

WENATCHEE/PANGBORN WA

Latitude = 47.40 N

WMO No. 727825

Longitude = 120.20 W

Elevation = 1243 feet

Period of Record = 1973 to 1996

Average Pressure = 28.65 inches Hg

Design Criteria Data

	Design Value	Mean Coincident (Average) Values			
		Wet Bulb Temperature (°F)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Dry Bulb Temperature (T)	(°F)				
Median of Extreme Highs	101	67	51	8.2	ESE
0.4% Occurrence	95	65	51	8.1	ESE
1.0% Occurrence	92	64	50	8.1	WNW
2.0% Occurrence	88	63	49	8.5	WNW
Mean Daily Range	19	-	-	-	-
97.5% Occurrence	17	16	11	3.0	WNW
99.0% Occurrence	10	9	8	3.2	WNW
99.6% Occurrence	4	4	6	3.2	E
Median of Extreme Lows	3	3	5	3.2	E
	Design Value	Mean Coincident (Average) Values			
		Dry Bulb Temperature (°F)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Wet Bulb Temperature (T_{wb})	(°F)				
Median of Extreme Highs	70	94	74	8.6	ESE
0.4% Occurrence	67	90	64	8.3	ESE
1.0% Occurrence	66	89	62	8.2	ESE
2.0% Occurrence	64	85	58	8.5	WNW
	Design Value	Mean Coincident (Average) Values			
		Dry Bulb Temperature (°F)	Vapor Pressure (in. Hg)	Wind Speed (mph)	Prevailing Direction (NSEW)
Humidity Ratio (HR)	(gr/lb)				
Median of Extreme Highs	88	75	0.56	8.4	WNW
0.4% Occurrence	76	74	0.49	8.0	WNW
1.0% Occurrence	70	74	0.45	8.3	WNW
2.0% Occurrence	65	73	0.42	8.7	NW
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		73	550	0	53

Other Site Data

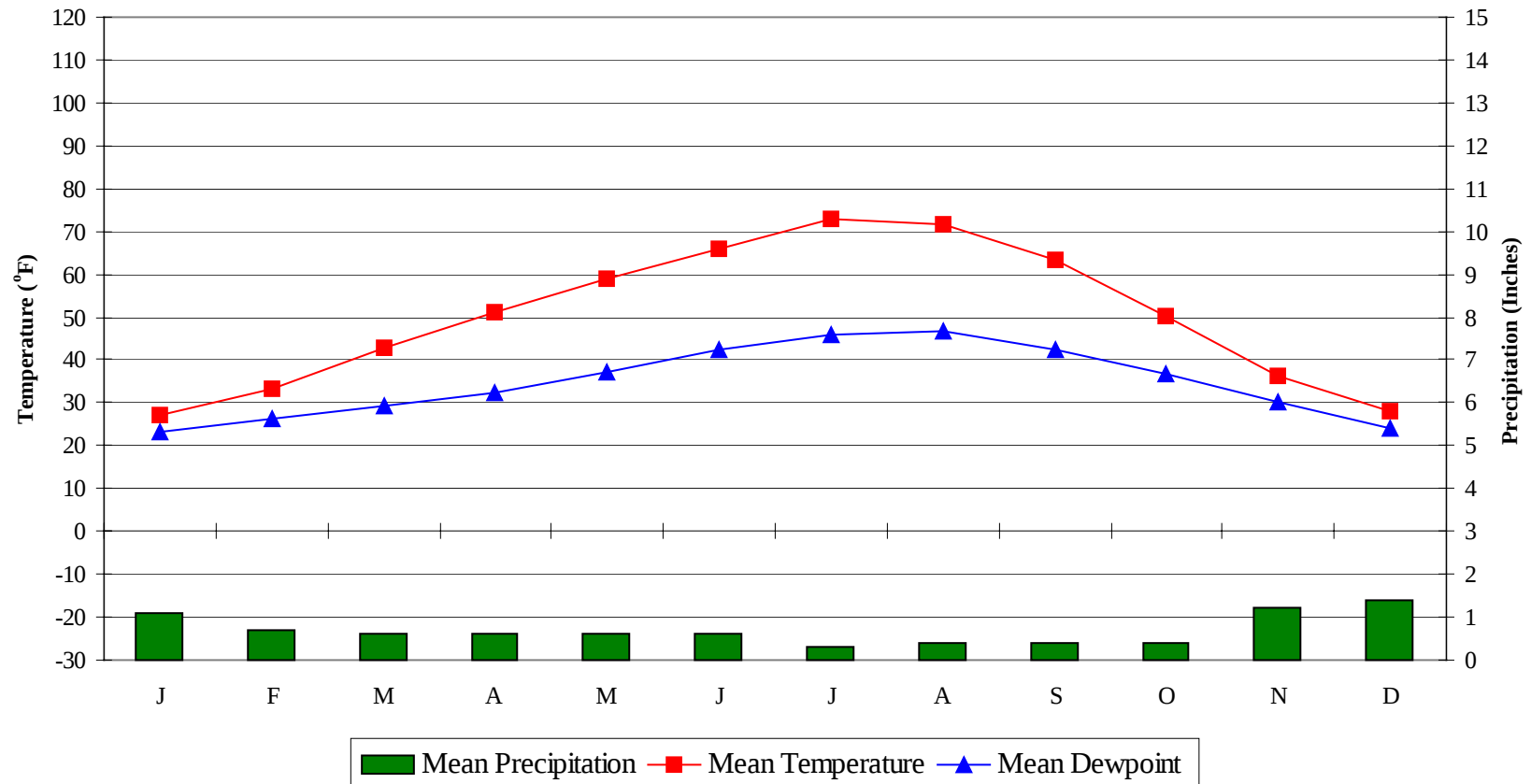
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
6	1.0	85	0.0 + 0.6
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
52.7	N/A	N/A	56

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

WENATCHEE/PANGBORN WA

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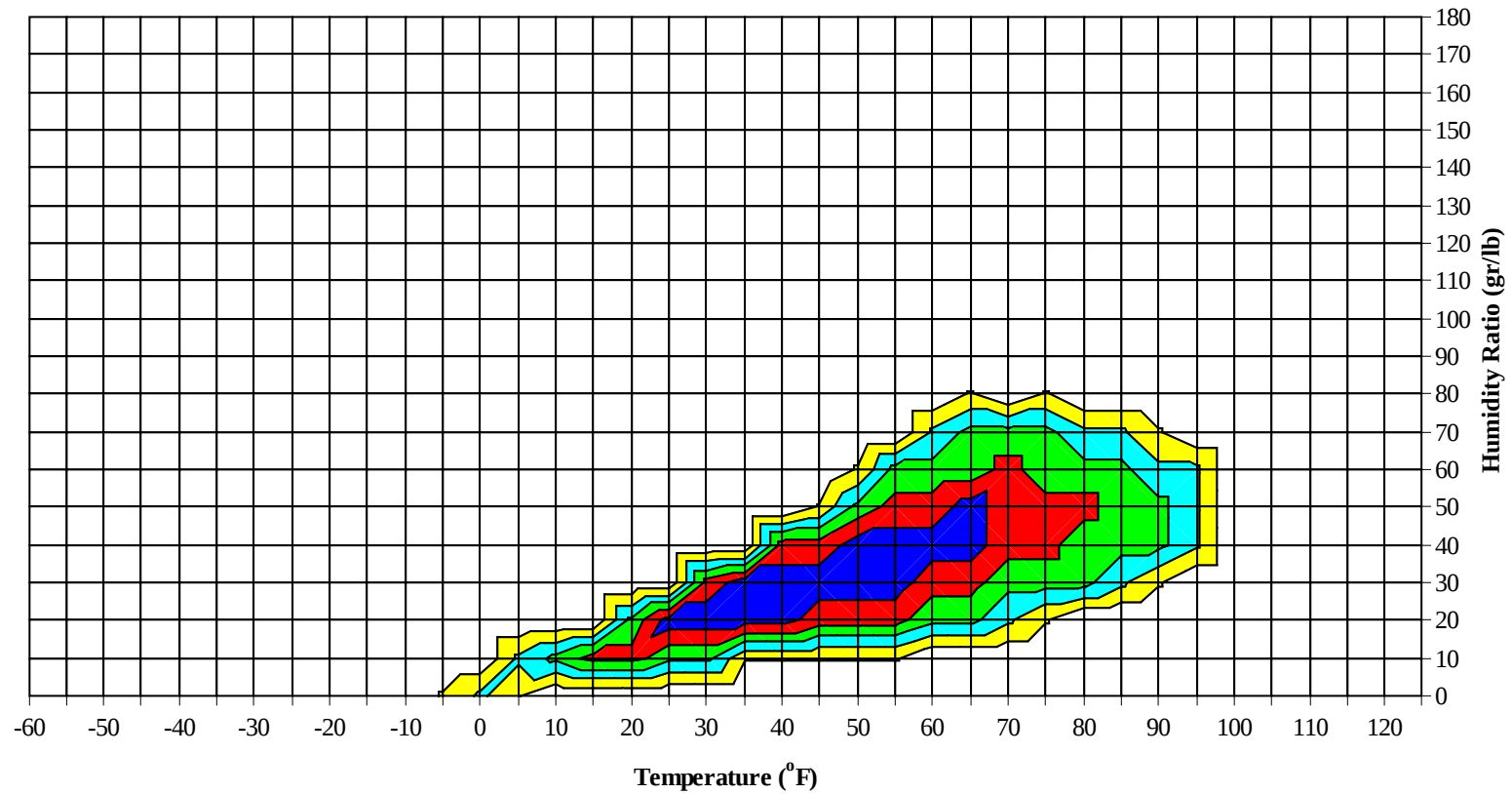
Average Annual Climate



WENATCHEE/PANGBORN WA

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Long Term Psychrometric Summary

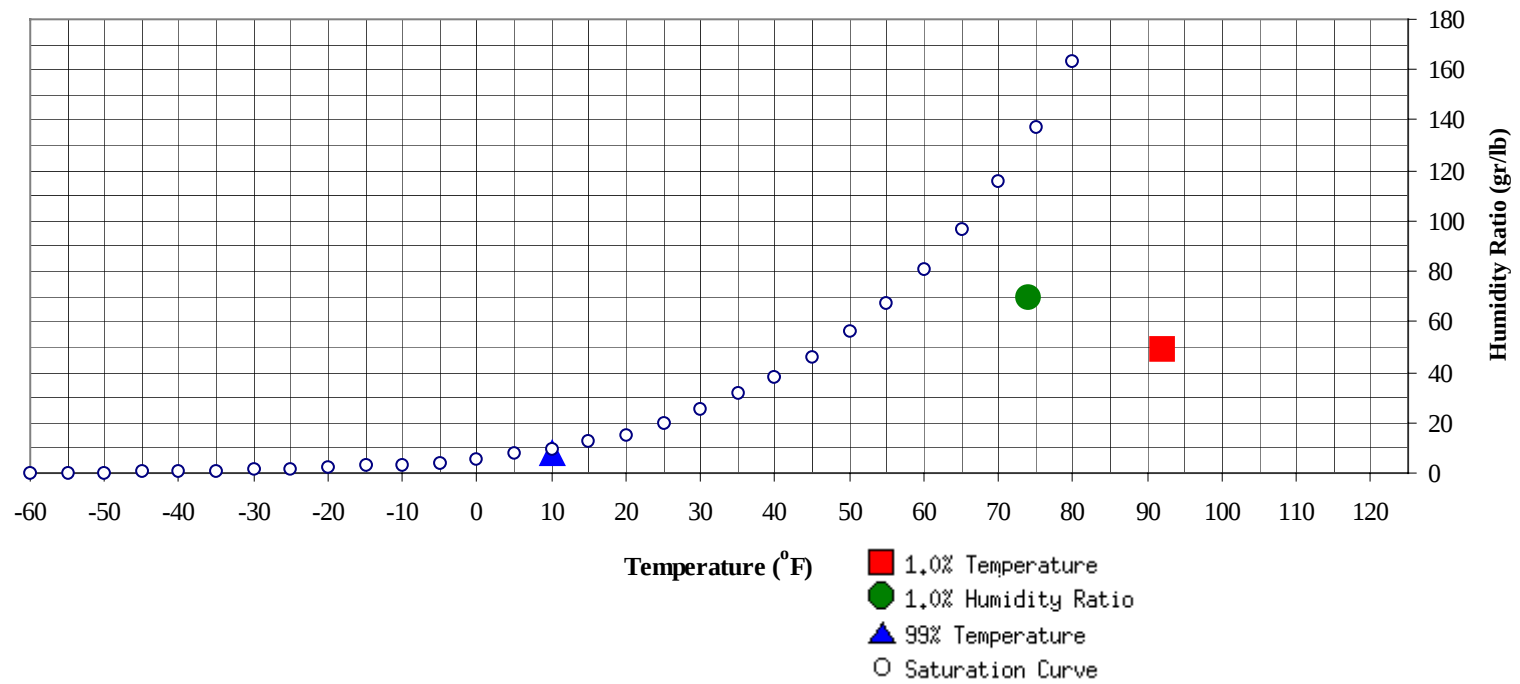


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

WENATCHEE/PANGBORN WA

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Psychrometric Summary of Peak Design Values



99% Dry Bulb	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)	1.0% Humidity Ratio	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
	10	7.9	3.6		70	74.1	62.6	56	28.7

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	92	49.5	64.3	29.9

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

Period of Record = 1973 to 1996

Temperature Range (°F)	January					February					March				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
105 / 109															
100 / 104															
95 / 99															
90 / 94															
85 / 89															
80 / 84															
75 / 79															
70 / 74												1	0	1	51.4
65 / 69							0		0	47.0		3	1	4	50.1
60 / 64							1		1	46.7		13	5	18	47.6
55 / 59		0		0	47.3		3	1	4	45.0	0	31	13	44	44.8
50 / 54	0	3	0	3	43.5	0	9	3	12	43.0	3	58	33	94	42.3
45 / 49	1	8	3	12	40.8	1	27	12	40	40.4	17	60	61	138	40.1
40 / 44	7	18	14	39	38.1	10	42	37	89	37.7	60	44	69	173	37.4
35 / 39	22	39	32	93	34.6	48	51	60	160	34.4	86	25	46	157	33.9
30 / 34	62	62	63	186	30.8	73	44	55	171	30.6	60	9	14	83	30.1
25 / 29	53	51	52	156	26.1	45	26	30	101	25.9	17	2	3	22	25.4
20 / 24	44	33	38	115	21.4	22	11	14	47	20.9	3	1	2	6	20.6
15 / 19	25	18	23	66	16.5	11	5	7	23	16.2	2	0	1	3	16.5
10 / 14	17	10	12	39	11.6	7	1	3	11	11.6	0			0	12.1
5 / 9	8	3	7	18	6.7	3	2	1	6	6.9					
0 / 4	5	3	4	12	1.9	2	1	1	4	1.4					
-5 / -1	2	1	1	4	-2.9	1	0	1	2	-2.5					
-10 / -6	2	0	0	2	-6.8	0		0	0	-6.8					
-15 / -11	0			0	-10.0										

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.

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

Period of Record = 1973 to 1996

Temperature Range (°F)	April					May					June				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
105 / 109															
100 / 104							0	0	0	67.9		1	0	1	65.8
95 / 99						0	0	0	0	67.3		2	1	3	65.2
90 / 94		0	0	0	59.6	0	1	1	2	64.1		8	4	12	63.4
85 / 89		0	0	0	58.7	0	6	3	9	61.0		19	10	29	62.1
80 / 84		1	0	1	58.9	0	13	6	19	59.2	0	27	15	42	59.9
75 / 79		5	2	7	56.1	0	20	11	31	56.9	2	40	25	67	58.1
70 / 74		12	6	18	54.4	1	34	20	55	54.5	11	50	36	97	56.1
65 / 69		27	13	40	51.4	7	50	30	87	52.2	32	48	43	123	53.8
60 / 64	2	42	24	68	48.5	21	56	44	121	49.8	56	29	46	131	51.7
55 / 59	11	59	39	109	45.7	46	44	52	142	47.4	66	12	39	117	49.2
50 / 54	31	57	57	145	43.3	69	20	50	138	44.8	51	4	19	74	45.9
45 / 49	66	27	52	145	40.6	66	4	25	94	41.6	18	0	3	21	42.5
40 / 44	72	9	36	117	37.3	32	0	7	39	37.6	3	0	0	3	38.9
35 / 39	47	1	10	58	33.6	6	0	0	6	34.0	0		0	0	34.0
30 / 34	11	0	1	12	30.0	0			0	30.4					
25 / 29	0		0	0	27.4										
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															

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

Period of Record = 1973 to 1996

Temperature Range (°F)	July					August					September				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
105 / 109		0	0	0	66.6										
100 / 104		2	1	3	67.7		1	0	1	66.5		0		0	70.0
95 / 99		13	5	18	66.1	0	10	4	14	66.0		0	0	0	67.8
90 / 94		26	14	40	64.4	0	23	10	33	64.6		3	1	4	64.1
85 / 89		37	21	58	62.7	0	32	17	49	63.0		12	3	15	62.2
80 / 84	2	46	33	81	61.2	1	45	30	76	61.5		27	9	36	60.5
75 / 79	12	49	42	103	59.4	10	52	41	103	59.6	0	36	19	55	58.3
70 / 74	39	39	45	123	57.5	33	46	48	127	57.8	3	44	35	82	56.3
65 / 69	63	24	43	130	55.5	60	26	47	133	55.8	21	46	45	112	54.1
60 / 64	69	9	30	108	53.2	77	10	37	124	53.5	44	38	49	131	51.9
55 / 59	47	2	12	61	49.9	51	2	12	65	50.6	63	20	43	126	49.3
50 / 54	14	0	2	16	46.7	15	0	2	17	47.5	61	9	27	97	46.7
45 / 49	2		0	2	43.8	2	0	0	2	43.6	36	3	8	47	43.2
40 / 44	0			0	40.5	0			0	42.0	9	1	2	12	39.4
35 / 39	0			0							2	0	0	2	34.2
30 / 34											0			0	29.4
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															

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

Period of Record = 1973 to 1996

Temperature Range (°F)	October					November					December				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
105 / 109															
100 / 104															
95 / 99												0		0	60.0
90 / 94												0		0	
85 / 89												0		0	57.0
80 / 84		1	0	1	60.2							0		0	
75 / 79		5	1	6	58.3							0		0	
70 / 74		12	3	15	55.7		0		0	55.3		0		0	
65 / 69	1	26	10	37	52.9		1	0	1	55.3		0		0	
60 / 64	5	44	21	69	50.2	0	2	0	2	51.7		0		0	
55 / 59	13	54	42	108	47.8	1	7	2	10	48.2		1	0	1	47.9
50 / 54	36	48	57	140	45.4	2	21	5	28	45.0	1	2	1	4	44.2
45 / 49	61	37	60	158	42.3	10	40	24	74	42.1	2	7	2	11	40.8
40 / 44	70	16	40	125	38.8	32	49	51	132	38.9	6	17	9	32	37.7
35 / 39	42	4	12	58	34.8	60	55	67	182	34.8	27	45	38	110	34.6
30 / 34	15	1	3	19	30.5	73	39	54	165	30.7	63	66	67	196	30.8
25 / 29	4	0	1	5	25.4	38	16	22	76	26.0	61	52	57	170	26.2
20 / 24	0	0	0	0	20.1	13	5	8	26	21.0	42	32	35	109	21.4
15 / 19	0			0	15.5	5	1	3	9	16.2	27	16	23	66	16.9
10 / 14						2	2	2	6	11.2	9	5	7	21	11.7
5 / 9						2	2	2	6	6.8	4	3	4	11	6.7
0 / 4						1	0	1	2	2.2	3	2	3	8	1.6
-5 / -1						0		0	0	-2.3	2	0	2	4	-2.5
-10 / -6											1	0	1	2	-6.7
-15 / -11											0	0		0	-11.5

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WA

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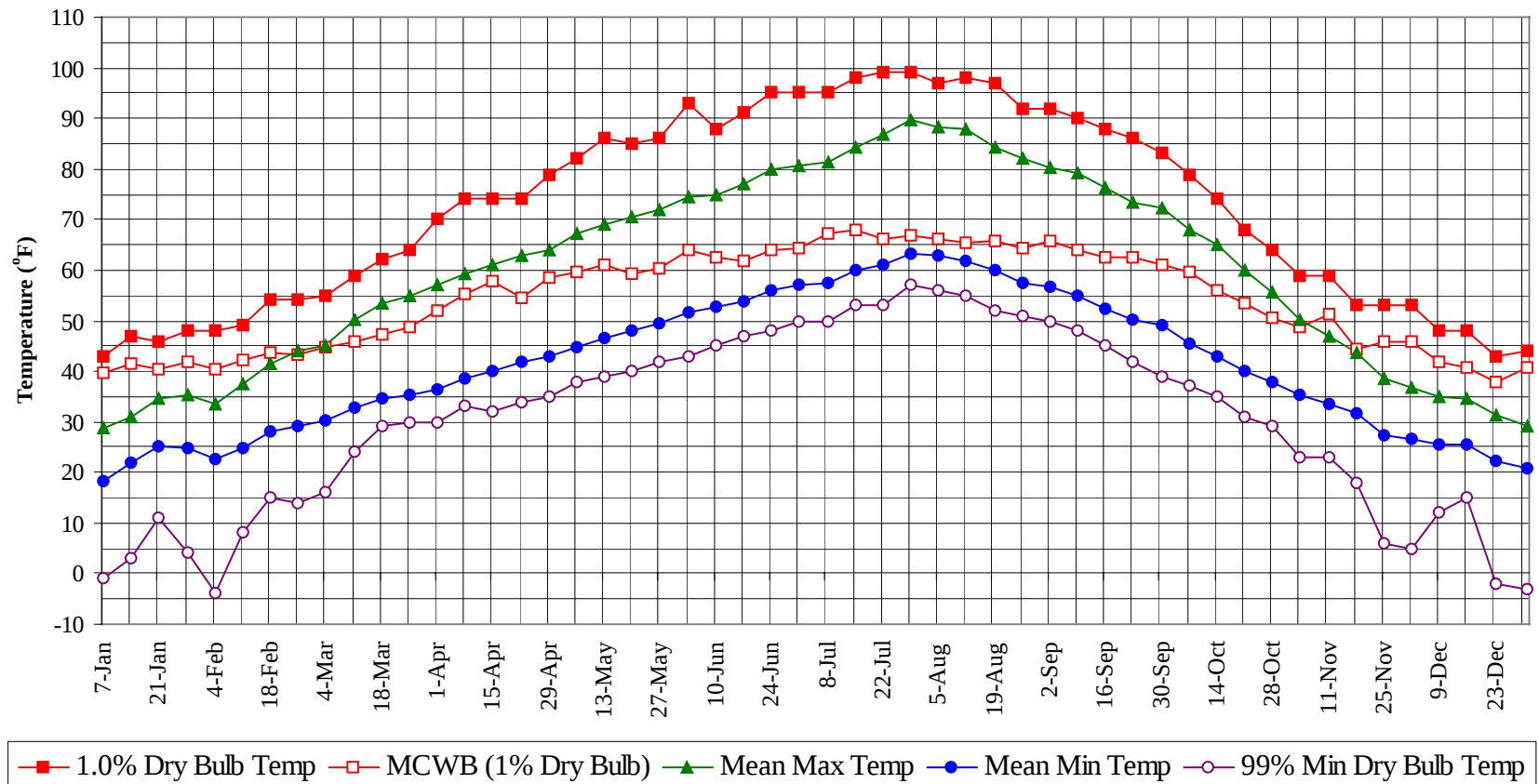
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1973 to 1996

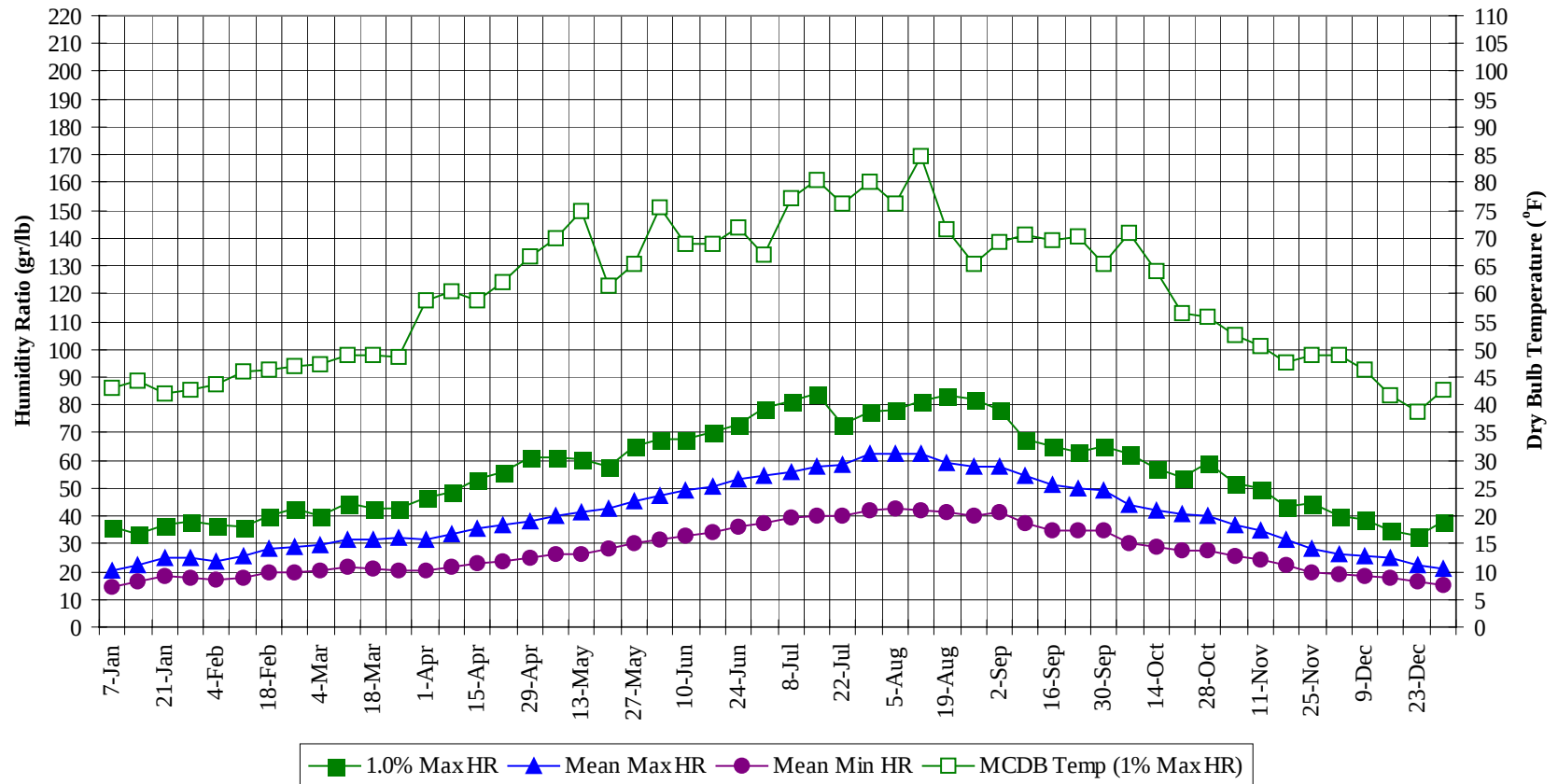
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
105 / 109		0	0	0	66.6
100 / 104		4	1	5	67.2
95 / 99	0	27	11	38	66.0
90 / 94	0	62	30	92	64.3
85 / 89	0	107	54	161	62.6
80 / 84	3	160	94	257	60.8
75 / 79	24	208	141	373	58.8
70 / 74	87	239	191	518	56.6
65 / 69	184	250	232	666	54.1
60 / 64	275	241	254	770	51.4
55 / 59	300	231	252	783	48.1
50 / 54	284	229	253	766	44.7
45 / 49	280	213	249	742	41.4
40 / 44	298	197	263	758	38.0
35 / 39	341	222	267	830	34.4
30 / 34	357	222	256	835	30.6
25 / 29	221	148	164	533	26.1
20 / 24	125	84	98	307	21.3
15 / 19	71	40	57	168	16.6
10 / 14	35	18	23	76	11.6
5 / 9	17	10	14	41	6.8
0 / 4	11	6	10	27	1.8
-5 / -1	5	1	4	10	-2.6
-10 / -6	3	1	1	5	-6.8
-15 / -11	0	0		0	-11.3

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Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary

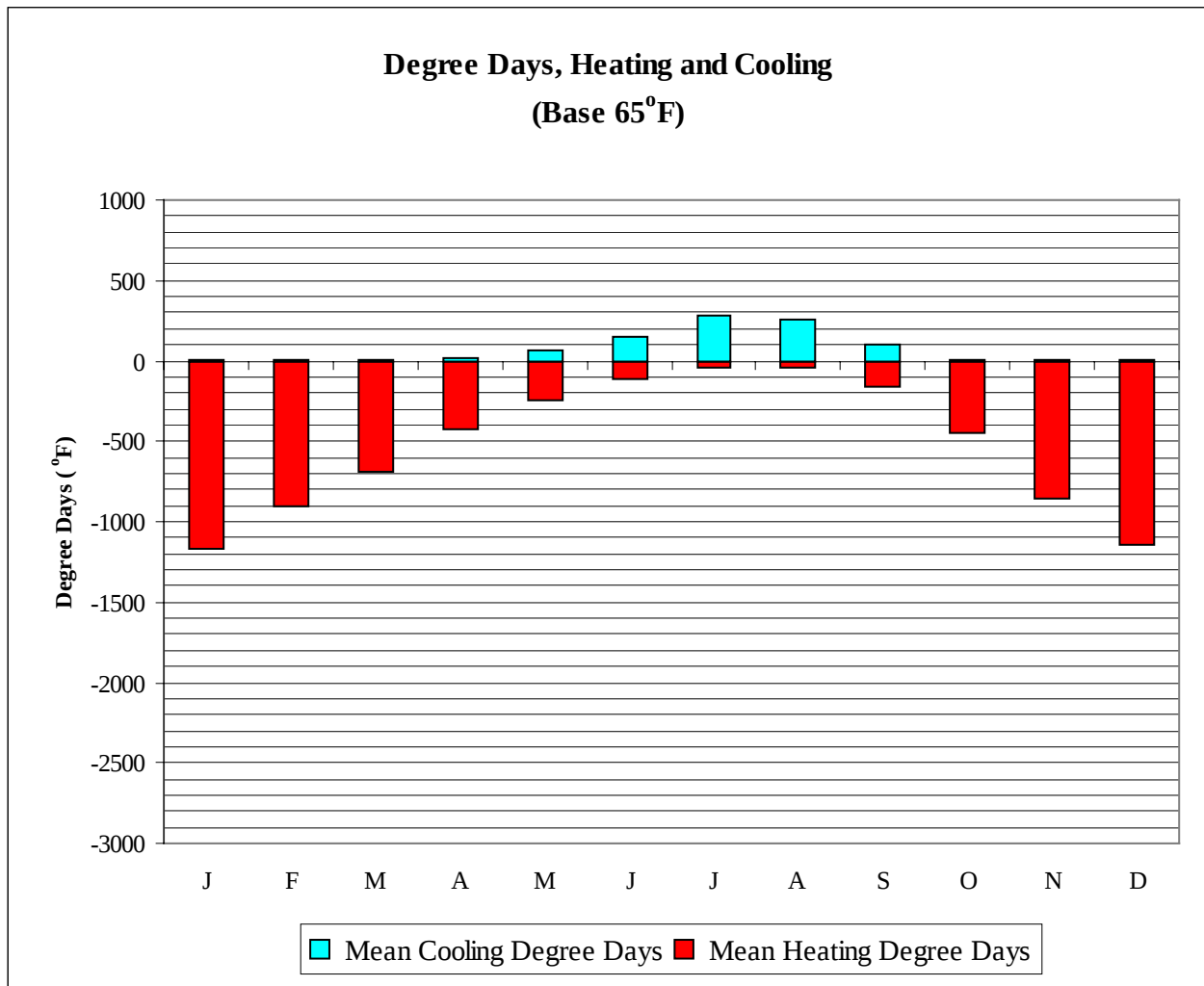


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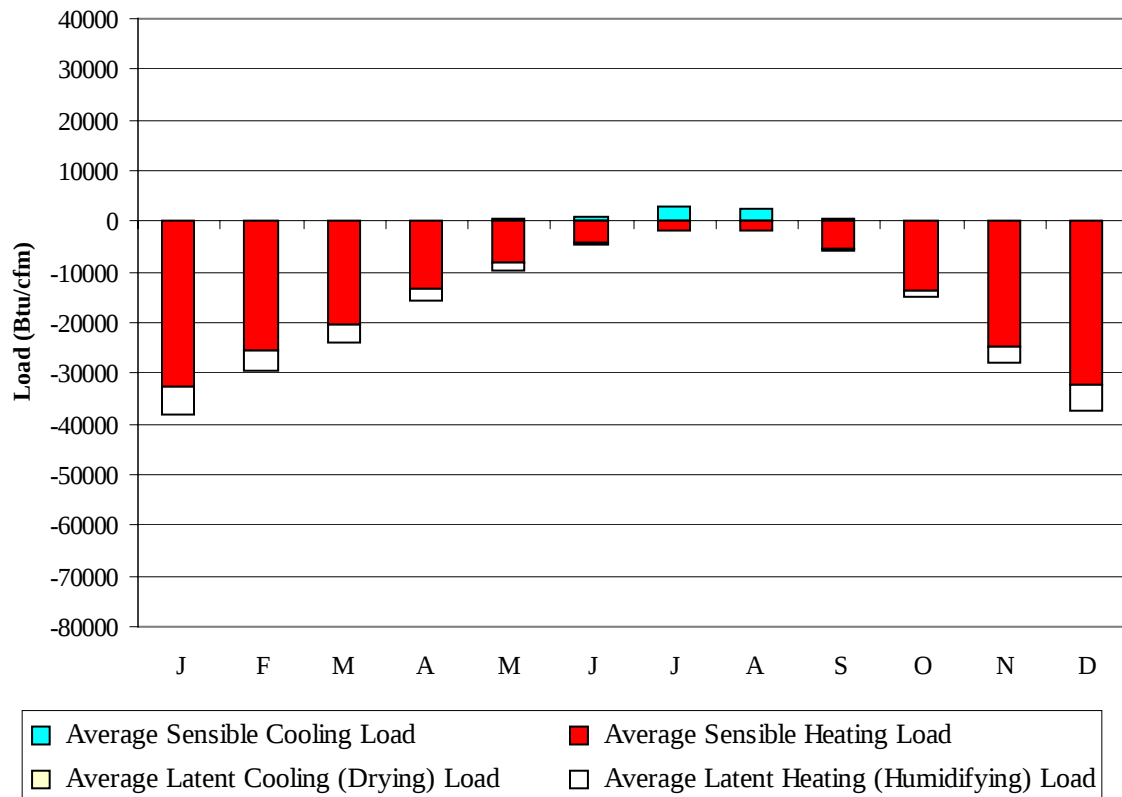
Long Term Dry Bulb Temperature and Humidity Summary

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	43.0	39.8	28.8	18.1	-1.0	36.4	43.0	20.1	14.2
14-Jan	47.0	41.3	31.0	21.9	3.0	33.6	44.2	22.4	16.3
21-Jan	46.0	40.3	34.4	25.1	11.0	37.1	42.1	24.7	18.3
28-Jan	48.0	42.0	35.4	24.6	4.0	37.8	42.7	24.9	17.8
4-Feb	48.0	40.4	33.3	22.7	-4.0	37.1	43.8	23.4	16.9
11-Feb	49.0	42.3	37.4	24.9	8.0	36.4	45.9	25.7	17.7
18-Feb	54.0	43.6	41.5	28.2	15.0	39.9	46.4	28.1	19.5
25-Feb	54.0	43.2	43.9	29.3	14.0	42.7	46.9	29.1	20.0
4-Mar	55.0	44.7	45.0	30.2	16.0	39.9	47.4	29.3	20.5
11-Mar	59.0	46.0	50.0	32.7	24.0	44.8	48.9	31.6	21.6
18-Mar	62.0	47.4	53.3	34.8	29.0	42.7	49.1	31.7	21.0
25-Mar	64.0	48.9	54.8	35.4	30.0	42.7	48.5	31.9	20.5
1-Apr	70.0	52.1	57.0	36.4	30.0	46.9	58.9	31.6	20.4
8-Apr	74.0	55.2	59.3	38.6	33.0	48.3	60.5	33.6	21.8
15-Apr	74.0	57.6	61.0	40.0	32.0	53.2	58.6	35.5	23.0
22-Apr	74.0	54.6	62.8	41.8	34.0	56.0	62.2	36.9	23.9
29-Apr	79.0	58.4	64.1	43.1	35.0	60.9	66.7	38.2	24.7
6-May	82.0	59.6	67.2	44.7	38.0	60.9	69.8	40.2	26.4
13-May	86.0	60.9	69.0	46.6	39.0	60.2	74.8	41.3	26.5
20-May	85.0	59.3	70.4	48.0	40.0	58.1	61.5	42.5	28.2
27-May	86.0	60.2	71.9	49.3	42.0	65.1	65.4	45.3	30.3
3-Jun	93.0	64.0	74.5	51.5	43.0	67.9	75.4	47.5	31.8
10-Jun	88.0	62.6	74.8	52.8	45.0	67.9	68.8	49.2	33.0
17-Jun	91.0	61.9	77.1	53.9	47.0	70.0	69.1	50.8	34.5
24-Jun	95.0	63.9	79.8	56.1	48.0	72.8	72.0	53.4	36.1
1-Jul	95.0	64.2	80.8	57.2	50.0	79.1	66.9	54.7	37.3
8-Jul	95.0	67.2	81.4	57.6	50.0	81.2	77.1	55.7	39.6
15-Jul	98.0	67.9	84.2	59.9	53.0	84.0	80.3	57.8	40.0
22-Jul	99.0	66.0	86.8	61.0	53.0	72.8	76.2	58.2	40.2
29-Jul	99.0	66.7	89.5	63.1	57.0	77.7	80.0	62.3	42.3
5-Aug	97.0	66.0	88.4	63.0	56.0	78.4	76.3	62.1	42.9
12-Aug	98.0	65.4	87.7	61.9	55.0	81.2	84.8	62.1	42.1
19-Aug	97.0	65.9	84.2	60.0	52.0	83.3	71.6	59.0	41.5
26-Aug	92.0	64.4	82.0	57.6	51.0	81.9	65.2	58.0	40.1
2-Sep	92.0	65.9	80.1	56.6	50.0	78.4	69.4	58.1	41.4
9-Sep	90.0	63.8	79.3	55.1	48.0	67.9	70.6	54.3	37.5
16-Sep	88.0	62.7	76.5	52.2	45.0	65.1	69.7	51.2	35.0
23-Sep	86.0	62.4	73.2	50.2	42.0	63.0	70.2	49.8	34.5
30-Sep	83.0	60.9	72.4	49.2	39.0	65.1	65.2	49.3	34.6
7-Oct	79.0	59.7	68.0	45.6	37.0	62.3	70.9	44.2	29.9
14-Oct	74.0	55.9	64.9	43.1	35.0	57.4	63.9	42.3	28.8
21-Oct	68.0	53.5	60.1	39.9	31.0	53.9	56.3	40.5	27.4
28-Oct	64.0	50.4	55.5	38.0	29.0	58.8	55.8	40.1	27.4
4-Nov	59.0	48.7	50.3	35.2	23.0	51.8	52.4	36.6	25.4
11-Nov	59.0	51.4	46.9	33.6	23.0	49.7	50.7	34.6	24.5
18-Nov	53.0	44.2	43.5	31.7	18.0	43.4	47.6	31.6	22.6
25-Nov	53.0	45.8	38.4	27.4	6.0	44.8	48.9	27.9	19.7
2-Dec	53.0	45.7	36.7	26.8	5.0	39.9	48.8	26.5	18.9
9-Dec	48.0	42.0	34.9	25.7	12.0	38.5	46.3	25.4	18.5
16-Dec	48.0	40.9	34.7	25.4	15.0	35.0	41.7	25.2	18.0
23-Dec	43.0	37.9	31.2	22.4	-2.0	32.9	38.7	22.4	16.5
31-Dec	44.0	40.7	29.2	20.9	-3.0	37.8	42.8	21.0	15.4



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1171
FEB	0	900
MAR	1	687
APR	12	427
MAY	61	249
JUN	145	111
JUL	281	41
AUG	254	44
SEP	103	156
OCT	10	444
NOV	0	859
DEC	0	1147
ANN	866	6236

Average Ventilation and Infiltration Loads
(Outside Air vs. 75°F, 60% RH summer; 68°F, 30% RH winter)



	Average Sensible Cooling Load	Average Sensible Heating Load	Average Latent Cooling Load	Average Latent Heating Load
	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)
JAN	0	-32760	0	-5594
FEB	0	-25526	0	-4111
MAR	0	-20207	0	-3548
APR	29	-13258	0	-2527
MAY	351	-8322	0	-1232
JUN	1104	-4147	5	-345
JUL	2771	-1839	14	-72
AUG	2314	-1961	13	-58
SEP	632	-5531	0	-267
OCT	19	-13691	0	-1208
NOV	0	-24605	0	-3133
DEC	2	-32142	0	-5351
ANN	7222	-183989	32	-27446

Average Annual Solar Radiation – Nearest Available Site

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

City: YAKIMA
 State: WA
 WBAN No: 24243
 Lat(N): 46.57
 Long(W): 120.53
 Elev(ft): 1066

Stn Type: Secondary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS
 Window: 1
 Overhang: 0.723
 Vert Gap: 0.329

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	430	700	1130	1570	1970	2190	2280	1960	1490	940	490	360	1300
	Std Dev	29	69	75	107	125	125	114	135	108	62	40	23	27
	Minimum	380	530	960	1300	1670	1900	2060	1730	1260	770	410	330	1250
	Maximum	490	800	1290	1760	2150	2430	2480	2200	1690	1050	550	420	1350
	Diffuse	280	380	500	650	720	730	610	530	430	350	280	240	470
Clear Day	Global	640	1000	1540	2130	2540	2700	2600	2240	1710	1140	700	540	1630
NORTH	Global	160	220	320	430	570	660	630	480	340	250	170	130	360
	Diffuse	160	220	320	420	490	530	500	430	340	250	170	130	330
Clear Day	Global	140	200	280	400	590	720	650	470	310	220	150	120	350
EAST	Global	300	480	760	1020	1220	1300	1380	1240	1010	670	340	250	830
	Diffuse	190	280	400	520	600	630	600	530	430	310	210	160	410
Clear Day	Global	570	800	1120	1410	1570	1620	1580	1440	1190	880	600	490	1110
SOUTH	Global	740	990	1210	1160	1070	1000	1110	1260	1430	1300	810	660	1060
	Diffuse	310	390	490	560	590	590	560	530	480	410	300	270	450
Clear Day	Global	1790	1960	1940	1640	1320	1160	1210	1470	1790	1930	1790	1680	1640
WEST	Global	310	480	740	960	1150	1260	1350	1210	980	650	350	260	810
	Diffuse	200	280	400	530	610	640	600	530	430	310	210	170	410
Clear Day	Global	570	800	1120	1410	1570	1620	1580	1440	1190	880	600	490	1110

Average Annual Solar Heat and Illumination – Nearest Available Site

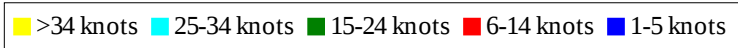
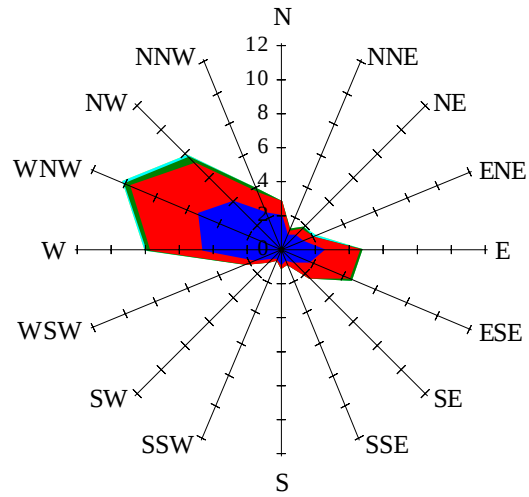
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	270	460	780	1120	1430	1590	1660	1410	1050	630	310	220	910
NORTH	Unshaded	110	160	220	290	370	430	400	310	230	170	120	92	240
	Shaded	87	130	190	250	320	370	350	280	210	150	94	73	210
EAST	Unshaded	200	330	540	730	880	930	990	890	720	470	240	170	590
	Shaded	170	280	450	590	700	730	790	720	590	390	200	140	480
SOUTH	Unshaded	560	740	860	780	680	620	680	820	1000	950	610	500	730
	Shaded	530	660	630	430	340	350	340	370	630	800	570	480	510
WEST	Unshaded	210	330	520	680	820	900	970	870	700	460	240	180	570
	Shaded	180	280	430	550	650	710	770	700	580	380	200	150	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	35	63	71	55	22	51	83	97	92	69
	M.Cloudy	22	43	49	38	15	35	60	73	69	47
NORTH	M.Clear	9	13	14	12	7	13	15	16	16	14
	M.Cloudy	9	14	15	13	6	13	16	18	18	15
EAST	M.Clear	72	54	14	12	7	84	72	30	16	14
	M.Cloudy	31	32	15	13	6	46	49	26	18	15
SOUTH	M.Clear	42	78	88	68	26	11	41	57	52	27
	M.Cloudy	20	43	50	38	13	12	31	44	40	21
WEST	M.Clear	9	13	22	63	60	11	15	16	51	81
	M.Cloudy	9	14	19	36	25	12	16	18	40	48
M.Clear	(% hrs)	32	31	27	26	29	50	46	43	41	44
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	27	62	78	71	44	7	28	33	18	0
	M.Cloudy	18	42	56	50	29	5	17	20	12	0
NORTH	M.Clear	8	12	14	14	10	3	8	9	6	0
	M.Cloudy	7	13	16	15	10	2	8	9	5	0
EAST	M.Clear	69	69	26	14	10	26	32	9	6	0
	M.Cloudy	30	41	23	15	10	7	13	9	5	0
SOUTH	M.Clear	24	63	83	75	43	25	71	82	52	0
	M.Cloudy	13	39	55	48	24	6	21	26	16	0
WEST	M.Clear	8	12	14	52	76	3	8	19	39	0
	M.Cloudy	7	13	16	36	39	2	8	11	13	0
M.Clear	(% hrs)	61	61	59	57	56	17	19	21	20	21

Wind Summary - December, January, and February

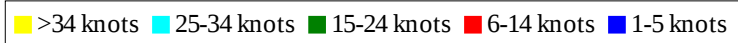
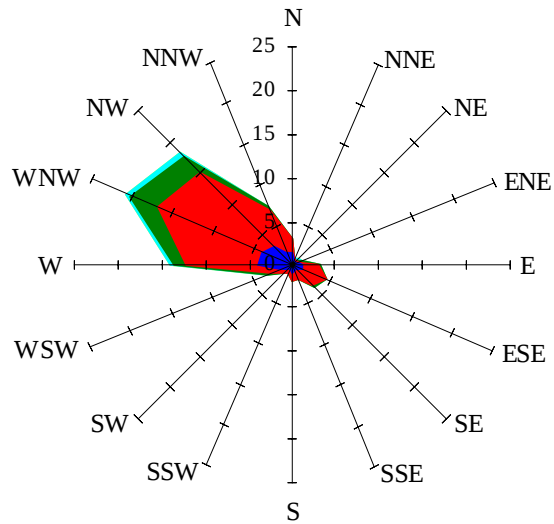
Labels of Percent Frequency on North Axis



Percent Calm = 45.56

Wind Summary - March, April, and May

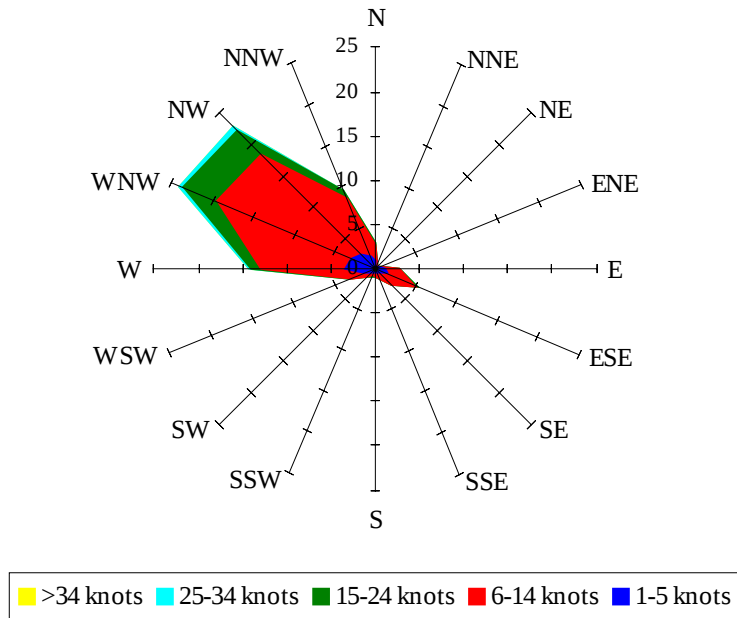
Labels of Percent Frequency on North Axis



Percent Calm = 14.33

Wind Summary - June, July, and August

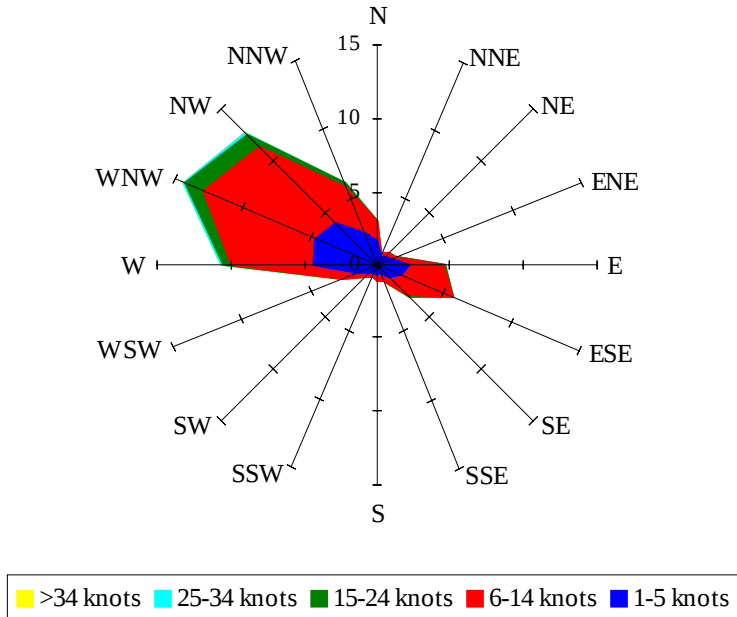
Labels of Percent Frequency on North Axis



Percent Calm = 7.61

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 29.82