

SANTA BARBARA CA

Latitude = 34.43 N

Longitude = 119.80 W

Period of Record = 1973 to 1996

WMO No. 723925

Elevation = 10 feet

Average Pressure = 29.94 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	64	42	11.5	W
0.4% Occurrence	83	64	57	9.5	WSW
1.0% Occurrence	80	64	64	9.1	WSW
2.0% Occurrence	77	63	66	9.2	WSW
Mean Daily Range	19	-	-	-	-
97.5% Occurrence	41	38	30	1.5	NNE
99.0% Occurrence	38	36	26	1.2	NE
99.6% Occurrence	35	33	23	1.3	N
Median of Extreme Lows	32	30	20	1.6	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	72	81	98	9.6	SSE
0.4% Occurrence	68	76	87	8.3	WSW
1.0% Occurrence	67	75	84	8.3	WSW
2.0% Occurrence	66	74	81	8.3	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	111	73	0.74	9.2	ESE
0.4% Occurrence	93	73	0.62	7.2	SSE
1.0% Occurrence	90	71	0.60	7.0	SSE
2.0% Occurrence	86	70	0.58	7.1	SE
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		5	94	1	126

Other Site Data

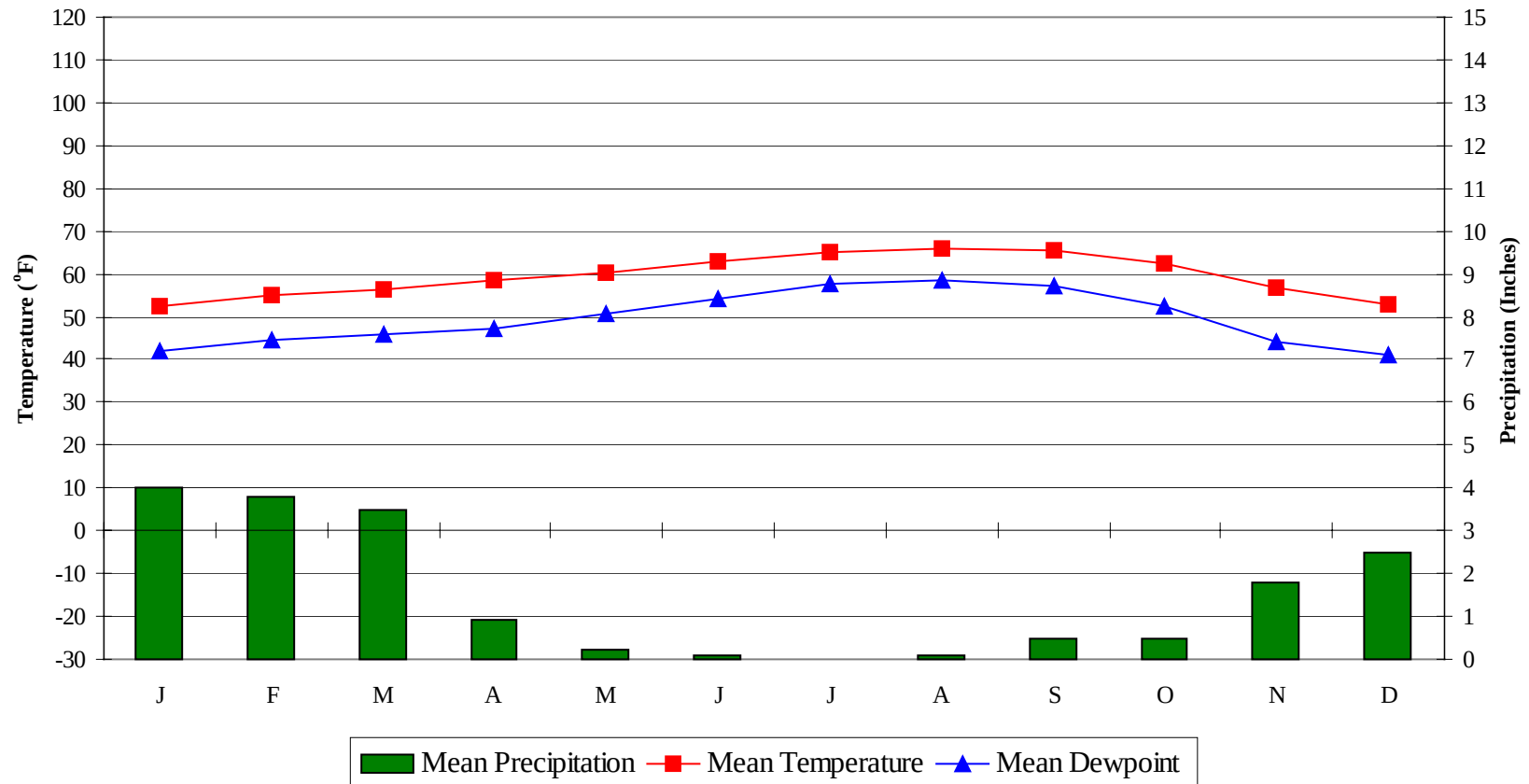
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
8	1.8	85	0.2 + 0.1
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
62.1	N/A	N/A	2

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

SANTA BARBARA CA

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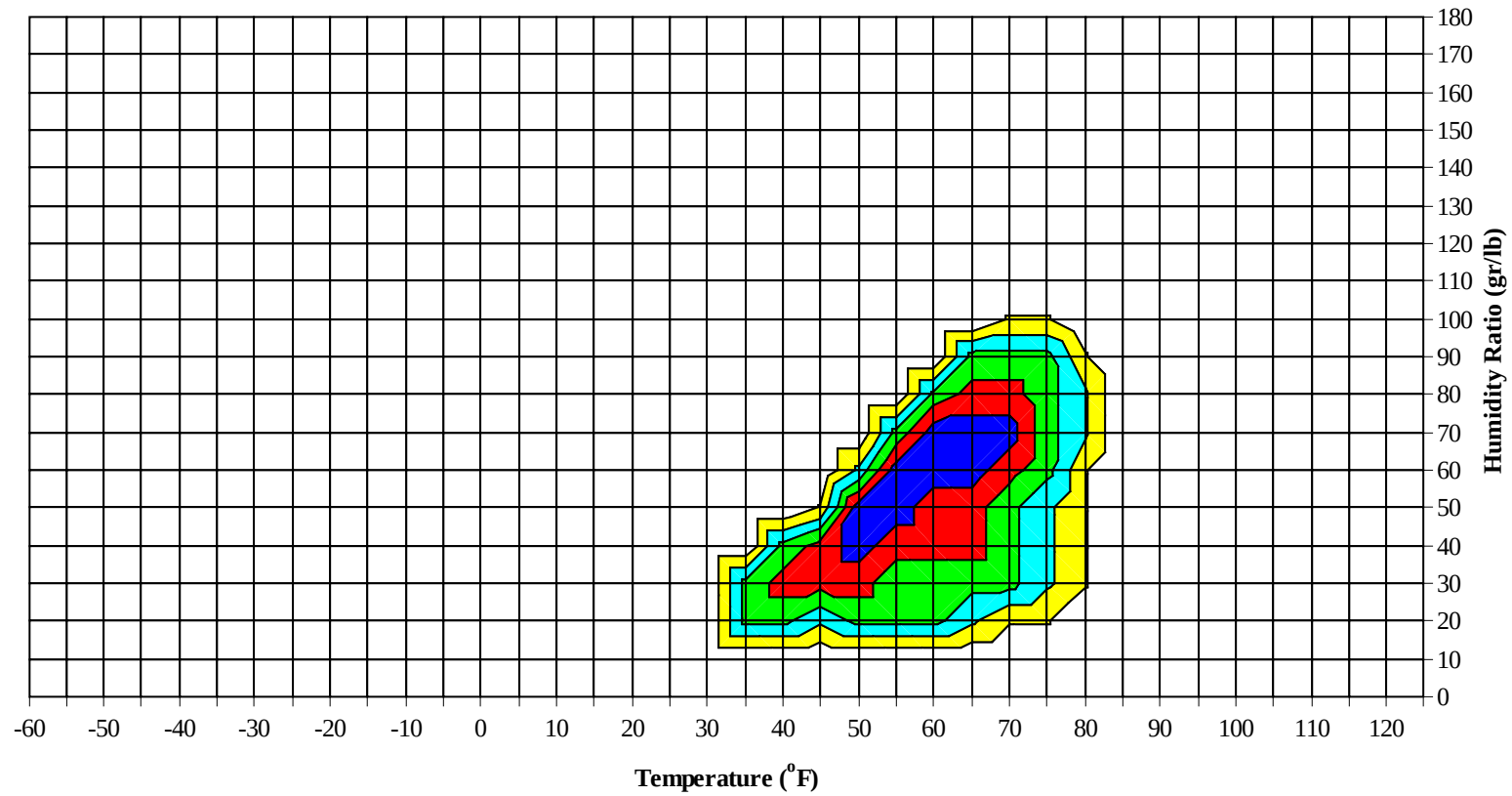
Average Annual Climate



SANTA BARBARA CA

WMO No. 723925

Long Term Psychrometric Summary

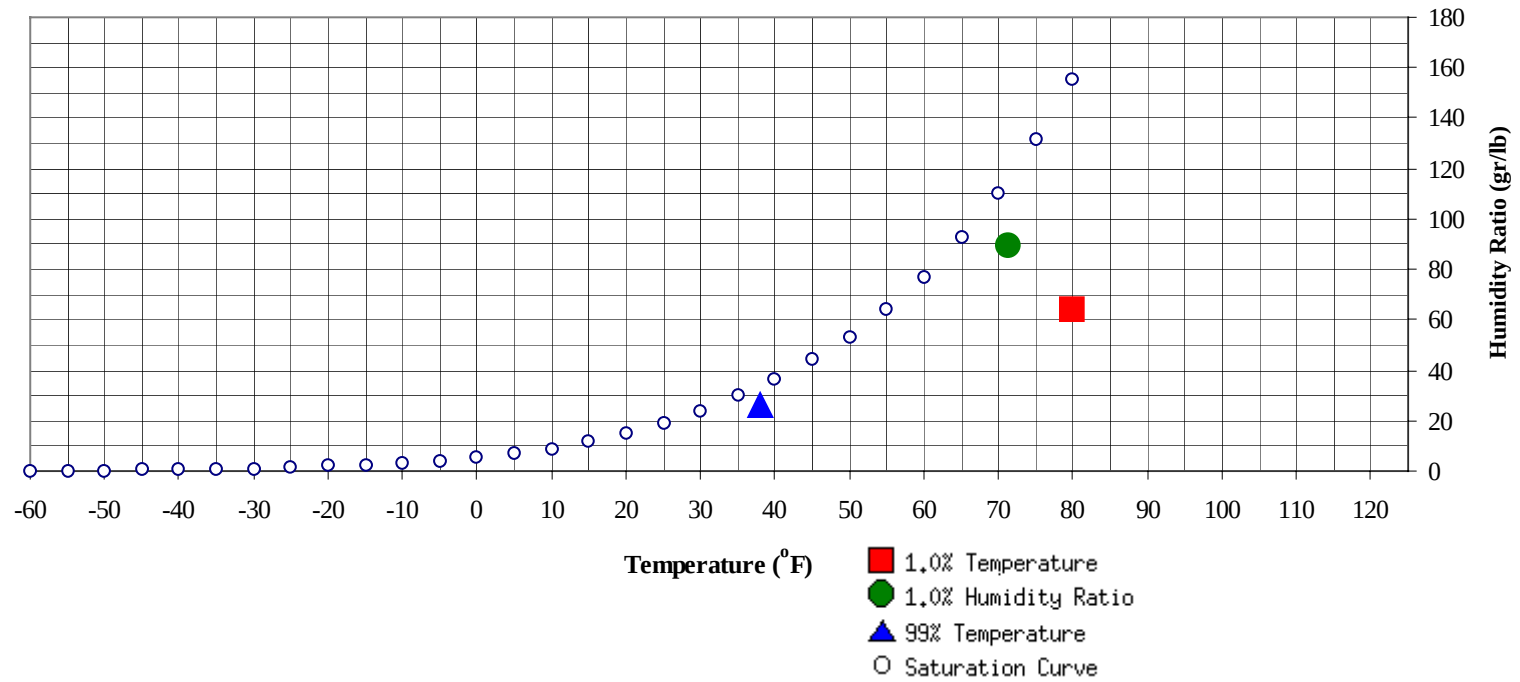


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

SANTA BARBARA CA

WMO No. 723925

Psychrometric Summary of Peak Design Values



	(°F)	MCHR	Enthalpy	1.0% Humidity Ratio	(gr/lb)	MCDB	MCWB	MC Dewpt	Enthalpy
		(gr/lb)	(btu/lb)			(°F)	(°F)	(°F)	(btu/lb)
99% Dry Bulb	38	26.1	13.1	Ratio	89.6	71.2	66.4	64	31.1

	(°F)	MCHR	MCWB	Enthalpy
		(gr/lb)	(°F)	(btu/lb)
1.0% Dry Bulb	80	64.2	64	29.3

SANTA BARBARA CA

WMO No. 723925

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		
105 / 109															
100 / 104															
95 / 99															
90 / 94															
85 / 89							0		0	60.3		0		0	61.0
80 / 84		0		0	58.1		1	0	1	59.2		1	0	1	61.5
75 / 79		5	0	5	54.8										
70 / 74	0	13	1	14	53.9	0	6	1	7	57.3		6	1	7	58.5
65 / 69	0	34	3	36	54.0	0	12	2	14	56.2	0	15	3	18	56.7
60 / 64	3	84	15	103	53.5	1	34	7	41	55.2	1	44	10	55	56.0
55 / 59	22	74	61	156	51.6	4	85	24	113	54.1	9	97	34	139	54.7
50 / 54	22	74	61	156	51.6	38	64	75	177	52.5	52	71	93	215	52.4
45 / 49	43	31	74	147	47.9	56	19	70	145	48.5	83	12	80	175	48.7
40 / 44	57	7	59	122	43.6	62	3	34	99	44.1	71	1	25	97	44.2
35 / 39	71	1	28	100	39.5	43	0	11	53	39.5	30	0	3	33	40.2
30 / 34	42		7	48	34.9	17		2	19	35.1	3		0	3	35.2
25 / 29	10		1	11	30.3	2		0	2	30.8	0			0	31.5
20 / 24	1			1	26.0	0			0	23.5					

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.

SANTA BARBARA CA

WMO No. 723925

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		
105 / 109															
100 / 104															
95 / 99		0		0	63.0							0		0	67.5
90 / 94		1	0	1	62.2		0		0	61.0		0	0	0	64.2
85 / 89		1	0	1	60.7		1	0	1	62.1		2	1	3	62.5
80 / 84		3	1	4	60.1	0	3	1	4	62.0	0	4	1	5	63.2
75 / 79	0	10	3	12	59.1	0	8	2	10	60.6	1	15	4	20	63.3
70 / 74	2	27	7	36	57.9	1	29	6	36	59.9	3	56	12	71	61.8
65 / 69	4	65	18	87	56.8	8	96	24	128	58.4	17	105	40	162	60.0
60 / 64	19	90	47	156	54.8	41	93	68	203	56.4	68	52	95	215	58.0
55 / 59	61	40	96	198	52.7	98	18	110	226	53.9	108	5	81	194	55.3
50 / 54	86	5	58	149	48.9	67	1	35	102	49.6	37	0	6	43	50.7
45 / 49	56	0	10	66	44.6	31	0	2	33	45.3	6	0	0	6	46.5
40 / 44	11		0	11	40.8	2			2	41.3	0			0	41.5
35 / 39	0			0	36.5	0			0						
30 / 34															
25 / 29															
20 / 24															

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SANTA BARBARA CA

WMO No. 723925

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		
105 / 109		0		0	68.7										
100 / 104		0	0	0	69.1							0	0	0	63.8
95 / 99		0	0	0	66.9		0		0	69.0	0	0	0	0	65.4
90 / 94	0	0	1	1	63.8		0	0	0	70.5	0	1	0	1	63.8
85 / 89	0	1	0	1	65.3		2	0	2	67.9	0	4	1	5	65.4
80 / 84	0	6	1	7	66.2	0	10	1	11	67.5	0	12	2	14	66.3
75 / 79	1	34	4	39	65.5	1	48	6	55	66.2	1	39	6	46	65.5
70 / 74	6	95	22	124	63.6	9	107	27	143	64.0	11	91	22	123	63.9
65 / 69	36	91	66	192	61.7	45	69	80	194	62.2	40	72	66	178	61.8
60 / 64	108	20	116	244	59.3	121	12	108	242	59.6	97	19	106	222	59.4
55 / 59	85	1	38	124	56.1	60	0	27	87	56.3	66	1	34	101	55.7
50 / 54	12		1	13	52.1	11		0	11	51.6	22		3	25	50.5
45 / 49						0			0	47.0	3		0	3	46.5
40 / 44															
35 / 39															
30 / 34															
25 / 29															
20 / 24															

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SANTA BARBARA CA

WMO No. 723925

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		
105 / 109															
100 / 104		0		0	67.0										
95 / 99		0		0	65.0		0		0	64.5					
90 / 94		1		1	63.3		0		0	61.9					
85 / 89		3	0	3	62.3		1	0	1	60.1					
80 / 84	0	10	1	11	61.5		5	0	5	58.1		1		1	56.1
75 / 79	0	22	2	24	61.8	0	13	1	14	57.2	0	5	0	5	55.3
70 / 74	2	74	8	84	61.5	1	38	2	41	57.0	0	16	1	17	54.5
65 / 69	16	97	36	150	60.1	1	74	9	84	56.4	1	43	3	47	54.5
60 / 64	72	37	100	210	58.1	11	75	40	126	54.9	7	90	14	111	53.7
55 / 59	67	4	71	142	54.3	44	28	75	147	52.3	20	65	54	138	51.3
50 / 54	59	0	26	84	49.5	58	5	63	125	48.1	37	23	72	132	47.6
45 / 49	27		4	31	44.3	62	1	38	101	43.5	52	5	62	120	43.6
40 / 44	5			5	39.9	47	0	12	58	39.0	78	1	33	111	39.4
35 / 39	0			0	35.0	15		2	17	34.8	45	0	8	52	34.9
30 / 34						1			1	30.7	8		1	9	30.0
25 / 29											1		0	1	24.1
20 / 24											0			0	20.0

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.

SANTA BARBARA CA

WMO No. 723925

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

Period of Record = 1973 to 1996

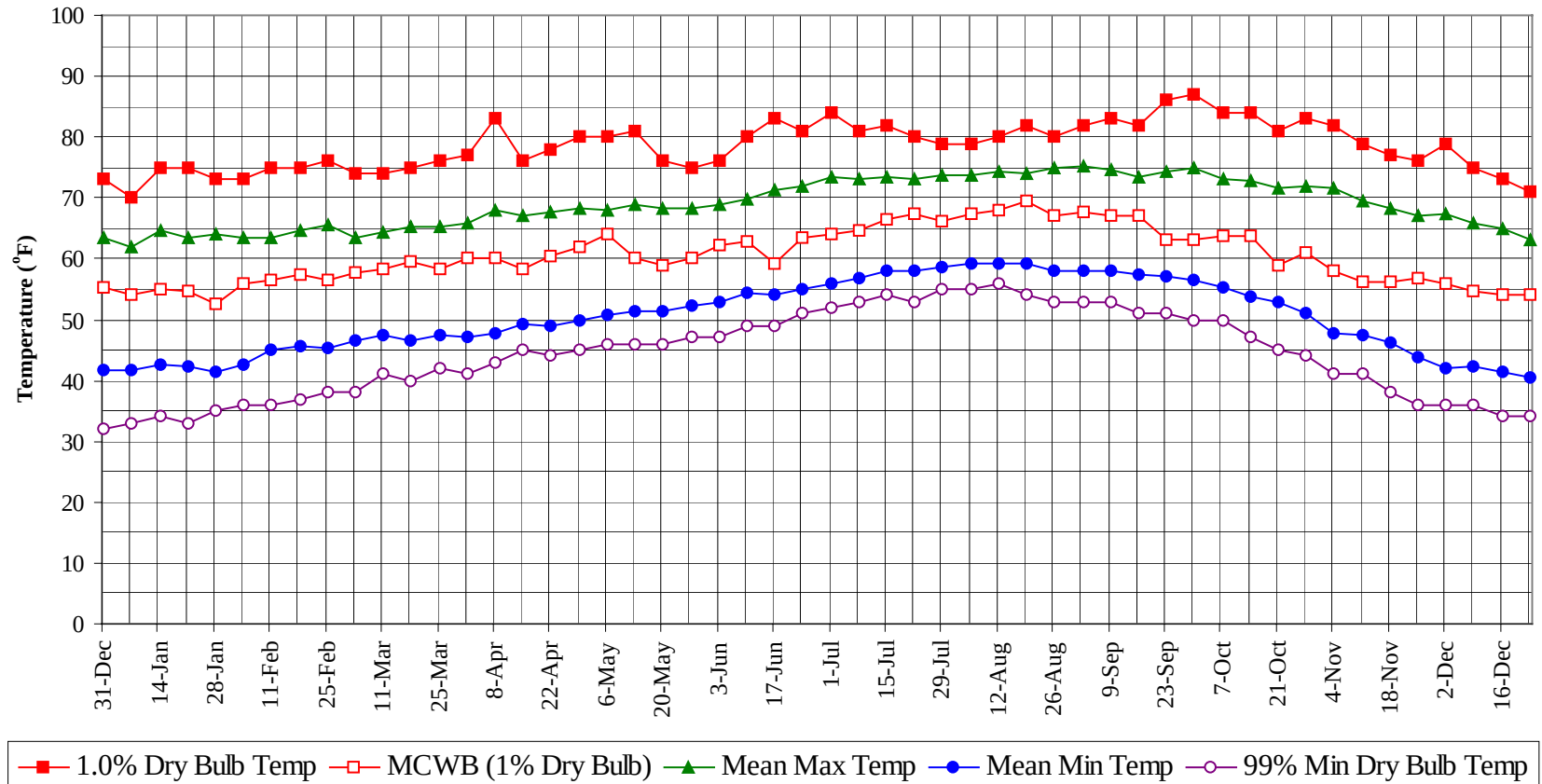
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
105 / 109	0			0	68.7
100 / 104	1			0	67.1
95 / 99	0	1	1	2	65.6
90 / 94	0	5	1	6	63.4
85 / 89	0	14	3	17	63.5
80 / 84	1	55	8	64	63.7
75 / 79	5	209	28	243	63.3
70 / 74	36	574	110	720	61.7
65 / 69	173	822	356	1352	59.5
60 / 64	567	754	762	2083	57.0
55 / 59	723	371	813	1908	53.5
50 / 54	566	95	492	1154	48.7
45 / 49	422	16	237	675	44.0
40 / 44	283	2	88	373	39.5
35 / 39	122	0	18	139	34.9
30 / 34	19		2	21	30.3
25 / 29	2		0	2	24.6
20 / 24	0			0	20.0
	</				

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.

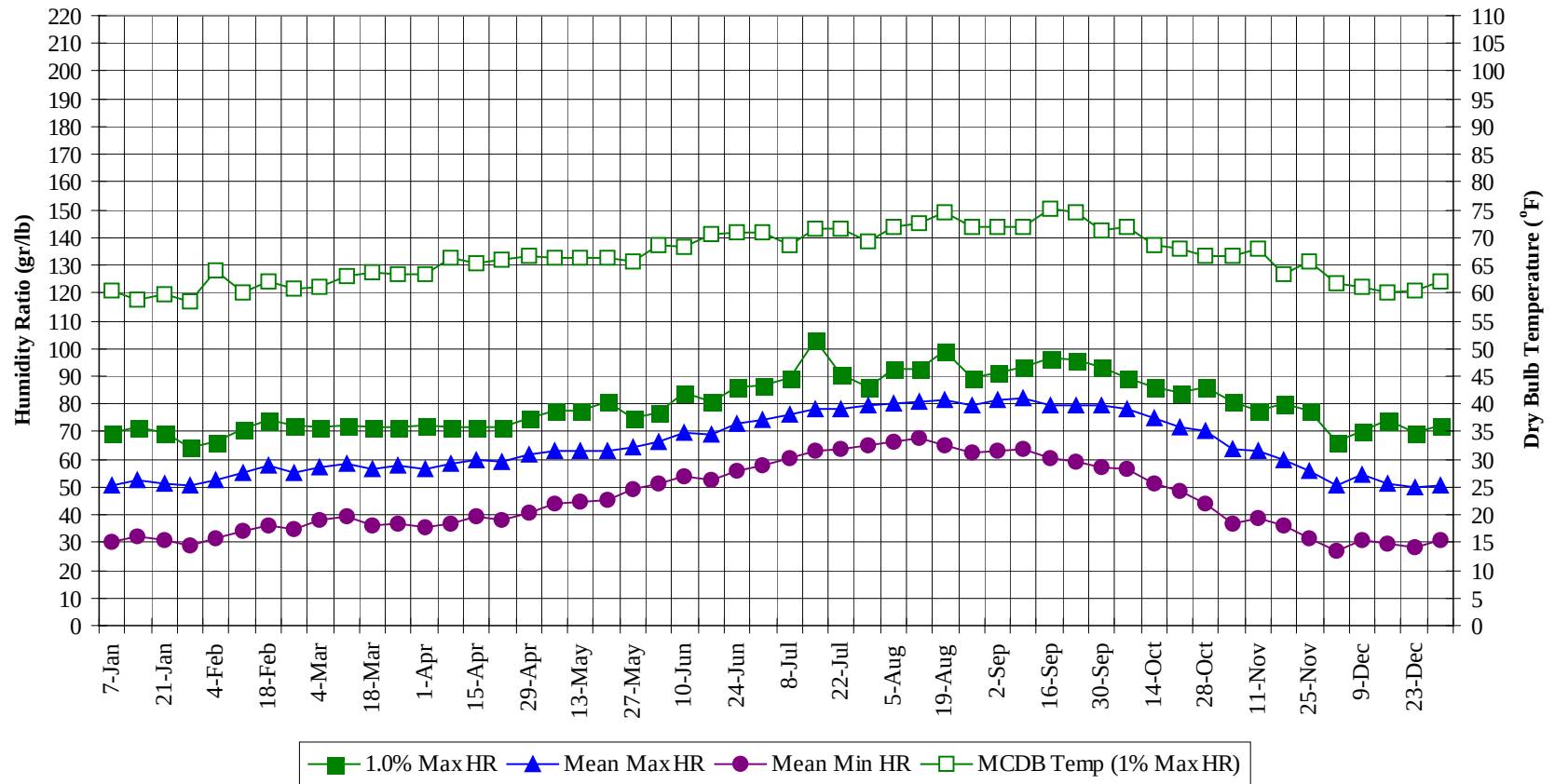
SANTA BARBARA CA

WMO No. 723925

Annual Summary of Temperatures

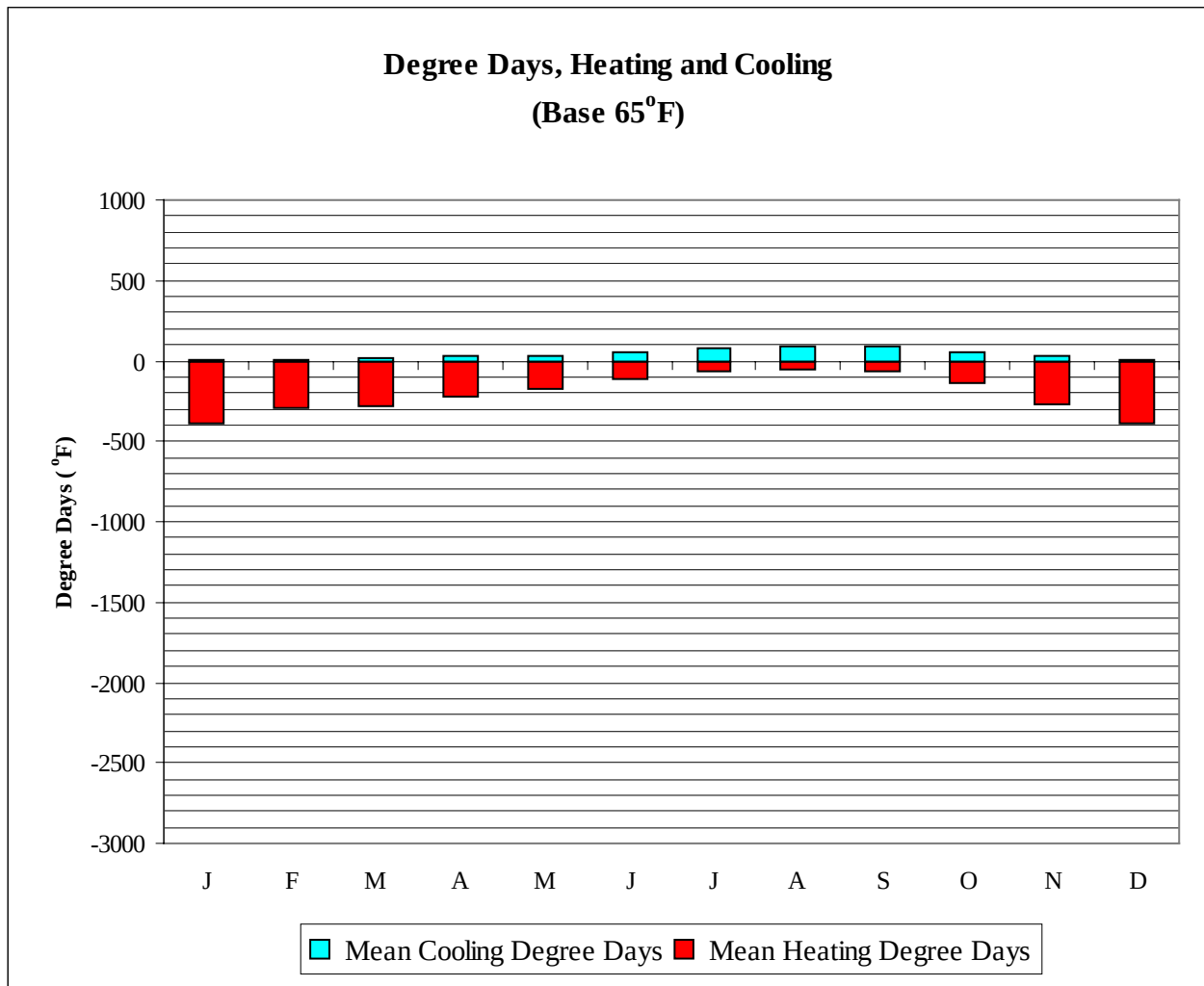


Long Term Humidity and Dry Bulb Temperature Summary

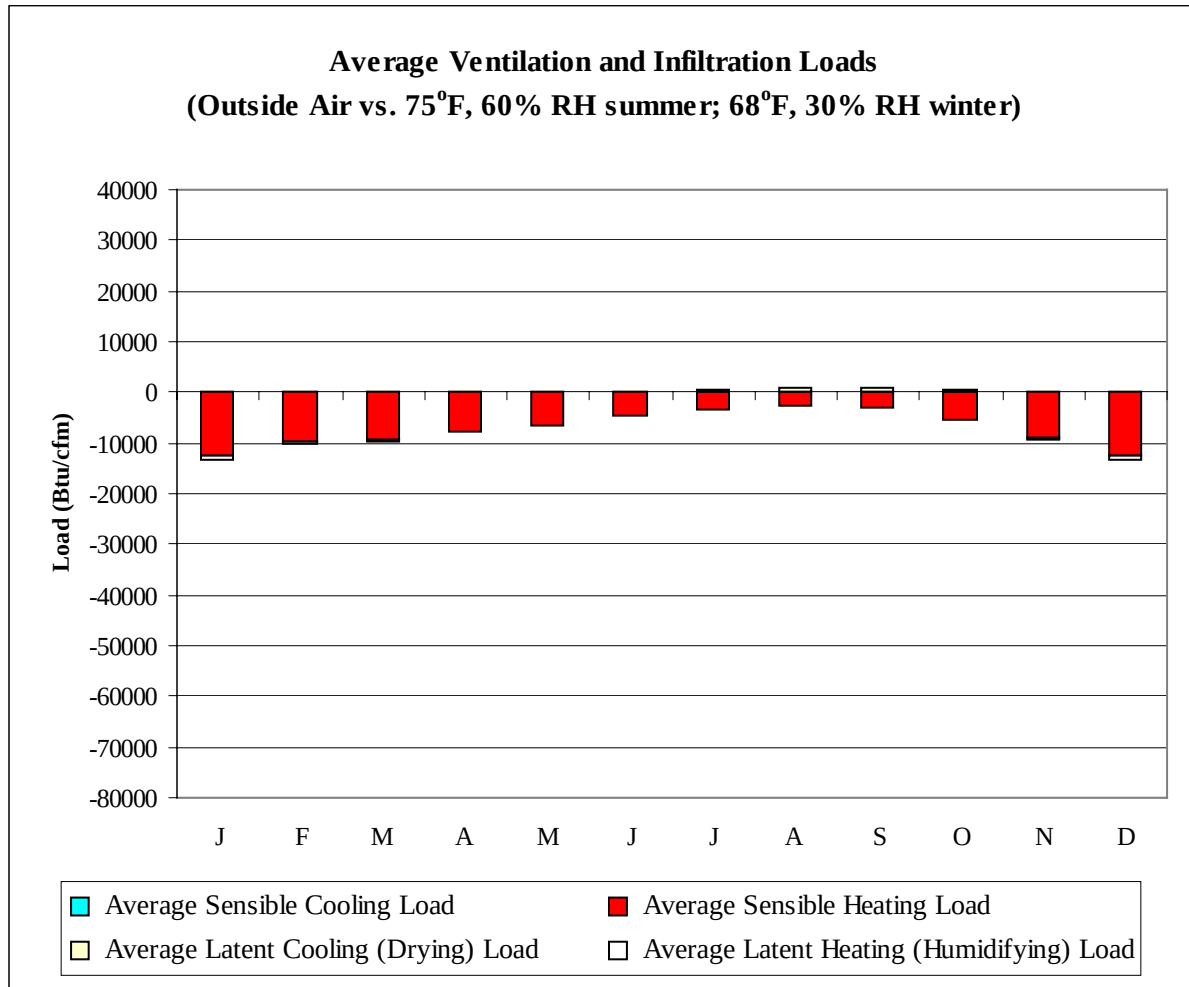


SANTA BARBARA CA**WMO No. 723925****Long Term Dry Bulb Temperature and Humidity Summary**

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	70.0	54.1	62.0	41.7	33.0	69.3	60.3	50.8	30.2
14-Jan	75.0	55.0	64.8	42.5	34.0	71.4	58.8	52.8	32.2
21-Jan	75.0	54.8	63.5	42.4	33.0	69.3	59.8	51.5	31.1
28-Jan	73.0	52.5	64.0	41.5	35.0	64.4	58.4	50.3	29.2
4-Feb	73.0	55.8	63.4	42.6	36.0	66.5	64.1	52.5	31.8
11-Feb	75.0	56.5	63.6	44.9	36.0	70.7	60.3	55.3	34.4
18-Feb	75.0	57.4	64.7	45.6	37.0	74.2	62.1	57.5	36.3
25-Feb	76.0	56.6	65.6	45.2	38.0	72.1	60.9	54.9	34.6
4-Mar	74.0	57.8	63.5	46.7	38.0	71.4	61.0	57.3	38.4
11-Mar	74.0	58.3	64.3	47.5	41.0	72.1	63.2	58.6	39.2
18-Mar	75.0	59.4	65.1	46.4	40.0	71.4	63.7	56.3	36.0
25-Mar	76.0	58.3	65.2	47.5	42.0	71.4	63.4	57.8	36.8
1-Apr	77.0	60.0	65.9	47.2	41.0	72.1	63.5	56.6	35.2
8-Apr	83.0	60.0	67.9	47.8	43.0	71.4	66.5	58.5	36.5
15-Apr	76.0	58.2	67.2	49.1	45.0	71.4	65.2	59.9	39.4
22-Apr	78.0	60.4	67.6	48.9	44.0	71.4	66.1	59.0	38.4
29-Apr	80.0	62.0	68.2	49.9	45.0	74.9	66.8	61.8	40.6
6-May	80.0	64.0	68.1	50.9	46.0	77.7	66.2	63.1	44.1
13-May	81.0	60.3	68.8	51.3	46.0	77.7	66.4	63.1	44.5
20-May	76.0	59.0	68.2	51.3	46.0	80.5	66.5	63.0	45.6
27-May	75.0	60.1	68.3	52.4	47.0	74.9	65.6	64.1	49.4
3-Jun	76.0	62.3	68.9	52.9	47.0	77.0	68.7	66.5	51.4
10-Jun	80.0	62.8	69.9	54.4	49.0	84.0	68.5	69.8	53.8
17-Jun	83.0	59.3	71.5	54.0	49.0	80.5	70.5	69.3	52.4
24-Jun	81.0	63.3	71.9	54.9	51.0	86.1	71.1	72.8	55.9
1-Jul	84.0	64.1	73.4	56.0	52.0	86.8	71.1	74.4	58.1
8-Jul	81.0	64.8	73.1	56.9	53.0	89.6	68.7	76.5	60.6
15-Jul	82.0	66.3	73.6	58.0	54.0	102.9	71.7	78.1	63.3
22-Jul	80.0	67.3	73.2	58.0	53.0	90.3	71.6	78.4	63.6
29-Jul	79.0	66.2	73.8	58.5	55.0	86.1	69.4	79.7	65.0
5-Aug	79.0	67.5	73.8	59.2	55.0	92.4	71.8	80.3	66.3
12-Aug	80.0	68.0	74.4	59.4	56.0	92.4	72.6	81.0	67.5
19-Aug	82.0	69.6	74.1	59.1	54.0	99.4	74.4	81.1	65.2
26-Aug	80.0	66.9	74.8	58.0	53.0	89.6	71.9	79.6	62.7
2-Sep	82.0	67.8	75.2	58.0	53.0	91.0	71.8	81.3	63.1
9-Sep	83.0	67.0	74.8	58.2	53.0	93.1	71.8	82.0	63.7
16-Sep	82.0	67.2	73.5	57.4	51.0	96.6	75.1	79.6	60.6
23-Sep	86.0	63.0	74.5	57.1	51.0	95.9	74.4	79.6	58.9
30-Sep	87.0	63.3	74.8	56.5	50.0	93.1	71.2	79.2	57.1
7-Oct	84.0	63.9	73.1	55.4	50.0	89.6	71.8	77.9	56.5
14-Oct	84.0	63.8	73.0	53.9	47.0	86.1	68.7	74.6	51.0
21-Oct	81.0	59.0	71.5	52.8	45.0	84.0	67.9	71.8	48.7
28-Oct	83.0	60.9	71.9	51.2	44.0	86.1	66.7	70.3	44.1
4-Nov	82.0	58.1	71.6	47.9	41.0	80.5	66.8	63.6	36.8
11-Nov	79.0	56.3	69.6	47.5	41.0	77.7	68.1	62.9	39.0
18-Nov	77.0	56.2	68.4	46.3	38.0	79.8	63.3	59.9	35.9
25-Nov	76.0	56.7	67.1	43.9	36.0	77.7	65.8	55.9	31.2
2-Dec	79.0	56.0	67.5	42.1	36.0	66.5	61.7	50.4	26.8
9-Dec	75.0	54.8	65.8	42.4	36.0	70.0	60.9	54.6	31.0
16-Dec	73.0	54.0	65.1	41.3	34.0	74.2	60.0	51.2	29.7
23-Dec	71.0	54.2	63.3	40.6	34.0	69.3	60.4	50.0	28.5
31-Dec	73.0	55.3	63.4	41.6	32.0	72.1	62.2	50.8	30.9



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	9	394
FEB	11	297
MAR	13	281
APR	26	216
MAY	26	173
JUN	50	110
JUL	77	70
AUG	92	56
SEP	87	69
OCT	57	136
NOV	29	271
DEC	11	391
ANN	485	2464



	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	9	-12503	0	-599
FEB	18	-9764	2	-363
MAR	29	-9531	2	-247
APR	73	-7619	1	-147
MAY	50	-6525	9	-32
JUN	143	-4581	62	-8
JUL	159	-3281	343	0
AUG	180	-2802	676	0
SEP	279	-3158	576	-9
OCT	169	-5267	174	-108
NOV	87	-9020	10	-491
DEC	11	-12394	0	-749
ANN	1207	-86445	1855	-2753

Average Annual Solar Radiation – Nearest Available Site

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

City: SANTA MARIA
 State: CA
 WBAN No: 23273
 Lat(N): 34.9
 Long(W): 120.45
 Elev(ft): 236

Stn Type: Primary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS
 Window: 1
 Overhang: 0.39
 Vert Gap: 0.285

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	900	1170	1540	1960	2210	2340	2370	2150	1770	1380	1010	840	1640
	Std Dev	77	105	135	131	143	130	61	72	85	78	78	57	41
	Minimum	720	960	1280	1670	1770	2010	2260	1980	1600	1210	860	720	1530
	Maximum	1040	1340	1820	2200	2490	2550	2500	2280	1940	1500	1140	950	1700
	Diffuse	320	420	550	630	710	710	640	590	530	430	330	290	510
Clear Day	Global	1100	1440	1890	2330	2590	2690	2630	2400	2020	1560	1170	1000	1900
NORTH	Global	230	300	370	460	560	630	580	470	390	320	250	210	400
	Diffuse	230	300	370	440	500	520	490	450	390	320	250	210	370
Clear Day	Global	220	270	340	430	600	700	650	480	370	290	230	200	400
EAST	Global	600	730	910	1050	1060	1040	1040	960	890	790	660	570	860
	Diffuse	290	370	470	550	590	600	580	540	470	400	310	270	450
Clear Day	Global	780	960	1190	1360	1450	1470	1450	1380	1230	1020	820	730	1150
SOUTH	Global	1390	1390	1280	1080	850	730	790	1000	1250	1450	1470	1430	1180
	Diffuse	400	470	520	540	540	530	520	520	510	480	420	380	490
Clear Day	Global	1960	1930	1700	1260	910	760	820	1090	1500	1840	1940	1940	1470
WEST	Global	600	740	940	1150	1270	1340	1350	1280	1100	890	670	570	990
	Diffuse	290	370	470	550	610	620	600	560	490	400	320	270	460
Clear Day	Global	780	960	1190	1360	1450	1470	1450	1380	1230	1020	820	730	1150

Average Annual Solar Heat and Illumination – Nearest Available Site

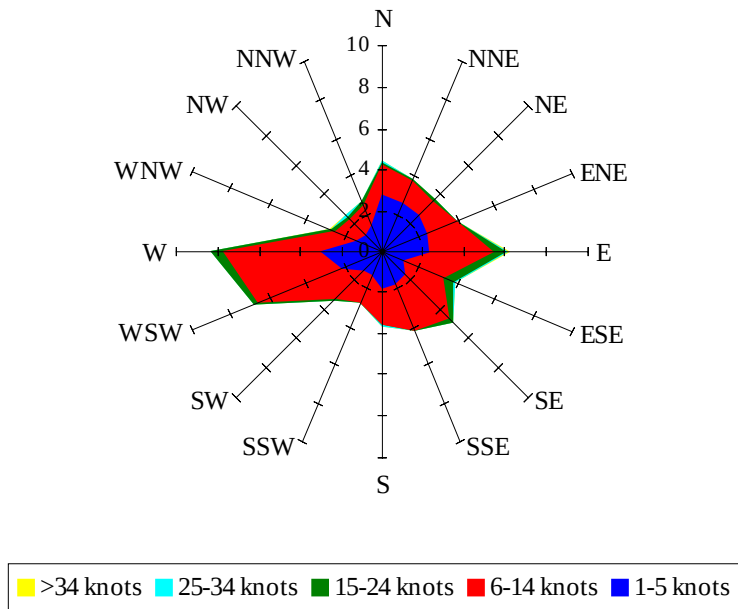
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	600	810	1110	1430	1630	1730	1760	1590	1290	980	680	550	1180
NORTH	Unshaded	160	200	260	310	370	400	370	320	270	220	170	150	270
	Shaded	150	190	240	290	340	370	350	300	250	210	160	140	250
EAST	Unshaded	410	510	650	750	750	730	720	670	620	550	450	390	600
	Shaded	380	470	590	680	660	640	630	590	560	510	420	370	540
SOUTH	Unshaded	1040	1010	870	670	490	420	450	590	820	1030	1090	1080	800
	Shaded	1030	950	720	470	350	340	340	390	630	930	1070	1060	690
WEST	Unshaded	410	520	660	820	900	950	960	910	790	630	460	390	700
	Shaded	380	480	610	750	810	850	860	820	720	580	430	370	640

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	44	79	89	70	29	48	87	106	101	71
	M.Cloudy	28	54	60	48	19	28	51	78	77	52
NORTH	M.Clear	11	15	16	14	8	22	16	17	17	15
	M.Cloudy	11	17	18	15	8	14	19	20	20	16
EAST	M.Clear	77	58	16	14	8	80	74	31	17	15
	M.Cloudy	35	37	18	15	8	29	36	28	20	16
SOUTH	M.Clear	39	70	78	62	26	12	25	39	35	15
	M.Cloudy	21	43	49	38	14	11	22	33	31	16
WEST	M.Clear	11	15	25	70	68	12	16	17	54	83
	M.Cloudy	11	17	22	41	29	11	19	20	43	52
M.Clear	(% hrs)	48	48	50	51	51	32	61	74	80	81
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	31	73	92	85	52	21	50	56	36	4
	M.Cloudy	17	42	65	61	34	14	34	38	25	3
NORTH	M.Clear	9	14	16	16	12	7	11	12	9	2
	M.Cloudy	8	16	19	18	12	6	12	13	9	2
EAST	M.Clear	70	73	29	16	12	50	42	12	9	2
	M.Cloudy	19	33	25	18	12	21	26	13	9	2
SOUTH	M.Clear	22	55	71	65	37	46	85	92	67	11
	M.Cloudy	10	28	47	44	23	19	45	49	33	4
WEST	M.Clear	9	14	16	56	80	7	11	24	54	16
	M.Cloudy	8	16	19	39	41	6	12	18	28	6
M.Clear	(% hrs)	35	59	75	78	80	53	53	54	53	54

Wind Summary - December, January, and February

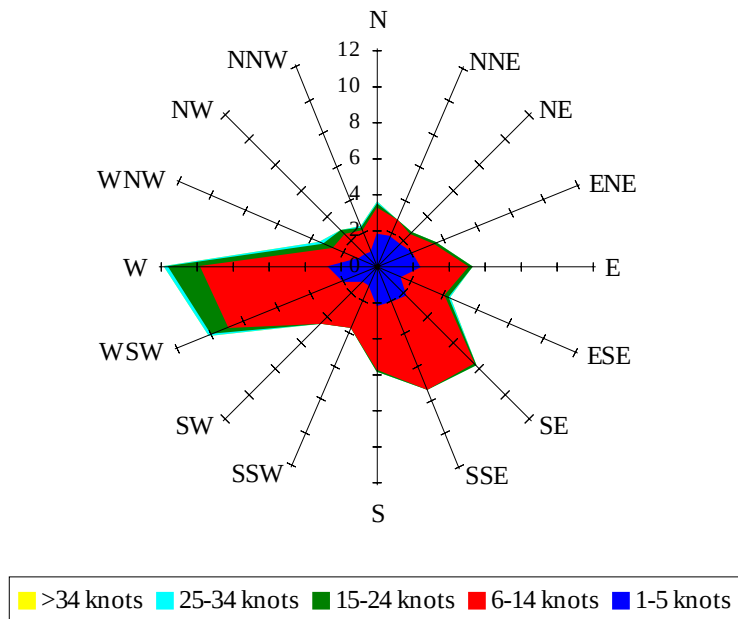
Labels of Percent Frequency on North Axis



Percent Calm = 33.62

Wind Summary - March, April, and May

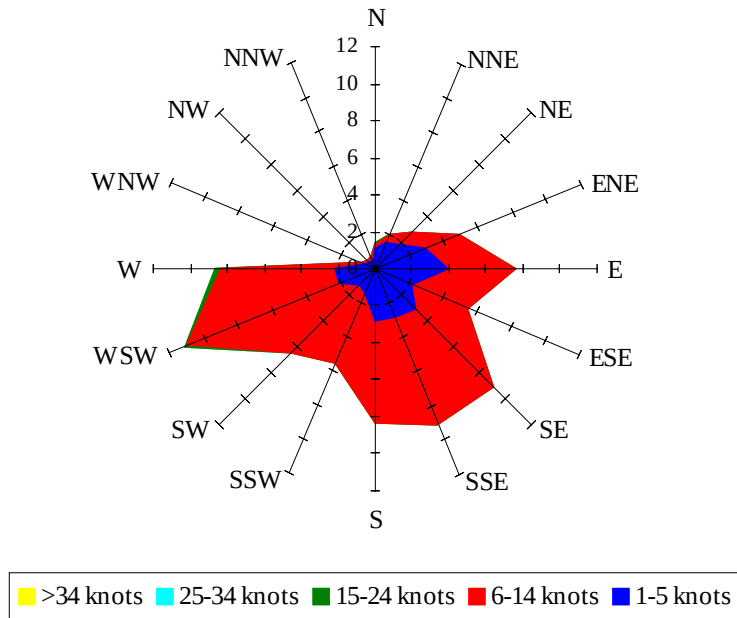
Labels of Percent Frequency on North Axis



Percent Calm = 19.27

Wind Summary - June, July, and August

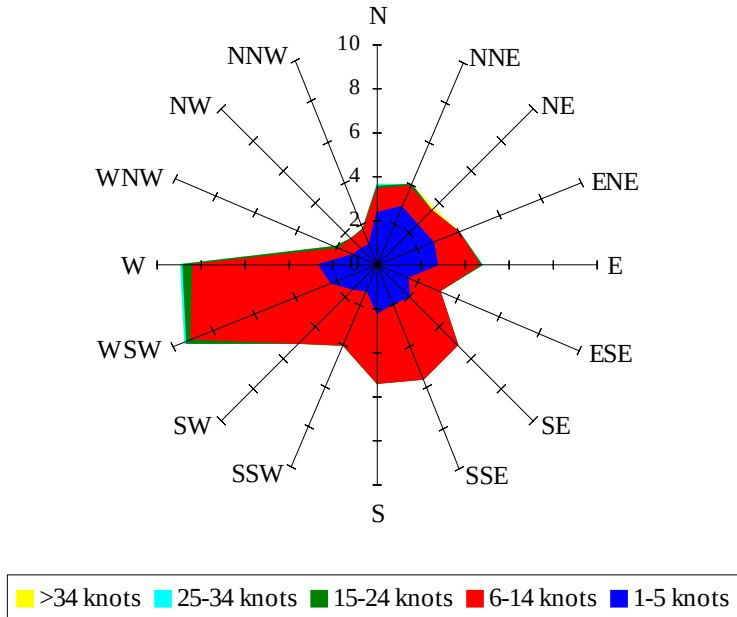
Labels of Percent Frequency on North Axis



Percent Calm = 15.54

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 28.17