

OTIS ANGB MA

Latitude = 41.65 N

WMO No. 725060

Longitude = 70.52 W

Elevation = 131 feet

Period of Record = 1966 to 1995

Average Pressure = 29.83 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	89	75	109	8.6	WSW
0.4% Occurrence	84	72	102	10.2	WSW
1.0% Occurrence	82	71	99	10.2	WSW
2.0% Occurrence	79	70	97	10.7	SW
Mean Daily Range	15	-	-	-	-
97.5% Occurrence	18	15	7	9.7	NW
99.0% Occurrence	12	10	5	11.1	NW
99.6% Occurrence	8	6	4	9.7	NW
Median of Extreme Lows	3	1	3	12.1	NW
	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	78	83	136	10.4	WSW
0.4% Occurrence	76	82	126	11.0	SW
1.0% Occurrence	74	79	119	11.3	SW
2.0% Occurrence	72	76	112	10.3	SW
	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	134	81	0.89	15.5	SSW
0.4% Occurrence	127	78	0.85	11.1	WSW
1.0% Occurrence	123	77	0.82	10.7	SW
2.0% Occurrence	115	75	0.77	9.3	SW
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		1	154	161	795

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
6	2.5	120	1.2 + 0.2
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 (#)
52.6	38	30	54

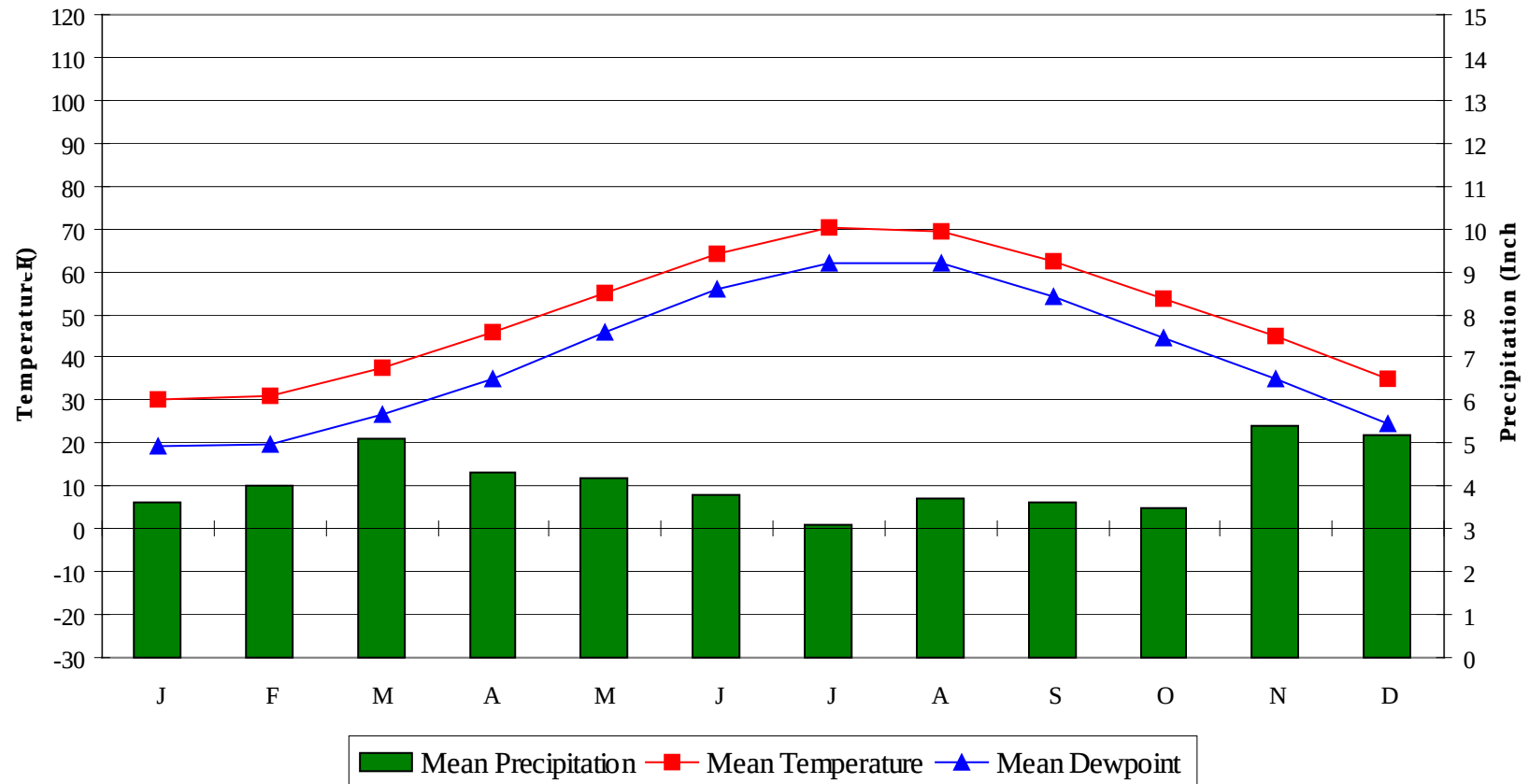
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

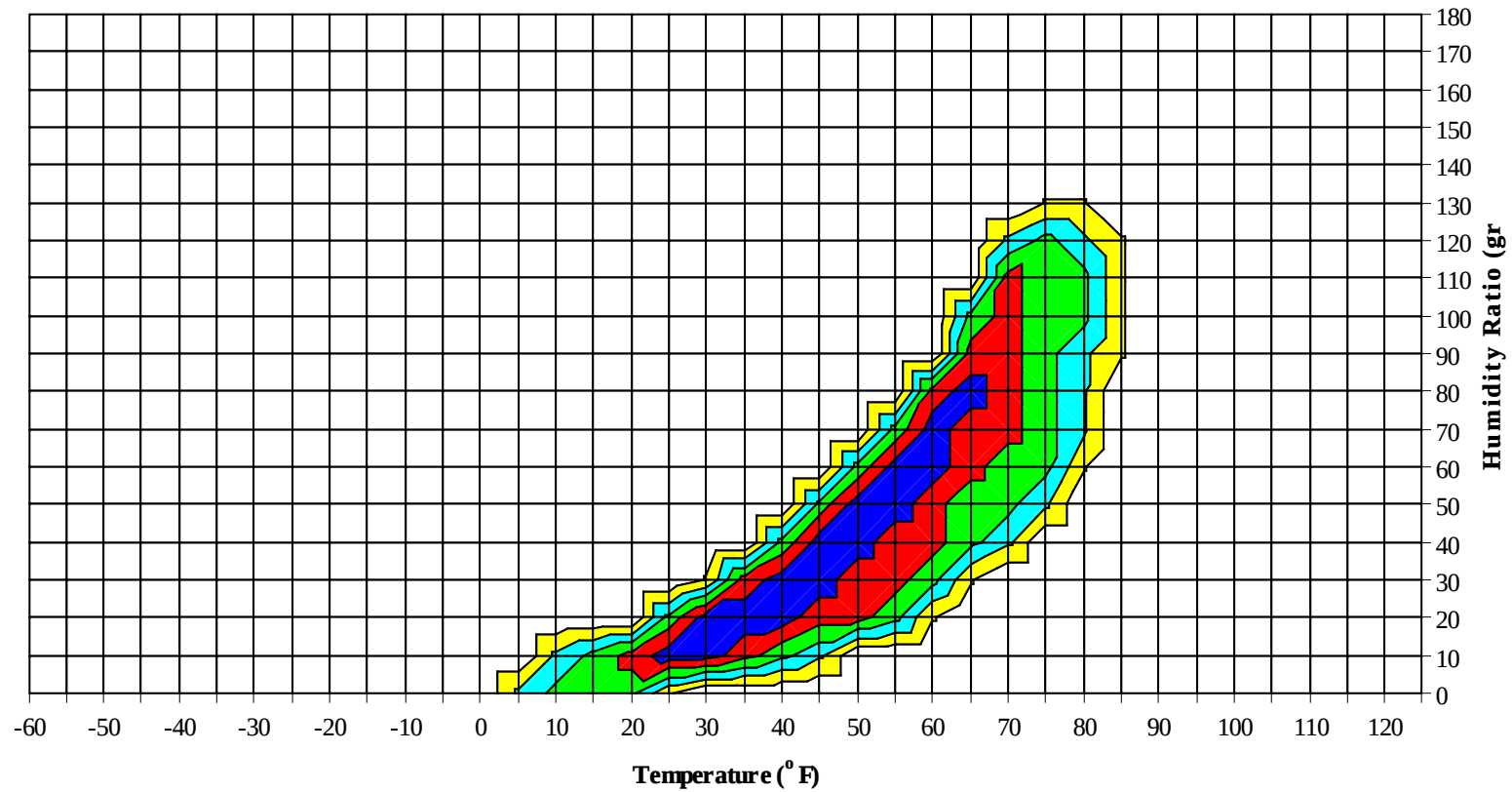
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WMO No. 725060

Average Annual Climate



Long Term Psychrometric Summary

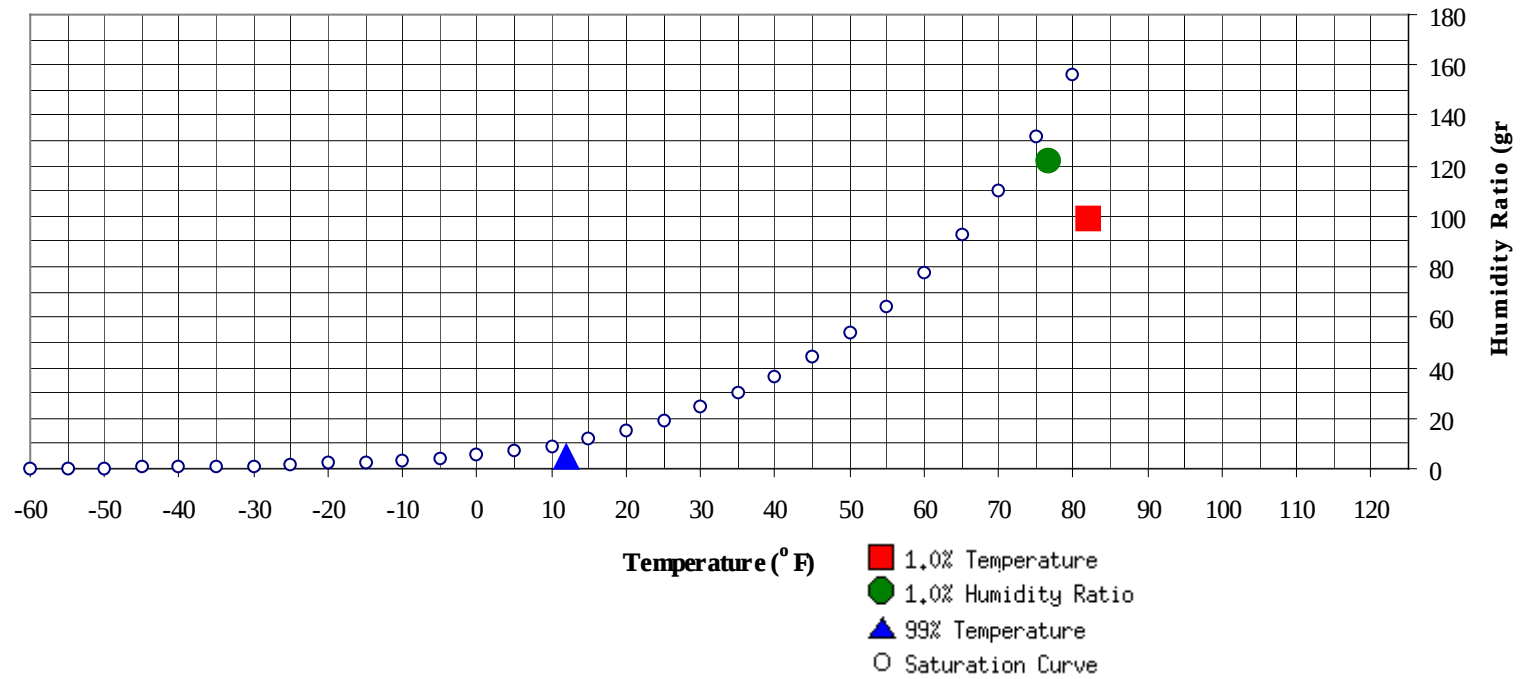
- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

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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	12	4.9	3.6		122.5	76.7	74	73	37.6

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	82	99.5	71.4	35.3

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

Period of Record = 1966 to 1995

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															
80 / 84															
75 / 79												0		0	58.5
70 / 74												0	0	0	58.8
65 / 69		0		0	59.7							1	0	1	54.2
60 / 64	0	1		1	57.4		0		0	47.3		3	0	4	52.6
55 / 59	2	3	1	6	53.9	0	3	0	4	50.0	0	9	1	11	49.9
50 / 54	4	8	5	17	48.6	3	7	4	13	47.5	8	28	11	47	46.7
45 / 49	7	21	10	38	43.2	9	19	11	38	43.3	18	45	27	90	42.4
40 / 44	19	34	28	81	38.2	17	33	23	73	38.2	40	58	54	152	37.9
35 / 39	38	47	40	125	33.4	30	47	40	117	33.3	57	53	67	177	33.3
30 / 34	41	52	49	143	28.5	43	50	51	144	28.6	56	36	54	146	28.7
25 / 29	42	38	46	126	23.7	38	35	43	116	23.5	37	11	23	71	23.8
20 / 24	29	23	29	82	18.9	34	18	27	80	18.9	18	4	7	29	18.9
15 / 19	27	14	20	61	14.4	24	10	16	50	14.6	7	2	2	11	15.0
10 / 14	18	8	13	38	9.8	14	4	7	24	10.0	2	0	1	3	10.1
5 / 9	12	3	5	20	5.4	7	1	3	10	5.4	0		0	0	7.3
0 / 4	3	1	2	6	0.8	2	0	0	3	1.4					
-5 / -1	2	0	0	2	-3.4										
-10 / -6	0			0	-7.0										

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 = 1966 to 1995**

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															
90 / 94												1		1	73.3
85 / 89		0		0	65.0		1		1	69.1	0	3	0	3	71.5
80 / 84		1		1	65.1	0	2	0	2	66.4	0	12	1	13	69.5
75 / 79		1	0	1	61.4	0	7	0	7	63.8	1	37	5	44	66.6
70 / 74	0	2	0	2	58.9	1	20	3	23	61.5	10	70	24	104	64.0
65 / 69	0	8	1	9	55.9	5	42	11	59	58.5	48	61	63	171	61.7
60 / 64	2	21	4	26	52.6	22	62	36	119	55.7	82	36	77	195	58.5
55 / 59	8	37	15	60	49.6	48	57	59	164	52.0	61	14	46	121	54.5
50 / 54	26	57	36	119	46.3	67	37	67	172	48.2	29	6	19	54	50.2
45 / 49	49	62	64	176	42.4	65	16	53	134	44.3	8	1	4	12	45.2
40 / 44	72	40	74	185	38.4	30	5	16	52	39.9	1		0	1	41.1
35 / 39	50	11	33	94	33.9	7	0	2	9	35.0					
30 / 34	24	2	11	37	29.3	1		0	1	31.8					
25 / 29	6	1	1	8	24.3										
20 / 24	1	0	0	2	18.9										
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															

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Dry-Bulb Temperature Hours For An Average Year (Sheet 3 of 5)**Period of Record = 1966 to 1995**

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							0		0	76.5					
90 / 94		1	0	1	76.4		1	0	1	76.7		0		0	71.0
85 / 89	0	12	1	13	73.4	0	9	0	9	74.6		3		3	74.5
80 / 84	1	46	6	53	71.2	1	40	4	46	72.2	0	7	0	8	72.2
75 / 79	11	78	30	120	68.9	12	76	28	116	69.5	2	25	4	32	68.9
70 / 74	64	69	81	215	67.2	66	71	78	215	67.2	17	52	22	91	65.8
65 / 69	86	32	81	200	63.7	78	37	76	191	63.3	41	68	51	160	61.9
60 / 64	58	8	39	105	59.4	53	12	43	108	59.0	59	55	67	181	57.6
55 / 59	22	1	9	32	54.6	28	2	15	44	54.3	54	23	55	133	53.4
50 / 54	5		1	6	50.3	8	0	3	11	50.0	36	5	28	69	48.7
45 / 49	0			0	45.0	2		0	2	44.8	22	0	10	33	44.1
40 / 44						0			0	42.0	7		2	9	40.0
35 / 39											1		0	1	36.2
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															

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Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)**Period of Record = 1966 to 1995**

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															
85 / 89															
80 / 84		0		0	71.0										
75 / 79		2		2	66.3										
70 / 74	0	17	1	18	64.8		1		1	61.5					
65 / 69	9	36	14	59	61.4	1	6	1	7	61.0		0		0	63.5
60 / 64	30	51	36	117	57.5	8	18	8	35	58.0	1	1	0	2	59.4
55 / 59	45	58	51	154	52.5	21	33	26	80	53.1	4	10	5	19	54.1
50 / 54	50	53	57	160	47.3	30	52	35	117	47.9	11	19	14	44	49.1
45 / 49	47	25	45	116	42.7	40	55	48	143	42.7	19	31	23	73	43.4
40 / 44	35	5	27	68	38.2	44	47	50	140	37.5	31	47	37	115	37.9
35 / 39	23	1	13	36	33.9	41	20	40	102	32.7	41	51	44	136	33.1
30 / 34	8	0	3	11	29.9	34	9	24	66	28.5	46	43	49	139	28.4
25 / 29	1		0	1	26.0	13	2	8	23	24.2	32	29	37	97	23.5
20 / 24						4	0	2	6	19.4	27	13	23	63	18.8
15 / 19						1		0	1	15.7	20	5	12	37	14.5
10 / 14						0		0	0	11.3	8	2	3	13	9.9
5 / 9											4	1	1	5	5.2
0 / 4											0	0	0	1	-0.4
-5 / -1											0			0	-2.0
-10 / -6															

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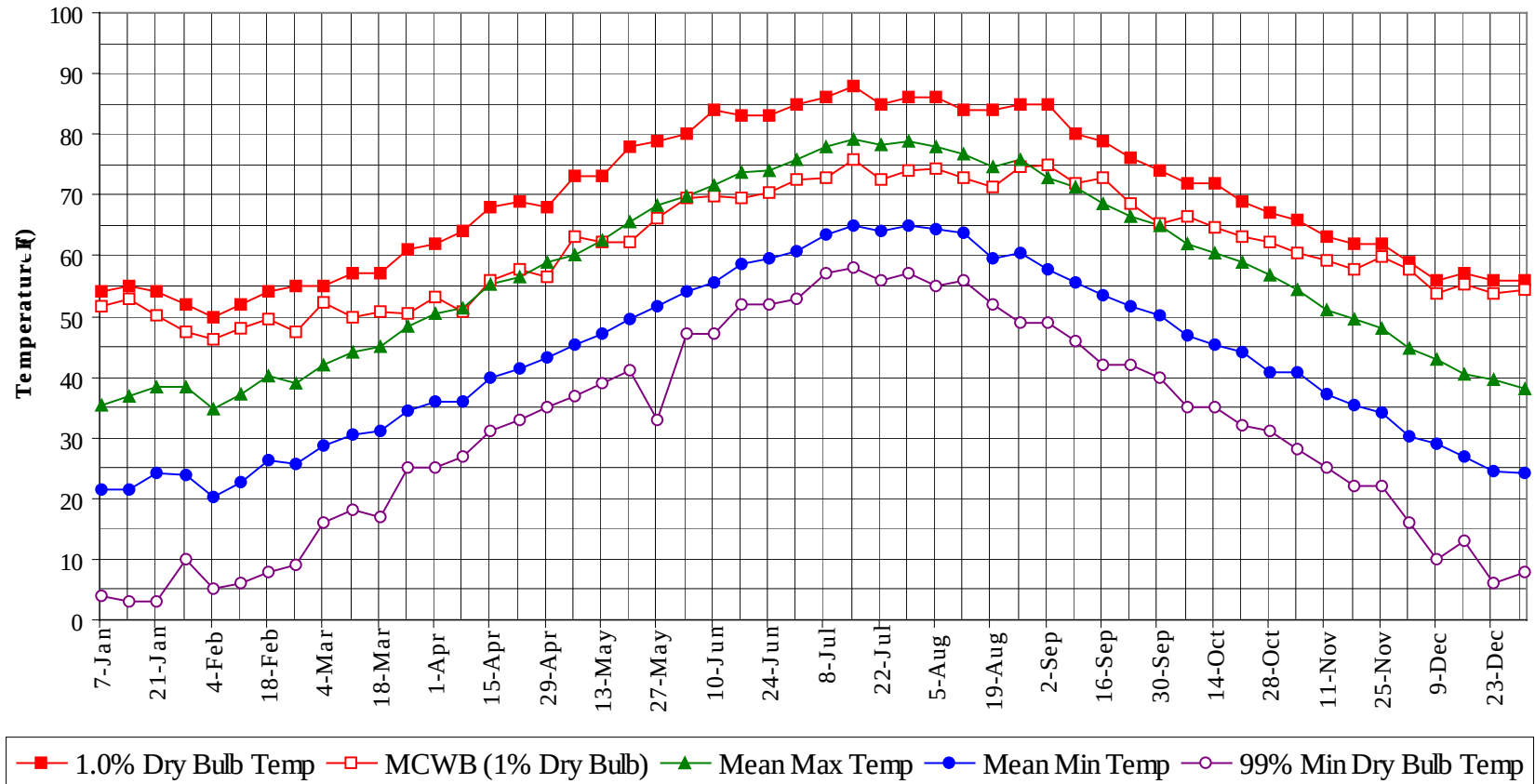
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1966 to 1995

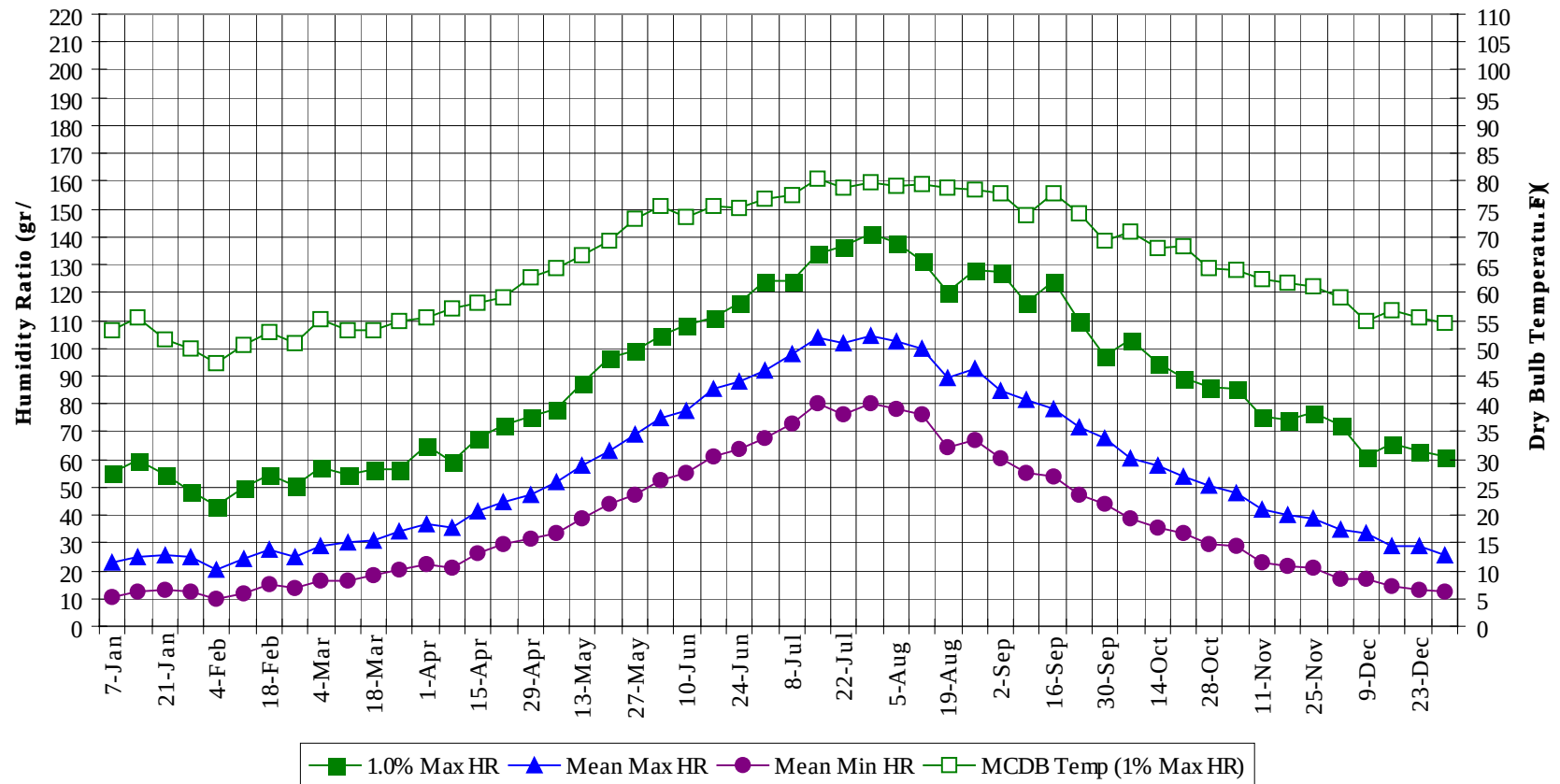
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
95 / 99		0		0	76.5
90 / 94		3	0	3	75.8
85 / 89	0	27	1	29	73.5
80 / 84	2	108	12	122	71.3
75 / 79	27	226	68	320	68.6
70 / 74	157	300	209	665	66.2
65 / 69	266	291	297	853	62.2
60 / 64	314	270	309	893	57.7
55 / 59	294	251	284	829	52.9
50 / 54	278	272	283	833	47.9
45 / 49	287	276	299	862	43.0
40 / 44	300	269	313	882	38.2
35 / 39	289	230	281	799	33.3
30 / 34	253	191	242	687	28.6
25 / 29	169	114	156	439	23.6
20 / 24	114	58	88	260	18.9
15 / 19	79	29	50	158	14.6
10 / 14	41	14	23	78	9.9
5 / 9	22	5	8	35	5.4
0 / 4	5	1	3	9	0.8
-5 / -1	2	0	0	2	-3.3
-10 / -6	0			0	-7.0

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.

Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary



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Long Term Dry Bulb Temperature and Humidity Summary

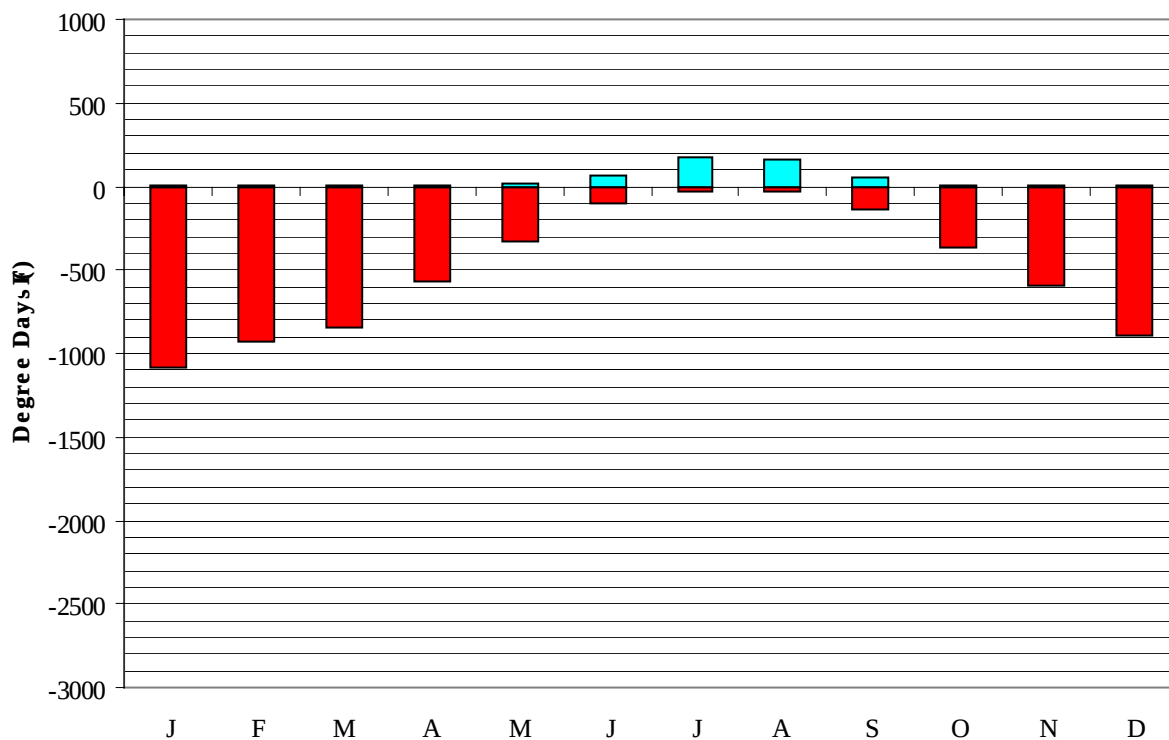
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	54.0	51.8	35.2	21.5	4.0	55.3	53.3	23.2	10.8
14-Jan	55.0	53.0	36.8	21.6	3.0	59.5	55.5	24.9	12.4
21-Jan	54.0	50.3	38.5	24.1	3.0	54.6	51.6	25.9	13.2
28-Jan	52.0	47.5	38.2	23.9	10.0	48.3	49.8	25.1	12.7
4-Feb	50.0	46.1	34.7	20.3	5.0	43.4	47.1	20.6	9.9
11-Feb	52.0	47.9	37.2	22.6	6.0	49.7	50.7	24.0	11.6
18-Feb	54.0	49.5	40.2	26.2	8.0	54.6	52.8	27.5	15.0
25-Feb	55.0	47.4	39.1	25.8	9.0	50.4	51.0	24.8	13.6
4-Mar	55.0	52.3	42.0	28.6	16.0	57.4	55.2	28.8	16.2
11-Mar	57.0	49.8	44.2	30.5	18.0	54.6	53.1	30.4	16.7
18-Mar	57.0	50.9	44.9	31.1	17.0	56.4	53.2	30.9	18.2
25-Mar	61.0	50.5	48.4	34.4	25.0	56.7	54.8	34.1	20.6
1-Apr	62.0	53.2	50.4	36.1	25.0	65.1	55.6	37.0	22.1
8-Apr	64.0	50.6	51.4	35.9	27.0	58.8	57.3	35.5	21.3
15-Apr	68.0	56.0	55.2	39.8	31.0	67.9	58.3	41.5	26.4
22-Apr	69.0	57.8	56.4	41.2	33.0	72.1	59.1	44.6	29.3
29-Apr	68.0	56.5	58.8	43.3	35.0	75.6	62.6	47.0	31.2
6-May	73.0	63.3	60.2	45.2	37.0	78.4	64.3	52.2	33.7
13-May	73.0	62.3	62.6	47.2	39.0	87.5	66.6	57.6	38.8
20-May	78.0	62.2	65.5	49.6	41.0	96.6	69.2	63.3	43.9
27-May	79.0	66.1	68.2	51.5	33.0	99.4	73.2	69.1	47.3
3-Jun	80.0	69.5	69.8	54.1	47.0	104.3	75.5	74.9	52.5
10-Jun	84.0	69.9	71.5	55.6	47.0	108.5	73.6	77.7	55.4
17-Jun	83.0	69.6	73.7	58.5	52.0	111.3	75.5	85.7	61.2
24-Jun	83.0	70.5	74.1	59.5	52.0	116.2	75.1	87.9	63.8
1-Jul	85.0	72.6	75.8	60.9	53.0	123.9	76.9	91.7	67.6
8-Jul	86.0	72.9	78.0	63.3	57.0	123.9	77.5	98.0	73.0
15-Jul	88.0	76.0	79.1	64.9	58.0	133.7	80.6	103.9	79.9
22-Jul	85.0	72.5	78.1	64.0	56.0	136.5	78.7	101.8	76.1
29-Jul	86.0	74.0	78.9	65.1	57.0	141.4	79.9	104.3	80.0
5-Aug	86.0	74.4	78.0	64.2	55.0	137.9	79.2	102.5	78.0
12-Aug	84.0	72.7	76.8	63.7	56.0	131.6	79.4	99.7	76.0
19-Aug	84.0	71.4	74.7	59.6	52.0	120.4	78.9	89.6	64.3
26-Aug	85.0	74.8	75.7	60.3	49.0	128.1	78.4	92.4	66.9
2-Sep	85.0	75.0	72.8	57.7	49.0	127.4	77.7	85.0	60.4
9-Sep	80.0	71.9	71.3	55.7	46.0	116.2	74.0	81.2	55.3
16-Sep	79.0	72.7	68.5	53.4	42.0	123.9	77.7	78.1	53.7
23-Sep	76.0	68.7	66.6	51.7	42.0	109.9	74.3	71.8	47.3
30-Sep	74.0	65.1	64.9	50.3	40.0	97.3	69.2	67.6	44.2
7-Oct	72.0	66.5	61.9	46.7	35.0	102.9	70.9	60.2	39.0
14-Oct	72.0	64.6	60.5	45.5	35.0	94.5	68.1	57.5	35.4
21-Oct	69.0	63.3	58.8	44.0	32.0	89.6	68.4	54.1	33.2
28-Oct	67.0	62.2	56.8	40.7	31.0	86.1	64.3	50.5	29.4
4-Nov	66.0	60.4	54.3	40.7	28.0	85.4	64.0	48.1	29.0
11-Nov	63.0	59.3	51.1	37.3	25.0	75.6	62.3	41.9	23.1
18-Nov	62.0	57.8	49.7	35.3	22.0	74.2	61.8	39.9	21.9
25-Nov	62.0	59.7	48.1	34.2	22.0	77.0	61.2	38.5	21.0
2-Dec	59.0	57.7	44.7	30.3	16.0	72.1	59.0	34.7	16.8
9-Dec	56.0	53.6	42.9	29.0	10.0	60.9	54.9	33.4	17.2
16-Dec	57.0	55.3	40.5	26.8	13.0	65.8	56.7	29.1	14.2
23-Dec	56.0	53.7	39.6	24.5	6.0	63.0	55.5	28.6	13.1
31-Dec	56.0	54.4	38.2	24.0	8.0	60.9	54.4	25.9	12.5

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Degree Days, Heating and Cooling
(Base 65°F)



■ Mean Cooling Degree Days ■ Mean Heating Degree Days

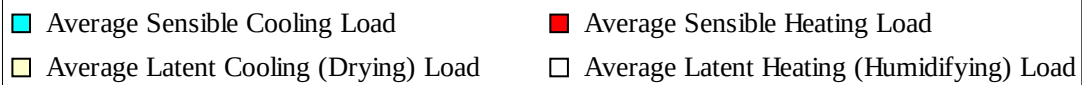
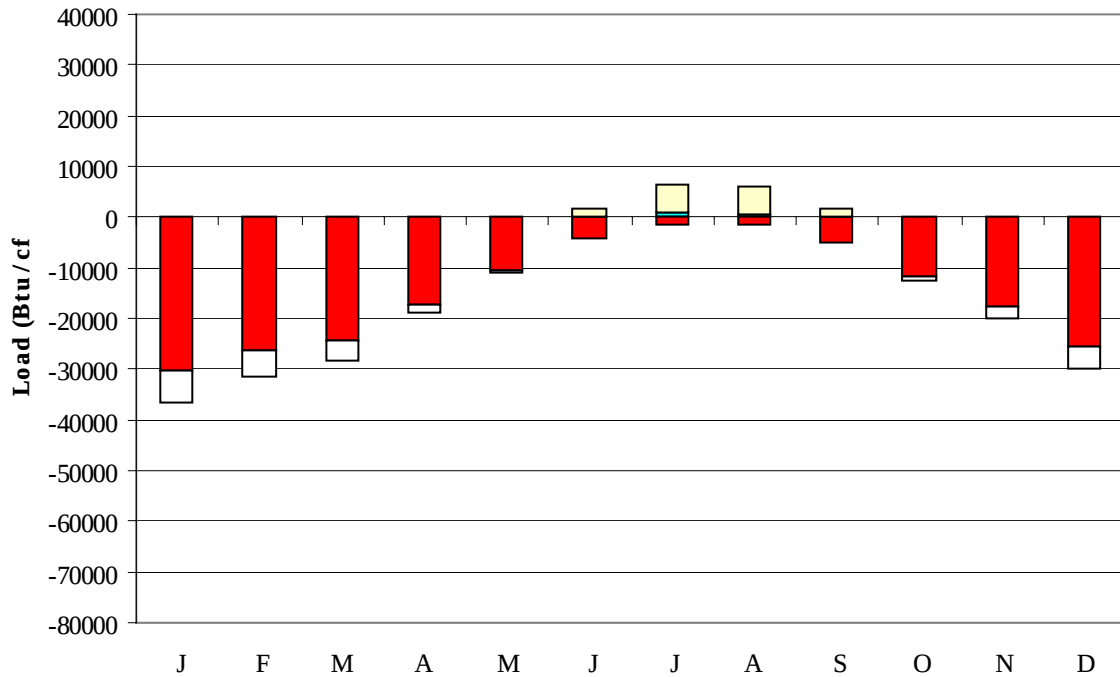
	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1080
FEB	0	928
MAR	0	847
APR	2	573
MAY	15	325
JUN	68	102
JUL	168	24
AUG	156	34
SEP	53	135
OCT	9	365
NOV	0	595
DEC	0	896
ANN	471	5904

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



	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	-30392	0	-6053
FEB	0	-26183	0	-5177
MAR	0	-24363	0	-4047
APR	6	-17153	0	-1768
MAY	37	-10640	179	-288
JUN	218	-4140	1457	-5
JUL	777	-1322	5667	0
AUG	656	-1644	5374	0
SEP	137	-5083	1752	-37
OCT	3	-11762	289	-668
NOV	0	-17731	25	-2227
DEC	0	-25552	1	-4484
ANN	1834	-175965	14744	-24754

Average Annual Solar Radiation – Nearest Available Site

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

City: BOSTON
 State: MA
 WBAN No: 14739
 Lat(N): 42.37
 Long(W): 71.03
 Elev(ft): 16

Stn Type: Primary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS

Window: 1
 Overhang: 0.602
 Vert Gap: 0.329

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	590	850	1180	1490	1780	1940	1920	1700	1350	950	600	480	1240
	Std Dev	42	80	91	122	129	134	120	99	80	63	48	37	33
	Minimum	480	680	1000	1280	1530	1670	1660	1510	1230	850	480	390	1160
	Maximum	700	1060	1390	1710	2040	2230	2090	1890	1500	1100	690	560	1300
	Diffuse	280	400	550	700	830	900	870	760	590	420	300	240	570
Clear Day	Global	770	1120	1610	2120	2460	2580	2490	2190	1740	1220	820	660	1650
NORTH	Global	180	250	340	430	540	620	580	480	370	270	190	150	370
	Diffuse	180	250	340	420	500	540	530	460	370	270	190	150	350
Clear Day	Global	170	240	320	430	570	670	620	470	350	260	180	150	370
EAST	Global	410	560	740	890	1000	1080	1060	990	830	620	400	340	740
	Diffuse	220	310	420	520	600	640	630	570	460	340	230	190	430
Clear Day	Global	600	810	1070	1300	1410	1450	1410	1300	1100	850	610	520	1040
SOUTH	Global	1040	1150	1110	980	880	840	880	990	1120	1140	930	900	1000
	Diffuse	330	420	490	540	580	600	600	580	520	430	320	290	480
Clear Day	Global	1740	1870	1790	1480	1170	1020	1070	1310	1620	1780	1710	1640	1510
WEST	Global	410	570	730	870	990	1050	1060	960	810	610	400	340	730
	Diffuse	220	310	420	520	600	650	640	580	460	340	230	190	430
Clear Day	Global	600	810	1070	1300	1410	1450	1410	1300	1100	850	610	520	1040

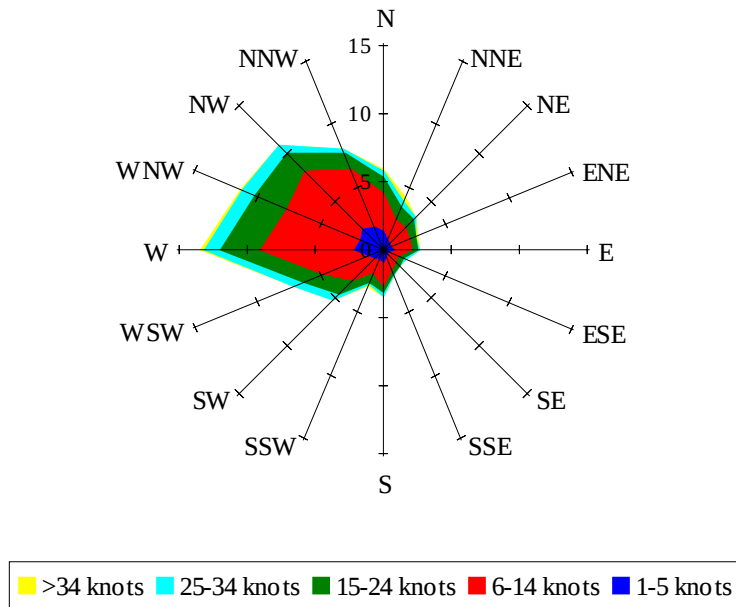
Average Annual Solar Heat and Illumination – Nearest Available Site

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

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	370	580	830	1070	1290	1410	1390	1220	960	660	390	300	870
NORTH	Unshaded	130	170	240	290	360	410	390	330	260	190	130	110	250
	Shaded	110	150	200	260	310	350	340	290	230	160	110	92	220
EAST	Unshaded	280	390	520	640	710	770	750	700	590	440	280	230	530
	Shaded	250	340	440	530	590	630	620	580	490	380	240	200	440
SOUTH	Unshaded	780	850	780	650	560	520	550	640	760	830	700	680	690
	Shaded	760	780	600	410	350	360	360	380	530	720	670	660	550
WEST	Unshaded	280	390	520	620	700	750	750	680	570	430	270	230	520
	Shaded	250	340	440	520	580	610	620	570	490	370	240	200	440

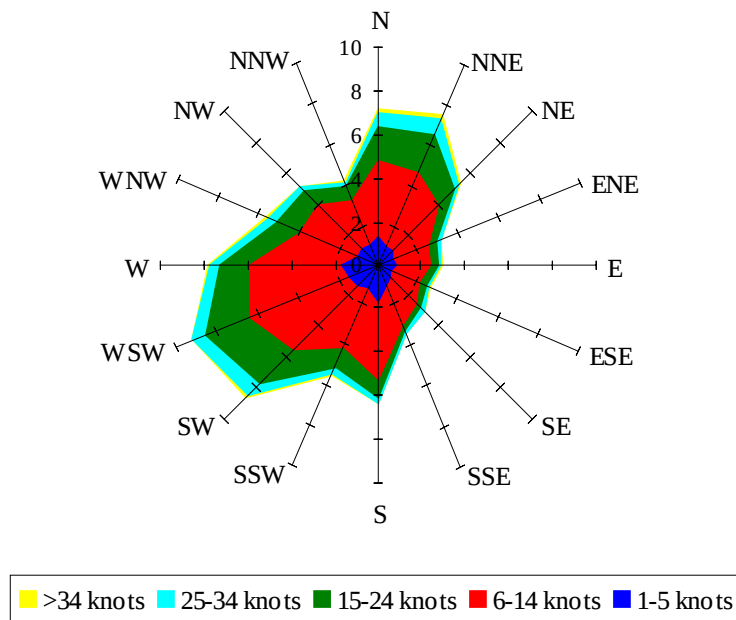
AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9		March					June				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	43	71	76	56	18	54	86	99	90	61
	M.Cloudy	24	44	48	35	11	34	56	70	64	42
NORTH	M.Clear	10	14	15	12	6	14	17	17	17	15
	M.Cloudy	10	15	16	13	5	13	18	19	19	14
EAST	M.Clear	72	49	15	12	6	79	67	23	17	15
	M.Cloudy	26	28	16	13	5	36	40	23	19	14
SOUTH	M.Clear	46	78	83	60	19	13	39	52	44	19
	M.Cloudy	19	38	42	30	8	13	28	38	33	16
WEST	M.Clear	10	14	31	68	52	13	17	17	58	77
	M.Cloudy	10	15	22	32	16	13	18	19	40	42
M.Clear	(% hrs)	37	34	32	32	35	39	39	32	30	32
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	32	67	81	70	38	15	37	39	19	0
	M.Cloudy	19	42	54	46	24	9	22	23	12	0
NORTH	M.Clear	9	14	16	15	11	5	9	10	6	0
	M.Cloudy	8	15	17	16	10	4	9	9	5	0
EAST	M.Clear	66	63	20	15	11	38	31	10	6	0
	M.Cloudy	24	33	19	16	10	11	15	9	5	0
SOUTH	M.Clear	27	62	78	65	32	39	78	80	47	0
	M.Cloudy	13	32	45	37	17	11	28	29	15	0
WEST	M.Clear	9	14	16	57	67	5	9	25	41	0
	M.Cloudy	8	15	17	34	29	4	9	14	13	0
M.Clear	(% hrs)	44	46	40	40	41	35	35	35	35	37

Wind Summary - December, January, and February **Labels of Percent Frequency on North Axis**



Percent Calm = 14.30

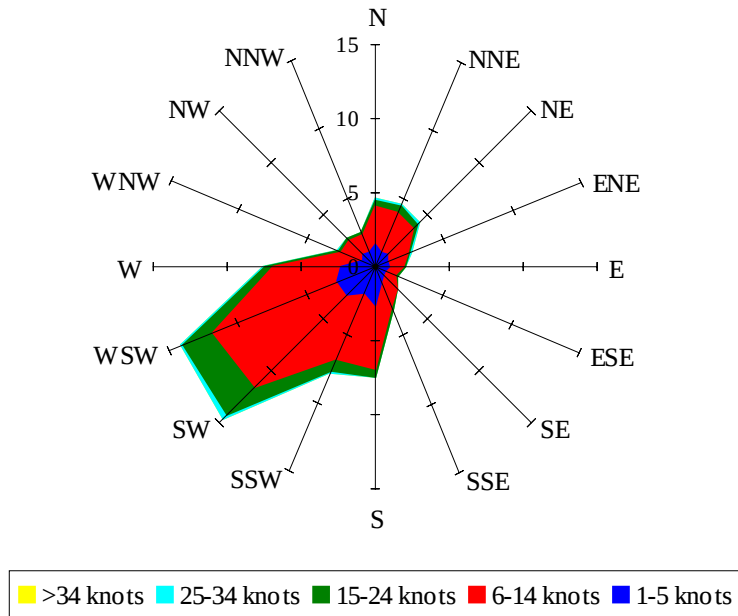
Wind Summary - March, April, and May **Labels of Percent Frequency on North Axis**



Percent Calm = 13.16

Wind Summary - June, July, and August

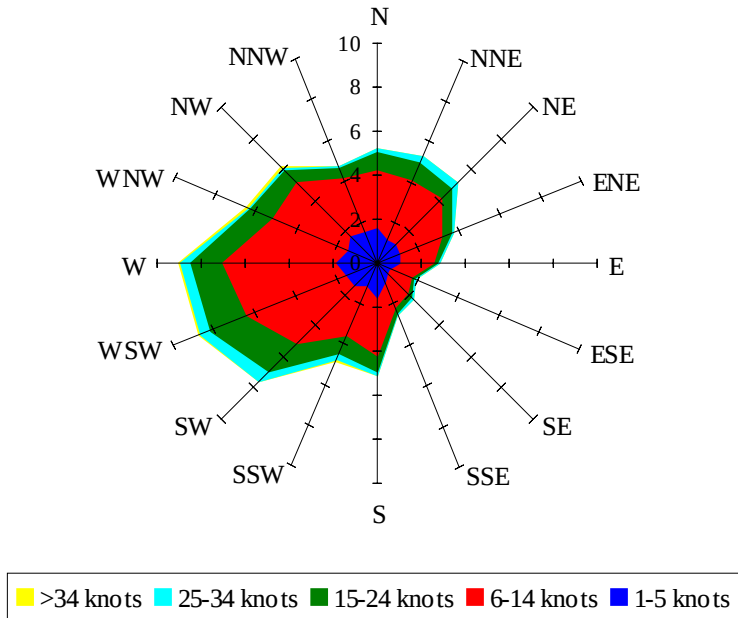
Labels of Percent Frequency on North Axis



Percent Calm = 15.83

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 18.38