

VANCE AFB/ENID OK

Latitude = 36.33 N

Longitude = 97.92 W

Period of Record = 1967 to 1996

WMO No. 723535

Elevation = 1306 feet

Average Pressure = 28.59 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	106	73	73	13.1	S
0.4% Occurrence	101	74	86	13.1	S
1.0% Occurrence	98	73	89	12.6	S
2.0% Occurrence	95	73	93	12.2	S
Mean Daily Range	20	-	-	-	-
97.5% Occurrence	20	18	10	10.1	N
99.0% Occurrence	14	12	7	10.3	N
99.6% Occurrence	8	7	5	11.3	N
Median of Extreme Lows	3	2	4	12.5	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	79	92	134	12.5	S
0.4% Occurrence	77	92	122	12.8	S
1.0% Occurrence	76	92	116	12.2	S
2.0% Occurrence	75	91	111	12.0	S
	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	141	94	0.89	10.4	SSW
0.4% Occurrence	130	85	0.82	10.1	S
1.0% Occurrence	123	83	0.79	10.3	SSE
2.0% Occurrence	117	84	0.74	14.2	S
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		319	1495	580	2078

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
11	3.8	90	1.8 + 1.8
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 (#)
61.6	22	10	56

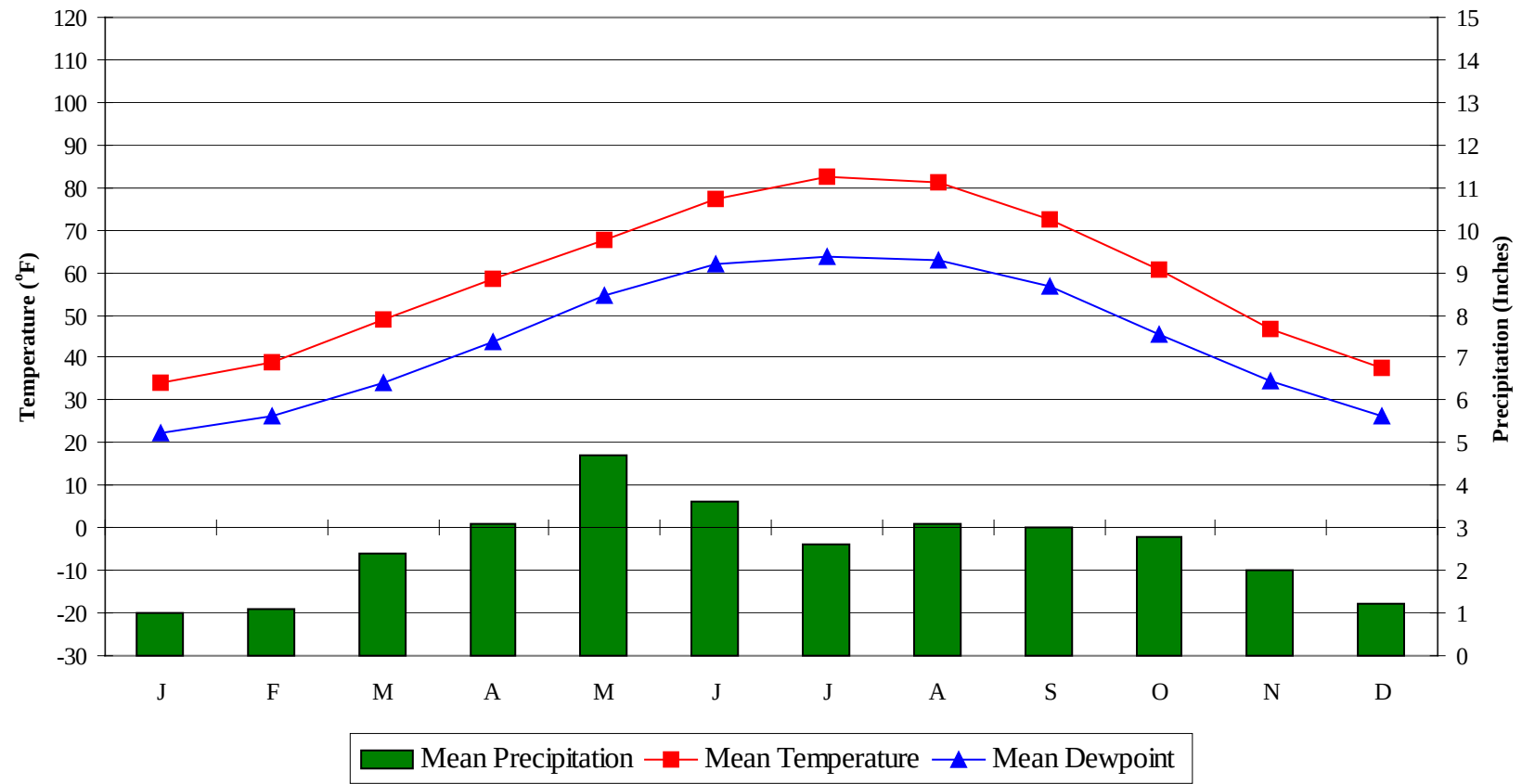
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

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Average Annual Climate

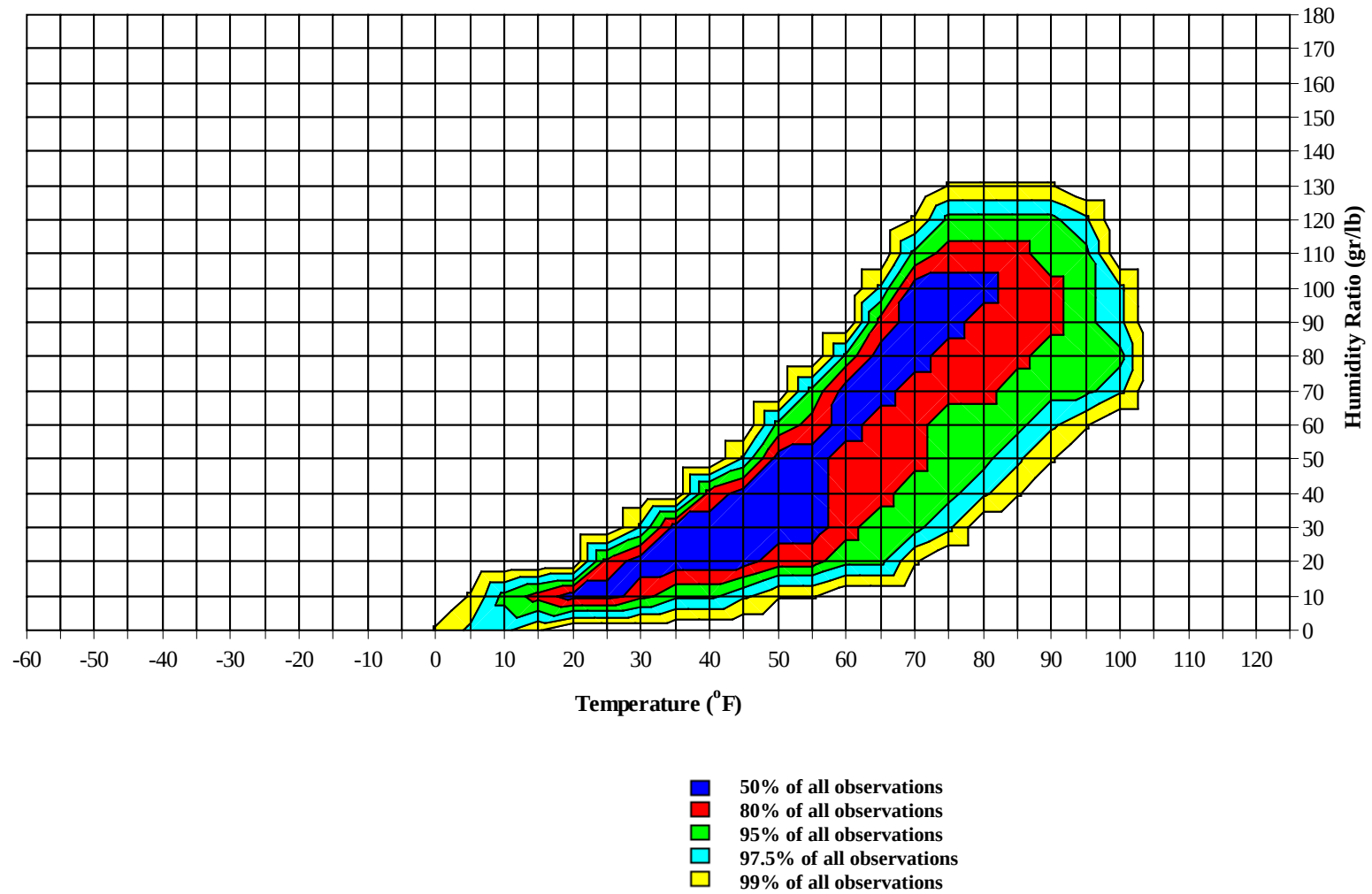


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Long Term Psychrometric Summary

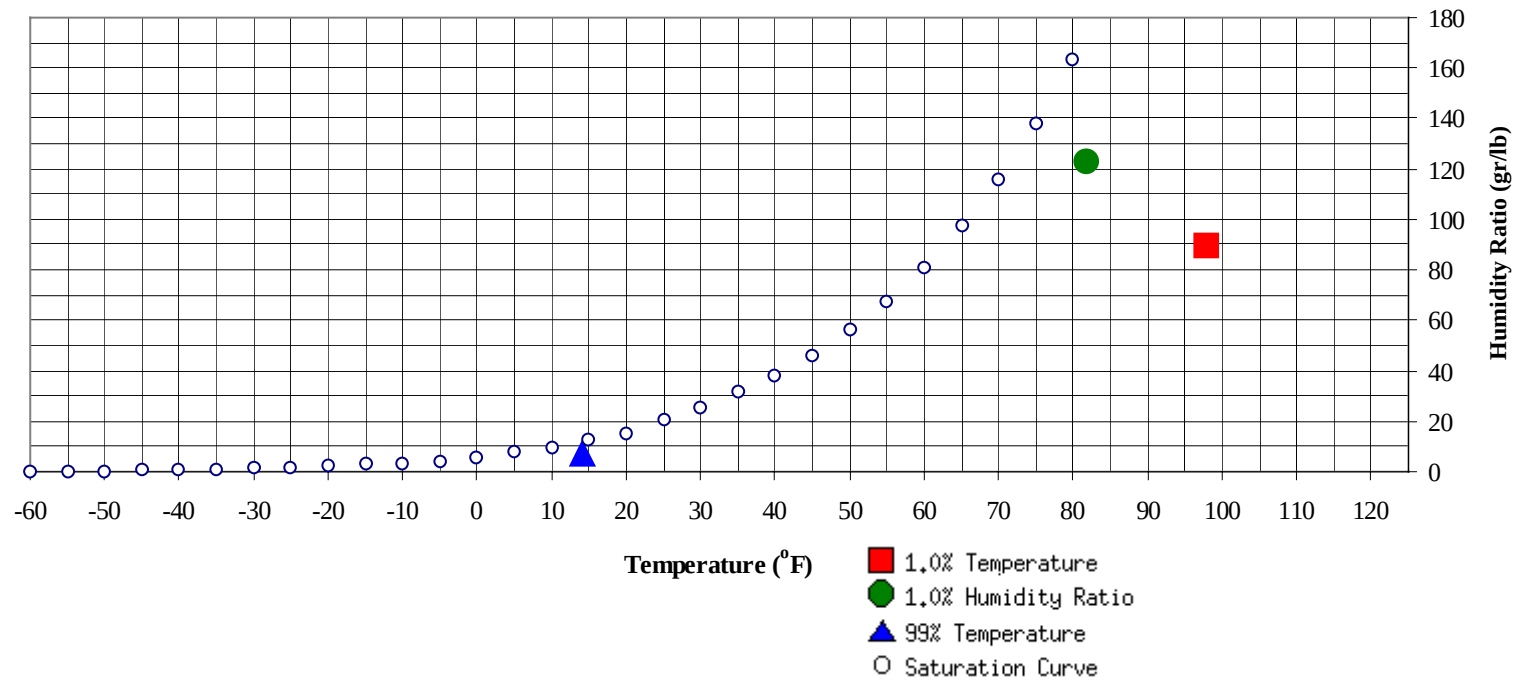


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Psychrometric Summary of Peak Design Values



	(°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	14	7.3	4.5		123.2	81.7	74.6	71.9	38.9

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	98	89.3	73.5	37.6

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Dry-Bulb Temperature Hours For An Average Year (Sheet 1 of 5)

Period of Record = 1967 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		
110 / 114															
105 / 109															
100 / 104															
95 / 99															
90 / 94							0		0	57.5		0	0	0	62.0
85 / 89							0	0	0	57.3		1	0	1	60.2
80 / 84							0	0	0	57.3		4	1	5	60.2
75 / 79		0	0	0	52.3		3	1	4	56.1		9	4	13	59.8
70 / 74		1	0	1	52.3		5	2	8	53.6		16	8	25	57.1
65 / 69		3	1	4	51.8	0	11	6	17	52.1	2	24	17	43	55.0
60 / 64	0	8	3	11	49.1	2	15	11	28	49.6	9	31	25	65	52.3
55 / 59	1	15	7	24	46.9	4	19	16	39	46.9	18	32	35	85	49.0
50 / 54	3	24	15	42	43.4	10	22	22	53	44.3	31	36	39	106	45.3
45 / 49	8	28	24	61	40.2	16	28	28	72	40.6	35	32	38	105	41.5
40 / 44	19	33	36	88	37.0	29	29	32	89	37.3	47	26	35	107	37.5
35 / 39	35	34	42	111	33.0	37	26	32	95	33.2	44	17	21	82	33.2
30 / 34	57	34	44	136	29.1	45	24	27	97	29.1	33	14	14	60	29.0
25 / 29	46	24	31	101	24.4	35	18	18	71	24.5	18	5	6	29	24.4
20 / 24	31	17	21	69	19.5	20	12	15	47	19.7	6	2	2	10	19.8
15 / 19	23	13	13	49	14.9	12	6	7	25	15.3	3	1	1	5	15.2
10 / 14	14	8	7	29	10.3	7	4	4	15	10.3	2	0	0	2	10.6
5 / 9	8	3	2	13	5.9	5	2	2	9	6.0	0			0	7.2
0 / 4	2	1	1	4	1.3	1	0	1	2	1.1					
-5 / -1	0		0	0	-4.0	1	0	0	1	-3.1					
-10 / -6	0			0	-7.3	0			0	-5.5					

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 = 1967 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		
110 / 114						0			0	69.0					
105 / 109						0	0	0	0	68.5		0	0	0	71.7
100 / 104						0	0	0	0	73.0		3	1	4	74.5
95 / 99						1	0	1	1	71.6		16	6	23	73.9
90 / 94		0		0	66.3	6	1	7	7	71.2		38	19	57	73.1
85 / 89		5	1	6	65.8	0	18	8	27	69.8	1	52	33	87	71.5
80 / 84	0	15	5	20	64.1	1	38	20	59	68.0	11	49	49	109	69.6
75 / 79	0	26	14	39	62.4	6	49	37	92	65.5	43	38	51	133	68.0
70 / 74	3	35	26	64	59.9	22	49	48	119	63.3	68	23	42	133	66.0
65 / 69	16	39	36	91	57.5	50	39	54	143	60.3	65	14	28	107	62.6
60 / 64	29	39	43	111	53.9	68	26	40	133	57.0	37	5	8	50	58.4
55 / 59	39	35	41	115	50.4	49	15	24	87	52.7	13	1	2	16	53.9
50 / 54	51	25	33	108	46.5	32	6	12	50	48.1	2		0	2	50.2
45 / 49	42	13	22	77	42.1	16	2	3	21	43.7					
40 / 44	35	6	14	55	38.0	5	0	1	6	39.8					
35 / 39	16	2	4	22	33.9	0			0	36.4					
30 / 34	7	1	1	9	29.3										
25 / 29	2	0	0	2	25.5										
20 / 24	0			0	21.1										
15 / 19	0			0	18.0										
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															

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Dry-Bulb Temperature Hours For An Average Year (Sheet 3 of 5)**Period of Record = 1967 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		
110 / 114															
105 / 109		4	1	5	72.2		1	0	1	74.0		0		0	72.8
100 / 104		18	7	26	73.4		13	4	17	73.5		3	1	4	72.8
95 / 99		38	20	57	73.4		38	18	56	73.1		11	4	15	72.0
90 / 94	0	57	36	93	72.8		51	34	85	72.3		22	9	31	71.3
85 / 89	5	54	51	110	71.5	2	50	46	98	71.1	0	34	20	54	70.1
80 / 84	30	41	59	131	70.2	25	43	57	125	69.7	5	42	34	82	68.2
75 / 79	86	22	46	154	68.8	76	28	45	149	68.3	24	40	43	106	66.3
70 / 74	85	11	22	118	66.8	88	16	30	134	66.4	56	34	47	137	64.4
65 / 69	33	3	5	41	63.1	41	7	12	60	62.6	52	24	35	111	60.6
60 / 64	7	1	1	9	58.8	14	1	2	17	58.5	43	16	24	83	56.5
55 / 59	1	0		1	54.2	2		0	2	53.1	31	9	15	54	52.0
50 / 54	0			0	50.3						18	5	6	29	47.9
45 / 49											8	1	2	11	43.4
40 / 44											2	0	0	2	39.1
35 / 39											0			0	35.2
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															

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WMO No. 723535

Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)**Period of Record = 1967 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		
110 / 114															
105 / 109															
100 / 104															
95 / 99															
90 / 94		3	0	3	66.8										
85 / 89		9	2	11	66.4		0		0	60.7					
80 / 84		20	7	27	64.6		1	0	1	61.1					
75 / 79	1	31	16	48	62.4		4	0	4	60.6					
70 / 74	8	38	27	74	60.5	0	12	3	15	58.5		1	0	1	55.8
65 / 69	20	42	39	101	57.8	3	22	10	36	56.3	0	6	1	7	54.4
60 / 64	40	37	50	127	54.7	12	26	19	56	54.0	2	13	4	19	52.0
55 / 59	50	31	43	124	50.8	15	34	28	77	49.9	3	20	9	32	47.7
50 / 54	51	19	32	102	46.4	20	34	37	91	45.6	5	27	16	48	44.3
45 / 49	37	11	19	67	42.0	36	37	41	113	41.9	14	36	32	82	40.8
40 / 44	25	5	9	39	38.3	44	31	40	115	37.9	31	41	50	122	37.5
35 / 39	12	1	2	15	33.9	44	22	30	97	33.8	48	36	47	131	33.4
30 / 34	3	1	1	5	29.6	35	13	20	68	29.2	59	31	43	133	29.1
25 / 29	1	0	0	1	25.0	20	4	8	32	24.5	41	18	22	82	24.5
20 / 24	0		0	0	20.4	7	1	3	11	20.0	21	8	12	41	19.5
15 / 19	0		0	0	15.6	2	0	1	3	15.0	11	5	4	20	15.4
10 / 14	0			0	13.0	1	0	0	1	11.3	5	3	3	11	10.3
5 / 9						0			0	8.0	3	2	2	7	6.0
0 / 4											4	2	2	8	1.2
-5 / -1											0	0	0	0	-2.6
-10 / -6											0	0	0	0	-7.3

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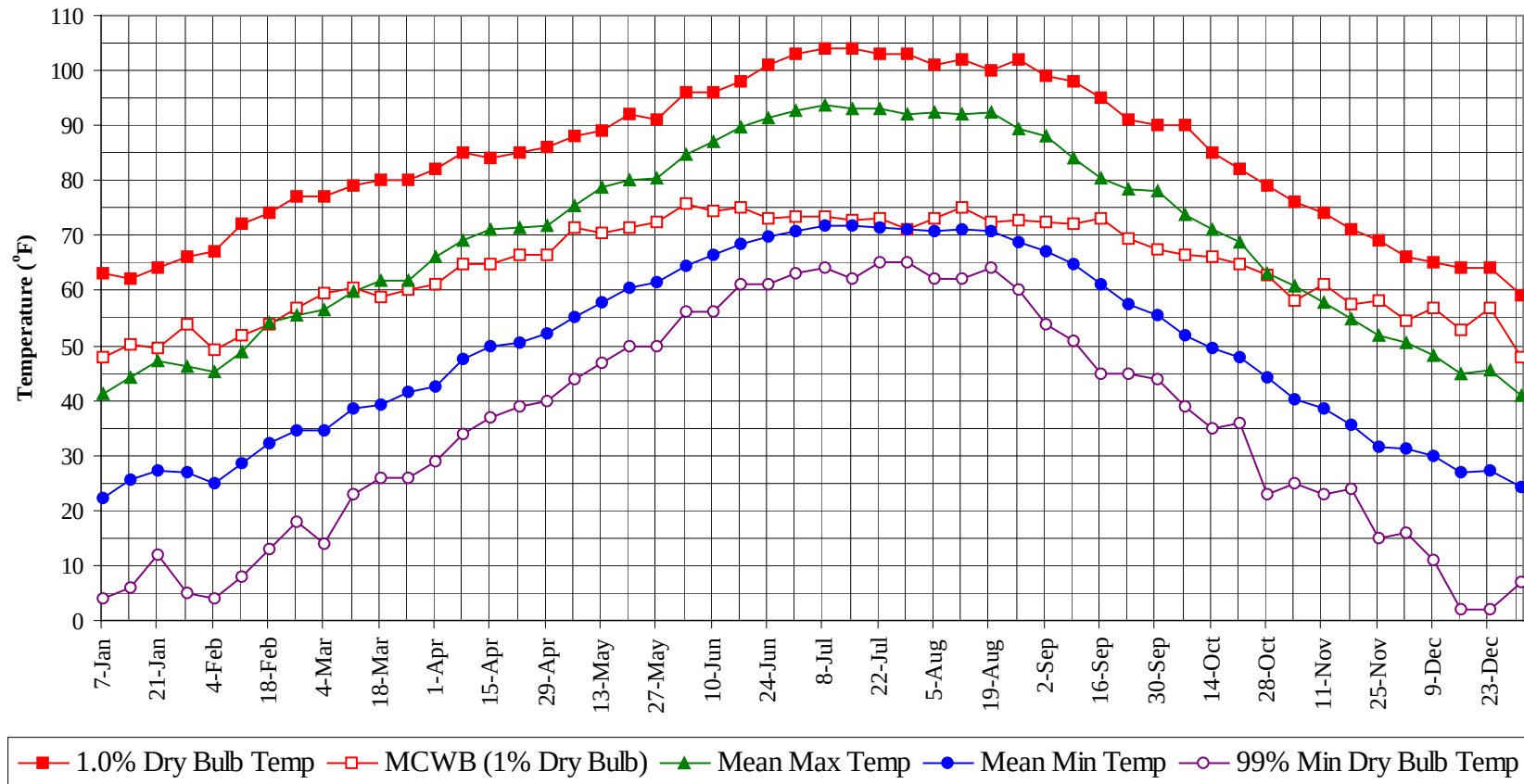
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1967 to 1996

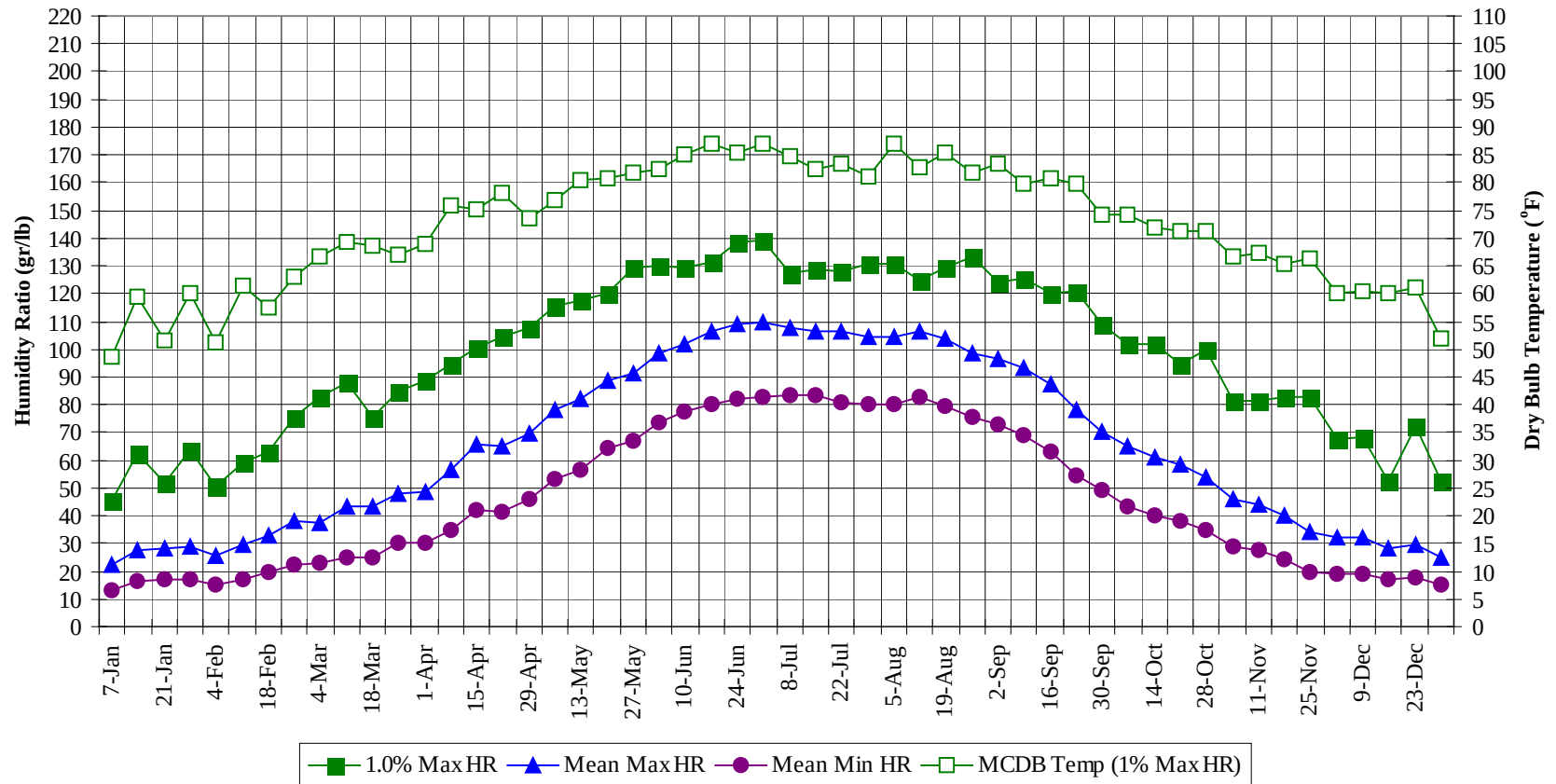
Temperature Range (°F)	Annual Totals				
	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
110 / 114		0		0	69.0
105 / 109		5	1	6	72.4
100 / 104		36	14	50	73.5
95 / 99		104	48	152	73.2
90 / 94	0	178	102	280	72.4
85 / 89	8	225	165	398	70.8
80 / 84	73	255	237	565	68.8
75 / 79	238	249	261	747	66.7
70 / 74	335	242	258	835	64.0
65 / 69	284	235	245	764	59.5
60 / 64	265	217	232	714	55.0
55 / 59	228	210	218	655	50.3
50 / 54	223	197	211	631	45.8
45 / 49	211	187	207	605	41.5
40 / 44	234	170	213	617	37.6
35 / 39	233	138	175	547	33.4
30 / 34	236	117	146	498	29.1
25 / 29	160	69	84	313	24.5
20 / 24	85	40	53	178	19.6
15 / 19	50	26	26	102	15.1
10 / 14	30	14	14	58	10.4
5 / 9	16	6	6	28	5.9
0 / 4	7	3	3	13	1.2
-5 / -1	1	0	0	1	-3.0
-10 / -6	1	0	0	1	-6.9

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Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary



VANCE AFB/ENID**OK****WMO No. 723535****Long Term Dry Bulb Temperature and Humidity Summary**

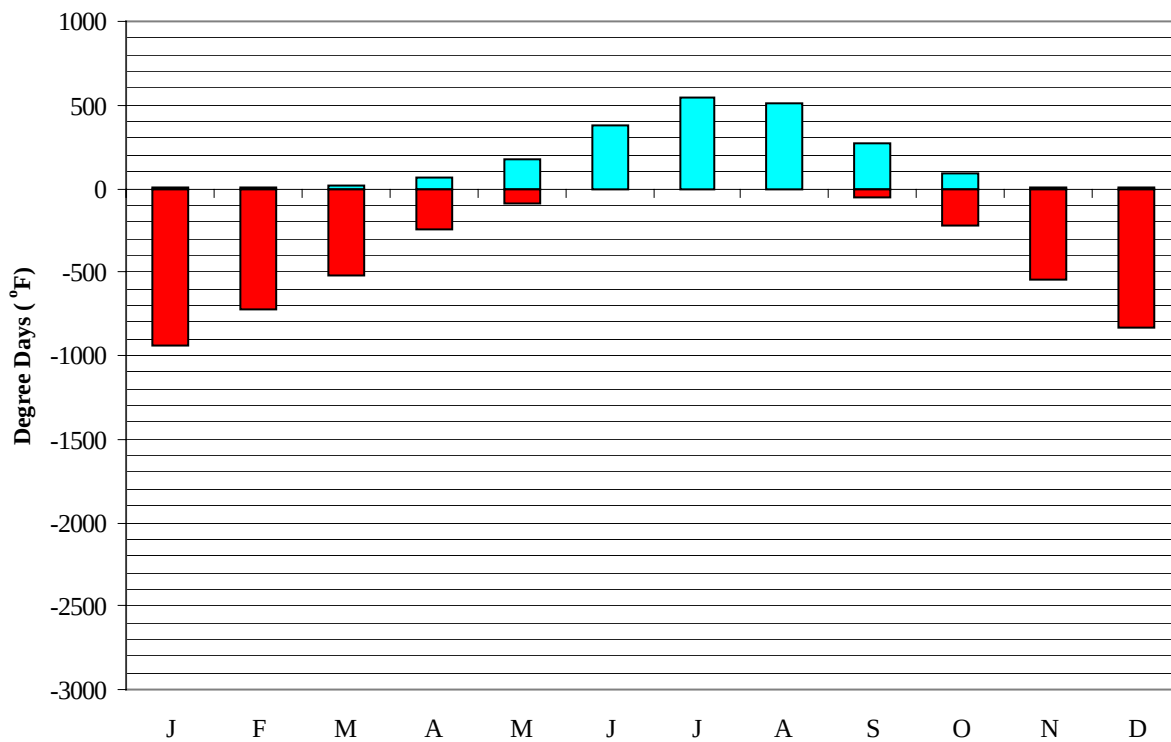
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	63.0	47.9	41.3	22.4	4.0	45.5	48.7	22.4	13.0
14-Jan	62.0	50.1	44.1	25.5	6.0	62.3	59.4	27.6	16.4
21-Jan	64.0	49.7	47.3	27.4	12.0	51.8	51.5	28.0	16.8
28-Jan	66.0	54.0	46.3	27.1	5.0	63.7	60.3	28.9	16.9
4-Feb	67.0	49.1	45.3	25.0	4.0	50.4	51.1	25.7	15.2
11-Feb	72.0	51.9	48.7	28.7	8.0	58.8	61.4	29.4	17.3
18-Feb	74.0	53.9	54.0	32.1	13.0	63.0	57.6	32.9	19.8
25-Feb	77.0	56.8	55.6	34.5	18.0	75.6	63.1	37.9	22.6
4-Mar	77.0	59.4	56.5	34.6	14.0	82.6	66.7	37.8	23.0
11-Mar	79.0	60.6	60.0	38.4	23.0	88.2	69.4	43.0	25.0
18-Mar	80.0	59.0	61.7	39.4	26.0	75.6	68.6	43.1	25.3
25-Mar	80.0	60.1	61.7	41.7	26.0	84.7	67.0	48.0	30.0
1-Apr	82.0	61.1	66.0	42.7	29.0	88.9	68.9	48.5	29.9
8-Apr	85.0	64.8	69.2	47.5	34.0	94.9	75.8	56.7	34.6
15-Apr	84.0	64.9	71.0	50.0	37.0	100.8	75.1	65.5	41.8
22-Apr	85.0	66.4	71.6	50.4	39.0	104.3	78.1	65.2	41.4
29-Apr	86.0	66.3	71.9	52.3	40.0	107.8	73.6	69.3	46.3
6-May	88.0	71.3	75.5	55.3	44.0	115.5	76.9	77.8	53.0
13-May	89.0	70.5	78.8	57.8	47.0	117.6	80.6	82.2	56.3
20-May	92.0	71.6	80.0	60.6	50.0	120.4	80.9	88.5	64.1
27-May	91.0	72.5	80.4	61.4	50.0	129.5	81.8	91.3	67.0
3-Jun	96.0	75.9	84.7	64.6	56.0	130.2	82.5	98.8	73.7
10-Jun	96.0	74.5	87.2	66.5	56.0	129.5	85.1	102.0	77.3
17-Jun	98.0	75.3	89.9	68.3	61.0	131.6	87.0	106.3	80.1
24-Jun	101.0	73.3	91.3	69.8	61.0	138.6	85.5	108.9	81.9
1-Jul	103.0	73.3	92.7	70.9	63.0	139.3	87.1	109.4	82.5
8-Jul	104.0	73.3	93.8	71.7	64.0	127.4	84.7	108.0	83.3
15-Jul	104.0	72.9	93.0	71.7	62.0	128.8	82.5	106.6	83.2
22-Jul	103.0	73.3	92.9	71.5	65.0	128.1	83.4	106.7	81.1
29-Jul	103.0	71.1	91.9	71.1	65.0	130.9	81.1	104.6	80.2
5-Aug	101.0	73.1	92.5	70.8	62.0	130.9	86.9	104.5	79.9
12-Aug	102.0	75.1	91.9	71.1	62.0	124.6	82.8	106.3	82.4
19-Aug	100.0	72.6	92.4	70.7	64.0	129.5	85.4	103.8	79.2
26-Aug	102.0	72.7	89.5	68.9	60.0	133.0	81.8	98.2	75.3
2-Sep	99.0	72.5	88.0	67.3	54.0	123.9	83.2	96.7	72.6
9-Sep	98.0	72.0	84.2	64.8	51.0	125.3	79.8	93.0	68.8
16-Sep	95.0	73.2	80.6	61.0	45.0	120.4	80.7	87.5	63.3
23-Sep	91.0	69.3	78.3	57.6	45.0	121.1	79.8	78.1	54.8
30-Sep	90.0	67.5	78.2	55.5	44.0	109.2	74.2	70.3	49.1
7-Oct	90.0	66.3	73.6	51.9	39.0	101.5	74.2	64.7	43.4
14-Oct	85.0	66.2	71.0	49.4	35.0	101.5	71.8	60.9	40.1
21-Oct	82.0	64.8	68.7	47.8	36.0	94.5	71.1	58.2	38.3
28-Oct	79.0	62.8	63.0	44.2	23.0	100.1	71.1	54.0	34.7
4-Nov	76.0	58.2	60.7	40.3	25.0	81.2	66.7	46.2	29.1
11-Nov	74.0	61.1	57.9	38.7	23.0	81.2	67.4	44.2	27.8
18-Nov	71.0	57.6	54.8	35.7	24.0	82.6	65.3	39.9	24.0
25-Nov	69.0	58.1	51.7	31.7	15.0	82.6	66.2	34.4	20.0
2-Dec	66.0	54.5	50.4	31.1	16.0	67.9	60.0	32.1	19.2
9-Dec	65.0	56.7	48.1	29.8	11.0	68.6	60.4	32.0	19.1
16-Dec	64.0	52.8	45.0	27.0	2.0	52.5	60.3	28.1	17.1
23-Dec	64.0	56.8	45.4	27.2	2.0	72.1	61.0	29.6	18.0
31-Dec	59.0	48.0	40.8	24.1	7.0	52.5	51.9	25.3	15.0

VANCE AFB/ENID

OK

WMO No. 723535

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



■ Mean Cooling Degree Days
 ■ Mean Heating Degree Days

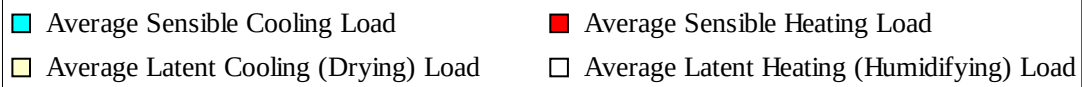
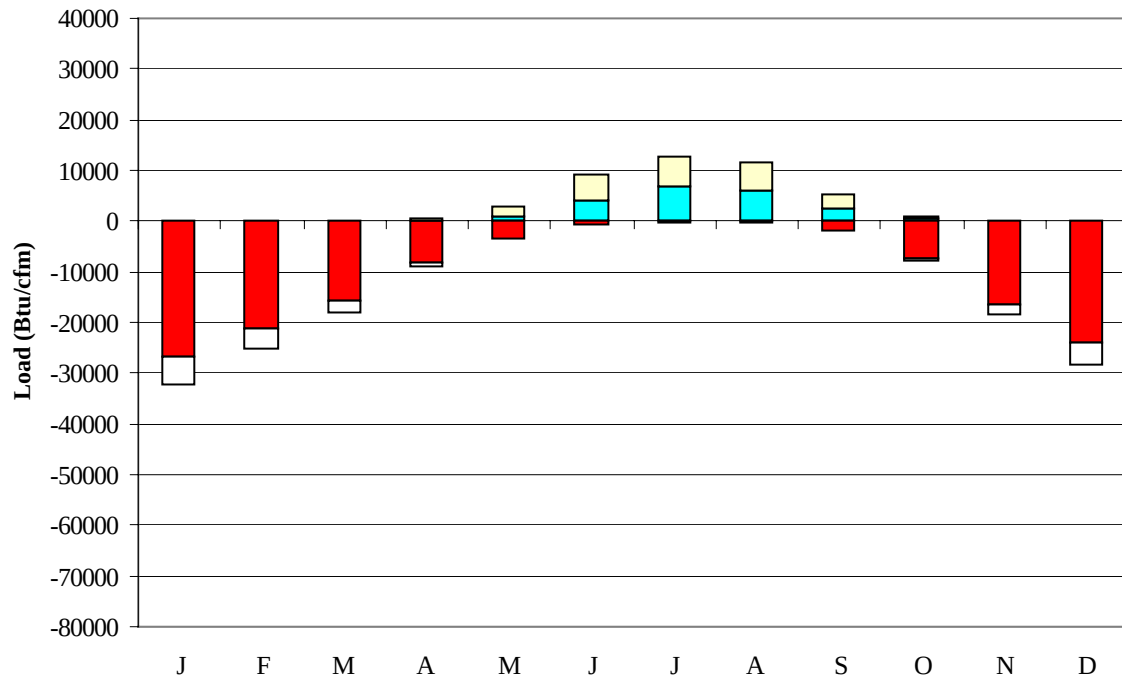
	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	1	944
FEB	5	728
MAR	23	521
APR	67	249
MAY	169	87
JUN	383	10
JUL	541	1
AUG	503	2
SEP	272	50
OCT	87	216
NOV	10	546
DEC	1	828
ANN	2061	4182

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WMO No. 723535

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	-26877	0	-5436
FEB	9	-21020	0	-3980
MAR	78	-15713	32	-2368
APR	296	-8182	265	-747
MAY	1107	-3394	1730	-45
JUN	4008	-570	5137	-2
JUL	6734	-101	6106	0
AUG	5964	-169	5525	0
SEP	2528	-2001	2838	-36
OCT	477	-7269	363	-585
NOV	15	-16384	31	-2216
DEC	0	-23837	4	-4258
ANN	21216	-125517	22031	-19673

Average Annual Solar Radiation – Nearest Available Site

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

City: OKLAHOMA CITY
 State: OK
 WBAN No: 13967
 Lat(N): 35.4
 Long(W): 97.6
 Elev(ft): 1303

Stn Type: Secondary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS

Window: 1
 Overhang: 0.404
 Vert Gap: 0.289

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	870	1100	1450	1790	1960	2150	2200	1980	1600	1280	920	770	1510
	Std Dev	72	83	127	101	120	107	132	105	115	115	77	57	33
	Minimum	690	940	1150	1600	1770	1940	1850	1760	1310	1030	750	640	1450
	Maximum	1010	1260	1680	2030	2190	2340	2490	2170	1810	1460	1100	890	1560
	Diffuse	340	450	570	670	770	780	720	660	590	440	360	300	550
Clear Day	Global	1110	1450	1900	2320	2570	2650	2590	2360	2000	1550	1160	1000	1890
NORTH	Global	230	300	370	450	560	650	620	490	390	310	250	210	400
	Diffuse	230	300	370	440	500	530	510	450	390	310	250	210	370
Clear Day	Global	210	270	340	430	580	690	630	480	360	290	220	190	390
EAST	Global	570	690	850	1000	1050	1130	1190	1110	920	790	590	510	870
	Diffuse	280	360	450	540	590	620	610	560	490	380	300	250	460
Clear Day	Global	800	980	1200	1360	1430	1450	1420	1350	1210	1020	820	720	1150
SOUTH	Global	1340	1280	1200	1000	790	710	760	940	1130	1330	1290	1260	1090
	Diffuse	400	450	510	540	540	540	530	540	520	460	400	360	480
Clear Day	Global	2020	1990	1730	1270	910	770	830	1090	1510	1860	1970	1970	1490
WEST	Global	590	720	890	1050	1110	1200	1230	1130	970	820	620	520	900
	Diffuse	290	370	460	550	610	640	620	570	500	390	300	260	460
Clear Day	Global	800	980	1200	1360	1430	1450	1420	1350	1210	1020	820	720	1150

Average Annual Solar Heat and Illumination – Nearest Available Site

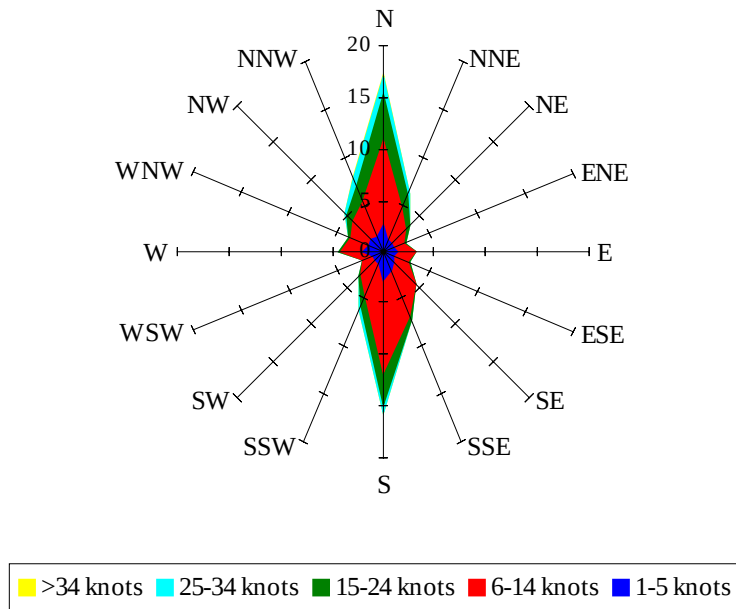
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	580	760	1030	1300	1430	1570	1610	1440	1150	900	620	500	1080
NORTH	Unshaded	160	210	260	310	360	410	390	320	270	220	170	150	270
	Shaded	150	190	240	290	340	380	360	300	250	200	160	130	250
EAST	Unshaded	400	480	610	710	740	800	850	790	660	560	410	360	610
	Shaded	370	440	550	640	670	720	760	710	590	510	380	330	560
SOUTH	Unshaded	1000	930	820	630	470	420	440	570	740	940	960	950	740
	Shaded	980	880	680	450	350	350	350	390	570	850	930	940	640
WEST	Unshaded	410	500	630	750	800	860	880	810	690	580	430	360	640
	Shaded	380	460	570	680	710	770	790	730	630	540	400	340	580

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	33	72	88	77	40	37	78	103	101	77
	M.Cloudy	19	45	59	50	26	25	56	75	79	60
NORTH	M.Clear	9	14	15	14	10	23	16	17	17	16
	M.Cloudy	8	16	18	16	10	15	17	19	19	17
EAST	M.Clear	75	67	20	14	10	71	79	43	17	16
	M.Cloudy	24	35	20	16	10	34	50	35	19	17
SOUTH	M.Clear	31	65	80	70	37	10	21	38	38	21
	M.Cloudy	13	35	47	39	20	10	20	32	33	21
WEST	M.Clear	9	14	15	62	77	10	16	17	42	77
	M.Cloudy	8	16	18	36	34	10	17	19	36	55
M.Clear	(% hrs)	39	40	40	39	42	42	43	42	43	49

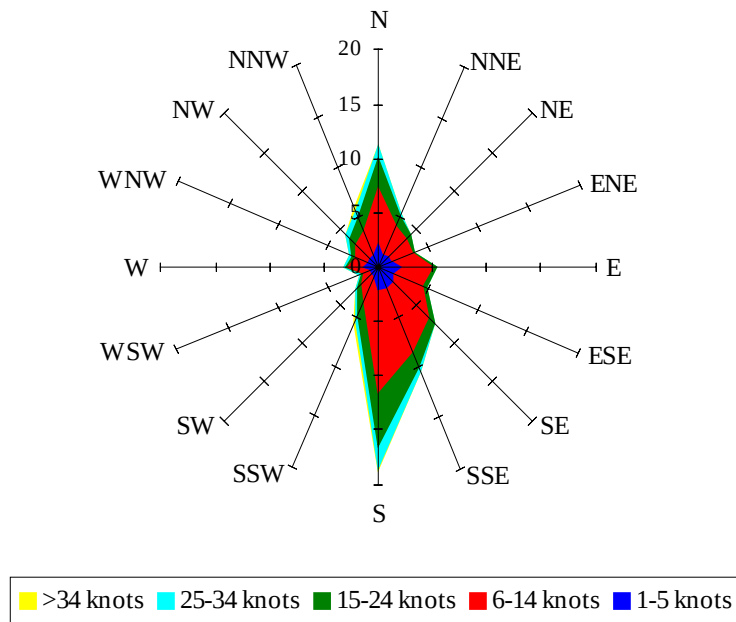
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	20	64	89	87	59	12	44	57	43	10
	M.Cloudy	12	40	59	62	42	8	28	36	26	7
NORTH	M.Clear	7	14	16	16	13	5	10	11	10	4
	M.Cloudy	6	14	18	18	14	4	10	13	10	3
EAST	M.Clear	56	77	41	16	13	42	50	12	10	4
	M.Cloudy	18	37	30	18	14	11	23	13	10	3
SOUTH	M.Clear	13	48	70	68	45	33	80	94	79	28
	M.Cloudy	7	27	42	46	29	9	33	42	31	9
WEST	M.Clear	7	14	16	44	76	5	10	13	52	37
	M.Cloudy	6	14	18	33	44	4	10	13	23	11
M.Clear	(% hrs)	47	48	46	45	50	43	43	42	43	44

Wind Summary - December, January, and February **Labels of Percent Frequency on North Axis**



Percent Calm = 5.37

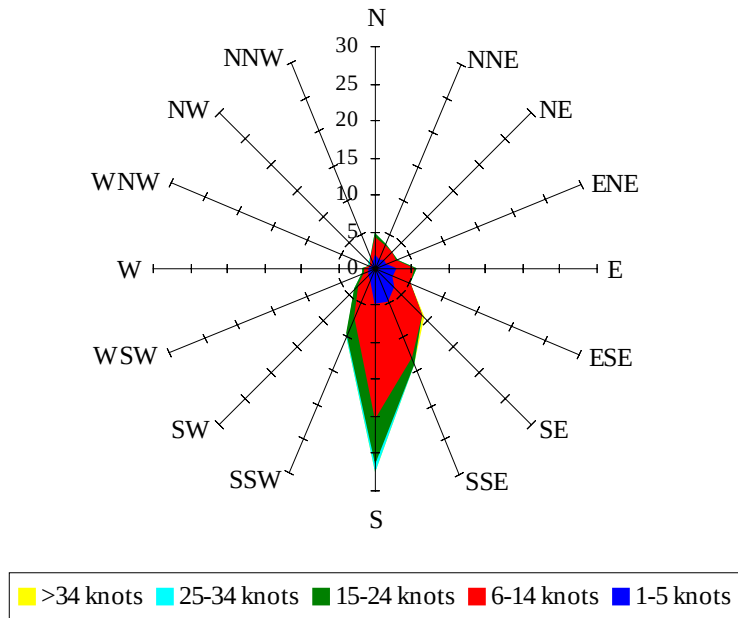
Wind Summary - March, April, and May **Labels of Percent Frequency on North Axis**



Percent Calm = 4.16

Wind Summary - June, July, and August

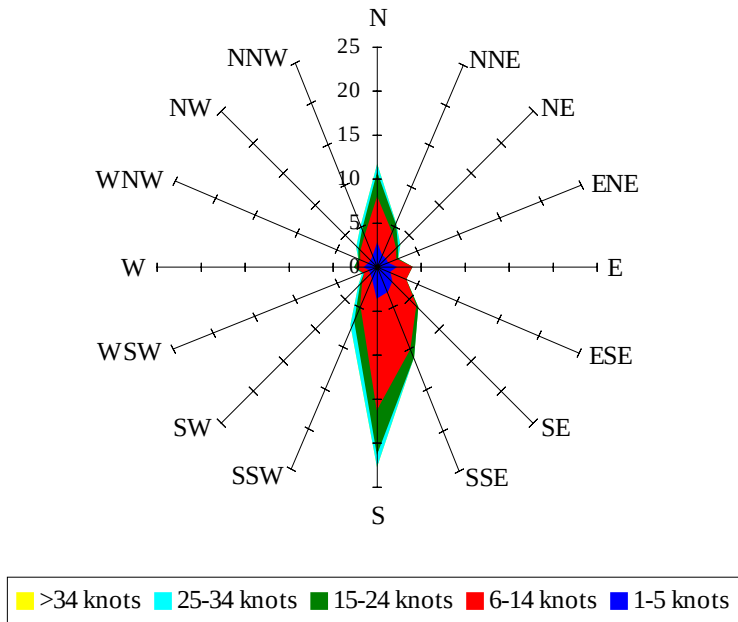
Labels of Percent Frequency on North Axis



Percent Calm = 4.10

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 5.40