

WASHINGTON/NATIONAL VA

Latitude = 38.85 N

WMO No. 724050

Longitude = 77.03 W

Elevation = 66 feet

Period of Record = 1973 to 1996

Average Pressure = 29.96 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	98	78	112	11.2	S
0.4% Occurrence	94	77	111	10.6	S
1.0% Occurrence	92	76	108	10.5	S
2.0% Occurrence	89	74	105	10.1	S
Mean Daily Range	16	-	-	-	-
97.5% Occurrence	24	21	10	11.1	NW
99.0% Occurrence	19	16	7	11.7	NW
99.6% Occurrence	15	12	6	11.9	NNW
Median of Extreme Lows	11	9	5	11.9	NNW
	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	82	92	145	10.5	S
0.4% Occurrence	79	89	131	9.8	S
1.0% Occurrence	78	87	128	9.4	S
2.0% Occurrence	77	85	124	9.1	S
	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	151	87	1.00	9.3	S
0.4% Occurrence	140	84	0.94	8.4	S
1.0% Occurrence	132	83	0.88	8.5	S
2.0% Occurrence	127	82	0.85	8.4	S
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		66	1049	880	2087

Other Site Data

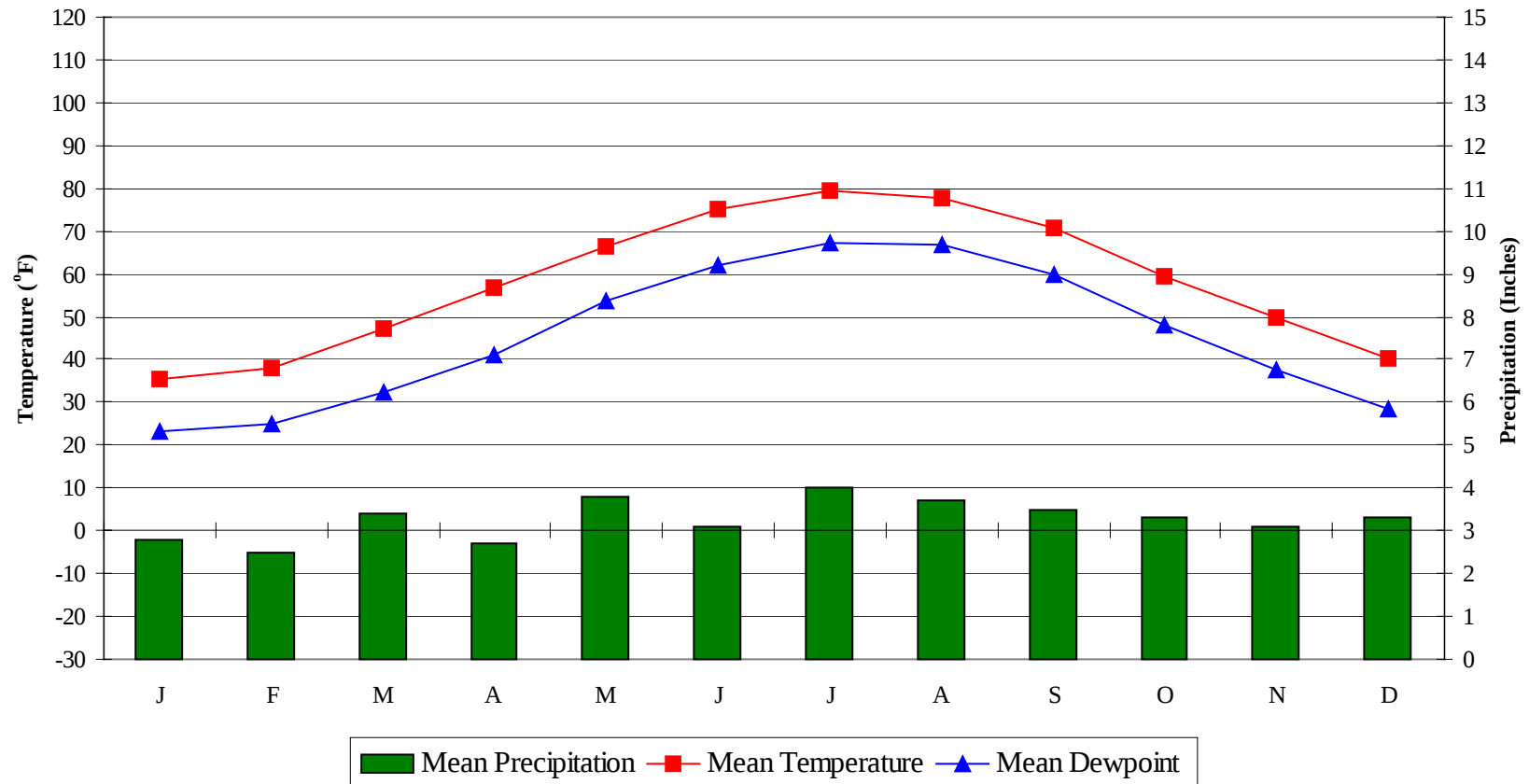
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
7	3.3	90	3.3 + 1.1
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
60.6	N/A	22	38

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

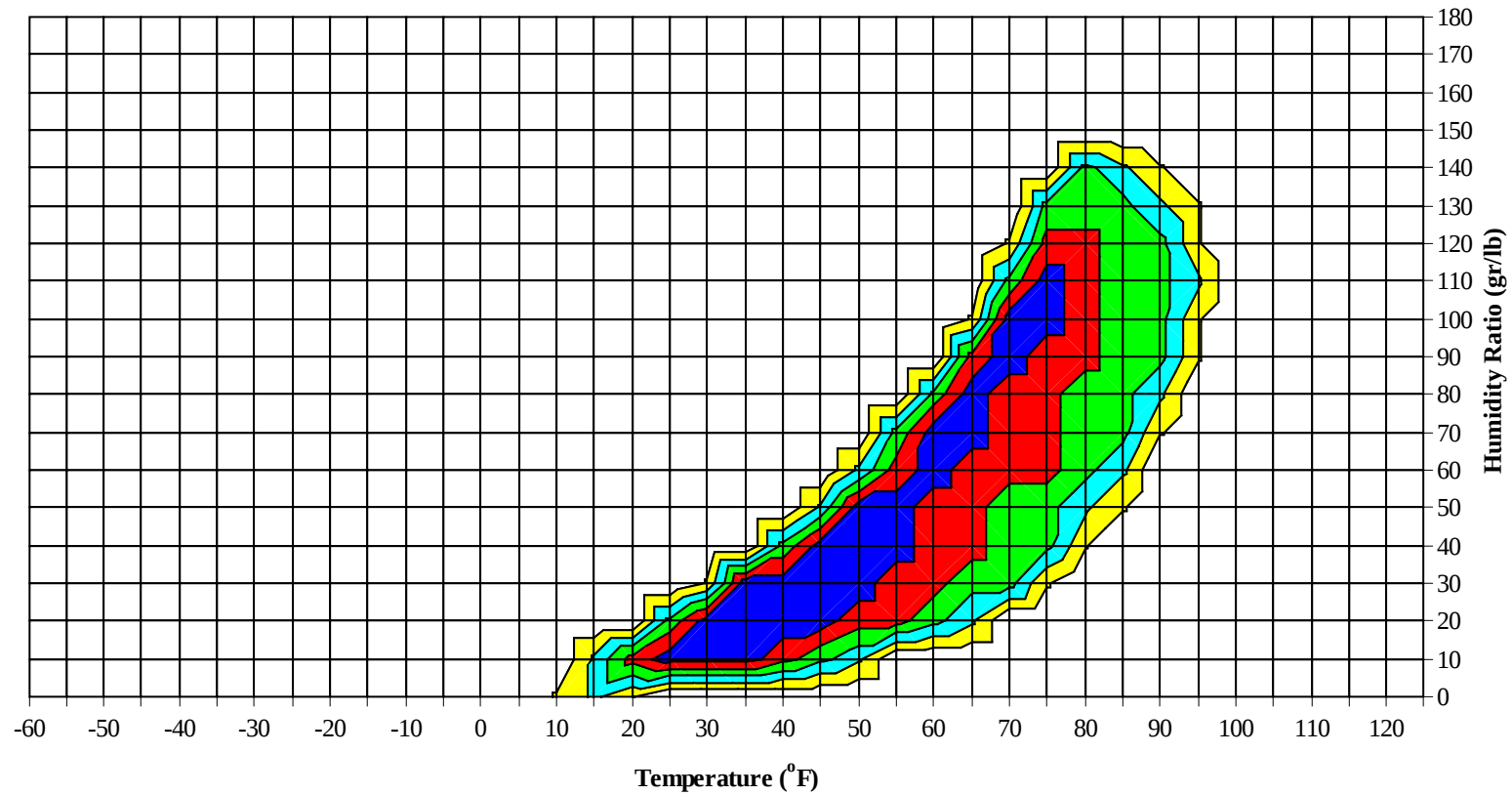
WASHINGTON/NATIONAL VA

WMO No. 724050

Average Annual Climate

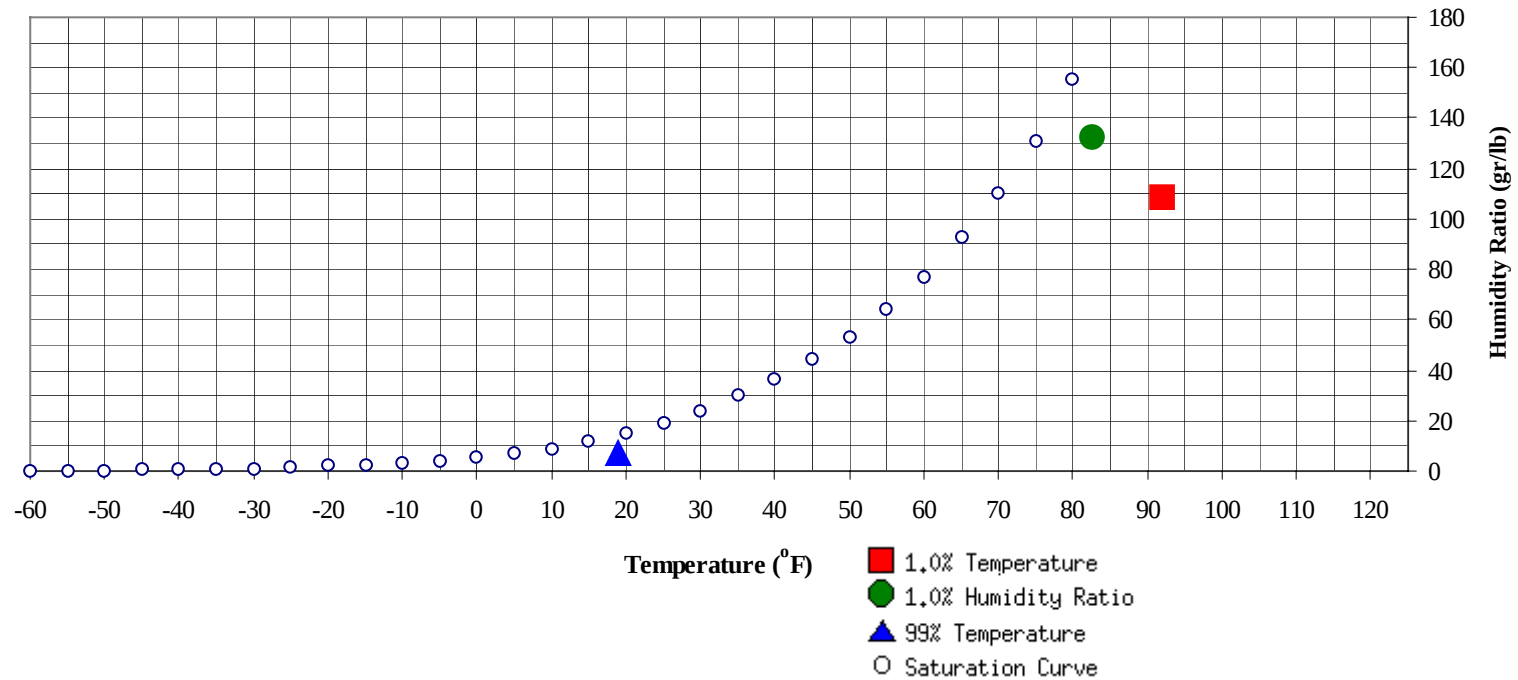


Long Term Psychrometric Summary



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

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)
	19	7.4	5.7		132.3	82.6	77.1	75	40.6

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	92	108.4	75.8	39.1

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												0	0	0	65.6
80 / 84												2	0	2	64.0
75 / 79		0	0	0	60.0		1	0	1	60.1		4	2	6	60.9
70 / 74		1	0	1	59.8		2	1	3	55.6	1	7	4	12	59.0
65 / 69		1	0	1	57.2	0	4	1	5	54.5	3	15	9	27	56.1
60 / 64	1	4	2	7	54.4	2	9	6	17	53.5	7	25	20	52	52.7
55 / 59	3	8	5	16	50.6	4	14	11	29	50.0	12	36	30	78	49.2
50 / 54	4	14	10	28	45.6	8	22	17	47	45.2	29	43	43	115	45.3
45 / 49	13	31	24	68	41.5	18	30	27	75	41.4	43	43	50	136	41.4
40 / 44	31	48	43	122	37.0	27	38	38	103	37.0	54	35	40	129	37.1
35 / 39	53	53	59	166	33.1	42	42	46	130	32.5	48	21	30	99	32.6
30 / 34	57	41	46	144	28.5	54	34	40	128	28.1	31	10	14	55	28.0
25 / 29	32	23	30	85	23.5	34	17	21	72	23.5	13	3	4	20	23.2
20 / 24	27	14	18	59	19.1	22	8	11	41	18.8	5	2	2	9	19.0
15 / 19	17	6	7	30	14.7	10	2	3	15	14.7	2	0	0	2	14.7
10 / 14	7	2	2	11	10.1	3	1	1	5	9.7	0			0	11.0
5 / 9	2	1	2	5	4.8	1	0		1	5.5					
0 / 4	1	0	0	1	0.2										
-5 / -1	1	0	0	1	-3.7										
-10 / -6	0			0	-6.0										

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.

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												0		0	78.5
95 / 99		0		0	67.0		1	0	1	76.1		4	0	4	77.3
90 / 94		2	0	2	68.4		4	1	5	73.9		21	5	26	74.7
85 / 89		4	1	5	65.9	0	15	5	20	70.1	1	47	21	69	72.8
80 / 84		8	4	12	64.6	1	29	14	44	68.6	6	65	41	112	70.4
75 / 79	0	16	9	25	62.4	5	42	29	76	66.0	42	53	71	166	68.6
70 / 74	4	26	19	49	59.7	24	53	46	123	63.4	81	31	59	171	66.2
65 / 69	11	36	28	75	56.8	49	45	54	147	60.3	60	14	30	104	61.9
60 / 64	26	46	40	112	53.5	61	32	50	142	56.5	35	4	11	50	57.4
55 / 59	39	37	44	120	49.9	54	20	32	106	52.4	12	0	2	14	53.1
50 / 54	54	36	47	137	46.0	37	7	15	59	47.9	3	0	0	3	47.8
45 / 49	56	20	30	106	41.8	15	1	3	19	43.5					
40 / 44	31	6	12	49	37.1	3		0	3	38.6					
35 / 39	16	2	4	22	32.9	0			0	34.0					
30 / 34	3	0	1	4	27.5										
25 / 29	0		0	0	22.8										
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															

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WASHINGTON/NATIONAL VA

WMO No. 724050

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		1	0	1	78.4		0	0	0	77.3					
95 / 99		11	3	14	77.9		7	1	8	77.4		2	0	2	76.7
90 / 94	0	45	15	60	76.1		29	8	37	76.5		10	2	12	75.3
85 / 89	4	70	38	112	74.0	1	61	28	90	74.4	0	23	7	30	73.0
80 / 84	27	70	67	164	72.3	15	73	58	145	72.7	3	42	22	67	71.1
75 / 79	96	37	81	214	71.2	83	49	84	216	71.1	23	57	47	127	69.0
70 / 74	86	13	37	136	67.7	87	21	50	158	67.8	58	51	65	174	66.0
65 / 69	30	2	6	38	62.7	46	6	16	68	63.5	58	34	52	144	61.7
60 / 64	5	0	1	6	57.8	13	1	3	17	58.7	54	14	32	100	57.7
55 / 59	0			0	50.8	2	0	0	2	53.8	29	4	11	44	52.9
50 / 54	0			0	47.0	1	0	0	1	48.0	14	1	3	18	48.6
45 / 49											3	0	0	3	44.4
40 / 44															
35 / 39															
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															

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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		
100 / 104															
95 / 99															
90 / 94		0		0	73.0										
85 / 89		1	0	1	70.2		0		0	66.0					
80 / 84		8	1	9	69.4		1	0	1	65.3					
75 / 79	1	22	6	29	66.8		5	1	6	64.0		0		0	62.0
70 / 74	6	40	20	66	63.6	1	11	4	16	61.5		1	0	1	63.2
65 / 69	23	45	40	108	60.4	5	20	12	37	59.5	1	4	2	7	59.4
60 / 64	37	57	54	149	55.9	13	30	23	66	55.8	2	7	4	13	55.8
55 / 59	49	40	55	144	51.4	23	37	35	95	51.1	6	15	10	31	51.7
50 / 54	58	23	44	125	47.2	36	45	44	125	46.2	13	31	18	62	46.1
45 / 49	45	9	20	74	43.1	44	46	46	136	41.5	24	48	42	115	42.0
40 / 44	23	1	6	30	38.7	47	28	41	116	37.4	43	57	59	160	37.4
35 / 39	6	0	1	7	34.1	44	13	24	81	33.4	61	38	51	151	32.8
30 / 34	1			1	30.1	21	3	8	32	28.9	49	25	31	106	28.5
25 / 29						6	0	1	7	24.7	22	13	17	52	23.3
20 / 24						1	0	0	1	19.3	16	6	9	31	19.1
15 / 19						0			0	15.5	6	2	2	10	14.6
10 / 14											2	1	0	3	10.2
5 / 9											1	0	1	2	5.0
0 / 4											0			0	1.8
-5 / -1															
-10 / -6															

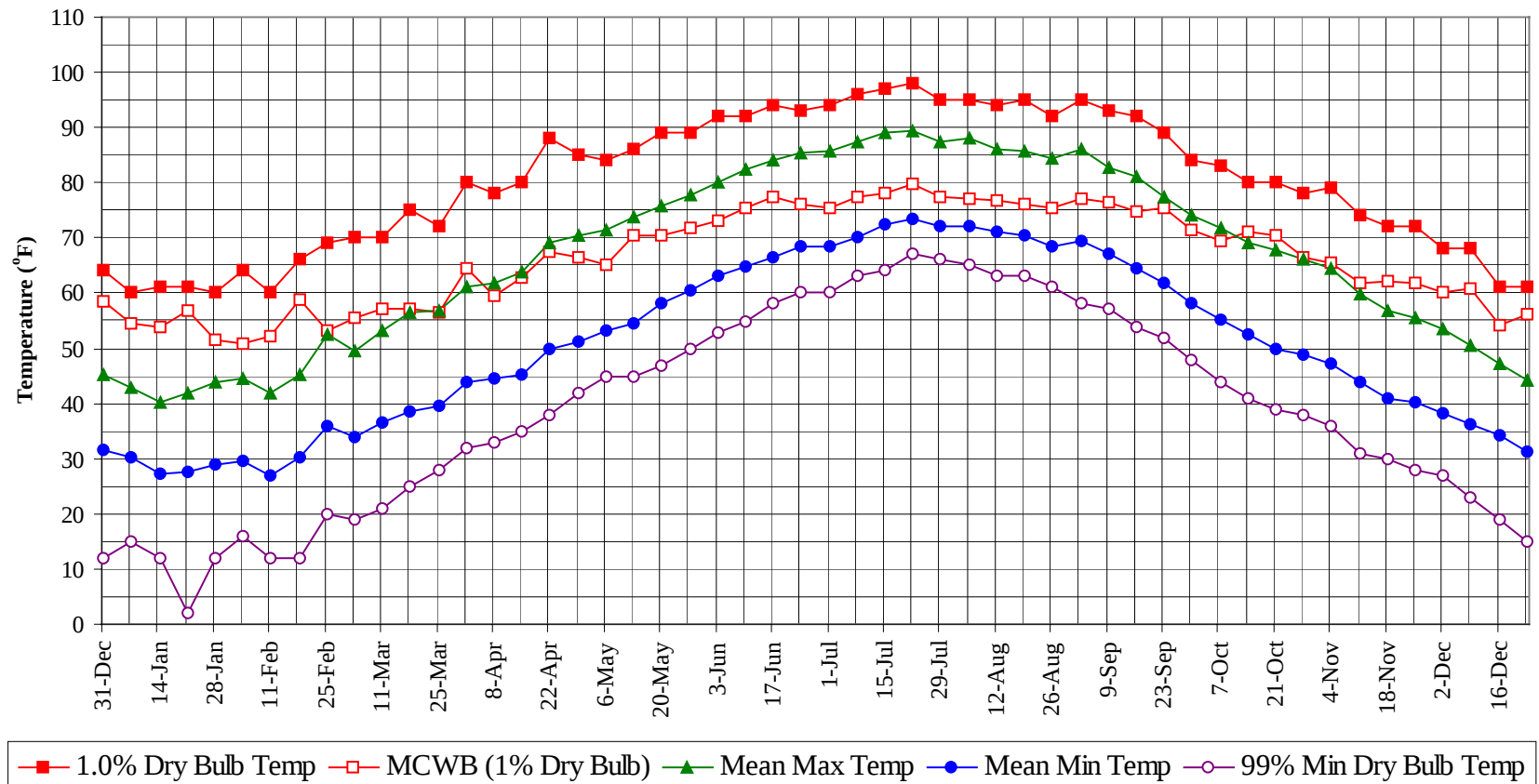
Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary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

WASHINGTON/NATIONAL VA WMO No. 724050
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)
Period of Record = 1973 to 1996

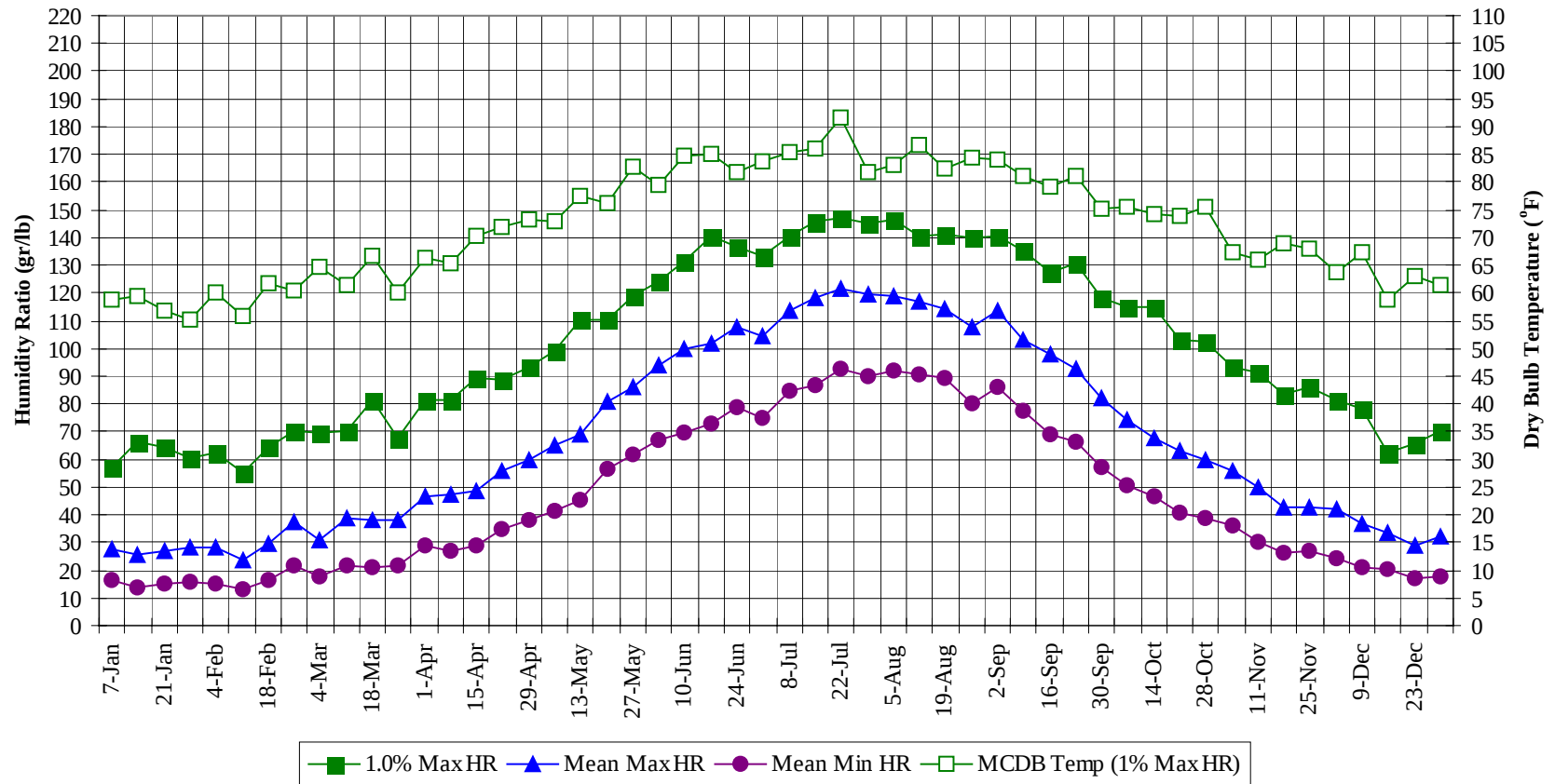
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
100 / 104		1	0	1	78.2
95 / 99		24	4	28	77.5
90 / 94	0	111	30	141	75.7
85 / 89	5	222	101	328	73.3
80 / 84	51	298	207	555	71.3
75 / 79	250	285	329	864	69.4
70 / 74	347	258	303	908	65.5
65 / 69	285	227	251	763	60.6
60 / 64	257	229	246	732	55.8
55 / 59	233	214	235	682	51.1
50 / 54	255	222	243	720	46.3
45 / 49	261	228	243	732	41.8
40 / 44	257	214	240	711	37.3
35 / 39	272	170	216	658	32.9
30 / 34	216	114	140	470	28.4
25 / 29	106	57	73	236	23.4
20 / 24	70	30	40	140	19.0
15 / 19	35	10	14	59	14.7
10 / 14	12	4	3	19	10.0
5 / 9	5	1	2	8	5.0
0 / 4	1	0	0	1	0.5
-5 / -1	1	0	0	1	-3.7
-10 / -6	0			0	-6.0

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Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary

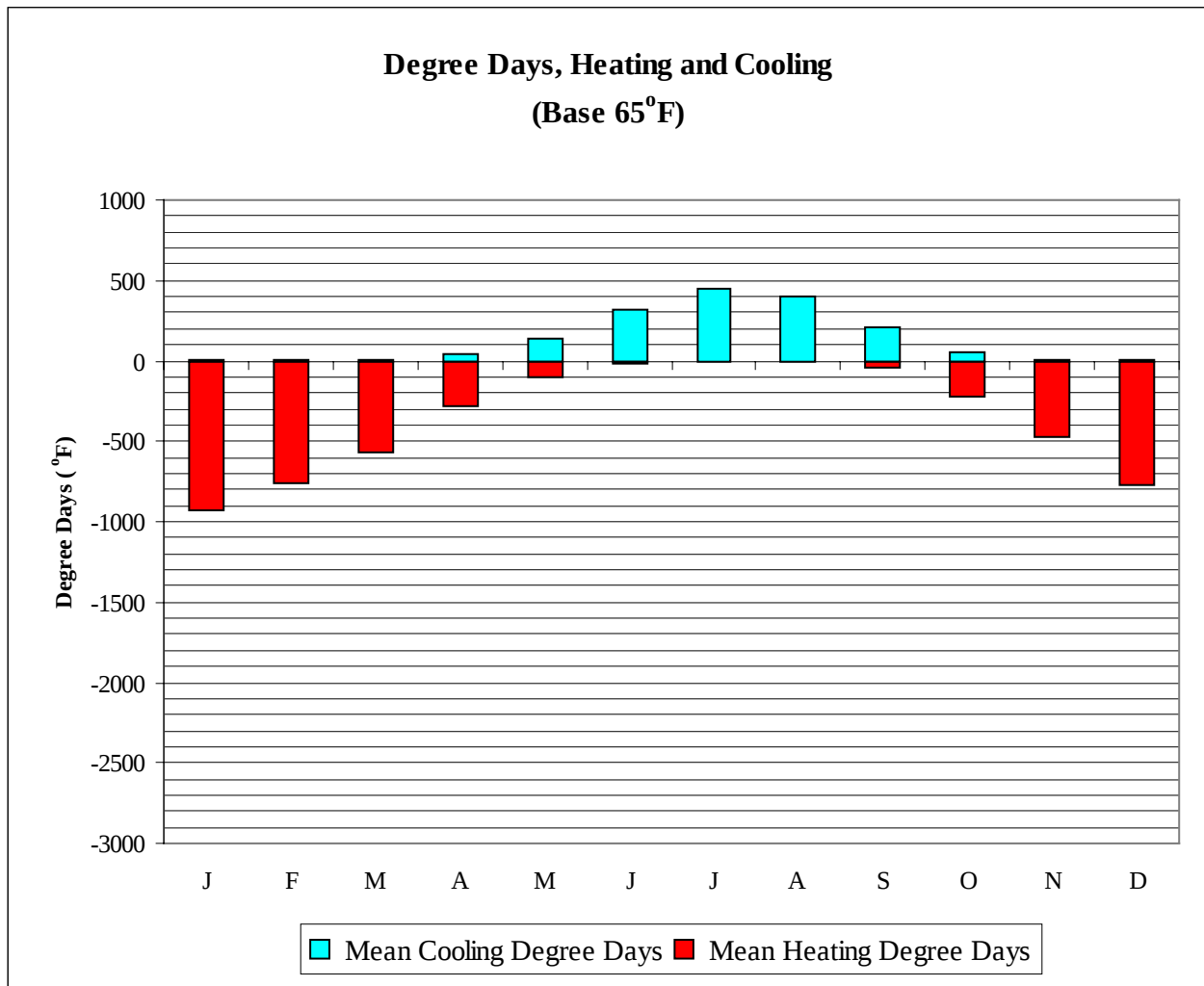


WASHINGTON/NATIONAL VA

WMO No. 724050

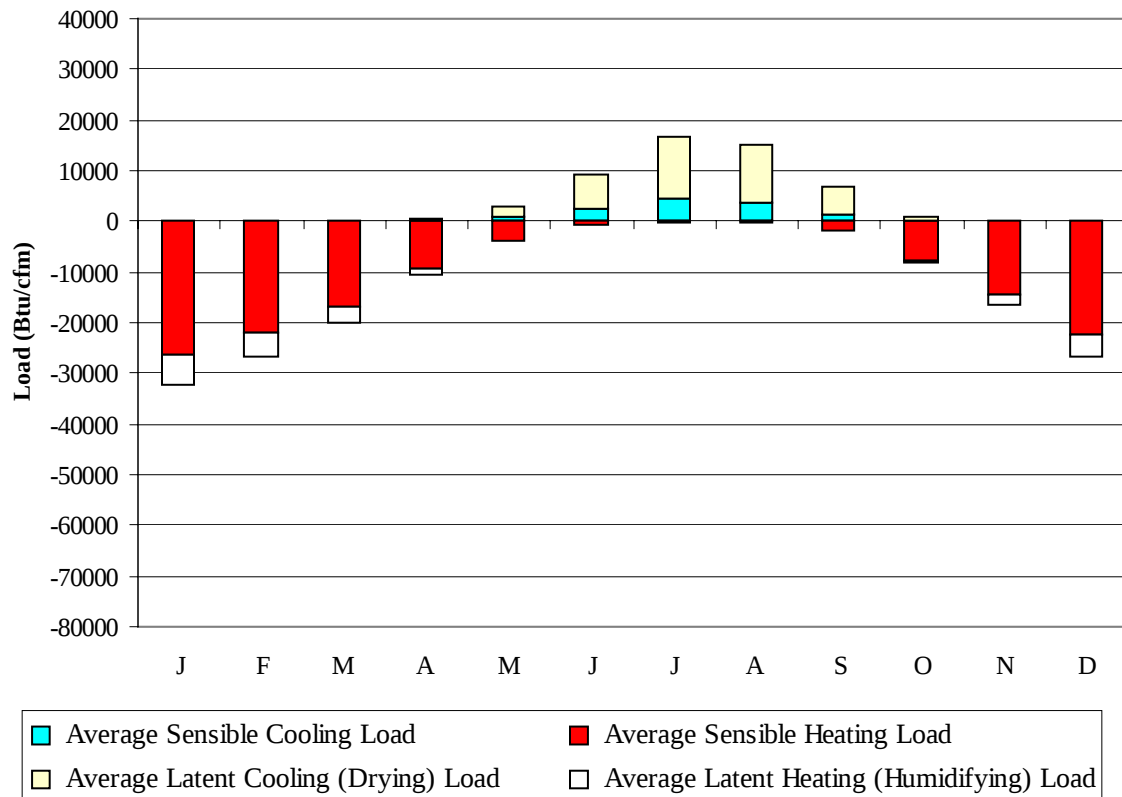
Long Term Dry Bulb Temperature and Humidity Summary

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	60.0	54.4	42.8	30.4	15.0	57.4	58.9	27.7	16.1
14-Jan	61.0	54.0	40.1	27.2	12.0	66.5	59.6	25.7	14.1
21-Jan	61.0	56.9	41.8	27.7	2.0	64.4	56.8	26.8	14.9
28-Jan	60.0	51.6	44.0	29.0	12.0	60.2	55.1	28.2	15.7
4-Feb	64.0	51.0	44.7	29.5	16.0	62.3	60.1	27.9	15.2
11-Feb	60.0	52.3	41.7	26.9	12.0	55.3	55.8	23.9	13.4
18-Feb	66.0	58.8	45.2	30.1	12.0	64.4	61.7	29.4	16.5
25-Feb	69.0	53.3	52.4	35.9	20.0	70.0	60.4	37.3	21.5
4-Mar	70.0	55.5	49.4	33.9	19.0	69.3	64.8	30.8	17.5
11-Mar	70.0	57.3	53.3	36.6	21.0	70.0	61.4	38.6	21.9
18-Mar	75.0	57.2	56.4	38.4	25.0	81.2	66.8	38.0	21.2
25-Mar	72.0	56.4	56.9	39.6	28.0	67.9	60.0	37.9	21.7
1-Apr	80.0	64.6	61.1	44.0	32.0	81.2	66.2	46.9	29.0
8-Apr	78.0	59.4	61.9	44.4	33.0	81.2	65.3	47.0	26.8
15-Apr	80.0	62.9	63.9	45.1	35.0	89.6	70.4	48.8	28.8
22-Apr	88.0	67.4	69.1	50.0	38.0	88.9	71.9	55.9	34.9
29-Apr	85.0	66.6	70.6	51.2	42.0	93.1	73.1	60.1	37.8
6-May	84.0	65.2	71.4	53.2	45.0	99.4	73.0	65.0	41.4
13-May	86.0	70.3	73.9	54.6	45.0	110.6	77.5	69.2	45.1
20-May	89.0	70.4	75.6	58.1	47.0	110.6	76.1	80.6	56.4
27-May	89.0	71.7	77.8	60.6	50.0	119.0	82.8	85.9	61.5
3-Jun	92.0	73.1	80.1	63.1	53.0	123.9	79.6	94.0	66.8
10-Jun	92.0	75.3	82.5	64.8	55.0	131.6	84.8	99.6	69.5
17-Jun	94.0	77.4	83.9	66.6	58.0	140.7	84.9	101.6	72.9
24-Jun	93.0	76.0	85.3	68.5	60.0	136.5	81.7	107.5	78.8
1-Jul	94.0	75.3	85.8	68.5	60.0	133.0	83.7	104.6	75.1
8-Jul	96.0	77.3	87.3	70.2	63.0	140.7	85.4	113.5	84.5
15-Jul	97.0	78.1	89.2	72.4	64.0	145.6	86.2	118.5	86.5
22-Jul	98.0	79.7	89.5	73.3	67.0	147.0	91.6	121.7	92.8
29-Jul	95.0	77.4	87.5	72.1	66.0	144.9	81.9	119.3	89.8
5-Aug	95.0	77.0	88.2	72.2	65.0	146.3	83.1	118.7	91.8
12-Aug	94.0	76.7	86.1	71.1	63.0	140.7	86.6	117.2	90.9
19-Aug	95.0	76.0	85.8	70.5	63.0	141.4	82.4	114.4	89.3
26-Aug	92.0	75.3	84.3	68.3	61.0	140.0	84.3	107.8	79.8
2-Sep	95.0	77.2	86.1	69.6	58.0	140.7	84.1	113.5	85.9
9-Sep	93.0	76.4	82.8	67.2	57.0	135.1	81.3	103.2	77.6
16-Sep	92.0	74.9	81.0	64.4	54.0	127.4	79.1	97.8	69.1
23-Sep	89.0	75.5	77.4	61.9	52.0	130.9	81.0	92.3	66.6
30-Sep	84.0	71.3	74.0	58.2	48.0	118.3	75.2	82.3	57.4
7-Oct	83.0	69.6	71.6	55.0	44.0	114.8	75.6	74.1	50.5
14-Oct	80.0	71.0	69.1	52.6	41.0	114.8	74.3	67.9	46.4
21-Oct	80.0	70.4	67.6	49.8	39.0	102.9	74.0	62.9	41.0
28-Oct	78.0	66.4	66.1	48.9	38.0	102.2	75.7	59.7	38.8
4-Nov	79.0	65.5	64.5	47.3	36.0	93.1	67.2	55.5	36.3
11-Nov	74.0	61.9	59.8	43.9	31.0	91.0	66.1	49.7	30.4
18-Nov	72.0	62.0	57.0	40.8	30.0	83.3	69.1	43.0	26.4
25-Nov	72.0	61.9	55.5	40.3	28.0	86.1	67.9	43.0	26.7
2-Dec	68.0	60.2	53.5	38.3	27.0	81.2	63.7	42.0	24.2
9-Dec	68.0	60.9	50.6	36.2	23.0	78.4	67.2	36.9	20.9
16-Dec	61.0	54.3	47.3	34.2	19.0	62.3	58.8	33.8	20.2
23-Dec	61.0	56.0	44.2	31.3	15.0	65.8	63.1	29.1	16.8
31-Dec	64.0	58.4	45.2	31.4	12.0	70.0	61.5	31.9	17.6



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	923
FEB	1	759
MAR	10	565
APR	45	286
MAY	139	98
JUN	317	12
JUL	455	1
AUG	398	3
SEP	215	37
OCT	48	226
NOV	10	473
DEC	1	776
ANN	1639	4159

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	-26320	1	-5726
FEB	1	-21848	2	-4930
MAR	31	-16939	16	-3194
APR	219	-9327	164	-1238
MAY	802	-3794	2006	-148
JUN	2554	-635	6795	-1
JUL	4522	-68	12343	0
AUG	3498	-196	11690	0
SEP	1350	-1652	5366	-11
OCT	131	-7746	960	-387
NOV	15	-14455	101	-1948
DEC	0	-22518	6	-4313
ANN	13123	-125498	39450	-21896

Average Annual Solar Radiation – Nearest Available Site

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

City: STERLING
 State: VA
 WBAN No: 93738
 Lat(N): 38.95
 Long(W): 77.45
 Elev(ft): 269

Stn Type: Primary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS
 Window: 1
 Overhang: 0.504
 Vert Gap: 0.315

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	670	930	1250	1590	1820	1990	1910	1710	1410	1070	720	580	1310
	Std Dev	65	86	99	158	117	120	134	95	103	94	68	43	50
	Minimum	530	730	1060	1330	1630	1740	1600	1550	1260	900	580	490	1180
	Maximum	780	1070	1420	1940	2040	2200	2130	1880	1610	1260	850	650	1400
	Diffuse	330	430	570	720	860	950	940	850	660	460	340	290	620
Clear Day	Global	950	1290	1760	2220	2510	2600	2520	2250	1840	1370	980	820	1760
NORTH	Global	200	270	350	450	550	630	590	500	390	300	220	180	390
	Diffuse	200	270	350	440	510	560	540	480	390	300	220	180	370
Clear Day	Global	190	250	330	430	580	680	620	480	370	280	200	170	380
EAST	Global	440	590	760	930	1020	1080	1040	960	830	670	480	390	760
	Diffuse	250	330	430	530	610	670	650	600	490	370	270	220	450
Clear Day	Global	710	910	1140	1330	1420	1430	1390	1300	1140	920	720	630	1090
SOUTH	Global	1040	1130	1100	970	830	790	810	930	1060	1170	1040	950	990
	Diffuse	360	430	500	550	580	610	610	600	540	460	370	320	490
Clear Day	Global	1940	1980	1780	1390	1050	910	960	1210	1560	1800	1850	1850	1520
WEST	Global	450	590	770	910	990	1050	1010	940	820	670	470	390	760
	Diffuse	250	330	430	540	620	670	660	600	490	370	270	220	460
Clear Day	Global	710	910	1140	1330	1420	1430	1390	1300	1140	920	720	630	1090

Average Annual Solar Heat and Illumination – Nearest Available Site

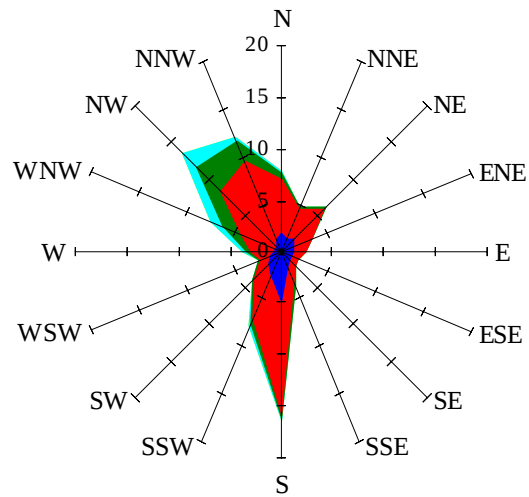
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	440	630	890	1140	1320	1440	1390	1240	1010	740	480	370	930
NORTH	Unshaded	140	190	240	300	370	410	390	340	270	210	150	130	260
	Shaded	130	170	220	270	330	370	350	300	240	190	130	110	230
EAST	Unshaded	300	420	540	660	720	770	730	680	590	470	330	260	540
	Shaded	270	370	470	570	620	660	630	580	520	410	300	240	470
SOUTH	Unshaded	780	830	760	630	520	490	500	600	720	840	780	720	680
	Shaded	760	770	610	420	360	370	370	400	530	740	750	700	560
WEST	Unshaded	310	420	540	650	700	740	720	670	580	470	320	270	530
	Shaded	280	370	480	560	600	640	610	570	500	420	290	240	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	37	72	83	67	29	44	81	101	95	69
	M.Cloudy	22	44	51	41	18	29	57	74	71	49
NORTH	M.Clear	10	14	15	13	8	19	17	18	18	16
	M.Cloudy	9	15	17	14	7	14	18	20	20	16
EAST	M.Clear	73	59	15	13	8	71	73	35	18	16
	M.Cloudy	26	32	17	14	7	33	46	30	20	16
SOUTH	M.Clear	37	71	83	67	29	12	30	46	42	22
	M.Cloudy	16	37	43	33	13	11	25	37	34	19
WEST	M.Clear	10	14	20	66	68	12	17	18	50	75
	M.Cloudy	9	15	19	33	24	11	18	20	39	45
M.Clear	(% hrs)	33	29	30	32	34	40	38	33	29	33
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	25	64	84	78	48	13	40	47	30	3
	M.Cloudy	15	40	57	53	31	8	24	28	18	2
NORTH	M.Clear	8	15	17	16	13	5	10	11	8	2
	M.Cloudy	7	15	18	17	12	4	10	11	8	1
EAST	M.Clear	57	69	32	16	13	38	40	11	8	2
	M.Cloudy	19	35	25	17	12	11	18	11	8	1
SOUTH	M.Clear	18	54	73	67	38	34	77	87	63	8
	M.Cloudy	9	29	44	41	21	10	29	34	23	3
WEST	M.Clear	8	15	17	50	70	5	10	19	47	11
	M.Cloudy	7	15	18	33	33	4	10	13	18	3
M.Clear	(% hrs)	42	43	38	35	38	29	31	30	32	35

Wind Summary - December, January, and February

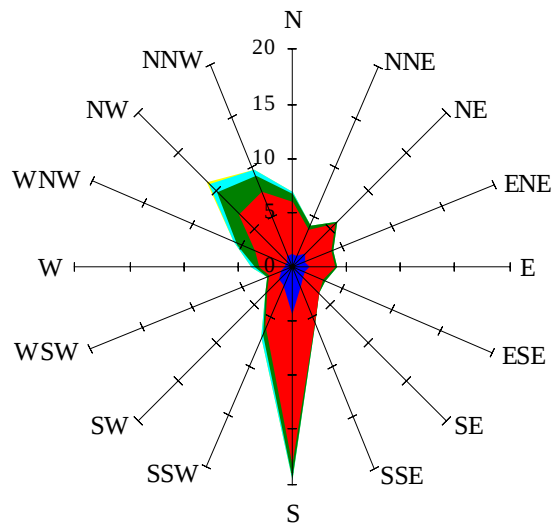
Labels of Percent Frequency on North Axis



Percent Calm = 2.40

Wind Summary - March, April, and May

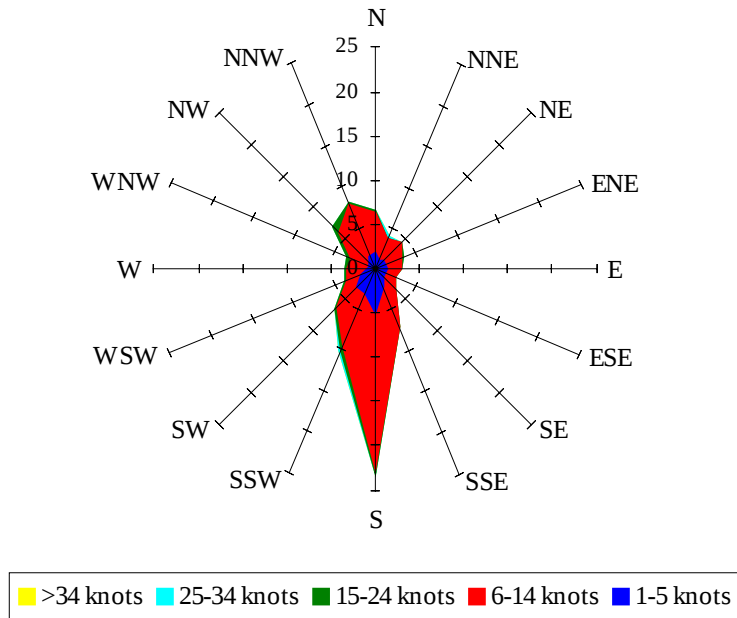
Labels of Percent Frequency on North Axis



Percent Calm = 1.67

Wind Summary - June, July, and August

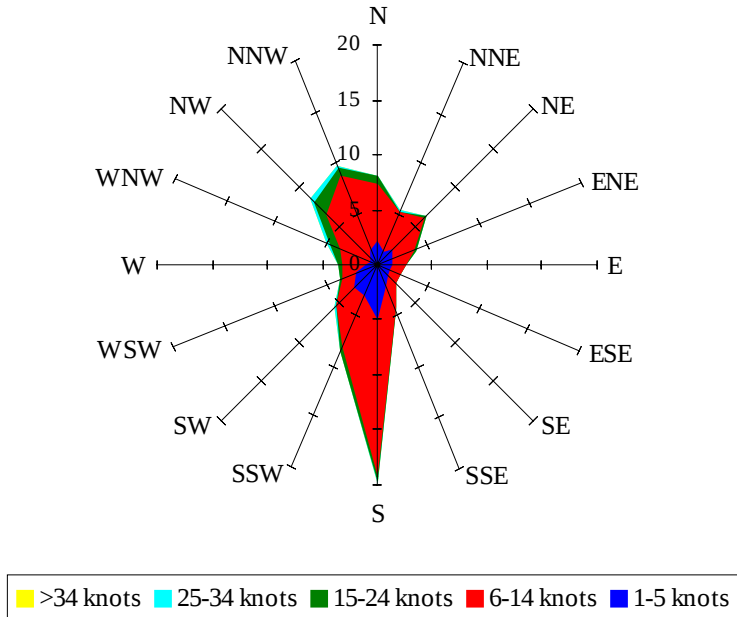
Labels of Percent Frequency on North Axis



Percent Calm = 1.93

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 2.33