

FLINT/BISHOP MI

Latitude = 42.97 N

Longitude = 83.75 W

Period of Record = 1973 to 1992

WMO No. 726370

Elevation = 764 feet

Average Pressure = 29.15 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	92	74	104	13.4	WSW
0.4% Occurrence	89	73	103	12.6	SW
1.0% Occurrence	86	72	97	11.4	SW
2.0% Occurrence	84	70	92	10.8	WSW
Mean Daily Range	17	-	-	-	-
97.5% Occurrence	9	8	6	10.2	W
99.0% Occurrence	3	2	5	9.3	W
99.6% Occurrence	-2	-3	4	9.2	SW
Median of Extreme Lows	-11	-11	2	9.2	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	79	89	135	12.1	SW
0.4% Occurrence	76	84	123	10.9	SW
1.0% Occurrence	74	82	115	10.6	SW
2.0% Occurrence	72	79	108	9.9	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	140	86	0.90	11.2	SSW
0.4% Occurrence	127	81	0.82	10.3	SW
1.0% Occurrence	118	79	0.77	9.6	SW
2.0% Occurrence	113	77	0.74	9.1	S
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		9	401	172	789

Other Site Data

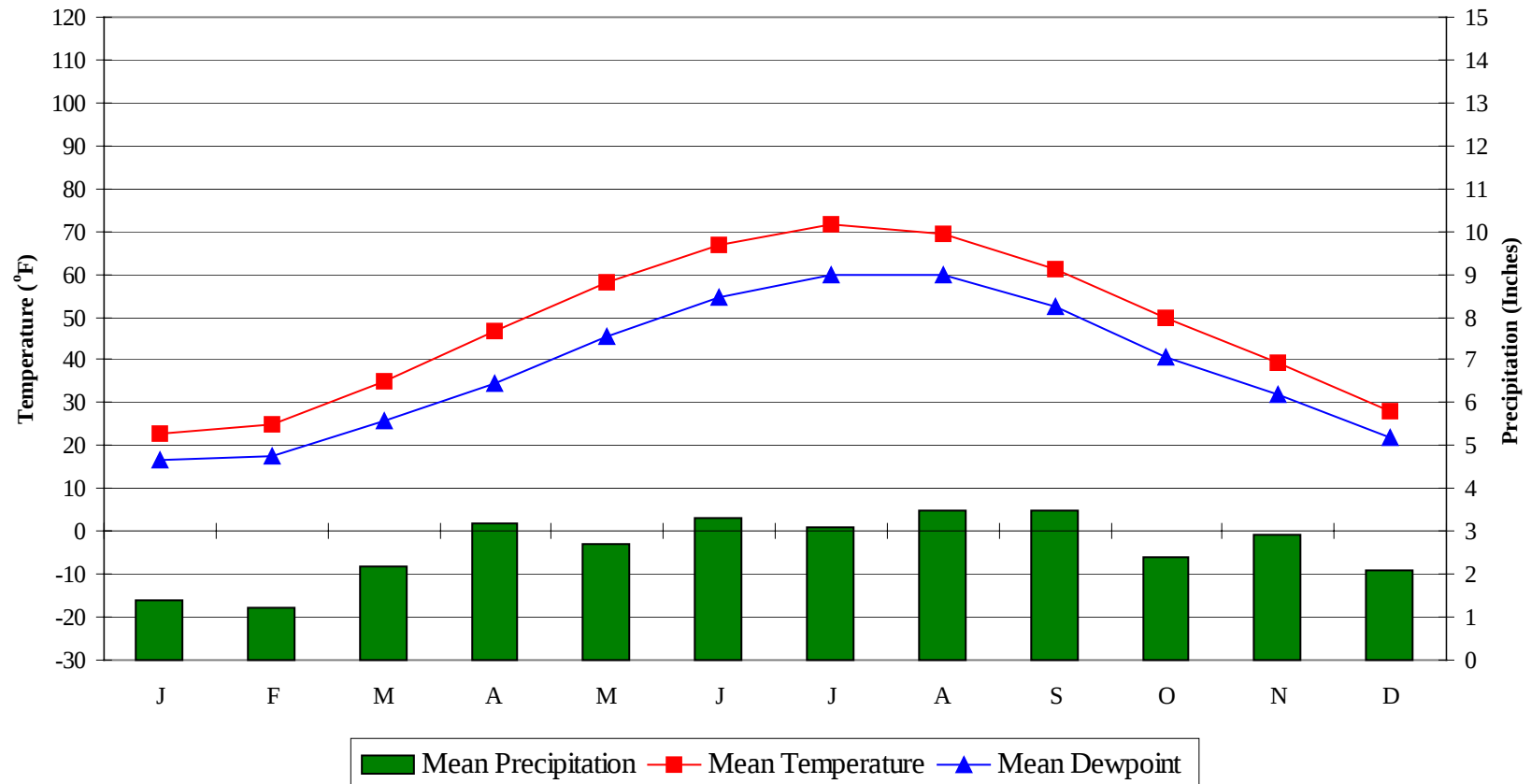
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
5	2.8	90	1.1 + 0.4
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
50.4	N/A	24	61

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

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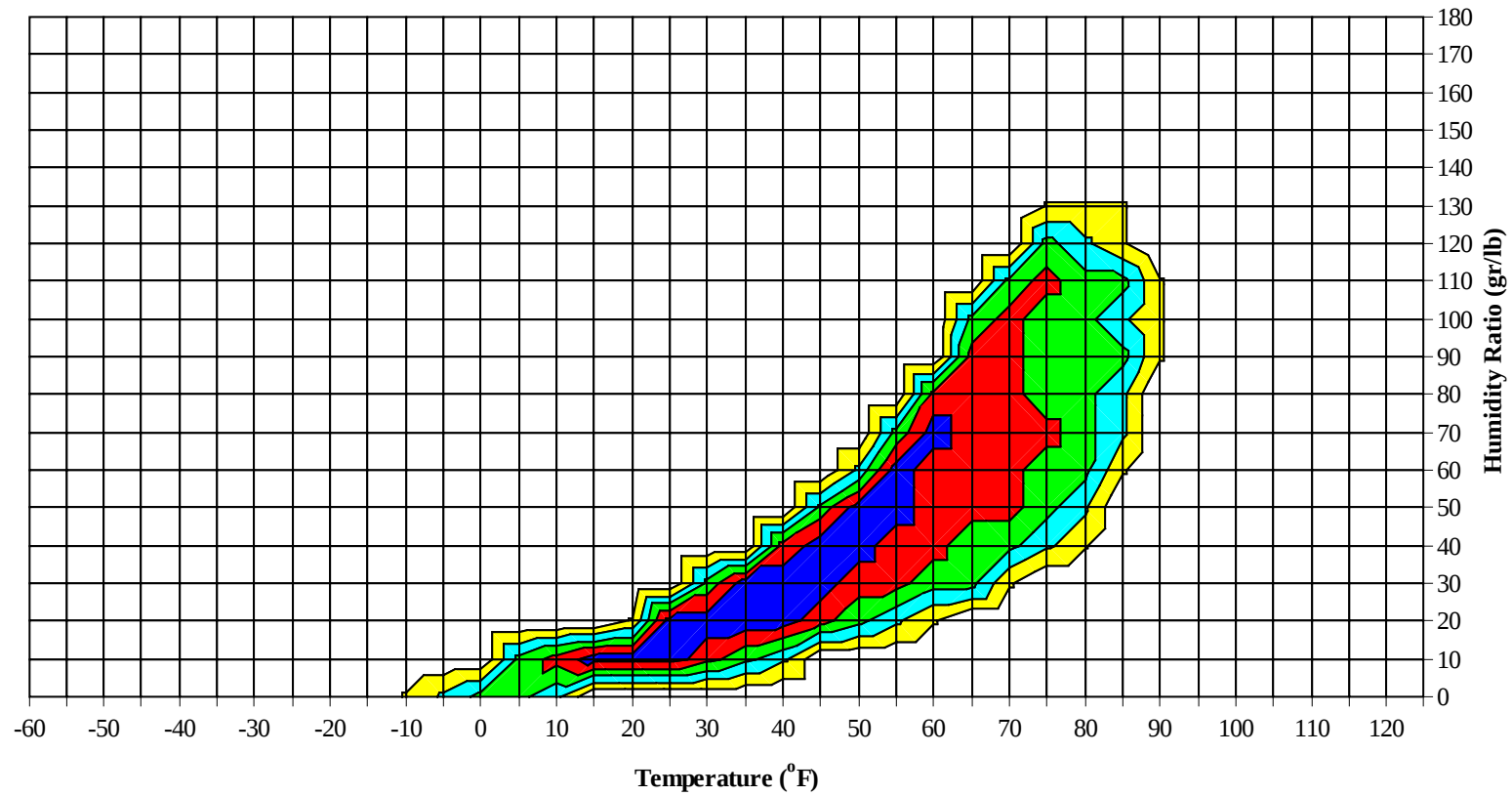
Average Annual Climate



FLINT/BISHOP MI

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Long Term Psychrometric Summary

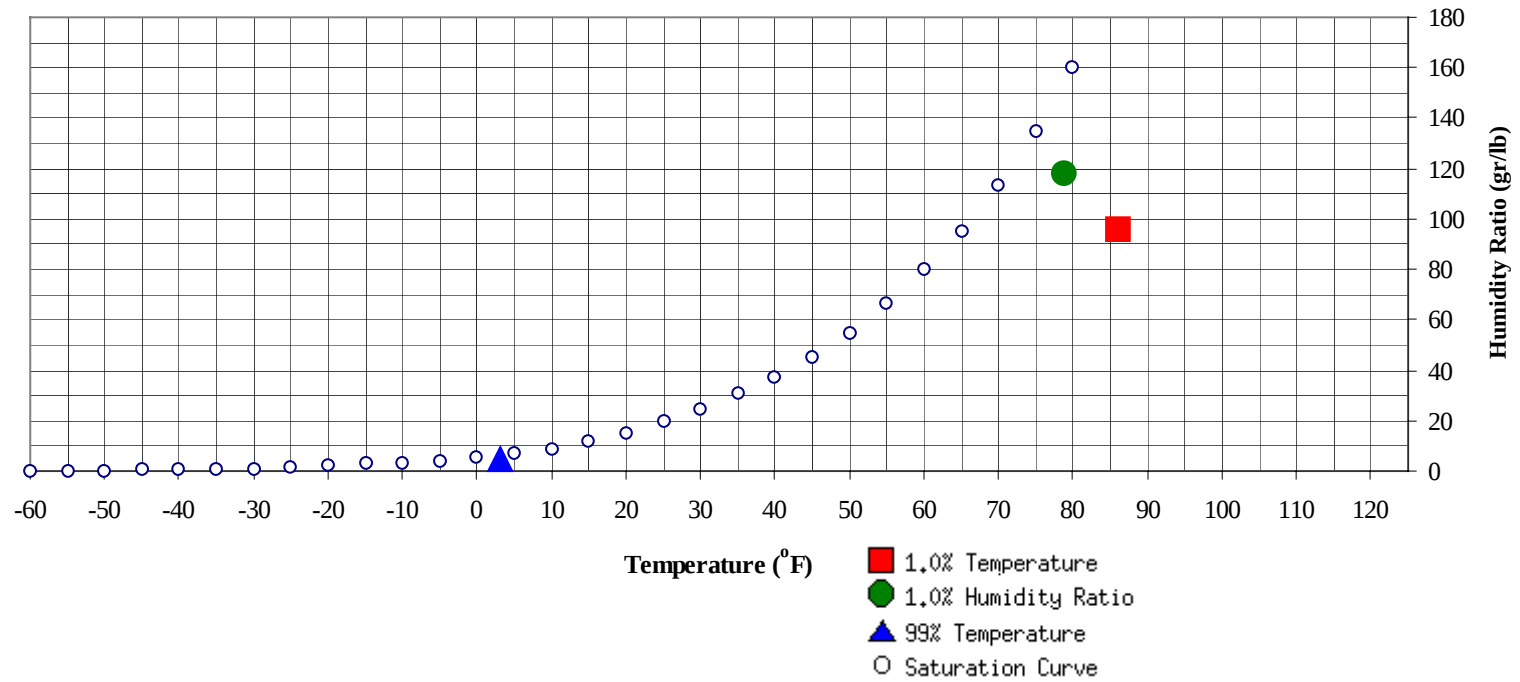


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

FLINT/BISHOP MI

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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	3	4.7	1.4		118.3	78.7	73.2	71.1	37.4

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	86	96.1	71.5	35.7

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

Period of Record = 1973 to 1992

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															
75 / 79												1	0	1	62.4
70 / 74												3	1	4	57.8
65 / 69											0	5	3	8	56.0
60 / 64							0	0	0	47.5	2	6	4	12	53.7
55 / 59	0	0	0	0	49.9		1	0	1	47.0	4	12	8	24	50.0
50 / 54	1	2	2	5	47.3	0	4	2	6	45.2	10	18	14	42	45.9
45 / 49	3	4	2	9	43.2	2	6	3	11	42.7	9	23	20	52	42.1
40 / 44	5	10	7	22	38.2	7	18	11	36	37.9	20	36	32	88	38.0
35 / 39	19	29	26	74	34.0	21	34	35	91	34.2	39	48	48	135	33.7
30 / 34	43	46	44	133	29.8	41	38	41	120	29.9	53	46	51	150	29.2
25 / 29	36	40	43	119	25.1	26	33	31	91	24.5	42	26	32	100	24.6
20 / 24	30	37	33	100	20.4	33	31	35	99	20.1	28	14	19	61	20.2
15 / 19	37	36	37	110	15.7	27	28	28	84	15.6	20	7	11	38	15.6
10 / 14	29	22	26	77	10.9	25	16	20	61	10.8	11	3	5	19	10.7
5 / 9	19	12	15	46	6.3	17	9	10	36	6.0	5	1	1	7	6.2
0 / 4	12	5	8	25	1.3	14	3	5	22	1.4	3	0	1	4	1.6
-5 / -1	8	3	3	14	-3.0	5	1	2	8	-2.9	1	0	0	1	-3.0
-10 / -6	3	1	1	5	-6.9	3	1	1	5	-7.3	0			0	-6.0
-15 / -11	1	0	1	2	-11.5	1	0		1	-12.1	0			0	-10.5
-20 / -16	1	0		1	-16.0	0			0	-16.2					
-25 / -21	0			0	-20.0										

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 1992

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												0		0	76.0
95 / 99												1	0	1	74.0
90 / 94							0	0	0	68.3		3	1	4	70.3
85 / 89		0	0	0	65.7		6	2	8	70.1		15	6	21	70.1
80 / 84		4	1	5	63.9		18	7	25	67.1	0	35	16	51	67.9
75 / 79		6	3	9	62.2	1	23	12	36	64.3	5	50	31	86	65.2
70 / 74	0	12	6	18	59.3	6	36	26	68	61.0	23	54	51	128	62.8
65 / 69	4	17	12	33	56.6	21	36	34	91	58.2	47	42	53	142	60.8
60 / 64	12	21	16	49	53.3	30	40	40	110	54.6	49	23	36	108	57.0
55 / 59	14	28	25	67	48.9	38	39	42	119	51.1	52	12	27	91	53.2
50 / 54	19	37	32	88	45.5	43	24	35	103	47.0	38	4	13	55	48.7
45 / 49	29	35	39	104	42.0	40	15	27	82	43.1	18	1	4	23	44.8
40 / 44	39	35	43	118	38.2	40	8	18	66	39.2	7		1	8	40.7
35 / 39	49	25	34	109	33.8	22	1	5	28	34.9	1		0	1	36.0
30 / 34	43	15	19	78	29.7	8		0	8	30.6					
25 / 29	20	3	8	31	24.9	1			1	25.6					
20 / 24	7	1	1	9	20.6										
15 / 19	2	0	0	2	15.8										
10 / 14	0			0	10.0										
5 / 9	0			0	5.8										
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															

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FLINT/BISHOP MI

WMO No. 726370

Dry-Bulb Temperature Hours For An Average Year (Sheet 3 of 5)

Period of Record = 1973 to 1992

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	69.0										
95 / 99		2	1	3	72.1		0	0	0	79.5					
90 / 94		9	3	12	75.0		4	1	5	76.6		2	0	2	73.2
85 / 89	0	30	14	44	72.7		19	7	26	73.1		5	1	6	71.5
80 / 84	2	60	34	96	69.4	1	45	22	68	69.7	0	17	5	22	69.5
75 / 79	15	64	49	128	67.1	8	66	43	117	67.6	1	31	14	46	67.3
70 / 74	45	50	60	155	65.3	33	62	61	156	65.5	13	44	33	90	64.5
65 / 69	65	23	52	139	62.4	62	35	56	153	62.7	31	47	43	121	61.5
60 / 64	60	9	27	96	58.6	59	13	36	108	59.0	37	41	41	119	57.3
55 / 59	41	1	9	51	54.7	49	3	18	70	54.9	46	32	47	125	53.1
50 / 54	15		1	16	50.2	26	0	5	31	50.5	46	16	33	95	48.9
45 / 49	4		0	4	45.6	8		0	8	46.1	30	5	16	51	44.7
40 / 44	0			0	40.5	2		0	2	41.5	25	0	7	32	40.6
35 / 39						0			0	38.2	9		1	10	36.0
30 / 34											2			2	31.6
25 / 29											0			0	27.0
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															

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FLINT/BISHOP MI

WMO No. 726370

Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)

Period of Record = 1973 to 1992

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															
80 / 84		1	0	1	65.2										
75 / 79		5	1	6	64.2		0		0	60.0					
70 / 74	1	14	5	20	61.6		2	0	2	59.8					
65 / 69	4	25	13	42	58.4	1	5	2	8	58.1	0	0	0	0	62.1
60 / 64	15	32	26	73	55.5	4	11	7	22	56.1	1	2	1	4	58.3
55 / 59	26	43	33	102	51.3	13	17	13	43	52.7	1	2	3	6	53.4
50 / 54	34	49	46	129	47.3	16	22	18	56	47.7	4	3	3	10	49.0
45 / 49	41	40	46	127	43.3	16	27	22	65	43.1	4	6	4	14	43.8
40 / 44	46	24	40	110	39.0	32	47	40	118	38.5	8	16	10	34	39.0
35 / 39	47	12	27	86	34.8	47	51	55	153	34.2	28	43	32	104	34.1
30 / 34	25	2	8	35	30.8	54	42	52	148	29.8	64	66	69	199	30.2
25 / 29	8		2	10	26.0	37	12	22	71	25.3	44	38	46	129	25.1
20 / 24	2		0	2	21.7	13	3	6	22	20.8	32	30	29	91	20.4
15 / 19						5	1	2	8	15.8	23	21	22	66	15.8
10 / 14						3	0	1	4	11.9	15	11	15	41	11.1
5 / 9						0	0		0	6.5	11	5	8	24	6.1
0 / 4							0		0	3.0	8	3	3	14	1.5
-5 / -1											3	1	1	5	-2.9
-10 / -6											1	0	1	2	-7.0
-15 / -11											0		0	0	-10.8
-20 / -16															
-25 / -21															

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FLINT/BISHOP MI

WMO No. 726370

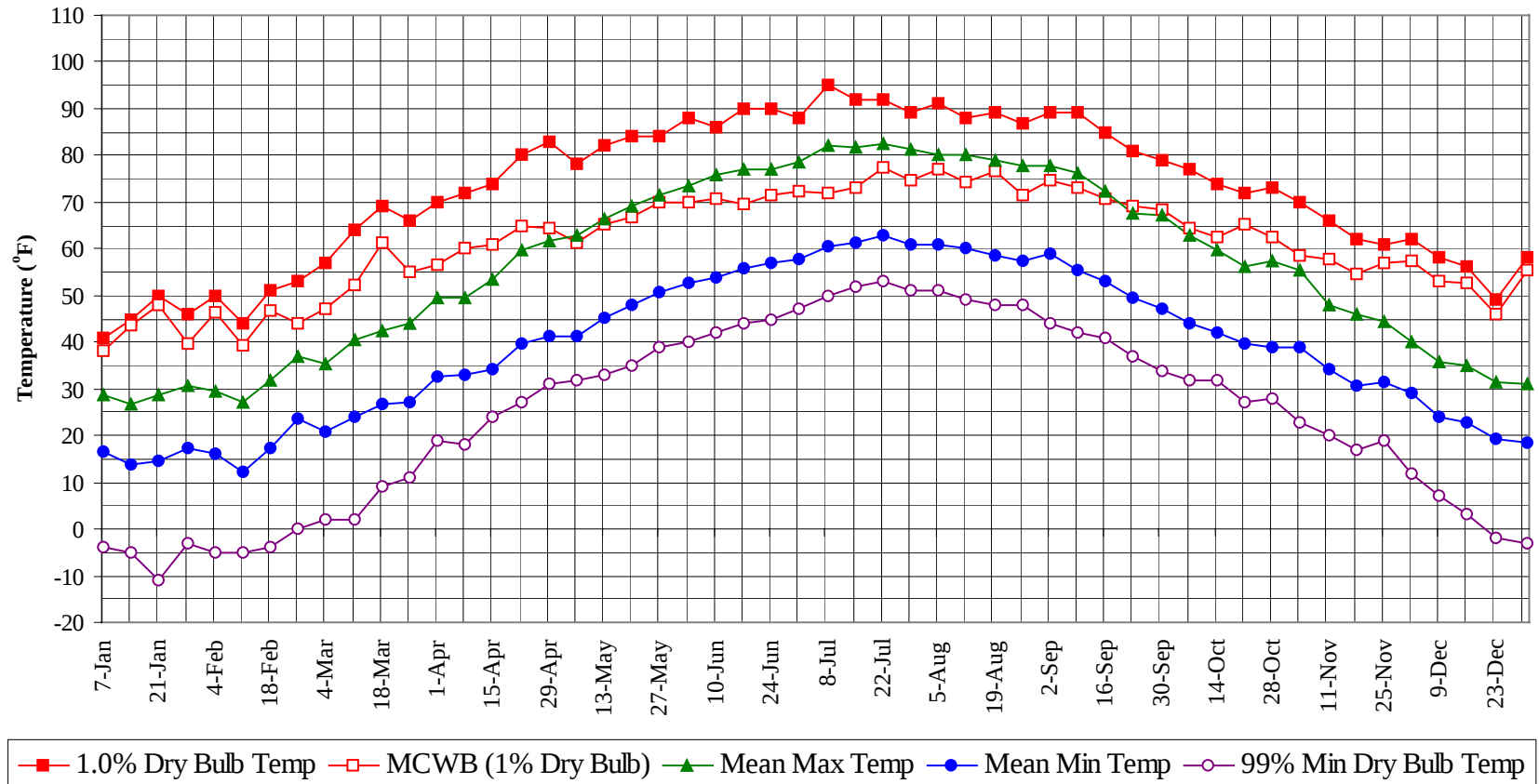
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1973 to 1992

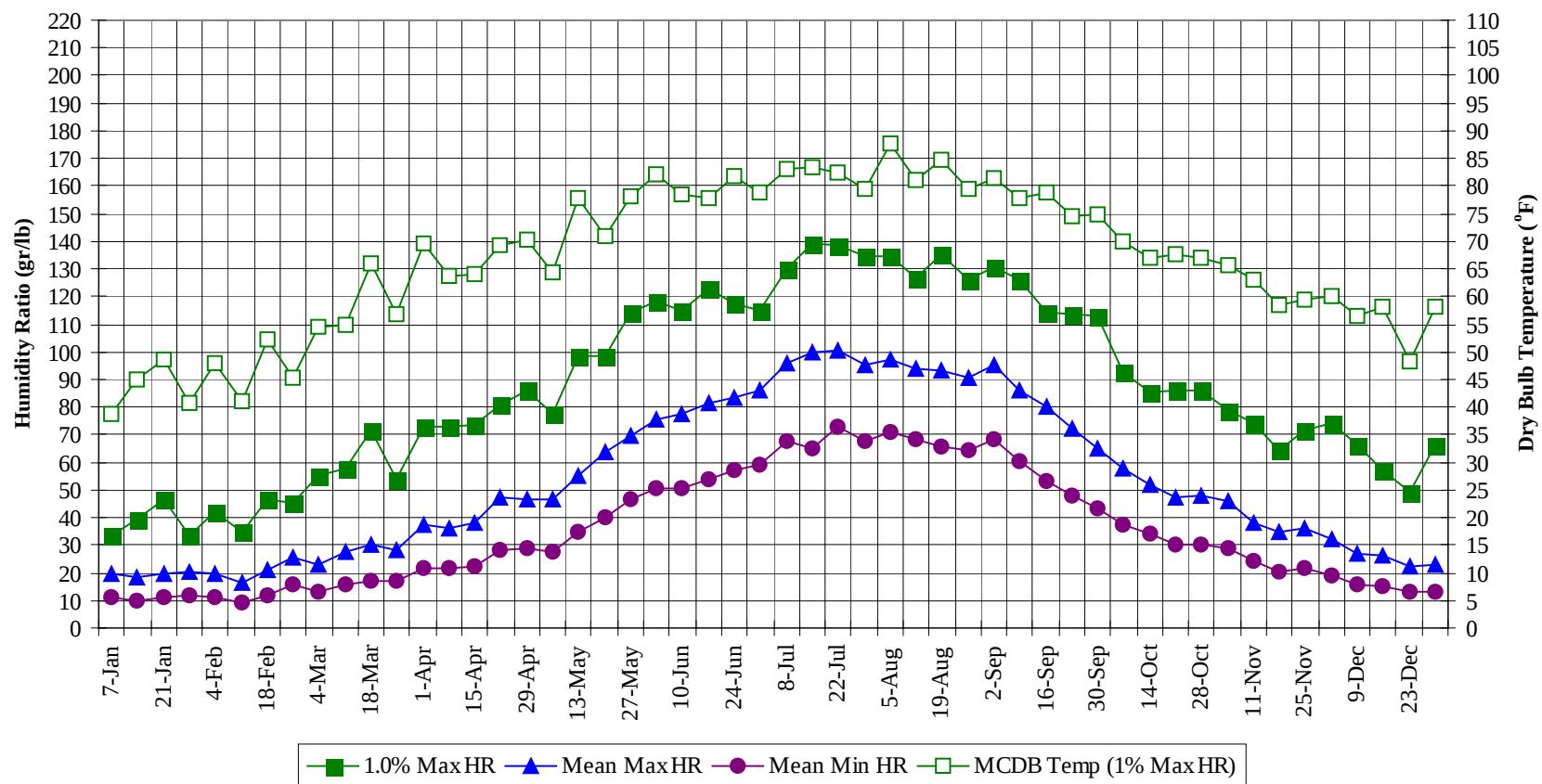
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
100 / 104		0		0	70.4
95 / 99		3	1	4	73.4
90 / 94		18	6	24	74.2
85 / 89	0	77	31	108	72.0
80 / 84	3	181	85	269	68.9
75 / 79	31	245	153	429	66.5
70 / 74	120	277	242	639	64.0
65 / 69	232	237	267	737	60.9
60 / 64	268	197	235	700	56.7
55 / 59	284	191	227	702	52.3
50 / 54	251	179	203	633	47.5
45 / 49	205	163	185	553	43.1
40 / 44	231	194	210	635	38.6
35 / 39	284	243	263	791	34.2
30 / 34	333	254	283	871	29.9
25 / 29	213	152	183	548	24.9
20 / 24	145	116	123	384	20.3
15 / 19	113	93	100	306	15.7
10 / 14	83	53	66	202	10.9
5 / 9	52	27	34	113	6.2
0 / 4	38	11	16	65	1.4
-5 / -1	18	4	6	28	-3.0
-10 / -6	8	2	3	13	-7.0
-15 / -11	3	1	1	5	-11.6
-20 / -16	1	0		1	-16.1
-25 / -21	0			0	-20.0

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Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary



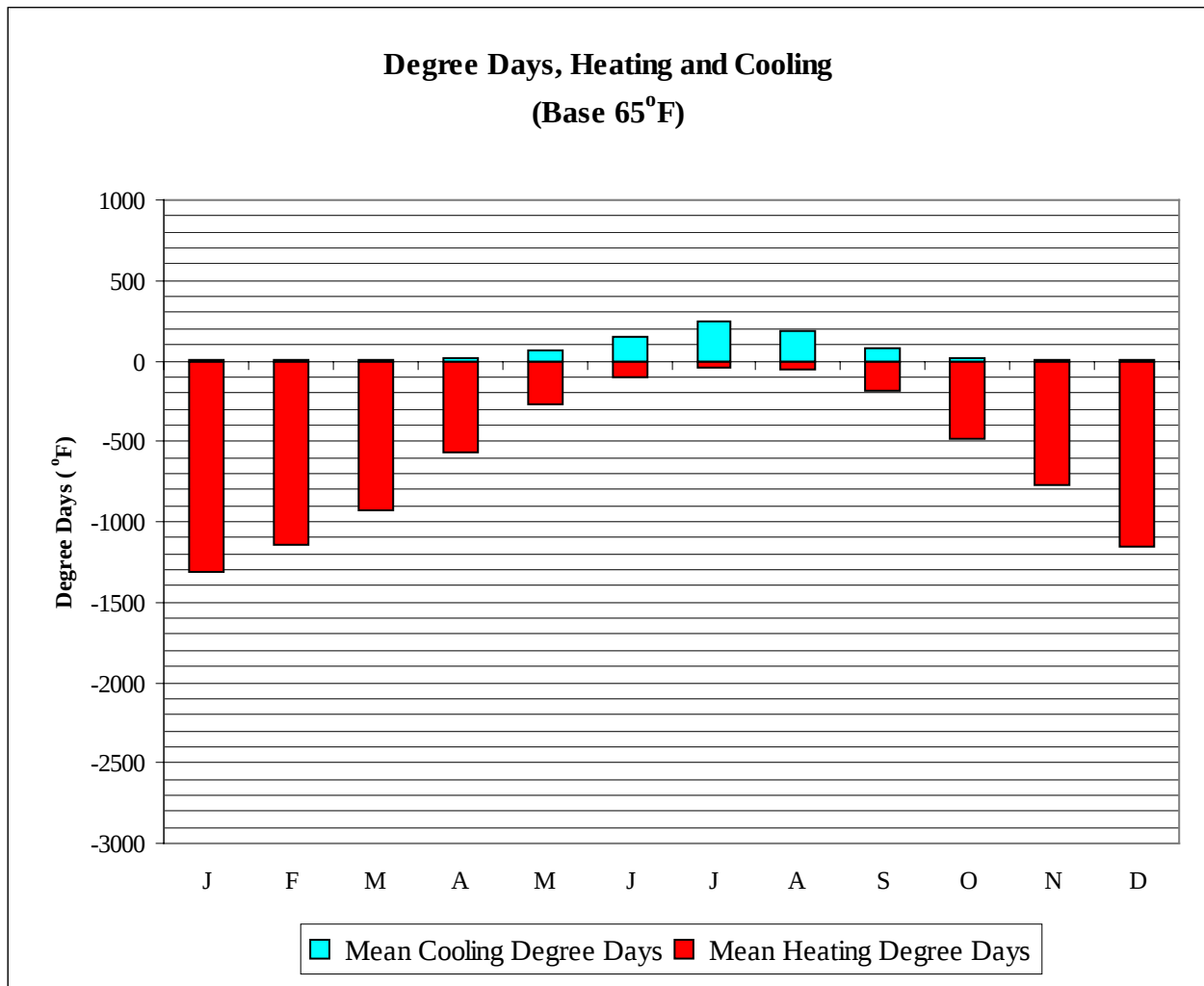
FLINT/BISHOP MI**WMO No. 726370****Long Term Dry Bulb Temperature and Humidity Summary**

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	38.2	28.9	16.4	-4.0	33.6	38.7	19.5	11.2
14-Jan	45.0	43.8	26.9	13.8	-5.0	39.2	45.0	18.3	9.8
21-Jan	50.0	48.1	28.9	14.6	-11.0	46.9	48.6	19.8	11.1
28-Jan	46.0	39.6	30.5	17.4	-3.0	33.6	40.9	20.4	11.7
4-Feb	50.0	46.3	29.4	16.2	-5.0	42.0	48.0	19.5	11.2
11-Feb	44.0	39.4	27.1	12.0	-5.0	35.0	41.1	16.6	9.1
18-Feb	51.0	46.9	31.7	17.2	-4.0	46.9	52.1	21.0	12.1
25-Feb	53.0	44.0	37.1	23.4	0.0	45.5	45.3	25.5	15.6
4-Mar	57.0	47.3	35.5	21.0	2.0	55.3	54.4	23.0	13.4
11-Mar	64.0	52.3	40.5	23.9	2.0	58.1	54.9	27.8	15.9
18-Mar	69.0	61.2	42.4	26.7	9.0	71.4	66.1	29.9	17.3
25-Mar	66.0	55.0	44.1	27.1	11.0	53.9	56.7	28.1	17.0
1-Apr	70.0	56.7	49.4	32.7	19.0	72.8	69.7	37.3	21.7
8-Apr	72.0	60.0	49.5	33.0	18.0	72.8	63.7	36.1	21.9
15-Apr	74.0	61.0	53.3	34.4	24.0	73.5	64.0	38.4	22.3
22-Apr	80.0	64.9	59.5	39.6	27.0	80.5	69.2	47.3	28.5
29-Apr	83.0	64.6	61.6	41.3	31.0	86.1	70.4	46.3	28.8
6-May	78.0	61.3	62.7	41.3	32.0	77.7	64.4	46.5	27.6
13-May	82.0	65.3	66.6	45.2	33.0	98.7	77.7	54.9	34.9
20-May	84.0	66.6	69.3	48.0	35.0	98.7	70.8	63.6	40.1
27-May	84.0	69.9	71.4	50.8	39.0	114.1	78.1	69.8	46.9
3-Jun	88.0	70.1	73.7	52.7	40.0	118.3	81.9	75.7	50.3
10-Jun	86.0	70.9	75.8	53.9	42.0	114.8	78.4	77.2	50.7
17-Jun	90.0	69.6	76.9	55.9	44.0	122.5	77.9	81.3	53.7
24-Jun	90.0	71.5	77.0	57.0	45.0	117.6	81.9	83.2	57.1
1-Jul	88.0	72.2	78.6	57.6	47.0	114.8	78.7	86.2	58.9
8-Jul	95.0	72.0	82.2	60.5	50.0	130.2	83.0	95.8	67.3
15-Jul	92.0	72.9	81.8	61.2	52.0	139.3	83.4	100.0	65.2
22-Jul	92.0	77.5	82.6	62.8	53.0	138.6	82.3	100.3	72.7
29-Jul	89.0	74.5	81.2	60.8	51.0	134.4	79.6	95.5	67.7
5-Aug	91.0	77.2	80.3	60.8	51.0	134.4	87.5	97.2	71.0
12-Aug	88.0	74.2	80.0	60.0	49.0	126.7	81.1	93.9	68.3
19-Aug	89.0	76.5	79.1	58.7	48.0	135.1	84.6	93.1	66.0
26-Aug	87.0	71.4	77.8	57.5	48.0	126.0	79.3	90.4	64.3
2-Sep	89.0	74.5	77.8	59.0	44.0	130.9	81.4	95.5	68.0
9-Sep	89.0	73.0	76.2	55.5	42.0	126.0	77.7	85.9	60.1
16-Sep	85.0	70.6	72.2	53.0	41.0	114.1	78.8	80.2	53.2
23-Sep	81.0	69.0	67.7	49.4	37.0	113.4	74.5	72.3	47.7
30-Sep	79.0	68.5	67.1	47.1	34.0	112.7	75.0	64.9	43.4
7-Oct	77.0	64.3	62.8	43.9	32.0	92.4	70.0	57.5	37.4
14-Oct	74.0	62.7	59.8	42.2	32.0	85.4	67.1	52.0	34.1
21-Oct	72.0	65.1	56.4	39.5	27.0	86.1	67.8	47.1	30.3
28-Oct	73.0	62.4	57.2	39.0	28.0	86.1	66.9	47.7	30.3
4-Nov	70.0	58.4	55.3	38.8	23.0	79.1	65.6	46.3	29.1
11-Nov	66.0	57.8	48.1	34.0	20.0	74.2	63.0	38.3	24.2
18-Nov	62.0	54.5	45.9	30.6	17.0	64.4	58.5	34.6	20.5
25-Nov	61.0	56.9	44.5	31.3	19.0	71.4	59.6	36.2	21.9
2-Dec	62.0	57.4	40.2	29.1	12.0	74.2	60.1	32.1	19.3
9-Dec	58.0	52.9	36.0	24.1	7.0	66.5	56.5	27.0	15.9
16-Dec	56.0	52.8	34.9	22.8	3.0	57.4	58.0	26.0	15.4
23-Dec	49.0	46.0	31.6	19.2	-2.0	49.0	48.3	22.1	12.9
31-Dec	58.0	55.5	31.1	18.7	-3.0	66.5	58.3	22.9	13.4

FLINT/BISHOP

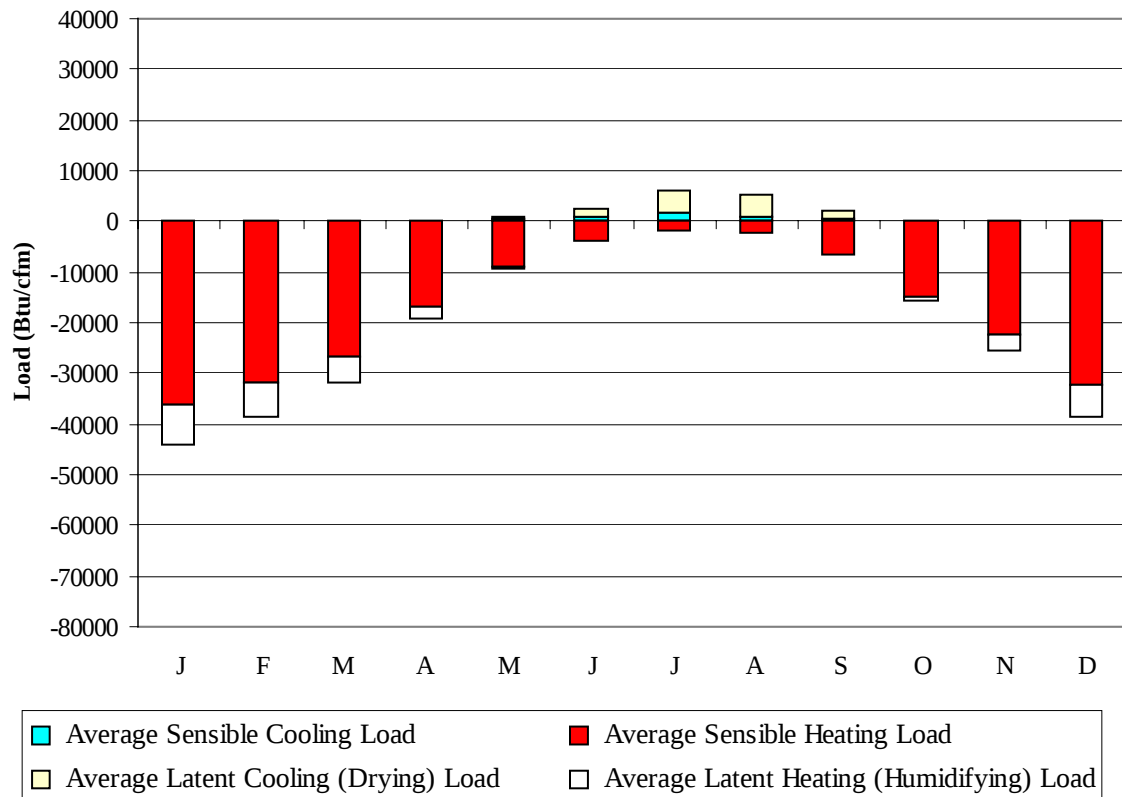
MI

WMO No. 726370



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1308
FEB	0	1139
MAR	2	933
APR	15	568
MAY	67	274
JUN	147	98
JUL	243	38
AUG	191	58
SEP	79	189
OCT	12	484
NOV	1	767
DEC	0	1152
ANN	757	7008

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	-36324	0	-7787
FEB	0	-31732	0	-6807
MAR	0	-26563	0	-5130
APR	57	-16882	15	-2408
MAY	334	-8914	605	-516
JUN	853	-3658	1667	-19
JUL	1753	-1678	4448	0
AUG	1108	-2379	4094	0
SEP	342	-6450	1723	-80
OCT	17	-14804	84	-952
NOV	0	-22196	2	-3148
DEC	0	-32268	0	-6349
ANN	4464	-203848	12638	-33196

Average Annual Solar Radiation – Nearest Available Site

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

City: FLINT
 State: MI
 WBAN No: 14826
 Lat(N): 42.97
 Long(W): 83.73
 Elev(ft): 764

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	510	780	1090	1440	1770	1930	1910	1650	1270	860	520	400	1180
	Std Dev	30	71	68	97	146	128	89	122	97	61	48	35	31
	Minimum	430	660	980	1120	1460	1660	1730	1440	1050	750	410	340	1120
	Maximum	580	950	1250	1620	2100	2190	2110	1980	1450	1030	640	490	1230
	Diffuse	330	460	600	730	840	890	850	750	610	450	340	290	590
Clear Day	Global	770	1130	1620	2140	2490	2620	2530	2220	1750	1230	820	660	1670
NORTH	Global	190	260	350	440	550	620	600	480	370	270	190	160	370
	Diffuse	190	260	350	430	500	540	530	460	370	270	190	160	350
Clear Day	Global	170	230	320	430	580	680	630	470	350	250	180	150	370
EAST	Global	330	500	680	870	1020	1090	1100	980	780	560	330	260	710
	Diffuse	230	320	420	520	600	640	630	560	450	330	220	190	430
Clear Day	Global	610	830	1090	1330	1440	1480	1450	1340	1130	870	630	540	1060
SOUTH	Global	750	950	990	950	890	840	880	980	1040	970	680	580	870
	Diffuse	340	430	500	540	590	600	600	570	510	420	310	280	470
Clear Day	Global	1800	1930	1840	1520	1200	1050	1100	1340	1660	1830	1760	1710	1560
WEST	Global	340	490	660	840	990	1070	1090	960	780	540	330	260	700
	Diffuse	230	320	420	520	610	650	640	570	460	330	230	190	430
Clear Day	Global	610	830	1090	1330	1440	1480	1450	1340	1130	870	630	540	1060

Average Annual Solar Heat and Illumination – Nearest Available Site

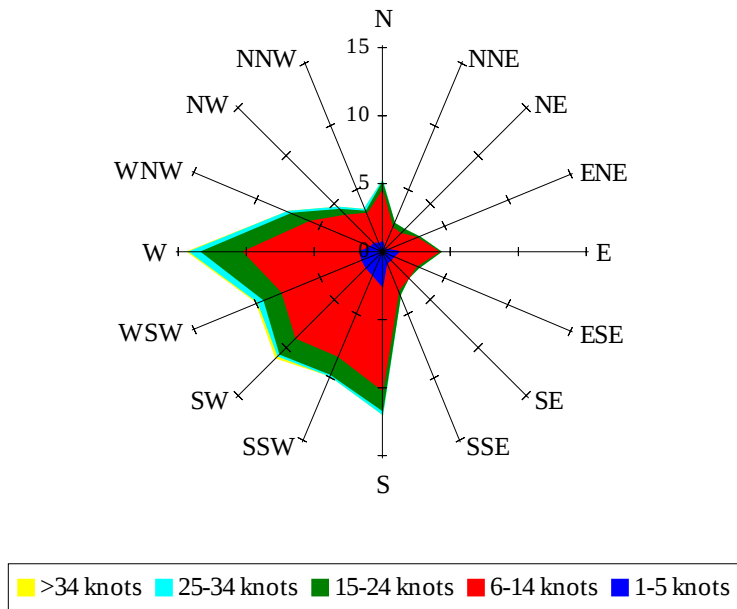
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	330	520	760	1030	1270	1400	1380	1190	900	590	340	260	830
NORTH	Unshaded	130	180	240	300	360	410	390	320	260	190	130	110	250
	Shaded	110	150	200	260	310	350	340	280	220	160	110	90	220
EAST	Unshaded	230	350	480	620	730	770	780	700	550	390	230	180	500
	Shaded	190	300	400	520	600	630	640	580	460	330	200	150	420
SOUTH	Unshaded	560	700	690	630	560	520	550	630	710	700	510	440	600
	Shaded	530	630	530	390	350	360	360	370	490	600	480	410	460
WEST	Unshaded	240	340	470	600	710	760	780	690	550	380	230	180	490
	Shaded	200	290	390	500	580	630	640	570	470	330	190	150	410

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	26	61	76	66	34	37	75	96	96	75
	M.Cloudy	15	36	46	40	21	23	48	67	67	52
NORTH	M.Clear	8	13	15	14	9	20	15	17	17	16
	M.Cloudy	7	14	17	15	9	12	16	19	19	17
EAST	M.Clear	63	63	21	14	9	69	78	44	17	16
	M.Cloudy	17	28	18	15	9	30	42	33	19	17
SOUTH	M.Clear	28	67	85	73	38	10	29	50	50	31
	M.Cloudy	10	30	38	33	16	9	22	36	37	24
WEST	M.Clear	8	13	15	55	68	10	15	17	39	74
	M.Cloudy	7	14	17	28	24	9	16	19	31	44
M.Clear	(% hrs)	28	25	24	23	23	39	38	30	28	31
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	16	54	77	77	53	4	29	40	29	4
	M.Cloudy	10	32	49	50	34	3	17	22	17	3
NORTH	M.Clear	6	13	15	15	13	2	8	10	8	2
	M.Cloudy	4	12	17	16	12	1	7	10	8	2
EAST	M.Clear	46	72	40	15	13	16	40	11	8	2
	M.Cloudy	13	31	27	16	12	3	13	10	8	2
SOUTH	M.Clear	11	49	74	74	48	12	66	83	64	12
	M.Cloudy	6	24	41	41	25	3	18	23	18	3
WEST	M.Clear	6	13	15	40	70	2	8	10	39	15
	M.Cloudy	4	12	17	27	33	1	7	10	13	4
M.Clear	(% hrs)	38	37	31	28	32	16	17	15	15	17

Wind Summary - December, January, and February

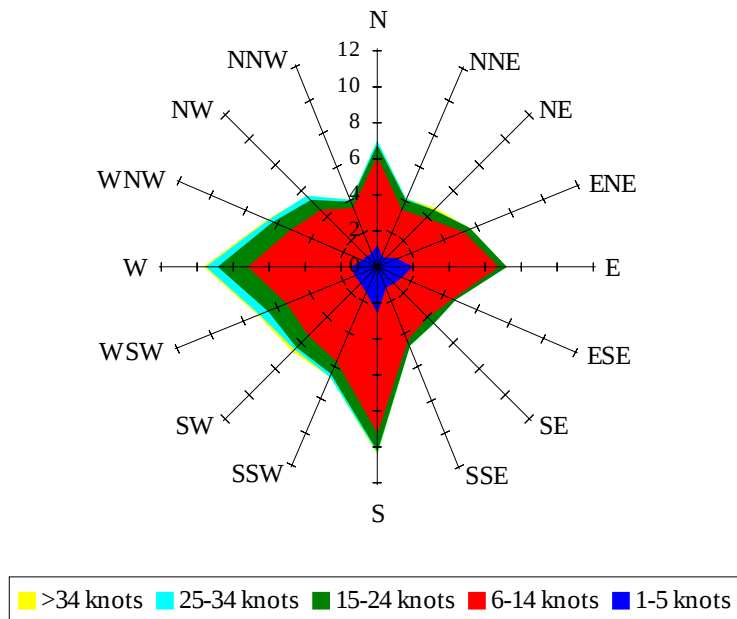
Labels of Percent Frequency on North Axis



Percent Calm = 2.43

Wind Summary - March, April, and May

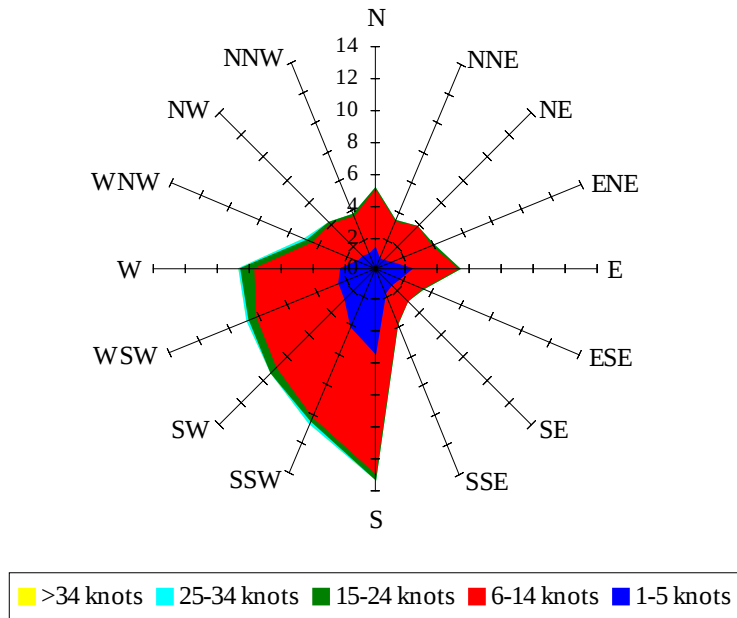
Labels of Percent Frequency on North Axis



Percent Calm = 2.76

Wind Summary - June, July, and August

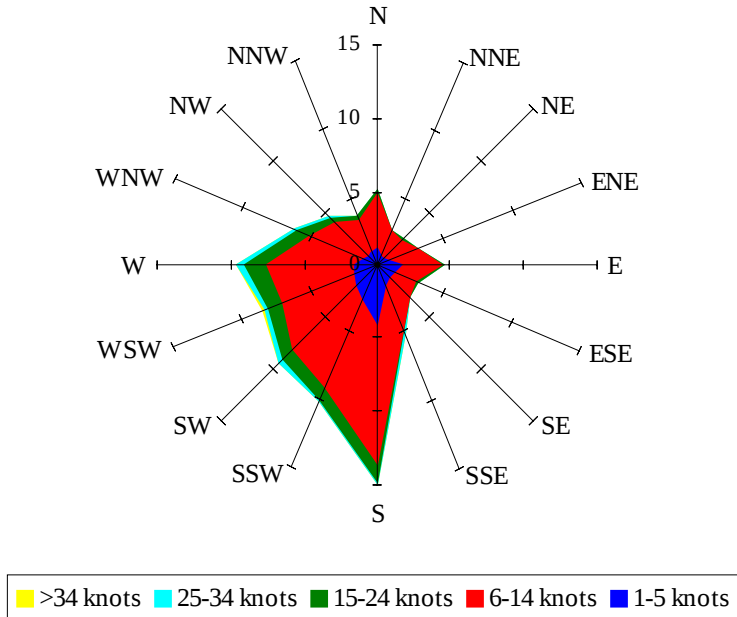
Labels of Percent Frequency on North Axis



Percent Calm = 5.68

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 4.48