| | |
|---|---|
| **VALENCIA, SP** | |
| Latitude = 39.49 N | Station ID = ICAO_LEVC |
| Longitude = 0.48 W | Elevation = 69 Meters |
| Period of Record = 1988 To 2017 | Average Pressure = 1010 mb |

**Design Criteria Data**

| | Mean Coincident (Average) Values | | | | |
|---|---|---|---|---|---|
| **Dry Bulb Temperature (T)** | **Design Value (°C)** | **Wet Bulb Temperature (°C)** | **Humidity Ratio (g/kg)** | **Wind Speed (m/s)** | **Prevailing Direction (NSEW)** |
| Median of Extreme Highs | 37 | 20 | 7 | 7 | W |
| 0.4% Occurrence | 33 | 21 | 10 | 4.9 | ESE |
| 1.0% Occurrence | 32 | 22 | 12 | 4.5 | E |
| 2.0% Occurrence | 31 | 22 | 13 | 4.4 | E |
| Mean Daily Range | 10 | - | - | - | W |
| 97.5% Occurrence | 4 | 3 | 4 | 2.2 | W |
| 99.0% Occurrence | 2 | 1 | 4 | 2.2 | W |
| 99.6% Occurrence | 1 | 0 | 3 | 2.2 | W |
| Median of Extreme Lows | -2 | -3 | 2 | 2.3 | W |

| **Wet Bulb Temperature ($T_{wb}$)** | **Design Value (°C)** | **Dry Bulb Temperature (°C)** | **Humidity Ratio (g/kg)** | **Wind Speed (m/s)** | **Prevailing Direction (NSEW)** |
|---|---|---|---|---|---|
| Median of Extreme Highs | 30 | 30 | - | 4.6 | ESE |
| 0.4% Occurrence | 26 | 29 | 18 | 3.8 | E |
| 1.0% Occurrence | 25 | 28 | 17 | 3.5 | E |
| 2.0% Occurrence | 24 | 28 | 16 | 3.3 | E |

| **Humidity Ratio (HR)** | **Design Value (g/kg)** | **Dry Bulb Temperature (°C)** | **Vapor Pressure (kPa)** | **Wind Speed (m/s)** | **Prevailing Direction (NSEW)** |
|---|---|---|---|---|---|
| Median of Extreme Highs | 19 | 28 | 100.65 | 2.8 | E |
| 0.4% Occurrence | 18 | 27 | 95.92 | 2.9 | E |
| 1.0% Occurrence | 18 | 27 | 93.42 | 3 | E |
| 2.0% Occurrence | 17 | 27 | 90.74 | 2.8 | E |

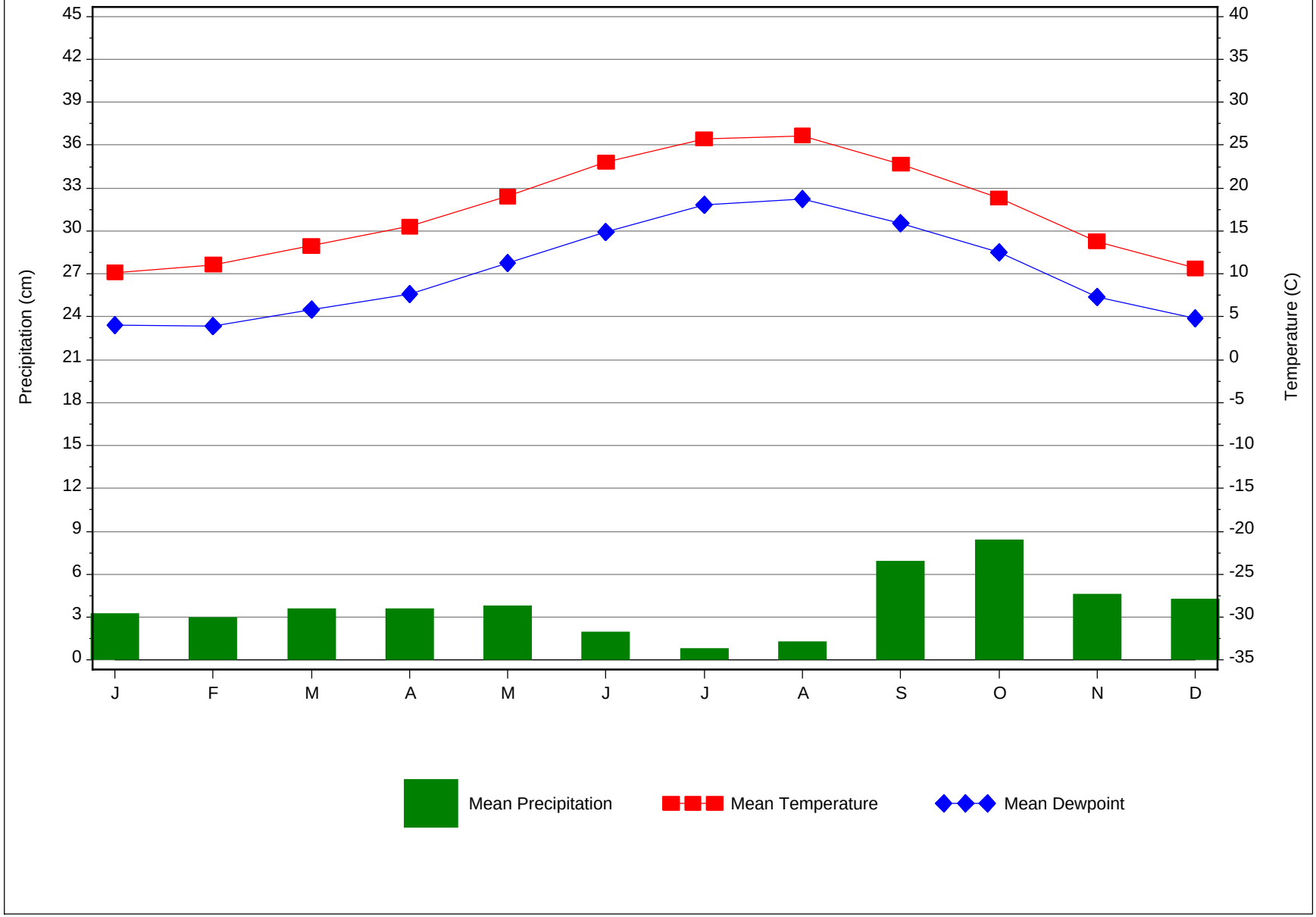
| **Air Conditioning/ Humid Area Criteria** | **Threshold** | **T ≥ 33.9 °C** | **T ≥ 26.7 °C** | **Twb≥22.8 °C** | **Twb≥19.4 °C** |
|---|---|---|---|---|---|
| | # of Hours | 28 | 1001 | 453 | 1792 |

**Other Site Data**

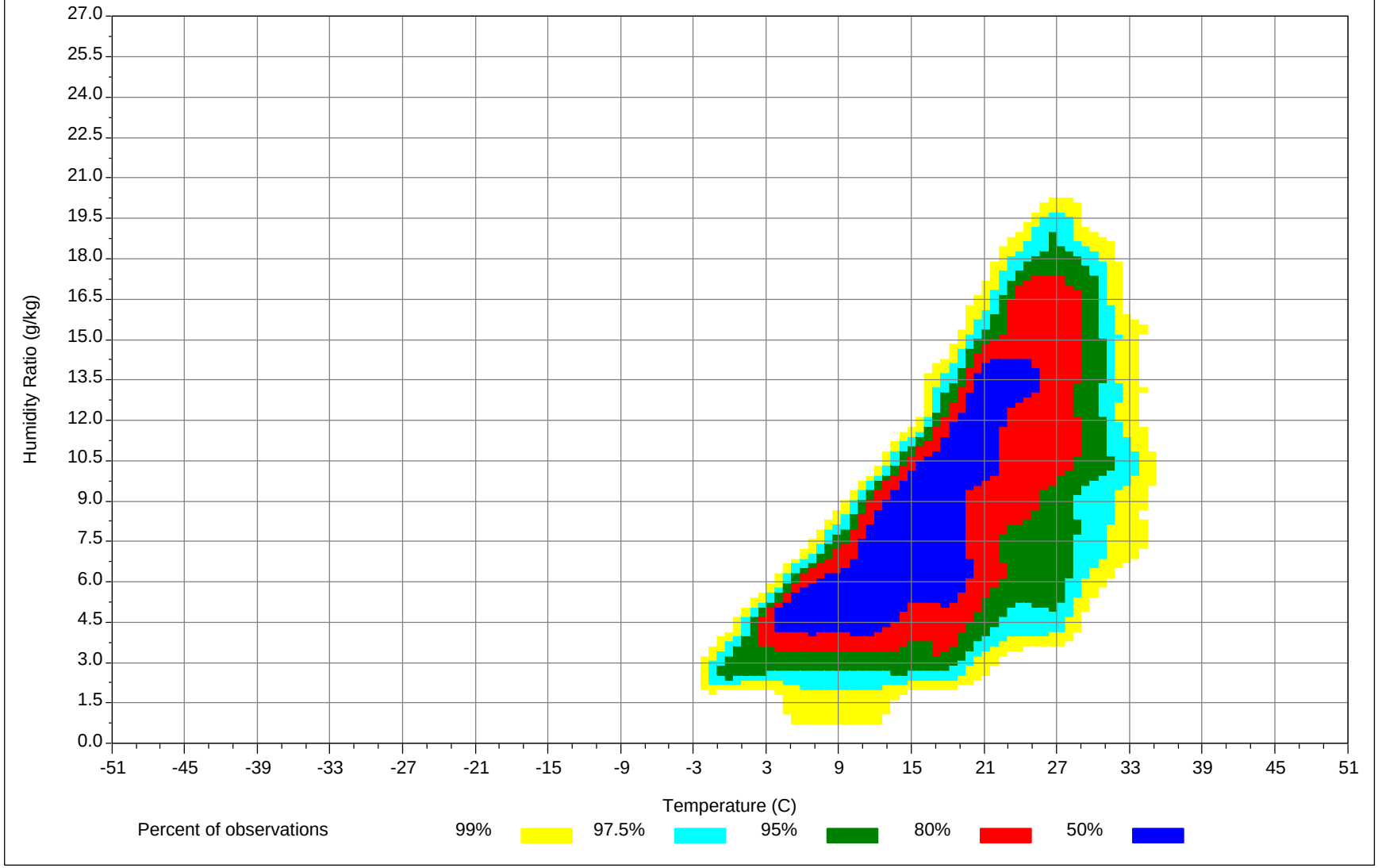
| Weather Region | Rain Rate 100 Year Recurrence (cm/hr) | Basic Wind Speed 3 sec gust @ 10 m 50 Year Recurrence (m/s) | Ventilation Cooling Load Index (kWh/l/s/yr) Base 24° C-RH 60% Latent + Sensible |
|---|---|---|---|
| 8 | N/A | N/A | 1.4 + 0.6 |
| Ground Water Temperature (°C) 15 Meter Depth* | Frost Depth 50 Year Recurrence (cm) | Ground Snow Load 50 Year Recurrence ($kN/m^2$) | Average Annual Freeze-Thaw Cycles (#) |
| 18.9 | N/A | N/A | 4 |

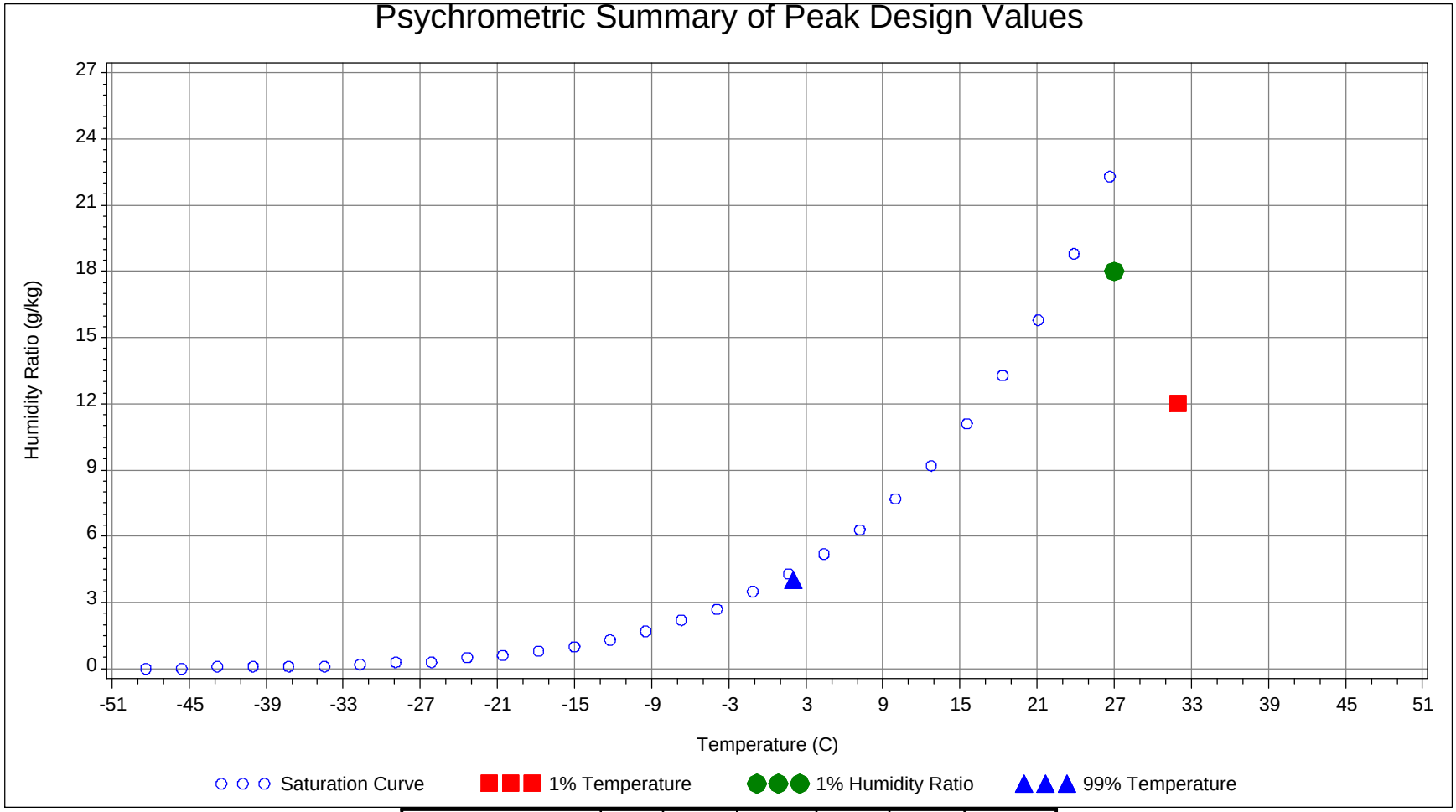
*Note: Temperatures at greater depths can be estimated by adding 0.83°C per 30 meters additional depth.

# Average Annual Climate



# Long Term Psychrometric Summary






| | (°C) / (g/kg) | MCDB (°C) | MCWB (°C) | MCDP (°C) | MCHR (g/kg) | Enthalpy (kJ/kg) |
|---|---|---|---|---|---|---|
| 1.0% Dry Bulb | 32.0 | | 22 | | 12.0 | 62.4 |
| 99.0% Dry Bulb | 2.0 | | | | 4.0 | 11.0 |
| 1.0% Humidity Ratio | 18.0 | 27.0 | 24 | 22.8 | | 72.2 |

## *Dry-Bulb Temperature Hours For An Average Year*

| | January | | | | | February | | | | | March | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Temperature Range (°C)** | **01 To 08 LST** | **09 To 16 LST** | **17 to 00 LST** | **Total Obs** | **MCWB (°C)** | **01 To 08 LST** | **09 To 16 LST** | **17 to 00 LST** | **Total Obs** | **MCWB (°C)** | **01 To 08 LST** | **09 To 16 LST** | **17 to 00 LST** | **Total Obs** | **MCWB (°C)** |
| 42/ 44 | | | | | | | | | | | | | | | |
| 39/ 41 | | | | | | | | | | | | | | | |
| 36/ 38 | | | | | | | | | | | | | | | |
| 33/ 35 | | | | | | | | | | | | | | | |
| 30/ 32 | | | | | | | | | | | | 0 | 0 | 0 | 16.1 |
| 27/ 29 | | | | | | | 0 | 0 | 0 | 15.8 | | 2 | 1 | 3 | 15.7 |
| 24/ 26 | | 0 | | 0 | 13.3 | | 1 | 0 | 1 | 14.5 | | 7 | 3 | 10 | 14.6 |
| 21/ 23 | | 6 | 1 | 7 | 13.1 | | 8 | 3 | 11 | 13 | | 26 | 11 | 37 | 13.3 |
| 18/ 20 | 1 | 16 | 6 | 23 | 12.1 | 1 | 22 | 10 | 33 | 11.9 | 1 | 42 | 21 | 64 | 12.2 |
| 15/ 17 | 11 | 59 | 31 | 101 | 10.6 | 8 | 58 | 34 | 100 | 10.4 | 14 | 79 | 64 | 157 | 11.3 |
| 12/ 14 | 22 | 64 | 60 | 146 | 9.4 | 24 | 58 | 64 | 146 | 9.3 | 46 | 52 | 85 | 183 | 10.2 |
| 9/ 11 | 40 | 42 | 66 | 148 | 8 | 46 | 37 | 58 | 141 | 7.9 | 71 | 27 | 43 | 141 | 8.4 |
| 6/ 8 | 80 | 38 | 61 | 179 | 5.8 | 79 | 29 | 43 | 151 | 5.7 | 87 | 12 | 20 | 119 | 6 |
| 3/ 5 | 53 | 14 | 18 | 85 | 3.3 | 41 | 8 | 9 | 58 | 3.1 | 23 | 1 | 2 | 26 | 3.1 |
| 0/ 2 | 37 | 8 | 5 | 50 | 0.8 | 24 | 3 | 2 | 29 | 0.4 | 5 | 0 | 0 | 5 | 0.3 |
| -3/ -1 | 4 | 1 | 0 | 5 | -2.7 | 2 | 0 | | 2 | -3.2 | 1 | | | 1 | -2 |
| -6/ -4 | 0 | 0 | | 0 | -5.8 | | | | | | | | | | |

Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure 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*

| | April | | | | | May | | | | | June | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Temperature Range (°C)** | **01 To 08 LST** | **09 To 16 LST** | **17 to 00 LST** | **Total Obs** | **MCWB (°C)** | **01 To 08 LST** | **09 To 16 LST** | **17 to 00 LST** | **Total Obs** | **MCWB (°C)** | **01 To 08 LST** | **09 To 16 LST** | **17 to 00 LST** | **Total Obs** | **MCWB (°C)** |
| 42/ 44 | | | | | | | 0 | | 0 | 19 | | | | | |
| 39/ 41 | | | | | | | 0 | 0 | 0 | 18.9 | | | | | |
| 36/ 38 | | | | | | | 0 | 0 | 0 | 17.3 | | 1 | 1 | 2 | 19.2 |
| 33/ 35 | | 0 | | 0 | 16.5 | | 1 | 0 | 1 | 18.4 | | 3 | 1 | 4 | 19.8 |
| 30/ 32 | | 0 | 0 | 0 | 17.5 | 0 | 5 | 1 | 6 | 17.7 | | 27 | 8 | 35 | 19.9 |
| 27/ 29 | | 2 | 1 | 3 | 15.9 | 0 | 15 | 4 | 19 | 17.3 | 1 | 67 | 26 | 94 | 19.7 |
| 24/ 26 | | 13 | 4 | 17 | 14.8 | 0 | 47 | 14 | 61 | 16.6 | 7 | 76 | 58 | 141 | 19.1 |
| 21/ 23 | 0 | 50 | 18 | 68 | 13.9 | 5 | 94 | 63 | 162 | 16 | 65 | 53 | 102 | 220 | 18.3 |
| 18/ 20 | 3 | 65 | 38 | 106 | 13 | 33 | 53 | 76 | 162 | 15.2 | 91 | 10 | 33 | 134 | 16.7 |
| 15/ 17 | 30 | 73 | 97 | 200 | 12.1 | 112 | 27 | 73 | 212 | 13.8 | 67 | 3 | 11 | 81 | 14.6 |
| 12/ 14 | 87 | 28 | 62 | 177 | 10.7 | 72 | 5 | 13 | 90 | 11.4 | 9 | 0 | 1 | 10 | 11.7 |
| 9/ 11 | 77 | 7 | 17 | 101 | 8.8 | 20 | 1 | 3 | 24 | 9 | 0 | | | 0 | 9.5 |
| 6/ 8 | 38 | 1 | 3 | 42 | 6.3 | 5 | 0 | 0 | 5 | 6.5 | | | | | |
| 3/ 5 | 3 | 0 | | 3 | 3.7 | 0 | | | 0 | 2.5 | | | | | |
| 0/ 2 | | | | | | | | | | | | | | | |
| -3/ -1 | | | | | | | | | | | | | | | |
| -6/ -4 | | | | | | | | | | | | | | | |

Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure 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*

| | July | | | | | August | | | | | September | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Temperature Range (°C)** | **01 To 08 LST** | **09 To 16 LST** | **17 to 00 LST** | **Total Obs** | **MCWB (°C)** | **01 To 08 LST** | **09 To 16 LST** | **17 to 00 LST** | **Total Obs** | **MCWB (°C)** | **01 To 08 LST** | **09 To 16 LST** | **17 to 00 LST** | **Total Obs** | **MCWB (°C)** |
| 42/ 44 | | 0 | | 0 | 20 | | 0 | 0 | 0 | 19.6 | | | | | |
| 39/ 41 | | 0 | 0 | 0 | 18.9 | | 0 | 0 | 0 | 19.9 | | | | | |
| 36/ 38 | | 1 | 1 | 2 | 20 | | 2 | 1 | 3 | 19.8 | | 1 | 0 | 1 | 19.1 |
| 33/ 35 | | 7 | 2 | 9 | 20.6 | 0 | 9 | 2 | 11 | 21.2 | | 2 | 1 | 3 | 19.4 |
| 30/ 32 | 0 | 76 | 21 | 97 | 21.9 | 0 | 86 | 24 | 110 | 22.5 | | 19 | 5 | 24 | 20.3 |
| 27/ 29 | 2 | 105 | 69 | 176 | 21.6 | 3 | 97 | 79 | 179 | 22.2 | 0 | 66 | 22 | 88 | 20.7 |
| 24/ 26 | 41 | 46 | 107 | 194 | 21.1 | 55 | 41 | 109 | 205 | 21.6 | 6 | 74 | 65 | 145 | 19.9 |
| 21/ 23 | 150 | 12 | 47 | 209 | 19.6 | 152 | 11 | 30 | 193 | 19.8 | 76 | 55 | 102 | 233 | 19 |
| 18/ 20 | 47 | 0 | 3 | 50 | 17.2 | 34 | 1 | 3 | 38 | 17.1 | 86 | 18 | 32 | 136 | 17 |
| 15/ 17 | 9 | 0 | 0 | 9 | 15.3 | 5 | 0 | 0 | 5 | 14.7 | 61 | 6 | 12 | 79 | 14.5 |
| 12/ 14 | | | | | | 0 | | | 0 | 10.5 | 10 | 0 | 1 | 11 | 11.5 |
| 9/ 11 | | | | | | | | | | | 1 | | 0 | 1 | 8.4 |
| 6/ 8 | | | | | | | | | | | | | | | |
| 3/ 5 | | | | | | | | | | | | | | | |
| 0/ 2 | | | | | | | | | | | | | | | |
| -3/ -1 | | | | | | | | | | | | | | | |
| -6/ -4 | | | | | | | | | | | | | | | |

Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure 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*

| | October | | | | | November | | | | | December | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Temperature Range (°C)** | **01 To 08 LST** | **09 To 16 LST** | **17 to 00 LST** | **Total Obs** | **MCWB (°C)** | **01 To 08 LST** | **09 To 16 LST** | **17 to 00 LST** | **Total Obs** | **MCWB (°C)** | **01 To 08 LST** | **09 To 16 LST** | **17 to 00 LST** | **Total Obs** | **MCWB (°C)** |
| 42/ 44 | | | | | | | | | | | | | | | |
| 39/ 41 | | | | | | | | | | | | | | | |
| 36/ 38 | | | | | | | | | | | | | | | |
| 33/ 35 | | 0 | 0 | 0 | 19.1 | | | | | | | | | | |
| 30/ 32 | | 4 | 1 | 5 | 18.6 | | 0 | 0 | 0 | 18.9 | | | | | |
| 27/ 29 | | 15 | 3 | 18 | 18.3 | | 1 | 0 | 1 | 16.7 | | | | | |
| 24/ 26 | 0 | 42 | 12 | 54 | 18.1 | | 4 | 1 | 5 | 15.6 | | 0 | | 0 | 15.5 |
| 21/ 23 | 7 | 86 | 67 | 160 | 17.2 | 1 | 28 | 7 | 36 | 14.8 | | 5 | 1 | 6 | 14.2 |
| 18/ 20 | 38 | 52 | 74 | 164 | 15.9 | 4 | 50 | 23 | 77 | 13.8 | 2 | 21 | 6 | 29 | 12.8 |
| 15/ 17 | 117 | 38 | 72 | 227 | 14.2 | 35 | 80 | 80 | 195 | 12.5 | 10 | 70 | 37 | 117 | 11.2 |
| 12/ 14 | 64 | 9 | 16 | 89 | 11.4 | 60 | 45 | 68 | 173 | 10.5 | 31 | 64 | 68 | 163 | 9.8 |
| 9/ 11 | 16 | 1 | 2 | 19 | 8.7 | 59 | 20 | 35 | 114 | 8.5 | 51 | 42 | 62 | 155 | 8.3 |
| 6/ 8 | 4 | 0 | 1 | 5 | 5.6 | 58 | 10 | 21 | 89 | 5.8 | 76 | 29 | 53 | 158 | 5.9 |
| 3/ 5 | 1 | | | 1 | 2.5 | 17 | 2 | 3 | 22 | 3 | 45 | 11 | 17 | 73 | 3.2 |
| 0/ 2 | | | | | | 6 | 0 | 1 | 7 | 0.4 | 29 | 5 | 5 | 39 | 0.7 |
| -3/ -1 | | | | | | 1 | | | 1 | -2.9 | 4 | 0 | 0 | 4 | -2.8 |
| -6/ -4 | | | | | | | | | | | 0 | | | 0 | -5.1 |

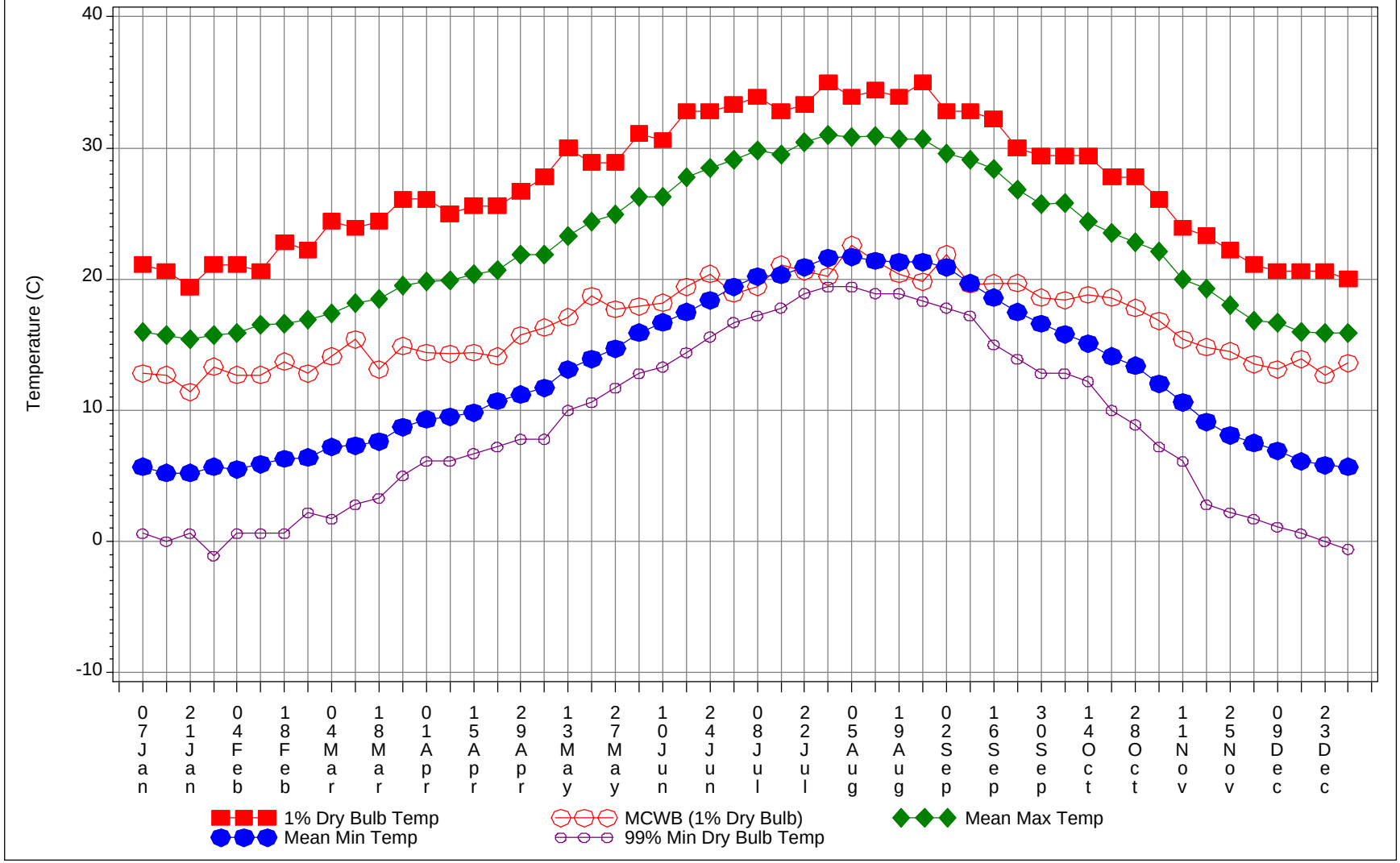
Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary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

## *Dry-Bulb Temperature Hours For An Average Year*

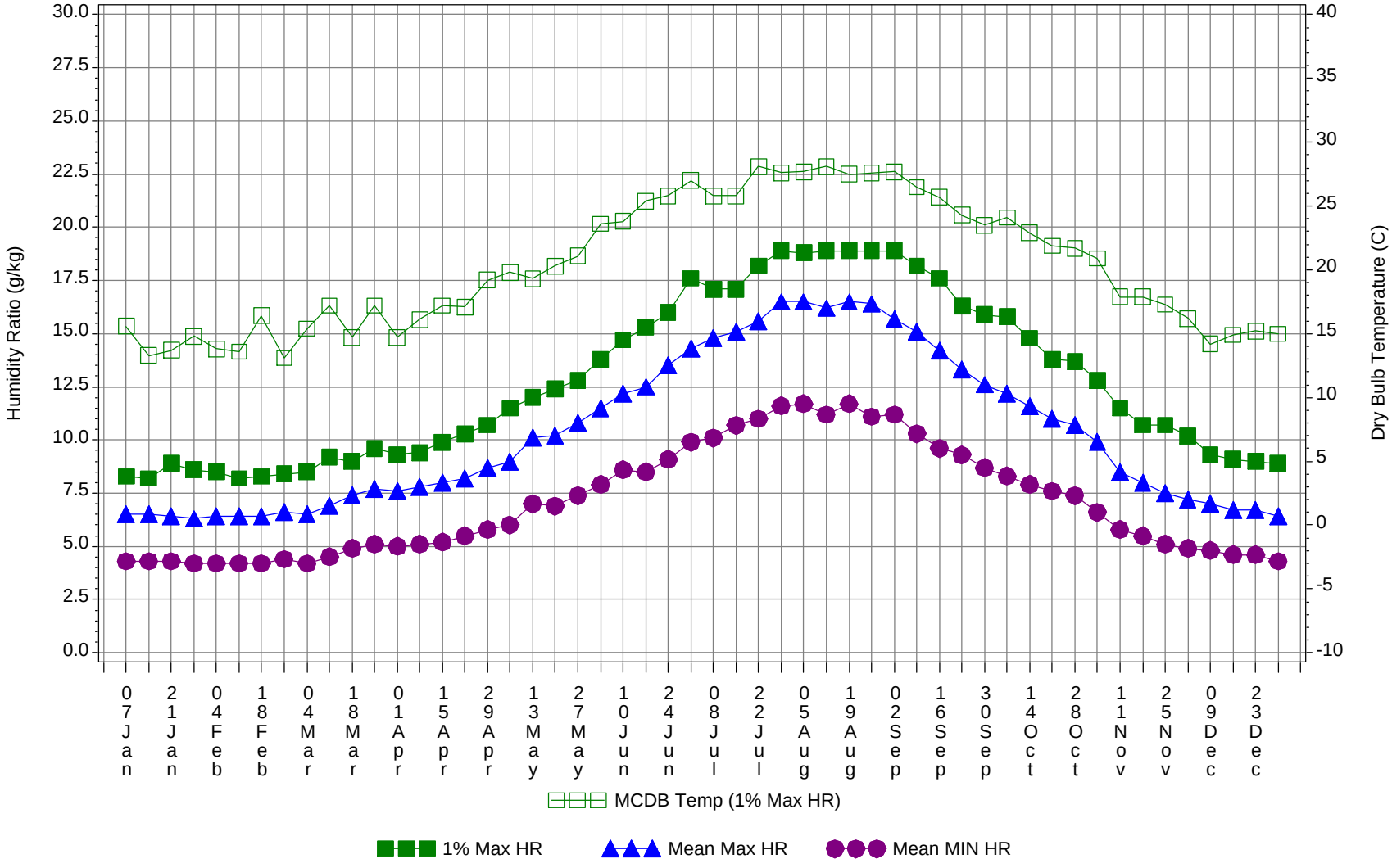
| | Annual | | | | |
|---|---|---|---|---|---|
| **Temperature Range (°C)** | **01 To 08 LST** | **09 To 16 LST** | **17 to 00 LST** | **Total Obs** | **MCWB (°C)** |
| 42/ 44 | | 0 | 0 | 0 | 19.6 |
| 39/ 41 | | 1 | 0 | 1 | 19.5 |
| 36/ 38 | | 5 | 2 | 7 | 19.6 |
| 33/ 35 | 0 | 21 | 6 | 27 | 20.5 |
| 30/ 32 | 0 | 217 | 59 | 276 | 21.6 |
| 27/ 29 | 5 | 369 | 205 | 579 | 21 |
| 24/ 26 | 109 | 352 | 373 | 834 | 19.9 |
| 21/ 23 | 456 | 435 | 452 | 1343 | 17.9 |
| 18/ 20 | 339 | 351 | 324 | 1014 | 15.2 |
| 15/ 17 | 479 | 493 | 512 | 1484 | 12.6 |
| 12/ 14 | 425 | 326 | 436 | 1187 | 10.3 |
| 9/ 11 | 382 | 178 | 286 | 846 | 8.3 |
| 6/ 8 | 428 | 121 | 202 | 751 | 5.9 |
| 3/ 5 | 182 | 36 | 49 | 267 | 3.2 |
| 0/ 2 | 102 | 16 | 13 | 131 | 0.6 |
| -3/ -1 | 11 | 1 | 0 | 12 | -2.8 |
| -6/ -4 | 1 | 0 | | 1 | -5.5 |

Caution: This summary reflects the typical distribtion of temperature in a typical year. It does not reflect the typical mositure 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.

# Annual Summary of Temperatures



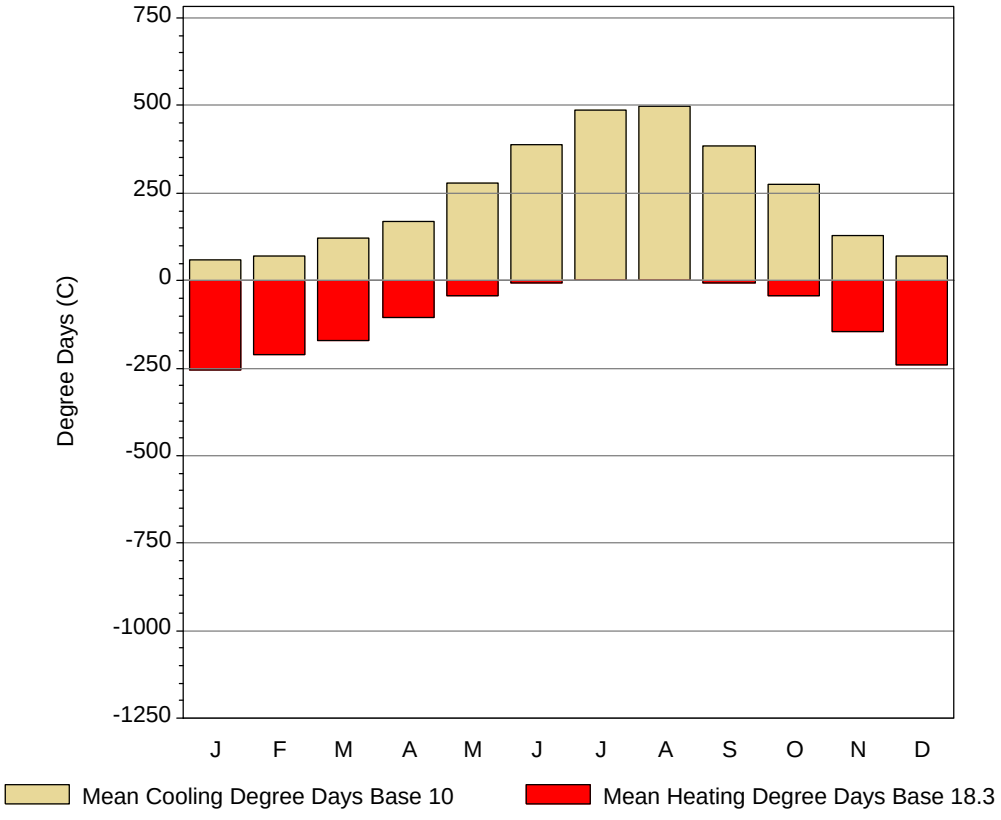
# Long Term Humidity and Dry Bulb Temperature Summary



## *Long Term Humidity and Dry Bulb Temperature Summary*

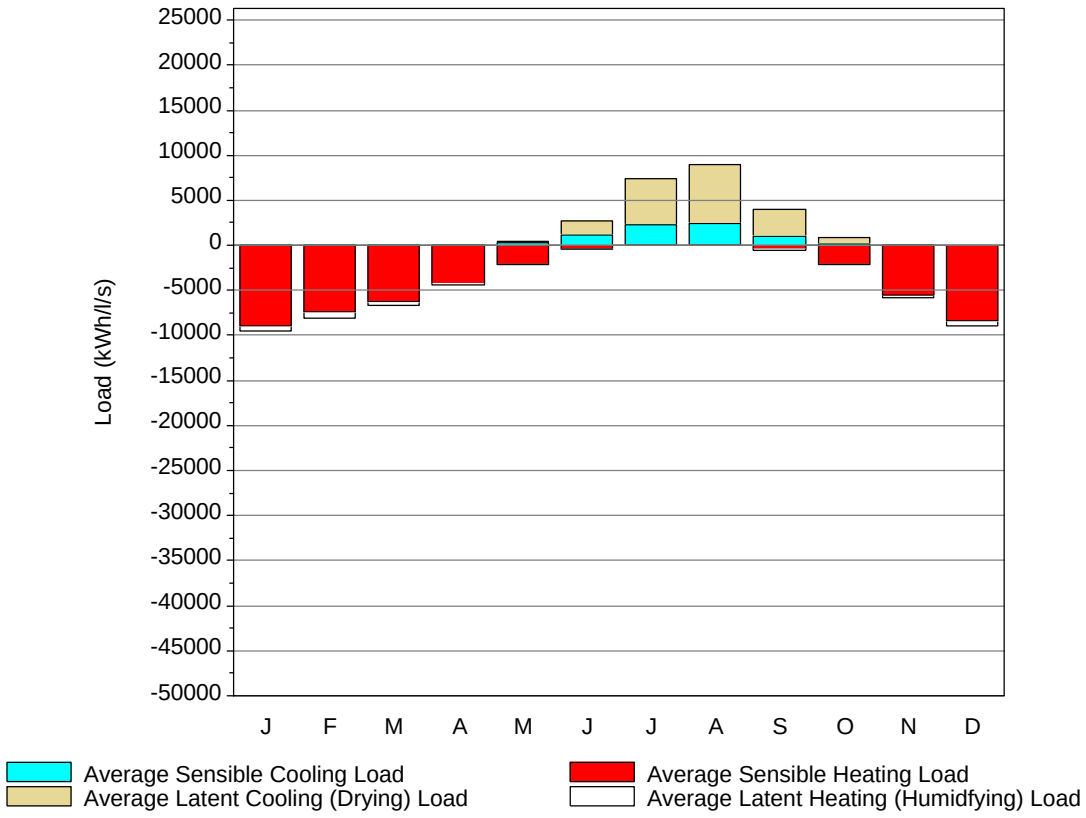
| Week Ending | 1.0% Temp (°C) | MCWB@ 1% Temp (°C) | Mean Max Temp (°C) | Mean Min Temp (°C) | 99% Temp (°C) | 1.0% HR (g/kg) | MCDB@ 1% HR (°C) | Mean Max HR (g/kg) | Mean Min HR (g/kg) |
|---|---|---|---|---|---|---|---|---|---|
| 7-Jan | 21.1 | 12.8 | 16 | 5.7 | 0.6 | 8.3 | 15.6 | 6.5 | 4.3 |
| 14-Jan | 20.6 | 12.7 | 15.7 | 5.2 | 0 | 8.2 | 13.3 | 6.5 | 4.3 |
| 21-Jan | 19.4 | 11.4 | 15.4 | 5.2 | 0.6 | 8.9 | 13.7 | 6.4 | 4.3 |
| 28-Jan | 21.1 | 13.3 | 15.7 | 5.7 | -1.1 | 8.6 | 14.8 | 6.3 | 4.2 |
| 4-Feb | 21.1 | 12.7 | 15.9 | 5.5 | 0.6 | 8.5 | 13.8 | 6.4 | 4.2 |
| 11-Feb | 20.6 | 12.7 | 16.5 | 5.9 | 0.6 | 8.2 | 13.6 | 6.4 | 4.2 |
| 18-Feb | 22.8 | 13.7 | 16.6 | 6.3 | 0.6 | 8.3 | 16.4 | 6.4 | 4.2 |
| 25-Feb | 22.2 | 12.8 | 16.9 | 6.4 | 2.2 | 8.4 | 13.1 | 6.6 | 4.4 |
| 4-Mar | 24.4 | 14.1 | 17.4 | 7.2 | 1.7 | 8.5 | 15.4 | 6.5 | 4.2 |
| 11-Mar | 23.9 | 15.4 | 18.2 | 7.3 | 2.8 | 9.2 | 17.2 | 6.9 | 4.5 |
| 18-Mar | 24.4 | 13.1 | 18.5 | 7.6 | 3.3 | 9 | 14.7 | 7.4 | 4.9 |
| 25-Mar | 26.1 | 14.9 | 19.5 | 8.7 | 5 | 9.6 | 17.2 | 7.7 | 5.1 |
| 1-Apr | 26.1 | 14.4 | 19.8 | 9.3 | 6.1 | 9.3 | 14.7 | 7.6 | 5 |
| 8-Apr | 25 | 14.3 | 19.9 | 9.5 | 6.1 | 9.4 | 16.1 | 7.8 | 5.1 |
| 15-Apr | 25.6 | 14.4 | 20.4 | 9.8 | 6.7 | 9.9 | 17.2 | 8 | 5.2 |
| 22-Apr | 25.6 | 14.1 | 20.7 | 10.7 | 7.2 | 10.3 | 17.1 | 8.2 | 5.5 |
| 29-Apr | 26.7 | 15.7 | 21.9 | 11.2 | 7.8 | 10.7 | 19.2 | 8.7 | 5.8 |
| 6-May | 27.8 | 16.3 | 21.9 | 11.7 | 7.8 | 11.5 | 19.8 | 9 | 6 |
| 13-May | 30 | 17.1 | 23.3 | 13.1 | 10 | 12 | 19.3 | 10.1 | 7 |
| 20-May | 28.9 | 18.7 | 24.4 | 13.9 | 10.6 | 12.4 | 20.3 | 10.2 | 6.9 |
| 27-May | 28.9 | 17.7 | 24.9 | 14.7 | 11.7 | 12.8 | 21.1 | 10.8 | 7.4 |
| 4-Jun | 31.1 | 17.9 | 26.3 | 15.9 | 12.8 | 13.8 | 23.6 | 11.5 | 7.9 |
| 10-Jun | 30.6 | 18.2 | 26.3 | 16.7 | 13.3 | 14.7 | 23.8 | 12.2 | 8.6 |
| 17-Jun | 32.8 | 19.4 | 27.8 | 17.5 | 14.4 | 15.3 | 25.4 | 12.5 | 8.5 |
| 24-Jun | 32.8 | 20.4 | 28.5 | 18.4 | 15.6 | 16 | 25.8 | 13.5 | 9.1 |
| 1-Jul | 33.3 | 18.9 | 29.1 | 19.4 | 16.7 | 17.6 | 27 | 14.3 | 9.9 |
| 8-Jul | 33.9 | 19.4 | 29.8 | 20.2 | 17.2 | 17.1 | 25.8 | 14.8 | 10.1 |
| 15-Jul | 32.8 | 21.1 | 29.5 | 20.3 | 17.8 | 17.1 | 25.8 | 15.1 | 10.7 |
| 22-Jul | 33.3 | 20.6 | 30.4 | 20.9 | 18.9 | 18.2 | 28.1 | 15.6 | 11 |
| 29-Jul | 35 | 20.2 | 31 | 21.6 | 19.4 | 18.9 | 27.6 | 16.5 | 11.6 |
| 5-Aug | 33.9 | 22.6 | 30.8 | 21.7 | 19.4 | 18.8 | 27.7 | 16.5 | 11.7 |
| 12-Aug | 34.4 | 21.4 | 30.9 | 21.4 | 18.9 | 18.9 | 28.1 | 16.2 | 11.2 |
| 19-Aug | 33.9 | 20.4 | 30.7 | 21.3 | 18.9 | 18.9 | 27.5 | 16.5 | 11.7 |
| 26-Aug | 35 | 19.8 | 30.7 | 21.3 | 18.3 | 18.9 | 27.6 | 16.4 | 11.1 |
| 2-Sep | 32.8 | 21.9 | 29.6 | 20.9 | 17.8 | 18.9 | 27.7 | 15.7 | 11.2 |
| 9-Sep | 32.8 | 19.6 | 29.1 | 19.7 | 17.2 | 18.2 | 26.5 | 15.1 | 10.3 |
| 16-Sep | 32.2 | 19.7 | 28.4 | 18.6 | 15 | 17.6 | 25.7 | 14.2 | 9.6 |
| 23-Sep | 30 | 19.7 | 26.8 | 17.5 | 13.9 | 16.3 | 24.3 | 13.3 | 9.3 |
| 30-Sep | 29.4 | 18.6 | 25.7 | 16.6 | 12.8 | 15.9 | 23.5 | 12.6 | 8.7 |
| 7-Oct | 29.4 | 18.4 | 25.8 | 15.8 | 12.8 | 15.8 | 24.1 | 12.2 | 8.3 |
| 14-Oct | 29.4 | 18.8 | 24.4 | 15.1 | 12.2 | 14.8 | 22.9 | 11.6 | 7.9 |
| 21-Oct | 27.8 | 18.6 | 23.5 | 14.1 | 10 | 13.8 | 21.9 | 11 | 7.6 |
| 28-Oct | 27.8 | 17.8 | 22.8 | 13.4 | 8.9 | 13.7 | 21.7 | 10.7 | 7.4 |
| 4-Nov | 26.1 | 16.8 | 22.1 | 12 | 7.2 | 12.8 | 20.9 | 9.9 | 6.6 |
| 11-Nov | 23.9 | 15.4 | 20 | 10.6 | 6.1 | 11.5 | 17.9 | 8.5 | 5.8 |
| 18-Nov | 23.3 | 14.8 | 19.3 | 9.1 | 2.8 | 10.7 | 17.9 | 8 | 5.5 |
| 25-Nov | 22.2 | 14.5 | 18 | 8.1 | 2.2 | 10.7 | 17.3 | 7.5 | 5.1 |
| 2-Dec | 21.1 | 13.5 | 16.8 | 7.5 | 1.7 | 10.2 | 16.2 | 7.2 | 4.9 |
| 9-Dec | 20.6 | 13.1 | 16.7 | 6.9 | 1.1 | 9.3 | 14.2 | 7 | 4.8 |
| 16-Dec | 20.6 | 13.9 | 16 | 6.1 | 0.6 | 9.1 | 14.9 | 6.7 | 4.6 |
| 23-Dec | 20.6 | 12.7 | 15.9 | 5.8 | 0 | 9 | 15.2 | 6.7 | 4.6 |
| 31-Dec | 20 | 13.6 | 15.9 | 5.7 | -0.6 | 8.9 | 15 | 6.4 | 4.3 |

# Degree Days, Heating and Cooling
## (Base 18.3 C) & Cooling (Base 10 C)




| Month | Mean Cooling Degree Days (°C) Base 10 | Mean Cooling Degree Days (°C) Base 18.3 | Mean Heating Degree Days (°C) Base 18.3 |
|---|---|---|---|
| JAN | 61 | 2 | 256 |
| FEB | 69 | 4 | 210 |
| MAR | 120 | 12 | 170 |
| APR | 170 | 22 | 107 |
| MAY | 279 | 65 | 45 |
| JUN | 390 | 147 | 7 |
| JUL | 487 | 229 | 0 |
| AUG | 498 | 240 | 0 |
| SEP | 383 | 141 | 7 |
| OCT | 274 | 60 | 44 |
| NOV | 130 | 11 | 147 |
| DEC | 69 | 2 | 239 |
| ANN | 2930 | 933 | 1233 |

# Average Ventilation and Infiltration Loads
## (Outside Air vs 24C, 60% RH summer; 20C, 30% RH winter)




| Month | Average Sensible Cooling Load (kWh/l/s) | Average Sensible Heating Load (kWh/l/s) | Average Latent Cooling Load (kWh/l/s) | Average Latent Heating Load (kWh/l/s) |
|---|---|---|---|---|
| JAN | 1 | -8881 | 0 | -566 |
| FEB | 4 | -7384 | 0 | -643 |
| MAR | 31 | -6235 | 0 | -407 |
| APR | 46 | -4231 | 1 | -154 |
| MAY | 269 | -2082 | 155 | -34 |
| JUN | 1107 | -472 | 1627 | -2 |
| JUL | 2241 | -52 | 5105 | -1 |
| AUG | 2460 | -35 | 6472 | -2 |
| SEP | 954 | -480 | 3001 | -4 |
| OCT | 226 | -2105 | 590 | -29 |
| NOV | 14 | -5539 | 16 | -277 |
| DEC | 0 | -8389 | 0 | -487 |
| ANN | 7352 | -45883 | 16966 | -2606 |

*Average Annual Solar Radiation - Nearest Available Site*
*Source: National Renewable Energy Laboratory, Golden CO, 1995*

| Station Information | | Shading Geometry in Dimensionless Units | |
|---|---|---|---|
| City, State, WBAN | N/A | N/A | N/A |
| Lat, Lon, Elev | N/A | N/A | N/A |
| Press Stn Type | N/A | N/A | N/A |

**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 | | | | | | | | | | | | | |
| | Std.Dev. | | | | | | | | | | | | | |
| | Minimum | | | | | | | | | | | | | |
| | Maximum | | | | | | | | | | | | | |
| | Diffuse | | | | | | | | | | | | | |
| Clear Day | Global | | | | | | | | | | | | | |
| NORTH | Global | | | | | | | | | | | | | |
| | Diffuse | | | | | | | | | | | | | |
| Clear Day | Global | | | | | | | | | | | | | |
| EAST | Global | | | | | | | | | | | | | |
| | Diffuse | | | | | | | | | | | | | |
| Clear Day | Global | | | | | | | | | | | | | |
| SOUTH | Global | | | | | | | | | | | | | |
| | Diffuse | | | | | | | | | | | | | |
| Clear Day | Global | | | | | | | | | | | | | |
| WEST | Global | | | | | | | | | | | | | |
| | Diffuse | | | | | | | | | | | | | |
| Clear Day | Global | | | | | | | | | | | | | |

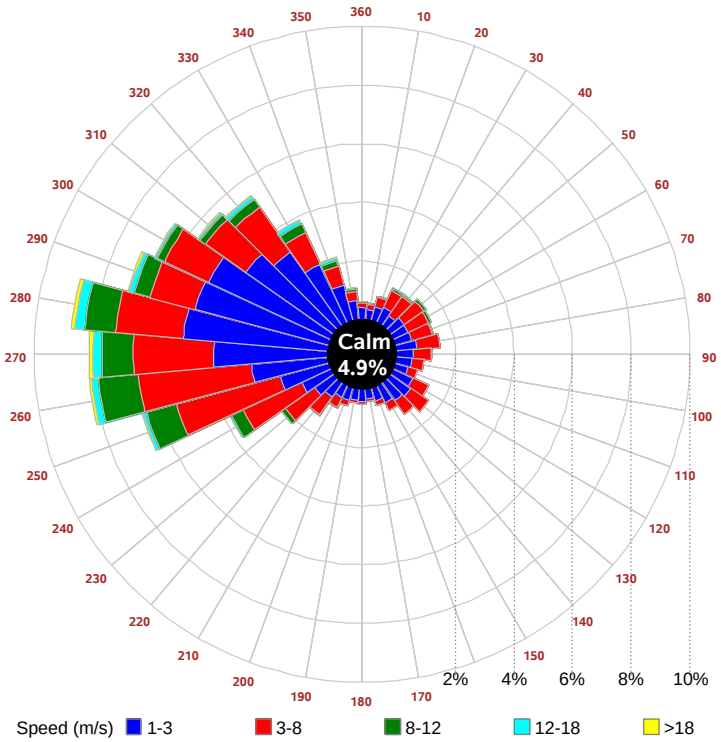
*Average Annual Solar Radiation - Nearest Available Site*
*Source: National Renewable Energy Laboratory, Golden CO, 1995*

| 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 | | | | | | | | | | | | | |
| NORTH | Unshaded | | | | | | | | | | | | | |
| | Shaded | | | | | | | | | | | | | |
| EAST | Unshaded | | | | | | | | | | | | | |
| | Shaded | | | | | | | | | | | | | |
| SOUTH | Unshaded | | | | | | | | | | | | | |
| | Shaded | | | | | | | | | | | | | |
| WEST | Unshaded | | | | | | | | | | | | | |
| | Shaded | | | | | | | | | | | | | |

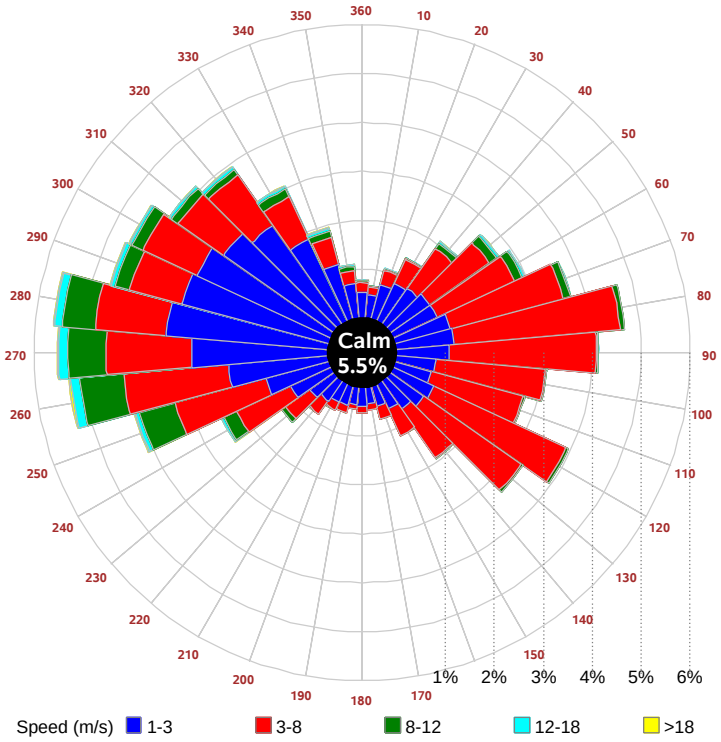
| AVERAGE INCIDENT ILLUMINENCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | March | | | | | June | | |
| | | 9am | 11am | 1pm | 3pm | 5pm | 9am | 11am | 1pm | 3pm | 5pm |
| HORIZ. | M.Clear | | | | | | | | | | |
| | M.Cloudy | | | | | | | | | | |
| NORTH | M.Clear | | | | | | | | | | |
| | M.Cloudy | | | | | | | | | | |
| EAST | M.Clear | | | | | | | | | | |
| | M.Cloudy | | | | | | | | | | |
| SOUTH | M.Clear | | | | | | | | | | |
| | M.Cloudy | | | | | | | | | | |
| WEST | M.Clear | | | | | | | | | | |
| | M.Cloudy | | | | | | | | | | |
| M.Clear | (% hrs) | | | | | | | | | | |

| | | | | Sept | | | | | Dec | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9am | 11am | 1pm | 3pm | 5pm | 9am | 11am | 1pm | 3pm | 5pm |
| HORIZ. | M.Clear | | | | | | | | | | |
| | M.Cloudy | | | | | | | | | | |
| NORTH | M.Clear | | | | | | | | | | |
| | M.Cloudy | | | | | | | | | | |
| EAST | M.Clear | | | | | | | | | | |
| | M.Cloudy | | | | | | | | | | |
| SOUTH | M.Clear | | | | | | | | | | |
| | M.Cloudy | | | | | | | | | | |
| WEST | M.Clear | | | | | | | | | | |
| | M.Cloudy | | | | | | | | | | |
| M.Clear | (% hrs) | | | | | | | | | | |

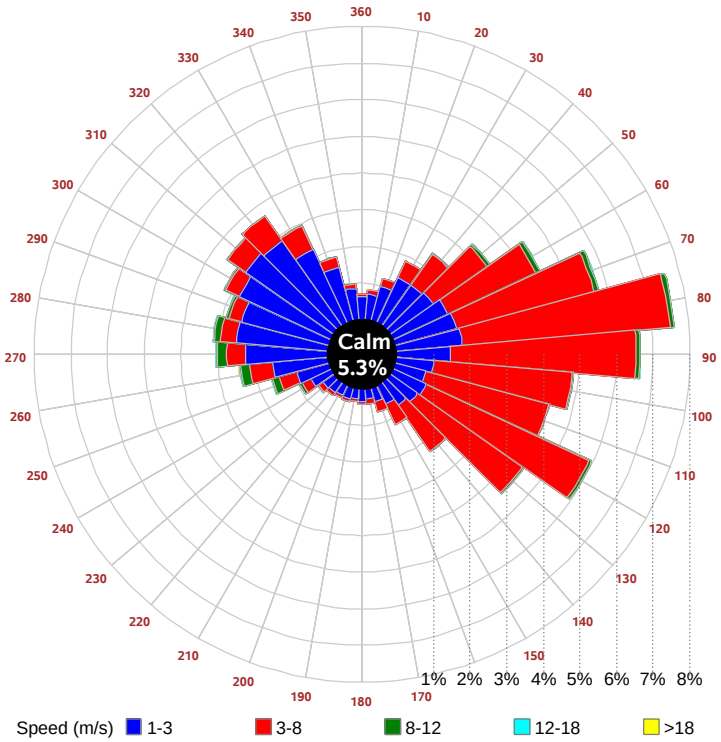
## Wind Summary - December, January, and February




## Wind Summary - March, April, and May



## Wind Summary - June, July, and August




## Wind Summary - September, October, and November