BOSTON/LOGAN MA	
Latitude = 42.37 N	WMO No. 725090
Longitude = 71.03 W	Elevation = 30 feet
Period of Record = 1967 to 1996	Average Pressure = 29.95 inches Hg

Design Criteria Data

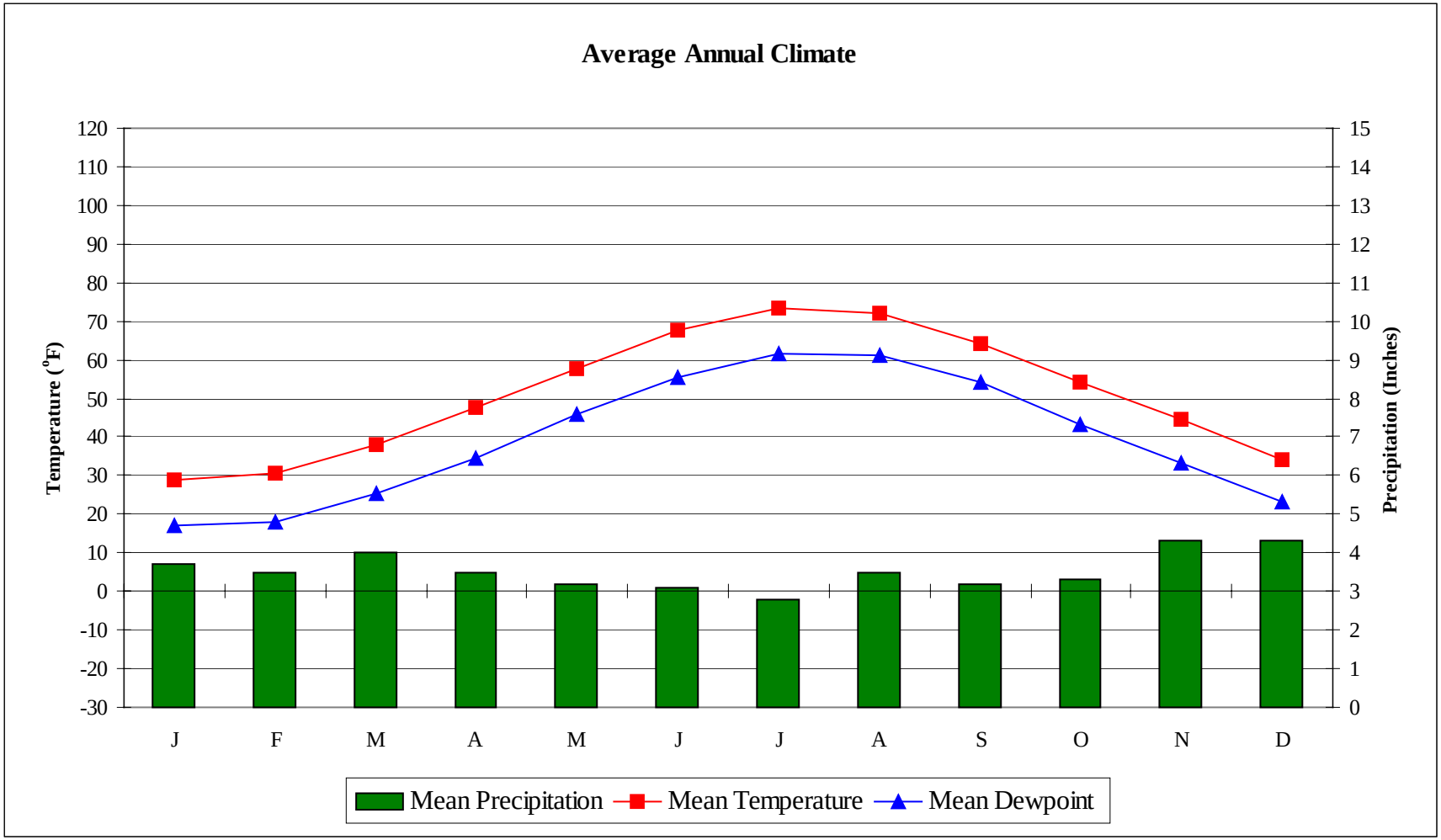
		Mean Coincident (Average) Values			
Dry Bulb Temperature (T)	**Design Value (^oF)**	Wet Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	96	75	99	14.9	W
0.4% Occurrence	91	73	95	13.9	W
1.0% Occurrence	88	72	92	13.6	W
2.0% Occurrence	84	70	89	13.2	W
Mean Daily Range	14	-	-	-	-
97.5% Occurrence	17	14	6	14.3	WNW
99.0% Occurrence	12	9	4	15.3	NW
99.6% Occurrence	7	5	3	15.6	NW
Median of Extreme Lows	1	-1	2	16.5	NW
		Mean Coincident (Average) Values			
Wet Bulb Temperature (T_{wb})	**Design Value (^oF)**	Dry Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	78	90	122	13.7	WSW
0.4% Occurrence	76	86	116	13.0	WSW
1.0% Occurrence	74	83	110	12.6	WSW
2.0% Occurrence	73	81	107	12.4	WSW
		Mean Coincident (Average) Values			
Humidity Ratio (HR)	**Design Value (gr/lb)**	Dry Bulb Temperature (^oF)	Vapor Pressure (in. Hg)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	132	83	0.88	12.5	SW
0.4% Occurrence	120	80	0.80	14.1	SSW
1.0% Occurrence	115	79	0.77	11.4	SSW
2.0% Occurrence	110	78	0.74	10.6	SSW
Air Conditioning/		$T \geq 93^oF$	$T \geq 80^oF$	$T_{wb} \geq 73^oF$	$T_{wb} \geq 67^oF$
Humid Area Criteria	# of Hours	19	420	190	903

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^oF-RH 60% Latent + Sensible
6	2.5	110	1.1 + 0.4
Ground Water Temperature (^oF) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft^2)	Average Annual Freeze-Thaw Cycles (#)
53.7	49	34	47

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

BOSTON/LOGAN MA WMO No. 725090



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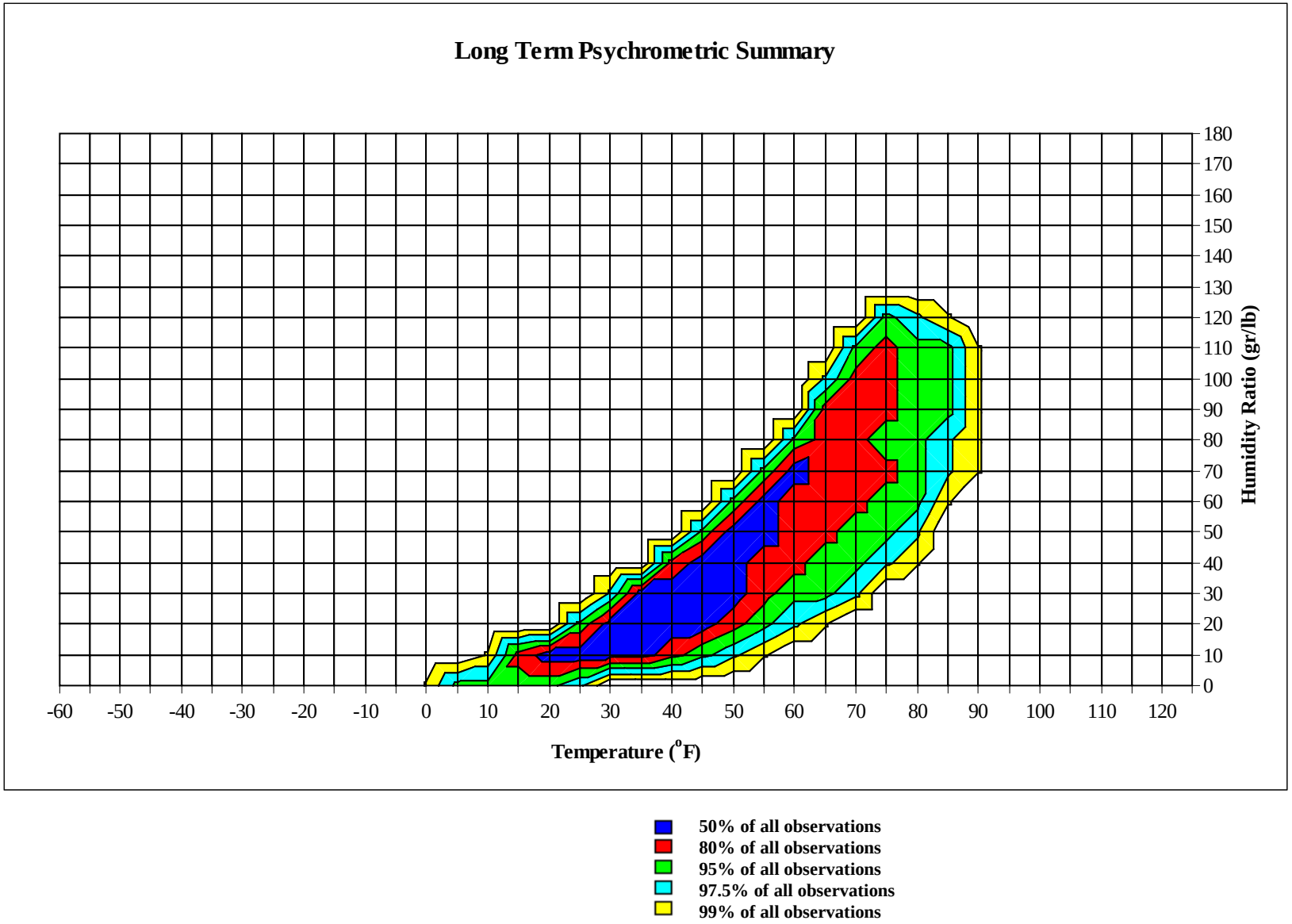
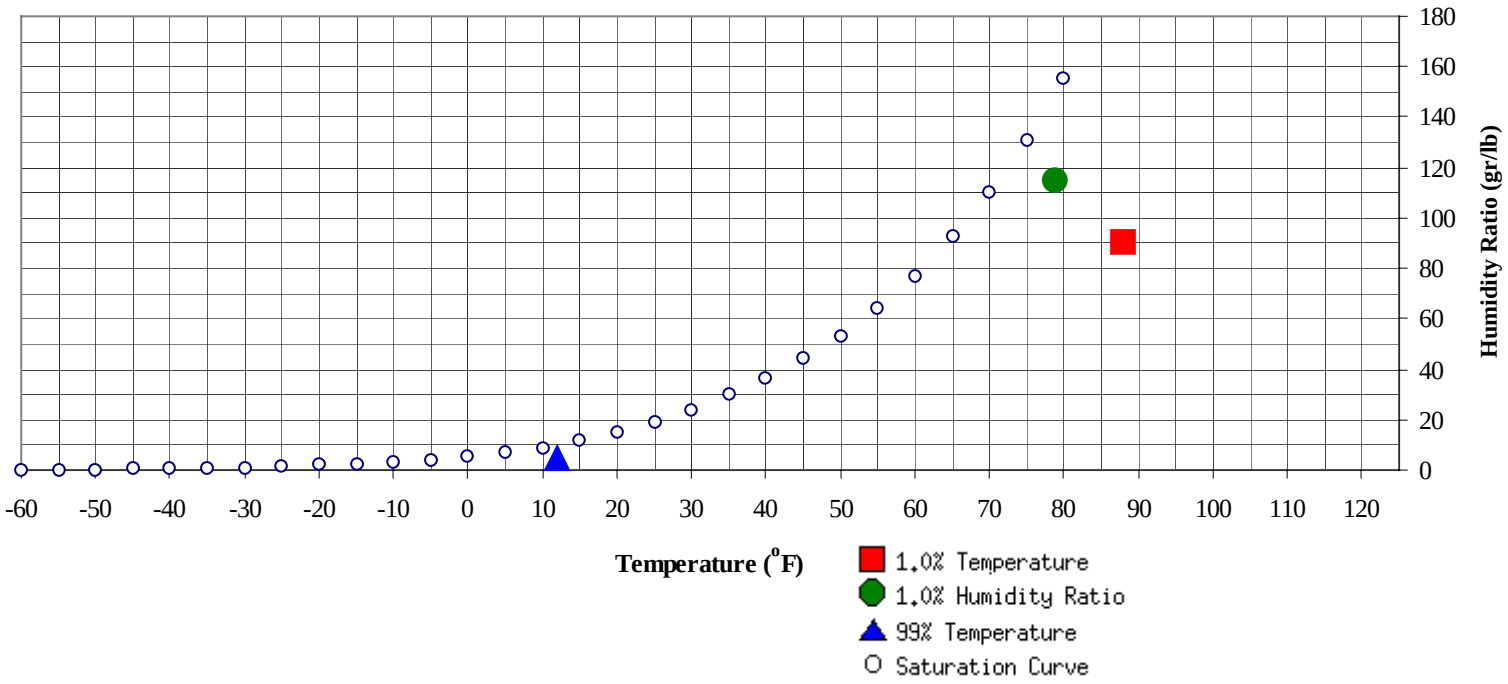


BOSTON/LOGAN MA WMO No. 725090

Psychrometric Summary of Peak Design Values



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
99% Dry Bulb	12	4.4	3.6

	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
1.0% Humidity Ratio	114.8	78.9	73.4	71.1	36.9

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	88	90.5	71.7	35.3

BOSTON/LOGAN MA WMO No. 725090

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

Period of Record = 1967 to 1996

Temperature Range (°F)	January Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)	February Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)	March Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
100 / 104															
95 / 99															
90 / 94															
85 / 89															
80 / 84												0		0	62.0
75 / 79												1	0	1	58.7
70 / 74							0		0	58.0	0	1	0	1	58.2
65 / 69		0		0	60.0		0	0	0	54.9	0	3	1	4	55.1
60 / 64	0	1	0	1	55.9	0	2	0	2	52.3	0	6	2	8	52.7
55 / 59	2	3	2	7	53.7	1	3	2	6	51.3	3	12	6	21	49.4
50 / 54	3	6	4	13	48.1	2	9	4	15	45.7	8	20	14	42	45.3
45 / 49	5	13	9	27	42.3	7	15	11	33	41.6	16	38	27	81	41.1
40 / 44	17	29	25	71	37.9	17	28	26	71	37.5	37	57	55	149	37.3
35 / 39	35	40	38	113	33.4	29	41	40	110	33.1	63	54	66	183	33.3
30 / 34	41	48	49	138	28.4	45	48	53	146	28.6	60	35	46	141	28.6
25 / 29	43	43	45	131	23.4	41	36	38	115	23.3	31	15	20	66	23.3
20 / 24	36	28	33	97	18.9	33	23	26	82	18.5	19	5	8	32	18.6
15 / 19	31	21	22	74	14.5	27	12	15	54	14.3	8	2	2	12	14.0
10 / 14	20	11	12	43	9.6	14	5	6	25	9.7	3	1	0	4	9.7
5 / 9	11	3	5	19	4.9	6	2	2	10	5.3	1		0	1	5.3
0 / 4	4	2	2	8	0.6	3	0	1	4	0.3					
-5 / -1	1	0	0	1	-3.9	1	0		1	-2.9					
-10 / -6															

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.

BOSTON/LOGAN MA WMO No. 725090

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

Period of Record = 1967 to 1996

Temperature Range (°F)	April Hour Group (LST) 01 To 08	April 09 To 16	April 17 To 00	April Total Obs	April MCWB (°F)	May Hour Group (LST) 01 To 08	May 09 To 16	May 17 To 00	May Total Obs	May MCWB (°F)	June Hour Group (LST) 01 To 08	June 09 To 16	June 17 To 00	June Total Obs	June MCWB (°F)
100 / 104															
95 / 99							0		0	71.0		1	0	1	74.9
90 / 94		0	0	0	65.7		1	0	1	69.1	0	7	2	9	72.6
85 / 89		1	0	1	65.8		5	1	6	67.8	0	16	5	21	70.4
80 / 84		2	1	3	62.9	0	9	3	12	65.2	4	28	13	45	67.9
75 / 79	0	3	1	4	59.7	2	16	7	25	62.9	9	41	23	73	65.4
70 / 74	1	7	3	11	57.6	6	24	14	44	60.3	31	47	48	125	63.2
65 / 69	2	11	6	19	54.5	15	33	27	75	57.4	57	44	53	153	60.5
60 / 64	5	20	11	36	52.2	31	45	37	113	54.5	64	32	50	145	57.4
55 / 59	14	32	25	71	48.6	52	51	58	161	51.2	55	19	35	109	54.2
50 / 54	25	50	42	117	45.1	73	45	59	177	47.9	19	5	10	34	50.1
45 / 49	53	56	56	166	41.8	54	18	34	106	44.3	2	0	1	3	45.2
40 / 44	77	44	67	188	38.2	13	3	7	23	39.9					
35 / 39	45	11	23	80	33.7	2	0	0	2	34.9					
30 / 34	14	2	3	19	28.7										
25 / 29	3	1	1	5	23.0										
20 / 24	1	0	0	1	18.4										
15 / 19	0	0		0	15.6										
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															

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.

BOSTON/LOGAN MA WMO No. 725090

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

Period of Record = 1967 to 1996

Temperature Range (°F)	July Hour Group (LST) 01 To 08	July 09 To 16	July 17 To 00	July Total Obs	July MCWB (°F)	August Hour Group (LST) 01 To 08	August 09 To 16	August 17 To 00	August Total Obs	August MCWB (°F)	September Hour Group (LST) 01 To 08	September 09 To 16	September 17 To 00	September Total Obs	September MCWB (°F)
100 / 104		0		0	78.8		0		0	78.0					
95 / 99		4	1	5	76.2		1	0	1	74.5		0		0	74.1
90 / 94	0	15	4	19	74.0	0	10	2	12	74.2		2	0	2	75.0
85 / 89	2	38	13	53	71.5	1	25	7	33	72.2	0	6	1	7	72.6
80 / 84	9	50	28	87	69.5	6	48	24	78	70.3	1	16	6	23	69.8
75 / 79	33	52	51	136	67.9	28	57	44	129	68.4	6	29	13	48	67.3
70 / 74	73	51	68	192	65.8	68	59	69	196	65.9	20	44	31	96	64.3
65 / 69	81	30	56	167	62.6	77	35	64	176	62.4	40	60	51	152	60.9
60 / 64	42	7	23	72	59.4	53	11	32	96	58.8	59	51	67	177	57.5
55 / 59	7	1	3	11	55.3	14	2	5	21	54.0	66	26	50	143	53.2
50 / 54	1		0	1	50.9	2	0	0	2	47.7	31	5	16	52	48.0
45 / 49						0			0	44.6	13	0	4	17	43.5
40 / 44											3		0	3	38.7
35 / 39											0			0	36.5
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															

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.

BOSTON/LOGAN MA WMO No. 725090

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

Period of Record = 1967 to 1996

Temperature Range (°F)	October Hour Group (LST) 01 To 08	October 09 To 16	October 17 To 00	October Total Obs	October MCWB (°F)	November Hour Group (LST) 01 To 08	November 09 To 16	November 17 To 00	November Total Obs	November MCWB (°F)	December Hour Group (LST) 01 To 08	December 09 To 16	December 17 To 00	December Total Obs	December MCWB (°F)
100 / 104															
95 / 99															
90 / 94															
85 / 89		0		0	68.8										
80 / 84		2	0	2	66.6										
75 / 79	0	6	0	6	64.6		1	0	1	61.5					
70 / 74	1	17	5	23	62.1	0	3	1	4	61.6		0		0	61.9
65 / 69	7	28	16	51	59.4	2	7	3	12	59.2	0	1	0	1	60.5
60 / 64	25	45	33	103	56.5	8	12	9	29	56.0	1	3	2	6	56.0
55 / 59	44	59	57	160	52.1	14	23	17	54	51.6	3	8	4	15	52.3
50 / 54	59	55	64	177	47.1	27	46	35	108	47.4	6	13	10	29	47.4
45 / 49	51	26	44	121	42.2	41	58	51	150	42.3	15	23	19	57	42.5
40 / 44	38	9	22	69	37.7	50	46	52	148	37.3	30	43	37	110	38.0
35 / 39	19	2	5	26	33.4	49	27	43	119	32.6	44	52	54	150	33.1
30 / 34	5	0	1	6	29.1	33	11	19	63	28.2	54	47	49	150	28.6
25 / 29	0			0	24.8	13	4	6	23	23.8	38	29	33	100	23.7
20 / 24						4	1	1	6	19.0	26	18	21	65	18.9
15 / 19						1	0	1	2	15.5	17	9	13	39	14.3
10 / 14											8	2	3	13	9.8
5 / 9											4	1	1	6	5.0
0 / 4											1	0	0	1	1.2
-5 / -1											0	0	0	0	-3.9
-10 / -6												0	0	0	-6.6

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.

BOSTON/LOGAN MA WMO No. 725090

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

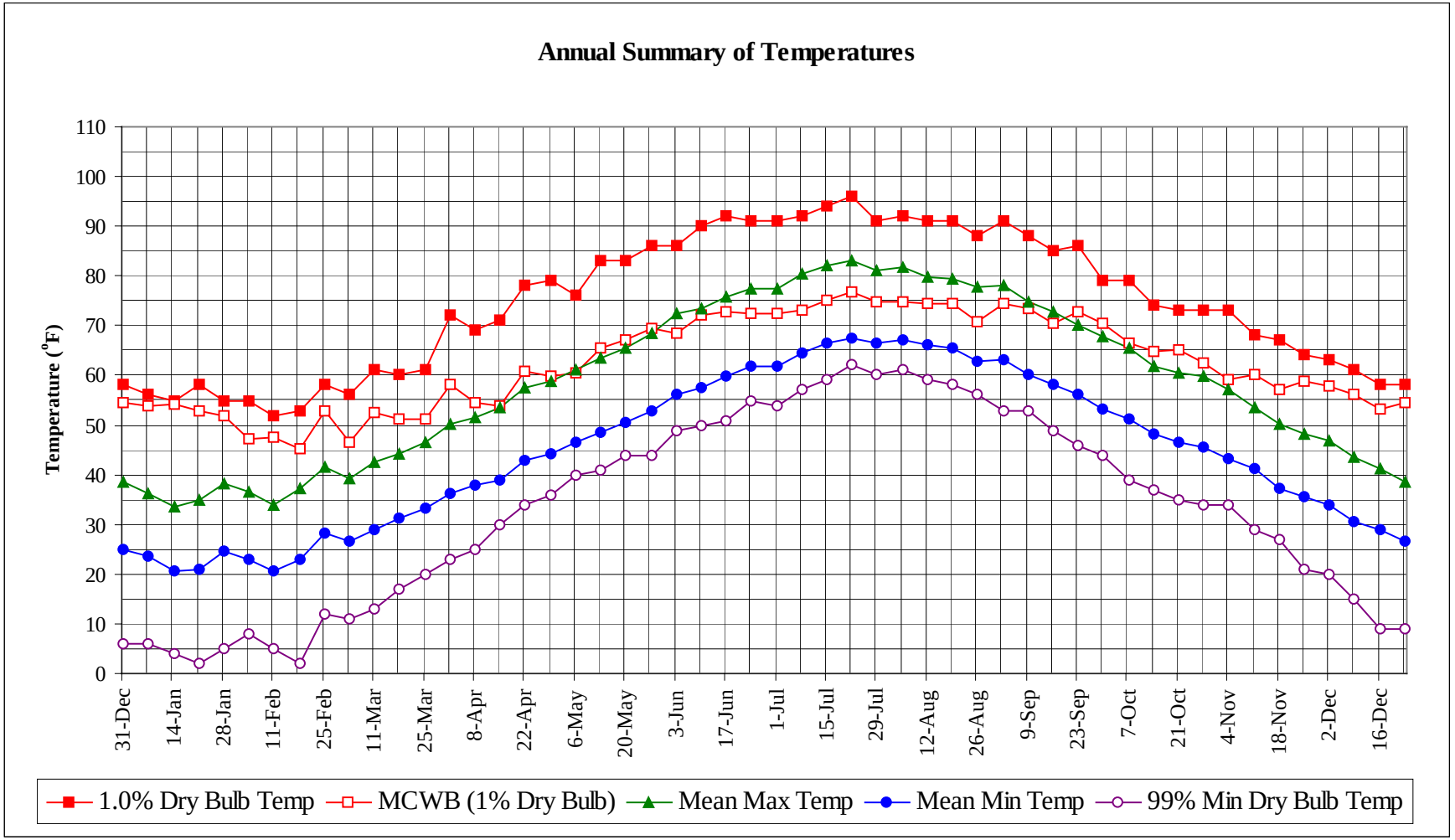
Period of Record = 1967 to 1996

Annual Totals

Temperature Range (°F)	Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
100 / 104		0		0	78.6
95 / 99		7	1	8	75.6
90 / 94	0	36	8	44	73.6
85 / 89	3	90	28	121	71.3
80 / 84	20	153	74	247	69.2
75 / 79	79	204	140	422	67.1
70 / 74	198	253	237	688	64.5
65 / 69	277	252	276	804	60.9
60 / 64	286	235	267	787	56.9
55 / 59	275	237	266	777	52.1
50 / 54	254	253	260	766	47.1
45 / 49	256	248	256	760	42.4
40 / 44	282	259	292	832	37.8
35 / 39	288	229	272	788	33.2
30 / 34	252	193	223	668	28.5
25 / 29	168	128	145	441	23.5
20 / 24	118	76	91	284	18.7
15 / 19	85	44	52	181	14.4
10 / 14	46	20	22	88	9.7
5 / 9	22	6	9	37	5.0
0 / 4	9	2	2	13	0.6
-5 / -1	2	0	0	2	-3.7
-10 / -6		0	0	0	-6.6

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.

BOSTON/LOGAN MA WMO No. 725090



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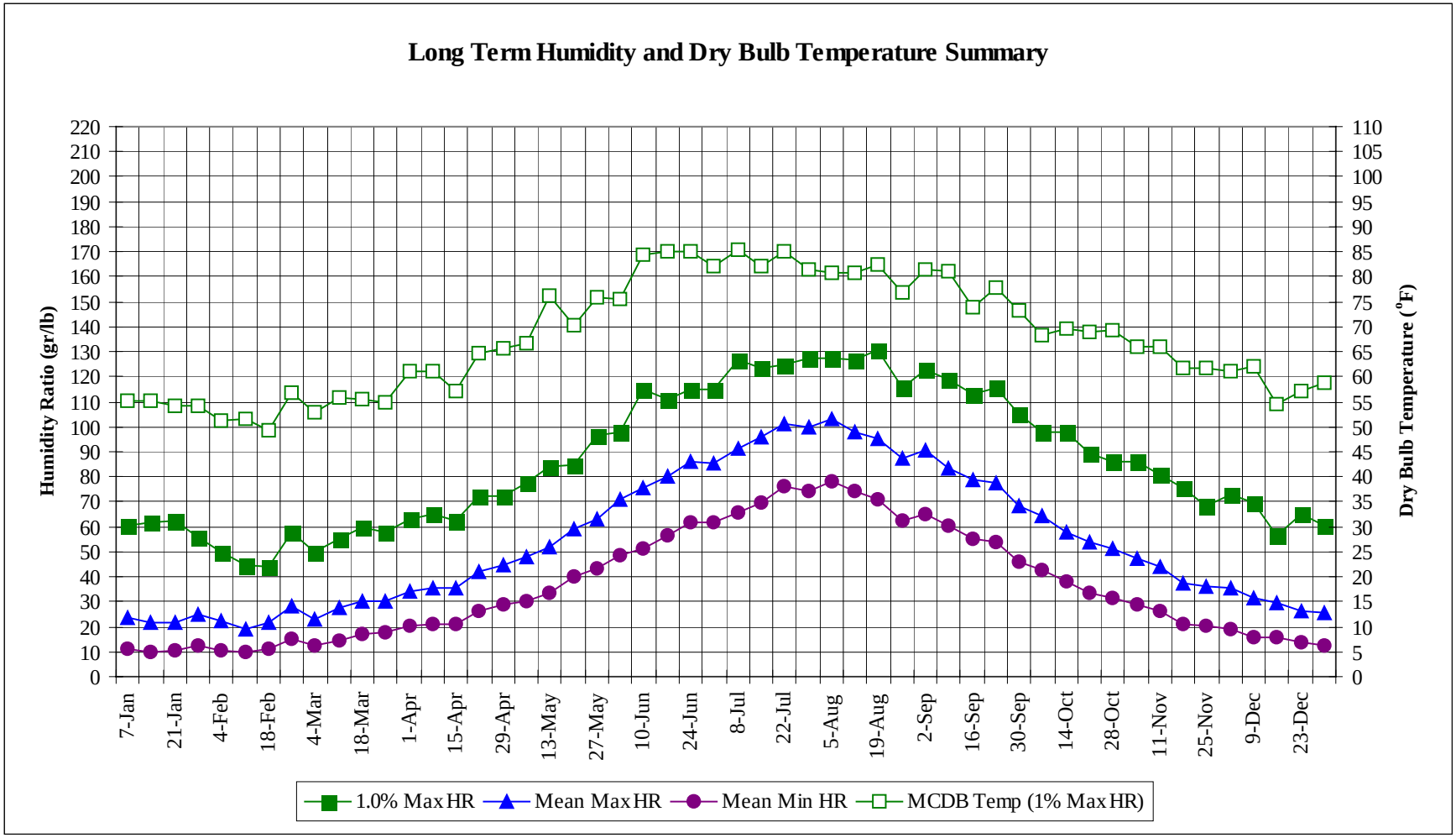
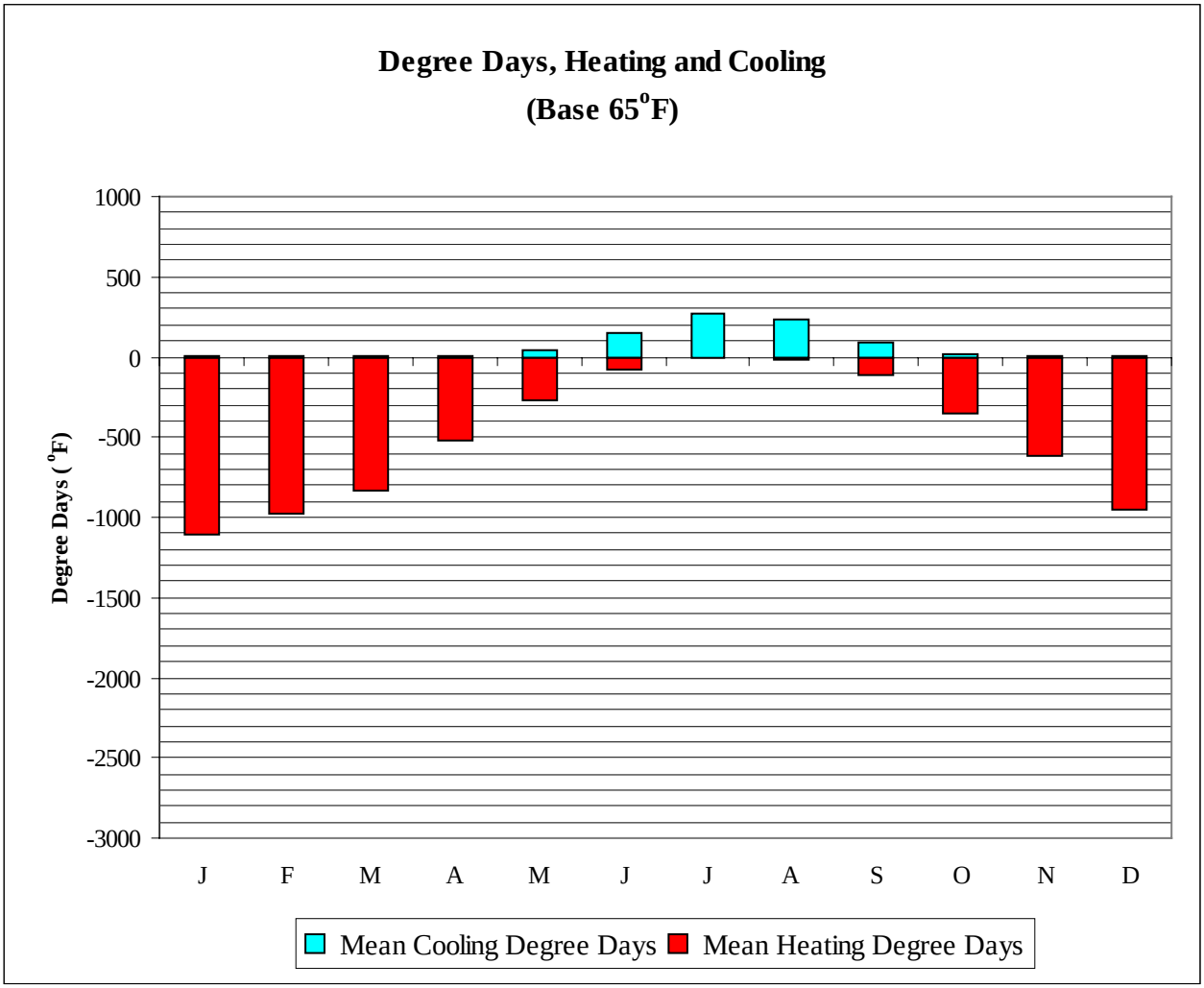


BOSTON/LOGAN MA WMO No. 725090

Long Term Dry Bulb Temperature and Humidity Summary

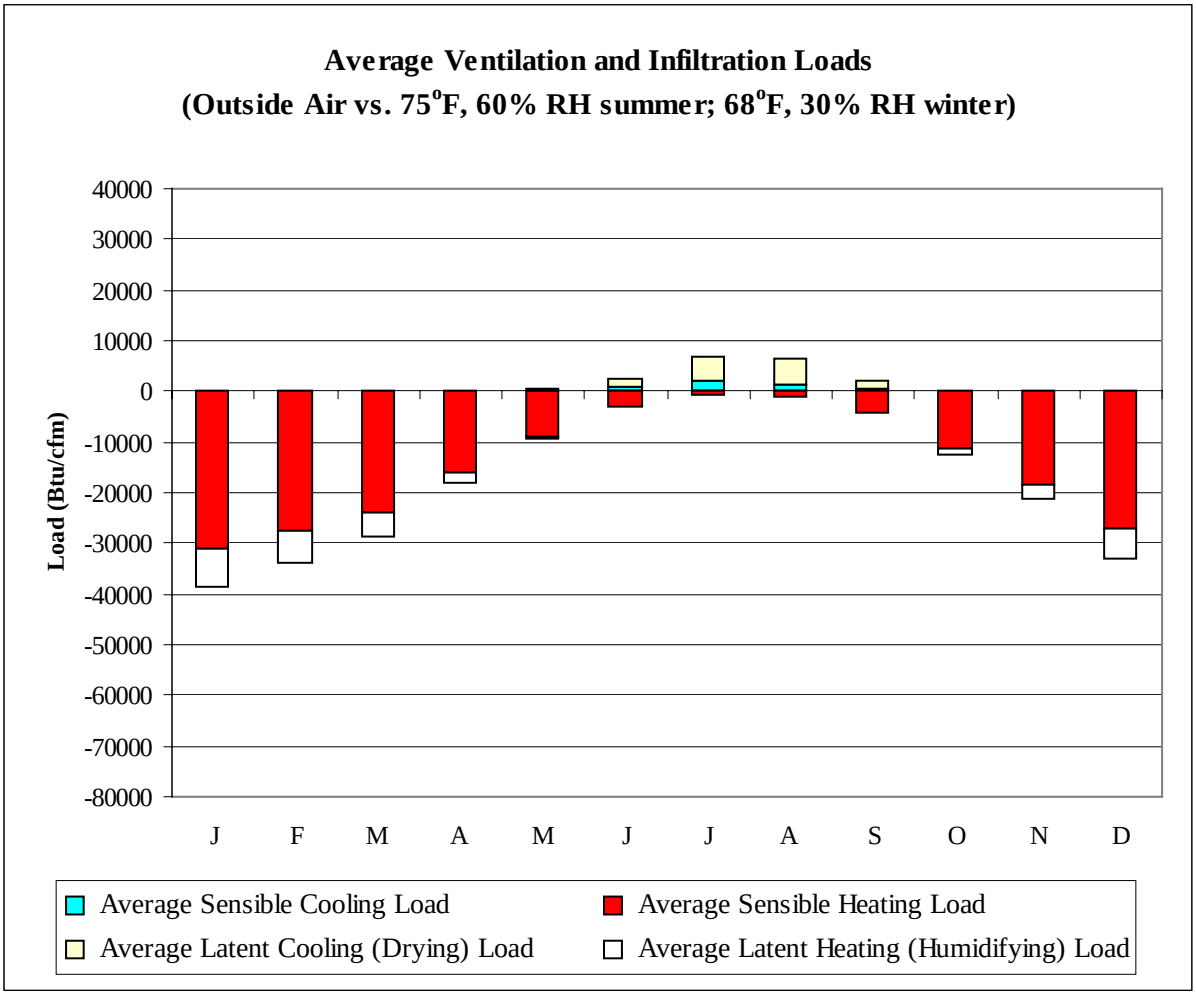
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	56.0	54.0	36.1	23.7	6.0	60.2	55.1	23.4	11.4
14-Jan	55.0	54.1	33.4	20.5	4.0	61.6	55.2	21.7	9.9
21-Jan	58.0	52.9	34.9	21.0	2.0	62.3	54.3	21.8	10.8
28-Jan	55.0	51.9	38.1	24.7	5.0	56.0	54.3	24.9	12.2
4-Feb	55.0	47.3	36.5	23.1	8.0	49.7	51.3	22.2	10.8
11-Feb	52.0	47.7	33.8	20.8	5.0	44.8	51.5	19.0	9.6
18-Feb	53.0	45.2	37.1	22.9	2.0	44.1	49.3	21.9	10.9
25-Feb	58.0	52.9	41.6	28.3	12.0	58.1	56.7	28.1	15.4
4-Mar	56.0	46.7	39.3	26.6	11.0	49.7	53.0	23.1	12.8
11-Mar	61.0	52.6	42.7	28.9	13.0	55.3	55.9	27.4	14.7
18-Mar	60.0	51.3	44.4	31.3	17.0	59.5	55.6	29.9	16.8
25-Mar	61.0	51.3	46.4	33.1	20.0	58.1	54.9	30.5	17.8
1-Apr	72.0	58.1	50.3	36.2	23.0	63.0	61.0	34.3	20.2
8-Apr	69.0	54.5	51.6	37.9	25.0	65.1	61.0	35.7	20.7
15-Apr	71.0	53.9	53.6	38.9	30.0	62.3	57.3	35.4	21.0
22-Apr	78.0	60.7	57.6	43.0	34.0	72.1	64.8	42.3	26.4
29-Apr	79.0	59.9	58.7	44.2	36.0	72.1	65.6	44.4	28.7
6-May	76.0	60.3	61.2	46.7	40.0	77.7	66.7	48.2	30.2
13-May	83.0	65.3	63.4	48.5	41.0	84.0	76.1	51.9	33.4
20-May	83.0	67.0	65.5	50.5	44.0	84.7	70.3	58.9	39.8
27-May	86.0	69.4	68.3	52.9	44.0	96.6	75.7	63.3	43.1
3-Jun	86.0	68.6	72.4	56.0	49.0	98.0	75.5	71.0	48.5
10-Jun	90.0	72.1	73.4	57.4	50.0	114.8	84.2	75.3	51.2
17-Jun	92.0	72.9	75.8	59.7	51.0	111.3	85.0	79.9	56.3
24-Jun	91.0	72.6	77.5	61.8	55.0	114.8	84.9	85.8	61.6
1-Jul	91.0	72.3	77.4	62.0	54.0	114.8	82.1	85.5	61.5
8-Jul	92.0	73.0	80.4	64.5	57.0	126.7	85.3	91.5	65.9
15-Jul	94.0	75.1	82.2	66.5	59.0	123.2	82.1	96.2	69.9
22-Jul	96.0	76.7	83.1	67.6	62.0	124.6	85.0	101.1	76.4
29-Jul	91.0	74.7	81.0	66.6	60.0	127.4	81.4	99.5	74.4
5-Aug	92.0	74.9	81.7	67.1	61.0	127.4	80.7	102.9	78.3
12-Aug	91.0	74.4	79.7	66.0	59.0	126.7	80.7	97.9	74.3
19-Aug	91.0	74.6	79.4	65.3	58.0	130.9	82.6	95.5	70.7
26-Aug	88.0	70.9	77.7	62.7	56.0	115.5	76.8	87.7	62.1
2-Sep	91.0	74.5	78.0	63.1	53.0	122.5	81.5	90.4	65.0
9-Sep	88.0	73.5	74.6	60.2	53.0	119.0	81.3	83.4	60.1
16-Sep	85.0	70.3	72.8	58.0	49.0	112.7	74.0	79.0	55.2
23-Sep	86.0	72.9	70.2	56.2	46.0	115.5	78.0	77.6	53.7
30-Sep	79.0	70.3	67.7	53.3	44.0	105.0	73.1	68.2	45.9
7-Oct	79.0	66.6	65.5	51.1	39.0	98.0	68.5	64.4	42.6
14-Oct	74.0	64.8	61.8	48.1	37.0	98.0	69.6	58.0	38.0
21-Oct	73.0	65.3	60.3	46.4	35.0	89.6	68.9	53.9	33.7
28-Oct	73.0	62.4	59.8	45.4	34.0	86.1	69.2	51.0	31.8
4-Nov	73.0	59.3	57.3	43.2	34.0	86.1	66.1	47.1	29.1
11-Nov	68.0	60.2	53.4	41.3	29.0	80.5	65.9	44.0	26.6
18-Nov	67.0	57.0	50.2	37.3	27.0	75.6	61.9	37.5	21.1
25-Nov	64.0	58.9	48.2	35.5	21.0	68.6	61.7	36.1	20.3
2-Dec	63.0	57.7	47.0	34.0	20.0	72.8	61.1	35.2	18.7
9-Dec	61.0	56.2	43.6	30.4	15.0	69.3	62.0	31.7	15.7
16-Dec	58.0	53.1	41.1	29.1	9.0	56.7	54.5	29.7	16.0
23-Dec	58.0	54.6	38.5	26.5	9.0	65.1	57.2	26.4	13.8
31-Dec	58.0	54.5	38.4	25.0	6.0	60.2	58.7	25.9	12.5

BOSTON/LOGAN MA WMO No. 725090



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1113
FEB	0	973
MAR	1	837
APR	9	526
MAY	44	272
JUN	144	72
JUL	266	10
AUG	231	18
SEP	85	110
OCT	14	354
NOV	2	615
DEC	0	954
ANN	796	5854

BOSTON/LOGAN MA WMO No. 725090



	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	-31249	0	-7446
FEB	0	-27427	0	-6472
MAR	1	-24076	0	-4784
APR	44	-15860	3	-2162
MAY	225	-9039	187	-385
JUN	903	-3000	1672	-15
JUL	1932	-696	4942	0
AUG	1414	-1044	4972	-1
SEP	368	-4336	1767	-59
OCT	24	-11393	201	-953
NOV	1	-18239	34	-2925
DEC	0	-27150	2	-5747
ANN	4912	-173509	13780	-30949

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

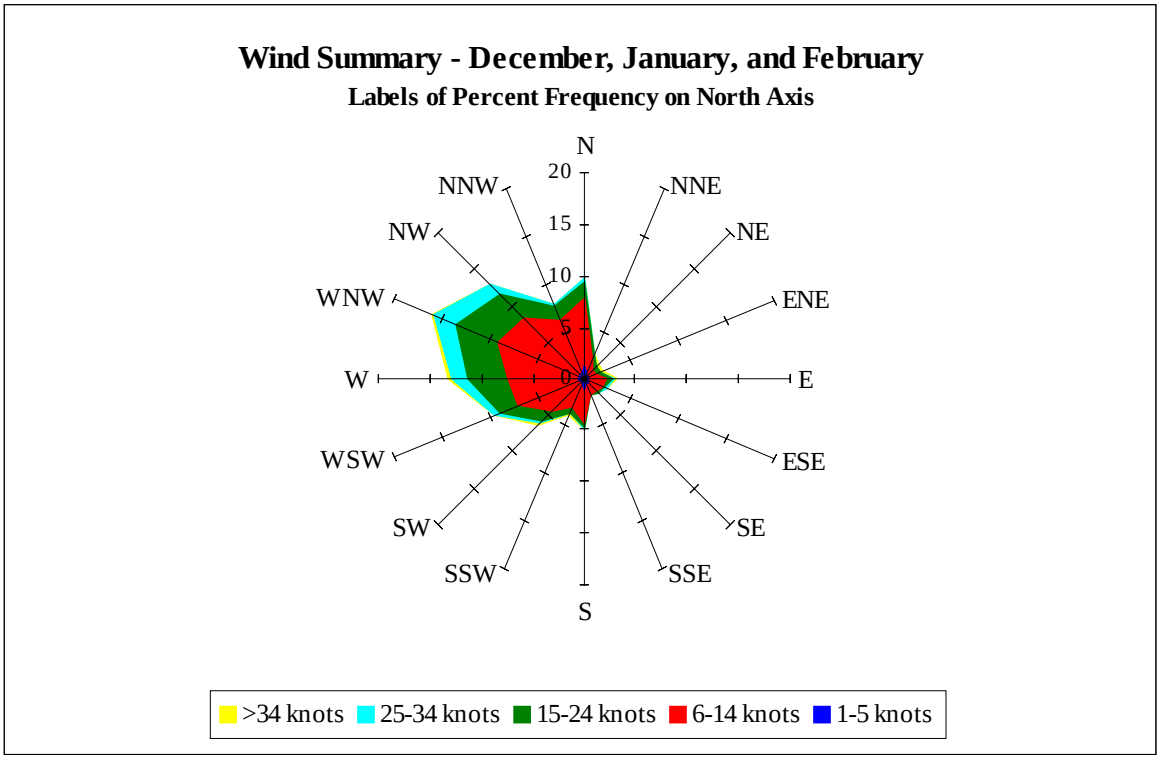
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

AVERAGE TRANSMITTED SOLAR RADIATION (Btu/sq.ft./day) FOR DOUBLE GLAZING, Percentage Uncertainty = 9

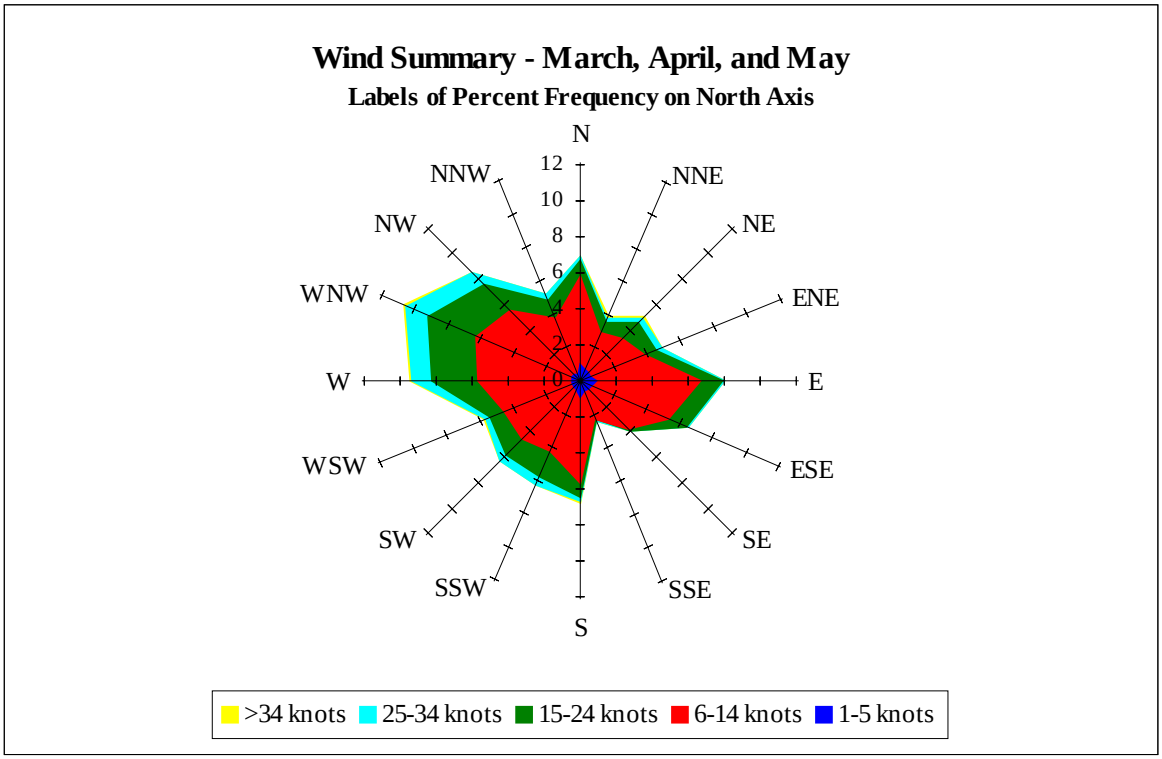
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ	Unshaded	370	580	830	1070	1290	1410	1390	1220	960	660	390	300	870
NORTH	Unshaded	130	170	240	290	360	410	390	330	260	190	130	110	250
	Shaded	110	150	200	260	310	350	340	290	230	160	110	92	220
EAST	Unshaded	280	390	520	640	710	770	750	700	590	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

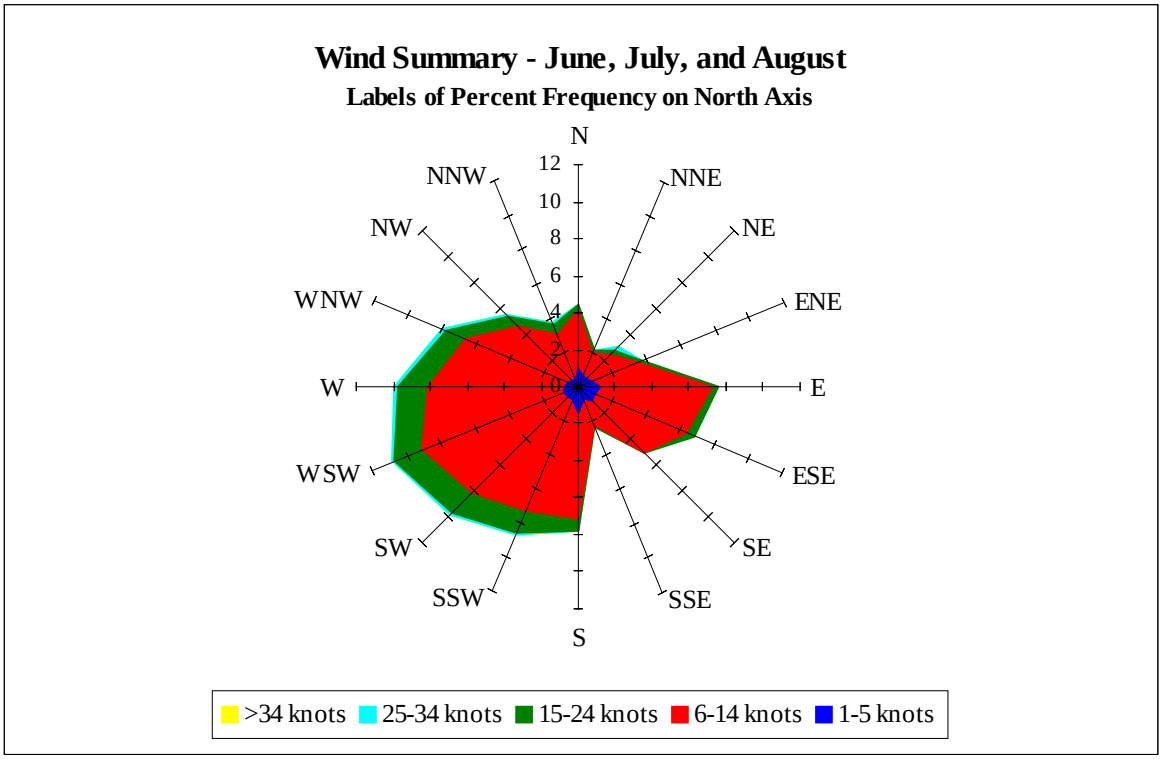
		March					June				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	43	71	76	56	18	54	86	99	90	61
	M.Cloudy	24	44	48	35	11	34	56	70	64	42
NORTH	M.Clear	10	14	15	12	6	14	17	17	17	15
	M.Cloudy	10	15	16	13	5	13	18	19	19	14
EAST	M.Clear	72	49	15	12	6	79	67	23	17	15
	M.Cloudy	26	28	16	13	5	36	40	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



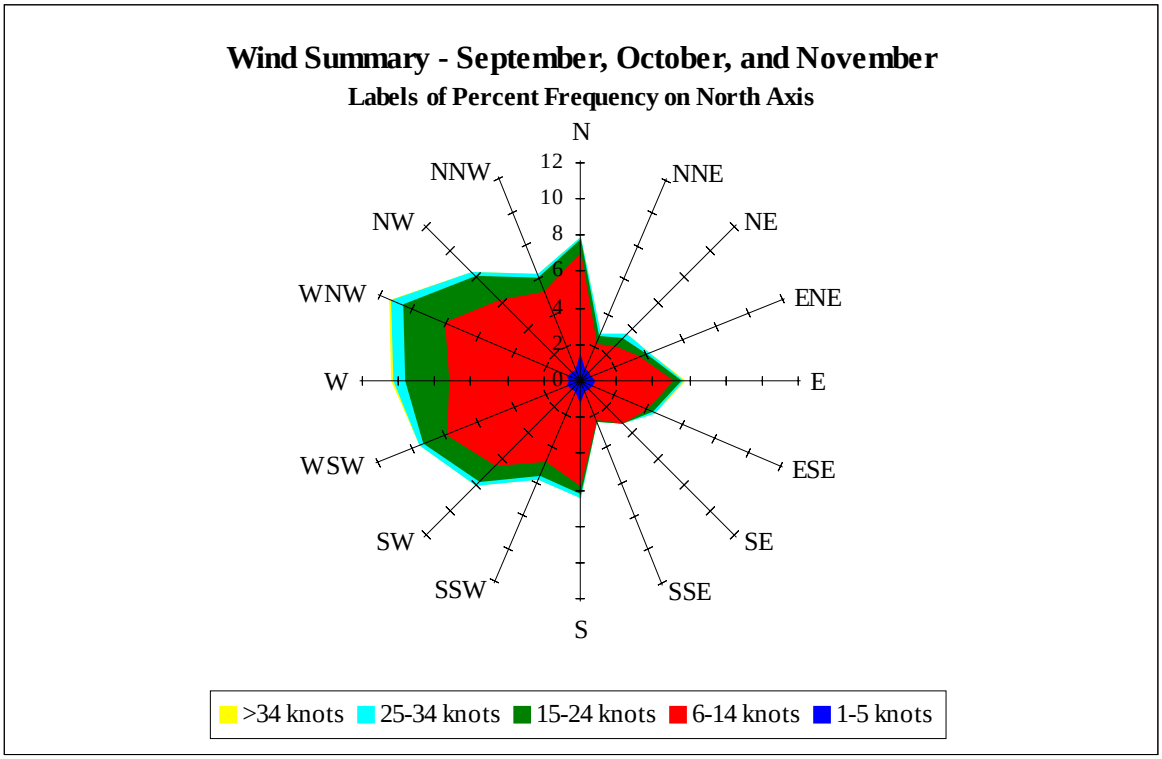
Percent Calm = 0.38



Percent Calm = 0.55



Percent Calm = 0.49



Percent Calm = 0.50