

JERUSALEM AIRPORT, JO

Latitude = 31.87 N

Longitude = 35.22 E

Period of Record = 1988 To 2006

Station ID = ICAO_LLJR

Elevation = 2490 Feet

Average Pressure = 27.39 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	95	66	61	9.3	E
0.4% Occurrence	91	66	64	9.3	W
1.0% Occurrence	90	66	64	9.3	W
2.0% Occurrence	86	65	67	9.4	W
Mean Daily Range	17	-	-	-	W
97.5% Occurrence	39	37	32	6.3	W
99.0% Occurrence	36	35	29	5.5	W
99.6% Occurrence	32	31	26	5.9	W
Median of Extreme Lows	32	31	26	5.9	W

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	85	85	-	9.9	W
0.4% Occurrence	72	84	107	10.8	W
1.0% Occurrence	70	81	100	10.6	W
2.0% Occurrence	69	80	96	10.5	W

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	0.73	9.6	W
0.4% Occurrence	113	76	0.69	9.5	W
1.0% Occurrence	106	74	0.65	9.7	W
2.0% Occurrence	106	74	0.65	9.7	W

Air Conditioning/ Humid Area Criteria	Threshold	T ≥ 93 °F	T ≥ 80 °F	Twb ≥ 73 °F	Twb ≥ 67 °F
	# of Hours	16	465	18	420

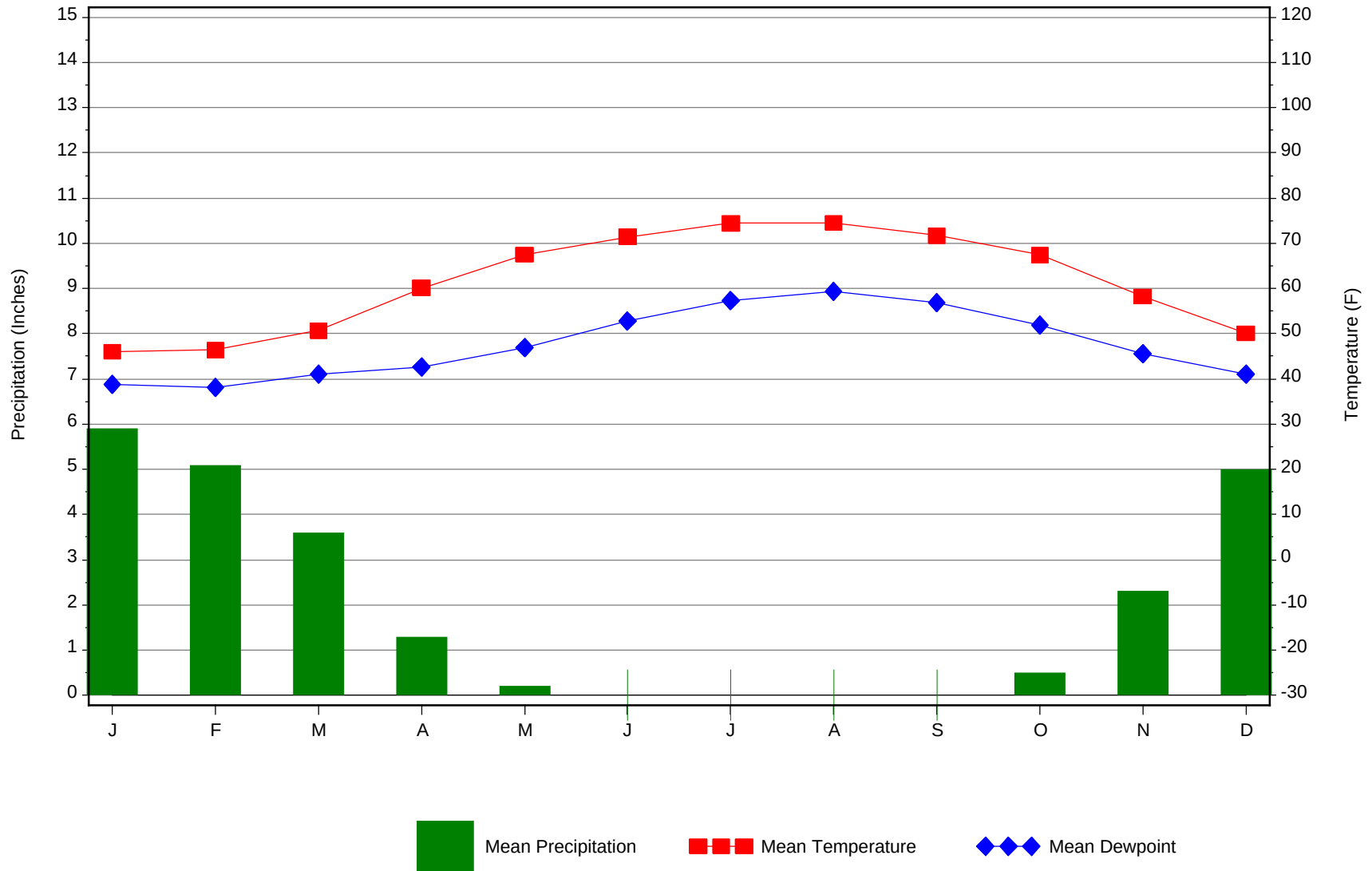
Other Site Data

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
9	N/A	N/A	0.4 + 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 (#)
64.4	N/A	N/A	2

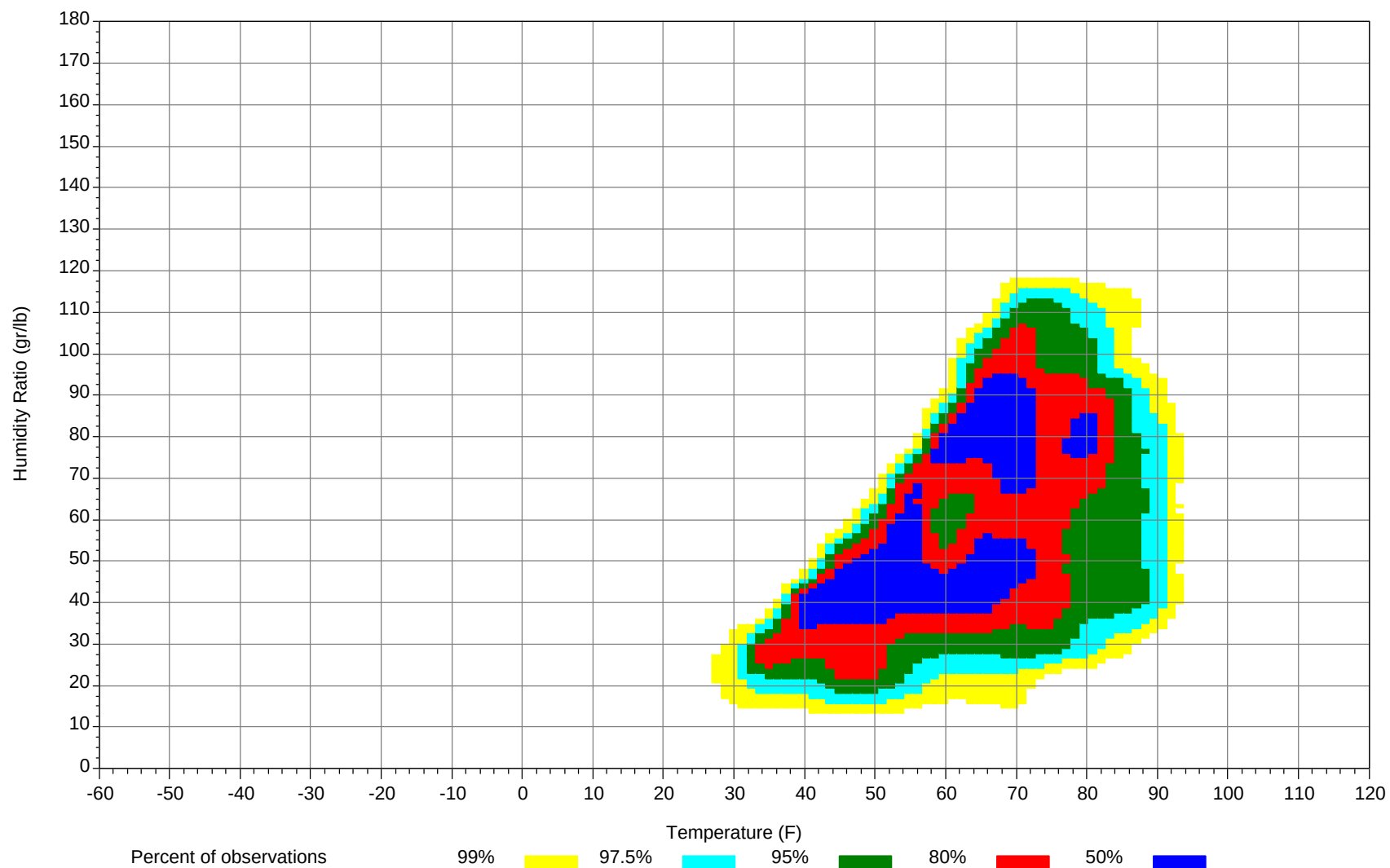
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.



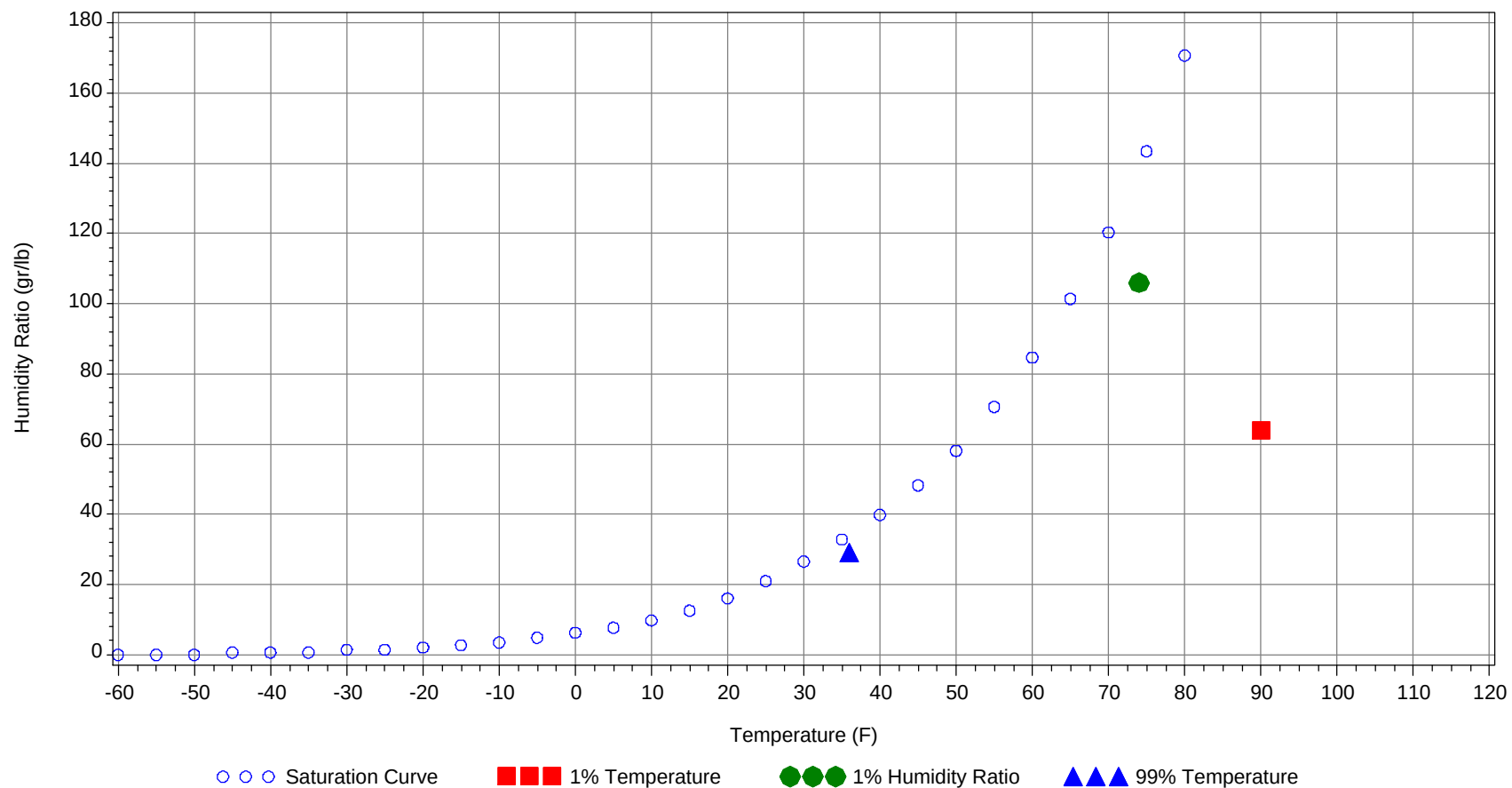
Average Annual Climate



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	90.0		66		64.0	31.8
99.0% Dry Bulb	36.0				29.0	13.1
1.0% Humidity Ratio	106.0	74.0	68.5	66.2		34.4

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	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)
100/104															
95/ 99															
90/ 94															
85/ 89												0		0	61
80/ 84												0		0	
75/ 79							0		0	53.5		4	0	4	58.3
70/ 74		1		1	53.9		2	0	2	53.5		9	1	10	55.3
65/ 69		2		2	51.9		3	1	4	52.8	1	16	4	21	53.9
60/ 64		12	1	13	50.9	1	15	4	20	50.2	5	42	17	64	51.5
55/ 59	2	35	9	46	48.5	4	41	12	57	47.9	15	53	32	100	49.2
50/ 54	15	83	43	141	46.3	15	74	42	131	45.7	44	68	67	179	46.8
45/ 49	81	82	100	263	43.5	64	54	86	204	43.3	97	43	88	228	44
40/ 44	68	22	59	149	39.9	66	17	44	127	40.1	51	10	29	90	40.5
35/ 39	66	8	31	105	36.1	53	11	26	90	36.2	33	2	9	44	36.9
30/ 34	16	3	6	25	30.6	18	6	8	32	31.5	3	0	0	3	32.1
25/ 29	1			1	26.3	3	0	1	4	27.7					

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)
100/104															
95/ 99							2		2	65.9	0	0	0	0	62.8
90/ 94		4	0	4	62.7		13	2	15	63.8	0	12	1	13	63.8
85/ 89		7	2	9	60.5	1	17	4	22	62.1	0	26	3	29	64.2
80/ 84	1	16	4	21	58.9	5	42	13	60	61.1	5	65	14	84	63.3
75/ 79	3	28	11	42	57.8	17	56	26	99	59.2	19	83	37	139	61.8
70/ 74	11	40	21	72	55.5	28	52	40	120	57.3	36	41	60	137	59.9
65/ 69	14	32	22	68	53.5	29	28	32	89	55.4	44	10	49	103	58.8
60/ 64	36	48	38	122	51.9	53	28	56	137	54	93	3	65	161	58.1
55/ 59	38	41	47	126	49.7	58	10	49	117	52.4	39		11	50	55.3
50/ 54	62	19	61	142	47.9	47	2	25	74	49.7	4		1	5	49.8
45/ 49	54	5	27	86	44.3	9	0	1	10	45.3					
40/ 44	14	1	4	19	39.8	0			0	40.7					
35/ 39	5	1	2	8	36.7										
30/ 34	1		0	1	31.5										
25/ 29															

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

	July					August					September				
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)
100/104		1		1	71.3		0		0	76					
95/ 99		4	0	4	68.6		2	0	2	70.5		2		2	63.7
90/ 94	0	17	2	19	67	0	19	1	20	68.8		12	1	13	65.3
85/ 89	1	42	4	47	66.1	1	40	4	45	67.8	1	20	3	24	65
80/ 84	7	95	23	125	65.3	6	106	21	133	66.3	3	71	9	83	64.9
75/ 79	24	64	55	143	64.4	18	63	59	140	65.3	11	86	33	130	63.7
70/ 74	59	23	85	167	62.7	55	17	88	160	64.4	30	43	66	139	62.7
65/ 69	80	1	57	138	62.6	96	0	64	160	63.5	63	6	75	144	62.2
60/ 64	73		21	94	60.7	69		12	81	60.8	117	1	52	170	60.1
55/ 59	4		0	4	57.6	2			2	55.5	15		2	17	56.2
50/ 54											1		0	1	48.2
45/ 49															
40/ 44															
35/ 39															
30/ 34															
25/ 29															

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

	October					November					December				
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)
100/104															
95/ 99															
90/ 94		4	0	4	63.3										
85/ 89		10	0	10	62.8		0		0						
80/ 84	0	41	4	45	61.5		2	0	2	59.6					
75/ 79	6	66	22	94	60.8		20	0	20	57.9		2		2	57.9
70/ 74	25	72	41	138	59.2	1	40	8	49	56.1		5	0	5	54.8
65/ 69	28	33	43	104	58.6	5	40	16	61	55		10	1	11	53
60/ 64	90	18	97	205	57.7	22	68	54	144	53.8	3	36	9	48	51.3
55/ 59	79	3	35	117	54.5	77	40	79	196	51.9	9	69	25	103	49.3
50/ 54	20	1	5	26	50.3	81	23	56	160	49	47	74	89	210	47.4
45/ 49	1		0	1	45.7	40	7	20	67	44.2	105	37	82	224	43.9
40/ 44						9	2	4	15	39.1	52	7	28	87	40.4
35/ 39						4	0	3	7	35.1	26	5	12	43	36.4
30/ 34						1			1	30.9	5	1	1	7	31.6
25/ 29															

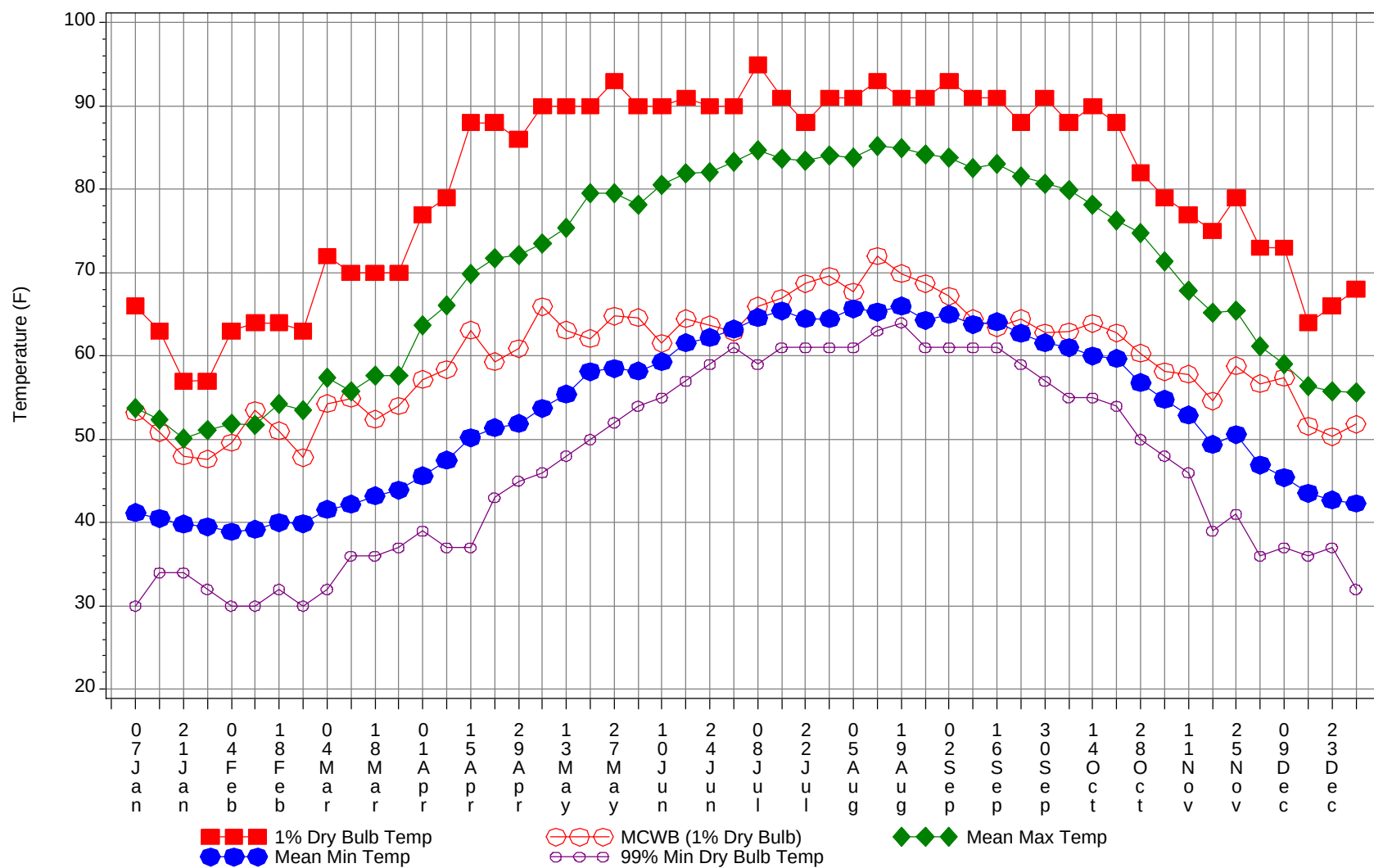
Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary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

Dry-Bulb Temperature Hours For An Average Year

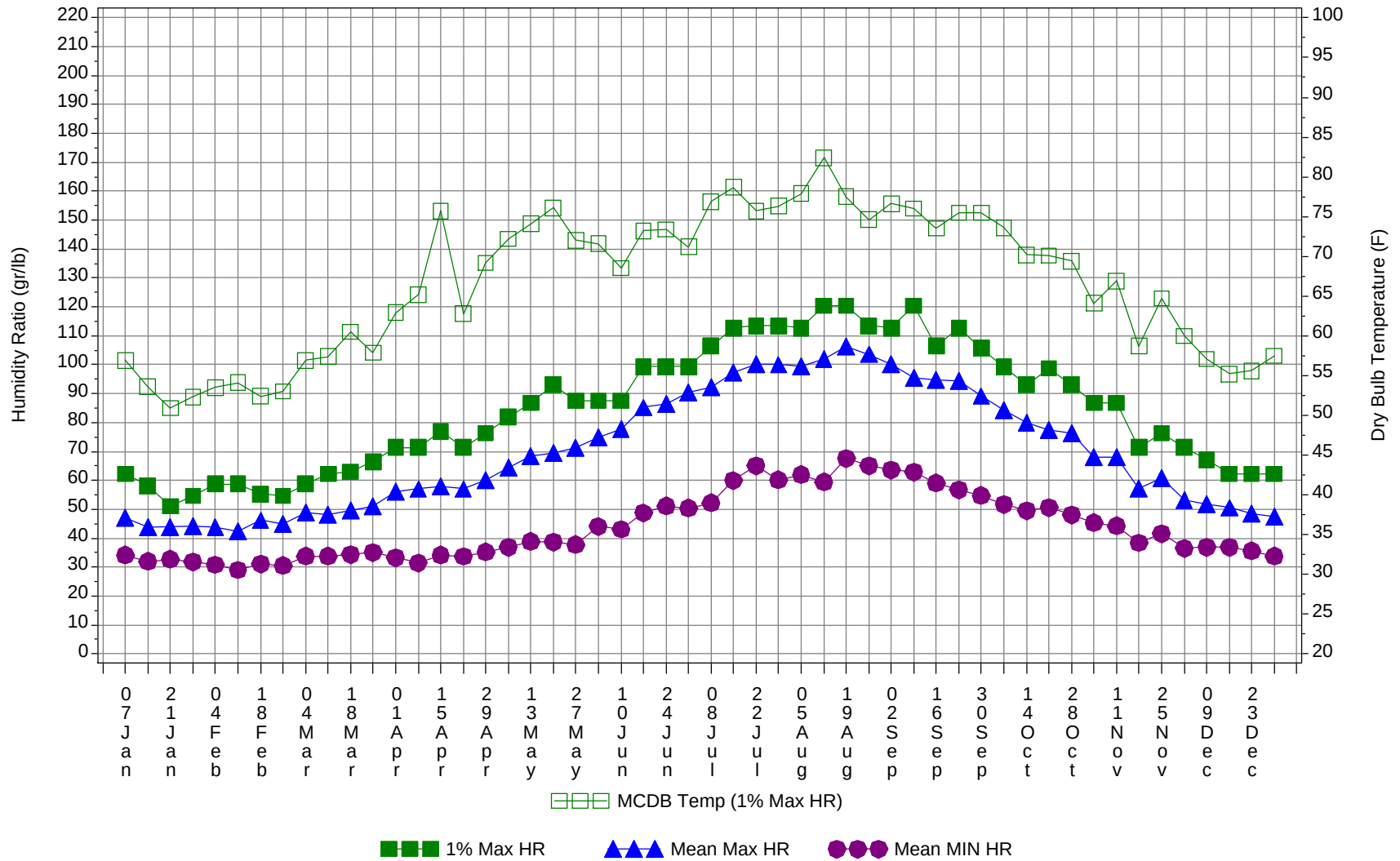
	Annual				
Temperature Range (°F)	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (°F)
100/104		1		1	71.9
95/ 99	0	11	0	11	67.3
90/ 94	0	83	7	90	65.8
85/ 89	4	167	20	191	65.2
80/ 84	29	449	90	568	64.2
75/ 79	101	481	249	831	62.4
70/ 74	250	343	419	1012	60.5
65/ 69	367	180	372	919	59.5
60/ 64	572	265	429	1266	56.2
55/ 59	340	288	297	925	51.2
50/ 54	331	336	381	1048	47.5
45/ 49	443	223	396	1062	43.8
40/ 44	254	59	163	476	40.1
35/ 39	182	26	81	289	36.3
30/ 34	43	9	15	67	31.2
25/ 29	4	0	1	5	27.4

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.

Annual Summary of Temperatures



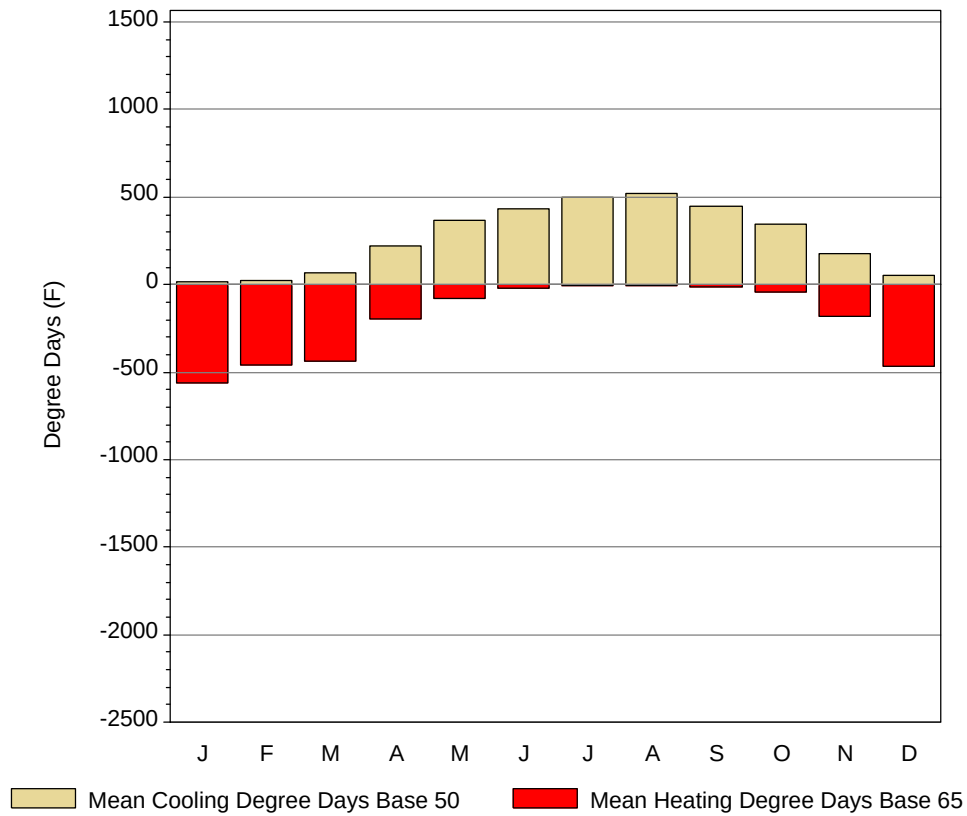
Long Term Humidity and Dry Bulb Temperature Summary



Long Term Humidity and Dry Bulb Temperature Summary

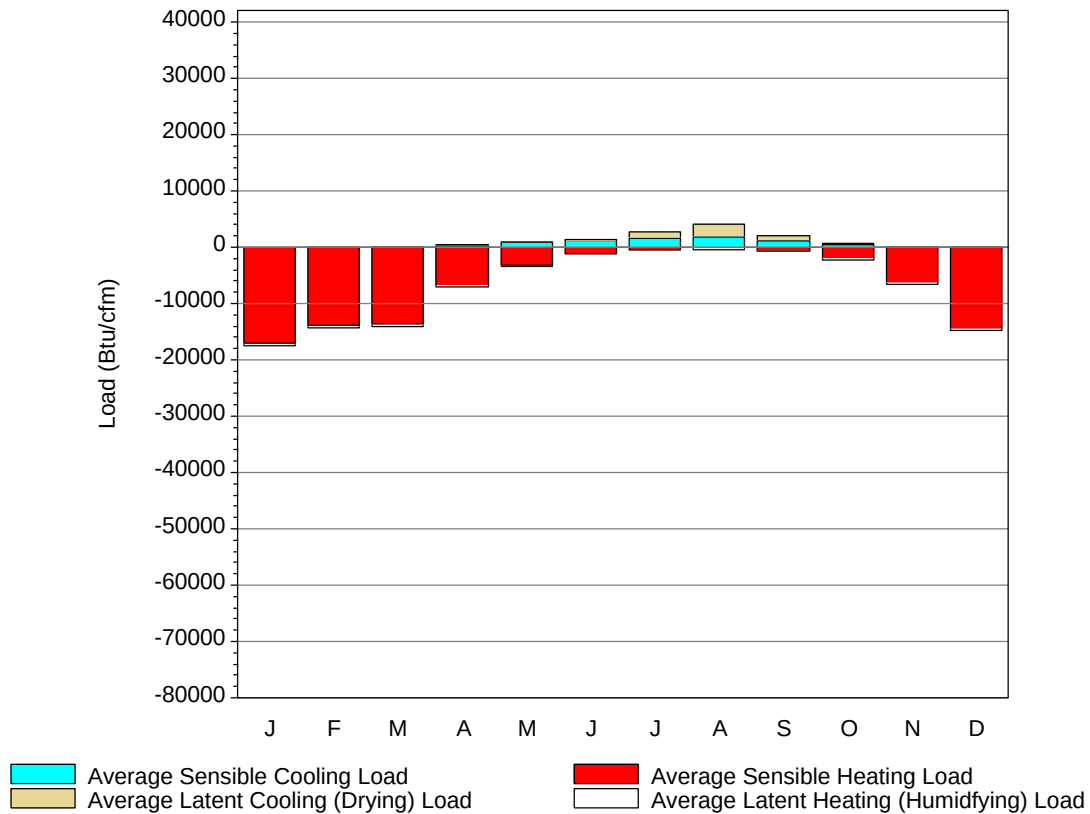
Week Ending	1.0% Temp (° F)	MCWB@ 1% Temp (° F)	Mean Max Temp (° F)	Mean Min Temp (° F)	99% Temp (° F)	1.0% HR (gr/lb)	MCDB@ 1% HR (° F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	66	53.3	53.8	41.2	30	62.3	56.9	47	34.1
14-Jan	63	50.8	52.4	40.5	34	58.1	53.6	43.7	32
21-Jan	57	48	50.1	39.8	34	51.1	50.9	43.9	32.7
28-Jan	57	47.6	51.1	39.5	32	54.6	52.3	44.1	31.8
4-Feb	63	49.6	51.8	38.9	30	58.8	53.5	43.8	30.8
11-Feb	64	53.5	51.7	39.2	30	58.8	54.1	42.4	29
18-Feb	64	51	54.2	40	32	55.3	52.4	46.2	31
25-Feb	63	47.8	53.5	39.9	30	54.6	53	44.9	30.6
4-Mar	72	54.3	57.4	41.6	32	58.8	56.9	49	33.8
11-Mar	70	54.9	55.8	42.2	36	62.3	57.4	48.1	33.8
18-Mar	70	52.4	57.7	43.2	36	63	60.5	49.5	34.3
25-Mar	70	54	57.7	43.9	37	66.5	57.9	51.1	35
1-Apr	77	57.2	63.7	45.6	39	71.4	62.9	56.2	33.2
8-Apr	79	58.4	66.1	47.5	37	71.4	65.2	57	31.4
15-Apr	88	63.1	69.8	50.2	37	77	75.7	57.9	34.1
22-Apr	88	59.3	71.8	51.4	43	71.4	62.8	57	33.7
29-Apr	86	60.9	72.1	51.9	45	76.3	69.2	60.1	35.2
6-May	90	65.9	73.5	53.7	46	81.9	72.2	64.5	36.8
13-May	90	63.1	75.4	55.4	48	86.8	74.1	68.4	38.8
20-May	90	62.1	79.6	58.1	50	93.1	76.1	69.6	38.6
27-May	93	64.8	79.5	58.5	52	87.5	72	71.3	37.7
4-Jun	90	64.6	78.2	58.2	54	87.5	71.6	74.9	44
10-Jun	90	61.5	80.6	59.3	55	87.5	68.5	77.9	43.1
17-Jun	91	64.5	81.9	61.6	57	99.4	73.2	85.2	48.7
24-Jun	90	63.7	82	62.2	59	99.4	73.4	86.6	51.1
1-Jul	90	62.9	83.3	63.2	61	99.4	71.2	90.5	50.4
8-Jul	95	66	84.7	64.6	59	106.4	76.9	92.1	52.2
15-Jul	91	66.9	83.7	65.4	61	112.7	78.7	97.2	59.9
22-Jul	88	68.7	83.4	64.5	61	113.4	75.7	100.2	65
29-Jul	91	69.6	84.1	64.5	61	113.4	76.3	100	60.2
5-Aug	91	67.7	83.8	65.7	61	112.7	77.9	99.4	62
12-Aug	93	72	85.2	65.3	63	120.4	82.4	101.9	59.5
19-Aug	91	69.9	85	66	64	120.4	77.5	106.3	67.5
26-Aug	91	68.7	84.2	64.3	61	113.4	74.6	103.6	65
2-Sep	93	67.2	83.8	65	61	112.7	76.6	100.3	63.6
9-Sep	91	64.5	82.5	63.8	61	120.4	76	95.6	62.8
16-Sep	91	63.4	83.1	64.1	61	106.4	73.5	94.7	59.1
23-Sep	88	64.5	81.5	62.7	59	112.7	75.5	94.4	56.8
30-Sep	91	62.8	80.7	61.6	57	105.7	75.5	89.2	54.8
7-Oct	88	62.9	79.9	61	55	99.4	73.6	84.4	51.6
14-Oct	90	63.9	78.2	60	55	93.1	70.2	80	49.5
21-Oct	88	62.8	76.3	59.7	54	98.7	70.1	77.4	50.6
28-Oct	82	60.3	74.7	56.8	50	93.1	69.4	76.4	48.1
4-Nov	79	58.1	71.4	54.8	48	86.8	64.1	68.1	45.3
11-Nov	77	57.8	67.9	52.9	46	86.8	66.9	68.1	44.2
18-Nov	75	54.6	65.2	49.4	39	71.4	58.7	57.3	38.4
25-Nov	79	58.8	65.4	50.6	41	76.3	64.7	60.9	41.5
2-Dec	73	56.7	61.2	46.9	36	71.4	60	53.3	36.5
9-Dec	73	57.4	59	45.4	37	67.2	57.1	51.7	36.9
16-Dec	64	51.6	56.4	43.5	36	62.3	55.2	50.5	36.8
23-Dec	66	50.3	55.8	42.7	37	62.3	55.6	48.5	35.6
31-Dec	68	51.8	55.6	42.3	32	62.3	57.5	47.3	33.8

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	17.1	0.2	564.7
FEB	23.1	0.5	459
MAR	67.4	3.5	440.2
APR	224.3	47.8	197.2
MAY	367.2	108.9	79.9
JUN	431.1	143.9	19.2
JUL	497.6	194.2	3.8
AUG	519.1	203.9	2.9
SEP	451.3	151.2	10.9
OCT	344.7	83.3	45.5
NOV	177.4	17.4	183.9
DEC	53.9	1.8	466.6
ANN	3174.2	956.6	2473.8

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	-16919	0	-538
FEB	0	-13786	1	-467
MAR	5	-13700	7	-293
APR	330	-6701	37	-249
MAY	940	-3145	97	-151
JUN	1126	-1047	237	-44
JUL	1654	-349	1193	-6
AUG	1817	-317	2195	-5
SEP	1097	-735	983	-29
OCT	464	-2123	150	-29
NOV	31	-6358	18	-210
DEC	2	-14436	1	-300
ANN	7466	-79616	4919	-2321

Station Information		Shading Geometry in Dimensionless Units	
City, State, WBAN	N/A	N/A	N/A
Lat, Lon, Elev	N/A	N/A	N/A
Press Stn Type	N/A	N/A	N/A

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													
	Std.Dev.													
	Minimum													
	Maximum													
	Diffuse													
Clear Day	Global													
NORTH	Global													
	Diffuse													
Clear Day	Global													
EAST	Global													
	Diffuse													
Clear Day	Global													
SOUTH	Global													
	Diffuse													
Clear Day	Global													
WEST	Global													
	Diffuse													
Clear Day	Global													

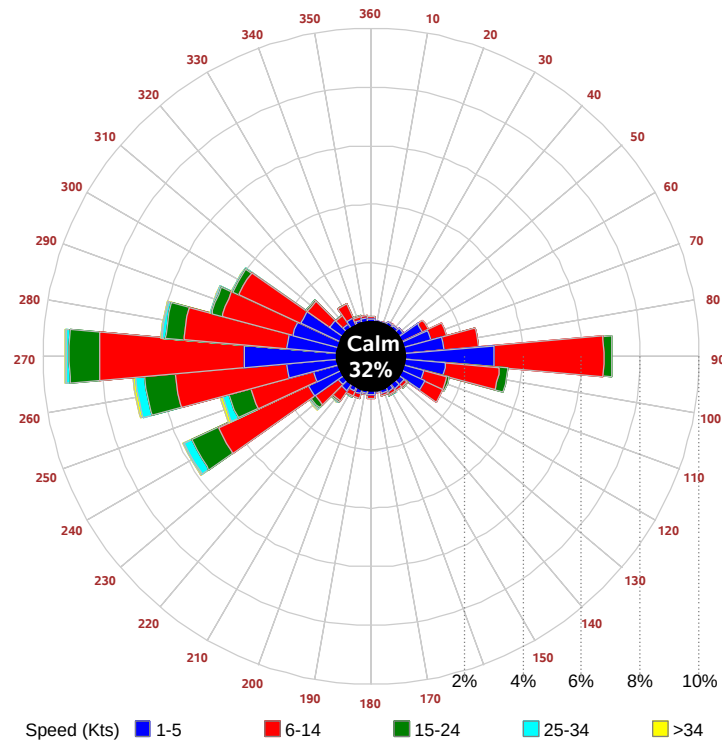
Average Annual Solar Radiation - Nearest Available Site Source: National Renewable Energy Laboratory, Golden CO, 1995

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													
NORTH	Unshaded													
	Shaded													
EAST	Unshaded													
	Shaded													
SOUTH	Unshaded													
	Shaded													
WEST	Unshaded													
	Shaded													

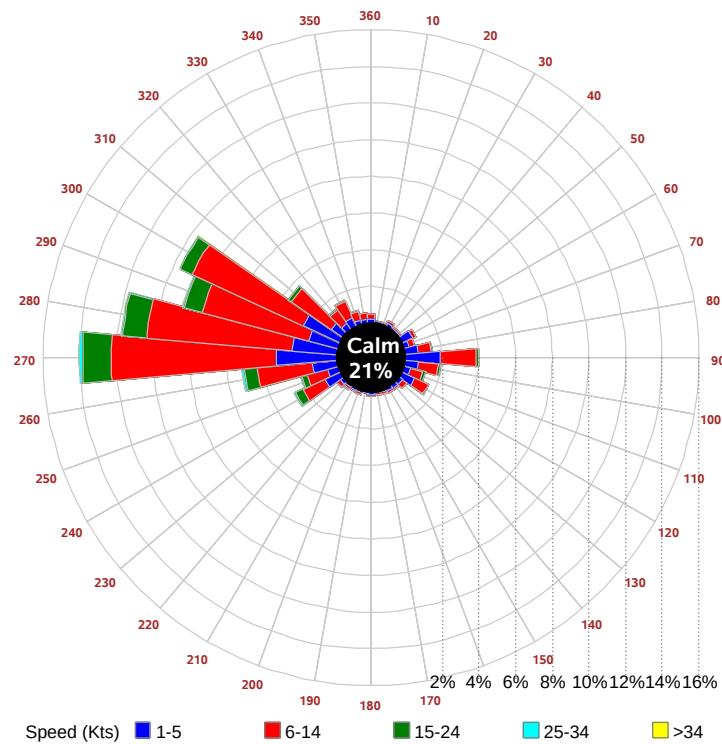
AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9												
		March						June				
		9am	11am	1pm	3pm	5pm		9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear											
	M.Cloudy											
NORTH	M.Clear											
	M.Cloudy											
EAST	M.Clear											
	M.Cloudy											
SOUTH	M.Clear											
	M.Cloudy											
WEST	M.Clear											
	M.Cloudy											
M.Clear	(% hrs)											

		Sept						Dec				
		9am	11am	1pm	3pm	5pm		9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear											
	M.Cloudy											
NORTH	M.Clear											
	M.Cloudy											
EAST	M.Clear											
	M.Cloudy											
SOUTH	M.Clear											
	M.Cloudy											
WEST	M.Clear											
	M.Cloudy											
M.Clear	(% hrs)											

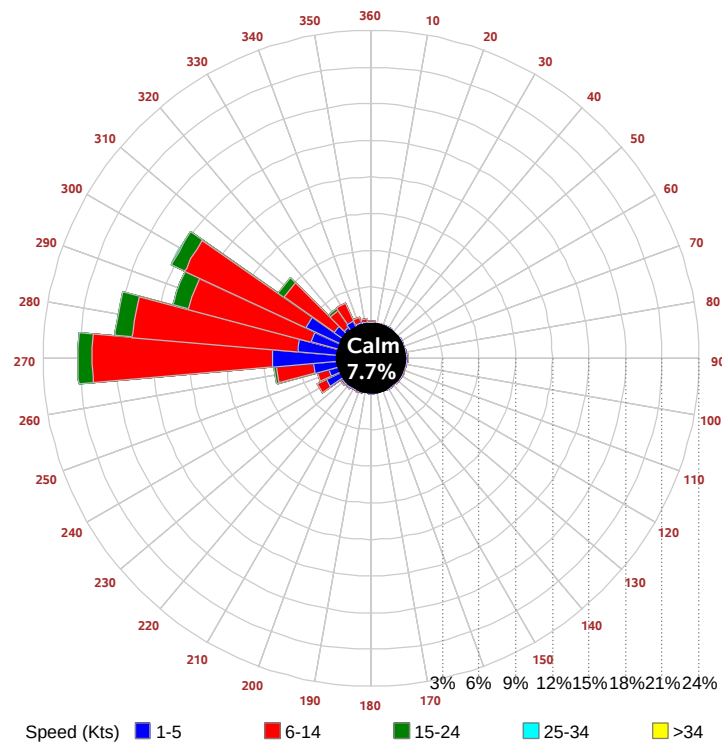
Wind Summary - December, January, and February



Wind Summary - March, April, and May



Wind Summary - June, July, and August



Wind Summary - September, October, and November

