

JERUSALEM, ISRAEL

Latitude = 31.87 N

Longitude = 35.22 E

Period of Record = 1982 to 1996

WMO No. 402900

Elevation = 2490 feet

Average Pressure = 27.37 inches Hg

Design Criteria Data

	Design Value	Mean Coincident (Average) Values			
		Wet Bulb Temperature (°F)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Dry Bulb Temperature (T)	(°F)				
Median of Extreme Highs	95	65	51	8.9	E
0.4% Occurrence	90	65	61	9.6	WNW
1.0% Occurrence	88	64	61	9.7	WNW
2.0% Occurrence	86	64	63	9.8	WNW
Mean Daily Range	16	-	-	-	-
97.5% Occurrence	39	37	33	7.0	W
99.0% Occurrence	36	35	30	6.4	W
99.6% Occurrence	34	32	27	7.4	W
Median of Extreme Lows	32	31	26	6.6	W
	Design Value	Mean Coincident (Average) Values			
		Dry Bulb Temperature (°F)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Wet Bulb Temperature (T_{wb})	(°F)				
Median of Extreme Highs	75	86	124	11.8	WNW
0.4% Occurrence	71	82	105	11.5	WNW
1.0% Occurrence	69	79	98	11.4	WNW
2.0% Occurrence	68	77	95	11.2	WNW
	Design Value	Mean Coincident (Average) Values			
		Dry Bulb Temperature (°F)	Vapor Pressure (in. Hg)	Wind Speed (mph)	Prevailing Direction (NSEW)
Humidity Ratio (HR)	(gr/lb)				
Median of Extreme Highs	121	77	0.74	10.4	WNW
0.4% Occurrence	113	75	0.69	10.1	WNW
1.0% Occurrence	106	72	0.65	10.4	W
2.0% Occurrence	100	71	0.61	10.0	W
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		11	655	11	435

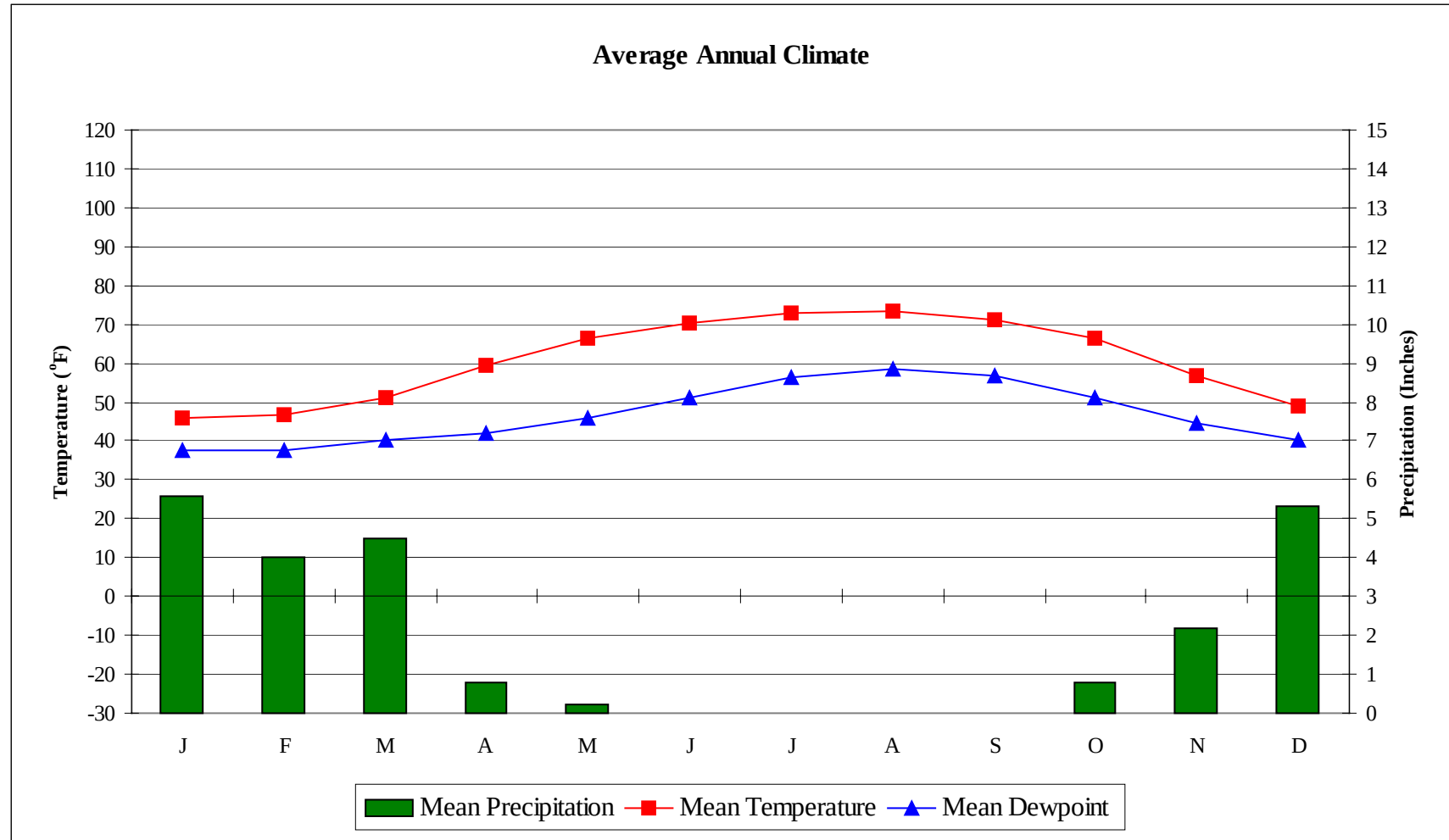
Other Site Data

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	0.3 + 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 (#)
63.2	N/A	N/A	2

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

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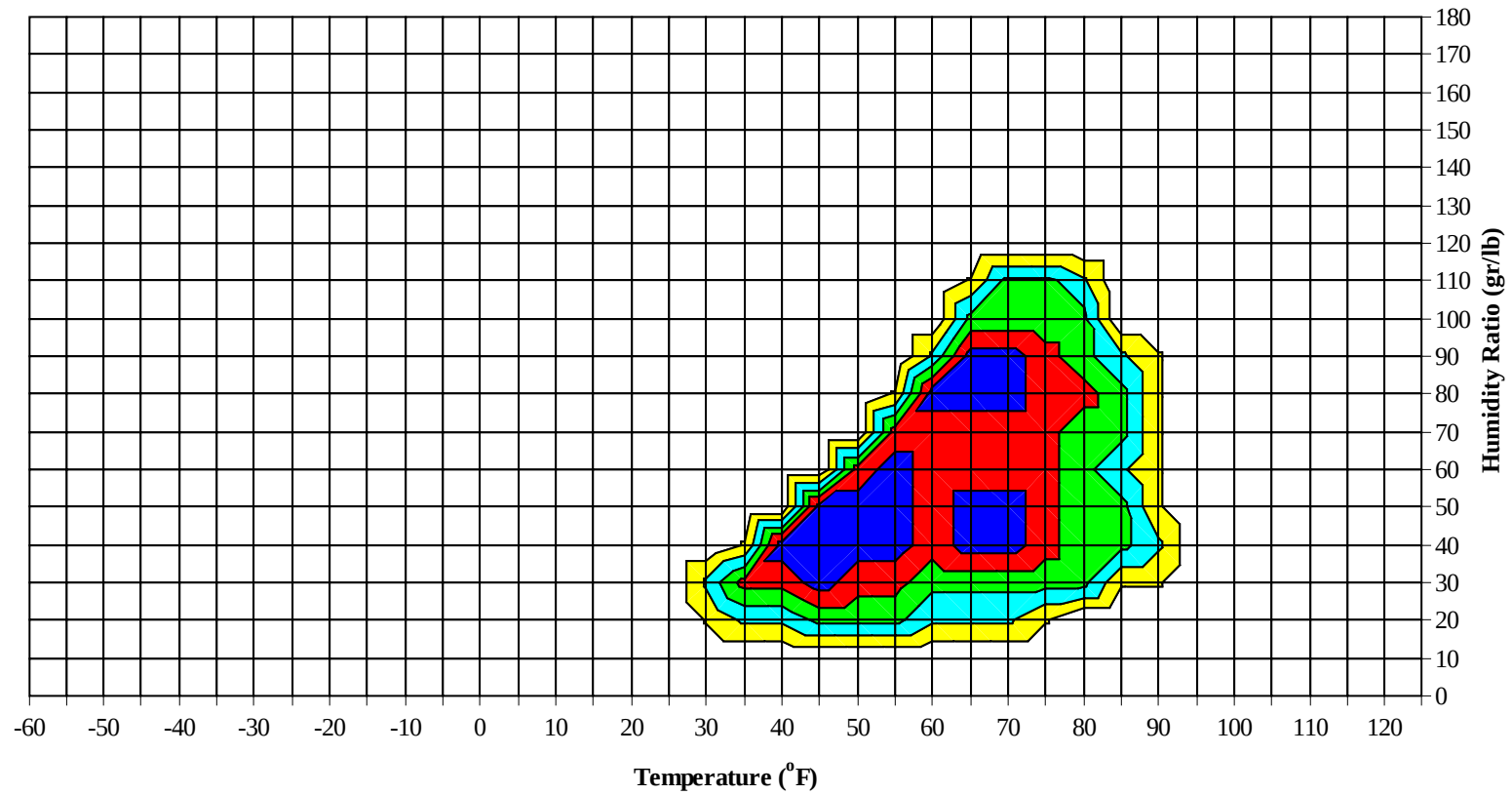
WMO No. 402900



JERUSALEM, ISRAEL

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Long Term Psychrometric Summary

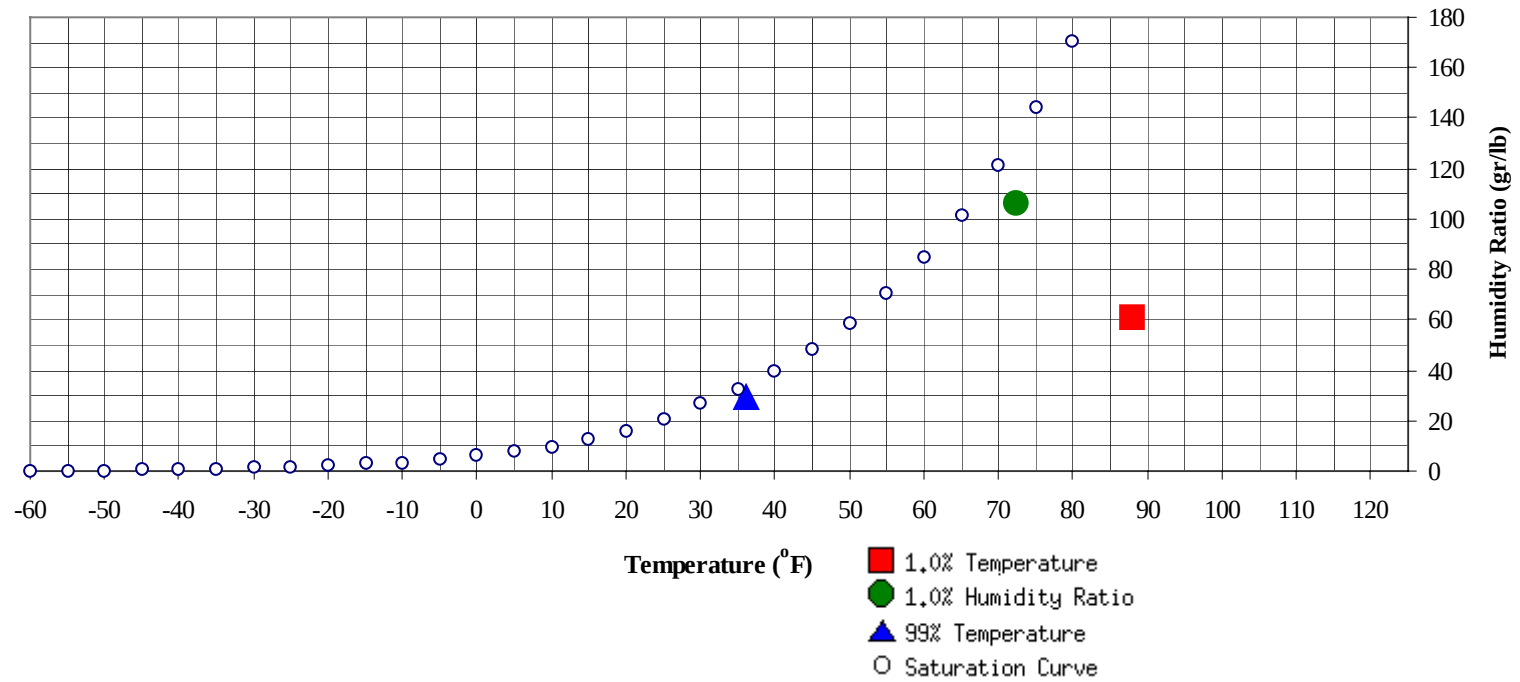


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

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Psychrometric Summary of Peak Design Values



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)	1.0% Humidity Ratio	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
99% Dry Bulb	36	29.1	13.1		106.4	72.4	68	66.2	34.0

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	88	60.7	64.2	30.7

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Dry-Bulb Temperature Hours For An Average Year (Sheet 1 of 5)

Period of Record = 1982 to 1996

Temperature Range (°F)	January					February					March				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
95 / 99															
90 / 94															
85 / 89												0		0	54.0
80 / 84												0		0	59.0
75 / 79												4	0	4	56.5
70 / 74		1		1	53.0	0	3	1	4	55.6		9	2	11	53.8
65 / 69		3	0	3	51.5	0	4	1	5	52.2	1	19	5	26	52.6
60 / 64		9	2	11	50.3	1	20	6	27	49.2	6	41	18	65	50.9
55 / 59	1	33	9	43	48.0	5	36	16	58	46.9	19	51	34	105	48.9
50 / 54	14	83	40	137	45.8	16	69	40	126	45.5	46	68	66	181	46.7
45 / 49	77	79	102	258	43.2	70	52	82	204	43.2	89	42	81	211	44.0
40 / 44	67	26	59	153	39.7	63	18	40	122	40.0	47	10	31	89	40.4
35 / 39	71	11	32	114	36.0	49	14	27	90	36.4	35	3	9	48	36.5
30 / 34	16	2	4	22	30.6	18	7	9	34	31.6	4	0	1	4	32.7
25 / 29	1			1	25.8	2	0	1	3	28.0	0			0	28.0

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

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Dry-Bulb Temperature Hours For An Average Year (Sheet 2 of 5)

Period of Record = 1982 to 1996

Temperature Range (°F)	April					May					June				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
95 / 99						1			1	62.9		0	0	0	60.5
90 / 94		2	0	2	59.7	10	2		12	62.8		9	1	10	62.9
85 / 89		5	1	6	59.3	1	15	3	20	61.3	0	18	3	20	62.8
80 / 84	0	13	3	16	57.7	5	34	11	50	60.0	5	55	10	70	62.2
75 / 79	2	29	9	41	56.9	13	46	22	81	58.3	18	90	35	142	61.0
70 / 74	9	37	20	67	54.9	22	59	36	117	56.8	32	50	57	140	59.2
65 / 69	12	30	21	63	53.1	28	30	32	89	55.2	39	14	48	101	58.0
60 / 64	36	46	39	122	51.5	53	35	55	143	53.6	91	4	69	164	57.5
55 / 59	39	46	45	130	49.6	60	15	52	127	52.1	50		17	66	54.7
50 / 54	62	25	61	148	47.8	55	2	32	89	49.5	5		1	6	49.8
45 / 49	60	5	36	101	44.6	12	0	3	14	45.2					
40 / 44	14	1	3	18	40.0	0			0	41.0					
35 / 39	5	0	2	6	37.4	0			0	39.0					
30 / 34	0			0	32.0										
25 / 29															

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

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Dry-Bulb Temperature Hours For An Average Year (Sheet 3 of 5)

Period of Record = 1982 to 1996

Temperature Range (°F)	July					August					September				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
95 / 99		1		1	64.2		1	0	1	67.4		1		1	64.6
90 / 94	0	6	0	6	65.1		12	1	13	68.5		10	1	11	65.3
85 / 89	0	24	2	26	65.5	0	26	3	28	67.0	0	15	2	17	64.6
80 / 84	2	90	17	110	64.8	5	97	17	119	65.8	2	59	8	69	64.4
75 / 79	19	86	51	157	63.8	14	82	55	152	64.7	10	94	33	137	63.5
70 / 74	49	36	83	169	62.1	42	29	86	157	63.9	26	50	66	142	62.4
65 / 69	74	4	62	140	61.9	93	1	69	163	63.2	60	9	72	141	62.0
60 / 64	92	0	32	124	60.2	92		17	108	60.7	125	1	57	184	60.1
55 / 59	10		2	11	55.7	2			2	55.7	17		2	19	55.9
50 / 54	1			1	48.2										
45 / 49															
40 / 44															
35 / 39															
30 / 34															
25 / 29															

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Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)

Period of Record = 1982 to 1996

Temperature Range (°F)	October					November					December				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
95 / 99															
90 / 94		2		2	63.6										
85 / 89		8	0	8	62.6		0		0	57.5					
80 / 84	0	35	4	39	61.1		1	0	1	54.1					
75 / 79	5	55	19	79	60.3		13	1	14	56.3			1	1	55.9
70 / 74	20	67	35	123	59.1	1	31	7	39	55.1			2	0	2 54.6
65 / 69	24	40	40	104	58.2	4	32	12	48	54.2			7	0	7 52.3
60 / 64	86	30	94	210	57.3	19	67	42	128	53.3	1	27	7	35	51.0
55 / 59	84	8	48	140	54.3	66	55	72	193	51.4	7	58	22	86	49.0
50 / 54	26	1	8	35	49.9	85	29	70	184	48.8	42	84	71	197	47.1
45 / 49	4		0	4	45.8	48	9	28	86	44.3	99	53	96	247	43.7
40 / 44						12	2	5	19	39.7	60	10	36	106	40.1
35 / 39						4	0	3	6	35.4	33	5	16	54	36.1
30 / 34						1			1	30.7	6	1	1	8	31.8
25 / 29															

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Period of Record = 1982 to 1996

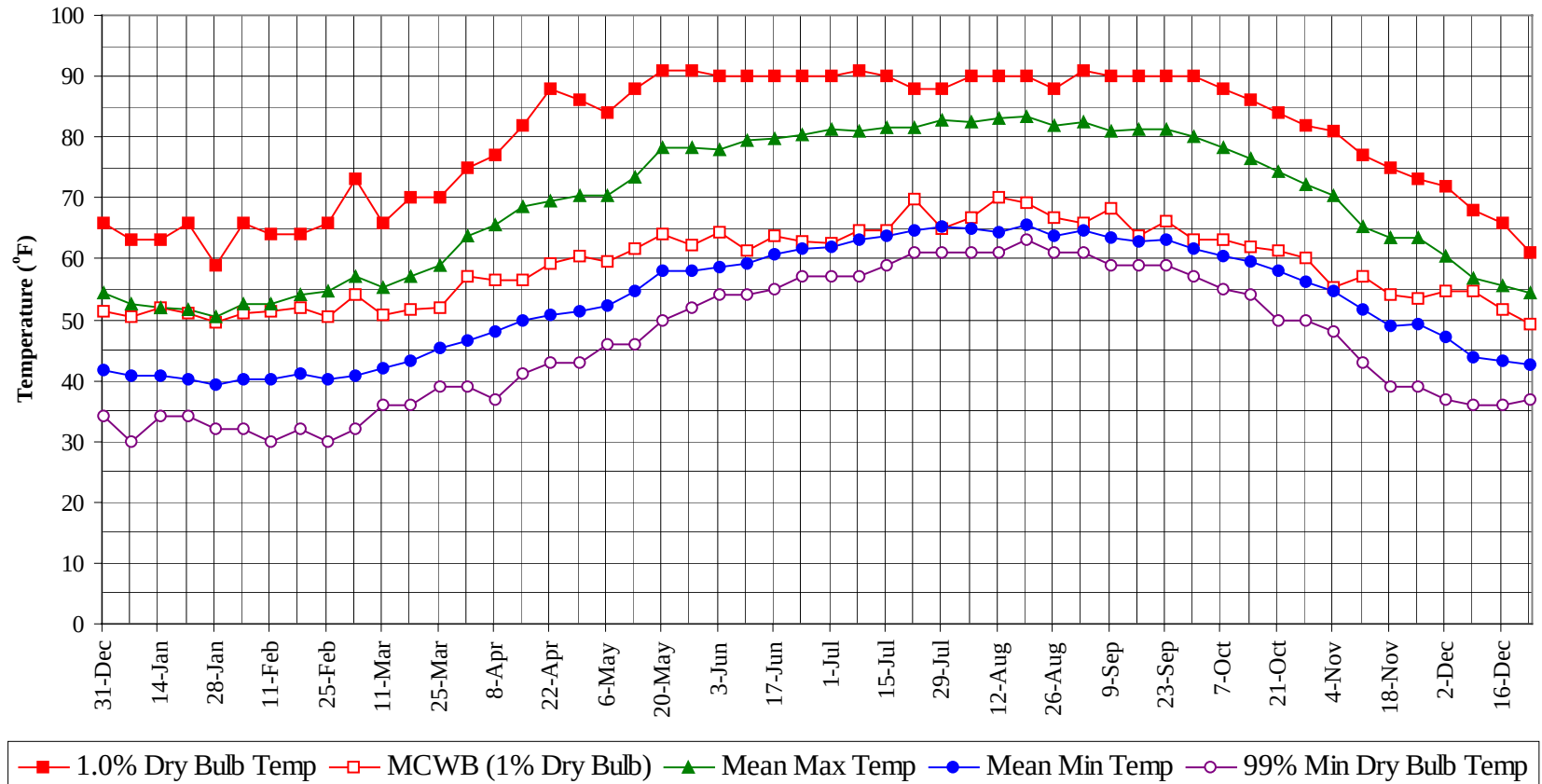
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Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate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

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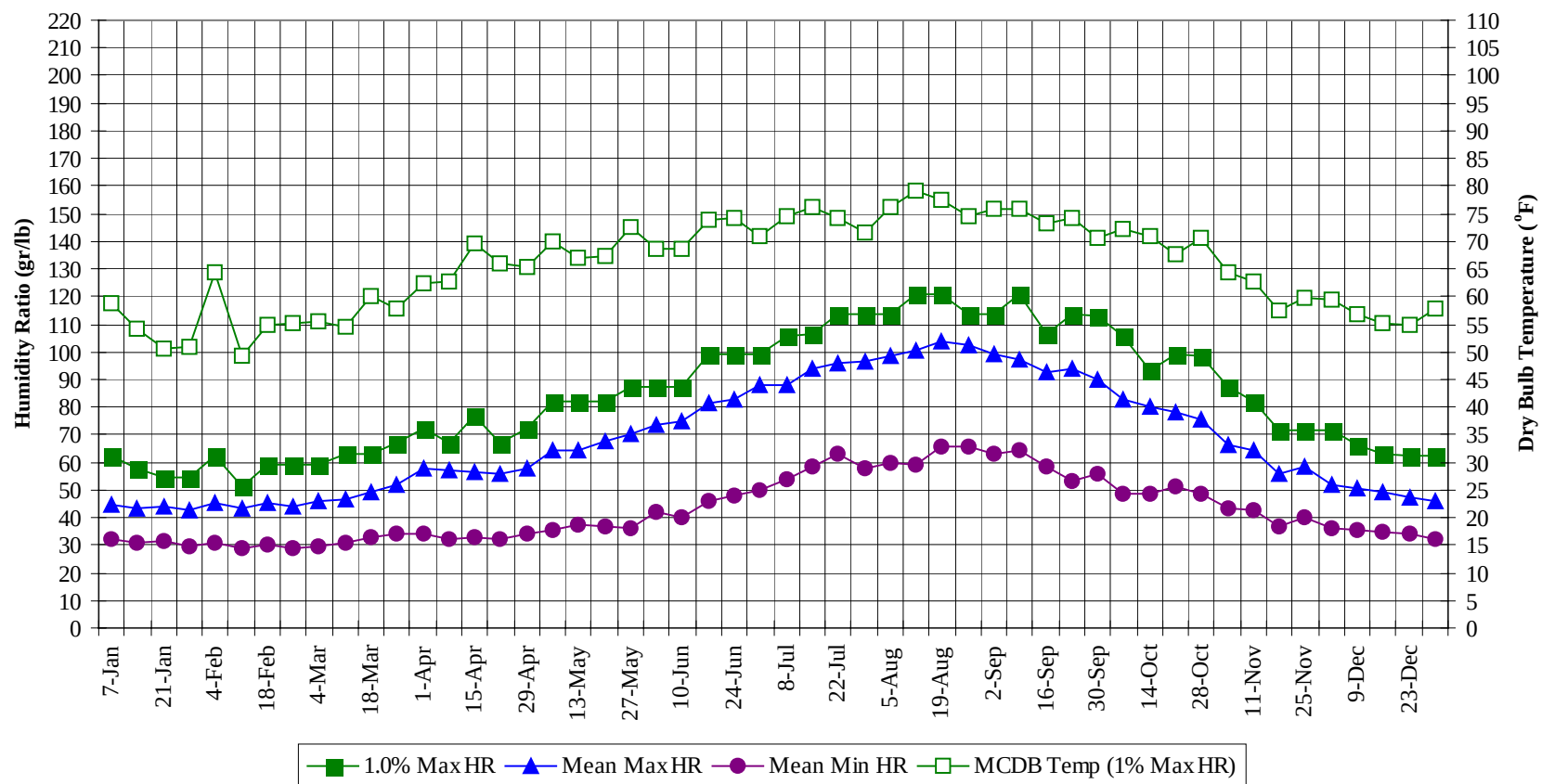
Annual Summary of Temperatures



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Long Term Humidity and Dry Bulb Temperature Summary



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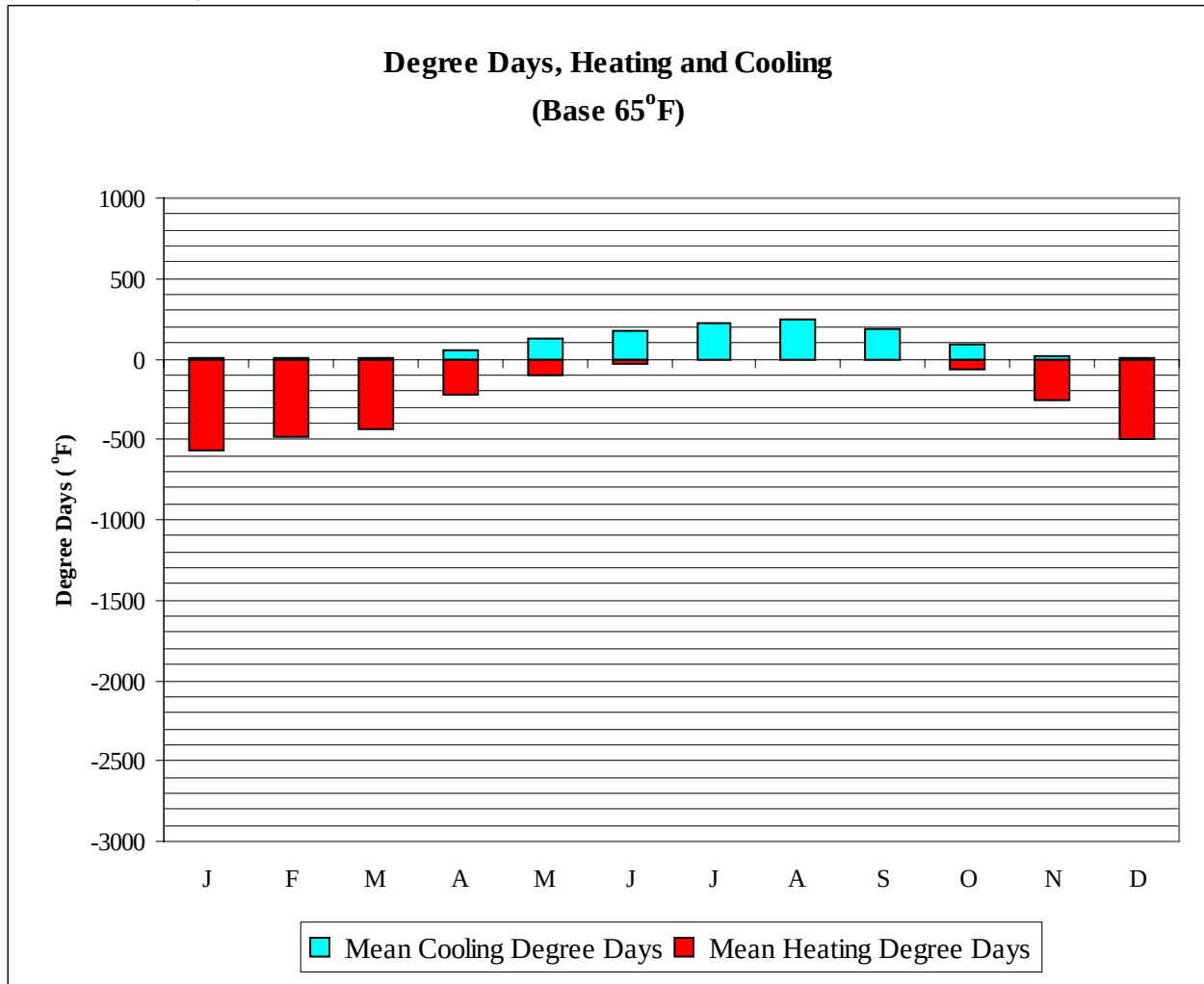
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Long Term Dry Bulb Temperature and Humidity Summary

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	63.0	50.4	52.5	40.7	30.0	62.3	58.9	44.9	32.2
14-Jan	63.0	52.0	52.1	40.8	34.0	58.1	54.0	43.6	30.7
21-Jan	66.0	51.0	51.5	40.1	34.0	54.6	50.7	43.9	31.3
28-Jan	59.0	49.6	50.6	39.4	32.0	54.6	51.0	42.4	29.6
4-Feb	66.0	51.2	52.5	40.1	32.0	62.3	64.4	45.1	30.9
11-Feb	64.0	51.4	52.7	40.2	30.0	51.1	49.4	43.3	29.1
18-Feb	64.0	52.1	54.0	41.0	32.0	58.8	54.8	45.1	30.0
25-Feb	66.0	50.5	54.8	40.3	30.0	58.8	55.1	44.3	28.7
4-Mar	73.0	54.0	57.1	40.9	32.0	58.8	55.6	46.2	29.8
11-Mar	66.0	50.6	55.2	41.9	36.0	63.0	54.4	46.8	31.0
18-Mar	70.0	51.7	57.1	43.2	36.0	63.0	60.0	49.1	33.1
25-Mar	70.0	51.9	59.0	45.2	39.0	67.2	57.9	52.1	34.3
1-Apr	75.0	57.1	63.8	46.4	39.0	72.1	62.4	57.7	34.4
8-Apr	77.0	56.4	65.6	47.9	37.0	67.2	62.6	57.2	32.3
15-Apr	82.0	56.4	68.5	49.9	41.0	77.0	69.6	56.7	33.1
22-Apr	88.0	59.3	69.4	50.6	43.0	67.2	66.1	55.6	32.5
29-Apr	86.0	60.4	70.3	51.5	43.0	72.1	65.5	57.7	33.8
6-May	84.0	59.4	70.5	52.3	46.0	81.9	69.8	64.1	35.6
13-May	88.0	61.5	73.5	54.6	46.0	81.9	66.9	64.4	37.2
20-May	91.0	64.0	78.2	58.0	50.0	81.9	67.4	67.5	36.8
27-May	91.0	62.3	78.3	58.1	52.0	87.5	72.6	70.4	36.4
3-Jun	90.0	64.3	78.0	58.5	54.0	87.5	68.6	73.8	42.0
10-Jun	90.0	61.2	79.4	59.1	54.0	87.5	68.8	74.9	40.2
17-Jun	90.0	63.7	79.7	60.9	55.0	99.4	73.9	81.7	46.1
24-Jun	90.0	62.8	80.2	61.5	57.0	99.4	74.2	82.6	48.0
1-Jul	90.0	62.6	81.4	62.0	57.0	99.4	71.0	88.2	49.8
8-Jul	91.0	64.6	81.0	63.0	57.0	105.7	74.7	88.2	53.5
15-Jul	90.0	64.8	81.5	63.8	59.0	106.4	76.2	94.2	58.7
22-Jul	88.0	69.8	81.6	64.6	61.0	113.4	74.3	96.2	63.3
29-Jul	88.0	64.9	82.9	65.2	61.0	113.4	71.4	96.6	58.1
5-Aug	90.0	66.6	82.5	65.0	61.0	113.4	76.2	98.4	59.5
12-Aug	90.0	70.1	83.1	64.4	61.0	121.1	79.0	100.5	59.2
19-Aug	90.0	69.1	83.3	65.6	63.0	121.1	77.6	104.0	65.6
26-Aug	88.0	66.7	81.9	63.8	61.0	113.4	74.5	102.5	65.9
2-Sep	91.0	65.8	82.4	64.7	61.0	113.4	76.0	99.4	63.3
9-Sep	90.0	68.1	80.9	63.3	59.0	121.1	76.0	97.1	64.4
16-Sep	90.0	63.7	81.3	63.0	59.0	106.4	73.2	92.9	58.4
23-Sep	90.0	66.2	81.4	63.0	59.0	113.4	74.2	94.0	53.4
30-Sep	90.0	63.2	80.0	61.8	57.0	112.7	70.6	90.0	55.6
7-Oct	88.0	63.1	78.2	60.6	55.0	105.7	72.2	82.7	48.7
14-Oct	86.0	62.1	76.4	59.4	54.0	93.1	71.0	79.9	48.7
21-Oct	84.0	61.3	74.4	58.0	50.0	99.4	67.7	77.9	51.1
28-Oct	82.0	60.0	72.3	56.1	50.0	98.7	70.5	75.6	48.8
4-Nov	81.0	55.3	70.5	54.6	48.0	87.5	64.2	66.3	43.2
11-Nov	77.0	57.1	65.1	51.5	43.0	81.9	62.7	64.6	42.7
18-Nov	75.0	54.2	63.5	49.0	39.0	71.4	57.3	56.1	36.7
25-Nov	73.0	53.4	63.6	49.2	39.0	71.4	59.8	58.1	40.1
2-Dec	72.0	54.6	60.6	47.1	37.0	71.4	59.3	52.2	35.8
9-Dec	68.0	54.6	56.7	43.8	36.0	66.5	56.7	50.7	35.6
16-Dec	66.0	51.6	55.7	43.2	36.0	63.0	55.1	49.0	34.9
23-Dec	61.0	49.2	54.3	42.5	37.0	62.3	54.9	47.3	34.3
31-Dec	66.0	51.4	54.3	41.7	34.0	62.3	58.0	46.0	31.9

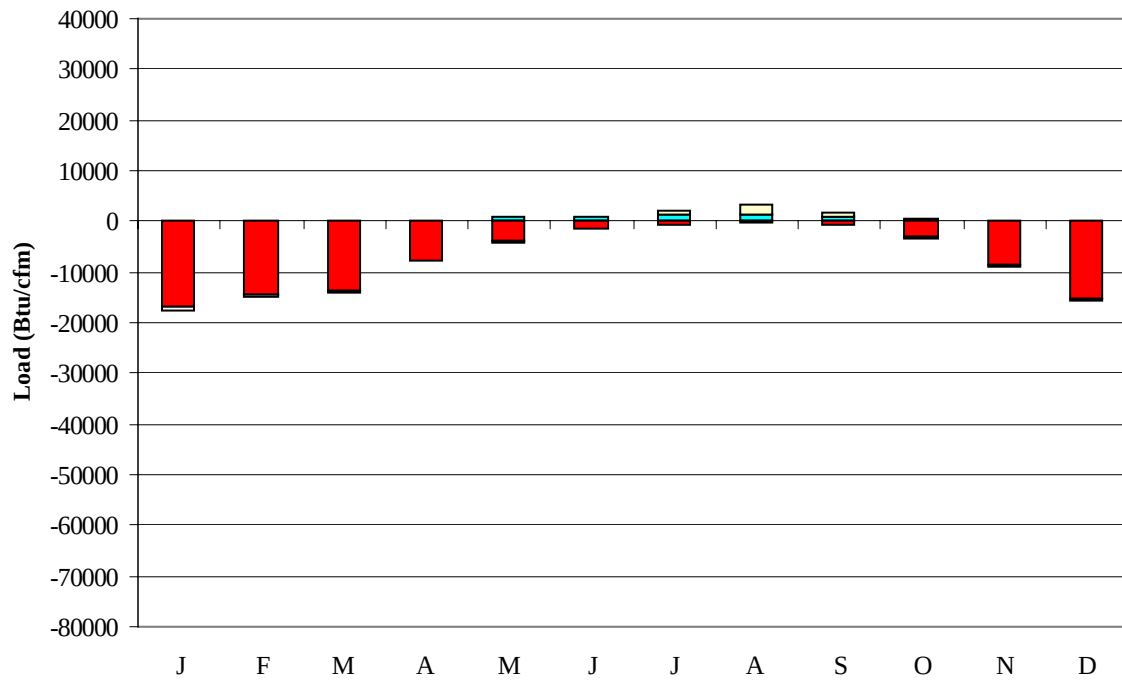
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	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	566
FEB	1	482
MAR	5	435
APR	49	225
MAY	122	99
JUN	168	25
JUL	224	7
AUG	245	4
SEP	187	11
OCT	95	71
NOV	17	256
DEC	1	499
ANN	1114	2680

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

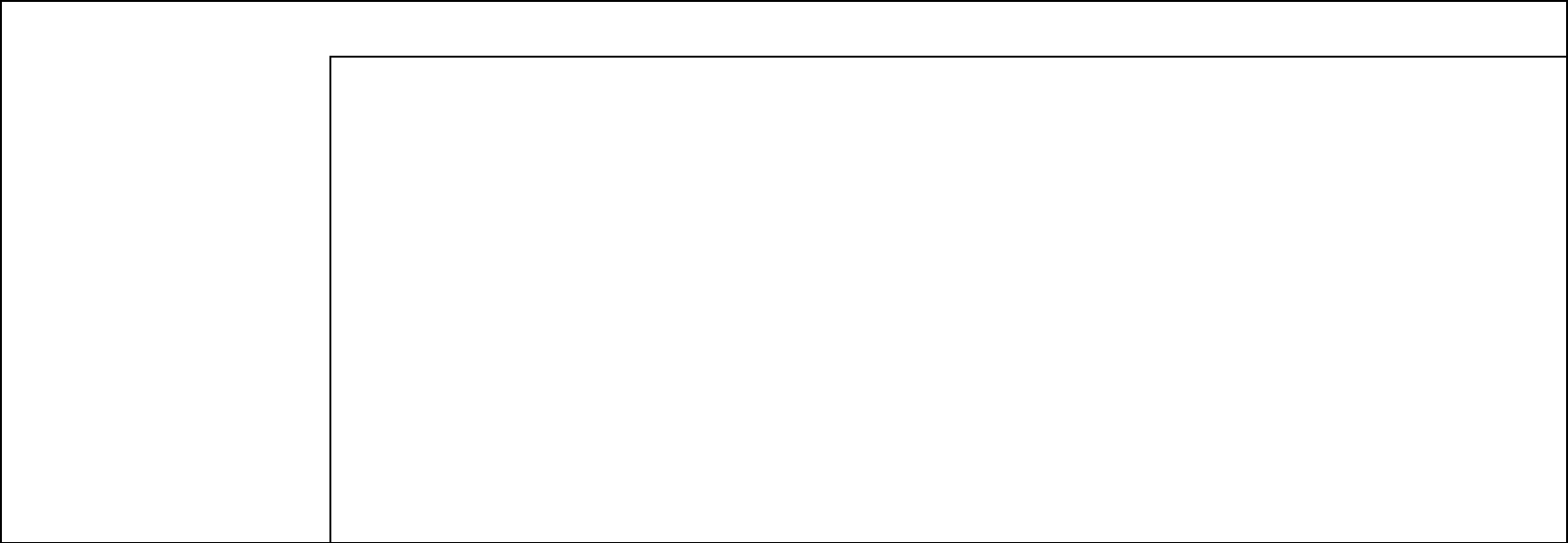


■ Average Sensible Cooling Load ■ Average Sensible Heating Load
■ Average Latent Cooling (Drying) Load ■ Average Latent Heating (Humidifying) Load

	Average Sensible Cooling Load	Average Sensible Heating Load	Average Latent Cooling Load	Average Latent Heating Load
	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)
JAN	0	-16938	0	-604
FEB	0	-14489	0	-558
MAR	5	-13571	0	-437
APR	197	-7625	1	-287
MAY	747	-3872	13	-188
JUN	885	-1335	122	-60
JUL	1185	-518	820	-13
AUG	1404	-421	1692	-8
SEP	946	-819	919	-31
OCT	375	-3146	144	-82
NOV	17	-8669	3	-248
DEC	1	-15278	0	-364
ANN	5762	-86681	3714	-2880

Average Annual Solar Radiation – Nearest Available Site
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

No Solar Radiation
Data Available

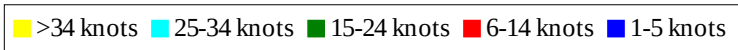
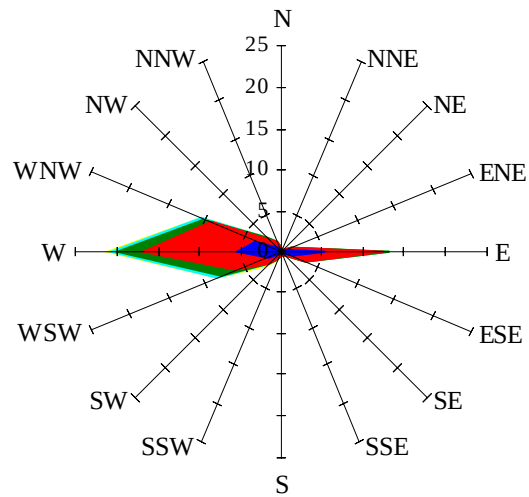


Average Annual Solar Heat and Illumination – Nearest Available Site

(Source: National Renewable Energy Laboratory, Golden CO, 1995)

Wind Summary - December, January, and February

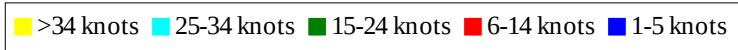
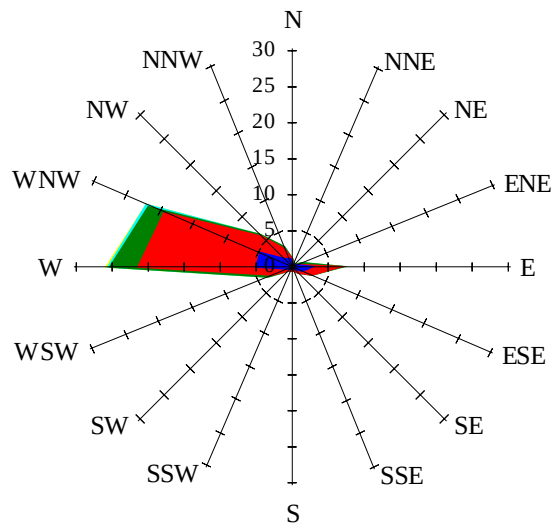
Labels of Percent Frequency on North Axis



Percent Calm = 32.65

Wind Summary - March, April, and May

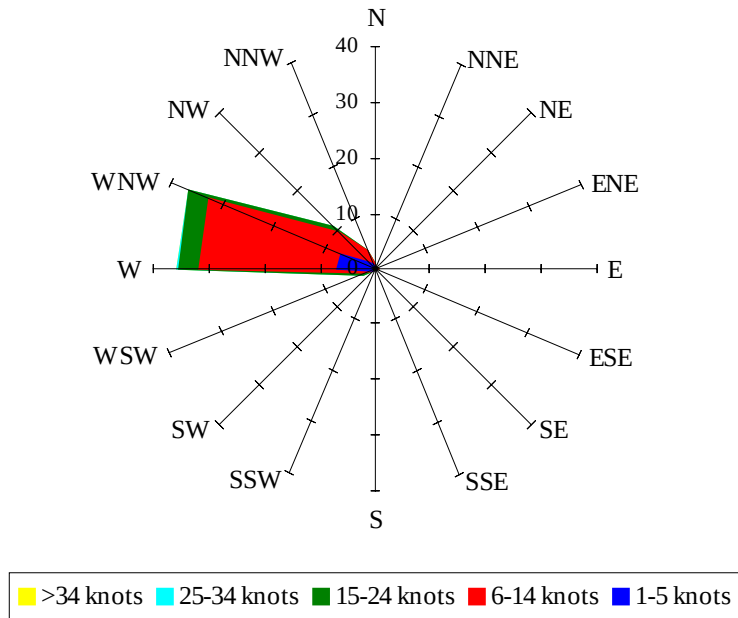
Labels of Percent Frequency on North Axis



Percent Calm = 23.40

Wind Summary - June, July, and August

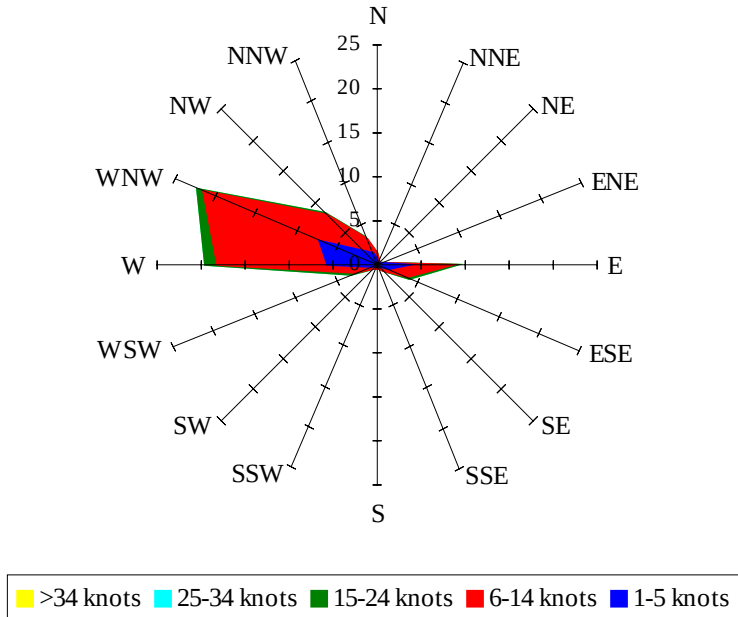
Labels of Percent Frequency on North Axis



Percent Calm = 8.70

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 24.83