

BAGUIO/LUZON ISLAND PH

Latitude = 16.42 N

WMO No. 983280

Longitude = 120.60 E

Elevation = 4925 feet

Period of Record = 1973 to 1996

Average Pressure = 25.04 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	90	74	122	6.1	SE
0.4% Occurrence	84	72	120	4.1	SE
1.0% Occurrence	81	70	113	4.5	SE
2.0% Occurrence	79	70	116	4.9	S
Mean Daily Range	13	-	-	-	-
97.5% Occurrence	56	54	72	3.9	SE
99.0% Occurrence	54	53	67	3.8	E
99.6% Occurrence	52	51	62	3.5	E
Median of Extreme Lows	50	49	58	3.2	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	82	85	191	5.8	SE
0.4% Occurrence	75	79	148	5.2	W
1.0% Occurrence	73	77	136	5.0	S
2.0% Occurrence	71	76	127	4.7	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	190	84	1.05	3.3	NE
0.4% Occurrence	151	78	0.84	6.4	SE
1.0% Occurrence	139	76	0.78	4.9	W
2.0% Occurrence	132	75	0.74	4.1	W
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		2	119	90	1508

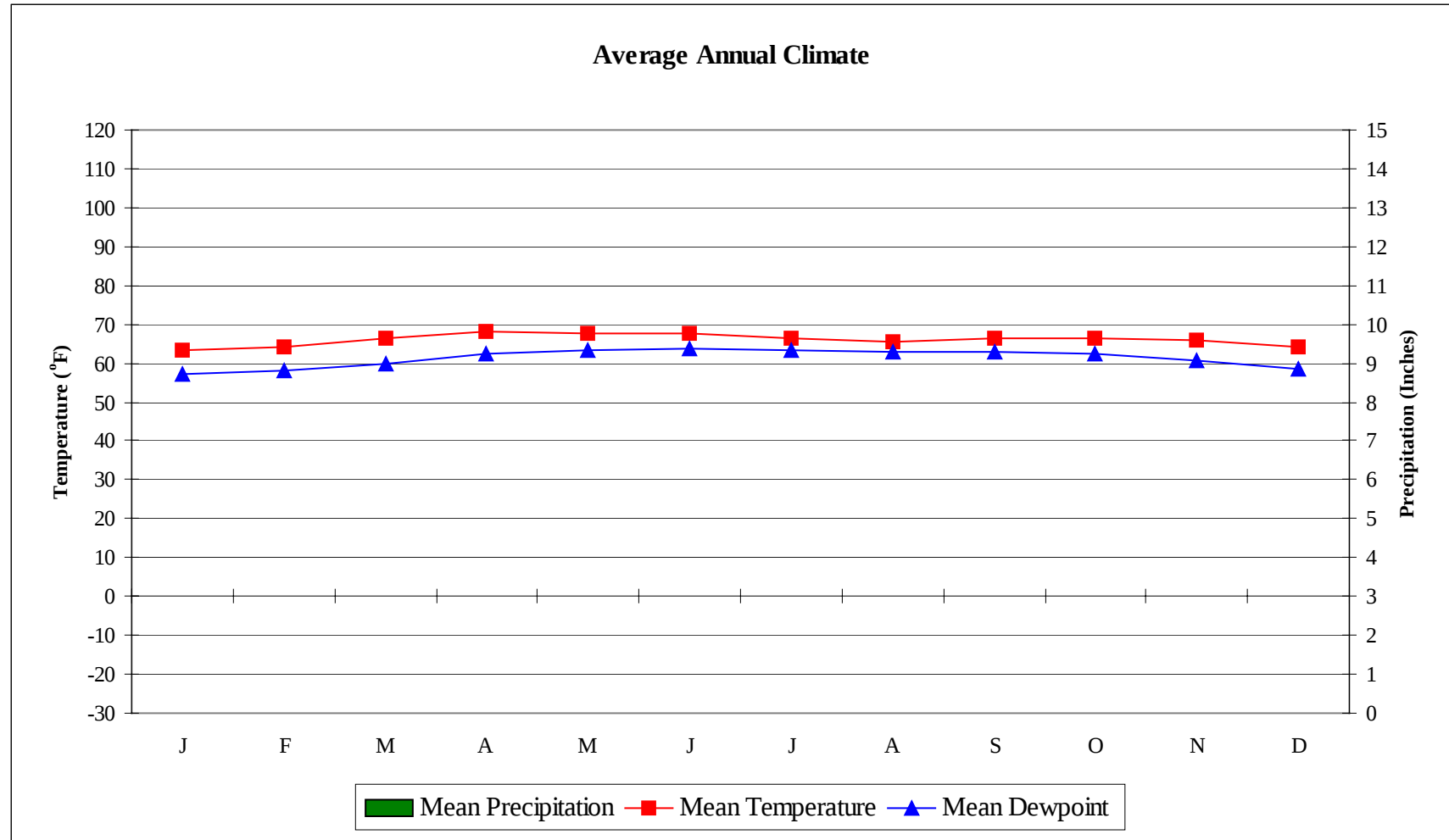
Other Site Data

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
9	N/A	N/A	1.1 + 0.1
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 (#)
68.5	N/A	N/A	0

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

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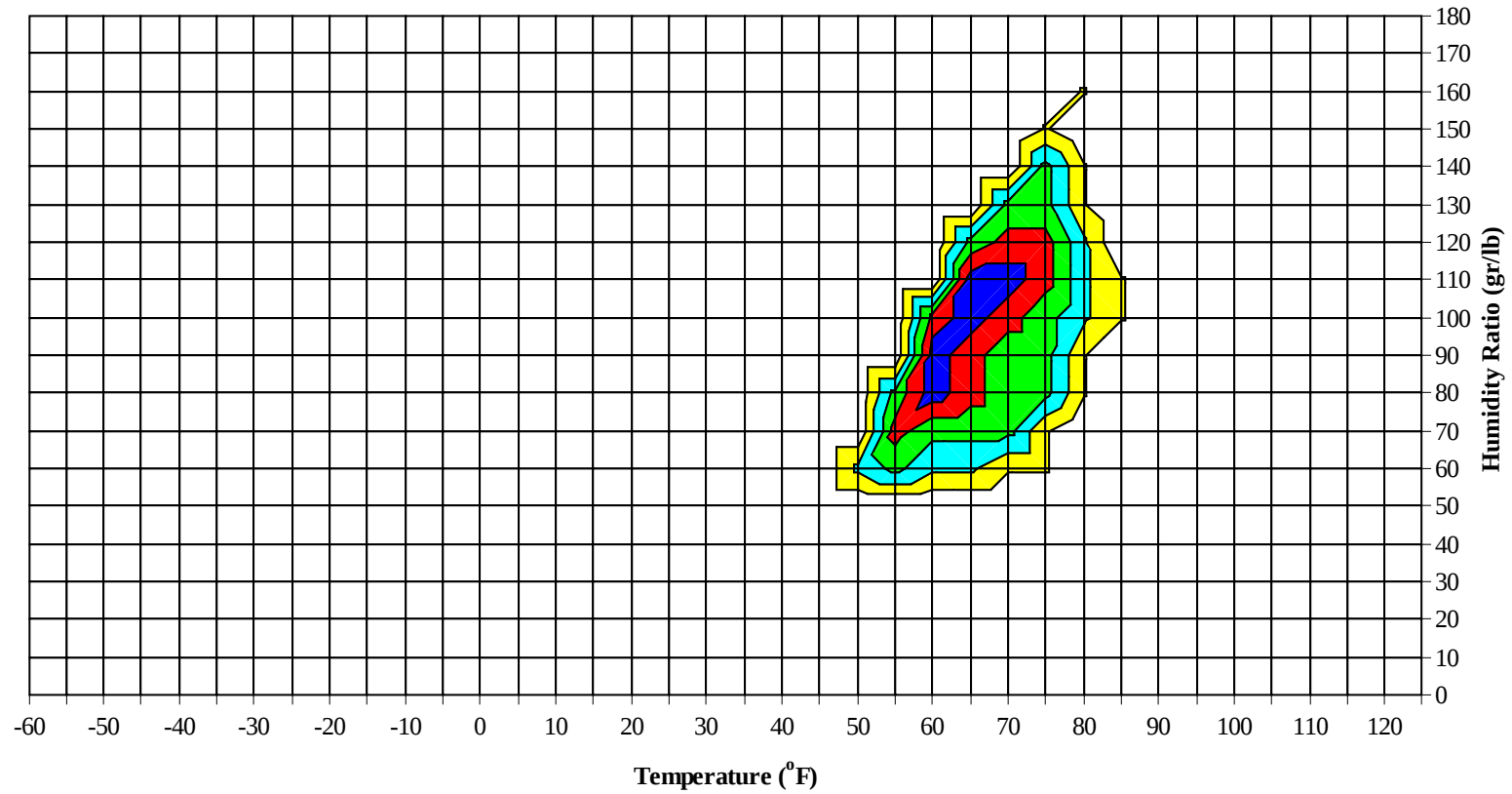


No Precipitation Data Available

BAGUIO/LUZON ISLAND PH

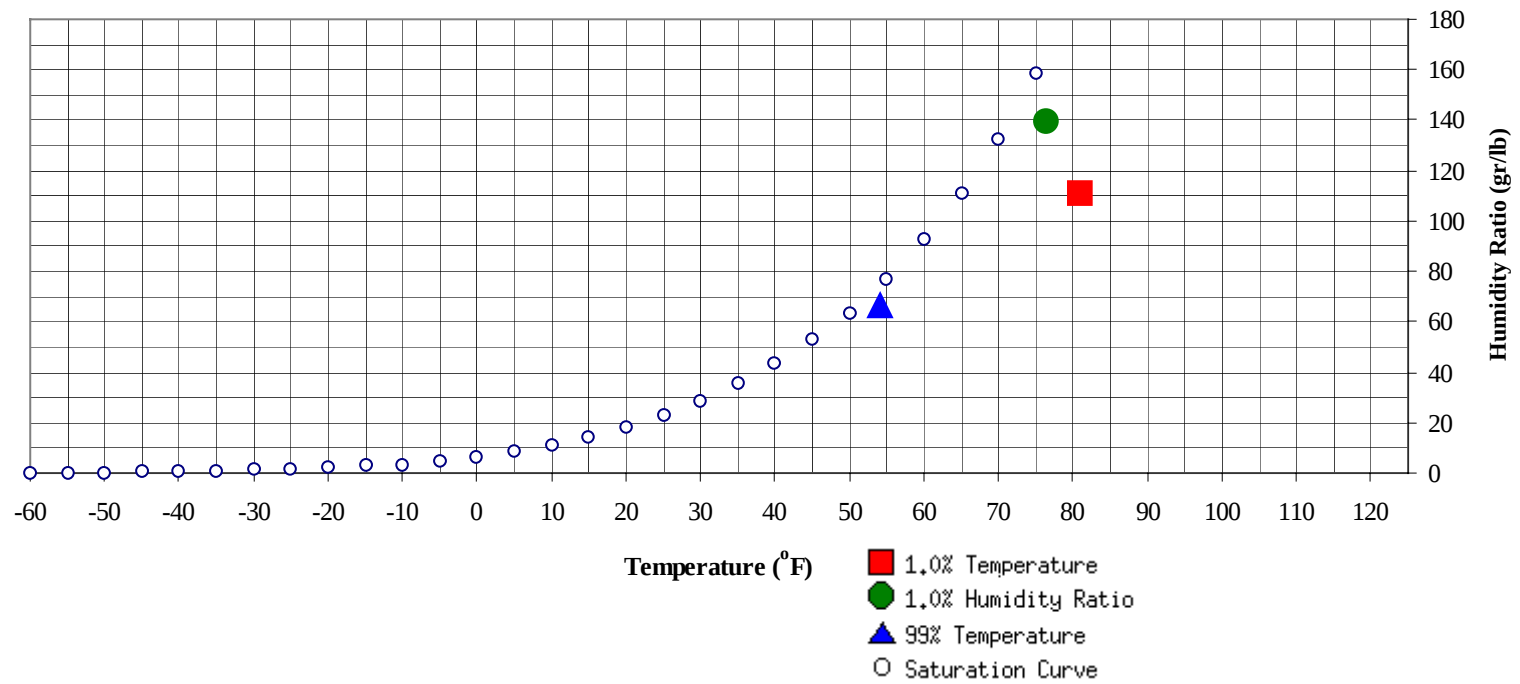
WMO No. 983280

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)
	54	66.4	23.3		139.3	76.4	72.9	71.5	40.1

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	81	110.7	69.3	36.8

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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							0		0	67.0		1		1	68.8
85 / 89		0	0	0	72.2		0	0	0	77.5	0	1	0	1	75.6
80 / 84	1	2	1	4	68.0	2	3	2	6	68.5	2	9	1	12	69.9
75 / 79	3	27	3	33	67.0	2	39	2	43	66.8	3	91	8	102	67.7
70 / 74	2	121	15	138	64.7	1	120	26	147	64.5	6	120	44	169	65.4
65 / 69	11	77	49	138	62.3	10	50	40	100	62.4	42	23	59	124	62.9
60 / 64	84	19	106	209	59.3	92	11	104	207	59.3	133	3	121	256	59.9
55 / 59	118	1	66	185	55.5	99	1	47	148	55.8	59	0	14	73	56.3
50 / 54	28	0	8	36	50.9	17	0	3	20	51.4	3		2	5	51.6
45 / 49	1		0	1	46.5	1			1	46.3	0		0	0	46.8
40 / 44	0		0	0	29.0										
35 / 39	0			0											
30 / 34	0			0	24.0										
25 / 29															

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															
95 / 99		0		0	75.0										
90 / 94		1	0	1	76.9		0	1	1	73.2		1	0	1	78.1
85 / 89	1	1	0	2	74.3	1	1	1	3	73.9	0	1	1	2	73.3
80 / 84	3	12	3	17	69.5	3	4	3	9	70.0	3	4	3	9	71.2
75 / 79	1	118	14	133	68.2	1	98	4	103	69.0	1	76	4	82	69.9
70 / 74	16	95	44	155	66.6	28	103	31	162	67.2	22	96	26	144	67.3
65 / 69	70	12	100	182	63.7	72	32	116	220	64.6	80	44	112	236	64.8
60 / 64	142	1	79	222	61.1	142	10	92	244	62.0	135	17	93	246	62.4
55 / 59	7		0	7	57.1	1		0	1	57.0	0	0	0	0	57.5
50 / 54			0	0	52.0							0	0	0	54.0
45 / 49													0	0	
40 / 44													0	0	29.0
35 / 39															
30 / 34															
25 / 29															

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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	75.0					
100 / 104			0	0	74.0			0	0						
95 / 99			0	0				0	0						
90 / 94	0	1	0	1	76.0		0	0	0	72.0		0	0	0	73.0
85 / 89	0	0	1	1	75.3	0	1	0	1	76.6	0	1	2	3	73.5
80 / 84	4	3	4	10	70.2	3	3	3	8	71.7	4	1	3	8	70.9
75 / 79	1	44	2	47	69.8	1	25	1	27	69.6	2	38	2	42	69.5
70 / 74	9	116	17	143	67.2	6	90	11	106	67.3	8	114	14	137	67.3
65 / 69	64	58	87	208	64.7	48	82	73	202	64.9	51	51	74	176	64.7
60 / 64	169	26	138	334	62.2	190	47	160	397	62.3	173	34	145	352	62.0
55 / 59	1		0	1	57.9	1	0	1	2	57.7	3	0	0	3	57.9
50 / 54	0		0	0		0	0		0	46.0	0	0	0	0	51.5
45 / 49	0		0	0	30.0										
40 / 44															
35 / 39															
30 / 34															
25 / 29															

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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														0	0 71.0
100 / 104														0	0
95 / 99														0	0
90 / 94		1		1	71.8		0		0	68.0				0	0
85 / 89	0	1	1	2	73.9	0	1	0	1	71.5	1	0	0	1	71.2
80 / 84	3	2	4	9	70.2	1	3	3	6	70.4	1	1	2	4	68.6
75 / 79	2	46	1	49	69.1	2	47	1	50	68.2	2	35	2	38	67.5
70 / 74	11	128	19	159	66.9	5	128	15	148	66.2	1	128	12	141	65.0
65 / 69	56	41	82	179	64.3	52	48	73	173	63.6	24	66	55	146	62.7
60 / 64	167	27	139	334	61.6	140	13	134	286	60.6	117	17	120	254	59.7
55 / 59	9	0	2	11	57.4	39	0	14	53	56.5	80	1	49	130	55.6
50 / 54	0	0		0	54.0	2		1	3	52.1	23	0	7	30	51.2
45 / 49	0			0		0		0	0		0		0	0	46.7
40 / 44	0			0		0			0				0	0	
35 / 39						0			0	34.0				0	0
30 / 34														0	0
25 / 29														0	0 24.0

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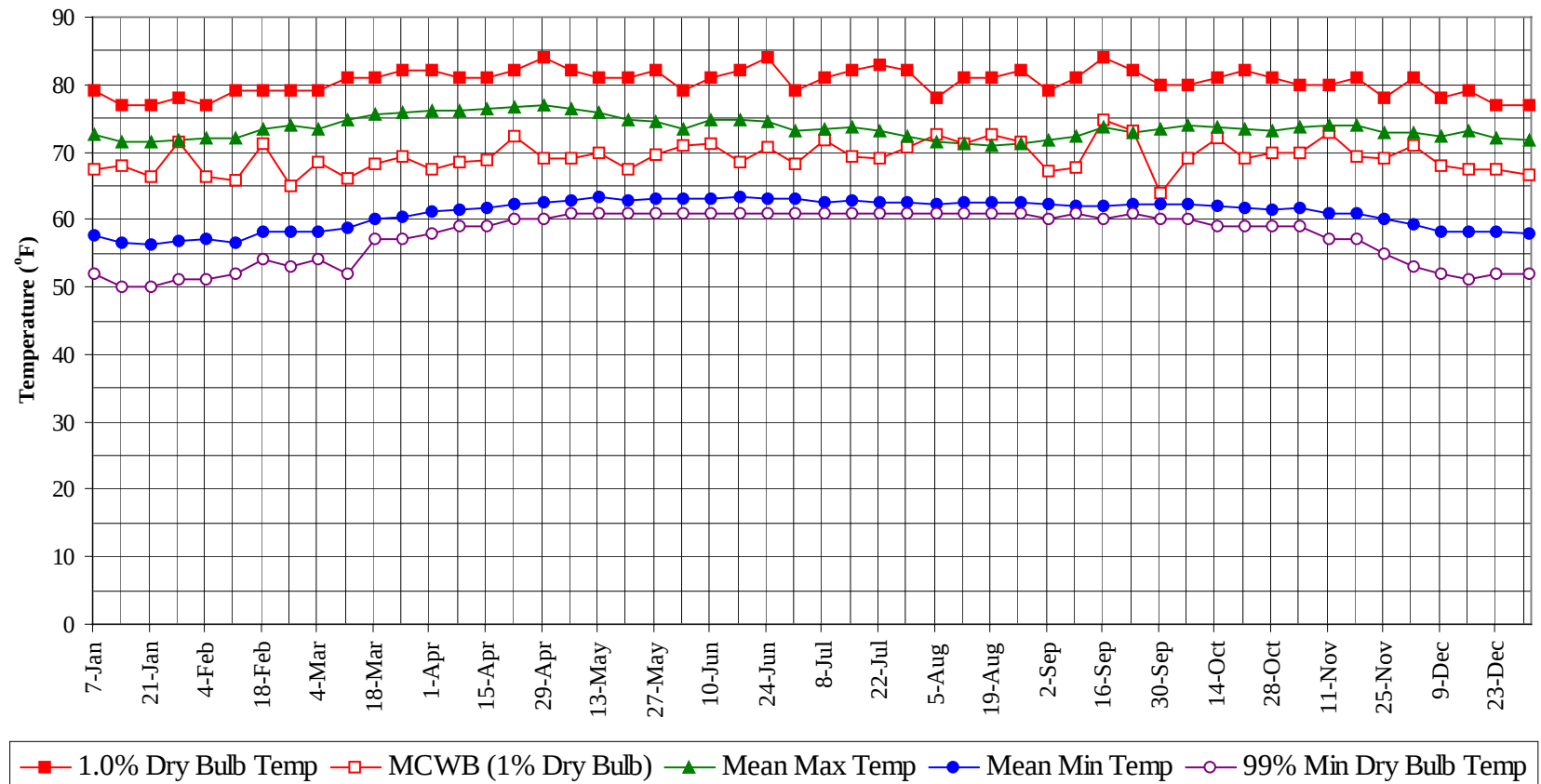
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1973 to 1996

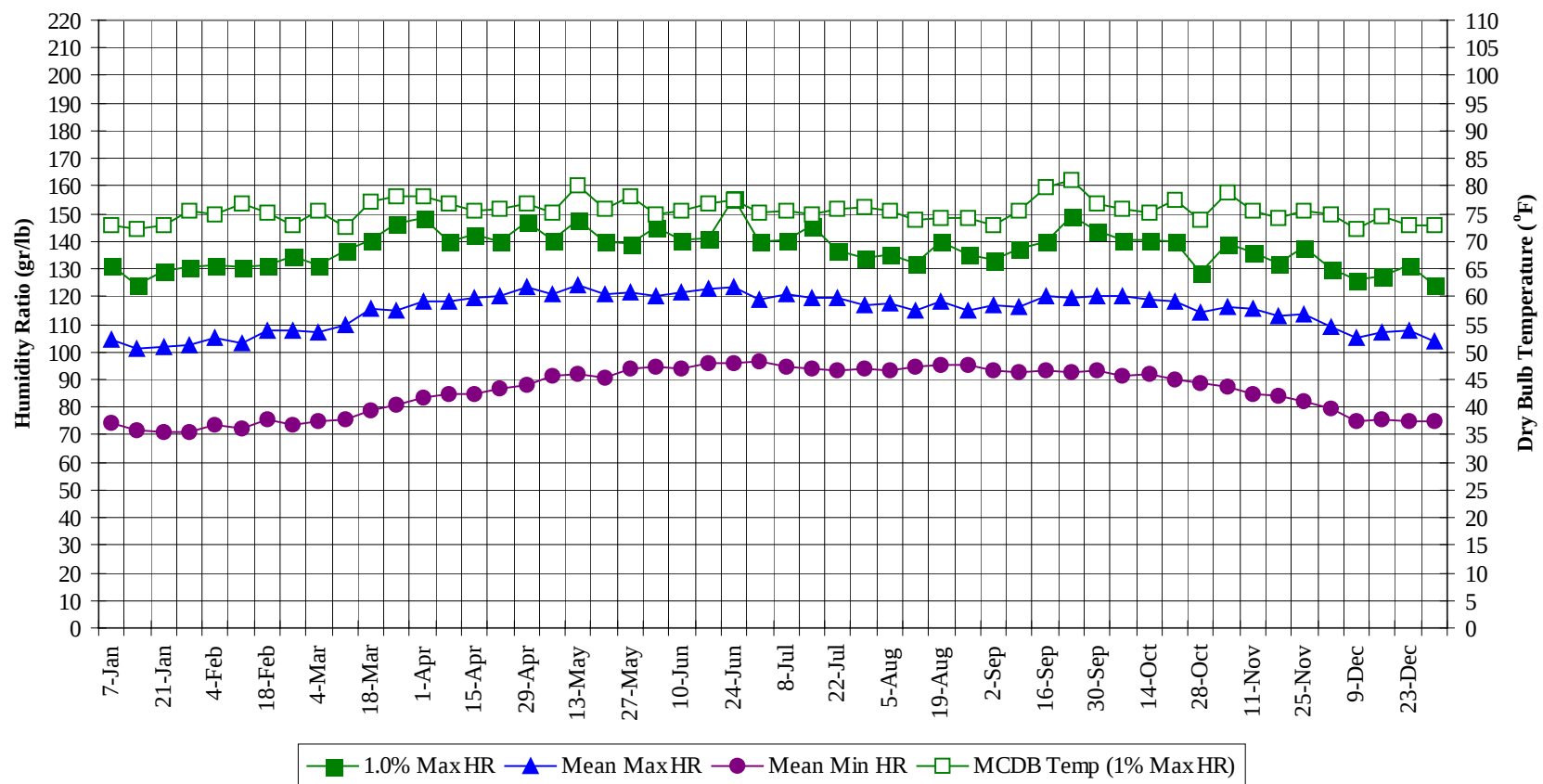
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
105 / 109			0	0	73.0
100 / 104			0	0	74.0
95 / 99		0	0	0	75.0
90 / 94	0	5	2	7	74.3
85 / 89	5	10	6	21	73.9
80 / 84	28	42	28	98	70.1
75 / 79	20	682	43	744	68.6
70 / 74	113	1361	275	1748	66.3
65 / 69	581	586	917	2084	64.0
60 / 64	1689	229	1435	3353	61.2
55 / 59	412	5	191	608	55.9
50 / 54	71	1	21	93	51.2
45 / 49	3		1	4	45.2
40 / 44	0		0	0	29.0
35 / 39	0		0	0	34.0
30 / 34	0		0	0	24.0
25 / 29			0	0	24.0

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Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary

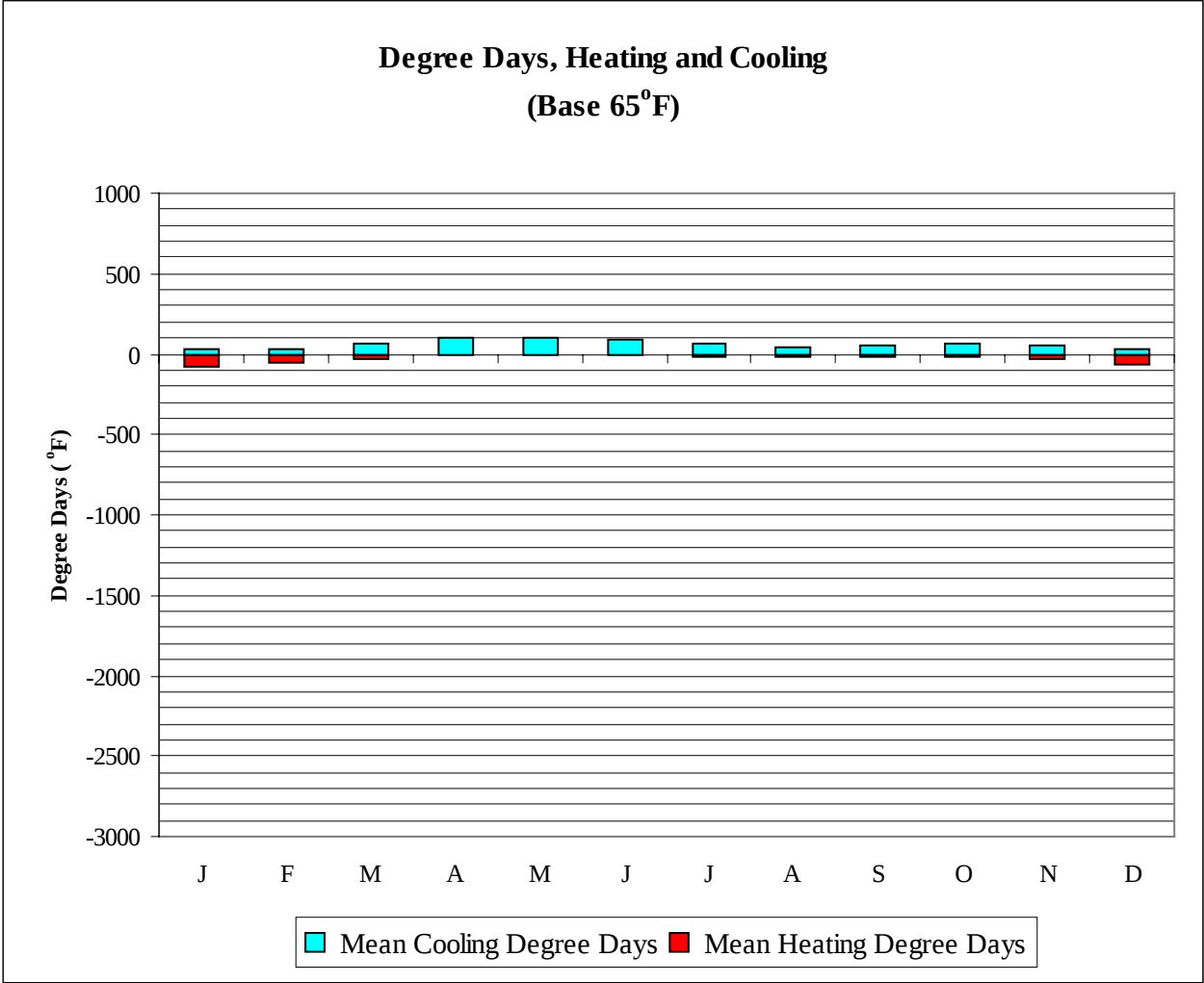


BAGUIO/LUZON ISLAND PH

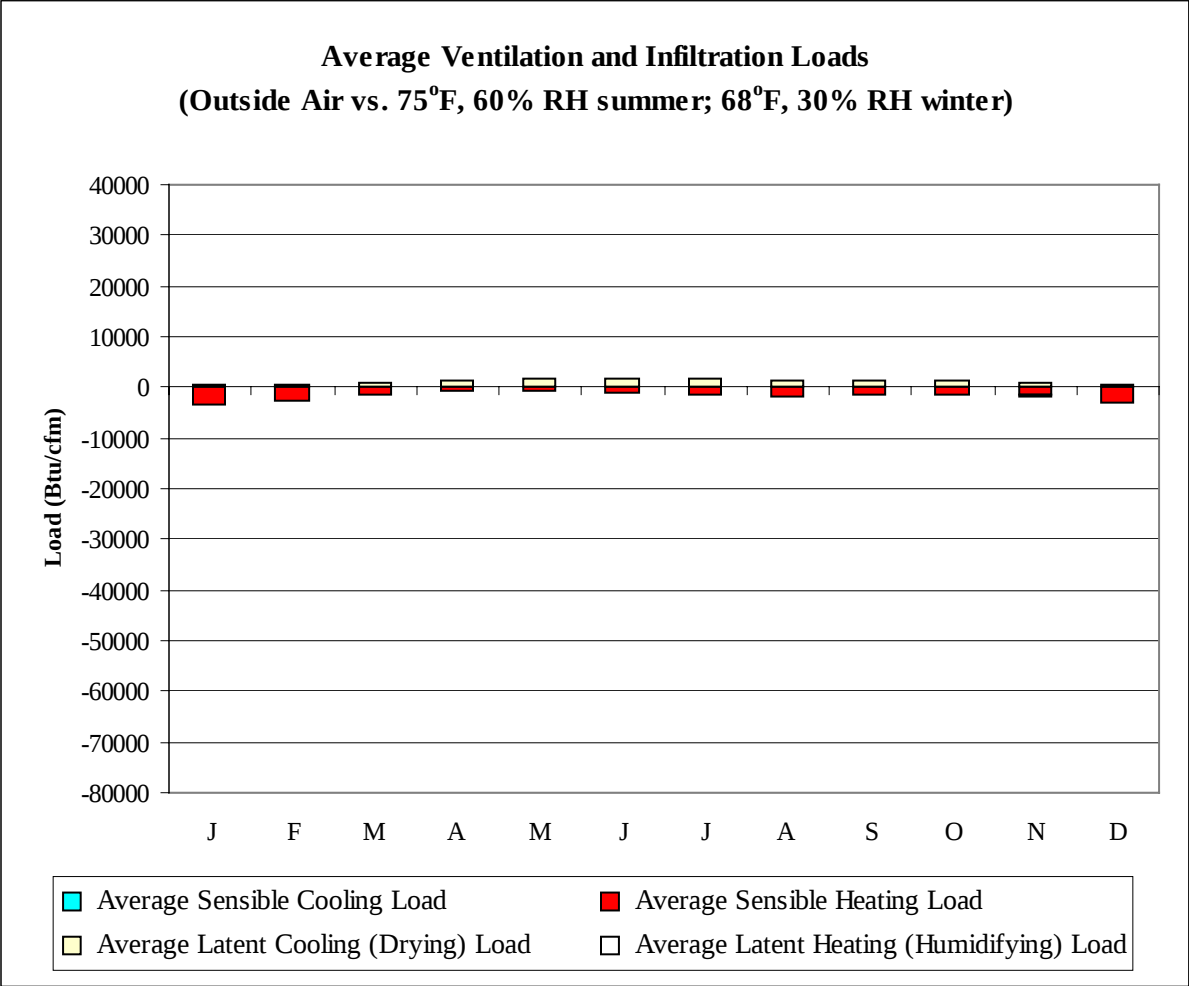
WMO No. 983280

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	79.0	67.5	72.6	57.7	52.0	131.6	72.9	104.7	74.5
14-Jan	77.0	68.1	71.6	56.7	50.0	123.9	72.3	101.3	71.4
21-Jan	77.0	66.4	71.4	56.3	50.0	129.5	73.0	101.7	71.2
28-Jan	78.0	71.5	71.8	56.9	51.0	130.9	75.5	102.4	71.0
4-Feb	77.0	66.3	72.2	57.2	51.0	131.6	75.0	104.8	73.3
11-Feb	79.0	65.7	72.0	56.7	52.0	130.9	77.0	102.8	72.0
18-Feb	79.0	71.3	73.4	58.1	54.0	131.6	75.1	107.6	75.4
25-Feb	79.0	65.1	73.8	58.1	53.0	134.4	73.0	107.6	73.6
4-Mar	79.0	68.4	73.3	58.2	54.0	131.6	75.4	106.9	75.2
11-Mar	81.0	66.0	74.8	58.7	52.0	136.5	72.5	109.6	75.3
18-Mar	81.0	68.3	75.7	60.2	57.0	140.7	77.1	115.5	78.7
25-Mar	82.0	69.3	75.7	60.2	57.0	146.3	78.0	114.9	80.6
1-Apr	82.0	67.3	76.0	61.1	58.0	148.4	78.0	118.4	83.2
8-Apr	81.0	68.4	76.0	61.5	59.0	140.0	77.0	118.0	84.9
15-Apr	81.0	68.9	76.4	61.6	59.0	142.8	75.5	119.4	84.7
22-Apr	82.0	72.3	76.6	62.2	60.0	140.0	75.9	120.5	87.0
29-Apr	84.0	69.0	77.0	62.5	60.0	147.0	77.0	123.8	88.3
6-May	82.0	69.0	76.3	62.7	61.0	140.7	75.3	120.7	91.0
13-May	81.0	70.0	76.0	63.3	61.0	147.7	80.0	124.1	91.9
20-May	81.0	67.3	74.7	62.9	61.0	140.0	76.0	120.6	90.8
27-May	82.0	69.7	74.4	63.0	61.0	139.3	78.3	121.5	94.0
3-Jun	79.0	71.0	73.3	63.1	61.0	144.9	75.0	120.4	94.6
10-Jun	81.0	71.3	74.9	63.2	61.0	140.7	75.4	121.3	94.1
17-Jun	82.0	68.5	74.8	63.4	61.0	141.4	77.0	122.7	95.9
24-Jun	84.0	70.7	74.6	63.1	61.0	155.4	77.5	123.7	95.6
1-Jul	79.0	68.2	73.2	63.2	61.0	140.0	75.2	118.7	96.4
8-Jul	81.0	71.7	73.5	62.6	61.0	140.7	75.7	120.9	94.8
15-Jul	82.0	69.3	73.6	62.7	61.0	145.6	75.0	119.6	94.0
22-Jul	83.0	69.0	73.2	62.4	61.0	136.5	76.0	119.3	93.3
29-Jul	82.0	70.8	72.4	62.6	61.0	133.7	76.3	117.2	94.2
5-Aug	78.0	72.7	71.4	62.4	61.0	135.1	75.5	117.5	93.6
12-Aug	81.0	71.2	71.2	62.5	61.0	132.3	74.0	114.7	94.6
19-Aug	81.0	72.5	71.0	62.6	61.0	140.0	74.3	118.1	95.1
26-Aug	82.0	71.6	71.3	62.5	61.0	135.1	74.2	115.2	95.5
2-Sep	79.0	67.3	71.8	62.4	60.0	133.0	73.0	116.6	93.4
9-Sep	81.0	67.7	72.4	62.1	61.0	137.2	75.7	116.3	92.7
16-Sep	84.0	74.9	73.7	62.1	60.0	140.0	79.7	120.0	93.1
23-Sep	82.0	73.2	73.0	62.2	61.0	149.1	81.0	119.8	92.4
30-Sep	80.0	64.0	73.5	62.3	60.0	143.5	77.0	120.3	93.3
7-Oct	80.0	69.0	74.0	62.2	60.0	140.7	75.9	120.3	91.3
14-Oct	81.0	72.0	73.7	62.0	59.0	140.7	75.3	119.2	91.9
21-Oct	82.0	69.1	73.5	61.8	59.0	140.0	77.4	118.4	90.2
28-Oct	81.0	70.0	73.0	61.6	59.0	128.8	74.0	114.2	88.5
4-Nov	80.0	70.0	73.8	61.8	59.0	139.3	78.7	116.1	87.4
11-Nov	80.0	73.0	73.9	60.8	57.0	135.8	75.5	115.6	84.8
18-Nov	81.0	69.3	73.8	61.0	57.0	132.3	74.1	113.2	83.9
25-Nov	78.0	69.0	73.0	60.1	55.0	137.9	75.7	113.6	82.3
2-Dec	81.0	71.0	72.9	59.2	53.0	130.2	75.0	109.1	79.5
9-Dec	78.0	68.0	72.4	58.3	52.0	126.0	72.3	105.2	74.8
16-Dec	79.0	67.4	73.0	58.1	51.0	127.4	74.4	107.1	75.8
23-Dec	77.0	67.3	72.2	58.2	52.0	131.6	72.8	107.5	75.1
31-Dec	77.0	66.6	71.7	57.9	52.0	123.9	72.8	103.7	74.9



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	27	80
FEB	32	57
MAR	70	25
APR	102	8
MAY	96	8
JUN	86	8
JUL	63	14
AUG	43	21
SEP	56	16
OCT	64	16
NOV	51	26
DEC	32	64
ANN	722	343



	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	21	-3457	396	-3
FEB	25	-2667	405	0
MAR	71	-1508	810	-1
APR	108	-683	1309	0
MAY	84	-802	1657	0
JUN	82	-895	1654	-1
JUL	64	-1303	1482	-2
AUG	44	-1823	1405	-1
SEP	45	-1356	1427	0
OCT	44	-1317	1295	0
NOV	36	-1644	888	-1
DEC	30	-2957	478	-2
ANN	654	-20412	13206	-11

Average Annual Solar Radiation – Nearest Available Site
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

No Solar Radiation
Data Available

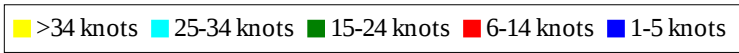
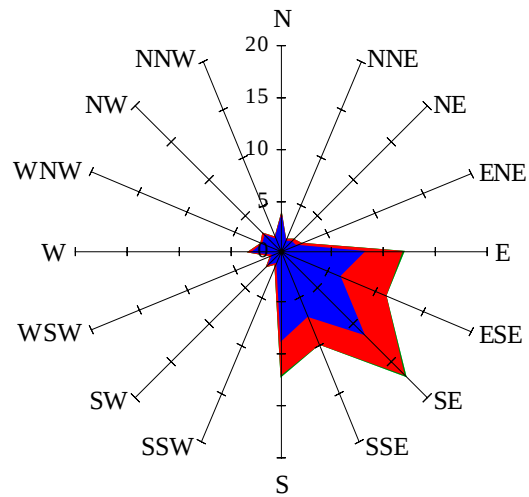


Average Annual Solar Heat and Illumination – Nearest Available Site

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

Wind Summary - December, January, and February

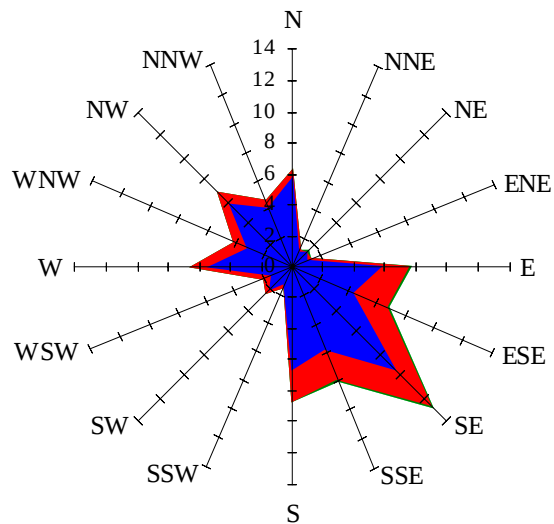
Labels of Percent Frequency on North Axis



Percent Calm = 16.66

Wind Summary - March, April, and May

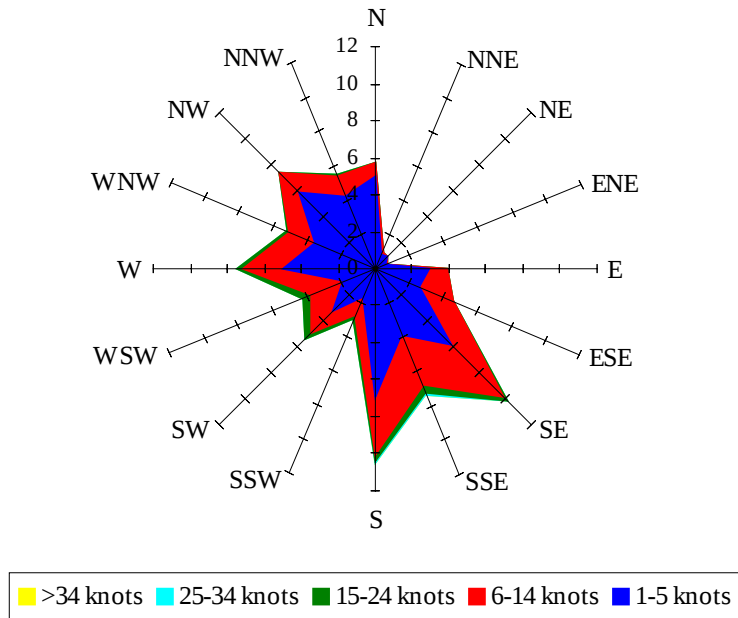
Labels of Percent Frequency on North Axis



Percent Calm = 19.16

Wind Summary - June, July, and August

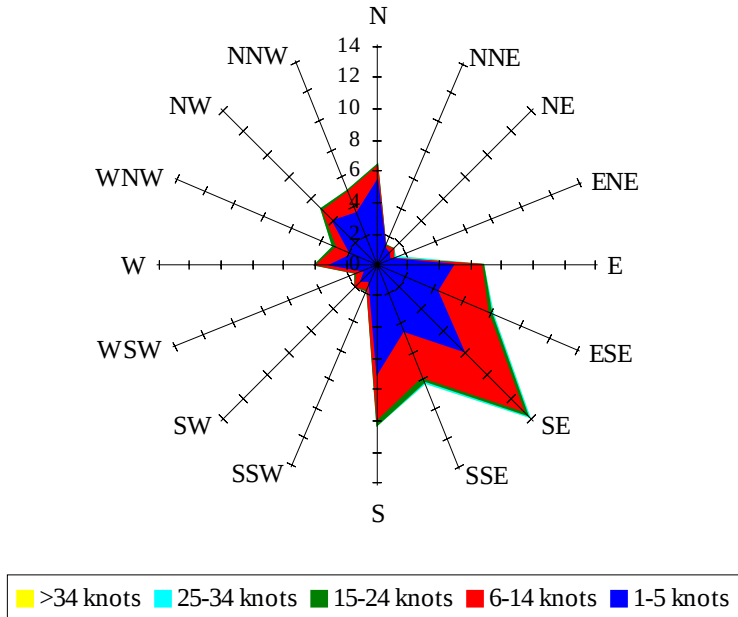
Labels of Percent Frequency on North Axis



Percent Calm = 17.17

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 20.47