

UTICA/ONEIDA NY

Latitude = 43.15 N

Longitude = 75.38 W

Period of Record = 1973 to 1996

WMO No. 725197

Elevation = 742 feet

Average Pressure = 29.18 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	103	9.7	W
0.4% Occurrence	87	72	97	8.7	W
1.0% Occurrence	85	71	94	8.5	W
2.0% Occurrence	82	69	89	8.6	W
Mean Daily Range	17	-	-	-	-
97.5% Occurrence	6	5	5	9.1	W
99.0% Occurrence	0	-1	4	8.0	W
99.6% Occurrence	-6	-7	3	7.1	W
Median of Extreme Lows	-14	-14	2	7.0	WNW
	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	86	138	7.4	W
0.4% Occurrence	75	84	118	8.1	W
1.0% Occurrence	73	81	111	8.0	W
2.0% Occurrence	71	78	104	7.6	W
	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	139	84	0.90	7.0	W
0.4% Occurrence	122	80	0.79	7.4	W
1.0% Occurrence	114	77	0.74	7.3	W
2.0% Occurrence	109	77	0.72	7.0	W
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		2	297	112	667

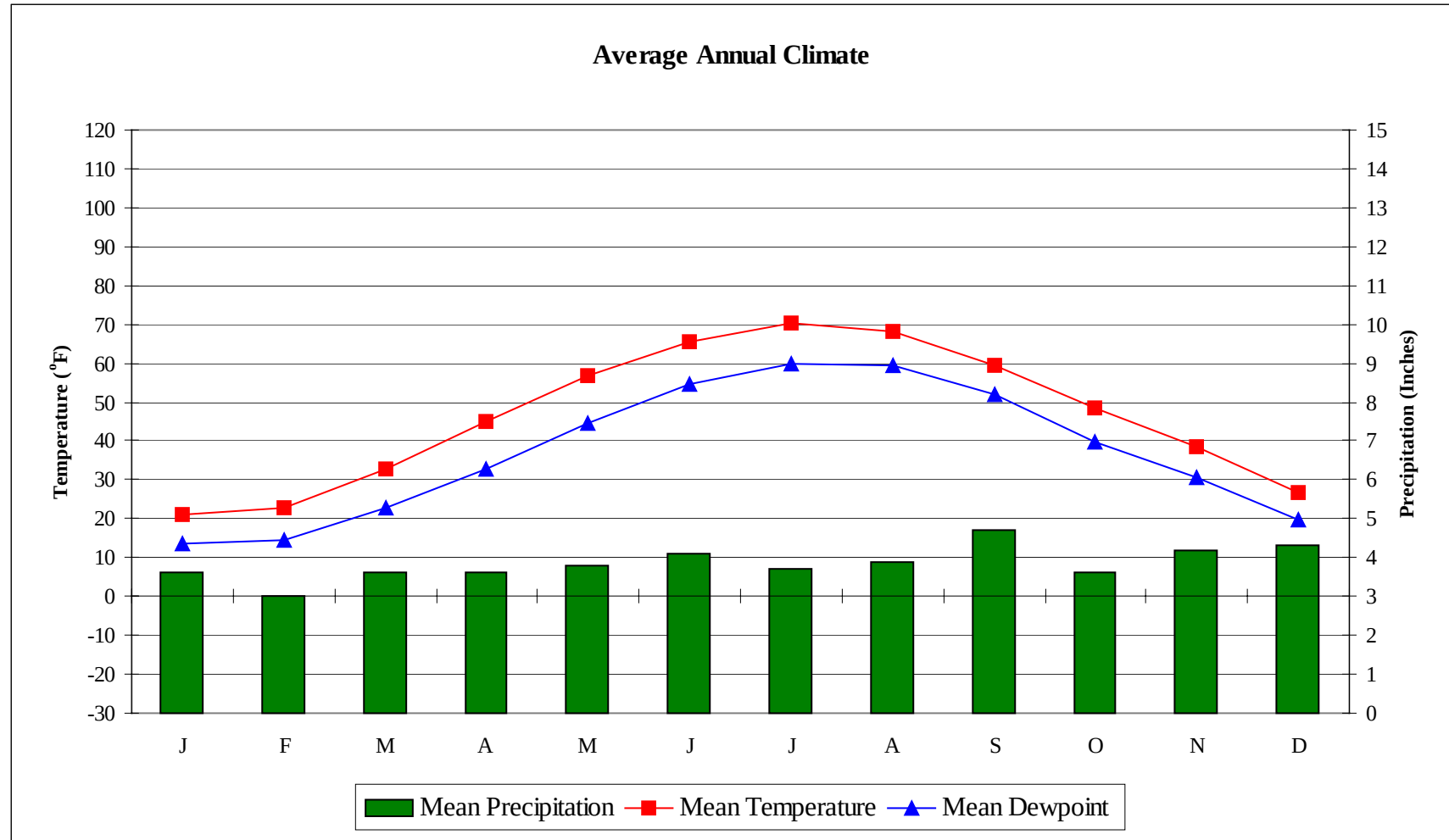
Other Site Data

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	2.3	90	0.9 + 0.3
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 (#)
48.8	N/A	N/A	59

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

UTICA/ONEIDA NY

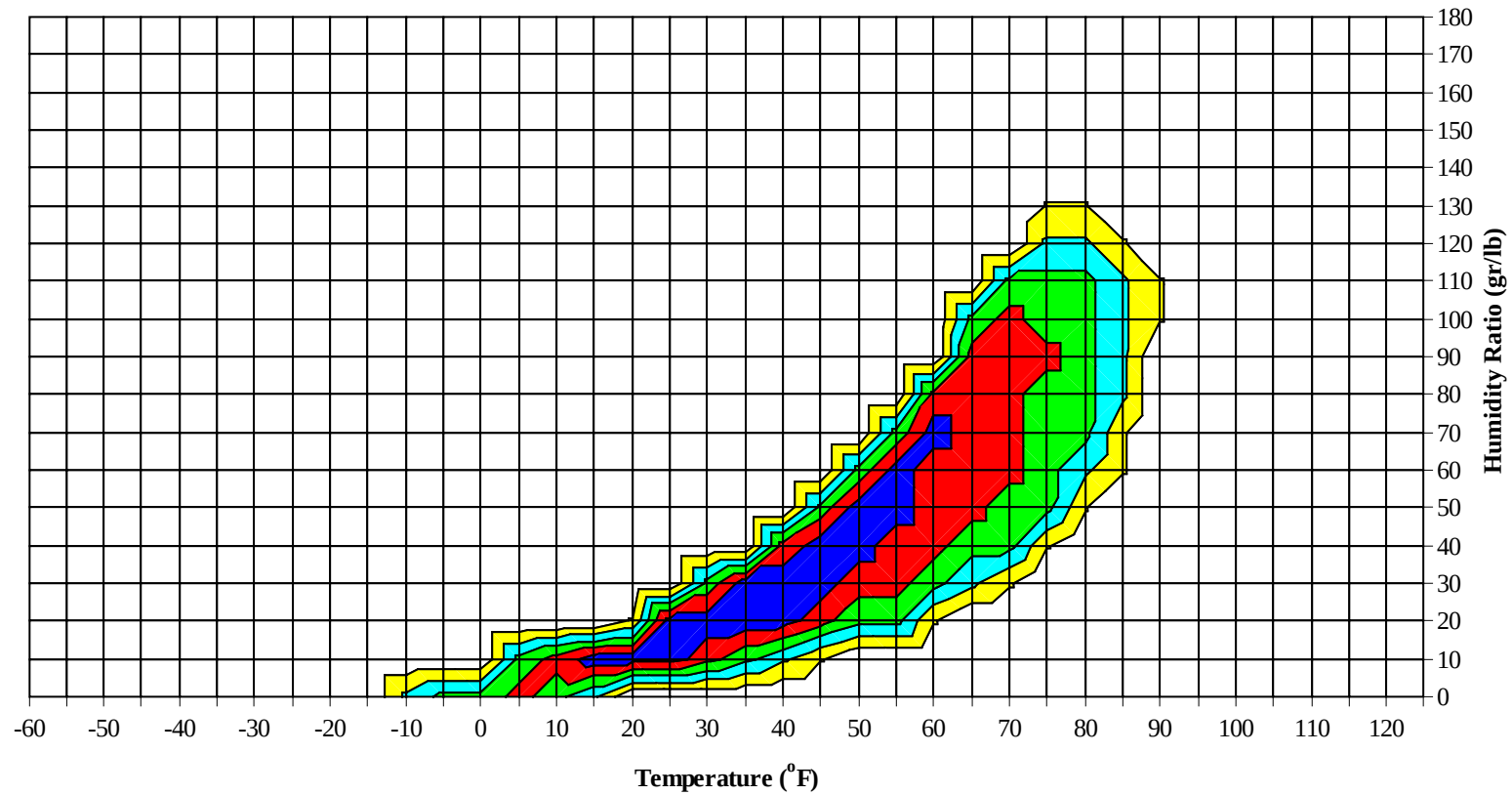
WMO No. 725197



UTICA/ONEIDA NY

WMO No. 725197

Long Term Psychrometric Summary

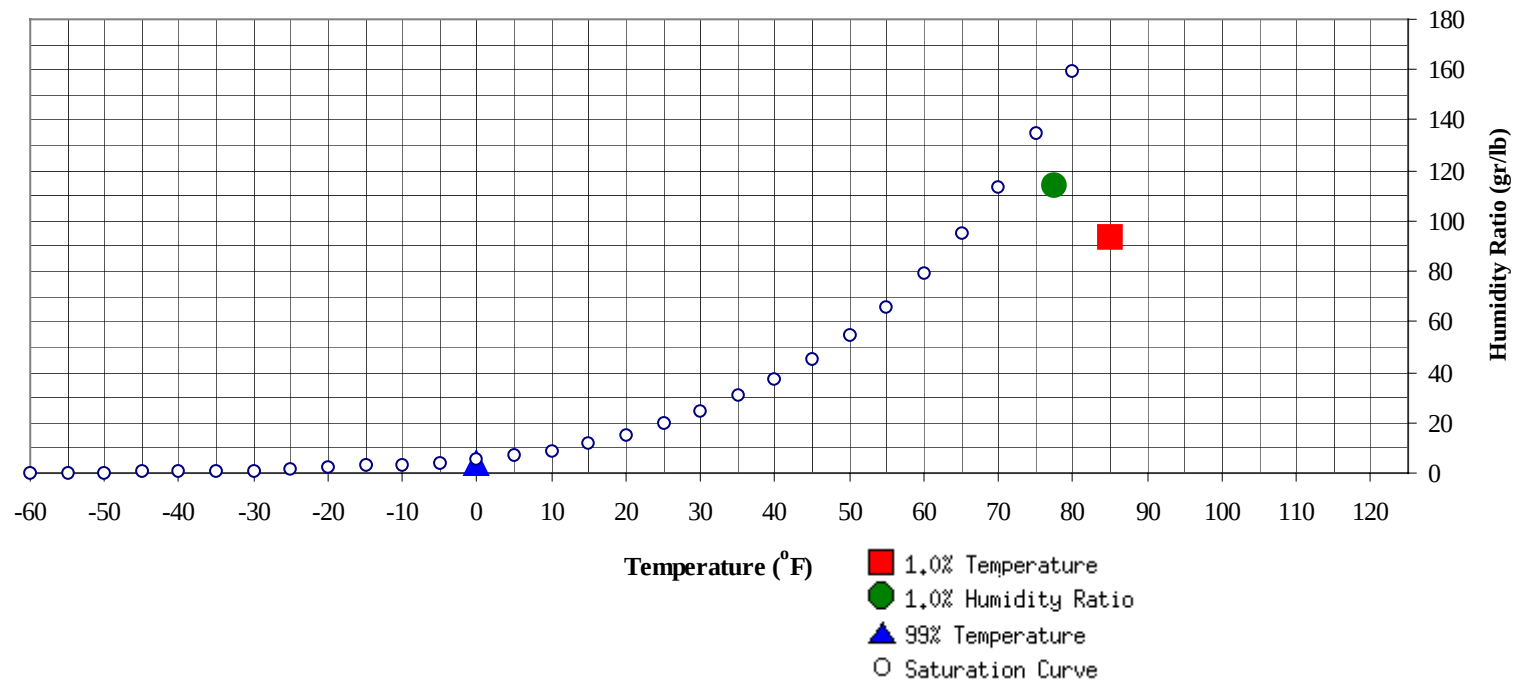


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

UTICA/ONEIDA NY

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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	3.6	0.5		114.1	77.4	72.2	70	36.4

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	85	93.7	70.8	35.1

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WMO No. 725197

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		
95 / 99															
90 / 94															
85 / 89															
80 / 84												0	0	0	65.9
75 / 79												0	0	0	59.5
70 / 74												2	1	3	57.7
65 / 69											0	2	2	4	55.0
60 / 64	0	0	0	0	57.1		1	0	1	49.3	1	5	3	9	52.7
55 / 59	1	1	1	3	51.8	0	1	1	2	48.7	2	7	5	14	48.8
50 / 54	1	2	2	5	46.7	1	3	3	7	45.7	5	13	11	29	45.1
45 / 49	2	4	2	8	42.6	4	6	5	15	41.9	9	20	20	49	41.5
40 / 44	5	9	7	21	37.9	8	13	12	33	37.9	18	31	25	74	37.3
35 / 39	19	25	23	67	33.8	17	25	21	63	33.5	36	49	47	132	33.4
30 / 34	34	38	37	109	29.7	31	34	32	97	29.8	56	48	50	154	29.4
25 / 29	32	37	36	105	24.8	22	33	28	83	24.4	37	30	37	104	24.3
20 / 24	34	40	37	111	20.1	28	35	35	98	19.8	30	20	23	73	19.8
15 / 19	31	31	31	93	15.5	31	27	31	89	15.2	23	11	14	48	15.2
10 / 14	30	24	28	82	10.6	27	21	26	74	10.5	15	6	8	29	10.7
5 / 9	22	18	21	61	5.9	22	13	16	51	5.9	7	2	3	12	5.9
0 / 4	17	9	12	38	1.1	17	7	8	32	1.1	4	1	1	6	1.3
-5 / -1	7	4	5	16	-3.3	8	2	3	13	-2.9	2	0	0	2	-3.3
-10 / -6	8	3	4	15	-7.3	3	1	2	6	-7.5	1			1	-7.8
-15 / -11	3	1	1	5	-12.1	3	1	1	5	-12.1	0			0	-11.4
-20 / -16	2	0	0	2	-16.7	1	0		1	-16.9					
-25 / -21	1	0		1	-21.5	0			0	-20.5					
-30 / -26	0			0	-25.0										

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.

UTICA/ONEIDA NY

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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		
95 / 99												0		0	73.0
90 / 94							0	0	0	69.5	0	2	0	2	72.7
85 / 89		0		0	66.6		4	1	5	68.7	0	12	3	15	71.1
80 / 84		2	1	3	64.2		12	4	16	66.0	0	32	12	44	68.2
75 / 79		5	2	7	60.7	0	20	9	29	63.1	3	42	26	71	65.8
70 / 74	0	9	4	13	58.2	3	31	19	53	60.2	15	52	42	109	63.6
65 / 69	1	13	9	23	55.3	12	36	31	79	57.8	45	45	52	142	61.3
60 / 64	7	19	15	41	52.3	28	43	41	112	54.8	58	32	47	137	57.6
55 / 59	12	27	21	60	48.9	39	41	45	125	51.1	49	16	32	97	53.4
50 / 54	18	32	30	80	45.2	49	34	43	126	47.4	40	6	18	64	49.3
45 / 49	30	38	37	105	41.7	52	17	31	100	43.4	21	1	6	28	45.1
40 / 44	43	40	44	127	38.0	37	8	19	64	39.1	7		1	8	40.8
35 / 39	49	32	37	118	33.6	20	2	5	27	34.6	1		0	1	36.9
30 / 34	48	18	28	94	29.6	6	0	1	7	29.9	0			0	33.5
25 / 29	23	4	9	36	24.7	1			1	25.2					
20 / 24	7	1	2	10	20.5										
15 / 19	1	0	1	2	15.1										
10 / 14	0	0	0	0	10.8										
5 / 9	0			0	7.0										
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															
-30 / -26															

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UTICA/ONEIDA NY

WMO No. 725197

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		
95 / 99															
90 / 94		7	2	9	74.3		3	1	4	75.1		1	0	1	73.9
85 / 89		25	9	34	72.2	0	13	4	17	72.4		3	1	4	72.9
80 / 84	1	55	25	81	69.4	0	41	14	55	70.2	0	9	2	11	70.5
75 / 79	10	63	41	115	67.4	5	61	34	100	67.7	1	22	8	31	67.4
70 / 74	39	52	60	152	65.5	30	60	58	148	65.8	10	37	21	68	64.8
65 / 69	69	31	58	159	62.8	62	39	63	165	62.9	20	47	35	102	61.3
60 / 64	67	12	37	116	59.1	70	22	45	137	59.0	35	49	48	132	57.4
55 / 59	41	2	14	57	54.7	48	6	22	76	54.7	51	41	55	147	53.5
50 / 54	17	0	2	19	50.4	22	1	7	30	50.1	54	22	40	116	49.2
45 / 49	3		0	3	46.6	9		1	10	45.7	35	7	21	63	44.9
40 / 44	0			0	44.0	2		0	2	41.8	22	1	8	31	40.5
35 / 39											9	0	2	11	36.1
30 / 34											2		0	2	31.8
25 / 29											0			0	26.8
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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WMO No. 725197

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		
95 / 99															
90 / 94															
85 / 89															
80 / 84		1		1	67.5										
75 / 79		3	0	3	64.0		0		0	63.9					
70 / 74	0	11	3	14	60.6		2	0	2	61.2					
65 / 69	3	18	9	30	58.4	1	4	2	7	57.8	0			0	60.3
60 / 64	8	28	21	57	55.3	3	8	6	17	55.0	1	1	0	2	56.4
55 / 59	21	39	33	93	51.8	7	12	8	27	51.6	1	3	2	6	52.2
50 / 54	36	50	43	129	47.5	14	21	17	52	47.4	3	5	3	11	47.1
45 / 49	47	45	48	140	43.2	20	29	27	76	42.9	3	7	5	15	42.1
40 / 44	50	33	45	129	39.1	34	43	40	118	38.4	10	17	12	39	38.2
35 / 39	42	16	32	90	34.5	47	48	47	143	34.1	27	38	36	101	34.1
30 / 34	27	3	12	42	30.3	56	44	51	152	29.9	56	57	60	173	30.0
25 / 29	11	0	2	13	25.7	28	19	26	73	25.3	40	39	41	120	25.0
20 / 24	2		0	2	21.3	18	6	11	35	20.5	32	27	27	86	20.2
15 / 19						8	2	4	14	16.0	25	23	26	74	15.5
10 / 14						3	1	2	6	11.4	21	16	18	55	10.7
5 / 9						0	0		0	7.2	13	9	10	32	6.1
0 / 4											8	3	6	17	1.4
-5 / -1											3	1	2	6	-3.0
-10 / -6											3	0	1	4	-6.9
-15 / -11											1	0	0	1	-11.6
-20 / -16											0	0		0	-17.8
-25 / -21											0	0		0	-21.7
-30 / -26															

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.

UTICA/ONEIDA NY

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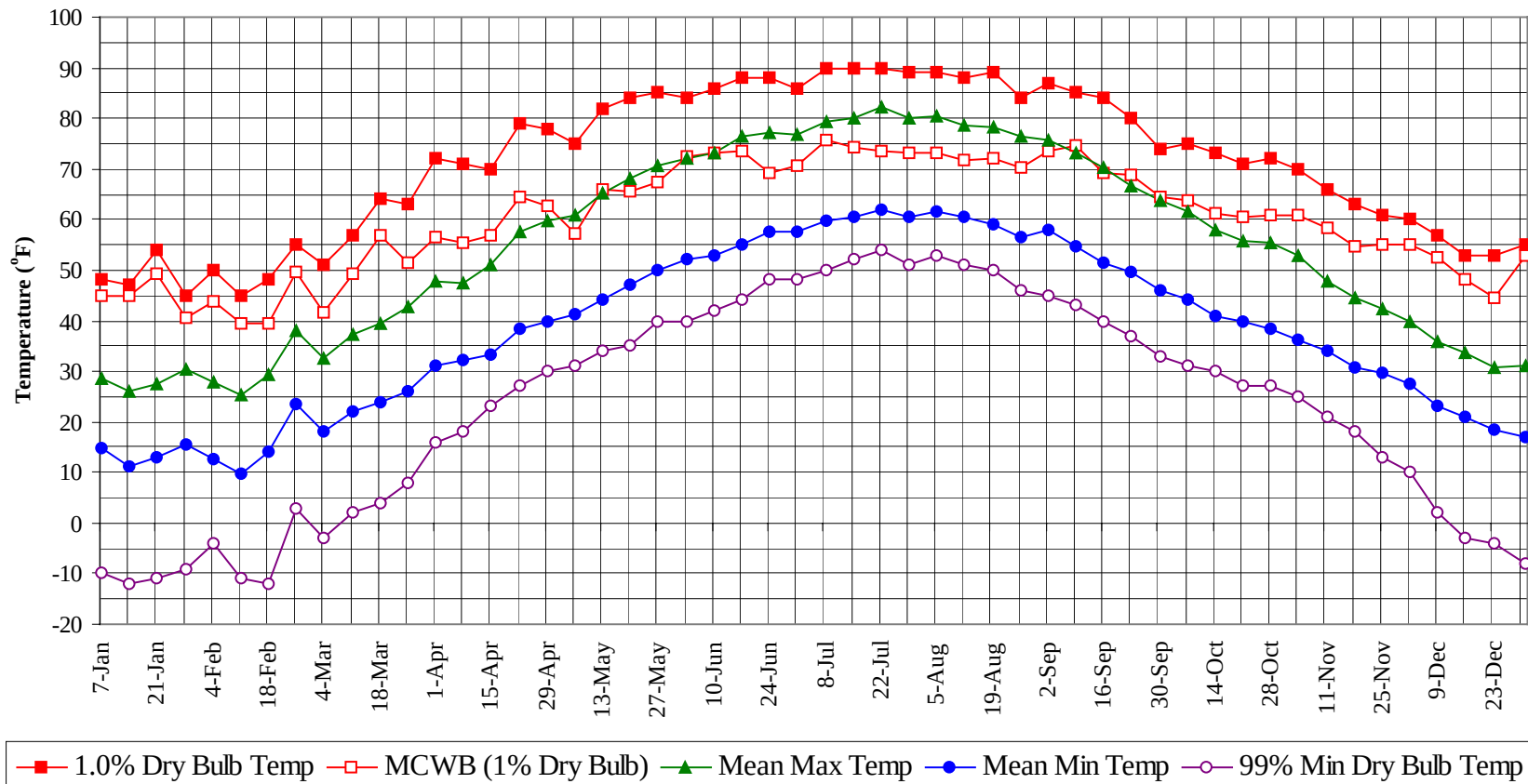
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1973 to 1996

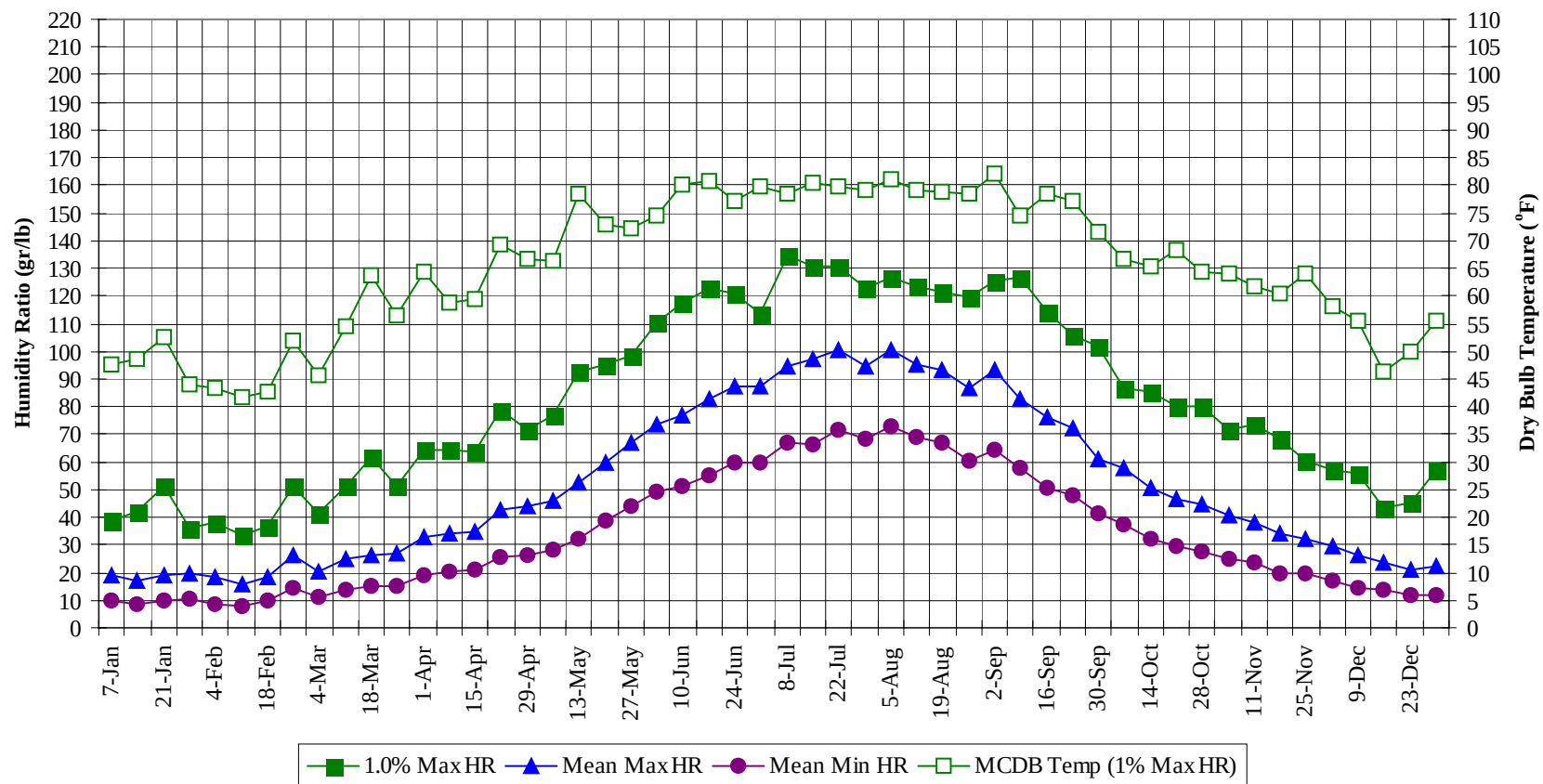
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
95 / 99	0			0	73.0
90 / 94	0	14	3	17	74.1
85 / 89	0	56	17	73	71.8
80 / 84	1	152	58	210	69.1
75 / 79	19	217	120	356	66.6
70 / 74	97	254	207	559	64.2
65 / 69	211	234	259	704	61.2
60 / 64	276	220	259	755	57.0
55 / 59	270	196	237	703	52.4
50 / 54	261	189	218	668	47.7
45 / 49	237	175	205	617	43.0
40 / 44	237	196	214	647	38.5
35 / 39	269	237	252	758	33.9
30 / 34	320	245	272	837	29.8
25 / 29	195	164	179	537	24.8
20 / 24	152	132	135	419	20.0
15 / 19	120	95	107	323	15.4
10 / 14	97	68	83	249	10.6
5 / 9	65	42	50	157	6.0
0 / 4	46	20	27	93	1.2
-5 / -1	19	7	9	35	-3.1
-10 / -6	16	5	6	27	-7.3
-15 / -11	8	2	2	12	-12.0
-20 / -16	3	1	0	4	-16.8
-25 / -21	1	0		1	-21.5
-30 / -26	0			0	-25.0

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Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary



UTICA/ONEIDA

NY

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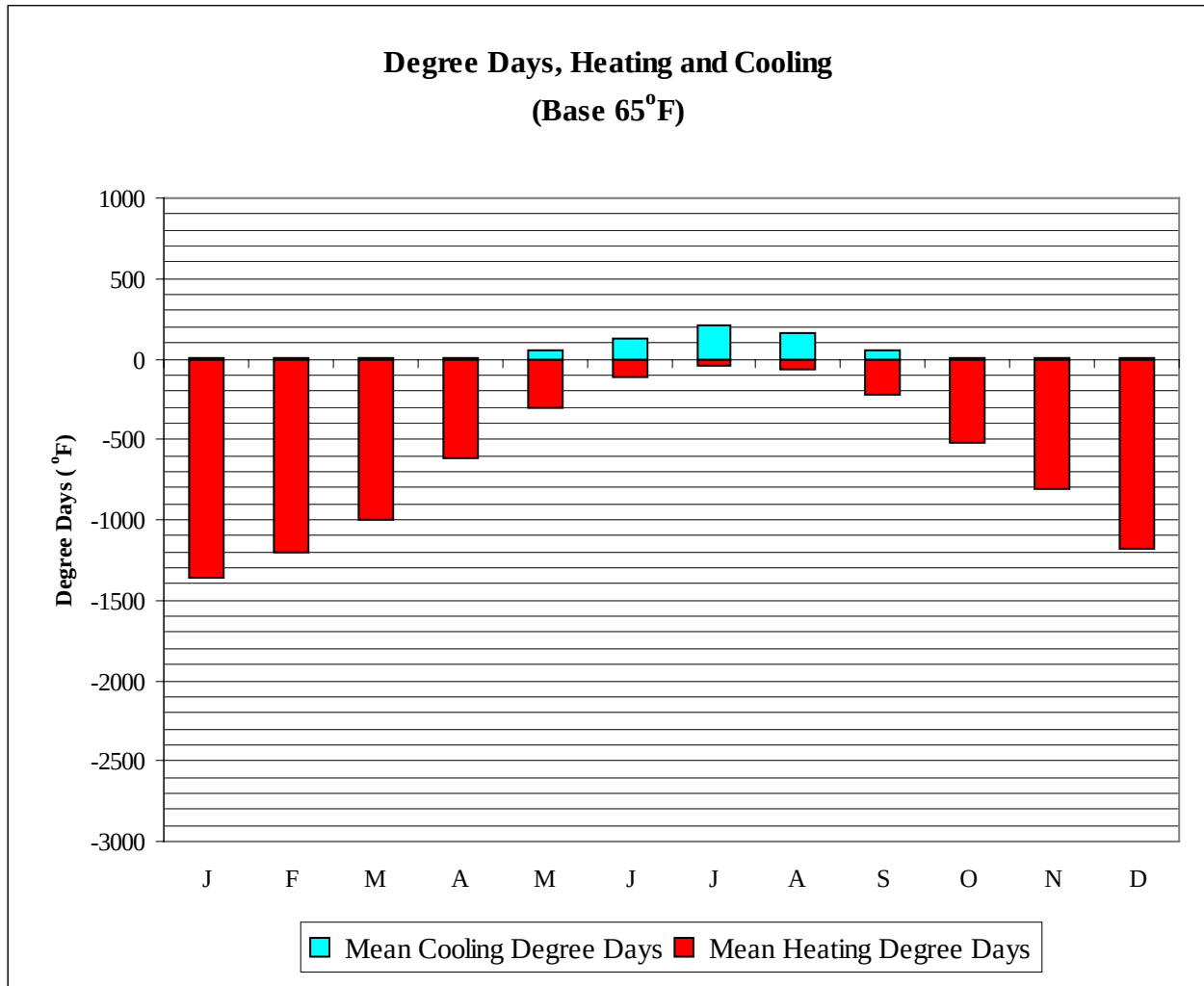
Long Term Dry Bulb Temperature and Humidity Summary

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	48.0	45.0	28.5	15.0	-10.0	38.5	47.5	19.1	9.8
14-Jan	47.0	45.0	26.0	11.3	-12.0	42.0	48.7	17.1	8.4
21-Jan	54.0	49.4	27.5	12.9	-11.0	51.1	52.4	19.4	10.0
28-Jan	45.0	40.6	30.3	15.6	-9.0	36.4	44.0	19.8	10.4
4-Feb	50.0	43.8	27.8	12.6	-4.0	37.8	43.2	18.1	8.8
11-Feb	45.0	39.5	25.2	9.8	-11.0	33.6	41.7	15.6	7.7
18-Feb	48.0	39.5	29.5	13.9	-12.0	37.1	42.6	18.4	9.8
25-Feb	55.0	49.5	37.9	23.3	3.0	51.1	51.9	26.2	14.7
4-Mar	51.0	41.7	32.6	17.9	-3.0	41.3	45.5	20.1	11.3
11-Mar	57.0	49.1	37.3	22.1	2.0	51.1	54.5	24.9	13.9
18-Mar	64.0	56.7	39.6	23.8	4.0	61.6	63.6	26.1	14.8
25-Mar	63.0	51.6	42.5	25.9	8.0	51.1	56.6	27.0	15.0
1-Apr	72.0	56.5	48.0	31.1	16.0	64.4	64.3	32.7	19.2
8-Apr	71.0	55.3	47.4	32.2	18.0	64.4	58.8	34.0	20.1
15-Apr	70.0	57.0	51.0	33.4	23.0	63.7	59.4	34.6	20.8
22-Apr	79.0	64.3	57.6	38.5	27.0	79.1	69.2	42.7	25.8
29-Apr	78.0	62.5	59.7	39.9	30.0	71.4	66.5	44.2	26.4
6-May	75.0	57.2	61.0	41.4	31.0	77.0	66.4	46.1	28.2
13-May	82.0	65.8	65.3	44.2	34.0	92.4	78.6	52.9	32.4
20-May	84.0	65.5	68.2	46.9	35.0	95.2	72.9	59.5	38.4
27-May	85.0	67.2	70.6	50.0	40.0	98.7	72.4	67.2	44.2
3-Jun	84.0	72.3	72.2	52.1	40.0	110.6	74.5	73.6	49.4
10-Jun	86.0	73.1	73.1	52.9	42.0	117.6	80.2	77.1	51.1
17-Jun	88.0	73.6	76.3	55.1	44.0	122.5	80.9	82.8	55.2
24-Jun	88.0	69.3	77.1	57.6	48.0	121.1	77.3	87.4	59.9
1-Jul	86.0	70.7	76.9	57.6	48.0	113.4	79.8	87.6	59.7
8-Jul	90.0	75.6	79.4	59.9	50.0	134.4	78.3	94.5	67.0
15-Jul	90.0	74.2	80.0	60.4	52.0	130.9	80.6	97.4	66.2
22-Jul	90.0	73.5	82.1	61.9	54.0	130.9	79.9	100.4	71.7
29-Jul	89.0	73.2	80.2	60.6	51.0	122.5	79.2	94.9	68.3
5-Aug	89.0	73.3	80.4	61.4	53.0	126.7	81.0	100.2	72.8
12-Aug	88.0	71.9	78.7	60.6	51.0	123.2	79.2	95.1	69.0
19-Aug	89.0	72.2	78.2	59.1	50.0	121.8	78.8	93.1	66.8
26-Aug	84.0	70.4	76.5	56.4	46.0	119.7	78.3	86.6	60.1
2-Sep	87.0	73.6	75.7	58.0	45.0	125.3	82.0	93.2	64.7
9-Sep	85.0	74.5	73.1	54.6	43.0	126.7	74.7	82.7	57.5
16-Sep	84.0	69.1	70.3	51.6	40.0	114.1	78.6	76.3	50.5
23-Sep	80.0	68.8	66.6	49.7	37.0	105.7	77.1	72.2	47.8
30-Sep	74.0	64.4	63.9	45.9	33.0	101.5	71.7	61.0	41.3
7-Oct	75.0	63.6	61.5	44.2	31.0	86.8	66.6	57.7	37.6
14-Oct	73.0	61.3	58.0	40.7	30.0	85.4	65.5	50.3	32.3
21-Oct	71.0	60.4	55.7	39.7	27.0	79.8	68.4	46.8	29.8
28-Oct	72.0	61.0	55.4	38.3	27.0	79.8	64.2	44.9	27.8
4-Nov	70.0	60.8	53.0	36.2	25.0	71.4	64.2	40.9	25.0
11-Nov	66.0	58.3	47.6	34.0	21.0	73.5	61.8	38.2	23.6
18-Nov	63.0	54.7	44.6	30.9	18.0	68.6	60.6	34.4	19.9
25-Nov	61.0	54.9	42.2	29.7	13.0	60.2	64.2	32.4	19.6
2-Dec	60.0	55.2	39.9	27.4	10.0	57.4	58.1	29.6	17.2
9-Dec	57.0	52.4	35.8	23.3	2.0	56.0	55.6	26.3	14.6
16-Dec	53.0	48.0	33.5	20.9	-3.0	43.4	46.3	23.6	13.7
23-Dec	53.0	44.6	30.8	18.5	-4.0	45.5	50.0	21.3	12.1
31-Dec	55.0	52.8	31.2	17.1	-8.0	57.4	55.4	22.3	11.7

UTICA/ONEIDA

NY

WMO No. 725197

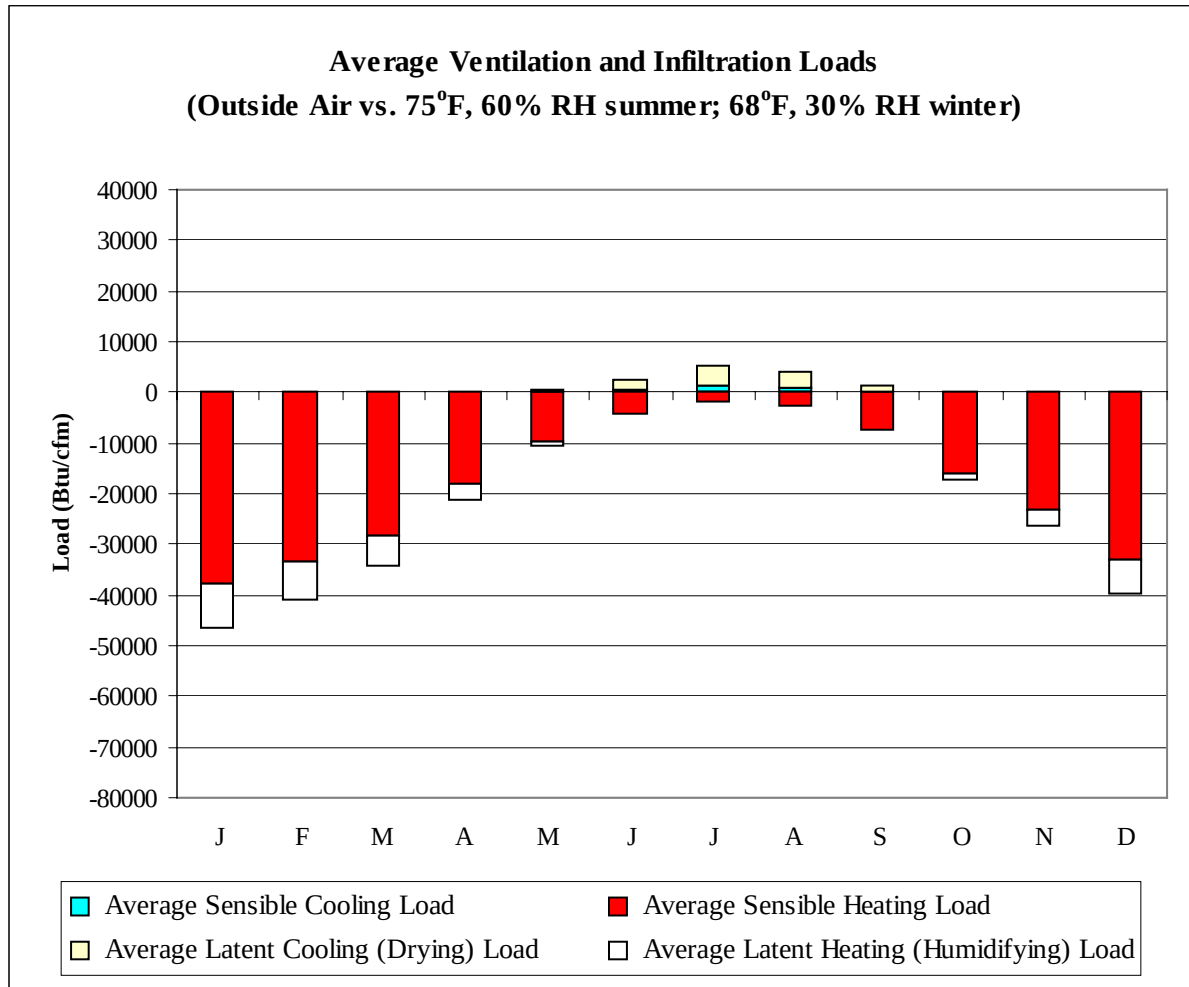


	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1361
FEB	0	1198
MAR	2	1005
APR	11	615
MAY	50	300
JUN	122	112
JUL	207	43
AUG	162	64
SEP	53	220
OCT	8	524
NOV	1	804
DEC	0	1185
ANN	615	7431

UTICA/ONEIDA

NY

WMO No. 725197



	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	-37690	0	-8651
FEB	0	-33257	0	-7734
MAR	5	-28439	0	-5904
APR	33	-18153	3	-2887
MAY	226	-9725	293	-614
JUN	650	-4179	1759	-14
JUL	1327	-1930	4034	0
AUG	835	-2689	3365	-2
SEP	184	-7470	1115	-82
OCT	8	-15886	43	-1204
NOV	0	-23146	0	-3356
DEC	0	-33122	0	-6734
ANN	3268	-215686	10612	-37182

Average Annual Solar Radiation – Nearest Available Site

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

City: SYRACUSE
 State: NY
 WBAN No: 14771
 Lat(N): 43.12
 Long(W): 76.12
 Elev(ft): 407

Stn Type: Secondary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS
 Window: 1
 Overhang: 0.623
 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	520	780	1100	1460	1750	1920	1920	1640	1260	850	500	410	1180
	Std Dev	34	53	72	103	167	118	104	80	105	67	38	33	25
	Minimum	460	670	990	1230	1400	1700	1670	1480	970	730	420	350	1130
	Maximum	610	920	1260	1630	2090	2140	2060	1810	1430	1090	580	480	1220
Clear Day	Diffuse	360	500	610	690	790	840	800	730	590	440	350	300	580
	Global	780	1140	1650	2160	2520	2660	2570	2250	1770	1240	820	660	1690
	Global	190	270	350	430	540	620	590	480	360	270	190	160	370
	Diffuse	190	270	350	420	490	530	510	450	360	270	190	160	350
Clear Day	Global	170	230	310	410	580	690	630	460	330	240	170	140	370
	Global	340	490	680	870	1000	1080	1100	960	770	550	320	260	700
	Diffuse	240	340	430	510	580	620	610	550	450	320	230	190	420
	Global	620	850	1130	1370	1500	1540	1500	1380	1170	890	650	540	1100
Clear Day	Global	760	910	1000	950	870	830	880	970	1030	970	630	580	870
	Diffuse	360	460	500	530	560	580	580	560	500	410	310	290	470
	Global	1840	1980	1880	1520	1190	1030	1080	1340	1680	1870	1810	1730	1580
	Global	340	490	690	880	1010	1100	1100	980	790	560	320	260	710
Clear Day	Diffuse	240	340	430	510	590	630	620	560	450	330	230	190	430
	Global	620	850	1130	1370	1500	1540	1500	1380	1170	890	650	540	1100

Average Annual Solar Heat and Illumination – Nearest Available Site

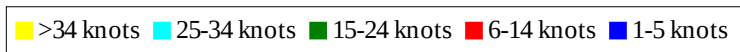
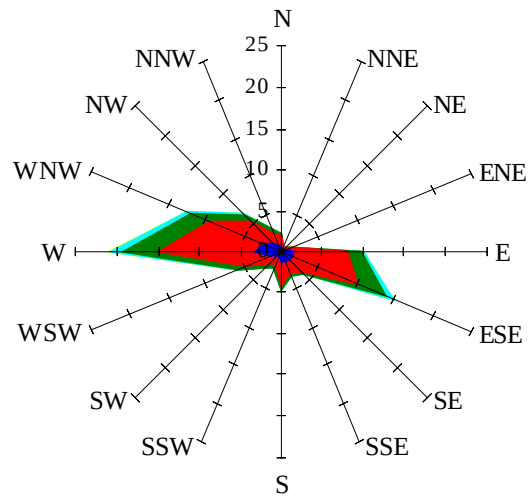
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	340	530	770	1040	1260	1390	1390	1180	890	580	330	270	830
NORTH	Unshaded	130	190	240	290	360	410	390	320	250	180	130	110	250
	Shaded	110	160	210	250	310	350	330	280	220	160	110	91	210
EAST	Unshaded	240	340	480	620	710	770	780	680	550	380	220	180	500
	Shaded	200	290	400	510	580	630	640	570	460	330	190	150	410
SOUTH	Unshaded	570	670	700	630	550	520	540	630	710	700	470	430	590
	Shaded	540	600	540	390	330	350	350	370	490	600	440	410	450
WEST	Unshaded	240	340	490	620	720	780	780	700	560	390	220	180	500
	Shaded	200	290	410	520	590	640	650	580	470	330	190	150	420

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	36	68	77	61	25	48	82	98	93	68
	M.Cloudy	21	41	46	38	16	30	52	67	65	45
NORTH	M.Clear	9	13	14	13	8	16	16	16	16	14
	M.Cloudy	9	15	17	14	7	13	17	19	19	15
EAST	M.Clear	71	56	14	13	8	80	72	31	16	14
	M.Cloudy	23	28	17	14	7	34	40	26	19	15
SOUTH	M.Clear	39	75	86	67	27	12	36	52	47	24
	M.Cloudy	16	35	39	32	12	11	25	37	35	19
WEST	M.Clear	9	13	22	65	63	12	16	16	51	79
	M.Cloudy	9	15	19	31	21	11	17	19	37	43
M.Clear	(% hrs)	25	23	22	22	24	36	35	30	31	32
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	26	63	79	74	45	10	33	39	23	0
	M.Cloudy	16	37	51	48	28	7	20	23	14	0
NORTH	M.Clear	8	13	15	15	11	4	9	10	7	0
	M.Cloudy	7	14	17	16	11	3	9	10	7	0
EAST	M.Clear	63	68	28	15	11	29	35	10	7	0
	M.Cloudy	22	31	22	16	11	8	14	10	7	0
SOUTH	M.Clear	21	58	77	70	39	27	73	82	53	0
	M.Cloudy	10	28	43	40	21	7	22	25	16	0
WEST	M.Clear	8	13	15	51	72	4	9	19	40	0
	M.Cloudy	7	14	17	31	32	3	9	12	13	0
M.Clear	(% hrs)	33	33	28	27	33	11	14	13	12	13

Wind Summary - December, January, and February

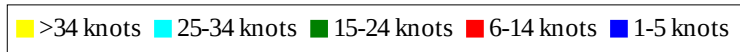
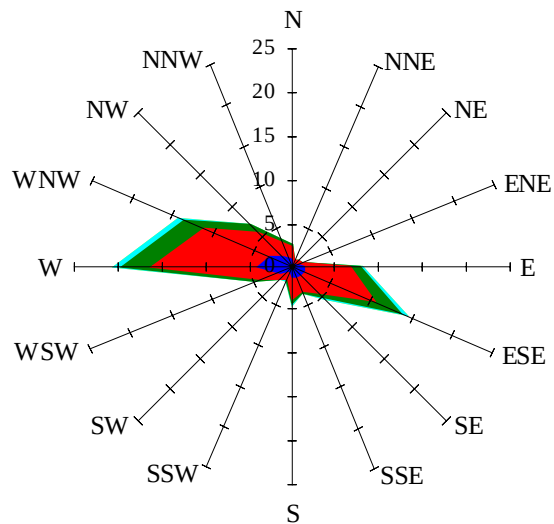
Labels of Percent Frequency on North Axis



Percent Calm = 5.09

Wind Summary - March, April, and May

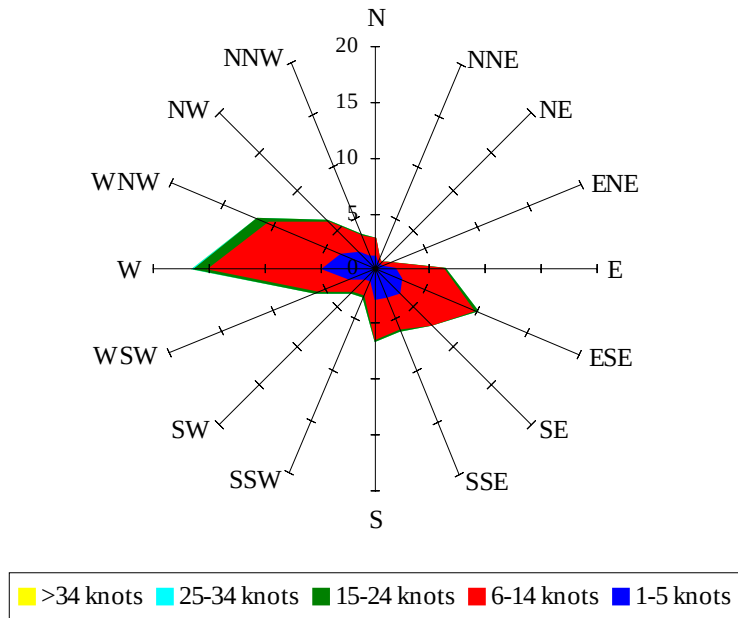
Labels of Percent Frequency on North Axis



Percent Calm = 6.32

Wind Summary - June, July, and August

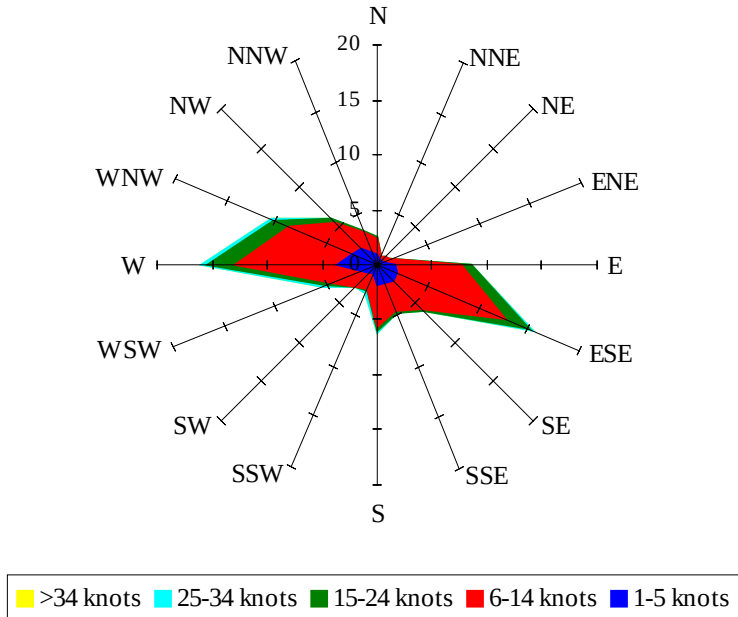
Labels of Percent Frequency on North Axis



Percent Calm = 9.49

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 6.79