

BANGUI M POKO, CT

Latitude = 4.40 N

Longitude = 18.52 E

Period of Record = 1988 To 2017

Station ID = ICAO_FEFF

Elevation = 1208 Feet

Average Pressure = 28.59 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	70	68	6.3	VRB
0.4% Occurrence	98	73	93	5.3	VRB
1.0% Occurrence	96	74	98	5.4	VRB
2.0% Occurrence	95	74	100	5.6	VRB
Mean Daily Range	18	-	-	-	VRB
97.5% Occurrence	66	64	86	1.2	VRB
99.0% Occurrence	63	61	78	1.3	VRB
99.6% Occurrence	61	59	72	1.3	VRB
Median of Extreme Lows	57	55	64	0.9	VRB

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	84	90	172	4.8	VRB
0.4% Occurrence	80	89	143	4.3	VRB
1.0% Occurrence	79	88	138	4.1	VRB
2.0% Occurrence	79	88	138	4.1	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	177	87	1.12	4.8	VRB
0.4% Occurrence	155	83	0.99	3.5	VRB
1.0% Occurrence	148	83	0.94	2.8	VRB
2.0% Occurrence	145	82	0.92	2.3	SSE

Air Conditioning/ Humid Area Criteria	Threshold	$T \geq 93^{\circ}\text{F}$	$T \geq 80^{\circ}\text{F}$	$T_{wb} \geq 73^{\circ}\text{F}$	$T_{wb} \geq 67^{\circ}\text{F}$
	# of Hours	324	2974	4300	7010

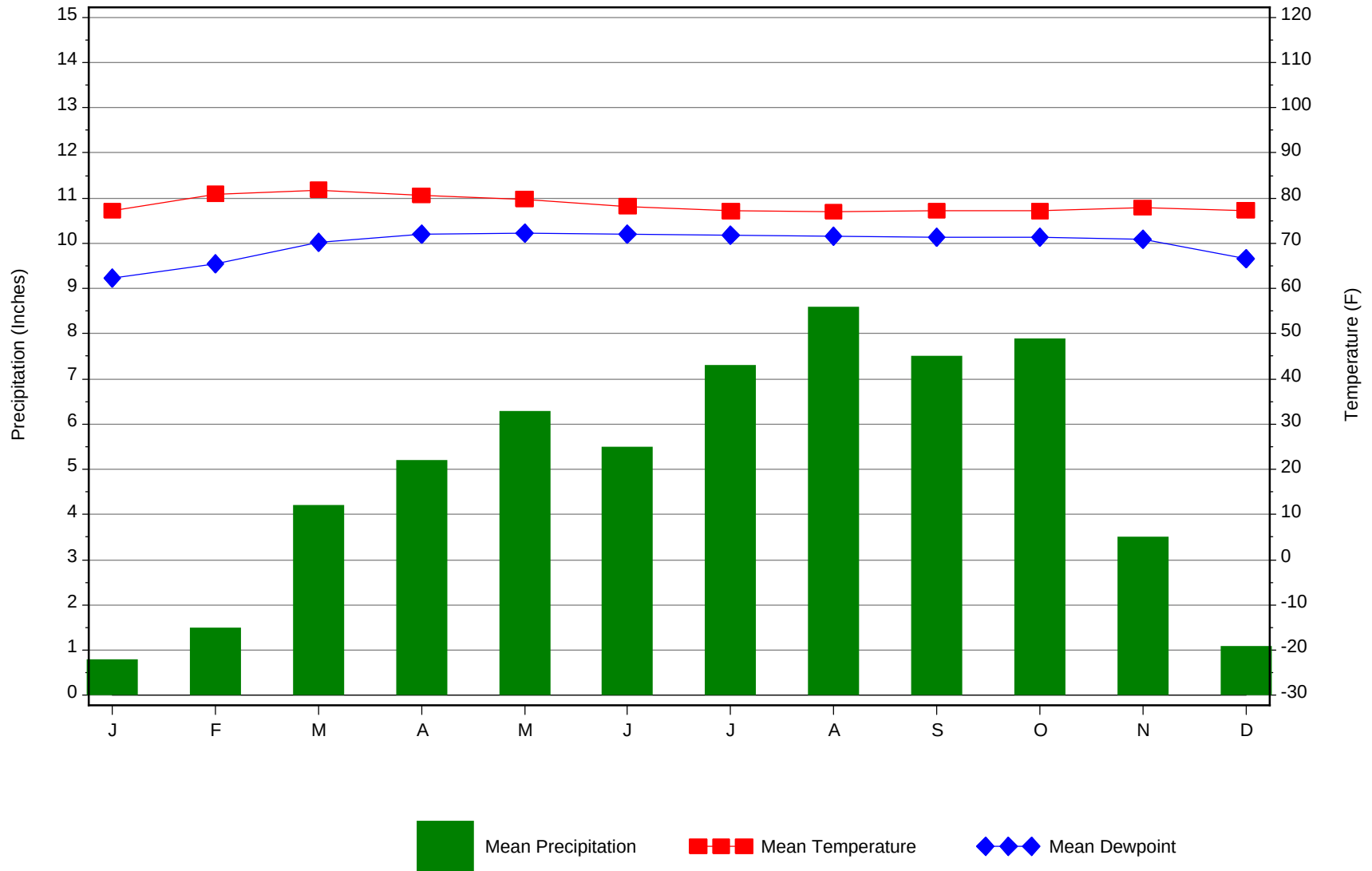
Other Site Data

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
10	N/A	N/A	17.5 + 3.7
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 (#)
81	N/A	N/A	0

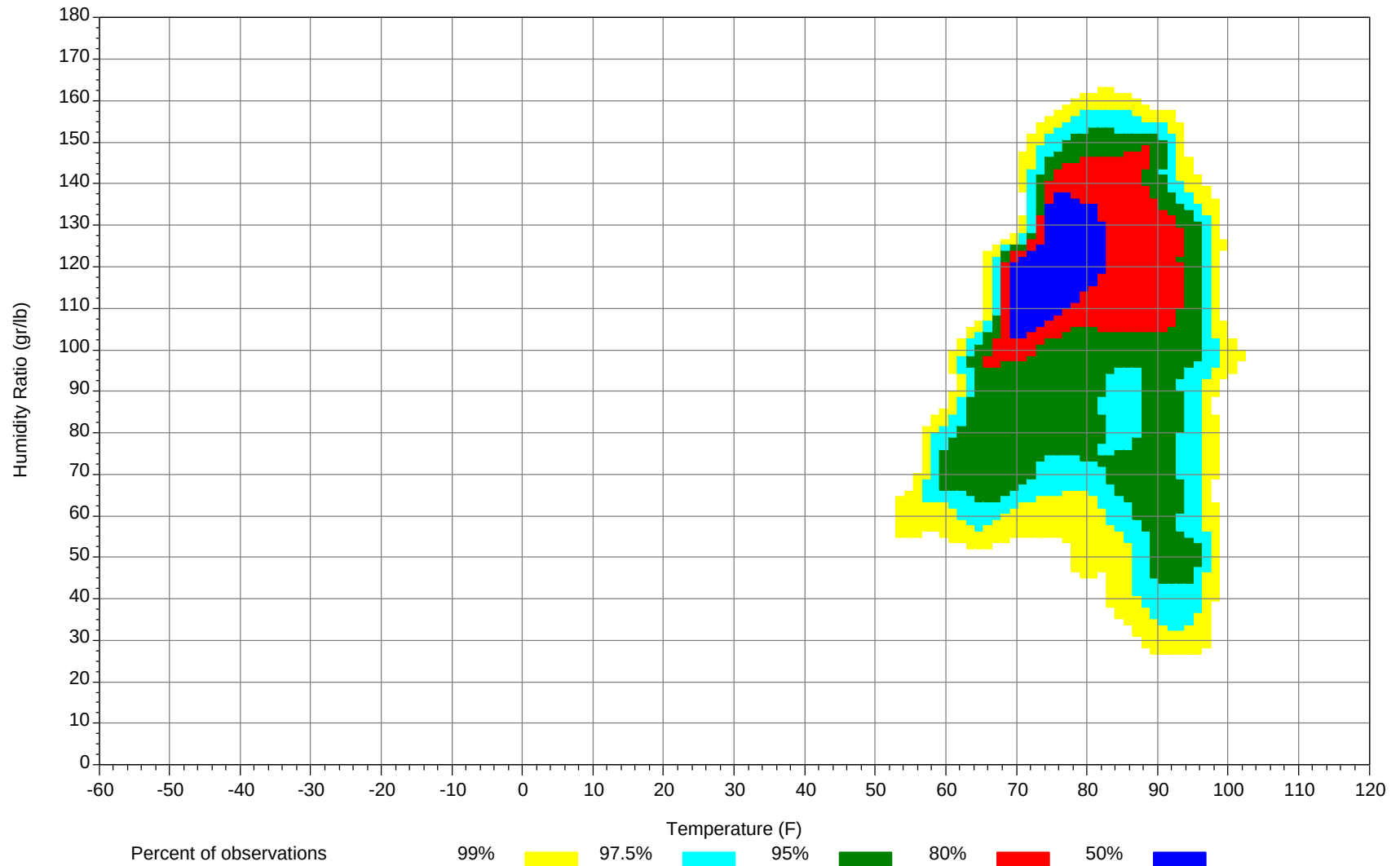
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.



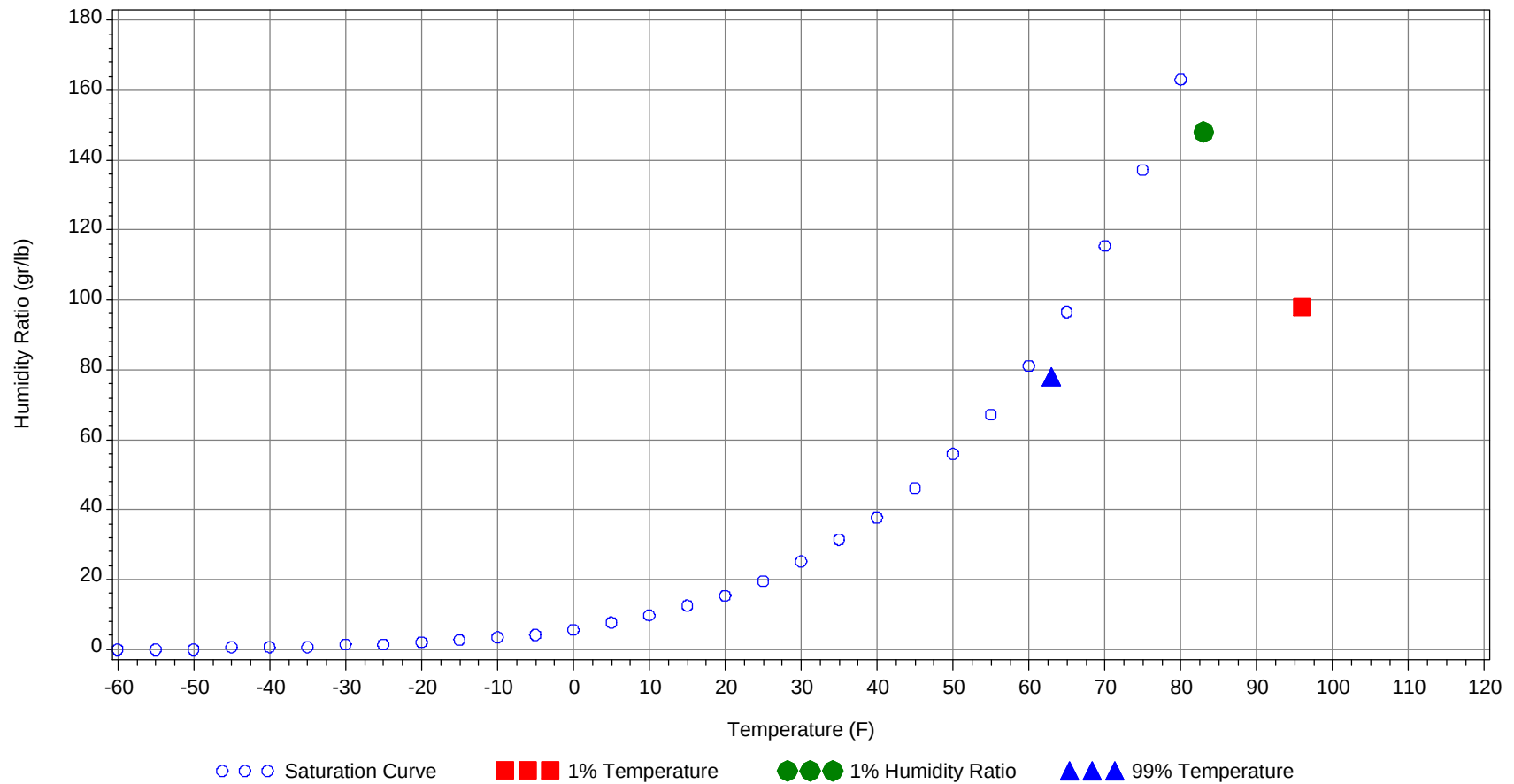
Average Annual Climate



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	96.0		74		98.0	38.1
99.0% Dry Bulb	63.0				78.0	27.1
1.0% Humidity Ratio	148.0	83.0	78.5	77.0		43.0

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		0	0	0	72.4		4	0	4	69.7		3		3	72.3
95/ 99		24	1	25	69.9		48	6	54	71.9		48	5	53	75.2
90/ 94		85	10	95	70	0	76	22	98	72.4		83	24	107	75.7
85/ 89		59	23	82	70	0	40	34	74	72.5	0	50	40	90	75
80/ 84	1	43	48	92	70.4	10	35	63	108	72.6	20	41	78	139	74.4
75/ 79	25	27	69	121	70.5	76	16	65	157	71.7	118	18	74	210	73
70/ 74	83	10	60	153	68.3	85	4	28	117	68.9	102	6	26	134	70.8
65/ 69	60	1	27	88	63.8	31	0	6	37	62.6	8	0	1	9	66.3
60/ 64	60	0	10	70	59.6	19		1	20	58.8	0			0	60.1
55/ 59	19	0	0	19	55.6	3			3	55.7					
50/ 54	1		0	1	51.8										
45/ 49			0	0	41										

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		0		0	77.7		0	0	0	80					
95/ 99		23	2	25	77.4		12	1	13	77.1		2	0	2	77.6
90/ 94	0	72	15	87	77	0	63	11	74	77.1	0	34	4	38	76.9
85/ 89	0	60	32	92	76.3	0	71	27	98	76.4	0	71	16	87	76.5
80/ 84	17	51	68	136	75.4	12	61	68	141	75.5	3	78	51	132	75.4
75/ 79	110	25	86	221	73.8	104	30	98	232	74	70	42	107	219	73.9
70/ 74	107	9	35	151	71.4	127	11	42	180	71.4	156	13	59	228	71.4
65/ 69	6	0	1	7	68.2	6	0	1	7	68.3	11	0	3	14	68.2
60/ 64															
55/ 59															
50/ 54															
45/ 49															

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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		0		0	81										
95/ 99		0		0	79		0		0	77		0		0	78.4
90/ 94		18	2	20	77		18	1	19	76.8		28	2	30	76.6
85/ 89	0	63	11	74	76.2		66	10	76	76.2	0	74	10	84	76.1
80/ 84	2	89	44	135	75.2	1	88	39	128	75.2	2	76	37	115	75.1
75/ 79	45	56	104	205	73.8	37	58	103	198	73.7	36	44	98	178	73.6
70/ 74	183	21	83	287	71.2	194	17	92	303	71.3	179	17	89	285	71.1
65/ 69	19	0	5	24	68.2	15	0	3	18	68.1	22	1	5	28	68.1
60/ 64			0	0	64						0		0	0	63.5
55/ 59															
50/ 54															
45/ 49															

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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		1	0	1	77.4		2		2	74.2		6	0	6	71.3
90/ 94	0	31	1	32	77		53	2	55	75.7	0	80	3	83	72.3
85/ 89	0	70	8	78	76.2	0	77	11	88	75.8	0	76	17	93	72.4
80/ 84	3	79	34	116	75	2	67	41	110	75	1	50	46	97	72.8
75/ 79	37	50	102	189	73.5	34	32	99	165	73.4	24	28	82	134	72.2
70/ 74	188	18	98	304	71.1	172	9	82	263	71	107	7	75	189	69.8
65/ 69	20	0	5	25	68.1	30	0	4	34	67.4	73	0	22	95	65.5
60/ 64			0	0	64	2		0	2	62.7	40	0	3	43	61.4
55/ 59						0			0		4		0	4	57.3
50/ 54						0			0	54					
45/ 49															

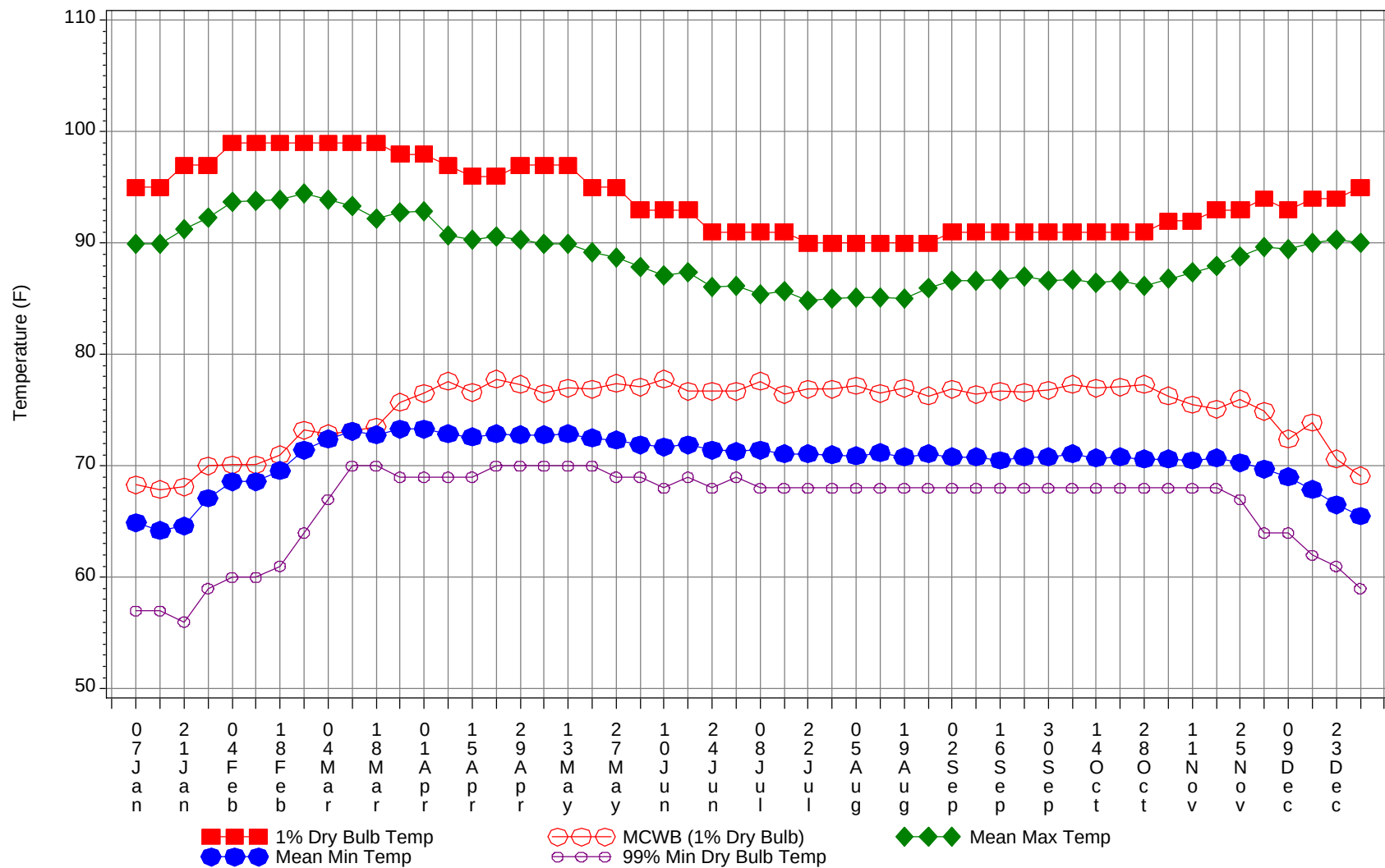
Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary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

Dry-Bulb Temperature Hours For An Average Year

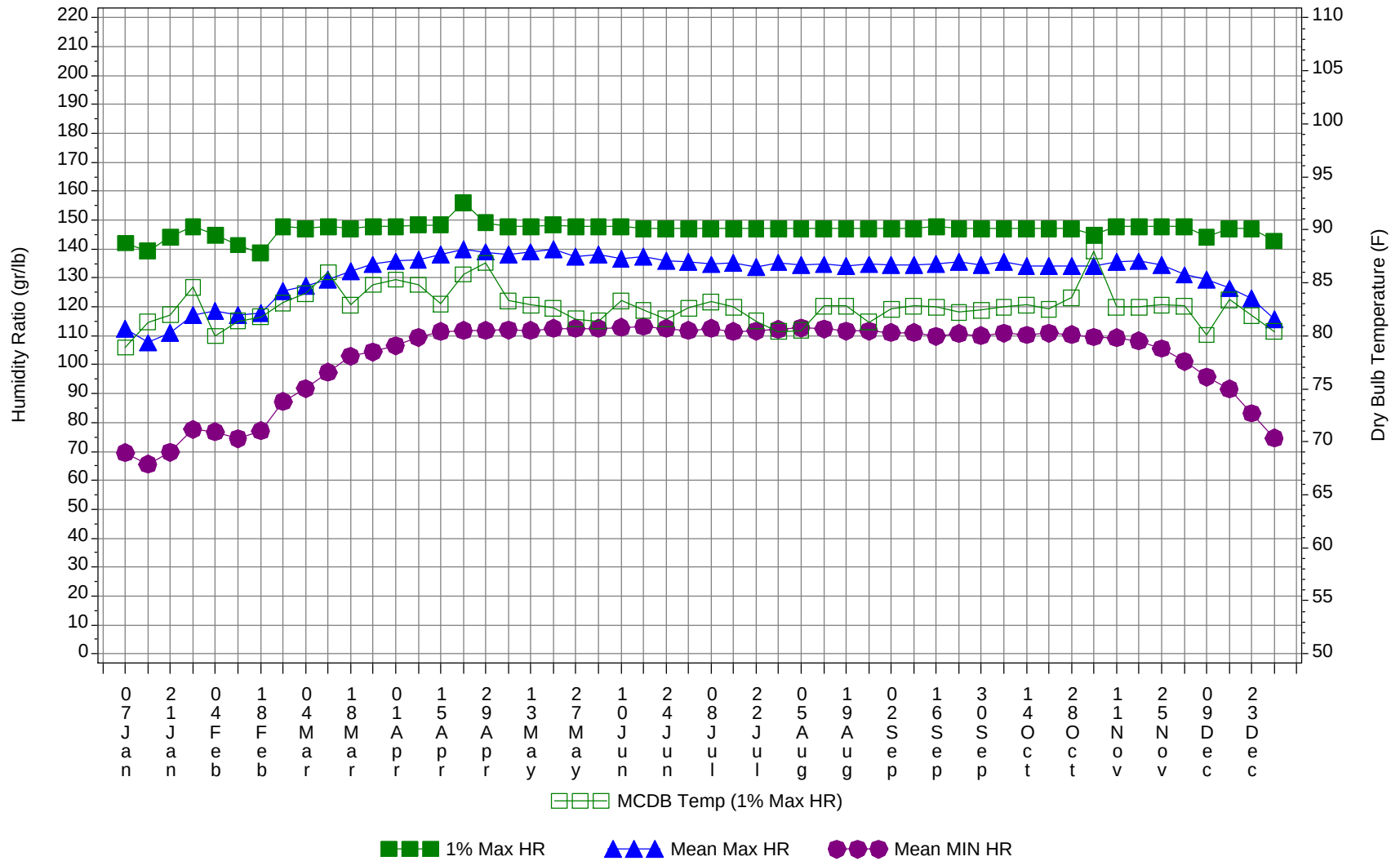
	Annual				
Temperature Range (° F)	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (° F)
100/104		8	0	8	71.3
95/ 99		166	15	181	73.9
90/ 94	0	637	98	735	74.7
85/ 89	2	777	237	1016	75
80/ 84	73	759	617	1449	74.5
75/ 79	719	426	1087	2232	73.3
70/ 74	1685	140	769	2594	70.8
65/ 69	299	5	81	385	65.9
60/ 64	117	0	14	131	60.1
55/ 59	24	0	0	24	55.8
50/ 54	1		0	1	52
45/ 49			0	0	41

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



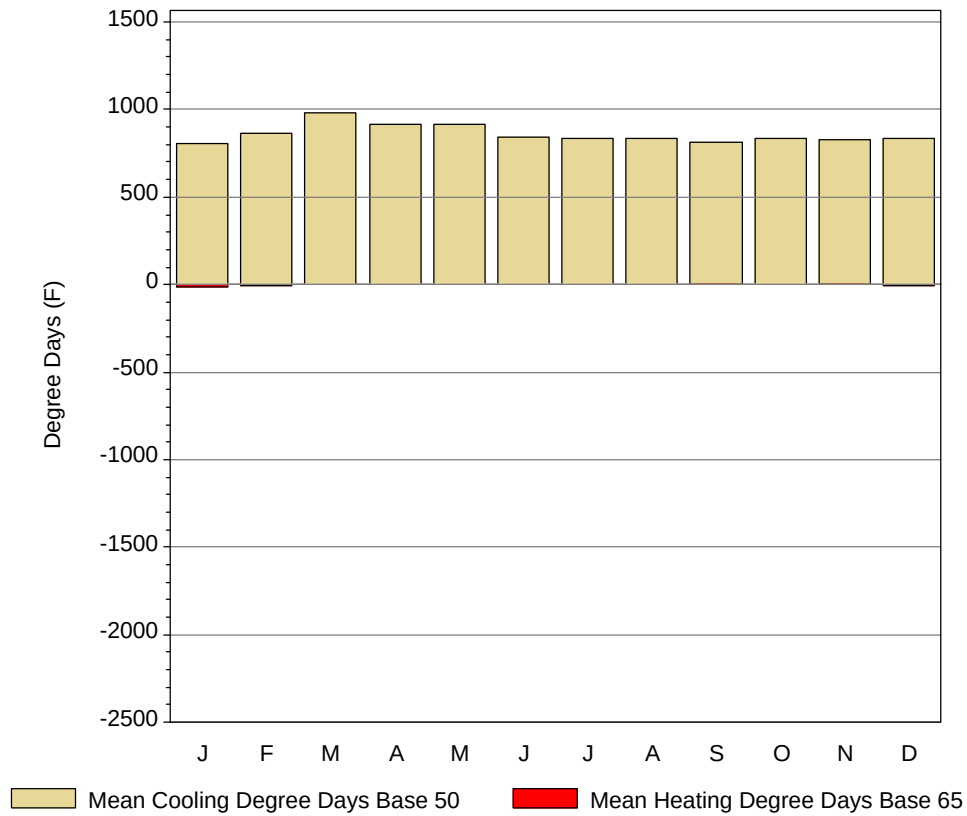
Long Term Humidity and Dry Bulb Temperature Summary



Long Term Humidity and Dry Bulb Temperature Summary

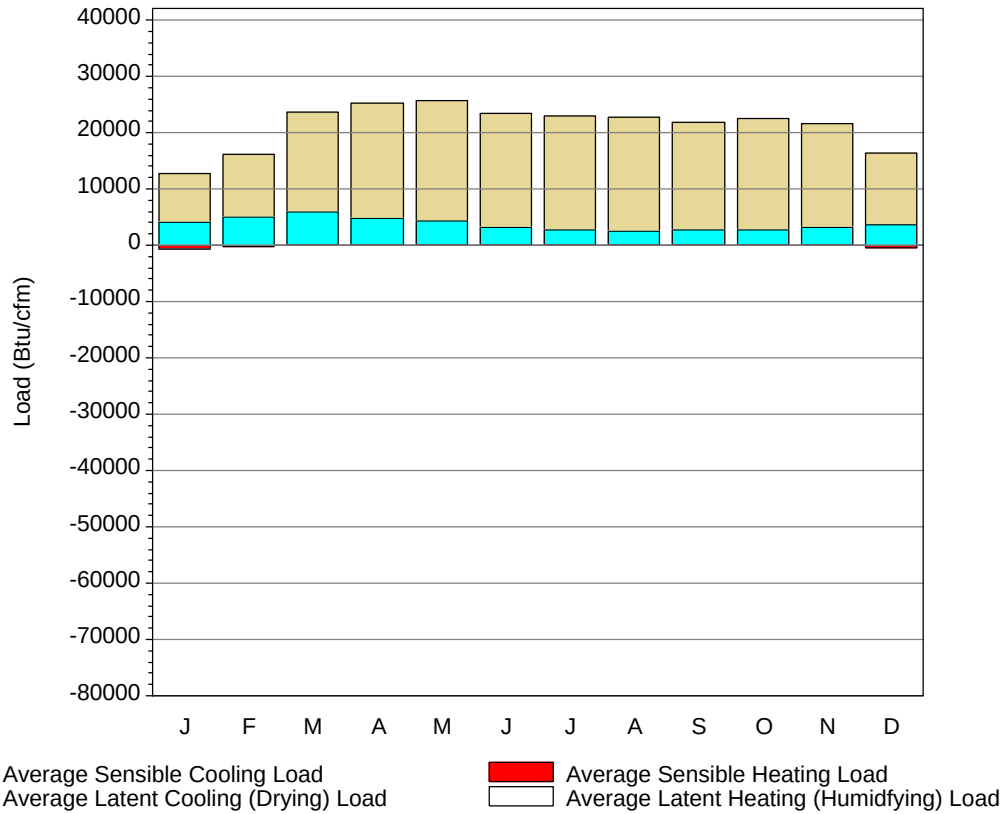
Week Ending	1.0% Temp (° F)	MCWB@ 1% Temp (° F)	Mean Max Temp (° F)	Mean Min Temp (° F)	99% Temp (° F)	1.0% HR (gr/lb)	MCDB@ 1% HR (° F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	95	68.3	89.9	64.9	57	142.1	78.9	112.4	69.6
14-Jan	95	67.9	89.9	64.2	57	139.3	81.3	107.6	65.6
21-Jan	97	68.1	91.3	64.6	56	144.2	82	111.1	69.7
28-Jan	97	70	92.3	67.1	59	147.7	84.6	117.3	77.6
4-Feb	99	70.1	93.7	68.6	60	144.9	80	118.6	76.8
11-Feb	99	70.1	93.8	68.6	60	141.4	81.4	117.2	74.4
18-Feb	99	71	93.9	69.6	61	138.6	81.8	117.9	77.1
25-Feb	99	73.2	94.5	71.4	64	147.7	83.1	125.4	87.3
4-Mar	99	72.9	93.9	72.4	67	147	84	127.4	91.7
11-Mar	99	73.1	93.3	73.1	70	147.7	86	129.5	97.4
18-Mar	99	73.5	92.2	72.8	70	147	82.9	132.3	102.9
25-Mar	98	75.7	92.8	73.3	69	147.7	84.8	134.7	104.5
1-Apr	98	76.5	92.9	73.3	69	147.7	85.3	135.8	106.6
8-Apr	97	77.6	90.7	72.9	69	148.4	84.8	136.4	109.5
15-Apr	96	76.6	90.3	72.6	69	148.4	83	138	111.5
22-Apr	96	77.8	90.6	72.9	70	156.1	85.8	140	111.8
29-Apr	97	77.3	90.3	72.8	70	149.1	86.9	139	111.9
6-May	97	76.5	89.9	72.8	70	147.7	83.3	138.1	112
13-May	97	77	89.9	72.9	70	147.7	82.9	139	111.8
20-May	95	76.9	89.2	72.5	70	148.4	82.6	139.9	112.6
27-May	95	77.4	88.7	72.3	69	147.7	81.6	137.4	112.6
4-Jun	93	77.1	87.9	71.9	69	147.7	81.4	138	112.5
10-Jun	93	77.8	87.1	71.7	68	147.7	83.3	136.8	113
17-Jun	93	76.7	87.4	71.9	69	147	82.4	137.5	113.2
24-Jun	91	76.7	86.1	71.4	68	147	81.6	136	112.5
1-Jul	91	76.7	86.2	71.3	69	147	82.6	135.7	111.8
8-Jul	91	77.6	85.4	71.4	68	147	83.2	134.7	112.5
15-Jul	91	76.4	85.7	71.1	68	147	82.7	135.3	111.5
22-Jul	90	76.9	84.8	71.1	68	147	81.4	133.9	111.6
29-Jul	90	76.9	85	71	68	147	80.4	135.4	112.2
5-Aug	90	77.2	85.1	70.9	68	147	80.5	134.6	112.8
12-Aug	90	76.5	85.1	71.2	68	147	82.8	134.7	112.3
19-Aug	90	77	85	70.8	68	147	82.8	134.2	111.6
26-Aug	90	76.3	86	71.1	68	147	81.3	134.7	111.7
2-Sep	91	76.9	86.6	70.8	68	147	82.5	134.5	111.1
9-Sep	91	76.4	86.6	70.8	68	147	82.8	134.6	111.1
16-Sep	91	76.7	86.7	70.5	68	147.7	82.7	135	109.9
23-Sep	91	76.6	87	70.8	68	147	82.2	135.6	110.7
30-Sep	91	76.8	86.6	70.8	68	147	82.4	134.6	110
7-Oct	91	77.3	86.7	71.1	68	147	82.7	135.6	110.9
14-Oct	91	77	86.4	70.7	68	147	82.9	134.1	110.3
21-Oct	91	77.1	86.6	70.8	68	147	82.5	134.1	111
28-Oct	91	77.3	86.2	70.6	68	147	83.6	134.2	110.4
4-Nov	92	76.3	86.8	70.6	68	144.9	88	134.1	109.6
11-Nov	92	75.5	87.4	70.5	68	147.7	82.7	135.5	109.3
18-Nov	93	75.1	88	70.7	68	147.7	82.7	135.8	108.2
25-Nov	93	76	88.8	70.3	67	147.7	82.9	134.4	105.6
2-Dec	94	74.9	89.7	69.7	64	147.7	82.8	131.1	101.2
9-Dec	93	72.4	89.5	69	64	144.2	80.1	129.5	95.7
16-Dec	94	73.9	90	67.9	62	147	83.4	126.4	91.6
23-Dec	94	70.6	90.3	66.5	61	147	81.9	122.9	83.2
31-Dec	95	69.1	90	65.5	59	142.8	80.4	115.6	74.6

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



	Mean Cooling Degree Days (°F) Base 50	Mean Cooling Degree Days (°F) Base 65	Mean Heating Degree Days (°F) Base 65
Month			
JAN	809.1	370.7	13.6
FEB	863.3	442.1	2.8
MAR	984.7	519.7	0
APR	919.3	469.3	0
MAY	918.1	453.1	0
JUN	840.9	390.9	0
JUL	835.2	370.2	0
AUG	831.7	366.7	0
SEP	811.8	361.8	0.1
OCT	834.4	369.5	0
NOV	830	380.2	0.2
DEC	838.7	378.4	4.7
ANN	10317.2	4872.6	21.4

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	4048	-738	8676	-18
FEB	5101	-187	10994	-9
MAR	5851	-5	17773	0
APR	4849	-3	20466	0
MAY	4282	-1	21427	0
JUN	3150	-4	20264	0
JUL	2643	-8	20296	0
AUG	2576	-8	20193	0
SEP	2743	-17	19002	0
OCT	2722	-15	19699	0
NOV	3244	-35	18360	0
DEC	3770	-380	12623	0
ANN	44979	-1401	209773	-27

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													

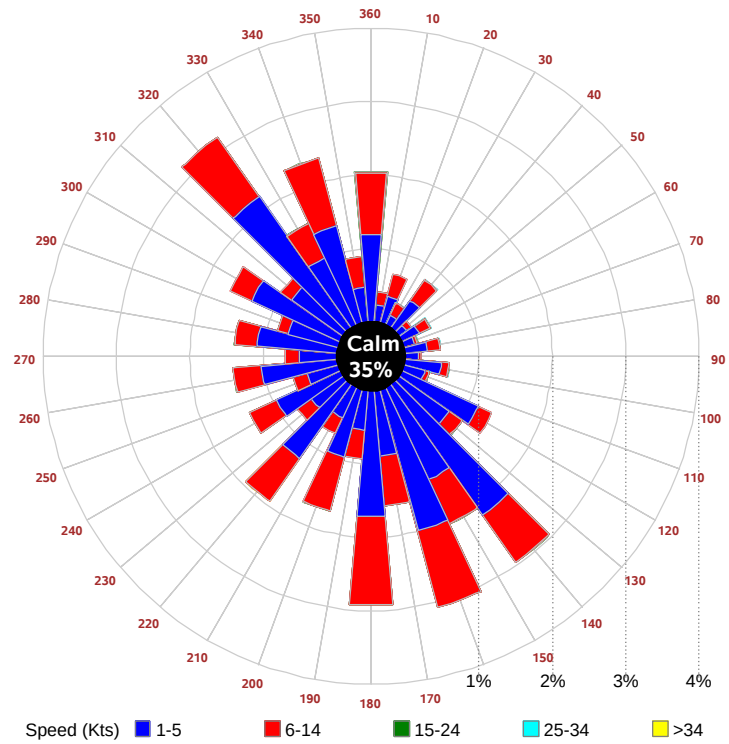
Average Annual Solar Radiation - Nearest Available Site Source: National Renewable Energy Laboratory, Golden CO, 1995

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													

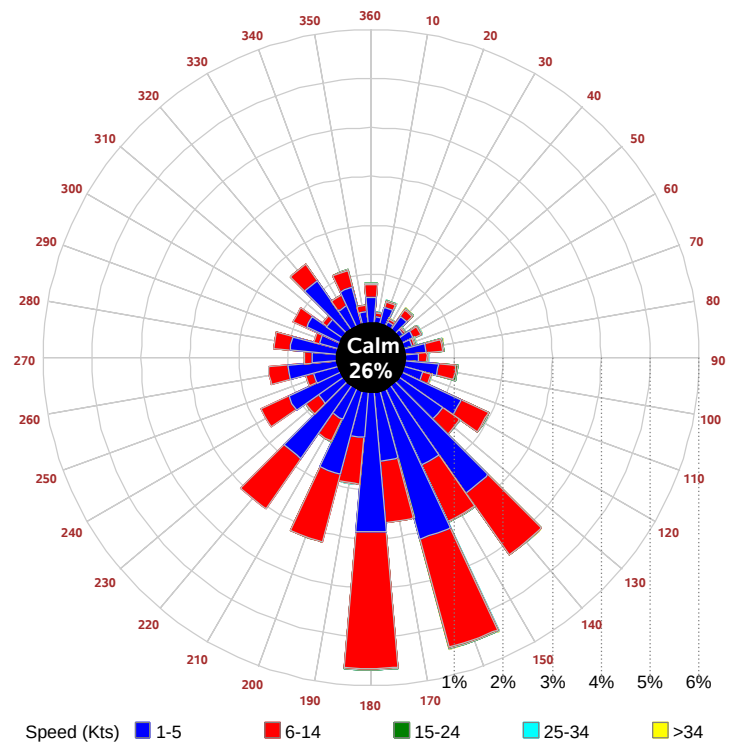
AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9												
		March						June				
		9am	11am	1pm	3pm	5pm		9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear											
	M.Cloudy											
NORTH	M.Clear											
	M.Cloudy											
EAST	M.Clear			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

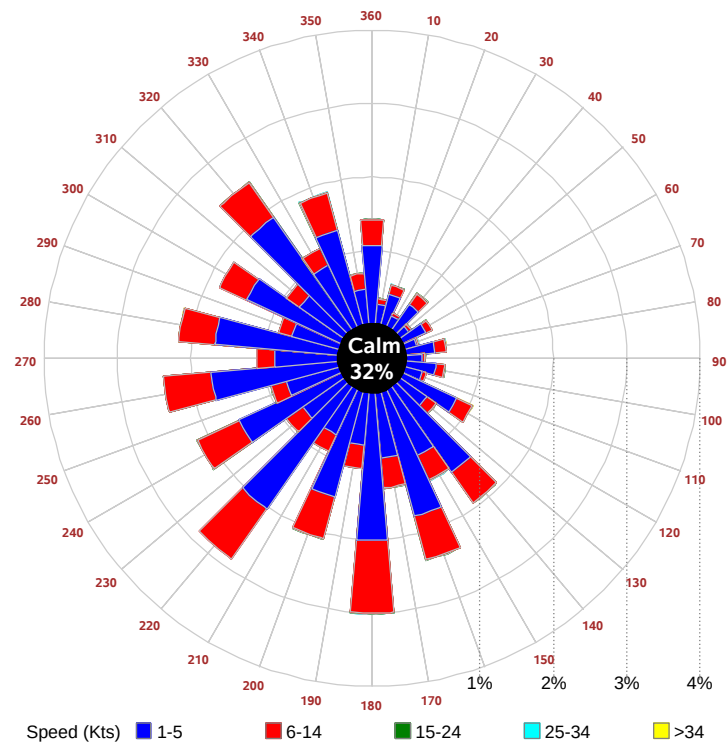
Wind Summary - December, January, and February



Wind Summary - March, April, and May



Wind Summary - June, July, and August



Wind Summary - September, October, and November

