SPOKANE WA	
Latitude = 47.63 N	WMO No. 727850
Longitude =117.50 W	Elevation = 2366 feet
Period of Record = 1973 to 1996	Average Pressure = 27.50 inches Hg

Design Criteria Data

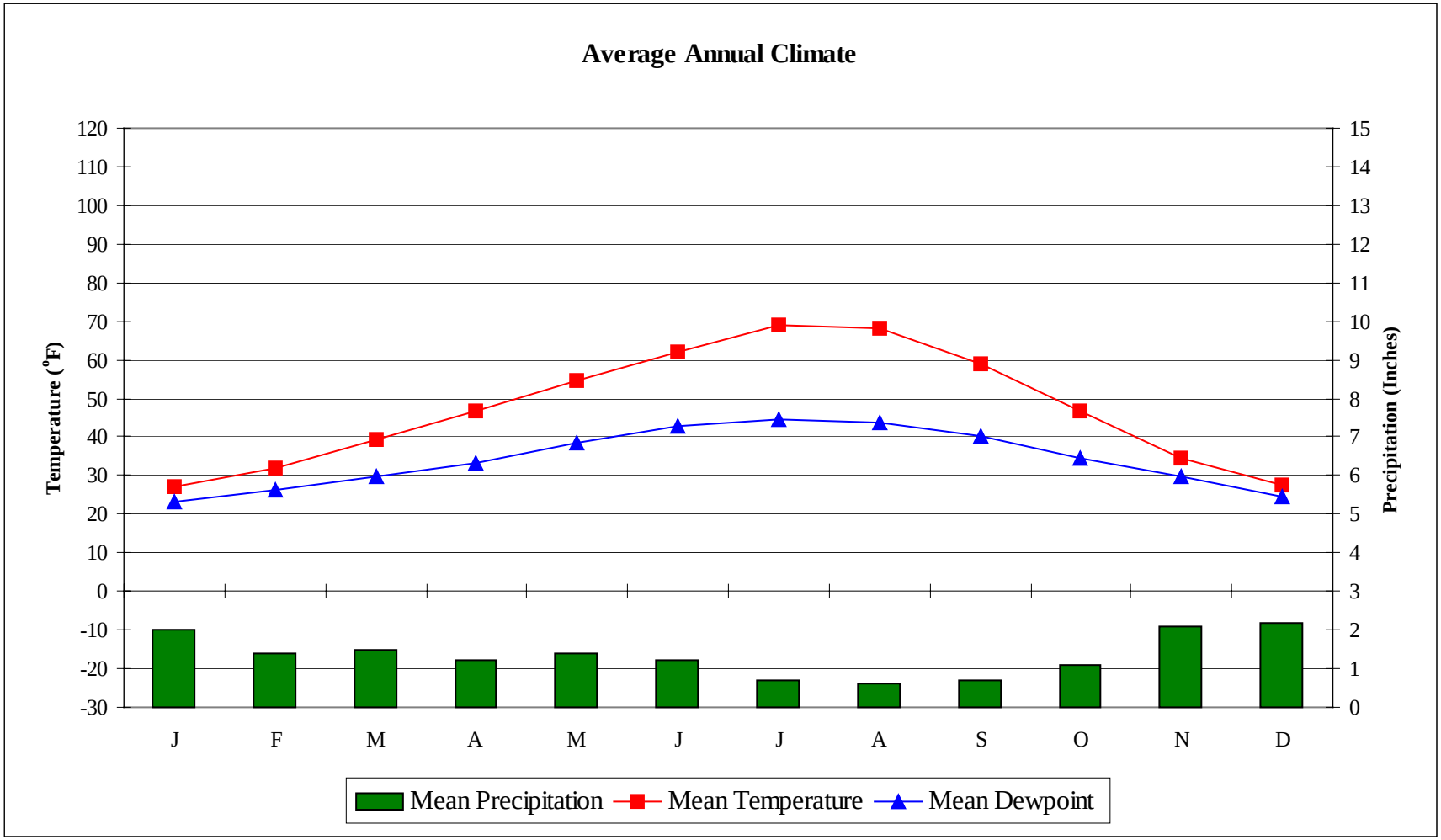
		Mean Coincident (Average) Values			
Dry Bulb Temperature (T)	**Design Value (^oF)**	Wet Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	97	65	47	9.3	SW
0.4% Occurrence	92	63	45	9.5	WSW
1.0% Occurrence	89	62	45	9.6	WSW
2.0% Occurrence	85	60	46	9.7	SW
Mean Daily Range	19	-	-	-	-
97.5% Occurrence	14	13	10	6.6	NE
99.0% Occurrence	7	6	7	6.1	NE
99.6% Occurrence	0	-1	4	6.1	NE
Median of Extreme Lows	-5	-5	3	6.6	NE
		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	67	88	70	9.3	NE
0.4% Occurrence	65	86	65	9.0	NE
1.0% Occurrence	63	83	59	9.0	NE
2.0% Occurrence	62	82	57	9.1	SW
		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	88	67	0.54	9.1	S
0.4% Occurrence	78	68	0.48	7.9	NE
1.0% Occurrence	73	68	0.45	8.9	SSW
2.0% Occurrence	68	67	0.42	8.7	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	34	414	0	10

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^oF-RH 60% Latent + Sensible
5	1.0	85	0.0 + 0.4
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 (#)
49.8	64	42	72

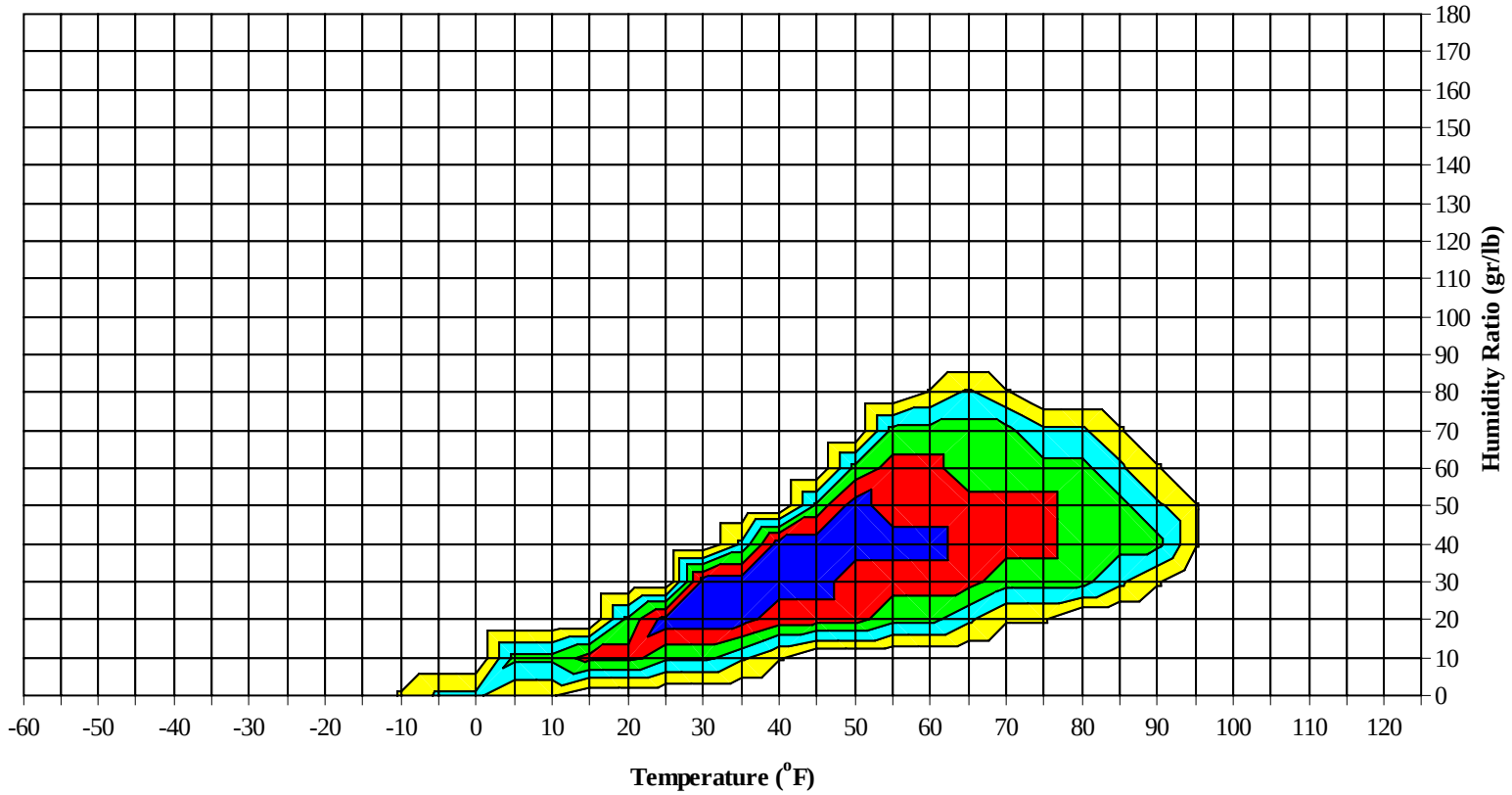
*Note: Temperatures at greater depths can be estimated by adding 1.5^oF per 100 feet additional depth.

SPOKANE WA WMO No. 727850



SPOKANE WA WMO No. 727850

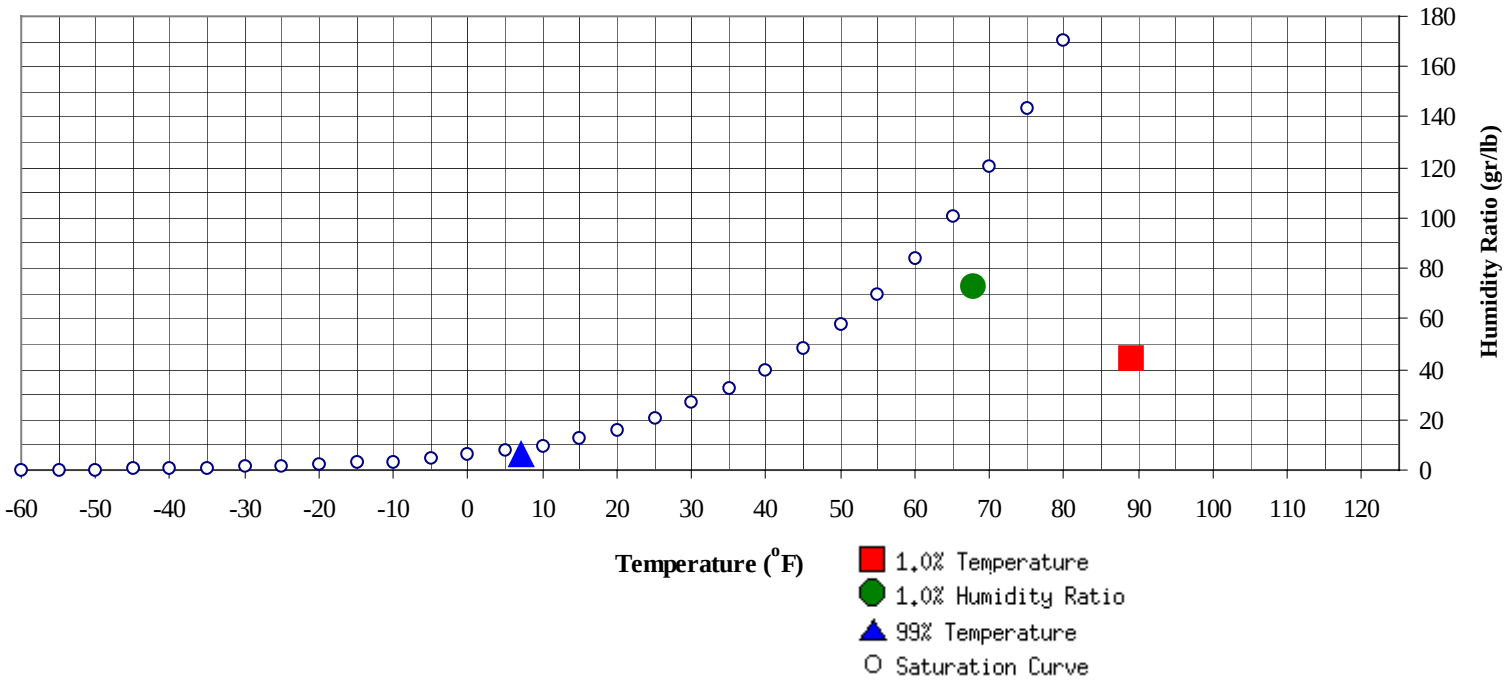
Long Term Psychrometric Summary



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

SPOKANE WA WMO No. 727850

Psychrometric Summary of Peak Design Values



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
99% Dry Bulb	7	6.6	2.7

	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
1.0% Humidity Ratio	72.8	67.9	60.3	56	27.6

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	89	44.5	61.5	28.4

SPOKANE WA WMO No. 727850

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															
80 / 84															
75 / 79															
70 / 74												0		0	50.0
65 / 69												1	0	1	48.6
60 / 64							0	0	0	52.8		7	1	8	48.2
55 / 59		0		0	51.8		2	0	2	47.8		16	5	21	45.9
50 / 54	0	1	0	1	44.2	1	9	3	13	44.9	1	36	15	52	43.4
45 / 49	2	6	3	11	42.9	4	22	11	37	42.1	9	59	39	108	40.9
40 / 44	10	23	14	47	38.9	12	39	27	77	38.5	36	64	65	165	37.9
35 / 39	31	49	44	124	35.0	41	56	57	153	34.6	66	41	64	172	34.1
30 / 34	61	59	58	178	31.0	67	45	58	170	30.6	82	17	42	142	30.0
25 / 29	47	44	47	138	26.0	46	26	31	103	25.8	37	4	12	53	25.3
20 / 24	36	30	32	98	21.3	22	13	17	52	20.7	12	1	3	16	20.5
15 / 19	21	16	19	56	16.3	12	7	9	28	15.4	3	1	1	5	15.8
10 / 14	17	10	14	41	11.0	8	2	6	16	10.7	1	0	0	1	11.4
5 / 9	9	6	7	22	6.4	5	1	2	8	6.4	0	0	0	0	6.8
0 / 4	7	3	5	15	1.4	2	1	1	4	1.3	0		0	0	2.0
-5 / -1	3	1	2	6	-3.1	1	1	0	2	-3.3	0			0	-2.0
-10 / -6	3	0	1	4	-7.0	2	0	1	3	-7.5	0			0	-6.0
-15 / -11	1	0	1	2	-11.3	1	0	1	2	-11.9					
-20 / -16	0	0	0	0	-17.4	1	0	0	1	-16.2					
-25 / -21	0			0	-20.3	0			0	-22.0					

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.

SPOKANE WA WMO No. 727850

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												0		0	64.0
95 / 99							0		0	64.0		1	0	1	63.6
90 / 94		0		0	57.5		1	0	1	63.1		4	2	6	62.9
85 / 89		0	0	0	57.9		4	1	5	60.0		12	5	17	61.4
80 / 84		1	0	1	58.3		8	3	11	58.3	0	25	12	37	59.2
75 / 79		2	1	3	57.0	0	14	6	20	56.5	1	32	18	51	57.5
70 / 74	0	7	3	10	54.1	1	23	11	35	54.8	5	41	27	73	55.8
65 / 69	0	16	6	22	51.5	4	33	20	57	52.5	14	40	36	90	53.9
60 / 64	1	28	13	42	48.8	10	47	33	90	50.2	35	40	46	121	52.2
55 / 59	4	36	25	65	46.4	25	49	43	117	48.1	52	28	42	122	50.2
50 / 54	17	56	43	116	43.7	49	42	53	144	45.9	66	14	34	114	47.5
45 / 49	41	56	54	151	41.2	65	22	49	136	43.1	45	3	15	63	43.9
40 / 44	60	27	51	138	38.1	57	5	20	82	39.1	19	1	2	22	39.9
35 / 39	62	9	32	103	34.3	27	0	6	33	35.0	3		0	3	35.8
30 / 34	45	1	11	57	30.3	9	0	1	10	31.1	0			0	32.5
25 / 29	10		1	11	26.2	1			1	26.4					
20 / 24	1			1	21.5										
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.

SPOKANE WA WMO No. 727850

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		1	0	1	66.6		0		0	64.0					
95 / 99		6	2	8	64.8		4	1	5	63.7		1	0	1	62.1
90 / 94		21	9	30	62.3		18	7	25	62.7		1	0	1	62.5
85 / 89	0	33	17	50	61.1	0	30	13	43	60.9		7	1	8	60.0
80 / 84	0	44	26	70	59.8	0	43	22	65	59.5		21	6	27	58.6
75 / 79	5	43	31	79	58.3	3	45	29	77	57.6	0	30	11	41	56.9
70 / 74	17	41	43	101	56.6	13	44	43	100	56.1	0	40	20	60	54.9
65 / 69	36	31	43	110	54.9	33	32	46	111	54.5	3	40	30	73	52.8
60 / 64	65	19	37	121	53.2	62	20	43	125	52.7	18	39	42	99	50.7
55 / 59	63	9	28	100	51.0	71	9	29	109	50.5	49	31	48	128	48.9
50 / 54	46	2	10	58	48.2	47	2	12	61	47.4	68	20	44	132	46.5
45 / 49	15	0	2	17	44.4	16	0	2	18	44.0	57	7	27	91	43.4
40 / 44	1		0	1	40.0	3	0	1	4	40.3	29	1	9	39	39.2
35 / 39	0			0	37.0	0			0	36.0	12	0	2	14	34.9
30 / 34											3		0	3	30.8
25 / 29											0			0	25.8
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.

SPOKANE WA WMO No. 727850

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															
85 / 89		0		0	60.0										
80 / 84		2	0	2	58.4										
75 / 79		5	0	5	56.4										
70 / 74		10	2	12	53.6										
65 / 69	0	16	4	20	51.8		0		0	53.7					
60 / 64	1	34	11	46	49.4		1		1	52.2					
55 / 59	6	44	23	73	47.0		4	1	5	49.5					
50 / 54	23	51	46	120	45.1	5	14	7	26	46.3	1	2	1	4	47.6
45 / 49	45	44	60	149	42.3	14	33	20	67	43.4	3	8	5	16	43.1
40 / 44	64	27	51	142	38.8	24	46	34	104	39.4	14	24	15	53	39.3
35 / 39	56	10	32	98	34.6	51	52	53	156	35.2	27	39	33	99	35.0
30 / 34	36	4	14	54	30.5	66	51	64	181	30.9	57	65	60	182	30.8
25 / 29	12	1	4	17	25.8	42	22	34	98	26.2	54	51	56	161	26.2
20 / 24	3	0	1	4	20.6	19	8	13	40	21.2	40	29	35	104	21.5
15 / 19	1	0	0	1	16.4	10	4	6	20	16.1	20	16	18	54	16.7
10 / 14	0			0	11.3	4	2	4	10	11.1	15	7	12	34	11.7
5 / 9						3	2	2	7	6.5	6	4	7	17	6.7
0 / 4						1	1	1	3	1.7	5	2	3	10	1.5
-5 / -1						1	0	1	2	-2.8	2	1	2	5	-2.9
-10 / -6						1	0	0	1	-7.1	2	1	1	4	-7.0
-15 / -11						0	0		0	-12.0	1	0	1	2	-12.0
-20 / -16						0			0	-16.0	0	0	0	0	-16.4
-25 / -21											0		0	0	-20.0

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.

SPOKANE WA WMO No. 727850

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

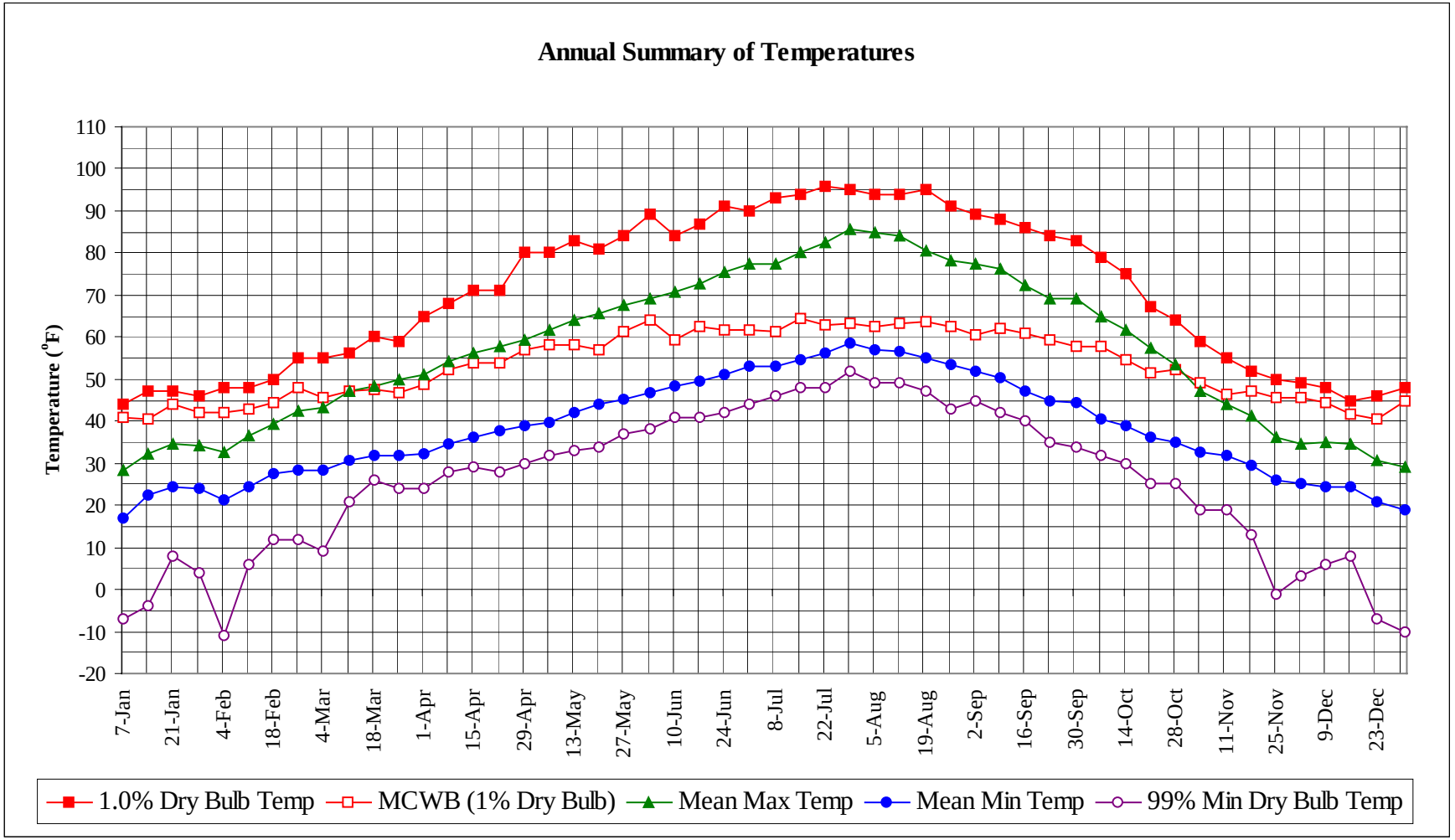
Period of Record = 1973 to 1996

Annual Totals

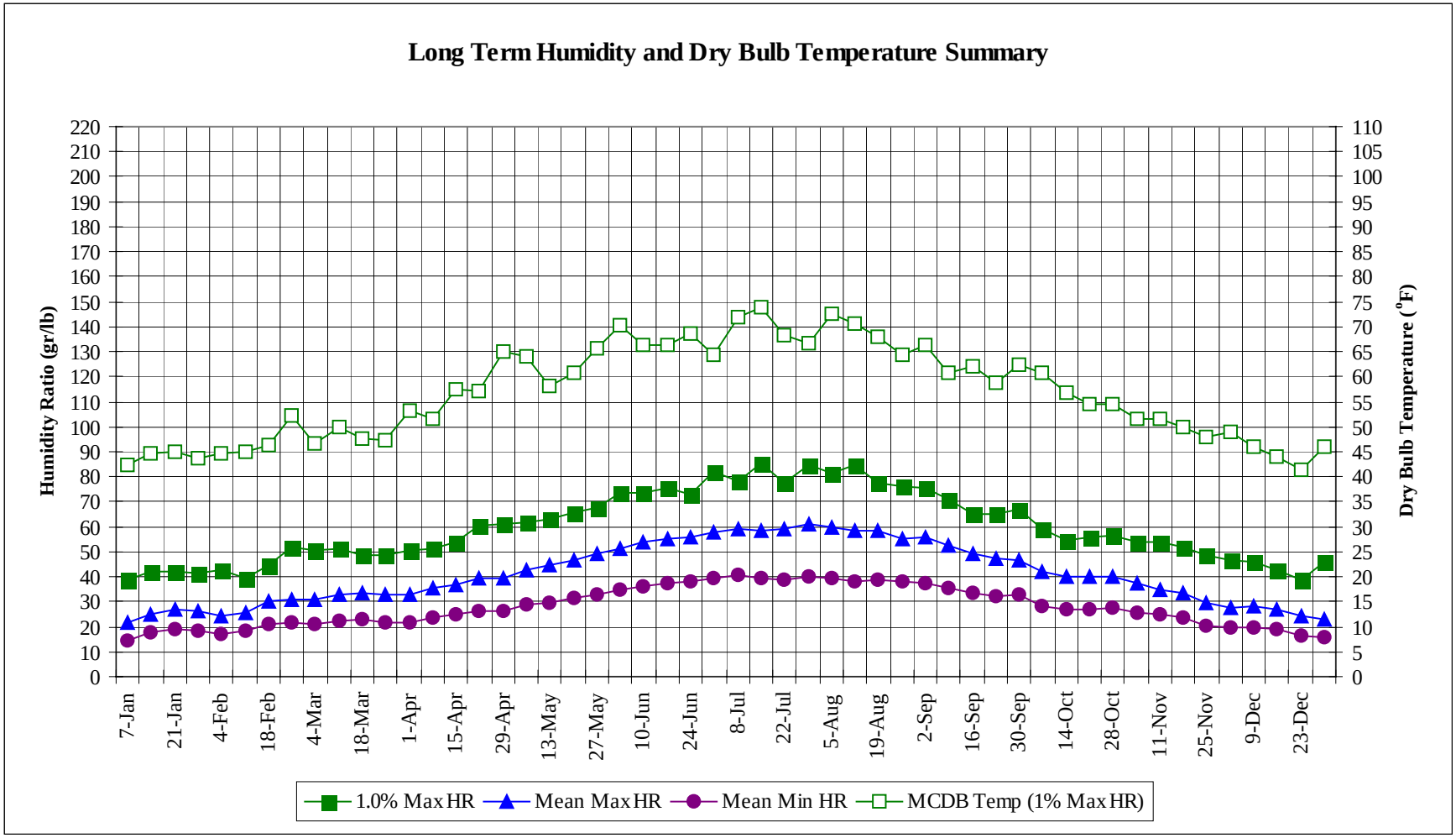
Temperature Range (°F)	Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
100 / 104		1	0	1	66.3
95 / 99		11	3	14	64.2
90 / 94		45	18	63	62.5
85 / 89	0	87	37	124	60.9
80 / 84	1	145	69	215	59.3
75 / 79	8	171	96	275	57.6
70 / 74	36	206	148	390	55.7
65 / 69	91	208	187	486	53.7
60 / 64	192	233	226	651	51.5
55 / 59	270	228	244	742	49.0
50 / 54	323	250	267	840	45.9
45 / 49	315	260	285	860	42.5
40 / 44	327	255	289	871	38.7
35 / 39	377	255	324	956	34.7
30 / 34	429	243	309	981	30.7
25 / 29	250	148	185	583	26.0
20 / 24	134	81	102	317	21.2
15 / 19	67	46	54	167	16.2
10 / 14	46	22	36	104	11.2
5 / 9	24	14	18	56	6.5
0 / 4	15	7	10	32	1.5
-5 / -1	6	3	5	14	-3.0
-10 / -6	7	1	3	11	-7.1
-15 / -11	2	1	2	5	-11.8
-20 / -16	1	0	1	2	-16.5
-25 / -21	0		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.

SPOKANE WA WMO No. 727850



SPOKANE WA WMO No. 727850

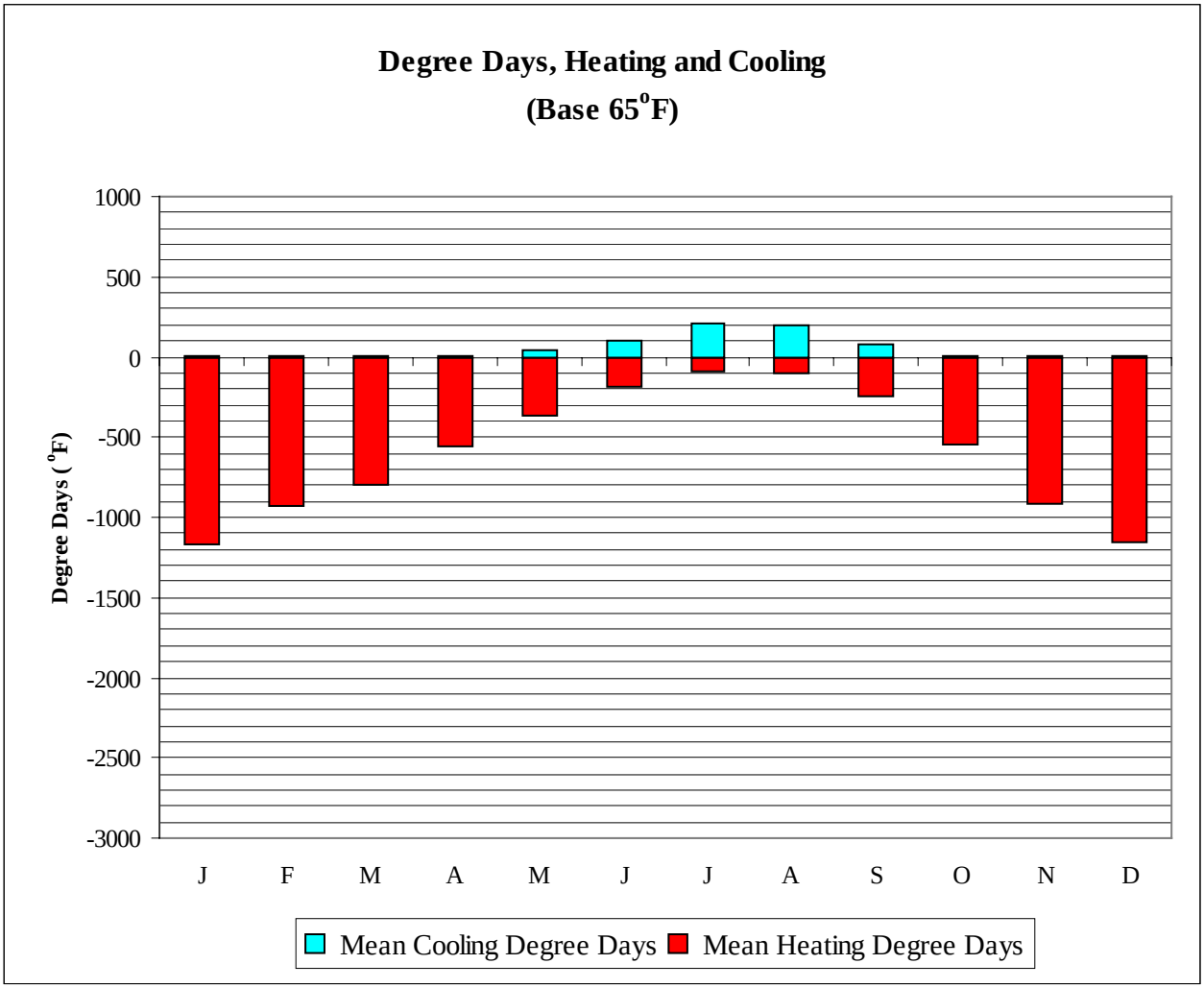


SPOKANE WA WMO No. 727850

Long Term Dry Bulb Temperature and Humidity Summary

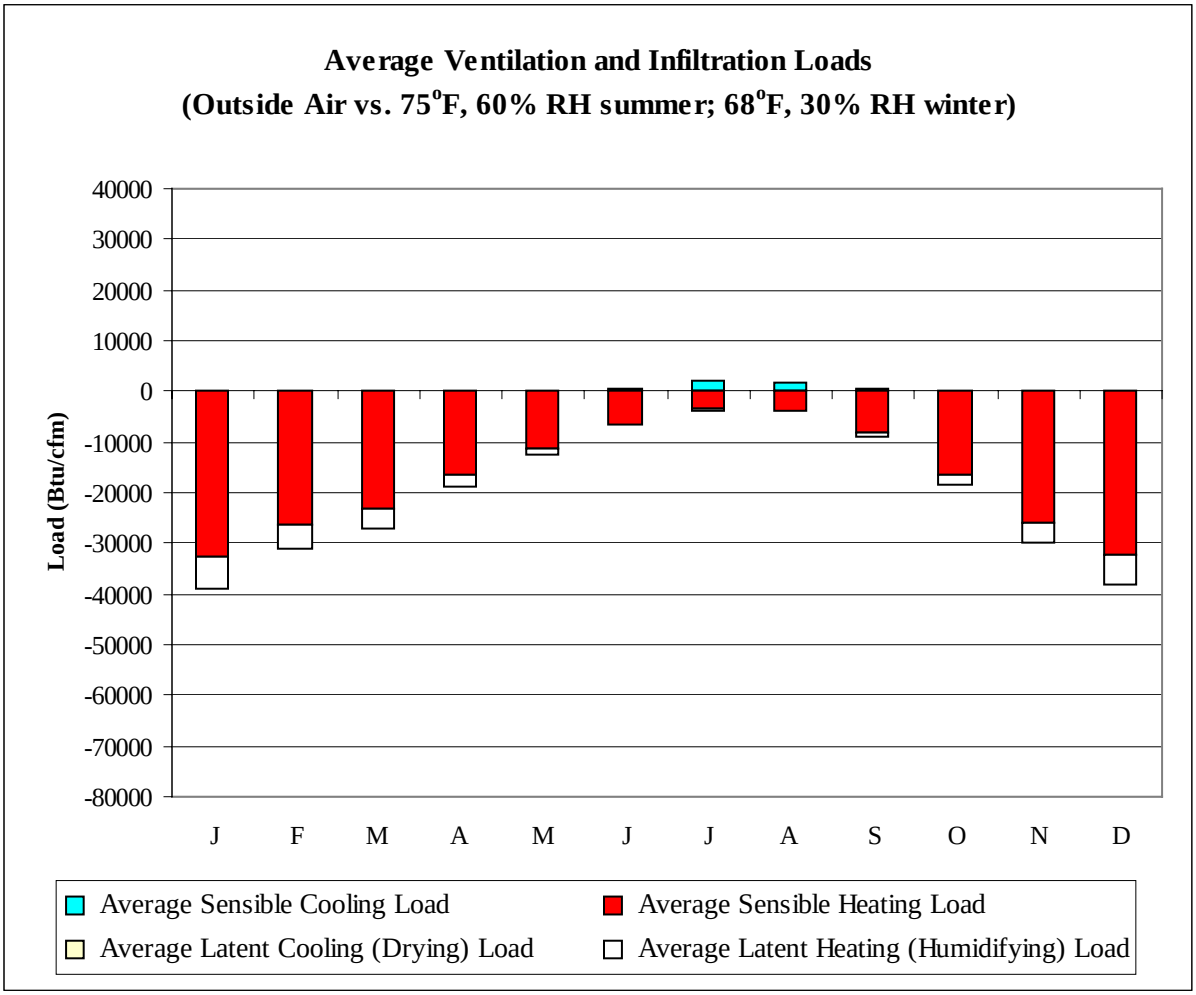
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	44.0	41.1	28.2	17.1	-7.0	38.5	42.5	21.7	14.6
14-Jan	47.0	40.3	32.2	22.5	-4.0	42.0	44.6	25.2	17.8
21-Jan	47.0	43.8	34.4	24.5	8.0	42.0	45.1	26.6	18.9
28-Jan	46.0	42.0	34.2	24.1	4.0	41.3	43.6	26.1	18.6
4-Feb	48.0	42.1	32.5	21.1	-11.0	42.7	44.8	24.5	17.0
11-Feb	48.0	43.0	36.4	24.3	6.0	39.2	44.9	25.9	18.2
18-Feb	50.0	44.3	39.2	27.5	12.0	44.8	46.3	30.1	20.9
25-Feb	55.0	47.8	42.4	28.5	12.0	51.8	52.4	31.2	21.4
4-Mar	55.0	45.7	43.1	28.2	9.0	50.4	46.7	30.7	21.2
11-Mar	56.0	47.0	47.1	30.7	21.0	51.1	50.1	33.0	22.6
18-Mar	60.0	47.5	48.5	31.7	26.0	48.3	47.5	33.2	22.8
25-Mar	59.0	46.8	49.7	31.8	24.0	48.3	47.3	32.7	21.8
1-Apr	65.0	48.6	51.1	32.2	24.0	50.4	53.2	32.9	21.9
8-Apr	68.0	52.4	54.1	34.7	28.0	51.1	51.5	35.8	23.8
15-Apr	71.0	53.8	56.3	36.0	29.0	53.9	57.4	36.9	24.9
22-Apr	71.0	53.7	57.9	37.6	28.0	60.2	57.1	39.5	26.5
29-Apr	80.0	56.8	59.5	39.1	30.0	60.9	65.0	39.3	26.0
6-May	80.0	58.0	61.9	39.8	32.0	61.6	64.0	42.8	28.8
13-May	83.0	58.2	64.1	41.9	33.0	63.0	58.0	44.8	29.5
20-May	81.0	57.1	65.8	43.9	34.0	65.8	60.8	47.0	31.6
27-May	84.0	61.3	67.6	45.2	37.0	67.9	65.7	49.3	33.1
3-Jun	89.0	64.0	69.1	46.6	38.0	73.5	70.1	51.5	34.7
10-Jun	84.0	59.5	70.8	48.2	41.0	73.5	66.3	53.5	36.4
17-Jun	87.0	62.5	72.7	49.4	41.0	75.6	66.4	55.0	37.5
24-Jun	91.0	61.8	75.4	51.0	42.0	72.8	68.7	55.8	38.0
1-Jul	90.0	61.8	77.4	52.9	44.0	81.9	64.4	57.7	39.3
8-Jul	93.0	61.4	77.4	53.0	46.0	78.4	72.0	59.1	40.8
15-Jul	94.0	64.5	80.3	54.4	48.0	85.4	73.9	58.7	39.1
22-Jul	96.0	62.7	82.6	56.0	48.0	77.7	68.3	58.9	38.9
29-Jul	95.0	63.1	85.6	58.4	52.0	84.7	66.7	61.3	40.1
5-Aug	94.0	62.4	84.8	57.1	49.0	81.2	72.5	59.6	39.2
12-Aug	94.0	63.4	84.3	56.6	49.0	84.7	70.7	58.3	38.3
19-Aug	95.0	63.6	80.7	55.1	47.0	77.7	68.1	58.6	38.8
26-Aug	91.0	62.6	78.4	53.3	43.0	76.3	64.4	55.1	37.9
2-Sep	89.0	60.7	77.3	51.8	45.0	75.6	66.4	55.7	37.1
9-Sep	88.0	62.1	76.1	50.3	42.0	70.7	60.9	52.7	35.7
16-Sep	86.0	60.7	72.4	47.1	40.0	65.1	62.2	49.4	33.3
23-Sep	84.0	59.2	69.1	45.0	35.0	65.1	58.9	47.5	32.1
30-Sep	83.0	57.8	69.2	44.5	34.0	67.2	62.4	46.9	32.5
7-Oct	79.0	57.7	64.8	40.4	32.0	58.8	60.7	42.1	28.2
14-Oct	75.0	54.8	61.8	39.0	30.0	54.6	57.0	39.9	26.9
21-Oct	67.0	51.3	57.5	36.1	25.0	56.0	54.5	39.9	26.6
28-Oct	64.0	52.3	53.4	35.0	25.0	56.7	54.4	39.8	27.3
4-Nov	59.0	49.1	47.3	32.6	19.0	53.9	51.5	37.3	25.5
11-Nov	55.0	46.3	43.9	31.7	19.0	53.9	51.4	35.1	25.0
18-Nov	52.0	47.0	41.1	29.5	13.0	51.8	49.8	33.3	23.4
25-Nov	50.0	45.8	36.3	25.9	-1.0	48.3	47.9	29.4	20.6
2-Dec	49.0	45.8	34.8	25.0	3.0	46.9	49.0	27.8	19.5
9-Dec	48.0	44.4	35.2	24.4	6.0	46.2	45.9	28.5	19.5
16-Dec	45.0	41.8	34.7	24.5	8.0	42.7	44.1	27.2	18.8
23-Dec	46.0	40.5	30.8	21.0	-7.0	38.5	41.3	24.4	16.6
31-Dec	48.0	44.7	28.9	18.9	-10.0	46.2	46.0	23.2	15.8

SPOKANE WA WMO No. 727850



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1169
FEB	0	930
MAR	0	799
APR	7	552
MAY	37	363
JUN	100	186
JUL	212	91
AUG	193	98
SEP	72	250
OCT	8	545
NOV	0	916
DEC	0	1157
ANN	629	7056

SPOKANE WA WMO No. 727850



	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	-32719	0	-6124
FEB	0	-26291	0	-4565
MAR	0	-23114	0	-3815
APR	22	-16547	0	-2447
MAY	197	-11480	0	-1067
JUN	686	-6383	0	-346
JUL	1979	-3480	12	-237
AUG	1708	-3722	3	-275
SEP	425	-8241	0	-683
OCT	19	-16338	0	-1936
NOV	0	-26082	0	-3595
DEC	0	-32396	0	-5890
ANN	5036	-206793	15	-30980

Average Annual Solar Radiation – Nearest Available Site

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

City: SPOKANE
State: WA
WBAN No: 24157
Lat(N): 47.63
Long(W): 117.53
Elev(ft): 2366

Stn Type: Secondary
SHADING GEOMETRY IN DIMENSIONLESS UNITS
Window: 1
Overhang: 0.754
Vert Gap: 0.326

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	410	650	1030	1460	1830	2070	2210	1880	1390	860	430	330	1220
	Std Dev	38	81	102	119	159	158	131	161	133	80	38	34	36
	Minimum	330	470	840	1190	1520	1800	1860	1580	1160	710	370	260	1160
	Maximum	500	790	1330	1680	2070	2360	2450	2140	1650	1020	500	430	1300
	Diffuse	290	390	500	660	750	770	630	550	440	340	280	240	490
Clear Day	Global	610	970	1510	2110	2540	2710	2610	2230	1680	1100	670	510	1610
NORTH	Global	160	220	310	420	560	660	630	470	330	230	160	130	360
	Diffuse	160	220	310	410	490	530	500	430	330	230	160	130	330
Clear Day	Global	130	190	270	400	600	740	670	460	300	210	140	110	350
EAST	Global	280	430	700	970	1140	1240	1350	1200	950	600	290	230	780
	Diffuse	190	270	380	510	590	630	600	530	420	290	190	160	400
Clear Day	Global	560	810	1120	1420	1590	1650	1610	1460	1200	870	600	490	1120
SOUTH	Global	680	900	1090	1090	1010	980	1100	1240	1350	1190	680	580	990
	Diffuse	320	380	460	550	580	590	560	530	470	380	290	270	450
Clear Day	Global	1810	2000	1980	1670	1360	1210	1260	1510	1820	1950	1810	1700	1670
WEST	Global	290	460	680	900	1100	1230	1330	1200	930	610	310	240	780
	Diffuse	200	280	390	510	600	640	600	540	420	300	200	170	400
Clear Day	Global	560	810	1120	1420	1590	1650	1610	1460	1200	870	600	490	1120

Average Annual Solar Heat and Illumination – Nearest Available Site

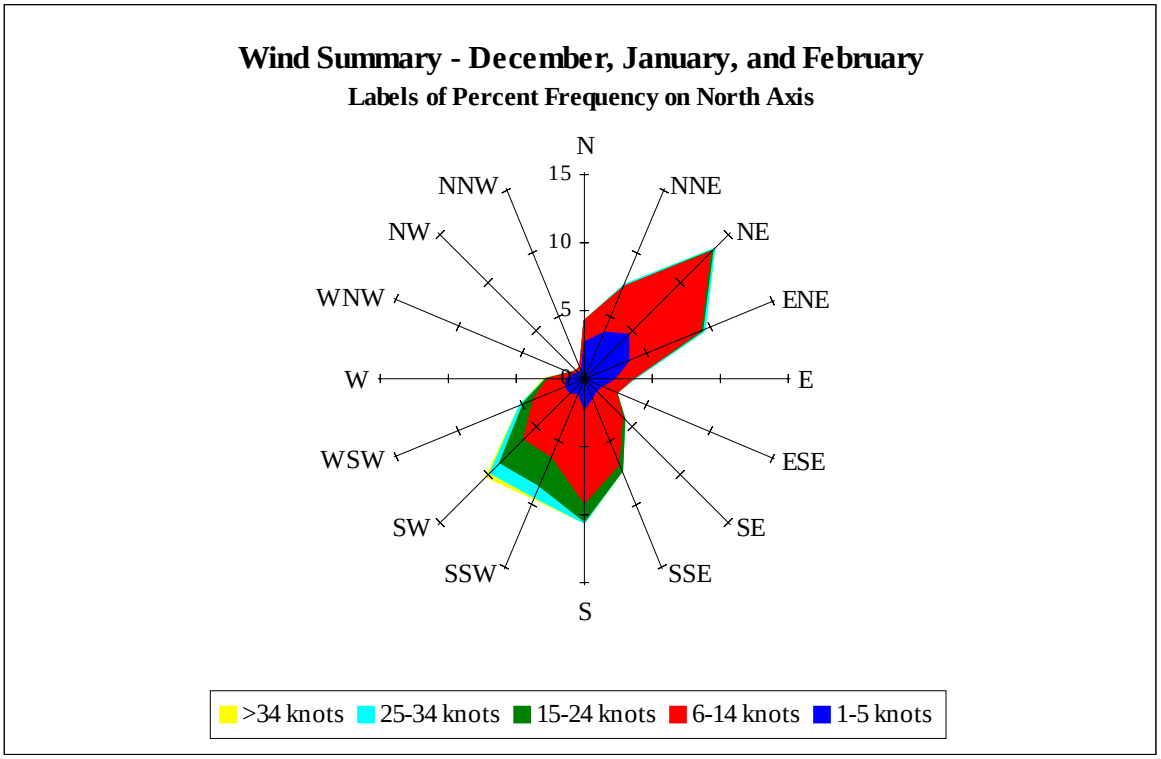
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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

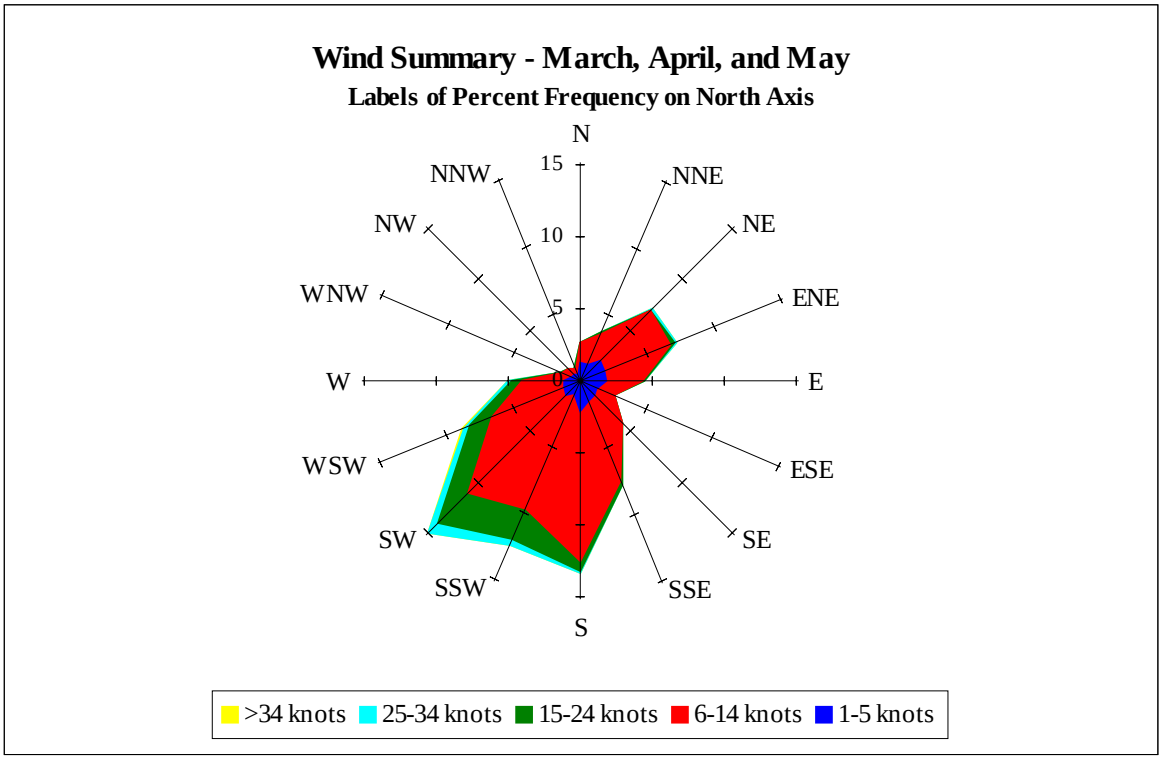
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ	Unshaded	260	430	710	1040	1320	1500	1600	1350	980	570	280	210	860
NORTH	Unshaded	110	150	210	290	370	430	400	310	230	160	110	91	240
	Shaded	84	120	170	240	310	360	350	270	200	140	86	70	200
EAST	Unshaded	190	300	500	690	820	890	970	860	680	420	200	160	560
	Shaded	160	240	400	550	640	690	760	690	550	350	160	130	450
SOUTH	Unshaded	510	660	770	740	650	620	690	810	940	870	510	440	690
	Shaded	480	590	570	400	330	340	330	370	590	730	470	410	470
WEST	Unshaded	200	320	480	640	790	880	960	860	670	430	210	160	550
	Shaded	160	260	390	510	620	690	750	680	550	360	180	140	440

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

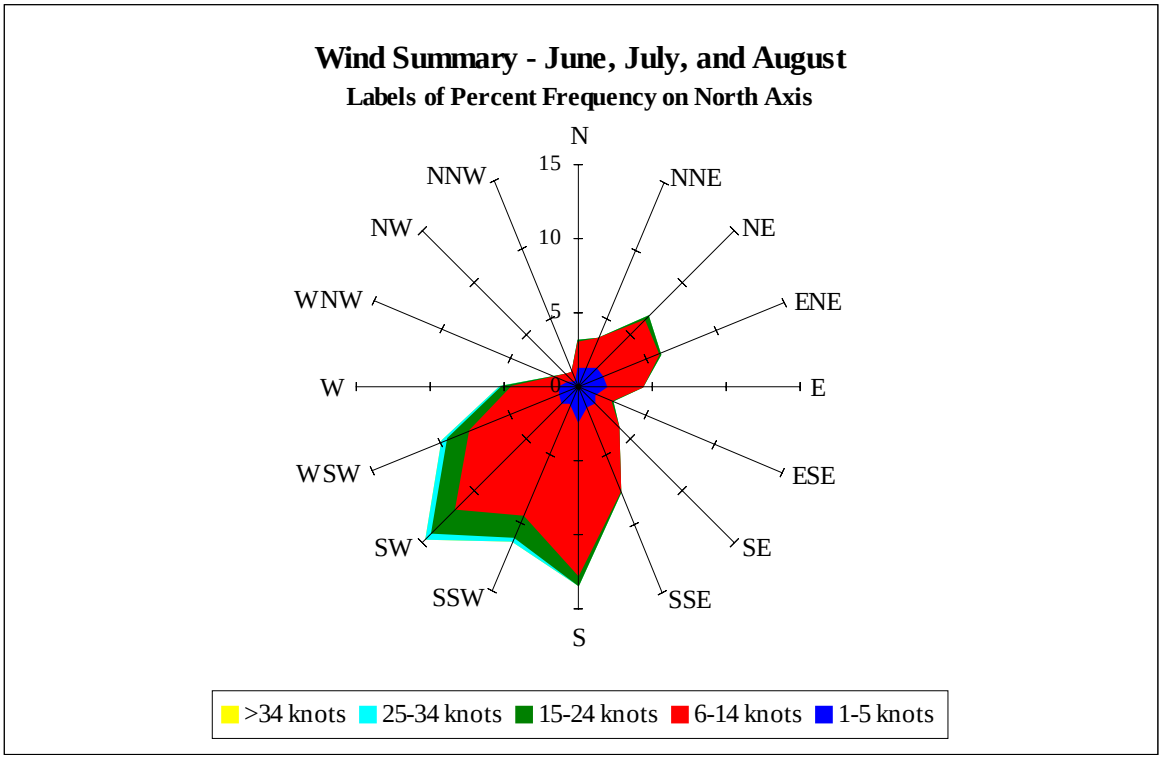
		March					June				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	38	63	68	52	18	54	84	97	90	65
	M.Cloudy	23	41	43	34	13	36	57	70	66	46
NORTH	M.Clear	9	12	13	11	6	12	15	16	15	13
	M.Cloudy	9	14	14	12	6	12	16	18	18	14
EAST	M.Clear	74	49	13	11	6	84	68	24	15	13
	M.Cloudy	29	28	14	12	6	45	44	23	18	14
SOUTH	M.Clear	48	81	89	67	23	13	44	59	51	25
	M.Cloudy	21	40	44	33	11	13	32	44	39	20
WEST	M.Clear	9	12	26	67	56	12	15	16	55	82
	M.Cloudy	9	14	20	34	22	12	16	18	41	50
M.Clear	(% hrs)	25	24	20	17	20	41	39	32	31	34
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	31	63	77	68	40	9	29	31	15	0
	M.Cloudy	19	41	52	47	26	6	18	19	10	0
NORTH	M.Clear	8	12	14	13	9	4	8	8	5	0
	M.Cloudy	8	13	15	14	9	3	8	8	5	0
EAST	M.Clear	73	66	21	13	9	30	30	8	5	0
	M.Cloudy	30	37	19	14	9	8	12	8	5	0
SOUTH	M.Clear	29	67	84	74	39	30	75	80	46	0
	M.Cloudy	15	38	52	45	22	8	21	23	13	0
WEST	M.Clear	8	12	14	56	76	4	8	22	37	0
	M.Cloudy	8	13	15	36	38	3	8	11	11	0
M.Clear	(% hrs)	52	52	47	46	46	13	14	15	15	17



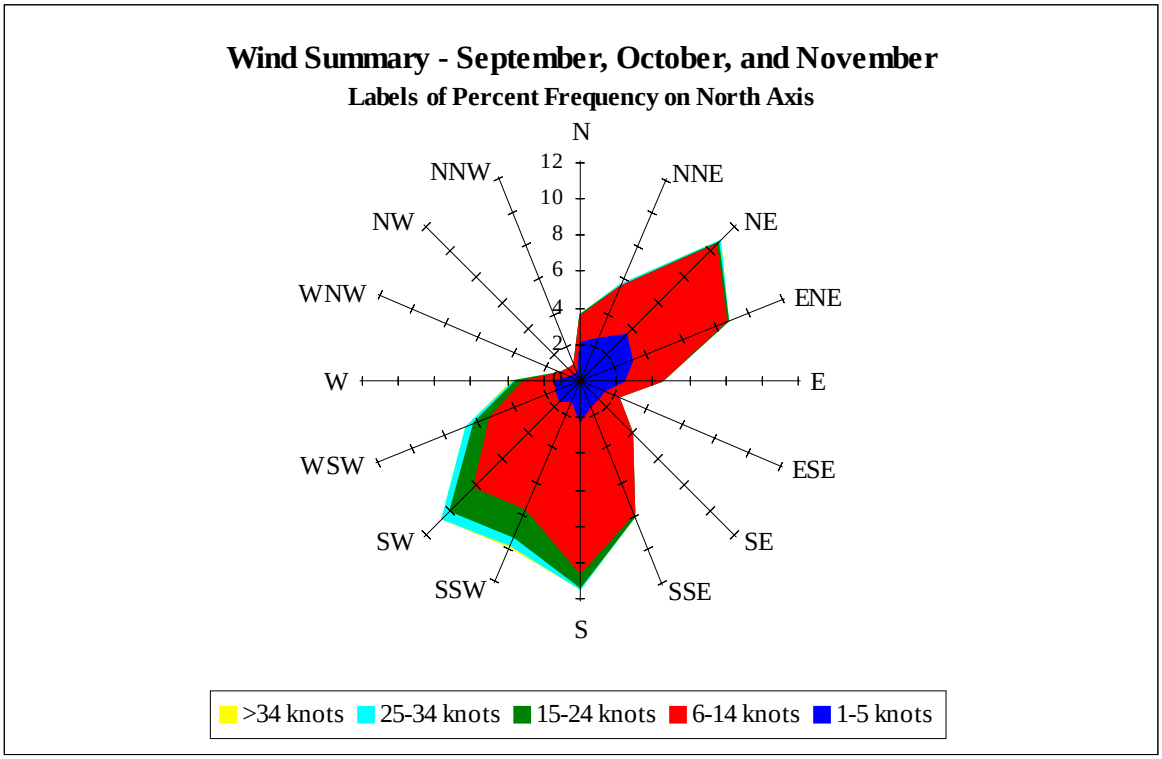
Percent Calm = 7.50



Percent Calm = 3.36



Percent Calm = 4.25



Percent Calm = 6.99