

KEFLAVIK (CIV/MIL) IL

Latitude = 63.97 N

WMO No. 040180

Longitude = 22.60 W

Elevation = 177 feet

Period of Record = 1973 to 1996

Average Pressure = 29.44 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	63	55	52	9.6	N
0.4% Occurrence	59	52	49	10.3	N
1.0% Occurrence	56	51	47	11.7	N
2.0% Occurrence	55	51	48	11.3	N
Mean Daily Range	8	-	-	-	-
97.5% Occurrence	21	19	12	15.0	N
99.0% Occurrence	19	17	10	14.9	N
99.6% Occurrence	18	16	9	15.5	N
Median of Extreme Lows	12	10	7	10.4	E
	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	57	60	61	8.3	SE
0.4% Occurrence	54	56	59	12.6	SE
1.0% Occurrence	53	55	57	12.5	SE
2.0% Occurrence	52	54	55	12.7	SE
	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	65	58	0.44	14.7	SW
0.4% Occurrence	59	54	0.39	14.3	ESE
1.0% Occurrence	57	53	0.39	13.1	SE
2.0% Occurrence	55	52	0.36	12.8	SE
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		0	0	0	0

Other Site Data

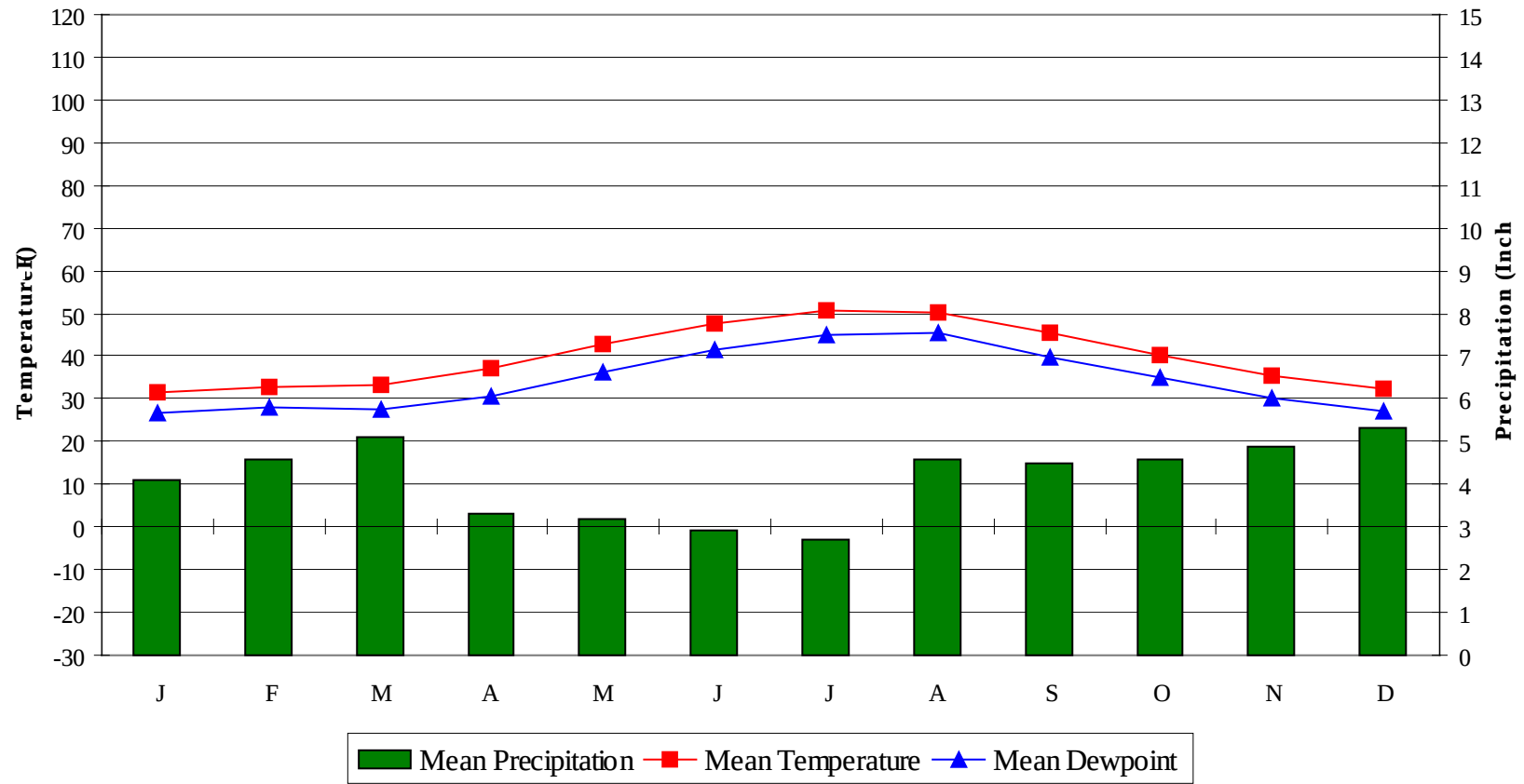
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
4	N/A	N/A	0.0 + 0.0
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
42.5	N/A	N/A	69

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

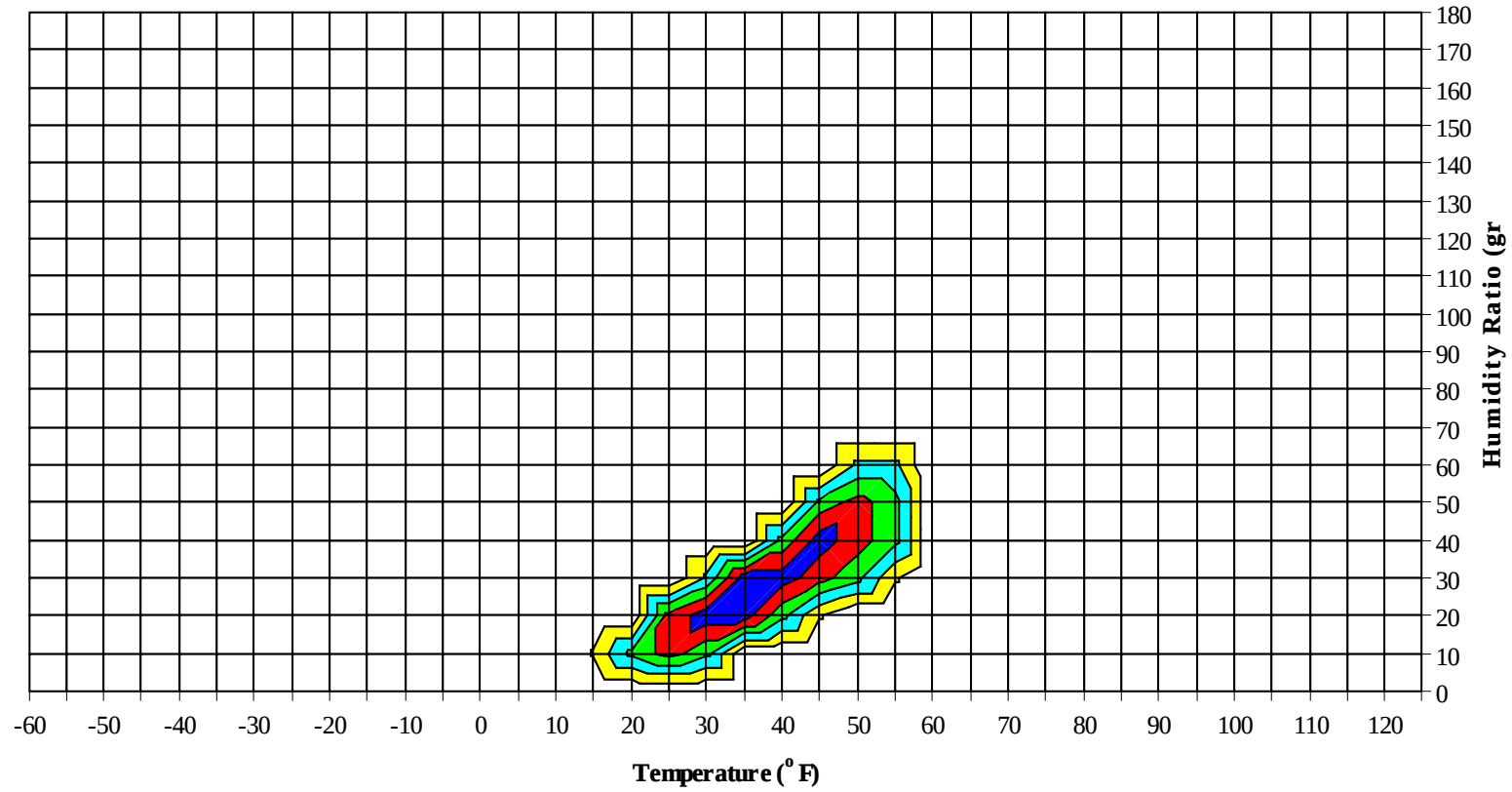
KEFLAVIK (CIV/MIL) IL

WMO No. 40180

Average Annual Climate

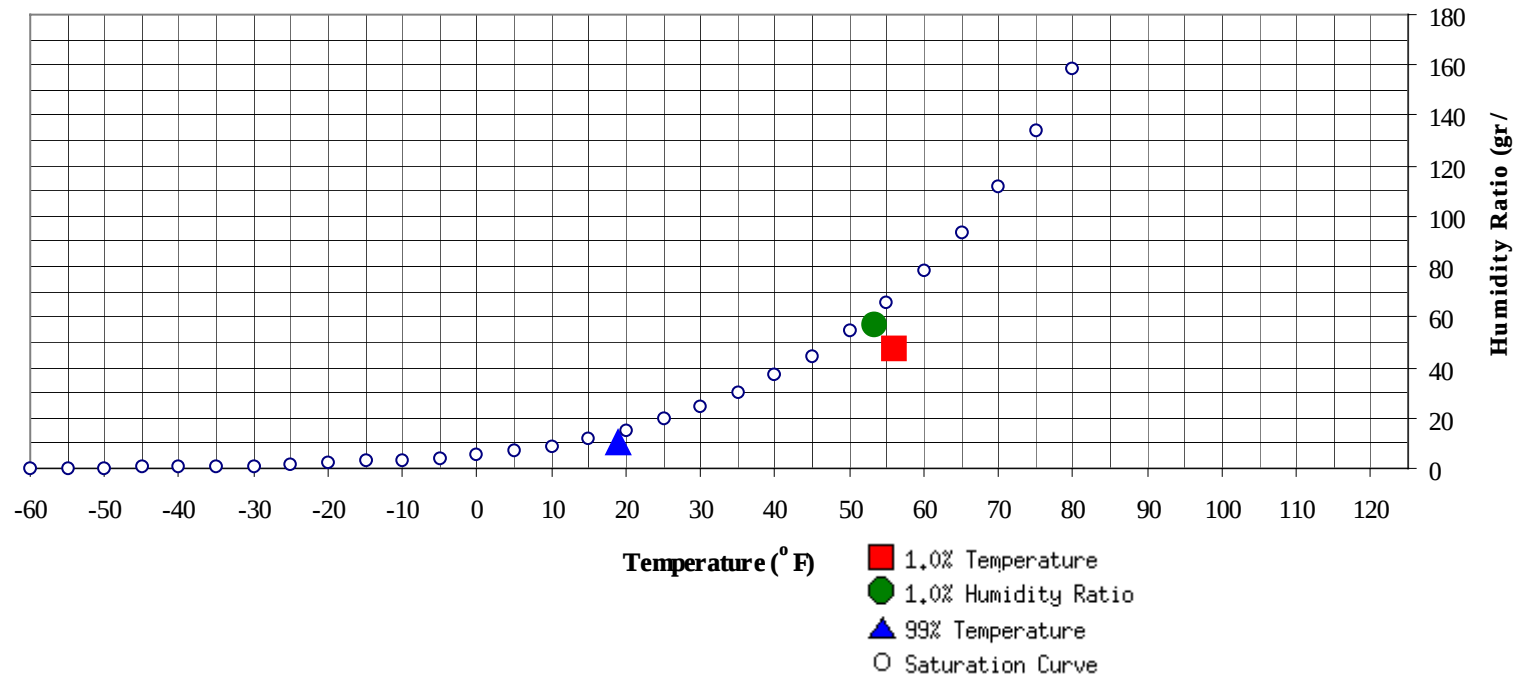


Long Term Psychrometric Summary



- 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)
	19	10.5	6.2		57.4	53.4	52.5	51.7	21.7

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	56	47.2	50.8	20.8

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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		
70 / 74															
65 / 69															
60 / 64															
55 / 59															
50 / 54						0			0	50.0					
45 / 49	9	8	8	26	44.3	6	7	6	19	43.7	4	9	4	17	43.5
40 / 44	15	16	16	47	40.3	19	25	21	65	40.4	20	36	30	86	40.0
35 / 39	57	63	60	180	35.0	64	69	68	200	35.0	74	84	84	242	34.9
30 / 34	67	66	71	204	30.3	64	66	66	196	30.2	73	66	69	208	30.1
25 / 29	63	60	58	181	25.2	47	36	43	126	25.1	48	38	42	127	24.7
20 / 24	20	23	23	66	20.5	16	14	14	44	20.5	14	11	13	39	20.0
15 / 19	14	9	13	36	16.6	8	5	7	20	16.6	12	5	7	23	16.1
10 / 14	2	1	2	4	11.3	0	0	0	1	11.3	1	1	1	2	10.7
5 / 9	0	0		0	7.5										

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.

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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		
70 / 74															
65 / 69						0	0	0	0	52.0					
60 / 64						0	0	0	1	52.0		1	1	2	52.6
55 / 59						0	3	2	4	49.5	0	14	8	23	49.6
50 / 54		1	1	2	44.7	1	37	24	62	46.4	25	100	80	206	47.3
45 / 49	16	46	32	94	43.2	67	113	103	284	43.5	149	112	132	393	44.3
40 / 44	37	62	58	156	39.4	70	57	67	195	39.5	50	13	19	82	40.0
35 / 39	91	77	82	250	34.7	83	29	42	154	35.2	12	1	2	16	35.3
30 / 34	57	37	44	138	29.8	17	7	8	32	29.5					
25 / 29	29	14	19	62	24.4	7	2	3	12	23.8					
20 / 24	8	4	4	16	19.7	0			0	20.7					
15 / 19	2	0	1	3	16.3										
10 / 14	0			0	13.0										
5 / 9															

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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		
70 / 74		0	0	0	62.6										
65 / 69		0	0	1	58.8		0		0	57.0					
60 / 64	0	7	4	11	54.4	0	2	1	3	54.6		0		0	54.0
55 / 59	3	47	33	83	51.1	3	41	27	72	51.5	0	3	2	4	50.6
50 / 54	100	145	142	386	49.0	89	154	140	383	49.1	26	66	46	138	48.7
45 / 49	129	49	67	245	45.3	133	48	75	256	45.3	97	122	118	337	44.0
40 / 44	14	1	2	18	40.8	19	3	5	28	40.4	63	35	50	148	39.6
35 / 39	0			0	37.9	3	0	0	3	36.7	46	13	24	84	35.0
30 / 34											6	1	2	9	30.1
25 / 29											0			0	25.5
20 / 24															
15 / 19															
10 / 14															
5 / 9															

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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		
70 / 74															
65 / 69															
60 / 64															
55 / 59															
50 / 54	4	8	5	17	48.5			0	0	47.7	0	0	0	0	47.0
45 / 49	55	73	61	189	44.3	21	22	22	64	44.9	12	11	11	35	44.5
40 / 44	54	72	65	191	39.8	30	36	31	97	40.3	23	27	22	71	40.5
35 / 39	94	70	84	248	35.2	81	84	84	249	35.2	61	62	63	186	35.0
30 / 34	34	22	29	85	29.8	62	60	60	182	30.2	71	70	71	213	30.1
25 / 29	7	2	5	14	25.3	33	28	34	96	24.7	49	48	52	149	25.0
20 / 24	0	0	0	1	19.7	10	8	8	26	20.0	20	20	18	58	20.1
15 / 19		0		0	16.0	2	2	2	6	16.7	10	9	9	28	16.2
10 / 14							0		0	13.0	1	1	2	4	10.4
5 / 9											0	0	0	1	7.3

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. 40180

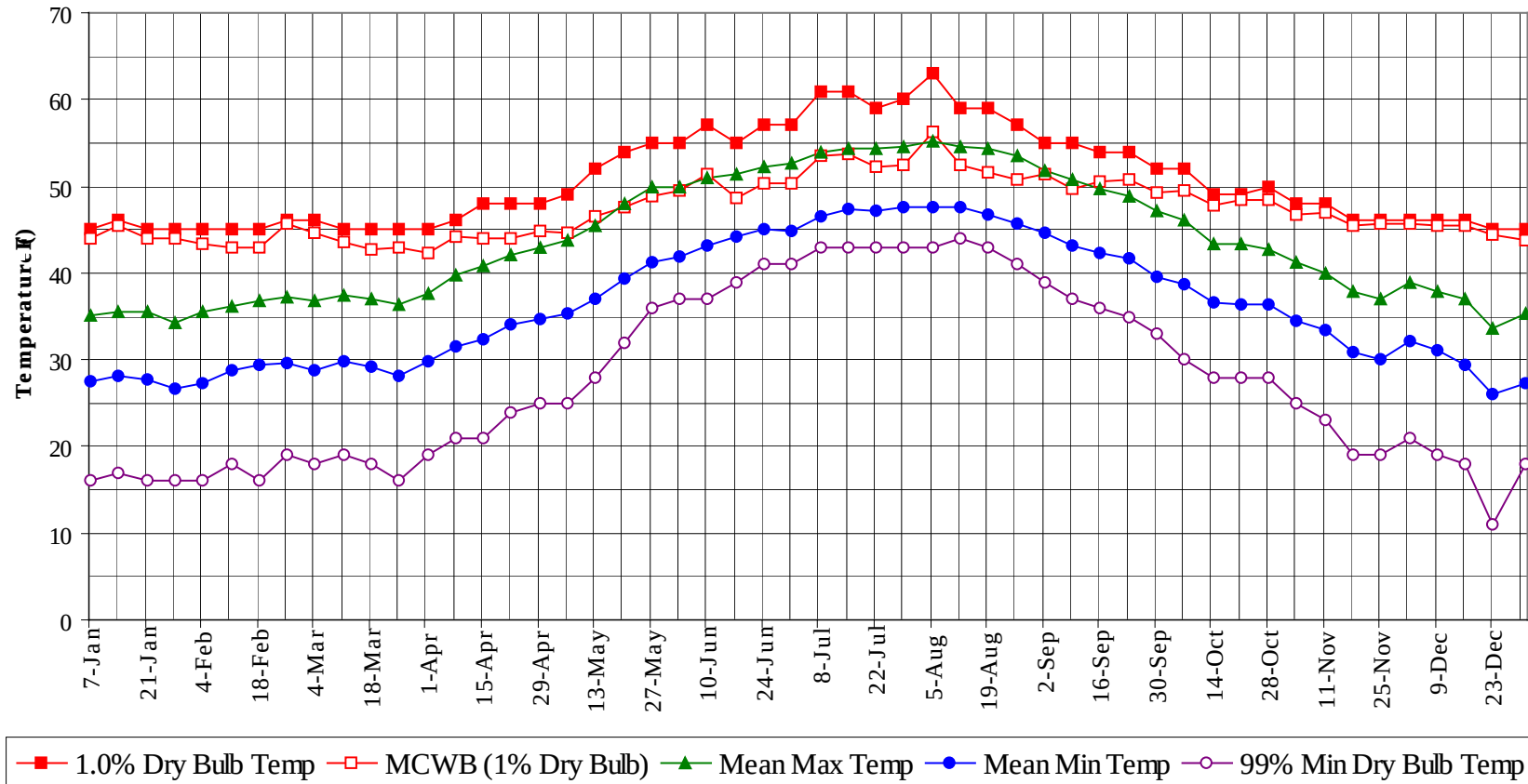
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1973 to 1996

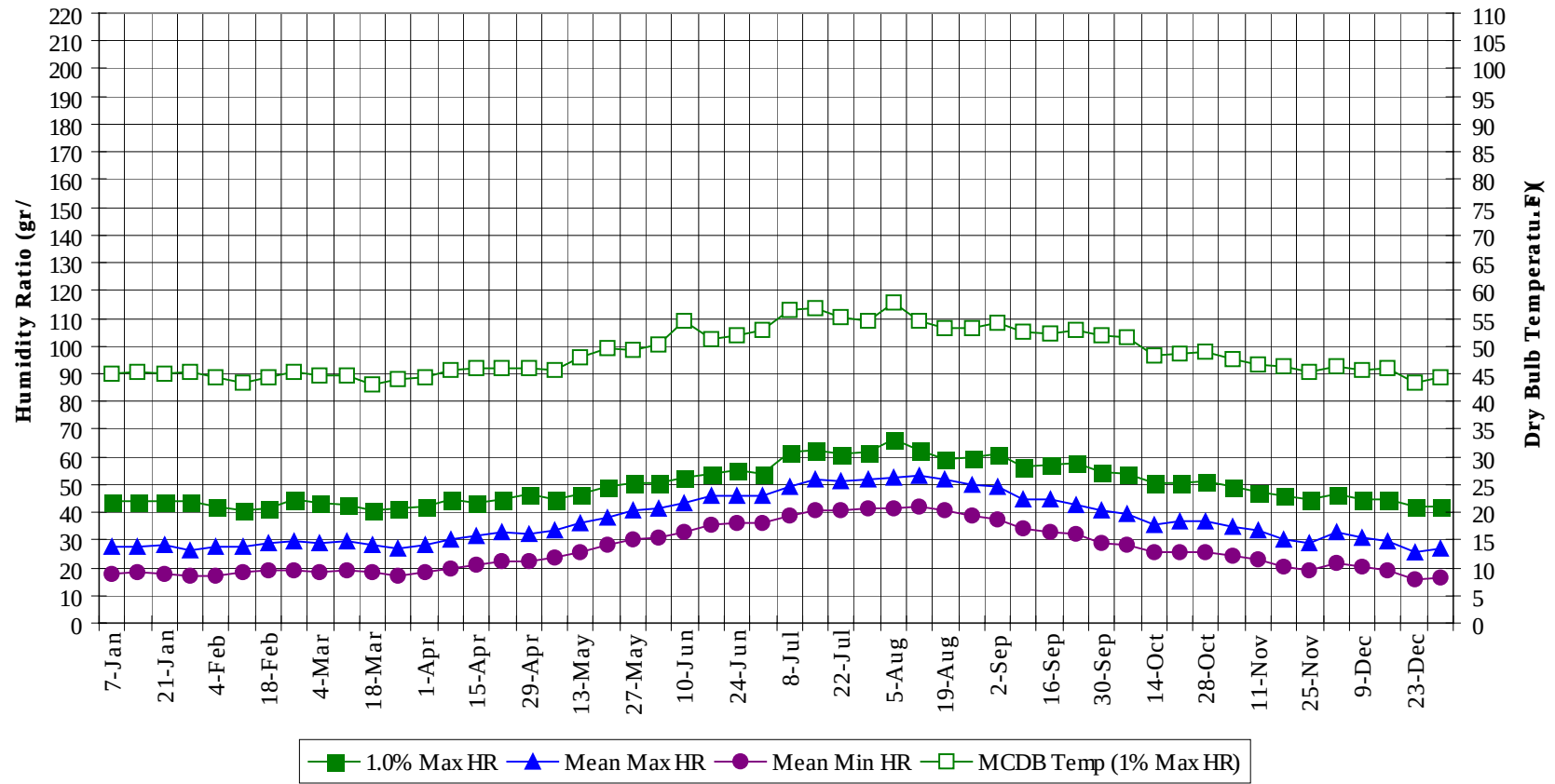
Annual Totals						
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	
	01 To 08	09 To 16	17 To 00			
70 / 74		0	0	0	62.6	
65 / 69	0	1	1	1	57.2	
60 / 64	0	10	6	16	54.2	
55 / 59	7	108	71	185	51.0	
50 / 54	245	510	437	1191	48.5	
45 / 49	697	621	639	1957	44.3	
40 / 44	414	383	387	1184	39.9	
35 / 39	665	554	595	1814	35.0	
30 / 34	451	396	420	1267	30.1	
25 / 29	283	228	256	766	24.9	
20 / 24	88	79	81	249	20.2	
15 / 19	48	30	38	116	16.4	
10 / 14	4	3	4	11	10.9	
5 / 9	0	0	0	1	7.3	

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



KEFLAVIK (CIV/MIL)

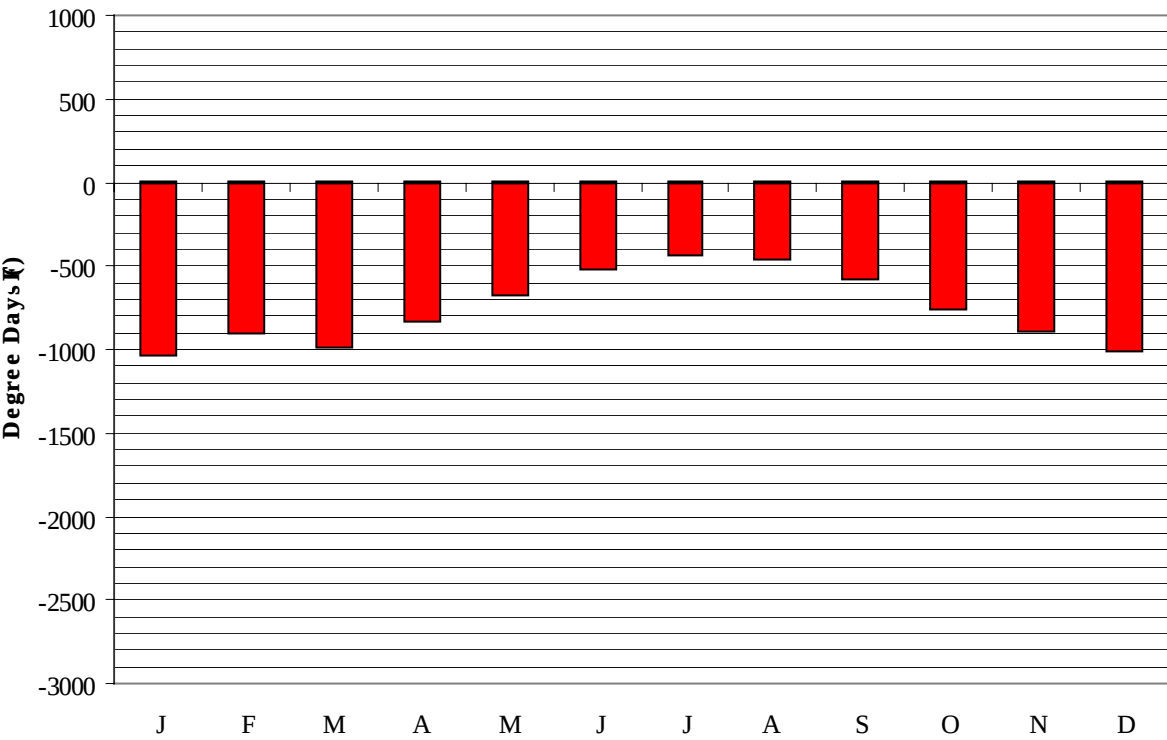
IL

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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	45.0	44.0	35.1	27.5	16.0	44.1	45.0	27.7	17.8
14-Jan	46.0	45.4	35.5	28.1	17.0	44.1	45.2	27.8	18.1
21-Jan	45.0	43.9	35.5	27.7	16.0	44.1	45.1	27.9	17.5
28-Jan	45.0	43.9	34.2	26.7	16.0	44.1	45.3	26.6	16.9
4-Feb	45.0	43.4	35.6	27.4	16.0	42.0	44.3	27.6	17.4
11-Feb	45.0	42.9	36.1	28.7	18.0	40.6	43.5	27.8	18.5
18-Feb	45.0	43.0	36.8	29.5	16.0	41.3	44.3	28.9	19.1
25-Feb	46.0	45.6	37.2	29.7	19.0	44.8	45.4	29.8	19.0
4-Mar	46.0	44.7	36.8	28.8	18.0	43.4	44.7	29.2	18.4
11-Mar	45.0	43.5	37.4	29.8	19.0	42.7	44.6	29.8	19.3
18-Mar	45.0	42.8	37.0	29.2	18.0	40.6	43.1	28.2	18.6
25-Mar	45.0	42.8	36.4	28.2	16.0	41.3	44.1	26.9	16.9
1-Apr	45.0	42.2	37.7	29.8	19.0	42.0	44.5	28.0	18.3
8-Apr	46.0	44.2	39.7	31.5	21.0	44.8	45.8	30.5	20.0
15-Apr	48.0	44.1	40.7	32.4	21.0	43.4	45.9	31.2	20.9
22-Apr	48.0	44.0	42.2	34.1	24.0	44.8	45.9	32.6	22.4
29-Apr	48.0	44.8	42.8	34.6	25.0	46.9	46.1	32.4	22.3
6-May	49.0	44.6	43.7	35.4	25.0	44.8	45.7	33.8	23.9
13-May	52.0	46.6	45.5	36.9	28.0	46.9	47.8	35.8	25.5
20-May	54.0	47.6	48.0	39.4	32.0	49.0	49.5	38.1	28.1
27-May	55.0	48.8	49.8	41.3	36.0	50.4	49.2	40.6	30.3
3-Jun	55.0	49.4	49.9	41.8	37.0	50.4	50.1	41.6	31.1
10-Jun	57.0	51.4	51.0	43.1	37.0	52.5	54.5	43.1	32.7
17-Jun	55.0	48.6	51.4	44.1	39.0	53.9	51.3	45.7	35.2
24-Jun	57.0	50.4	52.2	45.0	41.0	55.3	51.8	46.3	35.8
1-Jul	57.0	50.4	52.7	44.9	41.0	53.9	52.7	46.1	36.1
8-Jul	61.0	53.5	54.0	46.5	43.0	61.6	56.6	49.2	38.5
15-Jul	61.0	53.8	54.4	47.3	43.0	62.3	56.7	51.9	40.7
22-Jul	59.0	52.3	54.3	47.1	43.0	60.9	55.2	51.6	40.5
29-Jul	60.0	52.5	54.6	47.6	43.0	61.6	54.5	52.0	41.5
5-Aug	63.0	56.2	55.2	47.7	43.0	66.5	57.7	52.8	41.4
12-Aug	59.0	52.4	54.6	47.6	44.0	62.3	54.4	53.2	41.8
19-Aug	59.0	51.5	54.4	46.8	43.0	58.8	53.3	52.0	40.8
26-Aug	57.0	50.8	53.6	45.7	41.0	59.5	53.3	50.1	38.8
2-Sep	55.0	51.5	51.7	44.6	39.0	60.9	54.1	49.0	37.3
9-Sep	55.0	49.7	50.7	43.1	37.0	56.7	52.5	44.6	34.3
16-Sep	54.0	50.6	49.6	42.2	36.0	57.4	52.2	44.6	33.1
23-Sep	54.0	50.7	48.8	41.6	35.0	58.1	52.9	42.9	31.9
30-Sep	52.0	49.3	47.1	39.6	33.0	54.6	51.8	40.6	29.0
7-Oct	52.0	49.5	46.1	38.8	30.0	53.9	51.7	39.4	28.5
14-Oct	49.0	47.8	43.5	36.5	28.0	50.4	48.2	35.8	25.6
21-Oct	49.0	48.4	43.4	36.3	28.0	50.4	48.5	37.1	25.8
28-Oct	50.0	48.5	42.6	36.4	28.0	51.1	49.0	36.5	25.9
4-Nov	48.0	46.8	41.2	34.4	25.0	49.0	47.5	34.8	24.0
11-Nov	48.0	46.9	39.9	33.5	23.0	47.6	46.6	33.2	23.1
18-Nov	46.0	45.5	37.8	30.9	19.0	46.2	46.4	30.4	20.3
25-Nov	46.0	45.8	37.0	30.1	19.0	44.8	45.4	29.0	19.2
2-Dec	46.0	45.6	39.0	32.1	21.0	46.9	46.3	32.6	21.5
9-Dec	46.0	45.5	37.8	31.0	19.0	44.8	45.8	30.9	20.3
16-Dec	46.0	45.5	37.1	29.5	18.0	44.8	45.9	29.8	18.7
23-Dec	45.0	44.3	33.6	26.0	11.0	42.0	43.4	25.4	15.7
31-Dec	45.0	43.9	35.2	27.2	18.0	42.0	44.4	26.8	16.7

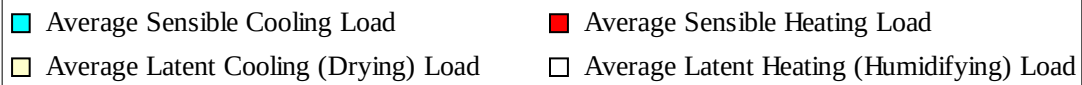
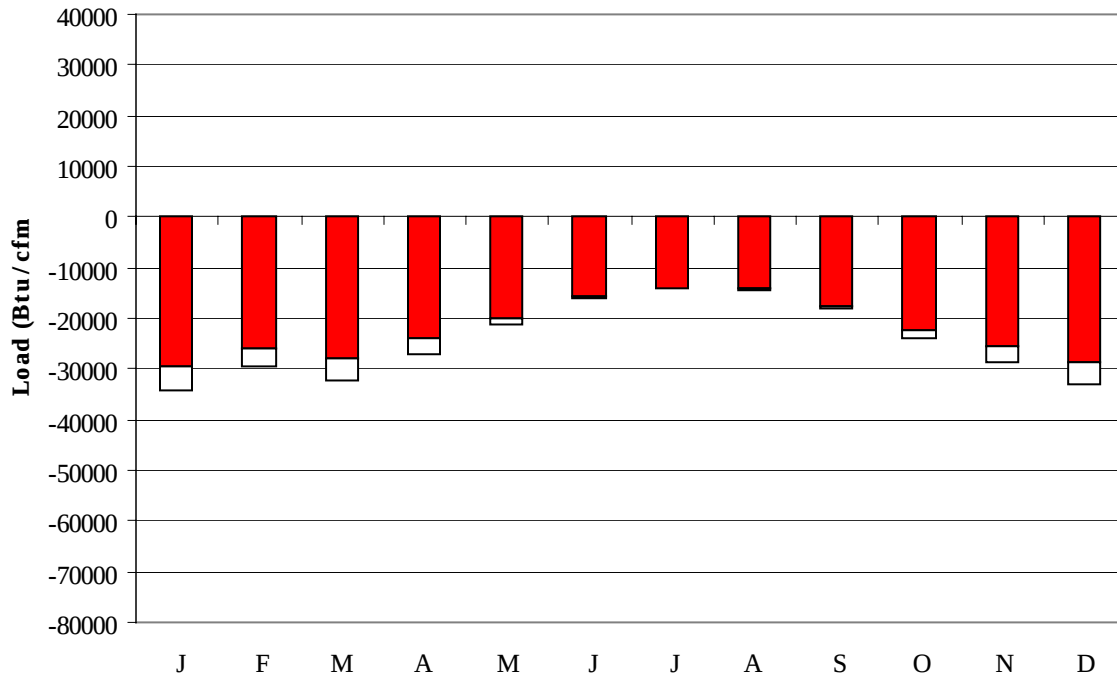
Degree Days, Heating and Cooling
(Base 65°F)



Mean Cooling Degree Days Mean Heating Degree Days

	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1040
FEB	0	910
MAR	0	984
APR	0	833
MAY	0	680
JUN	0	517
JUL	0	443
AUG	0	457
SEP	0	585
OCT	0	764
NOV	0	891
DEC	0	1008
ANN	0	9112

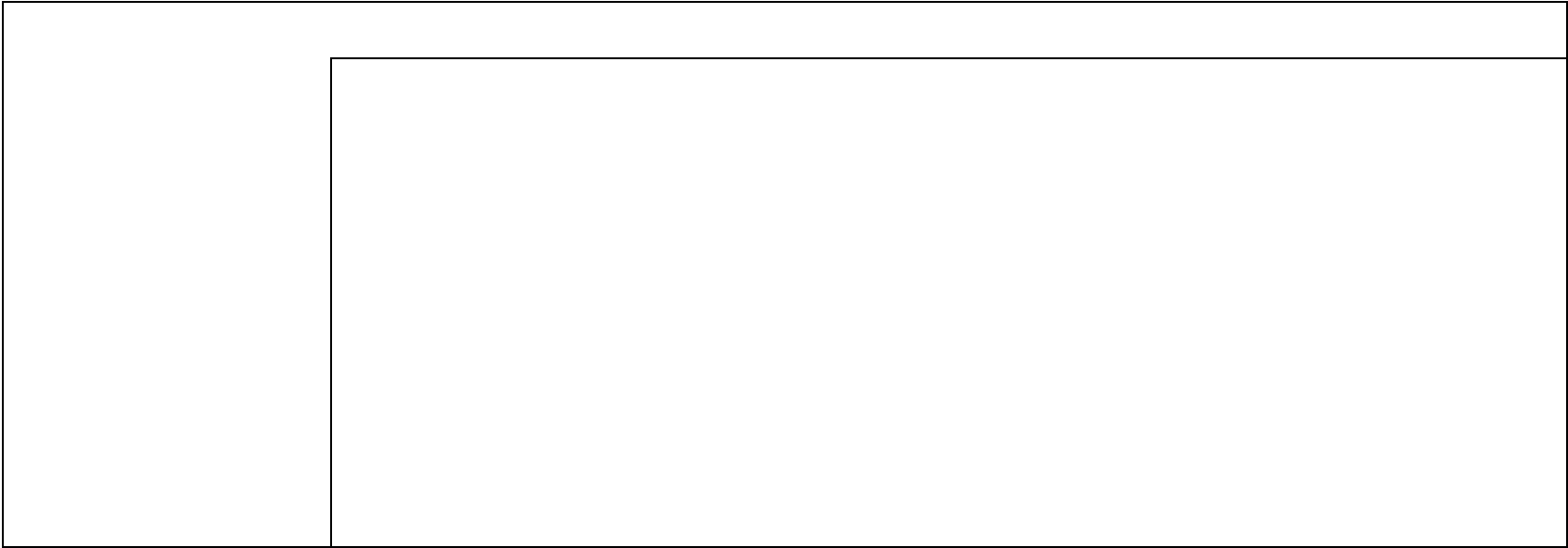
Average Ventilation and Infiltration Loads
(Outside Air vs. 75°F, 60% RH summer; 68°F, 30% RH winter)



	Average Sensible Cooling Load (Btu/cfm)	Average Sensible Heating Load (Btu/cfm)	Average Latent Cooling Load (Btu/cfm)	Average Latent Heating Load (Btu/cfm)
JAN	0	-29369	0	-4649
FEB	0	-25773	0	-3750
MAR	0	-27918	0	-4136
APR	0	-23925	0	-2992
MAY	0	-20025	0	-1239
JUN	0	-15732	0	-227
JUL	0	-13901	0	-15
AUG	0	-14265	0	-41
SEP	0	-17489	0	-571
OCT	0	-22202	0	-1594
NOV	0	-25436	0	-3088
DEC	0	-28534	0	-4399
ANN	0	-264569	0	-26701

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

No Solar Radiation
Data Available

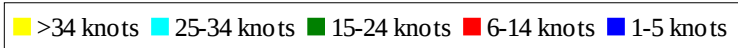
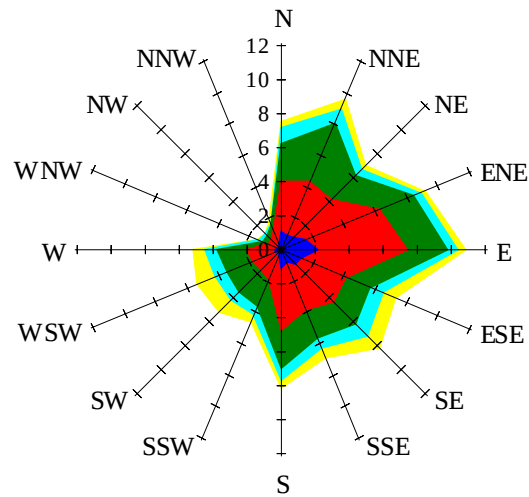


Average Annual Solar Heat and Illumination – Nearest Available Site

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

Wind Summary - December, January, and February

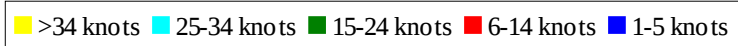
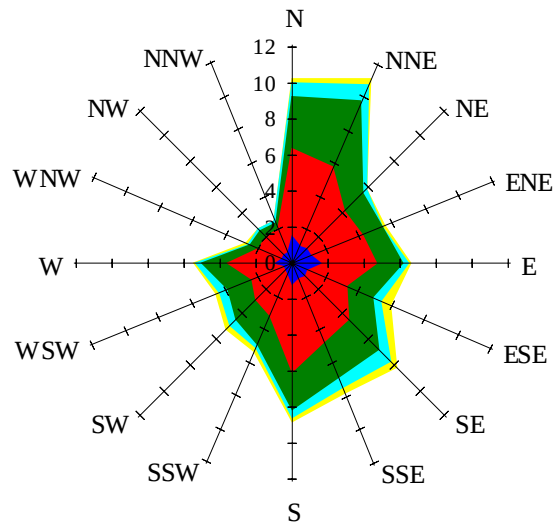
Labels of Percent Frequency on North Axis



Percent Calm = 1.75

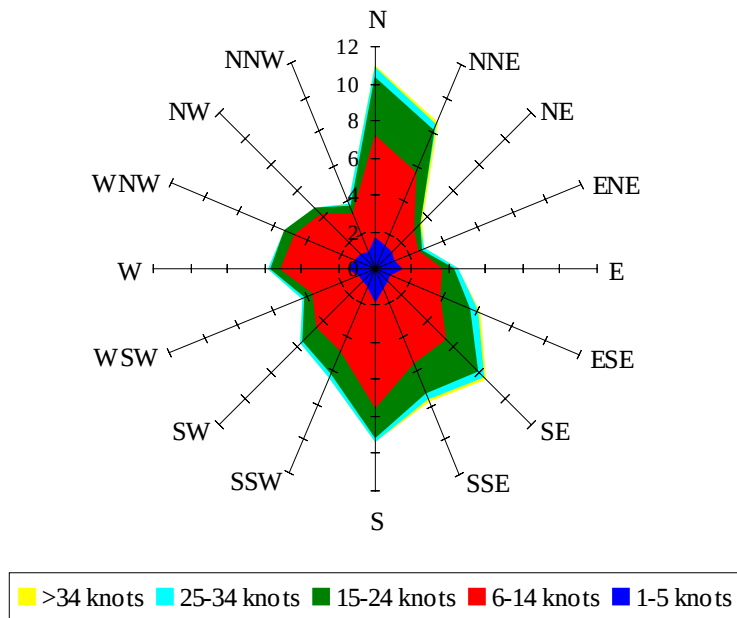
Wind Summary - March, April, and May

Labels of Percent Frequency on North Axis



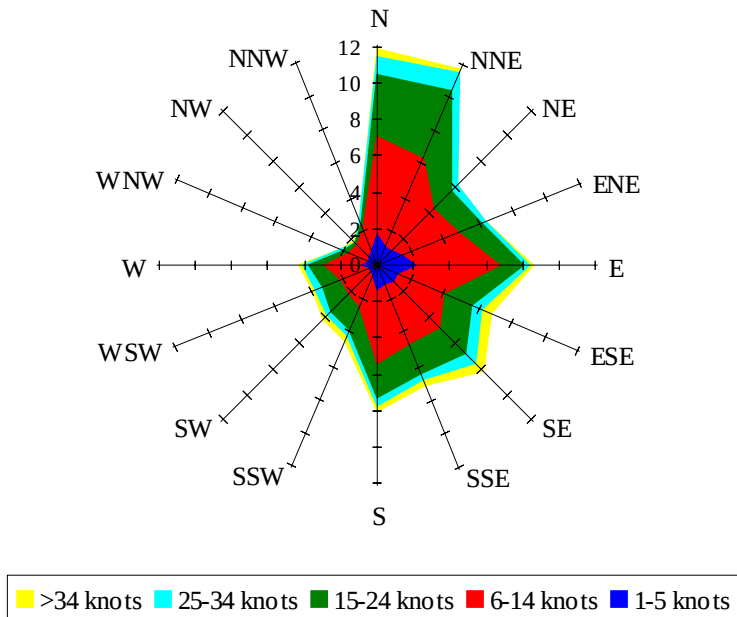
Percent Calm = 2.31

Wind Summary - June, July, and August **Labels of Percent Frequency on North Axis**



Percent Calm = 2.88

Wind Summary - September, October, and November **Labels of Percent Frequency on North Axis**



Percent Calm = 2.43