

MILWAUKEE/MITCHELL WI

Latitude = 42.95 N

WMO No. 726400

Longitude = 87.90 W

Elevation = 692 feet

Period of Record = 1973 to 1996

Average Pressure = 29.23 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	95	76	107	15.7	SW
0.4% Occurrence	90	74	107	14.4	WSW
1.0% Occurrence	86	72	100	13.4	SW
2.0% Occurrence	83	71	95	12.7	SW
Mean Daily Range	15	-	-	-	-
97.5% Occurrence	6	5	5	11.7	WNW
99.0% Occurrence	0	-1	3	12.5	W
99.6% Occurrence	-6	-7	2	12.7	W
Median of Extreme Lows	-9	-10	2	13.7	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	80	90	139	13.7	SW
0.4% Occurrence	77	87	126	13.0	SW
1.0% Occurrence	75	84	119	12.2	SW
2.0% Occurrence	73	81	112	11.4	SW
	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	145	87	0.94	12.1	SW
0.4% Occurrence	130	83	0.85	11.4	SW
1.0% Occurrence	122	81	0.79	11.3	SW
2.0% Occurrence	113	79	0.74	10.7	SW
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		15	372	207	848

Other Site Data

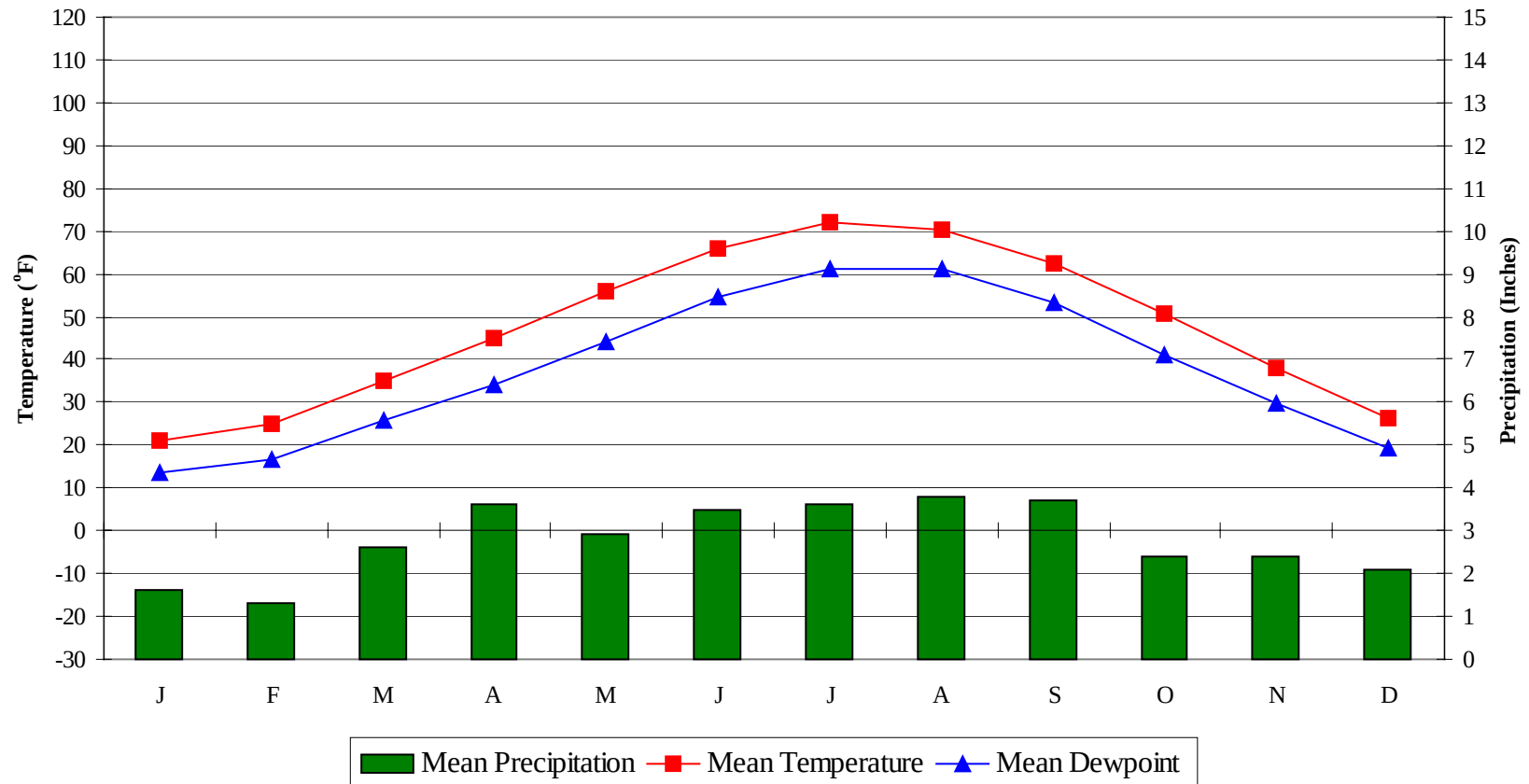
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
5	3.0	90	1.2 + 0.4
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
49.8	75	29	53

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

MILWAUKEE/MITCHELL WI

WMO No. 726400

Average Annual Climate

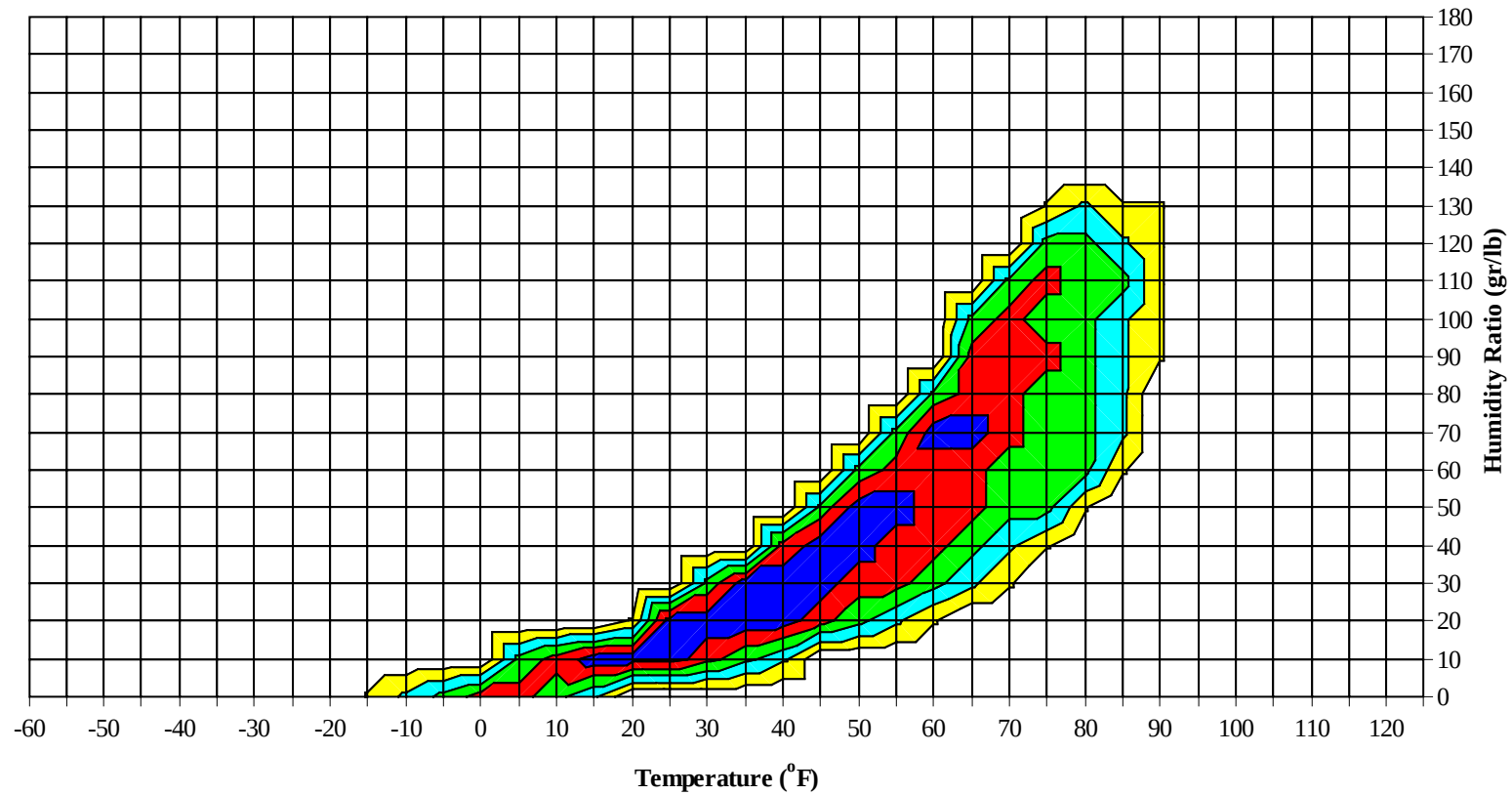


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Long Term Psychrometric Summary

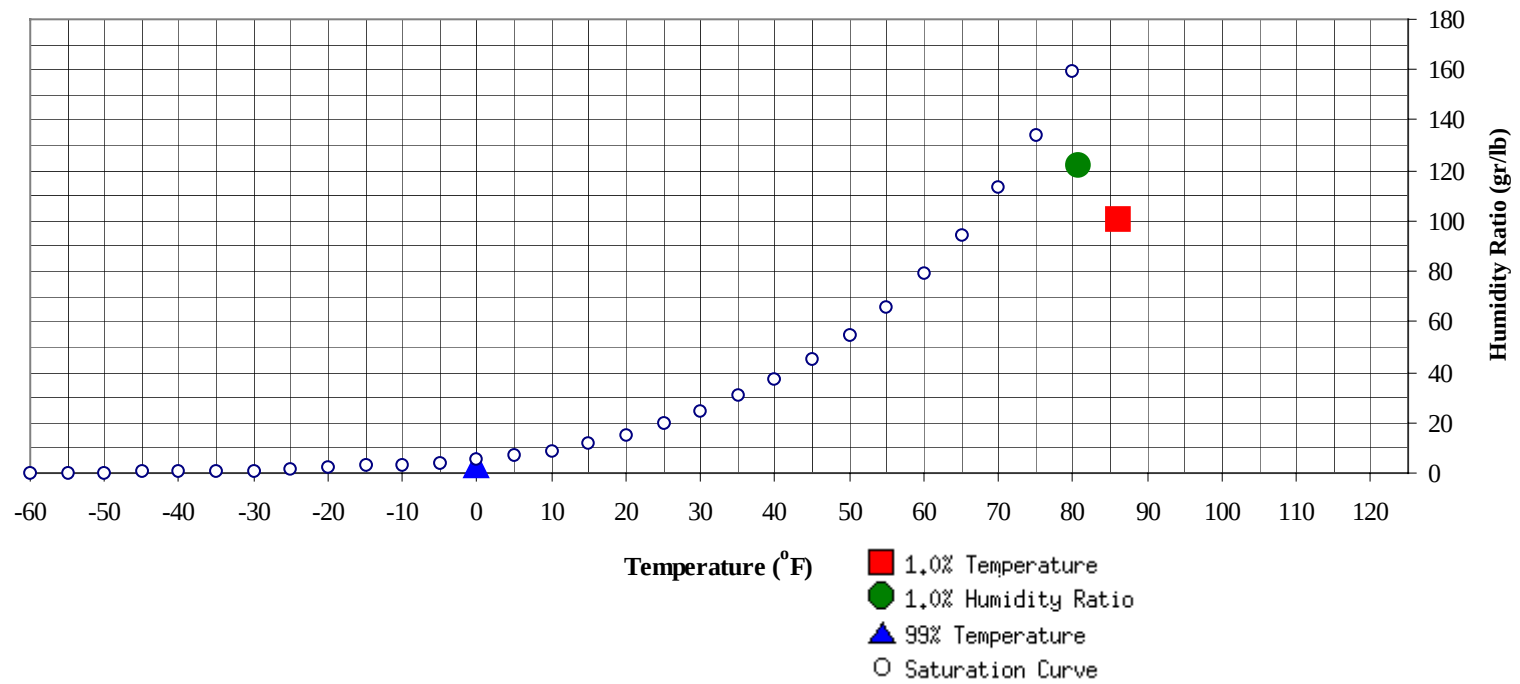


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

MILWAUKEE/MITCHELL WI

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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)
	0	3.2	0.5		121.8	80.6	74.4	72	38.4

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	86	101.1	72.4	36.5

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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		
100 / 104															
95 / 99															
90 / 94															
85 / 89															
80 / 84												0	0	0	61.8
75 / 79												0	0	0	61.1
70 / 74												3	1	4	58.2
65 / 69							0		0	51.5		0	4	2	6
60 / 64							0	0	0	49.5		1	5	3	9
55 / 59		0	0	0	48.2		1	0	1	47.4		4	7	4	15
50 / 54	1	1	1	3	48.5	0	3	1	4	45.7		5	12	8	25
45 / 49	1	2	1	4	43.8	1	7	3	11	41.3		10	22	15	47
40 / 44	2	8	6	16	38.3	5	15	9	29	37.7		22	42	28	92
35 / 39	17	28	24	69	34.2	23	37	32	92	33.9		49	63	62	174
30 / 34	39	43	40	122	30.0	44	41	46	131	29.9		63	43	62	168
25 / 29	37	43	43	123	25.1	34	37	37	108	24.6		40	25	32	97
20 / 24	37	37	36	110	20.2	31	32	30	93	19.9		25	14	18	57
15 / 19	29	26	30	85	15.4	23	21	23	67	15.3		14	4	8	26
10 / 14	22	22	21	65	10.5	22	15	21	58	10.4		9	3	4	16
5 / 9	19	14	19	52	5.6	17	8	12	37	5.7		4	1	1	6
0 / 4	19	11	14	44	0.9	14	5	6	25	1.2		2	0	0	2
-5 / -1	11	5	6	22	-3.3	5	1	2	8	-3.2		0			0
-10 / -6	7	3	4	14	-7.6	2	1	1	4	-7.8					
-15 / -11	4	2	2	8	-12.2	1	0	1	2	-12.4					
-20 / -16	2	1	1	4	-17.4	0	0	0	0	-17.4					
-25 / -21	1	0	0	1	-21.9	0	0		0	-22.2					
-30 / -26	0			0	-25.4	0			0	-26.0					

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.

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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		
100 / 104															
95 / 99												1	0	1	74.9
90 / 94		0	0	0	63.0		0	0	0	70.4	0	6	2	8	72.7
85 / 89		1	0	1	64.8		5	1	6	67.8	0	15	5	20	70.7
80 / 84		3	1	4	64.1	0	14	3	17	66.5	3	33	14	50	68.5
75 / 79	0	5	2	7	62.7	2	20	9	31	64.1	11	38	23	72	66.0
70 / 74	1	6	4	11	59.0	7	22	16	45	61.8	30	41	38	109	63.8
65 / 69	5	11	6	22	56.9	17	28	21	66	58.2	43	41	42	126	60.5
60 / 64	6	19	11	36	52.9	25	37	28	90	54.7	56	32	48	136	57.0
55 / 59	11	23	15	49	49.5	34	39	35	108	50.9	47	20	36	103	53.0
50 / 54	19	32	24	75	45.2	49	40	48	137	47.1	34	11	25	70	48.9
45 / 49	33	42	36	110	41.9	58	30	52	140	43.2	13	1	7	21	44.4
40 / 44	55	51	60	165	38.3	39	11	29	79	39.3	3		1	4	40.1
35 / 39	62	33	52	146	34.4	13	1	7	21	34.6	0			0	38.0
30 / 34	29	11	23	63	29.3	3		1	4	30.9					
25 / 29	15	3	7	25	24.9	0			0	28.0					
20 / 24	4	1	1	6	19.6										
15 / 19	1		0	1	15.0										
10 / 14	0			0	11.0										
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															
-30 / -26															

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MILWAUKEE/MITCHELL WI

WMO No. 726400

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		
100 / 104		0	0	0	82.1		0	0	0	76.5					
95 / 99		2	0	2	76.8		2	0	2	76.9		0		0	79.0
90 / 94		11	3	14	75.6		7	1	8	76.2		2	0	2	75.8
85 / 89	1	29	9	39	73.5	0	18	6	24	74.1		5	1	6	73.0
80 / 84	7	53	25	85	70.6	4	38	18	60	71.4	0	15	3	18	69.7
75 / 79	25	53	42	120	68.4	15	59	34	108	68.7	3	30	12	45	67.5
70 / 74	57	53	62	172	65.7	54	68	62	183	66.1	18	42	28	88	65.0
65 / 69	75	32	59	166	62.5	77	43	72	192	62.9	37	47	41	126	61.5
60 / 64	57	13	38	108	58.6	62	12	43	117	58.8	50	51	55	157	57.3
55 / 59	21	1	10	32	54.6	27	2	11	40	54.3	53	32	50	136	52.8
50 / 54	4		1	5	50.1	8		2	10	49.9	44	12	32	89	48.6
45 / 49	0			0	46.2	1		0	1	44.8	22	3	13	38	43.9
40 / 44											9	0	3	12	39.6
35 / 39											3		0	3	34.9
30 / 34											0		0	0	30.2
25 / 29											0			0	26.7
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															
-30 / -26															

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MILWAUKEE/MITCHELL

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WMO No. 726400

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		
100 / 104															
95 / 99															
90 / 94															
85 / 89		0		0	68.8										
80 / 84		2	0	2	65.7										
75 / 79		5	1	6	63.7										
70 / 74	1	14	4	19	61.0		1	0	1	61.0					
65 / 69	5	21	11	37	58.2	0	3	1	4	58.8					
60 / 64	13	34	24	71	55.4	3	6	4	13	57.4	0	1	0	1	57.4
55 / 59	30	43	37	110	51.9	6	11	7	24	53.0	1	2	1	4	53.8
50 / 54	44	58	49	151	47.3	14	25	17	56	48.3	2	4	2	8	47.5
45 / 49	54	41	54	149	43.2	21	33	26	80	43.2	4	6	4	14	43.5
40 / 44	46	22	39	107	38.6	35	46	44	126	38.7	9	16	11	36	38.9
35 / 39	34	8	23	65	34.3	45	49	50	145	33.9	29	44	38	111	34.5
30 / 34	16	1	6	23	30.0	48	36	47	132	29.2	52	57	59	168	30.0
25 / 29	4	0	1	5	25.2	36	19	24	79	24.5	42	39	42	123	24.9
20 / 24	0		0	0	19.9	17	6	13	36	20.1	34	27	29	90	20.1
15 / 19	0			0	17.8	9	2	4	15	15.5	24	18	22	64	15.3
10 / 14						3	1	1	5	10.9	19	14	17	50	10.5
5 / 9						1	1	1	3	6.1	11	9	11	31	5.5
0 / 4						1	0	0	1	1.5	10	6	7	23	0.9
-5 / -1						0			0	-3.2	5	2	2	9	-3.2
-10 / -6											4	2	2	8	-7.5
-15 / -11											1	0	1	2	-12.1
-20 / -16											1	0		1	-16.7
-25 / -21															
-30 / -26															

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MILWAUKEE/MITCHELL WI

WMO No. 726400

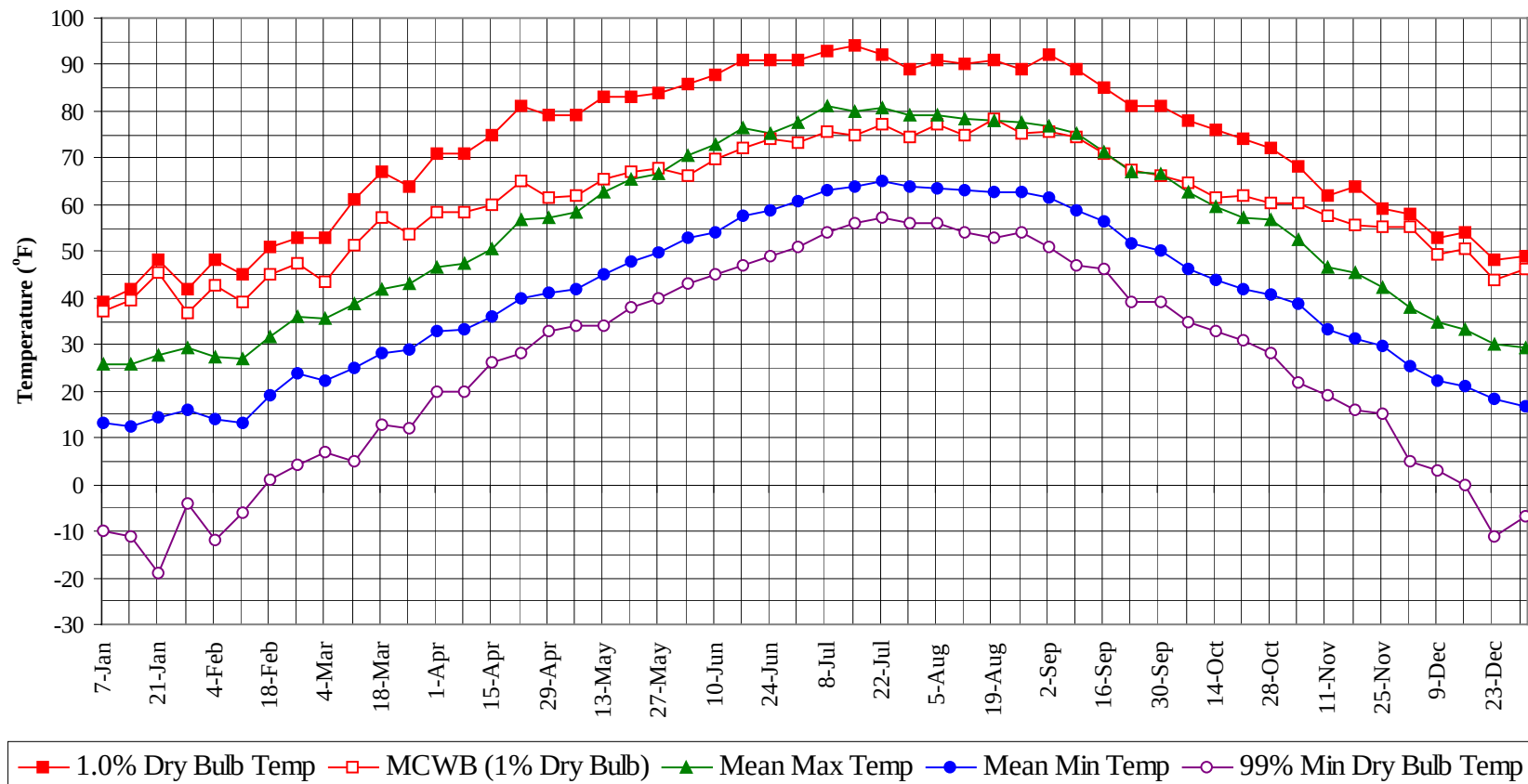
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1973 to 1996

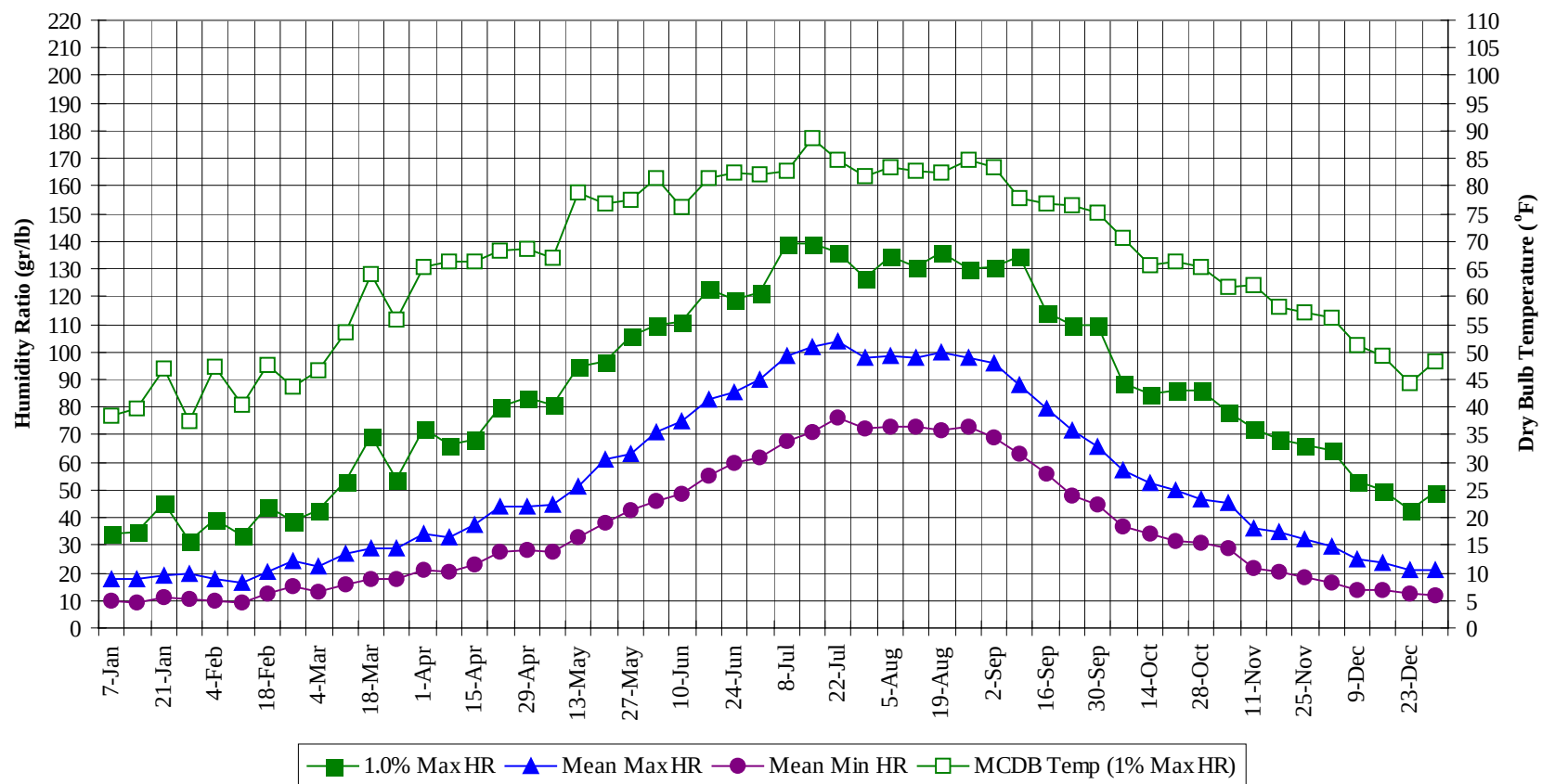
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
100 / 104		1	0	1	79.9
95 / 99		6	1	7	76.5
90 / 94	0	26	7	33	74.9
85 / 89	2	73	22	97	72.6
80 / 84	15	157	65	237	69.9
75 / 79	57	210	123	390	67.4
70 / 74	168	248	214	630	64.8
65 / 69	258	228	252	739	61.3
60 / 64	273	210	252	736	56.9
55 / 59	232	179	204	615	52.2
50 / 54	221	198	209	628	47.5
45 / 49	217	188	211	616	43.0
40 / 44	223	210	227	660	38.5
35 / 39	275	264	286	826	34.1
30 / 34	297	233	285	816	29.7
25 / 29	209	168	187	564	24.8
20 / 24	150	118	130	398	20.0
15 / 19	103	72	87	262	15.3
10 / 14	75	55	65	195	10.5
5 / 9	54	32	45	131	5.6
0 / 4	46	22	28	96	1.0
-5 / -1	22	8	11	41	-3.3
-10 / -6	13	6	7	26	-7.6
-15 / -11	6	2	3	11	-12.2
-20 / -16	3	1	1	5	-17.3
-25 / -21	1	0	0	1	-22.0
-30 / -26	0			0	-25.5

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Annual Summary of Temperatures

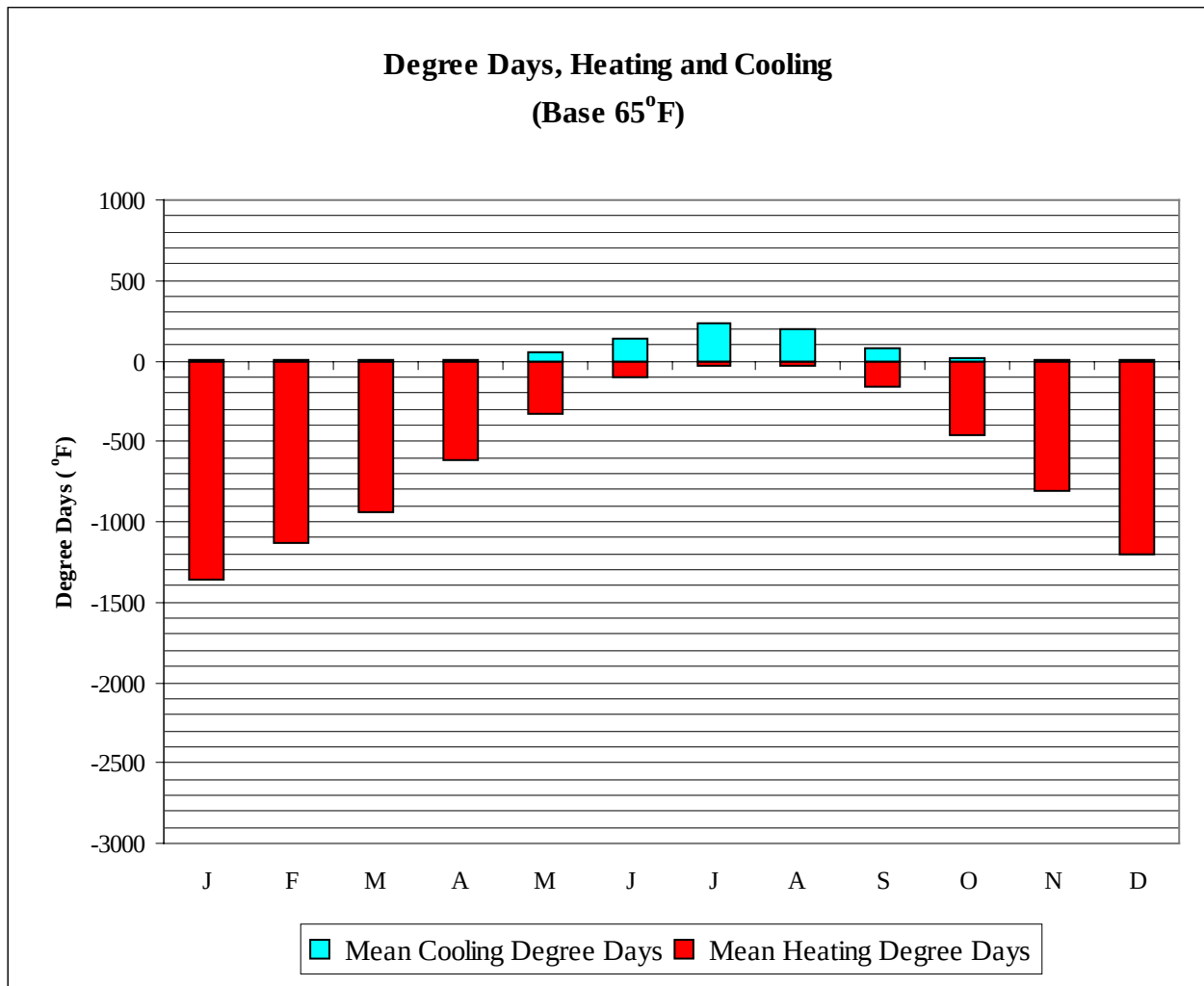


Long Term Humidity and Dry Bulb Temperature Summary



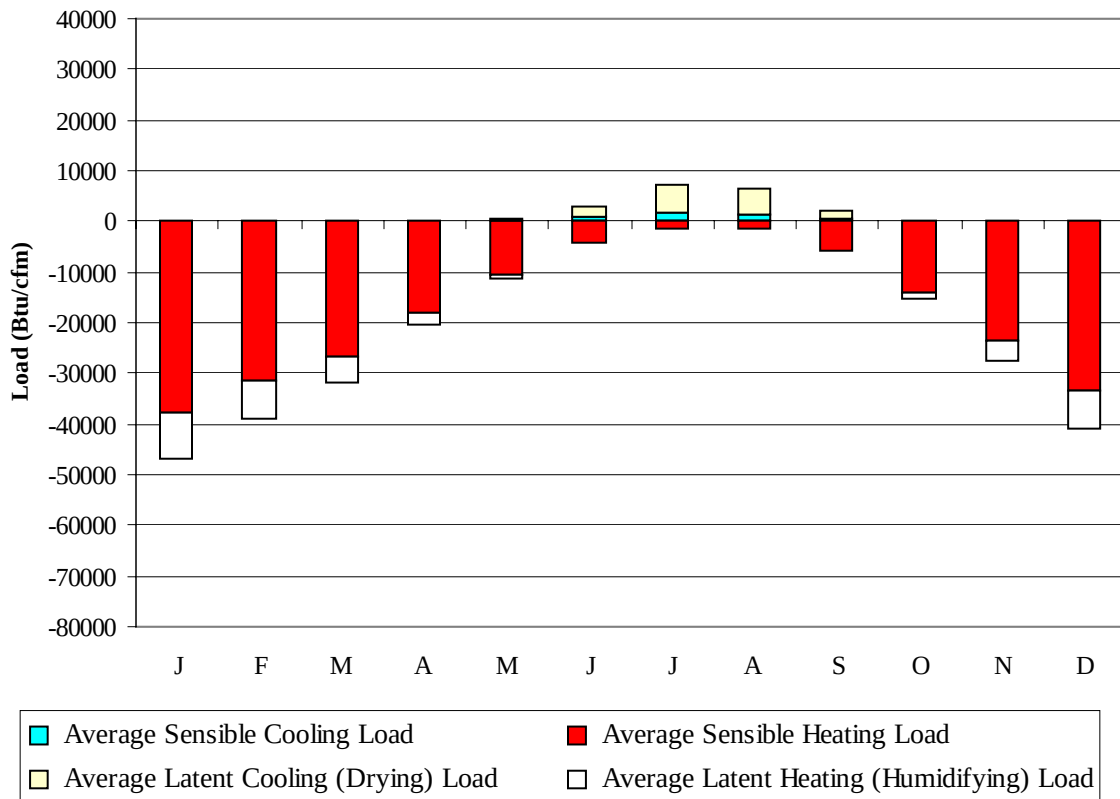
MILWAUKEE/MITCHELL WI**WMO No. 726400****Long Term Dry Bulb Temperature and Humidity Summary**

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	39.0	37.1	25.9	13.2	-10.0	34.3	38.5	17.6	9.8
14-Jan	42.0	39.3	25.8	12.6	-11.0	35.0	39.8	17.6	9.3
21-Jan	48.0	45.6	27.8	14.4	-19.0	45.5	47.1	19.3	11.0
28-Jan	42.0	36.9	29.4	16.1	-4.0	31.5	37.4	19.5	10.5
4-Feb	48.0	42.8	27.5	14.0	-12.0	39.2	47.1	17.9	10.1
11-Feb	45.0	39.0	26.8	13.2	-6.0	33.6	40.4	16.4	9.1
18-Feb	51.0	45.1	31.6	19.2	1.0	44.1	47.6	20.5	12.3
25-Feb	53.0	47.3	36.0	23.7	4.0	38.5	43.6	24.5	15.2
4-Mar	53.0	43.4	35.6	22.4	7.0	42.7	46.6	22.4	13.4
11-Mar	61.0	51.2	38.6	24.9	5.0	53.2	53.5	26.6	15.7
18-Mar	67.0	57.2	41.9	28.3	13.0	69.3	64.0	28.6	17.5
25-Mar	64.0	53.5	43.0	29.1	12.0	53.9	55.9	28.9	17.5
1-Apr	71.0	58.5	46.6	33.0	20.0	72.1	65.4	34.2	21.1
8-Apr	71.0	58.3	47.5	33.3	20.0	66.5	66.2	32.9	20.6
15-Apr	75.0	60.0	50.3	35.9	26.0	68.6	66.3	37.3	23.1
22-Apr	81.0	64.9	56.6	40.1	28.0	79.8	68.4	44.1	27.4
29-Apr	79.0	61.4	57.0	41.1	33.0	83.3	68.6	44.3	28.0
6-May	79.0	61.8	58.5	41.7	34.0	80.5	67.1	44.4	27.8
13-May	83.0	65.3	62.8	45.0	34.0	94.5	78.9	51.3	33.2
20-May	83.0	67.2	65.4	47.8	38.0	96.6	77.0	61.1	38.2
27-May	84.0	67.8	66.8	49.9	40.0	105.7	77.7	63.0	42.4
3-Jun	86.0	66.2	70.4	52.7	43.0	109.9	81.5	71.2	46.2
10-Jun	88.0	69.8	72.7	54.0	45.0	111.3	76.3	75.2	48.7
17-Jun	91.0	72.1	76.3	57.6	47.0	122.5	81.5	82.7	55.1
24-Jun	91.0	74.1	75.4	58.6	49.0	119.0	82.4	85.4	59.5
1-Jul	91.0	73.2	77.6	60.6	51.0	121.8	82.0	90.0	61.6
8-Jul	93.0	75.6	81.0	63.0	54.0	139.3	82.8	98.5	67.8
15-Jul	94.0	75.0	80.2	64.0	56.0	139.3	88.5	101.7	70.7
22-Jul	92.0	77.4	80.7	64.9	57.0	135.8	84.7	103.6	76.0
29-Jul	89.0	74.5	79.2	63.9	56.0	126.7	81.7	98.2	72.1
5-Aug	91.0	77.4	79.1	63.6	56.0	134.4	83.3	98.4	72.6
12-Aug	90.0	74.8	78.5	63.3	54.0	130.9	82.7	98.1	72.9
19-Aug	91.0	78.6	77.9	62.8	53.0	135.8	82.5	99.8	71.9
26-Aug	89.0	75.2	77.6	62.8	54.0	130.2	84.6	98.0	72.6
2-Sep	92.0	75.7	76.7	61.5	51.0	130.9	83.4	96.2	69.2
9-Sep	89.0	74.3	75.1	58.7	47.0	134.8	77.7	87.9	62.9
16-Sep	85.0	70.9	71.3	56.3	46.0	114.1	76.9	79.7	56.0
23-Sep	81.0	67.3	67.0	51.8	39.0	109.9	76.5	71.4	48.1
30-Sep	81.0	66.3	66.7	50.0	39.0	109.9	75.1	65.5	45.0
7-Oct	78.0	64.6	62.7	46.2	35.0	88.9	70.7	57.3	36.7
14-Oct	76.0	61.6	59.6	43.8	33.0	84.7	65.7	52.3	34.3
21-Oct	74.0	61.8	57.2	42.1	31.0	86.1	66.5	49.7	31.8
28-Oct	72.0	60.4	56.7	40.6	28.0	86.1	65.5	46.9	30.9
4-Nov	68.0	60.1	52.3	38.7	22.0	78.4	61.8	45.2	28.9
11-Nov	62.0	57.5	46.6	33.2	19.0	72.1	62.1	36.3	22.0
18-Nov	64.0	55.8	45.3	31.3	16.0	68.6	58.2	34.5	20.5
25-Nov	59.0	55.3	42.3	29.5	15.0	66.5	57.3	32.0	18.6
2-Dec	58.0	55.3	38.1	25.6	5.0	64.4	56.3	29.2	16.3
9-Dec	53.0	49.3	34.7	22.3	3.0	53.2	51.4	24.7	14.0
16-Dec	54.0	50.7	33.3	21.2	0.0	49.7	49.3	23.5	14.0
23-Dec	48.0	43.7	30.2	18.4	-11.0	42.7	44.4	21.1	12.6
31-Dec	49.0	46.0	29.4	16.9	-7.0	49.0	48.4	20.7	11.7



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1364
FEB	0	1135
MAR	2	938
APR	11	613
MAY	50	335
JUN	139	107
JUL	239	24
AUG	198	31
SEP	78	156
OCT	12	457
NOV	0	812
DEC	0	1201
ANN	729	7173

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 Load	Average Latent Heating Load
	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)
JAN	0	-37772	0	-8879
FEB	0	-31619	0	-7315
MAR	2	-26699	0	-5230
APR	50	-18113	11	-2403
MAY	266	-10657	419	-566
JUN	919	-4039	1905	-26
JUL	1686	-1290	5366	0
AUG	1141	-1566	5366	-4
SEP	332	-5620	1820	-87
OCT	26	-14114	69	-1058
NOV	0	-23385	1	-3951
DEC	0	-33547	0	-7238
ANN	4422	-208421	14957	-36757

Average Annual Solar Radiation – Nearest Available Site

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

City: MILWAUKEE
 State: WI
 WBAN No: 14839
 Lat(N): 42.95
 Long(W): 87.9
 Elev(ft): 692

Stn Type: Secondary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS
 Window: 1
 Overhang: 0.619
 Vert Gap: 0.33

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	570	820	1120	1470	1830	2020	1990	1710	1310	900	550	450	1230
	Std Dev	50	65	59	100	153	130	105	124	105	69	50	45	42
	Minimum	440	680	1010	1230	1540	1760	1790	1490	1100	770	450	370	1160
	Maximum	650	940	1230	1640	2150	2340	2150	1930	1510	1040	680	540	1320
	Diffuse	310	440	590	710	800	840	800	720	580	430	320	270	570
Clear Day	Global	780	1130	1630	2130	2490	2620	2520	2210	1750	1230	820	660	1670
NORTH	Global	190	260	350	430	550	630	590	480	370	270	190	160	370
	Diffuse	190	260	350	430	500	540	520	450	360	270	190	160	350
Clear Day	Global	170	230	320	420	580	680	620	480	350	250	170	150	370
EAST	Global	390	540	700	870	1040	1120	1120	1000	800	600	370	300	740
	Diffuse	230	320	420	520	600	640	620	560	450	330	230	190	430
Clear Day	Global	620	830	1100	1330	1460	1490	1450	1340	1130	870	630	540	1070
SOUTH	Global	950	1060	1040	970	910	870	910	1010	1090	1060	810	760	950
	Diffuse	340	430	500	540	580	590	590	570	510	420	320	290	470
Clear Day	Global	1810	1930	1850	1510	1200	1050	1090	1340	1660	1830	1760	1700	1560
WEST	Global	390	540	690	860	1030	1130	1130	1020	810	580	360	310	740
	Diffuse	230	320	430	520	610	650	630	570	460	330	230	190	430
Clear Day	Global	620	830	1100	1330	1460	1490	1450	1340	1130	870	630	540	1070

Average Annual Solar Heat and Illumination – Nearest Available Site

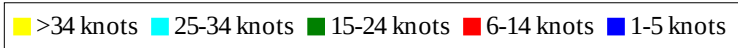
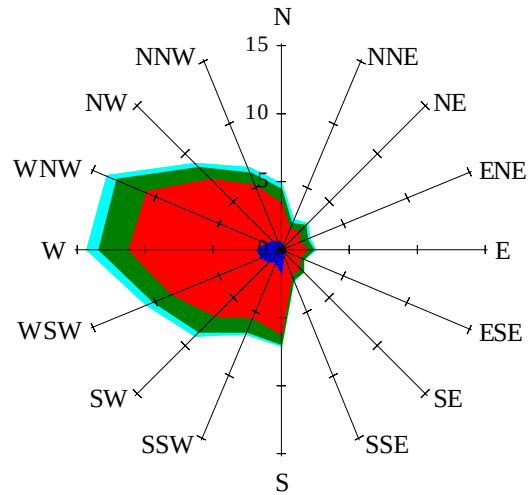
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	360	550	790	1050	1320	1470	1450	1240	930	620	360	280	870
NORTH	Unshaded	130	180	240	300	360	410	390	320	250	190	130	110	250
	Shaded	110	150	200	250	310	350	340	280	220	160	110	91	220
EAST	Unshaded	270	370	500	620	740	800	800	710	570	420	250	210	520
	Shaded	230	320	420	510	610	650	650	590	480	360	220	180	440
SOUTH	Unshaded	720	780	730	640	580	530	560	650	750	770	610	580	660
	Shaded	690	710	560	400	350	360	350	380	510	660	580	560	510
WEST	Unshaded	270	370	490	610	730	800	810	720	580	410	250	210	520
	Shaded	230	320	410	510	600	660	660	600	480	350	220	180	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	40	69	75	57	20	52	85	100	92	65
	M.Cloudy	24	43	47	35	13	33	57	70	66	46
NORTH	M.Clear	10	14	14	12	7	15	16	17	17	14
	M.Cloudy	10	15	17	13	6	13	18	19	19	15
EAST	M.Clear	72	51	14	12	7	80	69	26	17	14
	M.Cloudy	26	28	17	13	6	38	42	24	19	15
SOUTH	M.Clear	44	77	84	64	22	13	38	53	46	21
	M.Cloudy	19	36	41	29	9	12	28	38	35	18
WEST	M.Clear	10	14	27	67	55	13	16	17	56	80
	M.Cloudy	10	15	21	30	18	12	18	19	40	48
M.Clear	(% hrs)	28	26	26	25	26	41	41	36	35	35
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	30	65	80	71	41	13	36	39	21	0
	M.Cloudy	18	40	51	46	25	8	21	23	13	0
NORTH	M.Clear	9	14	16	15	11	5	9	10	7	0
	M.Cloudy	8	14	17	16	10	4	9	10	6	0
EAST	M.Clear	65	65	23	15	11	36	33	10	7	0
	M.Cloudy	22	32	20	16	10	8	14	10	6	0
SOUTH	M.Clear	25	61	78	67	35	36	78	84	52	0
	M.Cloudy	12	31	42	37	18	8	23	26	14	0
WEST	M.Clear	9	14	16	55	70	5	9	23	43	0
	M.Cloudy	8	14	17	32	30	4	9	13	13	0
M.Clear	(% hrs)	41	40	38	39	39	25	26	27	27	28

Wind Summary - December, January, and February

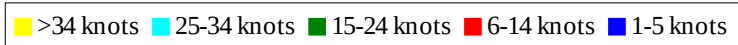
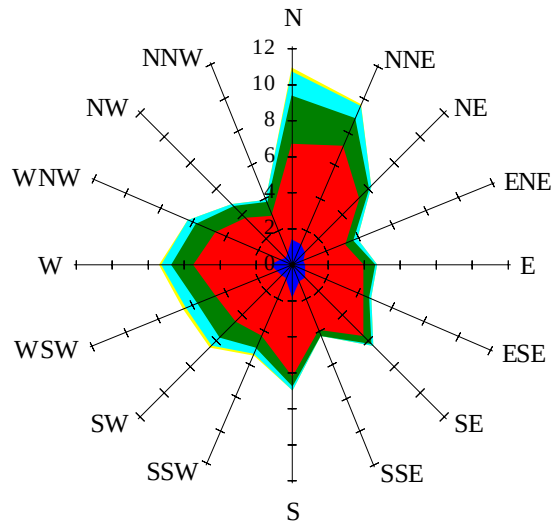
Labels of Percent Frequency on North Axis



Percent Calm = 2.25

Wind Summary - March, April, and May

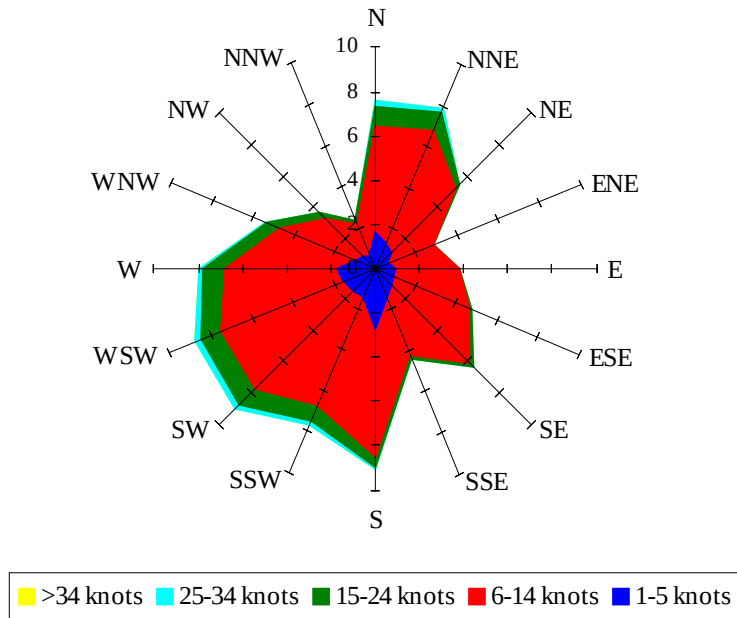
Labels of Percent Frequency on North Axis



Percent Calm = 3.16

Wind Summary - June, July, and August

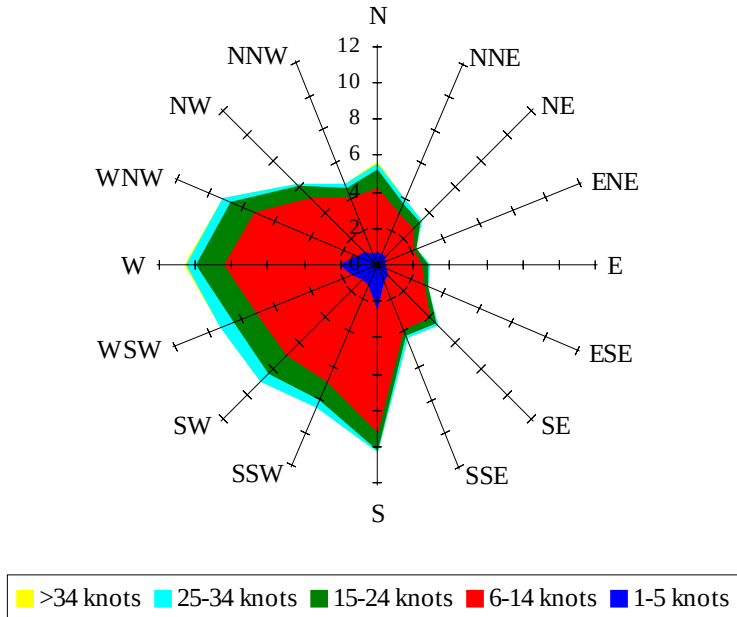
Labels of Percent Frequency on North Axis



Percent Calm = 3.54

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 3.04