

OLYMPIA WA

Latitude = 46.97 N

Longitude = 122.90 W

Period of Record = 1973 to 1996

WMO No. 727920

Elevation = 200 feet

Average Pressure = 29.79 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	96	70	69	6.8	N
0.4% Occurrence	88	67	66	7.8	N
1.0% Occurrence	83	65	64	7.9	N
2.0% Occurrence	80	64	62	8.0	N
Mean Daily Range	19	-	-	-	-
97.5% Occurrence	28	27	19	3.1	S
99.0% Occurrence	23	22	15	3.1	S
99.6% Occurrence	18	17	11	3.6	S
Median of Extreme Lows	11	10	8	2.6	SE
	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	72	91	84	7.3	N
0.4% Occurrence	68	85	74	7.6	N
1.0% Occurrence	66	81	70	7.7	N
2.0% Occurrence	64	77	67	7.6	N
	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	91	82	0.60	7.4	NNE
0.4% Occurrence	81	73	0.54	6.7	SW
1.0% Occurrence	78	72	0.52	7.0	N
2.0% Occurrence	72	68	0.49	6.9	SSW
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		8	181	2	71

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 + 0.2
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 (#)
52.7	N/A	N/A	54

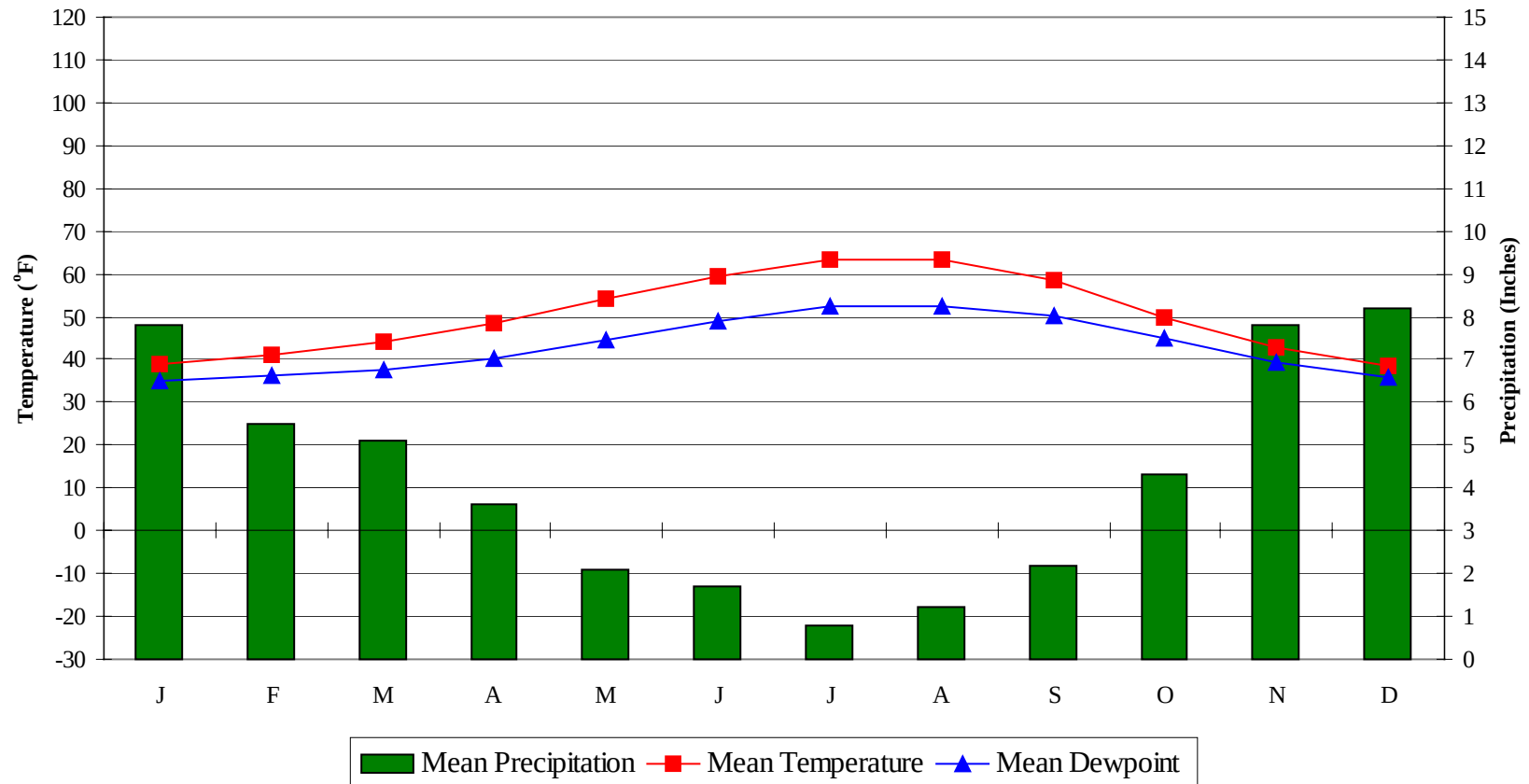
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

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Average Annual Climate

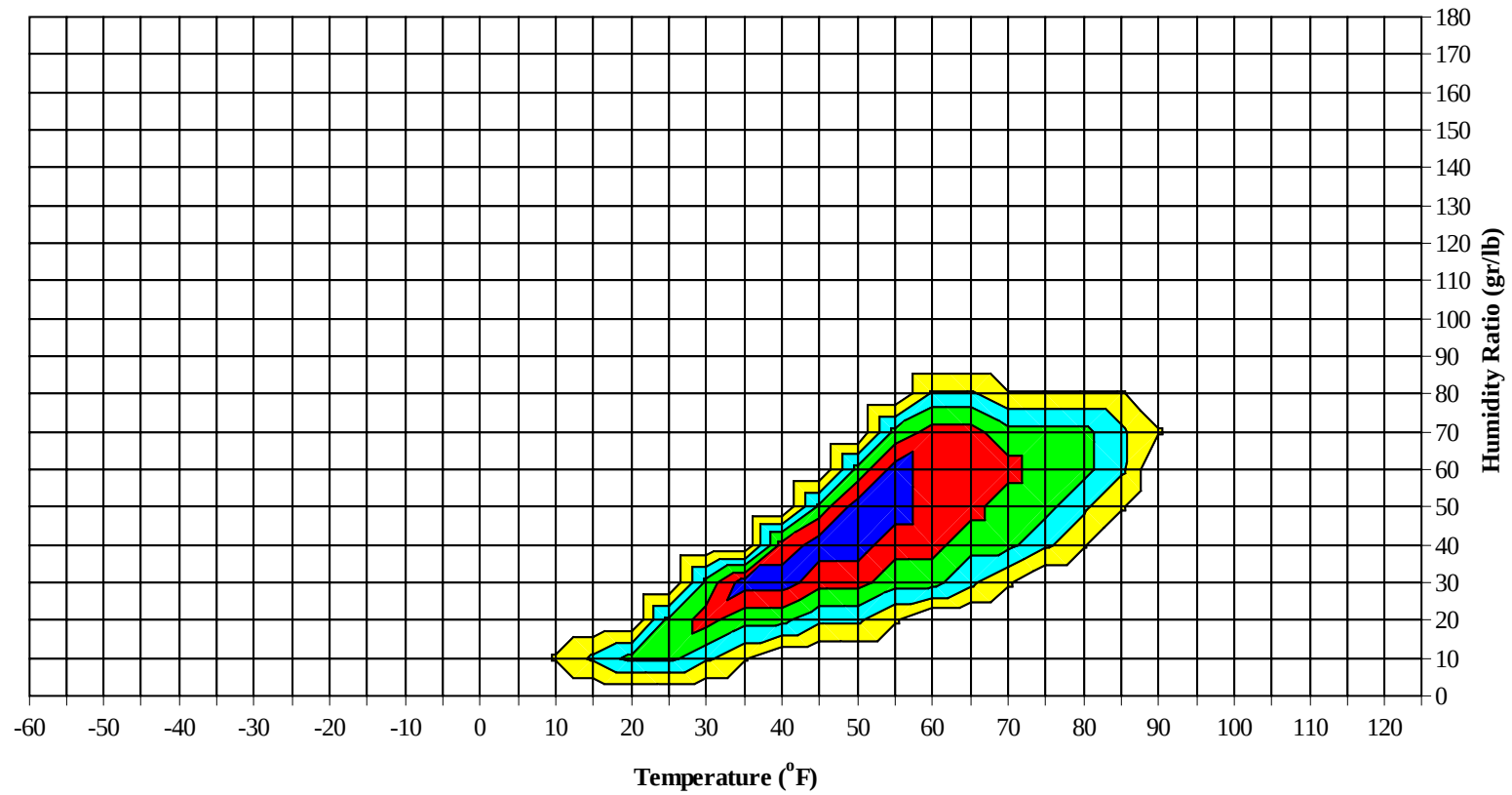


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Long Term Psychrometric Summary



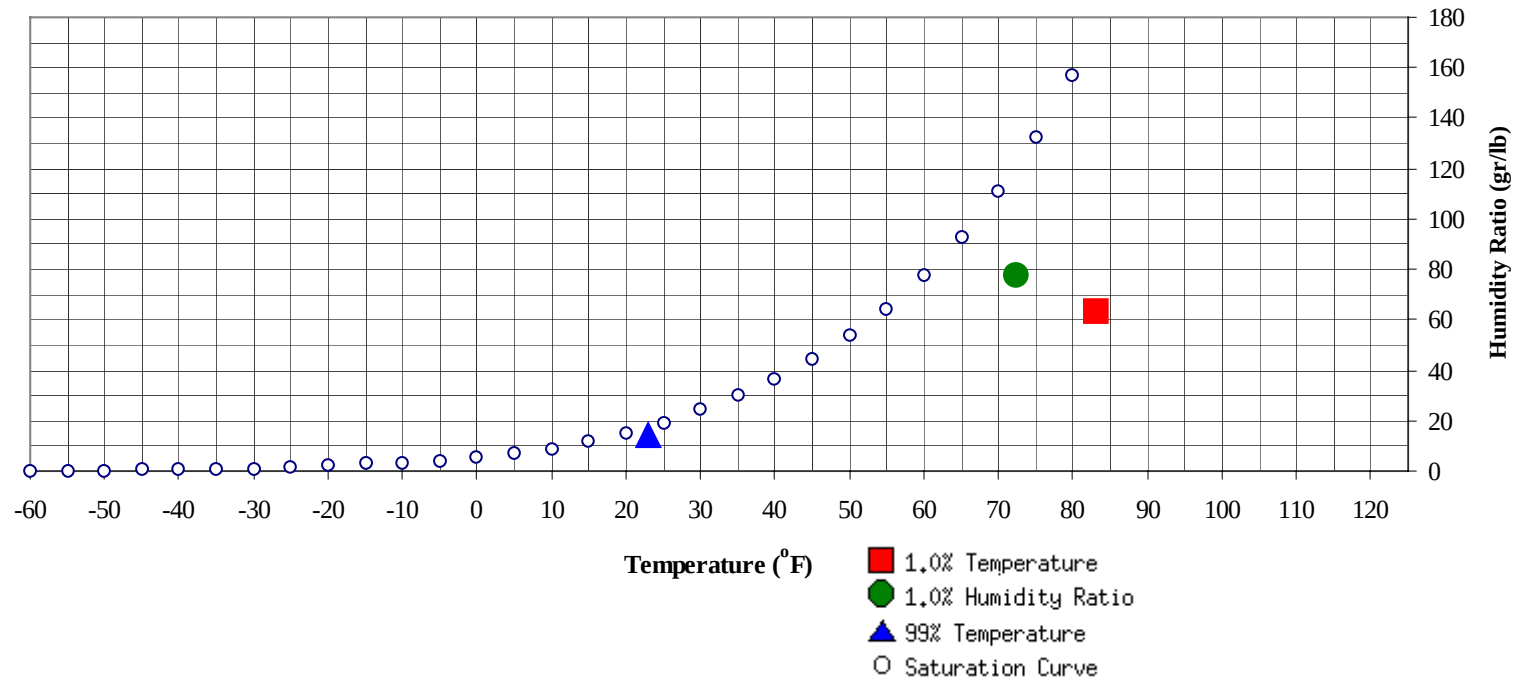
- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

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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)
	23	14.4	7.7		77.7	72.4	64.4	60.1	29.5

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	83	63.4	64.9	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		
100 / 104															
95 / 99															
90 / 94															
85 / 89															
80 / 84															
75 / 79												0	0	0	55.3
70 / 74							0		0	56.2		1	0	1	53.2
65 / 69							0	0	0	55.0		4	1	5	51.9
60 / 64		0		0	58.5	0	4	1	5	50.7		13	4	17	50.2
55 / 59	1	4	1	6	53.1	1	14	4	19	50.8	2	36	13	51	49.1
50 / 54	10	30	14	54	49.1	11	41	22	74	48.2	7	68	39	115	46.7
45 / 49	32	60	43	136	45.0	30	61	50	142	44.4	39	69	67	175	44.1
40 / 44	55	62	60	177	40.6	49	53	57	158	40.2	66	43	69	177	40.4
35 / 39	50	47	56	153	35.7	48	30	45	123	35.7	62	12	40	114	36.2
30 / 34	53	31	46	129	31.2	51	16	30	97	31.3	50	2	13	65	31.5
25 / 29	23	9	18	50	26.2	21	4	10	35	26.5	20	0	2	22	27.1
20 / 24	13	3	7	23	21.2	7	1	2	10	21.3	2	0	0	2	22.4
15 / 19	5	1	2	8	16.4	4	1	2	7	16.0	0		0	0	15.8
10 / 14	3	1	1	5	11.4	2	0	0	2	11.8	0		0	0	13.2
5 / 9	2	0	0	2	7.2	0	0		0	7.5	0			0	9.0
0 / 4	1		0	1	2.1	0			0	2.0					
-5 / -1															

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		
100 / 104															
95 / 99							0		0	70.0		0	0	0	68.8
90 / 94							0	0	0	70.2		2	1	3	67.2
85 / 89		0	0	0	61.7		1	1	2	64.6		4	2	6	65.7
80 / 84		0	0	0	58.7		6	2	8	62.6		12	5	17	63.9
75 / 79		3	1	4	58.1		12	6	18	60.5	0	18	10	29	62.0
70 / 74		7	2	9	56.9	0	19	9	29	58.1	1	31	18	49	59.9
65 / 69		17	7	24	54.1	1	30	15	46	55.9	3	48	28	79	57.4
60 / 64	0	28	14	42	51.9	5	50	27	82	53.4	13	69	46	128	55.3
55 / 59	4	50	27	81	49.6	19	71	48	138	51.1	54	45	61	161	53.1
50 / 54	23	72	53	148	47.2	61	49	66	176	48.5	93	11	50	153	50.0
45 / 49	56	49	62	168	44.5	82	10	47	139	45.2	51	0	17	68	46.1
40 / 44	76	13	50	139	40.7	54	1	23	79	41.1	20		3	23	41.8
35 / 39	49	1	20	70	36.3	21		3	24	36.7	3		0	3	37.0
30 / 34	27	0	3	30	31.8	4		0	4	32.3	1			1	32.1
25 / 29	5		0	5	27.6	0		0	0	27.6					
20 / 24			0	0	22.0			0	0	17.0					
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															

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WMO No. 727920

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		
100 / 104		0	0	0	70.5		0	0	0	74.0					
95 / 99		1	1	2	69.4		1	0	1	71.4		0	0	0	68.0
90 / 94		4	2	6	68.4		4	2	6	68.7		1	0	1	66.9
85 / 89		11	6	17	67.1		12	5	17	66.8		4	1	5	65.2
80 / 84		23	12	35	65.1		23	12	36	65.0		13	4	17	63.6
75 / 79	0	35	19	53	63.0	0	36	18	54	63.0		23	8	31	62.2
70 / 74	2	47	29	78	60.8	1	52	30	82	60.7		36	14	50	60.2
65 / 69	6	59	38	103	58.8	4	57	38	99	58.9	0	54	23	77	57.9
60 / 64	31	54	58	143	56.8	32	48	59	139	57.4	13	62	47	123	56.5
55 / 59	92	14	54	161	54.3	96	15	56	167	54.6	53	37	63	153	54.3
50 / 54	78	1	25	104	50.7	74	1	24	98	50.9	78	10	52	140	50.6
45 / 49	33	0	4	37	46.6	32		3	35	46.5	54	1	21	77	46.3
40 / 44	5		0	5	42.5	7		0	7	41.8	28	0	5	33	41.8
35 / 39	0			0	37.8	1			1	37.5	11		1	12	37.0
30 / 34						0			0	33.5	2			2	32.6
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															

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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WMO No. 727920

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		
100 / 104															
95 / 99															
90 / 94															
85 / 89		0	0	0	64.0										
80 / 84		1	0	1	63.1										
75 / 79		3	0	3	60.6										
70 / 74		6	1	7	58.3		0		0	61.5					
65 / 69	0	20	3	23	56.5		1		1	58.9					
60 / 64	1	44	11	56	54.6		3	0	3	56.2	0	1	0	1	56.0
55 / 59	16	69	40	125	52.8	4	20	7	31	53.0	2	2	1	5	53.6
50 / 54	48	63	69	179	49.7	26	50	30	106	49.2	10	20	11	41	49.3
45 / 49	64	31	64	158	45.9	50	77	60	187	45.1	33	61	39	132	45.1
40 / 44	58	10	37	105	41.4	55	53	62	171	40.7	52	65	55	173	40.5
35 / 39	38	2	19	59	36.7	44	21	41	106	36.3	59	57	67	183	36.2
30 / 34	20	0	4	24	32.1	33	11	24	68	31.5	50	31	47	128	31.5
25 / 29	3		0	3	27.1	14	3	12	29	26.3	26	7	19	52	26.7
20 / 24	0			0	23.7	8	2	4	14	21.6	11	4	5	20	21.3
15 / 19						3	0	1	4	16.8	2	1	2	5	15.2
10 / 14						1	0	0	1	12.4	1	0	1	2	11.1
5 / 9						0	0	0	0	6.3	1	0	0	1	6.8
0 / 4						0			0	2.6	1	0	0	1	1.7
-5 / -1											0			0	-2.4

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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WMO No. 727920

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		
100 / 104		0	0	0	73.4
95 / 99		3	1	4	70.1
90 / 94		11	6	17	68.3
85 / 89		31	15	47	66.5
80 / 84		77	35	113	64.5
75 / 79	1	128	62	191	62.3
70 / 74	3	199	100	302	60.1
65 / 69	14	290	151	455	57.7
60 / 64	96	374	263	732	55.6
55 / 59	343	373	369	1085	52.9
50 / 54	514	413	449	1375	49.1
45 / 49	558	422	478	1458	45.1
40 / 44	526	301	428	1255	40.7
35 / 39	388	171	299	857	36.1
30 / 34	294	90	172	556	31.5
25 / 29	114	24	63	200	26.5
20 / 24	42	9	19	70	21.4
15 / 19	14	3	7	24	16.1
10 / 14	7	1	3	11	11.5
5 / 9	4	0	1	5	7.0
0 / 4	2	0	0	2	2.0
-5 / -1	0			0	-2.4
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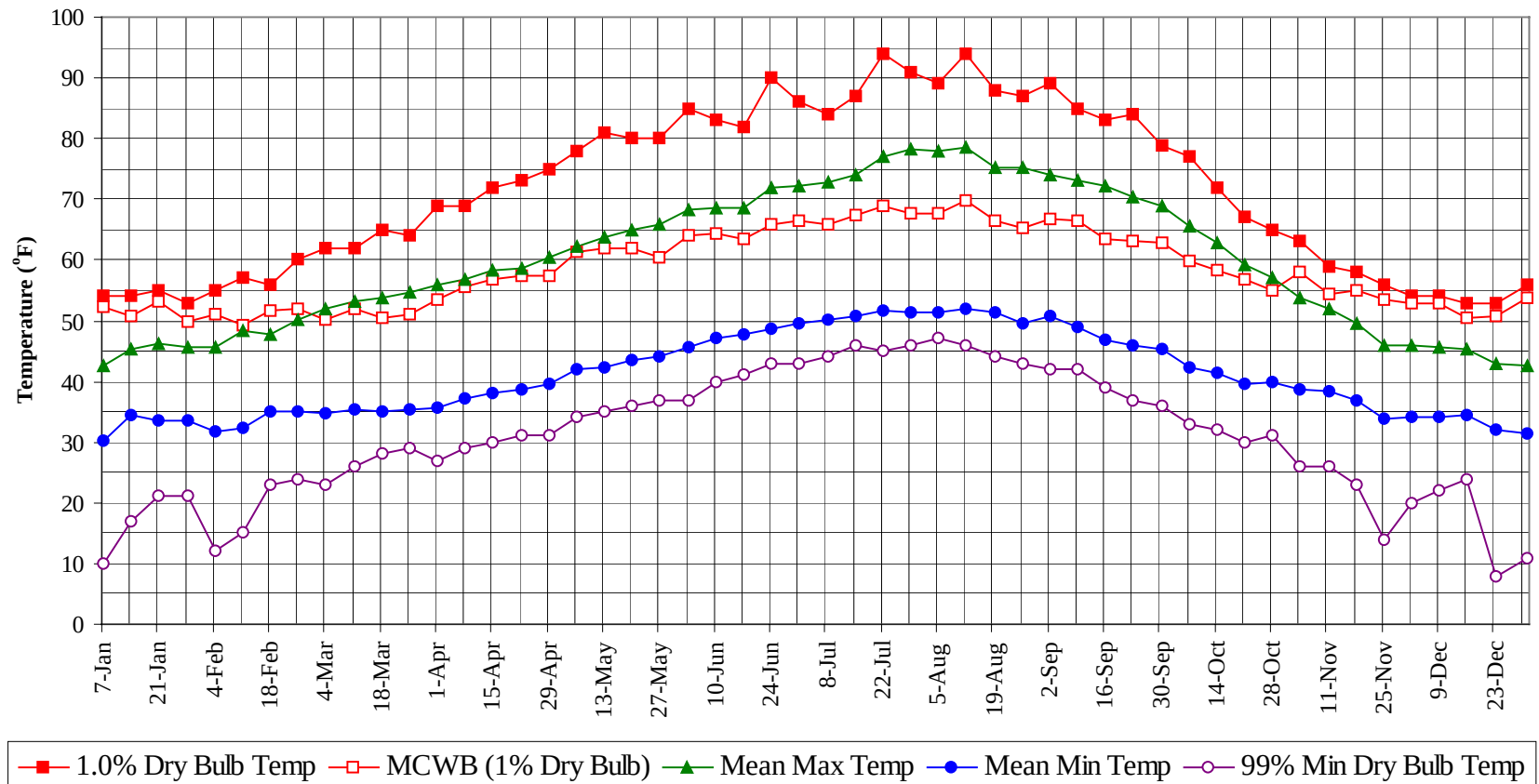
Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

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Annual Summary of Temperatures

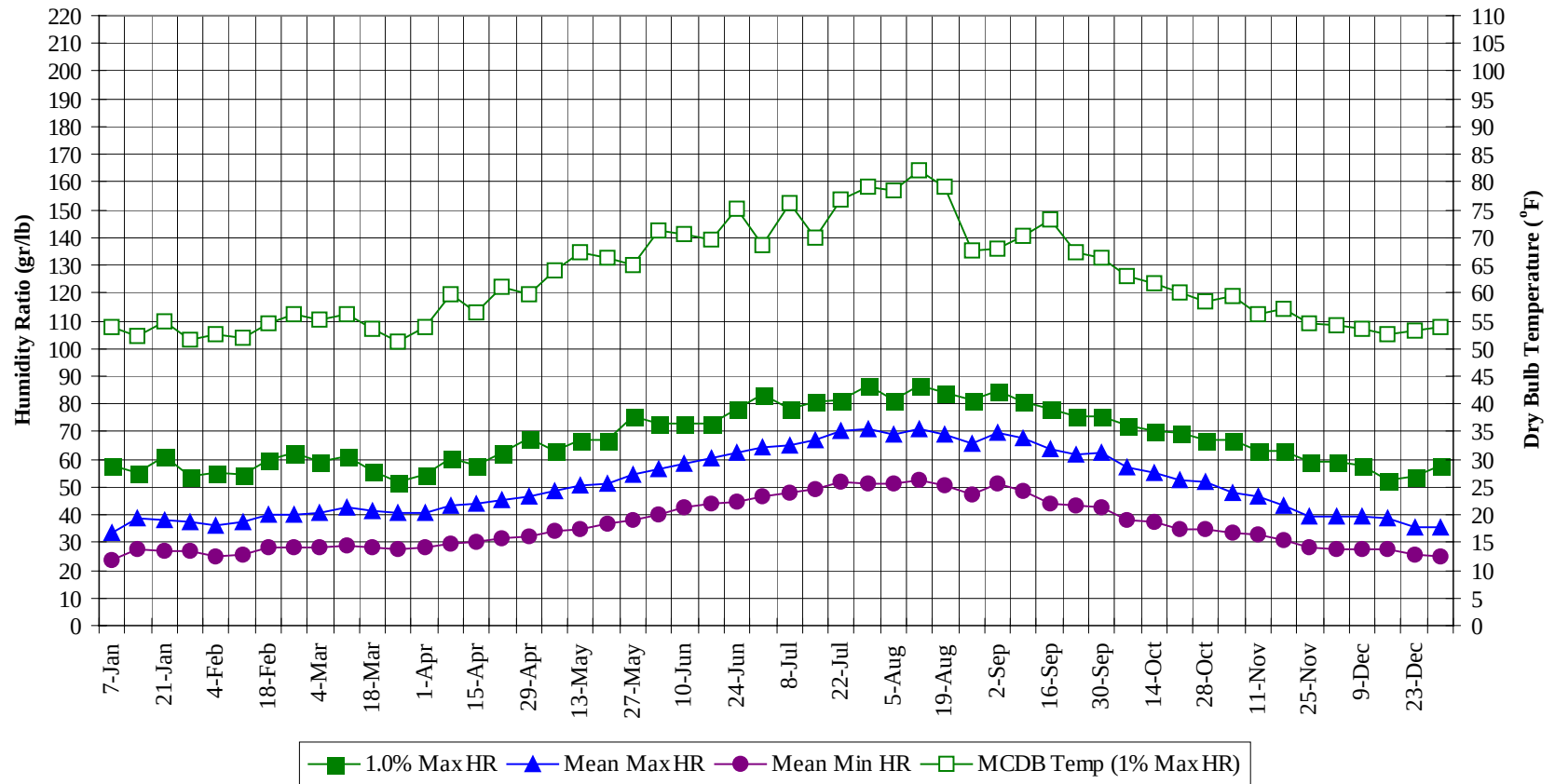


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Long Term Humidity and Dry Bulb Temperature Summary



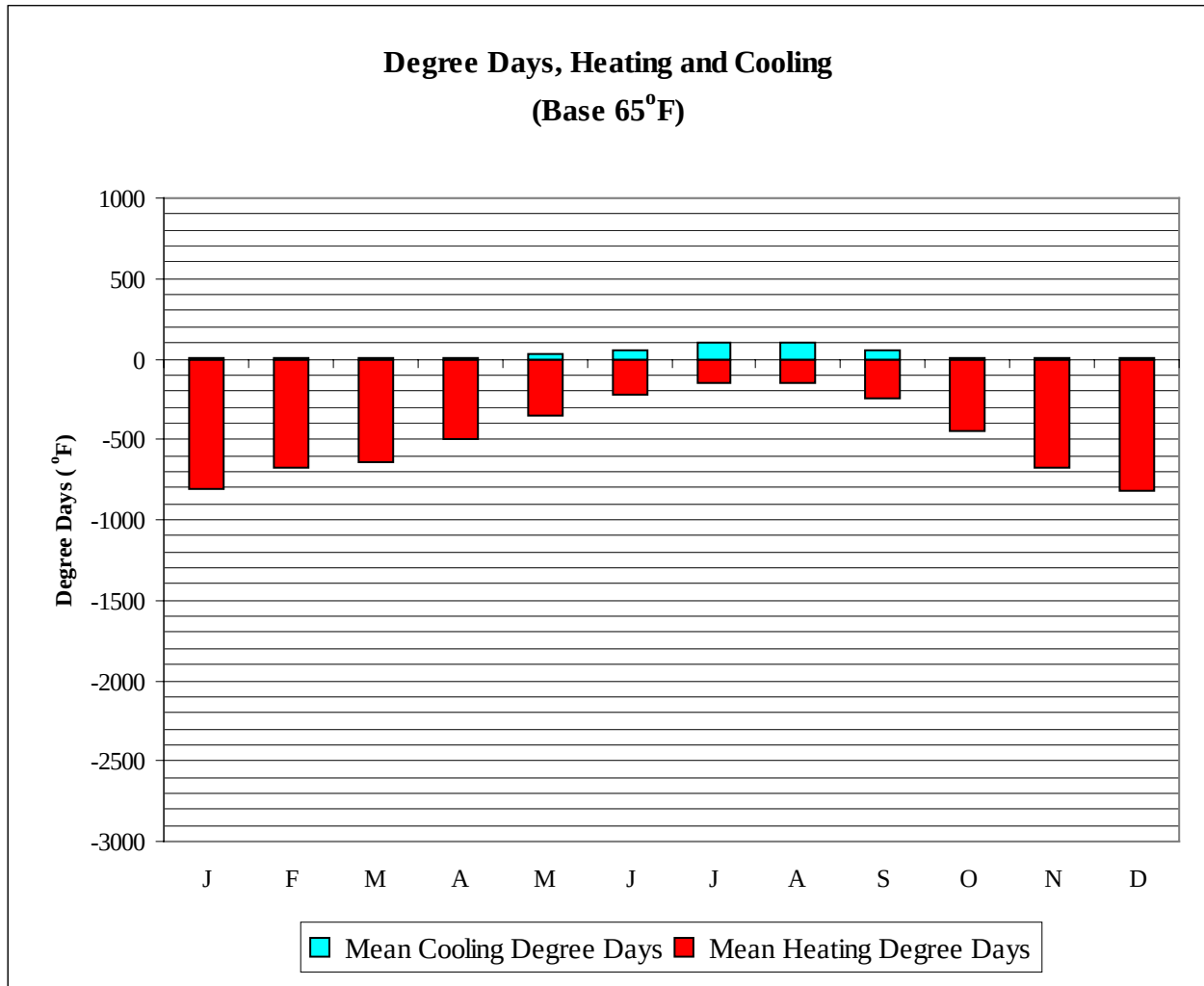
OLYMPIA**WA****WMO No. 727920****Long Term Dry Bulb Temperature and Humidity Summary**

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	54.0	52.2	42.6	30.2	10.0	58.1	53.7	33.7	23.8
14-Jan	54.0	50.7	45.4	34.3	17.0	55.3	52.3	38.4	27.4
21-Jan	55.0	53.1	46.3	33.4	21.0	60.9	54.7	38.4	27.1
28-Jan	53.0	49.7	45.5	33.6	21.0	53.9	51.4	37.3	27.0
4-Feb	55.0	51.0	45.6	31.8	12.0	55.3	52.7	35.9	24.8
11-Feb	57.0	49.2	48.3	32.4	15.0	54.6	51.8	37.5	25.4
18-Feb	56.0	51.6	47.9	35.2	23.0	59.5	54.5	40.0	28.2
25-Feb	60.0	51.9	50.1	35.2	24.0	62.3	56.2	40.4	28.4
4-Mar	62.0	50.3	52.0	34.8	23.0	58.8	55.3	40.8	28.0
11-Mar	62.0	51.9	53.3	35.5	26.0	60.9	56.3	42.7	29.0
18-Mar	65.0	50.4	53.8	35.1	28.0	56.0	53.4	41.2	28.1
25-Mar	64.0	50.9	54.8	35.4	29.0	51.8	51.3	40.8	27.6
1-Apr	69.0	53.6	55.8	35.7	27.0	54.6	53.7	41.0	28.1
8-Apr	69.0	55.6	56.7	37.1	29.0	60.2	59.9	43.6	29.7
15-Apr	72.0	56.9	58.3	38.0	30.0	58.1	56.4	43.9	30.3
22-Apr	73.0	57.3	58.6	38.7	31.0	62.3	61.1	45.1	31.3
29-Apr	75.0	57.4	60.5	39.6	31.0	67.9	59.8	46.3	32.4
6-May	78.0	61.3	62.2	42.0	34.0	63.0	64.1	48.7	34.3
13-May	81.0	62.1	63.8	42.2	35.0	67.2	67.5	50.2	34.7
20-May	80.0	61.9	65.0	43.6	36.0	67.2	66.2	51.1	36.6
27-May	80.0	60.6	65.9	44.2	37.0	75.6	64.9	54.6	38.0
3-Jun	85.0	64.0	68.3	45.7	37.0	72.8	71.2	56.3	39.8
10-Jun	83.0	64.3	68.5	47.1	40.0	72.8	70.7	58.3	42.5
17-Jun	82.0	63.5	68.6	47.8	41.0	72.8	69.5	60.6	44.1
24-Jun	90.0	66.0	72.1	48.7	43.0	78.4	75.3	62.4	44.9
1-Jul	86.0	66.5	72.3	49.4	43.0	83.3	68.7	64.3	46.9
8-Jul	84.0	65.9	72.7	50.1	44.0	78.4	76.1	65.3	47.7
15-Jul	87.0	67.5	74.1	50.7	46.0	80.5	70.0	66.8	49.1
22-Jul	94.0	68.8	77.2	51.8	45.0	81.2	76.9	70.0	51.7
29-Jul	91.0	67.8	78.3	51.4	46.0	86.8	79.1	70.6	51.0
5-Aug	89.0	67.8	78.1	51.5	47.0	81.2	78.4	69.0	51.4
12-Aug	94.0	69.8	78.7	52.1	46.0	86.8	82.0	70.7	52.2
19-Aug	88.0	66.5	75.3	51.2	44.0	84.0	79.2	68.9	50.8
26-Aug	87.0	65.4	75.3	49.6	43.0	81.2	67.7	65.9	47.5
2-Sep	89.0	66.8	74.0	50.8	42.0	84.7	68.0	69.4	51.1
9-Sep	85.0	66.5	73.2	49.1	42.0	80.5	70.1	67.6	48.7
16-Sep	83.0	63.4	72.2	46.8	39.0	78.4	73.1	63.8	44.1
23-Sep	84.0	63.3	70.4	45.8	37.0	75.6	67.2	61.9	43.2
30-Sep	79.0	62.9	68.8	45.4	36.0	75.6	66.2	62.3	42.7
7-Oct	77.0	59.8	65.6	42.3	33.0	72.1	63.2	57.3	38.0
14-Oct	72.0	58.2	62.9	41.5	32.0	70.0	61.8	55.1	37.2
21-Oct	67.0	56.7	59.3	39.6	30.0	69.3	60.0	52.7	35.1
28-Oct	65.0	54.9	57.2	39.8	31.0	67.2	58.4	52.1	34.8
4-Nov	63.0	58.1	53.7	38.6	26.0	67.2	59.6	48.2	33.3
11-Nov	59.0	54.3	51.9	38.4	26.0	63.0	56.0	46.6	32.9
18-Nov	58.0	55.1	49.7	36.9	23.0	63.0	57.1	43.3	31.1
25-Nov	56.0	53.6	46.0	33.8	14.0	58.8	54.5	39.6	28.2
2-Dec	54.0	52.9	45.9	34.1	20.0	58.8	54.1	39.3	27.4
9-Dec	54.0	52.7	45.6	34.2	22.0	58.1	53.5	39.1	27.6
16-Dec	53.0	50.4	45.2	34.4	24.0	52.5	52.5	38.8	27.9
23-Dec	53.0	50.7	42.9	32.0	8.0	53.9	53.1	35.7	25.7
31-Dec	56.0	53.6	42.6	31.5	11.0	58.1	53.8	35.4	24.9

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WMO No. 727920



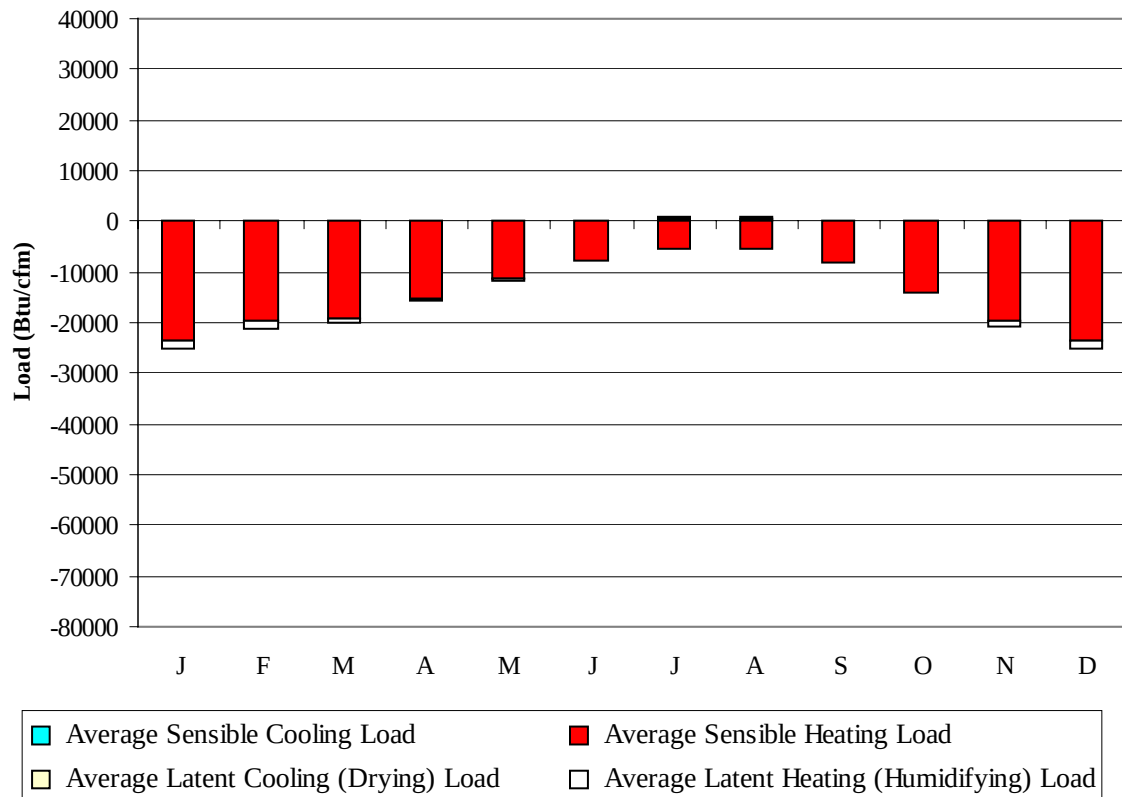
	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	813
FEB	0	678
MAR	1	642
APR	6	501
MAY	26	359
JUN	52	222
JUL	103	151
AUG	104	152
SEP	50	242
OCT	5	451
NOV	0	672
DEC	0	816
ANN	347	5699

OLYMPIA

WA

WMO No. 727920

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	-23482	0	-1773
FEB	0	-19776	0	-1392
MAR	0	-19036	0	-912
APR	10	-15225	0	-375
MAY	108	-11451	2	-71
JUN	289	-7642	13	-5
JUL	700	-5520	41	-1
AUG	694	-5543	63	-2
SEP	245	-8132	12	-21
OCT	14	-13930	0	-166
NOV	0	-19741	0	-896
DEC	0	-23550	0	-1448
ANN	2060	-173028	131	-7062

Average Annual Solar Radiation – Nearest Available Site

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

City: OLYMPIA
 State: WA
 WBAN No: 24227
 Lat(N): 46.97
 Long(W): 122.9
 Elev(ft): 200

Stn Type: Secondary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS
 Window: 1
 Overhang: 0.735
 Vert Gap: 0.328

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	320	530	880	1250	1590	1770	1860	1600	1200	700	380	270	1030
	Std Dev	31	65	97	116	143	186	167	150	103	76	38	17	38
	Minimum	260	390	710	1020	1280	1460	1540	1260	960	590	300	240	940
	Maximum	400	700	1140	1460	1880	2090	2180	1900	1450	880	480	310	1100
	Diffuse	250	370	530	730	860	900	810	700	550	410	280	210	550
Clear Day	Global	590	930	1460	2040	2460	2640	2540	2180	1650	1080	660	490	1560
NORTH	Global	130	200	300	420	540	610	590	470	350	240	150	110	340
	Diffuse	130	200	300	410	500	540	520	440	340	240	150	110	330
Clear Day	Global	130	190	290	400	580	700	650	460	320	220	140	110	350
EAST	Global	200	320	520	730	880	950	1000	870	700	400	230	170	580
	Diffuse	160	240	360	490	590	620	600	530	420	280	180	130	380
Clear Day	Global	510	730	1030	1330	1500	1560	1520	1380	1130	820	550	440	1040
SOUTH	Global	450	640	830	890	870	860	950	1020	1080	810	490	390	770
	Diffuse	230	320	430	540	590	600	590	550	490	370	250	200	430
Clear Day	Global	1640	1840	1870	1620	1340	1200	1240	1470	1750	1830	1670	1530	1580
WEST	Global	220	360	570	770	970	1080	1160	1040	820	510	260	180	660
	Diffuse	160	240	370	500	600	640	630	550	430	300	180	140	400
Clear Day	Global	510	730	1030	1330	1500	1560	1520	1380	1130	820	550	440	1040

Average Annual Solar Heat and Illumination – Nearest Available Site

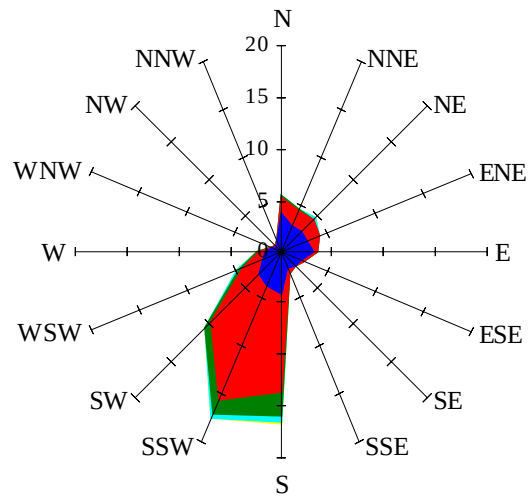
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	210	360	610	890	1130	1270	1340	1150	850	480	250	170	730
NORTH	Unshaded	93	140	210	290	360	410	390	310	240	170	100	79	230
	Shaded	71	110	170	230	290	330	320	260	200	130	81	61	190
EAST	Unshaded	140	220	370	510	620	670	710	610	490	280	160	120	410
	Shaded	110	180	290	400	480	520	550	480	390	220	130	95	320
SOUTH	Unshaded	330	470	590	600	570	550	600	680	750	590	370	290	530
	Shaded	310	410	440	360	330	340	340	350	490	480	330	270	370
WEST	Unshaded	150	250	400	550	690	770	830	750	580	360	180	120	470
	Shaded	120	200	320	440	540	600	650	590	470	290	140	100	370

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	29	59	69	55	24	46	79	97	93	70
	M.Cloudy	16	33	38	32	15	26	45	60	59	43
NORTH	M.Clear	8	12	13	12	7	15	15	17	16	15
	M.Cloudy	7	13	14	12	6	11	16	19	19	15
EAST	M.Clear	62	54	13	12	7	78	73	34	16	15
	M.Cloudy	18	24	14	12	6	27	34	26	19	15
SOUTH	M.Clear	35	73	86	69	28	11	39	58	54	30
	M.Cloudy	12	28	35	29	12	11	24	36	34	21
WEST	M.Clear	8	12	17	59	59	11	15	17	48	79
	M.Cloudy	7	13	15	26	20	11	16	19	32	38
M.Clear	(% hrs)	15	14	15	17	18	23	23	24	28	31
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	23	57	75	71	45	5	25	31	18	0
	M.Cloudy	12	31	46	45	26	3	14	16	10	0
NORTH	M.Clear	7	13	15	14	11	2	8	8	6	0
	M.Cloudy	6	12	16	15	10	2	6	7	5	0
EAST	M.Clear	59	68	30	14	11	17	31	8	6	0
	M.Cloudy	15	27	22	15	10	3	10	7	5	0
SOUTH	M.Clear	19	58	81	75	44	15	62	74	48	0
	M.Cloudy	8	24	40	40	20	3	14	16	11	0
WEST	M.Clear	7	13	15	48	73	2	8	15	34	0
	M.Cloudy	6	12	16	29	29	2	6	8	9	0
M.Clear	(% hrs)	27	31	35	38	43	8	9	10	11	13

Wind Summary - December, January, and February

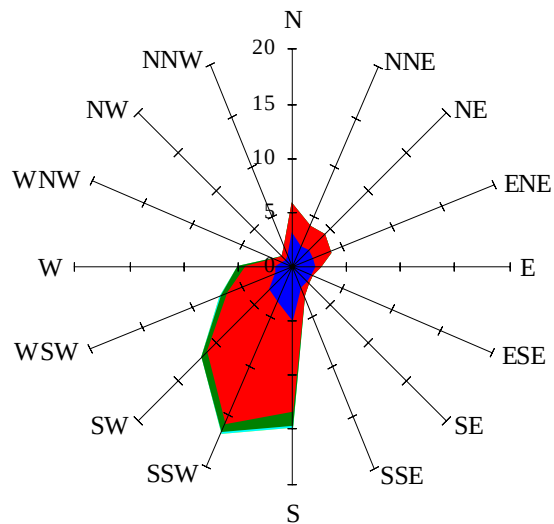
Labels of Percent Frequency on North Axis



Percent Calm = 16.83

Wind Summary - March, April, and May

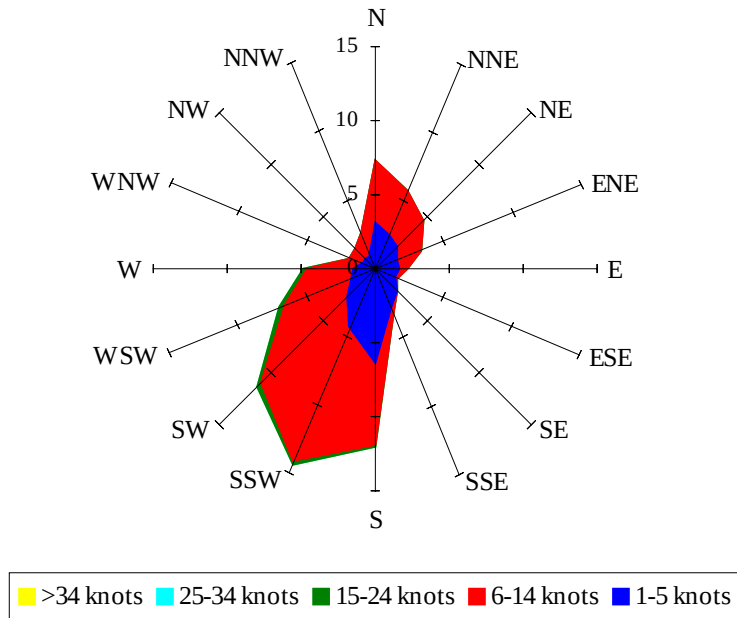
Labels of Percent Frequency on North Axis



Percent Calm = 12.96

Wind Summary - June, July, and August

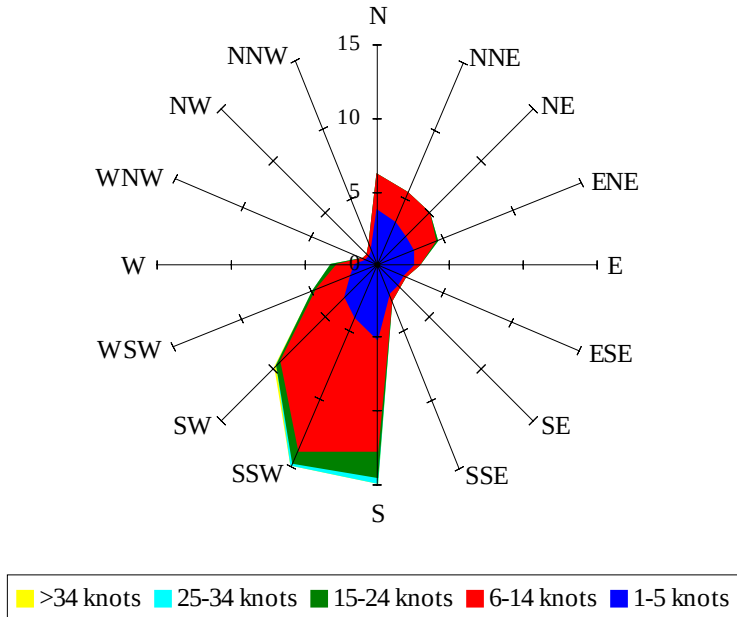
Labels of Percent Frequency on North Axis



Percent Calm = 13.73

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 18.77