

POUGHKEEPSIE NY	
Latitude = 41.63 N	WMO No. 725036
Longitude = 73.88 W	Elevation = 167 feet
Period of Record = 1973 to 1995	Average Pressure = 29.83 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	106	9.2	WSW
0.4% Occurrence	91	74	101	8.7	WSW
1.0% Occurrence	88	73	98	8.5	SW
2.0% Occurrence	85	71	93	8.3	WSW
Mean Daily Range	21	-	-	-	-
97.5% Occurrence	11	10	7	5.4	N
99.0% Occurrence	5	4	5	4.4	N
99.6% Occurrence	0	0	4	3.4	N
Median of Extreme Lows	-10	-10	3	0.2	NE
	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	91	133	8.1	SW
0.4% Occurrence	77	87	121	7.6	WSW
1.0% Occurrence	75	84	115	7.4	S
2.0% Occurrence	74	83	112	7.1	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	147	89	0.97	7.2	SW
0.4% Occurrence	125	81	0.82	6.6	S
1.0% Occurrence	119	80	0.79	6.0	S
2.0% Occurrence	115	79	0.77	5.8	S
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		21	509	249	1006

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
6	2.8	100	1.4 + 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 (#)
52.1	N/A	N/A	88

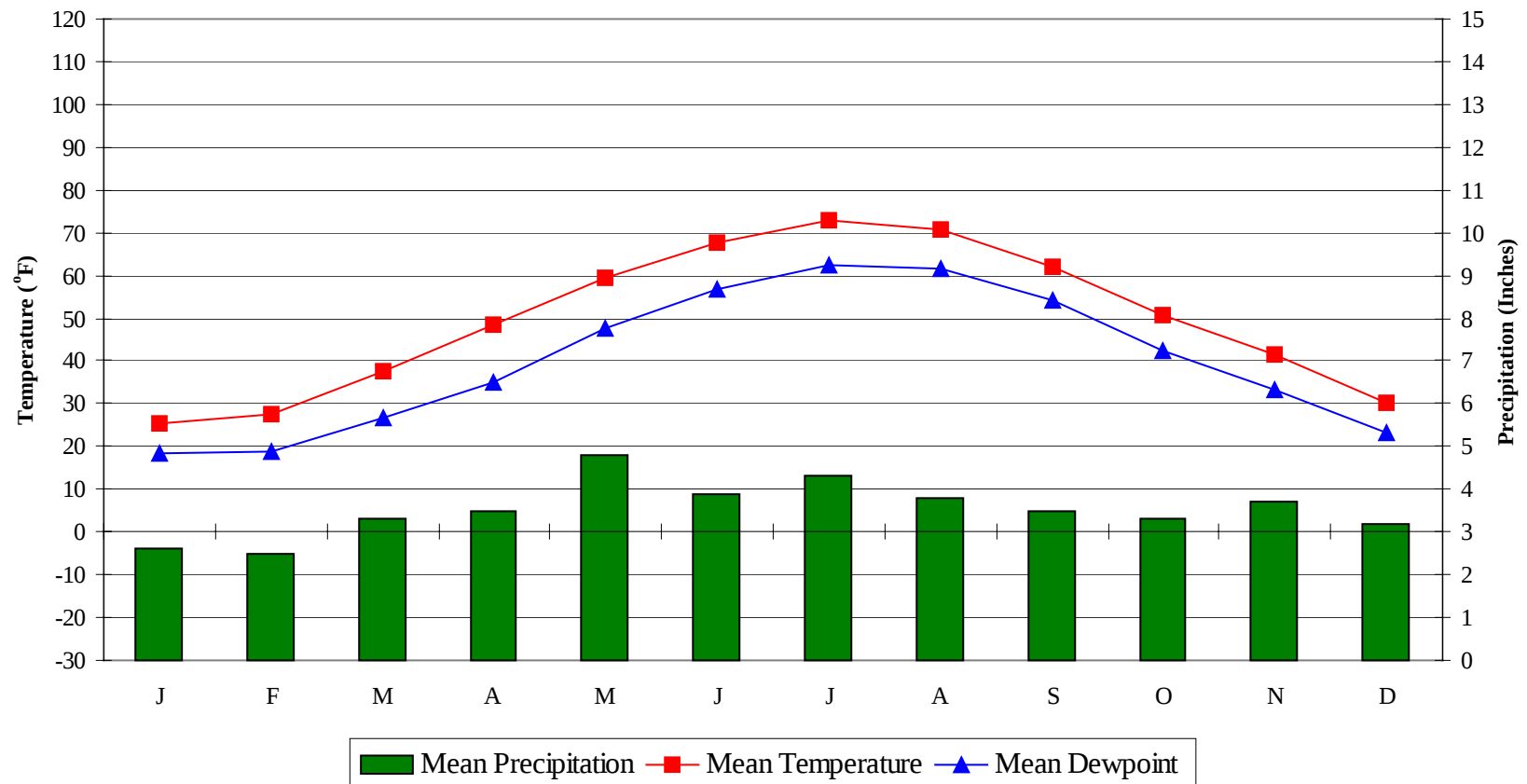
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

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Average Annual Climate

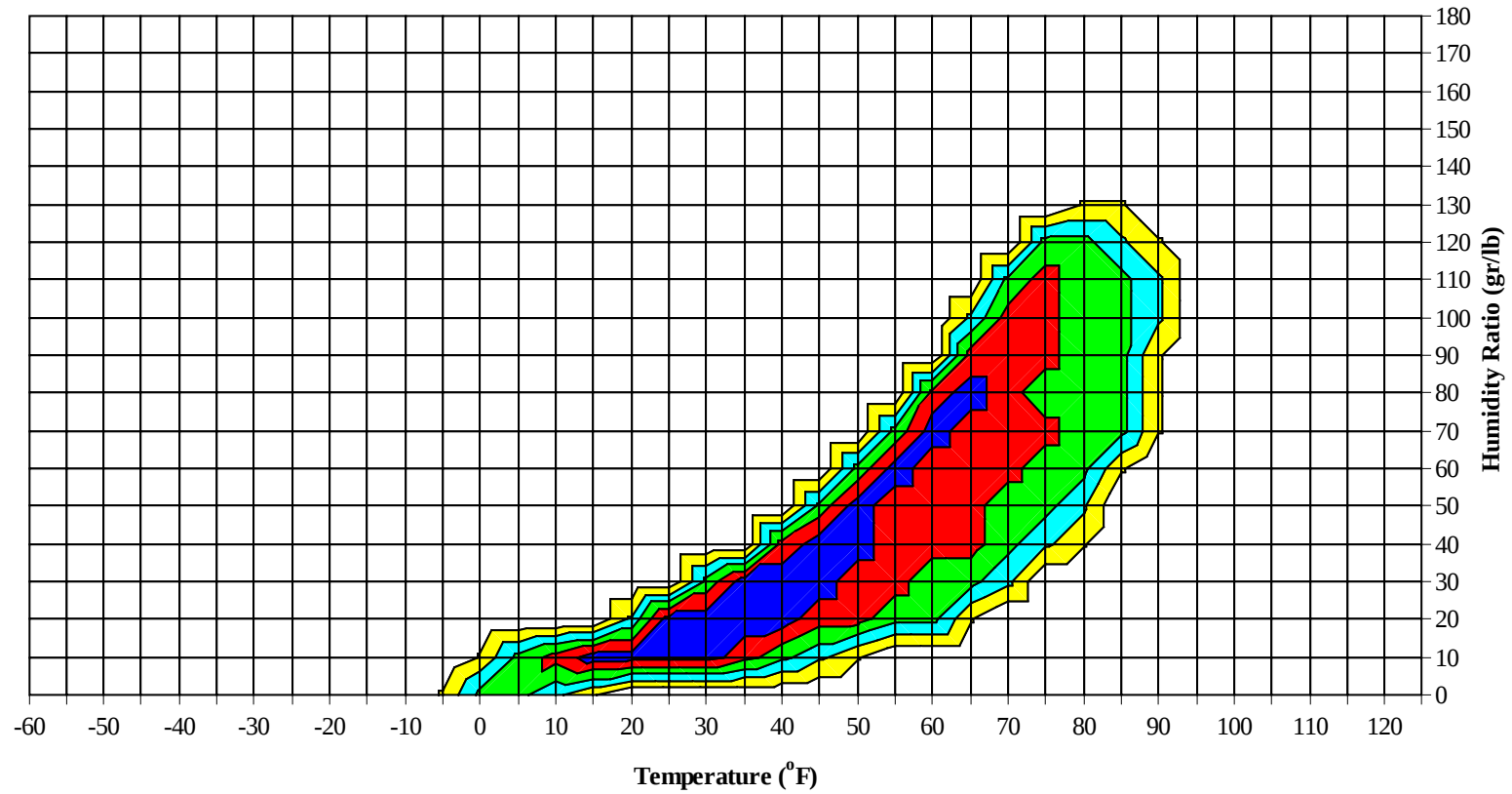


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Long Term Psychrometric Summary



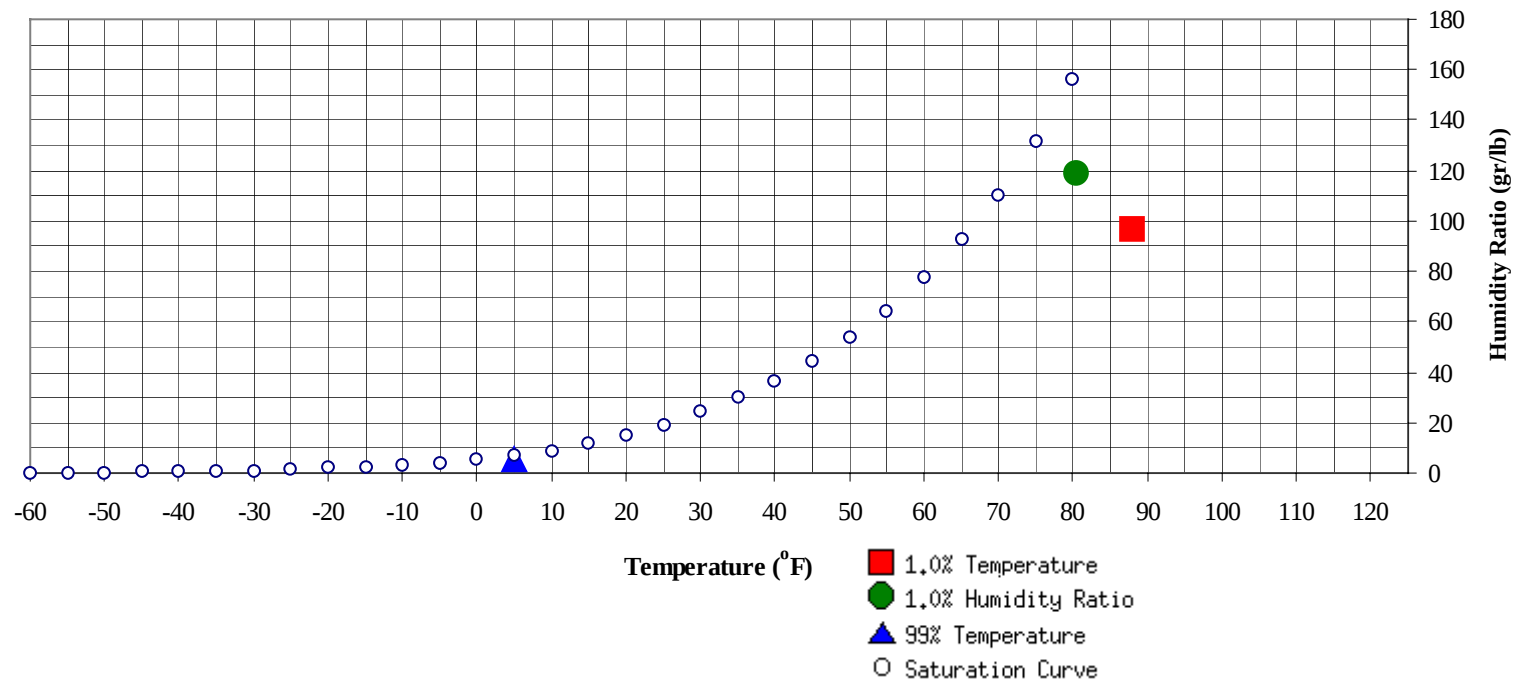
- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

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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)
	5	5.3	2.0		119	80.3	74.4	72	37.9

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	88	96.8	72.7	36.3

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

Period of Record = 1973 to 1995

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												1	0	1	61.8
75 / 79												1	1	2	62.4
70 / 74							0		0	54.5		0	3	1	4 57.6
65 / 69		0		0	62.0		0	0	0	54.8		0	6	3	9 55.7
60 / 64	1	1	1	3	56.5	0	3	0	3	52.5	1	9	5	15	52.4
55 / 59	1	2	2	5	52.5	1	4	2	7	50.3	3	15	10	28	48.9
50 / 54	2	4	3	9	47.6	2	7	5	14	46.4	6	27	17	50	44.9
45 / 49	2	8	4	14	42.0	2	13	9	24	41.6	14	38	30	82	41.1
40 / 44	7	23	14	44	37.8	8	28	17	53	37.5	29	48	44	122	37.3
35 / 39	21	45	33	99	33.6	20	37	32	89	33.5	40	44	46	131	33.4
30 / 34	41	45	44	130	29.7	31	41	41	113	29.4	51	32	43	126	29.3
25 / 29	38	41	43	122	24.9	34	35	42	111	24.6	42	14	27	82	24.7
20 / 24	33	30	36	99	20.3	34	26	31	91	19.9	28	7	14	49	20.2
15 / 19	31	20	27	78	15.7	28	17	20	65	15.5	17	2	5	24	15.7
10 / 14	26	15	19	60	10.9	25	8	14	47	10.8	11	1	2	14	11.3
5 / 9	18	8	13	39	6.4	15	5	7	27	6.4	4	0	0	4	6.4
0 / 4	14	4	7	25	1.5	12	1	4	17	1.7	1			1	2.3
-5 / -1	8	1	1	10	-2.9	4	0	1	5	-2.8	0			0	-2.2
-10 / -6	3	0	1	4	-6.7	4		0	4	-6.7					
-15 / -11	1	0	0	1	-11.7	1		0	1	-11.8					
-20 / -16	1			1	-17.1	0			0	-15.3					
-25 / -21	0			0	-20.5										

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 1995

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															
95 / 99							0		0	75.0		1	0	1	77.2
90 / 94		1	0	1	67.5		2	0	2	70.6		7	1	8	74.2
85 / 89		2	0	2	65.9		9	2	11	69.3	0	18	6	24	71.5
80 / 84		3	1	4	63.6		17	6	23	66.8	1	43	17	61	68.7
75 / 79		5	3	8	60.4	1	24	13	38	63.9	4	57	32	93	65.9
70 / 74	0	12	6	18	57.6	4	40	23	67	60.7	23	52	48	123	64.2
65 / 69	1	20	12	33	54.4	13	47	35	95	58.2	52	32	49	133	62.0
60 / 64	6	32	20	58	51.7	31	45	45	121	55.4	55	21	43	119	58.3
55 / 59	14	38	30	82	48.7	48	36	49	133	52.5	45	8	27	80	54.3
50 / 54	26	45	41	112	45.4	55	21	39	115	48.4	32	1	13	46	50.3
45 / 49	40	42	47	129	42.0	44	6	22	72	44.4	18		3	21	46.0
40 / 44	52	28	39	119	38.4	30	1	10	41	40.5	8		0	8	41.6
35 / 39	42	9	24	75	34.2	16	0	3	19	35.9	1			1	37.4
30 / 34	33	3	12	48	30.0	6		0	6	31.6					
25 / 29	19	1	4	24	25.8	0			0	28.7					
20 / 24	5	0	0	5	21.4										
15 / 19	0	0	0	0	16.6										
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															

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

Period of Record = 1973 to 1995

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	77.5										
100 / 104		1	0	1	76.4										
95 / 99		4	1	5	76.3		2	0	2	75.8		1	0	1	75.3
90 / 94		18	5	23	74.8		12	2	14	75.0		3	1	4	74.8
85 / 89	0	46	16	62	72.4	0	34	10	44	73.0		8	2	10	72.0
80 / 84	3	65	33	101	70.0	2	60	24	86	70.5	0	19	5	24	69.9
75 / 79	19	59	50	128	68.5	12	63	45	120	68.6	3	34	15	52	67.2
70 / 74	53	36	60	149	66.9	49	46	64	159	67.1	14	47	29	90	64.7
65 / 69	72	15	47	134	63.9	67	22	48	137	63.8	28	56	41	125	61.2
60 / 64	53	4	25	82	59.7	50	8	32	90	59.7	39	40	50	129	57.9
55 / 59	30	0	8	38	55.3	40	2	18	60	55.5	48	22	44	114	54.3
50 / 54	15	0	2	17	51.2	20		4	24	51.1	40	7	28	75	50.1
45 / 49	4		0	4	46.5	7		1	8	46.5	31	1	18	50	45.8
40 / 44	0			0	42.8	2		0	2	41.4	21	0	7	28	41.5
35 / 39						0			0	37.9	12		1	13	36.8
30 / 34											3			3	32.7
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															

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

Period of Record = 1973 to 1995

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															
85 / 89		0		0	69.7										
80 / 84		2		2	65.9		0		0	63.0					
75 / 79	0	7	1	8	65.3	1	0		1	63.0					
70 / 74	1	21	5	27	62.3	3	1		4	61.8		0		0	61.7
65 / 69	4	30	14	48	59.5	0	9	4	13	59.5	0	1	0	1	58.5
60 / 64	13	44	28	85	55.9	6	14	8	28	56.1	1	2	1	4	56.7
55 / 59	25	50	36	111	52.0	9	23	14	46	51.5	2	4	3	9	52.4
50 / 54	36	43	45	124	47.7	17	36	25	78	47.6	3	9	5	17	47.3
45 / 49	43	33	46	122	43.7	25	46	33	104	42.6	6	19	9	34	42.5
40 / 44	42	12	35	89	39.7	33	46	42	121	38.0	14	36	23	73	38.0
35 / 39	38	3	22	63	35.5	42	36	46	124	33.8	29	53	42	125	33.8
30 / 34	28	1	13	42	31.2	46	19	38	103	30.0	48	49	53	150	29.7
25 / 29	16		4	20	26.7	34	5	20	59	25.9	42	32	43	117	25.1
20 / 24	4		0	4	22.4	19	1	7	27	21.3	36	22	31	90	20.4
15 / 19	0			0	18.6	8	1	2	11	16.7	28	13	20	61	15.9
10 / 14						1		0	1	12.4	18	5	10	33	11.2
5 / 9						0		0	0	7.6	11	2	5	18	6.6
0 / 4											5	1	2	8	1.7
-5 / -1											2	0	0	2	-2.5
-10 / -6											1	0	0	1	-7.1
-15 / -11											1		0	1	-11.5
-20 / -16															
-25 / -21															

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

Period of Record = 1973 to 1995

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	77.5	
100 / 104	1			0	1	76.4
95 / 99	7			1	8	76.2
90 / 94	42			10	52	74.5
85 / 89	0	116	35	151	72.1	
80 / 84	6	208	87	301	69.5	
75 / 79	39	250	159	448	67.2	
70 / 74	143	259	234	636	64.9	
65 / 69	236	237	252	725	61.4	
60 / 64	255	223	258	736	57.0	
55 / 59	264	205	242	711	52.6	
50 / 54	251	201	224	676	47.8	
45 / 49	237	207	222	666	43.0	
40 / 44	247	223	234	704	38.4	
35 / 39	262	229	253	744	34.0	
30 / 34	286	191	246	723	29.8	
25 / 29	225	129	185	539	25.0	
20 / 24	159	87	121	367	20.3	
15 / 19	114	53	75	242	15.7	
10 / 14	83	29	45	157	11.0	
5 / 9	50	15	25	90	6.4	
0 / 4	33	6	12	51	1.6	
-5 / -1	14	2	2	18	-2.8	
-10 / -6	8	0	2	10	-6.7	
-15 / -11	3	0	0	3	-11.7	
-20 / -16	1			1	-16.8	
-25 / -21	0			0	-20.5	

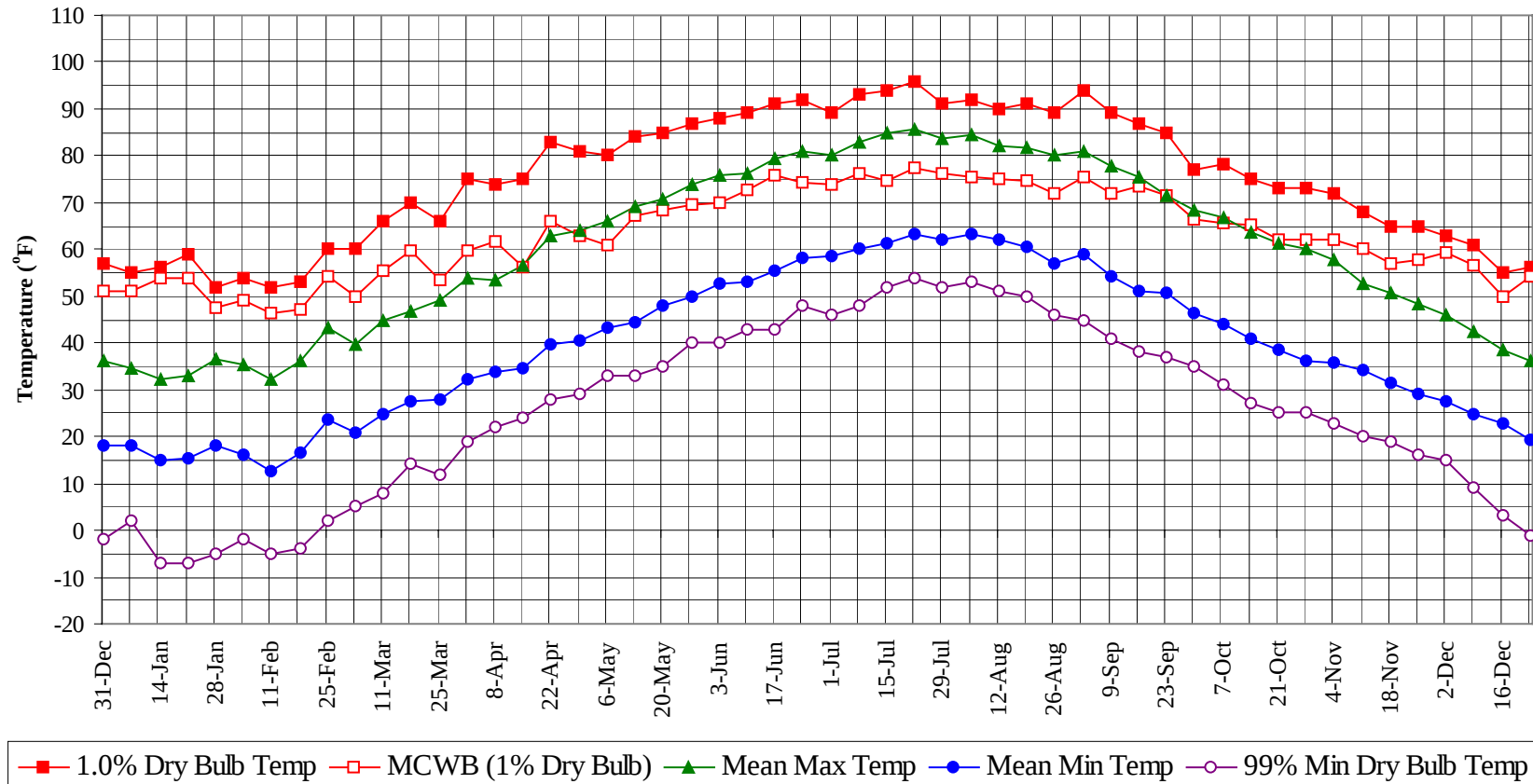
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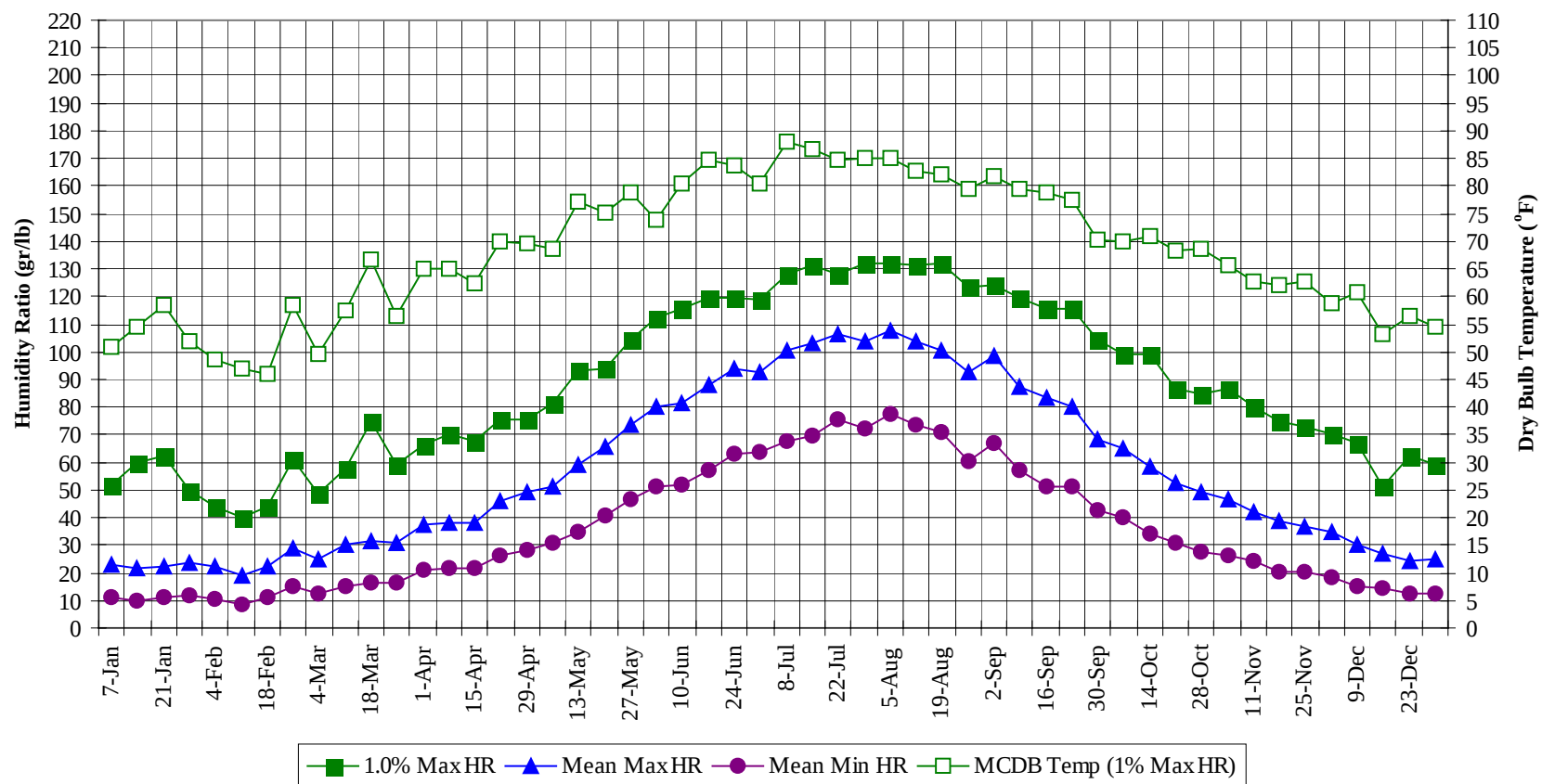
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Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary



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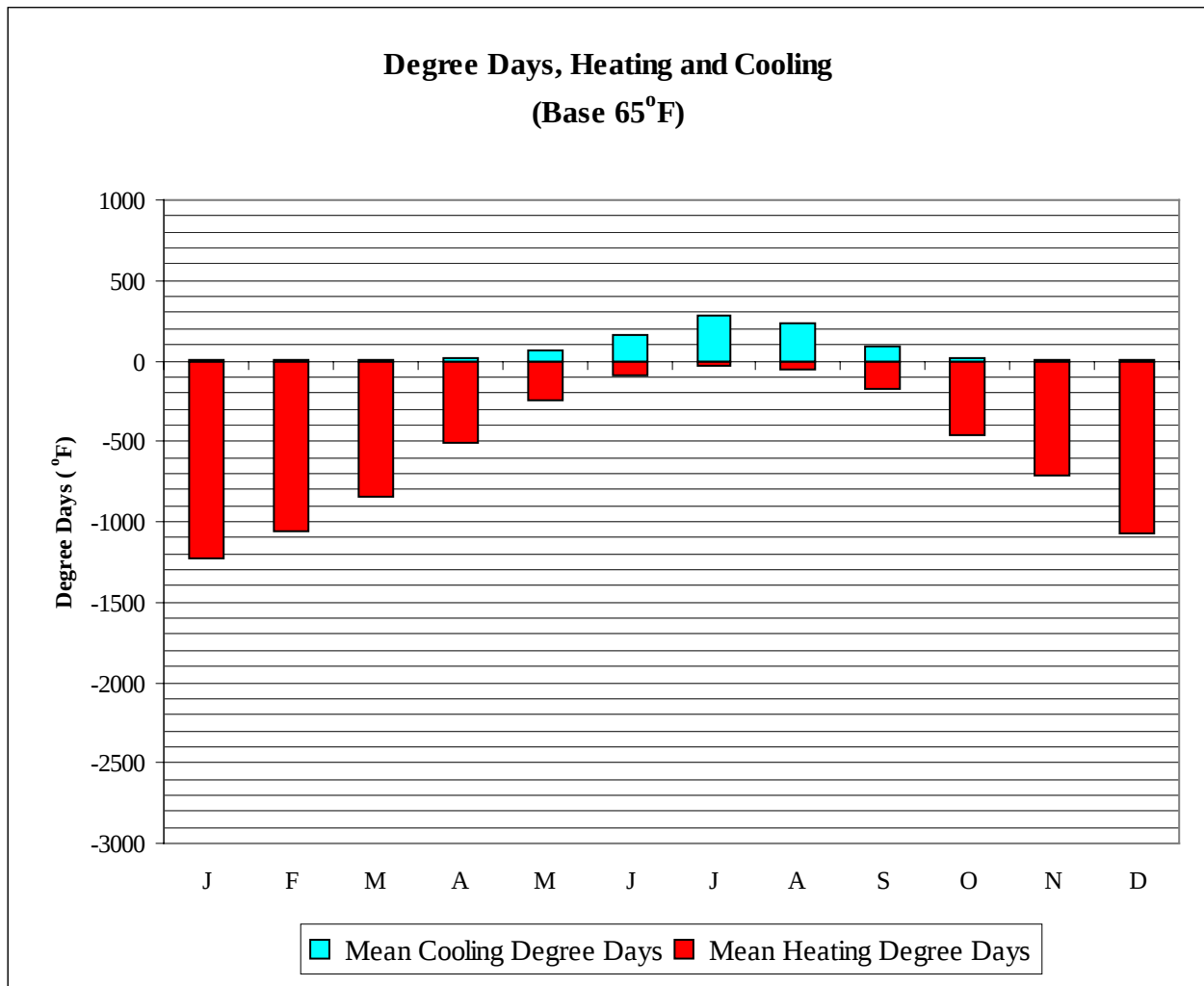
Long Term Dry Bulb Temperature and Humidity Summary

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	55.0	51.1	34.5	18.1	2.0	51.8	51.0	22.8	11.5
14-Jan	56.0	53.7	32.4	14.8	-7.0	59.5	54.6	21.9	10.2
21-Jan	59.0	53.7	33.1	15.4	-7.0	62.3	58.3	22.5	11.4
28-Jan	52.0	47.5	36.6	18.0	-5.0	49.7	52.0	23.9	12.1
4-Feb	54.0	49.2	35.4	16.2	-2.0	44.1	48.6	22.5	10.7
11-Feb	52.0	46.3	32.3	12.5	-5.0	39.9	46.9	18.7	8.7
18-Feb	53.0	47.0	36.1	16.4	-4.0	44.1	46.1	22.4	11.3
25-Feb	60.0	54.1	43.1	23.4	2.0	60.9	58.4	29.1	15.4
4-Mar	60.0	49.9	39.8	21.0	5.0	48.3	49.5	24.9	12.4
11-Mar	66.0	55.5	44.9	24.8	8.0	58.1	57.4	30.3	15.3
18-Mar	70.0	59.8	46.8	27.4	14.0	74.9	66.8	31.6	16.1
25-Mar	66.0	53.6	49.3	27.8	12.0	58.8	56.4	30.8	16.7
1-Apr	75.0	59.7	53.9	32.2	19.0	66.5	64.9	37.1	20.7
8-Apr	74.0	61.7	53.5	33.7	22.0	70.0	65.0	38.3	22.0
15-Apr	75.0	56.1	56.4	34.5	24.0	67.9	62.4	38.4	21.5
22-Apr	83.0	66.0	62.8	39.6	28.0	75.6	70.0	45.9	26.2
29-Apr	81.0	63.0	64.2	40.6	29.0	75.6	69.5	49.0	28.4
6-May	80.0	61.0	65.8	43.2	33.0	81.2	68.7	51.4	30.7
13-May	84.0	67.1	69.0	44.6	33.0	93.1	77.1	58.9	34.9
20-May	85.0	68.5	70.8	47.8	35.0	93.8	75.2	65.7	40.5
27-May	87.0	69.6	73.9	50.1	40.0	104.3	78.7	73.8	46.8
3-Jun	88.0	70.1	75.8	52.6	40.0	112.0	73.9	80.2	51.3
10-Jun	89.0	72.5	76.3	53.1	43.0	115.5	80.4	81.4	51.6
17-Jun	91.0	75.7	79.3	55.4	43.0	119.7	84.8	88.0	57.1
24-Jun	92.0	74.4	81.1	58.1	48.0	119.7	83.9	93.7	62.8
1-Jul	89.0	73.9	80.3	58.7	46.0	119.0	80.4	92.4	63.5
8-Jul	93.0	76.4	83.0	60.0	48.0	128.1	88.1	100.5	67.6
15-Jul	94.0	74.8	84.8	61.4	52.0	131.6	86.5	103.2	69.9
22-Jul	96.0	77.3	85.7	63.4	54.0	128.1	84.9	106.2	75.5
29-Jul	91.0	76.4	83.7	61.9	52.0	132.3	84.9	103.6	72.5
5-Aug	92.0	75.5	84.6	63.1	53.0	132.3	85.2	107.4	77.5
12-Aug	90.0	75.2	82.1	61.9	51.0	131.6	82.9	103.8	73.7
19-Aug	91.0	74.6	81.6	60.5	50.0	132.3	82.1	100.5	70.7
26-Aug	89.0	71.8	80.2	56.9	46.0	123.2	79.5	92.8	60.6
2-Sep	94.0	75.4	80.9	58.8	45.0	123.9	81.8	98.7	67.2
9-Sep	89.0	71.9	77.9	54.3	41.0	119.7	79.3	87.4	56.9
16-Sep	87.0	73.7	75.4	51.3	38.0	115.5	78.9	83.3	51.4
23-Sep	85.0	71.5	71.4	50.7	37.0	115.5	77.5	80.1	50.9
30-Sep	77.0	66.6	68.3	46.3	35.0	104.3	70.2	68.3	42.8
7-Oct	78.0	65.7	66.7	44.1	31.0	99.4	70.0	65.0	39.9
14-Oct	75.0	65.1	63.5	40.7	27.0	99.4	70.9	58.3	34.2
21-Oct	73.0	62.0	61.4	38.7	25.0	86.8	68.5	52.8	30.9
28-Oct	73.0	62.0	60.3	36.2	25.0	84.7	68.7	49.6	27.8
4-Nov	72.0	62.2	57.8	35.8	23.0	86.8	65.7	46.7	26.5
11-Nov	68.0	60.3	52.8	34.3	20.0	79.8	62.8	42.1	24.2
18-Nov	65.0	57.1	50.6	31.3	19.0	74.9	62.1	38.5	20.3
25-Nov	65.0	57.8	48.3	29.2	16.0	72.8	62.8	36.6	20.2
2-Dec	63.0	59.2	45.9	27.7	15.0	70.0	58.9	34.8	18.7
9-Dec	61.0	56.6	42.6	24.6	9.0	67.2	60.7	30.5	15.2
16-Dec	55.0	50.0	38.7	22.7	3.0	51.1	53.3	27.2	14.6
23-Dec	56.0	54.3	36.3	19.3	-1.0	62.3	56.4	24.0	12.7
31-Dec	57.0	51.0	36.1	18.2	-2.0	58.8	54.7	25.1	12.5

POUGHKEEPSIE

NY

WMO No. 725036



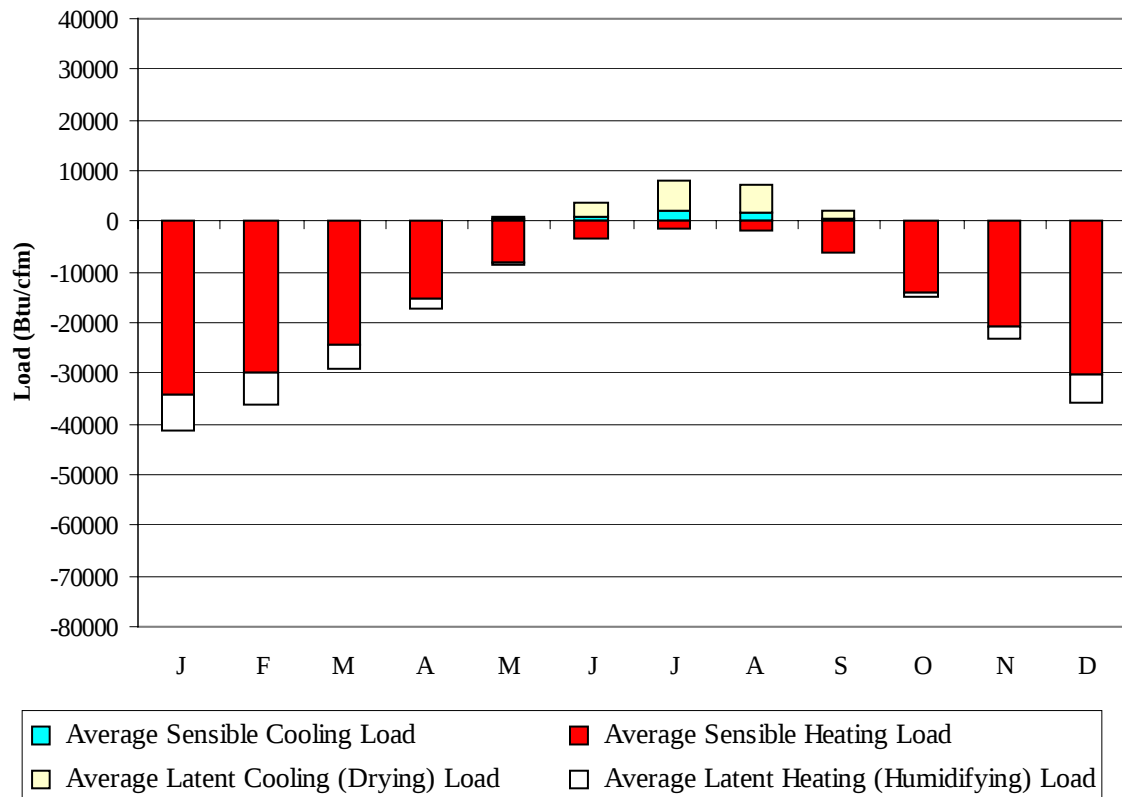
	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1228
FEB	0	1060
MAR	3	848
APR	17	506
MAY	70	242
JUN	165	86
JUL	277	32
AUG	233	48
SEP	91	175
OCT	15	461
NOV	2	707
DEC	0	1077
ANN	873	6470

POUGHKEEPSIE

NY

WMO No. 725036

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	-34228	0	-6902
FEB	0	-29679	0	-6475
MAR	8	-24348	5	-4736
APR	84	-15278	6	-2120
MAY	385	-8054	499	-302
JUN	1057	-3288	2538	-10
JUL	2279	-1450	5774	0
AUG	1660	-1998	5457	-2
SEP	465	-6060	1790	-36
OCT	23	-14168	211	-835
NOV	2	-20623	24	-2680
DEC	0	-30327	0	-5557
ANN	5963	-189501	16304	-29655

Average Annual Solar Radiation – Nearest Available Site

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

City: NEW YORK CITY
 State: NY
 WBAN No: 94728
 Lat(N): 40.78
 Long(W): 73.97
 Elev(ft): 187

Stn Type: Primary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS
 Window: 1
 Overhang: 0.556
 Vert Gap: 0.324

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	610	870	1220	1560	1800	1940	1910	1710	1370	1010	640	510	1260
	Std Dev	35	73	74	108	134	122	106	87	87	67	52	39	30
	Minimum	530	720	1050	1360	1520	1600	1670	1540	1220	910	540	430	1180
	Maximum	690	1040	1400	1740	2040	2170	2080	1870	1540	1200	750	570	1320
	Diffuse	320	430	580	740	900	970	950	840	660	470	340	280	630
Clear Day	Global	840	1190	1670	2160	2470	2580	2500	2210	1780	1290	890	730	1700
NORTH	Global	190	260	350	450	550	620	600	500	390	290	210	170	380
	Diffuse	190	260	350	440	520	560	550	480	390	290	210	170	370
Clear Day	Global	180	240	330	430	580	670	620	480	360	270	200	160	380
EAST	Global	410	560	740	910	1000	1040	1050	970	820	650	430	350	750
	Diffuse	240	330	430	540	630	670	660	600	490	370	260	210	450
Clear Day	Global	640	840	1090	1300	1410	1430	1390	1300	1120	880	660	560	1050
SOUTH	Global	980	1090	1100	990	870	820	850	970	1080	1140	940	860	970
	Diffuse	350	430	510	560	600	620	620	610	550	470	360	310	500
Clear Day	Global	1800	1890	1770	1440	1120	980	1030	1270	1590	1780	1760	1710	1510
WEST	Global	410	550	740	890	980	1040	1030	950	800	630	410	340	730
	Diffuse	240	330	440	540	630	680	670	600	490	370	250	200	450
Clear Day	Global	640	840	1090	1300	1410	1430	1390	1300	1120	880	660	560	1050

Average Annual Solar Heat and Illumination – Nearest Available Site

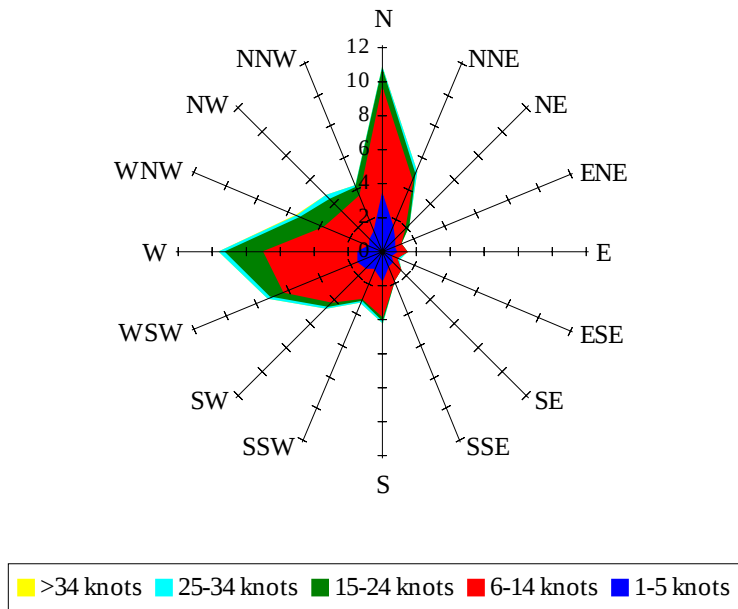
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	390	590	860	1120	1300	1400	1380	1230	980	700	430	320	890
NORTH	Unshaded	130	180	240	310	370	410	400	340	270	200	140	120	260
	Shaded	120	160	210	270	320	360	350	300	240	180	130	100	230
EAST	Unshaded	280	390	520	650	700	740	740	690	580	450	300	230	520
	Shaded	250	340	450	550	590	610	620	580	500	400	260	210	450
SOUTH	Unshaded	730	800	770	650	550	510	530	620	740	820	700	650	670
	Shaded	710	730	600	430	370	370	380	400	530	720	670	630	540
WEST	Unshaded	280	380	520	630	690	730	730	670	570	440	280	230	510
	Shaded	250	340	450	530	580	610	610	560	490	380	250	200	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	39	71	79	60	22	48	83	100	93	64
	M.Cloudy	23	45	48	38	14	31	54	71	67	44
NORTH	M.Clear	10	14	15	13	7	17	17	18	18	16
	M.Cloudy	9	15	16	14	6	13	18	20	20	16
EAST	M.Clear	69	53	15	13	7	72	69	29	18	16
	M.Cloudy	25	30	16	14	6	33	40	26	20	16
SOUTH	M.Clear	40	73	82	62	22	13	35	49	43	21
	M.Cloudy	17	38	41	32	10	12	25	37	33	18
WEST	M.Clear	10	14	26	66	55	13	17	18	55	75
	M.Cloudy	9	15	20	33	19	12	18	20	39	42
M.Clear	(% hrs)	38	35	34	32	34	38	39	34	34	35
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	28	66	82	73	42	14	38	42	24	0
	M.Cloudy	17	41	56	50	27	9	23	25	15	0
NORTH	M.Clear	9	15	17	16	12	5	10	10	7	0
	M.Cloudy	8	15	18	17	11	4	9	10	6	0
EAST	M.Clear	60	65	26	16	12	34	34	10	7	0
	M.Cloudy	21	33	22	17	11	11	16	10	6	0
SOUTH	M.Clear	22	58	75	65	34	33	75	81	52	0
	M.Cloudy	11	30	44	38	19	10	28	29	18	0
WEST	M.Clear	9	15	17	54	66	5	10	22	42	0
	M.Cloudy	8	15	18	33	30	4	9	13	15	0
M.Clear	(% hrs)	43	46	40	39	39	33	32	31	30	35

Wind Summary - December, January, and February

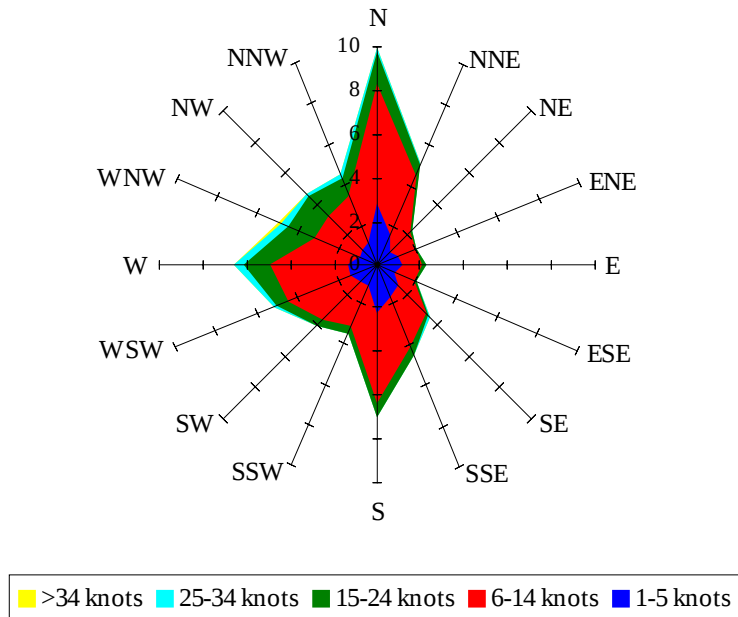
Labels of Percent Frequency on North Axis



Percent Calm = 32.67

Wind Summary - March, April, and May

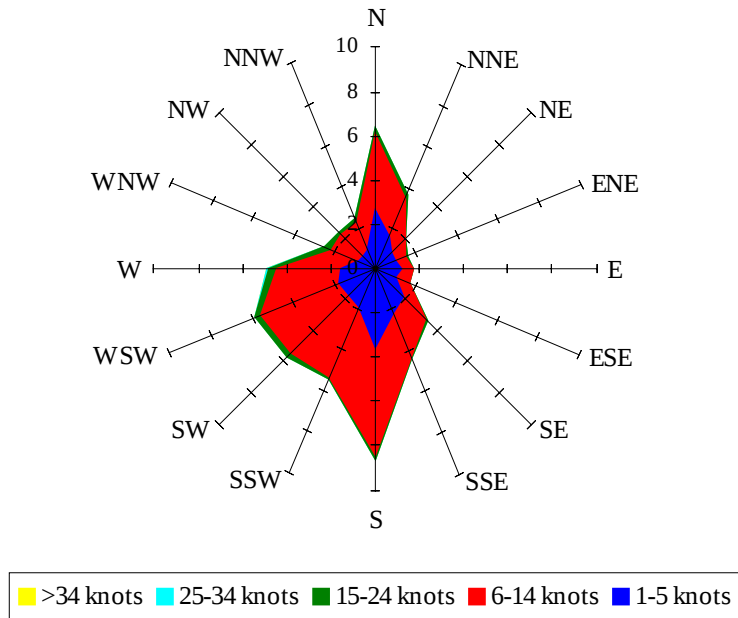
Labels of Percent Frequency on North Axis



Percent Calm = 29.39

Wind Summary - June, July, and August

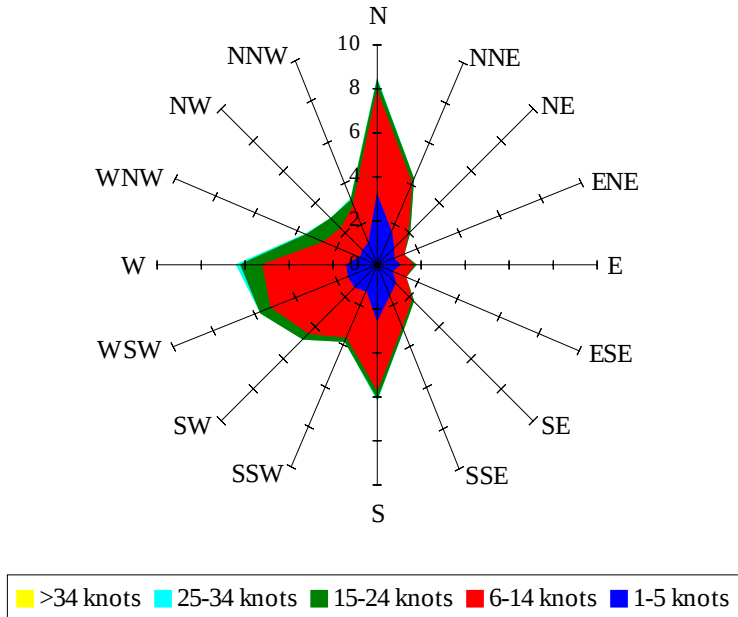
Labels of Percent Frequency on North Axis



Percent Calm = 38.20

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 39.04