

FORT DRUM/WHEELER NY

Latitude = 44.05 N

WMO No. 743700

Longitude = 75.73 W

Elevation = 679 feet

Period of Record = 1967 to 1996

Average Pressure = 29.24 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	91	75	106	10.5	SW
0.4% Occurrence	87	73	100	9.8	WSW
1.0% Occurrence	85	71	96	9.8	W
2.0% Occurrence	83	70	91	9.5	WSW
Mean Daily Range	16	-	-	-	-
97.5% Occurrence	1	0	5	6.7	SE
99.0% Occurrence	-5	-5	3	6.6	SE
99.6% Occurrence	-11	-11	2	5.7	SE
Median of Extreme Lows	-16	-16	2	5.9	SE
	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	78	86	133	10.4	W
0.4% Occurrence	75	84	117	9.7	WSW
1.0% Occurrence	73	81	110	9.0	WSW
2.0% Occurrence	72	80	106	8.7	WSW
	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	136	85	0.88	9.5	W
0.4% Occurrence	121	82	0.79	8.1	WSW
1.0% Occurrence	113	79	0.74	8.1	WSW
2.0% Occurrence	106	76	0.69	8.5	WSW
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		1	355	118	735

Other Site Data

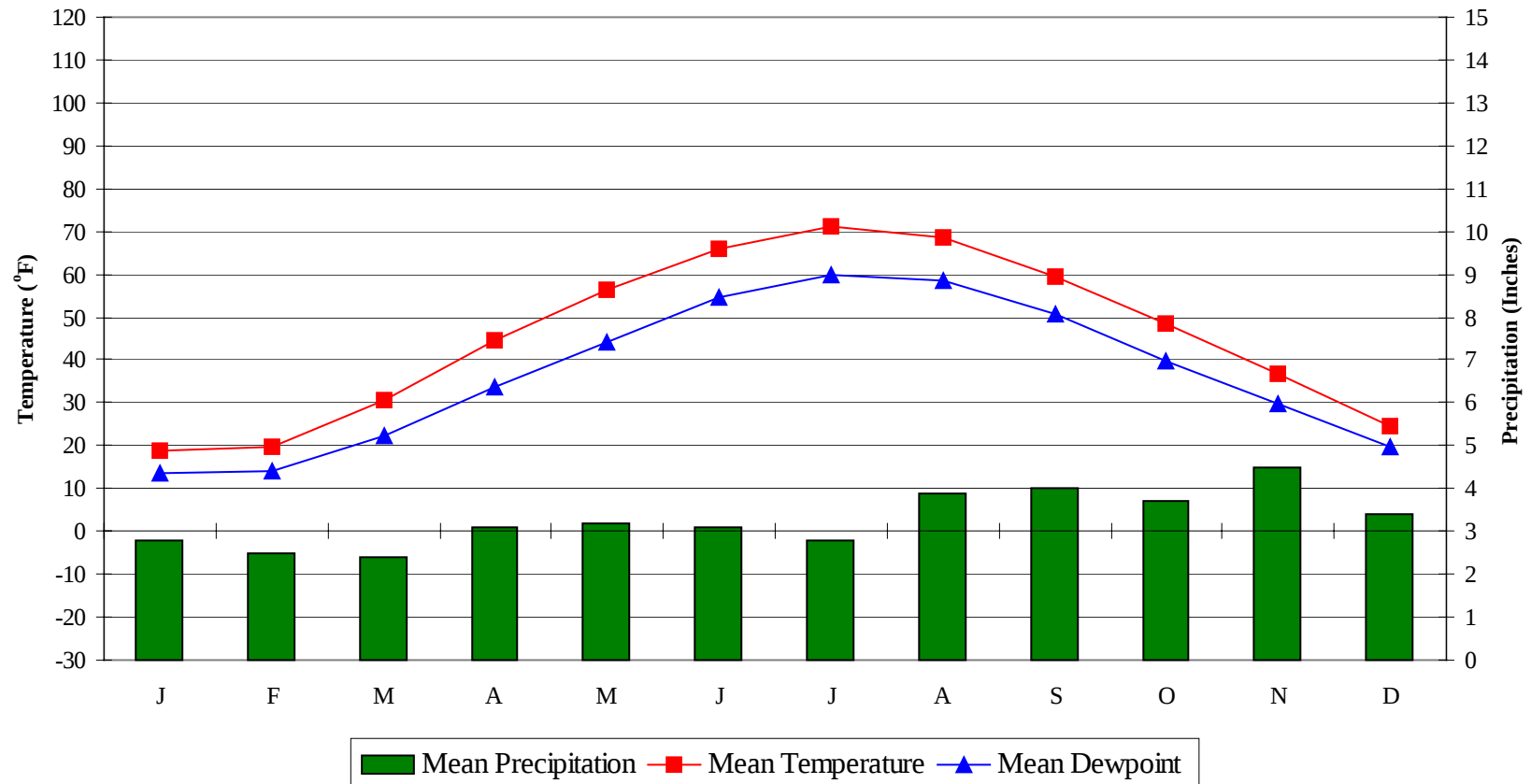
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
7	2.3	90	0.4 + 0.2
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
49.6	94	60	35

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

FORT DRUM/WHEELER NY

WMO No. 743700

Average Annual Climate

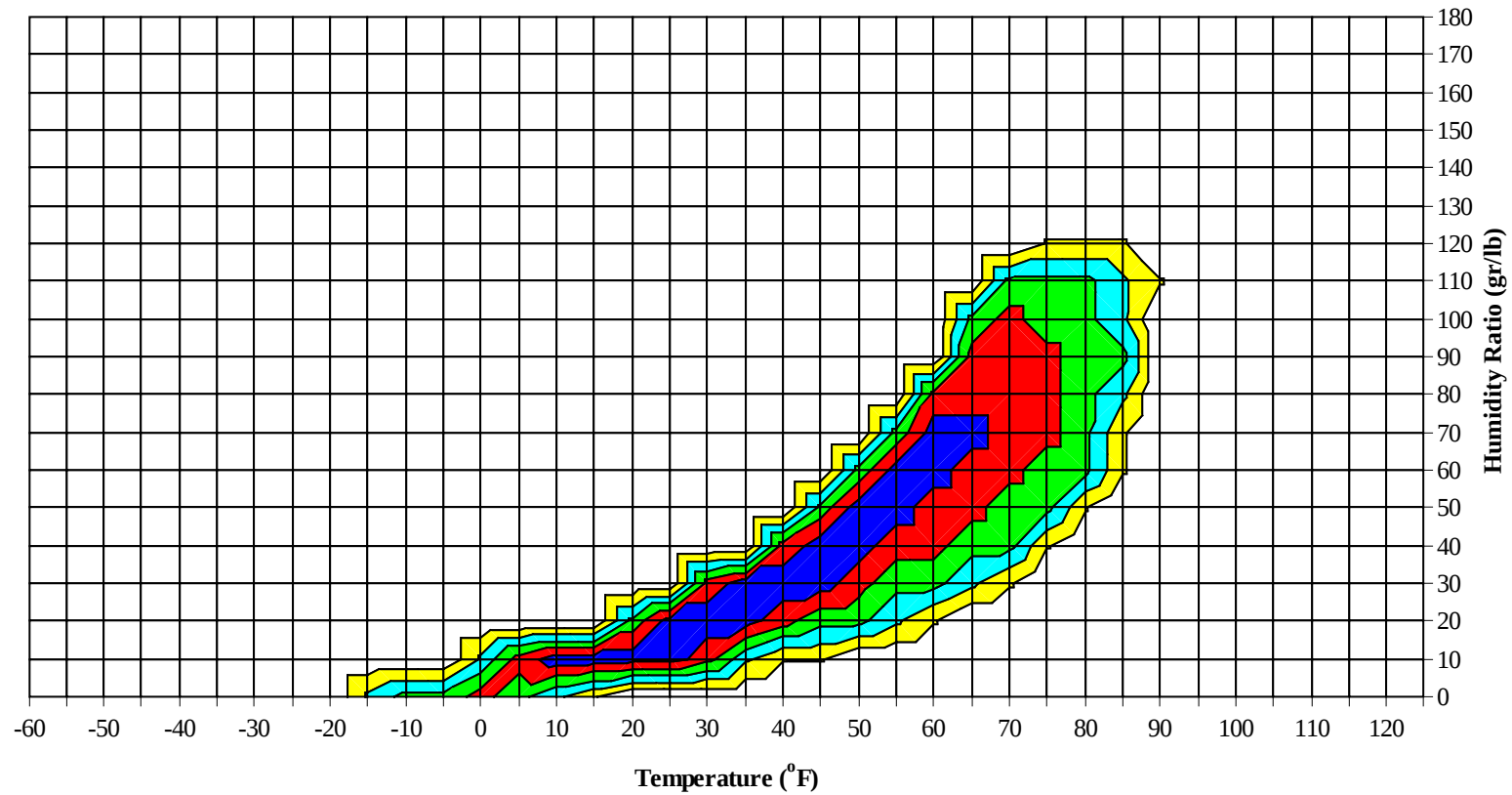


FORT DRUM/WHEELER

NY

WMO No. 743700

Long Term Psychrometric Summary

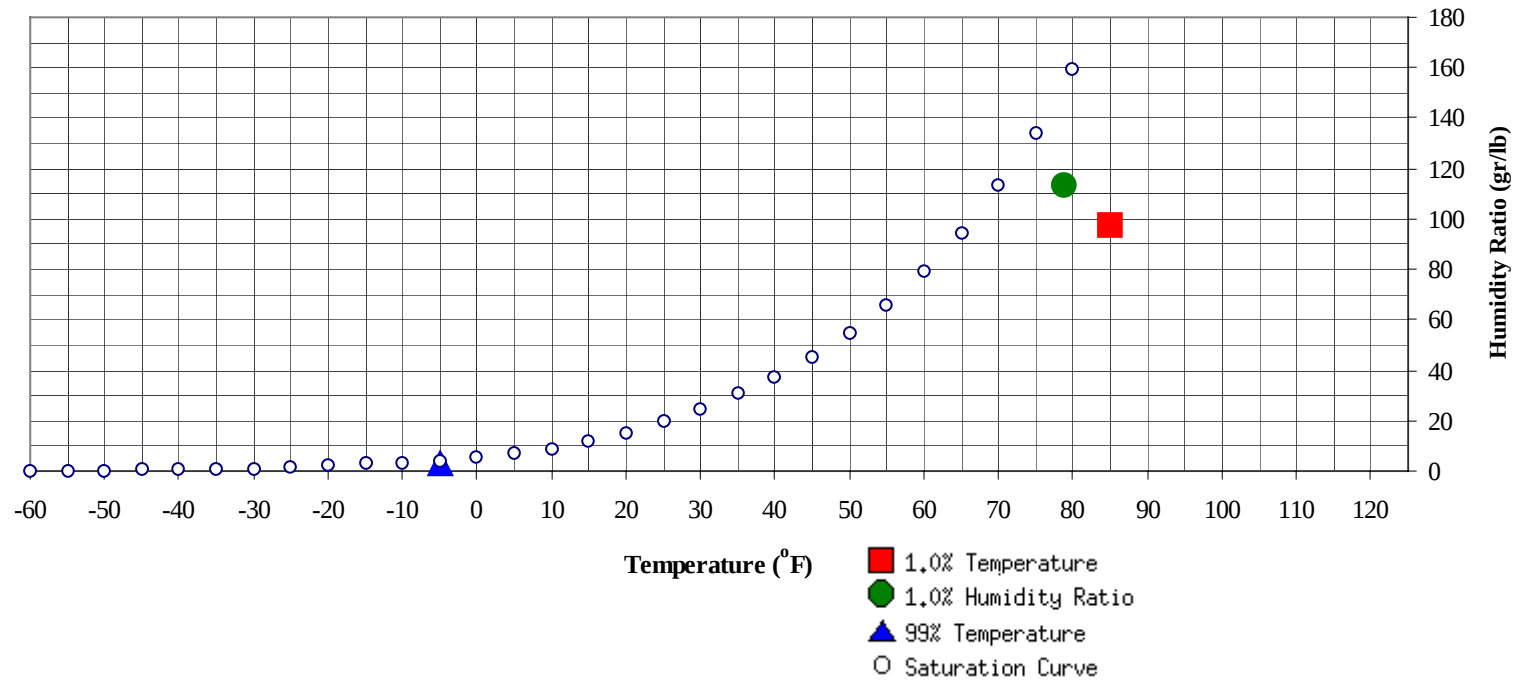


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

FORT DRUM/WHEELER NY

WMO No. 743700

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)
	-5	3.4	-0.7		113.4	78.9	72.6	70	36.7

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	85	97.7	71.7	35.7

FORT DRUM/WHEELER NY

WMO No. 743700

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		
95 / 99															
90 / 94															
85 / 89															
80 / 84															
75 / 79												1	0	1	63.1
70 / 74												1	0	1	59.1
65 / 69												1	1	3	55.2
60 / 64	0	0		0	58.5						1	4	3	7	52.7
55 / 59	1	1	1	3	52.8		1	0	1	47.7	3	7	3	13	49.6
50 / 54	2	1	2	5	47.4	1	4	1	6	45.1	5	13	10	28	45.6
45 / 49	2	3	4	9	43.3	3	5	4	13	42.9	7	20	12	38	41.0
40 / 44	7	9	6	21	38.9	6	13	8	27	38.9	10	34	22	66	37.4
35 / 39	19	21	21	62	34.8	15	22	14	51	34.4	32	43	45	120	33.6
30 / 34	30	37	37	104	30.3	27	28	32	86	30.4	50	42	45	136	29.7
25 / 29	31	27	28	87	25.3	22	26	27	75	25.2	33	31	36	100	24.7
20 / 24	25	33	27	85	20.4	21	30	31	81	20.3	31	19	26	76	19.9
15 / 19	27	27	32	86	15.8	24	28	25	78	15.6	23	12	20	55	15.5
10 / 14	27	31	26	84	11.0	24	24	29	77	10.8	21	11	13	45	10.9
5 / 9	22	19	19	60	6.4	23	19	25	67	6.1	13	6	10	29	6.5
0 / 4	17	17	21	56	1.2	21	12	14	47	1.3	12	1	3	16	1.6
-5 / -1	12	10	12	34	-2.9	14	5	8	27	-3.0	3	1	1	5	-2.9
-10 / -6	13	6	7	27	-7.0	13	4	4	20	-7.0	2	0		2	-7.3
-15 / -11	6	3	1	10	-12.1	5	1	1	7	-12.5	1	0		1	-11.4
-20 / -16	4	2	1	7	-16.7	5	1	1	7	-16.5					
-25 / -21	1	0	1	2	-21.6	1			1	-21.8					
-30 / -26	1	0	0	1	-26.4	0			0	-25.0					
-35 / -31	0			0	-31.0										

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.

FORT DRUM/WHEELER NY

WMO No. 743700

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		
95 / 99															
90 / 94		0		0	66.0							1	0	1	74.4
85 / 89		0	0	0	65.8		1	0	1	69.1		9	3	12	71.7
80 / 84		2	0	2	65.3		7	1	9	66.0	1	27	13	42	68.6
75 / 79		4	1	5	62.0	0	14	7	22	63.4	5	41	23	70	65.4
70 / 74	0	8	4	11	59.3	3	27	17	47	60.3	22	51	39	112	62.9
65 / 69	3	11	9	23	56.5	12	38	28	78	57.6	42	48	51	142	60.6
60 / 64	7	18	12	37	53.1	24	44	35	103	54.1	52	33	51	136	57.0
55 / 59	11	25	17	53	49.1	35	44	46	125	50.6	56	20	35	112	53.4
50 / 54	16	35	29	80	45.3	48	37	45	130	47.1	36	7	17	61	49.2
45 / 49	26	41	38	104	41.8	54	22	39	114	43.5	20	1	6	27	45.2
40 / 44	43	40	40	123	38.3	45	11	22	77	39.5	5		1	7	40.8
35 / 39	44	32	39	116	33.8	22	2	7	31	35.2	0			0	37.8
30 / 34	55	19	39	112	30.2	5	1		6	31.3					
25 / 29	22	5	12	39	25.0										
20 / 24	9	1	1	11	20.3										
15 / 19	2	1	0	3	15.6										
10 / 14	1	0	0	1	11.1										
5 / 9	0	0		0	7.0										
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															
-30 / -26															
-35 / -31															

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FORT DRUM/WHEELER NY

WMO No. 743700

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		
95 / 99						0			0	80.3					
90 / 94		4	0	4	74.9	1	0	1	1	74.9		0		0	83.3
85 / 89		20	7	27	72.8	12	3	15	15	72.4		2		2	76.0
80 / 84	1	51	25	77	69.6	1	38	15	55	69.8		8	1	9	69.3
75 / 79	14	71	41	126	66.9	6	63	34	104	67.3	3	23	7	33	67.0
70 / 74	42	56	59	156	64.7	29	62	51	142	64.8	11	38	22	70	64.1
65 / 69	67	30	57	154	62.2	55	43	66	164	61.9	20	47	30	97	60.7
60 / 64	64	13	43	120	58.6	70	20	48	138	58.9	31	51	43	125	57.0
55 / 59	43	3	15	60	54.7	47	6	22	75	54.5	44	38	51	132	53.2
50 / 54	15	1	1	17	50.6	27	1	7	36	50.3	51	23	43	117	48.8
45 / 49	2			2	45.7	10	0	1	11	46.1	35	10	25	70	44.6
40 / 44						2			2	42.2	25	2	11	39	40.4
35 / 39											15	1	6	21	36.1
30 / 34											4		1	6	32.1
25 / 29											1			1	28.4
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															
-30 / -26															
-35 / -31															

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FORT DRUM/WHEELER NY

WMO No. 743700

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		
95 / 99															
90 / 94															
85 / 89															
80 / 84		1		1	66.5										
75 / 79		4	0	4	64.3										
70 / 74	0	9	3	12	60.9		0		0	62.0					
65 / 69	2	19	8	29	58.1	1	4	1	6	57.3		0		0	59.0
60 / 64	12	28	19	59	55.3	3	8	5	16	55.1		0		0	57.4
55 / 59	23	38	27	88	51.6	8	11	9	27	52.2	1	2	1	4	51.6
50 / 54	36	44	44	124	47.4	9	18	11	38	47.7	3	4	3	10	47.6
45 / 49	39	46	48	133	43.0	16	29	19	64	42.9	3	8	6	17	42.8
40 / 44	47	35	47	129	39.0	29	41	33	102	38.6	10	17	11	39	38.8
35 / 39	42	22	35	98	35.0	42	47	46	135	34.2	25	38	32	95	34.5
30 / 34	30	4	16	49	30.8	46	41	51	138	30.0	48	50	52	150	30.6
25 / 29	14	0	3	17	26.4	36	26	33	94	25.5	34	35	37	106	25.4
20 / 24	2			2	22.5	20	11	19	50	20.5	28	27	24	80	20.8
15 / 19						17	4	9	30	16.3	24	21	24	68	16.1
10 / 14						8	2	4	13	12.0	24	17	19	60	11.0
5 / 9						3	0	1	5	7.1	18	15	18	51	6.3
0 / 4						1			1	3.3	10	8	11	30	1.7
-5 / -1											6	3	4	13	-2.5
-10 / -6											7	2	4	12	-6.8
-15 / -11											5	1	1	7	-11.3
-20 / -16											1	0	0	1	-16.5
-25 / -21											1	0		1	-22.2
-30 / -26											0			0	-25.0
-35 / -31															

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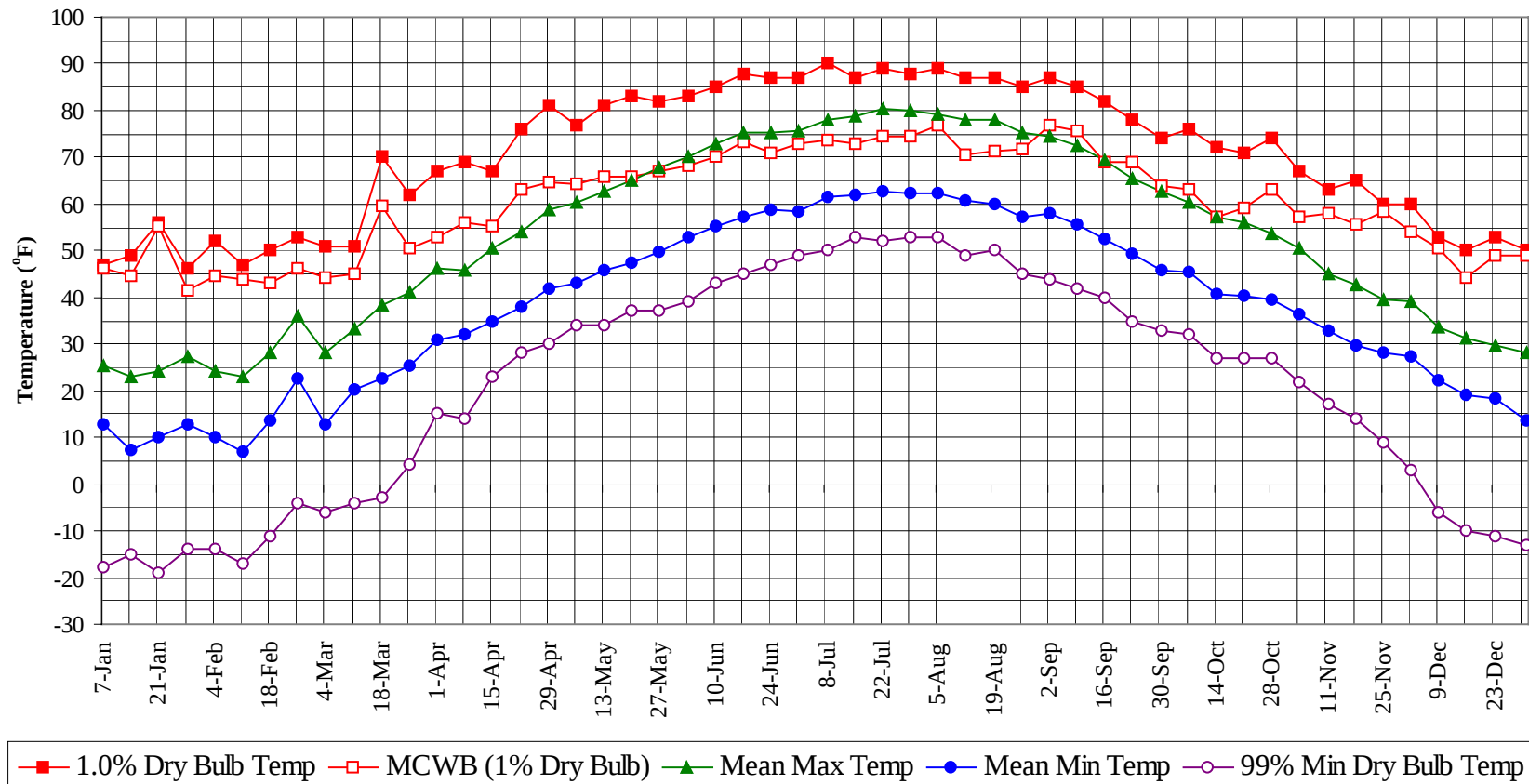
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1967 to 1996

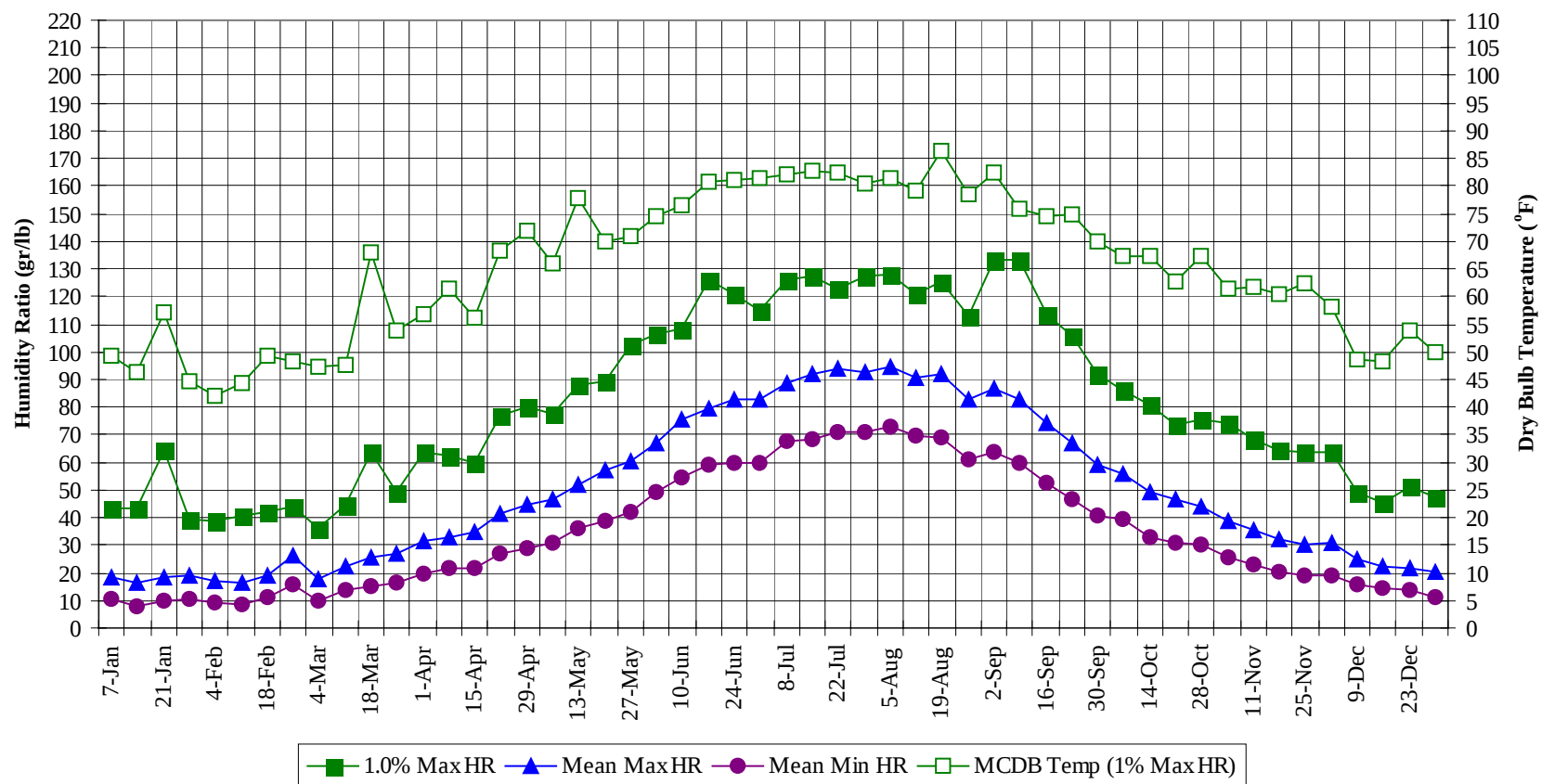
Annual Totals						
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	
	01 To 08	09 To 16	17 To 00			
95 / 99	0			0	80.3	
90 / 94	7			1	9	75.0
85 / 89	53			16	69	72.4
80 / 84	3	158	60	222	69.2	
75 / 79	34	253	121	408	66.4	
70 / 74	124	284	202	610	63.7	
65 / 69	235	264	261	761	60.6	
60 / 64	301	230	261	793	56.8	
55 / 59	300	196	226	723	52.4	
50 / 54	262	181	208	651	47.7	
45 / 49	220	171	193	584	43.1	
40 / 44	221	183	192	596	38.8	
35 / 39	235	204	233	672	34.4	
30 / 34	262	198	264	724	30.2	
25 / 29	172	136	171	479	25.3	
20 / 24	122	110	127	359	20.4	
15 / 19	106	85	113	303	15.8	
10 / 14	97	78	94	269	11.0	
5 / 9	73	55	75	203	6.3	
0 / 4	56	36	51	143	1.4	
-5 / -1	33	17	27	77	-2.9	
-10 / -6	33	12	15	60	-7.0	
-15 / -11	14	5	5	25	-12.0	
-20 / -16	10	2	3	15	-16.6	
-25 / -21	3	0	1	5	-21.7	
-30 / -26	1	0	0	1	-26.2	
-35 / -31	0			0	-31.0	

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Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary

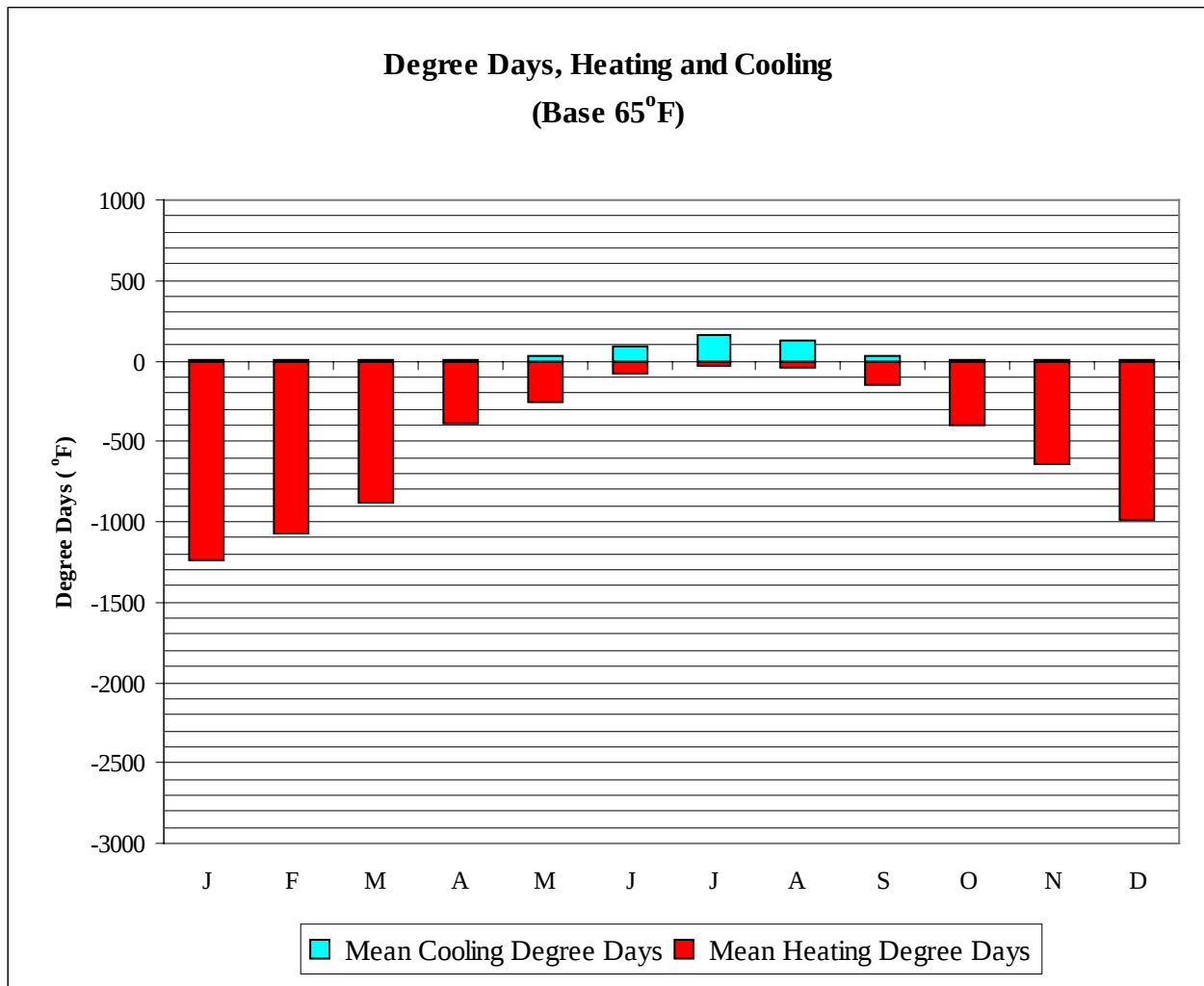


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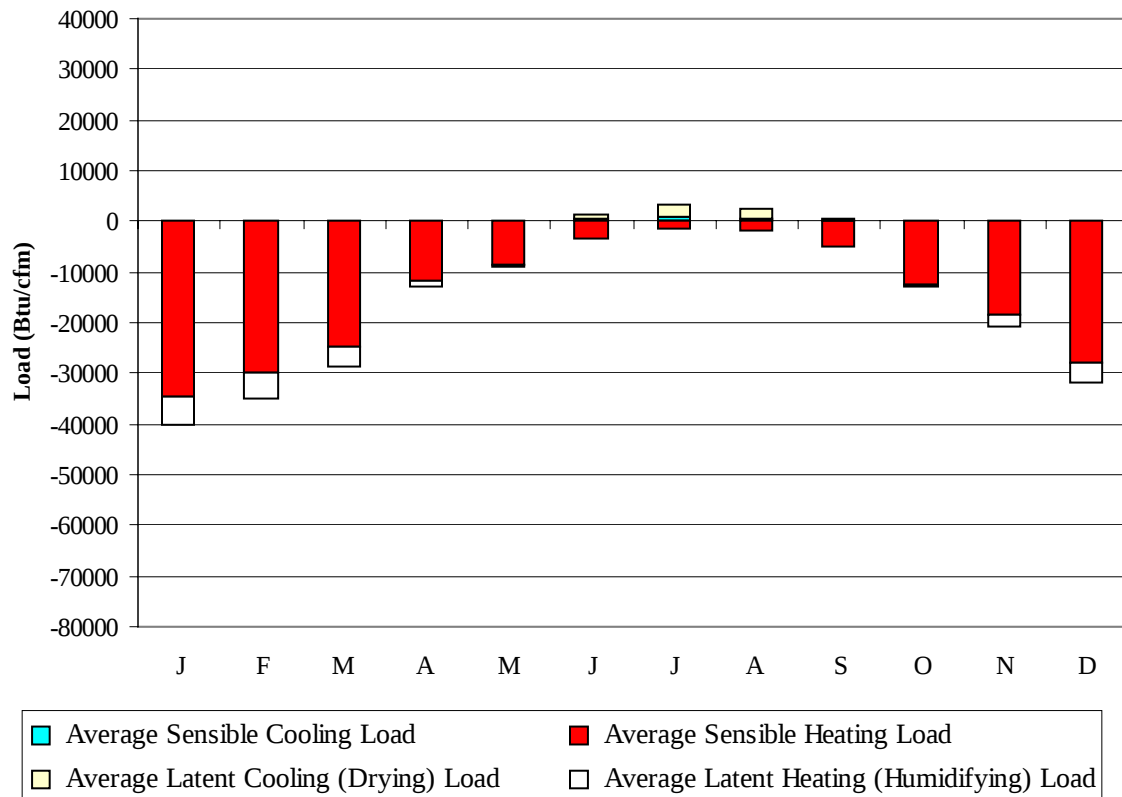
Long Term Dry Bulb Temperature and Humidity Summary

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	47.0	46.0	25.2	12.7	-18.0	43.4	49.2	18.2	10.5
14-Jan	49.0	44.7	23.1	7.5	-15.0	43.4	46.4	16.6	8.0
21-Jan	56.0	55.4	24.1	10.0	-19.0	64.4	57.0	18.5	10.1
28-Jan	46.0	41.3	27.3	12.9	-14.0	39.2	44.8	19.3	10.2
4-Feb	52.0	44.7	24.1	10.1	-14.0	38.5	42.0	16.8	9.2
11-Feb	47.0	43.8	22.9	7.1	-17.0	40.6	44.4	16.2	8.3
18-Feb	50.0	43.0	27.9	13.5	-11.0	42.0	49.3	19.1	11.1
25-Feb	53.0	46.0	35.8	22.5	-4.0	44.1	48.4	26.3	16.1
4-Mar	51.0	44.4	28.2	12.9	-6.0	36.4	47.2	17.8	9.6
11-Mar	51.0	45.2	33.2	20.1	-4.0	44.8	47.7	22.6	13.9
18-Mar	70.0	59.5	38.2	22.5	-3.0	63.7	68.0	25.6	15.2
25-Mar	62.0	50.7	41.2	25.3	4.0	49.0	54.0	26.8	16.2
1-Apr	67.0	52.8	46.0	30.9	15.0	63.7	56.9	31.7	20.0
8-Apr	69.0	55.9	45.7	31.9	14.0	62.3	61.4	32.7	21.7
15-Apr	67.0	55.3	50.6	34.6	23.0	59.5	56.3	34.6	21.8
22-Apr	76.0	63.0	54.0	38.0	28.0	77.0	68.3	41.1	27.0
29-Apr	81.0	64.8	58.9	41.8	30.0	79.8	72.0	44.7	29.2
6-May	77.0	64.2	60.5	43.2	34.0	77.7	65.9	46.7	31.2
13-May	81.0	65.9	62.6	45.6	34.0	88.2	77.8	51.8	35.9
20-May	83.0	65.8	65.2	47.3	37.0	89.6	69.9	57.4	39.0
27-May	82.0	66.9	67.7	49.6	37.0	102.2	70.8	60.7	42.2
3-Jun	83.0	68.2	70.1	52.8	39.0	106.4	74.7	66.8	49.2
10-Jun	85.0	70.0	72.7	55.1	43.0	108.5	76.7	75.2	54.2
17-Jun	88.0	73.4	75.1	57.3	45.0	126.0	80.9	79.4	58.8
24-Jun	87.0	71.1	75.3	58.7	47.0	121.1	81.1	82.7	60.1
1-Jul	87.0	73.1	75.6	58.2	49.0	114.8	81.3	82.5	59.9
8-Jul	90.0	73.8	78.1	61.5	50.0	126.0	82.0	88.9	67.4
15-Jul	87.0	72.8	78.8	61.8	53.0	127.4	82.6	91.8	68.2
22-Jul	89.0	74.6	80.3	62.7	52.0	122.5	82.3	94.1	71.2
29-Jul	88.0	74.4	80.1	62.2	53.0	127.4	80.4	92.8	71.0
5-Aug	89.0	76.7	79.1	62.3	53.0	128.1	81.3	94.8	73.0
12-Aug	87.0	70.6	78.1	60.8	49.0	121.1	79.0	90.9	69.3
19-Aug	87.0	71.2	78.0	60.1	50.0	125.3	86.3	91.7	68.7
26-Aug	85.0	71.7	75.2	57.2	45.0	112.7	78.6	82.5	60.8
2-Sep	87.0	76.7	74.4	57.8	44.0	133.0	82.5	86.6	63.5
9-Sep	85.0	75.5	72.7	55.5	42.0	133.0	76.0	82.8	60.1
16-Sep	82.0	68.9	69.2	52.5	40.0	113.4	74.6	74.3	52.8
23-Sep	78.0	69.1	65.6	49.2	35.0	105.7	75.0	66.7	46.9
30-Sep	74.0	63.8	62.6	46.0	33.0	91.7	69.9	58.9	41.0
7-Oct	76.0	63.3	60.4	45.4	32.0	86.1	67.2	55.8	39.2
14-Oct	72.0	57.0	57.2	40.8	27.0	80.5	67.3	49.3	33.0
21-Oct	71.0	59.0	56.0	40.2	27.0	73.5	62.7	46.5	30.6
28-Oct	74.0	63.0	53.8	39.5	27.0	75.6	67.3	44.2	29.9
4-Nov	67.0	57.2	50.5	36.2	22.0	74.2	61.4	38.6	25.9
11-Nov	63.0	57.8	44.9	33.0	17.0	68.6	61.9	35.2	23.0
18-Nov	65.0	55.6	42.5	29.7	14.0	64.4	60.4	32.4	20.1
25-Nov	60.0	58.3	39.5	28.0	9.0	63.7	62.5	30.2	19.3
2-Dec	60.0	54.0	39.3	27.5	3.0	63.7	58.0	30.7	18.9
9-Dec	53.0	50.6	33.5	22.1	-6.0	49.0	48.7	25.3	15.7
16-Dec	50.0	44.3	31.4	19.2	-10.0	45.5	48.3	22.7	14.2
23-Dec	53.0	48.9	29.6	18.2	-11.0	51.1	54.0	21.5	13.6
31-Dec	50.0	49.0	28.3	13.8	-13.0	47.6	50.0	20.6	11.1



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1245
FEB	0	1077
MAR	0	877
APR	5	395
MAY	27	263
JUN	92	83
JUL	163	28
AUG	124	43
SEP	33	145
OCT	4	399
NOV	0	642
DEC	0	992
ANN	448	6189

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	-34443	0	-5696
FEB	0	-29917	0	-4895
MAR	1	-24910	0	-3907
APR	19	-11789	2	-1276
MAY	93	-8731	139	-311
JUN	513	-3292	916	-10
JUL	1044	-1333	2065	0
AUG	664	-1943	1706	0
SEP	104	-5114	505	-58
OCT	7	-12307	12	-619
NOV	0	-18561	0	-2237
DEC	0	-27723	0	-4042
ANN	2445	-180063	5345	-23051

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
	Diffuse	360	500	610	690	790	840	800	730	590	440	350	300	580
Clear Day	Global	780	1140	1650	2160	2520	2660	2570	2250	1770	1240	820	660	1690
NORTH	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
EAST	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
Clear Day	Global	620	850	1130	1370	1500	1540	1500	1380	1170	890	650	540	1100
SOUTH	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
Clear Day	Global	1840	1980	1880	1520	1190	1030	1080	1340	1680	1870	1810	1730	1580
WEST	Global	340	490	690	880	1010	1100	1100	980	790	560	320	260	710
	Diffuse	240	340	430	510	590	630	620	560	450	330	230	190	430
Clear Day	Global	620	850	1130	1370	1500	1540	1500	1380	1170	890	650	540	1100

Average Annual Solar Heat and Illumination – Nearest Available Site

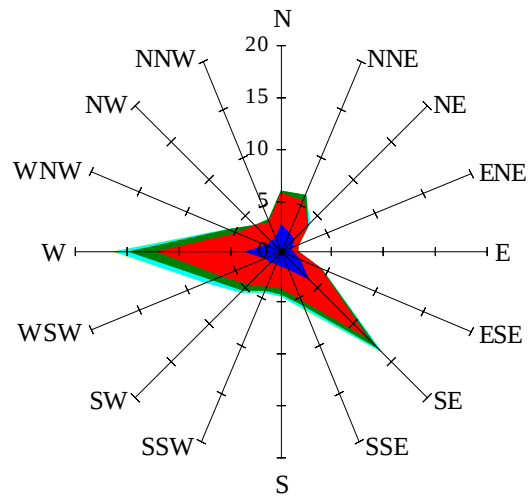
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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

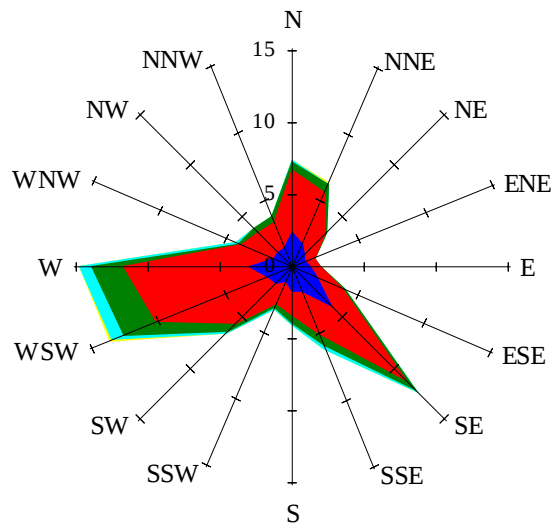
Labels of Percent Frequency on North Axis



Percent Calm = 6.57

Wind Summary - March, April, and May

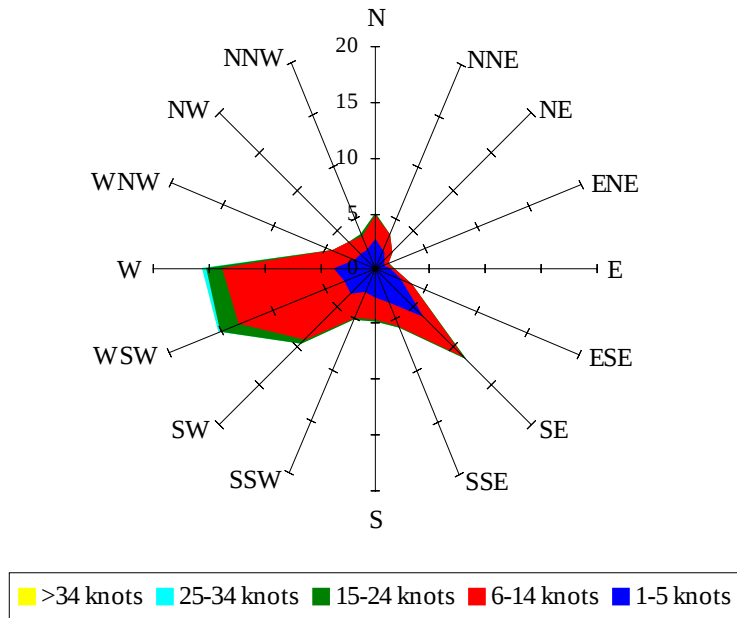
Labels of Percent Frequency on North Axis



Percent Calm = 4.49

Wind Summary - June, July, and August

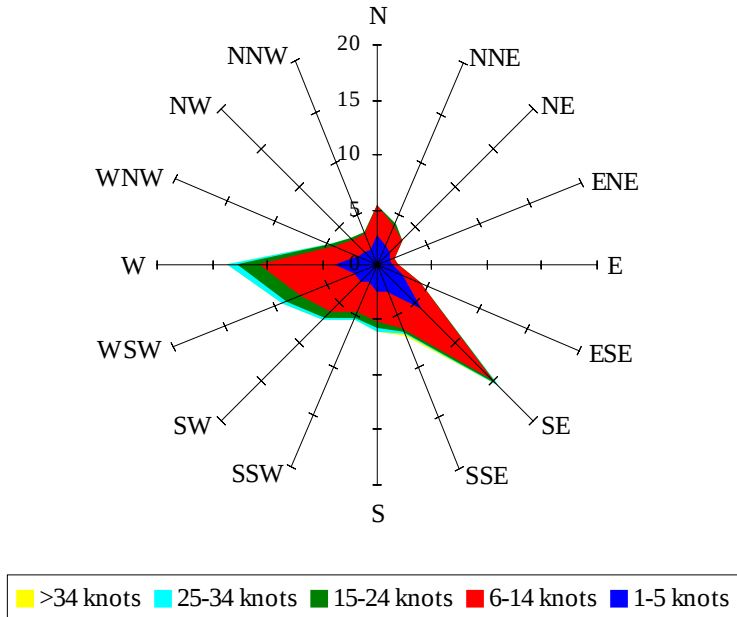
Labels of Percent Frequency on North Axis



Percent Calm = 6.36

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 6.04