

CAUCEDO/DE LAS AMERICAS DR

Latitude = 18.43 N

WMO No. 784850

Longitude = 69.67 W

Elevation = 59 feet

Period of Record = 1973 to 1996

Average Pressure = 29.89 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	92	79	132	10.1	SSE
0.4% Occurrence	90	79	133	9.2	SSE
1.0% Occurrence	90	79	133	9.2	SSE
2.0% Occurrence	89	79	132	9.1	SSE
Mean Daily Range	14	-	-	-	-
97.5% Occurrence	68	67	95	5.6	NNE
99.0% Occurrence	66	65	90	5.8	NNE
99.6% Occurrence	64	62	82	5.6	NE
Median of Extreme Lows	63	62	82	5.6	NE
	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	85	89	170	10.8	SSE
0.4% Occurrence	82	87	153	9.0	SSE
1.0% Occurrence	81	87	148	8.7	SSE
2.0% Occurrence	80	86	141	8.5	SSE
	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	172	90	1.13	10.1	SSE
0.4% Occurrence	160	87	1.06	8.8	SSE
1.0% Occurrence	151	85	1.00	7.9	SSE
2.0% Occurrence	150	85	0.99	8.0	SSE
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		2	3427	5199	8151

Other Site Data

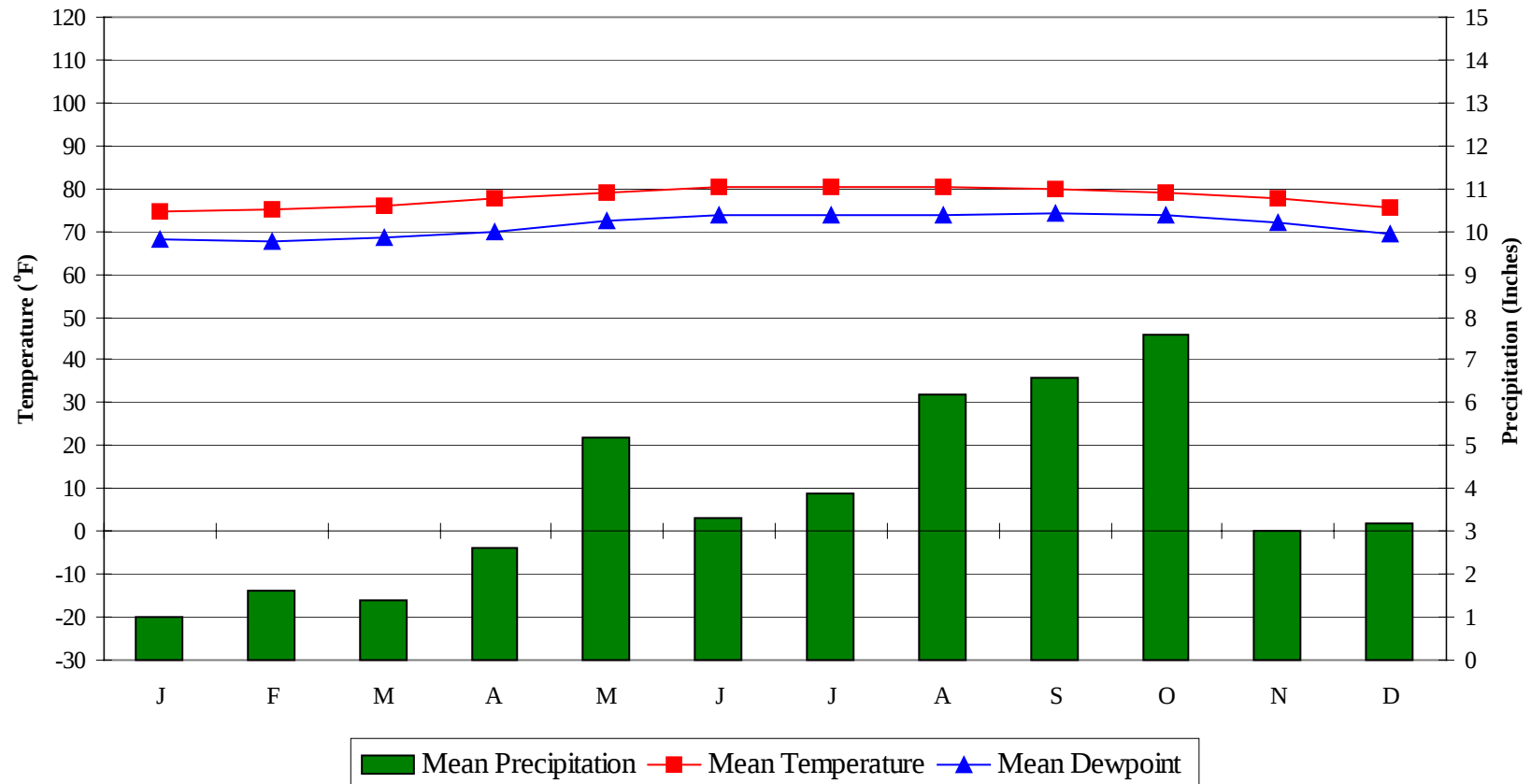
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
10	N/A	N/A	12.3 + 3.1
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
80.5	N/A	N/A	0

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

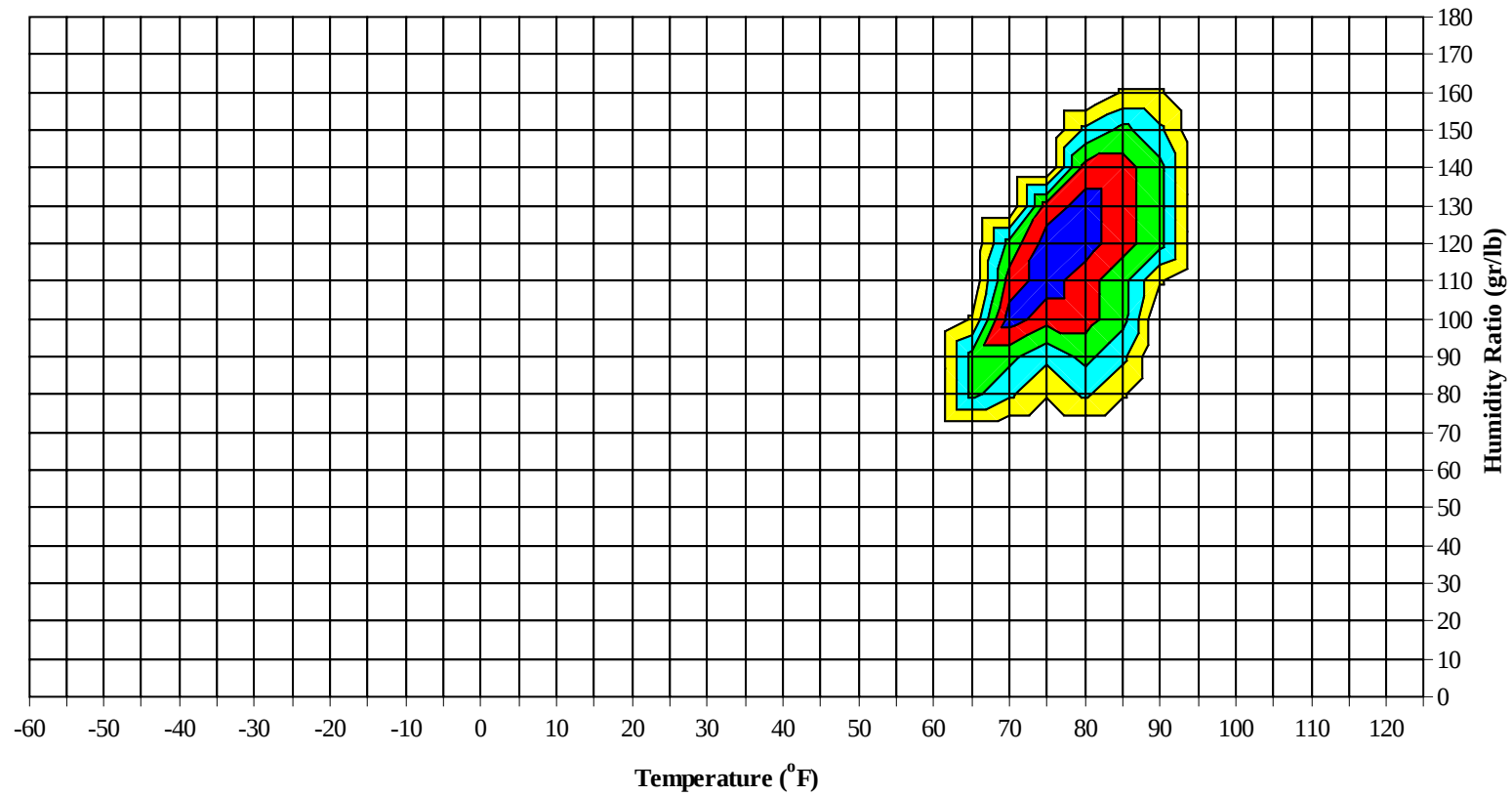
CAUCEDO/DE LAS AMERICAS DR

WMO No. 784850

Average Annual Climate

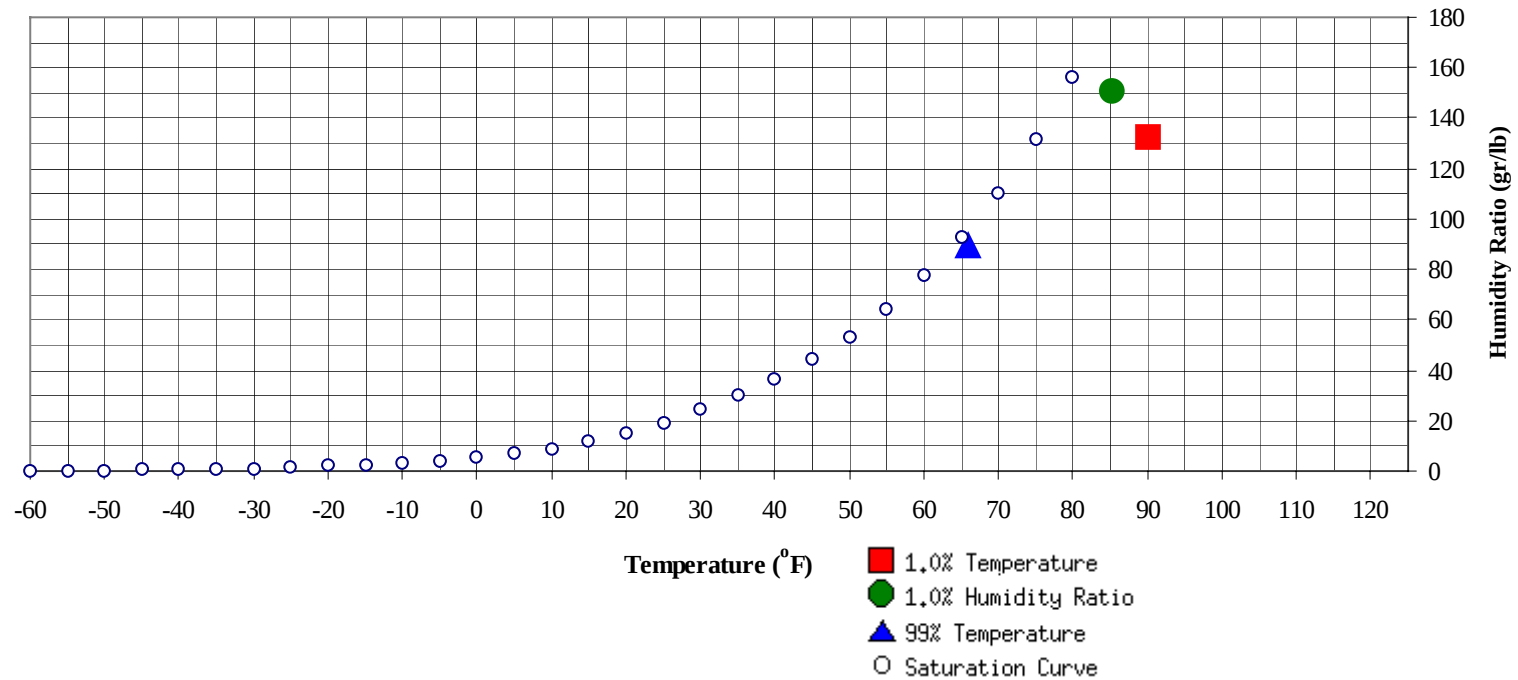


Long Term Psychrometric Summary



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

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)
	66	89.6	29.8		150.5	85.3	80.6	78.8	44.1

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	90	132.3	79.1	42.4

CAUCEDO/DE LAS AMERICAS DR

WMO No. 784850

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															
90 / 94															
85 / 89	0	19	1	20	75.1	0	19	0	19	74.9	0	31	1	32	75.4
80 / 84	0	139	41	180	73.2	0	130	40	169	73.0	1	153	56	211	73.5
75 / 79	5	57	97	159	71.8	7	49	95	152	71.5	19	49	117	186	71.9
70 / 74	112	32	93	237	69.2	102	26	79	207	69.0	128	15	66	208	69.2
65 / 69	112	2	16	129	66.1	100	1	11	112	66.0	88	0	7	94	66.0
60 / 64	19	0	1	20	62.4	14		0	14	62.4	12	0	1	13	62.4
55 / 59	0			0	58.0							0	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.

CAUCEDO/DE LAS AMERICAS DR

WMO No. 784850

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							0		0	81.0		0	0		0 80.5
90 / 94		1		1	74.5	0	4	0	4	79.4	0	20	0	20	79.2
85 / 89	0	56	3	59	75.8	0	95	8	103	77.4	0	129	20	149	78.2
80 / 84	2	143	70	215	74.2	6	121	94	221	76.0	11	75	118	203	76.6
75 / 79	43	35	120	198	72.7	100	24	115	239	74.0	139	15	91	245	74.3
70 / 74	156	5	44	206	69.6	136	4	32	171	70.8	91	2	11	104	71.4
65 / 69	36		3	39	66.2	6	0	0	6	66.6	0			0	67.0
60 / 64	2		0	2	62.1										
55 / 59															

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.

CAUCEDO/DE LAS AMERICAS DR

WMO No. 784850

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							0		0	87.0					
95 / 99							0		0	84.5					
90 / 94		32	1	33	78.7	0	37	1	38	79.1	0	30	0	30	79.5
85 / 89		125	25	150	77.9	0	124	26	150	78.3	0	110	19	130	78.7
80 / 84	6	72	104	183	76.6	3	71	96	169	76.9	3	73	81	157	77.2
75 / 79	148	17	105	270	74.3	150	16	111	277	74.4	139	24	122	285	74.5
70 / 74	94	1	13	108	71.6	95	1	14	109	71.8	98	3	17	118	71.8
65 / 69						0	0		0	68.0	0			0	67.7
60 / 64															
55 / 59															

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.

CAUCEDO/DE LAS AMERICAS DR

WMO No. 784850

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															
95 / 99															
90 / 94	0	16	0	16	79.7	0	5	0	5	79.0	0	0		0	75.5
85 / 89	0	118	12	131	78.3	0	76	5	80	77.5	0	32	1	33	76.3
80 / 84	3	84	80	167	77.0	1	112	51	164	75.9	1	132	41	174	74.4
75 / 79	106	26	129	261	74.4	43	44	123	210	73.9	7	63	99	169	72.7
70 / 74	137	3	27	167	71.5	184	4	60	247	70.9	152	21	97	270	69.7
65 / 69	1			1	66.9	12		1	13	66.6	79	0	10	89	66.2
60 / 64											9		1	9	62.1
55 / 59											0			0	58.0

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.

WMO No. 784850

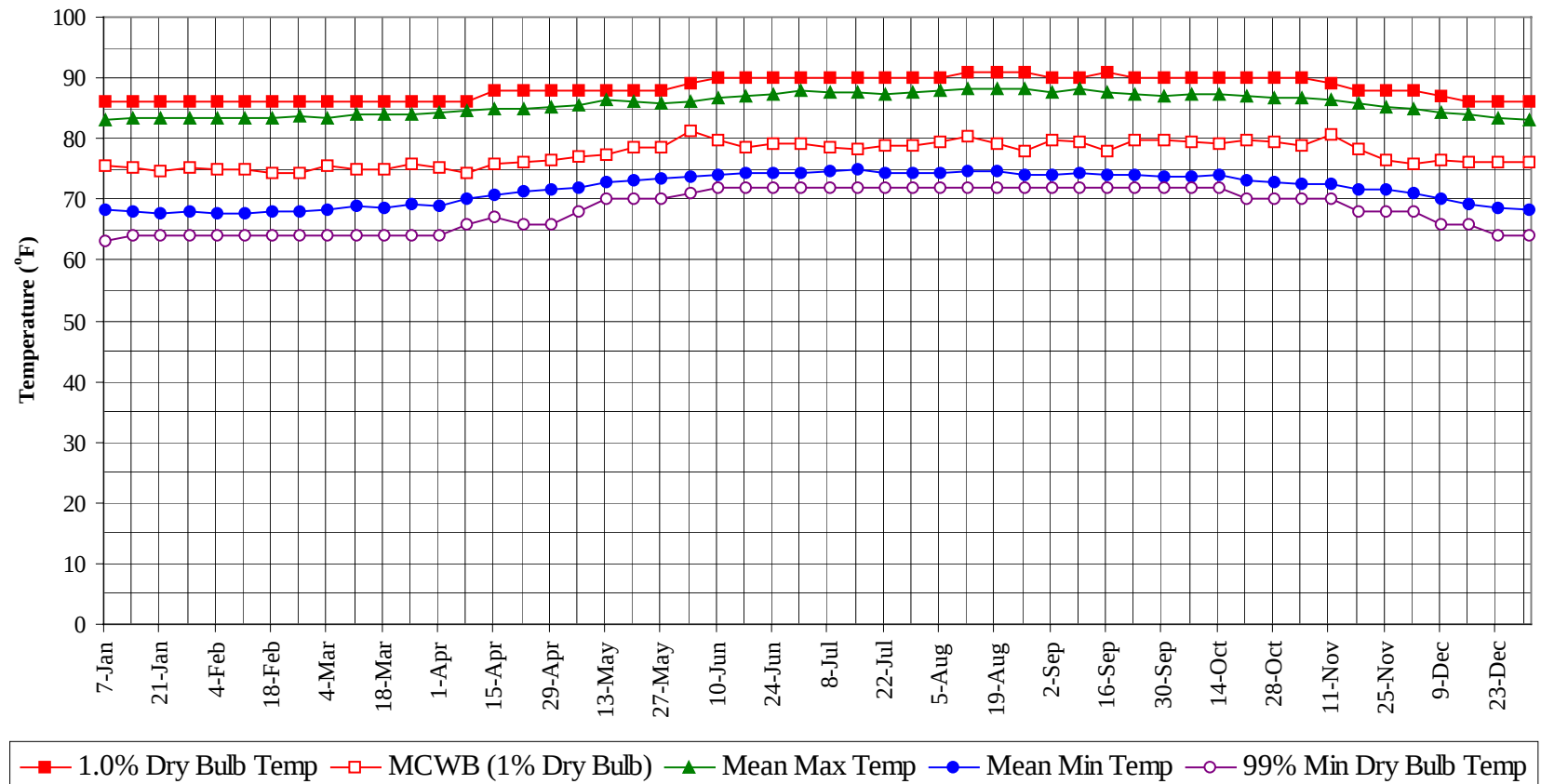
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1973 to 1996

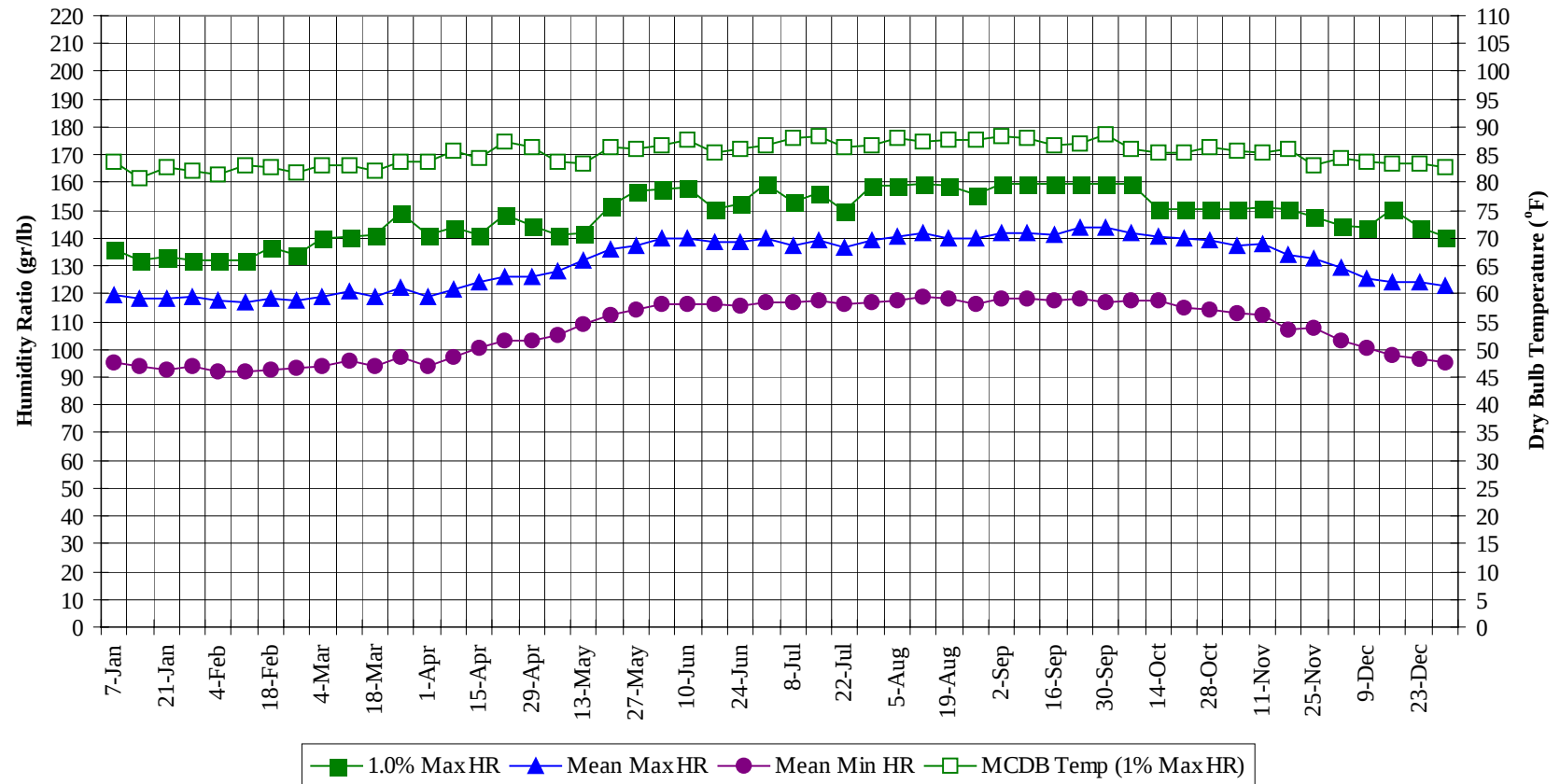
[illegible]

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

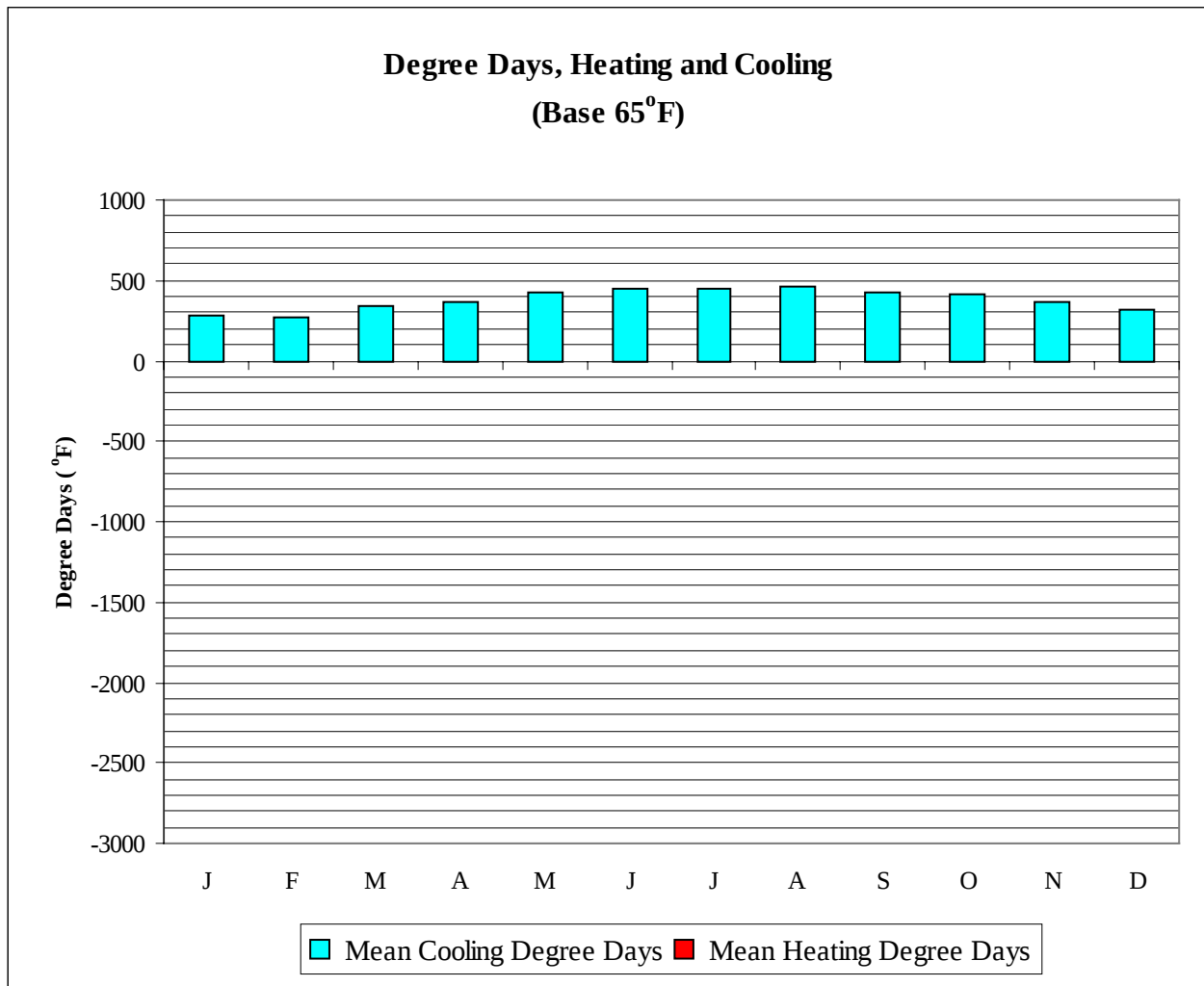


CAUCEDO/DE LAS AMERICAS DR

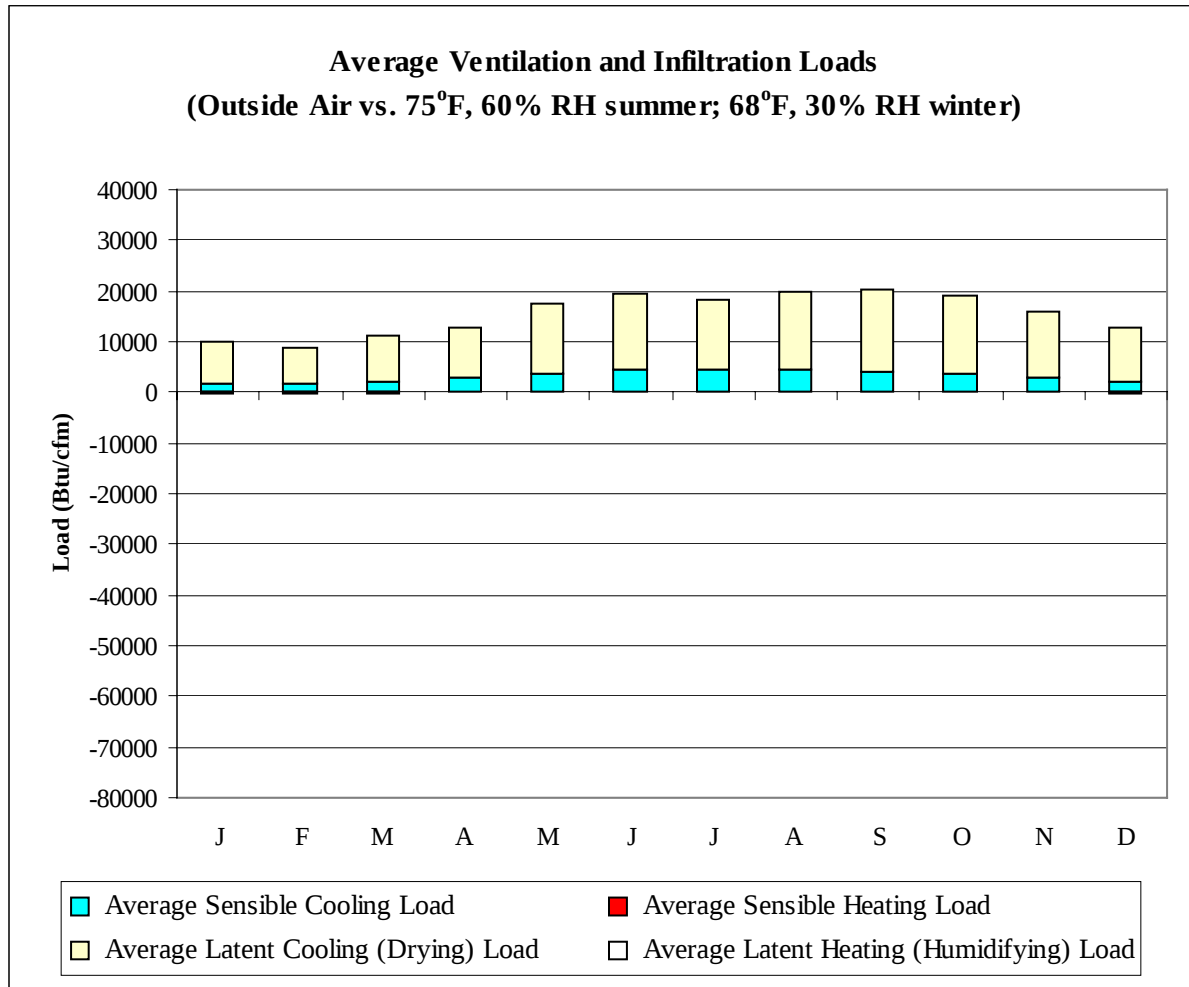
WMO No. 784850

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	86.0	75.6	83.1	68.2	63.0	135.8	83.9	119.3	95.2
14-Jan	86.0	75.4	83.4	68.1	64.0	132.3	80.9	117.9	93.9
21-Jan	86.0	74.5	83.2	67.6	64.0	133.0	82.7	118.2	92.4
28-Jan	86.0	75.3	83.4	67.8	64.0	132.3	82.1	118.9	94.0
4-Feb	86.0	75.0	83.3	67.6	64.0	132.3	81.4	117.6	91.8
11-Feb	86.0	74.9	83.4	67.6	64.0	132.3	83.1	116.8	91.9
18-Feb	86.0	74.3	83.3	68.0	64.0	136.5	82.9	118.4	92.6
25-Feb	86.0	74.4	83.7	68.1	64.0	133.7	81.8	117.6	93.2
4-Mar	86.0	75.6	83.4	68.1	64.0	140.0	83.1	119.0	93.6
11-Mar	86.0	74.9	84.1	69.0	64.0	140.7	83.2	120.9	96.0
18-Mar	86.0	75.0	83.9	68.6	64.0	141.4	82.0	119.0	94.1
25-Mar	86.0	75.8	84.1	69.3	64.0	149.1	83.8	122.3	97.0
1-Apr	86.0	75.1	84.2	69.0	64.0	141.4	83.8	118.6	94.2
8-Apr	86.0	74.2	84.6	70.0	66.0	143.5	85.8	121.4	97.5
15-Apr	88.0	75.9	84.9	70.6	67.0	141.4	84.4	124.0	100.8
22-Apr	88.0	76.3	85.0	71.4	66.0	148.4	87.5	126.0	103.4
29-Apr	88.0	76.5	85.2	71.6	66.0	144.2	86.3	126.2	103.2
6-May	88.0	76.9	85.5	72.0	68.0	141.4	83.7	128.1	105.4
13-May	88.0	77.5	86.3	72.8	70.0	142.1	83.5	131.7	108.9
20-May	88.0	78.5	86.0	73.0	70.0	151.9	86.3	135.9	112.2
27-May	88.0	78.6	85.7	73.4	70.0	156.8	86.0	137.6	114.6
3-Jun	89.0	81.2	86.1	73.9	71.0	157.5	86.7	140.2	116.1
10-Jun	90.0	79.7	86.8	74.0	72.0	158.2	87.6	140.0	116.3
17-Jun	90.0	78.7	87.0	74.3	72.0	150.5	85.5	138.5	116.3
24-Jun	90.0	79.0	87.5	74.3	72.0	152.6	86.1	138.4	115.3
1-Jul	90.0	79.1	87.9	74.5	72.0	159.6	86.7	139.9	116.9
8-Jul	90.0	78.4	87.6	74.7	72.0	153.3	88.1	137.6	116.7
15-Jul	90.0	78.4	87.8	74.9	72.0	156.1	88.3	139.0	117.6
22-Jul	90.0	78.8	87.2	74.5	72.0	149.8	86.3	136.6	116.6
29-Jul	90.0	79.0	87.7	74.2	72.0	158.9	86.7	139.0	116.7
5-Aug	90.0	79.4	87.9	74.4	72.0	158.9	87.9	140.6	117.4
12-Aug	91.0	80.5	88.1	74.5	72.0	159.6	87.2	141.7	118.7
19-Aug	91.0	79.3	88.1	74.5	72.0	158.9	87.6	139.9	118.0
26-Aug	91.0	77.9	88.1	74.0	72.0	155.4	87.8	140.1	116.3
2-Sep	90.0	79.6	87.7	74.2	72.0	159.6	88.5	142.1	118.2
9-Sep	90.0	79.4	88.1	74.4	72.0	159.6	87.9	141.9	118.5
16-Sep	91.0	77.9	87.6	74.0	72.0	159.6	86.7	141.2	117.3
23-Sep	90.0	79.9	87.3	73.9	72.0	159.6	87.2	143.8	118.1
30-Sep	90.0	79.9	87.0	73.7	72.0	159.6	88.8	143.8	117.0
7-Oct	90.0	79.6	87.3	73.7	72.0	159.6	85.9	142.0	117.6
14-Oct	90.0	79.3	87.2	74.0	72.0	150.5	85.5	140.8	117.4
21-Oct	90.0	79.6	86.9	73.1	70.0	150.5	85.3	139.7	114.9
28-Oct	90.0	79.6	86.7	72.9	70.0	150.5	86.4	139.3	114.2
4-Nov	90.0	78.7	86.6	72.6	70.0	150.5	85.7	137.2	112.7
11-Nov	89.0	80.8	86.3	72.5	70.0	151.2	85.2	137.9	112.6
18-Nov	88.0	78.1	85.7	71.7	68.0	150.5	85.9	133.8	107.1
25-Nov	88.0	76.5	85.1	71.7	68.0	147.7	83.0	132.5	107.4
2-Dec	88.0	75.9	85.0	71.0	68.0	144.2	84.3	129.4	103.3
9-Dec	87.0	76.4	84.4	70.1	66.0	143.5	83.6	125.5	100.6
16-Dec	86.0	76.1	84.0	69.1	66.0	150.5	83.5	124.2	98.0
23-Dec	86.0	76.2	83.4	68.6	64.0	143.5	83.5	124.0	96.2
31-Dec	86.0	76.1	83.2	68.3	64.0	140.7	82.8	122.8	95.1



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	287	1
FEB	273	0
MAR	337	0
APR	365	0
MAY	422	0
JUN	453	0
JUL	450	0
AUG	462	0
SEP	428	0
OCT	413	0
NOV	364	0
DEC	314	0
ANN	4567	1



	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	1601	-127	8275	0
FEB	1568	-96	7409	0
MAR	2213	-84	8867	0
APR	2751	-20	9891	0
MAY	3622	-1	13720	0
JUN	4372	0	15025	0
JUL	4381	0	14040	0
AUG	4480	0	15442	0
SEP	3927	0	16159	0
OCT	3626	0	15553	0
NOV	2753	-3	12974	0
DEC	2005	-75	10639	0
ANN	37299	-406	147994	0

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

No Solar Radiation
Data Available

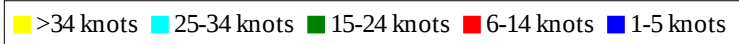
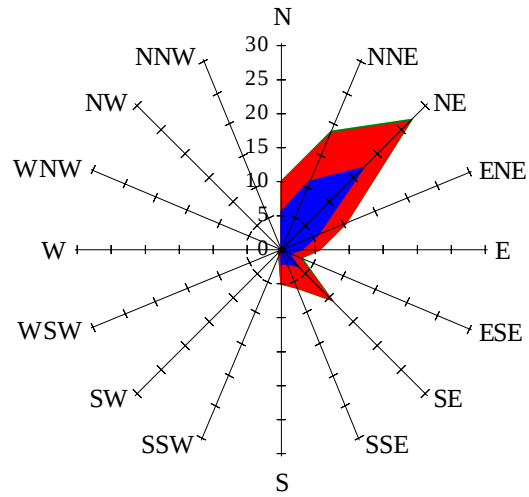


Average Annual Solar Heat and Illumination – Nearest Available Site

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

Wind Summary - December, January, and February

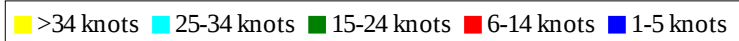
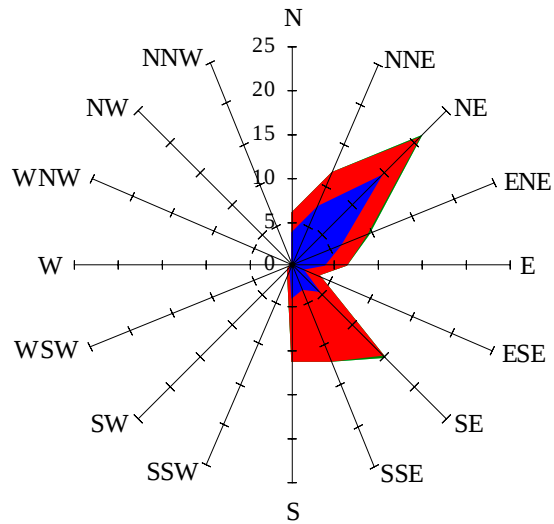
Labels of Percent Frequency on North Axis



Percent Calm = 2.44

Wind Summary - March, April, and May

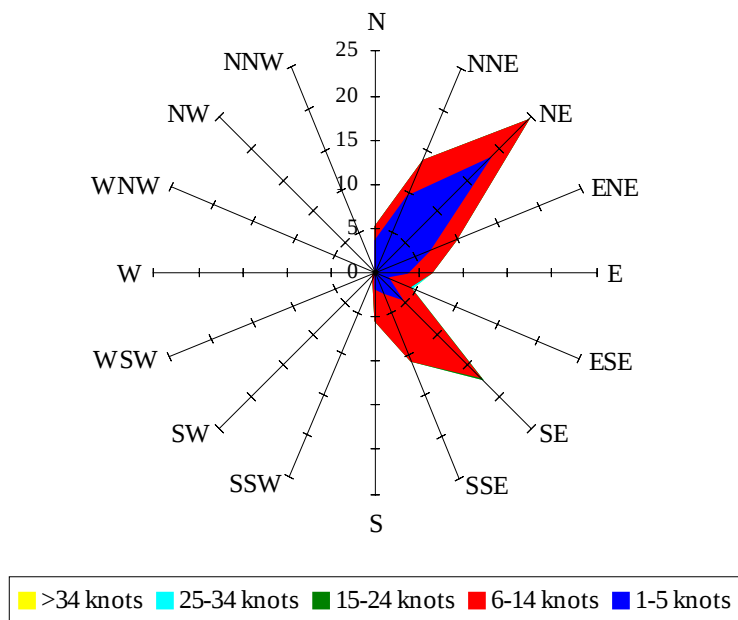
Labels of Percent Frequency on North Axis



Percent Calm = 2.66

Wind Summary - June, July, and August

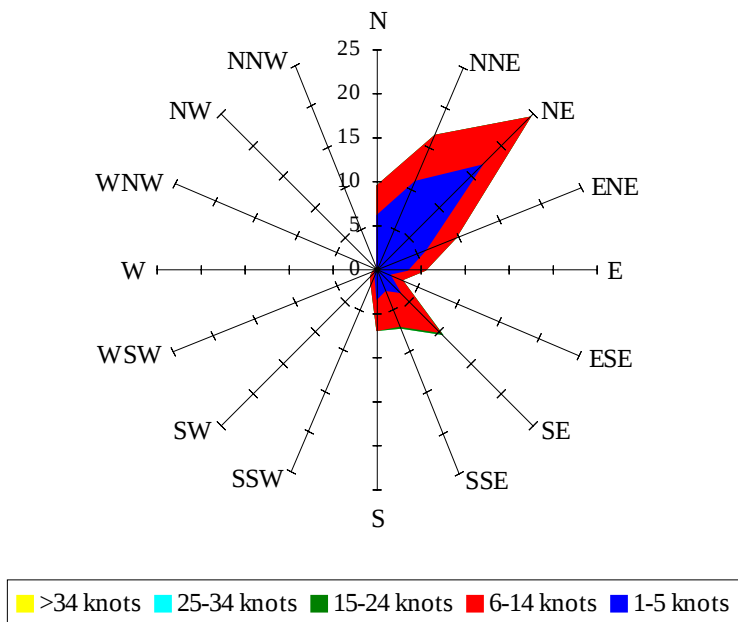
Labels of Percent Frequency on North Axis



Percent Calm = 2.47

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 3.89