FLORENNES, BE	
Latitude = 50.24 N	Station ID = ICAO_EBFS
Longitude = 4.65 E	Elevation = 285 Meters
Period of Record = 1988 To 2017	Average Pressure = 981.0 mb

Design Criteria Data

	Mean Coincident (Average) Values				
Dry Bulb Temperature (T)	**Design Value (°C)**	**Wet Bulb Temperature (°C)**	**Humidity Ratio (g/kg)**	**Wind Speed (m/s)**	**Prevailing Direction (NSEW)**
Median of Extreme Highs	32	21	11	3.2	S
0.4% Occurrence	28	19	11	3.2	VRB
1.0% Occurrence	26	18	11	3.2	VRB
2.0% Occurrence	24	18	10	3.3	VRB
Mean Daily Range	7	-	-	-	VRB
97.5% Occurrence	-3	-3	3	3.2	VRB
99.0% Occurrence	-5	-6	2	3.1	VRB
99.6% Occurrence	-7	-8	2	2.8	VRB
Median of Extreme Lows	-9	-9	1	2.8	VRB

Wet Bulb Temperature (T_{wb})	**Design Value (°C)**	**Dry Bulb Temperature (°C)**	**Humidity Ratio (g/kg)**	**Wind Speed (m/s)**	**Prevailing Direction (NSEW)**
Median of Extreme Highs	25	30	16	3.1	SSW
0.4% Occurrence	22	27	13	3	VRB
1.0% Occurrence	20	25	12	3.1	VRB
2.0% Occurrence	20	24	12	3	VRB

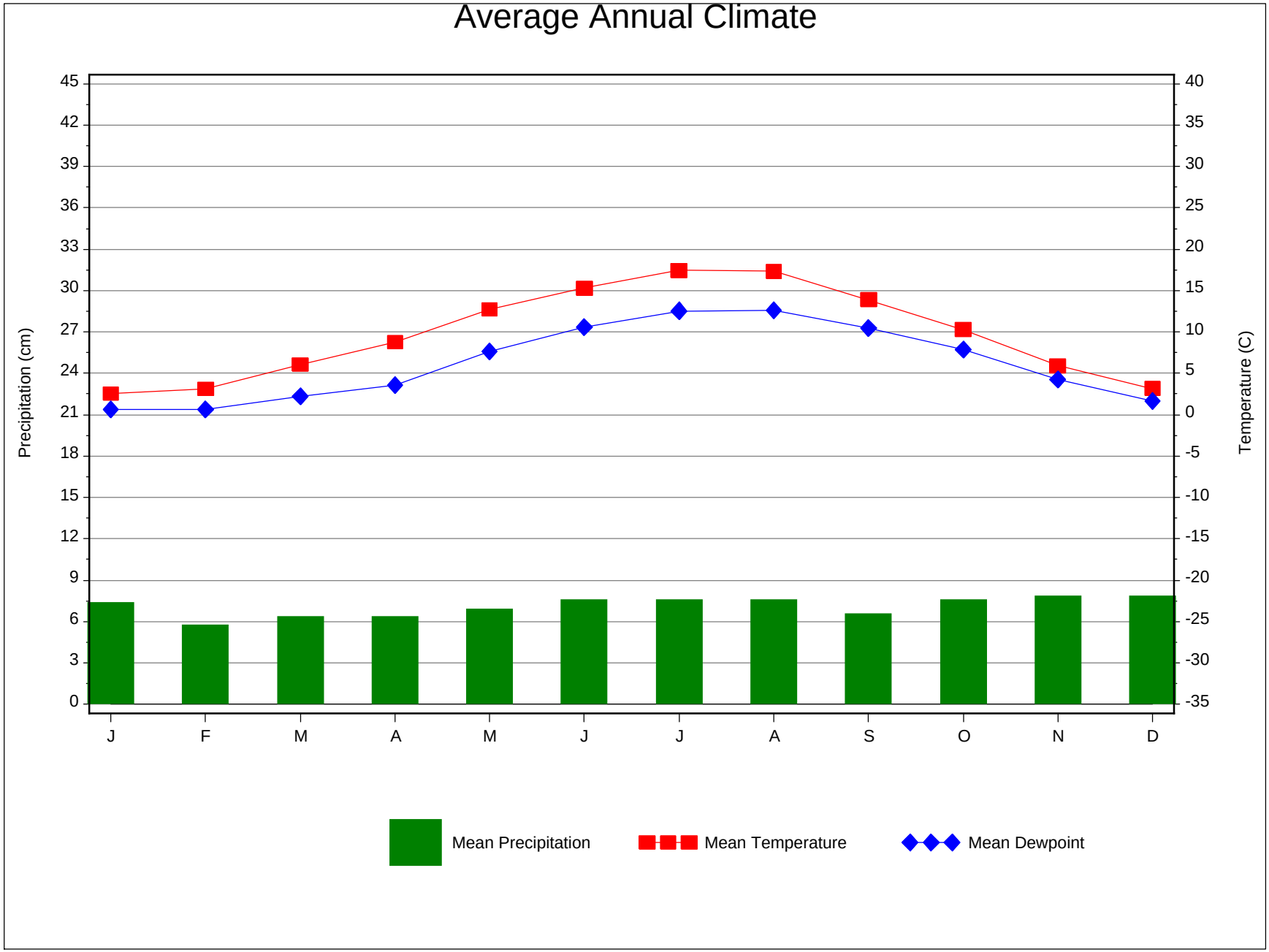
Humidity Ratio (HR)	**Design Value (g/kg)**	**Dry Bulb Temperature (°C)**	**Vapor Pressure (kPa)**	**Wind Speed (m/s)**	**Prevailing Direction (NSEW)**
Median of Extreme Highs	15	26	78.76	2.8	VRB
0.4% Occurrence	14	22	69.91	2.9	VRB
1.0% Occurrence	13	21	65.83	3	VRB
2.0% Occurrence	12	20	63.41	3	VRB

Air Conditioning/ Humid Area Criteria	**Threshold**	**T ≥ 33.9 °C**	**T ≥ 26.7 °C**	**Twb≥22.8 °C**	**Twb≥19.4 °C**
	# of Hours	1	83	3	100

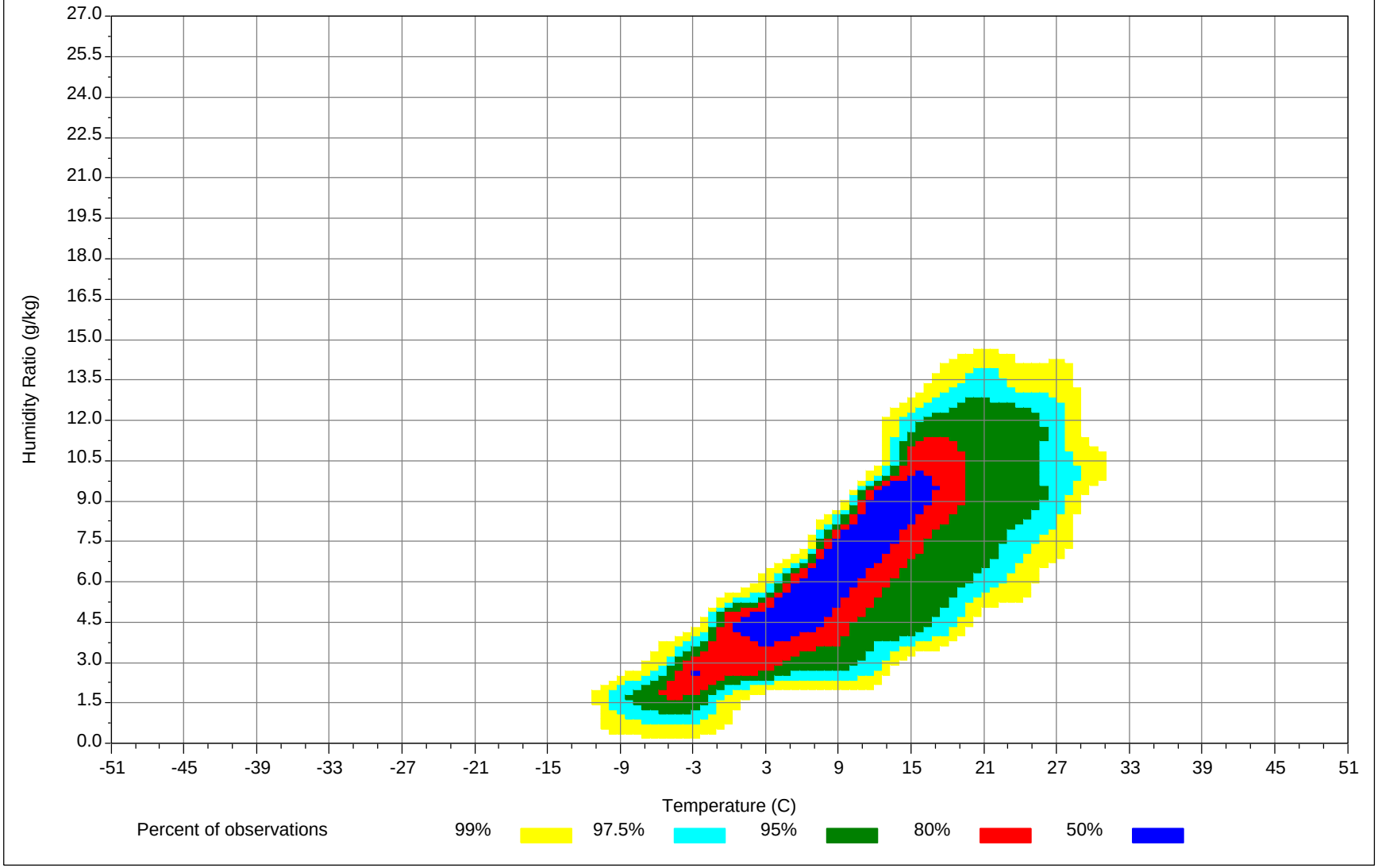
Other Site Data

Weather Region	Rain Rate 100 Year Recurrence (cm/hr)	Basic Wind Speed 3 sec gust @ 10 m 50 Year Recurrence (m/s)	Ventilation Cooling Load Index (kWh/l/s/yr) Base 24° C-RH 60% Latent + Sensible
6	N/A	N/A	0.1 + 0.1
Ground Water Temperature (°C) 15 Meter Depth*	Frost Depth 50 Year Recurrence (cm)	Ground Snow Load 50 Year Recurrence (kN/m^2)	Average Annual Freeze-Thaw Cycles (#)
11.1	N/A	N/A	31

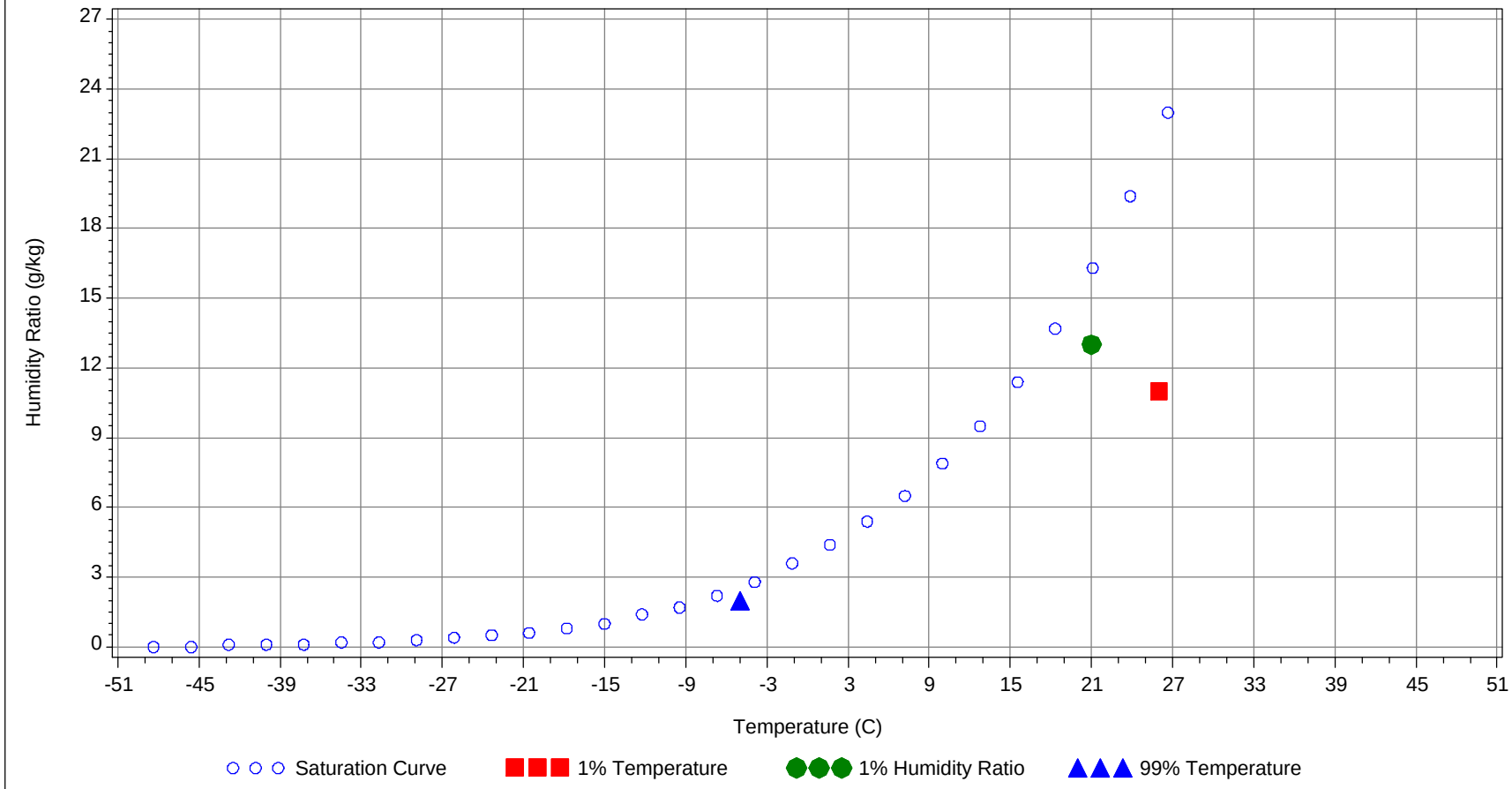
*Note: Temperatures at greater depths can be estimated by adding 0.83°C per 30 meters additional depth.


Average Annual Climate
Precipitation (cm)
Temperature (C)
45
42
39
36
33
30
27
24
21
18
15
12
9
6
3
0
40
35
30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
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



	(°C) / (g/kg)	MCDB (°C)	MCWB (°C)	MCDP (°C)	MCHR (g/kg)	Enthalpy (kJ/kg)
1.0% Dry Bulb	26.0		18		11.0	53.4
99.0% Dry Bulb	-5.0				2.0	0.3
1.0% Humidity Ratio	13.0	21.0	18.4	17.1		53.1

Dry-Bulb Temperature Hours For An Average Year

	January					February					March				
Temperature Range (°C)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°C)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°C)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°C)**
36/ 38															
33/ 35															
30/ 32															
27/ 29															
24/ 26															
21/ 23												0	0	0	12.6
18/ 20												2	1	3	11.5
15/ 17							1	0	1	10.4	0	14	7	21	10.2
12/ 14	0	1	0	1	10.4	0	5	3	8	8.7	3	22	18	43	9.1
9/ 11	8	13	11	32	9.2	7	15	14	36	8.2	18	39	38	95	8.1
6/ 8	41	54	48	143	6.3	37	54	51	142	6.1	66	79	76	221	5.8
3/ 5	52	60	56	168	3.8	48	54	53	155	3.5	58	46	55	159	3.3
0/ 2	74	71	75	220	0.8	70	59	64	193	0.7	74	36	42	152	0.7
-3/ -1	40	31	35	106	-2.2	37	23	26	86	-2.2	24	7	9	40	-2.3
-6/ -4	19	13	14	46	-5.1	14	8	8	30	-4.9	5	2	2	9	-4.9
-9/ -7	11	5	7	23	-7.4	8	4	4	16	-7.8	1	0	0	1	-7.8
-12/-10	2	1	0	3	-10.5	2	1	1	4	-10.7	0			0	-10.6
-15/-13	0	0	0	0	-13.2	1	0	0	1	-13.3					
-18/-16	0	0	0	0	-15.6	0	0		0	-15.4					

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.

Dry-Bulb Temperature Hours For An Average Year

	April					May					June				
Temperature Range (°C)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°C)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°C)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°C)**
36/ 38															
33/ 35												0		0	23
30/ 32							0	0	0	18.4		2	1	3	19.7
27/ 29							2	1	3	17.8		5	3	8	19
24/ 26		1	0	1	14.6		5	3	8	16.9	0	12	7	19	18
21/ 23		7	3	10	13.4	0	24	14	38	15.1	3	34	23	60	16.7
18/ 20		11	7	18	12.2	3	29	21	53	14.1	9	39	35	83	15.2
15/ 17	3	29	21	53	10.8	21	60	53	134	12.4	49	75	71	195	13.5
12/ 14	13	42	35	90	9.3	47	57	61	165	10.7	69	53	59	181	11.5
9/ 11	33	51	52	136	8	66	45	51	162	9	72	18	32	122	9.6
6/ 8	75	66	72	213	5.7	80	24	39	143	6.5	35	2	9	46	7.3
3/ 5	62	26	35	123	3.4	26	2	6	34	4	3	0	0	3	4.4
0/ 2	46	7	15	68	0.8	6		0	6	1.7	0			0	1.2
-3/ -1	8	0	1	9	-2.2										
-6/ -4	0			0	-3.8										
-9/ -7															
-12/-10															
-15/-13															
-18/-16															

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 (°C)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°C)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°C)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°C)**
36/ 38		0		0	19.5		0		0	20.5					
33/ 35		0	0	0	20.7		0	0	0	21					
30/ 32		4	2	6	20.1	0	5	2	7	20.5		0		0	19
27/ 29	0	13	8	21	19.5	0	12	6	18	19.4	0	2	0	2	18
24/ 26	1	23	15	39	18.5	1	20	13	34	18.5	0	6	2	8	17.9
21/ 23	8	50	40	98	17.2	6	48	36	90	17	0	20	9	29	16.8
18/ 20	25	50	47	122	15.8	21	54	48	123	15.8	3	30	20	53	15.4
15/ 17	81	75	80	236	14.2	82	83	87	252	14.4	33	86	65	184	13.7
12/ 14	86	29	45	160	12.1	92	24	46	162	12.2	71	66	79	216	11.8
9/ 11	42	3	11	56	10.1	41	2	10	53	10	75	26	50	151	9.8
6/ 8	6		0	6	8	7	0	1	8	7.9	52	4	14	70	7.5
3/ 5	0			0	5						5	0	0	5	4.6
0/ 2											0			0	2.3
-3/ -1															
-6/ -4															
-9/ -7															
-12/-10															
-15/-13															
-18/-16															

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 (°C)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°C)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°C)**	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°C)**
36/ 38															
33/ 35															
30/ 32															
27/ 29															
24/ 26		0		0	16.5										
21/ 23		4	1	5	16.5										
18/ 20		12	4	16	15.2		0		0	13.1					
15/ 17	12	41	29	82	13.7	0	4	2	6	12.9		0	0	0	10.6
12/ 14	43	66	56	165	11.6	9	17	14	40	11	1	3	1	5	10.8
9/ 11	62	60	63	185	9.5	26	40	33	99	9.3	12	17	18	47	9.3
6/ 8	73	48	67	188	6.7	72	87	79	238	6.6	49	58	50	157	6.5
3/ 5	36	12	21	69	4.1	56	45	56	157	4	50	58	59	167	3.9
0/ 2	18	4	7	29	1.3	54	36	44	134	1.1	75	72	73	220	0.9
-3/ -1	3	0	0	3	-1.9	17	7	10	34	-1.9	41	28	34	103	-2
-6/ -4	0	0		0	-4	5	2	3	10	-4.8	14	9	9	32	-4.8
-9/ -7						1	0	0	1	-7.6	5	2	2	9	-7.5
-12/-10						0	0		0	-9.8	1	0	0	1	-10.8
-15/-13											0	0	0	0	-13.4
-18/-16															

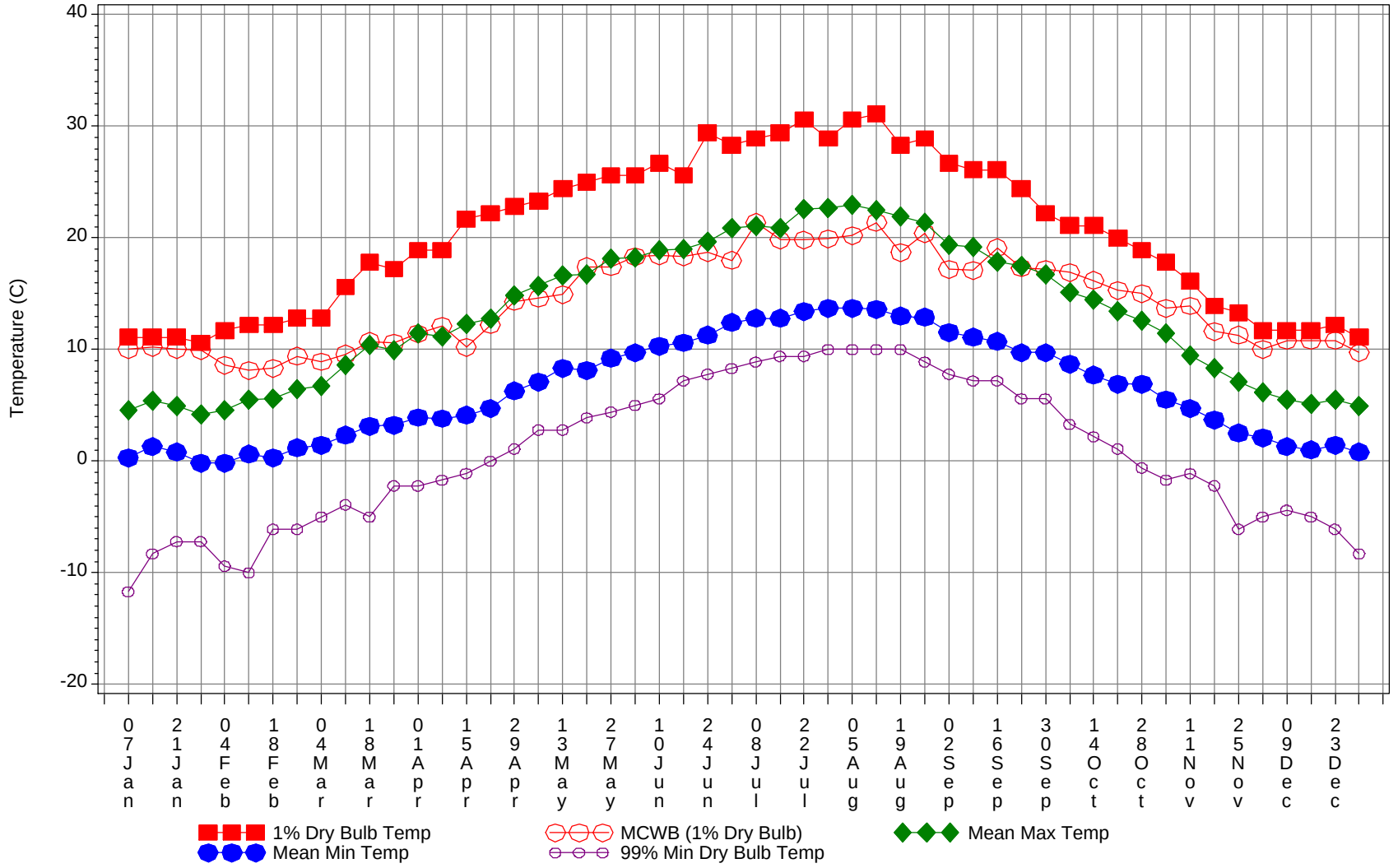
Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary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

Dry-Bulb Temperature Hours For An Average Year

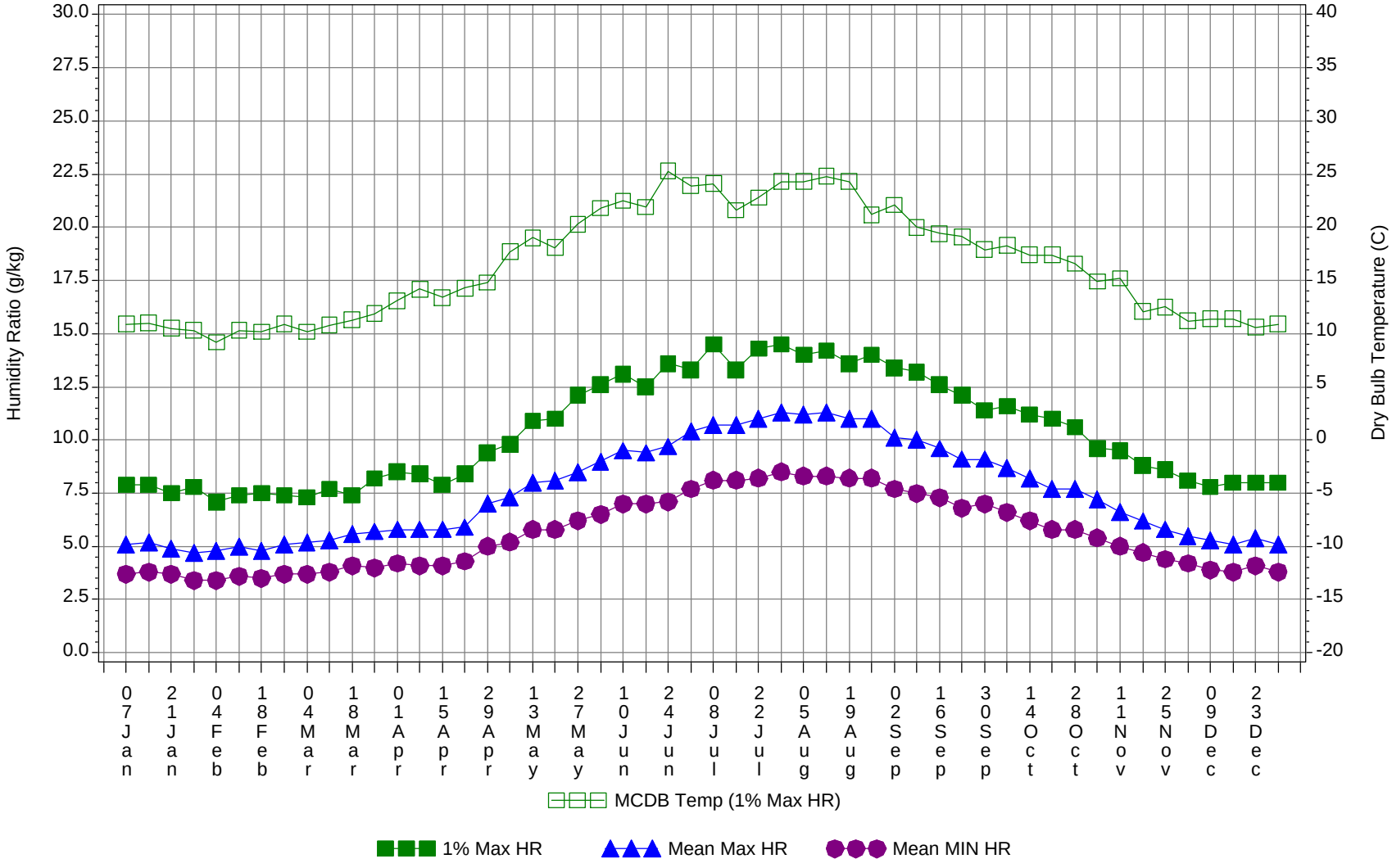
	Annual				
Temperature Range (°C)	**01 To 08 LST**	**09 To 16 LST**	**17 to 00 LST**	**Total Obs**	**MCWB (°C)**
36/ 38		0		0	20.2
33/ 35		1	0	1	21
30/ 32	0	11	5	16	20.2
27/ 29	0	34	18	52	19.2
24/ 26	2	67	40	109	18.2
21/ 23	18	187	125	330	16.6
18/ 20	60	228	181	469	15.3
15/ 17	279	468	414	1161	13.6
12/ 14	434	384	417	1235	11.3
9/ 11	461	329	382	1172	9.2
6/ 8	595	477	507	1579	6.4
3/ 5	396	304	342	1042	3.7
0/ 2	416	286	320	1022	0.8
-3/ -1	171	97	115	383	-2.2
-6/ -4	57	34	36	127	-4.9
-9/ -7	26	11	14	51	-7.6
-12/-10	5	2	1	8	-10.6
-15/-13	1	1	1	3	-13.3
-18/-16	1	0	0	1	-15.5

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



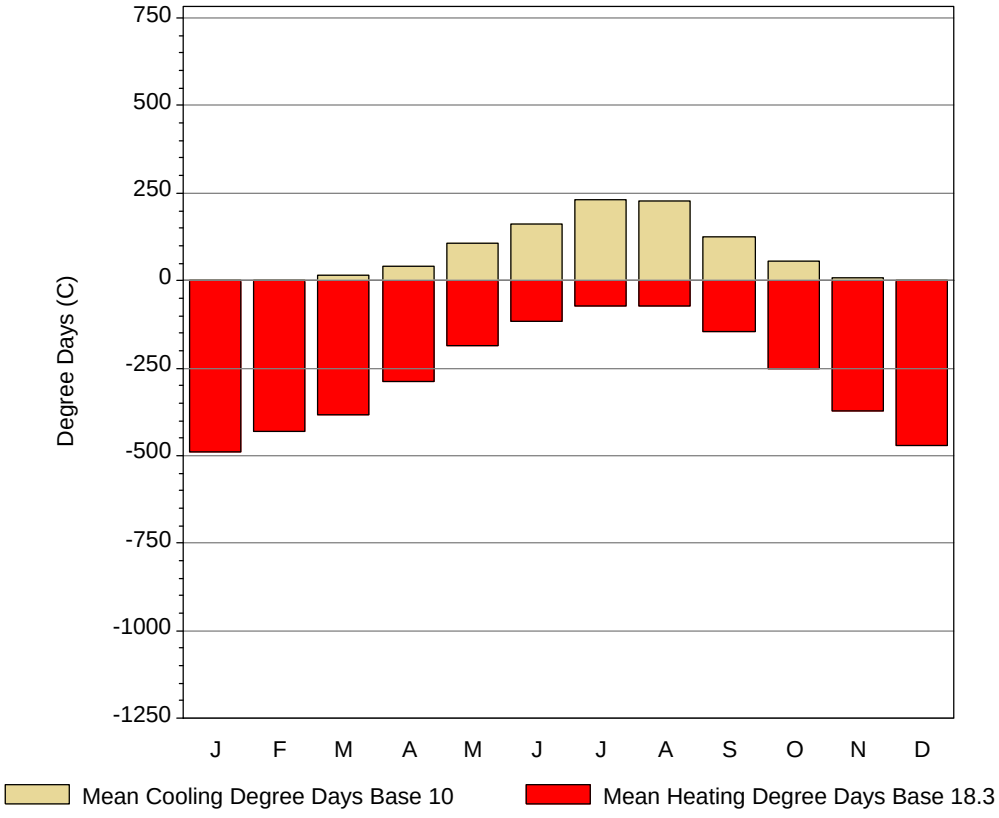
Long Term Humidity and Dry Bulb Temperature Summary



Long Term Humidity and Dry Bulb Temperature Summary

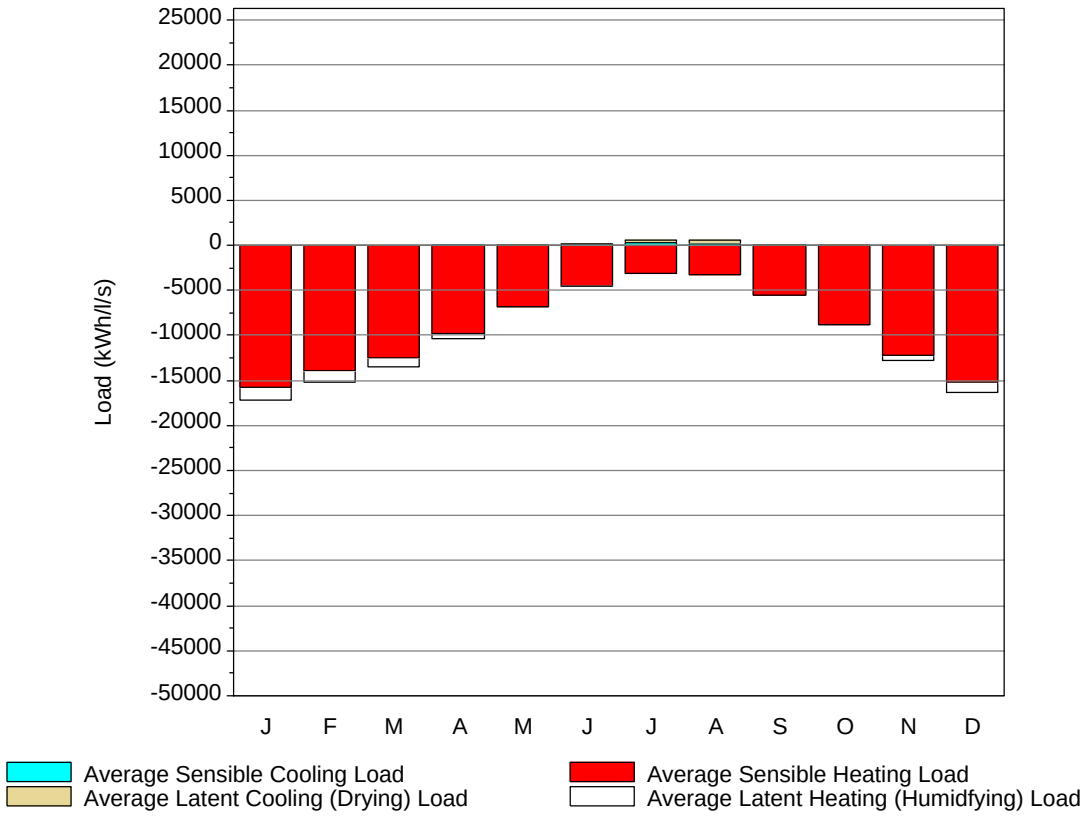
Week Ending	1.0% Temp (°C)	MCWB@ 1% Temp (°C)	Mean Max Temp (°C)	Mean Min Temp (°C)	99% Temp (°C)	1.0% HR (g/kg)	MCDB@ 1% HR (°C)	Mean Max HR (g/kg)	Mean Min HR (g/kg)
7-Jan	11.1	10	4.6	0.3	-11.7	7.9	10.9	5.1	3.7
14-Jan	11.1	10.2	5.4	1.3	-8.3	7.9	11	5.2	3.8
21-Jan	11.1	10	4.9	0.8	-7.2	7.5	10.5	4.9	3.7
28-Jan	10.6	9.9	4.2	-0.2	-7.2	7.8	10.3	4.7	3.4
4-Feb	11.7	8.6	4.6	-0.2	-9.4	7.1	9.2	4.8	3.4
11-Feb	12.2	8.1	5.5	0.6	-10	7.4	10.3	5	3.6
18-Feb	12.2	8.3	5.6	0.3	-6.1	7.5	10.2	4.8	3.5
25-Feb	12.8	9.4	6.4	1.2	-6.1	7.4	10.9	5.1	3.7
4-Mar	12.8	8.9	6.7	1.4	-5	7.3	10.2	5.2	3.7
11-Mar	15.6	9.6	8.6	2.3	-3.9	7.7	10.8	5.3	3.8
18-Mar	17.8	10.7	10.4	3.1	-5	7.4	11.3	5.6	4.1
25-Mar	17.2	10.6	9.9	3.2	-2.2	8.2	11.9	5.7	4
1-Apr	18.9	11.4	11.4	3.9	-2.2	8.5	13.1	5.8	4.2
8-Apr	18.9	12.1	11.2	3.8	-1.7	8.4	14.2	5.8	4.1
15-Apr	21.7	10.2	12.3	4.1	-1.1	7.9	13.4	5.8	4.1
22-Apr	22.2	12.2	12.8	4.7	0	8.4	14.3	5.9	4.3
29-Apr	22.8	14.3	14.8	6.3	1.1	9.4	14.8	7	5
6-May	23.3	14.6	15.7	7.1	2.8	9.8	17.7	7.3	5.2
13-May	24.4	14.9	16.6	8.3	2.8	10.9	19	8	5.8
20-May	25	17.4	16.7	8.1	3.9	11	18.1	8.1	5.8
27-May	25.6	17.4	18.1	9.2	4.4	12.1	20.3	8.5	6.2
4-Jun	25.6	18.3	18.2	9.7	5	12.6	21.8	9	6.5
10-Jun	26.7	18.4	18.9	10.3	5.6	13.1	22.5	9.5	7
17-Jun	25.6	18.3	19	10.6	7.2	12.5	21.9	9.4	7
24-Jun	29.4	18.7	19.7	11.3	7.8	13.6	25.3	9.7	7.1
1-Jul	28.3	18	20.9	12.4	8.3	13.3	23.9	10.4	7.7
8-Jul	28.9	21.4	21.1	12.8	8.9	14.5	24.1	10.7	8.1
15-Jul	29.4	19.8	20.9	12.8	9.4	13.3	21.6	10.7	8.1
22-Jul	30.6	19.8	22.6	13.4	9.4	14.3	22.8	11	8.2
29-Jul	28.9	19.9	22.7	13.7	10	14.5	24.3	11.3	8.5
5-Aug	30.6	20.2	23	13.7	10	14	24.3	11.2	8.3
12-Aug	31.1	21.4	22.5	13.6	10	14.2	24.8	11.3	8.3
19-Aug	28.3	18.7	21.9	13	10	13.6	24.3	11	8.2
26-Aug	28.9	20.4	21.4	12.9	8.9	14	21.2	11	8.2
2-Sep	26.7	17.2	19.4	11.5	7.8	13.4	22.1	10.1	7.7
9-Sep	26.1	17.1	19.2	11.1	7.2	13.2	20	10	7.5
16-Sep	26.1	19.1	17.9	10.7	7.2	12.6	19.4	9.6	7.3
23-Sep	24.4	17.3	17.5	9.7	5.6	12.1	19.1	9.1	6.8
30-Sep	22.2	17.2	16.7	9.7	5.6	11.4	17.9	9.1	7
7-Oct	21.1	16.9	15.1	8.7	3.3	11.6	18.3	8.7	6.6
14-Oct	21.1	16.2	14.5	7.7	2.2	11.2	17.4	8.2	6.2
21-Oct	20	15.3	13.4	6.9	1.1	11	17.4	7.7	5.8
28-Oct	18.9	15	12.6	6.9	-0.6	10.6	16.6	7.7	5.8
4-Nov	17.8	13.7	11.4	5.5	-1.7	9.6	14.9	7.2	5.4
11-Nov	16.1	13.9	9.5	4.7	-1.1	9.5	15.2	6.6	5
18-Nov	13.9	11.6	8.3	3.7	-2.2	8.8	12.1	6.2	4.7
25-Nov	13.3	11.3	7.1	2.5	-6.1	8.6	12.5	5.8	4.4
2-Dec	11.7	10	6.2	2.1	-5	8.1	11.2	5.5	4.2
9-Dec	11.7	10.8	5.5	1.3	-4.4	7.8	11.4	5.3	3.9
16-Dec	11.7	10.8	5.1	1	-5	8	11.4	5.1	3.8
23-Dec	12.2	10.8	5.5	1.4	-6.1	8	10.6	5.4	4.1
31-Dec	11.1	9.7	4.9	0.8	-8.3	8	10.9	5.1	3.8

Degree Days, Heating and Cooling
(Base 18.3 C) & Cooling (Base 10 C)



Month	Mean Cooling Degree Days (°C) Base 10	Mean Cooling Degree Days (°C) Base 18.3	Mean Heating Degree Days (°C) Base 18.3
JAN	1	0	490
FEB	2	0	432
MAR	14	0	382
APR	41	3	290
MAY	107	12	186
JUN	162	24	116
JUL	231	45	73
AUG	226	42	74
SEP	123	10	144
OCT	55	1	251
NOV	9	0	374
DEC	1	0	470
ANN	973	137	3282

Average Ventilation and Infiltration Loads
(Outside Air vs 24C, 60% RH summer; 20C, 30% RH winter)



Month	Average Sensible Cooling Load (kWh/l/s)	Average Sensible Heating Load (kWh/l/s)	Average Latent Cooling Load (kWh/l/s)	Average Latent Heating Load (kWh/l/s)
JAN	0	-15701	0	-1528
FEB	0	-13862	0	-1370
MAR	0	-12553	0	-983
APR	1	-9800	0	-575
MAY	26	-6739	15	-55
JUN	97	-4545	116	-3
JUL	235	-3132	340	0
AUG	223	-3195	289	0
SEP	27	-5479	50	0
OCT	0	-8739	2	-110
NOV	0	-12273	0	-474
DEC	0	-15120	0	-1201
ANN	609	-111138	813	-6300

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													

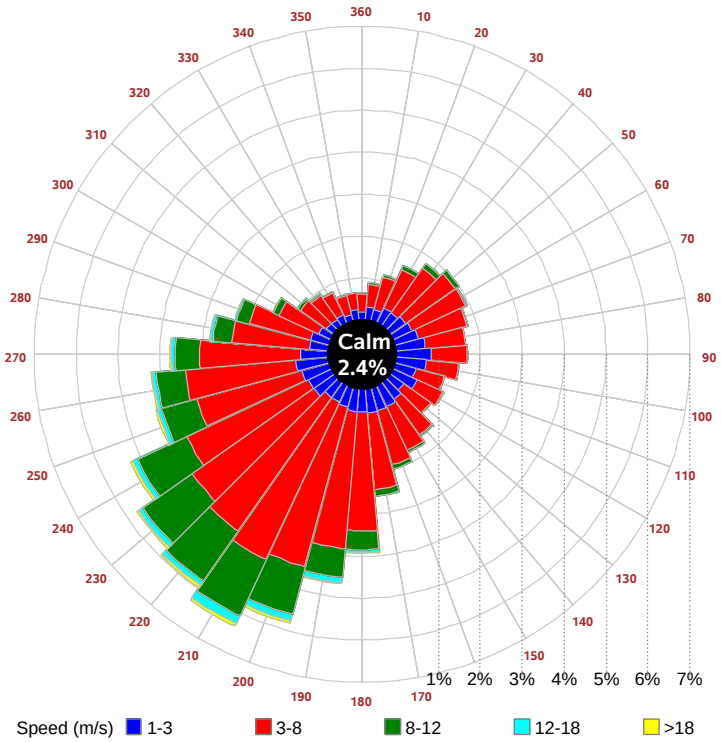
Average Annual Solar Radiation - Nearest Available Site
Source: National Renewable Energy Laboratory, Golden CO, 1995

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													

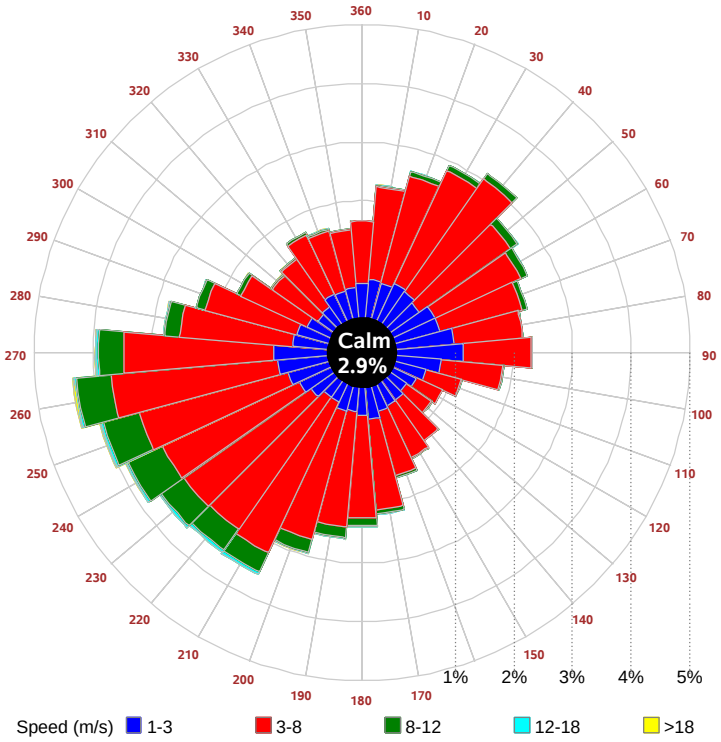
AVERAGE INCIDENT ILLUMINENCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9											
				March					June		
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear										
	M.Cloudy										
NORTH	M.Clear										
	M.Cloudy										
EAST	M.Clear										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

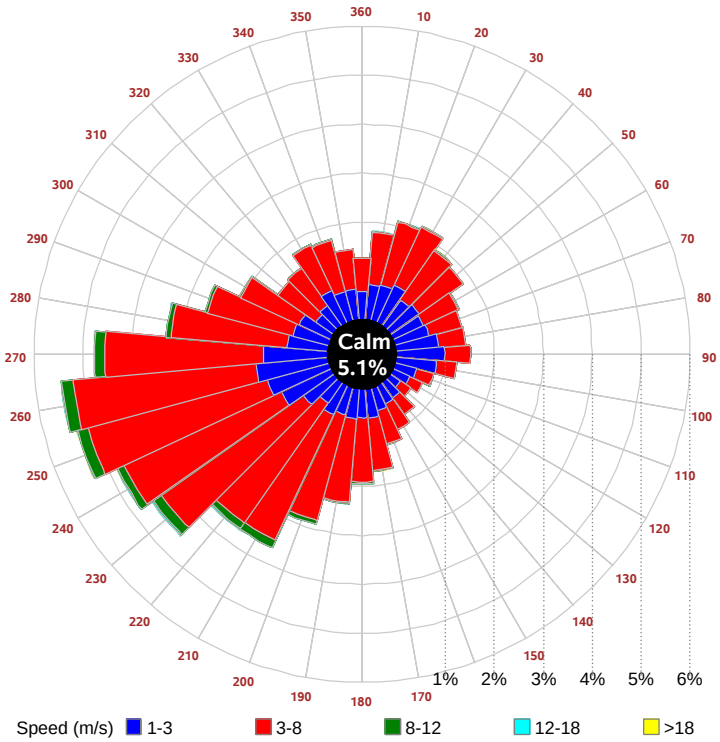
Wind Summary - December, January, and February



Wind Summary - March, April, and May



Wind Summary - June, July, and August



Wind Summary - September, October, and November