

BRISBANE AU

Latitude = 27.30 S

Longitude = 153.10 E

Period of Record = 1973 to 1996

WMO No. 945780

Elevation = 16 feet

Average Pressure = 29.96 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	94	72	84	9.9	W
0.4% Occurrence	88	73	99	11.0	NNE
1.0% Occurrence	86	73	100	11.4	NNE
2.0% Occurrence	84	72	97	11.7	NNE
Mean Daily Range	16	-	-	-	-
97.5% Occurrence	48	45	38	3.9	SSW
99.0% Occurrence	45	43	35	3.2	SW
99.6% Occurrence	43	41	33	3.0	SW
Median of Extreme Lows	39	38	31	2.1	SW
	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	81	89	144	11.9	NNE
0.4% Occurrence	78	84	134	10.0	N
1.0% Occurrence	76	82	123	9.9	N
2.0% Occurrence	75	81	119	9.5	N
	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	151	83	0.99	11.4	NNE
0.4% Occurrence	134	81	0.88	8.6	N
1.0% Occurrence	126	80	0.83	8.5	N
2.0% Occurrence	124	79	0.83	7.3	N
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		6	891	542	2700

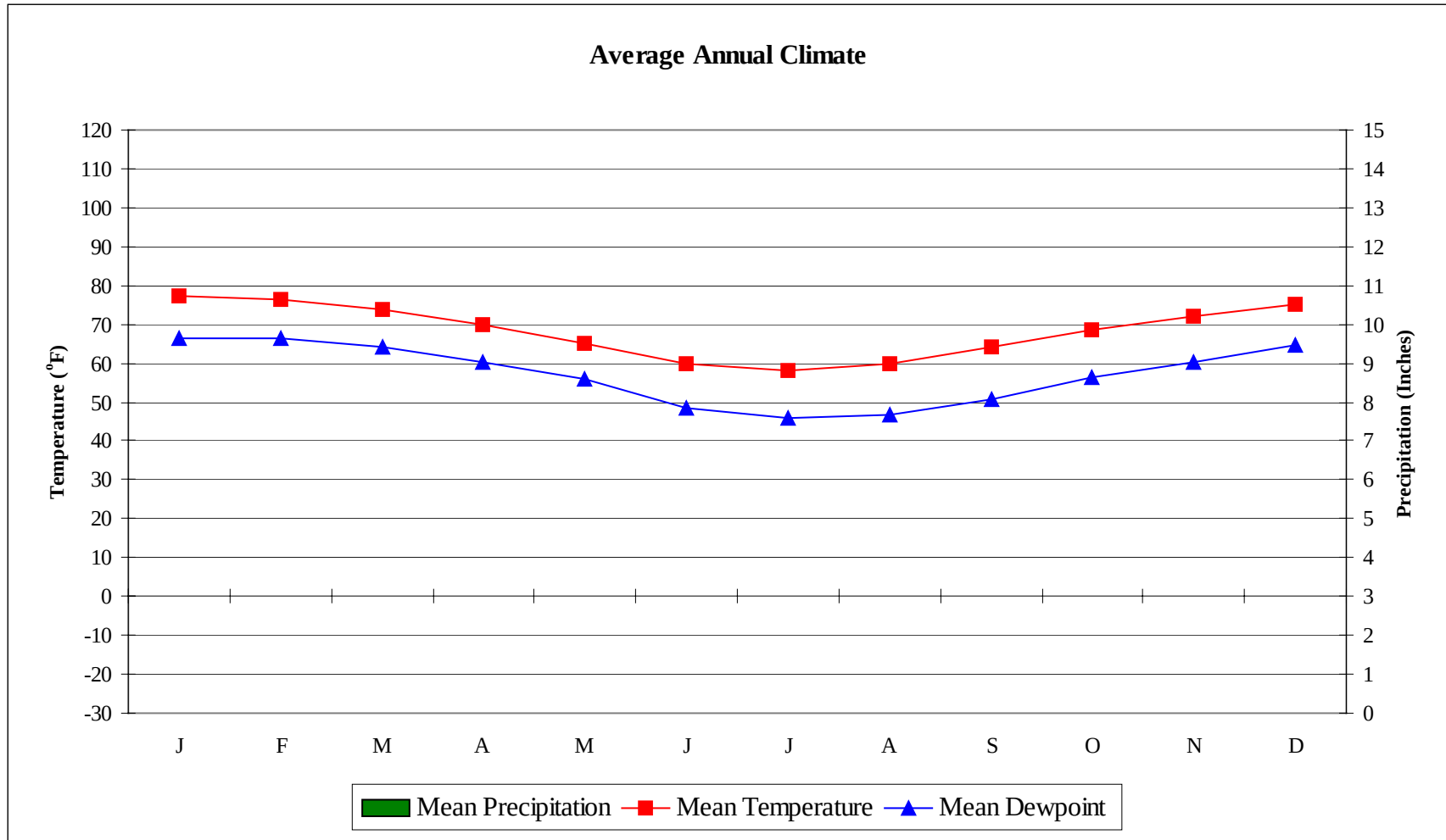
Other Site Data

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
10	N/A	N/A	2.6 + 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 (#)
70.7	N/A	N/A	0

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

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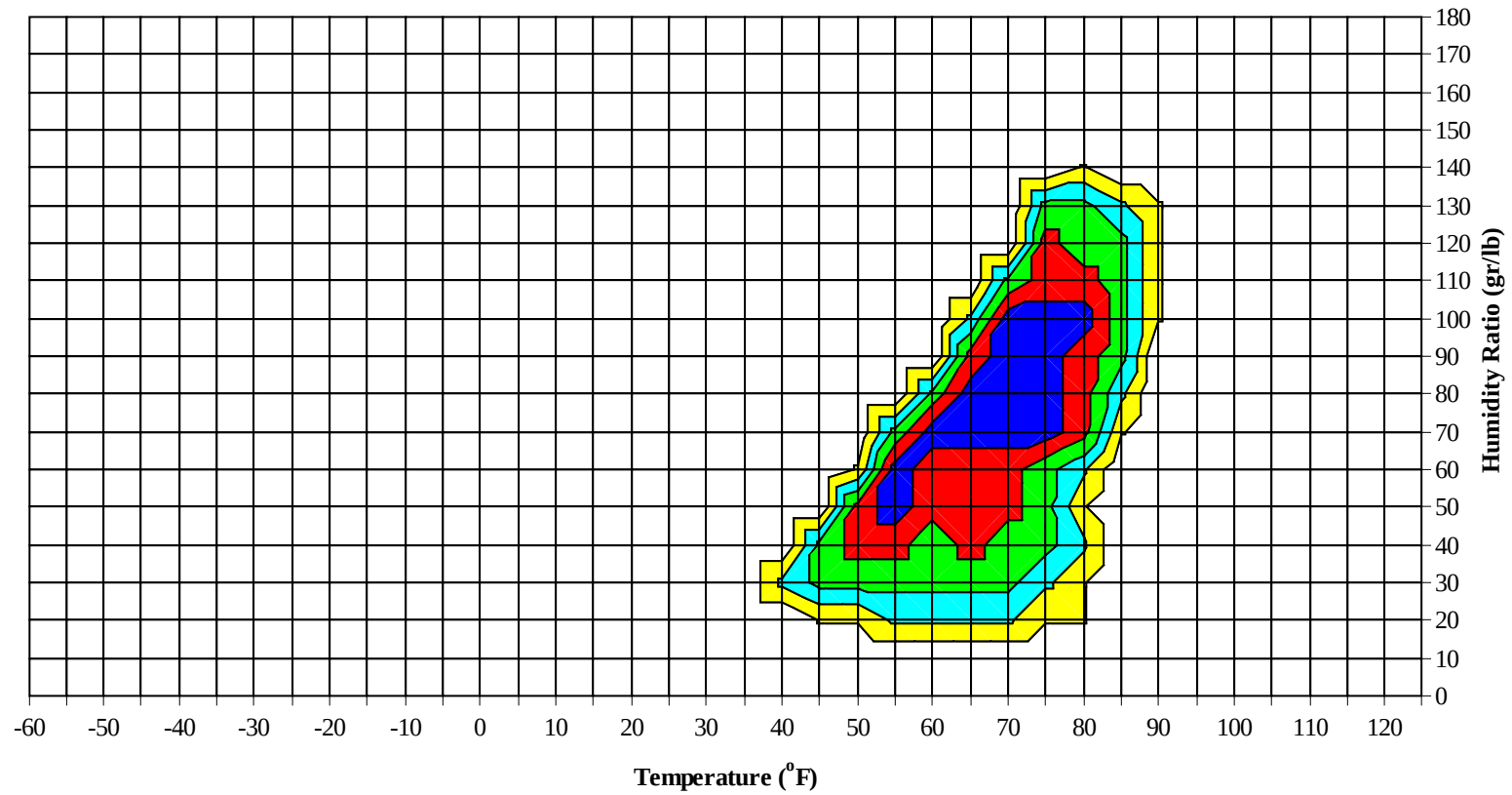


No Precipitation Data Available

BRISBANE AU

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Long Term Psychrometric Summary

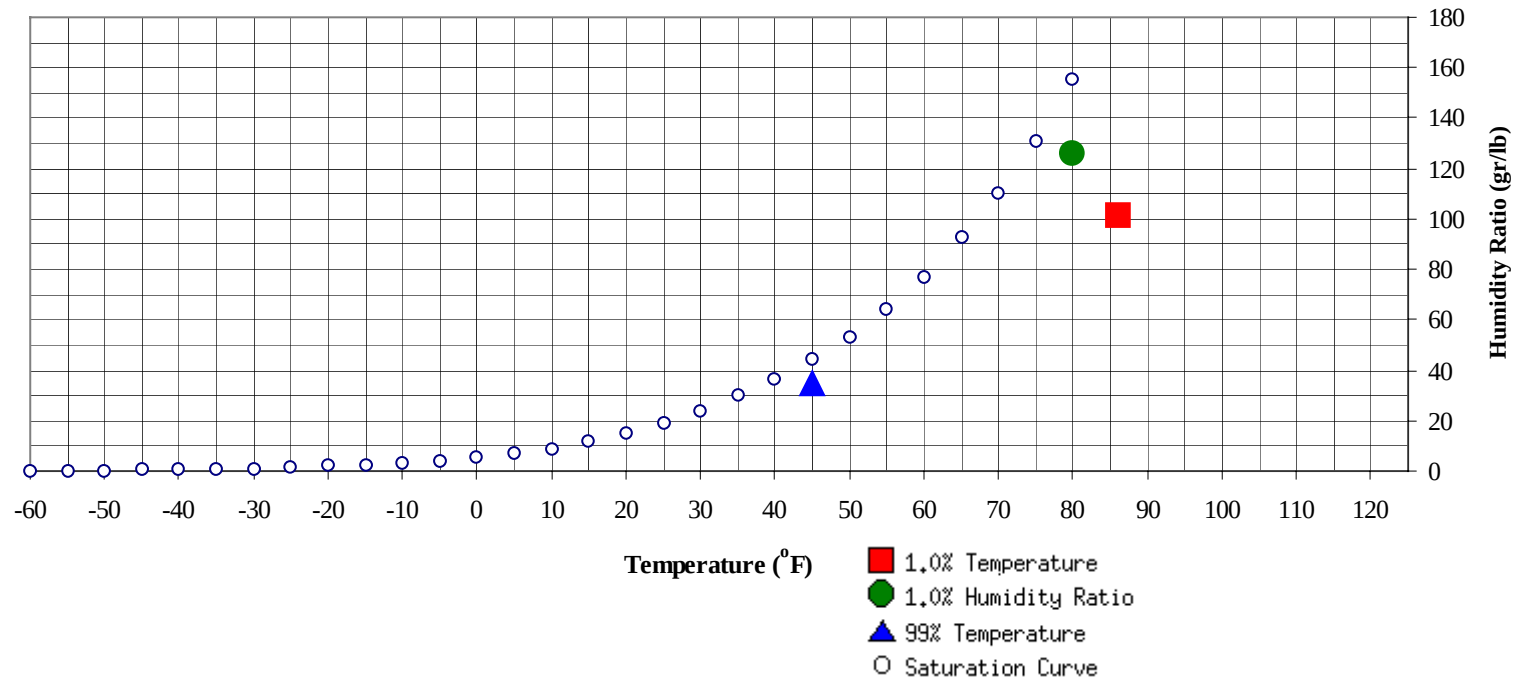


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

BRISBANE AU

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Psychrometric Summary of Peak Design Values



99% Dry Bulb	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)	1.0% Humidity Ratio	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
	45	34.5	16.1		126	79.8	75	73.4	38.9

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	86	101.3	72.8	36.5

BRISBANE AU

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

Period of Record = 1973 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		
100 / 104															
95 / 99		1	0	1	72.4							0		0	66.0
90 / 94		8	0	8	76.0		3	0	3	74.4	0	2	0	2	73.0
85 / 89	1	33	2	36	74.2	0	27	1	28	74.1	0	11	0	11	73.5
80 / 84	8	141	39	188	71.7	4	116	31	150	71.7	1	100	8	110	70.2
75 / 79	74	55	132	262	70.5	53	61	114	229	70.6	19	103	77	200	68.9
70 / 74	130	9	69	208	67.9	121	16	70	207	67.8	105	29	130	265	67.2
65 / 69	32	1	5	38	64.3	40	1	7	49	64.5	96	2	29	127	64.3
60 / 64	3		0	3	61.5	5	0	1	6	60.9	26	0	3	29	60.6
55 / 59						0			0	54.0	1			1	55.7
50 / 54															
45 / 49															
40 / 44															
35 / 39															
30 / 34															

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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WMO No. 945780

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

Period of Record = 1973 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		
100 / 104															
95 / 99															
90 / 94		0		0	65.8										
85 / 89	0	2		2	68.2										
80 / 84	0	31	1	32	68.2		2		2	65.7		0		0	58.5
75 / 79	1	118	18	137	66.3	0	44	1	45	64.4		4	0	4	61.0
70 / 74	35	68	102	205	65.7	5	119	29	154	63.1	1	60	2	63	60.2
65 / 69	78	20	83	181	63.4	25	53	76	154	62.2	1	79	18	98	57.8
60 / 64	103	2	31	136	59.8	110	26	102	238	59.2	25	64	85	174	56.5
55 / 59	18	0	4	22	54.1	82	4	32	119	54.4	98	28	85	211	53.0
50 / 54	3		1	4	48.1	20	0	6	26	49.1	70	5	40	114	48.1
45 / 49	1			1	46.4	5		1	6	44.6	37	0	10	47	43.7
40 / 44						0			0	42.7	6		1	7	40.0
35 / 39											2		0	2	36.2
30 / 34															

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BRISBANE AU

WMO No. 945780

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

Period of Record = 1973 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		
100 / 104															
95 / 99															
90 / 94													0	0	64.2
85 / 89													2	0	2 61.6
80 / 84		0	0	0	58.0		1		1	60.6		11	1	12	61.6
75 / 79	0	4	0	4	60.0	0	8	1	10	59.2	0	49	4	53	61.6
70 / 74	1	41	2	44	58.3	0	76	3	80	58.1	5	110	30	145	60.1
65 / 69	2	79	13	94	56.7	1	78	23	102	56.4	16	44	61	121	59.2
60 / 64	16	73	67	156	55.3	21	56	80	157	55.5	59	21	85	165	57.0
55 / 59	63	41	91	195	52.2	77	25	91	194	52.3	91	4	47	142	53.3
50 / 54	82	10	53	145	47.8	89	3	38	129	48.5	50	0	10	61	48.9
45 / 49	63	0	19	81	43.4	49		11	60	44.1	15		2	17	44.3
40 / 44	17		3	20	39.9	10		1	11	39.9	3		0	3	39.8
35 / 39	5		0	5	37.0	1		0	1	37.7	0		0	0	36.5
30 / 34														0	0

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BRISBANE AU

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

Period of Record = 1973 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		
100 / 104								0	0	65.5					
95 / 99							1	0	1	64.5		1		1	74.5
90 / 94		1	0	1	61.7		3	0	3	66.2	0	7	0	7	70.9
85 / 89		4	0	4	63.7	0	10	0	10	68.3	0	19	1	20	72.8
80 / 84	0	25	2	27	66.4	2	66	4	72	69.3	4	113	17	134	71.1
75 / 79	3	94	13	110	64.9	15	103	46	164	67.0	46	85	104	236	69.3
70 / 74	29	97	81	207	63.1	72	48	115	235	65.3	115	19	96	230	67.0
65 / 69	57	21	84	162	61.4	83	8	56	147	62.7	62	4	27	92	63.7
60 / 64	94	6	56	155	58.5	58	3	18	79	59.3	20	1	3	24	60.0
55 / 59	54	1	12	67	54.3	9		1	10	54.0	1	0	0	1	55.7
50 / 54	10	0	1	11	49.7	0			0	50.0					
45 / 49	1			1	45.0										
40 / 44															
35 / 39															
30 / 34															

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.

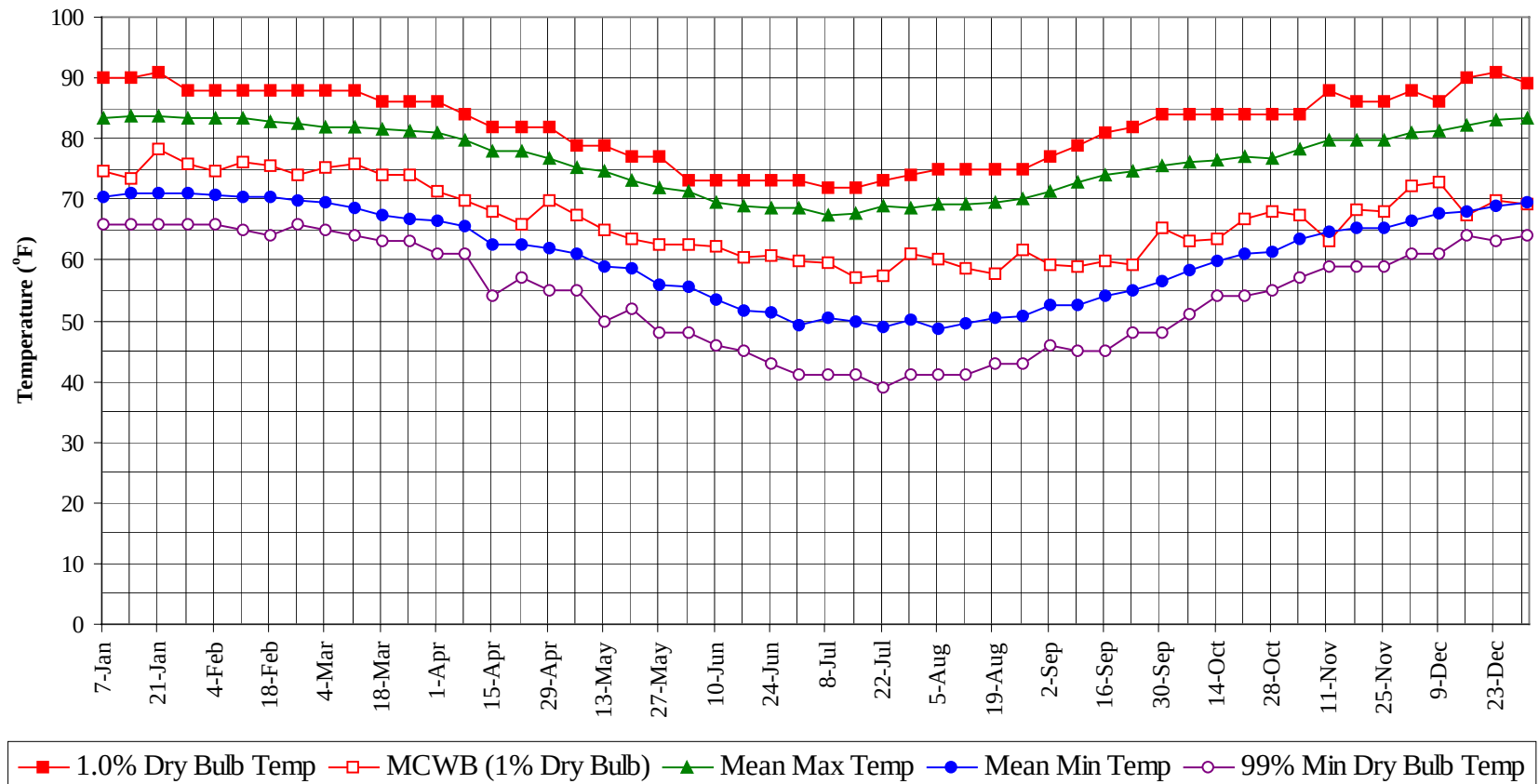
WMO No. 945780

Period of Record = 1973 to 1996

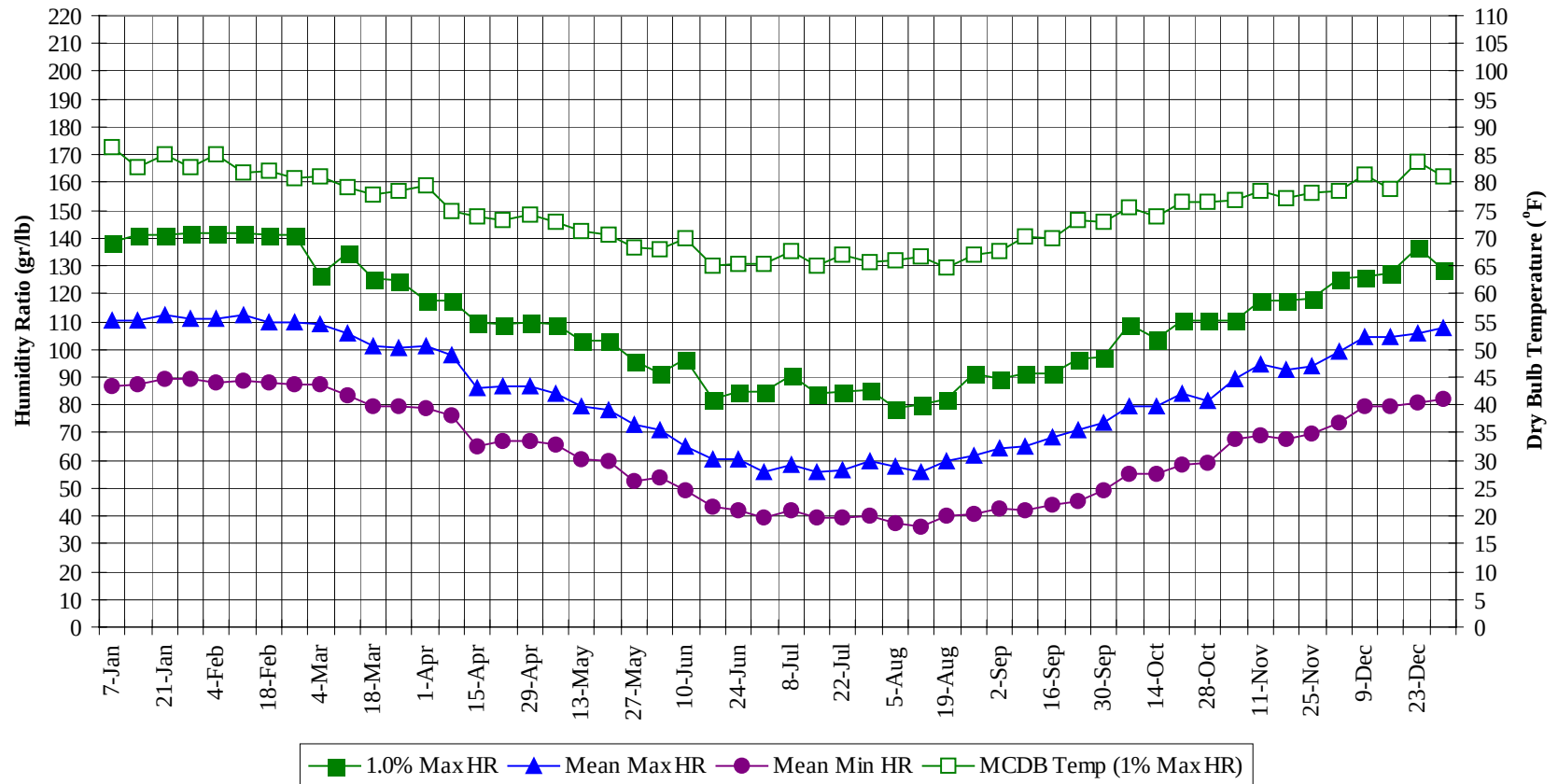
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Annual Summary of Temperatures

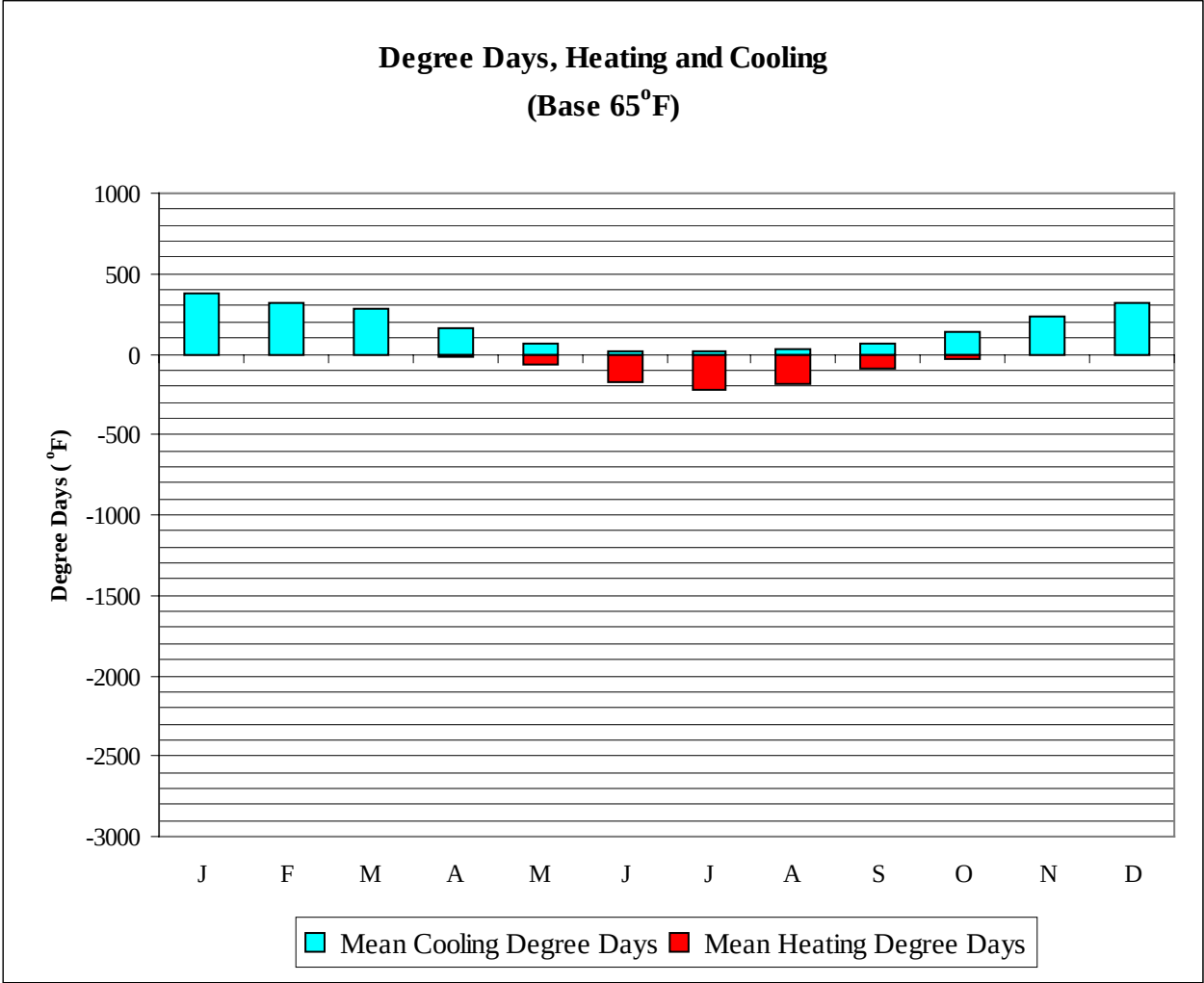


Long Term Humidity and Dry Bulb Temperature Summary

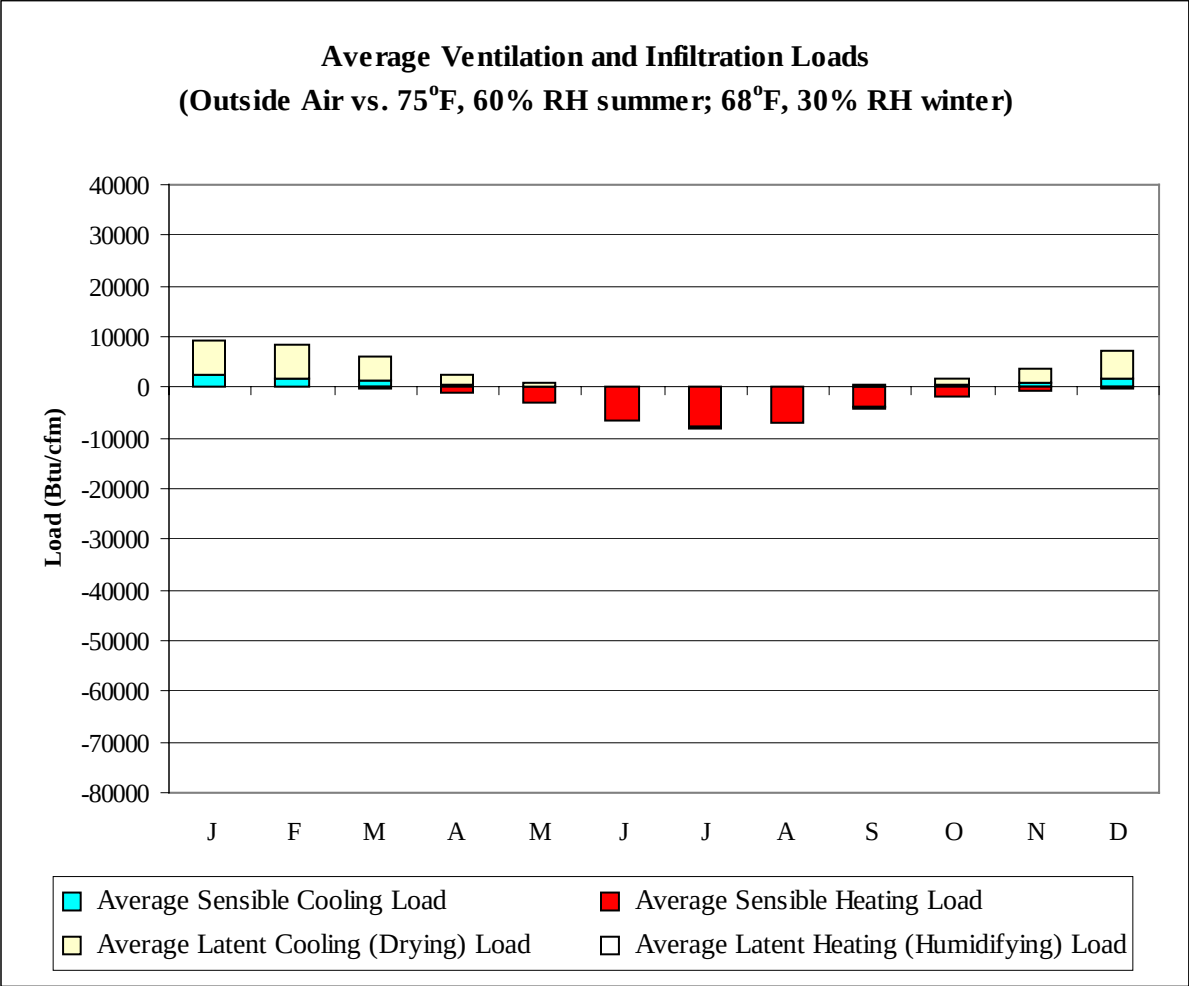


BRISBANE AU**WMO No. 945780****Long Term Dry Bulb Temperature and Humidity Summary**

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	90.0	74.7	83.3	70.5	66.0	138.6	86.5	110.4	86.8
14-Jan	90.0	73.5	83.8	71.0	66.0	141.4	82.9	110.3	87.5
21-Jan	91.0	78.2	83.8	71.0	66.0	141.4	85.0	112.6	89.3
28-Jan	88.0	75.8	83.5	71.0	66.0	142.1	82.7	111.2	89.6
4-Feb	88.0	74.7	83.3	70.8	66.0	142.1	84.9	111.0	87.9
11-Feb	88.0	76.2	83.4	70.3	65.0	142.1	81.6	112.1	88.7
18-Feb	88.0	75.6	82.8	70.3	64.0	141.4	82.2	109.5	88.3
25-Feb	88.0	74.2	82.6	69.6	66.0	141.4	80.7	109.4	87.3
4-Mar	88.0	75.2	81.8	69.5	65.0	126.7	81.2	108.8	87.6
11-Mar	88.0	75.7	81.8	68.7	64.0	134.4	79.3	105.5	83.7
18-Mar	86.0	74.0	81.5	67.4	63.0	125.3	77.8	101.0	79.4
25-Mar	86.0	74.1	81.4	66.8	63.0	124.6	78.6	100.8	79.2
1-Apr	86.0	71.2	80.9	66.5	61.0	117.6	79.6	101.2	78.8
8-Apr	84.0	69.9	79.8	65.4	61.0	117.6	74.8	97.7	76.0
15-Apr	82.0	67.8	77.9	62.6	54.0	109.9	73.9	86.0	65.0
22-Apr	82.0	65.8	77.9	62.4	57.0	109.2	73.4	86.6	67.2
29-Apr	82.0	69.9	76.7	61.9	55.0	109.9	74.1	86.7	67.3
6-May	79.0	67.3	75.3	61.1	55.0	109.2	72.8	83.8	65.7
13-May	79.0	64.8	74.7	58.9	50.0	102.9	71.1	79.6	60.1
20-May	77.0	63.5	73.0	58.5	52.0	102.9	70.5	78.4	59.5
27-May	77.0	62.4	72.1	55.9	48.0	95.9	68.2	72.7	52.6
3-Jun	73.0	62.6	71.2	55.7	48.0	91.0	67.8	70.9	54.0
10-Jun	73.0	62.4	69.6	53.5	46.0	96.6	69.9	65.3	49.0
17-Jun	73.0	60.3	69.0	51.7	45.0	81.9	65.2	60.6	43.4
24-Jun	73.0	60.8	68.7	51.4	43.0	84.7	65.5	60.1	41.9
1-Jul	73.0	59.9	68.4	49.4	41.0	84.7	65.5	55.9	39.1
8-Jul	72.0	59.5	67.3	50.3	41.0	90.3	67.6	58.8	42.0
15-Jul	72.0	57.2	67.6	49.7	41.0	84.0	65.2	56.1	39.1
22-Jul	73.0	57.4	68.8	49.0	39.0	84.7	67.1	56.8	39.1
29-Jul	74.0	61.0	68.7	50.1	41.0	85.4	65.6	60.0	40.1
5-Aug	75.0	60.2	69.2	48.7	41.0	79.1	66.2	57.8	37.4
12-Aug	75.0	58.7	69.3	49.6	41.0	79.8	66.5	55.8	36.2
19-Aug	75.0	57.7	69.5	50.5	43.0	81.9	64.7	60.0	39.8
26-Aug	75.0	61.5	70.2	50.9	43.0	91.0	67.0	61.5	41.0
2-Sep	77.0	59.4	71.4	52.4	46.0	89.6	67.8	64.5	42.4
9-Sep	79.0	59.0	72.8	52.7	45.0	91.0	70.1	65.0	42.2
16-Sep	81.0	59.8	74.0	54.1	45.0	91.0	69.8	68.0	43.9
23-Sep	82.0	59.2	74.7	55.0	48.0	96.6	73.3	70.9	45.6
30-Sep	84.0	65.3	75.6	56.6	48.0	97.3	73.0	73.9	49.4
7-Oct	84.0	63.2	76.3	58.4	51.0	109.2	75.6	79.2	55.2
14-Oct	84.0	63.3	76.3	60.0	54.0	103.6	74.0	79.5	55.0
21-Oct	84.0	66.9	77.1	60.9	54.0	110.6	76.4	84.4	58.3
28-Oct	84.0	68.1	76.8	61.3	55.0	110.6	76.6	81.3	59.0
4-Nov	84.0	67.3	78.2	63.4	57.0	110.6	76.9	89.0	67.5
11-Nov	88.0	63.1	79.7	64.7	59.0	117.6	78.6	94.2	68.7
18-Nov	86.0	68.4	79.6	65.4	59.0	117.6	77.1	92.3	67.8
25-Nov	86.0	68.0	79.7	65.3	59.0	118.3	78.3	94.0	69.7
2-Dec	88.0	72.1	81.1	66.5	61.0	125.3	78.5	99.4	73.2
9-Dec	86.0	72.7	81.4	67.8	61.0	126.0	81.4	104.1	79.5
16-Dec	90.0	67.4	82.2	68.1	64.0	127.4	78.7	104.1	79.2
23-Dec	91.0	69.9	83.0	68.8	63.0	136.5	83.7	106.0	80.6
31-Dec	89.0	69.3	83.3	69.5	64.0	128.8	81.0	107.5	82.3



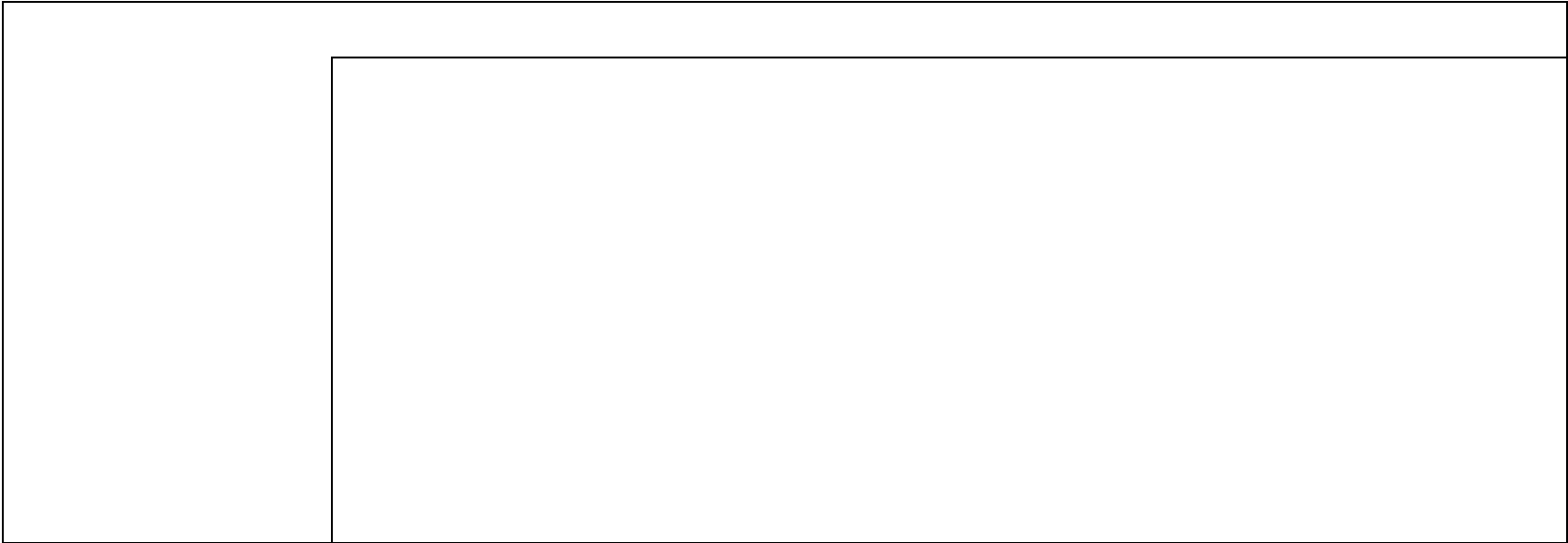
	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	372	0
FEB	318	0
MAR	284	1
APR	165	14
MAY	68	66
JUN	20	178
JUL	15	223
AUG	26	191
SEP	71	94
OCT	142	32
NOV	229	7
DEC	323	1
ANN	2032	807



	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	2439	-26	6932	0
FEB	1872	-41	6401	0
MAR	1252	-181	4618	0
APR	412	-911	2282	-14
MAY	47	-3064	821	-13
JUN	3	-6481	92	-122
JUL	3	-7770	75	-206
AUG	12	-6888	58	-216
SEP	146	-3917	292	-191
OCT	348	-1661	1193	-49
NOV	902	-518	2726	-21
DEC	1799	-155	5516	-4
ANN	9235	-31613	31006	-836

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

No Solar Radiation
Data Available

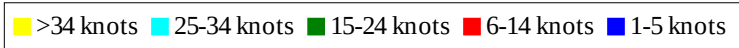
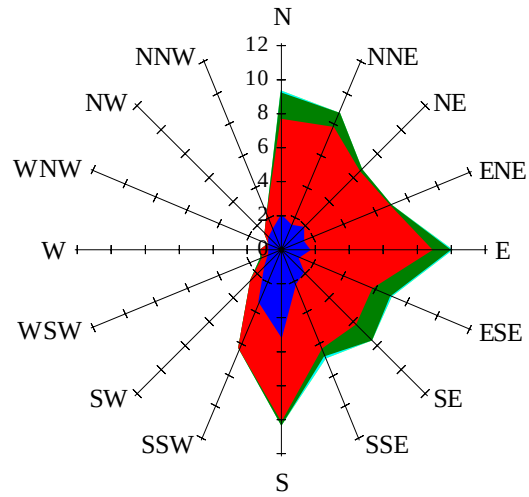


Average Annual Solar Heat and Illumination – Nearest Available Site

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

Wind Summary - December, January, and February

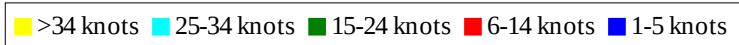
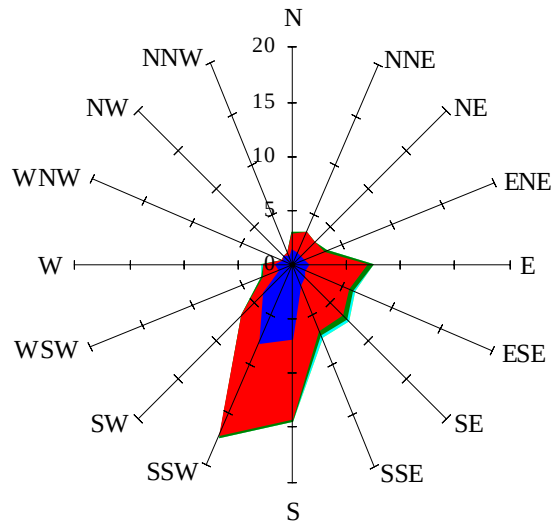
Labels of Percent Frequency on North Axis



Percent Calm = 12.36

Wind Summary - March, April, and May

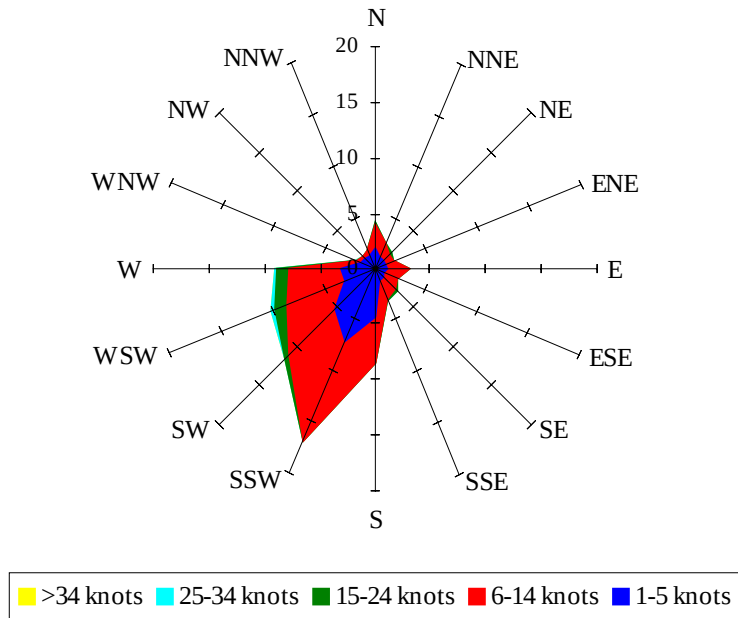
Labels of Percent Frequency on North Axis



Percent Calm = 13.69

Wind Summary - June, July, and August

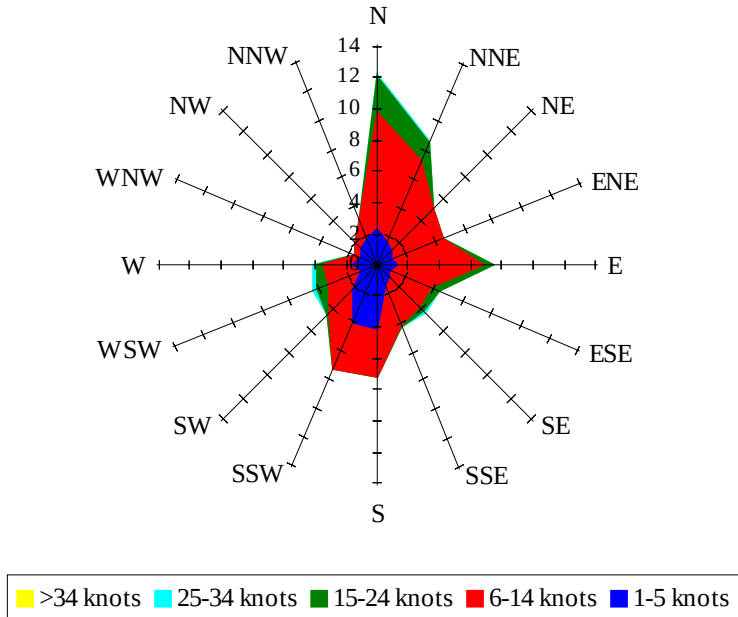
Labels of Percent Frequency on North Axis



Percent Calm = 17.41

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 15.47