BERT MOONEY, MT	
Latitude = 45.95 N	Station ID = ICAO_KBTM
Longitude =112.50 W	Elevation = 5550 Feet
Period of Record = 1988 To 2017	Average Pressure = 24.47 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	91	58	37	10.8	S
0.4% Occurrence	88	57	35	10.3	N
1.0% Occurrence	84	56	37	10.2	N
2.0% Occurrence	82	56	38	9.6	NW
Mean Daily Range	26	-	-	-	S
97.5% Occurrence	0	0	5	2.9	S
99.0% Occurrence	-9	-9	3	2.7	S
99.6% Occurrence	-18	-18	2	2.9	SSE
Median of Extreme Lows	-26	-26	1	5	S

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	63	83	70	9.5	VRB
0.4% Occurrence	60	79	62	8.8	VRB
1.0% Occurrence	59	78	59	8.6	VRB
2.0% Occurrence	57	76	53	8.4	VRB

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	91	63	0.5	6.1	S
0.4% Occurrence	76	62	0.42	6	S
1.0% Occurrence	70	62	0.39	6.3	SSE
2.0% Occurrence	65	62	0.36	6.2	S

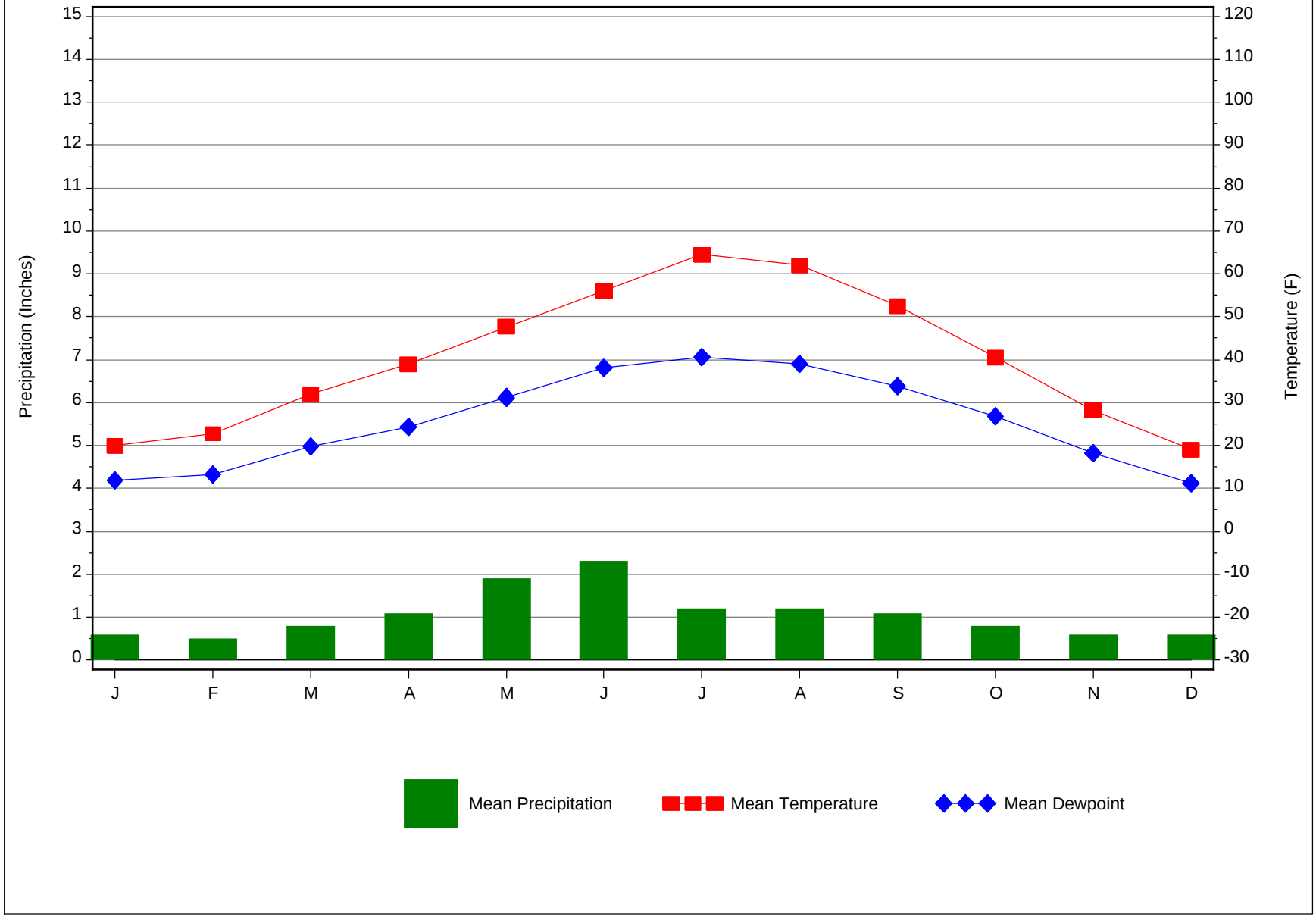
Air Conditioning/ Humid Area Criteria	**Threshold**	**T ≥ 93°F**	**T ≥ 80°F**	**Twb ≥ 73°F**	**Twb ≥ 67°F**
	# of Hours	9	261	2	4

Other Site Data

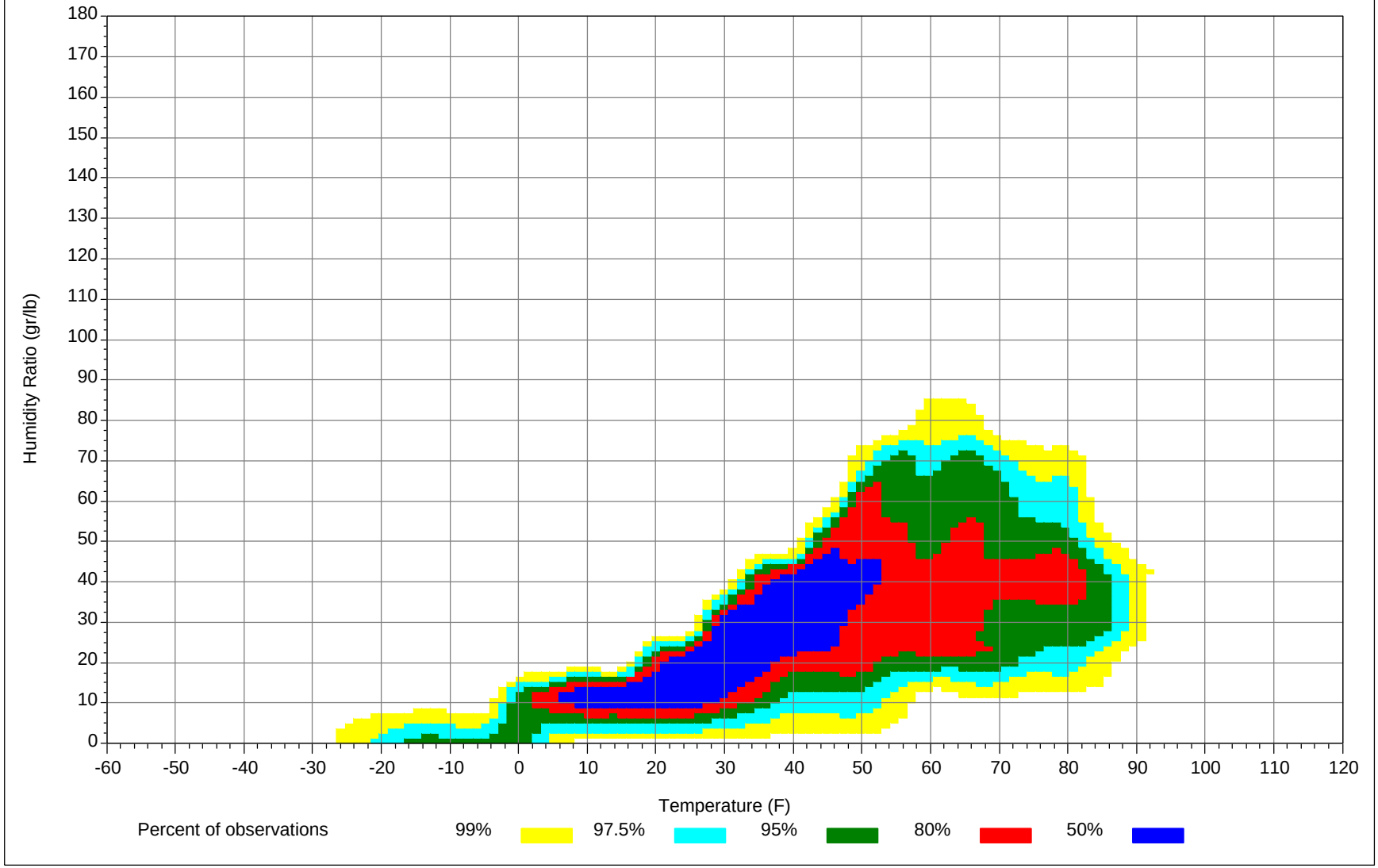
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
4	1.3	90	0.0 + 0.2
Ground Water Temperature (°F) 50 Foot Depth*	Frost Depth 50 Year Recurrence (in)	Ground Snow Load 50 Year Recurrence (lb/ft^2)	Average Annual Freeze-Thaw Cycles (#)
42.9	N/A	N/A	143

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

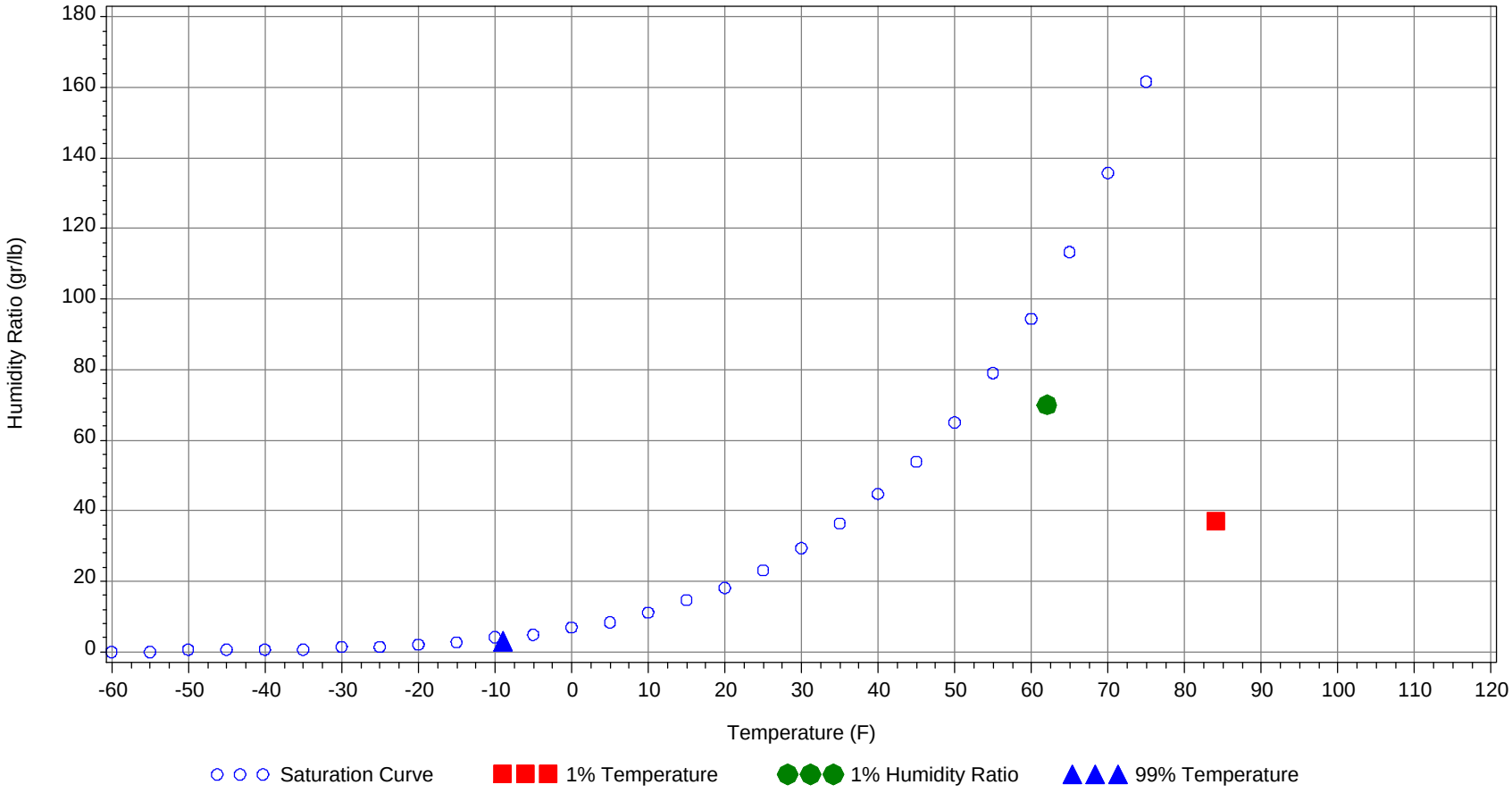
Average Annual Climate



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	84.0		56		37.0	26.2
99.0% Dry Bulb	-9.0				3.0	-1.7
1.0% Humidity Ratio	70.0	62.0	55.6	51.8		25.8

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)**
95/ 99															
90/ 94															
85/ 89															
80/ 84															
75/ 79															
70/ 74															
65/ 69												0	0	0	44.5
60/ 64							0		0	44		5	1	6	43.1
55/ 59		0		0	41.5		1	0	1	41.9		9	4	13	41.2
50/ 54	0	1	0	1	39.8	0	3	1	4	38.9	0	20	11	31	39.1
45/ 49	1	6	2	9	37	1	12	4	17	36.5	3	32	22	57	36.7
40/ 44	4	15	7	26	34.7	4	18	12	34	34.5	7	34	25	66	34.4
35/ 39	14	35	24	73	31.6	13	36	28	77	31.3	23	51	50	124	31.6
30/ 34	25	40	39	104	28	22	42	39	103	27.8	53	44	57	154	28.4
25/ 29	36	42	45	123	23.9	39	40	48	127	23.7	62	28	41	131	24.3
20/ 24	25	26	29	80	19.8	25	19	24	68	19.6	37	10	15	62	20.2
15/ 19	36	26	31	93	15.9	33	19	25	77	15.9	27	8	11	46	16.1
10/ 14	28	19	22	69	10.9	26	11	13	50	10.8	16	4	5	25	11
5/ 9	21	14	15	50	6.2	19	9	10	38	6.1	9	2	3	14	6.4
0/ 4	19	10	12	41	1.1	17	6	7	30	1.1	6	1	2	9	1
-5/ -1	10	5	6	21	-3.4	5	3	4	12	-3.4	2	0	1	3	-3.6
-10/ -6	12	5	8	25	-7.8	7	2	4	13	-7.9	2	0	0	2	-7.3
-15/-11	6	2	3	11	-12.2	4	1	2	7	-12.4	0	0	0	0	-12.8
-20/-16	6	1	2	9	-17.3	4	1	1	6	-17.2	0	0	0	0	-16.5
-25/-21	3	1	1	5	-21.9	2	1	1	4	-21.9	0	0	0	0	-21.5
-30/-26	2	0	1	3	-27.3	2	1	1	4	-27.2					
-35/-31	1	0		1	-31.2	1	0	0	1	-31.6					
-40/-36	0			0	-36	0	0	0	0	-35.6					
-45/-41						0		0	0	-41.3					

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)**
95/ 99															
90/ 94												1	1	2	57.6
85/ 89							0	0	0	56.8		4	2	6	57.1
80/ 84							2	0	2	53.6		16	7	23	55.8
75/ 79		0	0	0	50.4		8	4	12	51.9	0	24	13	37	54.4
70/ 74		5	1	6	48.1	0	20	9	29	50.4	1	34	22	57	52.6
65/ 69		7	3	10	46.4	0	19	11	30	48.6	2	29	23	54	51.1
60/ 64		16	8	24	44.3	1	34	21	56	47	8	43	36	87	49.5
55/ 59	1	20	13	34	42.4	4	37	29	70	44.9	19	36	39	94	48
50/ 54	2	31	20	53	40	15	41	43	99	42.9	46	28	43	117	45.9
45/ 49	9	43	34	86	37.5	38	42	50	130	40.4	71	17	35	123	42.7
40/ 44	15	35	31	81	35.3	47	22	32	101	37.7	44	4	13	61	39.3
35/ 39	44	42	53	139	32.6	68	17	32	117	34.2	37	3	6	46	35.8
30/ 34	68	29	48	145	29.1	48	5	14	67	30	12	1	1	14	31.3
25/ 29	63	9	22	94	24.9	21	0	3	24	25.2	1			1	27.7
20/ 24	21	1	4	26	20.6	4		0	4	21					
15/ 19	12	1	2	15	16.4	1			1	17.2					
10/ 14	4	0	0	4	11.5										
5/ 9	1	0	0	1	6.7										
0/ 4	0		0	0	1.8										
-5/ -1															
-10/ -6															
-15/-11															
-20/-16															
-25/-21															
-30/-26															
-35/-31															
-40/-36															
-45/-41															

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)**
95/ 99		1	0	1	62.5		0		0	65					
90/ 94		9	4	13	58.9		4	1	5	58.5		1	0	1	57.2
85/ 89	0	22	10	32	57.1	0	16	5	21	56.5		2	0	2	55.1
80/ 84	0	47	26	73	56.2	0	44	20	64	55.5		13	4	17	54
75/ 79	0	50	32	82	55.3	0	47	28	75	54.6		26	10	36	52.6
70/ 74	2	48	39	89	54	1	46	34	81	53.3	0	34	18	52	51.1
65/ 69	5	28	29	62	52.8	3	29	29	61	52	0	26	16	42	49.7
60/ 64	26	25	44	95	51.7	12	32	43	87	51	3	37	29	69	48.1
55/ 59	46	12	36	94	49.6	33	18	41	92	49.1	8	30	33	71	46.2
50/ 54	72	5	20	97	46.9	64	8	30	102	46.4	24	31	41	96	44.2
45/ 49	67	1	6	74	43.2	80	3	12	95	42.8	47	24	43	114	41.3
40/ 44	21	0	1	22	39.8	35	1	3	39	39	45	10	22	77	38.2
35/ 39	8		0	8	35.9	16	0	1	17	35.3	61	6	17	84	34.7
30/ 34	1			1	30.9	3	0	0	3	31.2	38	2	5	45	30.6
25/ 29						0		0	0	26.8	11	0	1	12	25.9
20/ 24						0			0	24	2		0	2	21.5
15/ 19											0			0	18.3
10/ 14															
5/ 9															
0/ 4															
-5/ -1															
-10/ -6															
-15/-11															
-20/-16															
-25/-21															
-30/-26															
-35/-31															
-40/-36															
-45/-41															

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)**
95/ 99															
90/ 94															
85/ 89															
80/ 84		1	0	1	52.5										
75/ 79		3	0	3	51.3										
70/ 74		9	2	11	48.9		0		0	48					
65/ 69	0	12	3	15	47.5		1		1	45.6					
60/ 64	1	23	8	32	45.8		4	0	4	43.8					
55/ 59	2	25	15	42	43.7	0	8	2	10	42.3					
50/ 54	7	36	24	67	41.6	1	12	5	18	40.4		1	0	1	39.1
45/ 49	17	43	41	101	39	7	23	13	43	37.6	1	5	2	8	37.6
40/ 44	20	30	32	82	36.4	10	24	16	50	35	5	12	6	23	35.2
35/ 39	51	35	52	138	33.4	22	43	35	100	31.9	11	28	20	59	31.9
30/ 34	60	18	41	119	29.6	35	43	50	128	28.4	24	39	32	95	27.9
25/ 29	51	7	19	77	25.2	49	36	45	130	24.4	30	47	37	114	23.7
20/ 24	21	2	4	27	20.9	28	14	23	65	20.2	25	29	31	85	19.6
15/ 19	12	2	3	17	16.4	31	14	20	65	16.1	35	31	37	103	15.8
10/ 14	4	1	2	7	11.2	20	8	10	38	11	26	19	28	73	10.9
5/ 9	1	0	1	2	6.1	13	5	8	26	6.2	27	13	21	61	6.2
0/ 4	0	0	0	0	1.2	11	3	6	20	1.2	28	12	14	54	1.2
-5/ -1	0	0	0	0	-3.2	4	1	3	8	-3.5	11	4	5	20	-3.5
-10/ -6	0	0	0	0	-7.7	4	1	3	8	-7.8	10	3	5	18	-7.9
-15/-11	0	0		0	-11	2	0	1	3	-12.3	4	2	3	9	-12.3
-20/-16	0			0	-17.2	2	0	0	2	-17.1	4	2	4	10	-17
-25/-21	0			0	-21	0		0	0	-21.2	3	1	2	6	-21.9
-30/-26						0			0	-26.4	1	0	0	1	-26.8
-35/-31											1	0	0	1	-32.1
-40/-36											0	0	0	0	-36.3
-45/-41											0	0		0	-41.6

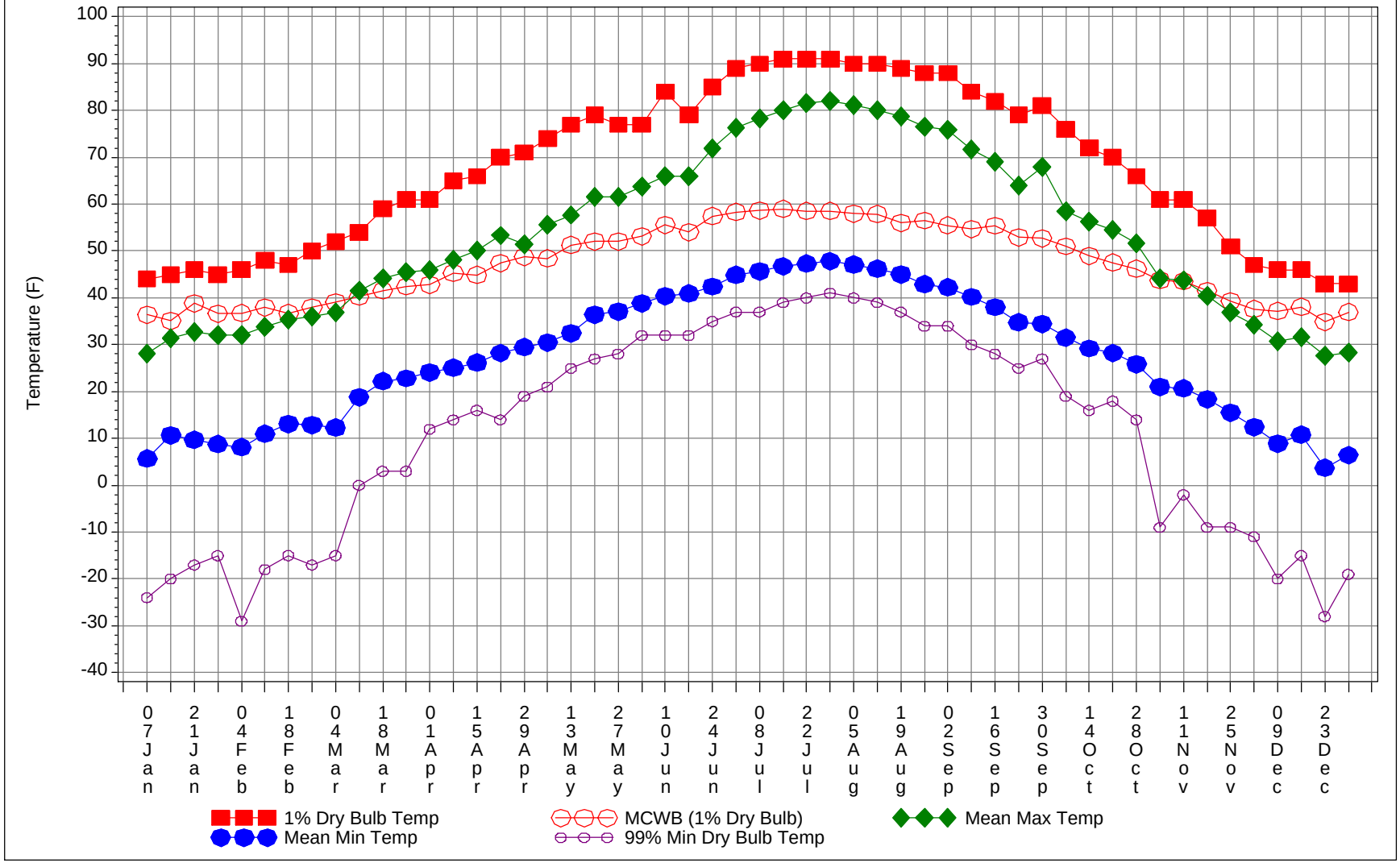
Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary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

Dry-Bulb Temperature Hours For An Average Year

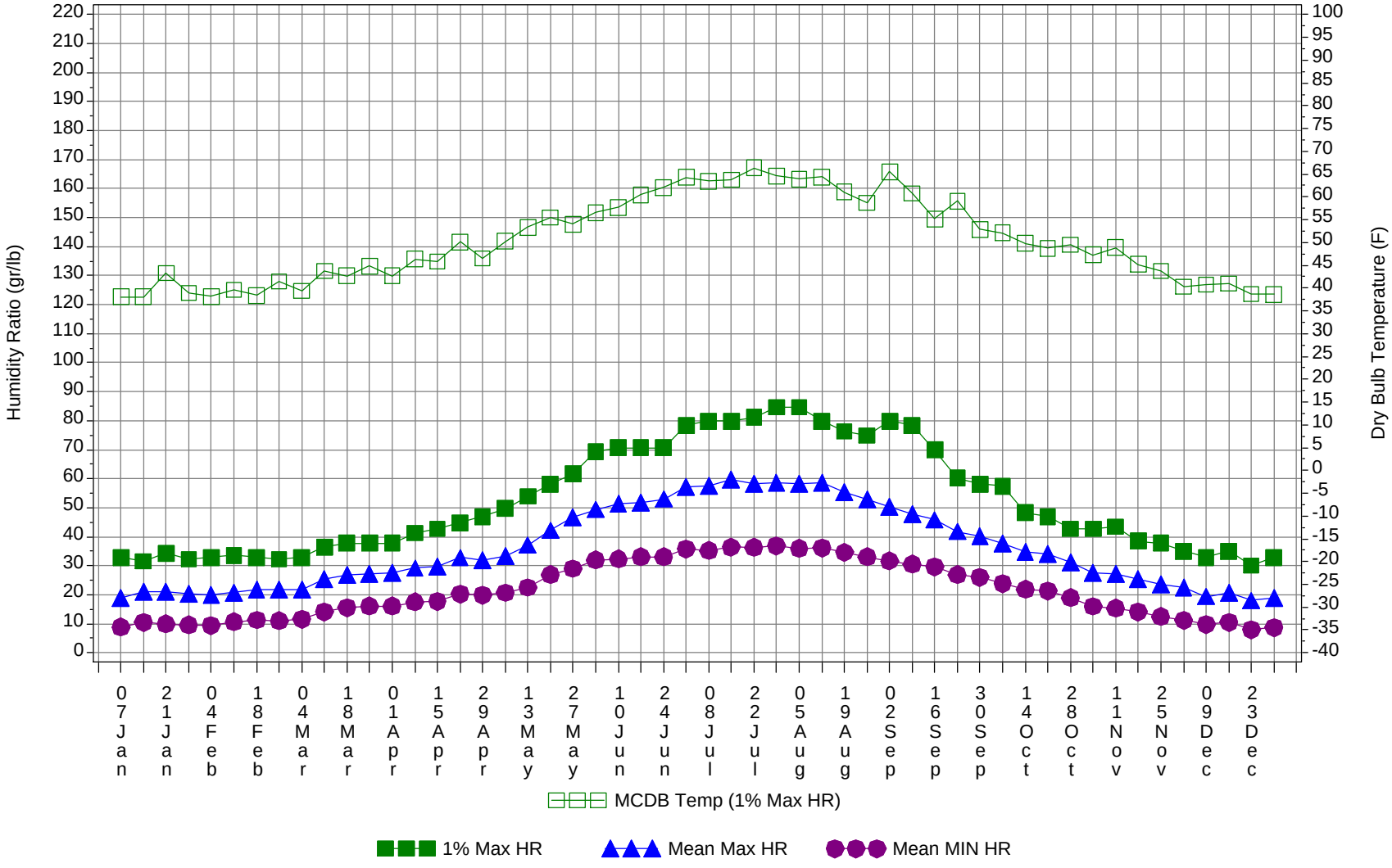
	Annual				
Temperature Range (°F)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°F)**
95/ 99		1	0	1	62.6
90/ 94		15	6	21	58.6
85/ 89	0	43	18	61	56.8
80/ 84	0	121	58	179	55.7
75/ 79	1	158	86	245	54.3
70/ 74	3	195	124	322	52.5
65/ 69	10	152	115	277	50.8
60/ 64	51	218	191	460	49.1
55/ 59	113	195	211	519	46.8
50/ 54	230	218	237	685	44
45/ 49	341	251	265	857	40.4
40/ 44	257	205	201	663	36.7
35/ 39	368	297	318	983	32.9
30/ 34	389	263	326	978	28.8
25/ 29	364	210	260	834	24.3
20/ 24	189	101	130	420	20
15/ 19	189	101	129	419	16
10/ 14	125	62	81	268	10.9
5/ 9	91	43	59	193	6.2
0/ 4	81	33	41	155	1.1
-5/ -1	33	13	19	65	-3.4
-10/ -6	36	12	20	68	-7.8
-15/-11	17	5	9	31	-12.3
-20/-16	16	4	8	28	-17.1
-25/-21	9	2	4	15	-21.8
-30/-26	5	1	2	8	-27.1
-35/-31	2	0	1	3	-31.7
-40/-36	0	0	0	0	-36
-45/-41	0	0	0	0	-41.4

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



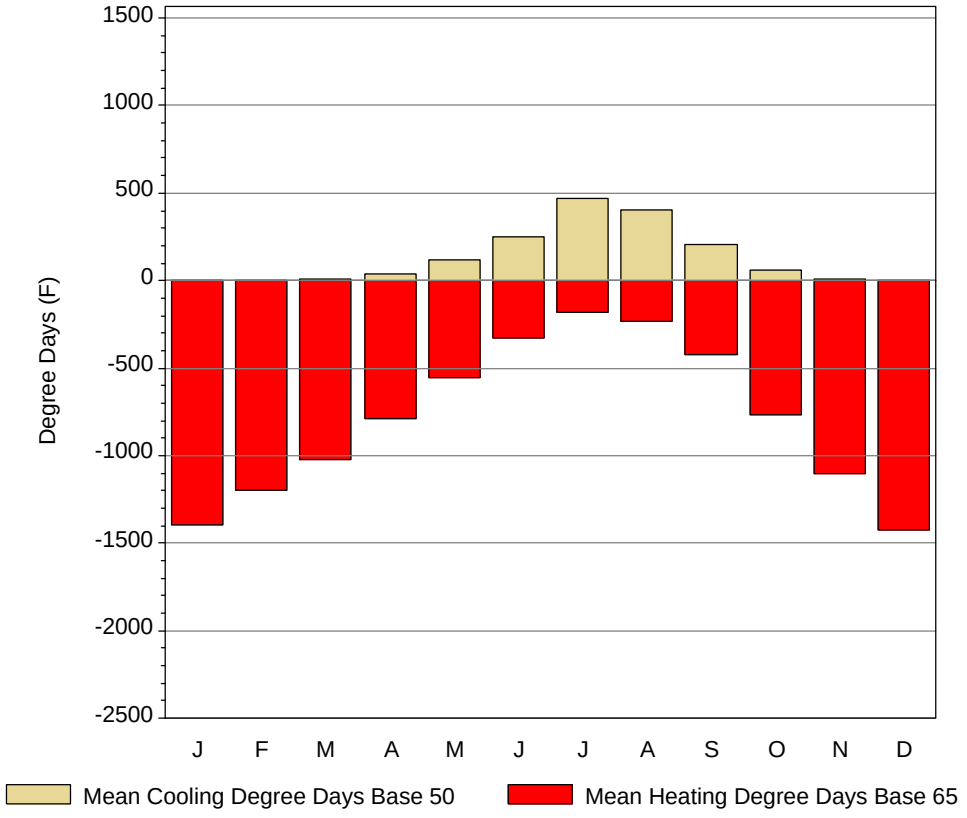
Long Term Humidity and Dry Bulb Temperature Summary



Long Term Humidity and Dry Bulb Temperature Summary

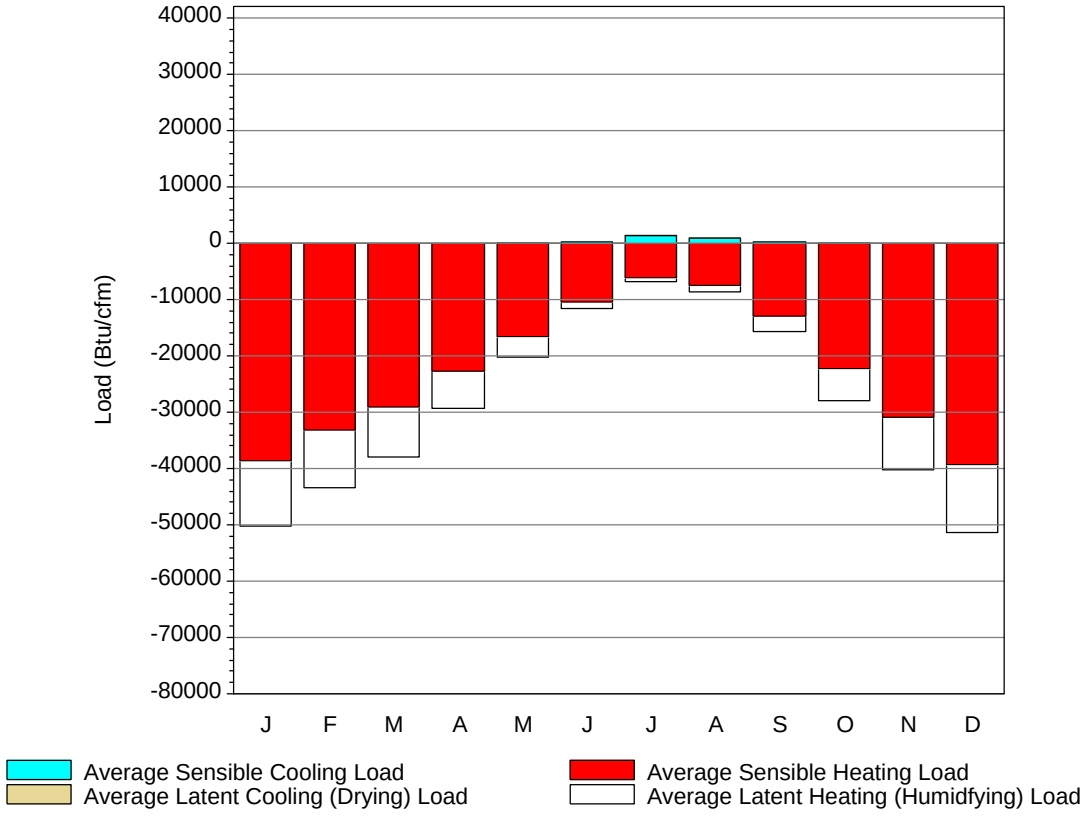
Week Ending	1.0% Temp (°F)	MCWB@ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB@ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	44	36.4	28	5.7	-24	32.9	38.1	18.8	8.8
14-Jan	45	35.1	31.3	10.6	-20	31.5	38.1	21	10.5
21-Jan	46	38.8	32.8	9.7	-17	34.3	43.3	21	10
28-Jan	45	36.6	32.1	8.8	-15	32.2	38.9	20.3	9.6
4-Feb	46	36.7	32	8.1	-29	32.9	38.2	19.9	9.4
11-Feb	48	37.9	33.9	11	-18	33.6	39.6	20.8	10.7
18-Feb	47	36.7	35.3	13.1	-15	32.9	38.4	21.7	11.3
25-Feb	50	37.9	36	12.8	-17	32.2	41.5	21.7	11.1
4-Mar	52	39	37	12.3	-15	32.9	39.4	21.8	11.5
11-Mar	54	40.3	41.6	18.8	0	36.4	43.8	25.5	14.1
18-Mar	59	41.6	44.1	22.2	3	37.8	42.7	26.9	15.5
25-Mar	61	42.4	45.5	22.8	3	37.8	44.8	27.1	16.1
1-Apr	61	42.8	46	24.1	12	37.8	42.7	27.5	16.1
8-Apr	65	45.3	48.1	25.1	14	41.3	46.4	29.2	17.6
15-Apr	66	44.9	50	26.2	16	42.7	45.8	29.7	17.7
22-Apr	70	47.4	53.3	28.2	14	44.8	50.1	32.8	20.3
29-Apr	71	48.7	51.4	29.5	19	46.9	46.5	32	19.9
6-May	74	48.4	55.7	30.5	21	49.7	50.3	33.3	20.7
13-May	77	51.3	57.7	32.4	25	53.9	53.3	37.1	22.5
20-May	79	52	61.6	36.4	27	58.1	55.5	42.2	27
27-May	77	52	61.6	37.1	28	61.6	54	46.8	29
4-Jun	77	53.1	63.7	38.8	32	69.3	56.6	49.4	32
10-Jun	84	55.6	66	40.4	32	70.7	57.7	51.4	32.4
17-Jun	79	54	65.9	40.9	32	70.7	60.5	51.9	33.1
24-Jun	85	57.4	72	42.4	35	70.7	62.1	53	33
1-Jul	89	58.3	76.4	44.9	37	78.4	64.3	57.1	35.7
8-Jul	90	58.6	78.2	45.7	37	79.8	63.5	57.6	35.3
15-Jul	91	59	80.1	46.7	39	79.8	63.8	59.7	36.4
22-Jul	91	58.5	81.5	47.3	40	81.2	66.4	58.2	36.3
29-Jul	91	58.5	82	47.8	41	84.7	64.6	58.5	36.8
5-Aug	90	58	81.1	47.1	40	84.7	63.9	58.4	35.9
12-Aug	90	57.9	80.1	46.2	39	79.8	64.4	58.7	36.1
19-Aug	89	56	78.8	45	37	76.3	61.1	55.5	34.6
26-Aug	88	56.5	76.6	42.9	34	74.9	58.7	52.8	33.1
2-Sep	88	55.5	75.9	42.2	34	79.8	65.5	50.2	31.7
9-Sep	84	54.7	71.7	40.2	30	78.4	60.8	47.8	30.6
16-Sep	82	55.4	69	38	28	70	55.2	45.8	29.7
23-Sep	79	52.9	63.9	34.8	25	60.2	59.1	41.8	27
30-Sep	81	52.7	67.9	34.4	27	58.1	52.9	40.3	26
7-Oct	76	51	58.5	31.5	19	57.4	52.1	37.6	23.8
14-Oct	72	49	56.3	29.2	16	48.3	49.8	34.7	21.8
21-Oct	70	47.5	54.6	28.2	18	46.9	48.7	34	21.4
28-Oct	66	46.2	51.7	25.8	14	42.7	49.5	31.1	19
4-Nov	61	43.8	44.1	21	-9	42.7	47.3	27.6	16
11-Nov	61	43.6	43.7	20.7	-2	43.4	48.9	27.2	15.4
18-Nov	57	41.5	40.5	18.3	-9	38.5	45.2	25.3	14.1
25-Nov	51	39.3	36.8	15.5	-9	37.8	43.8	23.7	12.4
2-Dec	47	37.6	34.2	12.4	-11	35	40.3	22.5	11.2
9-Dec	46	37.2	30.7	8.9	-20	32.9	40.8	19.4	9.7
16-Dec	46	38.1	31.7	10.8	-15	35	41	20.7	10.4
23-Dec	43	34.9	27.7	3.7	-28	30.1	38.7	18	8
31-Dec	43	37	28.3	6.4	-19	32.9	38.6	18.8	8.6

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	0.1	0	1396
FEB	0.5	0	1194.9
MAR	9.3	0	1025.5
APR	38.9	2.5	786.7
MAY	120.8	17.8	553.9
JUN	252.3	60.6	329.2
JUL	471.9	167.4	181.9
AUG	404	133.1	231.7
SEP	207.9	50.5	425.4
OCT	58.6	6.1	765.8
NOV	6.5	0	1104.6
DEC	0.1	0	1426.7
ANN	1570.9	438	9422.3

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	-38594	0	-11729
FEB	0	-33171	0	-10301
MAR	0	-28990	0	-9036
APR	0	-22682	0	-6697
MAY	38	-16569	17	-3663
JUN	339	-10367	0	-1221
JUL	1382	-6061	1	-761
AUG	981	-7504	2	-1192
SEP	245	-12929	0	-2635
OCT	10	-22182	0	-5696
NOV	0	-30962	0	-9216
DEC	0	-39390	0	-12003
ANN	2995	-269401	20	-74150

Station Information		Shading Geometry in Dimensionless Units	
City, State, WBAN	HELENA, MT 24144	Window:	1.000
Lat, Lon, Elev	46.60N 112.00W 3898ft	Overhang:	0.724
Press, Stn_Type	12.8psia Secondary	Vert Gap:	0.329

AVERAGE INCIDENT SOLAR RADIATION (Btu/sq.ft./day) Percentage Uncertainty = 9

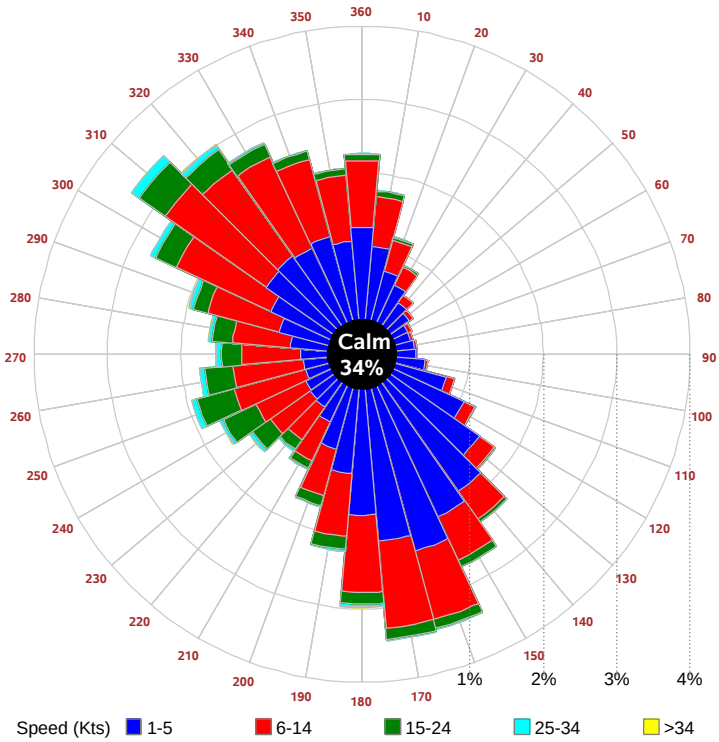
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ.	Global	460	730	1110	1510	1820	2050	2220	1870	1390	920	530	390	1250
	Std.Dev.	36	48	83	118	128	154	111	125	133	69	34	26	29
	Minimum	390	660	920	1330	1610	1790	1980	1620	1130	800	460	340	1210
	Maximum	530	870	1310	1780	2060	2390	2410	2140	1650	1060	580	440	1320
	Diffuse	260	370	530	670	760	750	600	540	460	350	270	220	480
Clear Day	Global	660	1020	1570	2160	2580	2750	2650	2280	1750	1160	730	560	1660
NORTH	Global	160	230	320	430	560	650	630	470	340	240	170	130	360
	Diffuse	160	230	320	420	490	520	490	420	340	240	170	130	330
Clear Day	Global	130	190	270	400	600	740	680	450	300	210	140	110	350
EAST	Global	330	510	730	940	1130	1240	1380	1210	930	650	380	290	810
	Diffuse	200	280	410	520	590	610	580	510	420	310	210	170	400
Clear Day	Global	590	830	1140	1440	1610	1660	1620	1460	1230	910	630	510	1140
SOUTH	Global	870	1100	1180	1100	980	950	1080	1200	1310	1270	950	810	1070
	Diffuse	310	400	490	550	580	580	550	520	470	400	320	280	450
Clear Day	Global	1870	2030	1990	1670	1330	1170	1220	1480	1830	2000	1880	1760	1680
WEST	Global	340	520	730	930	1060	1170	1270	1120	920	650	390	290	780
	Diffuse	200	290	410	520	590	620	590	520	420	310	220	170	410
Clear Day	Global	590	830	1140	1440	1610	1660	1620	1460	1230	910	630	510	1140

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	280	480	770	1070	1310	1490	1620	1350	980	610	330	230	880
NORTH	Unshaded	110	160	220	290	370	420	400	310	230	170	120	92	240
	Shaded	88	130	190	250	310	360	350	270	200	150	96	75	210
EAST	Unshaded	230	350	520	680	810	890	990	880	660	460	260	190	580
	Shaded	190	300	430	550	640	700	790	710	550	380	220	160	470
SOUTH	Unshaded	660	820	840	740	630	590	660	780	910	930	720	620	740
	Shaded	630	740	620	420	330	340	330	360	580	790	690	600	530
WEST	Unshaded	230	360	520	660	760	840	910	810	660	460	270	200	560
	Shaded	200	310	430	530	600	660	720	650	550	380	230	170	450

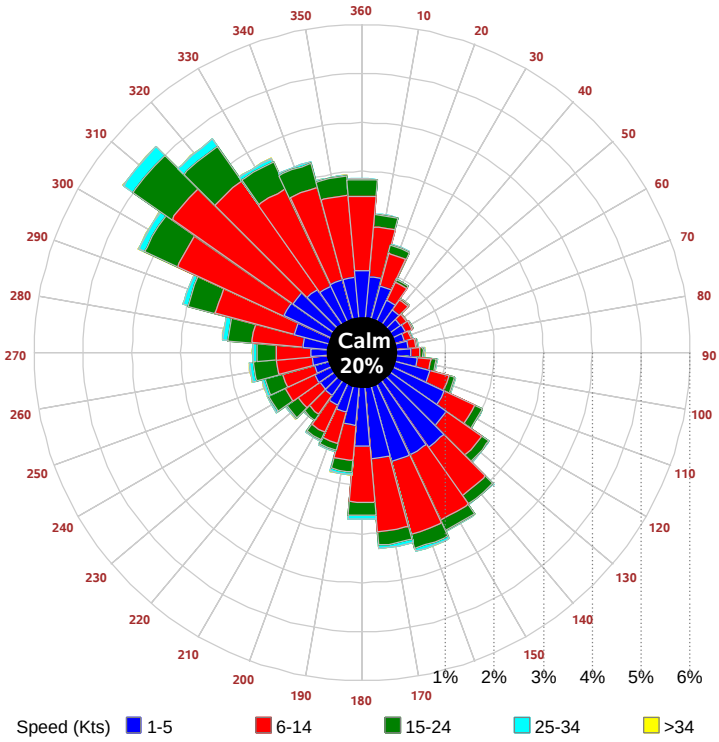
AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS Percentage Uncertainty = 9											
				March					June		
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	27	58	71	60	30	43	77	96	95	75
	M.Cloudy	18	40	50	43	21	28	53	69	66	53
NORTH	M.Clear	7	12	13	12	8	18	14	15	16	14
	M.Cloudy	7	13	15	14	8	13	16	18	17	15
EAST	M.Clear	69	61	17	12	8	83	78	40	16	14
	M.Cloudy	28	35	17	14	8	39	48	32	17	15
SOUTH	M.Clear	33	73	90	76	39	10	34	55	55	33
	M.Cloudy	16	40	52	43	19	10	26	41	40	26
WEST	M.Clear	7	12	13	57	71	10	14	15	41	77
	M.Cloudy	7	13	15	35	32	10	16	18	32	49
M.Clear	(% hrs)	21	21	19	19	19	40	38	34	31	27

				Sept					Dec		
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	20	56	76	75	52	3	25	35	23	1
	M.Cloudy	12	36	52	50	35	3	16	23	16	1
NORTH	M.Clear	6	11	14	14	11	2	7	9	7	1
	M.Cloudy	5	12	16	15	12	1	7	9	7	1
EAST	M.Clear	63	75	37	14	11	16	38	9	7	1
	M.Cloudy	21	39	27	15	12	5	16	9	7	1
SOUTH	M.Clear	16	57	81	80	52	13	68	85	63	5
	M.Cloudy	8	32	49	47	30	4	25	36	25	2
WEST	M.Clear	6	11	14	43	76	2	7	11	39	6
	M.Cloudy	5	12	16	29	40	1	7	10	17	2
M.Clear	(% hrs)	46	44	43	42	43	18	21	20	21	22

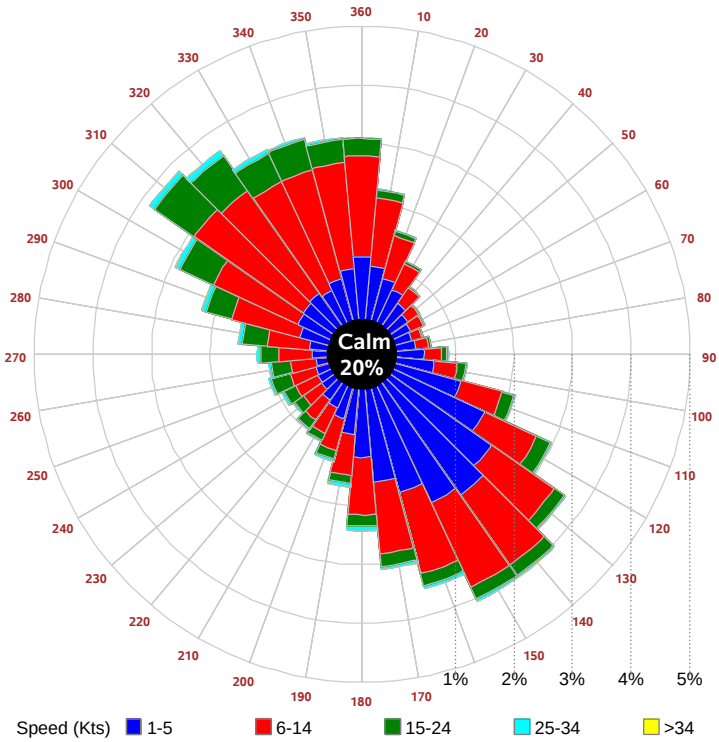
Wind Summary - December, January, and February



Wind Summary - March, April, and May



Wind Summary - June, July, and August



Wind Summary - September, October, and November