

SOUDA CRETE, GREECE

Latitude = 35.53 N

Longitude = 24.15 E

Period of Record = 1973 to 1996

WMO No. 167464

Elevation = 492 feet

Average Pressure = 29.46 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	99	71	70	8.1	WNW
0.4% Occurrence	95	69	66	9.0	WNW
1.0% Occurrence	91	70	77	8.1	WNW
2.0% Occurrence	89	70	79	7.9	WNW
Mean Daily Range	13	-	-	-	-
97.5% Occurrence	45	43	38	5.5	N
99.0% Occurrence	42	40	34	5.0	N
99.6% Occurrence	39	38	31	3.9	NW
Median of Extreme Lows	37	36	29	3.6	N
	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	77	87	125	7.7	WNW
0.4% Occurrence	75	85	114	7.9	WNW
1.0% Occurrence	74	84	110	7.9	WNW
2.0% Occurrence	72	83	100	7.6	WNW
	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	129	84	0.85	7.7	ESE
0.4% Occurrence	121	81	0.79	7.8	WNW
1.0% Occurrence	113	79	0.74	6.3	WNW
2.0% Occurrence	105	78	0.69	6.3	WNW
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		62	1158	142	1467

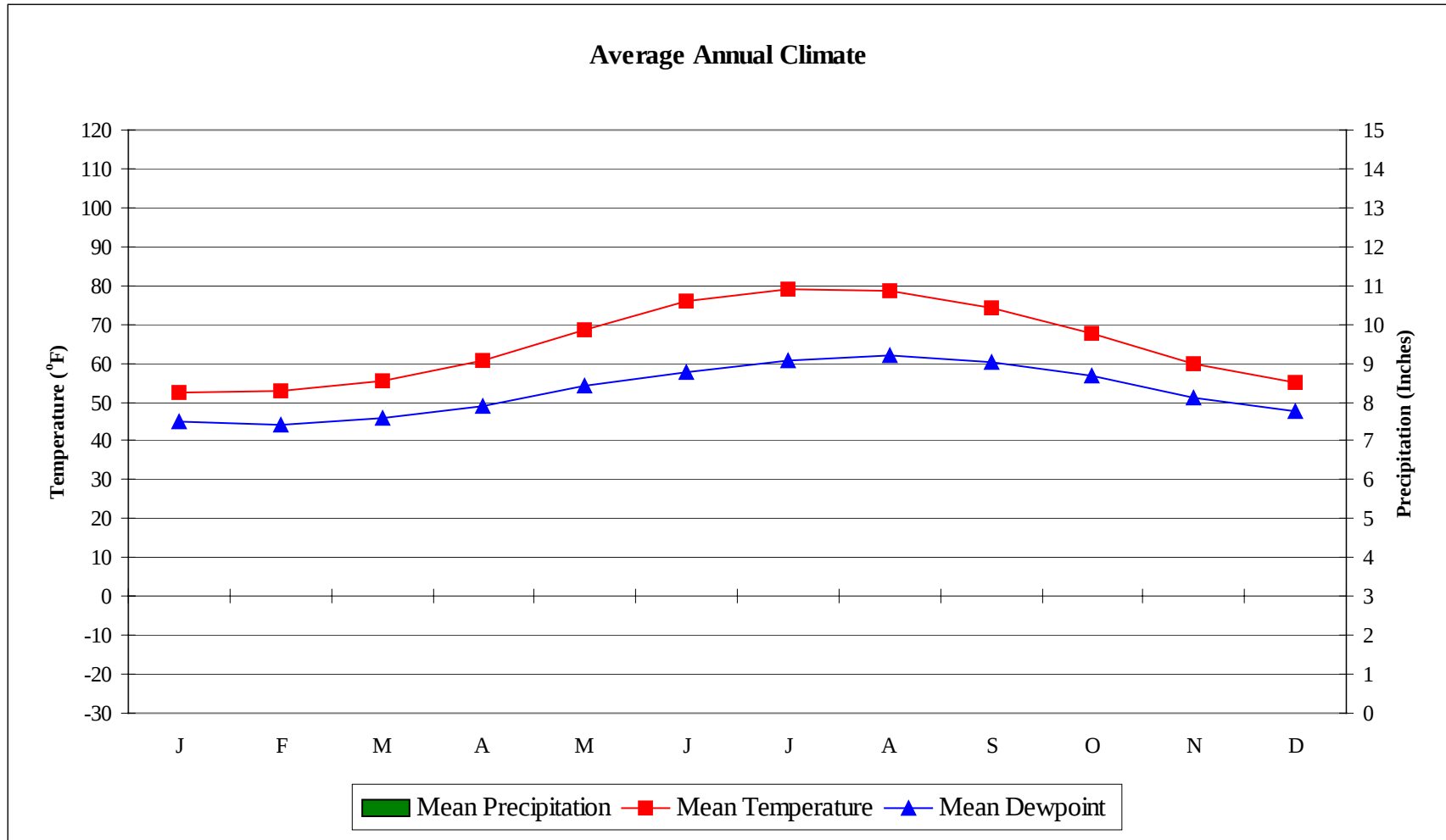
Other Site Data

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
9	N/A	N/A	0.7 + 0.9
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 (#)
67.3	N/A	N/A	0

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

SOUDA CRETE, GREECE

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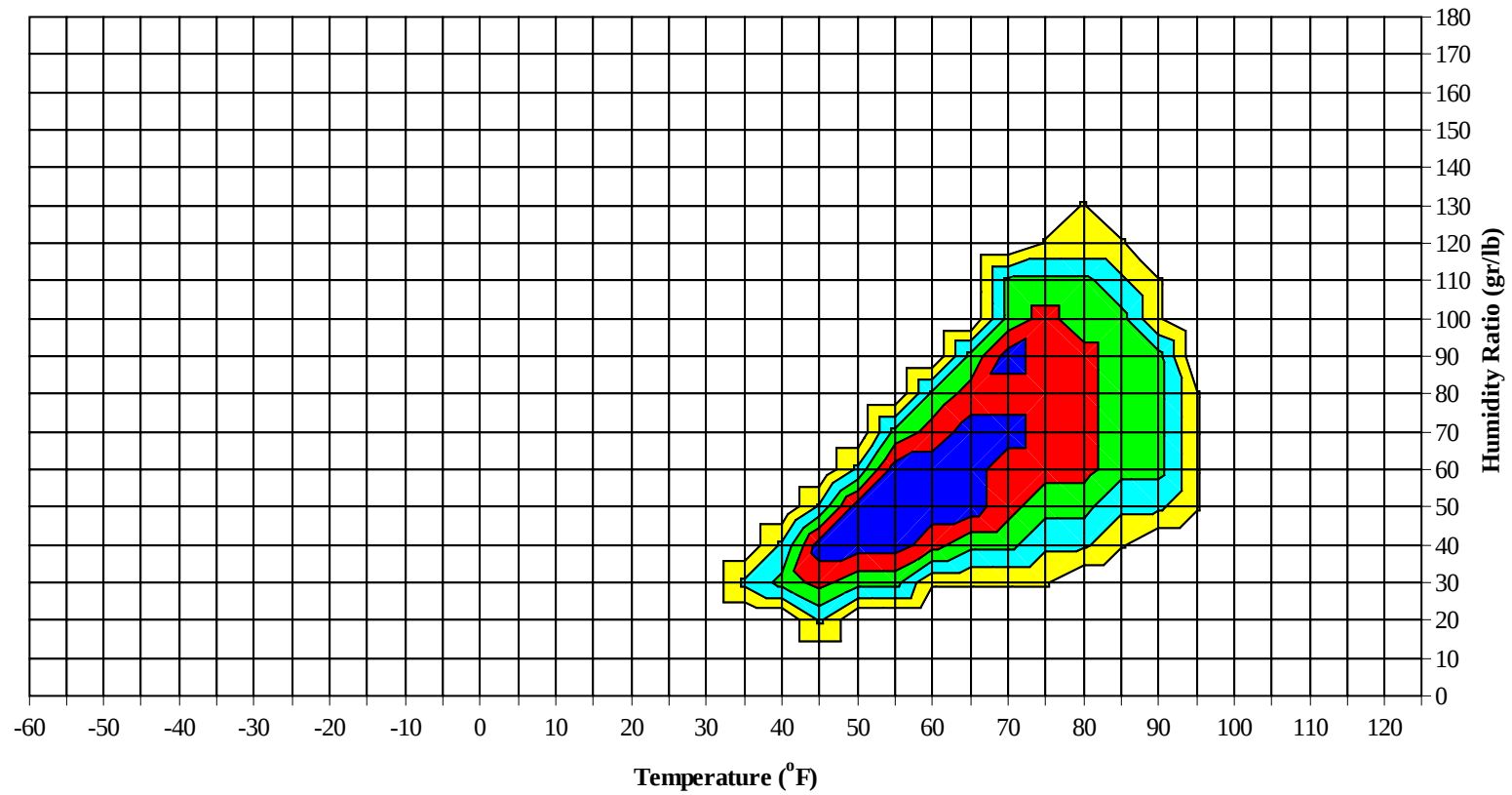


No Precipitation Data Available

SOUDA CRETE, GREECE

WMO No. 167464

Long Term Psychrometric Summary

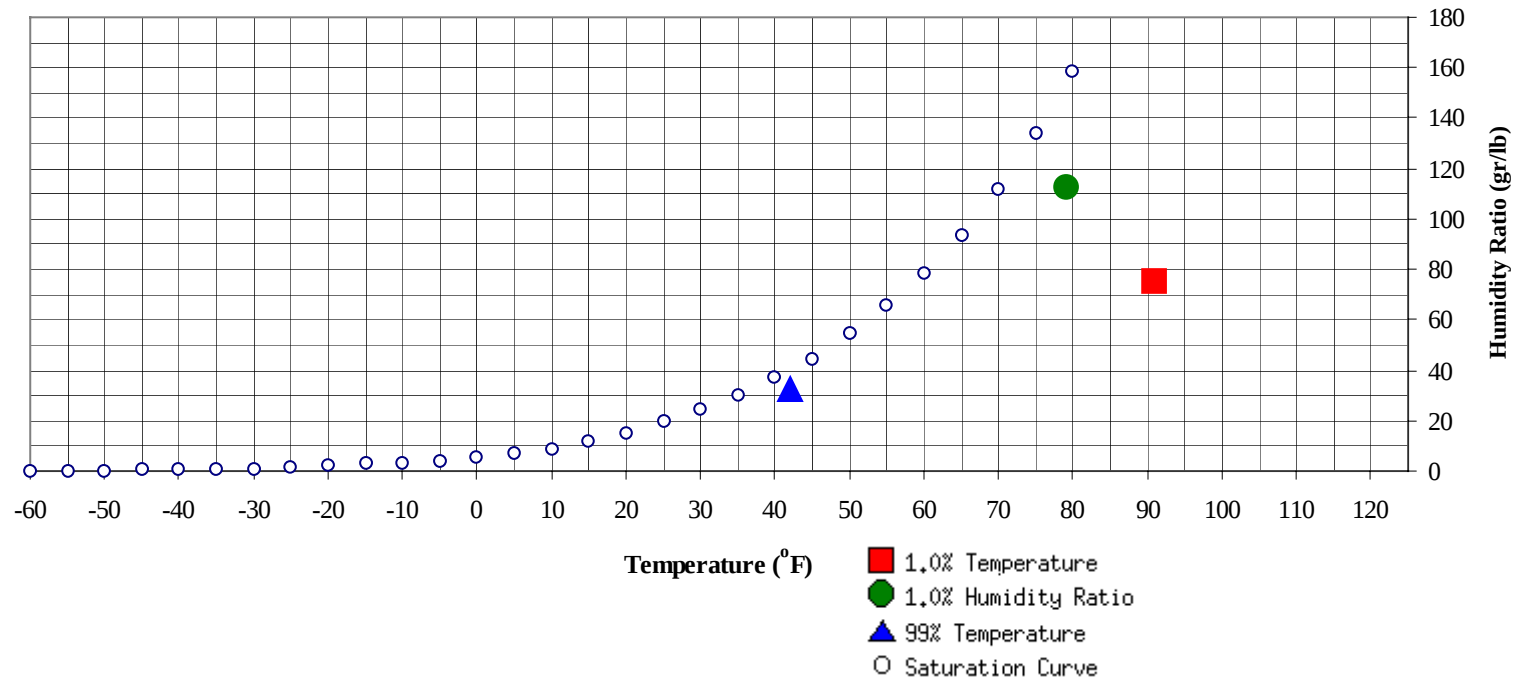


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

SOUDA CRETE, GREECE

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Psychrometric Summary of Peak Design Values



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)	1.0% Humidity Ratio	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
99% Dry Bulb	42	32.9	15.2		112.7	79.1	72.7	69.9	36.6

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	91	75.2	69.6	33.7

SOUDA CRETE, GREECE

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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		
105 / 109															
100 / 104															
95 / 99															
90 / 94															
85 / 89												0		0	61.3
80 / 84												1	0	1	60.7
75 / 79		0		0	61.0		1	0	1	57.7	0	4	2	5	59.9
70 / 74		3		3	60.0	0	7	2	9	57.3	1	16	4	20	58.6
65 / 69	0	8	0	8	57.8	1	12	5	18	55.4	2	25	7	34	57.1
60 / 64	6	49	9	64	55.2	7	45	18	69	54.3	11	71	33	115	55.1
55 / 59	28	74	53	156	51.8	23	59	48	129	51.5	47	69	78	194	52.0
50 / 54	91	74	103	268	48.5	72	55	73	200	48.7	93	41	85	219	48.7
45 / 49	88	30	64	182	44.4	89	37	64	191	44.2	68	18	30	116	44.2
40 / 44	22	9	16	46	40.4	22	5	11	37	40.1	17	2	7	27	40.1
35 / 39	11	1	3	16	36.6	9	2	4	15	36.1	9	1	2	12	36.9
30 / 34	2		0	2	32.7	2	0	0	2	32.6	1	0		1	32.2

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.

SOUDA CRETE, GREECE

WMO No. 167464

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												0		0	73.0
100 / 104												2	0	2	72.3
95 / 99		0		0	62.8		1		1	68.8	0	6	2	8	70.0
90 / 94		1	0	1	62.3	0	3	0	3	68.4	1	23	5	29	69.1
85 / 89		1	0	1	61.4	0	6	0	6	67.0	3	34	9	45	67.9
80 / 84	0	4	2	6	62.0	2	36	8	46	65.3	15	82	34	131	67.0
75 / 79	1	15	4	19	61.0	8	60	24	93	63.3	35	62	60	157	65.0
70 / 74	5	44	15	64	59.5	29	80	54	163	61.2	82	27	82	192	63.3
65 / 69	8	51	17	76	57.4	45	38	60	144	59.6	57	3	36	96	61.7
60 / 64	43	83	72	198	55.5	95	20	76	191	57.6	41	2	12	55	58.9
55 / 59	73	31	87	191	52.5	52	2	22	77	54.1	5		0	5	54.7
50 / 54	85	10	39	134	49.2	15		3	18	50.5					
45 / 49	22	1	6	28	45.4	2		0	2	45.4					
40 / 44	3		0	3	41.0										
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.

SOUDA CRETE, GREECE

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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	73.8		0		0	73.0					
100 / 104		1		1	68.5		1	0	1	71.9					
95 / 99			10	0	70.5		5	2	6	70.3		1		1	70.6
90 / 94	1	33	5	39	69.8	1	24	5	30	70.6		10	0	10	69.3
85 / 89	4	57	17	78	69.1	2	46	10	58	70.0	0	19	2	21	68.7
80 / 84	20	107	62	189	68.4	17	120	61	198	68.8	3	86	21	110	68.3
75 / 79	60	37	91	189	66.8	66	50	103	219	67.4	23	85	64	172	66.6
70 / 74	124	3	66	193	65.3	127	3	65	195	65.9	101	34	111	246	65.1
65 / 69	31		7	37	62.2	32		2	33	62.6	63	4	29	95	62.2
60 / 64	6		0	6	58.7	4		0	4	59.7	42	1	11	54	59.3
55 / 59	1			1	57.3	0			0	58.0	8	1	2	11	55.3
50 / 54															
45 / 49															
40 / 44															
35 / 39															
30 / 34															

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SOUDA CRETE, GREECE

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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		
105 / 109															
100 / 104															
95 / 99		0		0	68.0										
90 / 94		3	0	3	66.9										
85 / 89	0	5	0	5	66.8		0		0	64.0					
80 / 84	0	22	5	27	66.6		2		2	63.7		0		0	66.0
75 / 79	5	54	18	77	65.6	0	7	0	7	63.5		1		1	62.9
70 / 74	21	80	60	162	63.9	3	34	6	44	62.0	0	6	0	6	59.8
65 / 69	43	40	70	154	61.4	5	49	16	69	59.2	1	22	3	26	58.1
60 / 64	105	34	70	209	58.6	51	83	77	211	57.1	12	77	32	122	55.9
55 / 59	55	9	18	83	54.1	93	50	85	228	53.3	55	76	87	219	52.5
50 / 54	16	1	5	21	50.7	63	13	45	121	49.7	104	48	82	234	49.2
45 / 49	3			3	46.4	21	2	9	33	45.3	60	17	39	115	44.6
40 / 44						4	0	2	5	41.4	11	1	5	17	40.5
35 / 39						0			0	38.7	4	1	0	5	37.5
30 / 34												0		0	34.0

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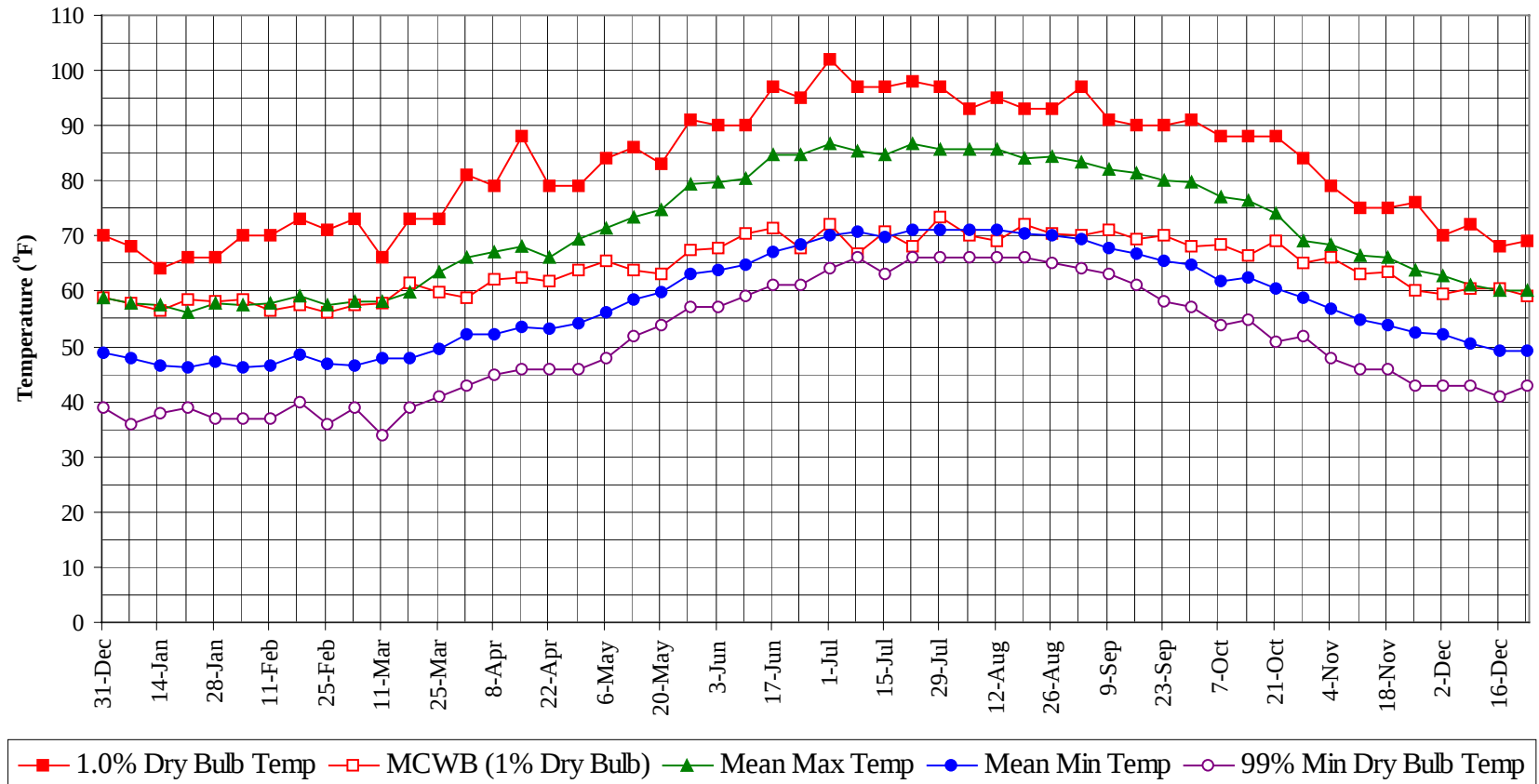
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

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		1		1	73.4
100 / 104		3	0	3	71.3
95 / 99	0	22	2	23	70.2
90 / 94	4	90	15	109	69.6
85 / 89	8	157	38	203	68.9
80 / 84	58	435	186	679	67.8
75 / 79	198	363	354	915	65.8
70 / 74	493	336	451	1281	63.6
65 / 69	283	257	253	793	60.1
60 / 64	420	481	422	1323	56.7
55 / 59	446	388	494	1328	52.6
50 / 54	541	253	443	1238	49.0
45 / 49	354	110	214	677	44.5
40 / 44	78	18	39	135	40.3
35 / 39	33	6	9	47	36.6
30 / 34	5	1	0	5	32.5

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.

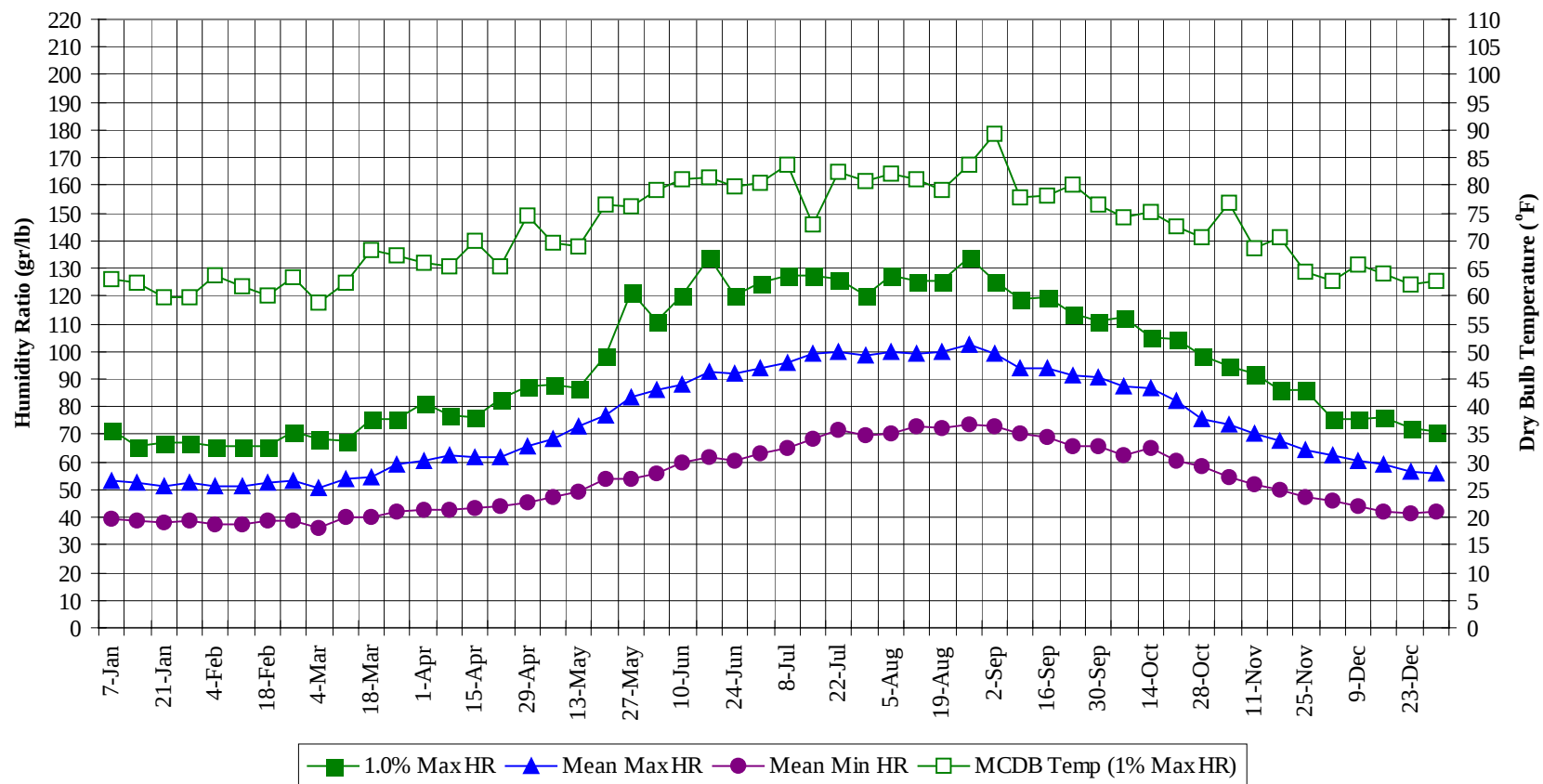
Annual Summary of Temperatures



SOUDA CRETE, GREECE

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Long Term Humidity and Dry Bulb Temperature Summary

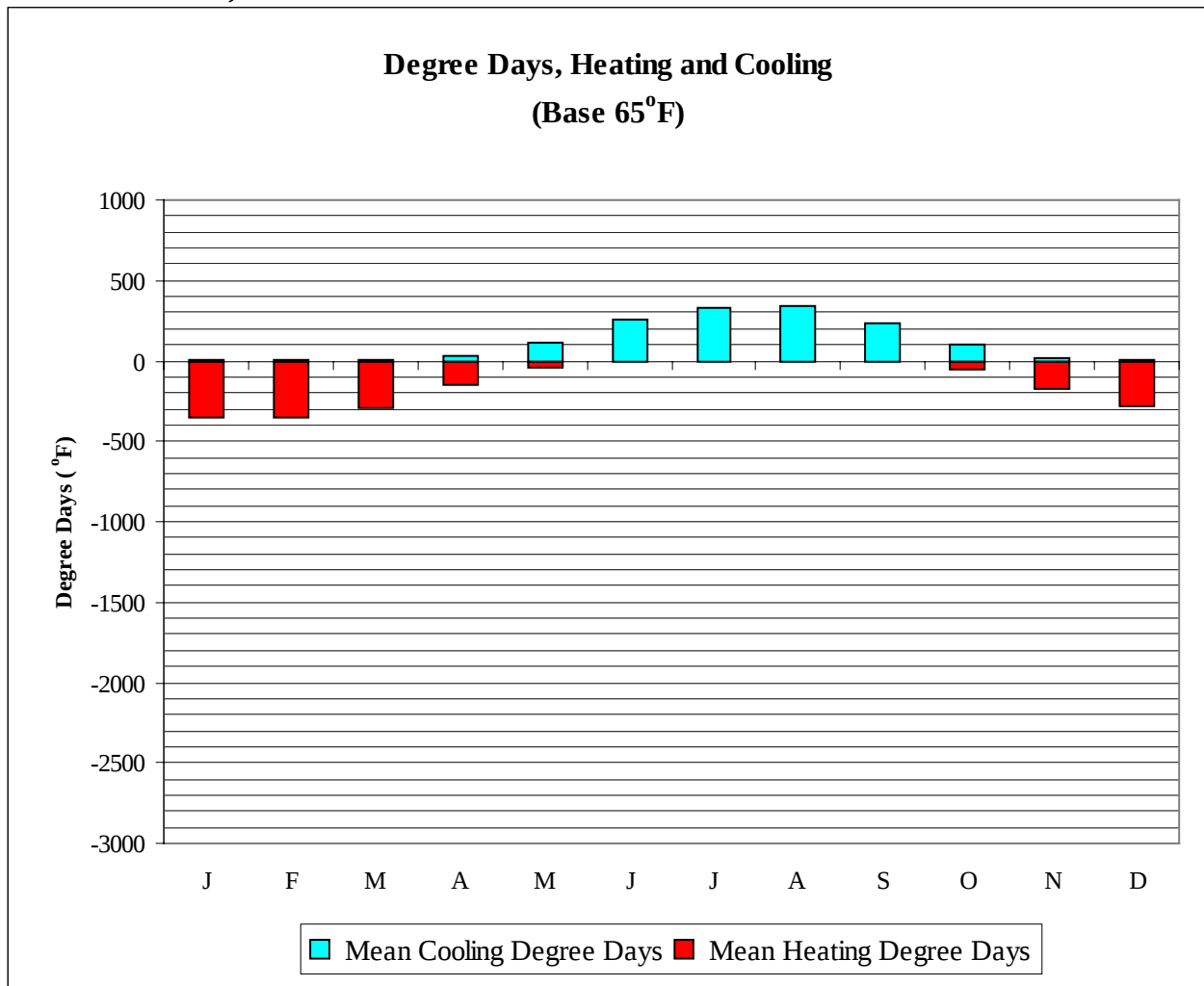


SOUDA CRETE, GREECE

WMO No. 167464

Long Term Dry Bulb Temperature and Humidity Summary

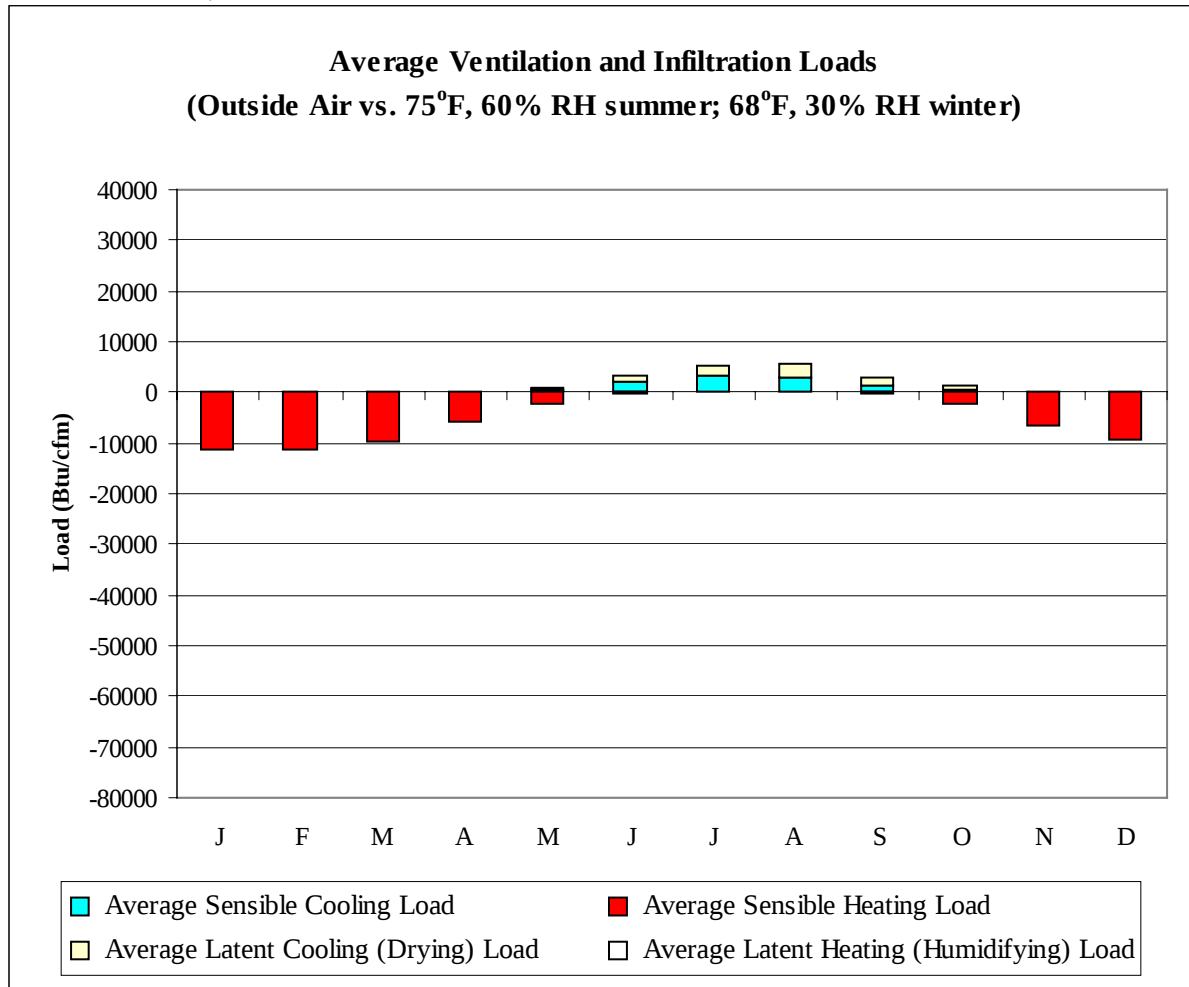
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	68.0	57.8	57.7	48.0	36.0	71.4	63.0	53.1	39.3
14-Jan	64.0	56.5	57.3	46.7	38.0	65.8	62.3	52.8	38.8
21-Jan	66.0	58.4	56.1	46.2	39.0	67.2	59.6	51.5	37.8
28-Jan	66.0	58.2	57.7	47.2	37.0	67.2	59.8	52.8	38.9
4-Feb	70.0	58.4	57.4	46.3	37.0	65.8	63.5	51.4	37.7
11-Feb	70.0	56.5	57.7	46.6	37.0	65.8	61.7	50.9	37.5
18-Feb	73.0	57.6	59.0	48.6	40.0	65.8	60.2	52.8	38.7
25-Feb	71.0	56.0	57.5	46.9	36.0	70.7	63.3	53.1	38.5
4-Mar	73.0	57.5	58.0	46.6	39.0	68.6	58.7	50.8	35.9
11-Mar	66.0	57.8	58.1	47.8	34.0	67.9	62.3	53.8	39.8
18-Mar	73.0	61.3	59.7	48.0	39.0	75.6	68.4	54.3	40.3
25-Mar	73.0	59.8	63.4	49.6	41.0	75.6	67.4	58.8	41.8
1-Apr	81.0	58.8	66.0	52.0	43.0	81.2	66.0	60.6	43.0
8-Apr	79.0	62.3	67.1	52.3	45.0	77.0	65.3	62.4	42.6
15-Apr	88.0	62.5	68.2	53.4	46.0	76.3	69.9	61.8	43.1
22-Apr	79.0	61.9	66.2	53.3	46.0	82.6	65.2	61.8	44.1
29-Apr	79.0	63.8	69.5	54.3	46.0	87.5	74.5	65.7	45.4
6-May	84.0	65.5	71.3	56.2	48.0	88.2	69.7	68.4	47.5
13-May	86.0	63.8	73.3	58.4	52.0	86.8	68.8	72.7	49.3
20-May	83.0	63.2	74.9	59.7	54.0	98.7	76.5	76.7	53.9
27-May	91.0	67.4	79.4	63.0	57.0	121.8	76.3	83.6	53.8
3-Jun	90.0	67.8	79.9	63.7	57.0	111.3	79.0	86.1	56.0
10-Jun	90.0	70.5	80.5	64.7	59.0	120.4	81.0	88.1	59.7
17-Jun	97.0	71.6	84.9	67.3	61.0	133.7	81.5	92.6	61.7
24-Jun	95.0	67.7	84.7	68.6	61.0	120.4	79.8	92.2	60.7
1-Jul	102.0	72.1	86.8	70.3	64.0	124.6	80.3	93.7	62.9
8-Jul	97.0	66.9	85.5	70.7	66.0	127.4	83.6	95.9	64.8
15-Jul	97.0	70.7	84.9	69.7	63.0	127.4	73.0	99.3	68.6
22-Jul	98.0	68.0	86.6	71.0	66.0	126.0	82.5	99.5	71.4
29-Jul	97.0	73.5	85.6	71.2	66.0	120.4	80.9	98.8	69.8
5-Aug	93.0	70.0	85.9	71.2	66.0	127.4	82.0	99.8	70.5
12-Aug	95.0	69.2	85.9	71.2	66.0	125.3	81.0	98.8	72.7
19-Aug	93.0	72.0	84.1	70.5	66.0	125.3	79.1	99.7	72.1
26-Aug	93.0	70.4	84.5	70.1	65.0	133.7	83.8	102.7	73.5
2-Sep	97.0	70.0	83.5	69.4	64.0	125.3	89.3	99.0	72.8
9-Sep	91.0	71.2	82.0	67.9	63.0	119.0	77.7	94.2	70.0
16-Sep	90.0	69.5	81.6	66.8	61.0	119.7	78.3	93.9	68.9
23-Sep	90.0	70.1	80.2	65.5	58.0	113.4	80.3	91.4	65.5
30-Sep	91.0	68.0	79.6	64.7	57.0	111.3	76.4	90.7	65.7
7-Oct	88.0	68.3	77.2	61.8	54.0	112.0	74.1	87.1	62.2
14-Oct	88.0	66.6	76.5	62.4	55.0	105.0	75.0	87.0	64.8
21-Oct	88.0	69.0	74.1	60.5	51.0	104.3	72.6	82.3	60.2
28-Oct	84.0	65.3	69.2	58.7	52.0	98.7	70.6	75.3	58.4
4-Nov	79.0	66.3	68.5	56.7	48.0	94.5	77.0	73.3	54.6
11-Nov	75.0	63.3	66.4	54.9	46.0	91.7	68.5	70.2	52.1
18-Nov	75.0	63.5	66.2	54.0	46.0	86.1	70.5	67.4	50.1
25-Nov	76.0	60.0	63.7	52.4	43.0	86.1	64.3	64.4	47.5
2-Dec	70.0	59.6	62.8	52.2	43.0	75.6	62.9	62.1	46.1
9-Dec	72.0	60.6	61.1	50.6	43.0	75.6	65.7	60.2	44.3
16-Dec	68.0	60.4	60.3	49.2	41.0	76.3	64.1	59.1	42.3
23-Dec	69.0	59.0	60.0	49.0	43.0	72.1	62.2	56.6	41.4
31-Dec	70.0	58.9	58.9	48.8	39.0	70.7	62.9	55.9	42.1



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	1	351
FEB	3	353
MAR	10	289
APR	31	153
MAY	115	42
JUN	259	4
JUL	332	0
AUG	338	0
SEP	228	6
OCT	104	50
NOV	18	171
DEC	3	284
ANN	1442	1703

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	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	0	-11273	2	-66
FEB	2	-11310	1	-82
MAR	18	-9692	10	-38
APR	86	-5837	22	-8
MAY	582	-2108	336	-3
JUN	2295	-298	1000	0
JUL	3305	-43	1983	0
AUG	3017	-33	2481	0
SEP	1382	-379	1703	0
OCT	419	-2401	742	0
NOV	23	-6427	74	-3
DEC	1	-9506	3	-27
ANN	11130	-59307	8357	-227

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

No Solar Radiation
Data Available

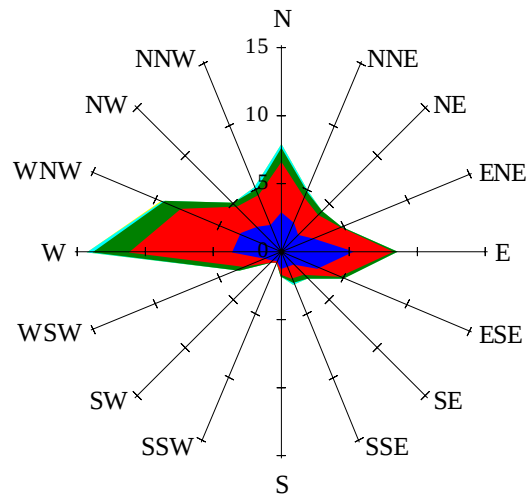


Average Annual Solar Heat and Illumination – Nearest Available Site

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

Wind Summary - December, January, and February

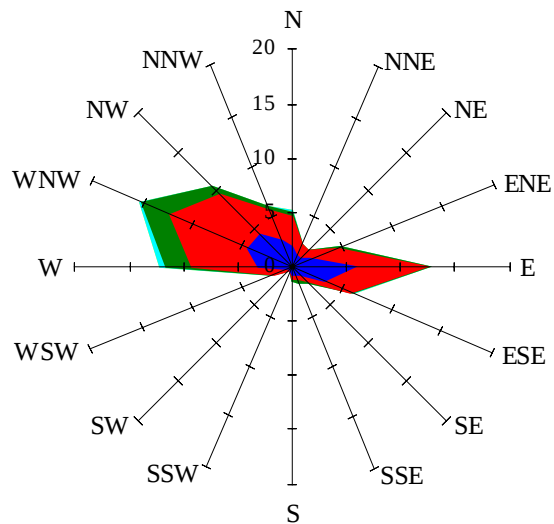
Labels of Percent Frequency on North Axis



Percent Calm = 20.02

Wind Summary - March, April, and May

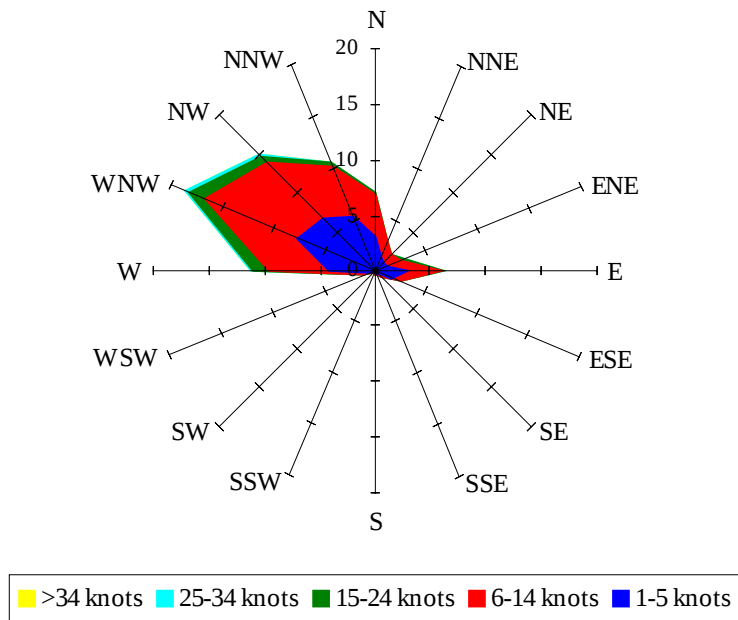
Labels of Percent Frequency on North Axis



Percent Calm = 15.06

Wind Summary - June, July, and August

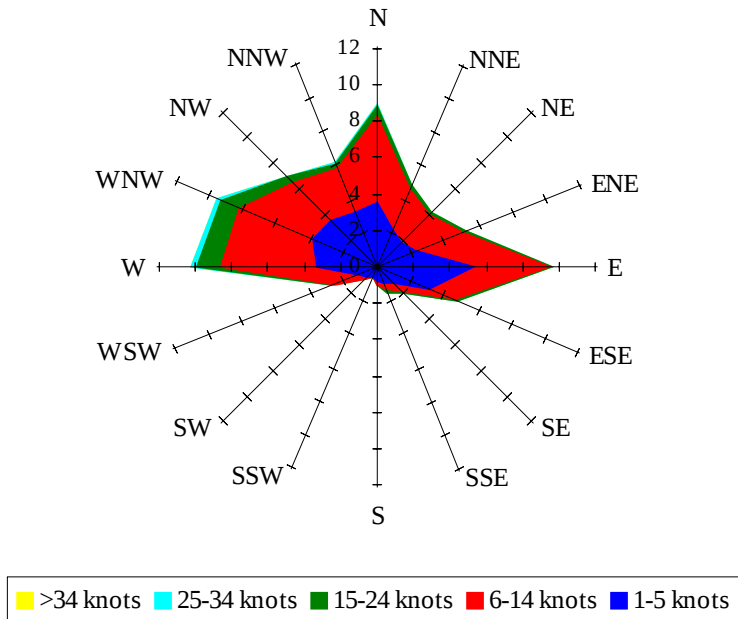
Labels of Percent Frequency on North Axis



Percent Calm = 18.28

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 21.46