MUSCLE SHOALS AL	
Latitude = 34.75 N	WMO No. 723235
Longitude = 87.62 W	Elevation = 551 feet
Period of Record = 1973 to 1996	Average Pressure = 29.45 inches Hg

Design Criteria Data

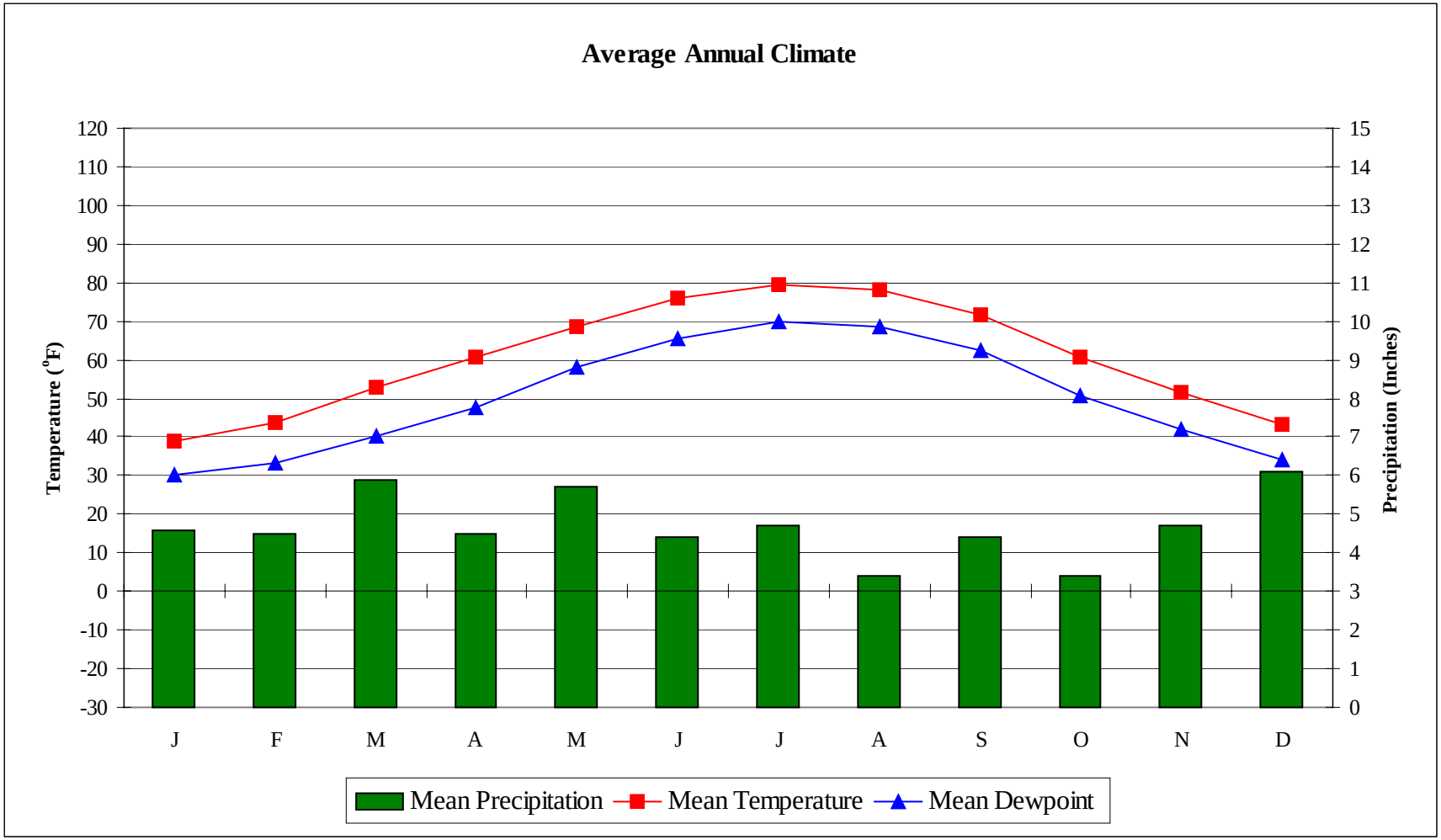
		Mean Coincident (Average) Values			
Dry Bulb Temperature (T)	**Design Value (^oF)**	Wet Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	97	76	106	7.1	W
0.4% Occurrence	95	76	107	7.0	W
1.0% Occurrence	93	76	107	7.0	W
2.0% Occurrence	91	75	108	7.0	W
Mean Daily Range	20	-	-	-	-
97.5% Occurrence	26	24	15	6.5	N
99.0% Occurrence	20	18	11	7.2	N
99.6% Occurrence	16	15	9	8.2	N
Median of Extreme Lows	9	8	6	8.8	N
		Mean Coincident (Average) Values			
Wet Bulb Temperature (T_{wb})	**Design Value (^oF)**	Dry Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	81	92	140	6.8	W
0.4% Occurrence	79	89	131	6.4	W
1.0% Occurrence	78	88	127	6.3	W
2.0% Occurrence	77	87	124	6.1	W
		Mean Coincident (Average) Values			
Humidity Ratio (HR)	**Design Value (gr/lb)**	Dry Bulb Temperature (^oF)	Vapor Pressure (in. Hg)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	154	86	1.00	5.3	W
0.4% Occurrence	138	84	0.90	4.7	S
1.0% Occurrence	134	83	0.88	4.7	S
2.0% Occurrence	130	82	0.85	4.7	S
Air Conditioning/		$T \geq 93^oF$	$T \geq 80^oF$	$T_{wb} \geq 73^oF$	$T_{wb} \geq 67^oF$
Humid Area Criteria	# of Hours	103	1227	1097	2597

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
8	3.6	90	4.1 + 1.3
Ground Water Temperature (^oF) 50 Foot Depth *	**Frost Depth 50 Year Recurrence (in.)**	**Ground Snow Load 50 Year Recurrence (lb/ft^2)**	**Average Annual Freeze-Thaw Cycles (#)**
63.1	N/A	N/A	40

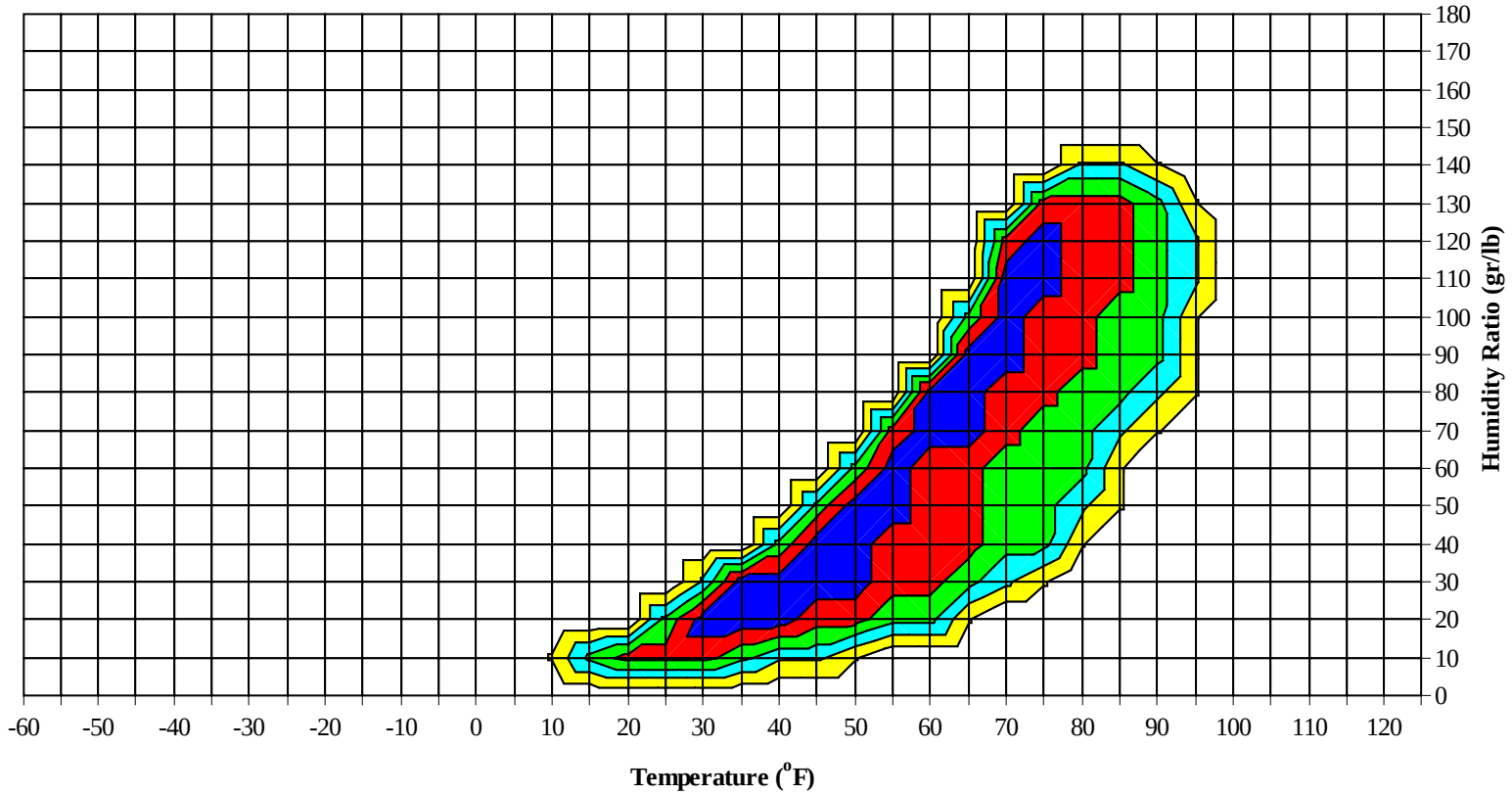
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

MUSCLE SHOALS AL WMO No. 723235



MUSCLE SHOALS AL WMO No. 723235

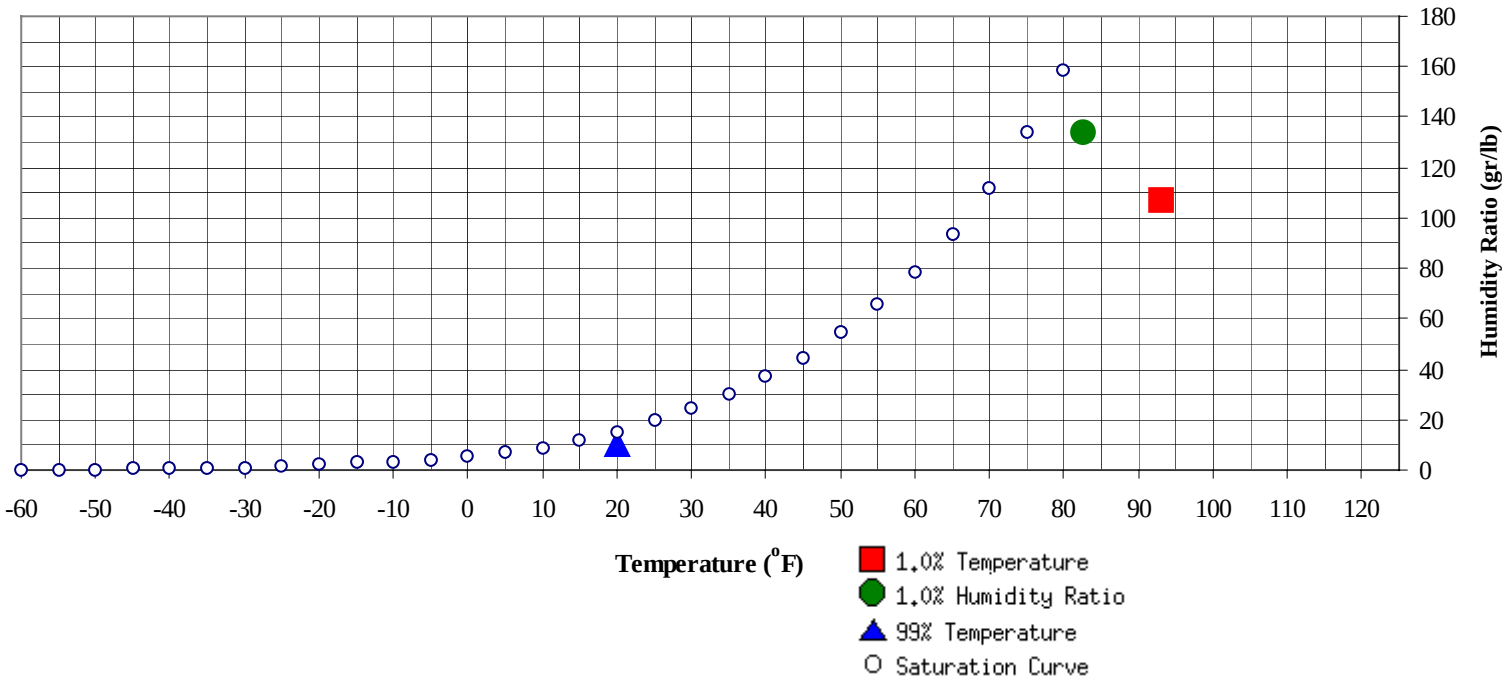
Long Term Psychrometric Summary



- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

MUSCLE SHOALS AL WMO No. 723235

Psychrometric Summary of Peak Design Values



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
99% Dry Bulb	20	10.6	6.4

	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
1.0% Humidity Ratio	133.7	82.7	77	75	40.8

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	93	107.4	75.6	39.2

MUSCLE SHOALS AL WMO No. 723235

Dry-Bulb Temperature Hours For An Average Year (Sheet 1 of 5)

Period of Record = 1973 to 1996

Temperature Range (°F)	January Hour Group (LST) 01 To 08	January 09 To 16	January 17 To 00	January Total Obs	January MCWB (°F)	February Hour Group (LST) 01 To 08	February 09 To 16	February 17 To 00	February Total Obs	February MCWB (°F)	March Hour Group (LST) 01 To 08	March 09 To 16	March 17 To 00	March Total Obs	March MCWB (°F)
100 / 104															
95 / 99															
90 / 94															
85 / 89												0		0	70.0
80 / 84							0		0	62.3		5	0	5	63.2
75 / 79		0		0	62.0	0	2	0	2	60.7		17	5	22	61.7
70 / 74		1	0	1	59.5	0	8	2	10	59.2	2	27	13	42	59.7
65 / 69	1	7	2	10	58.9	3	16	6	25	57.6	9	33	23	65	57.6
60 / 64	4	15	8	27	55.5	8	26	17	52	54.7	21	37	37	94	54.7
55 / 59	9	20	16	46	51.9	12	27	24	64	51.0	30	36	38	104	50.9
50 / 54	14	30	22	66	46.7	21	30	28	79	46.7	43	35	43	121	46.9
45 / 49	23	42	32	97	42.6	25	27	31	83	42.3	40	26	35	100	42.4
40 / 44	29	39	41	109	38.3	29	27	33	89	37.9	35	17	28	80	37.9
35 / 39	36	36	40	112	33.8	35	24	29	89	33.5	36	10	17	62	33.9
30 / 34	51	28	39	118	29.6	39	21	28	89	29.3	24	4	7	35	29.8
25 / 29	31	16	26	73	24.9	24	10	16	50	24.6	5	1	2	8	24.6
20 / 24	26	9	15	50	20.1	17	4	6	26	20.1	2	1	1	4	20.4
15 / 19	14	4	4	21	15.4	10	1	2	13	15.8	1	0	1	2	15.3
10 / 14	5	1	2	8	10.8	1	0	0	1	11.0	0			0	12.3
5 / 9	2	1	1	4	5.9	0	0	0	0	6.4					
0 / 4	1	0	0	1	0.5	0	0		0	1.5					
-5 / -1	1	0	0	1	-2.6										
-10 / -6	0		0	0											
-15 / -11	0			0											

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.

MUSCLE SHOALS AL WMO No. 723235

Dry-Bulb Temperature Hours For An Average Year (Sheet 2 of 5)

Period of Record = 1973 to 1996

Temperature Range (°F)	April Hour Group (LST) 01 To 08	April 09 To 16	April 17 To 00	April Total Obs	April MCWB (°F)	May Hour Group (LST) 01 To 08	May 09 To 16	May 17 To 00	May Total Obs	May MCWB (°F)	June Hour Group (LST) 01 To 08	June 09 To 16	June 17 To 00	June Total Obs	June MCWB (°F)
100 / 104															
95 / 99												5	0	5	75.1
90 / 94		0		0	65.2	0	3	0	3	72.3	0	33	5	38	74.5
85 / 89		4	1	5	65.1	0	28	4	32	71.5	1	70	20	91	73.4
80 / 84		26	4	30	64.8	1	55	16	72	69.1	9	66	38	114	71.6
75 / 79	0	36	14	50	63.1	8	54	31	93	66.9	33	40	58	130	70.1
70 / 74	6	42	29	77	61.0	28	48	54	130	65.0	86	22	75	183	68.6
65 / 69	25	42	42	108	59.3	65	36	61	162	62.6	66	5	31	102	64.7
60 / 64	41	39	49	128	55.8	60	18	46	124	58.6	30	0	10	40	59.8
55 / 59	42	26	41	109	51.5	42	6	22	70	54.0	12		2	14	55.3
50 / 54	43	15	29	87	47.3	29	1	10	40	49.4	3		0	3	51.1
45 / 49	39	8	20	67	43.3	12	0	2	14	45.3	0			0	47.0
40 / 44	25	3	8	36	39.0	3			3	41.9					
35 / 39	14	1	2	17	34.9	0			0	37.5					
30 / 34	5		1	6	30.6										
25 / 29	1		0	1	27.1										
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															

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MUSCLE SHOALS AL WMO No. 723235

Dry-Bulb Temperature Hours For An Average Year (Sheet 3 of 5)

Period of Record = 1973 to 1996

Temperature Range (°F)	July Hour Group (LST) 01 To 08	July 09 To 16	July 17 To 00	July Total Obs	July MCWB (°F)	August Hour Group (LST) 01 To 08	August 09 To 16	August 17 To 00	August Total Obs	August MCWB (°F)	September Hour Group (LST) 01 To 08	September 09 To 16	September 17 To 00	September Total Obs	September MCWB (°F)
100 / 104		3	0	3	78.7		1	0	1	75.7		0		0	74.7
95 / 99		16	2	18	77.4		14	2	16	76.1		3	0	3	73.8
90 / 94	0	62	14	77	76.1		49	9	58	75.4	0	17	2	19	73.6
85 / 89	4	73	32	109	75.1	1	77	23	101	74.5	0	42	7	49	72.7
80 / 84	18	56	53	127	74.0	10	63	48	121	73.2	2	61	21	84	70.8
75 / 79	63	27	79	169	72.6	46	32	76	154	72.3	15	49	45	109	69.6
70 / 74	122	10	60	192	70.2	111	11	72	194	70.0	64	35	70	169	67.9
65 / 69	34	1	7	42	65.6	60	1	16	77	65.7	63	19	45	127	64.0
60 / 64	7		1	8	60.9	16	0	2	18	60.5	39	10	28	77	59.0
55 / 59	0			0	57.2	3		0	3	55.6	30	4	14	48	54.7
50 / 54						0			0	53.3	17	0	7	24	50.6
45 / 49											7		1	8	46.2
40 / 44											2			2	42.3
35 / 39															
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															

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.

MUSCLE SHOALS AL WMO No. 723235

Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)

Period of Record = 1973 to 1996

Temperature Range (°F)	October Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)	November Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)	December Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
100 / 104															
95 / 99															
90 / 94		0		0	70.3										
85 / 89		3	0	3	71.9										
80 / 84		25	1	26	67.7		1		1	66.6					
75 / 79	1	40	8	50	65.2	0	11	0	11	63.9		0	0	0	70.8
70 / 74	7	54	22	83	62.9	2	25	5	32	62.8	1	5	1	7	65.2
65 / 69	24	46	46	116	60.5	11	33	20	64	60.5	3	13	5	21	60.9
60 / 64	39	39	49	128	57.0	23	39	31	94	56.6	12	24	15	50	57.5
55 / 59	38	23	44	105	53.0	30	37	35	102	52.3	14	27	21	62	52.6
50 / 54	44	12	41	97	48.8	30	34	38	102	47.2	18	38	25	81	46.8
45 / 49	47	3	25	75	44.8	32	30	39	100	42.7	28	43	38	109	42.9
40 / 44	29	1	9	39	40.4	36	18	32	86	38.5	36	38	41	115	38.4
35 / 39	16	1	3	20	35.8	34	9	25	68	34.3	37	27	43	107	33.7
30 / 34	3		0	3	31.9	27	3	11	40	30.1	41	18	32	91	29.5
25 / 29	0		0	0	28.2	14	0	3	17	25.9	32	8	16	55	25.1
20 / 24						2	0	1	3	21.3	15	4	7	26	20.2
15 / 19						0			0	17.0	6	2	2	10	15.8
10 / 14											3	1	1	5	10.8
5 / 9											1	1	1	3	5.6
0 / 4											1	0	1	2	1.1
-5 / -1											0			0	-3.5
-10 / -6											0			0	-6.0
-15 / -11															

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.

MUSCLE SHOALS AL WMO No. 723235

Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

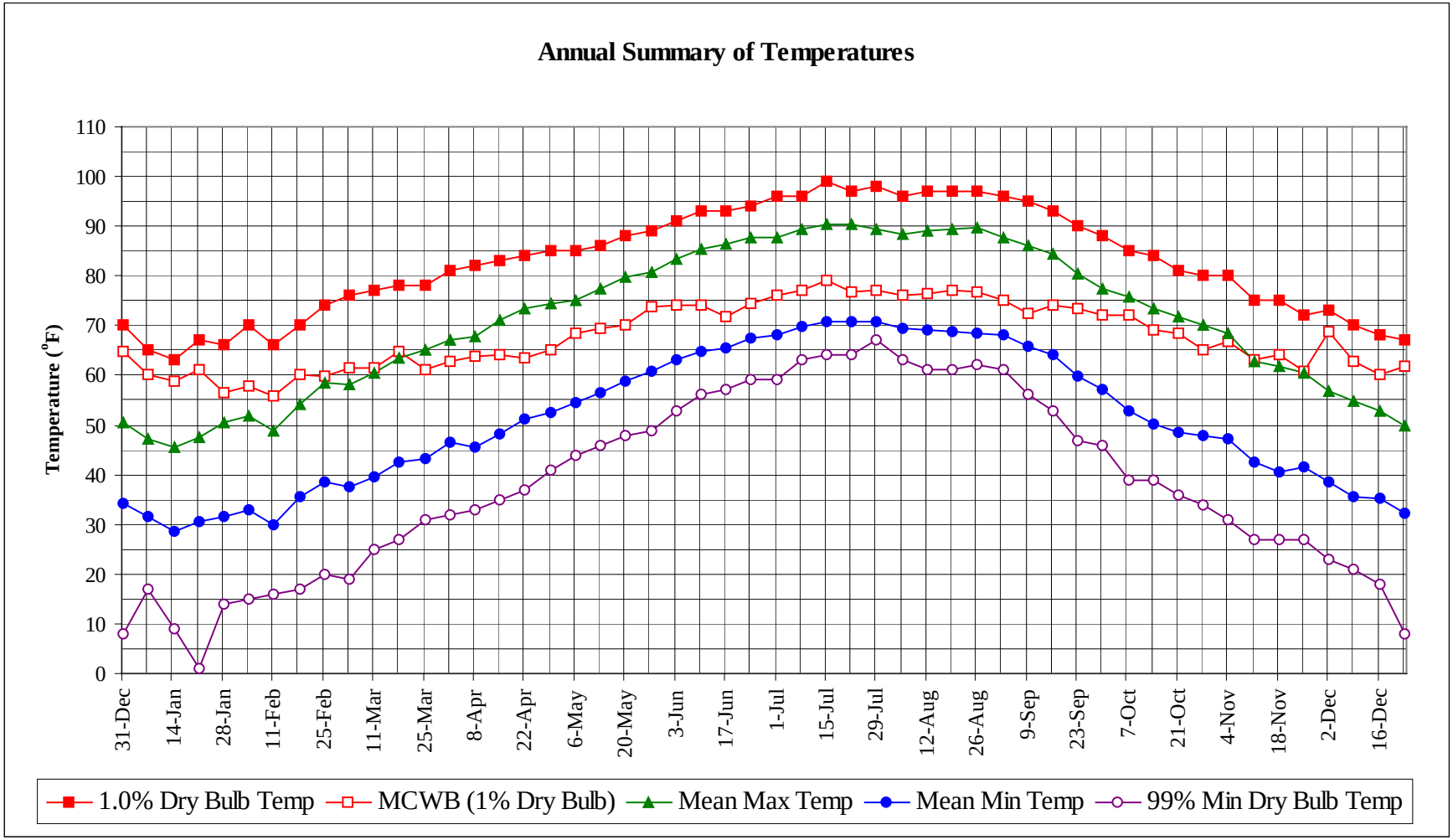
Period of Record = 1973 to 1996

Annual Totals

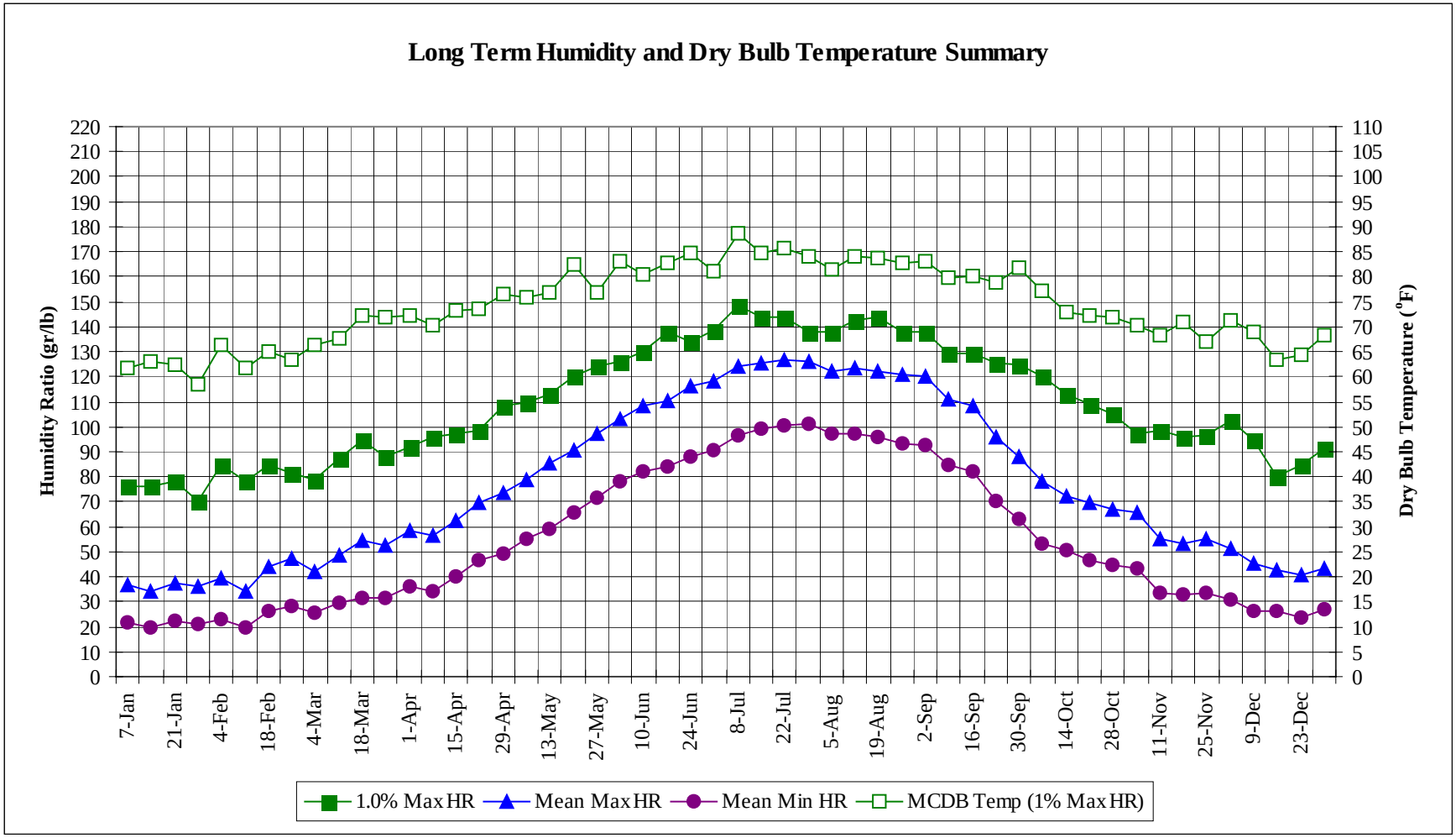
Temperature Range (°F)	Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
100 / 104		4	0	4	77.7
95 / 99		38	5	43	76.4
90 / 94	0	164	30	194	75.3
85 / 89	5	295	87	387	73.8
80 / 84	40	356	182	578	71.4
75 / 79	169	308	314	791	69.5
70 / 74	435	288	400	1123	67.0
65 / 69	365	253	303	921	62.0
60 / 64	301	247	293	841	57.0
55 / 59	263	206	256	725	52.4
50 / 54	258	197	245	699	47.5
45 / 49	251	177	225	654	43.0
40 / 44	221	143	193	557	38.4
35 / 39	206	107	159	472	33.9
30 / 34	189	74	119	382	29.6
25 / 29	106	35	63	204	25.0
20 / 24	61	17	30	108	20.2
15 / 19	32	8	10	50	15.6
10 / 14	10	2	4	16	10.9
5 / 9	3	2	1	6	5.8
0 / 4	2	1	1	4	0.8
-5 / -1	1	0	0	1	-2.9
-10 / -6	0		0	0	-6.0
-15 / -11	0			0	

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.

MUSCLE SHOALS AL WMO No. 723235



MUSCLE SHOALS AL WMO No. 723235

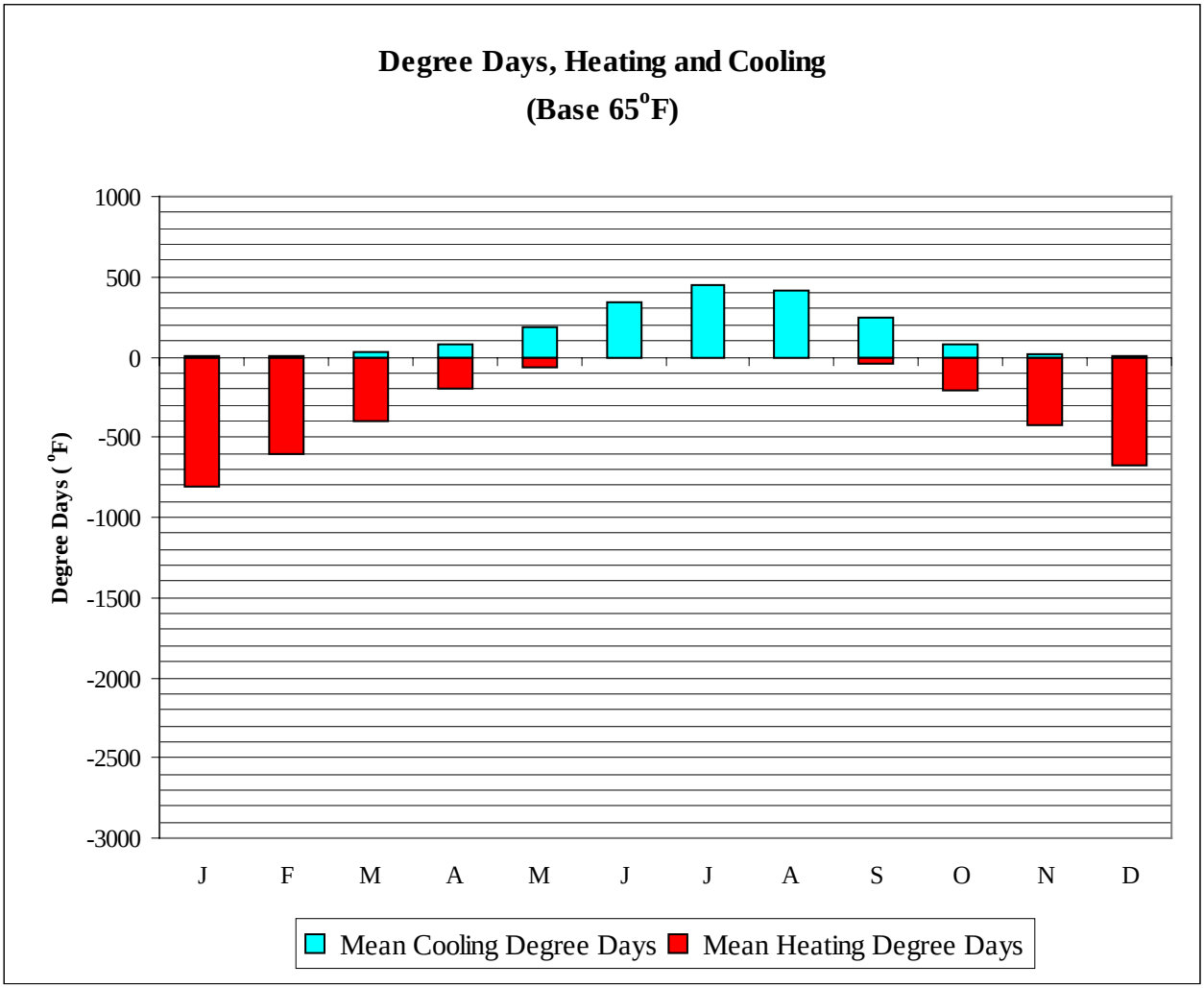


MUSCLE SHOALS AL WMO No. 723235

Long Term Dry Bulb Temperature and Humidity Summary

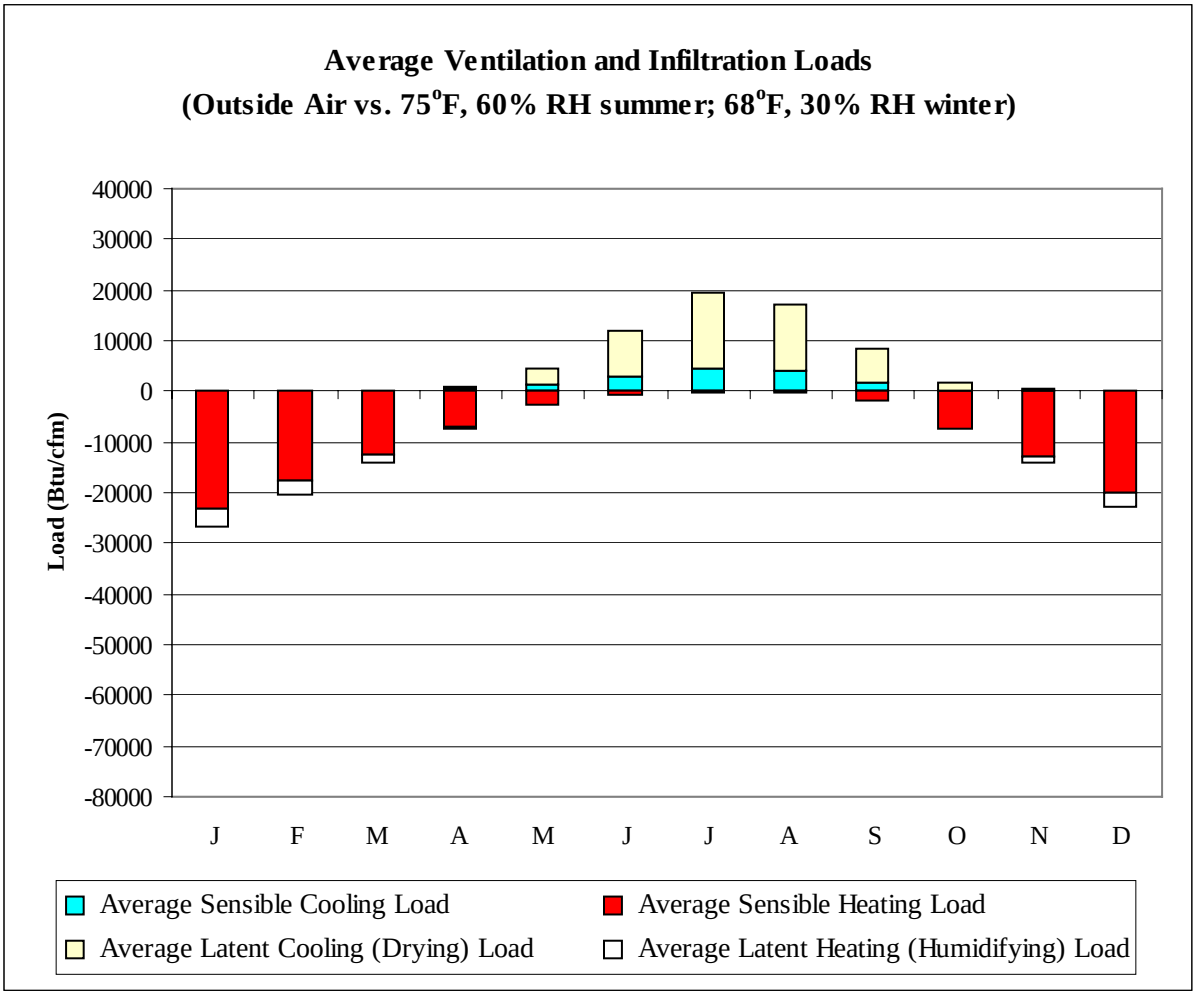
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	65.0	60.0	47.2	31.4	17.0	76.3	61.6	37.0	21.7
14-Jan	63.0	58.7	45.4	28.7	9.0	76.3	63.0	33.9	19.5
21-Jan	67.0	61.1	47.4	30.5	1.0	78.4	62.3	37.1	22.1
28-Jan	66.0	56.5	50.6	31.6	14.0	70.0	58.4	36.4	20.9
4-Feb	70.0	57.8	51.9	32.9	15.0	84.7	66.3	39.3	23.1
11-Feb	66.0	55.8	48.9	30.1	16.0	78.4	61.8	34.4	19.5
18-Feb	70.0	60.1	54.3	35.6	17.0	84.7	65.1	43.7	26.3
25-Feb	74.0	59.9	58.6	38.5	20.0	81.2	63.5	47.0	28.3
4-Mar	76.0	61.4	58.0	37.6	19.0	79.1	66.4	42.1	25.9
11-Mar	77.0	61.4	60.3	39.5	25.0	87.5	67.6	48.9	29.3
18-Mar	78.0	64.8	63.6	42.7	27.0	94.5	72.1	54.6	31.3
25-Mar	78.0	61.0	65.0	43.4	31.0	88.2	71.9	52.3	31.2
1-Apr	81.0	62.8	67.1	46.6	32.0	91.7	72.1	58.5	36.2
8-Apr	82.0	63.7	67.8	45.7	33.0	95.9	70.4	56.8	34.3
15-Apr	83.0	64.1	71.0	48.1	35.0	97.3	73.3	62.4	39.7
22-Apr	84.0	63.5	73.3	51.3	37.0	98.7	73.6	69.4	46.5
29-Apr	85.0	65.2	74.6	52.4	41.0	108.5	76.5	73.4	49.1
6-May	85.0	68.3	75.0	54.7	44.0	109.9	75.9	78.7	55.1
13-May	86.0	69.4	77.5	56.7	46.0	112.7	76.7	85.1	58.9
20-May	88.0	70.1	79.8	59.0	48.0	120.4	82.4	90.4	65.5
27-May	89.0	73.9	80.7	60.9	49.0	123.9	76.8	97.5	71.7
3-Jun	91.0	74.1	83.3	63.1	53.0	126.0	83.0	103.2	78.1
10-Jun	93.0	74.0	85.5	64.9	56.0	130.2	80.3	108.1	81.8
17-Jun	93.0	71.9	86.5	65.5	57.0	137.9	82.6	110.3	84.2
24-Jun	94.0	74.4	87.8	67.3	59.0	133.7	84.8	116.0	88.3
1-Jul	96.0	76.1	87.8	68.0	59.0	138.6	81.2	118.3	90.5
8-Jul	96.0	77.2	89.4	69.7	63.0	148.4	88.5	124.0	96.8
15-Jul	99.0	79.3	90.4	70.7	64.0	143.5	84.9	125.3	99.0
22-Jul	97.0	76.7	90.4	70.7	64.0	143.5	85.6	126.6	100.2
29-Jul	98.0	77.2	89.6	70.9	67.0	137.9	84.0	126.4	101.3
5-Aug	96.0	76.1	88.4	69.5	63.0	137.9	81.6	121.9	97.3
12-Aug	97.0	76.5	88.9	69.1	61.0	142.8	84.0	123.7	97.2
19-Aug	97.0	76.9	89.5	68.8	61.0	143.5	83.8	121.9	96.0
26-Aug	97.0	76.9	89.8	68.4	62.0	137.9	82.7	120.8	93.5
2-Sep	96.0	75.2	87.8	68.2	61.0	137.9	83.0	120.3	92.3
9-Sep	95.0	72.5	86.2	65.8	56.0	129.5	79.7	111.0	84.5
16-Sep	93.0	74.0	84.5	64.3	53.0	129.5	80.0	108.5	81.9
23-Sep	90.0	73.4	80.5	59.8	47.0	125.3	78.9	95.8	70.5
30-Sep	88.0	72.1	77.3	57.0	46.0	124.6	81.8	88.0	63.3
7-Oct	85.0	72.2	75.7	52.8	39.0	120.4	77.1	78.0	53.3
14-Oct	84.0	69.2	73.5	50.3	39.0	112.7	72.8	72.3	50.2
21-Oct	81.0	68.6	71.7	48.6	36.0	109.2	72.4	69.5	46.6
28-Oct	80.0	65.0	70.0	47.7	34.0	105.0	72.0	66.7	44.8
4-Nov	80.0	66.8	68.4	47.1	31.0	97.3	70.1	65.4	43.4
11-Nov	75.0	63.2	62.9	42.5	27.0	98.7	68.3	55.4	33.5
18-Nov	75.0	64.1	61.8	40.6	27.0	95.9	71.0	53.3	33.0
25-Nov	72.0	60.8	60.5	41.6	27.0	96.6	66.9	55.1	33.3
2-Dec	73.0	68.7	57.0	38.7	23.0	102.2	71.4	51.3	30.9
9-Dec	70.0	62.9	54.7	35.5	21.0	94.5	69.0	45.0	26.0
16-Dec	68.0	60.3	52.8	35.2	18.0	79.8	63.3	42.9	26.0
23-Dec	67.0	61.9	49.8	32.3	8.0	84.7	64.3	40.6	23.6
31-Dec	70.0	64.8	50.4	34.2	8.0	91.0	68.3	43.2	26.9

MUSCLE SHOALS AL WMO No. 723235



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	1	806
FEB	6	605
MAR	30	402
APR	80	203
MAY	184	67
JUN	345	9
JUL	455	1
AUG	414	3
SEP	246	43
OCT	77	213
NOV	18	421
DEC	3	675
ANN	1858	3448

MUSCLE SHOALS AL WMO No. 723235



	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	-23287	8	-3610
FEB	4	-17808	28	-2730
MAR	67	-12510	130	-1451
APR	363	-6864	542	-438
MAY	1163	-2725	3430	-15
JUN	3074	-509	9097	0
JUL	4636	-73	14754	0
AUG	3984	-187	13024	0
SEP	1845	-1741	6668	-2
OCT	301	-7185	1286	-169
NOV	17	-13009	365	-1258
DEC	0	-19861	108	-2793
ANN	15454	-105759	49440	-12466

Average Annual Solar Radiation – Nearest Available Site

(Source: National Renewable Energy Laboratory, Golden CO, 1995)

City: HUNTSVILLE
State: AL
WBAN No: 3856
Lat(N): 34.65
Long(W): 86.77
Elev(ft): 623

Stn Type: Secondary
SHADING GEOMETRY IN DIMENSIONLESS UNITS
Window: 1
Overhang: 0.383
Vert Gap: 0.282

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	750	990	1310	1690	1880	2000	1930	1810	1490	1220	840	680	1380
	Std Dev	64	84	116	119	123	126	131	119	101	107	69	59	35
	Minimum	600	860	1100	1440	1670	1650	1650	1480	1320	1010	700	590	1330
	Maximum	880	1230	1600	1900	2190	2290	2180	2000	1670	1470	960	780	1470
	Diffuse	370	460	580	690	810	860	870	780	650	480	380	330	610
Clear Day	Global	1120	1450	1890	2290	2520	2580	2510	2290	1940	1520	1150	1000	1860
NORTH	Global	230	290	360	440	550	620	580	490	400	320	250	210	400
	Diffuse	230	290	360	430	500	530	520	470	400	320	250	210	380
Clear Day	Global	210	270	340	430	580	680	620	480	380	300	230	200	390
EAST	Global	480	600	760	950	1020	1070	1030	1000	840	730	520	430	790
	Diffuse	270	340	440	530	600	630	630	580	490	390	300	250	460
Clear Day	Global	800	970	1190	1330	1390	1390	1350	1280	1150	960	780	710	1110
SOUTH	Global	1020	1070	1040	930	750	680	710	870	1030	1240	1090	980	950
	Diffuse	370	420	490	530	550	550	560	560	540	480	390	340	480
Clear Day	Global	1990	1940	1680	1240	900	760	810	1070	1450	1760	1890	1920	1450
WEST	Global	490	630	790	970	1030	1070	1020	990	870	750	540	450	800
	Diffuse	280	350	450	540	610	640	630	590	510	400	300	250	460
Clear Day	Global	800	970	1190	1330	1390	1390	1350	1280	1150	960	780	710	1110

Average Annual Solar Heat and Illumination – Nearest Available Site

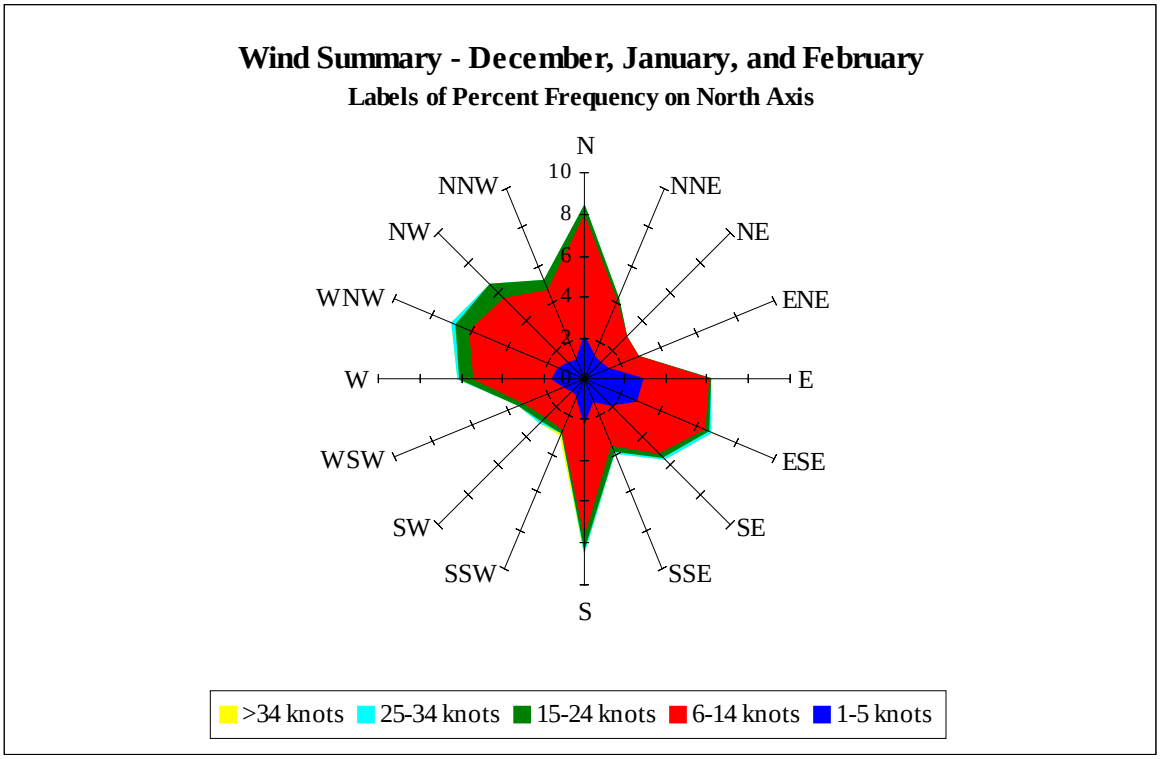
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

AVERAGE TRANSMITTED SOLAR RADIATION (Btu/sq.ft./day) FOR DOUBLE GLAZING, Percentage Uncertainty = 9

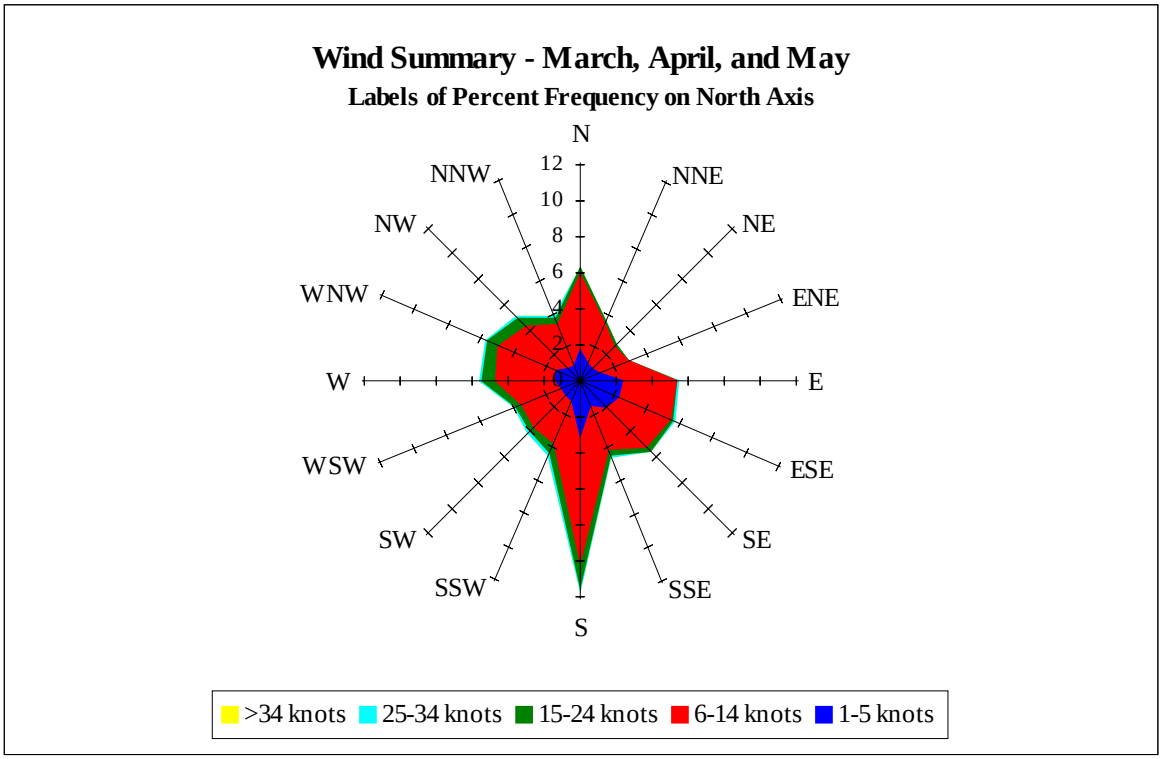
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ	Unshaded	500	690	930	1220	1370	1460	1400	1310	1070	870	570	450	990
NORTH	Unshaded	160	200	250	300	360	400	380	330	280	220	170	150	270
	Shaded	140	180	230	280	330	370	350	310	260	210	160	130	250
EAST	Unshaded	330	420	540	670	730	750	730	710	600	510	360	290	550
	Shaded	310	390	490	610	650	680	650	640	540	470	340	270	500
SOUTH	Unshaded	760	780	700	580	450	410	430	530	680	880	810	730	650
	Shaded	740	730	590	430	350	350	360	390	530	790	780	720	560
WEST	Unshaded	340	440	560	690	730	760	720	700	610	530	380	310	560
	Shaded	310	410	510	630	660	680	650	630	560	490	350	290	510

AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9

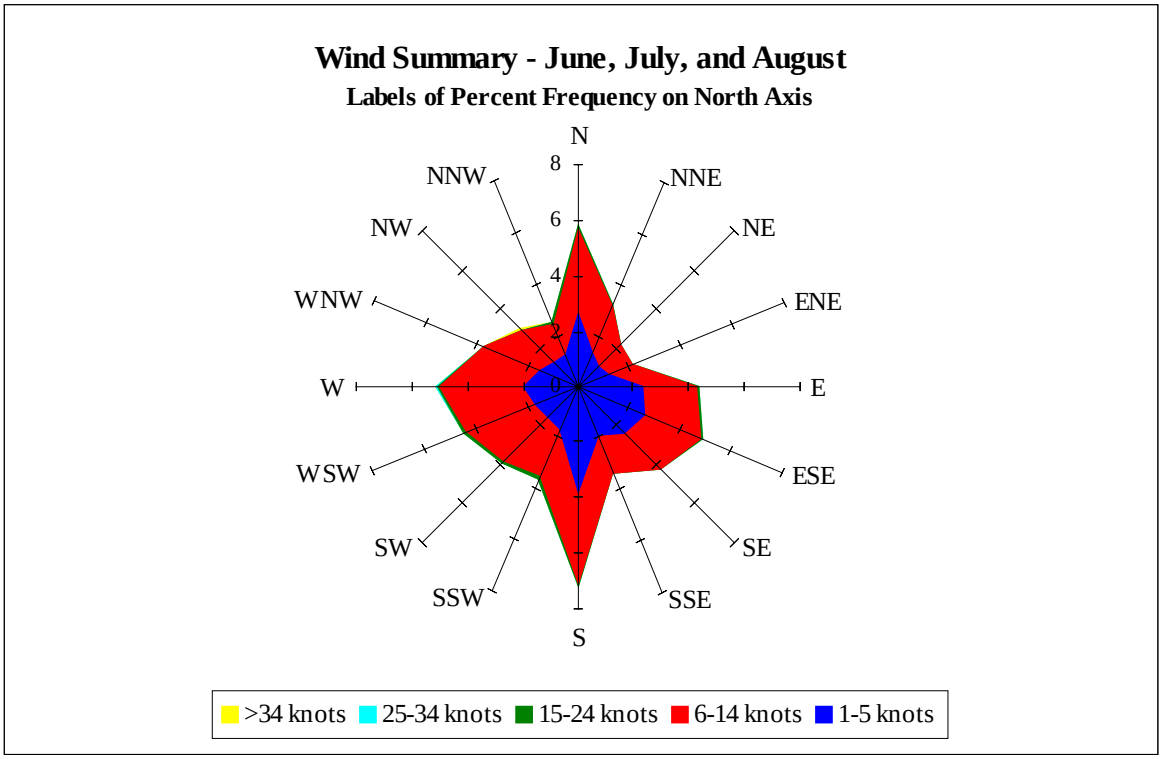
		March					June				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	49	80	87	65	23	51	87	102	92	61
	M.Cloudy	26	50	55	38	15	35	64	75	73	47
NORTH	M.Clear	11	15	15	13	7	21	17	17	18	17
	M.Cloudy	10	16	17	14	6	16	18	19	19	16
EAST	M.Clear	78	52	15	13	7	77	68	24	18	15
	M.Cloudy	27	31	17	14	6	42	48	23	19	15
SOUTH	M.Clear	43	71	77	58	21	13	28	38	32	15
	M.Cloudy	18	38	43	29	11	13	25	32	29	15
WEST	M.Clear	11	15	31	72	63	13	17	17	57	75
	M.Cloudy	10	16	24	33	24	13	18	19	45	51
M.Clear	(% hrs)	33	28	26	32	26	35	34	36	29	33
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	34	74	88	77	42	25	52	55	32	2
	M.Cloudy	22	50	60	57	31	13	30	32	18	2
NORTH	M.Clear	10	16	17	16	12	7	11	11	8	1
	M.Cloudy	9	16	18	17	11	6	11	12	8	1
EAST	M.Clear	67	66	22	16	12	54	37	11	8	1
	M.Cloudy	28	40	21	17	11	14	19	12	8	1
SOUTH	M.Clear	24	56	69	59	30	53	86	90	62	5
	M.Cloudy	13	35	44	41	20	13	33	36	20	2
WEST	M.Clear	10	16	17	58	69	7	11	29	55	8
	M.Cloudy	9	16	18	40	39	6	11	17	18	3
M.Clear	(% hrs)	36	36	40	34	37	30	26	26	33	31



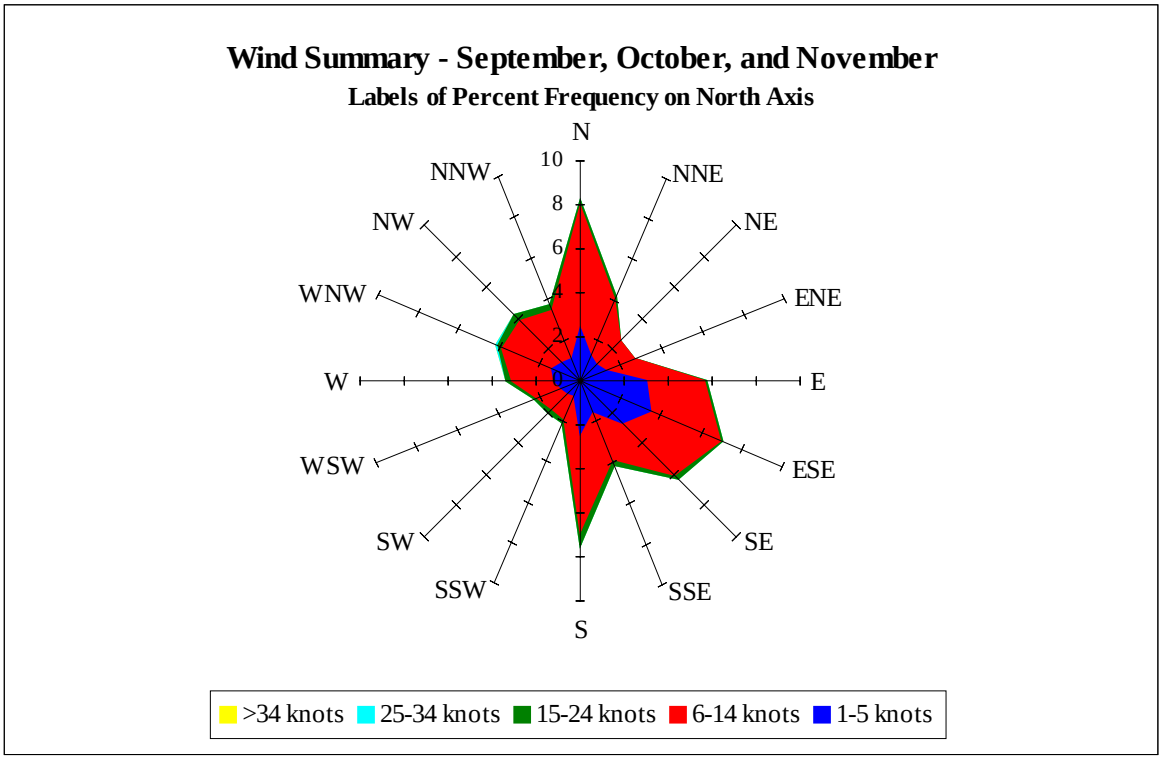
Percent Calm = 17.08



Percent Calm = 20.17



Percent Calm = 37.03



Percent Calm = 29.98