COLUMBIA RGNL, MO	
Latitude = 38.82 N	Station ID = ICAO_KCOU
Longitude = 92.22 W	Elevation = 889 Feet
Period of Record = 1988 To 2017	Average Pressure = 29.07 inches Hg

Design Criteria Data

	Mean Coincident (Average) Values				
Dry Bulb Temperature (T)	**Design Value (°F)**	**Wet Bulb Temperature (°F)**	**Humidity Ratio (gr/lb)**	**Wind Speed (mph)**	**Prevailing Direction (NSEW)**
Median of Extreme Highs	98	75	100	9.4	SW
0.4% Occurrence	95	76	112	9.9	SSW
1.0% Occurrence	91	76	114	9.8	S
2.0% Occurrence	89	75	111	9.6	S
Mean Daily Range	19	-	-	-	WNW
97.5% Occurrence	16	14	9	9.8	WNW
99.0% Occurrence	9	8	6	9.7	WNW
99.6% Occurrence	3	2	5	9.2	NW
Median of Extreme Lows	-1	-2	4	9.2	WNW

Wet Bulb Temperature (T_{wb})	**Design Value (°F)**	**Dry Bulb Temperature (°F)**	**Humidity Ratio (gr/lb)**	**Wind Speed (mph)**	**Prevailing Direction (NSEW)**
Median of Extreme Highs	82	91	152	8.2	S
0.4% Occurrence	79	89	135	9	S
1.0% Occurrence	78	88	131	9.2	S
2.0% Occurrence	77	86	127	9.2	S

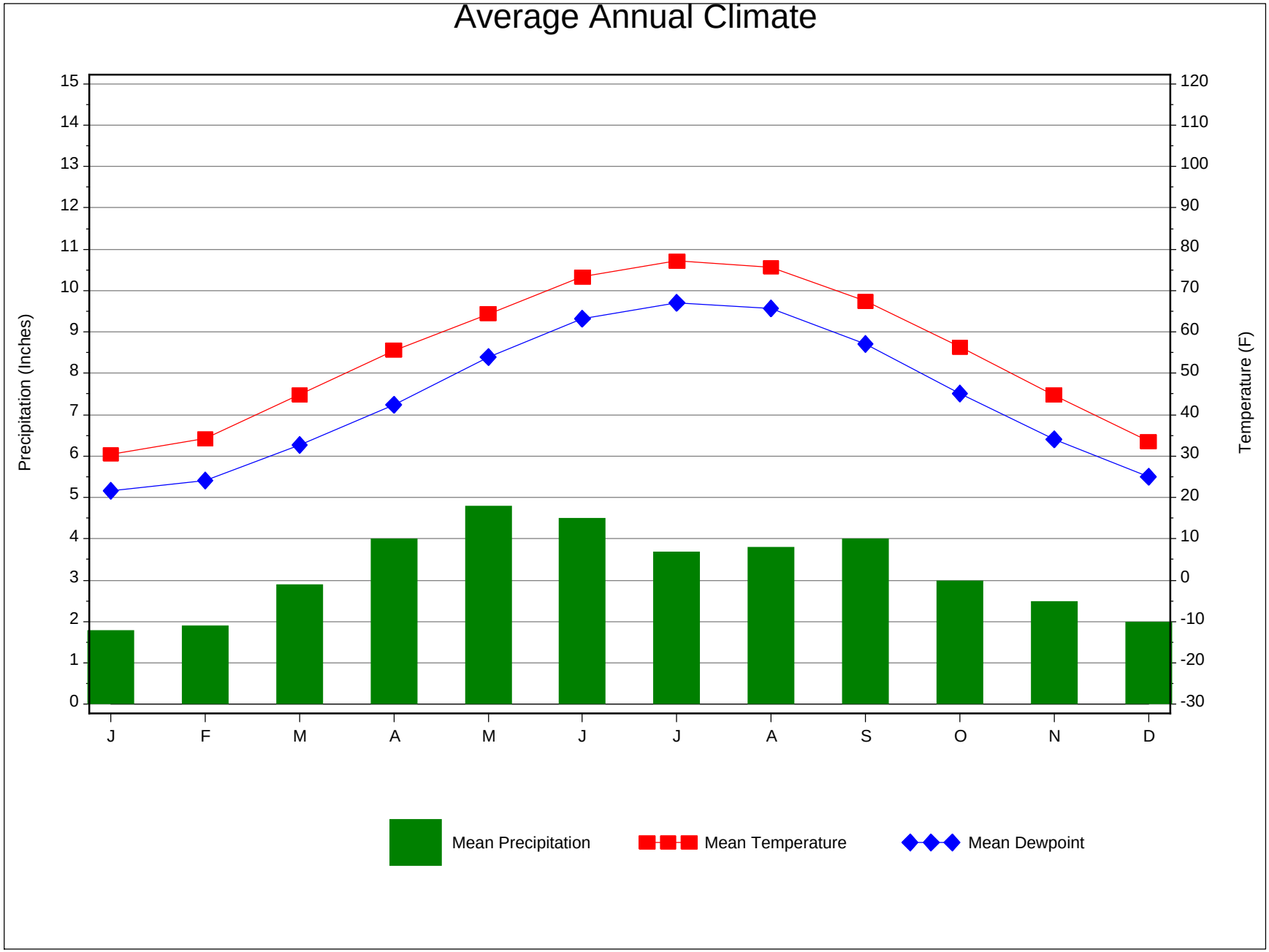
Humidity Ratio (HR)	**Design Value (gr/lb)**	**Dry Bulb Temperature (°F)**	**Vapor Pressure (in. Hg)**	**Wind Speed (mph)**	**Prevailing Direction (NSEW)**
Median of Extreme Highs	155	87	0.99	7	S
0.4% Occurrence	144	86	0.94	7.6	S
1.0% Occurrence	136	85	0.88	8	S
2.0% Occurrence	129	83	0.83	8.2	S

Air Conditioning/ Humid Area Criteria	**Threshold**	**T ≥ 93°F**	**T ≥ 80°F**	**Twb ≥ 73°F**	**Twb ≥ 67°F**
	# of Hours	66	892	703	1842

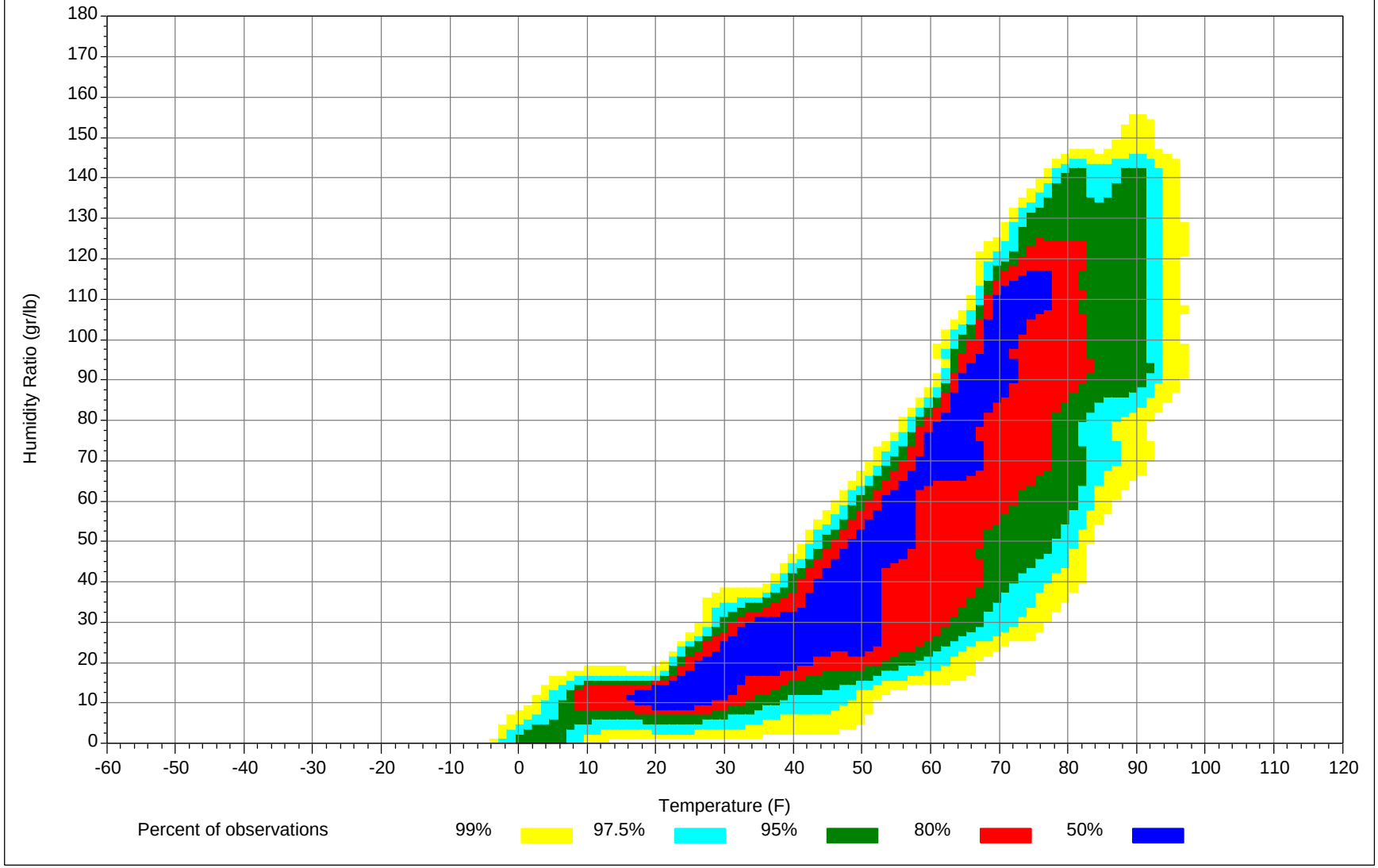
Other Site Data

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	3.3	90	3.2 + 0.9
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 (#)
57.4	N/A	20	57

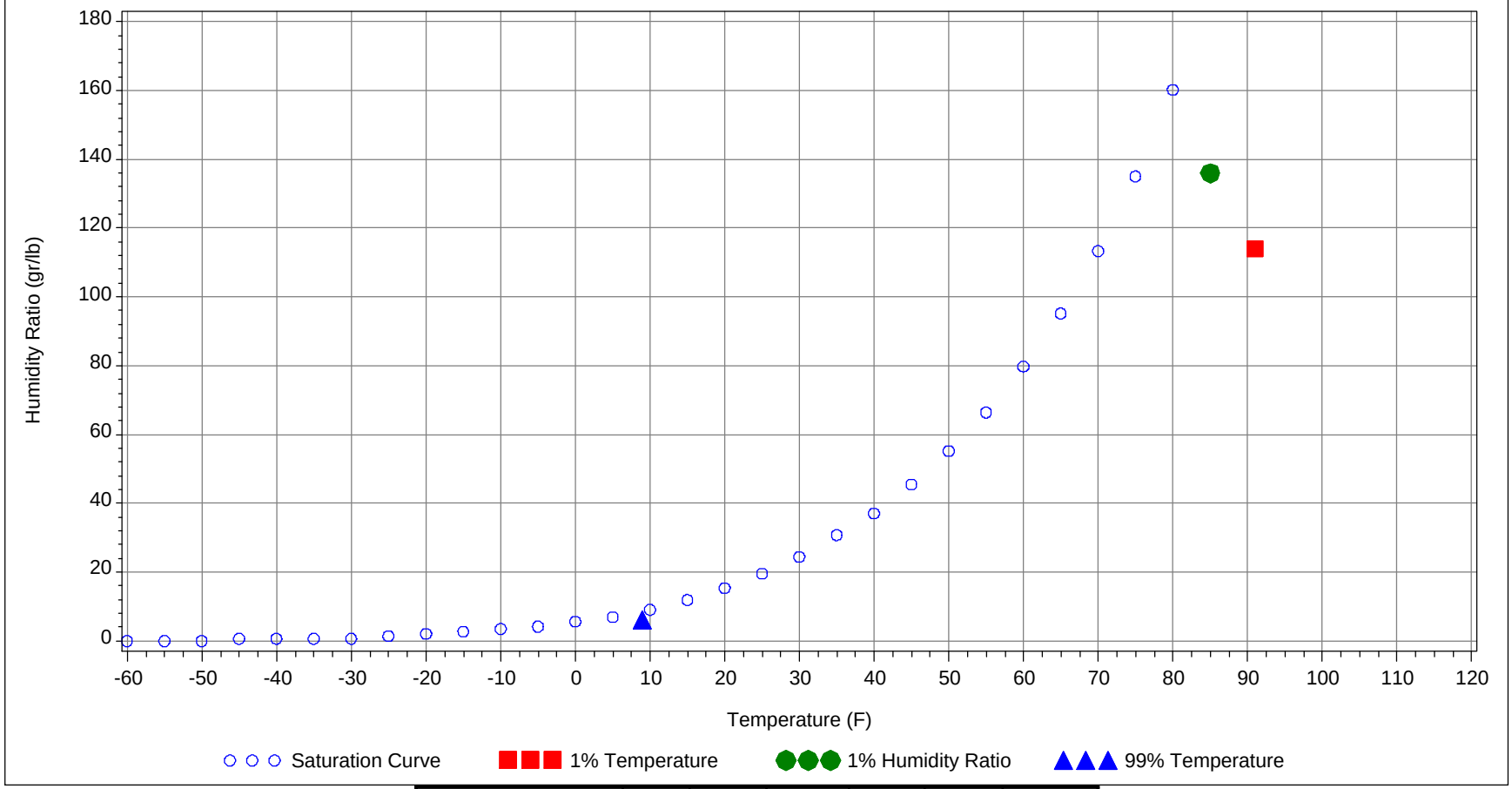
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.


Average Annual Climate
Precipitation (Inches)
Temperature (F)
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
120
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
J
F
M
A
M
J
J
A
S
O
N
D
Mean Precipitation
Mean Temperature
Mean Dewpoint

Long Term Psychrometric Summary



Psychrometric Summary of Peak Design Values



	(°F) / (gr/lb)	MCDB (°F)	MCWB (°F)	MCDP (°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
1.0% Dry Bulb	91.0		76		114.0	39.7
99.0% Dry Bulb	9.0				6.0	3.0
1.0% Humidity Ratio	136.0	85.0	77.6	75.1		41.6

Dry-Bulb Temperature Hours For An Average Year

	January					February					March				
Temperature Range (°F)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**
105/109															
100/104															
95/ 99															
90/ 94															
85/ 89															
80/ 84												2	0	2	63.6
75/ 79		0		0	64		0	0	0	58.8		9	2	11	61.1
70/ 74		1	0	1	58.7		3	1	4	57.6	0	15	8	23	58.6
65/ 69	0	1	0	1	56.9		5	1	6	53.5	2	14	10	26	56
60/ 64	1	6	2	9	52.9	2	10	7	19	52.4	11	24	21	56	53.3
55/ 59	2	9	6	17	49.6	3	11	9	23	48.6	15	26	22	63	49.4
50/ 54	4	14	10	28	45.4	6	18	13	37	44.9	21	29	31	81	45.6
45/ 49	9	22	17	48	41.2	12	24	21	57	40.7	32	37	40	109	41.4
40/ 44	13	23	20	56	37.7	14	20	21	55	37.5	28	26	27	81	37.8
35/ 39	29	39	42	110	33.8	32	36	35	103	33.7	45	31	41	117	34
30/ 34	49	41	46	136	29.8	48	37	45	130	29.6	44	20	27	91	29.4
25/ 29	44	35	37	116	24.6	42	26	30	98	24.6	29	8	11	48	24.6
20/ 24	24	19	21	64	20.1	19	13	16	48	19.9	10	4	6	20	19.9
15/ 19	29	18	22	69	15.7	22	11	13	46	15.7	8	2	2	12	15.9
10/ 14	19	12	12	43	10.6	10	5	6	21	10.4	2	1	1	4	11
5/ 9	11	6	7	24	6	6	3	3	12	5.9	1	0	0	1	6.3
0/ 4	10	2	5	17	1	4	1	2	7	1.2	1	0	0	1	1.3
-5/ -1	3	1	1	5	-3.2	2	0	0	2	-3	0			0	-3
-10/ -6	1	0	0	1	-7.5	1	0	0	1	-7.3					
-15/-11			0	0	-12	0		0	0	-12.3					
-20/-16															
-25/-21															

Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure 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

	April					May					June				
Temperature Range (°F)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**
105/109												0	0	0	71.8
100/104												1	0	1	73.1
95/ 99												2	1	3	73.6
90/ 94		0		0	67.4		1	0	1	73.6		17	4	21	74.8
85/ 89		2	0	2	68.3		8	2	10	71.9	0	41	14	55	73.9
80/ 84		12	3	15	65.2	0	35	12	47	69.7	4	68	36	108	71.3
75/ 79	0	22	9	31	62.3	3	45	24	72	66.2	24	51	53	128	69.1
70/ 74	5	29	22	56	59.8	21	51	43	115	63.7	65	37	65	167	67
65/ 69	9	27	21	57	57.2	32	36	43	111	61.1	62	14	36	112	63.8
60/ 64	25	40	38	103	54.4	63	37	54	154	57.7	53	7	23	83	59.7
55/ 59	36	34	38	108	50.6	49	20	34	103	52.8	23	3	7	33	54.8
50/ 54	41	33	41	115	46.9	42	11	23	76	48.8	7	1	2	10	50.7
45/ 49	50	24	35	109	42.7	27	3	11	41	44.3	1		0	1	46.8
40/ 44	28	9	15	52	38.5	8	0	2	10	40.2	0			0	42.4
35/ 39	29	6	13	48	34.4	4	0	1	5	35.9					
30/ 34	12	2	4	18	29.6										
25/ 29	4	0	1	5	24.3										
20/ 24	1		0	1	20.2										
15/ 19	0			0	16.7										
10/ 14															
5/ 9															
0/ 4															
-5/ -1															
-10/ -6															
-15/-11															
-20/-16															
-25/-21															

Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure 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

	July					August					September				
Temperature Range (°F)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**
105/109		0	0	0	74.3		0	0	0	77.8					
100/104		3	1	4	74.6		2	0	2	74.8					
95/ 99		9	2	11	76.7		11	3	14	75.4		1	0	1	73.7
90/ 94	0	43	13	56	76.6	0	37	10	47	75.6		9	1	10	73.6
85/ 89	1	51	22	74	75.1	0	41	15	56	74.5		21	4	25	72.1
80/ 84	14	68	52	134	72.8	7	66	41	114	72.2	0	44	15	59	69.7
75/ 79	52	43	64	159	71.1	38	52	62	152	70.5	6	48	31	85	67.2
70/ 74	90	22	59	171	68.6	86	29	71	186	68.3	35	53	50	138	65.1
65/ 69	49	6	23	78	64.5	55	8	27	90	64.4	36	26	41	103	62.1
60/ 64	34	2	10	46	60.2	44	2	16	62	60.2	60	23	48	131	58.4
55/ 59	7	0	1	8	55.8	15		3	18	55.4	47	10	29	86	53.6
50/ 54	0		0	0	52.5	3		1	4	51.1	33	4	15	52	49.8
45/ 49						0			0	47.6	14	1	5	20	44.5
40/ 44											6	0	1	7	40.6
35/ 39											2		0	2	36.4
30/ 34											0			0	32.6
25/ 29															
20/ 24															
15/ 19															
10/ 14															
5/ 9															
0/ 4															
-5/ -1															
-10/ -6															
-15/-11															
-20/-16															
-25/-21															

Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure 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

	October					November					December				
Temperature Range (°F)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**
105/109															
100/104															
95/ 99															
90/ 94		0	0	0	70.2										
85/ 89		2	0	2	70.1										
80/ 84		13	1	14	66.9		0		0	65.9					
75/ 79	0	23	6	29	64.1		3	0	3	63.3		0		0	61
70/ 74	6	38	21	65	62.1		11	3	14	59.7		1	0	1	62.1
65/ 69	10	31	23	64	59.2	2	12	6	20	57.4	0	3	1	4	59.8
60/ 64	28	44	44	116	55.8	7	26	17	50	54.8	2	7	3	12	55.2
55/ 59	41	36	44	121	51.7	17	34	25	76	50.4	3	12	6	21	50.2
50/ 54	46	30	41	117	47.6	24	31	32	87	46.4	8	19	12	39	46
45/ 49	47	21	37	105	43	32	40	43	115	41.9	13	30	24	67	41.8
40/ 44	30	6	17	53	38.9	35	24	30	89	38.4	17	27	27	71	38.1
35/ 39	27	3	11	41	34.9	47	30	39	116	34.1	40	42	44	126	34.1
30/ 34	11	0	3	14	30.1	37	18	27	82	29.4	50	42	47	139	29.7
25/ 29	2	0	0	2	26.1	23	7	13	43	24.5	47	29	37	113	24.7
20/ 24	0		0	0	22	9	2	5	16	20	22	13	16	51	20
15/ 19						6	1	2	9	16.2	20	12	15	47	15.8
10/ 14						2	0	0	2	11	10	6	8	24	10.6
5/ 9						0	0	0	0	5.6	7	3	4	14	6
0/ 4						0			0	2.1	6	1	2	9	1.5
-5/ -1											1	0	0	1	-2.8
-10/ -6											0	1	0	1	-7.8
-15/-11											0	0	0	0	-11.8
-20/-16											0	0	0	0	-17.2
-25/-21											0			0	-20

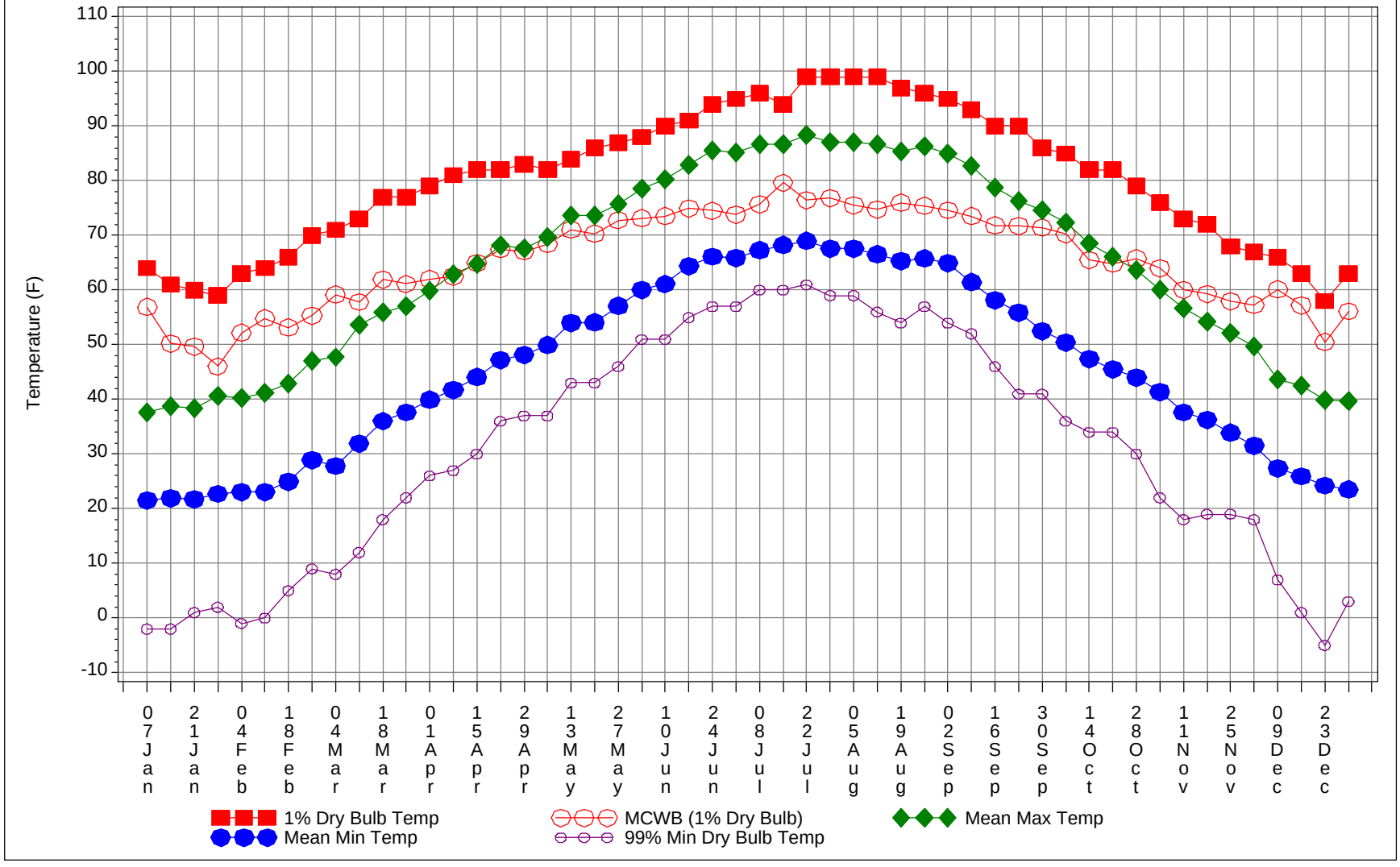
Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

Dry-Bulb Temperature Hours For An Average Year

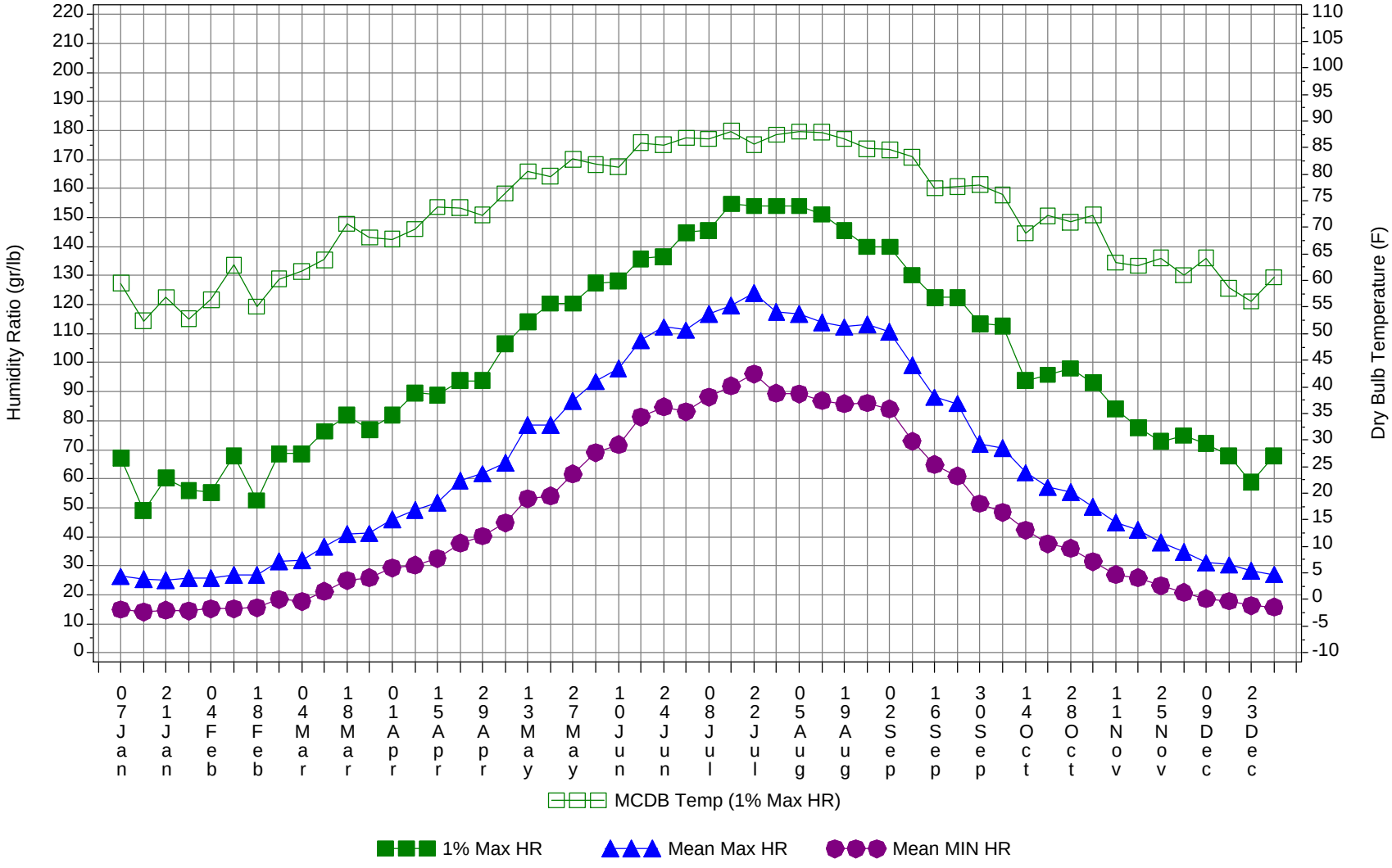
	Annual				
Temperature Range (°F)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**
105/109		0	0	0	74.4
100/104		6	1	7	74.4
95/ 99		23	5	28	75.7
90/ 94	0	108	28	136	75.7
85/ 89	1	166	56	223	74.1
80/ 84	26	309	161	496	71.2
75/ 79	123	295	251	669	68.7
70/ 74	308	290	342	940	65.7
65/ 69	257	182	231	670	61.6
60/ 64	328	227	283	838	57
55/ 59	258	195	223	676	51.7
50/ 54	235	189	220	644	47.1
45/ 49	237	203	233	673	42.2
40/ 44	179	136	161	476	38.2
35/ 39	255	188	225	668	34.1
30/ 34	251	159	199	609	29.6
25/ 29	191	106	129	426	24.7
20/ 24	86	50	64	200	20
15/ 19	85	44	54	183	15.7
10/ 14	43	25	27	95	10.6
5/ 9	25	12	15	52	6
0/ 4	21	5	9	35	1.2
-5/ -1	5	1	1	7	-3.1
-10/ -6	2	1	1	4	-7.5
-15/-11	1	0	1	2	-12
-20/-16	0	0	0	0	-17.2
-25/-21	0			0	-20

Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure 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.

Annual Summary of Temperatures



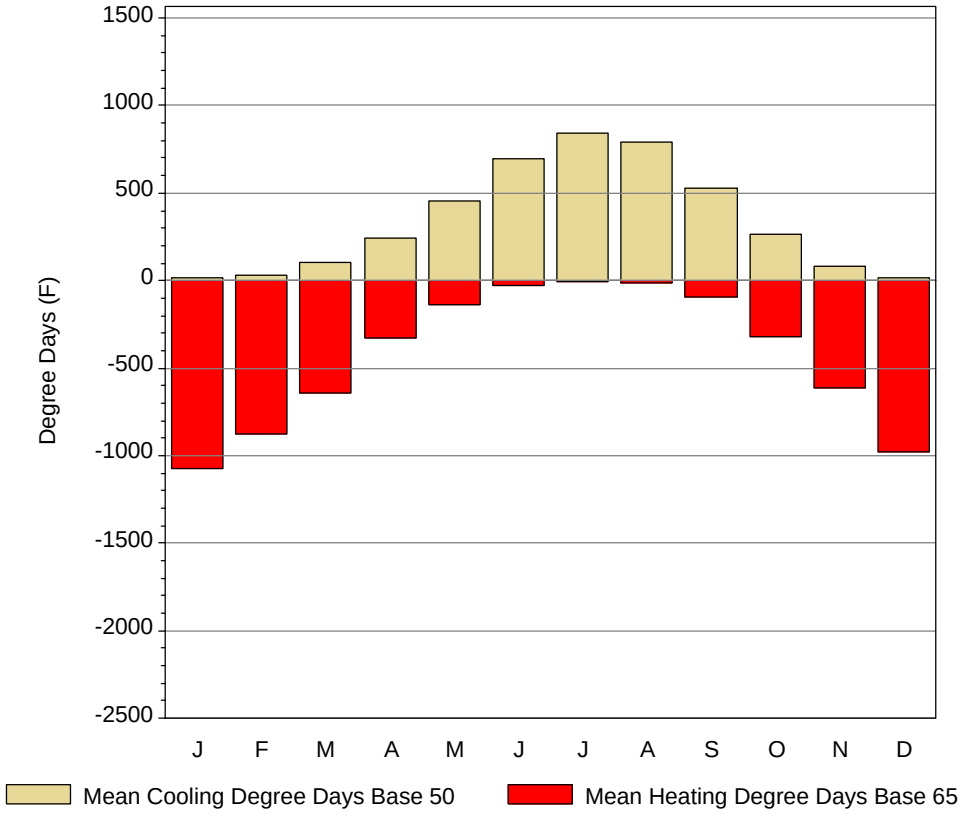
Long Term Humidity and Dry Bulb Temperature Summary



Long Term Humidity and Dry Bulb Temperature Summary

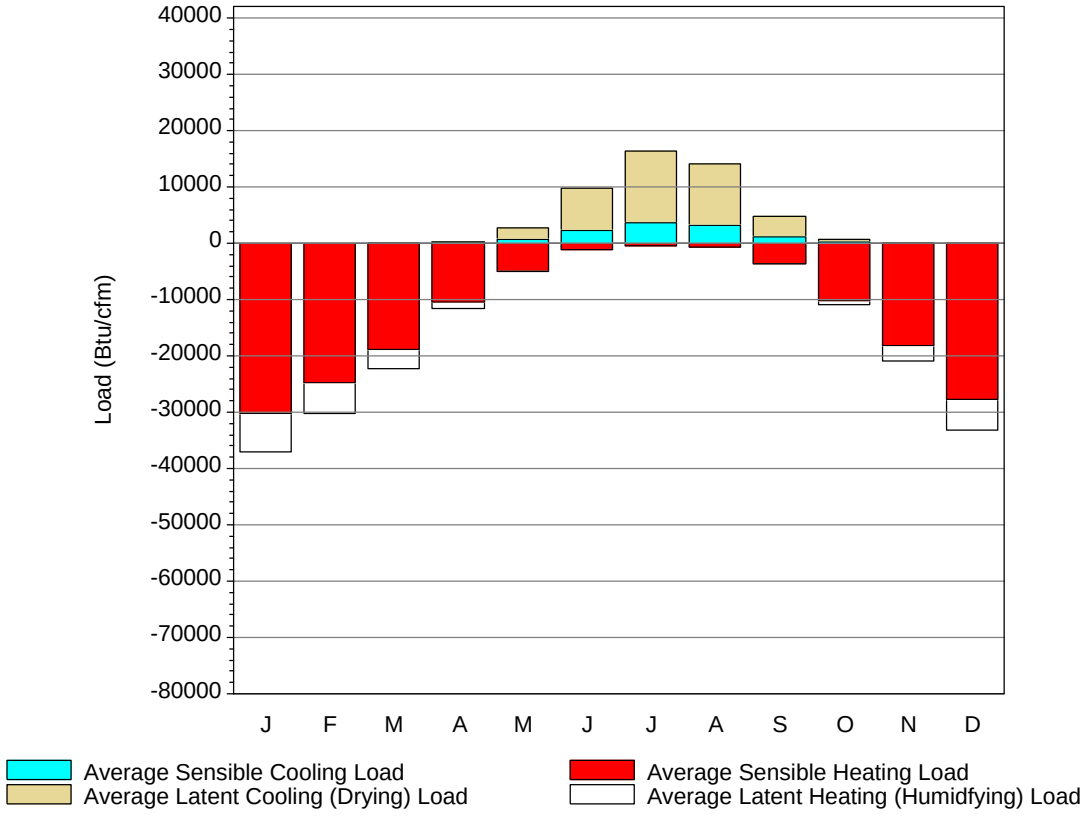
Week Ending	1.0% Temp (°F)	MCWB@ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB@ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	64	56.9	37.6	21.5	-2	67.2	59.5	26.3	14.9
14-Jan	61	50.2	38.8	21.9	-2	49	52.4	25.3	14.1
21-Jan	60	49.6	38.4	21.7	1	60.2	56.9	25	14.6
28-Jan	59	46	40.6	22.7	2	56	52.8	25.7	14.4
4-Feb	63	52.2	40.3	23	-1	55.3	56.4	25.7	15.2
11-Feb	64	54.8	41.1	23	0	67.9	62.9	26.8	15.1
18-Feb	66	53.1	42.8	24.9	5	52.5	55.1	26.7	15.6
25-Feb	70	55.3	47	28.9	9	68.6	60.3	31.6	18.5
4-Mar	71	59.2	47.7	27.8	8	68.6	61.7	31.9	17.7
11-Mar	73	57.8	53.6	31.9	12	76.3	63.9	36.7	21.1
18-Mar	77	61.9	55.9	36	18	81.9	70.7	40.9	24.9
25-Mar	77	61.1	57	37.6	22	77	68.1	41.1	25.9
1-Apr	79	62	59.9	39.9	26	81.9	67.8	45.9	29.2
8-Apr	81	62.5	62.9	41.7	27	89.6	69.7	49.3	30.2
15-Apr	82	64.9	64.7	44.1	30	88.9	73.8	51.9	32.5
22-Apr	82	67.5	68.1	47.2	36	93.8	73.7	59.5	37.8
29-Apr	83	67.1	67.7	48.1	37	93.8	72.3	61.7	40.2
6-May	82	68.4	69.7	49.9	37	106.4	76.4	65.6	44.8
13-May	84	71.1	73.7	54	43	114.1	80.5	78.5	53.1
20-May	86	70.3	73.7	54.1	43	120.4	79.6	78.5	54.1
27-May	87	72.8	75.8	57.1	46	120.4	82.8	86.8	61.6
4-Jun	88	73.1	78.6	60	51	127.4	81.8	93.5	69
10-Jun	90	73.5	80.3	61.1	51	128.1	81.4	98	71.8
17-Jun	91	74.9	82.9	64.4	55	135.8	85.9	107.6	81.3
24-Jun	94	74.5	85.6	66.1	57	136.5	85.5	112.3	84.8
1-Jul	95	73.8	85.2	65.9	57	144.9	86.8	111.2	83.1
8-Jul	96	75.7	86.6	67.3	60	145.6	86.6	116.8	88.1
15-Jul	94	79.6	86.6	68.2	60	154.7	88.1	119.6	92
22-Jul	99	76.4	88.3	69	61	154	85.6	124	96.2
29-Jul	99	76.8	87	67.6	59	154	87.4	117.5	89.5
5-Aug	99	75.5	87.1	67.6	59	154	88	116.9	89.3
12-Aug	99	74.7	86.6	66.5	56	151.2	87.9	113.9	86.9
19-Aug	97	76	85.3	65.3	54	145.6	86.6	112.3	85.8
26-Aug	96	75.4	86.3	65.8	57	140	84.8	113.3	86.1
2-Sep	95	74.6	84.9	64.9	54	140	84.6	110.7	84
9-Sep	93	73.5	82.8	61.4	52	130.2	83.2	99.2	72.9
16-Sep	90	71.8	78.8	58.1	46	122.5	77.4	88.1	64.8
23-Sep	90	71.7	76.3	55.9	41	122.5	77.7	85.9	60.9
30-Sep	86	71.4	74.6	52.5	41	113.4	78	72.1	51.4
7-Oct	85	70.2	72.3	50.4	36	112.7	76.1	70.5	48.5
14-Oct	82	65.5	68.6	47.4	34	93.8	68.9	62.1	42.2
21-Oct	82	64.8	66.1	45.5	34	95.9	72.2	57	37.6
28-Oct	79	65.8	63.6	44	30	98	71	55.4	35.9
4-Nov	76	64	60.1	41.3	22	93.1	72.3	50.2	31.4
11-Nov	73	60	56.7	37.6	18	84	63.4	44.9	27
18-Nov	72	59.3	54.3	36.2	19	77.7	62.8	42.4	25.8
25-Nov	68	57.9	52.1	33.9	19	72.8	64.2	38	23.1
2-Dec	67	57.3	49.7	31.5	18	74.9	61	34.9	20.8
9-Dec	66	60.1	43.6	27.4	7	72.1	64.2	31	18.6
16-Dec	63	57.2	42.5	25.9	1	67.9	58.6	30.3	17.8
23-Dec	58	50.5	39.9	24.2	-5	58.8	56.1	28.2	16.2
31-Dec	63	56.1	39.7	23.5	3	67.9	60.6	27	15.7

Degree Days, Heating and Cooling
(Base 65 F) & Cooling (Base 50F)



Month	Mean Cooling Degree Days (°F) Base 50	Mean Cooling Degree Days (°F) Base 65	Mean Heating Degree Days (°F) Base 65
JAN	13.6	0.4	1074.5
FEB	27.2	1.6	873.7
MAR	106.4	15.1	641.2
APR	241	47.1	330.5
MAY	457.1	118.5	137.2
JUN	699.3	273.6	24.5
JUL	840.8	382.4	6.6
AUG	793.5	342	13.5
SEP	528.2	166.1	94
OCT	261.3	48.9	318.2
NOV	84	6.9	615.2
DEC	18.5	0.5	976.8
ANN	4070.9	1403.1	5105.9

Average Ventilation and Infiltration Loads
(Outside Air vs 75F, 60% RH summer; 68F, 30% RH winter)



Month	Average Sensible Cooling Load (Btu/cfm)	Average Sensible Heating Load (Btu/cfm)	Average Latent Cooling Load (Btu/cfm)	Average Latent Heating Load (Btu/cfm)
JAN	0	-30255	0	-6662
FEB	0	-24820	0	-5319
MAR	34	-18867	10	-3299
APR	195	-10462	156	-1004
MAY	632	-4973	2206	-83
JUN	2228	-1182	7599	0
JUL	3696	-435	12688	0
AUG	3130	-719	10876	0
SEP	1147	-3538	3707	-18
OCT	191	-10184	534	-704
NOV	8	-18188	30	-2791
DEC	0	-27719	2	-5555
ANN	11261	-151342	37808	-25435

Station Information		Shading Geometry in Dimensionless Units	
City, State, WBAN	COLUMBIA, MO 03945	Window:	1.000
Lat, Lon, Elev	38.82N 92.22W 886ft	Overhang:	0.500
Press, Stn_Type	14.3psia Primary	Vert Gap:	0.315

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	710	960	1260	1640	1900	2080	2100	1860	1470	1120	730	590	1370
	Std.Dev.	58	69	116	127	132	137	143	129	107	100	67	55	39
	Minimum	570	830	1000	1380	1650	1840	1750	1570	1180	910	630	490	1310
	Maximum	810	1080	1470	1870	2150	2370	2370	2050	1700	1290	900	720	1450
	Diffuse	320	440	580	710	830	870	830	750	610	440	350	290	590
Clear Day	Global	950	1300	1780	2240	2540	2640	2560	2300	1890	1410	1010	840	1790
NORTH	Global	210	280	360	450	570	650	610	500	390	300	220	180	390
	Diffuse	210	280	360	440	510	550	530	470	390	300	220	180	370
Clear Day	Global	190	250	330	420	580	680	630	470	350	270	200	170	380
EAST	Global	470	610	770	970	1060	1140	1150	1060	880	720	490	400	810
	Diffuse	250	340	440	540	610	650	640	590	480	370	270	220	450
Clear Day	Global	720	910	1150	1350	1460	1470	1440	1360	1190	950	740	650	1120
SOUTH	Global	1130	1160	1100	1000	850	800	850	990	1120	1240	1050	990	1020
	Diffuse	360	430	500	550	570	590	580	580	530	450	360	320	490
Clear Day	Global	1940	1980	1790	1380	1040	890	950	1210	1590	1870	1910	1870	1530
WEST	Global	480	610	760	940	1070	1160	1170	1070	890	710	490	410	810
	Diffuse	250	340	440	540	620	660	650	600	490	370	270	220	450
Clear Day	Global	720	910	1150	1350	1460	1470	1440	1360	1190	950	740	650	1120

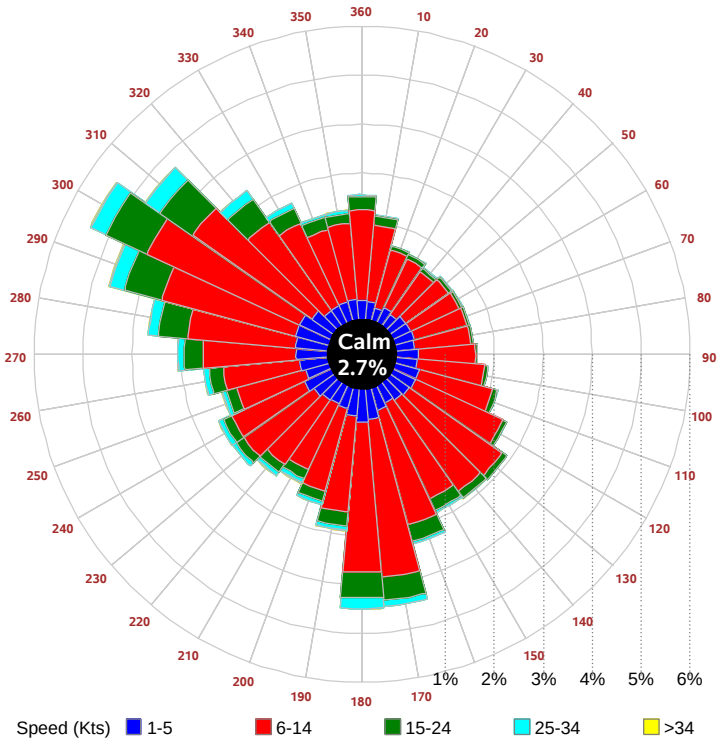
Average Annual Solar Radiation - Nearest Available Site Source: National Renewable Energy Laboratory, Golden CO, 1995

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	460	650	890	1180	1370	1510	1530	1350	1050	780	490	380	970
NORTH	Unshaded	140	190	250	310	370	420	400	330	270	210	150	130	260
	Shaded	130	170	220	280	330	380	360	300	240	190	140	110	240
EAST	Unshaded	320	430	540	690	750	810	820	750	630	510	340	280	570
	Shaded	290	380	480	600	650	690	710	660	550	450	300	250	500
SOUTH	Unshaded	850	850	760	640	520	480	510	620	750	890	790	740	700
	Shaded	830	790	610	430	360	370	370	400	550	790	760	720	580
WEST	Unshaded	330	430	540	670	760	820	830	760	630	500	340	280	570
	Shaded	300	380	480	580	660	710	720	660	550	440	300	250	500

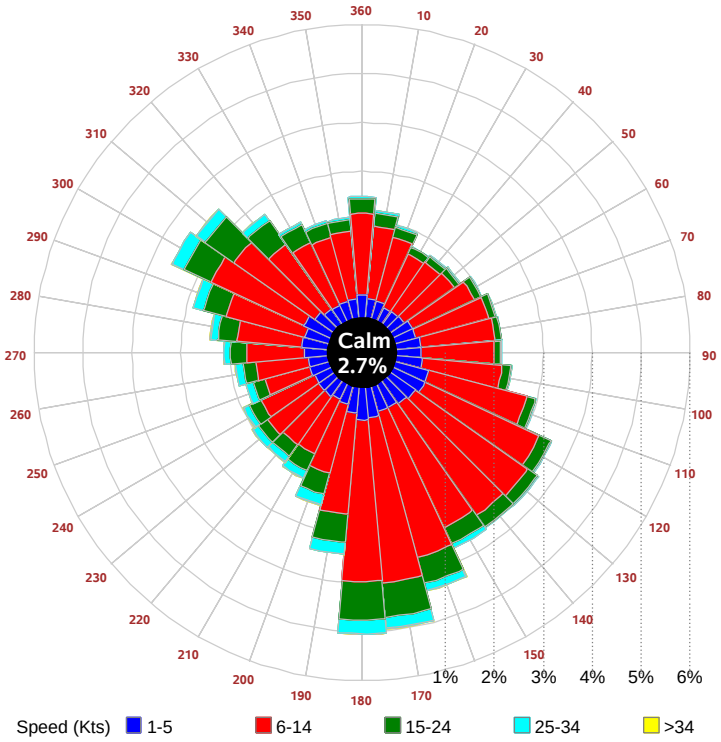
AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS Percentage Uncertainty = 9											
				March					June		
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	39	74	84	68	29	46	84	104	99	72
	M.Cloudy	22	45	53	41	18	31	59	75	74	52
NORTH	M.Clear	10	14	15	13	8	20	17	17	17	16
	M.Cloudy	9	15	17	14	8	15	18	20	19	16
EAST	M.Clear	76	60	15	13	8	77	75	35	17	16
	M.Cloudy	26	32	17	14	8	39	48	30	19	16
SOUTH	M.Clear	39	74	84	68	29	12	30	46	42	22
	M.Cloudy	16	37	44	33	13	12	25	36	35	19
WEST	M.Clear	10	14	20	67	69	12	17	17	51	80
	M.Cloudy	9	15	19	33	24	12	18	20	40	51
M.Clear	(% hrs)	31	28	29	28	30	38	38	31	31	35

				Sept					Dec		
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	26	67	87	80	50	14	42	49	31	3
	M.Cloudy	16	42	58	54	33	8	25	29	18	2
NORTH	M.Clear	8	14	16	16	12	5	10	11	8	2
	M.Cloudy	7	15	18	17	12	4	10	11	8	1
EAST	M.Clear	62	72	31	16	12	42	42	11	8	2
	M.Cloudy	21	36	25	17	12	10	18	11	8	1
SOUTH	M.Clear	19	56	76	69	40	38	83	91	65	9
	M.Cloudy	9	30	45	42	23	9	29	33	21	2
WEST	M.Clear	8	14	16	52	75	5	10	20	49	13
	M.Cloudy	7	15	18	34	38	4	10	14	17	3
M.Clear	(% hrs)	47	46	38	39	42	34	30	31	33	35

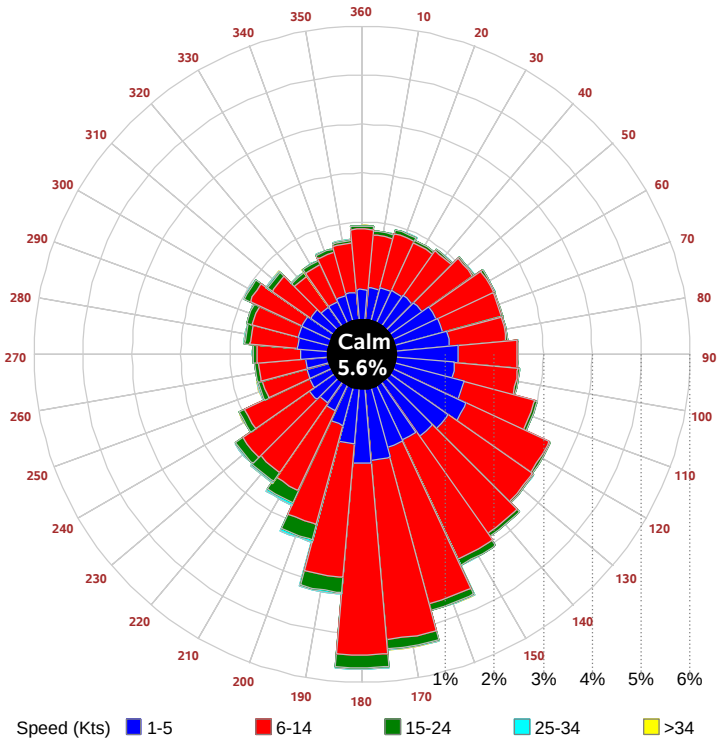
Wind Summary - December, January, and February



Wind Summary - March, April, and May



Wind Summary - June, July, and August



Wind Summary - September, October, and November