

LOUISVILLE INTL STANDIFO, KY

Latitude = 38.17 N

Longitude = 85.74 W

Period of Record = 1988 To 2017

Station ID = ICAO_KSDF

Elevation = 501 Feet

Average Pressure = 29.52 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	97	75	101	9.3	W
0.4% Occurrence	94	75	105	9	WSW
1.0% Occurrence	91	75	105	8.9	SW
2.0% Occurrence	90	74	104	8.9	SW
Mean Daily Range	18	-	-	-	W
97.5% Occurrence	21	19	10	8.2	W
99.0% Occurrence	16	14	8	9	WNW
99.6% Occurrence	10	8	6	8.2	WNW
Median of Extreme Lows	5	4	5	8.3	WNW

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	81	92	142	8.6	WSW
0.4% Occurrence	79	89	131	8.9	SW
1.0% Occurrence	77	87	124	8.4	SW
2.0% Occurrence	76	85	120	7.9	SW

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	144	87	0.94	7.3	SSW
0.4% Occurrence	134	85	0.88	8.1	SW
1.0% Occurrence	128	83	0.84	7.2	S
2.0% Occurrence	126	82	0.83	7.2	SW

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	68	1180	777	2063

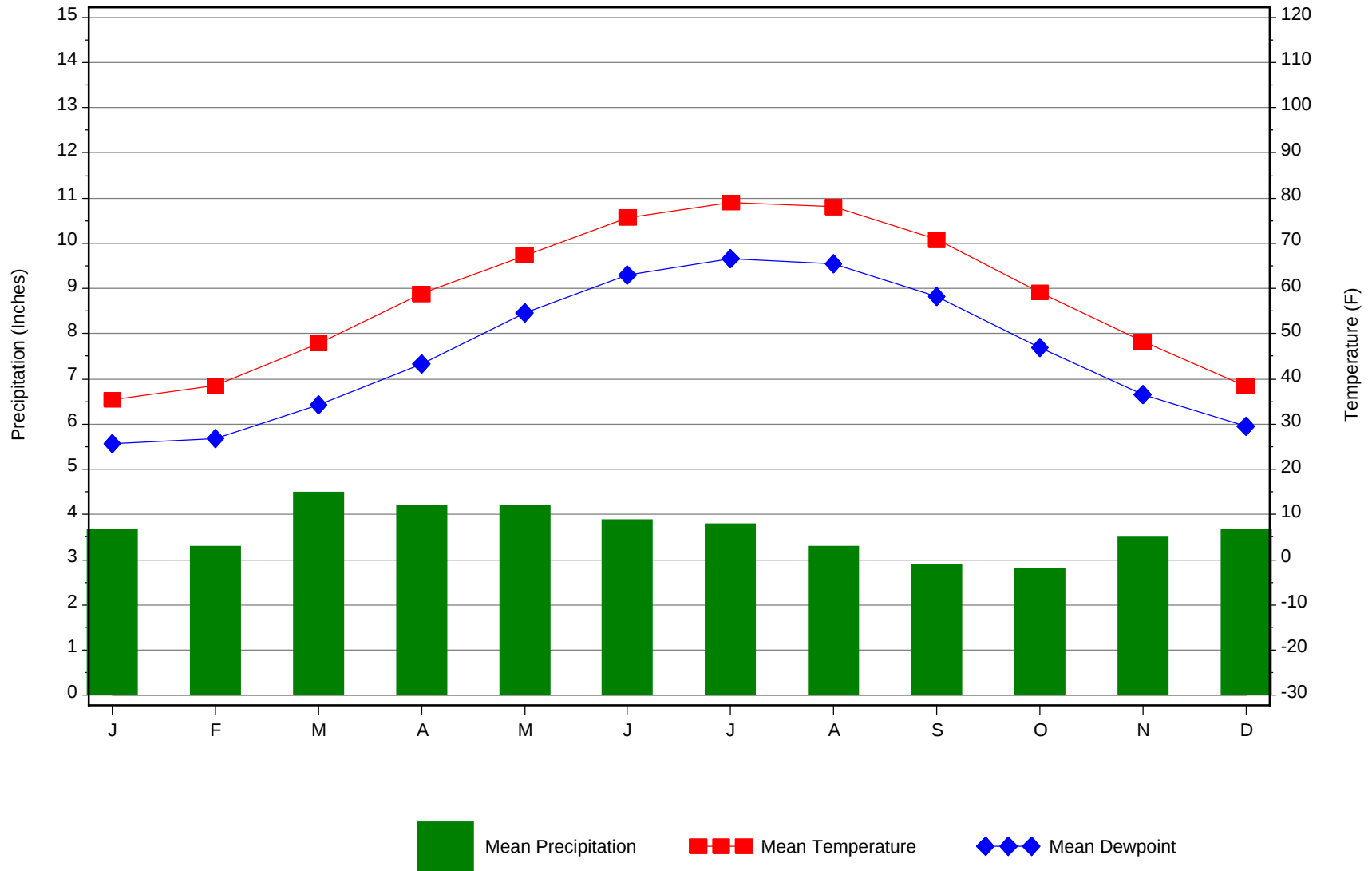
Other Site Data

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
7	3.2	90	3.1 + 1.2
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 (#)
60.7	32	15	43

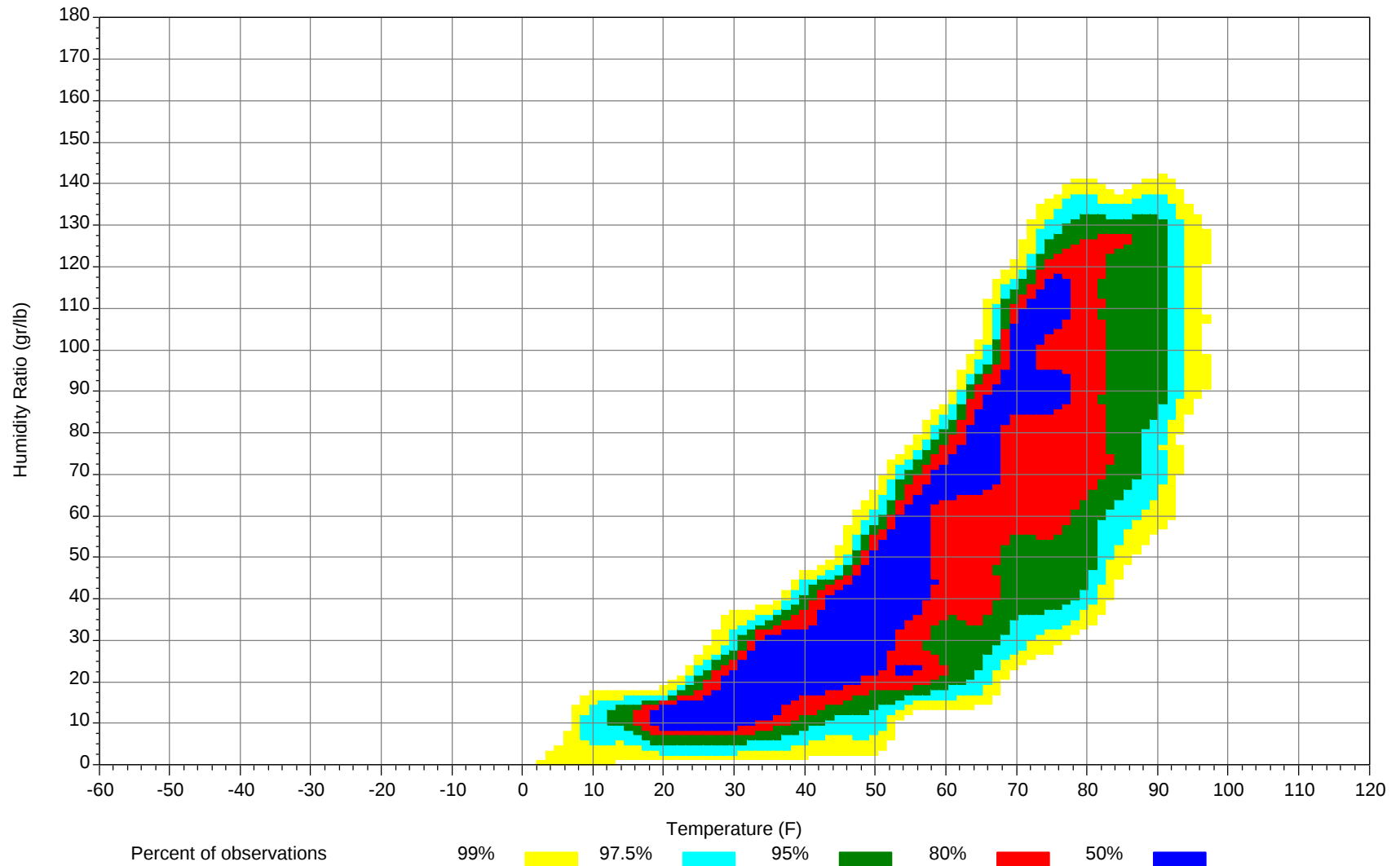
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.



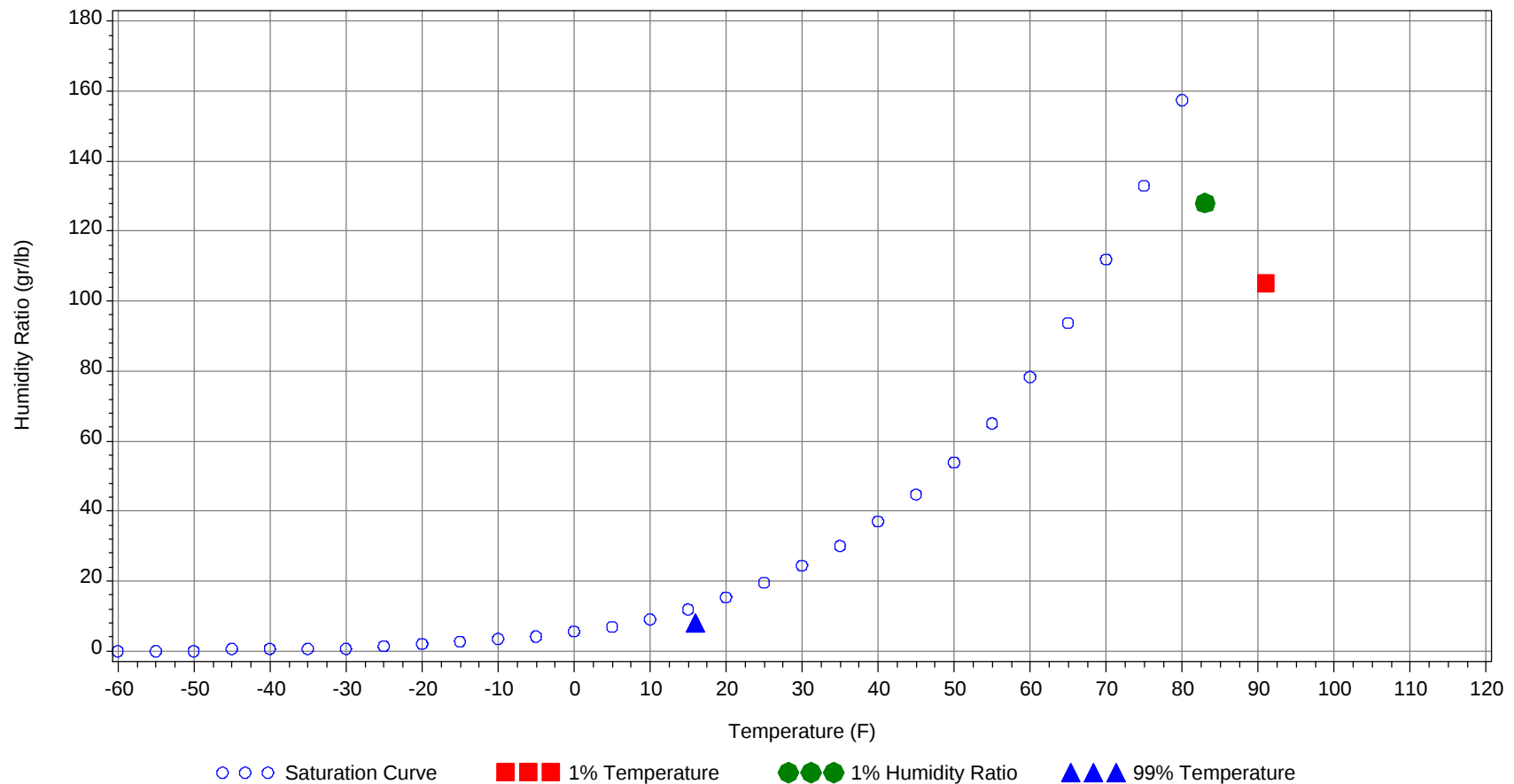
Average Annual Climate



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	91.0		75		105.0	38.4
99.0% Dry Bulb	16.0				8.0	5.0
1.0% Humidity Ratio	128.0	83.0	76.4	73.9		40.0

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							0		0	62		3	1	4	64.5
75/ 79							0	0	0	61.1	0	9	5	14	61
70/ 74	0	1	0	1	61.5	0	2	1	3	59.1	3	14	12	29	58.8
65/ 69	1	3	3	7	60.1	1	5	4	10	56.3	6	15	13	34	56.1
60/ 64	6	8	8	22	57	5	11	11	27	54	16	24	26	66	53.6
55/ 59	10	13	12	35	51.8	7	16	14	37	49.4	20	30	32	82	49.6
50/ 54	12	18	17	47	46.6	12	21	19	52	45.1	26	35	34	95	45.8
45/ 49	15	26	24	65	41.9	19	29	30	78	41.2	36	41	41	118	41.2
40/ 44	18	24	24	66	37.8	19	24	23	66	37.4	30	25	26	81	37.5
35/ 39	40	48	50	138	33.7	40	43	44	127	33.4	44	30	31	105	33.4
30/ 34	50	42	44	136	29.2	50	32	37	119	29.1	37	14	17	68	29
25/ 29	40	29	29	98	24.2	32	21	21	74	24.1	20	6	7	33	24.1
20/ 24	19	14	15	48	19.5	15	9	11	35	19.3	6	2	1	9	19.9
15/ 19	19	12	14	45	15.5	14	7	6	27	15.2	3	1	1	5	15.3
10/ 14	11	5	5	21	10.4	5	2	2	9	10.3	1	0	0	1	11.1
5/ 9	5	2	2	9	5.8	2	1	1	4	5.9	0			0	8
0/ 4	3	1	1	5	1.1	1	0	0	1	1.2					
-5/ -1	1	0	0	1	-3.4	0	0		0	-3.3					
-10/ -6	0	0	0	0	-7.6	0			0	-6					
-15/-11	0	0	0	0	-12.2										
-20/-16	0	0	0	0	-17.8										
-25/-21	0			0	-20.8										

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															
100/104												0	0	0	75.7
95/ 99												1	1	2	74
90/ 94		0	0	0	70		2	1	3	73.3		25	11	36	74.3
85/ 89		2	1	3	66.2		16	6	22	70.5	0	44	26	70	72.7
80/ 84		14	8	22	64.7	0	40	25	65	68.7	10	69	58	137	70.6
75/ 79	1	24	17	42	62.2	9	44	39	92	66.2	41	50	58	149	68.6
70/ 74	11	37	33	81	60	36	53	57	146	63.5	88	31	55	174	66.5
65/ 69	17	28	28	73	57.5	43	30	39	112	60.9	47	10	19	76	62.7
60/ 64	38	43	46	127	54.5	58	34	42	134	57	39	6	10	55	58.8
55/ 59	34	32	38	104	50.1	45	17	23	85	52.1	11	2	2	15	54.1
50/ 54	40	28	30	98	46.1	35	8	12	55	48.2	4		0	4	49.9
45/ 49	45	19	23	87	41.8	17	2	3	22	44.2	1			1	47
40/ 44	26	7	10	43	37.9	4	0	1	5	39.8					
35/ 39	20	4	5	29	34	1		0	1	36.6					
30/ 34	7	1	1	9	29										
25/ 29	1	0	0	1	24.5										
20/ 24															
15/ 19															
10/ 14															
5/ 9															
0/ 4															
-5/ -1															
-10/ -6															
-15/-11															
-20/-16															
-25/-21															

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)
105/109		0		0	79.7										
100/104		1	0	1	75.5		1	0	1	76.5		0	0	0	73.5
95/ 99		8	3	11	77.1		7	3	10	75.5		3	1	4	71.4
90/ 94		42	21	63	75.8	0	37	17	54	74.8		13	5	18	71.7
85/ 89	1	54	37	92	74	1	49	31	81	73.2		22	11	33	71.3
80/ 84	24	75	77	176	72.1	13	75	73	161	71.5	2	47	34	83	68.9
75/ 79	74	45	64	183	70.6	63	49	69	181	70.2	19	50	48	117	67.4
70/ 74	96	21	39	156	67.8	98	24	44	166	67.5	54	50	60	164	65.2
65/ 69	36	3	6	45	63.5	44	4	10	58	63.1	45	25	33	103	61.6
60/ 64	15	0	1	16	59.1	24	1	2	27	59.4	55	22	30	107	57.7
55/ 59	1			1	54.5	4		0	4	55.2	38	7	13	58	53.3
50/ 54	0			0	51	0			0	52	18	2	4	24	49.3
45/ 49											7	0	1	8	44.8
40/ 44											2			2	40.6
35/ 39											0			0	38
30/ 34															
25/ 29															
20/ 24															
15/ 19															
10/ 14															
5/ 9															
0/ 4															
-5/ -1															
-10/ -6															
-15/-11															
-20/-16															
-25/-21															

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)
105/109															
100/104															
95/ 99															
90/ 94		0	0	0	68.7										
85/ 89		3	0	3	68.3		0		0	64					
80/ 84		15	6	21	66.6		1	0	1	64.1					
75/ 79	1	26	14	41	64.1		4	1	5	63.2		0		0	64
70/ 74	10	37	31	78	61.9	2	14	7	23	60.5	0	2	1	3	62.4
65/ 69	19	33	32	84	59.4	5	16	11	32	58.6	1	3	3	7	60.2
60/ 64	36	48	47	131	55.7	15	28	24	67	55	7	9	7	23	56.3
55/ 59	40	36	41	117	51.4	21	33	30	84	50.6	12	17	15	44	52.1
50/ 54	49	28	39	116	47.5	29	38	41	108	46.3	14	25	21	60	47
45/ 49	45	16	26	87	43.1	42	42	46	130	41.9	22	37	36	95	42.3
40/ 44	24	4	7	35	39.2	31	24	27	82	37.7	25	33	31	89	38.3
35/ 39	19	2	4	25	35.3	45	25	29	99	33.7	44	44	50	138	34
30/ 34	4	0	0	4	31.4	30	12	17	59	29.2	49	33	37	119	29.3
25/ 29						16	3	5	24	24.7	35	25	27	87	24.4
20/ 24						4	1	1	6	20	18	9	12	39	19.9
15/ 19						1	0	0	1	15.9	11	6	6	23	15.7
10/ 14											5	2	2	9	10.5
5/ 9											3	1	1	5	6.1
0/ 4											1	0	1	2	1.2
-5/ -1											0	0	0	0	-3.1
-10/ -6											0	0	0	0	-6.8
-15/-11											0	0		0	-13
-20/-16											0			0	-15
-25/-21															

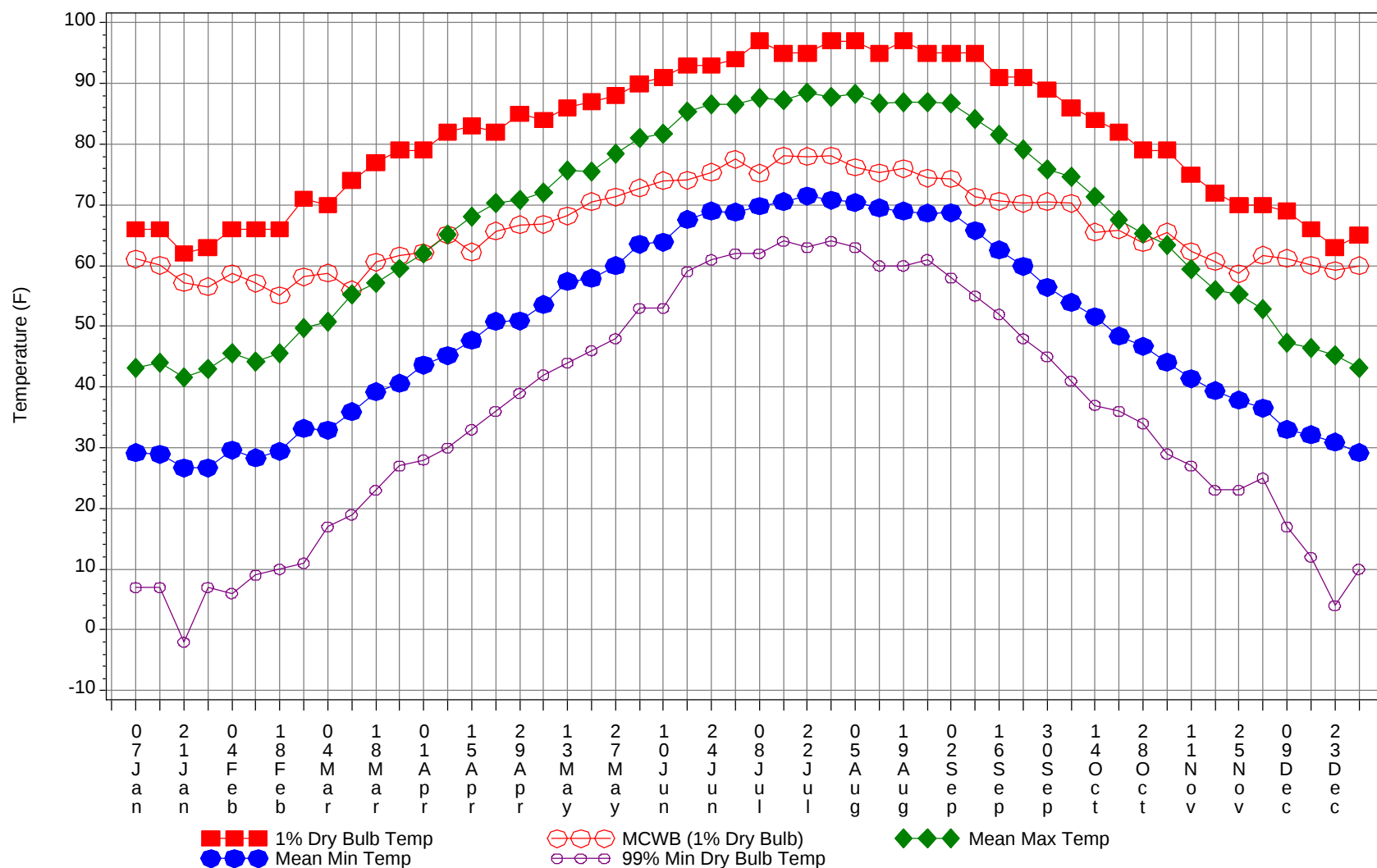
Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary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

Dry-Bulb Temperature Hours For An Average Year

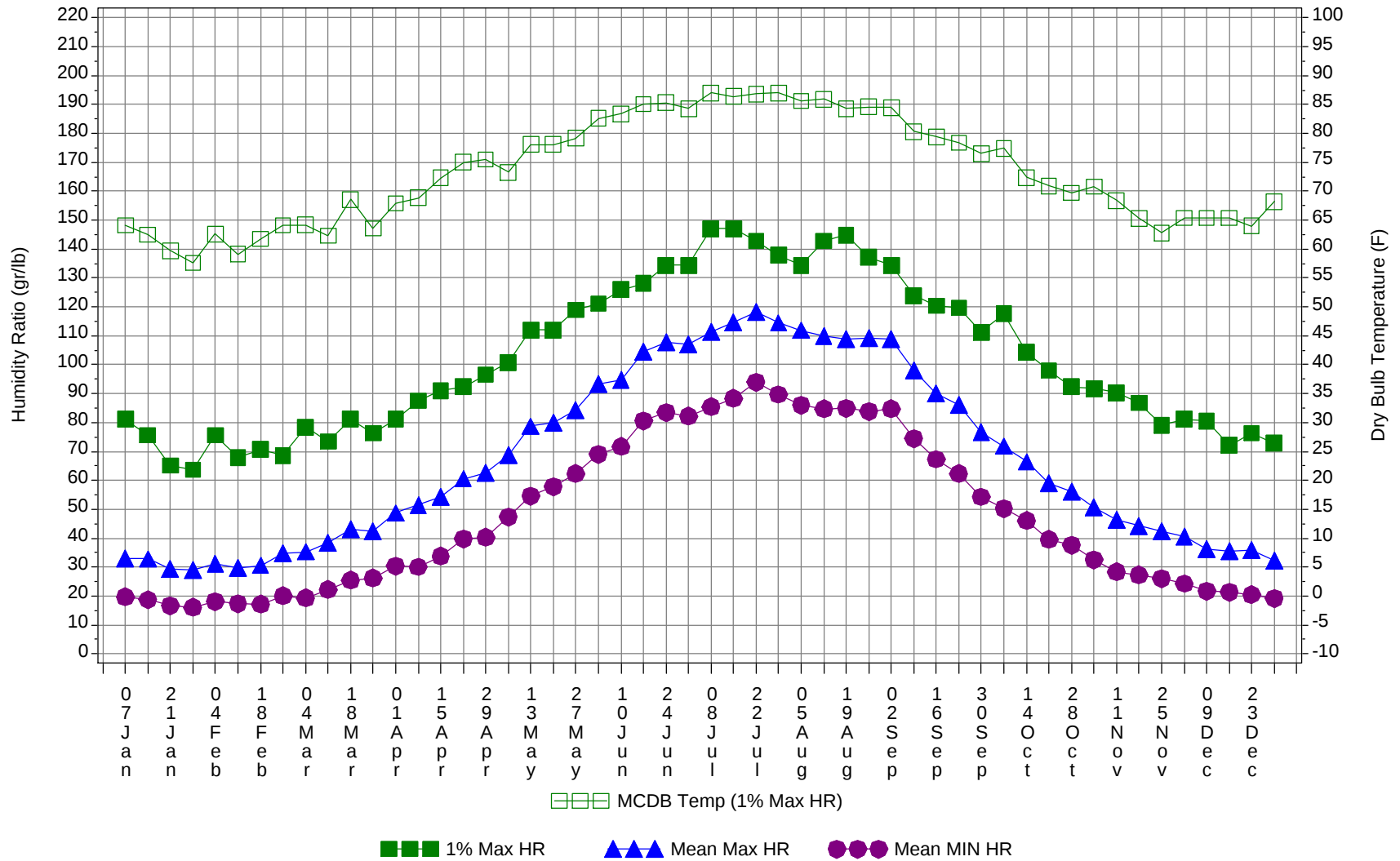
	Annual				
Temperature Range (° F)	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (° F)
105/109		0		0	79.7
100/104		3	1	4	75.7
95/ 99		19	7	26	75.5
90/ 94	0	120	55	175	74.7
85/ 89	2	190	112	304	72.8
80/ 84	50	339	282	671	70.5
75/ 79	207	300	316	823	68.2
70/ 74	399	286	339	1024	65
65/ 69	265	175	200	640	60.6
60/ 64	313	235	255	803	56.2
55/ 59	243	205	219	667	51.2
50/ 54	238	203	217	658	46.7
45/ 49	248	211	232	691	42
40/ 44	179	143	149	471	37.9
35/ 39	254	196	213	663	33.7
30/ 34	228	134	152	514	29.2
25/ 29	145	83	88	316	24.2
20/ 24	61	34	41	136	19.6
15/ 19	48	26	27	101	15.5
10/ 14	21	10	10	41	10.4
5/ 9	10	4	4	18	5.9
0/ 4	5	2	2	9	1.1
-5/ -1	1	0	0	1	-3.3
-10/ -6	1	0	0	1	-7
-15/-11	0	0	0	0	-12.7
-20/-16	0	0	0	0	-17.4
-25/-21	0			0	-20.8

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



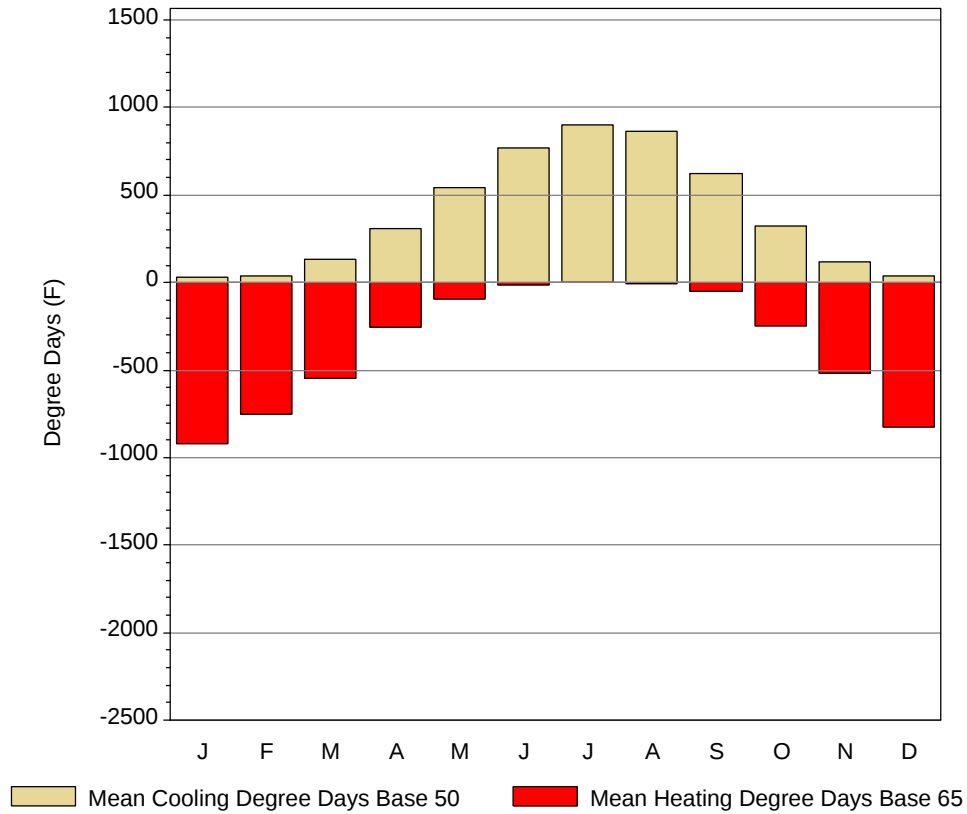
Long Term Humidity and Dry Bulb Temperature Summary



Long Term Humidity and Dry Bulb Temperature Summary

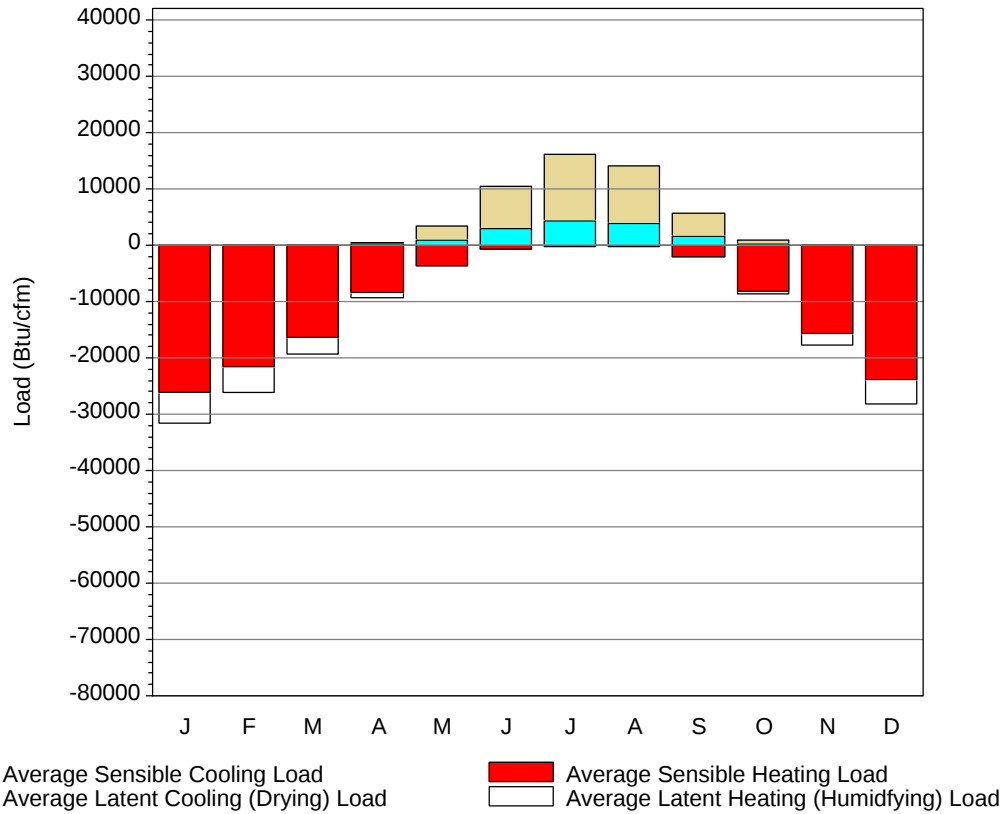
Week Ending	1.0% Temp (° F)	MCWB@ 1% Temp (° F)	Mean Max Temp (° F)	Mean Min Temp (° F)	99% Temp (° F)	1.0% HR (gr/lb)	MCDB@ 1% HR (° F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	66	61.1	43.2	29.2	7	81.2	64.1	33	19.7
14-Jan	66	60.1	44	28.9	7	75.6	62.5	32.8	18.7
21-Jan	62	57.2	41.6	26.7	-2	65.1	59.7	29.4	16.6
28-Jan	63	56.5	43	26.7	7	63.7	57.6	29.1	16.1
4-Feb	66	58.7	45.5	29.6	6	75.6	62.6	31.3	18.1
11-Feb	66	57.1	44.2	28.3	9	67.9	59.1	29.8	17.3
18-Feb	66	55.1	45.6	29.4	10	70.7	61.8	30.6	17.2
25-Feb	71	58.2	49.8	33.2	11	68.6	64.1	34.9	20.1
4-Mar	70	58.8	50.7	32.9	17	78.4	64.2	35.3	19.4
11-Mar	74	56	55.2	35.9	19	73.5	62.3	38.4	22.3
18-Mar	77	60.6	57.2	39.2	23	81.2	68.6	43.2	25.5
25-Mar	79	61.6	59.5	40.6	27	76.3	63.6	42.5	26.2
1-Apr	79	62.1	62	43.6	28	81.2	67.9	48.7	30.3
8-Apr	82	65.1	65.2	45.2	30	87.5	68.9	51.5	30.1
15-Apr	83	62.2	68	47.7	33	91	72.3	54.3	33.8
22-Apr	82	65.7	70.3	50.8	36	92.4	75	60.6	39.7
29-Apr	85	66.7	70.9	50.9	39	96.6	75.5	62.6	40.3
6-May	84	66.8	72.1	53.6	42	100.8	73.3	68.7	47.3
13-May	86	68.2	75.7	57.4	44	112	78.1	78.7	54.5
20-May	87	70.5	75.5	57.9	46	112	78.1	79.9	57.8
27-May	88	71.3	78.4	60	48	119	79.2	84.3	62.4
4-Jun	90	72.8	81.1	63.5	53	121.1	82.6	93.3	69
10-Jun	91	74	81.7	63.9	53	126	83.4	94.9	71.7
17-Jun	93	74.1	85.3	67.6	59	128.1	85.1	104.6	80.6
24-Jun	93	75.4	86.5	69	61	134.4	85.3	107.8	83.5
1-Jul	94	77.5	86.6	68.8	62	134.4	84.3	107.1	82.2
8-Jul	97	75.2	87.6	69.8	62	147	87	111.5	85.5
15-Jul	95	78.1	87.2	70.5	64	147	86.4	114.6	88.3
22-Jul	95	78	88.4	71.5	63	142.8	86.8	118.4	93.9
29-Jul	97	78.1	87.8	70.8	64	137.9	87	114.5	89.7
5-Aug	97	76.2	88.3	70.4	63	134.4	85.6	111.9	86
12-Aug	95	75.3	86.7	69.5	60	142.8	85.9	110	84.8
19-Aug	97	76	87	69	60	144.9	84.3	108.9	84.9
26-Aug	95	74.4	87	68.6	61	137.2	84.6	109.3	83.8
2-Sep	95	74.3	86.8	68.7	58	134.4	84.5	108.9	84.8
9-Sep	95	71.3	84.2	65.8	55	123.9	80.3	98	74.5
16-Sep	91	70.6	81.6	62.6	52	120.4	79.4	90.1	67.3
23-Sep	91	70.3	79.2	59.9	48	119.7	78.4	86.2	62.3
30-Sep	89	70.5	75.9	56.4	45	111.3	76.5	76.7	54.3
7-Oct	86	70.3	74.7	53.9	41	117.6	77.4	71.8	50.3
14-Oct	84	65.5	71.3	51.6	37	104.3	72.4	66.4	46.1
21-Oct	82	65.9	67.5	48.4	36	98	70.9	58.9	39.6
28-Oct	79	63.8	65.3	46.7	34	92.4	69.7	56.1	37.5
4-Nov	79	65.5	63.4	44.1	29	91.7	70.8	50.7	32.6
11-Nov	75	62.3	59.4	41.4	27	90.3	68.4	46.3	28.4
18-Nov	72	60.7	56	39.4	23	86.8	65.3	44.3	27.3
25-Nov	70	58.7	55.3	37.8	23	79.1	62.8	42.3	26
2-Dec	70	61.7	52.9	36.5	25	81.2	65.4	40.6	24.3
9-Dec	69	61.2	47.3	33	17	80.5	65.4	36.2	21.7
16-Dec	66	60.1	46.5	32.1	12	72.1	65.4	35.6	21.4
23-Dec	63	59.2	45.2	30.9	4	76.3	64	35.8	20.5
31-Dec	65	60	43.1	29.2	10	72.8	68.2	32.3	19.1

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	29.9	0.7	917.9
FEB	40.1	2	752.2
MAR	134.8	19.5	548.3
APR	309.8	67.1	255.4
MAY	541.1	164.8	93.4
JUN	771.8	334.4	12.6
JUL	899.6	436.2	1.6
AUG	867.8	406.7	3.9
SEP	626.3	225.5	50.8
OCT	319.8	66.1	250.1
NOV	116.1	11.1	515.7
DEC	36.4	1.2	825.5
ANN	4693.5	1735.3	4227.4

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	0	-26189	8	-5448
FEB	1	-21663	3	-4559
MAR	47	-16409	22	-2961
APR	279	-8333	254	-961
MAY	1001	-3546	2479	-60
JUN	2937	-656	7427	0
JUL	4313	-141	11926	0
AUG	3863	-267	10244	0
SEP	1680	-2093	4058	-9
OCT	281	-8274	690	-431
NOV	12	-15552	76	-2208
DEC	0	-23786	12	-4266
ANN	14414	-126909	37199	-20903

Station Information		Shading Geometry in Dimensionless Units	
City, State, WBAN	LOUISVILLE, KY 93821	Window:	1.000
Lat, Lon, Elev	38.18N 85.73W 489ft	Overhang:	0.482
Press, Stn Type	14.5psia Secondary	Vert Gap:	0.311

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	640	900	1200	1570	1840	2000	1940	1770	1440	1090	700	550	1300
	Std.Dev.	49	72	105	138	133	125	110	95	87	76	68	52	41
	Minimum	550	790	980	1330	1610	1800	1610	1610	1270	900	570	460	1230
	Maximum	730	1080	1390	1820	2150	2460	2120	1940	1600	1280	840	670	1440
	Diffuse	360	460	600	720	830	880	870	780	630	460	370	320	610
Clear Day	Global	970	1310	1780	2240	2520	2620	2530	2280	1870	1400	1010	850	1780
NORTH	Global	210	280	360	440	550	630	590	490	390	300	220	190	390
	Diffuse	210	280	360	430	500	540	520	470	390	300	220	190	370
Clear Day	Global	190	250	330	430	570	680	630	480	370	280	210	170	380
EAST	Global	410	560	710	910	1030	1090	1070	1010	850	680	440	360	760
	Diffuse	260	330	430	530	600	640	630	580	480	370	270	220	450
Clear Day	Global	720	910	1150	1340	1420	1440	1410	1320	1150	930	710	630	1090
SOUTH	Global	910	1030	1010	940	820	760	790	930	1070	1180	930	820	930
	Diffuse	360	430	500	540	570	580	580	580	540	460	370	320	480
Clear Day	Global	1930	1950	1760	1360	1020	870	930	1190	1550	1810	1850	1840	1500
WEST	Global	420	560	720	890	1000	1090	1060	1000	860	680	450	360	760
	Diffuse	260	340	440	530	610	660	640	590	490	380	270	220	450
Clear Day	Global	720	910	1150	1340	1420	1440	1410	1320	1150	930	710	630	1090

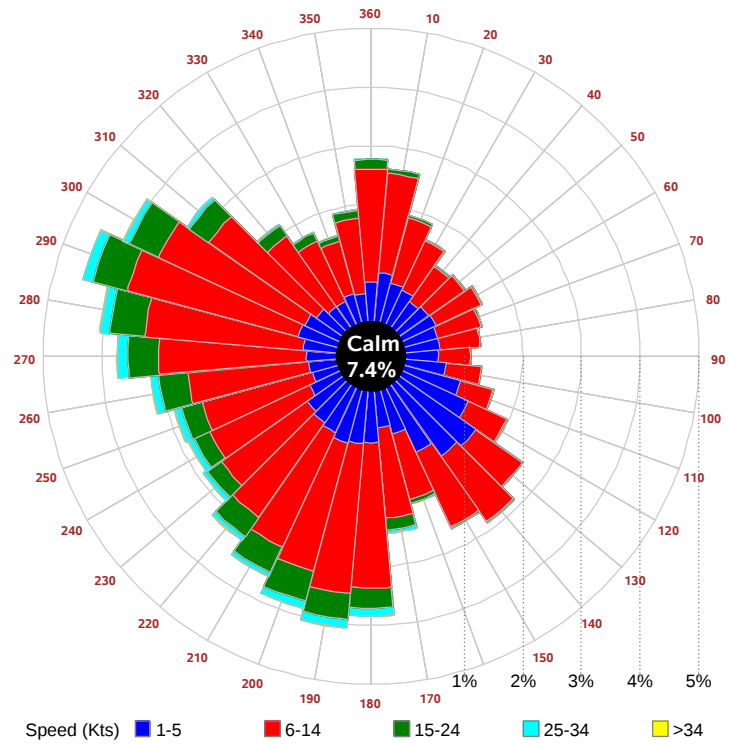
Average Annual Solar Radiation - Nearest Available Site Source: National Renewable Energy Laboratory, Golden CO, 1995

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	430	620	850	1130	1330	1450	1410	1280	1030	760	470	360	930
NORTH	Unshaded	150	190	250	300	360	410	390	330	270	210	160	130	260
	Shaded	130	170	220	270	330	370	350	300	250	190	140	110	240
EAST	Unshaded	280	390	500	640	740	770	760	720	600	480	300	240	540
	Shaded	260	350	450	560	640	670	660	630	530	430	270	220	470
SOUTH	Unshaded	680	750	700	610	500	460	480	590	720	840	690	620	640
	Shaded	660	700	560	420	350	360	360	400	540	750	660	600	530
WEST	Unshaded	290	390	510	630	710	780	750	710	610	480	310	250	540
	Shaded	260	350	450	560	620	670	650	630	540	430	280	220	470

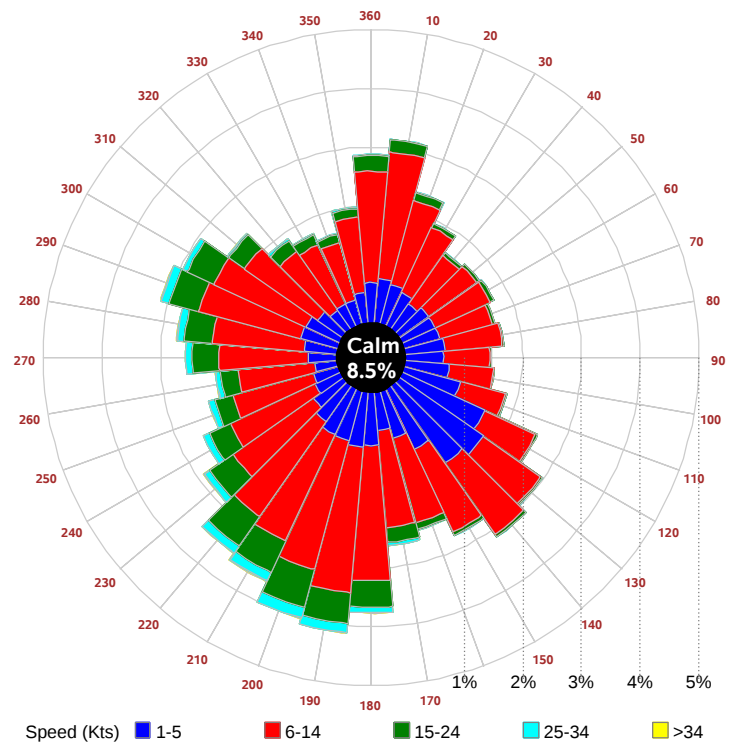
AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS Percentage Uncertainty = 9												
		March					June					
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm	
HORIZ.	M.Clear	26	64	82	73	41	32	74	98	99	78	
	M.Cloudy	15	38	50	46	25	22	49	72	76	58	
NORTH	M.Clear	8	13	15	14	10	21	16	17	17	17	
	M.Cloudy	6	14	17	16	10	13	16	19	19	17	
EAST	M.Clear	65	67	25	14	10	63	79	48	17	17	
	M.Cloudy	20	31	20	16	10	31	45	37	19	17	
SOUTH	M.Clear	25	62	80	72	40	10	22	42	43	27	
	M.Cloudy	10	30	41	37	19	9	19	33	36	23	
WEST	M.Clear	8	13	15	54	73	10	16	17	37	73	
	M.Cloudy	6	14	17	31	30	9	16	19	32	49	
M.Clear	(% hrs)	25	25	25	23	22	36	39	31	28	31	

		Sept					Dec					
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm	
HORIZ.	M.Clear	14	56	83	84	59	6	35	49	38	10	
	M.Cloudy	9	33	55	58	40	4	20	27	22	6	
NORTH	M.Clear	6	13	16	16	14	3	9	11	9	4	
	M.Cloudy	4	13	18	18	14	2	8	11	9	3	
EAST	M.Clear	41	75	45	16	14	22	46	14	9	4	
	M.Cloudy	14	32	31	18	14	5	17	12	9	3	
SOUTH	M.Clear	9	45	70	71	48	16	69	88	74	25	
	M.Cloudy	5	22	42	45	29	4	22	29	25	7	
WEST	M.Clear	6	13	16	38	70	3	9	11	44	31	
	M.Cloudy	4	13	18	29	39	2	8	11	18	8	
M.Clear	(% hrs)	39	45	37	34	40	23	23	25	23	23	

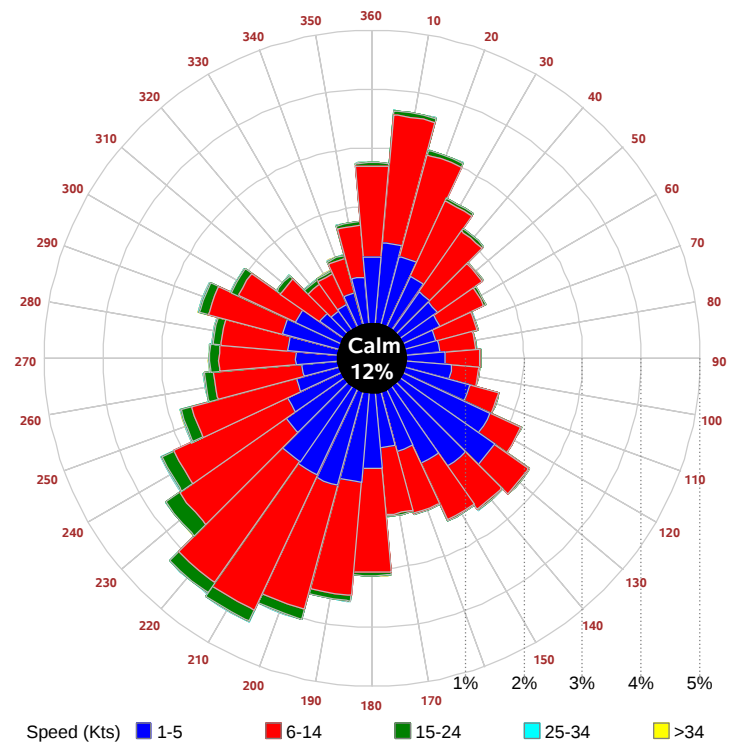
Wind Summary - December, January, and February



Wind Summary - March, April, and May



Wind Summary - June, July, and August



Wind Summary - September, October, and November

