

DAYTON/JAMES M COX OH

Latitude = 39.90 N

WMO No. 724290

Longitude = 84.20 W

Elevation = 1004 feet

Period of Record = 1973 to 1996

Average Pressure = 28.95 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	94	75	107	10.7	W
0.4% Occurrence	91	75	107	10.5	WSW
1.0% Occurrence	88	73	103	10.1	SW
2.0% Occurrence	86	72	99	9.8	SW
Mean Daily Range	18	-	-	-	-
97.5% Occurrence	12	11	7	10.0	W
99.0% Occurrence	5	4	5	9.8	W
99.6% Occurrence	-1	-2	4	10.0	W
Median of Extreme Lows	-6	-7	3	11.4	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	80	90	141	11.3	SW
0.4% Occurrence	77	87	125	10.4	WSW
1.0% Occurrence	75	84	119	9.9	SW
2.0% Occurrence	74	83	116	9.5	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	141	85	0.90	10.8	SW
0.4% Occurrence	131	83	0.85	9.5	SW
1.0% Occurrence	123	81	0.79	9.6	SW
2.0% Occurrence	119	80	0.77	9.2	SSW
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		17	626	315	1269

Other Site Data

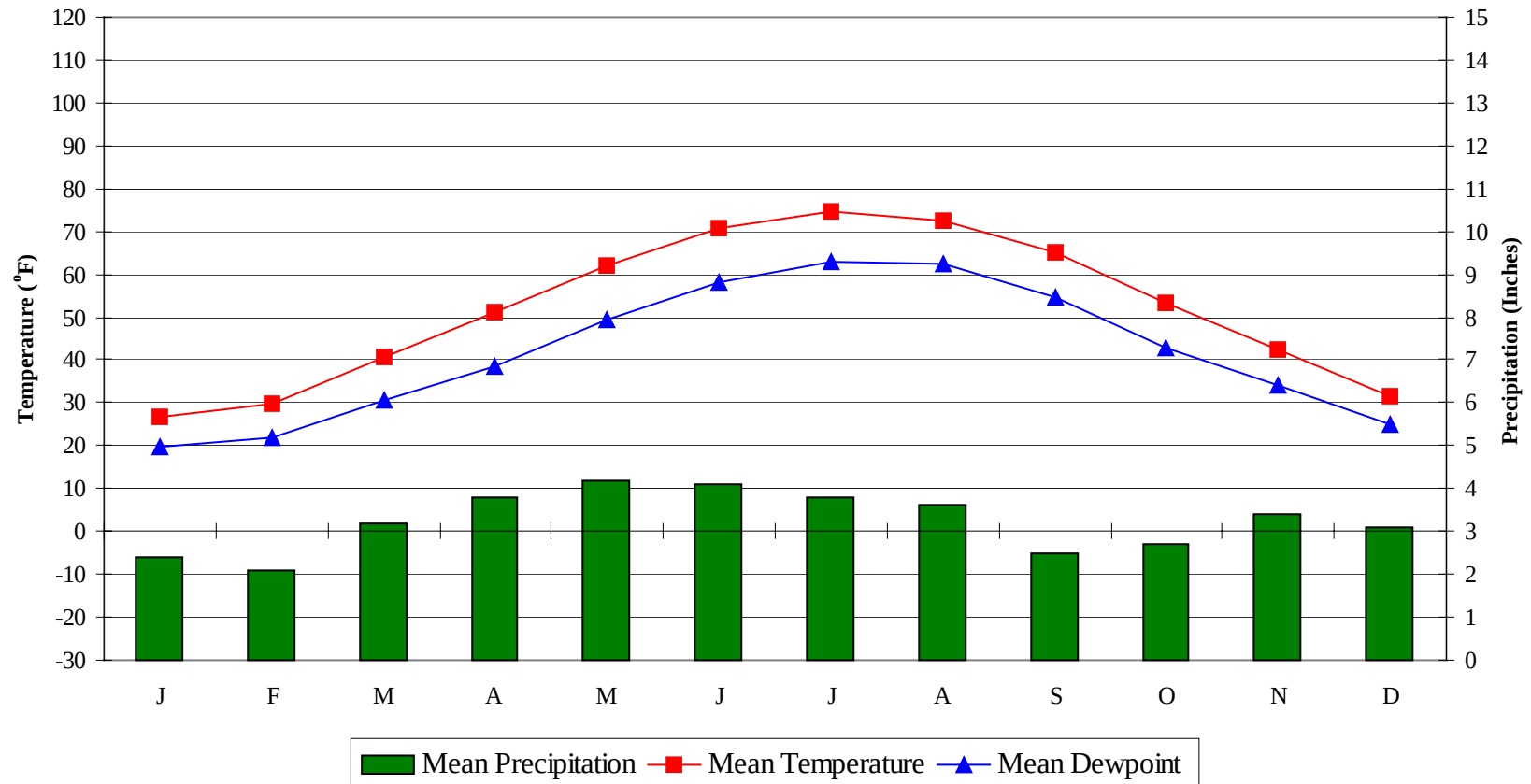
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
6	2.9	90	1.8 + 0.6
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
54.3	49	11	56

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

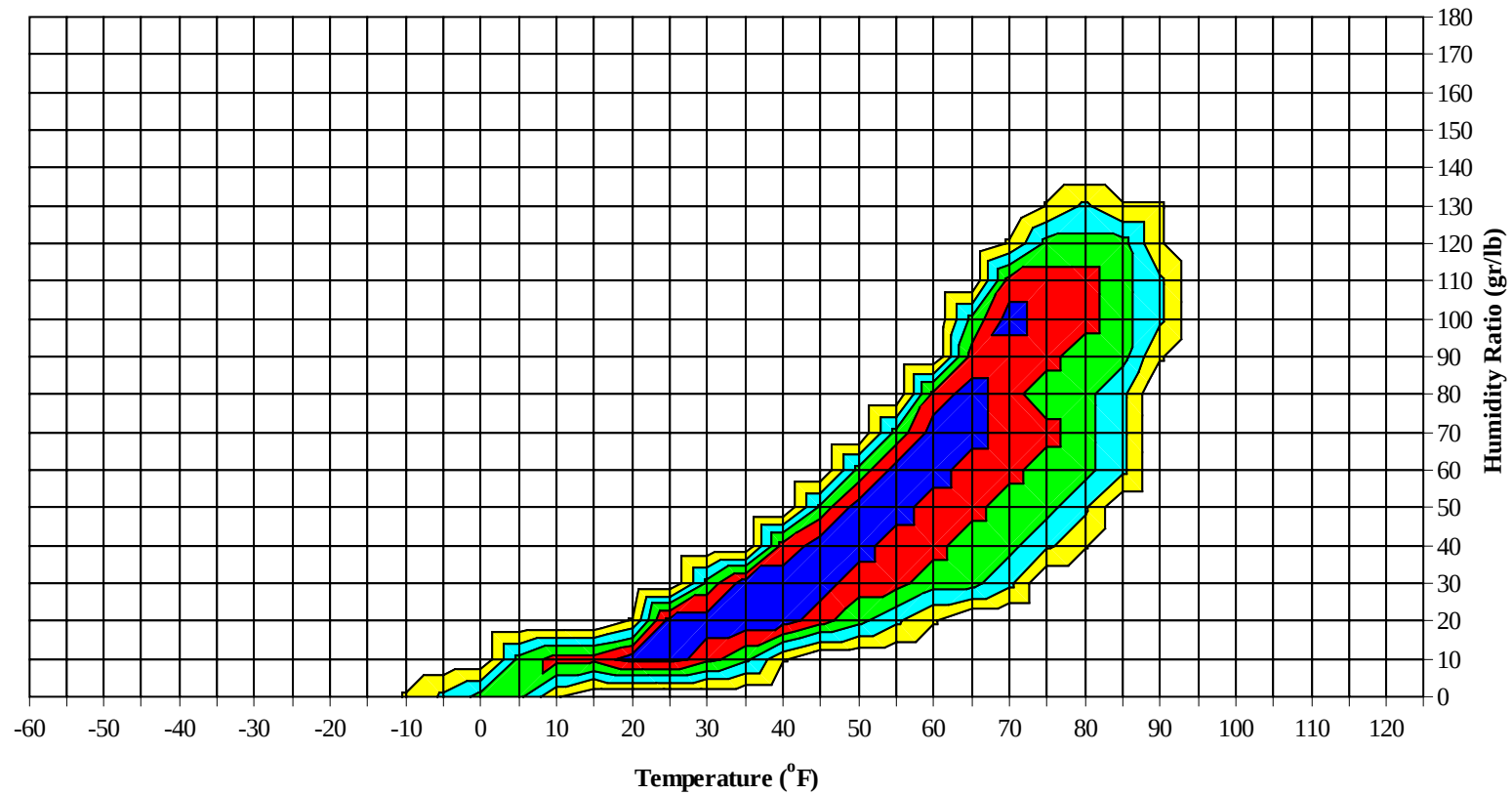
DAYTON/JAMES M COX OH

WMO No. 724290

Average Annual Climate



Long Term Psychrometric Summary

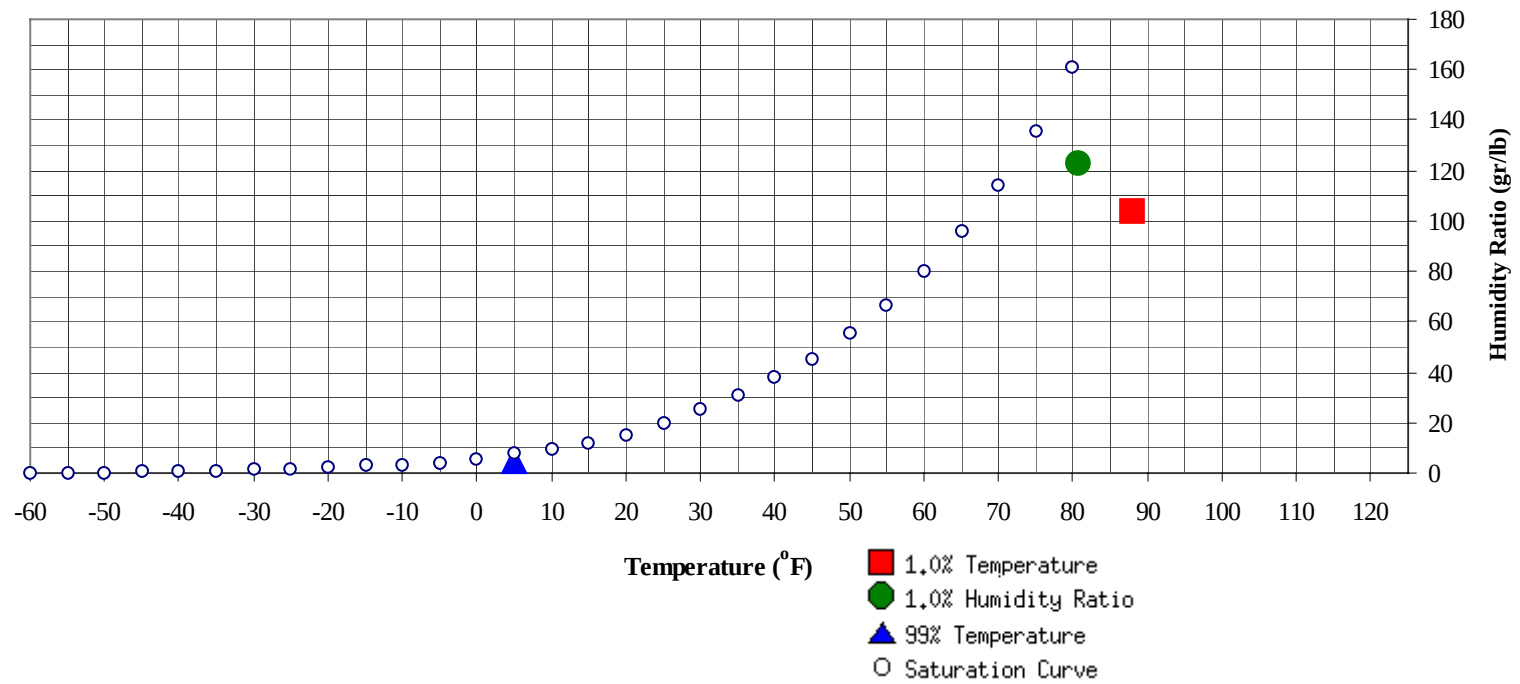


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

DAYTON/JAMES M COX OH

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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	5.1	2.0		123.2	80.6	74.4	72	38.6

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	88	103.9	73.3	37.4

DAYTON/JAMES M COX OH

WMO No. 724290

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		
100 / 104															
95 / 99															
90 / 94															
85 / 89															
80 / 84												0	0	0	60.7
75 / 79												2	1	3	60.5
70 / 74							0		0	56.0		8	3	11	58.2
65 / 69		0		0	57.5		1	0	1	56.0	1	11	8	20	56.1
60 / 64	0	1	1	2	56.0	0	3	2	5	52.3	8	16	14	38	53.9
55 / 59	2	3	3	8	53.0	2	7	5	14	50.5	11	19	18	48	50.6
50 / 54	4	7	6	17	47.5	7	13	10	30	46.9	17	25	24	66	46.4
45 / 49	7	10	9	26	43.0	8	16	17	41	42.2	22	31	28	81	42.1
40 / 44	12	17	15	44	38.8	16	25	21	62	38.0	25	36	34	95	37.8
35 / 39	21	36	29	86	34.1	26	32	33	91	33.9	40	38	43	121	33.6
30 / 34	47	51	49	147	29.8	41	37	38	116	29.5	51	33	37	121	29.3
25 / 29	40	38	41	120	24.9	34	29	33	96	24.6	35	17	23	75	24.9
20 / 24	33	31	32	97	20.2	30	23	21	74	20.2	20	7	10	37	20.2
15 / 19	29	22	25	76	15.6	18	15	18	51	15.4	11	3	2	16	15.8
10 / 14	19	12	16	47	10.8	14	12	11	37	10.6	4	1	2	7	10.6
5 / 9	14	10	11	35	6.1	15	6	8	29	6.1	2	0	1	3	5.7
0 / 4	9	4	5	18	1.3	10	2	5	17	1.4	1	0	0	1	1.2
-5 / -1	5	2	3	10	-3.3	4	1	1	6	-2.9	0			0	-3.6
-10 / -6	3	1	1	5	-7.7	1	0		1	-7.1	0			0	-7.0
-15 / -11	2	1	1	4	-12.3	0	0		0	-11.3					
-20 / -16	1	0	1	2	-17.2										
-25 / -21	1	0	0	1	-21.6										

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.

DAYTON/JAMES M COX OH

WMO No. 724290

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		
100 / 104															
95 / 99												1	0	1	74.0
90 / 94												7	2	9	72.8
85 / 89		0	0	0	64.8		0	0	0	68.6					
80 / 84		5	2	7	63.5		24	10	34	67.6		0	29	12	41
75 / 79		12	6	18	62.4							1	53	27	81
70 / 74		12	6	18	62.4	1	31	20	52	64.9	11	55	48	114	66.6
65 / 69	1	19	12	32	59.6	10	41	33	84	62.0	45	48	59	152	64.8
60 / 64	7	24	21	52	56.7	30	43	45	118	59.5	69	26	47	142	62.1
55 / 59	23	33	29	85	54.1	46	40	45	131	55.8	54	14	28	96	57.6
50 / 54	26	34	32	92	50.1	46	28	38	112	51.5	35	4	12	51	53.1
45 / 49	26	35	35	96	46.1	44	20	32	96	47.5	20	1	5	26	48.7
40 / 44	34	29	36	99	42.0	42	9	16	67	43.4	5	0	1	6	44.5
35 / 39	47	24	31	102	38.1	19	2	5	26	38.9	1		0	1	41.6
30 / 34	36	16	22	74	33.9	8	0	1	9	34.5					
25 / 29	26	6	10	42	29.6	2		0	2	30.3					
20 / 24	13	1	3	17	25.1	0			0	25.0					
15 / 19	2	0	0	2	20.7										
10 / 14	0			0	17.6										
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															

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DAYTON/JAMES M COX OH

WMO No. 724290

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		
100 / 104		0	0	0	72.0		0	0	0	79.0					
95 / 99		4	1	5	74.6		1	0	1	74.4		0		0	75.0
90 / 94		17	6	23	75.3		10	3	13	75.5		2	0	2	73.4
85 / 89	0	47	23	70	72.8		36	13	49	73.4		13	3	16	71.7
80 / 84	4	70	46	120	70.3	1	65	36	102	70.7		30	11	41	68.9
75 / 79	30	58	60	148	68.8	17	63	54	134	68.6		42	27	71	66.7
70 / 74	75	37	66	178	66.8	63	48	70	180	66.7	26	49	44	119	64.8
65 / 69	75	12	33	120	63.4	76	19	44	139	63.5	42	44	48	134	61.4
60 / 64	41	2	12	55	58.5	53	6	19	78	59.1	43	31	42	116	57.3
55 / 59	17		2	19	54.1	27	0	8	35	54.5	44	19	33	96	53.2
50 / 54	5		0	5	49.9	11	0	1	12	50.1	43	9	19	71	49.2
45 / 49	0			0	44.2	1	0	0	1	45.6	26	2	9	37	44.6
40 / 44						0	0		0	42.1	11	0	2	13	40.1
35 / 39											4		0	4	36.0
30 / 34											0			0	31.7
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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DAYTON/JAMES M COX OH

WMO No. 724290

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		
100 / 104															
95 / 99															
90 / 94	0			0	83.0										
85 / 89	0	0		0	68.0										
80 / 84	0	3	0	3	65.4										
75 / 79	0	13	3	16	63.5		1		1	62.2					
70 / 74	1	23	11	35	61.3		5	1	6	61.8		0		0	61.7
65 / 69	9	33	22	64	58.7	1	11	6	18	59.0	0	0	1	1	59.9
60 / 64	21	41	36	98	55.5	11	17	17	45	56.3	1	4	3	8	56.1
55 / 59	32	43	44	119	51.4	17	23	19	59	52.1	4	9	8	21	52.8
50 / 54	41	39	42	122	47.0	21	30	25	76	46.9	11	10	8	29	48.3
45 / 49	46	32	42	120	43.0	25	35	30	90	42.6	10	16	12	38	43.0
40 / 44	46	14	29	89	38.9	32	34	38	104	38.3	17	28	20	65	38.8
35 / 39	32	5	12	49	34.7	41	40	41	122	33.8	34	51	46	130	34.1
30 / 34	16	2	6	24	30.7	44	29	37	110	29.5	55	50	59	163	29.9
25 / 29	5	0	1	6	25.6	30	10	19	59	25.1	42	30	34	106	25.1
20 / 24	1			1	22.4	12	3	5	20	20.7	28	22	23	73	20.4
15 / 19						5	1	1	7	16.7	17	11	14	42	15.7
10 / 14						1	0	0	1	11.4	15	8	10	33	10.9
5 / 9						0	0	0	0	6.0	6	4	5	15	6.1
0 / 4											4	3	2	9	1.5
-5 / -1											3	1	2	6	-2.7
-10 / -6											1	0	1	2	-6.8
-15 / -11											1	0	0	1	-13.3
-20 / -16											0	0	0	0	-17.5
-25 / -21															

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.

DAYTON/JAMES M COX OH

WMO No. 724290

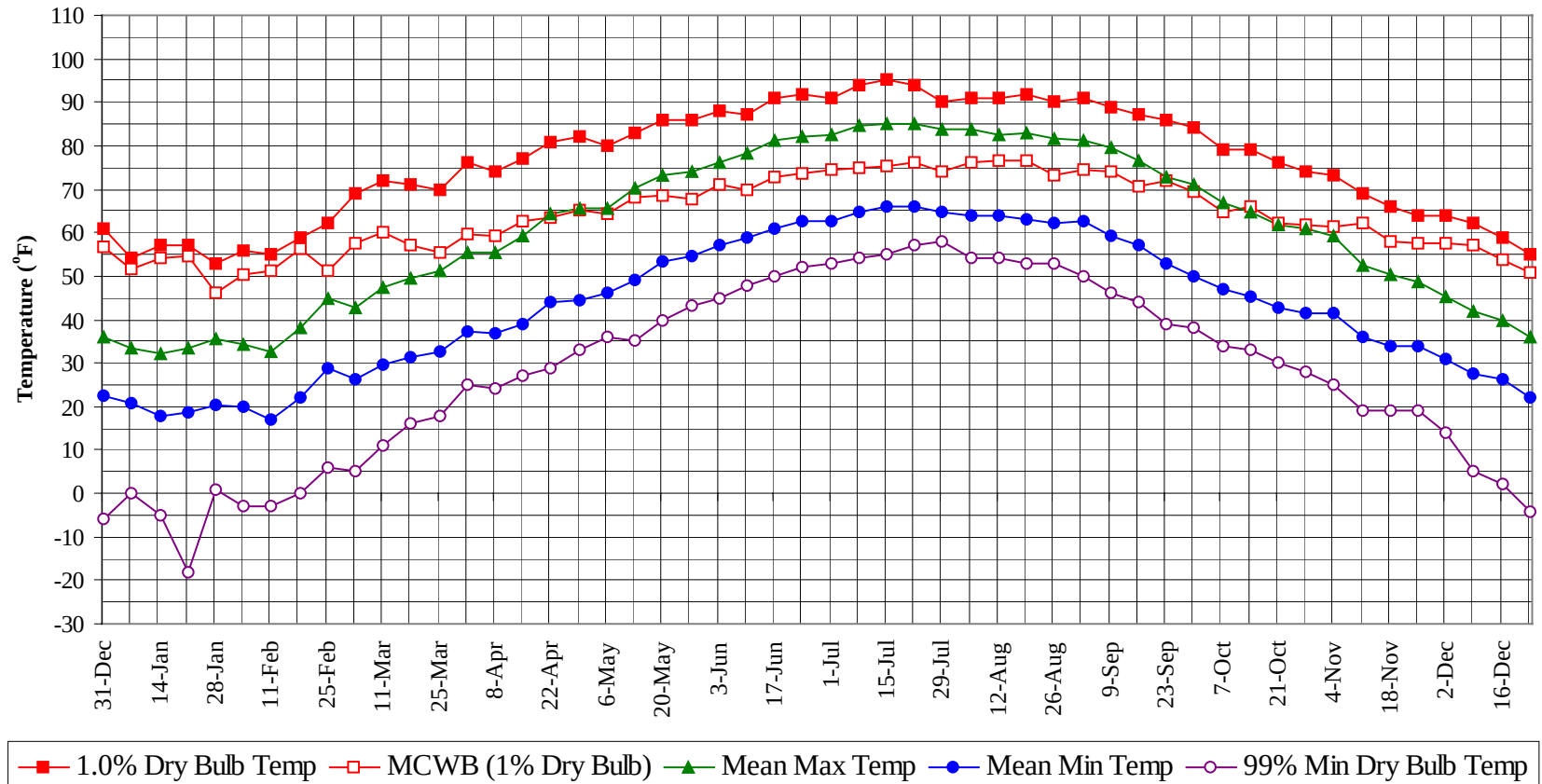
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1973 to 1996

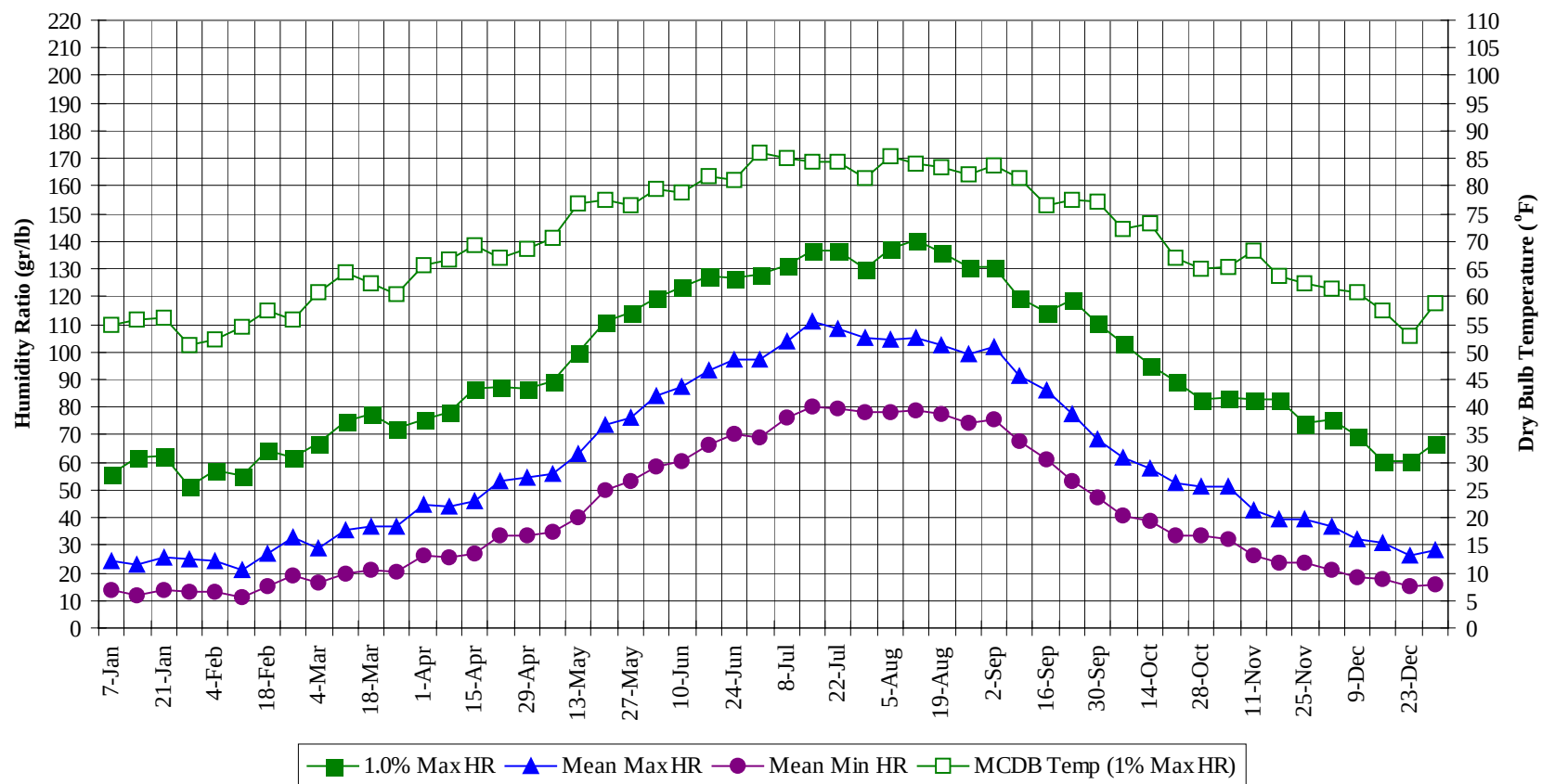
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
100 / 104		0	0	0	75.1
95 / 99		6	1	7	74.5
90 / 94	0	37	11	48	74.7
85 / 89	0	136	53	189	72.3
80 / 84	5	248	132	385	69.5
75 / 79	62	276	218	556	67.3
70 / 74	219	277	299	795	64.9
65 / 69	308	224	274	806	61.2
60 / 64	301	210	247	758	56.5
55 / 59	261	190	221	672	51.9
50 / 54	249	191	206	646	47.3
45 / 49	226	182	201	609	42.8
40 / 44	226	181	197	604	38.4
35 / 39	241	220	230	691	34.0
30 / 34	282	209	235	726	29.7
25 / 29	200	126	155	482	24.9
20 / 24	125	86	91	303	20.3
15 / 19	79	52	61	192	15.6
10 / 14	53	34	40	127	10.8
5 / 9	38	20	26	84	6.1
0 / 4	24	9	12	45	1.4
-5 / -1	12	3	5	20	-3.0
-10 / -6	6	2	2	10	-7.4
-15 / -11	2	2	1	5	-12.5
-20 / -16	1	0	1	2	-17.3
-25 / -21	1	0	0	1	-21.6

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Annual Summary of Temperatures

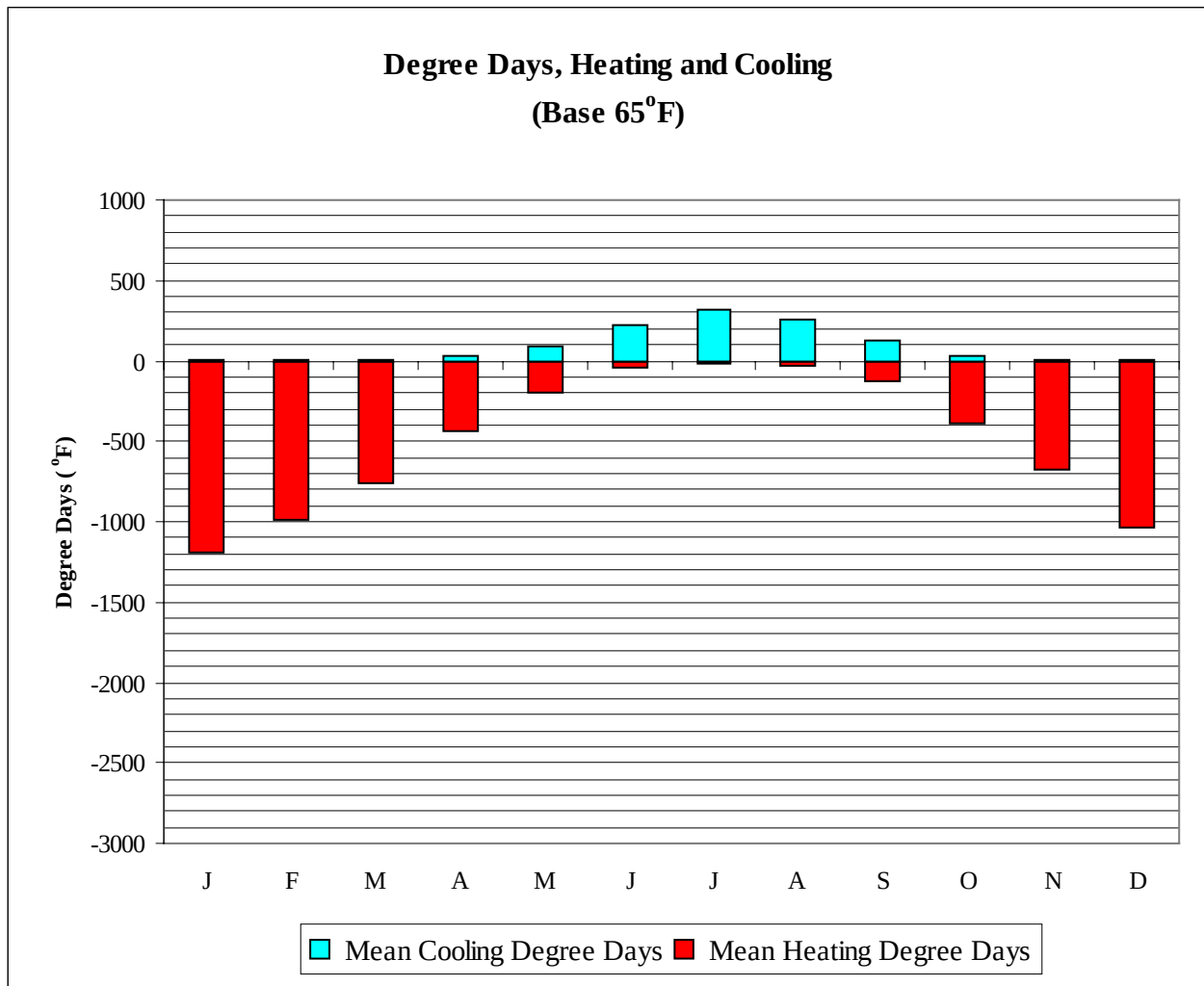


Long Term Humidity and Dry Bulb Temperature Summary

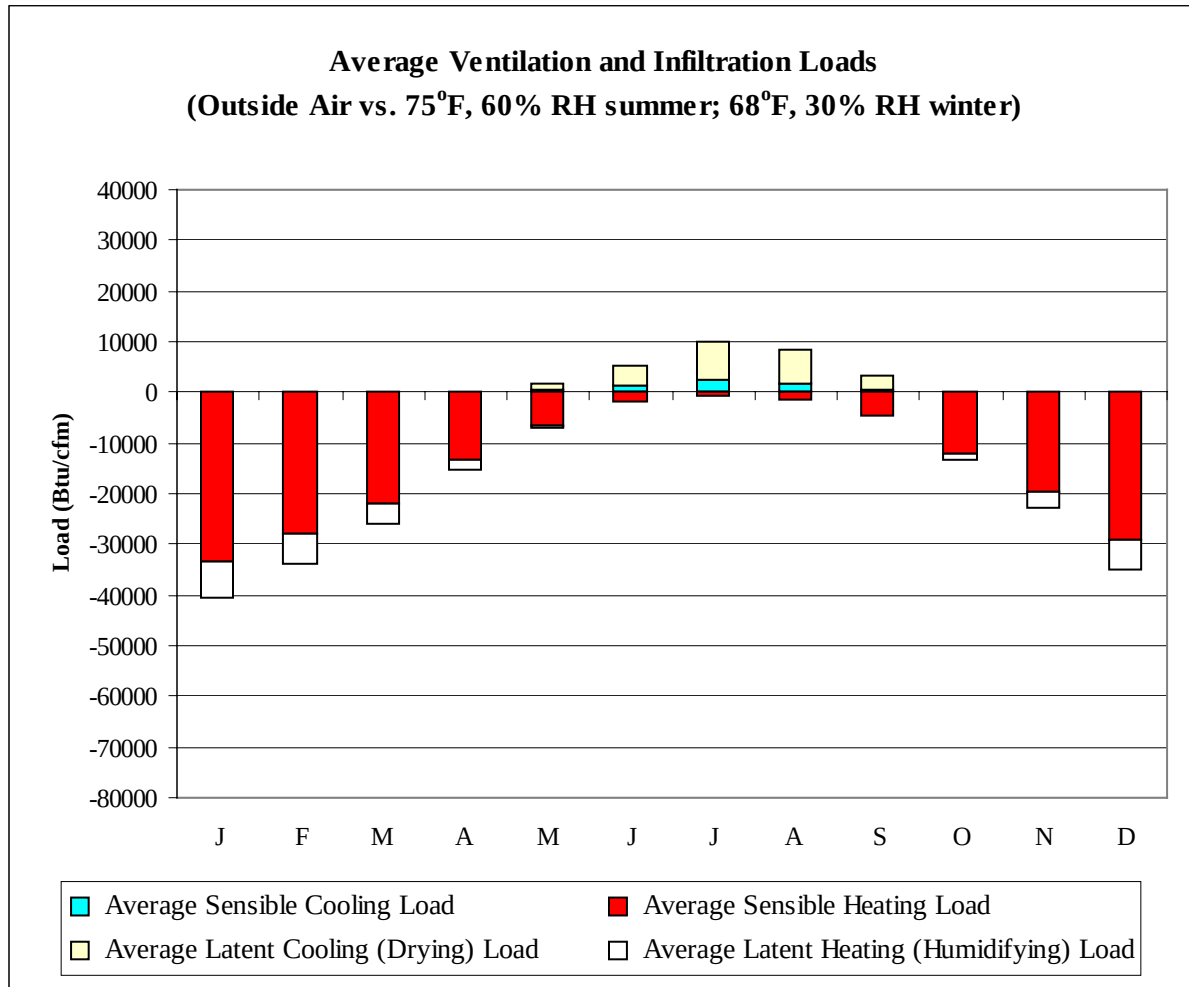


DAYTON/JAMES M COX OH**WMO No. 724290****Long Term Dry Bulb Temperature and Humidity Summary**

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	54.0	51.5	33.6	20.8	0.0	56.0	54.8	24.0	13.8
14-Jan	57.0	54.3	32.1	17.8	-5.0	61.6	55.8	22.8	12.1
21-Jan	57.0	54.7	33.3	18.5	-18.0	62.3	56.3	25.3	14.0
28-Jan	53.0	46.3	35.5	20.4	1.0	51.1	51.2	24.9	13.4
4-Feb	56.0	50.5	34.5	19.7	-3.0	57.4	52.3	24.0	13.0
11-Feb	55.0	51.3	32.7	16.8	-3.0	55.3	54.4	21.2	11.4
18-Feb	59.0	56.5	38.0	22.0	0.0	64.4	57.4	27.2	15.2
25-Feb	62.0	51.3	44.7	28.6	6.0	61.6	55.8	33.1	19.1
4-Mar	69.0	57.7	42.8	26.1	5.0	67.2	60.8	28.8	16.7
11-Mar	72.0	60.2	47.3	29.5	11.0	74.9	64.3	35.2	19.9
18-Mar	71.0	57.3	49.6	31.5	16.0	77.7	62.5	37.0	21.0
25-Mar	70.0	55.4	51.2	32.4	18.0	72.1	60.3	37.0	20.7
1-Apr	76.0	59.7	55.3	37.4	25.0	75.6	65.6	44.5	26.4
8-Apr	74.0	59.1	55.6	37.0	24.0	78.4	66.7	43.7	25.3
15-Apr	77.0	62.7	59.4	38.8	27.0	86.8	69.3	46.2	26.7
22-Apr	81.0	63.4	64.1	44.1	29.0	87.5	67.0	53.3	33.4
29-Apr	82.0	65.0	65.7	44.6	33.0	86.8	68.6	54.6	33.3
6-May	80.0	64.1	65.6	46.1	36.0	89.6	70.6	55.8	34.7
13-May	83.0	68.0	70.2	49.3	35.0	100.1	76.8	63.3	40.0
20-May	86.0	68.5	73.2	53.2	40.0	111.3	77.5	73.9	49.6
27-May	86.0	67.6	74.1	54.7	43.0	114.1	76.5	76.1	53.2
3-Jun	88.0	71.1	76.1	57.1	45.0	119.7	79.4	84.0	58.7
10-Jun	87.0	69.7	78.4	58.8	48.0	123.2	78.8	87.2	60.4
17-Jun	91.0	72.8	81.2	60.9	50.0	127.4	81.8	93.1	66.0
24-Jun	92.0	73.7	82.1	62.6	52.0	126.7	81.2	97.0	70.5
1-Jul	91.0	74.5	82.6	62.4	53.0	128.1	86.1	97.0	69.0
8-Jul	94.0	75.1	84.5	64.7	54.0	131.6	85.0	104.0	76.2
15-Jul	95.0	75.5	85.1	65.9	55.0	136.5	84.5	110.7	79.9
22-Jul	94.0	76.1	85.2	65.8	57.0	136.5	84.5	108.1	79.7
29-Jul	90.0	74.1	84.0	64.7	58.0	130.2	81.4	104.8	77.9
5-Aug	91.0	76.2	83.6	64.0	54.0	137.2	85.3	104.2	78.1
12-Aug	91.0	76.5	82.5	63.8	54.0	140.7	84.1	105.1	78.6
19-Aug	92.0	76.5	83.0	63.2	53.0	135.8	83.3	102.7	77.8
26-Aug	90.0	73.3	81.8	62.2	53.0	130.9	82.0	99.3	74.5
2-Sep	91.0	74.3	81.3	62.5	50.0	130.9	83.8	101.7	75.7
9-Sep	89.0	74.1	79.4	59.3	46.0	119.7	81.3	91.2	67.5
16-Sep	87.0	70.6	76.7	56.9	44.0	114.1	76.5	86.3	61.3
23-Sep	86.0	72.0	72.6	53.0	39.0	119.0	77.5	77.2	53.4
30-Sep	84.0	69.5	70.9	49.8	38.0	110.6	77.3	68.2	47.2
7-Oct	79.0	64.6	67.0	46.8	34.0	102.9	72.3	62.0	40.5
14-Oct	79.0	65.9	64.8	45.4	33.0	95.2	73.3	57.5	38.4
21-Oct	76.0	62.2	61.8	42.6	30.0	89.6	66.9	52.3	33.5
28-Oct	74.0	61.7	60.9	41.5	28.0	82.6	64.9	51.4	33.4
4-Nov	73.0	61.4	59.4	41.5	25.0	83.3	65.3	51.2	32.4
11-Nov	69.0	62.3	52.3	35.9	19.0	82.6	68.2	42.8	26.1
18-Nov	66.0	58.0	50.2	33.9	19.0	82.6	63.6	39.2	23.4
25-Nov	64.0	57.4	48.5	33.7	19.0	74.2	62.3	39.4	23.6
2-Dec	64.0	57.4	45.2	31.1	14.0	75.6	61.4	36.9	21.0
9-Dec	62.0	57.1	41.7	27.4	5.0	69.3	60.8	32.1	18.4
16-Dec	59.0	53.8	39.8	26.2	2.0	60.2	57.5	30.7	17.9
23-Dec	55.0	50.9	36.0	22.2	-4.0	60.2	53.0	26.5	14.9
31-Dec	61.0	56.8	35.9	22.4	-6.0	67.2	58.7	28.5	15.8



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1193
FEB	0	991
MAR	6	757
APR	26	439
MAY	93	192
JUN	217	45
JUL	316	14
AUG	263	27
SEP	125	127
OCT	24	392
NOV	3	676
DEC	0	1034
ANN	1073	5887



	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	-33325	0	-7222
FEB	0	-27877	0	-6026
MAR	7	-21961	5	-3946
APR	85	-13447	47	-1689
MAY	496	-6592	1076	-279
JUN	1497	-1924	3724	-10
JUL	2568	-752	7269	-1
AUG	1880	-1254	6574	0
SEP	672	-4566	2457	-39
OCT	48	-12279	179	-836
NOV	1	-19800	16	-2915
DEC	0	-29213	0	-5646
ANN	7254	-172990	21347	-28609

Average Annual Solar Radiation – Nearest Available Site

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

City: DAYTON
 State: OH
 WBAN No: 93815
 Lat(N): 39.9
 Long(W): 84.22
 Elev(ft): 1004

Stn Type: Secondary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS
 Window: 1
 Overhang: 0.531
 Vert Gap: 0.32

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	600	830	1130	1500	1790	1970	1910	1730	1400	1010	620	480	1250
	Std Dev	48	78	72	142	145	116	109	107	97	85	64	43	38
	Minimum	500	670	1010	1210	1490	1770	1710	1460	1220	820	480	390	1190
	Maximum	730	1030	1280	1800	2080	2250	2090	1960	1600	1270	740	570	1320
	Diffuse	350	460	610	730	840	880	860	760	610	450	360	310	600
Clear Day	Global	890	1240	1720	2200	2510	2620	2540	2260	1840	1340	940	780	1740
NORTH	Global	200	270	350	440	550	620	590	480	380	290	210	170	380
	Diffuse	200	270	350	430	500	540	520	460	380	290	210	170	360
Clear Day	Global	190	250	330	430	580	680	620	470	360	270	200	170	380
EAST	Global	380	520	680	880	1020	1090	1070	990	840	640	400	310	740
	Diffuse	240	320	430	520	600	640	630	570	470	350	250	210	440
Clear Day	Global	670	870	1120	1330	1420	1450	1420	1330	1150	910	690	590	1080
SOUTH	Global	870	970	960	920	840	790	820	950	1090	1120	820	710	900
	Diffuse	350	420	490	540	570	580	580	570	520	440	340	300	480
Clear Day	Global	1870	1930	1790	1420	1090	940	990	1250	1600	1830	1820	1780	1520
WEST	Global	400	530	670	850	990	1080	1070	1000	840	630	390	310	730
	Diffuse	250	330	430	530	610	650	640	580	480	360	250	210	440
Clear Day	Global	670	870	1120	1330	1420	1450	1420	1330	1150	910	690	590	1080

Average Annual Solar Heat and Illumination – Nearest Available Site

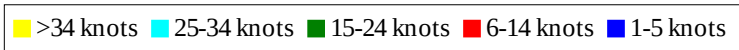
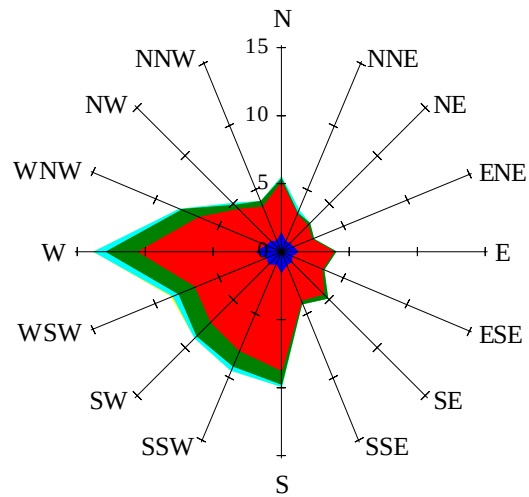
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	570	800	1070	1290	1430	1390	1250	1000	700	410	320	890
NORTH	Unshaded	140	190	240	300	360	410	390	330	260	200	150	120	260
	Shaded	120	160	210	270	320	360	340	290	240	180	130	100	230
EAST	Unshaded	260	370	480	630	720	780	760	710	600	450	280	210	520
	Shaded	230	320	420	540	620	660	650	610	520	400	240	190	450
SOUTH	Unshaded	650	710	670	600	520	480	500	600	730	800	610	530	620
	Shaded	630	650	530	400	350	360	360	390	530	700	580	510	500
WEST	Unshaded	270	370	470	600	700	770	760	710	600	450	270	210	520
	Shaded	240	320	410	520	600	650	650	610	520	390	240	190	450

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	27	65	81	71	38	35	75	98	98	77
	M.Cloudy	15	37	48	42	22	22	50	70	70	54
NORTH	M.Clear	8	13	15	14	10	21	16	17	17	16
	M.Cloudy	7	14	17	15	9	12	16	19	19	17
EAST	M.Clear	64	66	22	14	10	68	79	45	17	16
	M.Cloudy	19	30	19	15	9	28	45	35	19	17
SOUTH	M.Clear	27	66	83	72	38	10	25	45	46	28
	M.Cloudy	11	30	40	34	17	9	21	35	35	23
WEST	M.Clear	8	13	15	57	72	10	16	17	39	74
	M.Cloudy	7	14	17	29	26	9	16	19	31	47
M.Clear	(% hrs)	27	23	22	20	21	41	37	31	29	30
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	16	57	82	81	57	6	34	46	34	7
	M.Cloudy	10	34	54	56	37	4	19	25	19	5
NORTH	M.Clear	6	13	16	16	13	3	9	11	9	3
	M.Cloudy	5	13	17	17	13	2	8	11	8	2
EAST	M.Clear	46	75	42	16	13	22	44	12	9	3
	M.Cloudy	14	33	29	17	13	5	15	11	8	2
SOUTH	M.Clear	11	48	73	73	48	17	70	87	71	18
	M.Cloudy	6	24	43	44	27	4	19	27	21	5
WEST	M.Clear	6	13	16	40	73	3	9	11	43	23
	M.Cloudy	5	13	17	29	36	2	8	11	15	6
M.Clear	(% hrs)	43	40	35	33	37	20	21	20	19	19

Wind Summary - December, January, and February

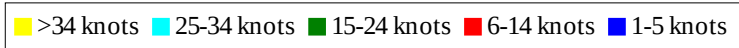
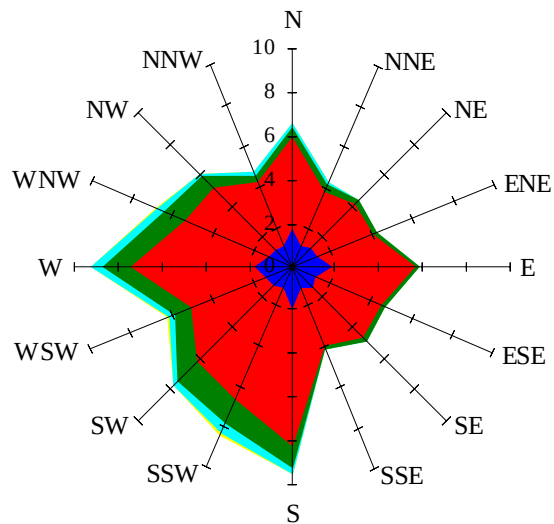
Labels of Percent Frequency on North Axis



Percent Calm = 2.90

Wind Summary - March, April, and May

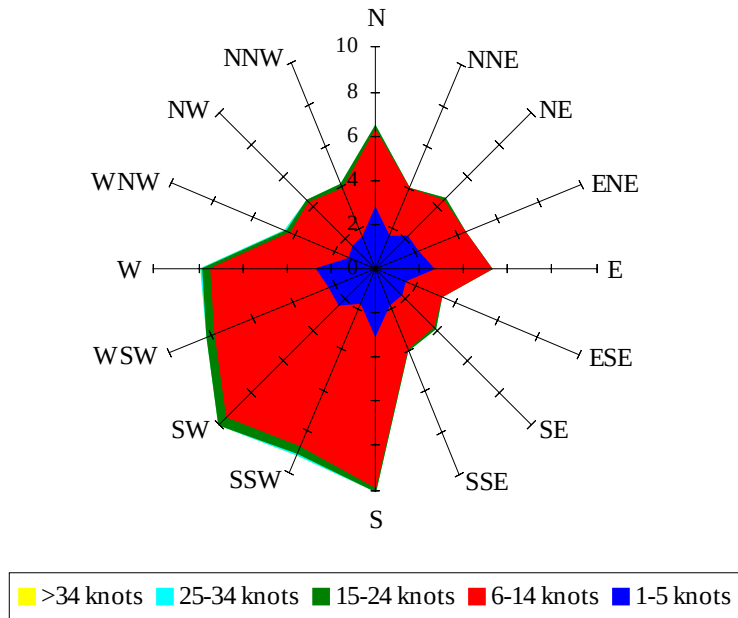
Labels of Percent Frequency on North Axis



Percent Calm = 3.42

Wind Summary - June, July, and August

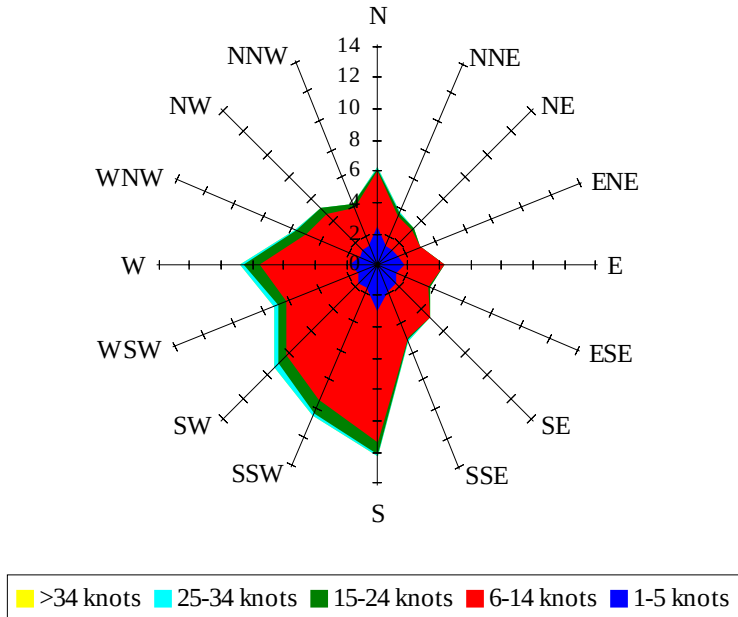
Labels of Percent Frequency on North Axis



Percent Calm = 6.73

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 4.58