

BUFFALO NY

Latitude = 42.93 N

Longitude = 78.73 W

Period of Record = 1973 to 1996

WMO No. 725280

Elevation = 705 feet

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	90	72	93	13.1	WSW
0.4% Occurrence	86	70	90	12.8	WSW
1.0% Occurrence	84	70	88	12.6	WSW
2.0% Occurrence	82	69	86	12.4	WSW
Mean Daily Range	16	-	-	-	-
97.5% Occurrence	10	9	7	12.3	W
99.0% Occurrence	6	5	6	12.2	W
99.6% Occurrence	2	2	5	12.0	W
Median of Extreme Lows	-7	-7	3	9.5	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	77	85	126	13.3	WSW
0.4% Occurrence	74	81	116	13.3	WSW
1.0% Occurrence	72	79	108	12.3	WSW
2.0% Occurrence	71	78	104	11.8	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	135	83	0.88	12.4	WSW
0.4% Occurrence	120	80	0.79	11.2	WSW
1.0% Occurrence	113	77	0.74	12.3	SW
2.0% Occurrence	107	73	0.69	12.1	SW
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		2	290	87	713

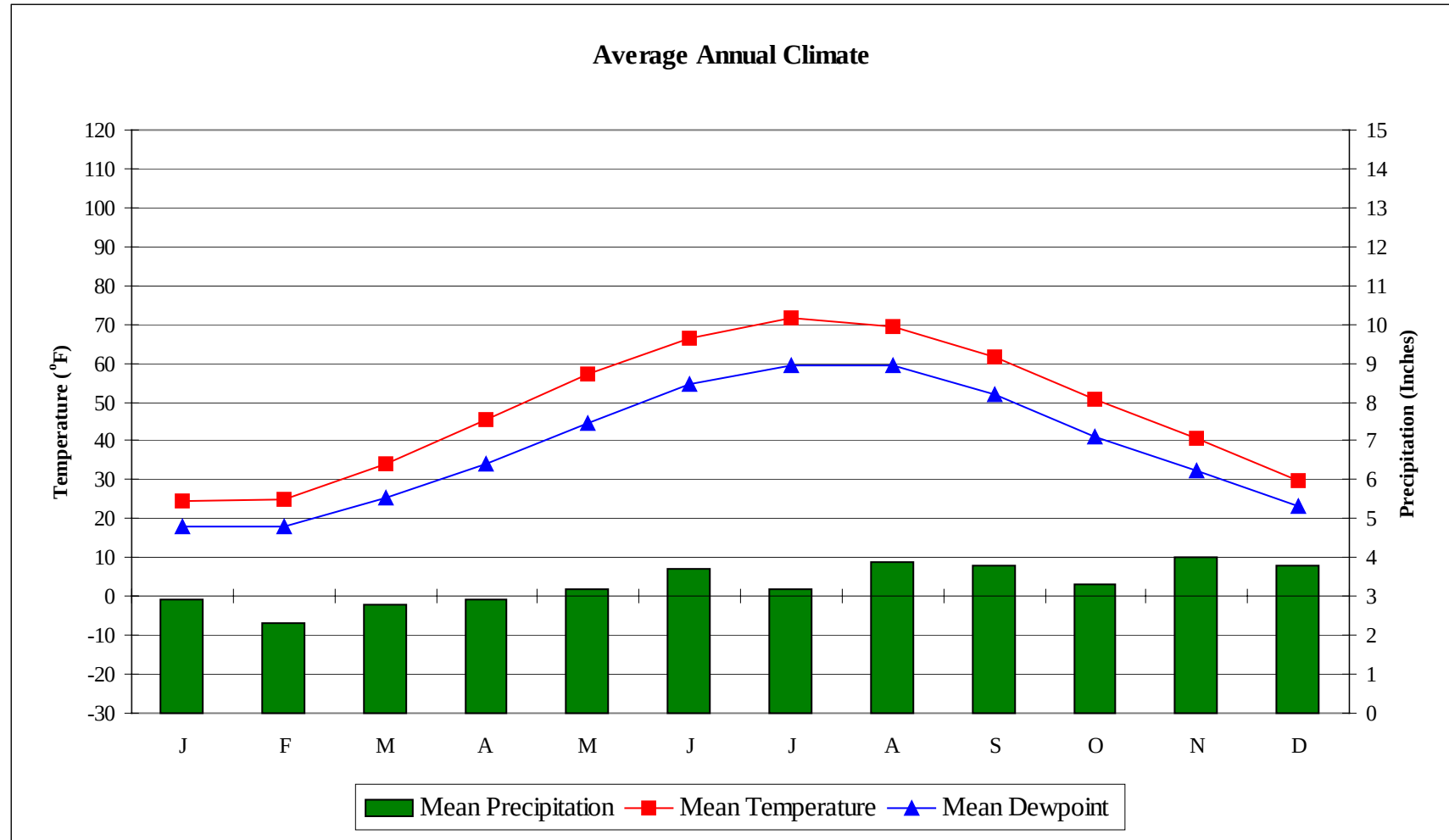
Other Site Data

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	2.3	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 (#)
50.6	59	39	53

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

BUFFALO NY

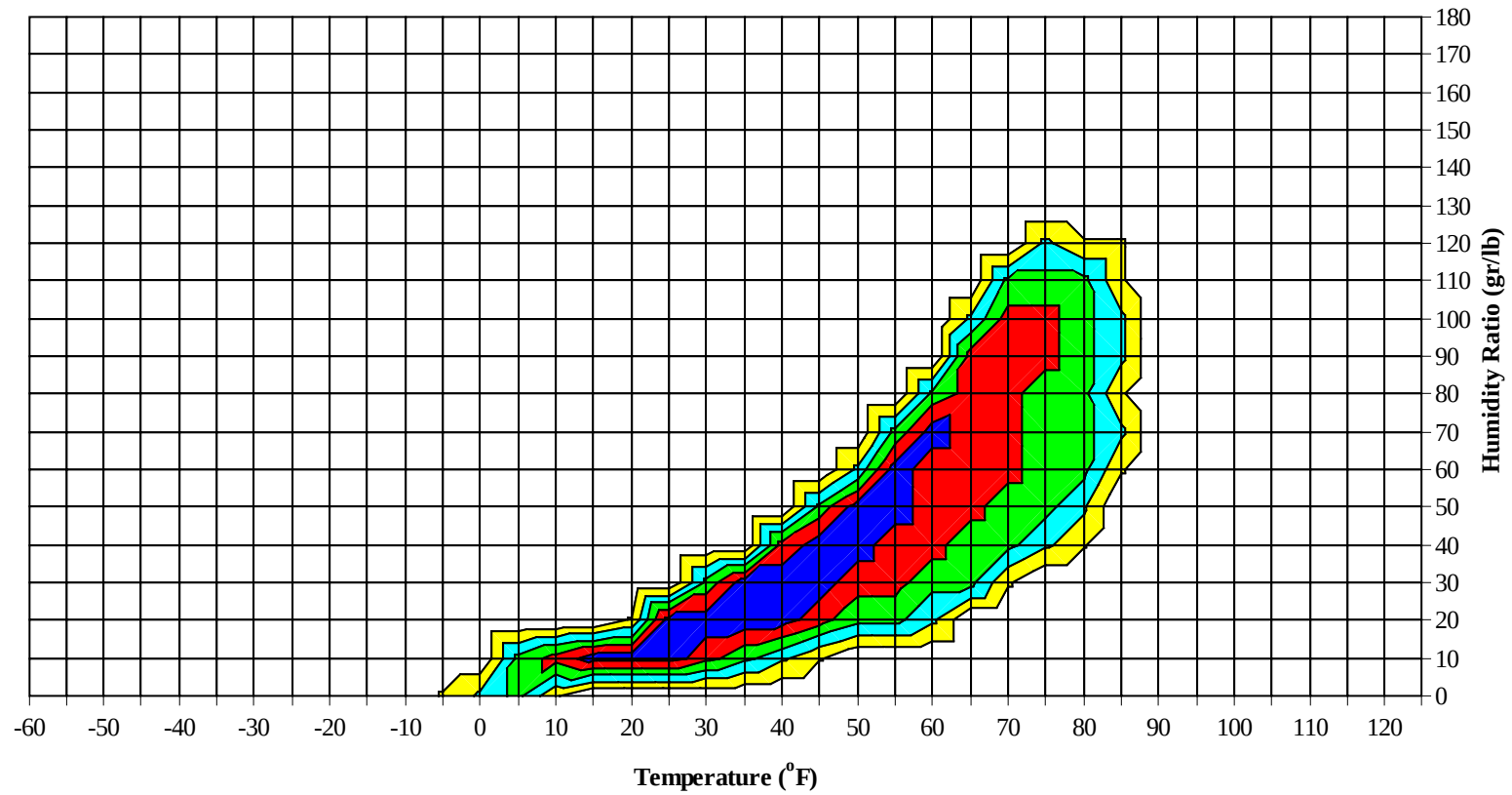
WMO No. 725280



BUFFALO NY

WMO No. 725280

Long Term Psychrometric Summary

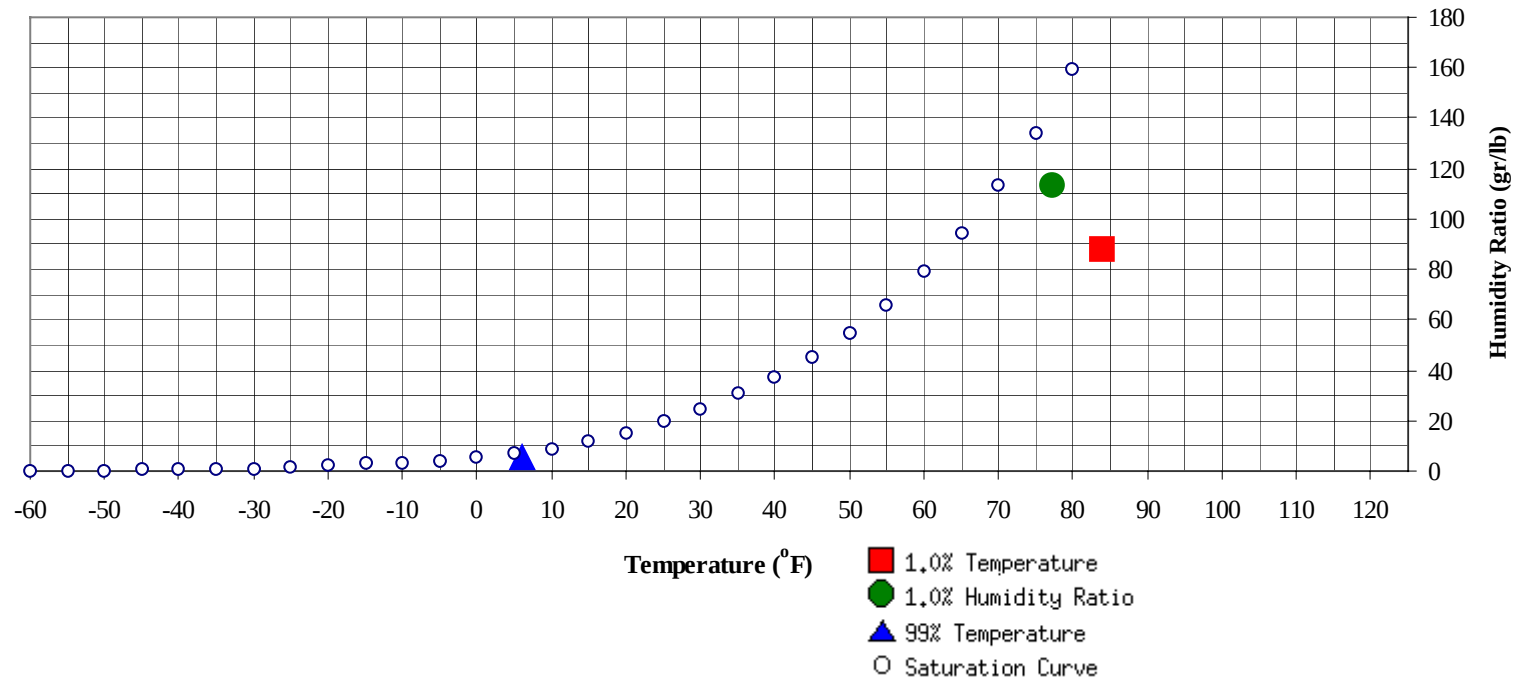


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

BUFFALO NY

WMO No. 725280

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	6	5.6	2.3		113.4	77.1	72.1	70	36.2

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	84	88.1	69.6	34.0

BUFFALO NY

WMO No. 725280

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															
75 / 79												1	0	1	60.0
70 / 74												2	1	3	56.3
65 / 69	0	0	0	0	57.6		0		0	57.0	1	4	2	7	54.5
60 / 64	0	1	0	1	55.3		1	0	1	51.7	3	7	4	14	51.4
55 / 59	0	1	1	2	50.9	1	3	1	5	48.7	4	11	7	22	49.3
50 / 54	2	3	2	7	47.3	3	5	4	12	46.2	9	16	12	37	45.6
45 / 49	6	6	4	16	41.6	4	7	6	17	42.0	12	22	18	52	41.8
40 / 44	10	12	9	31	38.4	9	16	10	35	38.0	18	33	27	78	37.9
35 / 39	21	30	28	79	33.9	20	27	25	72	34.1	36	47	44	127	33.8
30 / 34	42	45	47	135	29.9	36	37	39	112	30.1	51	45	55	151	29.7
25 / 29	36	38	37	111	24.9	28	32	30	90	24.8	45	30	35	110	24.8
20 / 24	34	40	35	109	20.2	30	36	36	102	20.2	30	16	23	69	20.1
15 / 19	35	30	35	100	15.7	33	29	35	97	15.6	19	10	11	40	15.5
10 / 14	27	22	24	73	10.9	25	17	20	62	10.9	11	5	6	22	10.8
5 / 9	21	11	15	47	6.4	23	10	13	46	6.2	6	1	3	10	6.7
0 / 4	8	6	6	20	1.6	10	3	4	17	1.6	2	0	0	2	1.6
-5 / -1	4	1	3	8	-2.9	2	0	1	3	-2.8	0			0	-2.8
-10 / -6	2	1	0	3	-7.0	1	0	0	1	-7.0	0			0	-5.5
-15 / -11	0	0	0	0	-12.2	0		0	0	-10.9					
-20 / -16	0			0	-16.0	0			0	-15.8					

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.

BUFFALO NY

WMO No. 725280

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	79.0
90 / 94		0	0	0	64.4		0		0	68.5		1	0	1	77.1
85 / 89		1	0	1	64.0		2	1	3	67.1		9	2	11	69.7
80 / 84		2	1	3	63.1	0	11	3	14	65.8	1	29	12	42	67.6
75 / 79	0	5	1	6	61.0	1	21	8	30	63.4	6	48	27	81	65.2
70 / 74	2	10	4	16	58.4	6	29	19	54	60.9	25	58	46	129	63.1
65 / 69	4	13	8	25	55.5	20	36	28	84	57.8	49	48	57	154	60.7
60 / 64	9	18	17	44	52.6	30	42	39	111	54.5	55	28	50	134	57.2
55 / 59	14	26	20	60	49.2	37	44	45	126	51.0	53	13	30	96	53.1
50 / 54	18	34	26	78	45.3	48	31	48	127	47.4	33	5	12	50	48.9
45 / 49	30	41	41	112	41.9	50	21	35	106	43.4	14	1	4	19	44.6
40 / 44	44	38	46	128	38.4	36	9	18	63	39.4	3		0	3	40.9
35 / 39	51	30	41	122	34.1	17	1	4	22	35.0	0			0	37.5
30 / 34	42	16	25	83	29.9	3	0	0	3	31.1					
25 / 29	20	4	8	32	25.2	0			0	25.6					
20 / 24	5	1	1	7	20.5										
15 / 19	1	0	0	1	15.9										
10 / 14	0		0	0	11.0										
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															

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.

BUFFALO NY

WMO No. 725280

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		0	0	0	73.0										
90 / 94		3	0	3	71.5		2	0	2	73.7					
85 / 89	0	22	7	29	70.7		14	3	17	71.8		2	0	2	71.8
80 / 84	3	56	25	84	68.8	2	45	16	63	68.9	0	12	3	15	69.1
75 / 79	20	75	58	153	66.9	12	72	45	128	67.4	4	29	13	46	66.5
70 / 74	57	58	74	189	65.1	47	61	74	182	65.5	18	44	30	92	64.5
65 / 69	68	24	52	144	61.9	64	36	57	158	62.1	29	50	42	121	60.8
60 / 64	59	8	24	91	58.3	63	14	36	113	58.5	38	47	47	132	56.7
55 / 59	33	1	7	41	54.1	39	3	14	56	54.1	52	32	51	135	53.1
50 / 54	9		1	10	50.1	17	0	3	20	49.8	50	18	33	101	48.8
45 / 49	0			0	45.2	3	0	1	4	45.4	30	4	15	49	44.4
40 / 44						1			1	41.2	14	0	5	19	40.1
35 / 39						0			0	37.0	5		1	6	36.0
30 / 34											0			0	32.3
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															

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.

BUFFALO NY

WMO No. 725280

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	0	1	65.1										
75 / 79		5	1	6	62.4										
70 / 74	1	13	4	18	60.2	0	1	0	1	60.7		0	0	0	62.9
65 / 69	7	22	11	40	58.1	1	7	2	10	57.1	0	1	0	1	60.0
60 / 64	16	36	24	76	55.2	7	12	7	26	54.9	1	1	1	3	56.2
55 / 59	28	43	37	108	51.4	11	15	15	41	51.9	3	4	3	10	52.2
50 / 54	38	47	50	135	47.2	19	25	21	65	47.4	5	6	4	15	47.6
45 / 49	53	44	54	151	43.2	24	32	30	86	42.8	8	10	10	28	43.0
40 / 44	48	26	41	115	38.9	36	44	42	123	38.4	13	24	17	54	38.1
35 / 39	38	8	22	68	34.8	48	47	48	144	33.8	39	51	45	135	34.0
30 / 34	15	1	5	21	30.4	51	38	46	136	29.6	54	52	56	162	30.0
25 / 29	4		1	5	26.0	30	13	21	64	25.4	40	35	40	115	25.0
20 / 24	0			0	22.4	10	3	6	19	20.6	32	27	29	88	20.3
15 / 19						3	1	1	5	16.4	24	22	23	69	15.7
10 / 14						0	0	0	0	11.6	17	9	11	37	11.1
5 / 9											8	4	6	18	6.5
0 / 4											3	1	3	7	2.3
-5 / -1											1	0	0	1	-2.7
-10 / -6											1	0	0	1	-7.1
-15 / -11												0		0	-10.0
-20 / -16															

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.

BUFFALO NY**WMO No. 725280****Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)****Period of Record = 1973 to 1996**

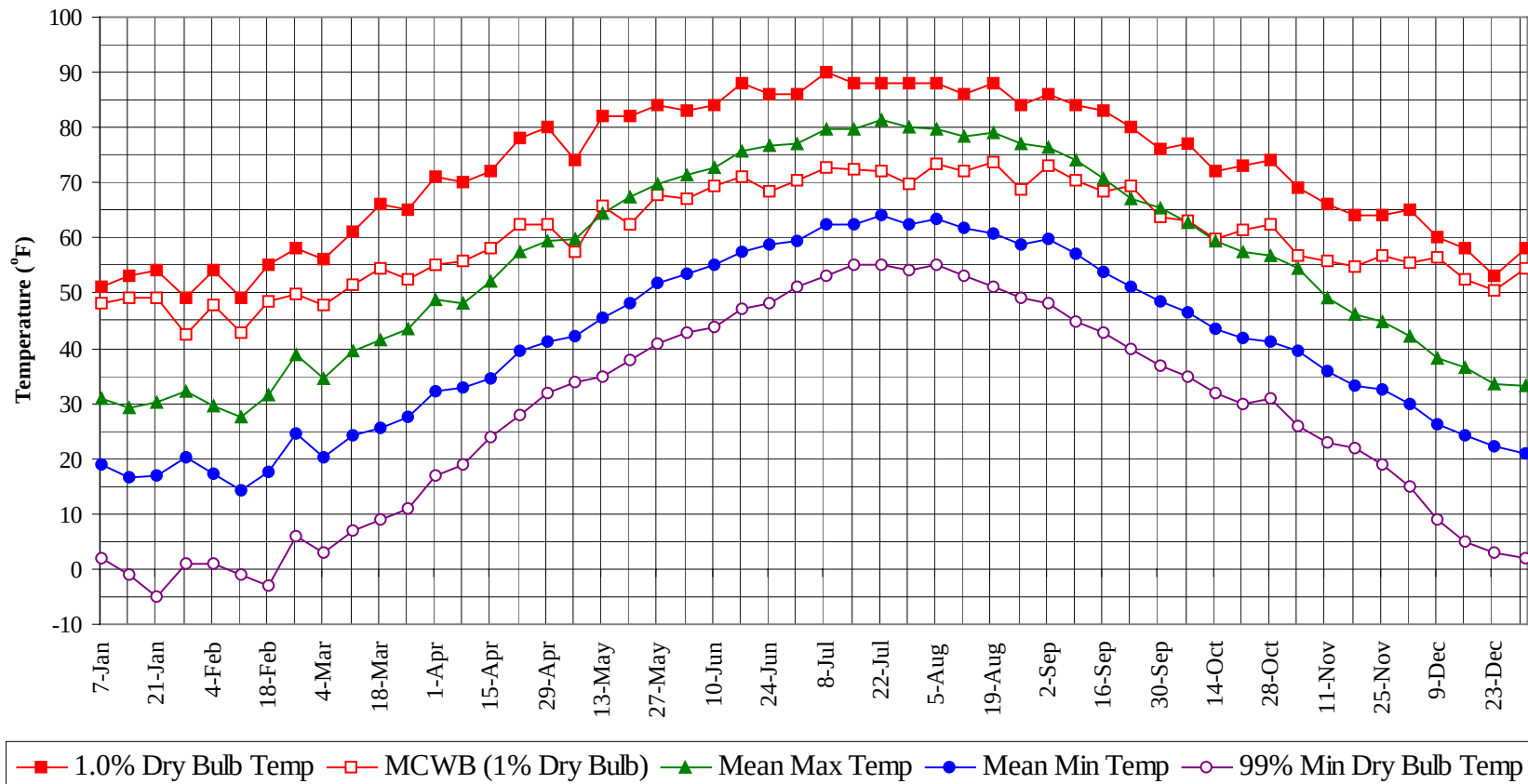
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
95 / 99		0	0	0	73.5
90 / 94		6	1	7	73.0
85 / 89	0	50	13	63	70.6
80 / 84	6	156	59	221	68.4
75 / 79	44	253	152	449	66.3
70 / 74	155	276	252	684	64.1
65 / 69	242	241	259	742	60.5
60 / 64	280	215	248	743	56.3
55 / 59	274	197	231	702	52.0
50 / 54	250	192	215	657	47.4
45 / 49	234	189	217	640	42.9
40 / 44	231	204	216	651	38.6
35 / 39	277	243	258	778	34.1
30 / 34	294	236	273	803	29.9
25 / 29	201	153	172	526	25.0
20 / 24	142	125	130	396	20.2
15 / 19	116	93	107	316	15.7
10 / 14	80	53	62	195	11.0
5 / 9	58	25	37	120	6.4
0 / 4	23	10	13	46	1.7
-5 / -1	7	2	4	13	-2.8
-10 / -6	5	1	1	7	-7.0
-15 / -11	1	0	0	1	-11.6
-20 / -16	0			0	-15.9

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.

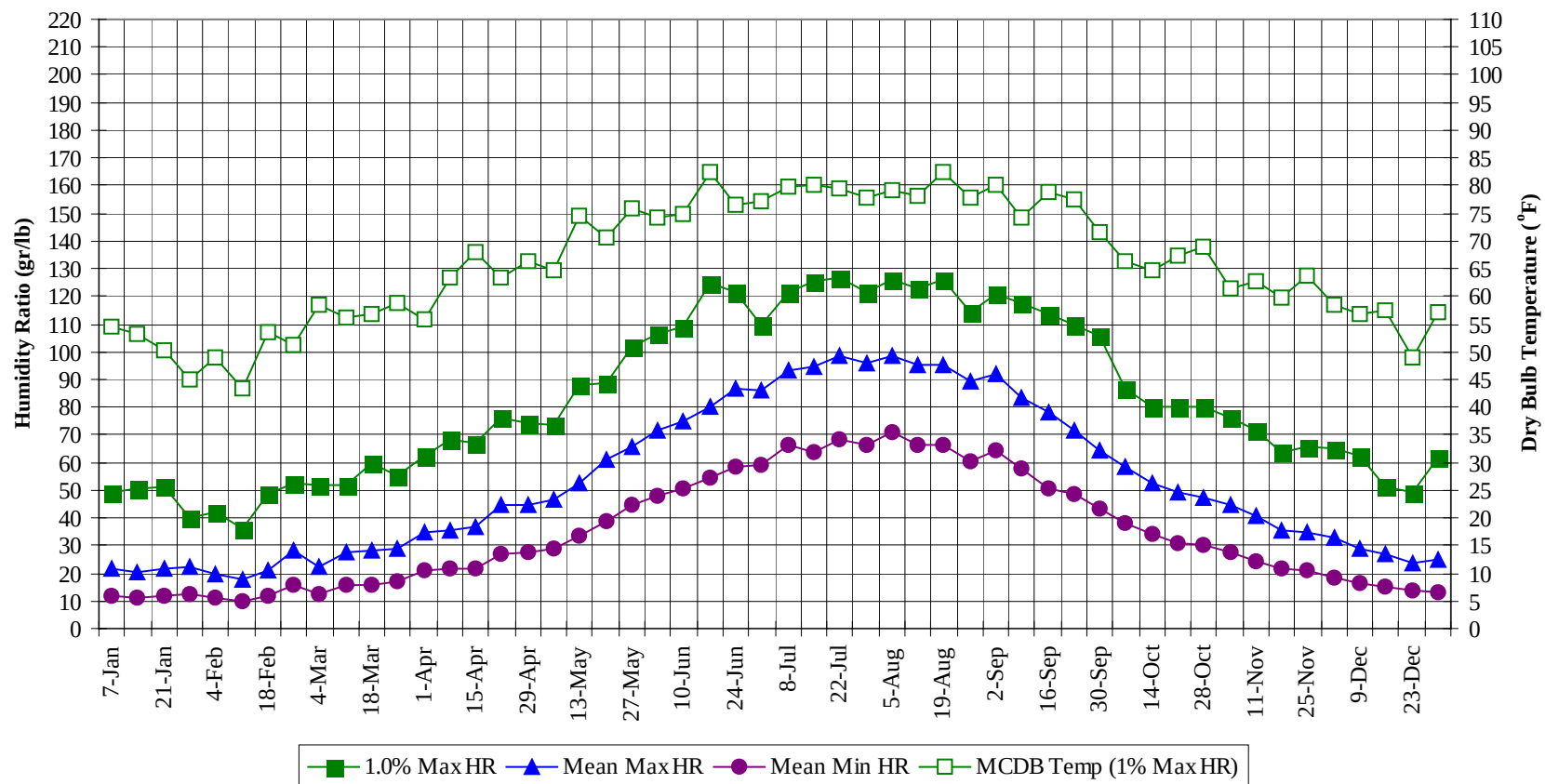
BUFFALO NY

WMO No. 725280

Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary

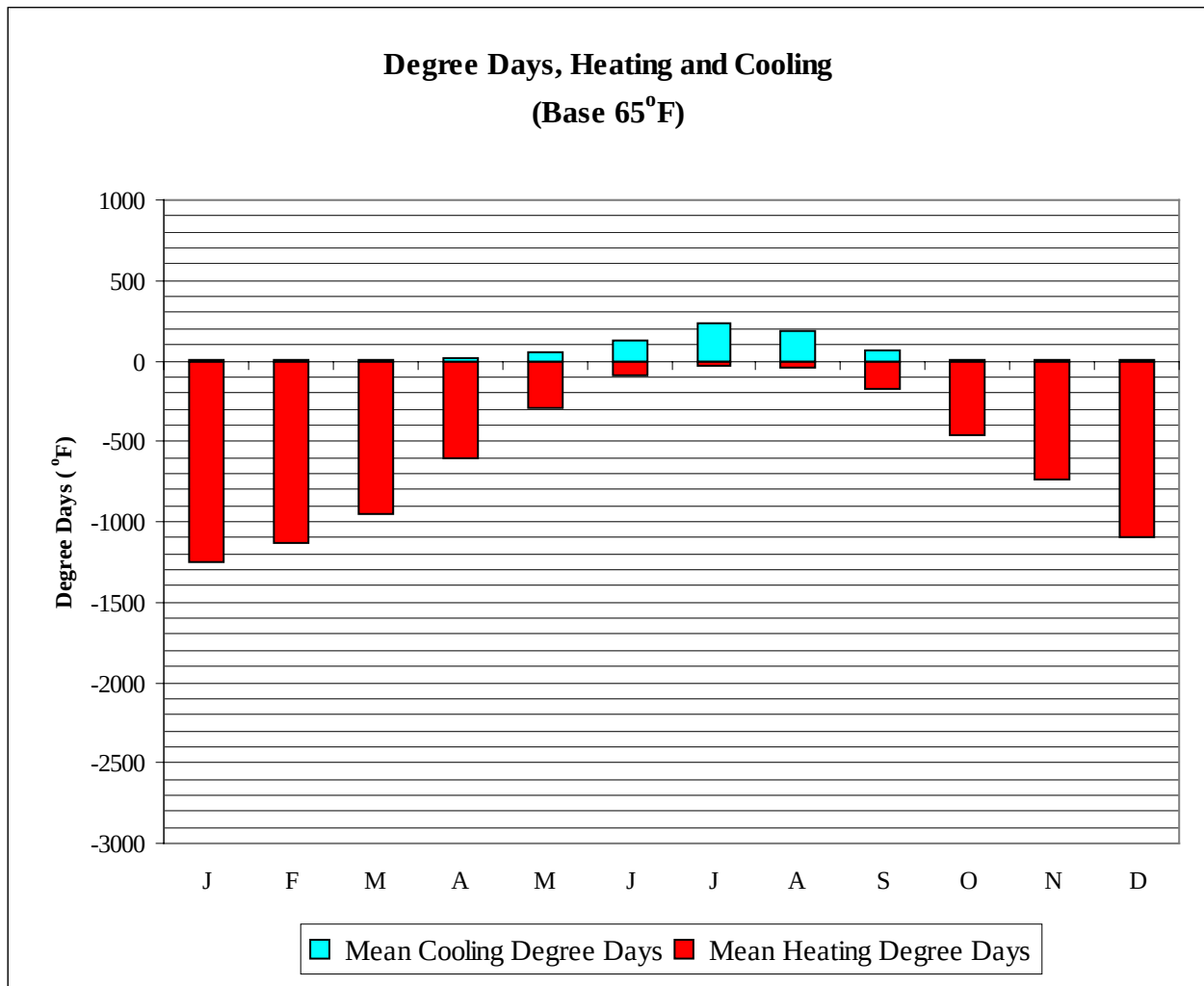


BUFFALO**NY****WMO No. 725280****Long Term Dry Bulb Temperature and Humidity Summary**

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	51.0	48.0	30.8	19.0	2.0	49.0	54.4	21.4	11.8
14-Jan	53.0	49.2	29.3	16.5	-1.0	50.4	53.3	20.3	10.8
21-Jan	54.0	49.3	30.1	16.9	-5.0	51.1	50.4	21.8	11.8
28-Jan	49.0	42.5	32.3	20.3	1.0	39.9	45.0	22.2	12.6
4-Feb	54.0	47.8	29.6	17.3	1.0	42.0	49.0	20.0	11.0
11-Feb	49.0	42.8	27.6	14.1	-1.0	36.4	43.3	18.0	9.7
18-Feb	55.0	48.4	31.6	17.7	-3.0	48.3	53.6	21.2	12.0
25-Feb	58.0	49.9	38.8	24.6	6.0	52.5	51.3	28.1	15.9
4-Mar	56.0	47.7	34.4	20.3	3.0	51.8	58.5	22.1	12.5
11-Mar	61.0	51.5	39.4	24.4	7.0	51.8	56.2	27.6	15.5
18-Mar	66.0	54.5	41.6	25.5	9.0	59.5	56.8	28.5	15.8
25-Mar	65.0	52.4	43.4	27.4	11.0	55.3	58.9	29.1	16.8
1-Apr	71.0	55.3	49.0	32.4	17.0	62.3	55.9	34.8	20.7
8-Apr	70.0	55.8	48.1	32.9	19.0	68.6	63.2	35.6	21.4
15-Apr	72.0	58.1	52.1	34.6	24.0	67.2	67.9	36.9	21.8
22-Apr	78.0	62.3	57.5	39.4	28.0	76.3	63.5	44.4	27.0
29-Apr	80.0	62.4	59.4	41.0	32.0	74.2	66.3	44.4	27.5
6-May	74.0	57.5	59.8	42.3	34.0	73.5	64.6	46.4	28.6
13-May	82.0	65.6	64.4	45.4	35.0	88.2	74.6	52.7	33.5
20-May	82.0	62.5	67.5	48.3	38.0	88.9	70.5	61.2	38.9
27-May	84.0	67.6	69.8	51.8	41.0	101.5	76.0	65.9	44.5
3-Jun	83.0	67.3	71.3	53.6	43.0	106.4	74.1	71.8	48.2
10-Jun	84.0	69.3	72.9	55.1	44.0	109.2	74.9	75.0	50.4
17-Jun	88.0	71.1	75.9	57.5	47.0	124.6	82.5	79.9	54.5
24-Jun	86.0	68.5	76.6	58.9	48.0	121.8	76.4	87.0	58.7
1-Jul	86.0	70.3	77.0	59.6	51.0	109.9	77.2	86.3	59.4
8-Jul	90.0	72.9	79.8	62.4	53.0	121.8	79.9	93.3	66.4
15-Jul	88.0	72.4	79.8	62.6	55.0	125.3	80.2	94.4	63.7
22-Jul	88.0	72.0	81.5	64.2	55.0	126.7	79.4	98.3	68.6
29-Jul	88.0	69.9	80.0	62.5	54.0	121.8	77.7	95.9	66.1
5-Aug	88.0	73.3	79.7	63.4	55.0	126.0	79.1	98.2	70.9
12-Aug	86.0	72.1	78.3	61.9	53.0	122.5	78.0	95.5	66.5
19-Aug	88.0	73.7	78.9	60.9	51.0	126.0	82.4	95.0	66.2
26-Aug	84.0	68.9	76.9	58.7	49.0	114.1	77.8	89.1	60.7
2-Sep	86.0	73.0	76.4	59.8	48.0	121.1	80.2	91.9	64.2
9-Sep	84.0	70.6	74.1	57.1	45.0	117.6	74.1	83.2	58.1
16-Sep	83.0	68.5	70.9	53.9	43.0	113.4	78.8	78.3	50.3
23-Sep	80.0	69.5	67.1	51.1	40.0	109.9	77.3	71.8	48.4
30-Sep	76.0	63.8	65.5	48.4	37.0	105.7	71.6	64.2	43.1
7-Oct	77.0	63.2	62.7	46.6	35.0	86.8	66.3	58.5	38.3
14-Oct	72.0	59.8	59.5	43.5	32.0	79.8	64.7	52.4	34.1
21-Oct	73.0	61.4	57.5	42.0	30.0	79.8	67.2	49.2	30.9
28-Oct	74.0	62.3	56.9	41.3	31.0	79.8	69.0	47.4	30.1
4-Nov	69.0	56.9	54.6	39.6	26.0	76.3	61.4	44.8	27.8
11-Nov	66.0	55.8	49.1	35.8	23.0	71.4	62.8	40.5	24.3
18-Nov	64.0	54.9	46.2	33.0	22.0	63.7	59.6	35.2	21.4
25-Nov	64.0	56.9	44.7	32.5	19.0	65.8	63.6	34.9	21.1
2-Dec	65.0	55.6	42.3	30.0	15.0	65.1	58.3	32.8	18.7
9-Dec	60.0	56.5	38.3	26.3	9.0	62.3	56.8	28.8	16.2
16-Dec	58.0	52.3	36.5	24.3	5.0	51.1	57.4	26.8	15.3
23-Dec	53.0	50.5	33.5	22.2	3.0	49.0	48.8	24.0	13.9
31-Dec	58.0	54.4	33.1	21.0	2.0	61.6	57.1	25.0	13.5

BUFFALO NY

WMO No. 725280

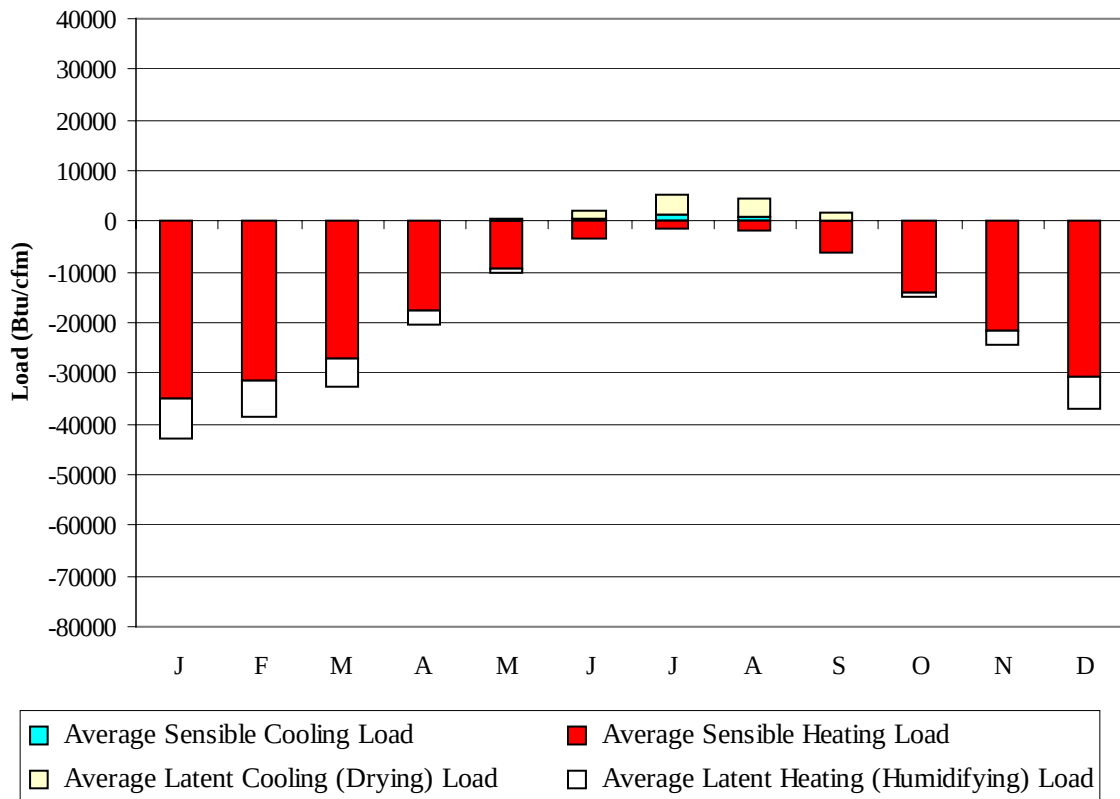


	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1257
FEB	0	1127
MAR	2	955
APR	12	600
MAY	48	293
JUN	128	90
JUL	231	28
AUG	188	45
SEP	70	178
OCT	11	457
NOV	1	737
DEC	0	1093
ANN	690	6860

BUFFALO NY

WMO No. 725280

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	-34995	0	-7782
FEB	0	-31417	0	-7029
MAR	1	-27152	0	-5385
APR	38	-17761	1	-2556
MAY	189	-9539	314	-536
JUN	601	-3503	1661	-19
JUL	1309	-1345	3914	-1
AUG	895	-1973	3639	-1
SEP	215	-6217	1348	-62
OCT	11	-14110	31	-918
NOV	0	-21413	1	-3112
DEC	0	-30742	0	-6165
ANN	3259	-200167	10909	-33566

Average Annual Solar Radiation – Nearest Available Site

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

City: BUFFALO
 State: NY
 WBAN No: 14733
 Lat(N): 42.93
 Long(W): 78.73
 Elev(ft): 705

Stn Type: Secondary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS
 Window: 1
 Overhang: 0.618
 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	500	740	1070	1440	1740	1940	1910	1640	1240	840	500	400	1170
	Std Dev	40	59	85	119	157	134	109	101	110	73	42	38	39
	Minimum	430	640	940	1140	1360	1610	1700	1460	1070	700	420	330	1080
	Maximum	580	870	1270	1640	2060	2200	2110	1870	1430	1060	590	480	1260
	Diffuse	360	500	600	700	790	840	820	740	600	450	340	300	590
Clear Day	Global	790	1150	1640	2170	2510	2650	2560	2240	1770	1240	830	670	1690
NORTH	Global	190	270	340	430	530	610	590	470	360	270	190	160	370
	Diffuse	190	270	340	420	490	530	520	450	360	270	190	160	350
Clear Day	Global	170	230	310	420	570	690	640	460	340	250	170	150	370
EAST	Global	320	460	660	860	990	1070	1070	960	760	540	320	260	690
	Diffuse	240	330	420	510	580	620	620	550	450	320	220	190	420
Clear Day	Global	630	850	1110	1350	1480	1520	1480	1360	1160	880	650	550	1090
SOUTH	Global	680	850	970	940	870	840	870	970	1000	940	630	550	840
	Diffuse	360	440	490	530	560	580	580	560	500	410	310	290	470
Clear Day	Global	1850	1990	1870	1510	1180	1040	1090	1340	1680	1860	1810	1740	1580
WEST	Global	320	470	650	850	1000	1090	1090	970	770	540	310	260	700
	Diffuse	240	330	420	510	590	630	630	560	450	330	220	190	430
Clear Day	Global	630	850	1110	1350	1480	1520	1480	1360	1160	880	650	550	1090

Average Annual Solar Heat and Illumination – Nearest Available Site

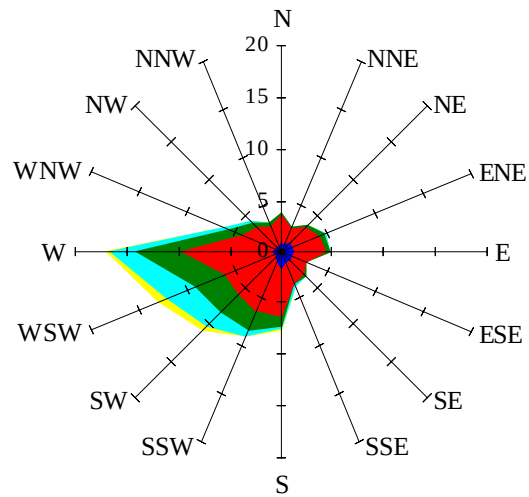
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	510	750	1030	1260	1410	1380	1180	880	570	330	260	830
NORTH	Unshaded	130	190	240	290	350	400	380	320	250	180	130	110	250
	Shaded	110	150	200	250	310	350	330	280	220	160	110	91	210
EAST	Unshaded	220	330	470	610	700	760	760	680	540	380	220	170	490
	Shaded	190	270	400	510	570	620	630	570	450	320	190	150	410
SOUTH	Unshaded	510	620	680	630	550	520	540	630	690	680	470	410	580
	Shaded	480	550	520	390	340	350	350	370	480	580	440	390	430
WEST	Unshaded	220	330	460	610	710	780	780	690	550	380	220	170	490
	Shaded	190	280	390	510	590	640	640	580	460	320	180	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	33	66	78	63	29	44	80	98	95	71
	M.Cloudy	19	39	46	38	17	27	51	67	65	48
NORTH	M.Clear	9	13	14	13	8	18	16	17	17	15
	M.Cloudy	8	14	16	14	7	12	16	18	18	16
EAST	M.Clear	70	59	14	13	8	77	74	35	17	15
	M.Cloudy	23	29	16	14	7	32	41	28	18	16
SOUTH	M.Clear	36	73	86	70	32	11	33	51	48	26
	M.Cloudy	14	33	39	31	13	10	24	37	35	21
WEST	M.Clear	9	13	17	62	68	11	16	17	47	78
	M.Cloudy	8	14	17	29	21	10	16	18	34	45
M.Clear	(% hrs)	23	21	19	19	21	37	33	31	33	33
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	23	60	79	75	49	8	32	40	25	2
	M.Cloudy	13	35	50	48	29	5	19	23	15	2
NORTH	M.Clear	7	13	15	15	12	4	9	10	8	1
	M.Cloudy	6	13	16	16	11	3	8	10	7	1
EAST	M.Clear	57	70	32	15	12	24	37	10	8	1
	M.Cloudy	18	32	23	16	11	6	14	10	7	1
SOUTH	M.Clear	17	55	76	71	43	21	71	83	57	6
	M.Cloudy	8	27	41	39	21	5	21	25	17	2
WEST	M.Clear	7	13	15	47	73	4	9	16	40	8
	M.Cloudy	6	13	16	29	30	3	8	11	13	2
M.Clear	(% hrs)	35	28	26	27	32	11	11	11	11	12

Wind Summary - December, January, and February

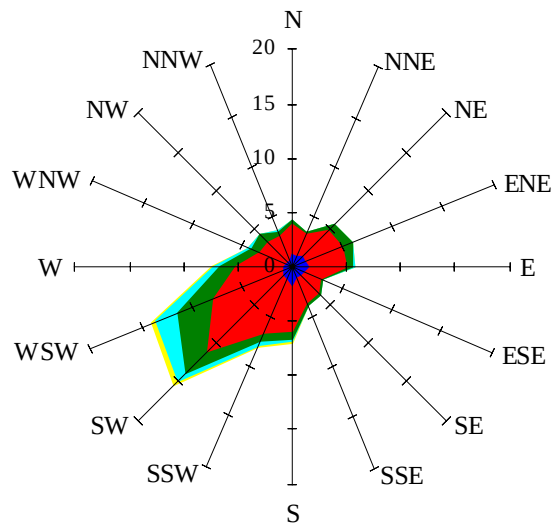
Labels of Percent Frequency on North Axis



Percent Calm = 1.94

Wind Summary - March, April, and May

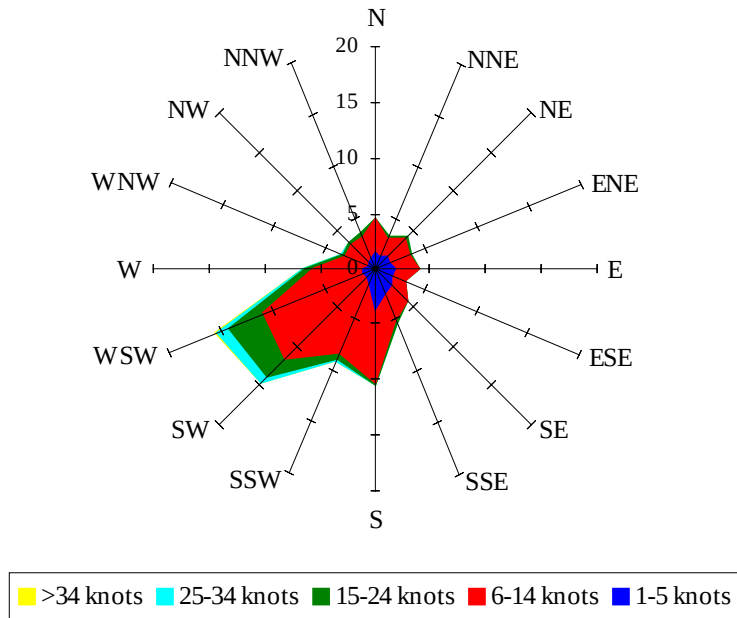
Labels of Percent Frequency on North Axis



Percent Calm = 1.97

Wind Summary - June, July, and August

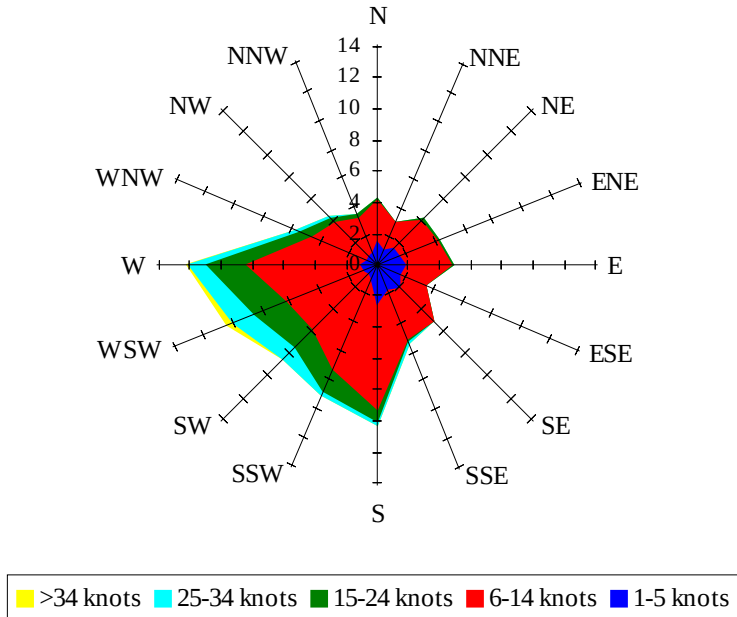
Labels of Percent Frequency on North Axis



Percent Calm = 2.66

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 2.26