

WEST CHICAGO/DU PAGE IL

Latitude = 41.92 N

WMO No. 725305

Longitude = 88.25 W

Elevation = 758 feet

Period of Record = 1973 to 1996

Average Pressure = 29.17 inches Hg

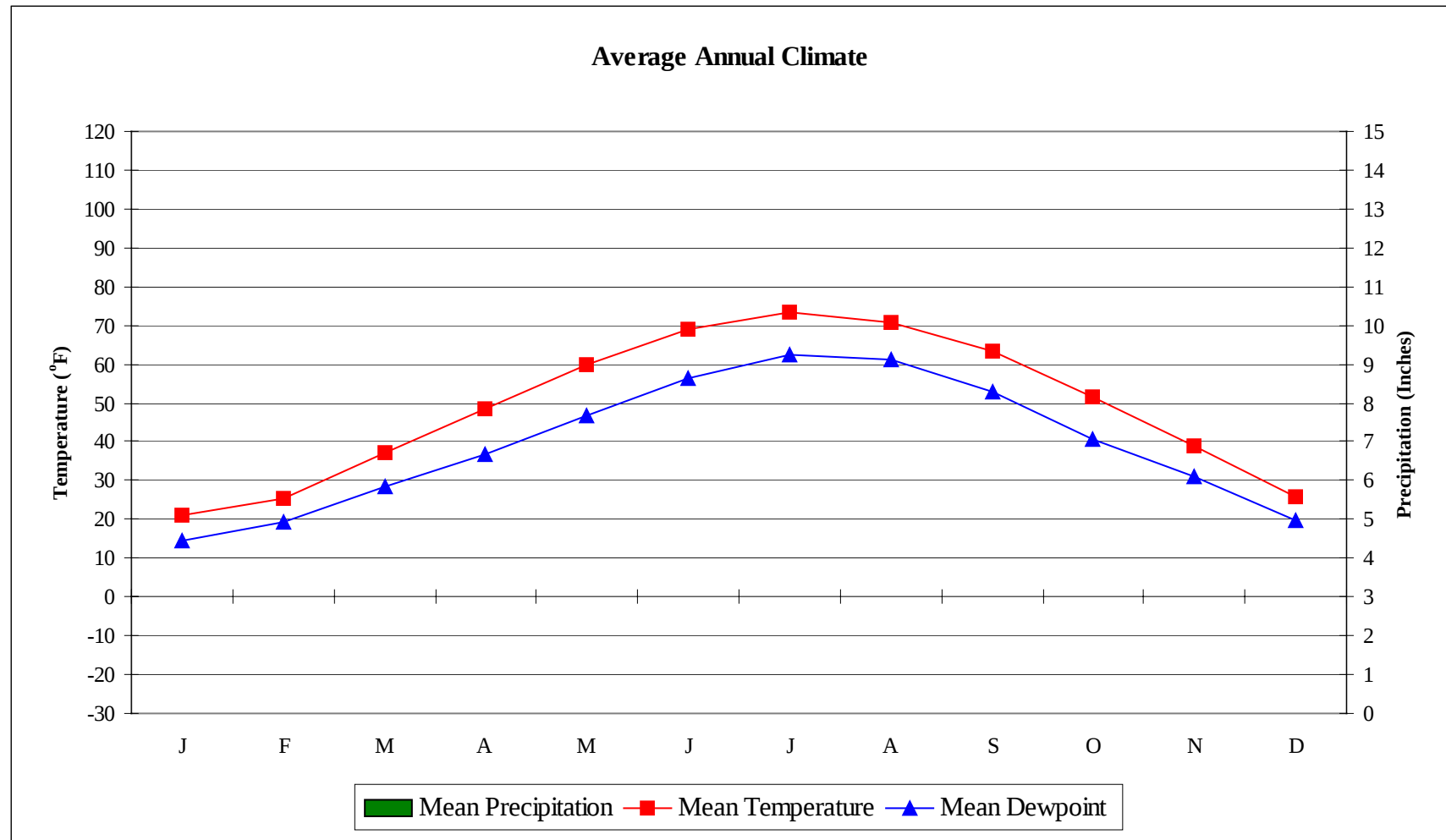
Design Criteria Data

	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	96	77	112	11.6	WSW
0.4% Occurrence	91	75	109	11.4	SW
1.0% Occurrence	88	73	104	11.2	SSW
2.0% Occurrence	85	71	97	10.9	SW
Mean Daily Range	18	-	-	-	-
97.5% Occurrence	5	4	5	10.7	W
99.0% Occurrence	-2	-3	3	10.3	W
99.6% Occurrence	-7	-7	2	10.5	W
Median of Extreme Lows	-13	-13	2	11.5	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	82	90	154	11.0	S
0.4% Occurrence	78	87	133	10.7	SW
1.0% Occurrence	76	84	124	10.0	SW
2.0% Occurrence	74	82	116	9.5	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	156	88	1.00	12.4	S
0.4% Occurrence	139	85	0.90	9.4	S
1.0% Occurrence	127	81	0.82	9.3	SW
2.0% Occurrence	118	80	0.77	8.6	S
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		16	503	246	886

Other Site Data

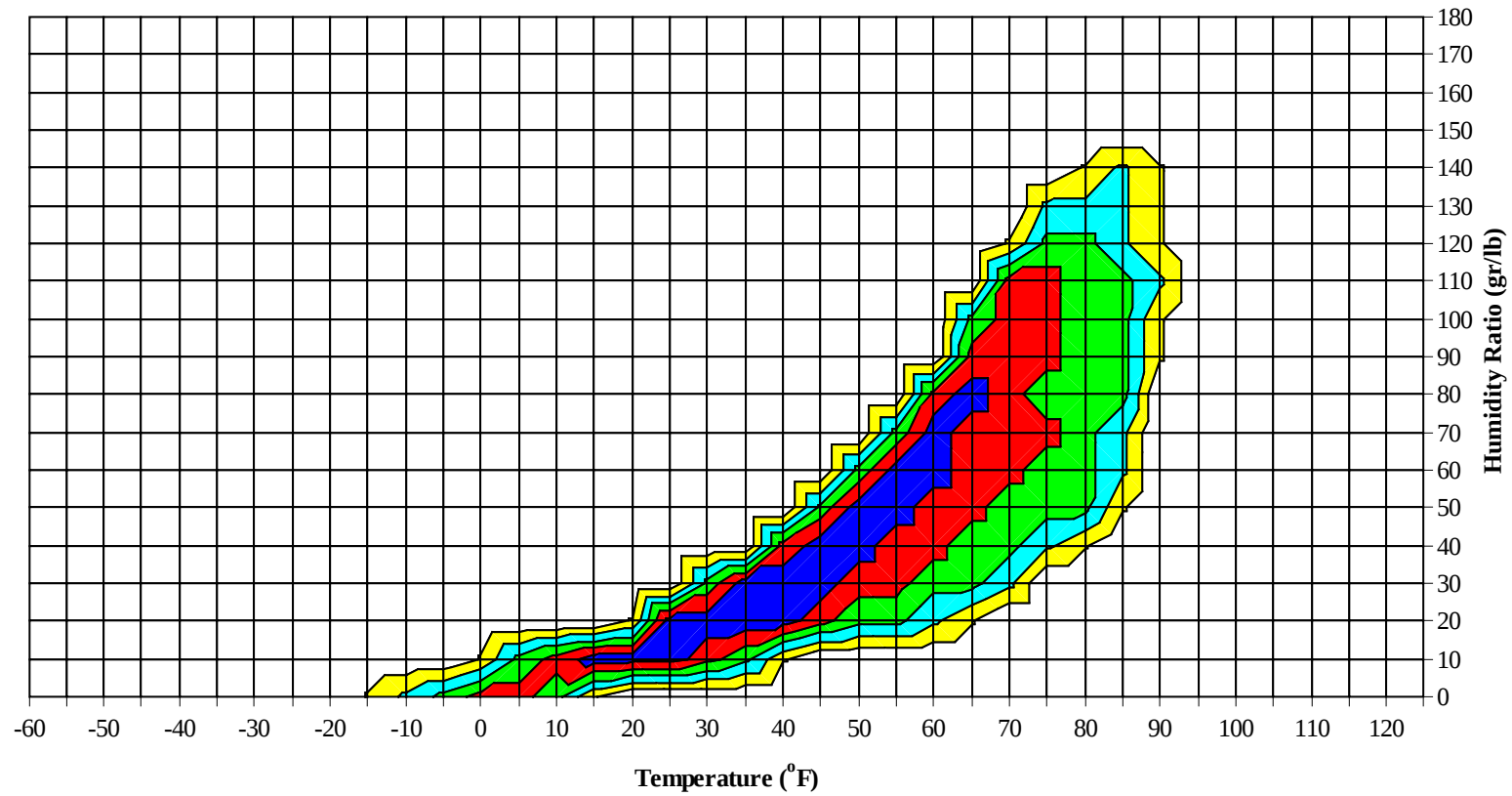
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
6	3.2	90	1.3 + 0.5
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
51.2	59	22	56

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



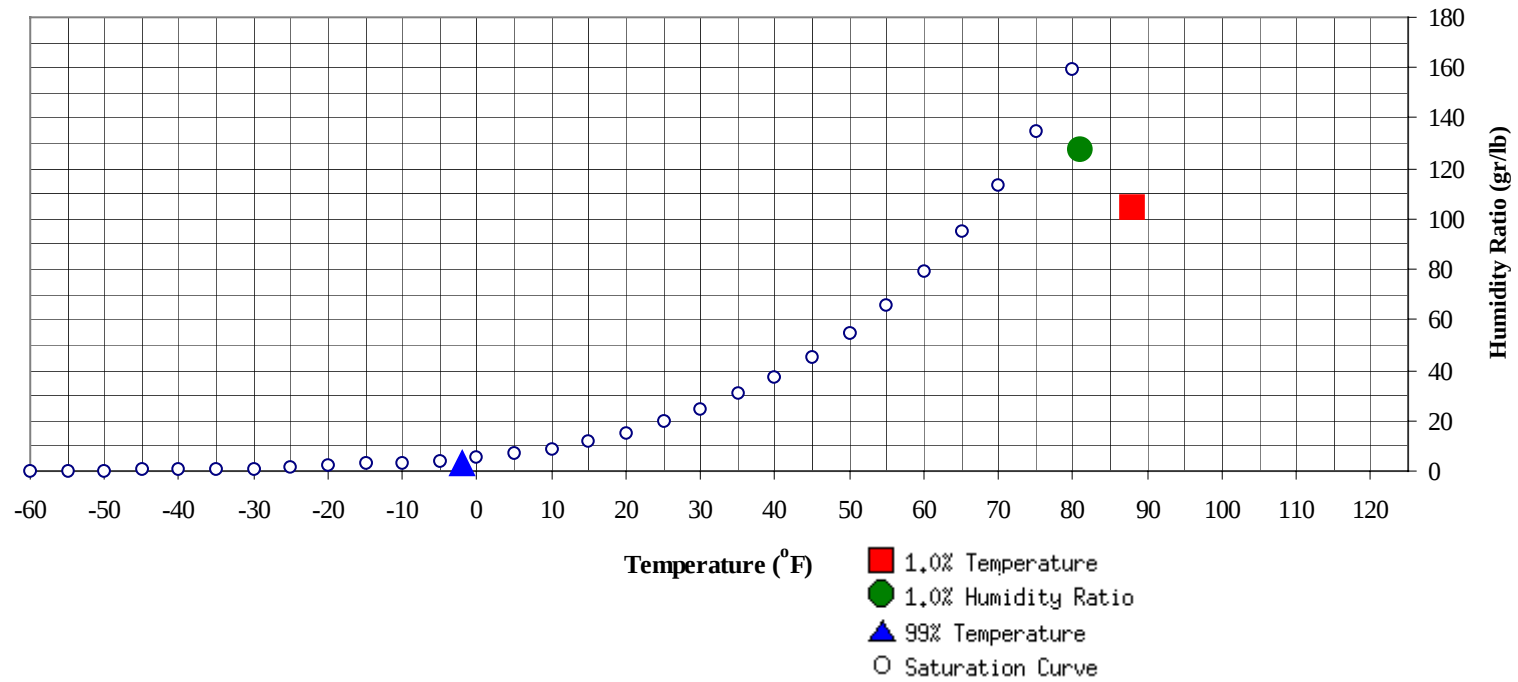
No Precipitation Data Available

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

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)
	-2	3.3	0.0		127.4	81	75.3	73.1	39.4

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	88	104.7	73.4	37.6

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												1	0	1	63.0
75 / 79												1	0	1	60.2
70 / 74												4	1	5	58.7
65 / 69		0		0	59.0		0		0	53.0	0	6	4	10	57.3
60 / 64		0	0	0	56.0		1	0	1	50.6	3	10	5	18	54.4
55 / 59		0	0	0	53.9	0	2	1	3	50.3	4	14	10	28	50.3
50 / 54	1	2	1	4	48.6	1	5	3	9	46.6	8	19	14	41	46.2
45 / 49	1	3	2	6	43.3	3	9	5	17	42.0	11	30	20	61	42.1
40 / 44	3	10	6	19	38.8	5	19	12	36	38.1	23	45	35	103	37.9
35 / 39	17	29	24	70	34.1	21	36	31	88	34.1	48	48	52	148	34.0
30 / 34	38	43	45	126	30.1	45	44	44	132	30.1	61	37	53	151	29.6
25 / 29	36	43	39	118	25.1	34	33	36	103	25.0	38	20	28	86	24.7
20 / 24	35	34	37	106	20.3	30	26	29	85	20.2	27	9	16	52	20.3
15 / 19	26	25	24	75	15.5	23	19	20	62	15.7	13	4	6	23	15.2
10 / 14	23	22	21	66	10.5	18	15	18	51	10.6	8	1	3	12	10.9
5 / 9	20	15	18	53	5.7	12	9	13	34	5.9	2	0	1	3	5.9
0 / 4	17	11	15	43	1.0	15	5	8	28	1.3	1		0	1	0.8
-5 / -1	11	5	7	23	-3.2	8	1	3	12	-2.9	0			0	
-10 / -6	9	4	5	18	-7.4	5	1	2	8	-7.2	0			0	
-15 / -11	4	2	2	8	-12.4	2	0	1	3	-11.5					
-20 / -16	3	1	2	6	-17.3	0	0		0	-16.5					
-25 / -21	1	0	0	1	-21.8	0	0		0	-21.3					
-30 / -26	0	0		0	-25.8										

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.

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												0		0	75.5
95 / 99							0		0	66.0		1	0	1	74.8
90 / 94		0		0	62.0		1	0	1	68.2		9	2	11	73.5
85 / 89		2	0	2	67.9	0	11	2	13	69.4	0	29	9	38	71.4
80 / 84		6	2	8	65.5	0	21	7	28	67.2	3	49	21	74	69.0
75 / 79		7	3	10	63.0	2	28	13	43	64.1	13	55	34	103	66.1
70 / 74	1	13	7	21	59.5	9	38	22	69	61.1	35	45	47	128	64.2
65 / 69	6	19	14	39	57.4	21	39	33	93	58.6	52	29	46	127	60.9
60 / 64	12	27	19	58	54.0	34	44	40	119	54.9	55	14	38	107	57.2
55 / 59	14	38	24	76	49.5	42	34	43	118	51.5	38	7	23	69	53.0
50 / 54	22	40	33	95	45.9	48	22	37	106	47.3	26	2	14	42	48.7
45 / 49	38	35	43	116	42.2	43	9	29	81	43.3	13	0	4	17	44.3
40 / 44	50	27	42	119	38.2	29	2	15	46	39.1	4		0	4	40.8
35 / 39	44	18	31	93	33.9	15	1	5	21	35.1	0			0	37.2
30 / 34	31	6	17	54	29.4	5		1	6	30.9					
25 / 29	15	2	6	23	25.2	0			0	26.7					
20 / 24	4	0	1	5	20.2										
15 / 19	1		0	1	15.5										
10 / 14	0			0	11.4										
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															
-30 / -26															

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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															
95 / 99		3	1	4	76.9		2	0	2	78.7		0		0	
90 / 94		17	4	21	75.9		8	1	9	77.2		3	0	3	74.6
85 / 89	0	46	15	61	73.4		28	8	36	74.2		10	2	12	71.5
80 / 84	7	65	32	105	70.7		59	22	83	70.8	0	28	8	36	69.1
75 / 79	25	62	49	137	68.4	15	72	41	128	68.2	4	39	16	59	66.2
70 / 74	62	37	63	162	66.3	54	51	63	168	66.4	20	47	33	100	64.2
65 / 69	68	14	46	128	63.1	63	21	54	137	62.8	35	48	41	124	60.8
60 / 64	53	3	27	83	58.9	57	7	37	101	58.8	39	38	45	122	56.8
55 / 59	24	1	8	33	54.5	36	1	17	54	54.6	46	18	43	107	52.9
50 / 54	8		2	10	50.1	15	0	4	19	50.4	47	9	31	87	48.8
45 / 49	1		0	1	46.5	4		1	5	45.3	26	2	13	41	44.3
40 / 44	0			0	42.0	1		0	1	41.8	14	0	6	20	40.1
35 / 39											5	0	1	6	35.6
30 / 34											2		0	2	31.2
25 / 29											0			0	26.3
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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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															
85 / 89		0		0	65.0										
80 / 84		4	0	4	65.4										
75 / 79		10	1	11	62.9										
70 / 74	1	20	6	27	59.8		3	0	3	61.1					
65 / 69	5	30	16	51	58.0	0	5	2	7	60.1					
60 / 64	16	41	28	85	55.6	5	12	9	26	57.4	0	0	0	0	57.4
55 / 59	29	44	34	107	51.0	10	17	14	41	52.7	1	2	1	4	53.5
50 / 54	38	47	43	128	46.9	13	25	16	54	47.0	1	5	2	8	47.5
45 / 49	39	30	46	116	42.9	19	36	25	79	42.7	3	7	5	15	43.6
40 / 44	48	17	39	104	38.6	30	40	40	110	38.4	7	18	9	34	38.8
35 / 39	37	6	22	66	34.5	43	45	49	137	34.1	26	42	34	102	34.5
30 / 34	23	1	8	32	30.4	52	34	42	128	29.5	57	62	61	179	30.2
25 / 29	8	0	3	11	25.9	35	14	25	74	24.8	41	38	42	120	25.1
20 / 24	2	0	0	2	21.7	16	6	11	33	20.6	35	26	31	91	20.2
15 / 19	0		0	0	17.0	9	3	5	17	15.6	25	16	20	61	15.6
10 / 14			0	0		5	1	2	8	11.1	17	13	16	46	10.8
5 / 9						1	0	1	2	6.6	13	10	13	36	5.9
0 / 4						1	0	0	1	1.5	11	6	9	26	1.2
-5 / -1						0			0	-1.0	4	2	2	8	-3.0
-10 / -6											4	2	2	8	-7.3
-15 / -11											2	0	2	4	-12.1
-20 / -16											0	0	0	0	-17.4
-25 / -21											0			0	-20.3
-30 / -26															

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WEST CHICAGO/DU PAGE IL

WMO No. 725305

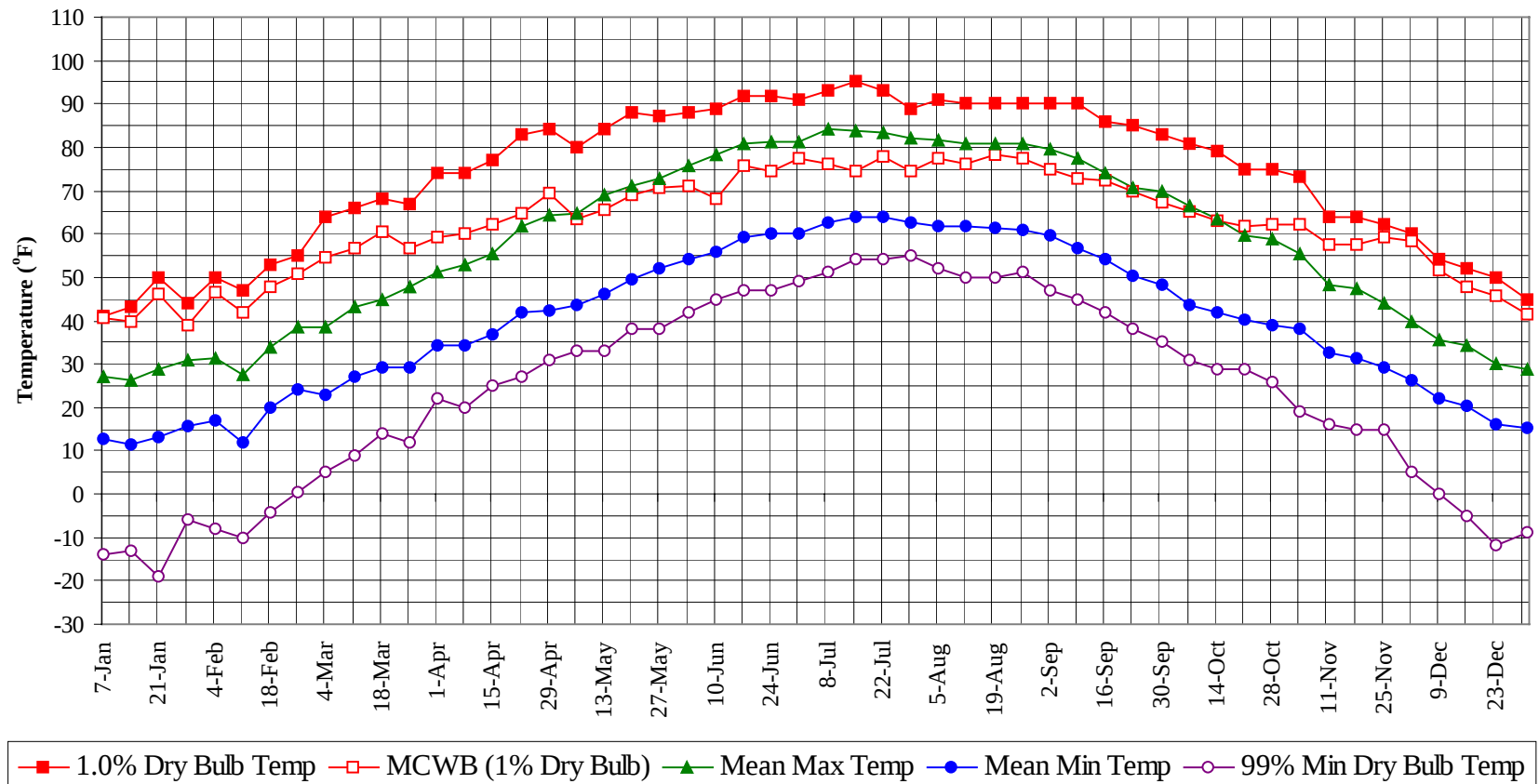
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1973 to 1996

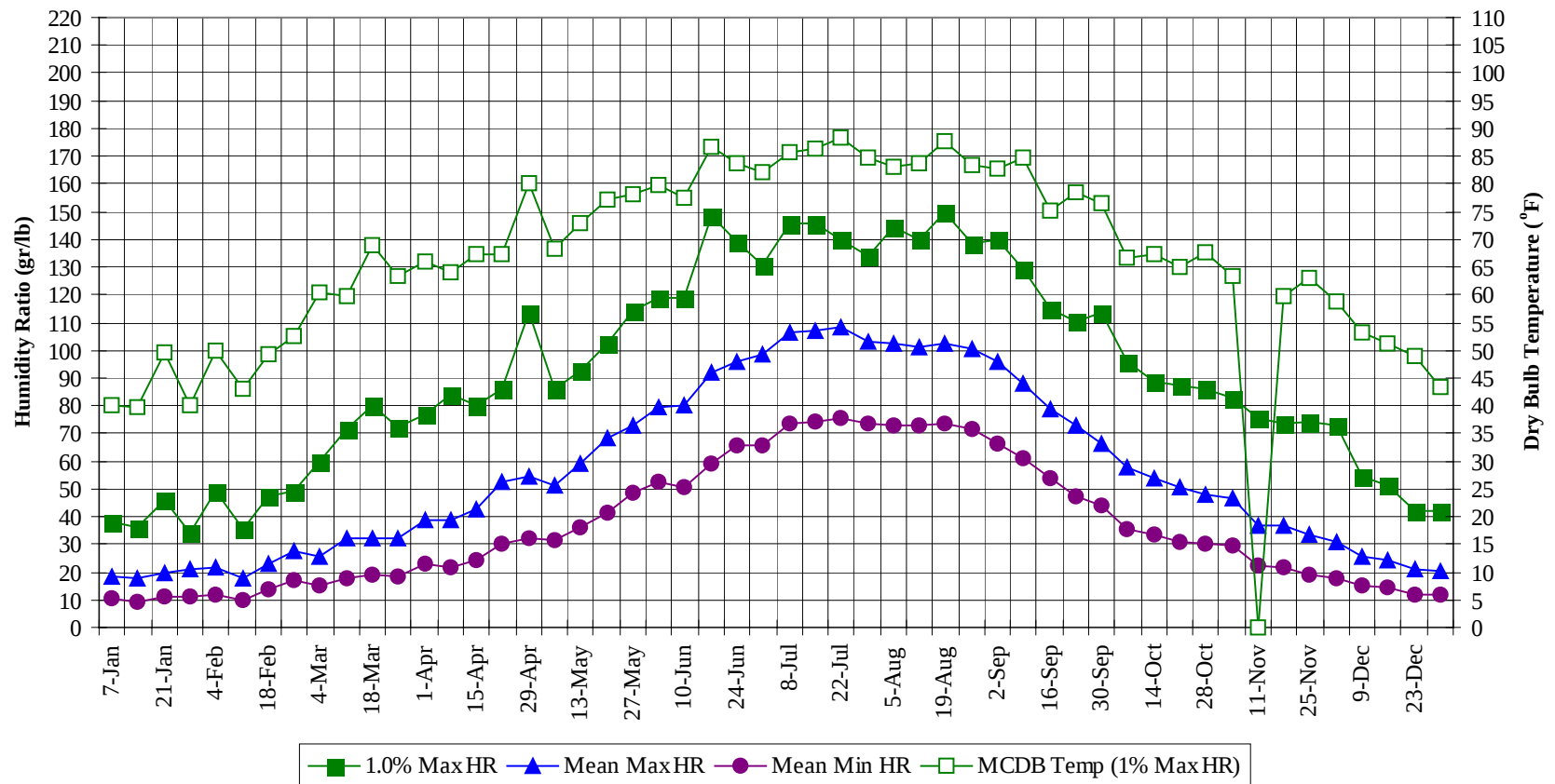
Annual Totals						
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	
	01 To 08	09 To 16	17 To 00			
100 / 104	0			0	75.5	
95 / 99	6			1	7	76.8
90 / 94	38			9	47	75.2
85 / 89	1	124	36	161	72.5	
80 / 84	12	232	92	336	69.7	
75 / 79	59	272	157	487	67.0	
70 / 74	182	256	241	678	64.6	
65 / 69	248	209	255	712	60.8	
60 / 64	275	198	248	721	56.6	
55 / 59	244	176	217	638	52.0	
50 / 54	227	174	198	598	47.3	
45 / 49	203	162	193	557	42.9	
40 / 44	214	178	204	596	38.5	
35 / 39	260	225	252	736	34.2	
30 / 34	314	224	272	810	29.9	
25 / 29	208	150	180	537	25.0	
20 / 24	149	100	126	375	20.3	
15 / 19	99	66	76	241	15.6	
10 / 14	73	53	61	186	10.7	
5 / 9	51	35	46	131	5.8	
0 / 4	45	23	32	100	1.1	
-5 / -1	24	9	13	46	-3.1	
-10 / -6	18	7	9	34	-7.3	
-15 / -11	9	3	5	17	-12.2	
-20 / -16	3	1	2	6	-17.3	
-25 / -21	1	0	0	1	-21.6	
-30 / -26	0	0		0	-25.8	

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Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary

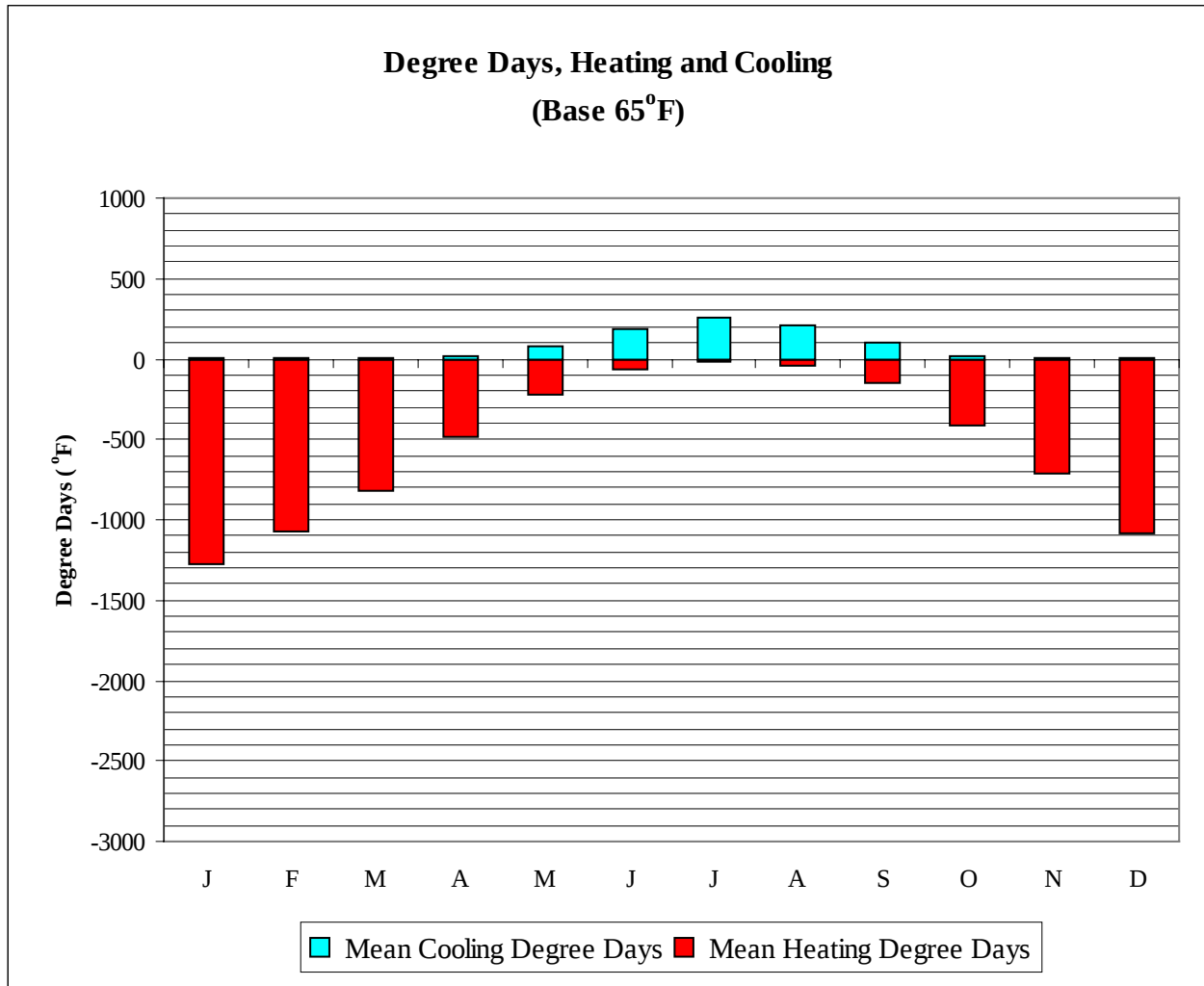


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WMO No. 725305

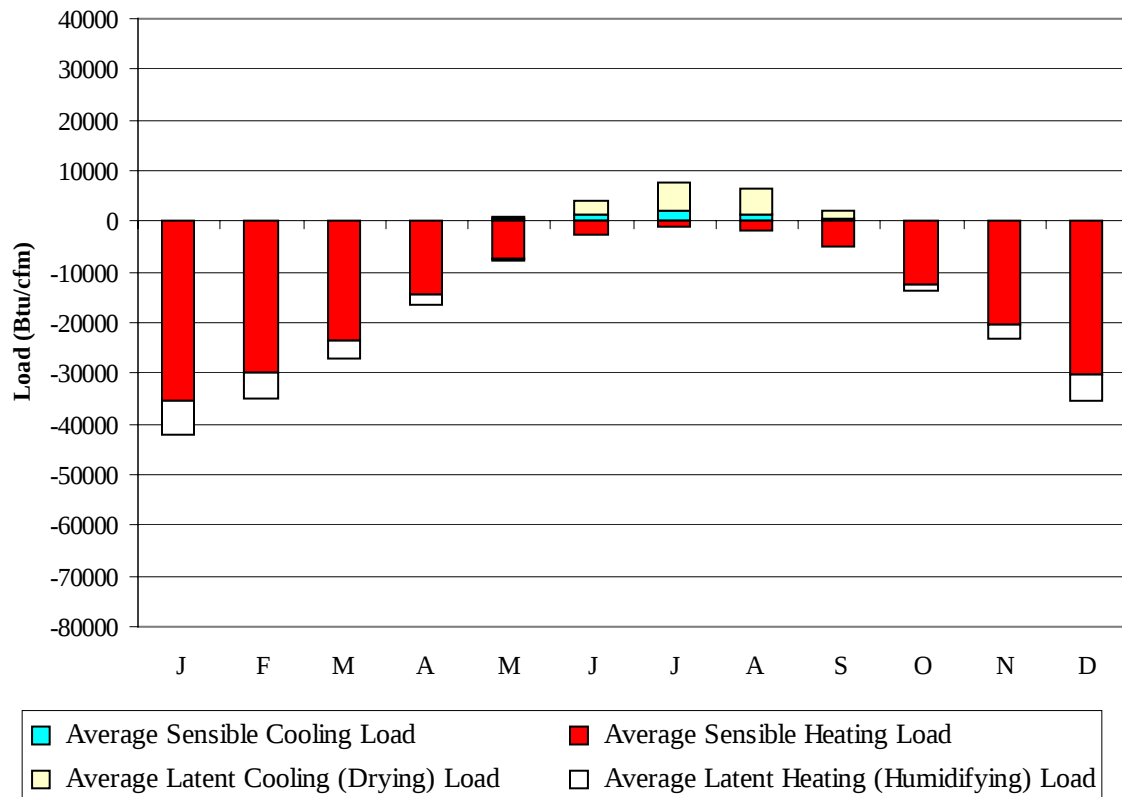
Long Term Dry Bulb Temperature and Humidity Summary

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	41.0	40.5	26.9	12.8	-14.0	37.8	40.2	18.4	10.2
14-Jan	43.0	40.0	26.1	11.6	-13.0	36.4	39.8	17.7	9.4
21-Jan	50.0	46.2	28.7	13.0	-19.0	46.2	49.6	19.9	11.0
28-Jan	44.0	39.1	30.7	15.8	-6.0	34.3	40.1	20.7	11.1
4-Feb	50.0	46.7	31.3	17.0	-8.0	49.0	49.9	21.5	12.1
11-Feb	47.0	41.7	27.7	11.9	-10.0	35.7	43.1	17.7	9.8
18-Feb	53.0	47.8	34.1	19.8	-4.0	47.6	49.1	23.3	13.5
25-Feb	55.0	50.8	38.7	24.3	0.5	49.0	52.5	27.4	16.9
4-Mar	64.0	54.6	38.4	23.0	5.0	59.5	60.3	25.9	15.1
11-Mar	66.0	56.5	43.1	26.9	9.0	71.4	59.9	32.0	17.9
18-Mar	68.0	60.5	45.1	29.3	14.0	79.8	68.9	32.2	19.2
25-Mar	67.0	56.7	47.9	29.2	12.0	72.1	63.4	32.3	18.6
1-Apr	74.0	59.1	51.3	34.3	22.0	77.0	65.9	39.0	22.9
8-Apr	74.0	60.1	53.1	34.1	20.0	84.0	64.1	39.0	22.0
15-Apr	77.0	62.3	55.5	36.6	25.0	79.8	67.4	42.8	24.6
22-Apr	83.0	64.8	62.0	41.8	27.0	86.1	67.3	52.6	30.5
29-Apr	84.0	69.4	64.1	42.3	31.0	113.4	80.3	54.3	32.1
6-May	80.0	63.5	64.6	43.5	33.0	86.1	68.1	51.2	31.5
13-May	84.0	65.4	69.1	46.3	33.0	92.4	72.7	58.9	35.8
20-May	88.0	68.9	71.0	49.4	38.0	102.2	77.1	68.2	41.5
27-May	87.0	70.7	72.9	51.9	38.0	114.1	78.2	73.1	48.8
3-Jun	88.0	71.2	75.7	54.4	42.0	119.0	79.7	79.4	52.4
10-Jun	89.0	68.3	78.2	55.7	45.0	119.0	77.4	80.1	50.9
17-Jun	92.0	75.6	80.7	59.1	47.0	148.4	86.8	91.7	58.8
24-Jun	92.0	74.5	81.3	60.2	47.0	139.3	83.7	95.7	66.0
1-Jul	91.0	77.6	81.2	60.2	49.0	130.9	82.1	98.4	65.5
8-Jul	93.0	76.1	84.3	62.8	51.0	145.6	85.8	106.2	73.4
15-Jul	95.0	74.5	83.6	63.9	54.0	145.6	86.4	107.3	74.2
22-Jul	93.0	77.7	83.3	63.9	54.0	140.0	88.2	108.3	75.7
29-Jul	89.0	74.5	82.3	62.7	55.0	133.7	84.6	103.0	73.4
5-Aug	91.0	77.6	81.8	61.8	52.0	144.2	83.1	102.5	72.8
12-Aug	90.0	76.2	80.9	61.6	50.0	140.0	83.7	100.9	73.0
19-Aug	90.0	78.4	80.9	61.2	50.0	149.8	87.7	102.6	73.5
26-Aug	90.0	77.3	80.8	60.9	51.0	138.6	83.3	100.7	71.7
2-Sep	90.0	75.1	79.5	59.5	47.0	140.0	82.7	96.0	66.4
9-Sep	90.0	72.6	77.5	56.7	45.0	129.5	84.9	88.1	61.1
16-Sep	86.0	72.3	74.1	54.1	42.0	114.8	75.2	79.1	53.8
23-Sep	85.0	70.0	70.6	50.2	38.0	110.6	78.4	72.6	47.4
30-Sep	83.0	67.4	69.9	48.3	35.0	113.4	76.6	66.2	44.3
7-Oct	81.0	65.0	66.6	43.7	31.0	95.9	66.8	57.7	35.2
14-Oct	79.0	63.0	63.3	41.8	29.0	88.9	67.2	53.7	33.6
21-Oct	75.0	61.8	59.7	40.3	29.0	87.5	65.0	50.8	31.1
28-Oct	75.0	62.2	59.0	38.9	26.0	86.1	67.7	48.0	30.4
4-Nov	73.0	62.2	55.4	38.2	19.0	82.6	63.4	46.7	29.4
11-Nov	64.0	57.4	48.0	32.6	16.0	75.3	.	36.5	22.6
18-Nov	64.0	57.4	47.4	31.3	15.0	73.5	59.9	36.5	21.9
25-Nov	62.0	59.2	44.1	29.1	15.0	74.2	62.9	33.4	19.2
2-Dec	60.0	58.4	39.7	26.2	5.0	72.8	58.7	30.9	17.5
9-Dec	54.0	51.7	35.5	21.8	0.0	54.6	53.1	25.6	15.2
16-Dec	52.0	48.0	34.2	20.5	-5.0	51.1	51.3	24.0	14.7
23-Dec	50.0	45.6	30.2	16.0	-12.0	42.0	48.9	21.0	11.8
31-Dec	45.0	41.7	29.0	15.3	-9.0	42.0	43.3	20.6	11.5



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1274
FEB	0	1071
MAR	3	818
APR	19	484
MAY	77	224
JUN	184	66
JUL	262	23
AUG	205	40
SEP	97	145
OCT	18	409
NOV	1	711
DEC	0	1083
ANN	867	6348

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	-35266	0	-6723
FEB	0	-29848	0	-5279
MAR	6	-23458	10	-3791
APR	95	-14552	113	-1724
MAY	446	-7393	603	-334
JUN	1315	-2557	2639	-14
JUL	2095	-1099	5573	0
AUG	1412	-1751	4866	-3
SEP	524	-5072	1514	-73
OCT	46	-12600	95	-939
NOV	0	-20515	6	-2800
DEC	0	-30222	0	-5310
ANN	5939	-184333	15419	-26990

Average Annual Solar Radiation – Nearest Available Site

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

City: CHICAGO
 State: IL
 WBAN No: 94846
 Lat(N): 41.78
 Long(W): 87.75
 Elev(ft): 623

Stn Type: Secondary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS
 Window: 1
 Overhang: 0.585
 Vert Gap: 0.327

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	570	820	1100	1450	1800	1990	1940	1700	1330	950	570	460	1220
	Std Dev	46	70	68	115	147	115	105	111	98	68	47	43	36
	Minimum	460	710	970	1260	1510	1800	1730	1510	1140	790	450	380	1170
	Maximum	650	950	1220	1690	2130	2290	2110	1940	1560	1090	670	550	1330
	Diffuse	320	450	600	730	830	870	860	760	610	450	330	280	590
Clear Day	Global	810	1160	1640	2150	2480	2600	2520	2220	1770	1260	850	690	1680
NORTH	Global	190	260	350	430	550	620	590	480	370	280	200	160	370
	Diffuse	190	260	350	430	500	540	530	460	370	280	200	160	360
Clear Day	Global	180	240	330	430	580	680	620	480	360	270	190	160	380
EAST	Global	390	520	680	860	1020	1100	1090	980	800	610	370	300	730
	Diffuse	230	320	420	520	600	650	640	570	460	350	230	190	430
Clear Day	Global	620	820	1080	1300	1430	1460	1420	1310	1120	870	630	540	1050
SOUTH	Global	910	1020	980	940	880	840	870	980	1070	1080	800	740	930
	Diffuse	340	430	500	540	580	590	600	580	520	440	330	290	480
Clear Day	Global	1770	1880	1790	1470	1150	1010	1060	1300	1620	1790	1730	1660	1520
WEST	Global	380	530	660	830	1010	1090	1080	980	800	590	370	310	720
	Diffuse	230	320	420	520	610	650	640	580	470	350	240	200	440
Clear Day	Global	620	820	1080	1300	1430	1460	1420	1310	1120	870	630	540	1050

Average Annual Solar Heat and Illumination – Nearest Available Site

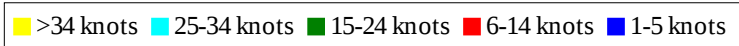
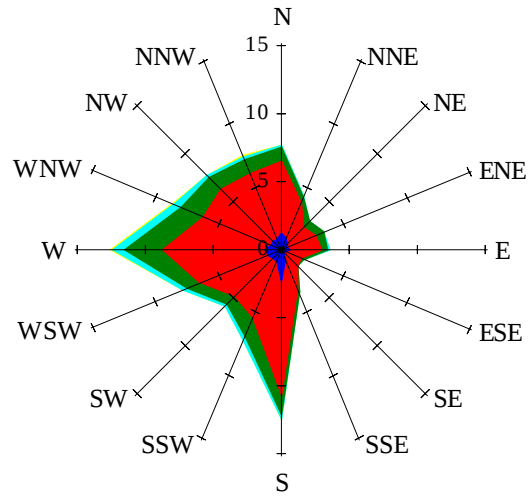
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	370	560	770	1040	1300	1440	1400	1220	950	650	380	290	870
NORTH	Unshaded	130	180	240	300	360	410	390	330	260	190	140	110	250
	Shaded	110	160	210	260	320	350	340	290	230	170	120	95	220
EAST	Unshaded	260	360	480	610	730	780	770	700	570	430	260	200	510
	Shaded	230	310	410	510	610	650	640	590	480	370	220	180	430
SOUTH	Unshaded	690	750	690	620	550	520	540	630	730	780	600	560	640
	Shaded	660	680	540	400	350	360	360	390	520	680	570	540	500
WEST	Unshaded	260	370	460	590	720	770	770	700	570	420	260	210	510
	Shaded	230	320	390	500	600	640	640	590	490	360	220	180	430

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	40	70	76	57	20	51	85	100	92	64
	M.Cloudy	23	42	48	34	12	33	59	71	67	45
NORTH	M.Clear	10	14	15	13	7	16	17	17	17	15
	M.Cloudy	9	15	16	13	6	13	18	19	19	15
EAST	M.Clear	70	51	15	13	7	77	68	26	17	15
	M.Cloudy	24	27	16	13	6	38	44	24	19	15
SOUTH	M.Clear	43	76	82	61	20	13	37	51	44	20
	M.Cloudy	18	35	41	28	9	12	28	38	34	18
WEST	M.Clear	10	14	28	66	52	13	17	17	56	78
	M.Cloudy	9	15	21	29	16	12	18	19	41	46
M.Clear	(% hrs)	28	25	22	23	24	40	39	33	32	34
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	30	66	81	71	40	14	37	40	21	0
	M.Cloudy	18	41	52	48	26	8	21	23	13	0
NORTH	M.Clear	9	14	16	15	11	5	10	10	7	0
	M.Cloudy	8	15	17	16	10	4	9	10	6	0
EAST	M.Clear	64	65	23	15	11	36	33	10	7	0
	M.Cloudy	22	33	20	16	10	8	14	10	6	0
SOUTH	M.Clear	24	60	76	66	34	35	76	81	50	0
	M.Cloudy	12	31	43	38	18	8	24	26	14	0
WEST	M.Clear	9	14	16	55	67	5	10	24	41	0
	M.Cloudy	8	15	17	33	30	4	9	13	12	0
M.Clear	(% hrs)	42	41	37	36	40	25	26	26	27	30

Wind Summary - December, January, and February

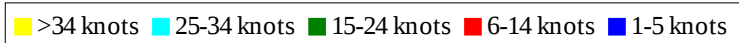
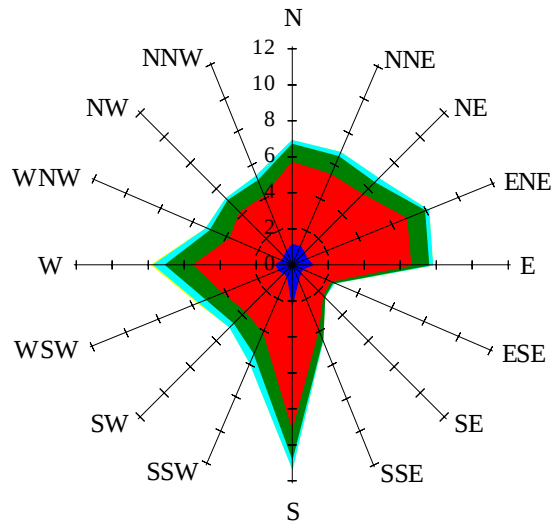
Labels of Percent Frequency on North Axis



Percent Calm = 2.59

Wind Summary - March, April, and May

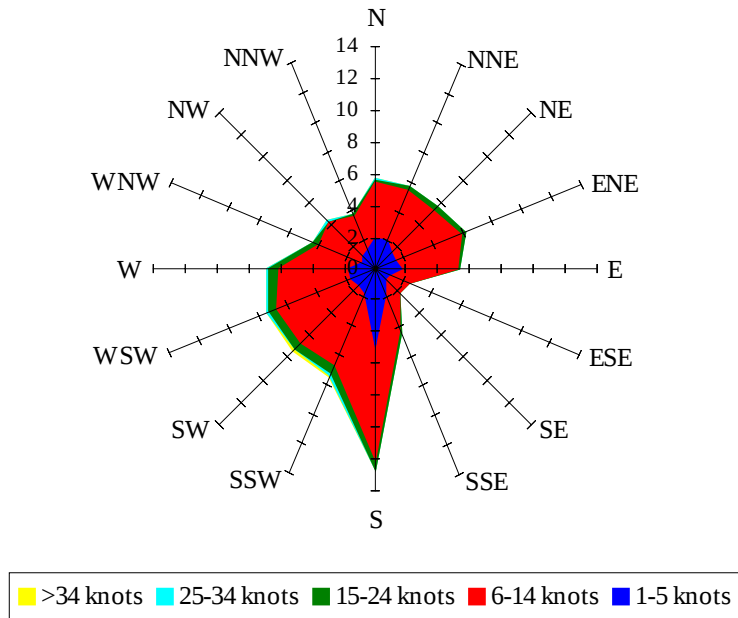
Labels of Percent Frequency on North Axis



Percent Calm = 3.84

Wind Summary - June, July, and August

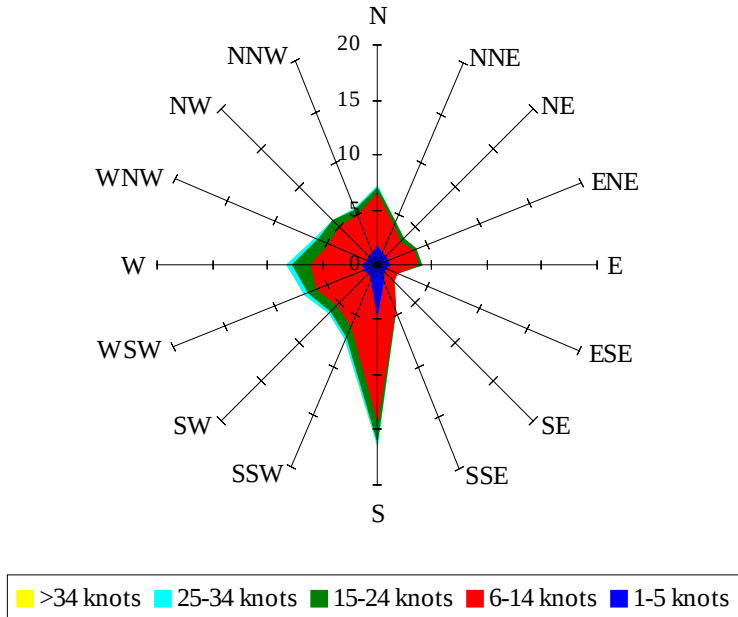
Labels of Percent Frequency on North Axis



Percent Calm = 9.17

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 6.39