

SAN JOSE/SANTAMARIA CS

Latitude = 10.00 N

WMO No. 787620

Longitude = 84.22 W

Elevation = 3055 feet

Period of Record = 1973 to 1996

Average Pressure = 26.82 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	90	70	91	14.1	ESE
0.4% Occurrence	86	69	91	15.7	E
1.0% Occurrence	86	69	91	15.7	E
2.0% Occurrence	84	68	92	16.4	E
Mean Daily Range	15	-	-	-	-
97.5% Occurrence	63	61	87	9.8	E
99.0% Occurrence	63	61	87	9.8	E
99.6% Occurrence	61	58	77	9.7	ENE
Median of Extreme Lows	58	56	68	10.6	ENE
	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	79	84	155	9.9	E
0.4% Occurrence	75	80	133	11.9	WSW
1.0% Occurrence	74	80	129	12.0	WSW
2.0% Occurrence	73	79	124	11.7	WSW
	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	158	82	0.94	11.0	E
0.4% Occurrence	139	78	0.83	10.8	WSW
1.0% Occurrence	131	76	0.78	10.2	WSW
2.0% Occurrence	130	76	0.78	10.2	WSW
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		0	1217	226	3952

Other Site Data

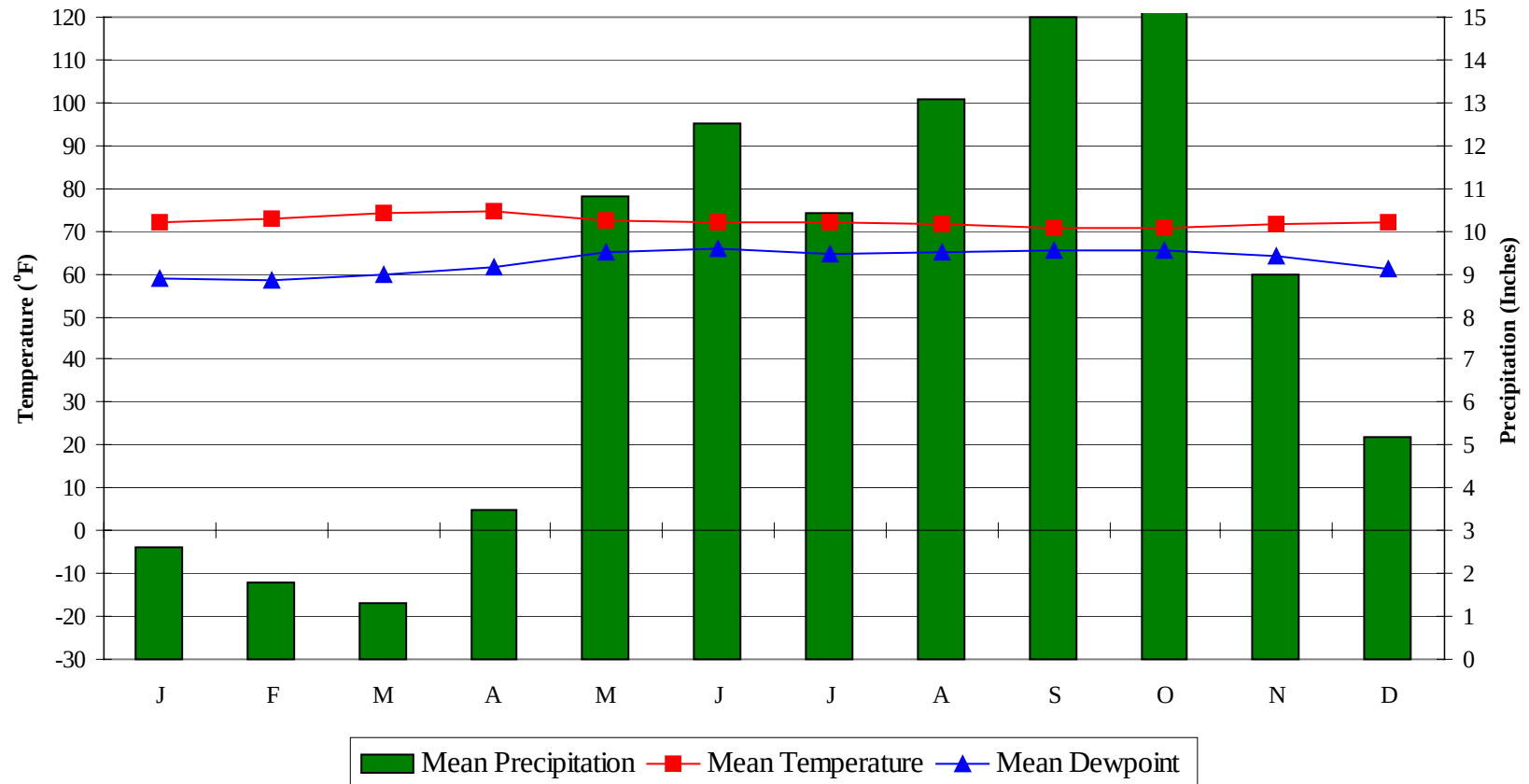
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
10	N/A	N/A	3.0 + 0.8
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
74.7	N/A	N/A	0

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

SAN JOSE/SANTAMARIA CS

WMO No. 787620

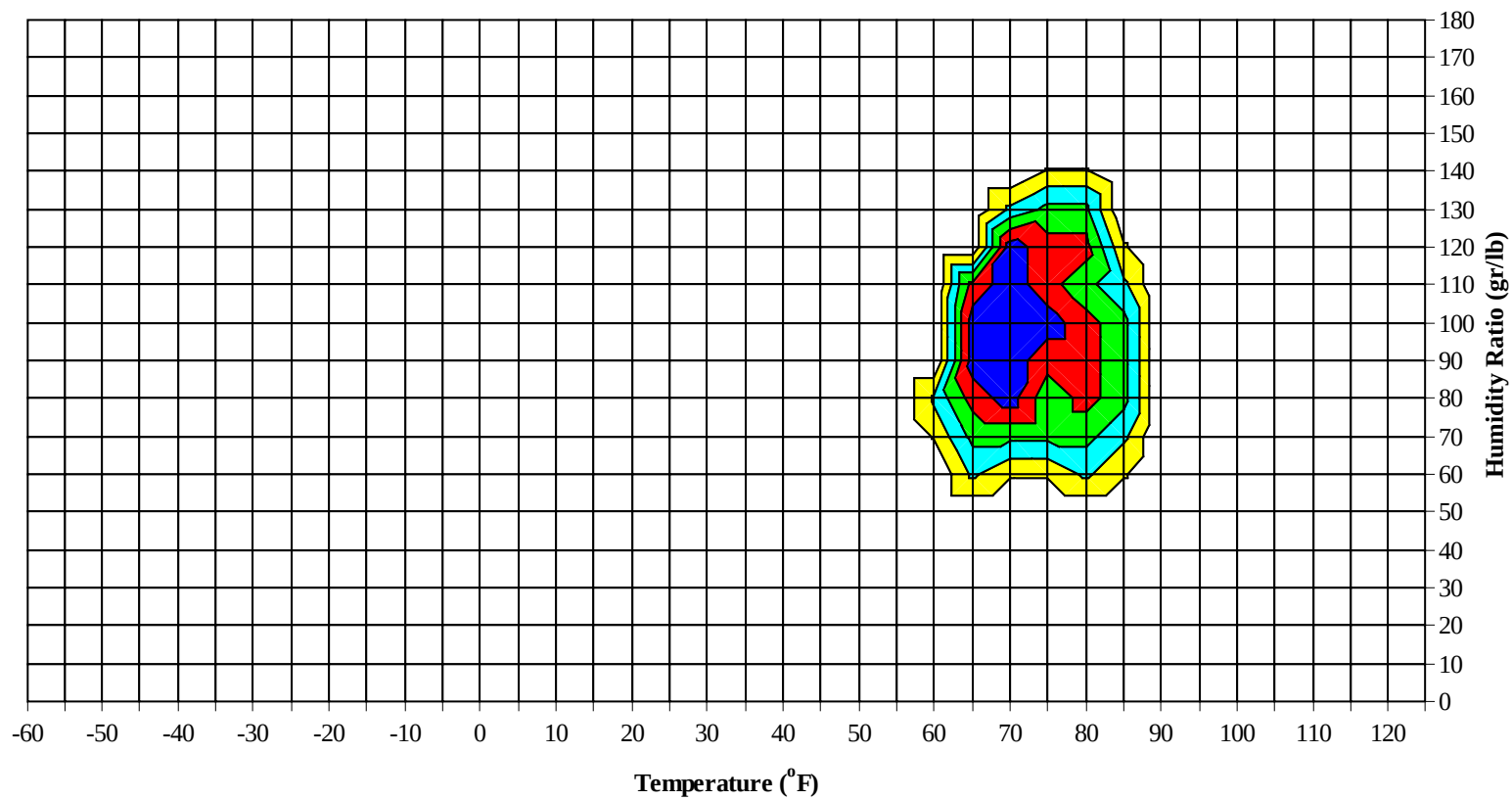
Average Annual Climate



SAN JOSE/SANTAMARIA CS

WMO No. 787620

Long Term Psychrometric Summary

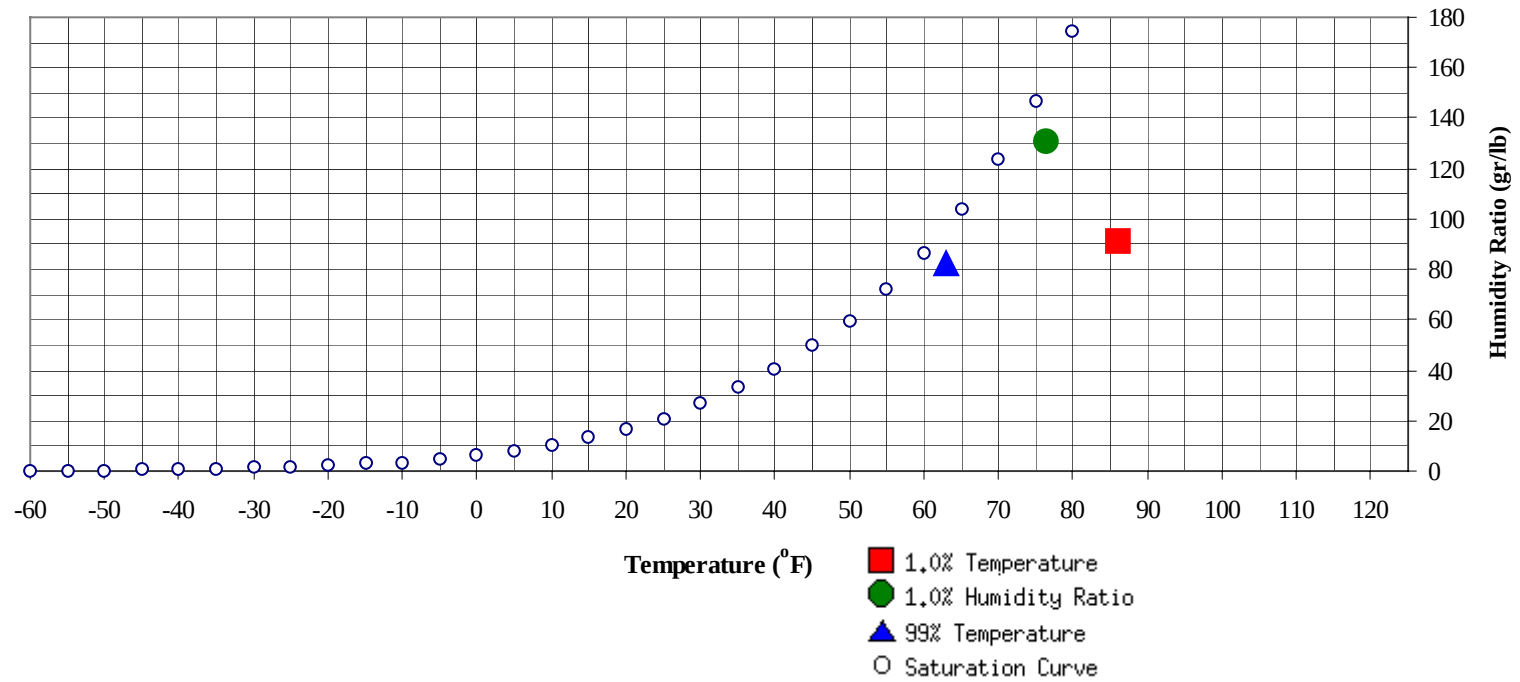


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

SAN JOSE/SANTAMARIA CS

WMO No. 787620

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)
	63	82.4	27.9		130.9	76.4	73.1	71.6	38.8

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	86	91.3	69.2	35.0

SAN JOSE/SANTAMARIA CS

WMO No. 787620

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		
95 / 99															
90 / 94		0		0	76.0		0	0	0	70.8		2		2	70.6
85 / 89	0	4		4	68.2		10	0	10	68.4		33	0	33	69.0
80 / 84	0	92	1	93	66.7	1	108	2	112	66.7	0	139	4	143	67.2
75 / 79	2	132	20	154	65.5	4	92	26	122	65.3	15	67	41	122	66.1
70 / 74	51	20	101	172	63.9	51	13	92	156	63.8	63	7	123	193	64.7
65 / 69	119	2	111	231	61.7	105	1	90	196	61.4	111	1	75	187	61.8
60 / 64	68	0	15	84	59.3	61	0	14	74	58.9	57	0	6	63	59.2
55 / 59	7		0	7	55.7	2		0	2	55.3	2		0	2	54.8
50 / 54								0	0						
45 / 49															

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.

SAN JOSE/SANTAMARIA CS

WMO No. 787620

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		
95 / 99						0			0						
90 / 94	0	1		1	68.9	0			0	73.3	0	0		0	64.0
85 / 89	0	39	0	39	68.8	0	12	0	12	70.2	0	4	0	4	71.4
80 / 84	0	132	5	137	68.1	1	96	2	99	70.4	0	60	1	61	70.9
75 / 79	27	56	38	122	67.1	21	93	16	130	69.5	15	115	9	139	70.2
70 / 74	75	9	136	220	65.7	71	38	127	236	67.6	66	51	111	227	68.2
65 / 69	103	3	59	164	63.1	119	9	100	228	65.5	121	10	116	247	65.8
60 / 64	35	0	2	37	59.9	36	0	4	40	61.8	38	0	4	42	62.3
55 / 59	0			0	54.0	0			0	55.0	0			0	57.0
50 / 54															
45 / 49															

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.

SAN JOSE/SANTAMARIA CS

WMO No. 787620

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		
95 / 99															
90 / 94	0	0		0	65.5	0	0		0	76.0					
85 / 89	0	4		4	71.3	0	4	0	4	70.3	0	2	0	2	70.2
80 / 84	0	70	1	71	69.7	0	66	1	67	69.7	1	46	0	47	70.6
75 / 79	14	118	16	147	69.2	10	116	10	136	69.5	10	117	3	130	70.2
70 / 74	82	45	113	240	67.2	70	51	95	216	67.6	45	60	64	169	68.2
65 / 69	109	11	110	230	65.2	114	11	134	259	65.5	113	15	161	289	65.9
60 / 64	44	0	8	52	62.1	53	0	9	62	62.2	71	0	12	83	62.6
55 / 59	0			0	57.3	0		0	0	57.0	0			0	58.3
50 / 54															
45 / 49															

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.

SAN JOSE/SANTAMARIA CS

WMO No. 787620

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		
95 / 99															
90 / 94							0		0	76.0		0		0	72.0
85 / 89		1	0	1	72.8		1	0	1	71.4		1		1	69.8
80 / 84	0	46	0	46	69.9	1	61	0	62	68.9	0	78	1	79	67.4
75 / 79	11	119	2	132	69.8	11	120	7	138	68.8	7	140	12	159	66.8
70 / 74	45	66	65	175	68.0	52	49	99	199	67.1	62	27	109	198	65.2
65 / 69	121	17	172	309	65.7	124	9	126	260	65.0	118	3	112	232	63.1
60 / 64	71	0	10	81	62.2	52	0	9	60	61.7	59	0	15	73	60.2
55 / 59	0			0	57.0	0			0	57.0	2		0	2	55.5
50 / 54											0		0	0	45.0
45 / 49													0	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.

SAN JOSE/SANTAMARIA CS

WMO No. 787620

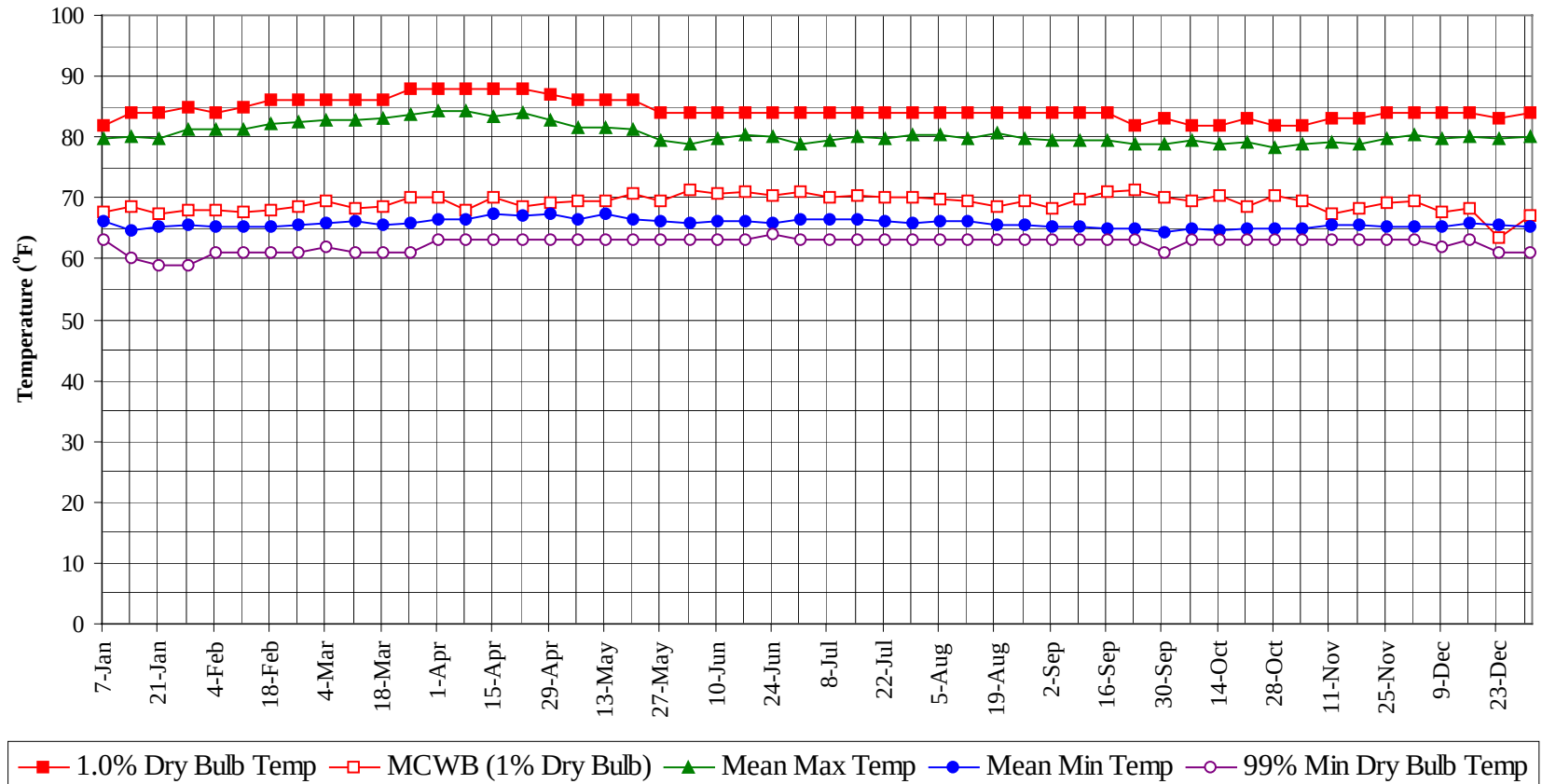
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1973 to 1996

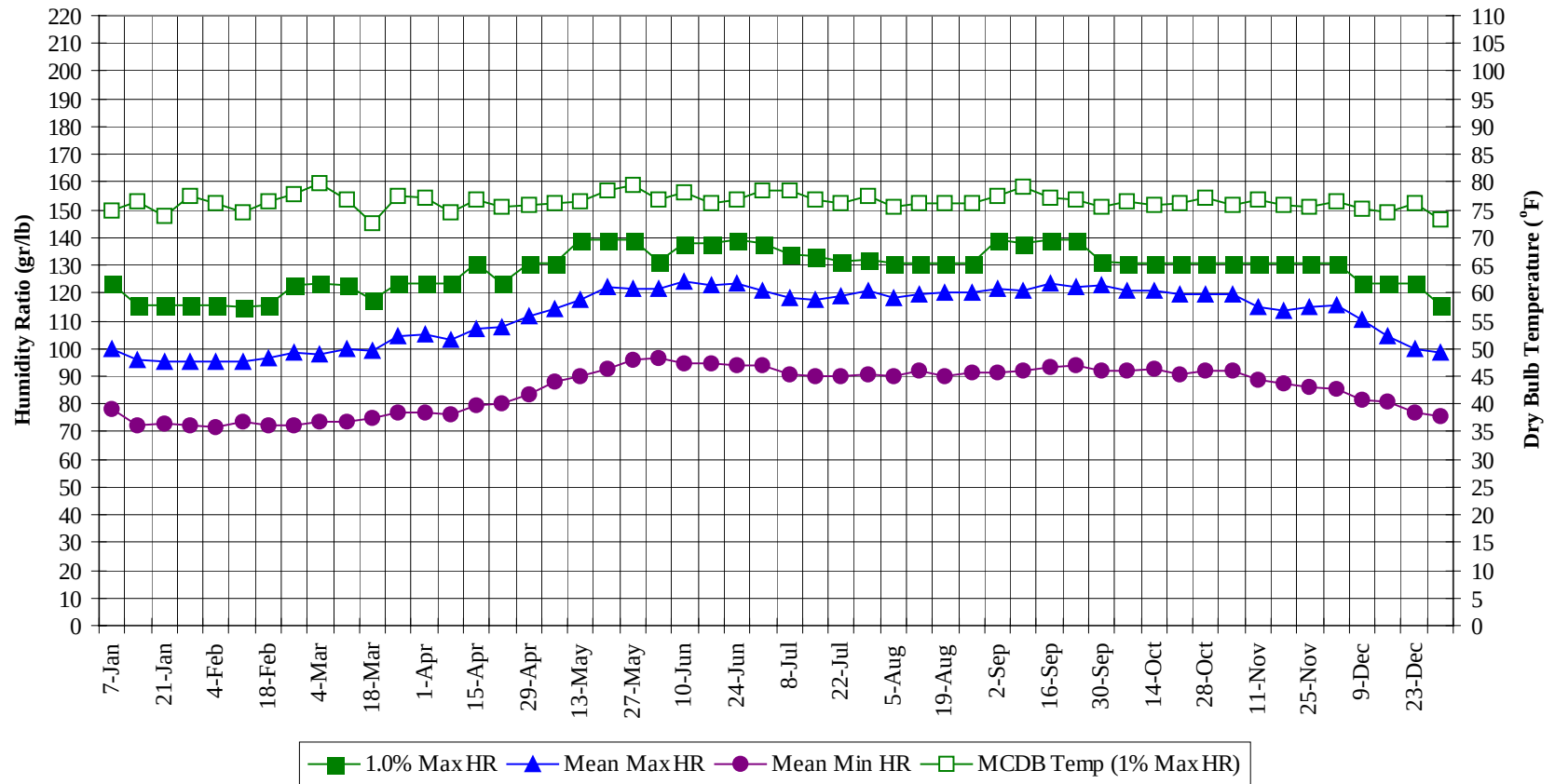
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
95 / 99		0		0	
90 / 94	0	4	0	4	70.2
85 / 89	0	112	1	113	69.2
80 / 84	6	995	17	1018	68.4
75 / 79	146	1285	197	1628	68.2
70 / 74	724	433	1224	2382	66.5
65 / 69	1378	89	1375	2841	64.4
60 / 64	650	2	106	757	61.0
55 / 59	16		0	16	55.6
50 / 54	0		0	0	45.0
45 / 49			0	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

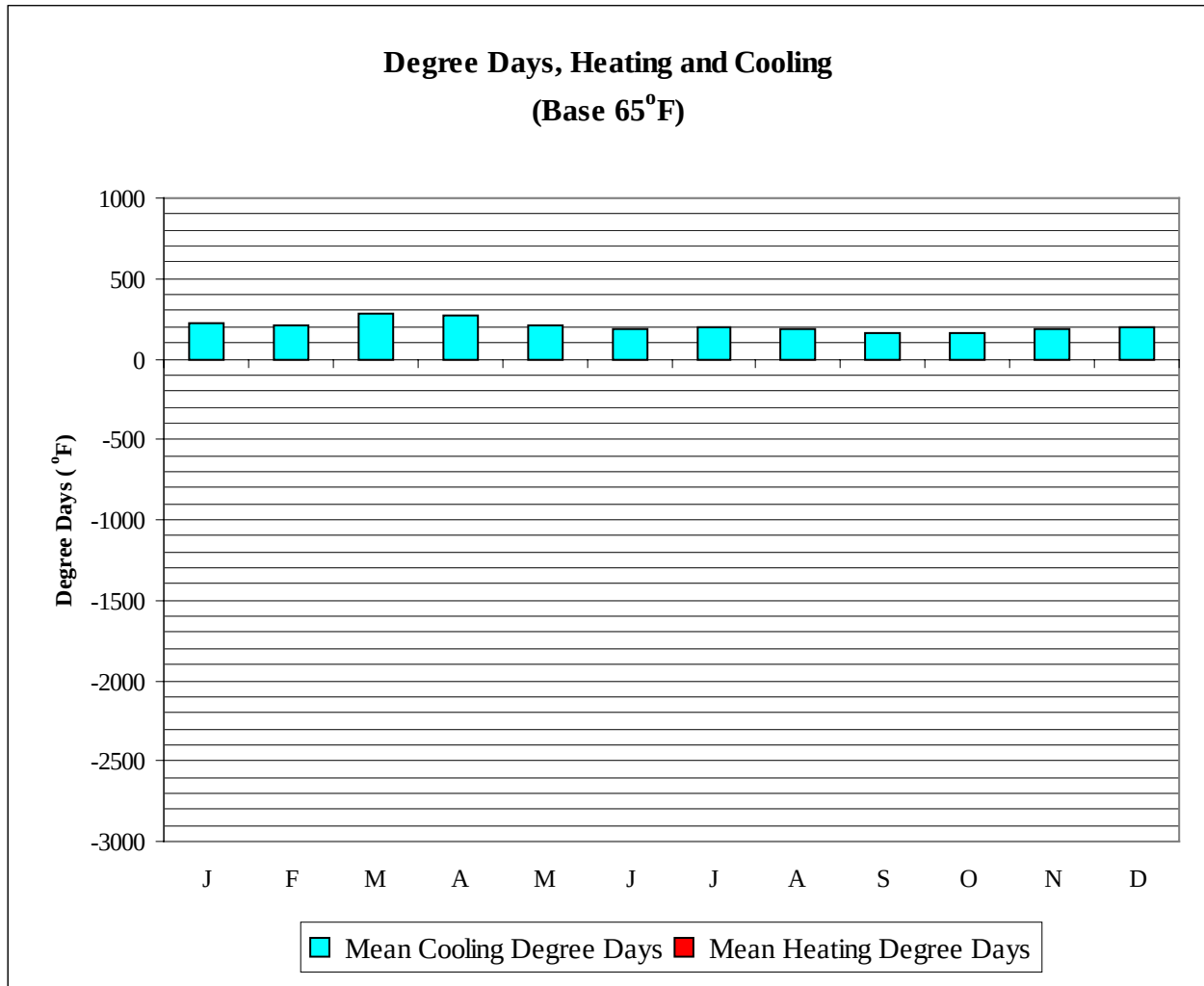


SAN JOSE/SANTAMARIA CS

WMO No. 787620

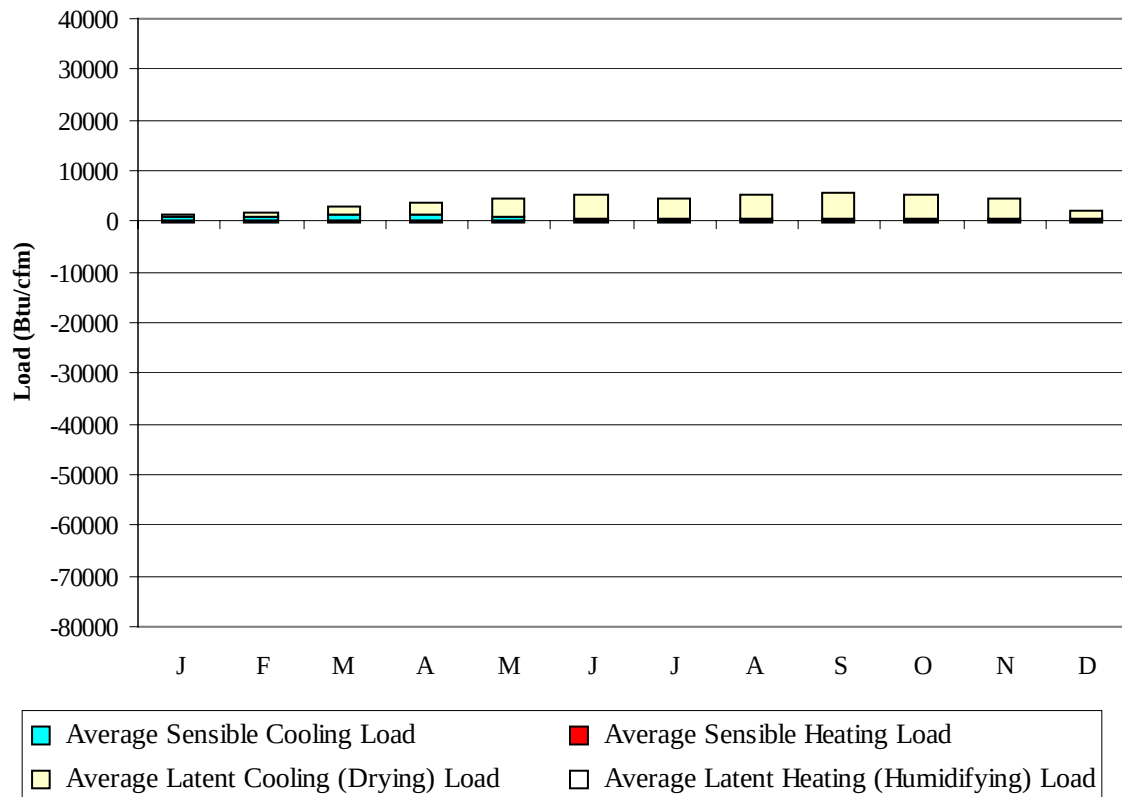
Long Term Dry Bulb Temperature and Humidity Summary

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	82.0	67.5	79.9	66.1	63.0	123.2	75.0	100.0	78.0
14-Jan	84.0	68.6	80.0	64.8	60.0	115.5	76.6	95.9	72.3
21-Jan	84.0	67.2	79.7	65.2	59.0	115.5	73.9	95.5	73.2
28-Jan	85.0	68.0	81.3	65.5	59.0	115.5	77.5	95.5	72.1
4-Feb	84.0	67.9	81.2	65.3	61.0	115.5	76.1	95.4	71.4
11-Feb	85.0	67.7	81.2	65.2	61.0	114.8	74.5	95.3	73.5
18-Feb	86.0	68.1	82.0	65.2	61.0	115.5	76.6	96.7	71.9
25-Feb	86.0	68.5	82.5	65.4	61.0	122.5	77.7	98.4	72.0
4-Mar	86.0	69.4	82.8	65.8	62.0	123.2	79.7	97.8	73.7
11-Mar	86.0	68.2	82.9	66.1	61.0	122.5	76.7	99.5	73.4
18-Mar	86.0	68.7	82.9	65.5	61.0	117.6	72.7	98.9	74.6
25-Mar	88.0	70.0	83.7	66.0	61.0	123.2	77.6	104.2	77.1
1-Apr	88.0	70.0	84.3	66.5	63.0	123.2	77.2	105.1	76.8
8-Apr	88.0	67.9	84.3	66.4	63.0	123.2	74.6	102.9	76.4
15-Apr	88.0	70.2	83.5	67.4	63.0	130.9	76.7	106.8	79.7
22-Apr	88.0	68.5	84.0	67.1	63.0	123.2	75.4	107.8	80.0
29-Apr	87.0	69.3	82.9	67.3	63.0	130.9	75.8	111.5	83.2
6-May	86.0	69.4	81.7	66.5	63.0	130.9	76.2	114.3	88.3
13-May	86.0	69.6	81.6	67.5	63.0	139.3	76.5	117.9	90.2
20-May	86.0	70.6	81.2	66.4	63.0	139.3	78.5	121.9	92.6
27-May	84.0	69.6	79.4	66.3	63.0	139.3	79.4	121.8	95.6
3-Jun	84.0	71.3	78.8	66.0	63.0	131.6	77.0	121.7	96.5
10-Jun	84.0	70.8	79.6	66.1	63.0	137.9	78.0	124.4	94.3
17-Jun	84.0	71.1	80.2	66.3	63.0	137.9	76.3	123.1	94.3
24-Jun	84.0	70.3	80.0	66.0	64.0	139.3	77.0	123.6	94.2
1-Jul	84.0	70.9	79.0	66.4	63.0	137.9	78.3	120.6	93.6
8-Jul	84.0	70.0	79.5	66.4	63.0	133.7	78.5	118.3	90.5
15-Jul	84.0	70.3	80.1	66.4	63.0	133.0	77.0	117.3	89.8
22-Jul	84.0	69.9	79.7	66.1	63.0	131.6	76.2	119.0	89.8
29-Jul	84.0	70.0	80.3	66.0	63.0	132.3	77.5	121.1	90.8
5-Aug	84.0	69.9	80.4	66.1	63.0	130.9	75.4	118.2	90.1
12-Aug	84.0	69.6	79.7	66.1	63.0	130.9	76.2	119.4	91.7
19-Aug	84.0	68.6	80.5	65.6	63.0	130.9	76.2	120.5	89.9
26-Aug	84.0	69.4	79.7	65.6	63.0	130.9	76.2	120.5	91.4
2-Sep	84.0	68.4	79.4	65.4	63.0	139.3	77.4	121.4	91.4
9-Sep	84.0	69.8	79.5	65.3	63.0	137.9	79.0	120.9	92.2
16-Sep	84.0	71.1	79.5	65.1	63.0	139.3	77.1	123.2	93.0
23-Sep	82.0	71.2	78.8	65.0	63.0	139.3	76.9	122.5	94.2
30-Sep	83.0	70.0	78.8	64.5	61.0	131.3	75.7	123.0	92.2
7-Oct	82.0	69.5	79.4	64.8	63.0	130.9	76.4	121.0	92.2
14-Oct	82.0	70.3	78.7	64.7	63.0	130.9	75.8	121.0	92.6
21-Oct	83.0	68.7	79.0	65.0	63.0	130.9	76.3	119.7	90.4
28-Oct	82.0	70.5	78.3	65.0	63.0	130.9	77.2	119.6	91.9
4-Nov	82.0	69.5	78.8	65.1	63.0	130.9	75.8	119.5	91.8
11-Nov	83.0	67.3	79.1	65.6	63.0	130.9	76.7	114.8	88.4
18-Nov	83.0	68.2	78.9	65.7	63.0	130.9	75.8	113.6	87.6
25-Nov	84.0	69.3	79.7	65.4	63.0	130.9	75.5	115.1	85.9
2-Dec	84.0	69.4	80.4	65.3	63.0	130.9	76.5	115.4	85.6
9-Dec	84.0	67.6	79.7	65.4	62.0	123.2	75.2	110.2	81.5
16-Dec	84.0	68.4	80.0	66.0	63.0	123.2	74.4	104.3	80.5
23-Dec	83.0	63.3	79.6	65.5	61.0	123.2	76.2	100.1	76.7
31-Dec	84.0	67.0	80.1	65.3	61.0	115.5	73.1	98.5	75.6



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	217	4
FEB	215	3
MAR	276	2
APR	266	1
MAY	206	1
JUN	190	1
JUL	197	2
AUG	185	2
SEP	160	3
OCT	167	3
NOV	190	2
DEC	201	3
ANN	2471	27

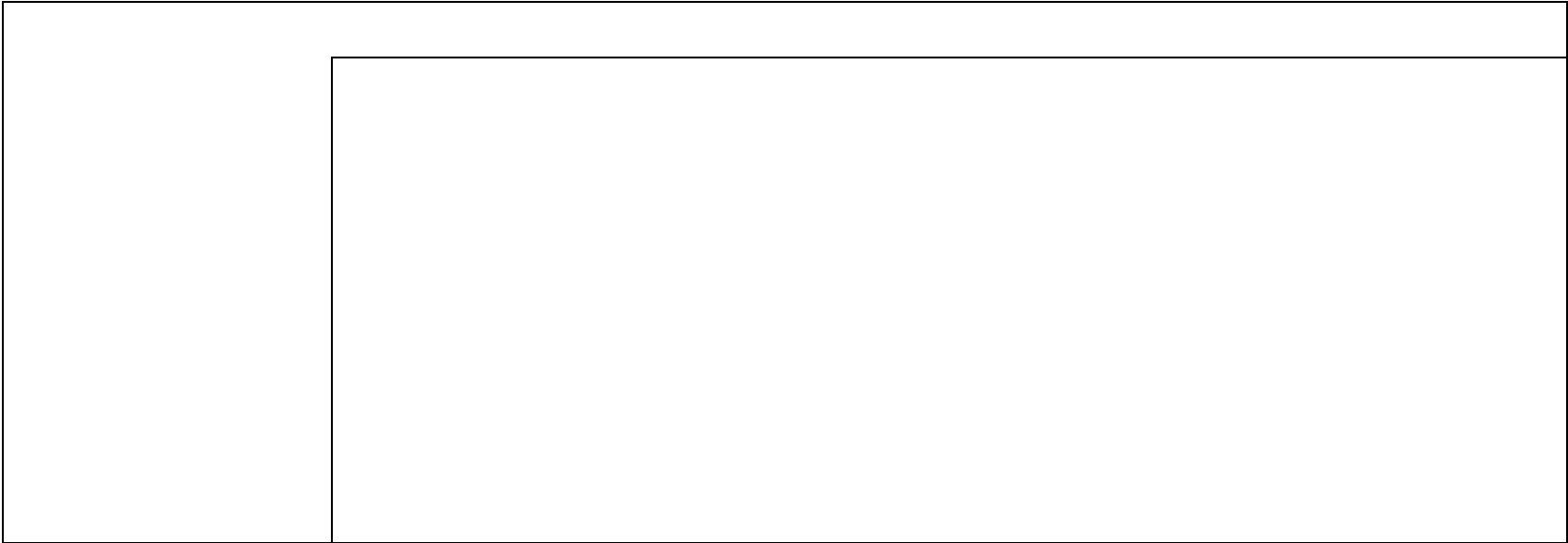
Average Ventilation and Infiltration Loads
(Outside Air vs. 75°F, 60% RH summer; 68°F, 30% RH winter)



	Average Sensible Cooling Load	Average Sensible Heating Load	Average Latent Cooling Load	Average Latent Heating Load
	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)
JAN	734	-372	687	0
FEB	935	-319	632	0
MAR	1511	-255	1290	0
APR	1491	-149	2036	0
MAY	801	-192	3818	0
JUN	543	-222	4706	0
JUL	603	-249	3711	0
AUG	634	-341	4525	0
SEP	457	-426	5020	0
OCT	423	-427	4664	0
NOV	537	-317	3778	0
DEC	642	-339	1643	0
ANN	9311	-3608	36510	0

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

No Solar Radiation
Data Available

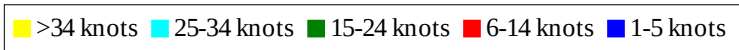
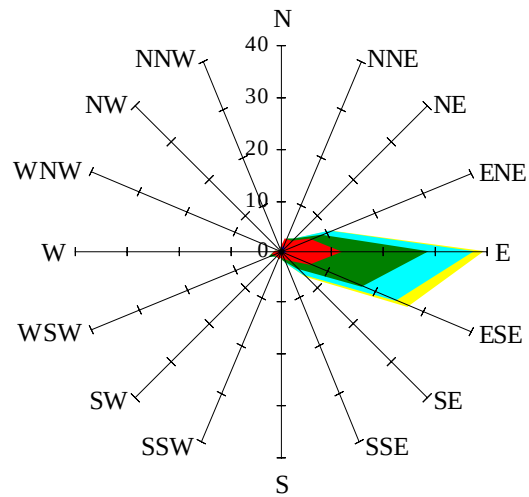


Average Annual Solar Heat and Illumination – Nearest Available Site

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

Wind Summary - December, January, and February

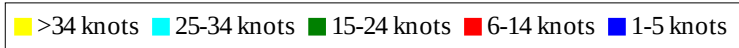
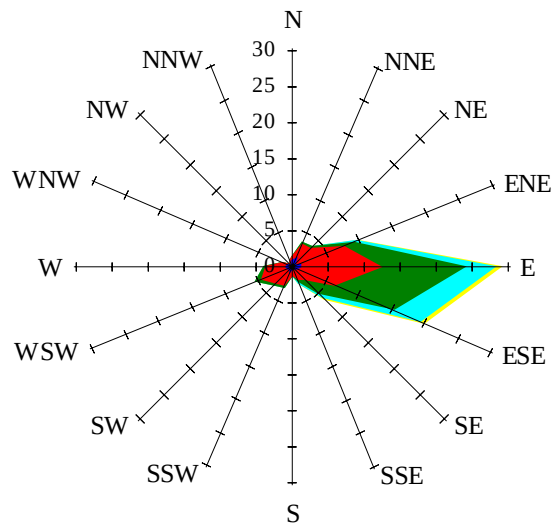
Labels of Percent Frequency on North Axis



Percent Calm = 1.72

Wind Summary - March, April, and May

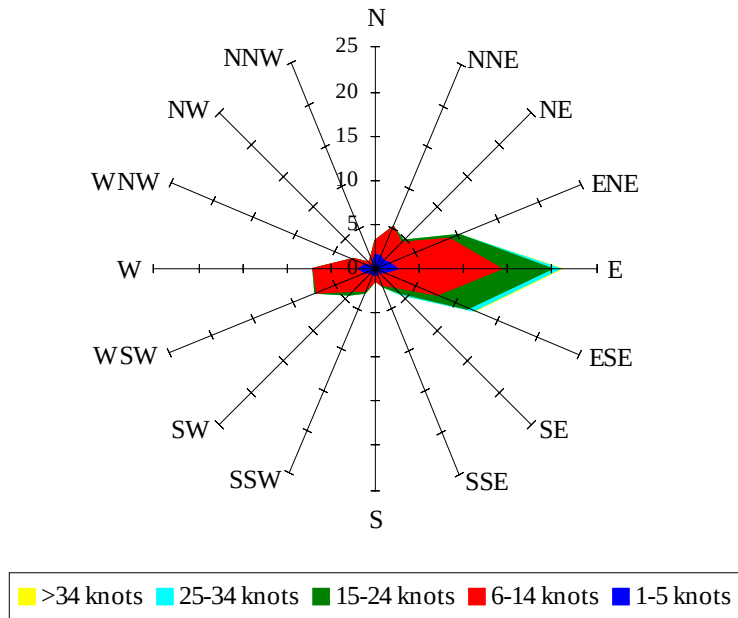
Labels of Percent Frequency on North Axis



Percent Calm = 4.82

Wind Summary - June, July, and August

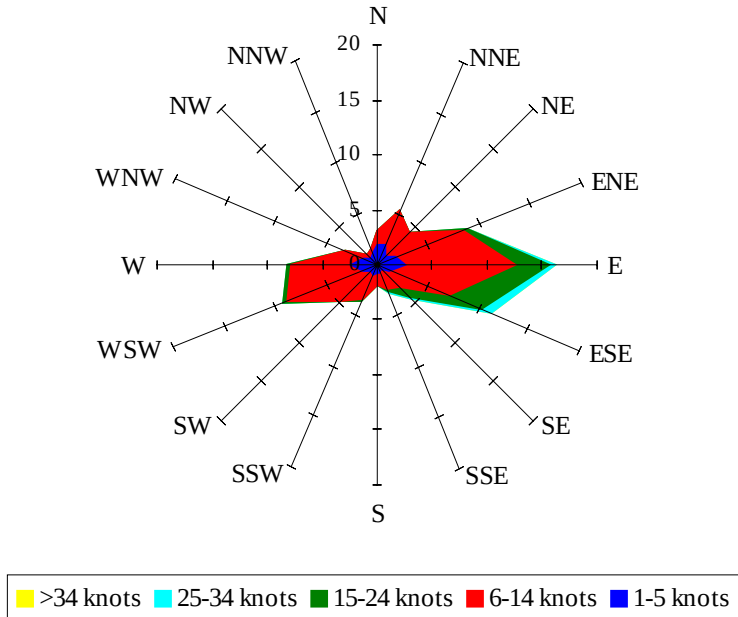
Labels of Percent Frequency on North Axis



Percent Calm = 9.95

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 10.18