

WESTERN NEB RGNL WILLIAM, NE

Latitude = 41.87 N

Longitude = 103.60 W

Period of Record = 1988 To 2017

Station ID = ICAO_KBFF

Elevation = 3967 Feet

Average Pressure = 25.95 inches Hg

Design Criteria Data

Dry Bulb Temperature (T)	Mean Coincident (Average) Values				
	Design Value (°F)	Wet Bulb Temperature (°F)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	102	66	52	10.7	S
0.4% Occurrence	97	65	57	10.1	E
1.0% Occurrence	93	65	61	10.1	E
2.0% Occurrence	90	64	63	10.2	E
Mean Daily Range	28	-	-	-	NW
97.5% Occurrence	8	7	7	8.3	NW
99.0% Occurrence	0	0	5	7.6	NW
99.6% Occurrence	-7	-7	3	6	NW
Median of Extreme Lows	-17	-17	2	7.5	NW

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	74	91	114	11	ESE
0.4% Occurrence	70	86	98	10.4	E
1.0% Occurrence	68	84	90	10	E
2.0% Occurrence	67	83	86	9.8	ESE

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	120	79	0.69	8.8	ESE
0.4% Occurrence	105	76	0.61	9.1	ESE
1.0% Occurrence	100	73	0.58	9.6	E
2.0% Occurrence	97	72	0.57	8.7	E

Air Conditioning/ Humid Area Criteria	Threshold	T ≥ 93 °F	T ≥ 80 °F	Twb ≥ 73 °F	Twb ≥ 67 °F
	# of Hours	113	728	9	221

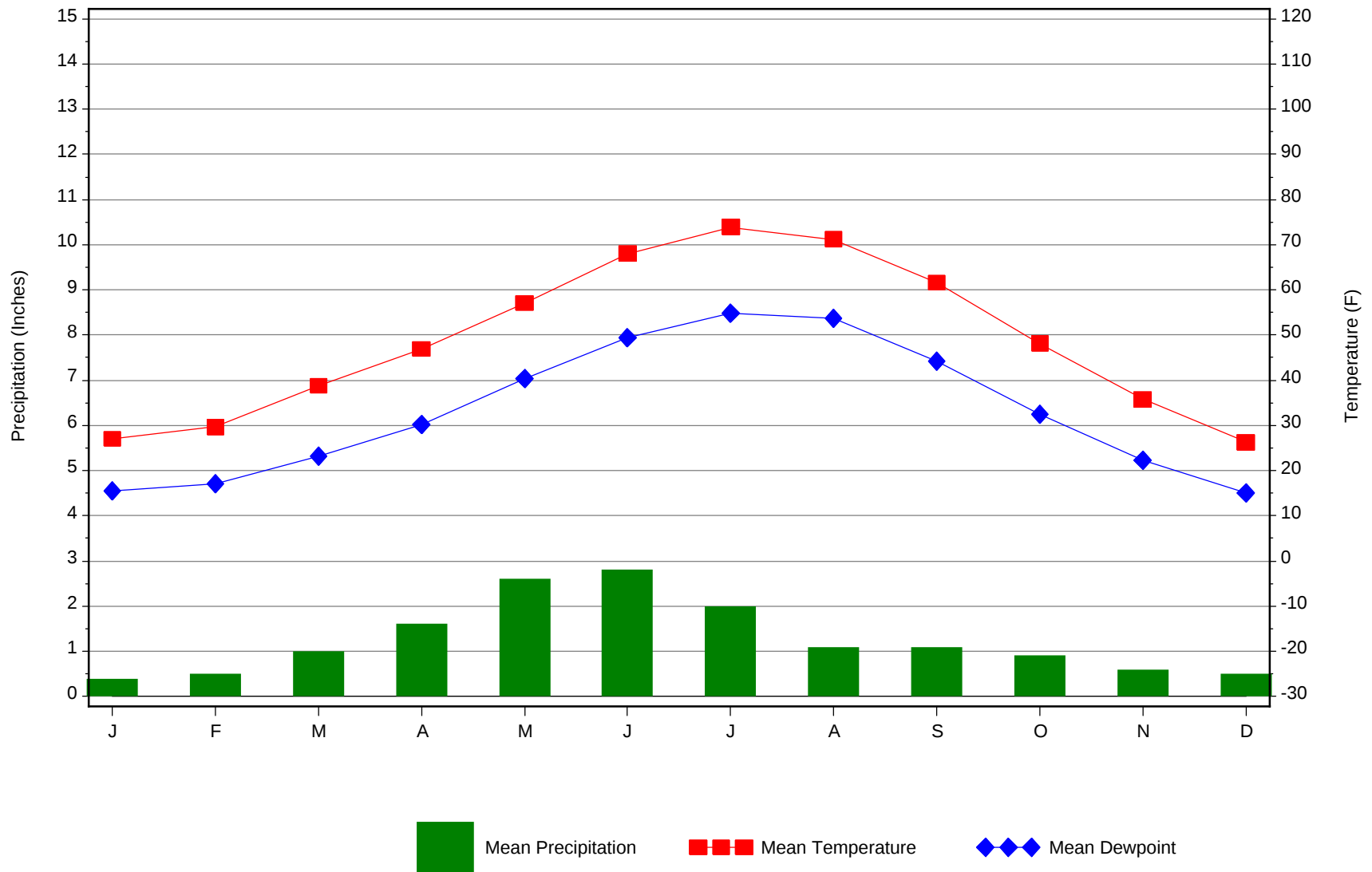
Other Site Data

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	3.3	90	0.1 + 0.8
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 (#)
51.3	N/A	12	126

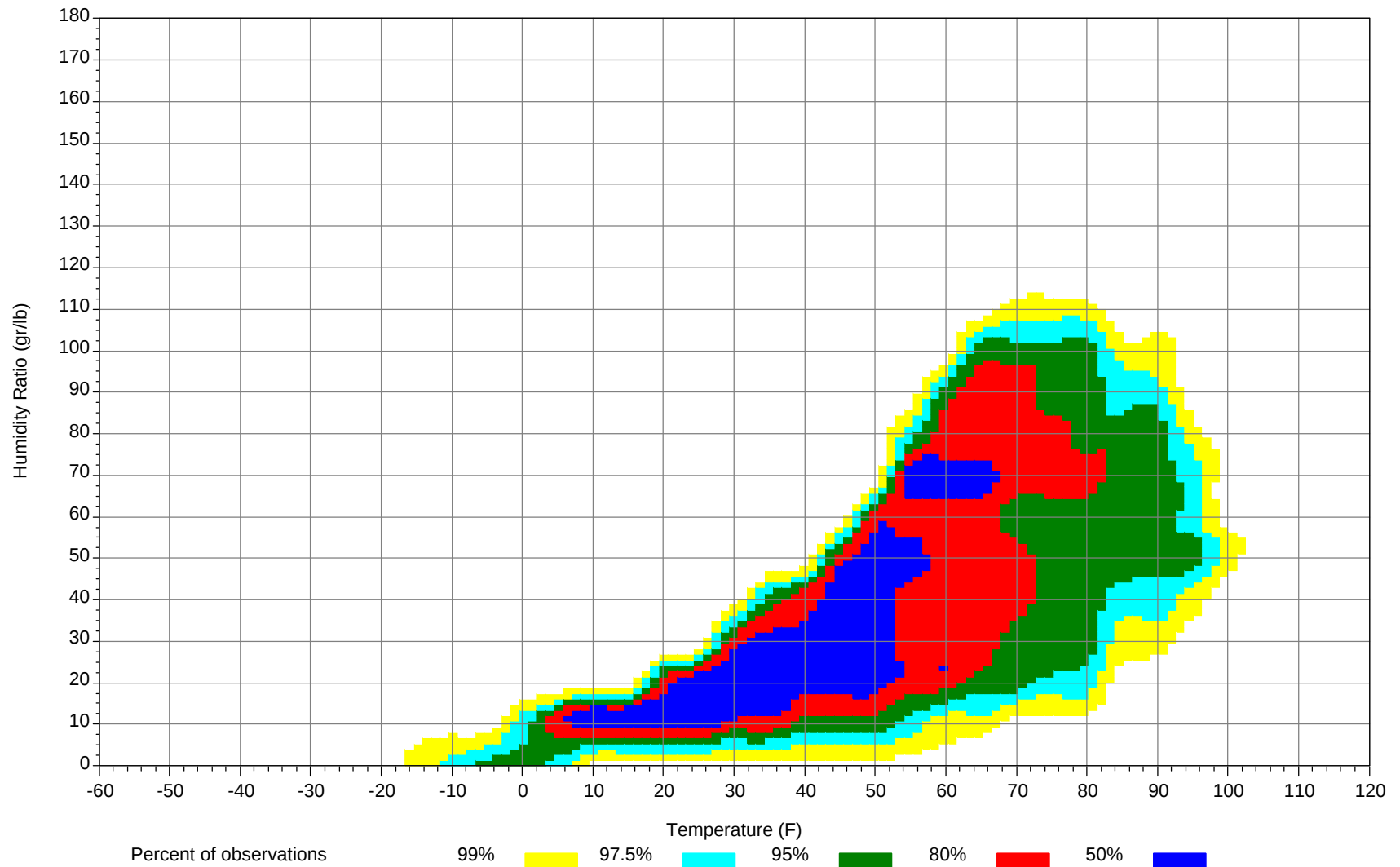
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.



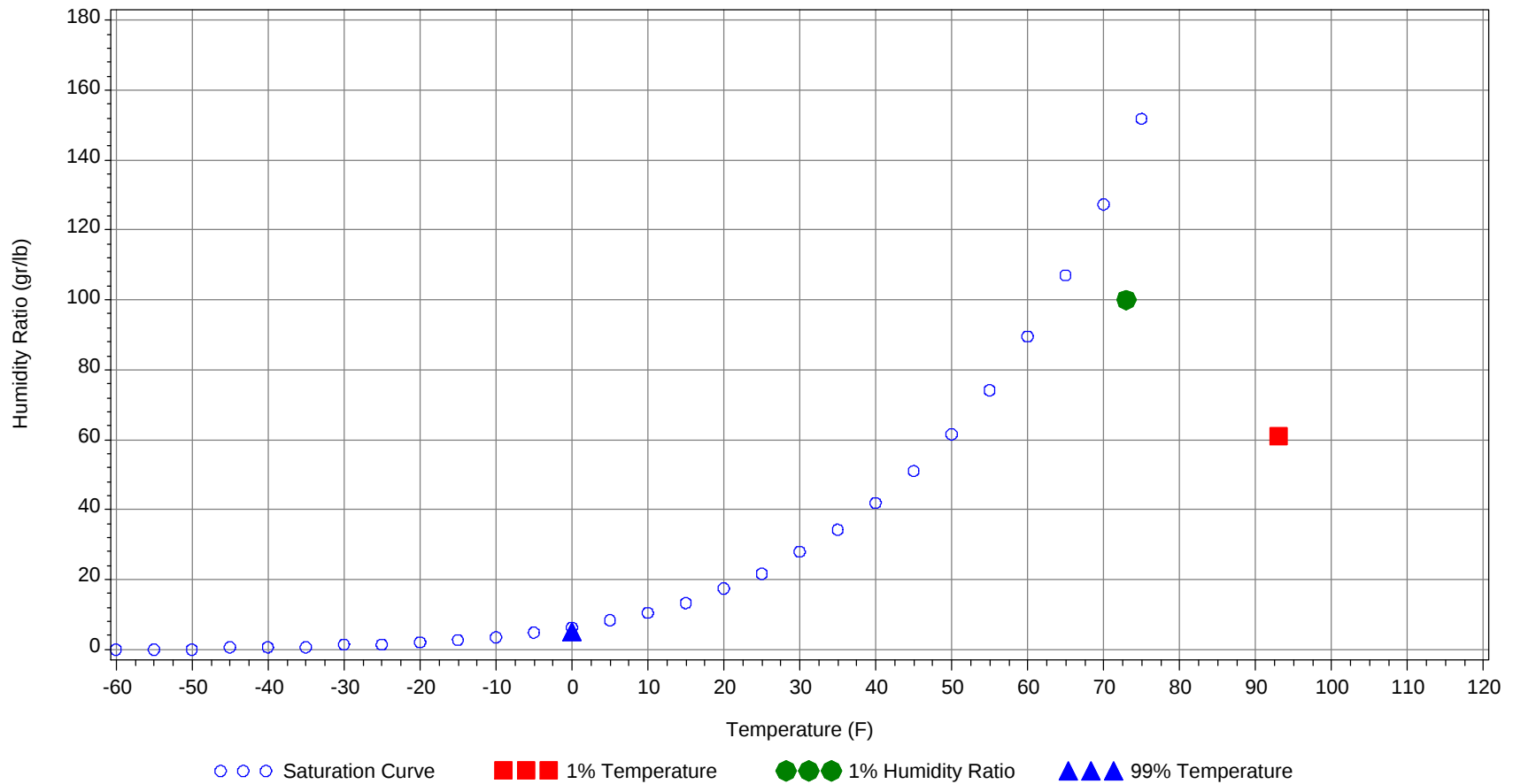
Average Annual Climate



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	93.0		65		61.0	32.1
99.0% Dry Bulb	0.0				5.0	0.7
1.0% Humidity Ratio	100.0	73.0	66.2	63.0		33.3

Dry-Bulb Temperature Hours For An Average Year

Temperature Range (°F)	January					February					March				
	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (°F)	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (°F)	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (°F)
105/109															
100/104															
95/ 99															
90/ 94															
85/ 89															
80/ 84												1	0	1	53.3
75/ 79												5	1	6	50.1
70/ 74		0		0	52		2	0	2	47.7		11	2	13	48.8
65/ 69		1		1	45.6	0	2	0	2	46.1		13	4	17	47
60/ 64		5	0	5	43.8	0	9	1	10	44.2	0	26	9	35	45.1
55/ 59	0	9	1	10	41.2	0	15	3	18	41.7	1	28	14	43	42.8
50/ 54	1	18	4	23	39	0	20	7	27	39.3	4	31	22	57	40.7
45/ 49	3	28	10	41	36.5	3	31	14	48	36.3	12	34	34	80	38.1
40/ 44	5	27	13	45	34.2	6	23	16	45	34.2	18	21	26	65	35.7
35/ 39	17	38	33	88	31.3	18	32	34	84	31.6	46	29	44	119	32.6
30/ 34	33	37	47	117	28	35	30	43	108	28.4	57	23	41	121	29.1
25/ 29	47	27	47	121	24.1	49	23	41	113	24.4	54	12	27	93	24.7
20/ 24	35	15	27	77	20	32	10	20	62	20.1	21	5	10	36	20.3
15/ 19	38	16	25	79	15.9	34	11	18	63	16	21	4	8	33	16.2
10/ 14	25	10	15	50	10.6	17	7	10	34	10.8	7	3	4	14	11
5/ 9	19	8	11	38	6.1	11	4	7	22	6.2	5	1	2	8	6.3
0/ 4	12	5	8	25	1.2	7	3	4	14	1	3	1	2	6	1.4
-5/ -1	4	1	3	8	-3.5	3	1	2	6	-3.4	1	0	0	1	-3.2
-10/ -6	5	1	2	8	-7.7	4	1	2	7	-7.8	0		0	0	-7
-15/-11	1	0	1	2	-12.1	2	1	1	4	-12.5	0		0	0	-11.4
-20/-16	1	0	0	1	-17	2	0	1	3	-17	0			0	-16.7
-25/-21	0		0	0	-21.3	0		0	0	-21.1	0			0	-20
-30/-26	0		0	0	-27										
-35/-31															

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

	April					May					June				
Temperature Range (°F)	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (°F)	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (°F)	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (°F)
105/109												0		0	64.3
100/104												2	0	2	65
95/ 99							0	0	0	61.3		8	2	10	64.8
90/ 94		0		0	57.8		4	0	4	60.2	0	22	6	28	63.7
85/ 89		1	0	1	54.2		7	2	9	59.4	0	24	9	33	63.4
80/ 84		6	1	7	54.4		20	6	26	58	1	45	21	67	62
75/ 79		13	3	16	53.4	0	27	10	37	56.8	4	45	27	76	60.4
70/ 74		20	7	27	51.2	2	42	20	64	55.1	16	42	41	99	58.9
65/ 69	0	20	9	29	49.1	5	32	21	58	53.6	26	21	33	80	57.6
60/ 64	2	33	18	53	47.3	19	41	38	98	51.8	60	16	47	123	55.7
55/ 59	5	33	25	63	44.8	33	29	42	104	49.6	62	9	30	101	52.8
50/ 54	15	33	34	82	43	58	23	44	125	47	45	4	17	66	49.3
45/ 49	38	34	42	114	40.5	60	15	35	110	43.1	19	1	5	25	44.5
40/ 44	36	17	30	83	37.4	31	5	15	51	39.3	6	0	1	7	40.6
35/ 39	59	14	37	110	34.2	26	3	10	39	35.1	1	0	0	1	37.2
30/ 34	46	8	21	75	30	11	1	3	15	30.6	0			0	32.2
25/ 29	25	5	10	40	25.2	3		0	3	25.6					
20/ 24	7	1	2	10	20.8	0			0	21.1					
15/ 19	4	1	1	6	16.7	0			0	17					
10/ 14	1	0	1	2	11.7										
5/ 9	0		0	0	6.1										
0/ 4	0		0	0	2										
-5/ -1															
-10/ -6															
-15/-11															
-20/-16															
-25/-21															
-30/-26															
-35/-31															

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Dry-Bulb Temperature Hours For An Average Year

Temperature Range (°F)	July					August					September				
	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (°F)	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (°F)	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (°F)
105/109		1	0	1	65.3										
100/104		6	1	7	66		1	0	1	63.7		0		0	64.3
95/ 99		23	5	28	66.1		13	1	14	64.8		3	0	3	63.8
90/ 94		47	14	61	65.8		39	7	46	65.2		15	1	16	62
85/ 89	0	37	15	52	65.3		39	12	51	65		22	3	25	60.9
80/ 84	2	55	32	89	64.6	0	60	25	85	64.1	0	37	9	46	59.5
75/ 79	12	38	41	91	63.2	4	41	33	78	62.7	1	35	15	51	58.3
70/ 74	39	25	56	120	62.2	22	31	53	106	61.6	4	36	26	66	56.8
65/ 69	53	9	40	102	60.7	40	13	45	98	60.3	8	24	24	56	55.2
60/ 64	87	5	32	124	58.4	88	8	49	145	58	30	30	47	107	54.1
55/ 59	40	1	10	51	54.6	63	2	17	82	54.3	46	18	41	105	51.4
50/ 54	13	1	2	16	50.5	24	1	4	29	50.2	53	11	35	99	48
45/ 49	2		0	2	45.7	6	0	1	7	45.2	52	7	24	83	43.9
40/ 44						1		0	1	41.3	23	2	7	32	39.8
35/ 39						0			0	37	17	1	4	22	36
30/ 34											5	0	1	6	31.6
25/ 29											1		0	1	26.6
20/ 24															
15/ 19															
10/ 14															
5/ 9															
0/ 4															
-5/ -1															
-10/ -6															
-15/-11															
-20/-16															
-25/-21															
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-35/-31															

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Dry-Bulb Temperature Hours For An Average Year

Temperature Range (°F)	October					November					December				
	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (°F)	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (°F)	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (°F)
105/109															
100/104															
95/ 99															
90/ 94		0		0	58.2										
85/ 89		3		3	56.6										
80/ 84		11	1	12	55.9										
75/ 79		17	2	19	53.9		2		2	50.6					
70/ 74	0	26	5	31	51.9		7	0	7	48.8		0		0	48.3
65/ 69	0	23	7	30	50		9	0	9	47.2		1		1	45.8
60/ 64	2	35	17	54	48.4	1	21	2	24	45.5	0	5	0	5	43.8
55/ 59	7	33	25	65	46.4	1	22	6	29	42.8	0	11	1	12	41.8
50/ 54	20	33	40	93	44.4	3	28	13	44	40.5	2	17	3	22	39.2
45/ 49	46	29	54	129	41.3	8	35	24	67	37.6	4	26	9	39	36.4
40/ 44	42	15	34	91	38.1	13	24	25	62	35.5	5	26	11	42	33.9
35/ 39	58	12	34	104	34.4	36	35	44	115	32.4	14	39	30	83	31.2
30/ 34	40	6	18	64	30.1	53	26	48	127	29	29	34	44	107	28
25/ 29	20	2	8	30	25.3	55	17	37	109	24.5	49	30	48	127	24.1
20/ 24	6	1	3	10	20.8	26	6	17	49	20.3	35	17	29	81	20
15/ 19	4	1	1	6	16.5	25	5	12	42	16.1	42	15	29	86	15.9
10/ 14	1	0	1	2	11.4	10	3	6	19	11	25	10	17	52	10.7
5/ 9	0	0	0	0	7	4	1	3	8	6.3	15	7	10	32	6
0/ 4	0		0	0	1.4	3	0	1	4	1.3	14	5	9	28	1
-5/ -1	0		0	0	-1	1	0	0	1	-3	5	2	3	10	-3.3
-10/ -6						1		0	1	-7.2	5	1	4	10	-7.6
-15/-11						0			0	-12.5	2	1	1	4	-12.6
-20/-16											2	0	1	3	-17.1
-25/-21											1	0	1	2	-21.6
-30/-26											0	0	0	0	-26.1
-35/-31											0	0		0	-30.4

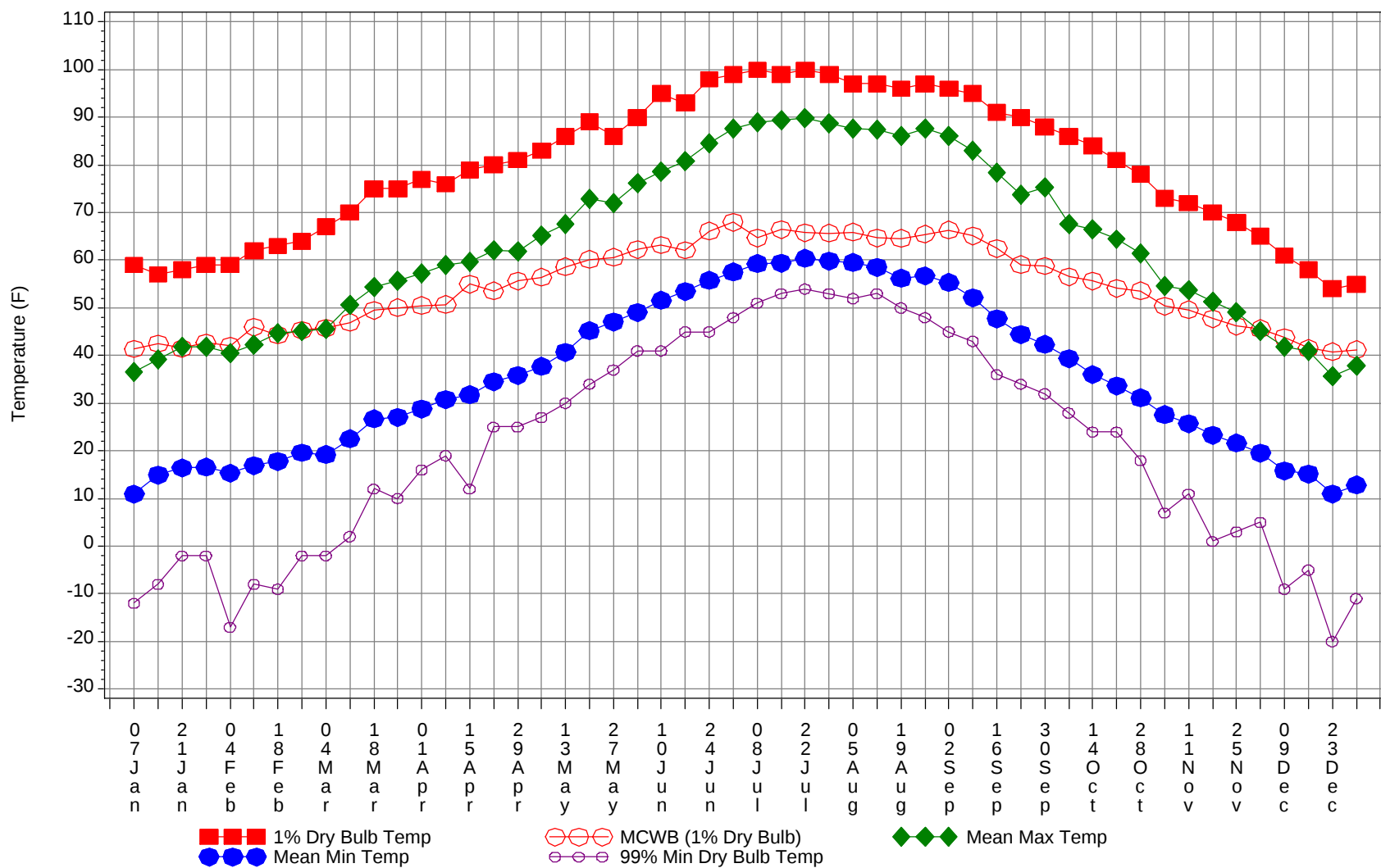
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Dry-Bulb Temperature Hours For An Average Year

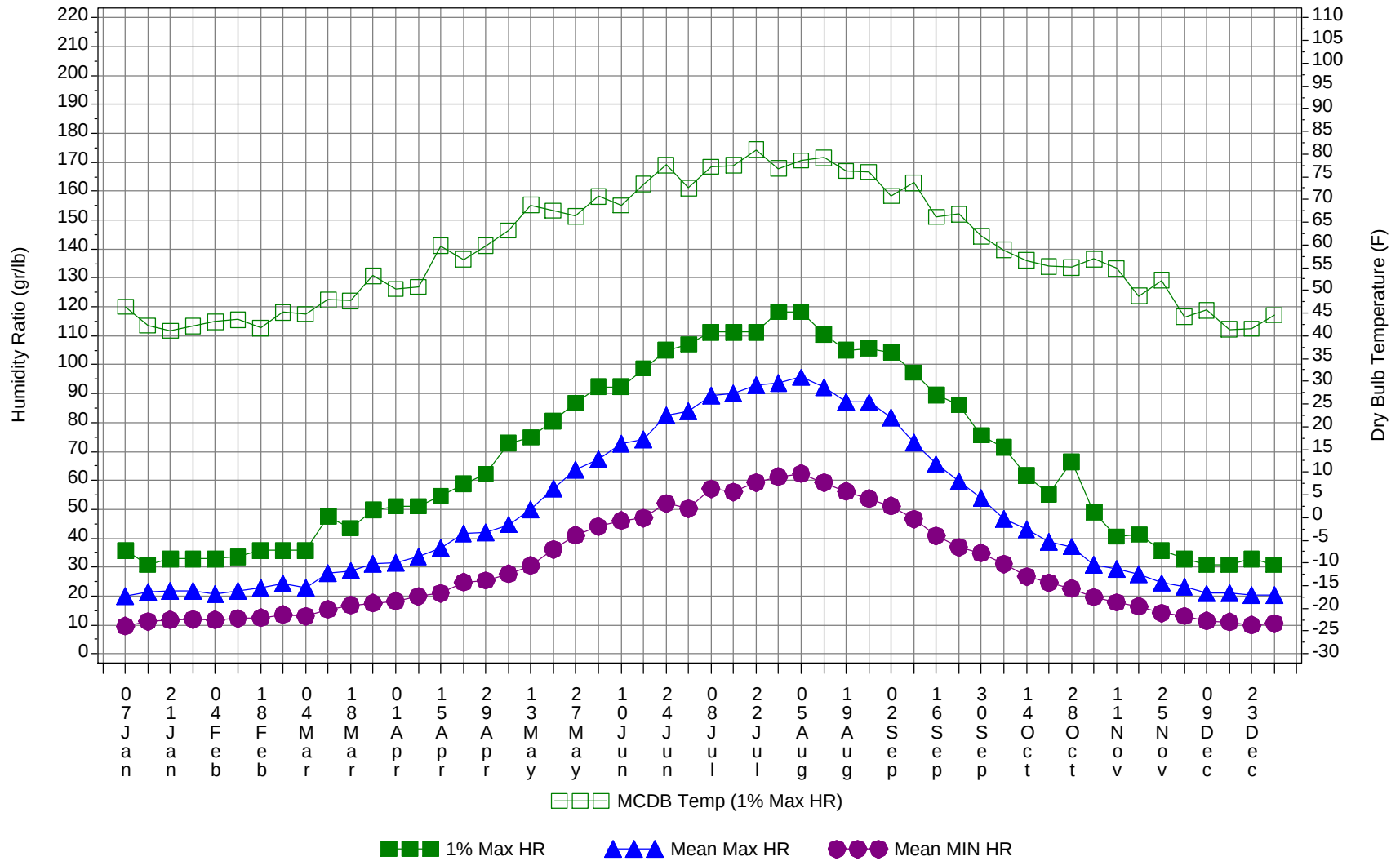
	Annual				
Temperature Range (° F)	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (° F)
105/109		1	0	1	65.2
100/104		10	1	11	65.4
95/ 99		47	8	55	65.4
90/ 94	0	127	29	156	64.7
85/ 89	0	133	41	174	63.7
80/ 84	3	234	95	332	62.2
75/ 79	20	223	132	375	60.1
70/ 74	83	241	210	534	58.3
65/ 69	132	167	184	483	56.4
60/ 64	289	232	260	781	53.7
55/ 59	258	212	214	684	49.3
50/ 54	237	220	225	682	45
45/ 49	253	241	252	746	40.3
40/ 44	186	159	178	523	36.6
35/ 39	291	203	270	764	32.9
30/ 34	309	163	266	738	28.9
25/ 29	304	116	218	638	24.5
20/ 24	163	56	108	327	20.1
15/ 19	169	53	96	318	16
10/ 14	85	33	52	170	10.8
5/ 9	54	22	34	110	6.1
0/ 4	40	14	25	79	1.1
-5/ -1	14	4	9	27	-3.3
-10/ -6	15	3	8	26	-7.7
-15/-11	6	2	3	11	-12.4
-20/-16	5	1	2	8	-17
-25/-21	2	0	1	3	-21.4
-30/-26	0	0	0	0	-26.2
-35/-31	0	0		0	-30.4

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Annual Summary of Temperatures



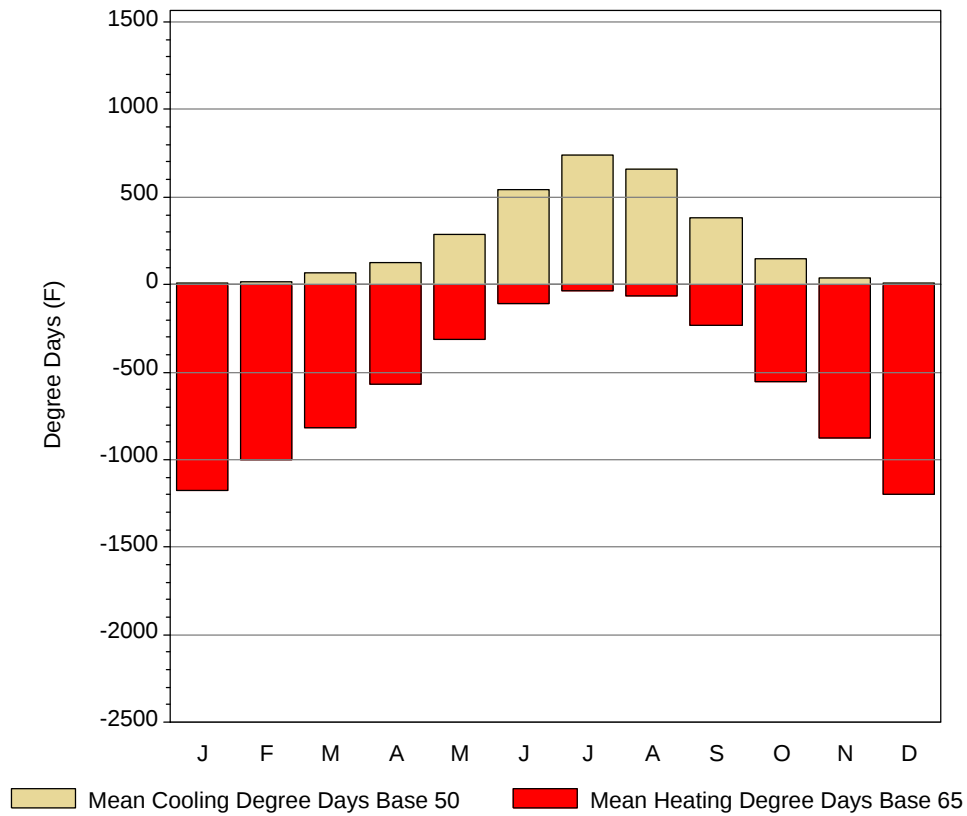
Long Term Humidity and Dry Bulb Temperature Summary



Long Term Humidity and Dry Bulb Temperature Summary

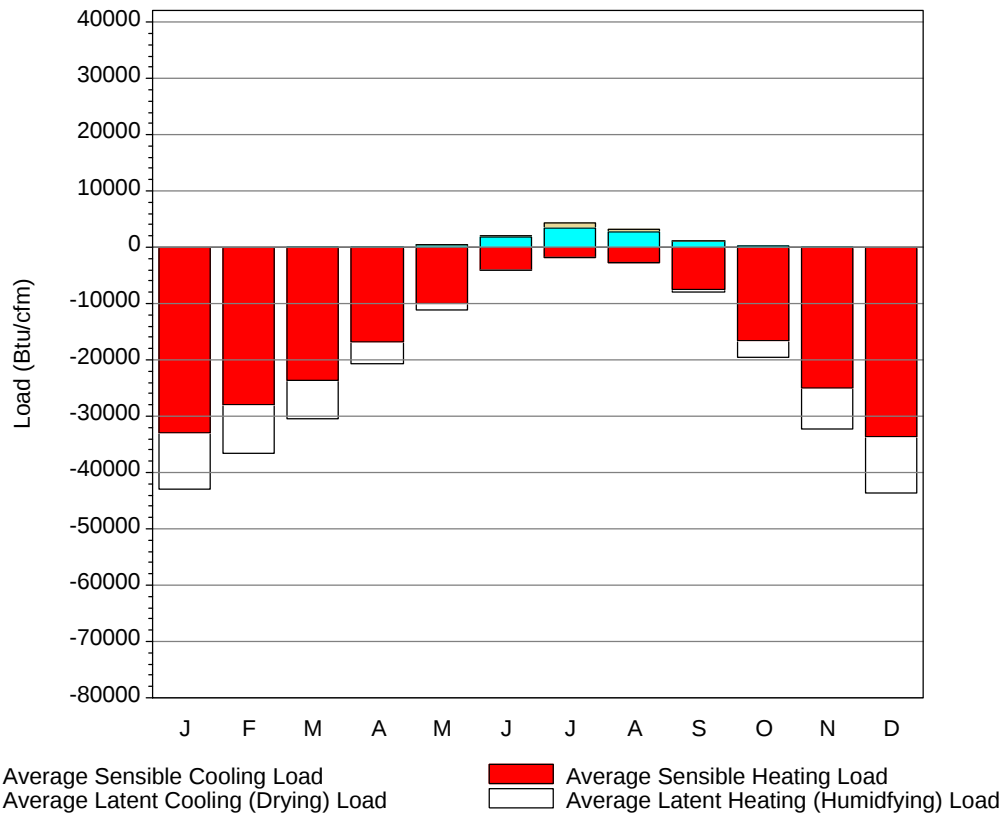
Week Ending	1.0% Temp (° F)	MCWB@ 1% Temp (° F)	Mean Max Temp (° F)	Mean Min Temp (° F)	99% Temp (° F)	1.0% HR (gr/lb)	MCDB@ 1% HR (° F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	59	41.4	36.6	10.9	-12	35.7	46.4	20.1	9.6
14-Jan	57	42.5	39.2	14.9	-8	30.8	42.3	21.4	11.2
21-Jan	58	41.5	41.8	16.4	-2	32.9	41.1	21.8	11.8
28-Jan	59	42.7	41.9	16.6	-2	32.9	42.1	21.8	11.9
4-Feb	59	42	40.4	15.3	-17	32.9	43.1	20.7	11.8
11-Feb	62	46	42.2	16.9	-8	33.6	43.6	21.8	12.2
18-Feb	63	44.3	44.7	17.8	-9	35.7	41.7	22.8	12.5
25-Feb	64	45.3	45.2	19.6	-2	35.7	45.2	24.3	13.5
4-Mar	67	45.7	45.5	19.2	-2	35.7	44.8	23	13
11-Mar	70	47	50.7	22.5	2	47.6	47.9	28	15.4
18-Mar	75	49.5	54.4	26.7	12	43.4	47.7	28.8	16.8
25-Mar	75	50	55.6	27	10	49.7	53.2	31.1	17.6
1-Apr	77	50.5	57.2	28.8	16	51.1	50.3	31.4	18.2
8-Apr	76	50.7	58.9	30.8	19	51.1	50.8	33.8	19.9
15-Apr	79	55	59.6	31.8	12	54.6	59.8	36.5	21
22-Apr	80	53.6	62.1	34.5	25	58.8	56.8	41.6	24.7
29-Apr	81	55.7	61.8	35.8	25	62.3	59.8	42.1	25.4
6-May	83	56.4	65.1	37.7	27	72.8	63.2	44.7	27.6
13-May	86	58.6	67.6	40.7	30	74.9	68.8	50	30.6
20-May	89	60.2	72.9	45.2	34	80.5	67.6	57.1	36.2
27-May	86	60.6	72	47.1	37	86.8	66.3	63.8	41
4-Jun	90	62.3	76.1	49	41	92.4	70.7	67.3	44
10-Jun	95	63.2	78.7	51.6	41	92.4	68.7	72.7	46.1
17-Jun	93	62.1	80.7	53.4	45	98.7	73.4	74.3	47
24-Jun	98	66.1	84.6	55.8	45	105	77.6	82.4	52
1-Jul	99	68	87.7	57.5	48	107.1	72.5	83.8	50.2
8-Jul	100	64.7	88.9	59.3	51	111.3	77.2	89.3	57.1
15-Jul	99	66.4	89.4	59.4	53	111.3	77.5	90.2	56
22-Jul	100	65.8	89.9	60.4	54	111.3	81	92.9	59.3
29-Jul	99	65.7	88.8	59.8	53	118.3	76.8	93.7	61.3
5-Aug	97	65.9	87.7	59.5	52	118.3	78.6	95.7	62.4
12-Aug	97	64.7	87.4	58.5	53	110.6	79.2	92.2	59.3
19-Aug	96	64.6	86.1	56.2	50	105	76.3	87.1	56.2
26-Aug	97	65.5	87.6	56.7	48	105.7	76.1	87	53.7
2-Sep	96	66.3	86.1	55.3	45	104.3	70.8	81.8	51.1
9-Sep	95	65.1	83	52.1	43	97.3	73.7	73	46.6
16-Sep	91	62.5	78.3	47.7	36	89.6	66.2	65.7	40.8
23-Sep	90	59.1	73.7	44.4	34	86.1	66.8	59.6	36.9
30-Sep	88	58.8	75.3	42.3	32	75.6	62	54	34.9
7-Oct	86	56.5	67.5	39.4	28	71.4	58.9	46.6	31
14-Oct	84	55.7	66.5	36	24	61.6	56.6	43.1	26.8
21-Oct	81	54.1	64.4	33.6	24	55.3	55.3	38.8	24.6
28-Oct	78	53.6	61.4	31.1	18	66.5	55.1	37.1	22.6
4-Nov	73	50.4	54.5	27.6	7	49	56.9	30.8	19.6
11-Nov	72	49.6	53.8	25.7	11	40.6	54.8	29.4	17.8
18-Nov	70	47.7	51.3	23.3	1	41.3	48.8	27.7	16.4
25-Nov	68	46.2	49.1	21.6	3	35.7	52.2	24.5	14.1
2-Dec	65	45.6	45.1	19.5	5	32.9	44.2	23.1	13.1
9-Dec	61	43.8	41.8	15.8	-9	30.8	45.6	20.9	11.4
16-Dec	58	41.5	41	15.1	-5	30.8	41.4	21	11.1
23-Dec	54	40.8	35.7	11	-20	32.9	41.6	20.3	9.9
31-Dec	55	41.2	37.8	12.8	-11	30.8	44.6	20.4	10.4

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	7.8	0	1178.5
FEB	16	0.6	997.1
MAR	65.1	8.1	819.6
APR	125.7	23.5	566.8
MAY	287.2	72.2	316.3
JUN	545.5	198.6	109.4
JUL	741.6	314.8	38.5
AUG	656.9	254.4	63.7
SEP	384.7	125.6	228.8
OCT	144.6	31.5	556
NOV	38.7	3.5	879.3
DEC	8.3	0.1	1201.1
ANN	3022.1	1032.9	6955.1

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	-32956	0	-9968
FEB	0	-28032	0	-8502
MAR	16	-23561	0	-6962
APR	98	-16804	0	-3801
MAY	461	-10043	11	-1098
JUN	1916	-3991	184	-143
JUL	3534	-1760	816	-18
AUG	2666	-2643	619	-26
SEP	1137	-7484	53	-411
OCT	169	-16555	0	-3057
NOV	3	-25080	0	-7154
DEC	0	-33540	0	-10104
ANN	10000	-202449	1683	-51244

Station Information		Shading Geometry in Dimensionless Units	
City, State, WBAN	SCOTTSBLUFF, NE 24028	Window:	1.000
Lat, Lon, Elev	41.87N 103.60W 3957ft	Overhang:	0.587
Press, Stn_Type	12.7psia Secondary	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	670	950	1300	1660	1890	2180	2210	1960	1550	1120	730	590	1400
	Std.Dev.	40	47	72	117	123	123	68	77	107	72	32	36	28
	Minimum	590	850	1150	1500	1720	1930	2070	1790	1350	960	660	520	1350
	Maximum	730	1050	1430	1880	2110	2350	2300	2120	1730	1230	800	670	1450
	Diffuse	290	390	560	670	740	690	620	560	470	370	300	250	490
Clear Day	Global	870	1220	1740	2270	2610	2740	2640	2330	1880	1350	930	760	1780
NORTH	Global	190	260	360	440	550	630	590	470	350	270	210	170	380
	Diffuse	190	260	350	430	490	510	480	430	350	270	210	170	350
Clear Day	Global	170	230	300	410	590	720	650	470	330	250	180	150	370
EAST	Global	480	650	840	1030	1130	1280	1280	1190	970	760	510	440	880
	Diffuse	240	330	440	530	580	600	580	530	430	340	250	220	420
Clear Day	Global	700	910	1200	1440	1560	1590	1550	1440	1250	980	720	620	1160
SOUTH	Global	1240	1330	1240	1090	910	870	940	1120	1310	1400	1230	1210	1150
	Diffuse	360	430	520	550	550	540	530	520	480	420	360	330	470
Clear Day	Global	2000	2060	1920	1520	1150	990	1040	1320	1720	1980	1970	1930	1630
WEST	Global	490	650	820	980	1030	1150	1180	1120	980	760	520	440	840
	Diffuse	250	330	450	530	590	600	580	540	440	340	260	210	430
Clear Day	Global	700	910	1200	1440	1560	1590	1550	1440	1250	980	720	620	1160

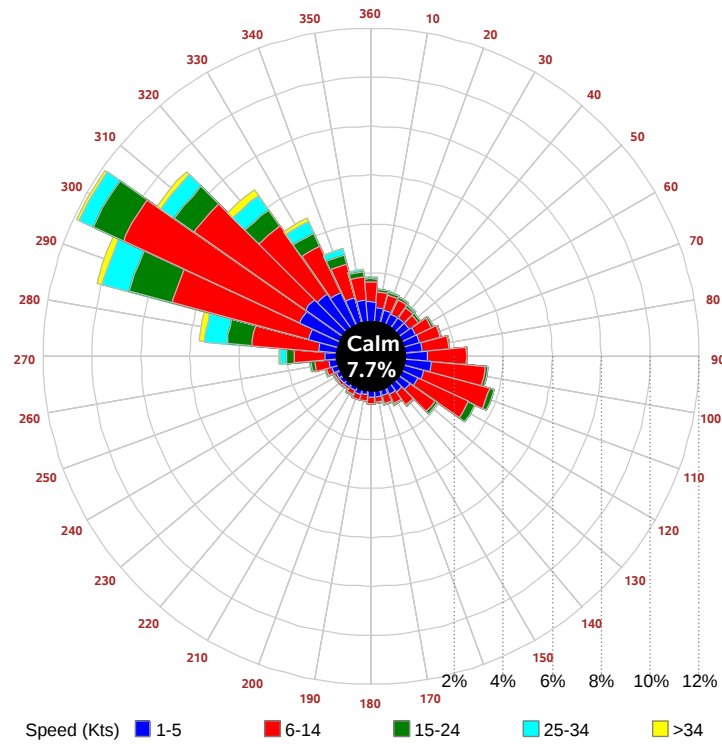
Average Annual Solar Radiation - Nearest Available Site Source: National Renewable Energy Laboratory, Golden CO, 1995

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	420	640	910	1190	1370	1590	1620	1430	1110	770	470	360	990
NORTH	Unshaded	130	180	250	300	360	410	380	310	240	190	140	120	250
	Shaded	120	160	220	270	320	360	340	280	220	170	130	100	220
EAST	Unshaded	330	450	590	740	810	910	920	850	690	530	350	300	620
	Shaded	290	400	510	620	680	760	760	710	590	470	310	270	530
SOUTH	Unshaded	940	980	870	720	560	520	560	710	890	1010	920	920	800
	Shaded	910	910	680	440	340	340	330	380	610	890	890	900	630
WEST	Unshaded	340	460	580	690	730	810	830	790	700	530	360	300	590
	Shaded	300	400	500	590	610	670	690	670	600	470	320	270	510

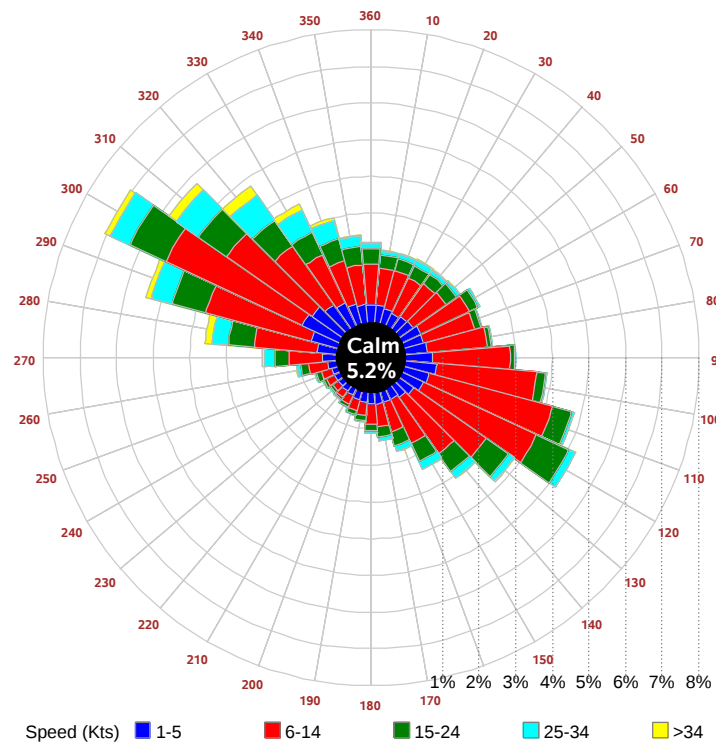
AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS Percentage Uncertainty = 9												
		March					June					
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm	
HORIZ.	M.Clear	42	73	79	61	24	53	86	101	95	67	
	M.Cloudy	27	48	56	42	16	35	62	75	68	46	
NORTH	M.Clear	10	13	14	12	7	15	15	16	16	13	
	M.Cloudy	10	16	17	14	7	14	17	18	17	14	
EAST	M.Clear	79	54	14	12	7	86	70	27	16	13	
	M.Cloudy	34	33	17	14	7	42	48	25	17	14	
SOUTH	M.Clear	46	80	87	67	26	11	36	50	44	20	
	M.Cloudy	23	43	52	38	12	12	29	40	34	18	
WEST	M.Clear	10	13	26	70	66	11	15	16	54	82	
	M.Cloudy	10	16	23	39	24	12	17	18	41	48	
M.Clear	(% hrs)	33	32	27	25	31	54	54	51	43	35	

		Sept					Dec					
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm	
HORIZ.	M.Clear	32	68	85	76	45	15	40	44	25	0	
	M.Cloudy	18	44	57	51	29	10	27	30	17	0	
NORTH	M.Clear	8	13	15	14	10	5	9	10	7	0	
	M.Cloudy	8	15	17	15	11	5	10	11	7	0	
EAST	M.Clear	76	69	24	14	10	44	37	10	7	0	
	M.Cloudy	25	38	21	15	11	17	21	11	7	0	
SOUTH	M.Clear	26	62	79	70	39	43	86	91	62	0	
	M.Cloudy	12	35	49	43	22	16	39	45	26	0	
WEST	M.Clear	8	13	15	56	80	5	9	24	49	0	
	M.Cloudy	8	15	17	36	38	5	10	17	22	0	
M.Clear	(% hrs)	53	56	54	54	52	37	38	38	39	40	

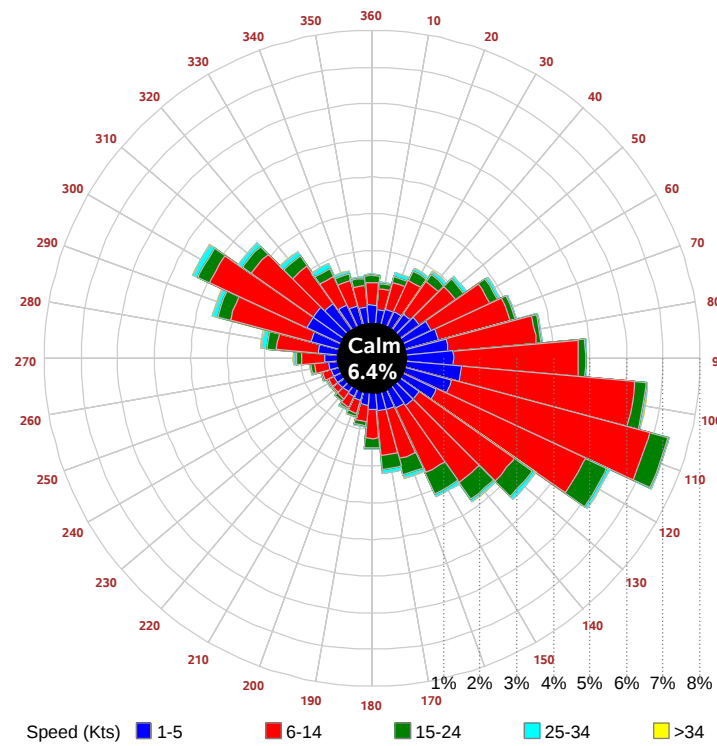
Wind Summary - December, January, and February



Wind Summary - March, April, and May



Wind Summary - June, July, and August



Wind Summary - September, October, and November

