

LA CROSSE WI

Latitude = 43.87 N

Longitude = 91.25 W

Period of Record = 1973 to 1996

WMO No. 726430

Elevation = 663 feet

Average Pressure = 29.27 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	97	76	101	12.2	S
0.4% Occurrence	92	75	106	11.9	S
1.0% Occurrence	89	74	103	10.8	S
2.0% Occurrence	86	72	96	10.4	S
Mean Daily Range	18	-	-	-	-
97.5% Occurrence	-1	-2	3	7.5	NW
99.0% Occurrence	-8	-9	2	6.2	NW
99.6% Occurrence	-14	-14	2	6.3	NNW
Median of Extreme Lows	-20	-20	1	7.0	W
	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	81	92	147	10.2	S
0.4% Occurrence	78	88	132	10.6	S
1.0% Occurrence	76	85	124	9.8	S
2.0% Occurrence	74	83	115	9.2	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	151	88	0.97	9.2	S
0.4% Occurrence	135	83	0.88	8.3	S
1.0% Occurrence	127	82	0.82	10.1	S
2.0% Occurrence	118	79	0.77	8.8	S
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		29	514	292	1002

Other Site Data

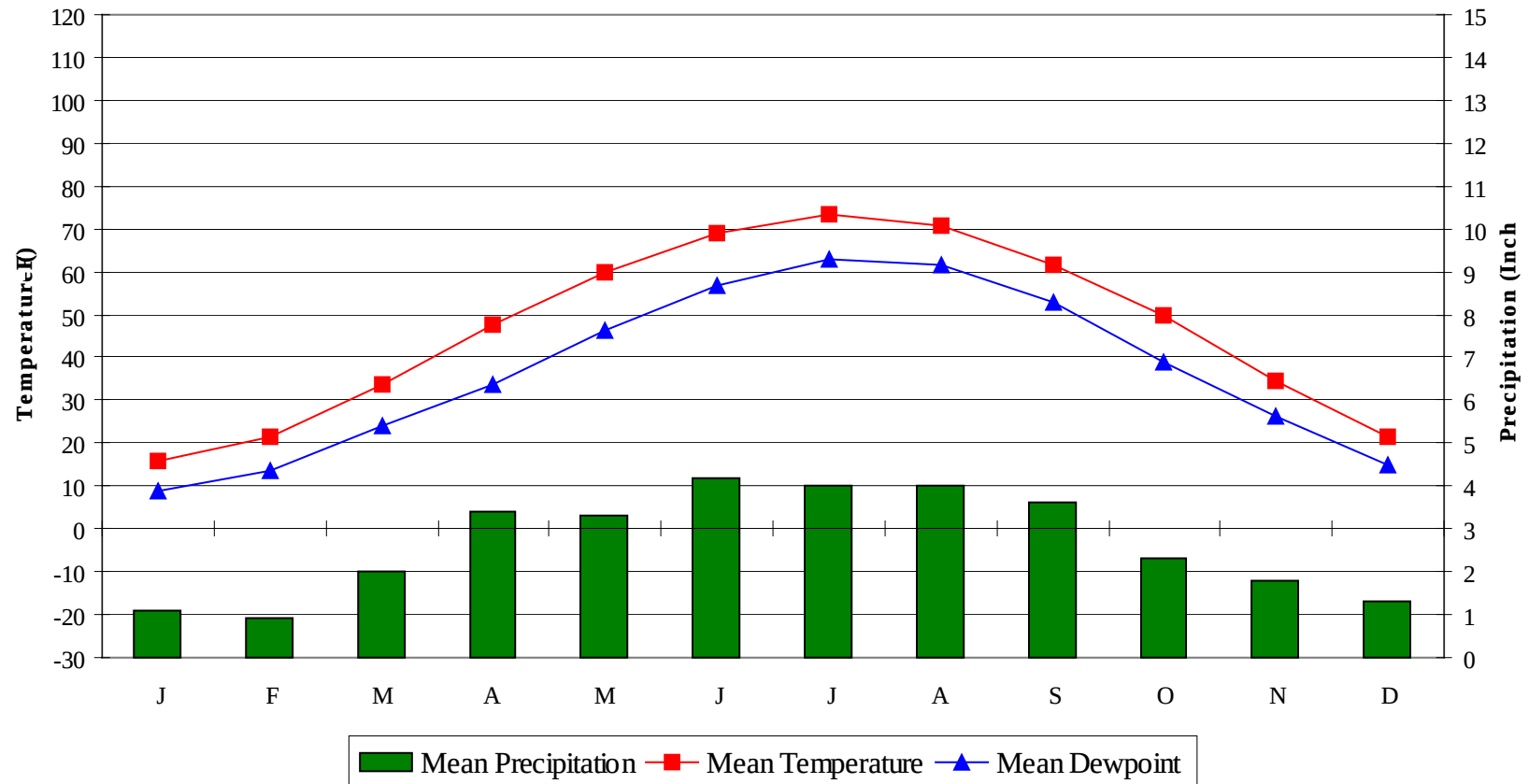
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
5	3.0	90	1.5 + 0.5
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
49.2	114	32	61

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

LA CROSSE WI

WMO No. 726430

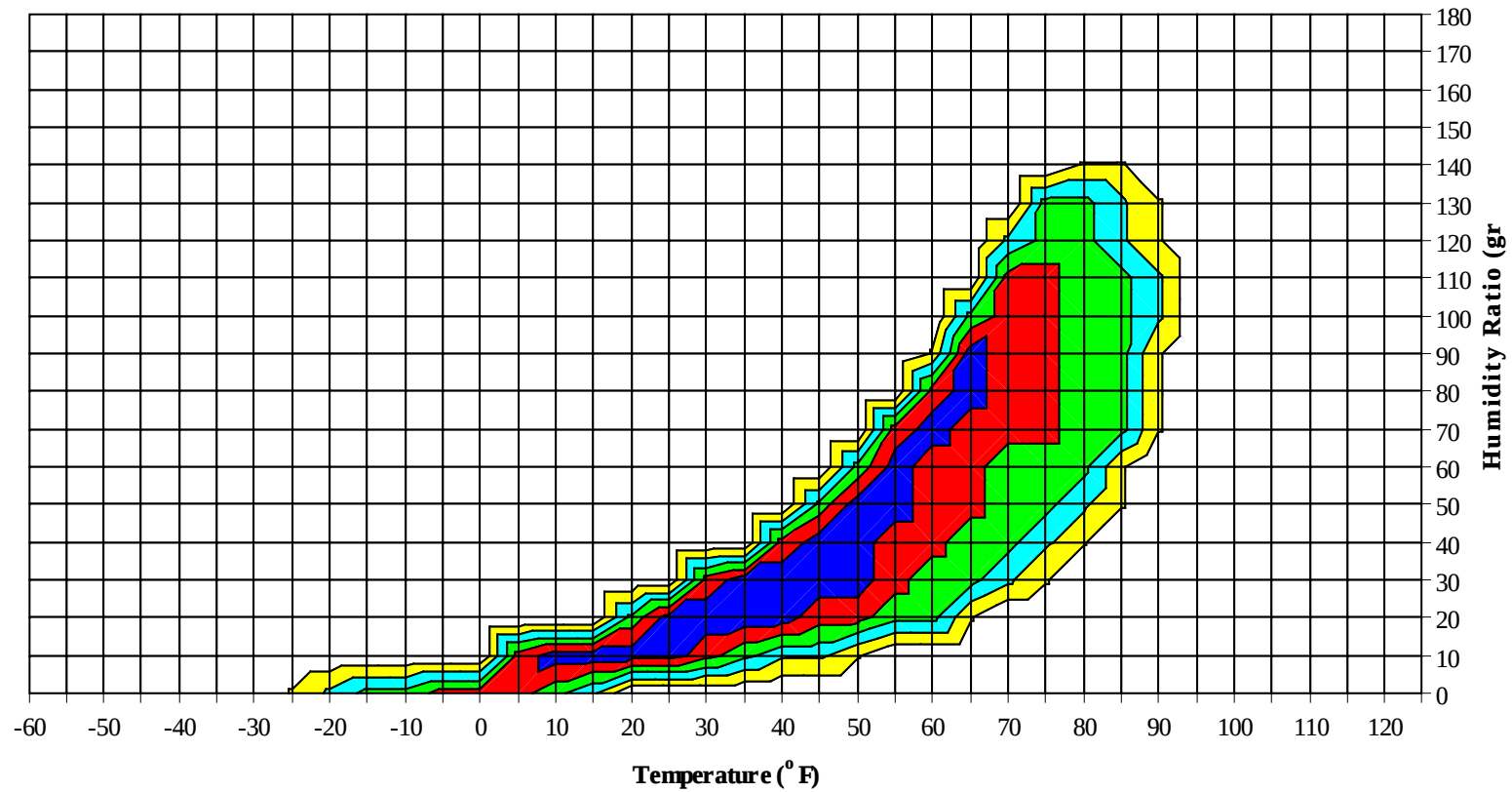
Average Annual Climate



LA CROSSE WI

WMO No. 726430

Long Term Psychrometric Summary

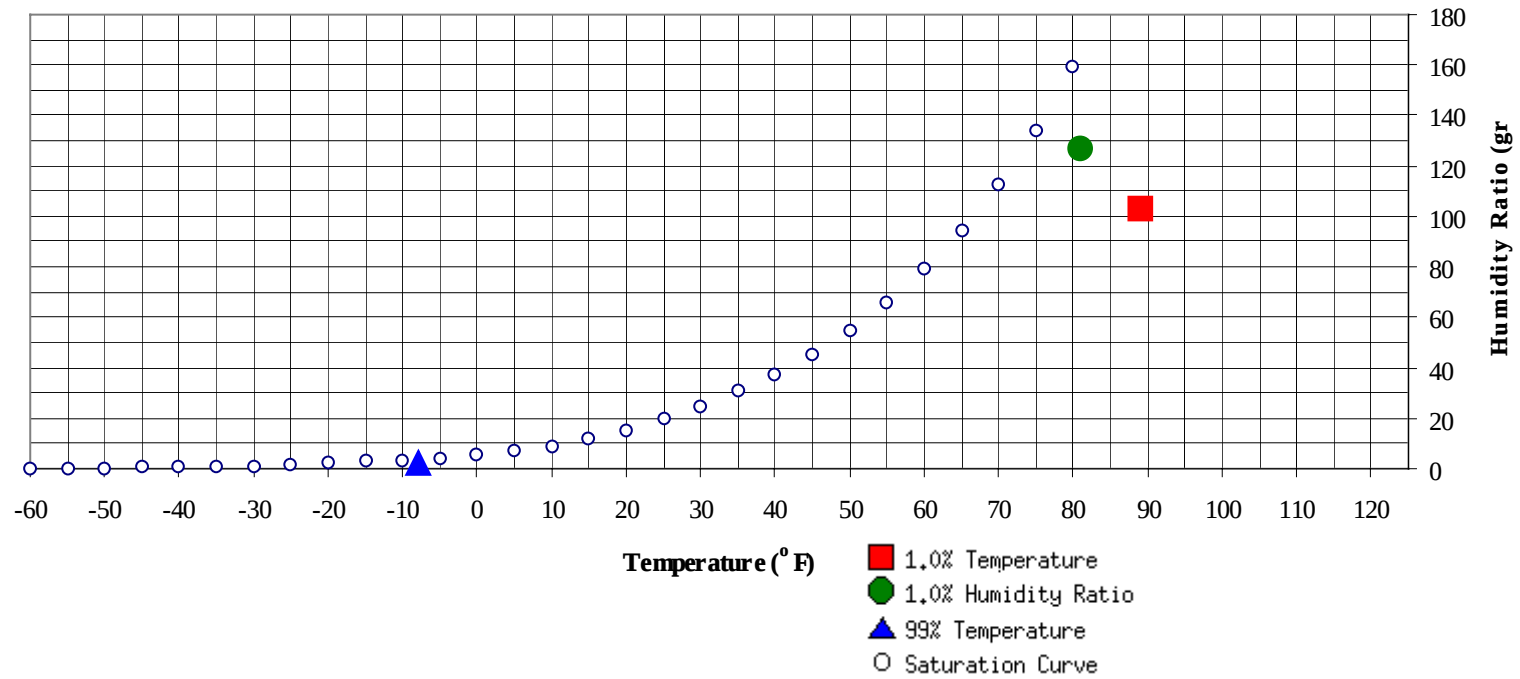


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

LA CROSSE WI

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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	-8	2.3	-1.6		126.7	81	75.3	73.1	39.3

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	89	103.2	73.6	37.6

LA CROSSE WI

WMO No. 726430

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															
80 / 84												0	0	1	60.5
75 / 79												1	0	1	61.5
70 / 74												1	1	2	58.4
65 / 69												0	3	1	54.8
60 / 64							0	0	0	50.7		1	6	4	51.7
55 / 59							1	0	1	47.4		2	11	5	48.0
50 / 54	0	1		1	43.5		2	1	3	44.1		6	18	12	44.6
45 / 49	1	2	1	3	41.7	1	6	3	10	40.5		8	26	20	40.9
40 / 44	1	6	4	11	37.6	1	16	8	25	36.7		18	38	30	37.2
35 / 39	7	17	13	38	33.5	16	31	28	74	33.9		41	51	52	33.7
30 / 34	26	34	34	94	30.2	34	36	43	112	29.9		56	37	48	29.7
25 / 29	30	33	32	96	25.3	33	29	30	92	24.8		39	24	30	24.7
20 / 24	33	35	35	103	20.5	31	31	29	91	20.2		30	16	20	20.1
15 / 19	27	30	27	84	15.6	21	21	23	65	15.4		18	8	10	15.4
10 / 14	24	25	25	74	10.7	20	18	17	55	10.5		8	5	6	10.6
5 / 9	23	22	23	68	6.0	19	13	19	51	5.8		8	3	5	5.8
0 / 4	19	18	20	57	0.9	15	9	11	36	1.1		7	1	2	1.3
-5 / -1	15	10	12	37	-3.3	12	4	6	22	-3.2		3	0	0	-2.5
-10 / -6	19	8	13	40	-7.5	12	3	4	19	-7.3		1			-6.6
-15 / -11	11	4	5	19	-12.1	5	2	1	8	-11.9					
-20 / -16	6	3	3	11	-17.2	2	1	1	4	-16.7					
-25 / -21	4	1	1	6	-21.5	2	0	0	2	-21.4					
-30 / -26	1	0	0	2	-26.2	1	0	0	1	-26.8					
-35 / -31	0			0	-30.3	0		0	0	-32.3					
-40 / -36						0			0	-35.0					

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.

LA CROSSE WI

WMO No. 726430

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												0	0	0	77.6
95 / 99												3	1	4	74.7
90 / 94		0	0	0	63.6		1	0	2	68.6	0	9	3	12	73.1
85 / 89		1	0	2	64.3		7	2	10	68.8	1	23	9	32	71.1
80 / 84		4	1	5	63.2	0	18	7	24	65.4	2	40	23	65	68.2
75 / 79	0	7	3	10	60.5	1	27	15	42	62.8	11	51	36	98	66.0
70 / 74	1	11	8	20	57.7	7	37	28	72	60.3	31	48	49	127	63.9
65 / 69	4	18	11	33	55.0	24	44	38	106	57.7	52	36	50	139	61.4
60 / 64	9	27	18	55	51.7	33	39	43	115	54.8	58	20	41	119	57.9
55 / 59	12	32	29	73	48.1	41	38	43	122	51.2	44	7	20	72	53.9
50 / 54	22	38	37	97	44.7	54	23	39	116	47.4	26	2	8	36	49.7
45 / 49	38	34	39	111	41.7	44	11	22	77	43.6	11	0	1	13	45.6
40 / 44	46	30	38	114	38.0	27	2	9	38	39.5	3		0	3	41.5
35 / 39	48	24	29	102	33.9	14	1	3	17	35.1	0			0	39.0
30 / 34	33	10	16	59	29.8	3	0	0	3	30.8					
25 / 29	17	3	5	25	25.1	0			0	24.4					
20 / 24	7	1	3	11	20.3										
15 / 19	2	0	0	2	15.5										
10 / 14	1	0		1	10.7										
5 / 9	0			0	7.0										
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															
-30 / -26															
-35 / -31															
-40 / -36															

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LA CROSSE WI

WMO No. 726430

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	0	79.6										
100 / 104		1	0	1	80.6		1	0	1	78.6					
95 / 99		5	2	7	77.2		2	0	2	78.0		0	0	1	76.7
90 / 94	0	17	7	24	75.0		10	3	13	76.4		3	0	3	75.1
85 / 89	1	39	19	59	72.9	0	27	10	37	73.4		9	2	11	71.9
80 / 84	7	62	37	106	70.3	3	51	26	80	70.7	0	17	7	24	69.8
75 / 79	27	60	53	140	68.6	15	59	49	123	68.5	4	28	18	50	67.4
70 / 74	53	41	57	150	66.6	45	51	59	155	66.6	14	40	28	82	64.3
65 / 69	71	16	47	134	63.5	65	31	47	143	63.3	29	44	38	110	61.0
60 / 64	56	5	21	82	59.6	59	12	36	107	59.5	37	45	46	128	57.2
55 / 59	27	1	6	33	55.8	38	3	15	56	55.4	50	27	43	121	53.5
50 / 54	7	0	1	8	51.5	19	0	4	23	51.2	42	17	30	90	49.2
45 / 49	1		0	1	47.0	4		1	5	47.1	32	8	18	58	45.1
40 / 44						0			0	42.6	22	2	7	31	41.1
35 / 39											7		2	10	36.4
30 / 34											2		0	3	32.1
25 / 29											0			0	28.5
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															
-30 / -26															
-35 / -31															
-40 / -36															

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LA CROSSE WI

WMO No. 726430

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															
90 / 94		0		0	64.3										
85 / 89		0	0	0	66.6										
80 / 84		2	0	2	66.2										
75 / 79		7	1	8	62.8		0		0	60.0					
70 / 74	1	14	6	21	60.5		0		0	58.7					
65 / 69	5	22	12	38	57.9		2	0	2	56.3					
60 / 64	12	34	23	69	54.6	1	6	2	9	54.5		0	0	0	58.0
55 / 59	22	42	34	98	50.5	4	10	7	21	51.3	0	1	0	1	54.2
50 / 54	35	48	46	129	46.5	8	19	14	40	46.6	0	1	1	2	48.0
45 / 49	46	38	48	132	42.8	16	26	19	61	42.4	1	3	1	5	41.9
40 / 44	46	26	39	111	38.6	23	33	27	83	38.5	3	9	4	17	37.6
35 / 39	40	12	25	76	34.5	37	49	49	136	33.8	12	28	22	62	34.1
30 / 34	25	4	12	41	30.3	46	44	51	141	29.5	42	53	52	147	30.1
25 / 29	10	1	4	14	26.0	44	26	32	101	25.0	44	42	41	127	25.2
20 / 24	3	0	1	4	21.3	28	13	19	60	20.4	39	35	36	109	20.5
15 / 19	1			1	16.9	17	9	10	36	15.7	28	22	28	77	15.8
10 / 14						6	4	6	15	10.9	20	18	21	59	10.6
5 / 9						4	2	2	8	6.3	18	15	16	49	5.9
0 / 4						3	0	1	4	1.8	13	9	11	34	1.2
-5 / -1						1	0	0	1	-1.6	8	6	7	22	-3.2
-10 / -6						0			0	-7.3	9	3	5	17	-7.4
-15 / -11											3	2	2	8	-12.0
-20 / -16											3	1	1	5	-16.6
-25 / -21											2	1	1	3	-21.8
-30 / -26											0	0	0	1	-26.3
-35 / -31											0			0	-30.0
-40 / -36															

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LA CROSSE WI

WMO No. 726430

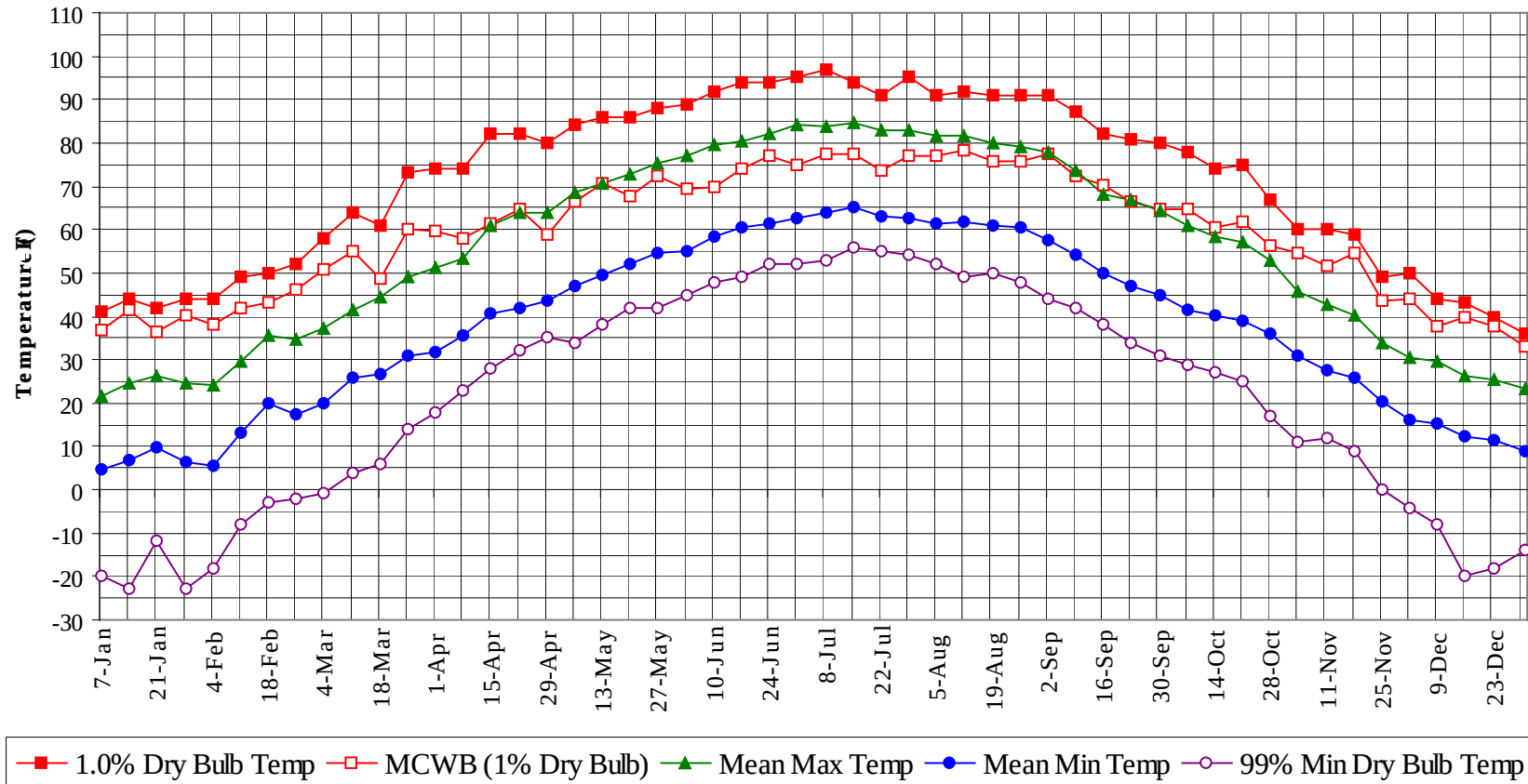
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1973 to 1996

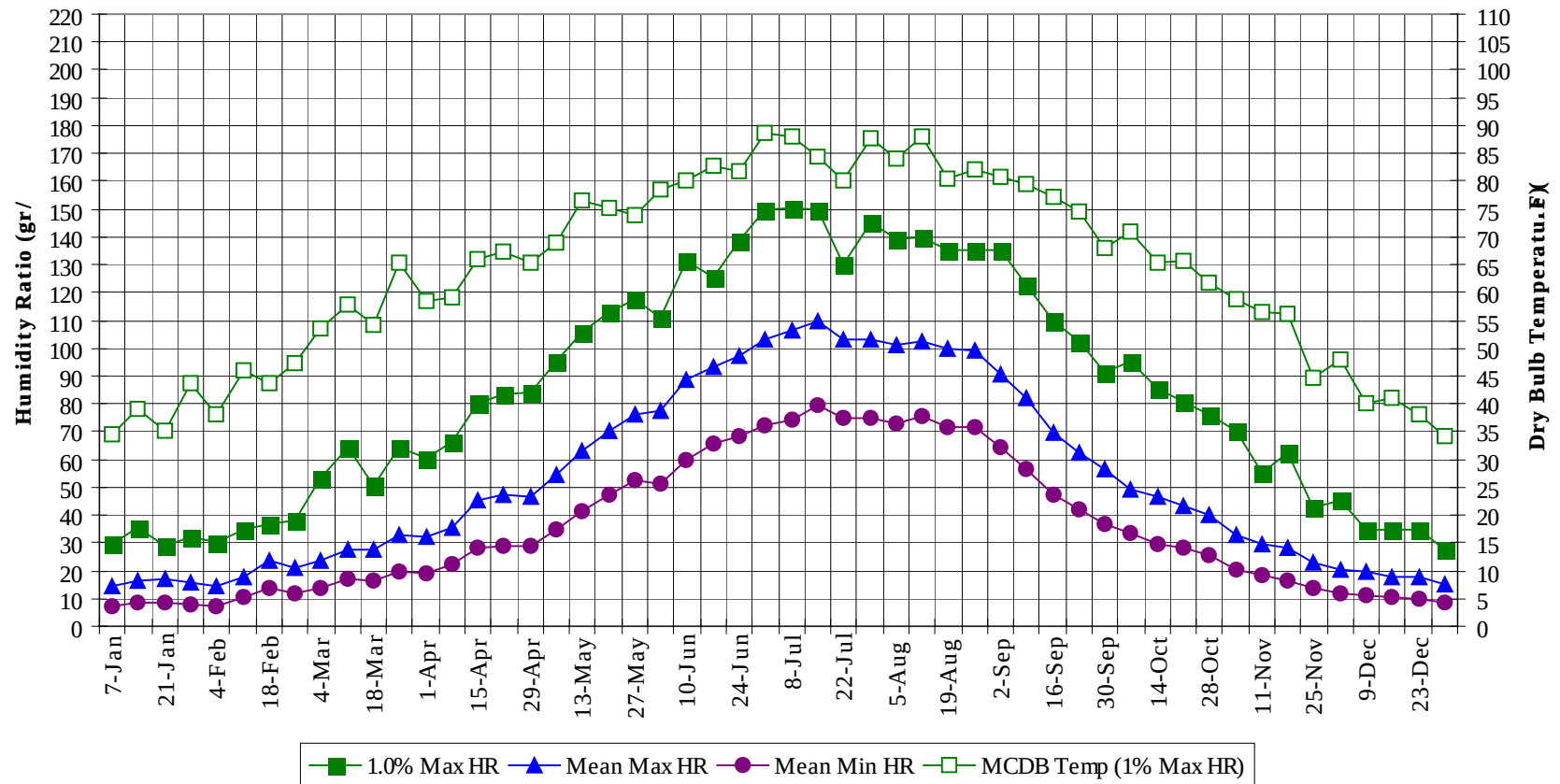
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
105 / 109		0	0	0	79.6
100 / 104		2	0	2	79.5
95 / 99		10	3	13	76.6
90 / 94	0	40	13	54	74.6
85 / 89	2	107	42	151	72.2
80 / 84	12	194	100	306	69.4
75 / 79	58	239	175	472	67.1
70 / 74	152	242	235	629	64.5
65 / 69	249	216	244	709	61.0
60 / 64	266	197	235	698	56.7
55 / 59	242	171	203	615	52.0
50 / 54	220	169	192	580	47.1
45 / 49	205	154	172	531	42.7
40 / 44	191	161	165	517	38.3
35 / 39	223	212	224	659	33.9
30 / 34	268	217	256	741	29.9
25 / 29	217	158	173	548	25.0
20 / 24	170	131	143	444	20.4
15 / 19	113	89	99	301	15.6
10 / 14	79	70	74	223	10.6
5 / 9	72	55	65	192	5.9
0 / 4	57	37	46	141	1.1
-5 / -1	39	21	26	85	-3.2
-10 / -6	41	14	22	77	-7.4
-15 / -11	19	8	9	36	-12.0
-20 / -16	11	4	5	20	-16.9
-25 / -21	7	2	2	11	-21.6
-30 / -26	2	0	0	3	-26.4
-35 / -31	1		0	1	-31.4
-40 / -36	0			0	-35.0

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Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary



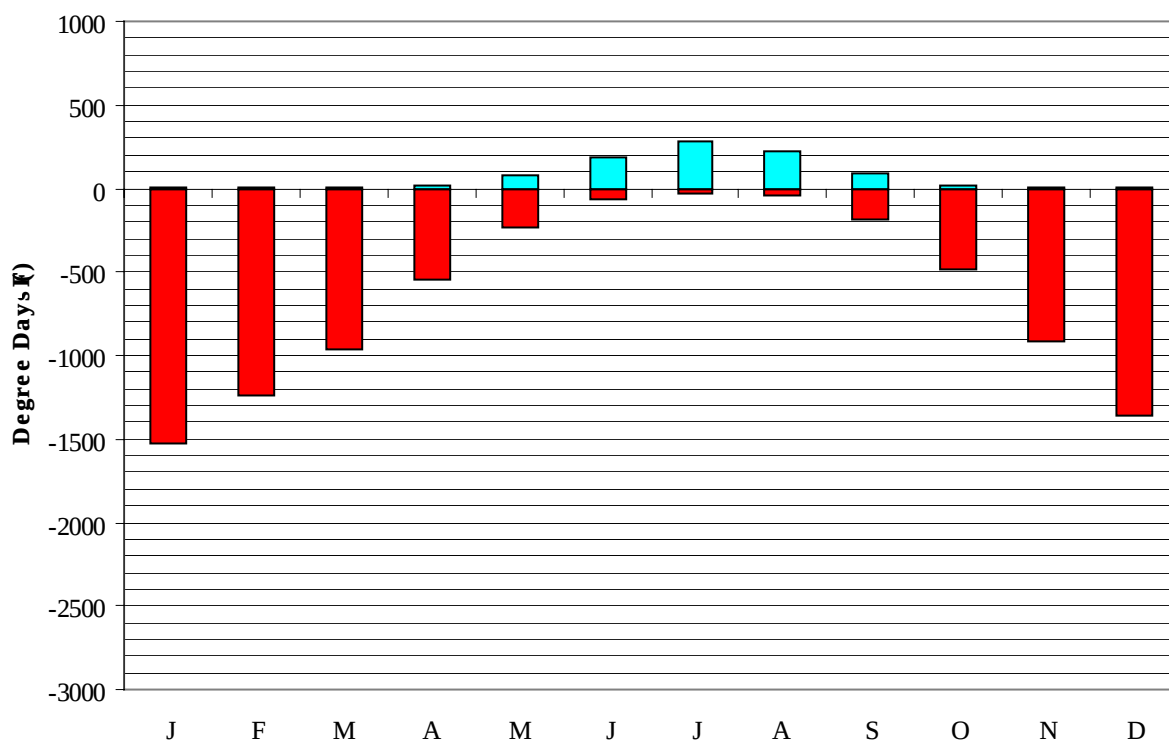
LA CROSSE WI**WMO No. 726430****Long Term Dry Bulb Temperature and Humidity Summary**

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	41.0	36.7	21.5	4.6	-20.0	29.4	34.6	14.1	7.1
14-Jan	44.0	41.4	24.4	6.9	-23.0	35.7	39.2	16.2	8.6
21-Jan	42.0	36.4	26.5	9.9	-12.0	28.7	35.2	16.9	8.7
28-Jan	44.0	40.1	24.7	6.2	-23.0	32.2	43.8	15.7	7.8
4-Feb	44.0	38.2	24.0	5.4	-18.0	30.1	37.9	14.4	7.4
11-Feb	49.0	41.9	29.7	13.1	-8.0	35.0	45.9	17.8	10.2
18-Feb	50.0	43.2	35.4	19.8	-3.0	37.1	43.6	23.5	13.9
25-Feb	52.0	46.0	34.8	17.4	-2.0	37.8	47.4	20.7	11.7
4-Mar	58.0	50.8	37.5	19.9	-1.0	53.2	53.5	23.6	13.5
11-Mar	64.0	55.0	41.7	25.6	4.0	64.4	57.9	27.5	16.9
18-Mar	61.0	48.5	44.6	26.8	6.0	50.4	54.2	27.3	16.7
25-Mar	73.0	60.0	49.2	30.9	14.0	64.4	65.4	32.7	19.7
1-Apr	74.0	59.8	51.2	31.6	18.0	60.2	58.4	32.0	18.9
8-Apr	74.0	57.9	53.2	35.4	23.0	66.5	59.2	35.7	22.1
15-Apr	82.0	61.6	60.8	40.5	28.0	79.8	66.0	45.1	28.1
22-Apr	82.0	64.6	63.7	42.1	32.0	83.3	67.2	47.2	29.0
29-Apr	80.0	58.9	64.0	43.6	35.0	84.0	65.2	46.9	29.1
6-May	84.0	66.5	68.6	46.9	34.0	95.2	69.0	54.7	34.7
13-May	86.0	70.5	70.5	49.3	38.0	105.7	76.6	63.1	41.6
20-May	86.0	67.7	72.7	52.2	42.0	112.7	75.3	70.0	47.0
27-May	88.0	72.4	75.1	54.4	42.0	117.6	73.8	76.2	52.2
3-Jun	89.0	69.4	77.1	55.0	45.0	111.3	78.4	77.3	50.9
10-Jun	92.0	69.6	79.4	58.2	48.0	131.6	80.1	88.5	59.4
17-Jun	94.0	74.2	80.5	60.3	49.0	125.3	82.8	93.4	65.9
24-Jun	94.0	77.0	81.9	61.5	52.0	138.6	81.9	97.4	68.2
1-Jul	95.0	75.0	84.3	62.7	52.0	149.8	88.8	102.8	72.1
8-Jul	97.0	77.4	83.8	63.8	53.0	150.5	87.9	106.5	74.4
15-Jul	94.0	77.4	84.7	65.2	56.0	149.8	84.5	109.4	79.2
22-Jul	91.0	73.7	82.9	62.9	55.0	130.2	80.1	103.2	74.9
29-Jul	95.0	76.8	83.0	62.6	54.0	144.9	87.8	103.4	74.8
5-Aug	91.0	77.2	81.6	61.5	52.0	139.3	84.0	101.1	73.2
12-Aug	92.0	78.5	81.5	61.7	49.0	140.0	87.9	102.4	75.3
19-Aug	91.0	75.6	80.1	60.9	50.0	135.1	80.4	99.7	71.4
26-Aug	91.0	75.9	79.3	60.6	48.0	135.1	82.0	99.0	71.7
2-Sep	91.0	77.4	77.9	57.6	44.0	135.1	80.7	90.3	64.4
9-Sep	87.0	72.3	73.5	54.1	42.0	122.5	79.4	81.9	56.7
16-Sep	82.0	70.1	68.1	49.9	38.0	109.9	77.2	69.9	47.6
23-Sep	81.0	66.3	66.8	46.9	34.0	102.2	74.5	62.4	41.8
30-Sep	80.0	64.8	64.5	44.7	31.0	91.0	68.0	56.5	36.6
7-Oct	78.0	64.6	61.0	41.6	29.0	95.2	71.0	49.5	33.3
14-Oct	74.0	60.7	58.4	40.3	27.0	85.4	65.4	46.6	29.7
21-Oct	75.0	61.7	57.0	39.0	25.0	80.5	65.6	43.7	28.5
28-Oct	67.0	56.1	53.0	35.8	17.0	76.3	61.7	40.3	25.6
4-Nov	60.0	54.6	45.5	30.9	11.0	70.0	58.9	32.7	20.5
11-Nov	60.0	51.5	42.9	27.6	12.0	55.3	56.5	29.2	18.1
18-Nov	59.0	54.7	40.1	25.9	9.0	62.3	56.2	28.3	16.7
25-Nov	49.0	43.5	33.7	20.5	0.0	42.7	44.8	22.8	13.6
2-Dec	50.0	44.0	30.7	16.2	-4.0	45.5	48.0	20.2	11.7
9-Dec	44.0	37.8	29.5	15.3	-8.0	35.0	40.1	19.4	11.2
16-Dec	43.0	39.7	26.4	12.4	-20.0	35.0	41.2	17.9	10.2
23-Dec	40.0	37.8	25.6	11.4	-18.0	35.0	38.1	17.8	10.0
31-Dec	36.0	32.9	23.5	8.8	-14.0	27.3	34.1	15.3	8.8

LA CROSSE WI

WMO No. 726430

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



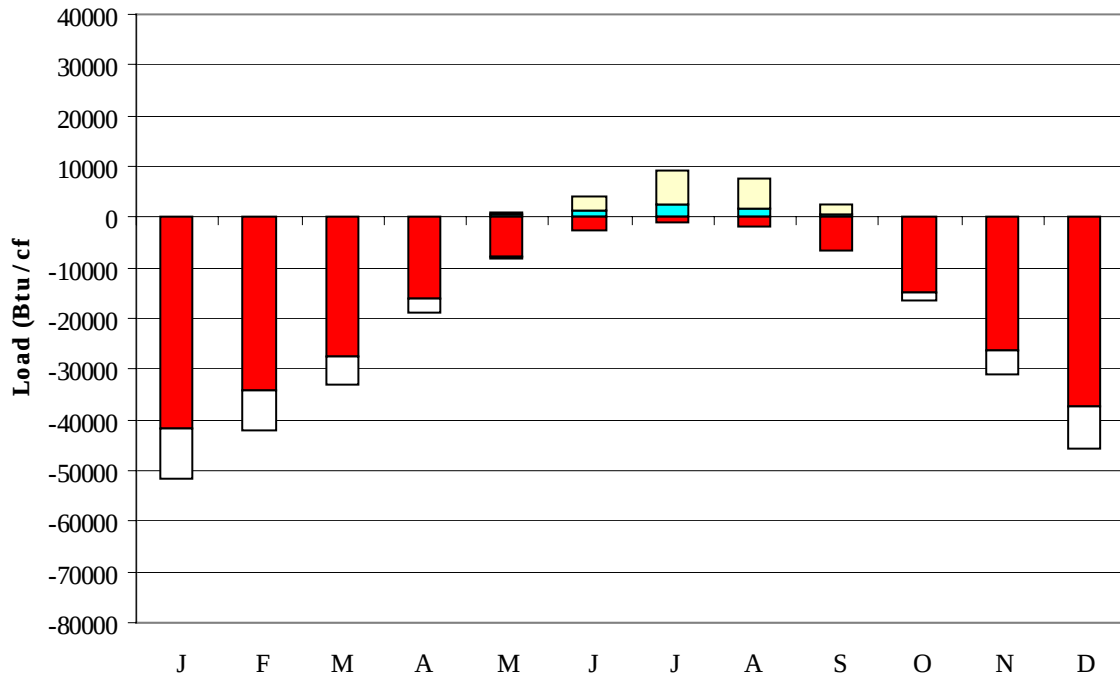
Mean Cooling Degree Days Mean Heating Degree Days

	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1522
FEB	0	1235
MAR	2	970
APR	18	542
MAY	76	235
JUN	189	69
JUL	287	24
AUG	225	46
SEP	85	190
OCT	14	491
NOV	0	918
DEC	0	1355
ANN	897	7597

LA CROSSE WI

WMO No. 726430

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



■ Average Sensible Cooling Load	■ Average Sensible Heating Load
■ Average Latent Cooling (Drying) Load	■ Average Latent Heating (Humidifying) Load

	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	-41868	0	-9760
FEB	0	-34201	0	-7839
MAR	5	-27542	0	-5626
APR	80	-16198	14	-2673
MAY	394	-7824	712	-502
JUN	1371	-2741	2876	-10
JUL	2387	-1185	6680	0
AUG	1574	-1972	6051	-1
SEP	460	-6519	1871	-86
OCT	33	-14980	62	-1422
NOV	0	-26124	0	-4835
DEC	0	-37539	0	-8253
ANN	6304	-218693	18266	-41007

Average Annual Solar Radiation – Nearest Available Site

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

City: LA CROSSE
 State: WI
 WBAN No: 14920
 Lat(N): 43.87
 Long(W): 91.25
 Elev(ft): 673

Stn Type: Secondary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS

Window: 1
 Overhang: 0.645
 Vert Gap: 0.331

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	560	850	1170	1480	1800	1980	1970	1700	1280	890	540	450	1230
	Std Dev	51	57	97	107	150	129	111	105	105	66	42	37	42
	Minimum	440	730	950	1290	1550	1760	1680	1510	1070	750	440	380	1140
	Maximum	670	940	1410	1720	2060	2320	2140	1970	1530	1020	620	540	1330
	Diffuse	300	420	570	690	780	840	800	700	570	420	310	260	560
Clear Day	Global	750	1110	1610	2130	2500	2640	2540	2220	1740	1210	800	630	1660
NORTH	Global	180	260	340	430	550	630	600	470	360	260	180	150	370
	Diffuse	180	260	340	420	490	530	520	450	360	260	180	150	350
Clear Day	Global	160	230	310	410	570	680	630	470	330	240	170	140	360
EAST	Global	400	570	740	890	1050	1120	1110	970	770	590	360	310	740
	Diffuse	220	320	420	510	590	630	620	550	440	320	220	190	420
Clear Day	Global	610	830	1110	1350	1480	1520	1480	1370	1150	880	630	530	1080
SOUTH	Global	1010	1170	1130	1000	920	870	920	1020	1080	1070	820	810	990
	Diffuse	340	440	500	540	570	590	590	560	500	410	310	290	470
Clear Day	Global	1820	1970	1890	1540	1210	1070	1120	1370	1690	1860	1790	1710	1580
WEST	Global	400	570	740	880	1040	1130	1150	1040	820	590	370	310	750
	Diffuse	230	320	430	520	600	650	640	570	450	330	220	190	430
Clear Day	Global	610	830	1110	1350	1480	1520	1480	1370	1150	880	630	530	1080

Average Annual Solar Heat and Illumination – Nearest Available Site

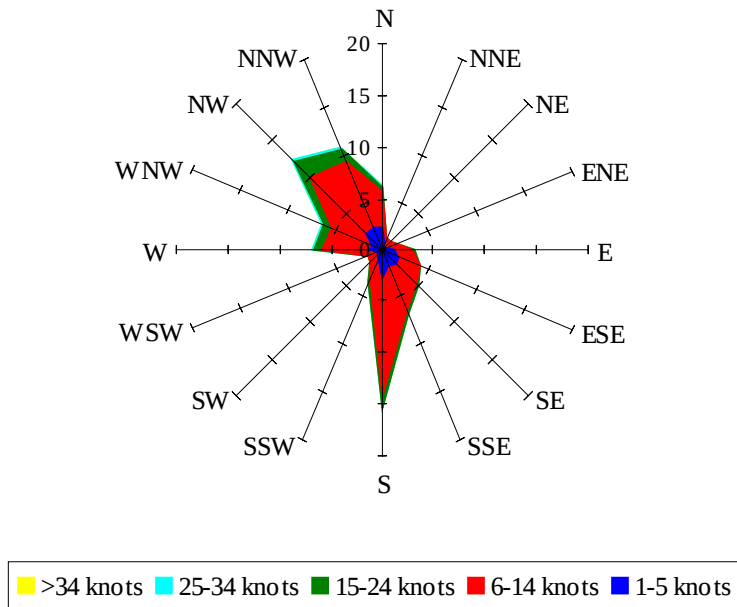
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	350	560	820	1060	1300	1440	1430	1230	910	610	350	280	860
NORTH	Unshaded	120	180	240	290	360	410	390	320	250	180	130	110	250
	Shaded	110	150	200	250	310	350	340	280	210	160	110	88	210
EAST	Unshaded	270	400	520	640	750	800	790	690	540	410	250	210	520
	Shaded	240	340	440	520	610	640	640	560	450	350	210	180	430
SOUTH	Unshaded	760	860	800	670	580	540	570	660	740	780	620	620	680
	Shaded	740	790	610	400	340	350	350	370	500	670	590	590	520
WEST	Unshaded	270	400	520	630	740	800	820	740	580	410	250	210	530
	Shaded	240	340	440	520	600	650	670	610	480	350	220	190	440

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	35	66	75	60	24	48	81	98	93	68
	M.Cloudy	22	42	48	38	16	30	55	67	67	47
NORTH	M.Clear	9	13	14	12	7	16	16	17	17	15
	M.Cloudy	9	15	17	14	7	13	17	19	19	15
EAST	M.Clear	72	56	14	12	7	78	72	31	17	15
	M.Cloudy	26	30	17	14	7	36	43	26	19	15
SOUTH	M.Clear	40	76	87	69	28	12	37	53	48	25
	M.Cloudy	17	36	42	33	12	11	27	38	37	20
WEST	M.Clear	9	13	21	64	63	12	16	17	50	78
	M.Cloudy	9	15	19	32	22	11	17	19	38	46
M.Clear	(% hrs)	32	32	32	31	30	40	40	34	31	35

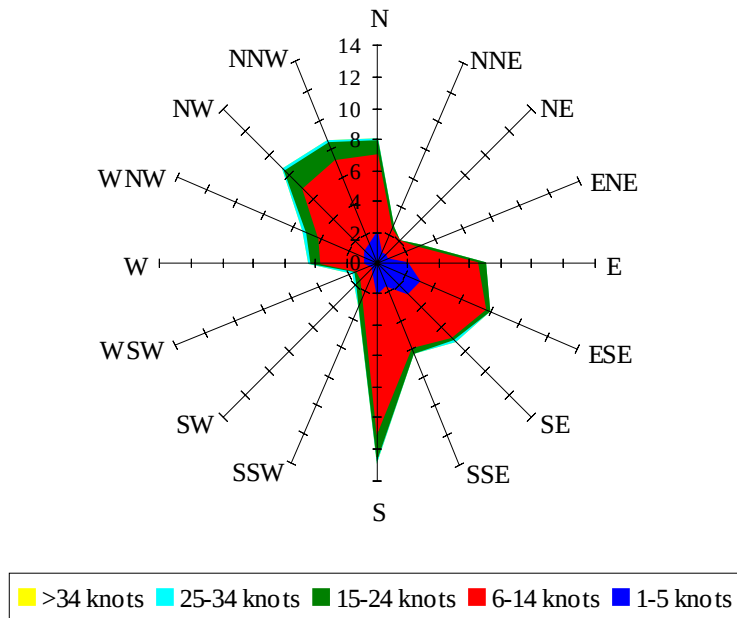
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	25	61	79	72	44	9	33	38	22	0
	M.Cloudy	15	36	49	47	29	6	20	24	14	0
NORTH	M.Clear	8	13	15	15	11	4	9	9	7	0
	M.Cloudy	6	14	17	16	11	3	9	10	6	0
EAST	M.Clear	61	68	28	15	11	29	36	9	7	0
	M.Cloudy	18	31	21	16	11	8	15	10	6	0
SOUTH	M.Clear	21	59	78	71	40	27	75	84	57	0
	M.Cloudy	9	28	40	39	21	7	25	29	17	0
WEST	M.Clear	8	13	15	50	72	4	9	19	42	0
	M.Cloudy	6	14	17	31	32	3	9	12	14	0
M.Clear	(% hrs)	33	37	37	36	39	28	28	28	29	31

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



Percent Calm = 13.35

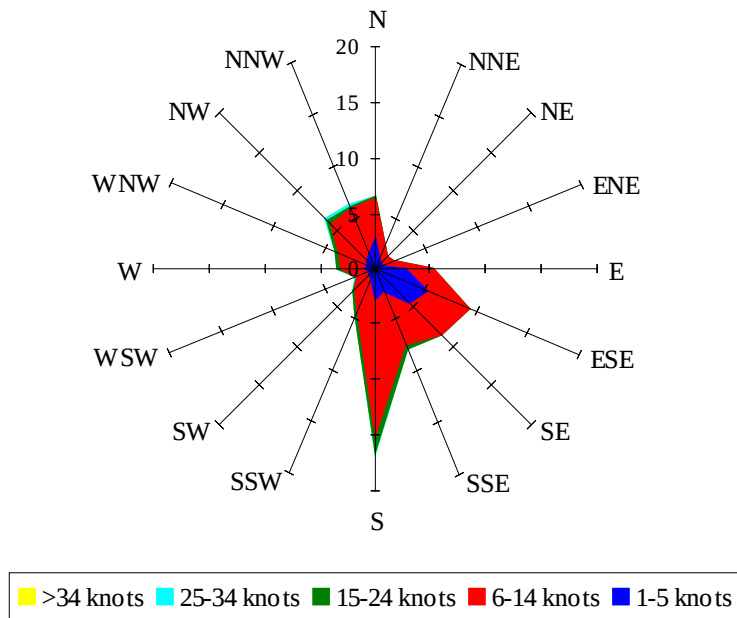
Wind Summary - March, April, and May **Labels of Percent Frequency on North Axis**



Percent Calm = 10.72

Wind Summary - June, July, and August

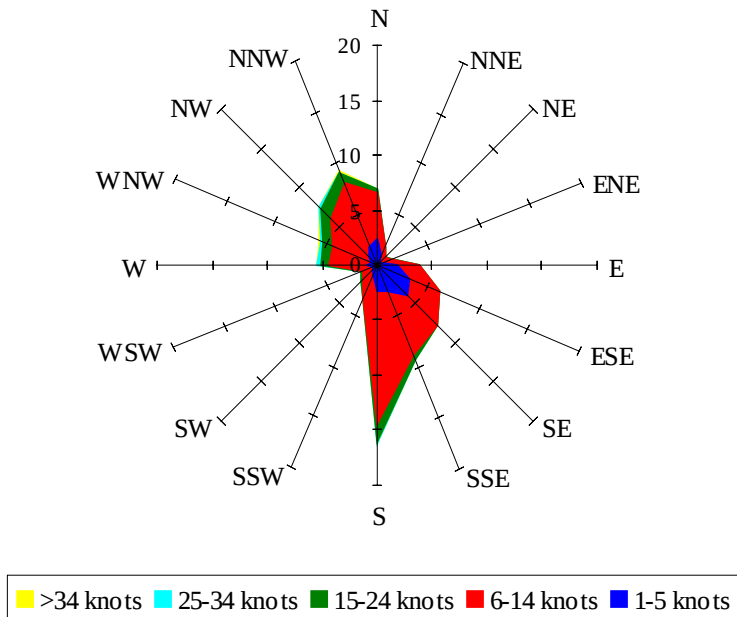
Labels of Percent Frequency on North Axis



Percent Calm = 11.77

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 10.32