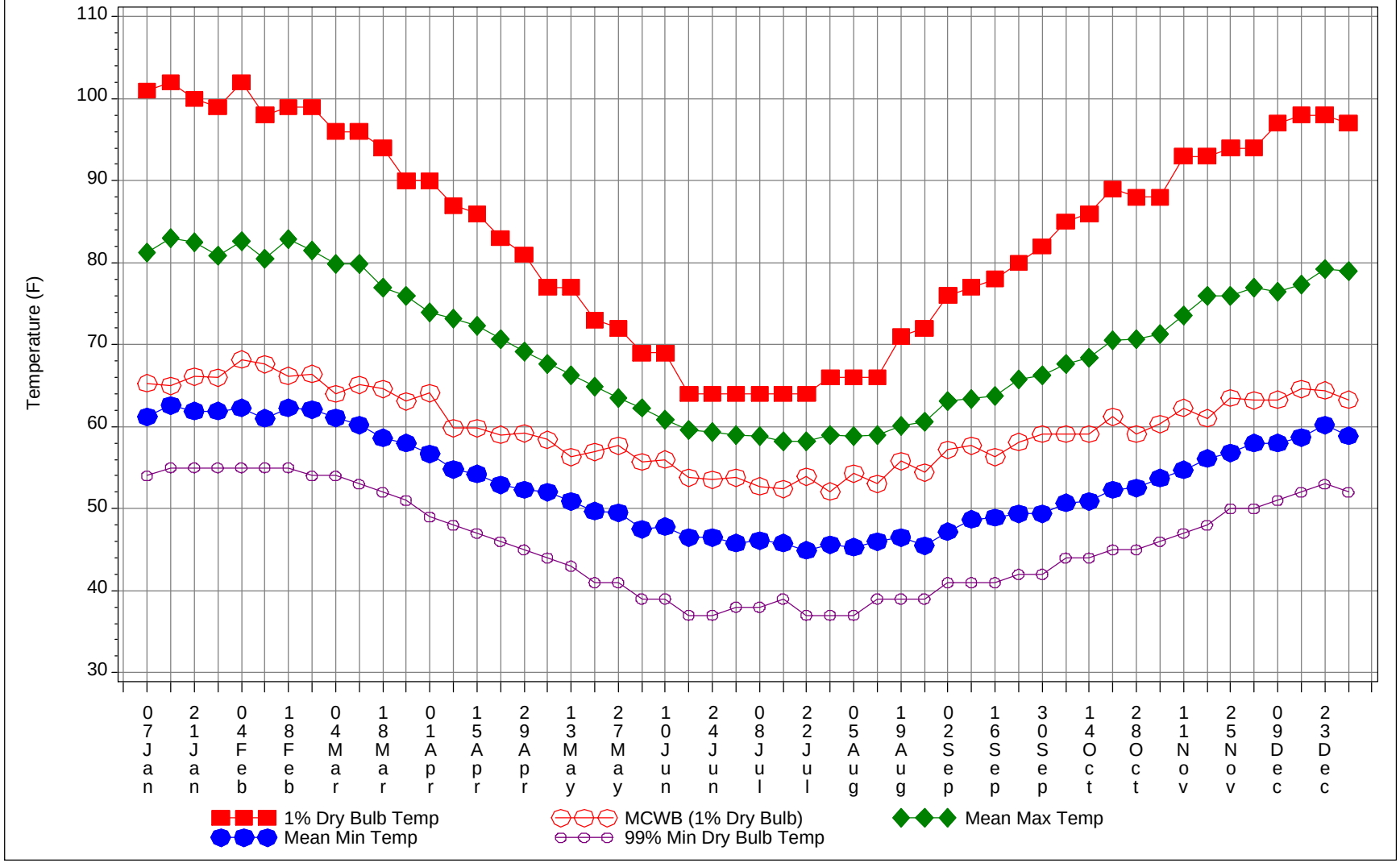
Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary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

Dry-Bulb Temperature Hours For An Average Year

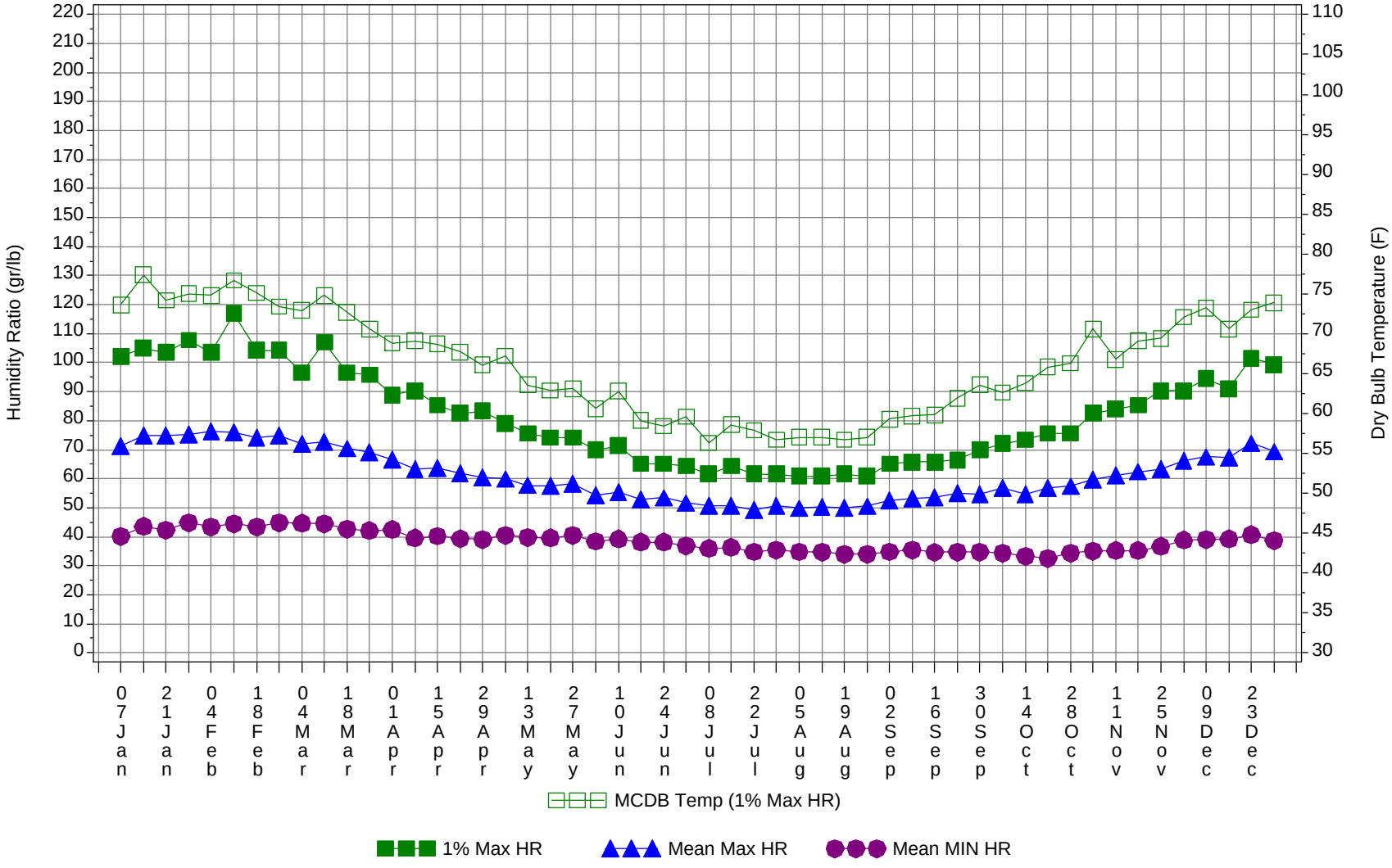
	Annual				
Temperature Range (°F)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**
110/114		0	0	0	65.5
105/109		2	1	3	67.1
100/104	0	12	4	16	66.3
95/ 99	1	34	13	48	65
90/ 94	5	65	32	102	63.9
85/ 89	18	84	55	157	63.1
80/ 84	44	152	108	304	62.1
75/ 79	85	245	158	488	61.1
70/ 74	138	389	250	777	59.5
65/ 69	219	468	336	1023	57.3
60/ 64	482	594	571	1647	54.6
55/ 59	692	624	694	2010	51.6
50/ 54	665	220	506	1391	48.4
45/ 49	367	29	158	554	44.8
40/ 44	155	1	32	188	40.9
35/ 39	48	0	3	51	37.1
30/ 34	3			3	32.9

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



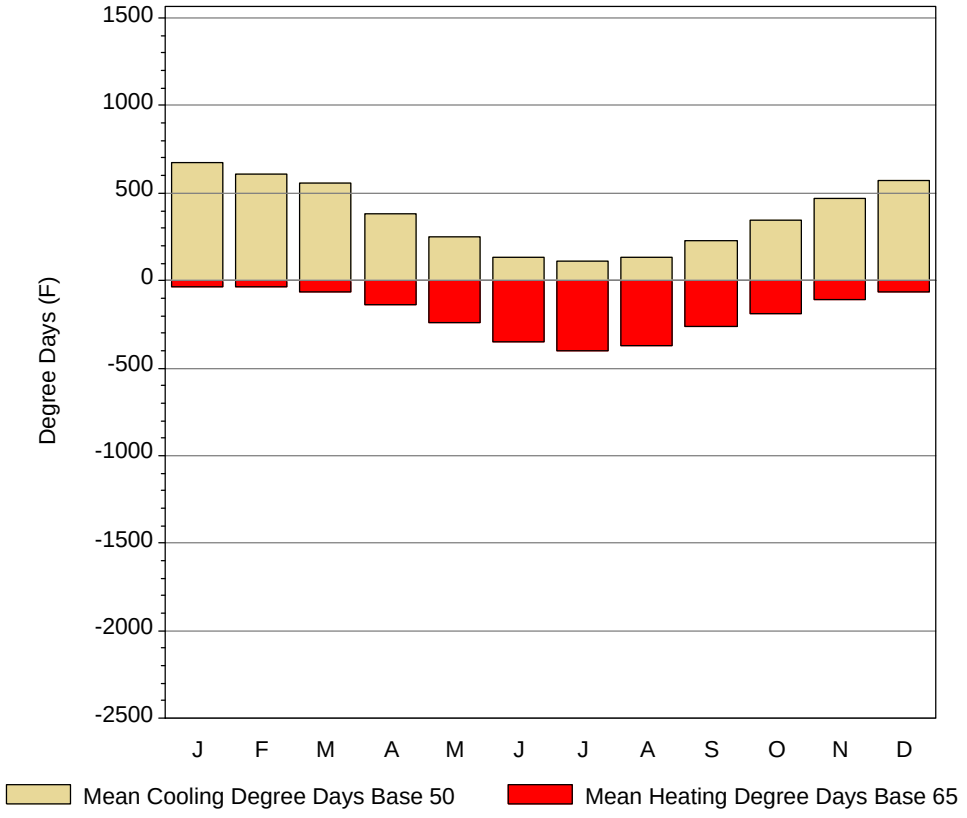
Long Term Humidity and Dry Bulb Temperature Summary



Long Term Humidity and Dry Bulb Temperature Summary

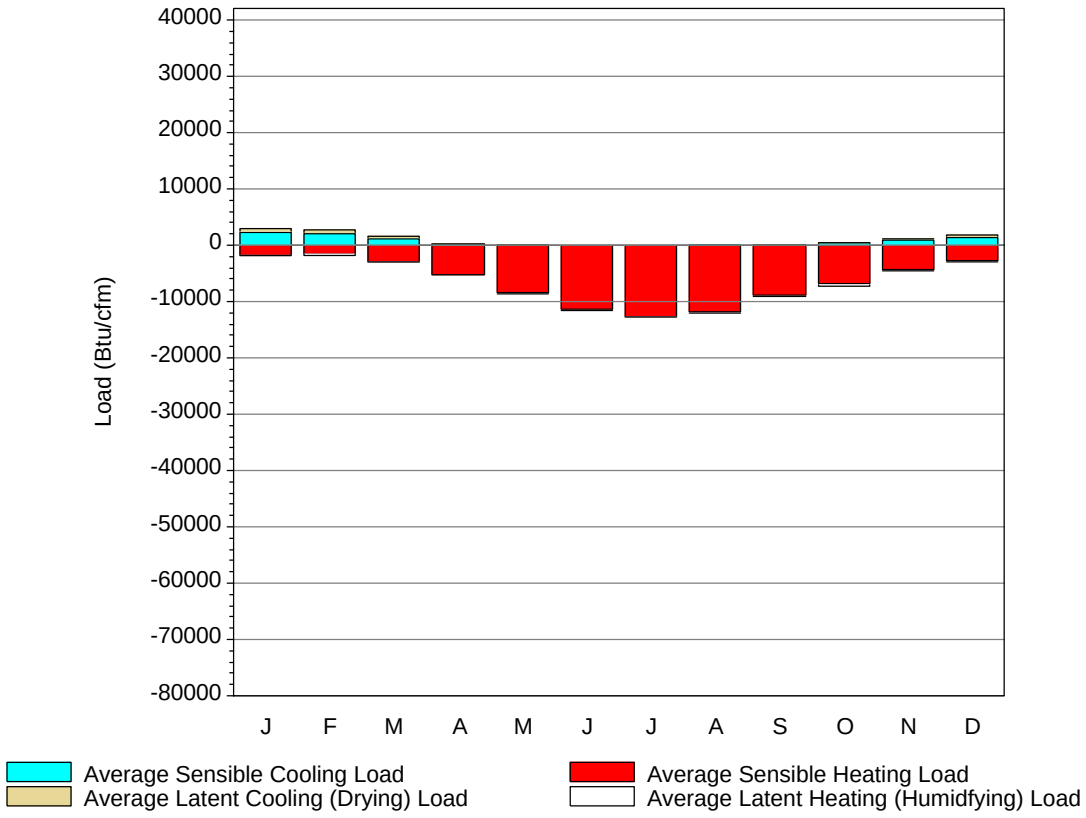
Week Ending	1.0% Temp (°F)	MCWB@ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB@ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	101	65.3	81.2	61.2	54	102.2	73.6	71.3	40.1
14-Jan	102	65	83	62.6	55	105	77.4	75	43.6
21-Jan	100	66.1	82.5	61.9	55	103.6	74.2	74.8	42.3
28-Jan	99	66	80.8	61.9	55	107.8	75	75.2	44.8
4-Feb	102	68.2	82.6	62.3	55	103.6	74.8	76.3	43.3
11-Feb	98	67.6	80.5	61	55	116.9	76.7	75.9	44.5
18-Feb	99	66.2	82.9	62.3	55	104.3	75.1	74.3	43.4
25-Feb	99	66.4	81.5	62.1	54	104.3	73.4	74.8	44.8
4-Mar	96	64	79.9	61.1	54	96.6	72.9	72	44.6
11-Mar	96	65.1	79.8	60.2	53	107.1	74.8	72.8	44.4
18-Mar	94	64.6	77	58.6	52	96.6	72.7	70.4	42.7
25-Mar	90	63.1	75.9	58	51	95.9	70.6	69.1	42.1
1-Apr	90	64.1	74	56.7	49	88.9	68.8	66.7	42.5
8-Apr	87	59.8	73.2	54.8	48	90.3	69.1	63.2	39.5
15-Apr	86	59.8	72.3	54.2	47	85.4	68.7	63.6	40.2
22-Apr	83	59	70.7	52.9	46	82.6	67.7	61.9	39.3
29-Apr	81	59.2	69.1	52.3	45	83.3	66.1	60.5	39.1
6-May	77	58.4	67.7	52	44	79.1	67.2	59.9	40.4
13-May	77	56.3	66.3	50.9	43	75.6	63.6	57.7	39.8
20-May	73	56.9	64.9	49.7	41	74.2	62.9	57.5	39.6
27-May	72	57.7	63.5	49.5	41	74.2	63.1	58.2	40.5
4-Jun	69	55.7	62.3	47.5	39	70	60.6	54.4	38.4
10-Jun	69	56	60.9	47.8	39	71.4	62.8	55.4	39.2
17-Jun	64	53.8	59.6	46.5	37	65.1	59.1	52.9	38.1
24-Jun	64	53.5	59.4	46.5	37	65.1	58.4	53.4	38.2
1-Jul	64	53.8	59	45.8	38	64.4	59.6	51.6	36.8
8-Jul	64	52.7	58.8	46.1	38	61.6	56.3	50.7	36
15-Jul	64	52.4	58.2	45.8	39	64.4	58.6	50.8	36.3
22-Jul	64	53.9	58.2	44.9	37	61.6	57.9	49.2	34.8
29-Jul	66	52.1	59	45.6	37	61.6	56.7	50.7	35.4
5-Aug	66	54.3	58.8	45.3	37	60.9	57	49.8	34.8
12-Aug	66	53	59	46	39	60.9	57	50.4	34.7
19-Aug	71	55.8	60.1	46.5	39	61.6	56.7	50.1	34
26-Aug	72	54.4	60.6	45.5	39	60.9	57	50.5	34
2-Sep	76	57.2	63.1	47.2	41	65.1	59.3	52.6	34.8
9-Sep	77	57.7	63.4	48.7	41	65.8	59.7	53.3	35.4
16-Sep	78	56.3	63.7	48.9	41	65.8	59.8	53.5	34.6
23-Sep	80	58.1	65.7	49.4	42	66.5	61.9	54.9	34.7
30-Sep	82	59.1	66.3	49.4	42	70	63.6	54.7	34.7
7-Oct	85	59.1	67.7	50.7	44	72.1	62.6	56.9	34.3
14-Oct	86	59.1	68.4	50.9	44	73.5	63.8	54.8	33.3
21-Oct	89	61.2	70.6	52.3	45	75.6	65.8	56.9	32.6
28-Oct	88	59.1	70.7	52.5	45	75.6	66.3	57.4	34.3
4-Nov	88	60.3	71.3	53.7	46	82.6	70.6	59.8	35
11-Nov	93	62.3	73.6	54.7	47	84	66.8	61.3	35.3
18-Nov	93	61	75.9	56.1	48	85.4	69.1	62.4	35.2
25-Nov	94	63.5	76	56.8	50	90.3	69.4	63.3	36.7
2-Dec	94	63.2	77	58	50	90.3	72.1	66.3	38.9
9-Dec	97	63.3	76.5	58	51	94.5	73.2	67.5	39.1
16-Dec	98	64.6	77.3	58.7	52	91	70.6	67.2	39.2
23-Dec	98	64.4	79.2	60.2	53	101.5	73	72.2	40.6
31-Dec	97	63.3	79	58.9	52	99.4	73.9	69.3	38.7

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	674.7	245.2	35.2
FEB	610.8	221	34.2
MAR	559.3	161	67
APR	380.9	64	136.7
MAY	252.8	15.7	243.1
JUN	134.1	1.1	351.5
JUL	108.8	0.6	399.2
AUG	136.2	5.1	369.3
SEP	226.9	23.7	262.2
OCT	345.1	63.3	189.9
NOV	468.1	124.9	108.1
DEC	575	173.4	63.6
ANN	4472.7	1099	2260

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	2293	-1758	612	-102
FEB	1989	-1661	672	-67
MAR	1196	-2911	370	-65
APR	275	-5212	78	-82
MAY	24	-8496	5	-57
JUN	0	-11424	0	-55
JUL	0	-12746	0	-62
AUG	5	-11911	0	-158
SEP	75	-8869	1	-196
OCT	399	-6813	6	-347
NOV	1033	-4250	102	-242
DEC	1457	-2817	315	-153
ANN	8746	-78868	2161	-1586

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

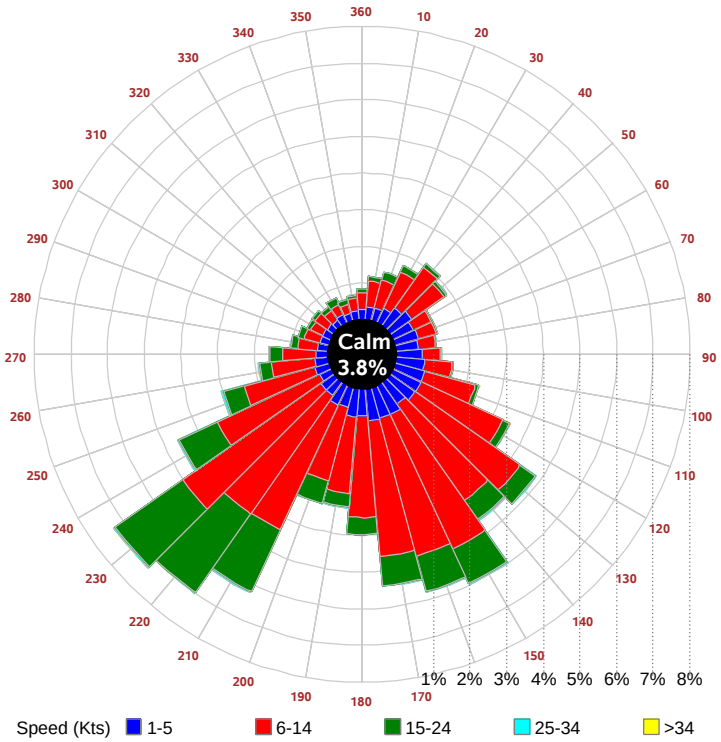
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ.	Global													
	Std.Dev.													
	Minimum													
	Maximum													
	Diffuse													
Clear Day	Global													
NORTH	Global													
	Diffuse													
Clear Day	Global													
EAST	Global												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

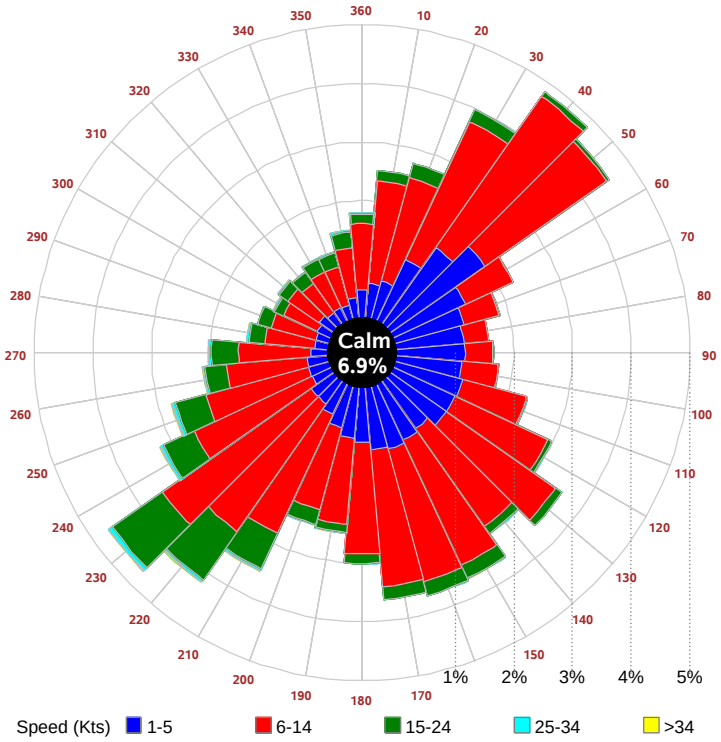
AVERAGE INCIDENT ILLUMINENCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9											
				March					June		
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear										
	M.Cloudy										
NORTH	M.Clear										
	M.Cloudy										
EAST	M.Clear										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

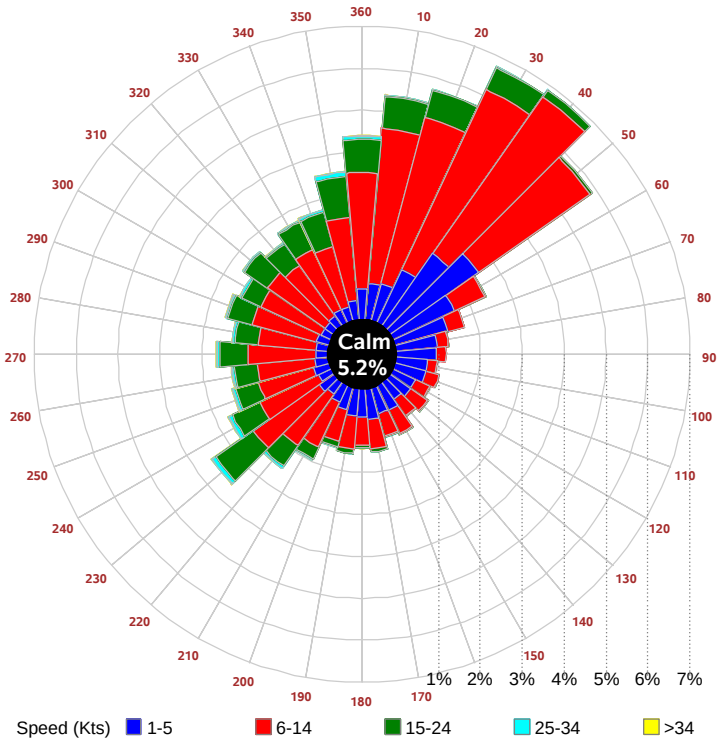
Wind Summary - December, January, and February



Wind Summary - March, April, and May



Wind Summary - June, July, and August



Wind Summary - September, October, and November