

ALTOONA BLAIR CO, PA

Latitude = 40.30 N

Longitude = 78.32 W

Period of Record = 1988 To 2017

Station ID = ICAO_KAOO

Elevation = 1504 Feet

Average Pressure = 28.44 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	92	73	98	8.6	W
0.4% Occurrence	88	72	95	8.2	W
1.0% Occurrence	86	71	95	8	W
2.0% Occurrence	83	70	93	7.9	W
Mean Daily Range	17	-	-	-	NW
97.5% Occurrence	16	14	8	9.4	NW
99.0% Occurrence	10	8	6	9.5	WNW
99.6% Occurrence	6	5	5	9.4	W
Median of Extreme Lows	1	0	4	9.4	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	78	88	131	8.6	W
0.4% Occurrence	75	84	121	7.6	W
1.0% Occurrence	73	81	113	7.2	SSW
2.0% Occurrence	72	80	109	7	SSW

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	137	82	0.88	6.1	SSW
0.4% Occurrence	125	79	0.79	6.5	SSW
1.0% Occurrence	117	77	0.74	6.1	SSW
2.0% Occurrence	116	77	0.74	5.7	SSW

Air Conditioning/ Humid Area Criteria	Threshold	T ≥ 93 °F	T ≥ 80 °F	Twb ≥ 73 °F	Twb ≥ 67 °F
	# of Hours	11	390	123	924

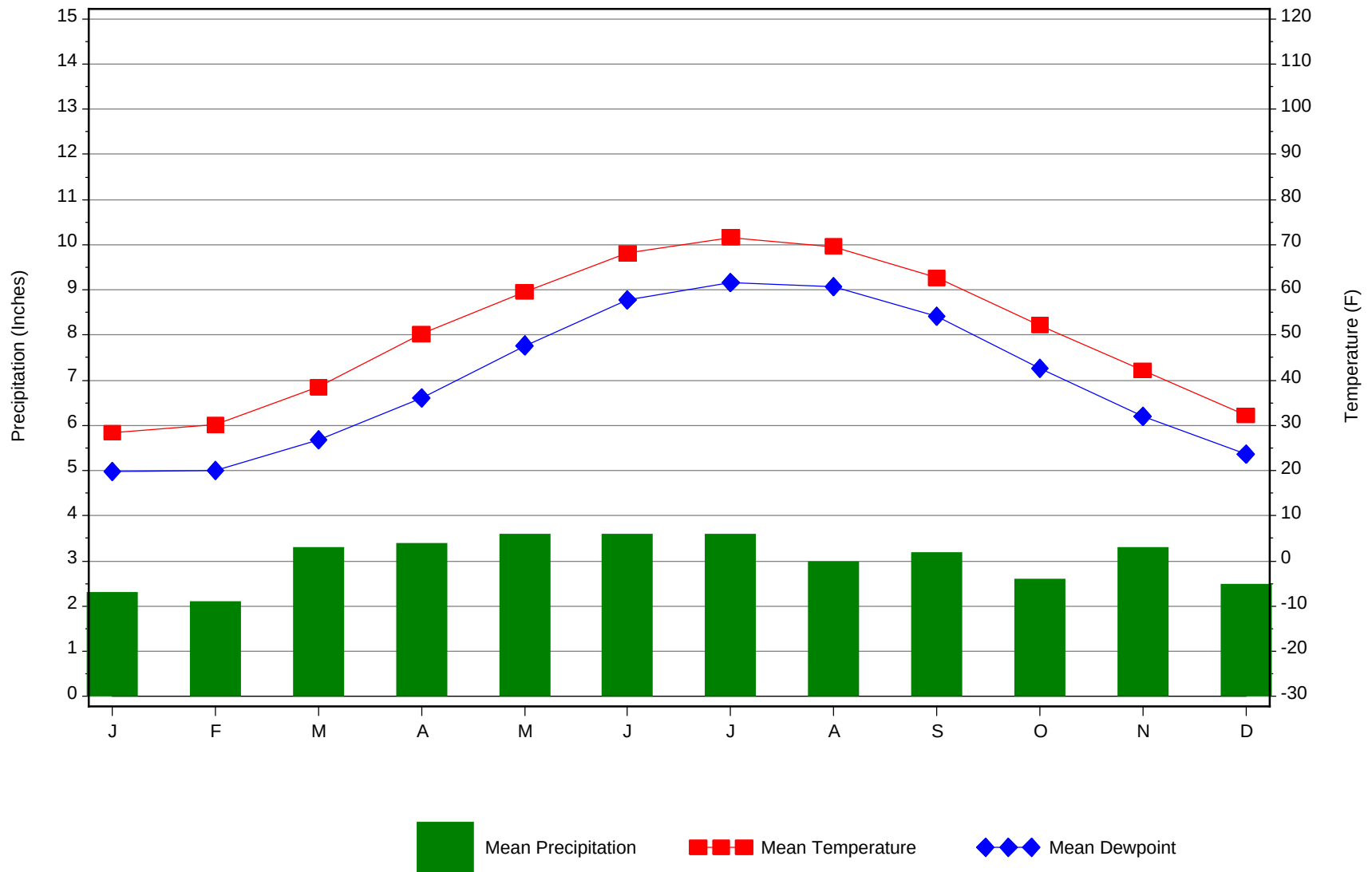
Other Site Data

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	2.7	90	1.3 + 0.4
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 (#)
53	N/A	N/A	59

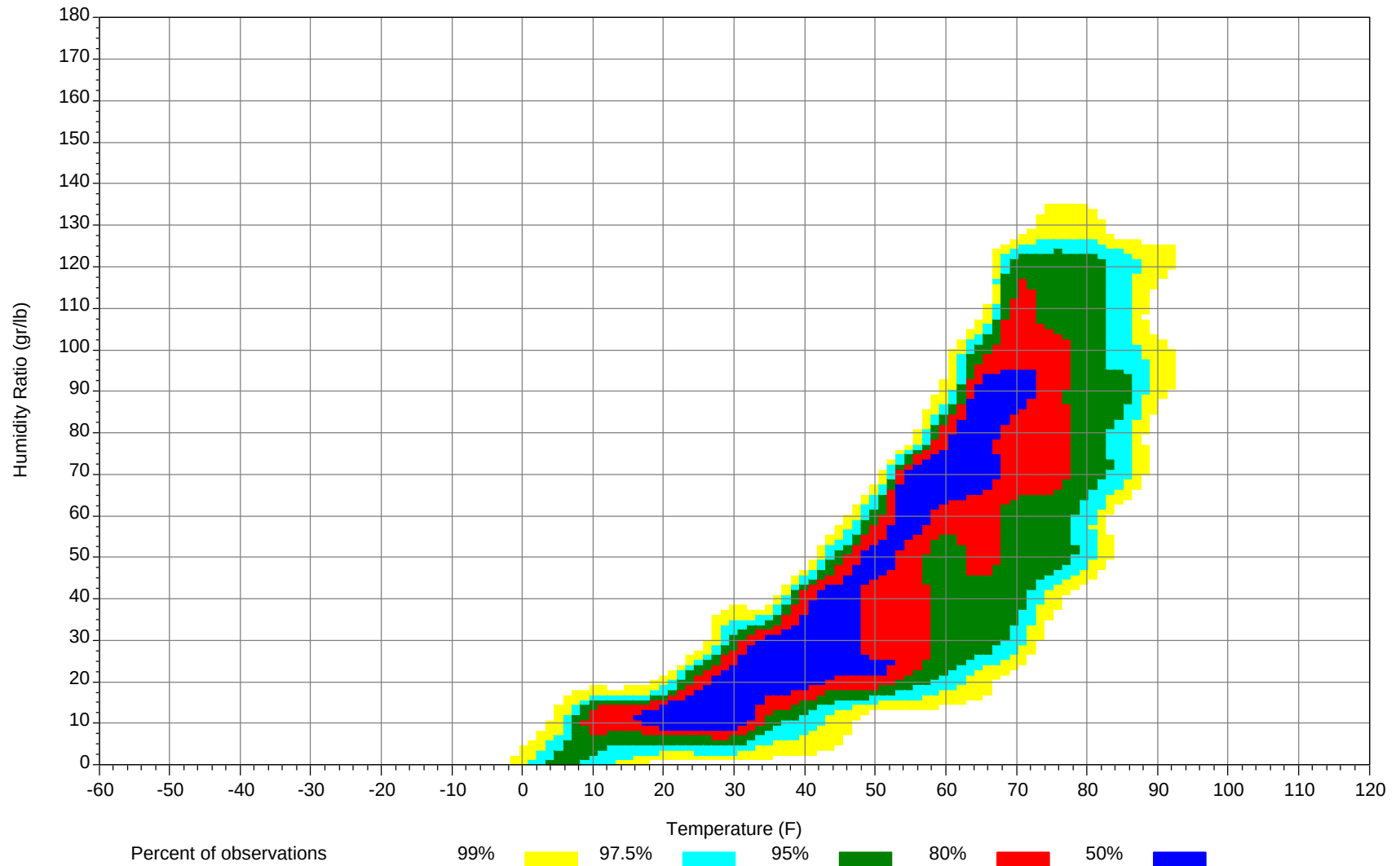
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.



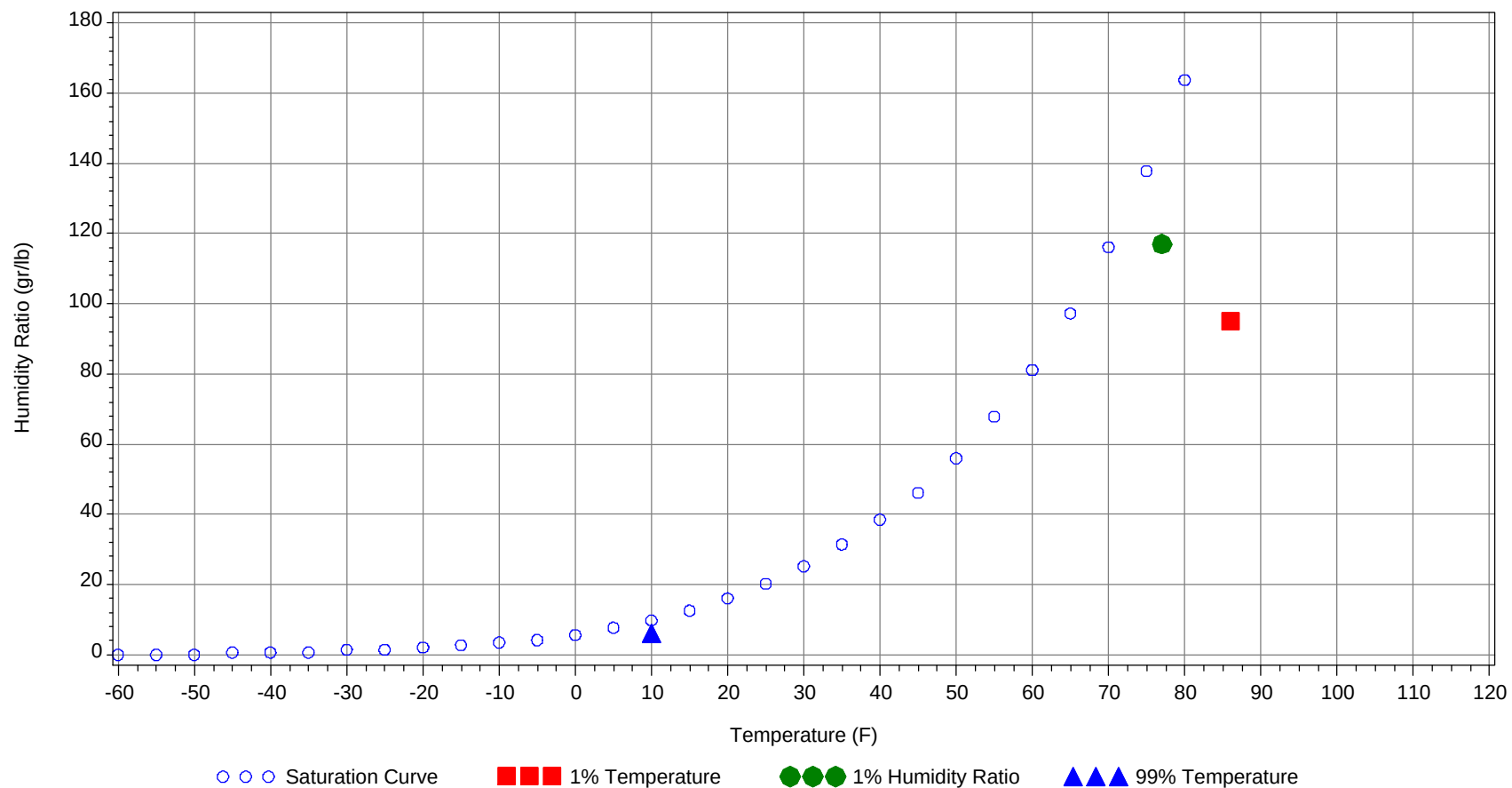
Average Annual Climate



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	86.0		71		95.0	35.6
99.0% Dry Bulb	10.0				6.0	3.4
1.0% Humidity Ratio	117.0	77.0	71.7	70.0		36.7

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															
80/ 84												1	0	1	65.6
75/ 79												2	1	3	61.4
70/ 74							0	0	0	58.5	0	5	3	8	57.4
65/ 69		0	0	0	57.4		1	0	1	55.2	1	6	4	11	54.8
60/ 64	1	3	1	5	56.6	0	3	1	4	51.2	4	12	9	25	52.6
55/ 59	3	5	4	12	51.5	2	5	3	10	48	7	15	14	36	48.9
50/ 54	5	7	6	18	47	4	9	7	20	44.3	11	20	19	50	45
45/ 49	7	13	11	31	41.4	8	16	13	37	40.4	19	33	28	80	40.8
40/ 44	12	18	14	44	37.9	12	18	18	48	37.4	22	30	28	80	37.3
35/ 39	30	40	33	103	33.6	26	37	32	95	33.2	49	50	52	151	33.4
30/ 34	46	46	50	142	29.3	45	46	51	142	29.1	49	37	45	131	29
25/ 29	39	43	43	125	24.1	44	40	40	124	24	42	22	26	90	24
20/ 24	30	25	27	82	19.8	26	20	23	69	19.5	21	8	10	39	19.5
15/ 19	34	27	30	91	15.4	30	16	20	66	15.4	14	4	6	24	15.4
10/ 14	21	13	17	51	10.3	15	8	9	32	10.2	5	2	2	9	10.3
5/ 9	12	5	9	26	5.8	8	3	4	15	5.8	2	0	0	2	6.2
0/ 4	6	2	1	9	0.9	4	1	1	6	1	0	0		0	1.8
-5/ -1	1	1	0	2	-3.4	1	0	0	1	-3.3					
-10/ -6	1	0	1	2	-7.7	1		0	1	-6.3					
-15/-11	0	0	0	0	-11.8										
-20/-16	0	0	0	0	-17.7										
-25/-21	0			0	-23.3										

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												0		0	74
90/ 94							1	0	1	70.1		3	1	4	73.3
85/ 89		0	0	0	62.9		4	1	5	69		14	3	17	71
80/ 84		4	1	5	63	0	20	6	26	66.4	1	41	17	59	69.2
75/ 79		11	3	14	60.1	1	27	13	41	63.9	7	59	33	99	66.5
70/ 74	1	17	9	27	57.7	7	36	26	69	61.2	30	59	59	148	64.5
65/ 69	3	18	13	34	55	15	32	30	77	58.7	54	29	52	135	62.4
60/ 64	13	33	29	75	52.5	40	46	53	139	56.2	66	21	43	130	58.6
55/ 59	21	36	36	93	49	47	37	46	130	51.8	44	10	24	78	54
50/ 54	33	38	39	110	45.5	54	29	41	124	48	27	3	8	38	49.9
45/ 49	47	37	44	128	41.5	49	14	24	87	43.5	9	0	1	10	45.1
40/ 44	39	21	26	86	37.8	22	2	7	31	39.1	1		0	1	40.7
35/ 39	44	18	26	88	33.8	10	0	2	12	34.9	0			0	38
30/ 34	25	6	9	40	29.1	2			2	30.6					
25/ 29	10	1	3	14	24.3	0			0	26					
20/ 24	2	0	0	2	20.1										
15/ 19	0			0	16.9										
10/ 14															
5/ 9															
0/ 4															
-5/ -1															
-10/ -6															
-15/-11															
-20/-16															
-25/-21															

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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	0	74.3										
95/ 99		1	0	1	74.1		0		0	76.6					
90/ 94		11	2	13	72.7		7	1	8	73.4		2	0	2	68.8
85/ 89	0	23	8	31	71.6		16	4	20	71.5		6	1	7	70.1
80/ 84	3	63	27	93	69.8	0	53	18	71	69.6		20	5	25	68.1
75/ 79	13	69	46	128	67.8	5	71	39	115	67.4	2	36	13	51	66
70/ 74	58	55	77	190	66.3	40	61	69	170	66	14	55	36	105	64.1
65/ 69	64	16	44	124	63.9	57	24	51	132	63.7	28	40	40	108	61.8
60/ 64	66	9	35	110	60	78	13	48	139	60.2	48	44	56	148	58.2
55/ 59	32	1	8	41	55.2	44	2	16	62	55.6	56	25	45	126	53.9
50/ 54	12	0	1	13	50.9	19	0	3	22	51.2	49	10	28	87	49.8
45/ 49	1			1	45.4	3		0	3	46.6	29	2	12	43	45.2
40/ 44	0			0	41						10	0	3	13	41
35/ 39											5		0	5	37.1
30/ 34											0		0	0	33.3
25/ 29															
20/ 24															
15/ 19															
10/ 14															
5/ 9															
0/ 4															
-5/ -1															
-10/ -6															
-15/-11															
-20/-16															
-25/-21															

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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															
90/ 94															
85/ 89		0		0	67.3										
80/ 84		3	0	3	67.2										
75/ 79		12	1	13	64.3		0		0	60.4					
70/ 74	1	23	8	32	61	0	4	0	4	58.3		0	0	0	58.7
65/ 69	5	23	13	41	59.1	0	7	2	9	55.9	0	1	0	1	57.7
60/ 64	20	40	33	93	55.9	5	18	10	33	53.8	2	3	2	7	55.7
55/ 59	28	44	41	113	51.7	10	23	19	52	50.6	4	7	5	16	51.5
50/ 54	41	42	50	133	47.2	21	32	28	81	46.4	6	12	8	26	46.8
45/ 49	59	36	50	145	43	32	42	39	113	41.7	11	20	15	46	41.6
40/ 44	39	15	26	80	38.9	33	33	33	99	37.7	15	24	20	59	37.9
35/ 39	35	8	21	64	35.1	52	43	50	145	33.7	38	50	49	137	33.8
30/ 34	17	2	5	24	31.2	46	26	35	107	29.2	54	51	55	160	29.4
25/ 29	3		0	3	26.5	29	10	16	55	24.5	51	41	43	135	24.2
20/ 24	0			0	21.8	7	2	5	14	20.2	26	18	23	67	19.8
15/ 19						5	1	1	7	15.9	23	15	19	57	15.6
10/ 14						1	0	0	1	10.5	11	5	7	23	10.5
5/ 9											5	1	2	8	6.2
0/ 4											2	0	1	3	1.3
-5/ -1											0	0	0	0	-3.1
-10/ -6											0			0	-6.7
-15/-11															
-20/-16															
-25/-21															

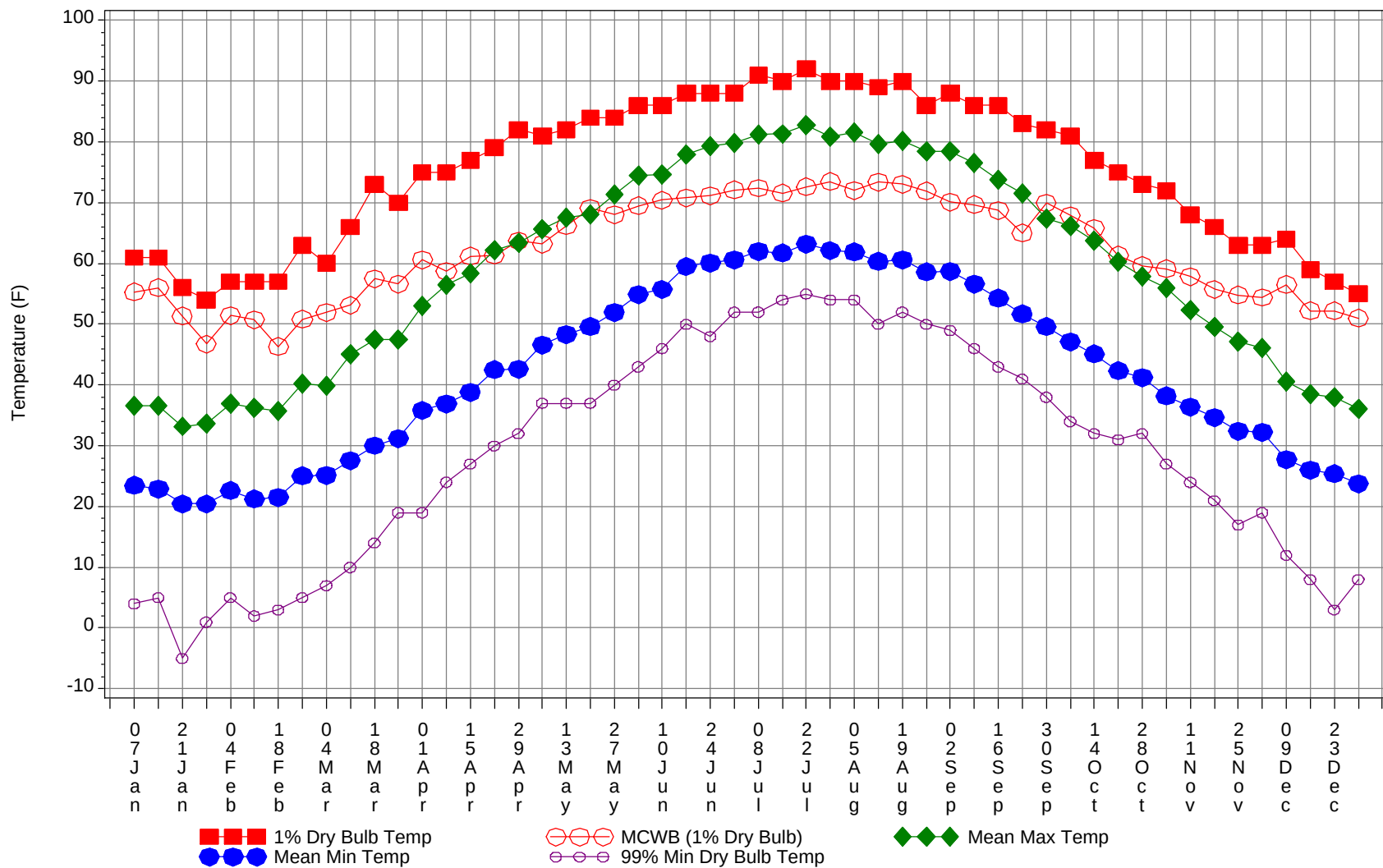
Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary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

Dry-Bulb Temperature Hours For An Average Year

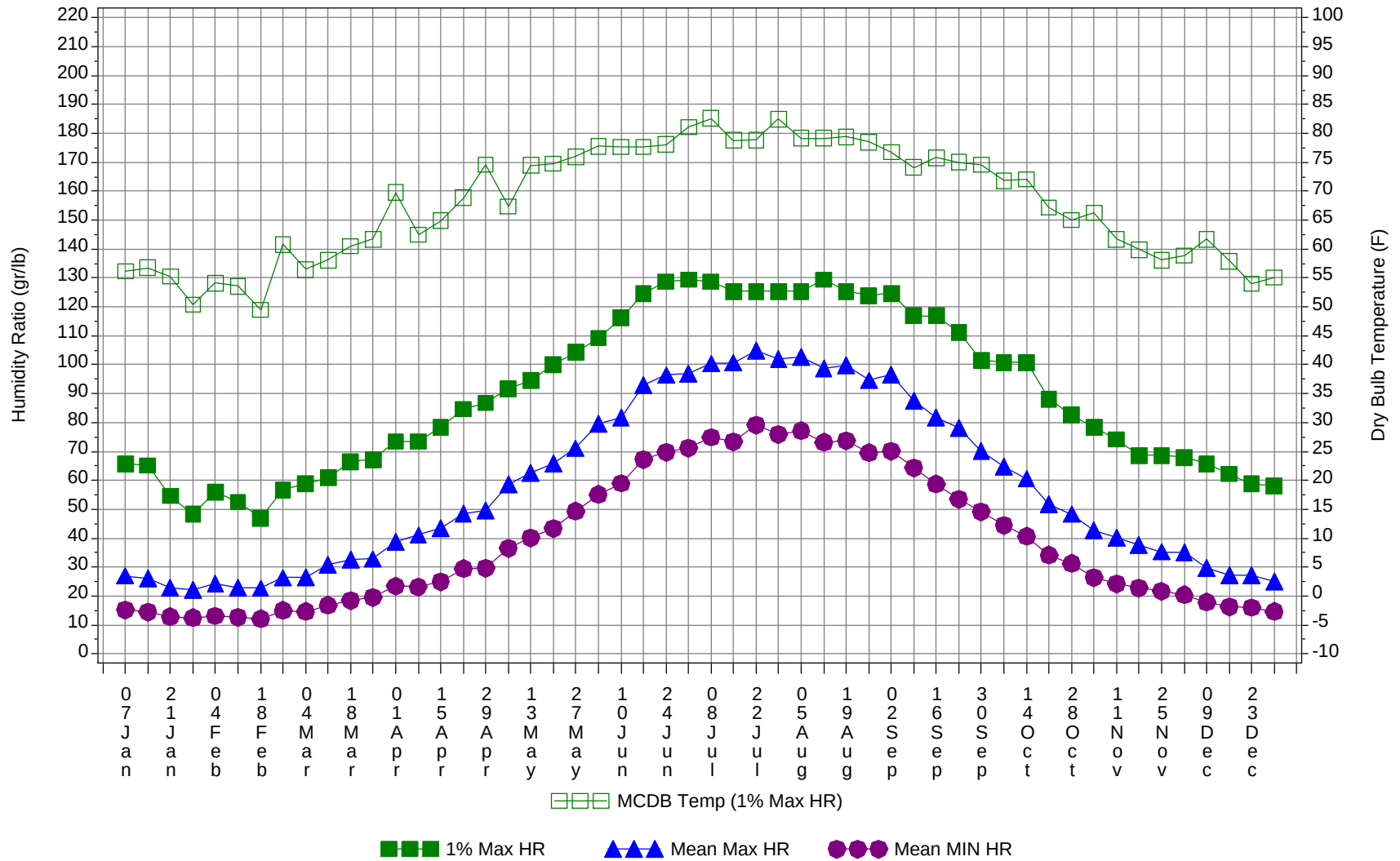
	Annual				
Temperature Range (° F)	01 To 08 LST	09 To 16 LST	17 to 00 LST	Total Obs	M C W B (° F)
100/104		0	0	0	74.3
95/ 99		2	0	2	74.4
90/ 94		22	4	26	72.6
85/ 89	0	63	17	80	71.1
80/ 84	4	205	73	282	69
75/ 79	29	287	149	465	66.5
70/ 74	151	317	287	755	64.4
65/ 69	228	196	249	673	61.6
60/ 64	343	246	320	909	57.4
55/ 59	297	211	260	768	52.2
50/ 54	282	202	238	722	47.4
45/ 49	276	213	238	727	42.2
40/ 44	204	161	175	540	38
35/ 39	290	246	265	801	33.7
30/ 34	284	214	251	749	29.3
25/ 29	217	157	173	547	24.1
20/ 24	112	73	89	274	19.7
15/ 19	106	63	77	246	15.5
10/ 14	53	27	35	115	10.3
5/ 9	27	10	16	53	5.9
0/ 4	12	3	3	18	1
-5/ -1	3	1	1	5	-3.3
-10/ -6	2	0	1	3	-7.2
-15/-11	0	0	0	0	-11.8
-20/-16	0	0	0	0	-17.7
-25/-21	0			0	-23.3

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



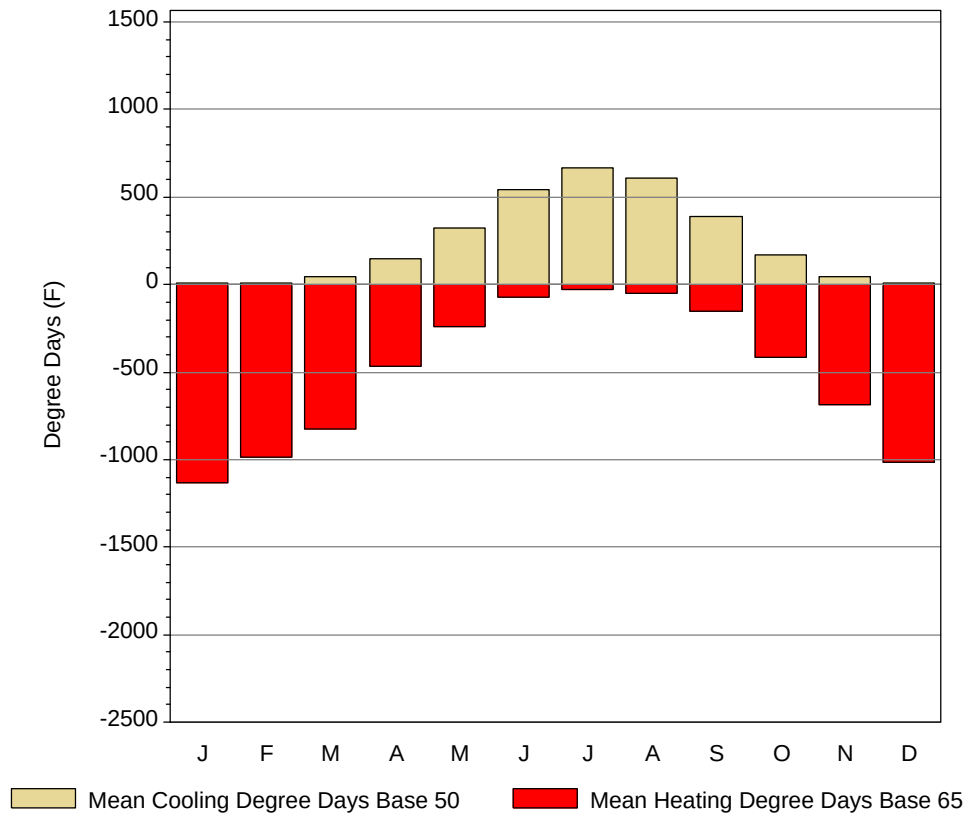
Long Term Humidity and Dry Bulb Temperature Summary



Long Term Humidity and Dry Bulb Temperature Summary

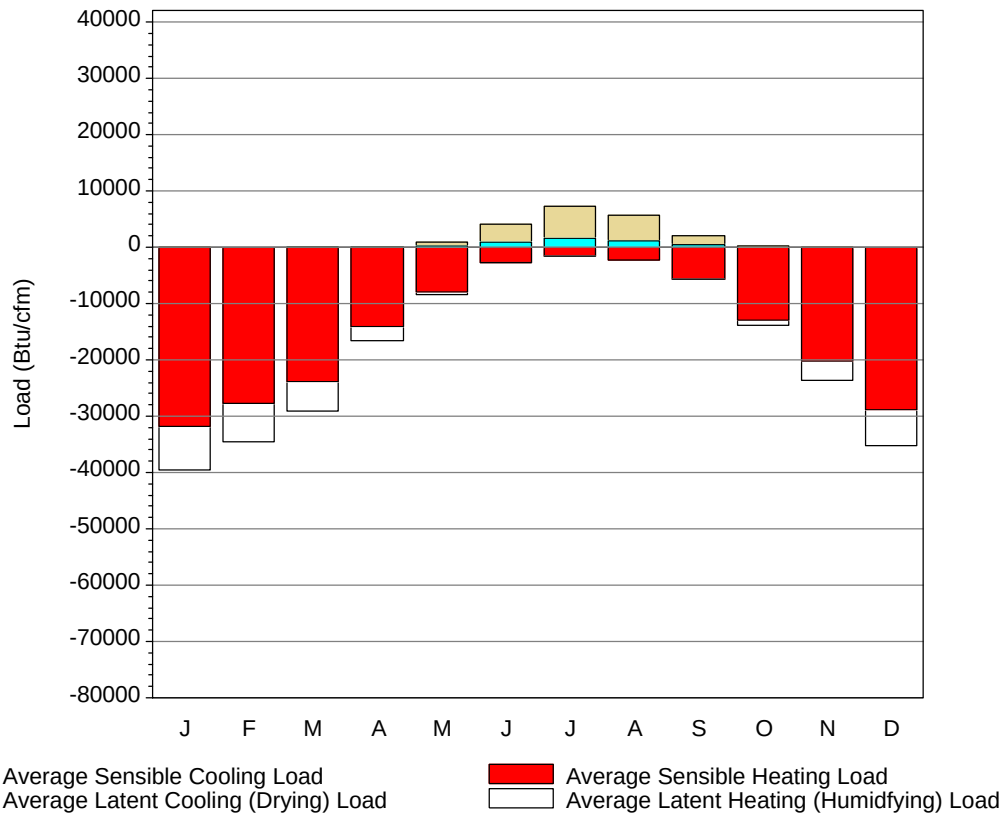
Week Ending	1.0% Temp (° F)	MCWB@ 1% Temp (° F)	Mean Max Temp (° F)	Mean Min Temp (° F)	99% Temp (° F)	1.0% HR (gr/lb)	MCDB@ 1% HR (° F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	61	55.3	36.6	23.5	4	65.8	56.2	27	15.1
14-Jan	61	56	36.5	22.9	5	65.1	56.8	26.2	14.5
21-Jan	56	51.3	33.2	20.4	-5	54.6	55.3	22.8	12.8
28-Jan	54	46.7	33.6	20.4	1	48.3	50.4	22.1	12.5
4-Feb	57	51.4	36.9	22.6	5	56	54.1	24.2	13.1
11-Feb	57	50.7	36.2	21.2	2	52.5	53.6	23	12.7
18-Feb	57	46.3	35.7	21.5	3	46.9	49.5	22.7	12.1
25-Feb	63	50.8	40.2	25	5	56.7	60.8	26.3	15
4-Mar	60	51.9	39.8	25.1	7	58.8	56.5	26.5	14.6
11-Mar	66	53.1	45.1	27.5	10	60.9	58.1	30.7	16.8
18-Mar	73	57.5	47.5	30	14	66.5	60.5	32.7	18.5
25-Mar	70	56.6	47.5	31.2	19	67.2	61.7	32.8	19.5
1-Apr	75	60.6	53	35.8	19	73.5	69.8	38.8	23.4
8-Apr	75	58.7	56.5	36.9	24	73.5	62.5	41.1	23.2
15-Apr	77	61.2	58.4	38.8	27	78.4	64.9	43.5	24.9
22-Apr	79	61.4	62.2	42.5	30	84.7	68.9	48.6	29.4
29-Apr	82	63.7	63.4	42.6	32	86.8	74.6	49.5	29.7
6-May	81	63.2	65.7	46.6	37	91.7	67.4	58.7	36.5
13-May	82	66.2	67.5	48.3	37	94.5	74.5	62.7	40.1
20-May	84	69.1	68.1	49.6	37	100.1	74.8	65.9	43.3
27-May	84	68	71.4	51.9	40	104.3	76	71.1	49.4
4-Jun	86	69.5	74.5	54.9	43	109.2	77.8	79.6	55.1
10-Jun	86	70.4	74.6	55.7	46	116.2	77.7	81.9	59
17-Jun	88	70.8	77.9	59.5	50	124.6	77.7	92.9	67.2
24-Jun	88	71.1	79.3	60.1	48	128.8	78.1	96.4	69.8
1-Jul	88	72.1	79.8	60.6	52	129.5	81.1	96.8	71.2
8-Jul	91	72.4	81.2	62	52	128.8	82.6	100.4	74.9
15-Jul	90	71.6	81.3	61.7	54	125.3	78.8	100.7	73.4
22-Jul	92	72.6	82.7	63.2	55	125.3	78.9	105	79.1
29-Jul	90	73.5	80.9	62.1	54	125.3	82.5	102	75.9
5-Aug	90	72	81.6	61.9	54	125.3	79.2	102.8	77.2
12-Aug	89	73.4	79.6	60.3	50	129.5	79.2	98.7	73.2
19-Aug	90	73	80.1	60.6	52	125.3	79.4	99.9	73.7
26-Aug	86	71.9	78.5	58.6	50	123.9	78.5	94.6	69.5
2-Sep	88	70.1	78.5	58.7	49	124.6	76.8	96.6	70.1
9-Sep	86	69.7	76.5	56.6	46	116.9	74.1	87.5	64.4
16-Sep	86	68.7	73.8	54.3	43	116.9	75.8	81.9	58.8
23-Sep	83	65	71.6	51.7	41	111.3	75	78.2	53.5
30-Sep	82	69.9	67.4	49.6	38	101.5	74.6	70.3	49.1
7-Oct	81	67.9	66.1	47.1	34	100.8	71.8	64.7	44.5
14-Oct	77	65.8	63.8	45.1	32	100.8	72.1	60.6	40.6
21-Oct	75	61.4	60.3	42.3	31	88.2	67.2	51.7	34.1
28-Oct	73	59.6	57.8	41.2	32	82.6	65	48.3	31.3
4-Nov	72	59.1	55.9	38.2	27	78.4	66.3	42.8	26.4
11-Nov	68	57.8	52.4	36.4	24	74.2	61.7	40.3	24.2
18-Nov	66	55.7	49.5	34.6	21	68.6	59.9	37.6	22.7
25-Nov	63	54.8	47.1	32.4	17	68.6	58.1	35.3	21.6
2-Dec	63	54.4	46.1	32.2	19	67.9	58.9	35.2	20.4
9-Dec	64	56.5	40.6	27.7	12	65.8	61.7	29.7	17.9
16-Dec	59	52.2	38.5	26	8	62.3	57.9	27.2	16.3
23-Dec	57	52.2	38	25.4	3	58.8	54	27.2	16
31-Dec	55	51	36.1	23.7	8	58.1	55.1	25.1	14.6

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	7.6	0	1134.6
FEB	7.1	0.2	986.6
MAR	45.8	4.7	826.8
APR	145.2	20.8	464.8
MAY	324.6	68.3	237.5
JUN	544.1	160.8	68.4
JUL	670.3	236.2	31.1
AUG	609.1	191.7	47.9
SEP	392.8	86.1	155.5
OCT	166.9	20.3	417.4
NOV	47.7	1.9	687.9
DEC	10.6	0.2	1018.2
ANN	2971.8	791.2	6076.7

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	-31818	2	-7649
FEB	0	-27769	0	-6804
MAR	10	-23784	1	-5216
APR	67	-14167	30	-2363
MAY	344	-7966	524	-418
JUN	895	-2775	3178	-9
JUL	1607	-1480	5582	-1
AUG	1145	-2140	4566	0
SEP	384	-5551	1739	-30
OCT	41	-12992	206	-835
NOV	0	-20134	3	-3479
DEC	0	-28798	0	-6335
ANN	4493	-179374	15831	-33139

Station Information		Shading Geometry in Dimensionless Units	
City, State, WBAN	HARRISBURG, PA 14751	Window:	1.000
Lat, Lon, Elev	40.22N 76.85W 348ft	Overhang:	0.540
Press, Stn_Type	14.6psia Secondary	Vert Gap:	0.322

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	620	870	1190	1520	1760	1930	1880	1670	1350	1000	640	520	1250
	Std.Dev.	47	74	77	132	142	118	108	94	110	80	57	36	36
	Minimum	530	690	1060	1290	1470	1700	1660	1500	1160	880	520	450	1180
	Maximum	720	1050	1360	1810	2040	2120	2080	1910	1530	1220	760	580	1320
	Diffuse	330	450	580	720	860	910	890	780	630	460	350	290	600
Clear Day	Global	880	1240	1710	2180	2490	2600	2520	2240	1810	1330	930	770	1730
NORTH	Global	200	270	350	440	540	620	590	480	380	290	210	180	380
	Diffuse	200	270	350	430	510	540	530	470	380	290	210	180	360
Clear Day	Global	180	250	330	430	580	680	620	480	360	270	190	160	380
EAST	Global	410	560	730	890	980	1060	1050	950	810	630	430	340	740
	Diffuse	240	330	430	520	600	650	640	570	470	360	260	210	440
Clear Day	Global	670	880	1110	1310	1420	1440	1410	1310	1140	900	690	600	1070
SOUTH	Global	960	1070	1060	950	830	790	820	930	1040	1120	910	830	940
	Diffuse	360	430	490	540	580	590	590	570	530	450	360	310	480
Clear Day	Global	1880	1950	1790	1420	1090	950	1000	1250	1590	1810	1830	1800	1530
WEST	Global	420	570	730	890	970	1050	1020	950	810	640	430	350	740
	Diffuse	250	330	430	530	610	650	640	580	480	360	260	210	450
Clear Day	Global	670	880	1110	1310	1420	1440	1410	1310	1140	900	690	600	1070

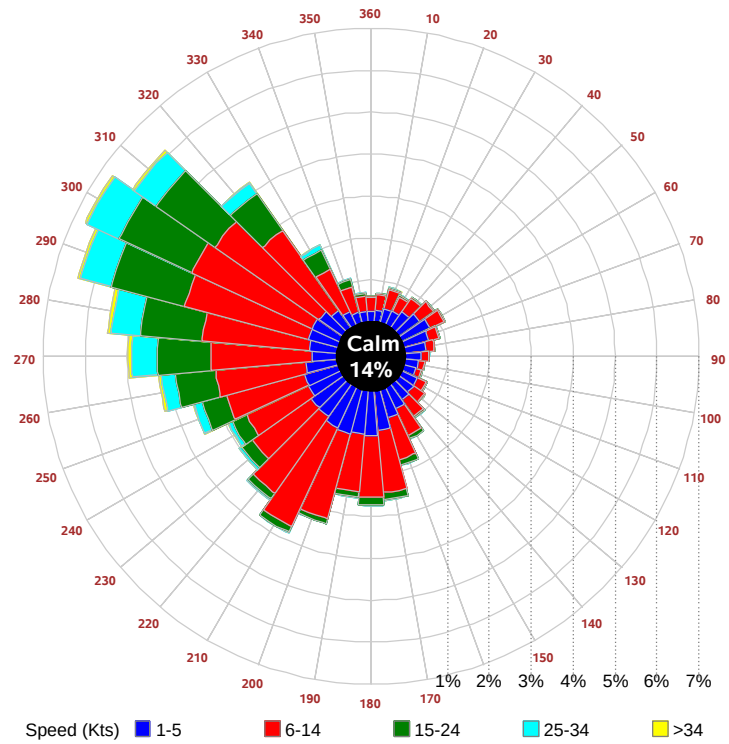
Average Annual Solar Radiation - Nearest Available Site Source: National Renewable Energy Laboratory, Golden CO, 1995

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	400	600	840	1090	1270	1400	1360	1200	960	690	430	330	880
NORTH	Unshaded	140	190	240	300	360	410	390	330	260	200	150	120	260
	Shaded	120	160	210	270	320	360	340	290	230	180	130	100	230
EAST	Unshaded	280	390	510	630	700	750	740	670	570	440	290	230	520
	Shaded	250	350	450	540	590	630	630	570	490	390	260	210	450
SOUTH	Unshaded	720	790	740	620	520	490	510	590	710	800	680	630	650
	Shaded	700	720	580	410	350	360	360	380	510	700	650	610	530
WEST	Unshaded	290	400	520	630	690	750	730	680	570	450	300	240	520
	Shaded	260	350	450	540	580	630	620	580	500	400	260	210	450

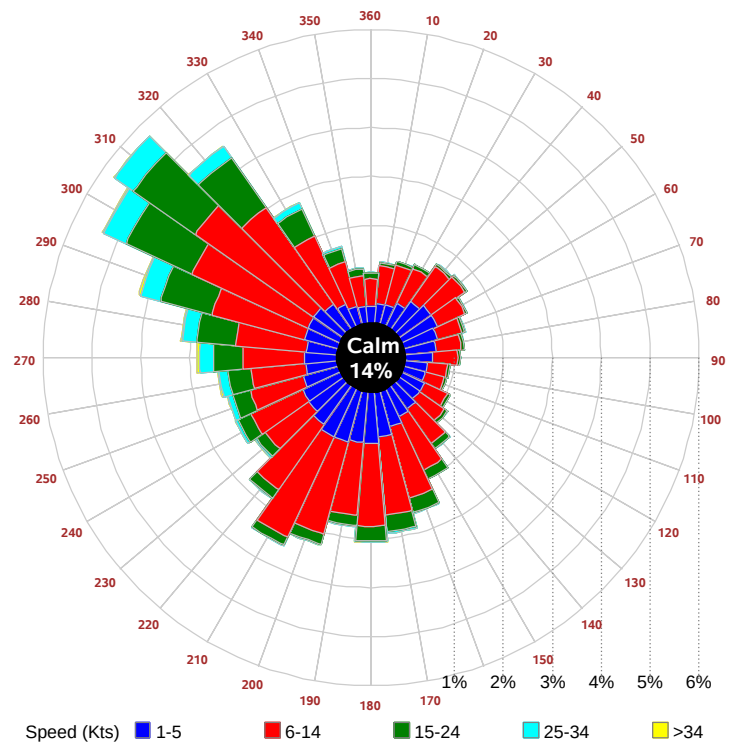
AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS Percentage Uncertainty = 9												
		March					June					
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm	
HORIZ.	M.Clear	37	70	80	63	27	45	82	99	94	68	
	M.Cloudy	21	42	47	39	17	28	52	70	67	47	
NORTH	M.Clear	9	14	15	13	8	18	17	17	17	16	
	M.Cloudy	9	15	16	14	7	13	17	20	19	16	
EAST	M.Clear	71	57	15	13	8	73	72	33	17	16	
	M.Cloudy	24	29	16	14	7	32	40	28	19	16	
SOUTH	M.Clear	37	71	82	65	27	12	32	47	44	22	
	M.Cloudy	16	34	38	32	12	11	24	36	33	19	
WEST	M.Clear	9	14	21	64	63	12	17	17	50	76	
	M.Cloudy	9	15	18	31	22	11	17	20	37	44	
M.Clear	(% hrs)	34	31	31	31	33	39	39	32	30	33	

		Sept					Dec					
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm	
HORIZ.	M.Clear	25	64	83	76	47	12	38	44	28	2	
	M.Cloudy	15	38	54	51	29	8	22	26	17	2	
NORTH	M.Clear	8	14	16	16	12	5	9	10	8	1	
	M.Cloudy	7	14	18	17	11	4	9	10	7	1	
EAST	M.Clear	58	69	30	16	12	35	38	10	8	1	
	M.Cloudy	18	31	24	17	11	10	16	10	7	1	
SOUTH	M.Clear	19	55	74	68	38	31	76	85	60	6	
	M.Cloudy	9	27	42	40	20	9	26	30	20	2	
WEST	M.Clear	8	14	16	51	71	5	9	20	45	9	
	M.Cloudy	7	14	18	32	32	4	9	13	16	2	
M.Clear	(% hrs)	42	40	35	33	37	27	27	27	27	31	

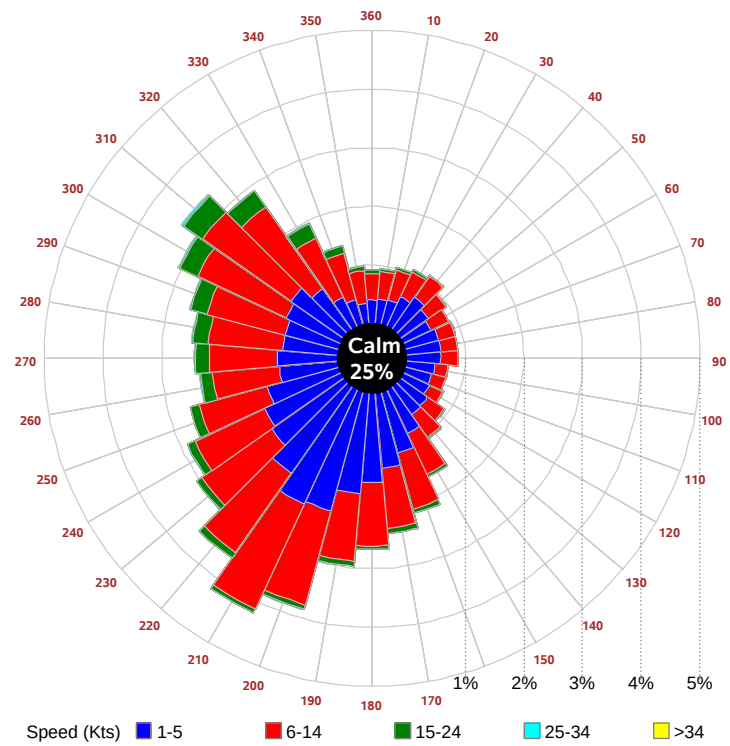
Wind Summary - December, January, and February



Wind Summary - March, April, and May



Wind Summary - June, July, and August



Wind Summary - September, October, and November

