

**WHITING FIELD NAS FL**

Latitude = 30.72 N

Longitude = 87.02 W

Period of Record = 1973 to 1996

WMO No. 722226

Elevation = 200 feet

Average Pressure = 29.79 inches Hg

**Design Criteria Data**

|                                                  | <b>Design Value</b> | Mean Coincident (Average) Values |                         |                        |                             |
|--------------------------------------------------|---------------------|----------------------------------|-------------------------|------------------------|-----------------------------|
|                                                  |                     | Wet Bulb Temperature (°F)        | Humidity Ratio (gr/lb)  | Wind Speed (mph)       | Prevailing Direction (NSEW) |
| <b>Dry Bulb Temperature (T)</b>                  | <b>(°F)</b>         |                                  |                         |                        |                             |
| Median of Extreme Highs                          | 98                  | 79                               | 119                     | 5.7                    | NNW                         |
| 0.4% Occurrence                                  | 95                  | 77                               | 114                     | 5.6                    | NNW                         |
| 1.0% Occurrence                                  | 93                  | 77                               | 113                     | 5.7                    | N                           |
| 2.0% Occurrence                                  | 91                  | 76                               | 113                     | 6.1                    | S                           |
| Mean Daily Range                                 | 20                  | -                                | -                       | -                      | -                           |
| 97.5% Occurrence                                 | 35                  | 31                               | 20                      | 5.4                    | N                           |
| 99.0% Occurrence                                 | 30                  | 27                               | 15                      | 5.5                    | N                           |
| 99.6% Occurrence                                 | 26                  | 23                               | 12                      | 6.1                    | N                           |
| Median of Extreme Lows                           | 20                  | 17                               | 8                       | 7.7                    | N                           |
|                                                  | <b>Design Value</b> | Mean Coincident (Average) Values |                         |                        |                             |
|                                                  |                     | Dry Bulb Temperature (°F)        | Humidity Ratio (gr/lb)  | Wind Speed (mph)       | Prevailing Direction (NSEW) |
| <b>Wet Bulb Temperature (T<sub>wb</sub>)</b>     | <b>(°F)</b>         |                                  |                         |                        |                             |
| Median of Extreme Highs                          | 83                  | 91                               | 153                     | 5.6                    | S                           |
| 0.4% Occurrence                                  | 81                  | 90                               | 143                     | 5.7                    | S                           |
| 1.0% Occurrence                                  | 79                  | 88                               | 133                     | 5.7                    | S                           |
| 2.0% Occurrence                                  | 78                  | 87                               | 129                     | 5.6                    | S                           |
|                                                  | <b>Design Value</b> | Mean Coincident (Average) Values |                         |                        |                             |
|                                                  |                     | Dry Bulb Temperature (°F)        | Vapor Pressure (in. Hg) | Wind Speed (mph)       | Prevailing Direction (NSEW) |
| <b>Humidity Ratio (HR)</b>                       | <b>(gr/lb)</b>      |                                  |                         |                        |                             |
| Median of Extreme Highs                          | 162                 | 88                               | 1.07                    | 6.0                    | S                           |
| 0.4% Occurrence                                  | 147                 | 85                               | 0.97                    | 5.3                    | S                           |
| 1.0% Occurrence                                  | 141                 | 84                               | 0.94                    | 5.1                    | SSW                         |
| 2.0% Occurrence                                  | 136                 | 83                               | 0.90                    | 4.6                    | S                           |
| <b>Air Conditioning/<br/>Humid Area Criteria</b> | <b># of Hours</b>   | T ≥ 93°F                         | T ≥ 80°F                | T <sub>wb</sub> ≥ 73°F | T <sub>wb</sub> ≥ 67°F      |
|                                                  |                     | 106                              | 1586                    | 1813                   | 3607                        |

**Other Site Data**

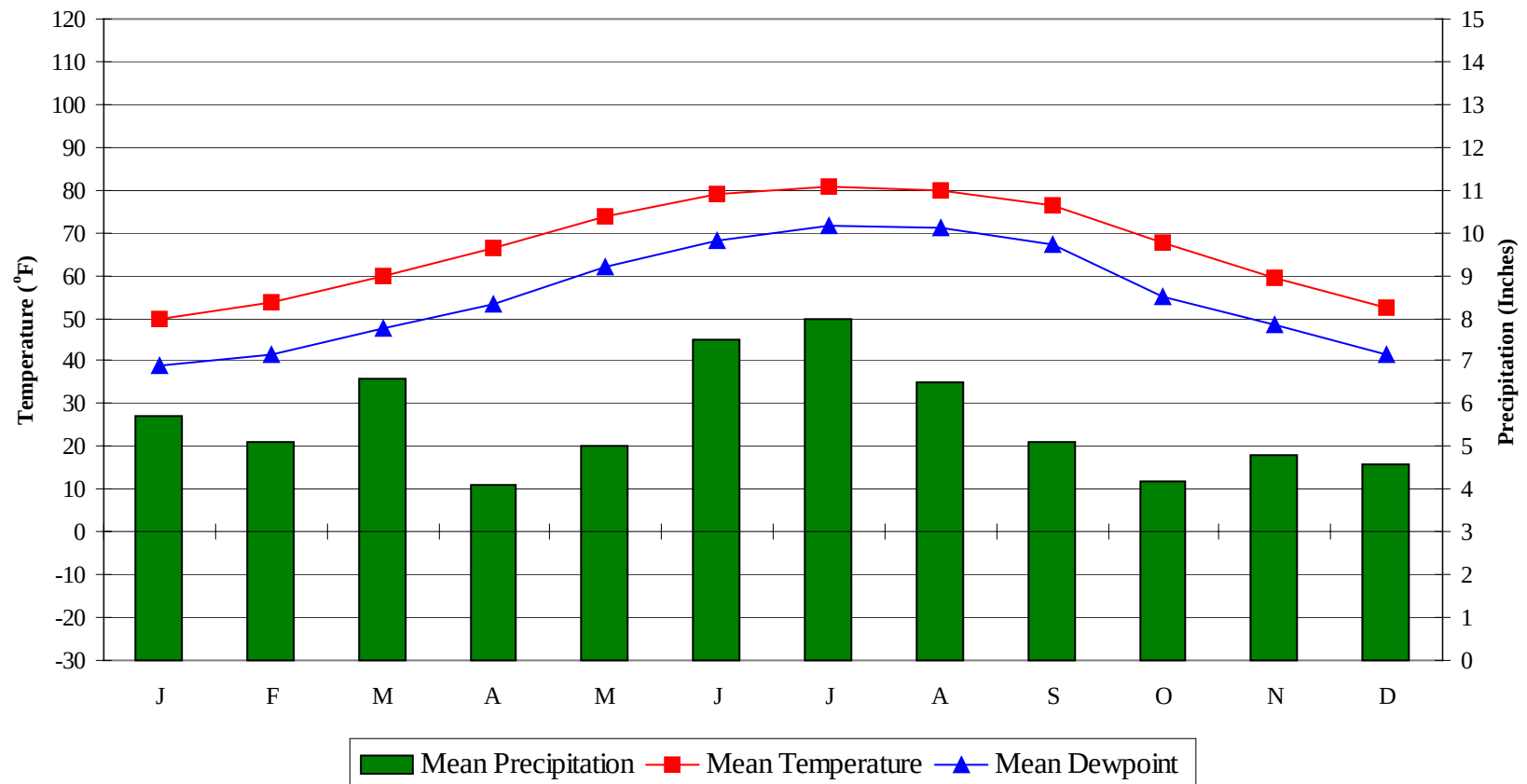
| Weather Region                                      | Rain Rate<br>100 Year Recurrence<br>(in./hr) | Basic Wind Speed<br>3 sec gust @ 33 ft<br>50 Year Recurrence (mph) | Ventilation Cooling Load Index<br>(Ton-hr/cfm/yr) Base 75°F-RH 60%<br>Latent + Sensible |
|-----------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 10                                                  | 4.5                                          | 130                                                                | 6.7 + 1.7                                                                               |
| Ground Water<br>Temperature (°F)<br>50 Foot Depth * | Frost Depth<br>50 Year Recurrence<br>(in.)   | Ground Snow Load<br>50 Year Recurrence<br>(lb/ft <sup>2</sup> )    | Average Annual<br>Freeze-Thaw Cycles<br>(#)                                             |
| 69.1                                                | 0                                            | 0                                                                  | 15                                                                                      |

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

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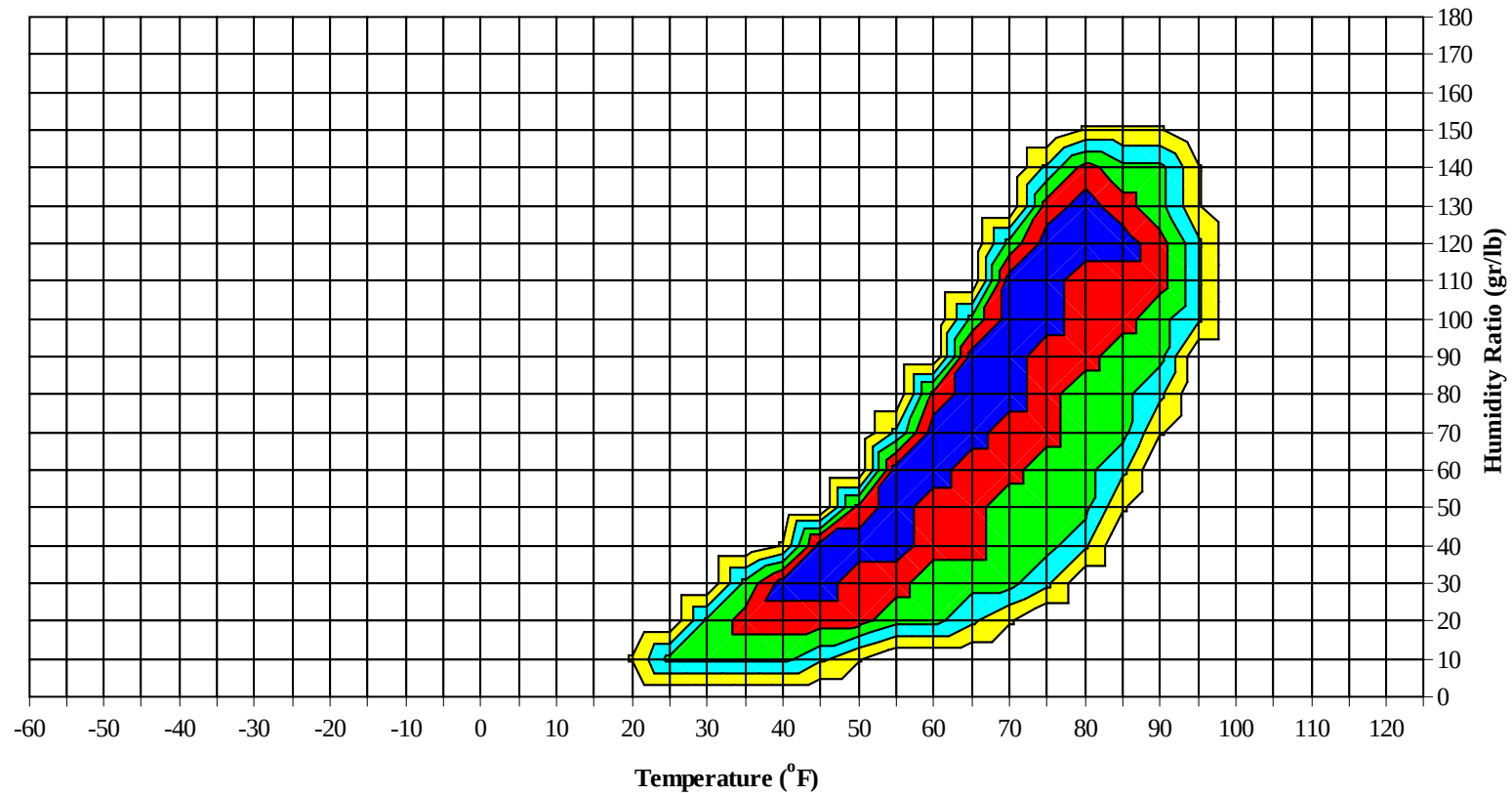
### Average Annual Climate



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### Long Term Psychrometric Summary

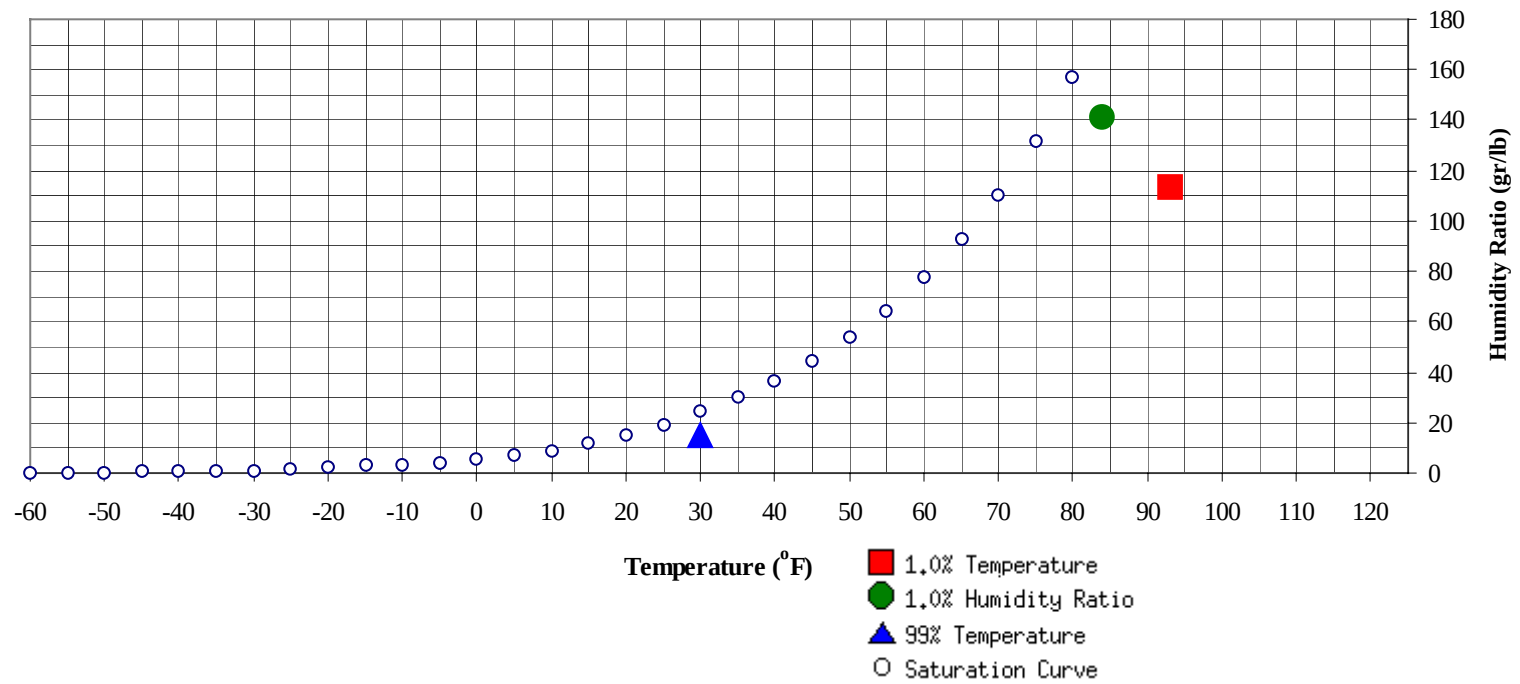


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

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### Psychrometric Summary of Peak Design Values



|              | (°F) | MCHR<br>(gr/lb) | Enthalpy<br>(btu/lb) | 1.0% Humidity<br>Ratio | (gr/lb) | MCDB<br>(°F) | MCWB<br>(°F) | MC Dewpt<br>(°F) | Enthalpy<br>(btu/lb) |
|--------------|------|-----------------|----------------------|------------------------|---------|--------------|--------------|------------------|----------------------|
|              |      |                 |                      |                        |         |              |              |                  |                      |
| 99% Dry Bulb | 30   | 14.8            | 9.5                  |                        | 141.4   | 83.9         | 78.8         | 77               | 42.3                 |

|               | (°F) | MCHR<br>(gr/lb) | MCWB<br>(°F) | Enthalpy<br>(btu/lb) |
|---------------|------|-----------------|--------------|----------------------|
|               |      |                 |              |                      |
| 1.0% Dry Bulb | 93   | 113.2           | 76.8         | 40.1                 |

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

Period of Record = 1973 to 1996

| Temperature<br>Range<br>(°F) | January             |                |                |              |                          | February            |                |                |              |                          | March               |                |                |              |                          |
|------------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|
|                              | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) |
|                              | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          |
| 100 / 104                    |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 95 / 99                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 90 / 94                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 85 / 89                      |                     |                |                |              |                          |                     | 0              |                | 0            | 67.0                     |                     | 1              |                | 1            | 63.6                     |
| 80 / 84                      |                     |                |                |              |                          |                     | 1              |                | 1            | 62.1                     |                     | 13             | 1              | 14           | 64.7                     |
| 75 / 79                      |                     | 3              |                | 3            | 66.5                     |                     | 11             | 0              | 11           | 64.6                     | 0                   | 41             | 5              | 46           | 64.7                     |
| 70 / 74                      | 1                   | 20             | 4              | 25           | 64.3                     | 2                   | 35             | 6              | 43           | 62.6                     | 11                  | 55             | 25             | 91           | 63.0                     |
| 65 / 69                      | 13                  | 34             | 15             | 62           | 61.3                     | 14                  | 42             | 26             | 83           | 60.7                     | 27                  | 47             | 48             | 122          | 60.2                     |
| 60 / 64                      | 18                  | 38             | 31             | 87           | 57.0                     | 23                  | 36             | 35             | 94           | 56.2                     | 42                  | 38             | 59             | 139          | 56.5                     |
| 55 / 59                      | 21                  | 41             | 35             | 97           | 51.9                     | 26                  | 30             | 39             | 94           | 51.3                     | 45                  | 25             | 44             | 114          | 51.9                     |
| 50 / 54                      | 30                  | 35             | 40             | 105          | 47.0                     | 36                  | 27             | 40             | 102          | 46.9                     | 42                  | 16             | 33             | 91           | 47.2                     |
| 45 / 49                      | 38                  | 31             | 39             | 108          | 42.1                     | 33                  | 20             | 31             | 84           | 42.0                     | 36                  | 7              | 19             | 62           | 42.2                     |
| 40 / 44                      | 37                  | 22             | 35             | 94           | 37.4                     | 29                  | 13             | 23             | 65           | 37.2                     | 24                  | 3              | 9              | 36           | 37.8                     |
| 35 / 39                      | 36                  | 14             | 29             | 79           | 33.1                     | 30                  | 7              | 15             | 52           | 32.9                     | 14                  | 2              | 4              | 20           | 33.5                     |
| 30 / 34                      | 33                  | 6              | 14             | 53           | 28.5                     | 19                  | 3              | 6              | 28           | 28.4                     | 5                   | 0              | 1              | 6            | 28.7                     |
| 25 / 29                      | 15                  | 2              | 5              | 22           | 23.9                     | 10                  | 1              | 2              | 13           | 24.4                     | 2                   | 0              | 1              | 3            | 24.0                     |
| 20 / 24                      | 5                   | 1              | 1              | 7            | 19.4                     | 2                   | 0              | 0              | 2            | 19.9                     | 1                   | 0              | 0              | 1            | 19.3                     |
| 15 / 19                      | 1                   | 0              | 0              | 1            | 15.1                     | 0                   |                | 0              | 0            | 14.2                     | 0                   |                |                | 0            | 17.0                     |
| 10 / 14                      | 1                   | 0              | 0              | 1            | 9.8                      | 0                   |                | 0              | 0            | 11.5                     |                     |                |                |              |                          |
| 5 / 9                        | 0                   | 0              |                | 0            | 5.0                      |                     |                | 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.

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

Period of Record = 1973 to 1996

| Temperature<br>Range<br>(°F) | April               |                |                |              |                          | May                 |                |                |              |                          | June                |                |                |              |                          |
|------------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|
|                              | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) |
|                              | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          |
| 100 / 104                    |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 95 / 99                      |                     | 0              |                | 0            | 67.0                     |                     | 1              |                | 1            | 72.8                     |                     | 0              | 8              | 0            | 77.7                     |
| 90 / 94                      |                     | 1              | 0              | 1            | 67.7                     |                     | 10             | 0              | 10           | 72.8                     |                     | 0              | 57             | 4            | 76.9                     |
| 85 / 89                      |                     | 9              | 1              | 10           | 67.8                     | 0                   | 59             | 5              | 64           | 71.4                     | 4                   | 93             | 22             | 119          | 75.1                     |
| 80 / 84                      | 0                   | 46             | 4              | 50           | 66.5                     | 6                   | 90             | 23             | 119          | 69.7                     | 24                  | 51             | 55             | 130          | 74.2                     |
| 75 / 79                      | 3                   | 69             | 18             | 90           | 65.2                     | 26                  | 55             | 63             | 145          | 68.8                     | 71                  | 21             | 92             | 184          | 73.3                     |
| 70 / 74                      | 23                  | 53             | 52             | 128          | 63.7                     | 65                  | 23             | 84             | 172          | 67.1                     | 102                 | 10             | 57             | 169          | 72.2                     |
| 65 / 69                      | 45                  | 34             | 66             | 145          | 61.1                     | 81                  | 8              | 54             | 143          | 63.3                     | 33                  | 1              | 9              | 43           | 69.2                     |
| 60 / 64                      | 54                  | 17             | 52             | 123          | 57.0                     | 43                  | 1              | 16             | 60           | 57.9                     | 5                   | 0              | 1              | 6            | 63.9                     |
| 55 / 59                      | 51                  | 7              | 28             | 86           | 52.1                     | 21                  | 0              | 3              | 24           | 52.9                     | 1                   | 0              | 0              | 1            | 57.8                     |
| 50 / 54                      | 33                  | 2              | 13             | 48           | 47.3                     | 5                   |                | 0              | 5            | 48.4                     | 0                   |                |                | 0            | 53.4                     |
| 45 / 49                      | 21                  | 1              | 5              | 27           | 42.9                     | 0                   |                | 0              | 0            | 45.0                     |                     |                |                |              | 49.7                     |
| 40 / 44                      | 8                   | 0              | 1              | 9            | 38.6                     |                     |                |                |              |                          |                     |                |                |              |                          |
| 35 / 39                      | 2                   | 0              | 0              | 2            | 33.9                     |                     |                |                |              |                          |                     |                |                |              |                          |
| 30 / 34                      | 0                   |                |                | 0            | 32.0                     |                     |                |                |              |                          |                     |                |                |              |                          |
| 25 / 29                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 20 / 24                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 15 / 19                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 10 / 14                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 5 / 9                        |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |

**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 3 of 5)**

Period of Record = 1973 to 1996

| Temperature<br>Range<br>(°F) | July                |                |                |              |                          | August              |                |                |              |                          | September           |                |                |              |                          |
|------------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|
|                              | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) |
|                              | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          |
| 100 / 104                    |                     | 0              |                | 0            | 79.0                     |                     | 0              |                | 0            | 78.5                     |                     |                |                |              |                          |
| 95 / 99                      |                     | 16             | 1              | 17           | 78.5                     |                     | 11             | 0              | 11           | 78.6                     |                     | 3              |                | 3            | 76.3                     |
| 90 / 94                      | 0                   | 79             | 7              | 86           | 77.4                     |                     | 70             | 4              | 74           | 77.3                     |                     | 33             | 1              | 34           | 75.7                     |
| 85 / 89                      | 8                   | 81             | 25             | 114          | 76.7                     | 4                   | 89             | 23             | 116          | 76.4                     | 0                   | 79             | 9              | 88           | 74.8                     |
| 80 / 84                      | 32                  | 39             | 64             | 135          | 75.5                     | 24                  | 47             | 59             | 130          | 75.3                     | 8                   | 64             | 37             | 109          | 73.2                     |
| 75 / 79                      | 109                 | 25             | 108            | 242          | 73.5                     | 98                  | 24             | 115            | 237          | 73.4                     | 49                  | 37             | 94             | 180          | 71.9                     |
| 70 / 74                      | 95                  | 9              | 42             | 146          | 70.7                     | 113                 | 6              | 46             | 165          | 70.6                     | 117                 | 16             | 68             | 201          | 69.1                     |
| 65 / 69                      | 4                   |                | 1              | 5            | 66.1                     | 9                   | 1              | 1              | 11           | 64.6                     | 38                  | 5              | 18             | 61           | 62.8                     |
| 60 / 64                      | 0                   |                |                | 0            | 61.0                     | 1                   |                |                | 1            | 60.4                     | 17                  | 2              | 9              | 28           | 58.2                     |
| 55 / 59                      |                     |                |                |              |                          |                     |                |                |              |                          | 7                   | 0              | 3              | 10           | 53.2                     |
| 50 / 54                      |                     |                |                |              |                          |                     |                |                |              |                          | 4                   |                | 1              | 5            | 48.8                     |
| 45 / 49                      |                     |                |                |              |                          |                     |                |                |              |                          | 0                   |                |                | 0            | 45.9                     |
| 40 / 44                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 35 / 39                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 30 / 34                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 25 / 29                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 20 / 24                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 15 / 19                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 10 / 14                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 5 / 9                        |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |

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WHITING FIELD NAS FL

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

Period of Record = 1973 to 1996

| Temperature<br>Range<br>(°F) | October             |                |                |              |                          | November            |                |                |              |                          | December            |                |                |              |                          |
|------------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|---------------------|----------------|----------------|--------------|--------------------------|
|                              | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) |
|                              | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          |
| 100 / 104                    |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 95 / 99                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 90 / 94                      |                     | 2              |                | 2            | 74.2                     |                     |                |                |              |                          |                     |                |                |              |                          |
| 85 / 89                      |                     | 24             | 1              | 25           | 71.0                     |                     | 0              |                | 0            | 70.0                     |                     |                |                |              |                          |
| 80 / 84                      | 1                   | 54             | 6              | 61           | 69.0                     |                     | 12             | 0              | 12           | 68.9                     |                     |                |                |              |                          |
| 75 / 79                      | 6                   | 66             | 28             | 100          | 67.0                     | 1                   | 40             | 4              | 45           | 67.2                     | 0                   | 12             | 0              | 12           | 68.5                     |
| 70 / 74                      | 38                  | 53             | 63             | 153          | 64.9                     | 15                  | 52             | 28             | 95           | 65.2                     | 7                   | 30             | 11             | 48           | 66.4                     |
| 65 / 69                      | 49                  | 29             | 55             | 134          | 61.1                     | 29                  | 42             | 41             | 112          | 61.5                     | 15                  | 37             | 25             | 77           | 61.9                     |
| 60 / 64                      | 52                  | 14             | 44             | 111          | 56.8                     | 35                  | 36             | 41             | 112          | 56.4                     | 25                  | 42             | 31             | 98           | 56.7                     |
| 55 / 59                      | 39                  | 5              | 29             | 73           | 51.9                     | 34                  | 28             | 39             | 101          | 51.3                     | 26                  | 39             | 33             | 98           | 51.5                     |
| 50 / 54                      | 34                  | 1              | 16             | 51           | 47.2                     | 36                  | 18             | 37             | 91           | 46.6                     | 29                  | 33             | 42             | 104          | 46.7                     |
| 45 / 49                      | 21                  | 1              | 4              | 26           | 43.0                     | 35                  | 7              | 27             | 69           | 42.3                     | 34                  | 24             | 39             | 97           | 42.2                     |
| 40 / 44                      | 6                   | 0              | 1              | 7            | 39.1                     | 25                  | 3              | 16             | 44           | 37.7                     | 34                  | 17             | 33             | 84           | 37.5                     |
| 35 / 39                      | 1                   | 0              | 0              | 1            | 34.1                     | 22                  | 1              | 5              | 28           | 33.8                     | 37                  | 8              | 20             | 65           | 33.3                     |
| 30 / 34                      | 0                   |                | 0              | 0            | 30.3                     | 6                   | 0              | 1              | 7            | 30.0                     | 22                  | 3              | 10             | 35           | 28.6                     |
| 25 / 29                      |                     |                |                |              |                          | 1                   |                | 0              | 1            | 24.9                     | 13                  | 1              | 3              | 17           | 24.3                     |
| 20 / 24                      |                     |                |                |              |                          |                     |                |                |              |                          | 3                   | 1              | 1              | 5            | 18.9                     |
| 15 / 19                      |                     |                |                |              |                          |                     |                |                |              |                          | 1                   | 0              | 1              | 2            | 14.5                     |
| 10 / 14                      |                     |                |                |              |                          |                     |                |                |              |                          | 1                   | 0              | 0              | 1            | 9.3                      |
| 5 / 9                        |                     |                |                |              |                          |                     |                |                |              |                          | 0                   | 0              | 0              | 0            | 7.0                      |

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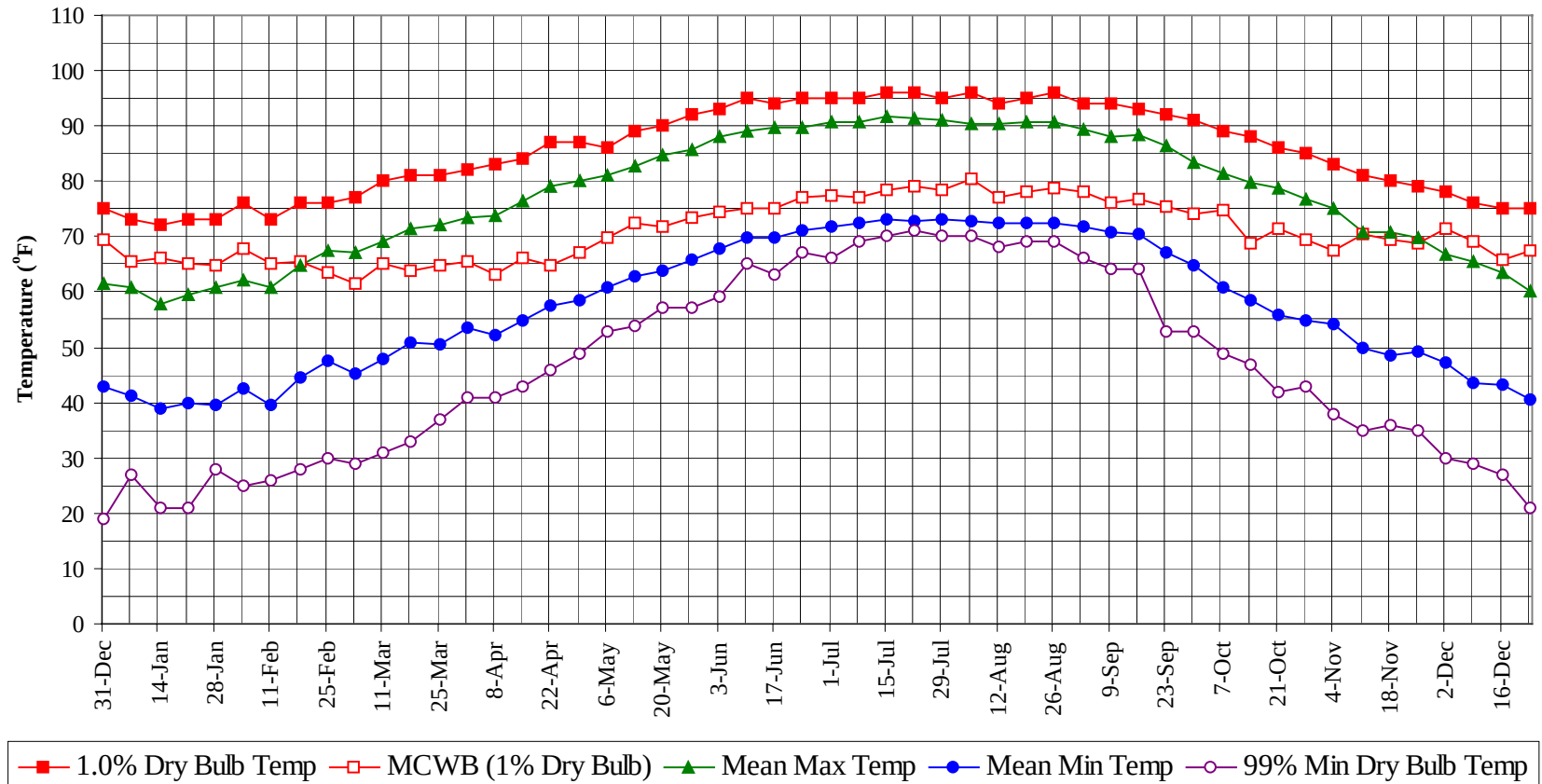
**Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)**

Period of Record = 1973 to 1996

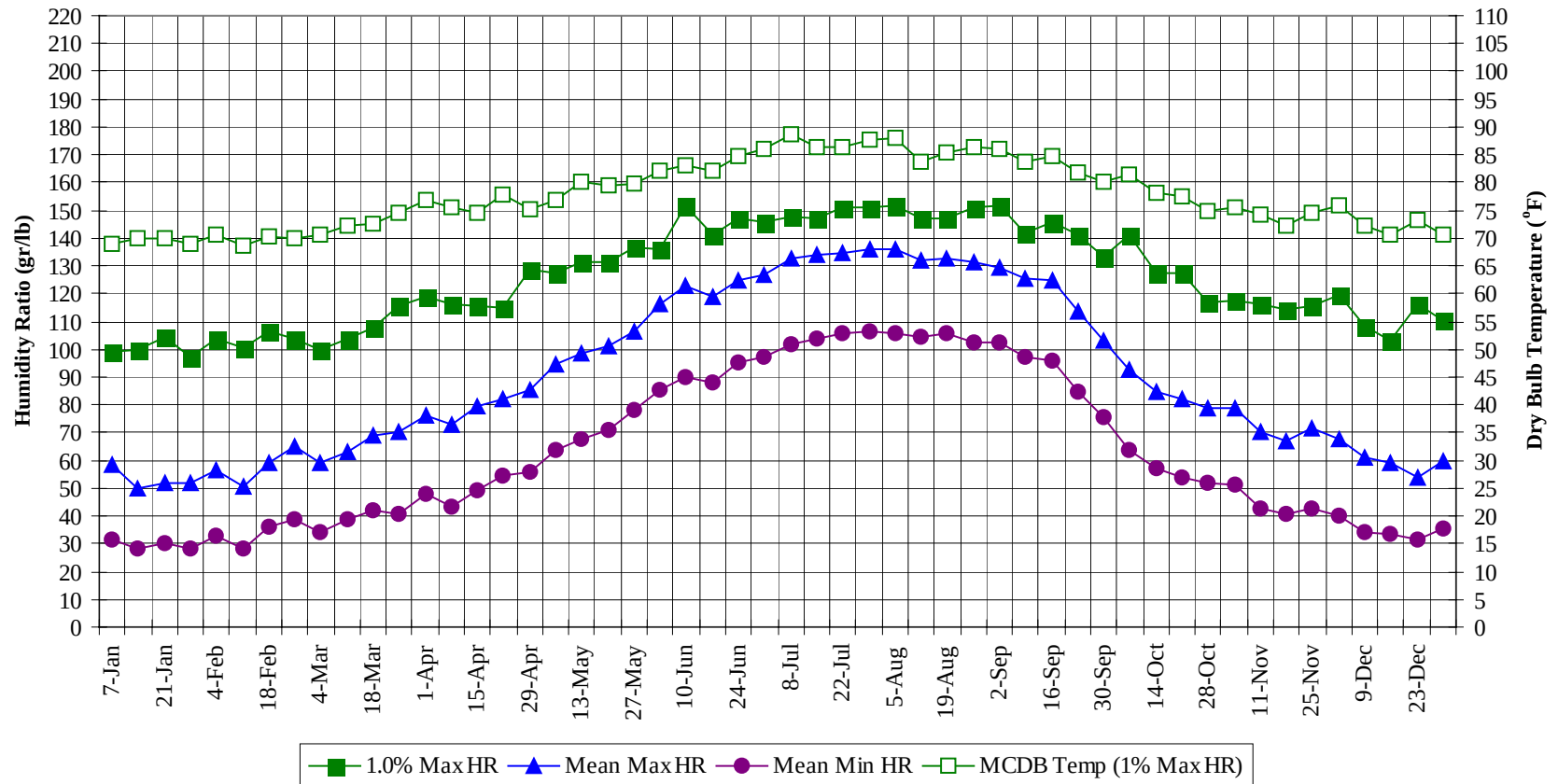
| Annual Totals                |                     |                |                |              |                          |
|------------------------------|---------------------|----------------|----------------|--------------|--------------------------|
| Temperature<br>Range<br>(°F) | Hour<br>Group (LST) |                |                | Total<br>Obs | M<br>C<br>W<br>B<br>(°F) |
|                              | 01<br>To<br>08      | 09<br>To<br>16 | 17<br>To<br>00 |              |                          |
| 100 / 104                    |                     | 1              |                | 1            | 78.4                     |
| 95 / 99                      | 0                   | 37             | 1              | 38           | 77.9                     |
| 90 / 94                      | 0                   | 251            | 17             | 268          | 76.4                     |
| 85 / 89                      | 15                  | 433            | 85             | 533          | 74.7                     |
| 80 / 84                      | 94                  | 415            | 247            | 756          | 72.4                     |
| 75 / 79                      | 360                 | 404            | 525            | 1289         | 70.8                     |
| 70 / 74                      | 587                 | 362            | 486            | 1436         | 67.2                     |
| 65 / 69                      | 357                 | 282            | 361            | 1000         | 61.7                     |
| 60 / 64                      | 317                 | 226            | 320            | 863          | 56.8                     |
| 55 / 59                      | 271                 | 175            | 253            | 699          | 51.7                     |
| 50 / 54                      | 251                 | 133            | 222            | 606          | 47.0                     |
| 45 / 49                      | 219                 | 91             | 165            | 475          | 42.2                     |
| 40 / 44                      | 163                 | 58             | 117            | 338          | 37.6                     |
| 35 / 39                      | 141                 | 31             | 74             | 246          | 33.2                     |
| 30 / 34                      | 86                  | 13             | 33             | 132          | 28.6                     |
| 25 / 29                      | 41                  | 4              | 11             | 56           | 24.2                     |
| 20 / 24                      | 11                  | 2              | 2              | 15           | 19.3                     |
| 15 / 19                      | 2                   | 1              | 1              | 4            | 14.8                     |
| 10 / 14                      | 2                   | 0              | 0              | 2            | 9.7                      |
| 5 / 9                        | 1                   | 0              | 0              | 1            | 5.5                      |

**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.

## Annual Summary of Temperatures



## Long Term Humidity and Dry Bulb Temperature Summary

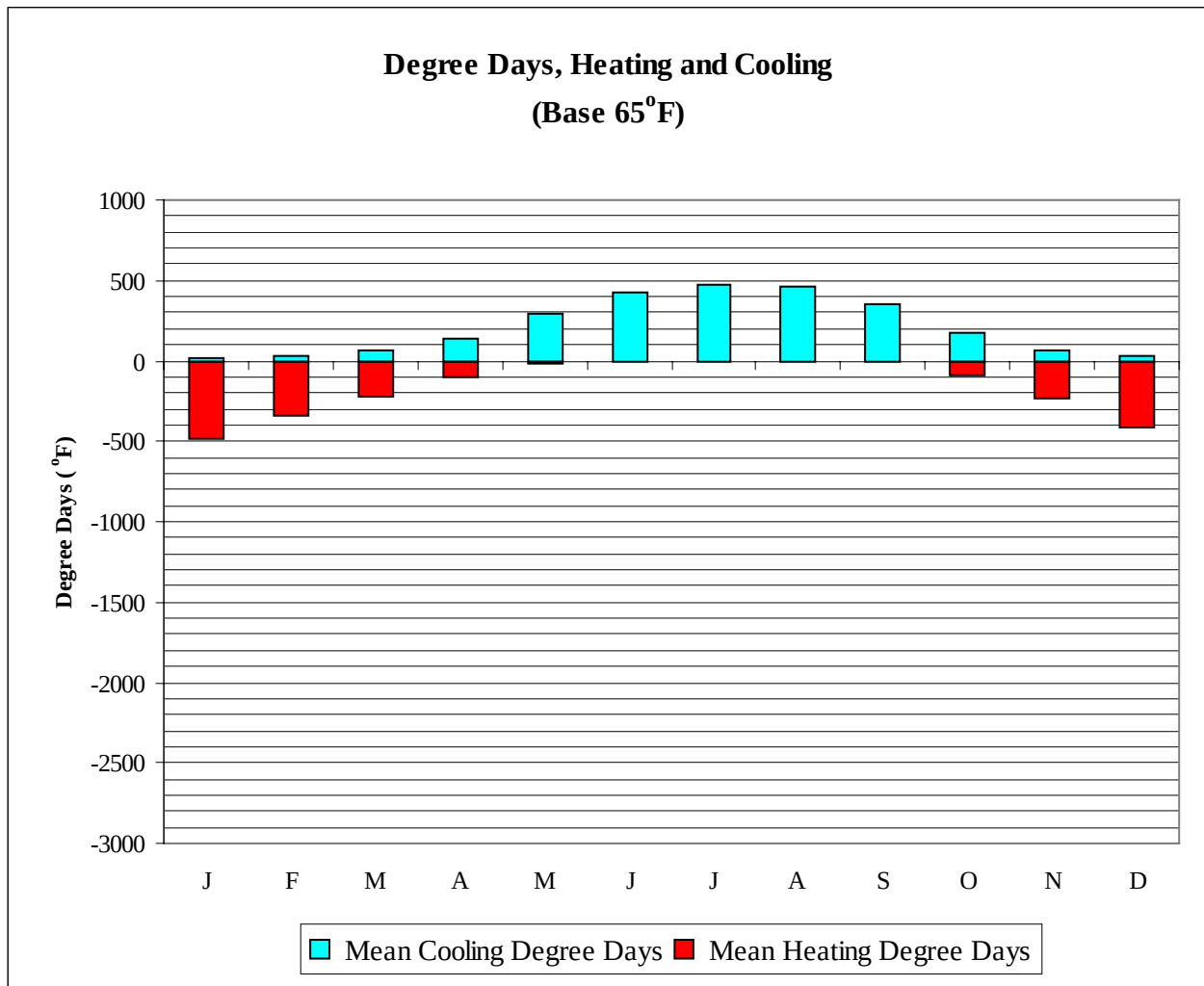


**WHITING FIELD NAS FL**

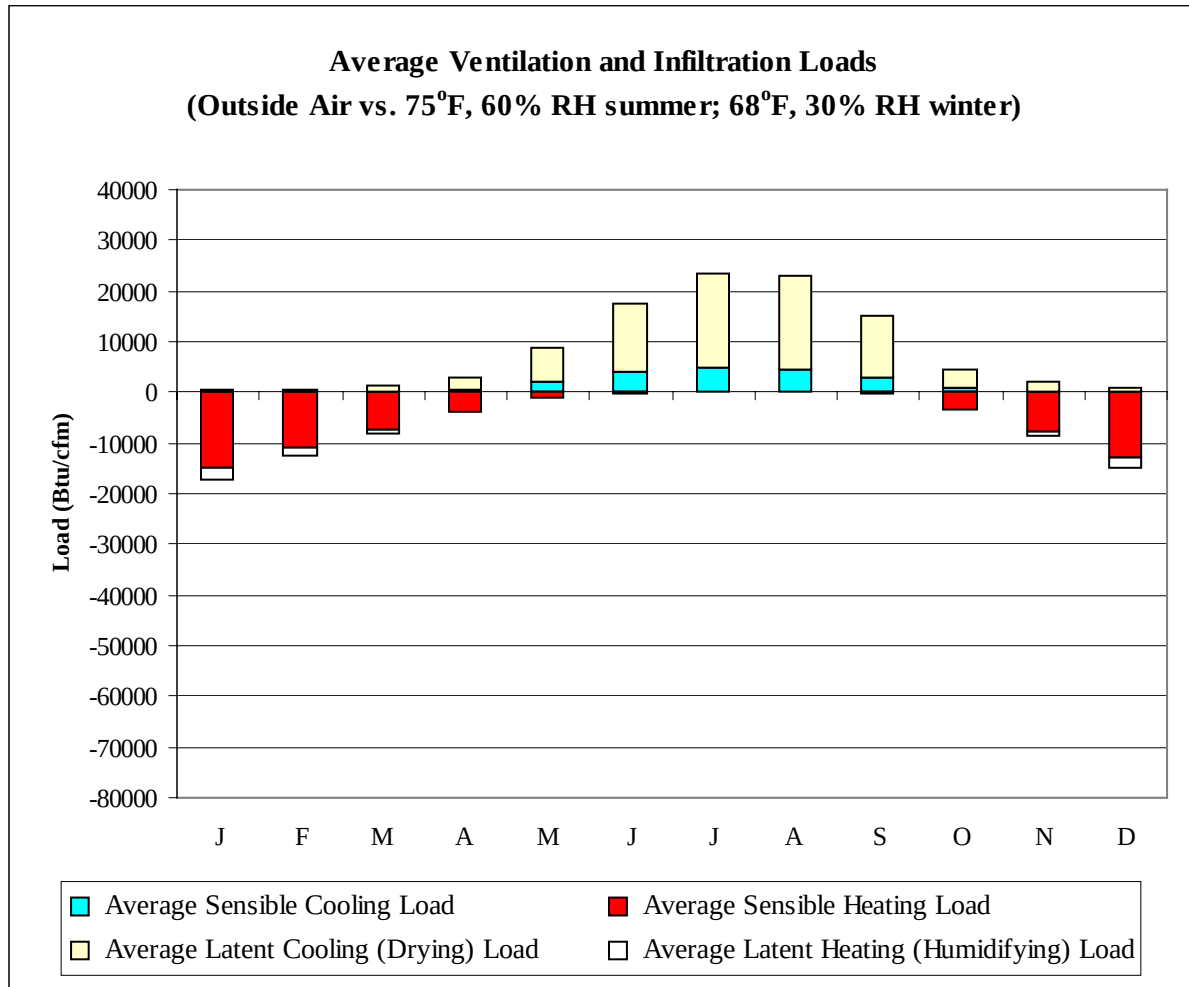
WMO No. 722226

**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       | 73.0           | 65.5                | 60.9               | 41.3               | 27.0          | 99.4            | 68.8              | 58.2                | 31.5                |
| 14-Jan      | 72.0           | 66.1                | 57.8               | 38.9               | 21.0          | 100.1           | 69.9              | 50.1                | 28.1                |
| 21-Jan      | 73.0           | 65.1                | 59.7               | 40.0               | 21.0          | 104.3           | 70.1              | 51.9                | 30.1                |
| 28-Jan      | 73.0           | 64.7                | 60.8               | 39.6               | 28.0          | 97.3            | 68.9              | 51.9                | 28.2                |
| 4-Feb       | 76.0           | 67.9                | 62.1               | 42.5               | 25.0          | 103.6           | 70.5              | 56.6                | 33.1                |
| 11-Feb      | 73.0           | 65.3                | 60.9               | 39.6               | 26.0          | 100.8           | 68.6              | 50.7                | 28.5                |
| 18-Feb      | 76.0           | 65.6                | 64.9               | 44.6               | 28.0          | 106.4           | 70.3              | 59.1                | 35.9                |
| 25-Feb      | 76.0           | 63.4                | 67.6               | 47.6               | 30.0          | 103.6           | 69.9              | 65.2                | 38.5                |
| 4-Mar       | 77.0           | 61.5                | 67.0               | 45.3               | 29.0          | 100.1           | 70.7              | 59.1                | 34.0                |
| 11-Mar      | 80.0           | 65.3                | 69.2               | 48.0               | 31.0          | 103.6           | 72.4              | 63.3                | 38.5                |
| 18-Mar      | 81.0           | 63.8                | 71.3               | 50.7               | 33.0          | 107.8           | 72.7              | 69.0                | 42.1                |
| 25-Mar      | 81.0           | 64.7                | 72.2               | 50.4               | 37.0          | 115.5           | 74.4              | 70.1                | 40.9                |
| 1-Apr       | 82.0           | 65.5                | 73.3               | 53.4               | 41.0          | 119.0           | 76.7              | 76.0                | 47.8                |
| 8-Apr       | 83.0           | 63.1                | 73.9               | 52.3               | 41.0          | 116.2           | 75.5              | 72.6                | 43.1                |
| 15-Apr      | 84.0           | 66.2                | 76.4               | 54.9               | 43.0          | 115.5           | 74.7              | 79.2                | 49.2                |
| 22-Apr      | 87.0           | 64.8                | 79.0               | 57.4               | 46.0          | 114.8           | 77.8              | 82.0                | 54.7                |
| 29-Apr      | 87.0           | 67.1                | 80.0               | 58.3               | 49.0          | 128.8           | 75.3              | 85.6                | 55.9                |
| 6-May       | 86.0           | 69.7                | 81.2               | 60.9               | 53.0          | 127.4           | 77.0              | 94.7                | 63.6                |
| 13-May      | 89.0           | 72.3                | 82.8               | 62.7               | 54.0          | 131.6           | 80.1              | 98.3                | 67.6                |
| 20-May      | 90.0           | 71.7                | 84.8               | 64.0               | 57.0          | 131.6           | 79.4              | 101.3               | 70.7                |
| 27-May      | 92.0           | 73.6                | 85.9               | 65.8               | 57.0          | 136.5           | 79.9              | 106.2               | 78.1                |
| 3-Jun       | 93.0           | 74.4                | 87.9               | 67.9               | 59.0          | 135.8           | 82.1              | 116.1               | 85.5                |
| 10-Jun      | 95.0           | 75.3                | 89.2               | 69.9               | 65.0          | 151.9           | 83.1              | 122.7               | 89.7                |
| 17-Jun      | 94.0           | 75.1                | 89.6               | 69.8               | 63.0          | 141.4           | 82.2              | 118.6               | 88.2                |
| 24-Jun      | 95.0           | 77.1                | 89.8               | 71.3               | 67.0          | 147.0           | 84.8              | 124.9               | 95.2                |
| 1-Jul       | 95.0           | 77.4                | 90.8               | 71.7               | 66.0          | 145.6           | 86.2              | 126.8               | 97.0                |
| 8-Jul       | 95.0           | 77.2                | 90.6               | 72.5               | 69.0          | 147.7           | 88.5              | 132.5               | 101.9               |
| 15-Jul      | 96.0           | 78.4                | 91.8               | 73.0               | 70.0          | 147.0           | 86.3              | 133.9               | 103.5               |
| 22-Jul      | 96.0           | 79.0                | 91.4               | 72.9               | 71.0          | 151.2           | 86.2              | 134.9               | 105.6               |
| 29-Jul      | 95.0           | 78.3                | 90.9               | 73.1               | 70.0          | 151.2           | 87.8              | 135.9               | 106.7               |
| 5-Aug       | 96.0           | 80.3                | 90.4               | 72.7               | 70.0          | 151.9           | 88.1              | 135.8               | 105.8               |
| 12-Aug      | 94.0           | 77.2                | 90.3               | 72.4               | 68.0          | 147.0           | 83.7              | 132.3               | 104.2               |
| 19-Aug      | 95.0           | 78.1                | 90.8               | 72.6               | 69.0          | 147.0           | 85.5              | 132.8               | 105.4               |
| 26-Aug      | 96.0           | 78.8                | 90.7               | 72.5               | 69.0          | 151.2           | 86.4              | 131.1               | 102.3               |
| 2-Sep       | 94.0           | 78.2                | 89.5               | 71.9               | 66.0          | 151.9           | 85.9              | 129.1               | 102.4               |
| 9-Sep       | 94.0           | 76.2                | 88.0               | 70.7               | 64.0          | 142.1           | 83.8              | 125.5               | 97.4                |
| 16-Sep      | 93.0           | 76.6                | 88.5               | 70.4               | 64.0          | 145.6           | 84.7              | 124.9               | 95.7                |
| 23-Sep      | 92.0           | 75.6                | 86.4               | 67.2               | 53.0          | 141.4           | 81.7              | 113.7               | 84.5                |
| 30-Sep      | 91.0           | 74.1                | 83.5               | 64.8               | 53.0          | 133.0           | 80.2              | 103.3               | 75.8                |
| 7-Oct       | 89.0           | 74.6                | 81.3               | 60.9               | 49.0          | 141.4           | 81.4              | 92.5                | 63.8                |
| 14-Oct      | 88.0           | 68.8                | 79.9               | 58.4               | 47.0          | 127.4           | 78.3              | 85.0                | 57.1                |
| 21-Oct      | 86.0           | 71.4                | 78.6               | 56.0               | 42.0          | 127.4           | 77.5              | 82.3                | 53.8                |
| 28-Oct      | 85.0           | 69.4                | 76.8               | 55.0               | 43.0          | 116.9           | 74.9              | 78.9                | 51.9                |
| 4-Nov       | 83.0           | 67.5                | 75.1               | 54.3               | 38.0          | 117.6           | 75.7              | 78.6                | 51.0                |
| 11-Nov      | 81.0           | 70.6                | 70.9               | 49.8               | 35.0          | 116.2           | 74.2              | 70.4                | 42.6                |
| 18-Nov      | 80.0           | 69.6                | 70.6               | 48.5               | 36.0          | 114.1           | 72.1              | 66.8                | 40.9                |
| 25-Nov      | 79.0           | 68.6                | 69.8               | 49.2               | 35.0          | 115.5           | 74.7              | 71.6                | 42.6                |
| 2-Dec       | 78.0           | 71.4                | 66.8               | 47.1               | 30.0          | 119.7           | 76.0              | 67.4                | 40.4                |
| 9-Dec       | 76.0           | 69.2                | 65.6               | 43.7               | 29.0          | 108.5           | 72.4              | 60.9                | 33.9                |
| 16-Dec      | 75.0           | 65.7                | 63.5               | 43.3               | 27.0          | 102.9           | 70.6              | 58.8                | 33.4                |
| 23-Dec      | 75.0           | 67.5                | 60.2               | 40.6               | 21.0          | 116.2           | 73.1              | 54.1                | 31.4                |
| 31-Dec      | 75.0           | 69.4                | 61.5               | 42.9               | 19.0          | 110.6           | 70.7              | 59.8                | 35.3                |



|     | Mean Cooling<br>Degree Days (°F) | Mean Heating<br>Degree Days (°F) |
|-----|----------------------------------|----------------------------------|
| JAN | 12                               | 488                              |
| FEB | 24                               | 347                              |
| MAR | 67                               | 220                              |
| APR | 137                              | 98                               |
| MAY | 288                              | 17                               |
| JUN | 425                              | 1                                |
| JUL | 473                              | 0                                |
| AUG | 464                              | 0                                |
| SEP | 355                              | 9                                |
| OCT | 169                              | 92                               |
| NOV | 66                               | 233                              |
| DEC | 25                               | 419                              |
| ANN | 2506                             | 1924                             |



|     | 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 | 3                             | -14865                        | 451                         | -2286                       |
| FEB | 19                            | -10851                        | 599                         | -1581                       |
| MAR | 177                           | -7394                         | 1154                        | -771                        |
| APR | 659                           | -3665                         | 2222                        | -188                        |
| MAY | 2143                          | -889                          | 6592                        | -3                          |
| JUN | 4113                          | -76                           | 13363                       | 0                           |
| JUL | 4772                          | -1                            | 18665                       | 0                           |
| AUG | 4493                          | -13                           | 18452                       | 0                           |
| SEP | 2955                          | -423                          | 12235                       | 0                           |
| OCT | 946                           | -3431                         | 3470                        | -87                         |
| NOV | 158                           | -7670                         | 1803                        | -735                        |
| DEC | 15                            | -12928                        | 1023                        | -1813                       |
| ANN | 20453                         | -62206                        | 80029                       | -7464                       |

## Average Annual Solar Radiation – Nearest Available Site

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

City: MOBILE  
 State: AL  
 WBAN No: 13894  
 Lat(N): 30.68  
 Long(W): 88.25  
 Elev(ft): 220

Stn Type: Secondary  
 SHADING GEOMETRY IN DIMENSIONLESS UNITS  
 Window: 1  
 Overhang: 0.904  
 Vert Gap: 0.652

| 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  | 850  | 1120 | 1400 | 1720 | 1860 | 1880 | 1770 | 1660 | 1500 | 1330 | 980  | 800  | 1410 |
|                                                                               | Std Dev | 70   | 93   | 106  | 134  | 120  | 140  | 121  | 131  | 106  | 116  | 89   | 68   | 38   |
|                                                                               | Minimum | 700  | 910  | 1170 | 1480 | 1570 | 1600 | 1520 | 1410 | 1300 | 1110 | 720  | 690  | 1330 |
|                                                                               | Maximum | 1020 | 1280 | 1630 | 2080 | 2200 | 2160 | 2060 | 1970 | 1750 | 1580 | 1170 | 940  | 1490 |
|                                                                               | Diffuse | 410  | 480  | 610  | 710  | 830  | 890  | 910  | 830  | 700  | 500  | 410  | 370  | 640  |
| Clear Day                                                                     | Global  | 1270 | 1590 | 1980 | 2320 | 2500 | 2550 | 2490 | 2320 | 2010 | 1640 | 1300 | 1160 | 1930 |
| NORTH                                                                         | Global  | 260  | 310  | 380  | 450  | 560  | 620  | 570  | 490  | 410  | 340  | 270  | 240  | 410  |
|                                                                               | Diffuse | 260  | 310  | 380  | 440  | 500  | 530  | 510  | 470  | 410  | 340  | 270  | 240  | 390  |
| Clear Day                                                                     | Global  | 240  | 290  | 350  | 440  | 580  | 690  | 640  | 490  | 400  | 320  | 260  | 220  | 410  |
| EAST                                                                          | Global  | 520  | 660  | 790  | 940  | 1000 | 1030 | 990  | 970  | 870  | 790  | 600  | 500  | 810  |
|                                                                               | Diffuse | 300  | 370  | 460  | 540  | 600  | 630  | 630  | 590  | 510  | 420  | 330  | 280  | 470  |
| Clear Day                                                                     | Global  | 860  | 1020 | 1200 | 1310 | 1340 | 1340 | 1320 | 1260 | 1150 | 1000 | 840  | 780  | 1120 |
| SOUTH                                                                         | Global  | 1060 | 1130 | 1020 | 850  | 670  | 590  | 610  | 730  | 940  | 1230 | 1180 | 1070 | 920  |
|                                                                               | Diffuse | 390  | 450  | 500  | 520  | 530  | 520  | 530  | 540  | 540  | 490  | 430  | 380  | 490  |
| Clear Day                                                                     | Global  | 1990 | 1900 | 1570 | 1100 | 760  | 630  | 690  | 940  | 1340 | 1700 | 1880 | 1950 | 1370 |
| WEST                                                                          | Global  | 540  | 690  | 830  | 970  | 1000 | 960  | 880  | 850  | 820  | 800  | 610  | 510  | 790  |
|                                                                               | Diffuse | 310  | 380  | 470  | 540  | 610  | 620  | 610  | 570  | 510  | 420  | 340  | 290  | 470  |
| Clear Day                                                                     | Global  | 860  | 1020 | 1200 | 1310 | 1340 | 1340 | 1320 | 1260 | 1150 | 1000 | 840  | 780  | 1120 |

## Average Annual Solar Heat and Illumination – Nearest Available Site

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

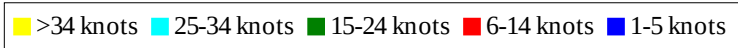
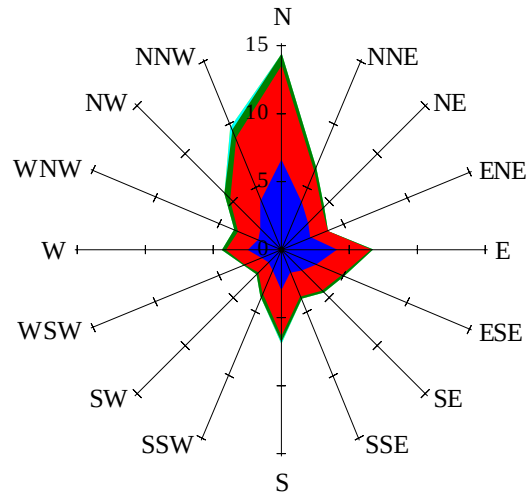
| AVERAGE TRANSMITTED SOLAR RADIATION (Btu/sq.ft./day) FOR DOUBLE GLAZING, Percentage Uncertainty = 9 |          | Jan | Feb | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct | Nov | Dec | Year |
|-----------------------------------------------------------------------------------------------------|----------|-----|-----|------|------|------|------|------|------|------|-----|-----|-----|------|
| HORIZ                                                                                               | Unshaded | 590 | 780 | 1010 | 1250 | 1360 | 1370 | 1280 | 1200 | 1080 | 950 | 680 | 540 | 1010 |
| NORTH                                                                                               | Unshaded | 180 | 210 | 260  | 310  | 360  | 400  | 370  | 330  | 280  | 230 | 190 | 160 | 270  |
|                                                                                                     | Shaded   | 150 | 190 | 230  | 270  | 310  | 340  | 320  | 290  | 250  | 210 | 160 | 140 | 240  |
| EAST                                                                                                | Unshaded | 360 | 460 | 560  | 660  | 710  | 730  | 700  | 690  | 620  | 560 | 420 | 340 | 570  |
|                                                                                                     | Shaded   | 310 | 390 | 460  | 550  | 580  | 590  | 570  | 560  | 520  | 480 | 360 | 290 | 470  |
| SOUTH                                                                                               | Unshaded | 780 | 800 | 680  | 520  | 400  | 370  | 380  | 450  | 610  | 860 | 860 | 790 | 630  |
|                                                                                                     | Shaded   | 730 | 650 | 380  | 310  | 320  | 320  | 320  | 320  | 330  | 610 | 780 | 760 | 490  |
| WEST                                                                                                | Unshaded | 370 | 490 | 590  | 690  | 710  | 680  | 620  | 600  | 580  | 560 | 430 | 350 | 550  |
|                                                                                                     | Shaded   | 320 | 410 | 490  | 570  | 580  | 550  | 500  | 490  | 480  | 480 | 370 | 300 | 460  |

| 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  | 50    | 83   | 91  | 70  | 27  | 47   | 86   | 103 | 93  | 62  |
|                                                                                                                  | M.Cloudy | 26    | 50   | 57  | 43  | 16  | 32   | 62   | 74  | 67  | 42  |
| NORTH                                                                                                            | M.Clear  | 11    | 15   | 16  | 14  | 8   | 23   | 17   | 17  | 18  | 21  |
|                                                                                                                  | M.Cloudy | 11    | 17   | 18  | 15  | 7   | 17   | 19   | 18  | 19  | 17  |
| EAST                                                                                                             | M.Clear  | 80    | 55   | 16  | 14  | 8   | 72   | 69   | 27  | 18  | 16  |
|                                                                                                                  | M.Cloudy | 25    | 31   | 18  | 15  | 7   | 38   | 47   | 25  | 19  | 15  |
| SOUTH                                                                                                            | M.Clear  | 40    | 66   | 72  | 56  | 22  | 13   | 22   | 31  | 27  | 16  |
|                                                                                                                  | M.Cloudy | 17    | 35   | 41  | 30  | 11  | 12   | 21   | 27  | 24  | 15  |
| WEST                                                                                                             | M.Clear  | 11    | 15   | 28  | 71  | 65  | 13   | 17   | 17  | 56  | 75  |
|                                                                                                                  | M.Cloudy | 11    | 17   | 23  | 36  | 22  | 12   | 19   | 18  | 41  | 42  |
| M.Clear                                                                                                          | (% hrs)  | 35    | 35   | 33  | 36  | 39  | 42   | 36   | 24  | 26  | 32  |
|                                                                                                                  |          | Sept  |      |     |     |     | Dec  |      |     |     |     |
|                                                                                                                  |          | 9am   | 11am | 1pm | 3pm | 5pm | 9am  | 11am | 1pm | 3pm | 5pm |
| HORIZ.                                                                                                           | M.Clear  | 33    | 75   | 92  | 81  | 45  | 29   | 58   | 62  | 39  | 4   |
|                                                                                                                  | M.Cloudy | 21    | 49   | 62  | 55  | 30  | 15   | 31   | 35  | 22  | 3   |
| NORTH                                                                                                            | M.Clear  | 10    | 16   | 17  | 17  | 13  | 8    | 12   | 12  | 10  | 2   |
|                                                                                                                  | M.Cloudy | 9     | 17   | 19  | 18  | 12  | 7    | 12   | 14  | 9   | 2   |
| EAST                                                                                                             | M.Clear  | 65    | 68   | 25  | 17  | 13  | 58   | 41   | 12  | 10  | 2   |
|                                                                                                                  | M.Cloudy | 26    | 40   | 23  | 18  | 12  | 14   | 19   | 14  | 9   | 2   |
| SOUTH                                                                                                            | M.Clear  | 21    | 51   | 66  | 57  | 30  | 53   | 86   | 90  | 66  | 11  |
|                                                                                                                  | M.Cloudy | 12    | 31   | 41  | 36  | 18  | 14   | 29   | 35  | 22  | 3   |
| WEST                                                                                                             | M.Clear  | 10    | 16   | 17  | 58  | 70  | 8    | 12   | 29  | 58  | 17  |
|                                                                                                                  | M.Cloudy | 9     | 17   | 19  | 37  | 34  | 7    | 12   | 18  | 20  | 4   |
| M.Clear                                                                                                          | (% hrs)  | 47    | 43   | 33  | 32  | 35  | 37   | 36   | 34  | 34  | 40  |



### Wind Summary - December, January, and February

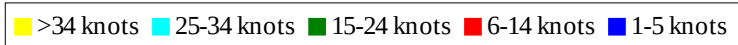
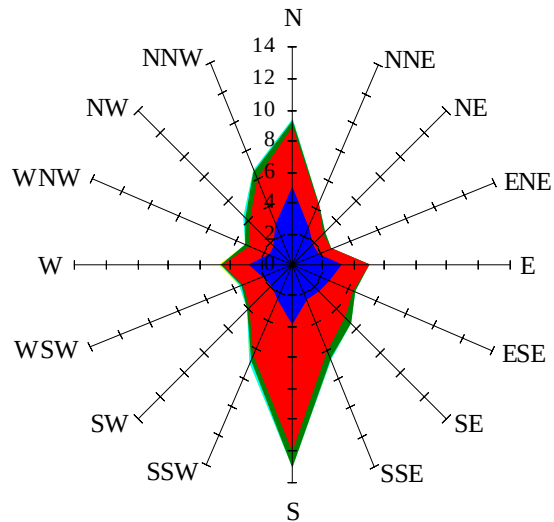
Labels of Percent Frequency on North Axis



Percent Calm = 13.03

### Wind Summary - March, April, and May

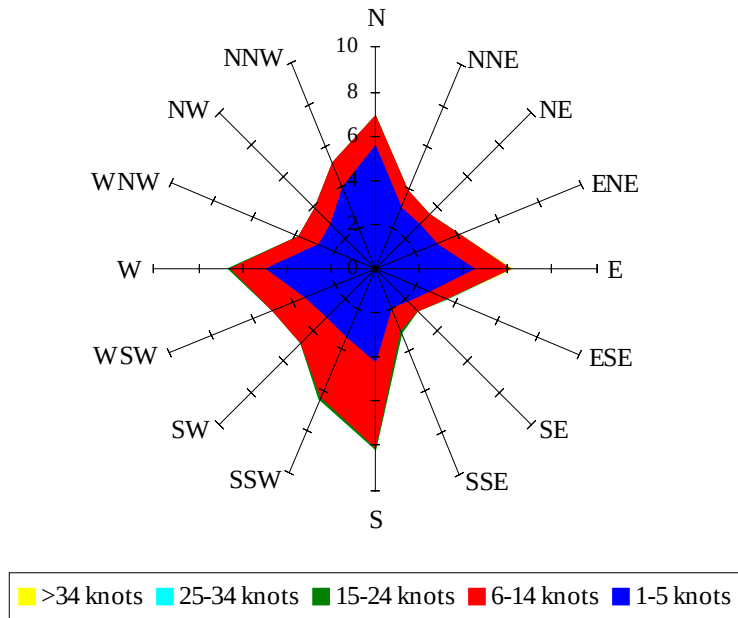
Labels of Percent Frequency on North Axis



Percent Calm = 13.81

### Wind Summary - June, July, and August

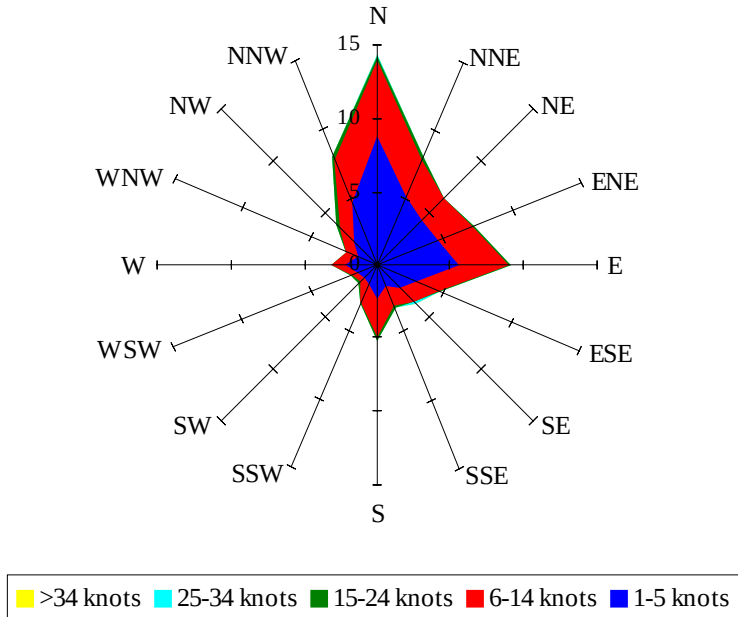
Labels of Percent Frequency on North Axis



Percent Calm = 22.83

### Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 15.46