

**CANNON AFB/CLOVIS NM**

Latitude = 34.38 N

WMO No. 722686

Longitude = 103.30 W

Elevation = 4295 feet

Period of Record = 1967 to 1996

Average Pressure = 25.65 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                          | 101                 | 65                               | 48                      | 11.4                   | S                           |
| 0.4% Occurrence                                  | 97                  | 64                               | 53                      | 12.0                   | S                           |
| 1.0% Occurrence                                  | 94                  | 64                               | 57                      | 11.4                   | S                           |
| 2.0% Occurrence                                  | 91                  | 65                               | 64                      | 11.1                   | S                           |
| Mean Daily Range                                 | 26                  | -                                | -                       | -                      | -                           |
| 97.5% Occurrence                                 | 23                  | 21                               | 14                      | 8.7                    | W                           |
| 99.0% Occurrence                                 | 17                  | 15                               | 10                      | 9.6                    | NNE                         |
| 99.6% Occurrence                                 | 12                  | 11                               | 8                       | 8.9                    | NNE                         |
| Median of Extreme Lows                           | 6                   | 5                                | 6                       | 9.2                    | NNE                         |
|                                                  | <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                          | 72                  | 87                               | 113                     | 10.1                   | S                           |
| 0.4% Occurrence                                  | 70                  | 85                               | 103                     | 9.8                    | S                           |
| 1.0% Occurrence                                  | 69                  | 84                               | 98                      | 9.7                    | S                           |
| 2.0% Occurrence                                  | 68                  | 84                               | 94                      | 9.6                    | 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                          | 125                 | 76                               | 0.72                    | 5.2                    | S                           |
| 0.4% Occurrence                                  | 112                 | 75                               | 0.65                    | 7.6                    | SSE                         |
| 1.0% Occurrence                                  | 106                 | 72                               | 0.61                    | 8.7                    | S                           |
| 2.0% Occurrence                                  | 101                 | 73                               | 0.58                    | 7.8                    | 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      |
|                                                  |                     | 123                              | 1051                    | 4                      | 371                         |

**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 |
|--------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 7                                                | 3.0                                          | 90                                                                 | 0.2 + 1.1                                                                               |
| Ground Water 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>(#)                                             |
| 59.6                                             | 18                                           | 10                                                                 | 76                                                                                      |

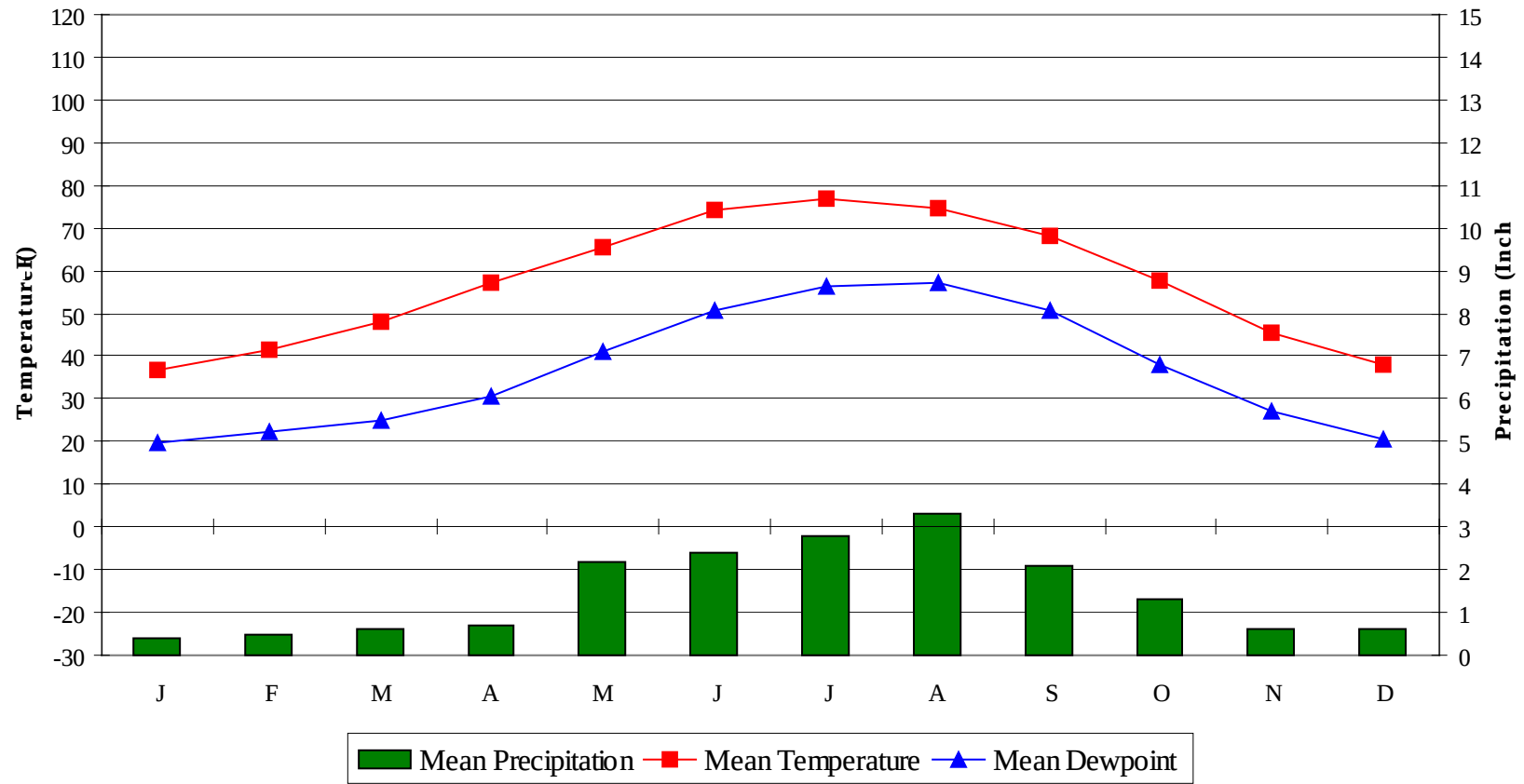
\*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

CANNON AFB/CLOVIS

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### Average Annual Climate

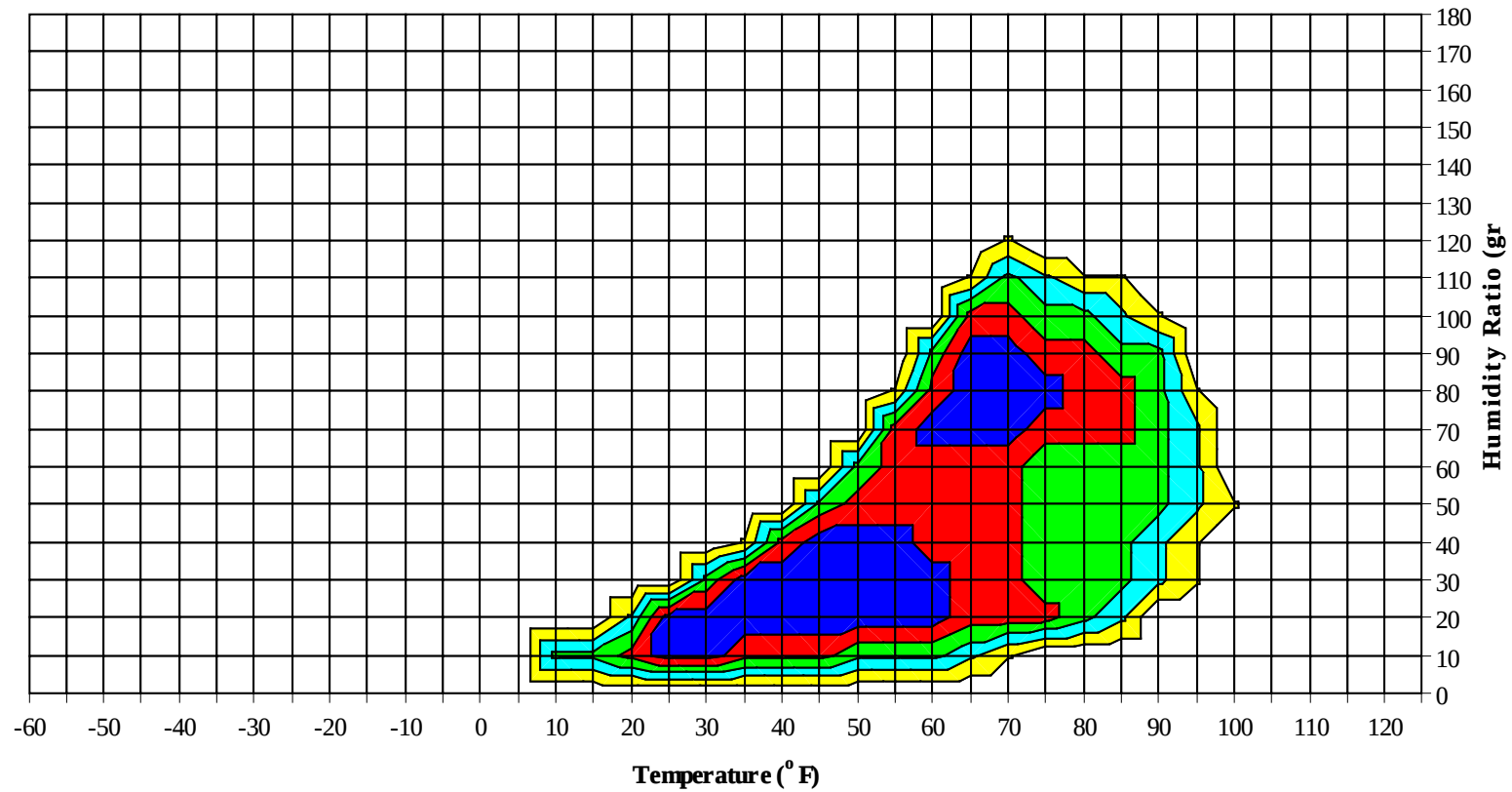


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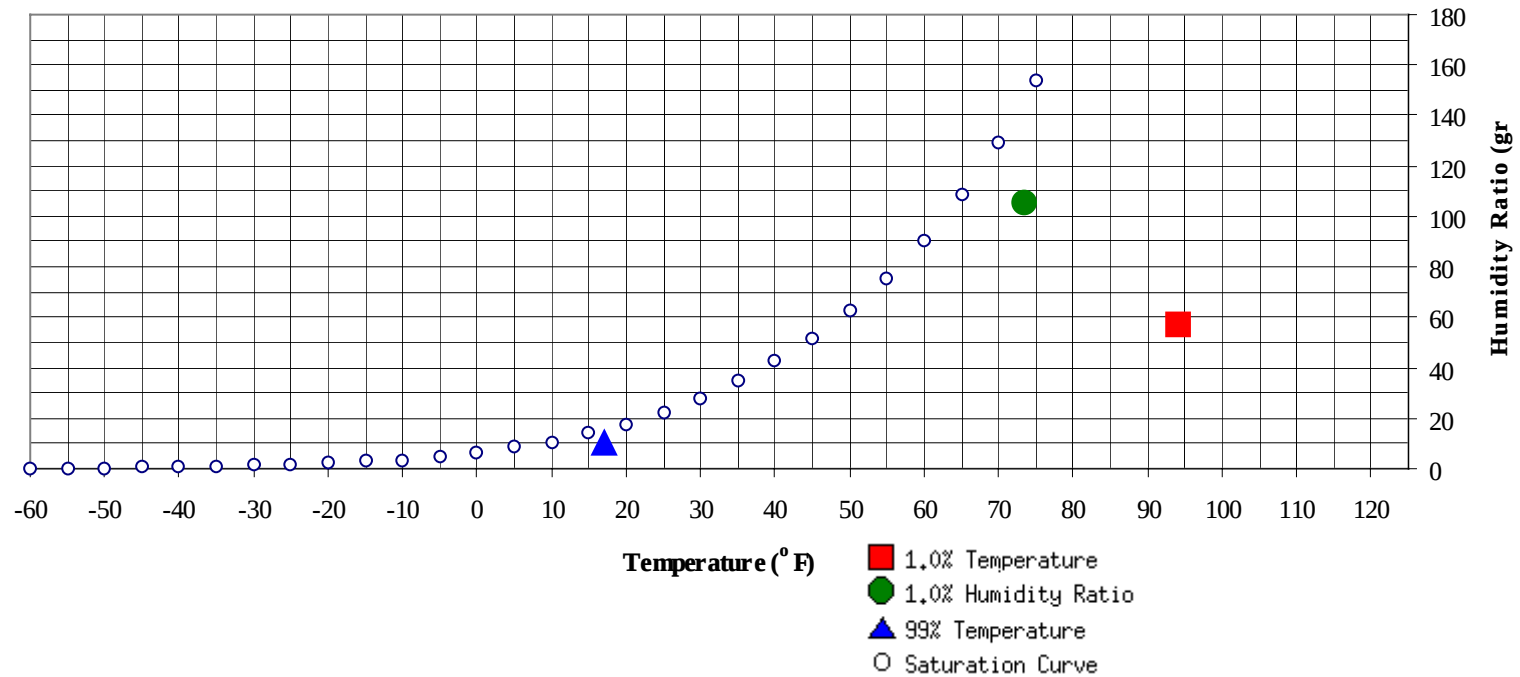
WMO No. 722686

### Long Term Psychrometric Summary



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

## Psychrometric Summary of Peak Design Values



| 99% Dry Bulb | (°F) | MCHR<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) |
|--------------|------|-----------------|----------------------|------------------------|---------|--------------|--------------|------------------|----------------------|
|              | 17   | 10.2            | 5.6                  |                        | 105.7   | 73.4         | 67           | 64.2             | 34.1                 |

| 1.0% Dry Bulb | (°F) | MCHR<br>(gr/lb) | MCWB<br>(°F) | Enthalpy<br>(btu/lb) |
|---------------|------|-----------------|--------------|----------------------|
|               | 94   | 56.8            | 64.2         | 31.5                 |

CANNON AFB/CLOVIS NM

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

Period of Record = 1967 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 |              |                          |
| 110 / 114                    |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 105 / 109                    |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 100 / 104                    |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 95 / 99                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 90 / 94                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 85 / 89                      |                     |                |                |              |                          |                     |                |                |              |                          |                     | 1              | 0              | 1            | 55.5                     |
| 80 / 84                      |                     |                |                |              |                          |                     |                |                |              |                          |                     | 4              | 1              | 5            | 53.0                     |
| 75 / 79                      |                     | 0              | 0              | 0            | 48.9                     |                     | 3              | 0              | 3            | 50.2                     |                     | 14             | 3              | 17           | 50.8                     |
| 70 / 74                      |                     | 2              | 0              | 2            | 47.4                     |                     | 10             | 1              | 11           | 48.5                     |                     | 27             | 7              | 34           | 48.9                     |
| 65 / 69                      |                     | 10             | 0              | 10           | 46.0                     |                     | 16             | 3              | 19           | 46.8                     | 0                   | 31             | 12             | 43           | 46.9                     |
| 60 / 64                      |                     | 20             | 3              | 23           | 43.8                     | 0                   | 28             | 7              | 35           | 44.5                     | 1                   | 36             | 20             | 57           | 44.9                     |
| 55 / 59                      | 0                   | 30             | 6              | 35           | 41.7                     | 1                   | 30             | 14             | 45           | 42.1                     | 8                   | 35             | 29             | 72           | 43.1                     |
| 50 / 54                      | 1                   | 34             | 14             | 49           | 39.4                     | 5                   | 35             | 23             | 63           | 39.9                     | 19                  | 32             | 41             | 93           | 40.8                     |
| 45 / 49                      | 6                   | 33             | 27             | 66           | 36.7                     | 14                  | 28             | 35             | 77           | 37.5                     | 39                  | 24             | 43             | 105          | 38.2                     |
| 40 / 44                      | 20                  | 31             | 42             | 94           | 34.2                     | 35                  | 25             | 41             | 100          | 35.0                     | 53                  | 18             | 39             | 110          | 35.5                     |
| 35 / 39                      | 46                  | 28             | 48             | 121          | 31.2                     | 48                  | 20             | 40             | 108          | 31.9                     | 54                  | 11             | 29             | 94           | 32.3                     |
| 30 / 34                      | 54                  | 25             | 43             | 122          | 27.8                     | 52                  | 15             | 31             | 98           | 28.3                     | 41                  | 7              | 14             | 62           | 28.2                     |
| 25 / 29                      | 54                  | 17             | 35             | 106          | 24.0                     | 38                  | 7              | 18             | 63           | 24.3                     | 19                  | 6              | 8              | 33           | 24.4                     |
| 20 / 24                      | 35                  | 10             | 15             | 60           | 20.0                     | 16                  | 5              | 6              | 27           | 19.9                     | 7                   | 2              | 3              | 12           | 20.0                     |
| 15 / 19                      | 17                  | 6              | 10             | 33           | 15.2                     | 8                   | 3              | 3              | 14           | 15.7                     | 3                   | 0              | 1              | 4            | 15.4                     |
| 10 / 14                      | 8                   | 2              | 5              | 15           | 10.8                     | 3                   | 1              | 2              | 6            | 10.8                     | 2                   | 0              | 0              | 2            | 10.8                     |
| 5 / 9                        | 4                   | 1              | 2              | 7            | 6.0                      | 2                   | 1              | 1              | 4            | 6.0                      | 0                   |                |                | 0            | 8.0                      |
| 0 / 4                        | 1                   | 0              | 0              | 1            | 1.6                      | 1                   | 0              | 0              | 1            | 1.2                      |                     |                |                |              |                          |
| -5 / -1                      | 0                   |                | 0              | 0            | -3.0                     |                     |                |                |              |                          |                     |                |                |              |                          |
| -10 / -6                     | 0                   |                | 0              | 0            | -6.6                     |                     |                |                |              |                          |                     |                |                |              |                          |
| -15 / -11                    |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |

**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.

CANNON AFB/CLOVIS NM

WMO No. 722686

**Dry-Bulb Temperature Hours For An Average Year (Sheet 2 of 5)****Period of Record = 1967 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 |              |                          |
| 110 / 114                    |                     |                |                |              |                          |                     |                |                |              |                          |                     | 0              |                | 0            | 65.0                     |
| 105 / 109                    |                     |                |                |              |                          |                     |                |                |              |                          |                     | 1              |                | 1            | 65.4                     |
| 100 / 104                    |                     |                |                |              |                          |                     |                | 0              | 0            | 60.0                     |                     | 5              | 1              | 6            | 64.4                     |
| 95 / 99                      |                     | 0              |                | 0            | 60.0                     |                     | 2              | 0              | 2            | 59.8                     |                     | 16             | 4              | 20           | 63.2                     |
| 90 / 94                      |                     | 1              | 0              | 1            | 57.0                     |                     | 10             | 2              | 12           | 59.3                     | 0                   | 37             | 11             | 48           | 63.1                     |
| 85 / 89                      |                     | 5              | 1              | 6            | 55.5                     |                     | 25             | 8              | 33           | 58.1                     | 1                   | 49             | 20             | 70           | 62.8                     |
| 80 / 84                      |                     | 20             | 4              | 24           | 53.8                     | 1                   | 42             | 14             | 57           | 57.2                     | 3                   | 50             | 31             | 84           | 62.2                     |
| 75 / 79                      | 0                   | 37             | 11             | 48           | 52.3                     | 2                   | 48             | 23             | 73           | 56.3                     | 13                  | 40             | 42             | 96           | 61.5                     |
| 70 / 74                      | 1                   | 41             | 19             | 61           | 50.8                     | 7                   | 43             | 33             | 83           | 55.3                     | 37                  | 23             | 48             | 108          | 60.3                     |
| 65 / 69                      | 5                   | 37             | 26             | 68           | 48.9                     | 23                  | 34             | 42             | 99           | 54.0                     | 71                  | 12             | 45             | 128          | 58.9                     |
| 60 / 64                      | 13                  | 35             | 38             | 86           | 47.5                     | 49                  | 22             | 51             | 122          | 52.4                     | 73                  | 4              | 28             | 105          | 56.4                     |
| 55 / 59                      | 32                  | 26             | 44             | 101          | 45.6                     | 73                  | 13             | 41             | 127          | 50.3                     | 32                  | 3              | 9              | 44           | 52.8                     |
| 50 / 54                      | 52                  | 19             | 40             | 111          | 43.0                     | 52                  | 6              | 21             | 79           | 46.2                     | 8                   | 0              | 2              | 10           | 48.2                     |
| 45 / 49                      | 56                  | 10             | 28             | 94           | 39.6                     | 28                  | 2              | 9              | 39           | 42.0                     | 1                   |                | 0              | 1            | 43.2                     |
| 40 / 44                      | 43                  | 6              | 16             | 65           | 36.1                     | 10                  | 1              | 3              | 14           | 38.0                     |                     |                |                |              |                          |
| 35 / 39                      | 24                  | 3              | 9              | 36           | 32.7                     | 3                   | 0              | 1              | 4            | 34.0                     |                     |                |                |              |                          |
| 30 / 34                      | 11                  | 1              | 3              | 15           | 28.4                     | 0                   |                |                | 0            | 31.0                     |                     |                |                |              |                          |
| 25 / 29                      | 3                   | 0              | 1              | 4            | 25.2                     |                     |                |                |              |                          |                     |                |                |              |                          |
| 20 / 24                      | 0                   |                |                | 0            | 20.8                     |                     |                |                |              |                          |                     |                |                |              |                          |
| 15 / 19                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 10 / 14                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 5 / 9                        |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 0 / 4                        |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| -5 / -1                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| -10 / -6                     |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| -15 / -11                    |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |

**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.

CANNON AFB/CLOVIS NM

WMO No. 722686

**Dry-Bulb Temperature Hours For An Average Year (Sheet 3 of 5)****Period of Record = 1967 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 |              |                          |
| 110 / 114                    |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 105 / 109                    |                     | 0              | 0              | 0            | 65.5                     |                     | 0              |                | 0            | 66.0                     |                     |                |                |              |                          |
| 100 / 104                    |                     | 3              | 0              | 3            | 65.8                     |                     | 1              |                | 1            | 65.3                     |                     | 0              |                | 0            | 63.5                     |
| 95 / 99                      |                     | 18             | 4              | 22           | 65.6                     |                     | 9              | 1              | 10           | 65.8                     |                     | 2              | 0              | 2            | 63.3                     |
| 90 / 94                      |                     | 52             | 14             | 65           | 65.9                     |                     | 41             | 8              | 49           | 66.0                     |                     | 12             | 1              | 13           | 63.0                     |
| 85 / 89                      | 1                   | 67             | 26             | 94           | 65.9                     | 0                   | 63             | 18             | 81           | 66.1                     |                     | 37             | 6              | 43           | 62.8                     |
| 80 / 84                      | 7                   | 54             | 35             | 95           | 65.3                     | 2                   | 58             | 27             | 87           | 65.6                     | 0                   | 50             | 13             | 63           | 62.4                     |
| 75 / 79                      | 25                  | 32             | 54             | 110          | 64.0                     | 16                  | 41             | 48             | 105          | 64.5                     | 2                   | 49             | 23             | 74           | 61.4                     |
| 70 / 74                      | 62                  | 16             | 67             | 145          | 62.8                     | 51                  | 22             | 72             | 145          | 63.1                     | 12                  | 35             | 42             | 90           | 60.1                     |
| 65 / 69                      | 112                 | 6              | 40             | 158          | 61.4                     | 111                 | 9              | 58             | 178          | 61.5                     | 50                  | 24             | 63             | 137          | 59.0                     |
| 60 / 64                      | 38                  | 1              | 9              | 48           | 59.0                     | 59                  | 3              | 16             | 78           | 59.0                     | 81                  | 14             | 50             | 144          | 56.4                     |
| 55 / 59                      | 3                   | 0              | 0              | 3            | 55.2                     | 8                   | 0              | 1              | 9            | 55.0                     | 53                  | 8              | 24             | 84           | 52.1                     |
| 50 / 54                      | 0                   |                |                | 0            | 49.0                     |                     |                |                |              |                          | 27                  | 5              | 12             | 44           | 47.3                     |
| 45 / 49                      |                     |                |                |              |                          |                     |                |                |              |                          | 10                  | 2              | 4              | 16           | 43.4                     |
| 40 / 44                      |                     |                |                |              |                          |                     |                |                |              |                          | 4                   | 2              | 2              | 8            | 39.6                     |
| 35 / 39                      |                     |                |                |              |                          |                     |                |                |              |                          | 1                   | 0              | 1              | 2            | 36.2                     |
| 30 / 34                      |                     |                |                |              |                          |                     |                |                |              |                          | 0                   |                |                | 0            | 33.0                     |
| 25 / 29                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 20 / 24                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 15 / 19                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 10 / 14                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 5 / 9                        |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 0 / 4                        |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| -5 / -1                      |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| -10 / -6                     |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| -15 / -11                    |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |

**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.

CANNON AFB/CLOVIS NM

WMO No. 722686

**Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)****Period of Record = 1967 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 |              |                          |
| 110 / 114                    |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 105 / 109                    |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 100 / 104                    |                     |                |                |              |                          |                     |                |                |              |                          |                     |                |                |              |                          |
| 95 / 99                      |                     | 0              |                | 0            | 59.0                     |                     |                |                |              |                          |                     |                |                |              |                          |
| 90 / 94                      |                     | 1              |                | 1            | 57.9                     |                     |                |                |              |                          |                     |                |                |              |                          |
| 85 / 89                      |                     | 8              | 0              | 8            | 57.8                     |                     |                |                |              |                          |                     |                |                |              |                          |
| 80 / 84                      |                     | 24             | 2              | 26           | 56.8                     |                     | 1              |                | 1            | 53.0                     |                     |                |                |              |                          |
| 75 / 79                      |                     | 37             | 5              | 42           | 55.7                     |                     | 7              | 0              | 7            | 51.9                     |                     | 0              |                | 0            | 50.1                     |
| 70 / 74                      | 0                   | 45             | 12             | 57           | 54.2                     |                     | 21             | 1              | 22           | 50.0                     |                     | 4              |                | 4            | 48.5                     |
| 65 / 69                      | 4                   | 40             | 26             | 69           | 52.8                     | 0                   | 28             | 3              | 31           | 48.2                     |                     | 13             | 0              | 13           | 46.6                     |
| 60 / 64                      | 19                  | 36             | 43             | 97           | 51.1                     | 1                   | 34             | 10             | 44           | 46.8                     |                     | 23             | 1              | 24           | 44.4                     |
| 55 / 59                      | 47                  | 25             | 55             | 127          | 49.0                     | 5                   | 35             | 22             | 61           | 45.0                     | 0                   | 32             | 6              | 38           | 42.1                     |
| 50 / 54                      | 62                  | 14             | 48             | 123          | 45.3                     | 16                  | 34             | 33             | 84           | 42.2                     | 3                   | 34             | 17             | 54           | 39.9                     |
| 45 / 49                      | 59                  | 10             | 30             | 98           | 41.6                     | 33                  | 29             | 43             | 105          | 39.3                     | 11                  | 37             | 28             | 76           | 37.1                     |
| 40 / 44                      | 32                  | 5              | 17             | 54           | 37.6                     | 54                  | 24             | 46             | 123          | 35.8                     | 28                  | 31             | 41             | 101          | 34.5                     |
| 35 / 39                      | 17                  | 4              | 8              | 29           | 33.7                     | 53                  | 15             | 36             | 104          | 32.4                     | 45                  | 29             | 50             | 124          | 31.4                     |
| 30 / 34                      | 6                   | 1              | 3              | 10           | 29.4                     | 40                  | 10             | 28             | 78           | 28.6                     | 62                  | 18             | 48             | 128          | 28.0                     |
| 25 / 29                      | 2                   | 0              | 1              | 3            | 25.0                     | 26                  | 3              | 12             | 41           | 24.0                     | 52                  | 12             | 32             | 95           | 24.0                     |
| 20 / 24                      | 0                   | 0              | 0              | 0            | 21.5                     | 9                   | 1              | 4              | 14           | 19.9                     | 25                  | 8              | 13             | 46           | 19.8                     |
| 15 / 19                      | 0                   | 0              | 0              | 0            | 16.8                     | 2                   | 1              | 1              | 4            | 15.3                     | 11                  | 4              | 6              | 21           | 15.3                     |
| 10 / 14                      | 0                   |                |                | 0            | 14.0                     | 1                   | 0              | 1              | 2            | 10.9                     | 6                   | 2              | 4              | 12           | 10.4                     |
| 5 / 9                        |                     |                |                |              |                          | 0                   |                |                | 0            | 7.4                      | 3                   | 1              | 2              | 6            | 5.8                      |
| 0 / 4                        |                     |                |                |              |                          |                     |                |                |              |                          | 1                   | 0              | 0              | 1            | 1.3                      |
| -5 / -1                      |                     |                |                |              |                          |                     |                |                |              |                          | 0                   |                | 0              | 0            | -2.9                     |
| -10 / -6                     |                     |                |                |              |                          |                     |                |                |              |                          | 0                   |                |                | 0            | -6.8                     |
| -15 / -11                    |                     |                |                |              |                          |                     |                |                |              |                          | 0                   |                |                | 0            | -11.0                    |

**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.



**CANNON AFB/CLOVIS NM**

WMO No. 722686

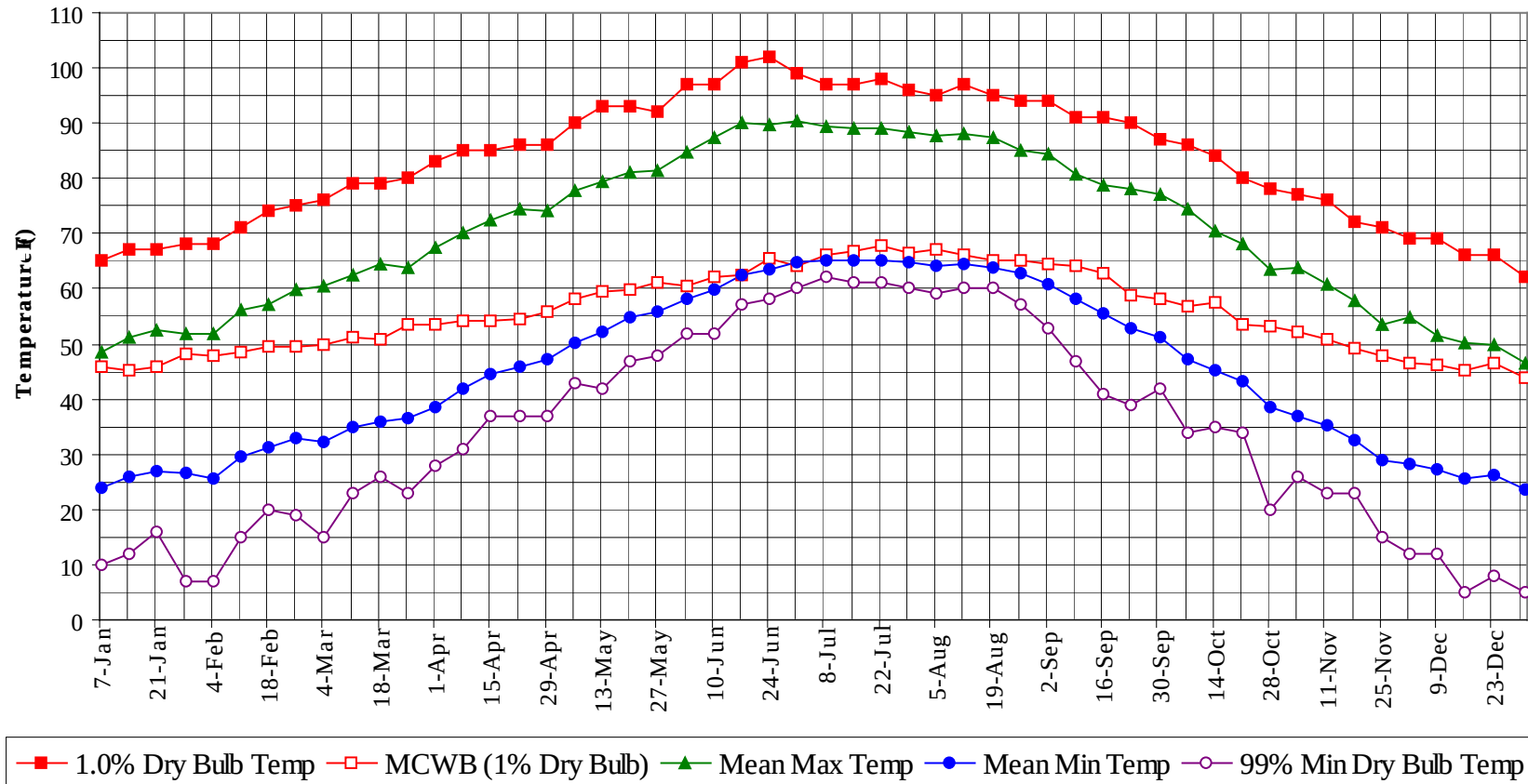
**Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)**

**Period of Record = 1967 to 1996**

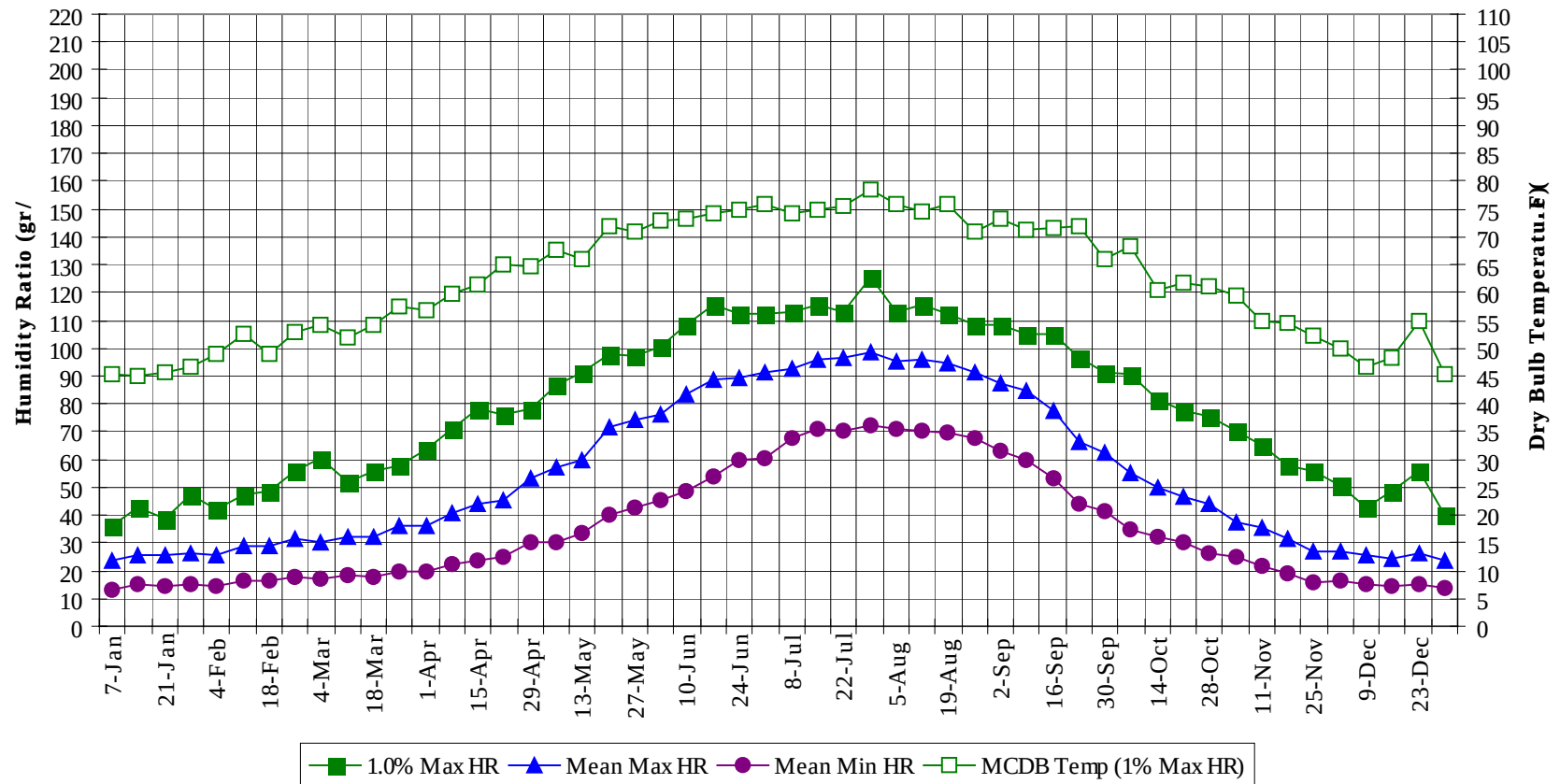
| Annual Totals                |                     |                |                |              |                          |      |
|------------------------------|---------------------|----------------|----------------|--------------|--------------------------|------|
| Temperature<br>Range<br>(°F) | 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 |              |                          |      |
| 110 / 114                    | 0                   |                |                | 0            | 65.0                     |      |
| 105 / 109                    | 1                   |                |                | 0            | 1                        | 65.5 |
| 100 / 104                    | 10                  |                |                | 2            | 12                       | 64.8 |
| 95 / 99                      | 46                  |                |                | 10           | 56                       | 64.4 |
| 90 / 94                      | 0                   | 154            | 37             | 191          | 64.5                     |      |
| 85 / 89                      | 2                   | 256            | 78             | 336          | 63.7                     |      |
| 80 / 84                      | 13                  | 304            | 127            | 444          | 62.0                     |      |
| 75 / 79                      | 59                  | 307            | 208            | 573          | 60.1                     |      |
| 70 / 74                      | 170                 | 287            | 301            | 758          | 58.4                     |      |
| 65 / 69                      | 376                 | 261            | 316            | 953          | 56.6                     |      |
| 60 / 64                      | 334                 | 254            | 275            | 862          | 52.3                     |      |
| 55 / 59                      | 260                 | 236            | 250            | 746          | 47.4                     |      |
| 50 / 54                      | 247                 | 214            | 247            | 709          | 42.9                     |      |
| 45 / 49                      | 259                 | 175            | 246            | 680          | 39.1                     |      |
| 40 / 44                      | 279                 | 143            | 247            | 670          | 35.5                     |      |
| 35 / 39                      | 293                 | 109            | 221            | 622          | 32.0                     |      |
| 30 / 34                      | 267                 | 76             | 170            | 513          | 28.2                     |      |
| 25 / 29                      | 193                 | 44             | 106            | 343          | 24.1                     |      |
| 20 / 24                      | 92                  | 25             | 42             | 159          | 19.9                     |      |
| 15 / 19                      | 42                  | 13             | 21             | 76           | 15.4                     |      |
| 10 / 14                      | 21                  | 5              | 12             | 37           | 10.7                     |      |
| 5 / 9                        | 9                   | 2              | 5              | 16           | 5.9                      |      |
| 0 / 4                        | 3                   | 0              | 1              | 4            | 1.3                      |      |
| -5 / -1                      | 1                   |                | 0              | 1            | -3.0                     |      |
| -10 / -6                     | 0                   |                | 0              | 0            | -6.6                     |      |
| -15 / -11                    | 0                   |                |                | 0            | -11.0                    |      |

**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.

## Annual Summary of Temperatures



## Long Term Humidity and Dry Bulb Temperature Summary



**CANNON AFB/CLOVIS NM****WMO No. 722686****Long Term Dry Bulb Temperature and Humidity Summary**

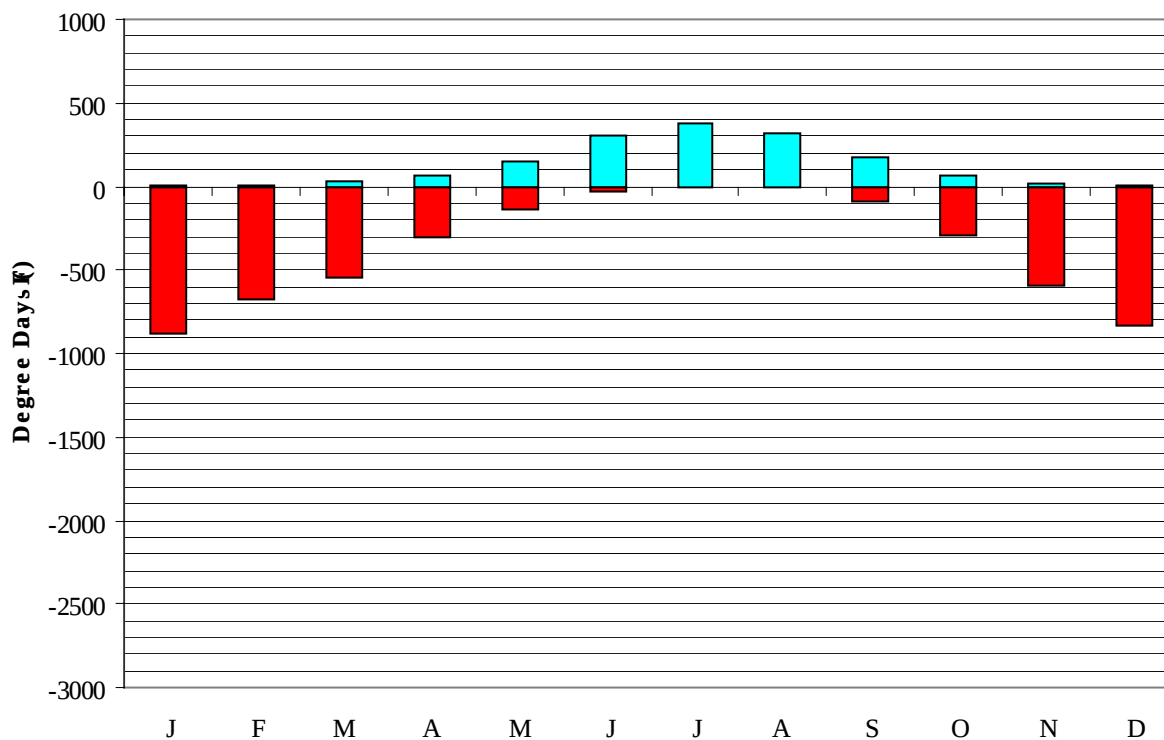
| Week<br>Ending | 1.0%<br>Temp (°F) | MCWB @<br>1% Temp (°F) | Mean Max<br>Temp (°F) | Mean Min<br>Temp (°F) | 99%<br>Temp (°F) | 1.0%<br>HR (gr/lb) | MCDB @<br>1% HR (°F) | Mean Max<br>HR (gr/lb) | Mean Min<br>HR (gr/lb) |
|----------------|-------------------|------------------------|-----------------------|-----------------------|------------------|--------------------|----------------------|------------------------|------------------------|
| 7-Jan          | 65.0              | 45.7                   | 48.6                  | 23.9                  | 10.0             | 36.4               | 45.2                 | 23.5                   | 13.4                   |
| 14-Jan         | 67.0              | 45.3                   | 51.2                  | 26.0                  | 12.0             | 42.7               | 44.9                 | 25.3                   | 14.9                   |
| 21-Jan         | 67.0              | 45.8                   | 52.6                  | 27.0                  | 16.0             | 38.5               | 45.7                 | 25.6                   | 14.5                   |
| 28-Jan         | 68.0              | 48.1                   | 51.9                  | 26.6                  | 7.0              | 47.6               | 46.8                 | 26.6                   | 15.2                   |
| 4-Feb          | 68.0              | 47.9                   | 51.9                  | 25.6                  | 7.0              | 42.0               | 48.8                 | 25.9                   | 14.7                   |
| 11-Feb         | 71.0              | 48.4                   | 56.1                  | 29.7                  | 15.0             | 47.6               | 52.6                 | 29.1                   | 16.4                   |
| 18-Feb         | 74.0              | 49.6                   | 57.1                  | 31.3                  | 20.0             | 48.3               | 48.8                 | 28.8                   | 16.7                   |
| 25-Feb         | 75.0              | 49.6                   | 59.9                  | 33.0                  | 19.0             | 56.0               | 53.0                 | 31.3                   | 17.9                   |
| 4-Mar          | 76.0              | 49.8                   | 60.5                  | 32.4                  | 15.0             | 60.2               | 54.2                 | 30.3                   | 17.2                   |
| 11-Mar         | 79.0              | 51.3                   | 62.6                  | 35.0                  | 23.0             | 51.8               | 51.8                 | 32.3                   | 18.2                   |
| 18-Mar         | 79.0              | 50.9                   | 64.5                  | 35.8                  | 26.0             | 56.0               | 54.2                 | 32.1                   | 17.8                   |
| 25-Mar         | 80.0              | 53.6                   | 63.8                  | 36.6                  | 23.0             | 58.1               | 57.5                 | 36.0                   | 19.7                   |
| 1-Apr          | 83.0              | 53.7                   | 67.4                  | 38.7                  | 28.0             | 63.7               | 56.7                 | 36.2                   | 19.9                   |
| 8-Apr          | 85.0              | 54.1                   | 70.2                  | 42.0                  | 31.0             | 70.7               | 59.8                 | 40.8                   | 22.3                   |
| 15-Apr         | 85.0              | 54.3                   | 72.5                  | 44.4                  | 37.0             | 78.4               | 61.5                 | 43.8                   | 23.5                   |
| 22-Apr         | 86.0              | 54.6                   | 74.3                  | 45.8                  | 37.0             | 76.3               | 65.1                 | 45.6                   | 24.7                   |
| 29-Apr         | 86.0              | 55.9                   | 74.1                  | 47.2                  | 37.0             | 78.4               | 64.6                 | 53.1                   | 30.3                   |
| 6-May          | 90.0              | 58.0                   | 77.7                  | 50.3                  | 43.0             | 86.8               | 67.7                 | 57.1                   | 30.3                   |
| 13-May         | 93.0              | 59.4                   | 79.3                  | 52.1                  | 42.0             | 91.0               | 66.1                 | 60.0                   | 33.5                   |
| 20-May         | 93.0              | 59.8                   | 81.0                  | 54.7                  | 47.0             | 98.0               | 71.8                 | 71.7                   | 40.0                   |
| 27-May         | 92.0              | 61.2                   | 81.5                  | 55.7                  | 48.0             | 97.3               | 71.0                 | 73.9                   | 42.7                   |
| 3-Jun          | 97.0              | 60.6                   | 84.8                  | 58.2                  | 52.0             | 100.8              | 72.7                 | 76.3                   | 45.6                   |
| 10-Jun         | 97.0              | 62.2                   | 87.5                  | 60.0                  | 52.0             | 108.5              | 73.2                 | 83.3                   | 48.9                   |
| 17-Jun         | 101.0             | 62.6                   | 90.1                  | 62.6                  | 57.0             | 115.5              | 74.1                 | 88.7                   | 54.2                   |
| 24-Jun         | 102.0             | 65.4                   | 89.8                  | 63.6                  | 58.0             | 112.0              | 74.9                 | 89.3                   | 60.0                   |
| 1-Jul          | 99.0              | 64.2                   | 90.4                  | 64.8                  | 60.0             | 112.0              | 75.8                 | 91.4                   | 60.7                   |
| 8-Jul          | 97.0              | 66.2                   | 89.5                  | 65.1                  | 62.0             | 112.7              | 74.3                 | 92.8                   | 67.6                   |
| 15-Jul         | 97.0              | 66.8                   | 88.9                  | 65.2                  | 61.0             | 115.5              | 74.9                 | 95.7                   | 70.9                   |
| 22-Jul         | 98.0              | 67.7                   | 89.0                  | 65.2                  | 61.0             | 112.7              | 75.4                 | 96.3                   | 70.6                   |
| 29-Jul         | 96.0              | 66.5                   | 88.4                  | 64.9                  | 60.0             | 125.3              | 78.3                 | 98.6                   | 72.5                   |
| 5-Aug          | 95.0              | 67.0                   | 87.6                  | 64.3                  | 59.0             | 112.7              | 76.0                 | 95.5                   | 70.6                   |
| 12-Aug         | 97.0              | 66.1                   | 88.2                  | 64.4                  | 60.0             | 115.5              | 74.6                 | 95.9                   | 70.1                   |
| 19-Aug         | 95.0              | 65.0                   | 87.3                  | 63.9                  | 60.0             | 112.0              | 75.9                 | 94.8                   | 69.8                   |
| 26-Aug         | 94.0              | 65.0                   | 85.0                  | 62.7                  | 57.0             | 108.5              | 70.9                 | 91.6                   | 67.6                   |
| 2-Sep          | 94.0              | 64.6                   | 84.4                  | 60.8                  | 53.0             | 108.5              | 73.2                 | 87.5                   | 63.3                   |
| 9-Sep          | 91.0              | 64.1                   | 80.9                  | 58.3                  | 47.0             | 105.0              | 71.3                 | 84.5                   | 59.6                   |
| 16-Sep         | 91.0              | 62.7                   | 78.7                  | 55.4                  | 41.0             | 105.0              | 71.7                 | 77.4                   | 53.1                   |
| 23-Sep         | 90.0              | 58.9                   | 78.2                  | 52.8                  | 39.0             | 96.6               | 72.0                 | 66.0                   | 43.7                   |
| 30-Sep         | 87.0              | 58.3                   | 77.0                  | 51.3                  | 42.0             | 91.0               | 66.0                 | 62.4                   | 41.1                   |
| 7-Oct          | 86.0              | 56.8                   | 74.4                  | 47.3                  | 34.0             | 90.3               | 68.5                 | 55.3                   | 34.6                   |
| 14-Oct         | 84.0              | 57.3                   | 70.6                  | 45.1                  | 35.0             | 81.2               | 60.4                 | 49.8                   | 31.9                   |
| 21-Oct         | 80.0              | 53.6                   | 68.1                  | 43.1                  | 34.0             | 77.7               | 61.6                 | 46.8                   | 30.2                   |
| 28-Oct         | 78.0              | 53.3                   | 63.5                  | 38.7                  | 20.0             | 75.6               | 61.1                 | 44.0                   | 26.5                   |
| 4-Nov          | 77.0              | 52.2                   | 63.8                  | 36.8                  | 26.0             | 70.0               | 59.6                 | 37.5                   | 24.7                   |
| 11-Nov         | 76.0              | 50.7                   | 60.7                  | 35.1                  | 23.0             | 65.1               | 54.8                 | 35.4                   | 21.5                   |
| 18-Nov         | 72.0              | 49.3                   | 57.7                  | 32.4                  | 23.0             | 58.1               | 54.7                 | 31.6                   | 19.1                   |
| 25-Nov         | 71.0              | 47.9                   | 53.5                  | 28.9                  | 15.0             | 56.0               | 52.1                 | 26.9                   | 15.8                   |
| 2-Dec          | 69.0              | 46.6                   | 54.8                  | 28.2                  | 12.0             | 50.4               | 49.9                 | 27.2                   | 16.4                   |
| 9-Dec          | 69.0              | 46.1                   | 51.4                  | 27.3                  | 12.0             | 42.7               | 46.8                 | 25.5                   | 15.3                   |
| 16-Dec         | 66.0              | 45.3                   | 50.1                  | 25.6                  | 5.0              | 48.3               | 48.1                 | 24.6                   | 14.3                   |
| 23-Dec         | 66.0              | 46.4                   | 49.9                  | 26.4                  | 8.0              | 56.0               | 54.9                 | 26.0                   | 15.3                   |
| 31-Dec         | 62.0              | 43.9                   | 46.5                  | 23.5                  | 5.0              | 39.9               | 45.3                 | 23.8                   | 14.0                   |

CANNON AFB/CLOVIS

NM

WMO No. 722686

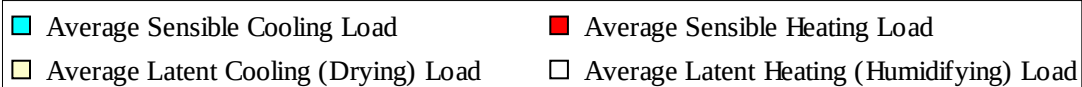
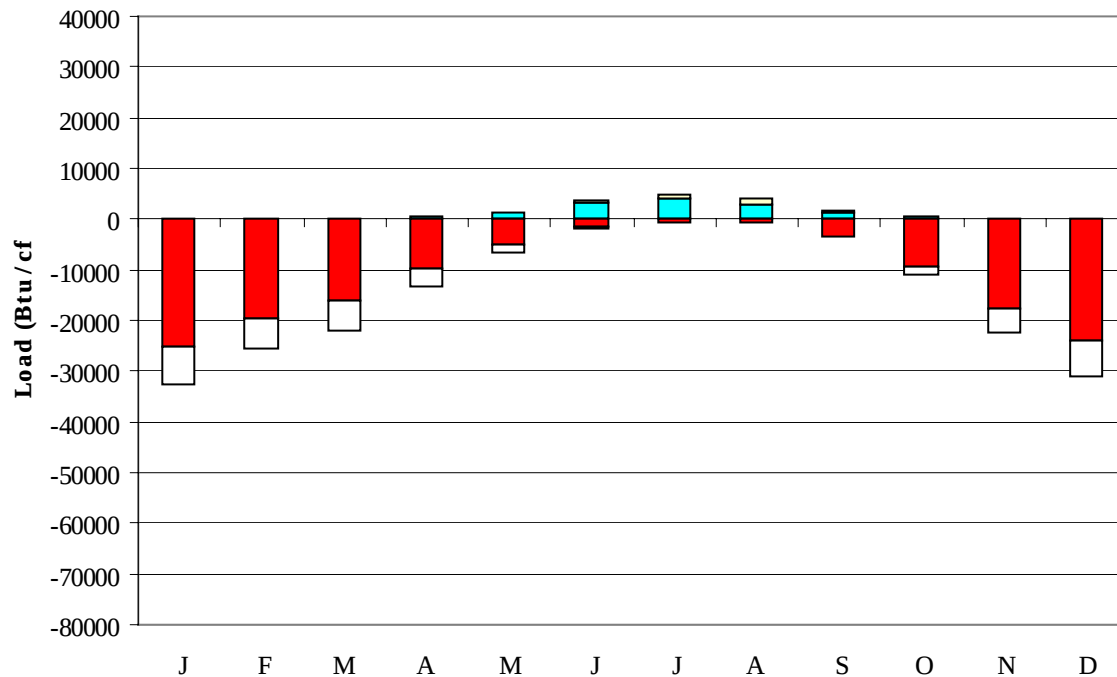
**Degree Days, Heating and Cooling**  
**(Base 65°F)**



Mean Cooling Degree Days Mean Heating Degree Days

|     | Mean Cooling<br>Degree Days (°F) | Mean Heating<br>Degree Days (°F) |
|-----|----------------------------------|----------------------------------|
| JAN | 1                                | 875                              |
| FEB | 6                                | 673                              |
| MAR | 25                               | 543                              |
| APR | 70                               | 305                              |
| MAY | 155                              | 142                              |
| JUN | 305                              | 31                               |
| JUL | 372                              | 5                                |
| AUG | 315                              | 10                               |
| SEP | 175                              | 87                               |
| OCT | 68                               | 295                              |
| NOV | 12                               | 592                              |
| DEC | 2                                | 833                              |
| ANN | 1505                             | 4391                             |

**Average Ventilation and Infiltration Loads**  
**(Outside Air vs. 75°F, 60% RH summer; 68°F, 30% RH winter)**



|     | Average Sensible Cooling Load (Btu/cfm) | Average Sensible Heating Load (Btu/cfm) | Average Latent Cooling Load (Btu/cfm) | Average Latent Heating Load (Btu/cfm) |
|-----|-----------------------------------------|-----------------------------------------|---------------------------------------|---------------------------------------|
| JAN | 0                                       | -25045                                  | 0                                     | -7612                                 |
| FEB | 4                                       | -19566                                  | 0                                     | -5986                                 |
| MAR | 68                                      | -16221                                  | 0                                     | -5609                                 |
| APR | 360                                     | -9643                                   | 0                                     | -3712                                 |
| MAY | 1256                                    | -5061                                   | 26                                    | -1345                                 |
| JUN | 3271                                    | -1486                                   | 359                                   | -281                                  |
| JUL | 3941                                    | -471                                    | 972                                   | -17                                   |
| AUG | 3043                                    | -758                                    | 998                                   | -2                                    |
| SEP | 1440                                    | -3392                                   | 275                                   | -137                                  |
| OCT | 381                                     | -9492                                   | 4                                     | -1473                                 |
| NOV | 19                                      | -17530                                  | 0                                     | -4708                                 |
| DEC | 0                                       | -23947                                  | 0                                     | -7128                                 |
| ANN | 13783                                   | -132612                                 | 2634                                  | -38010                                |

## Average Annual Solar Radiation – Nearest Available Site

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

City: TUCUMCARI  
 State: NM  
 WBAN No: 23048  
 Lat(N): 35.18  
 Long(W): 103.6  
 Elev(ft): 4039

Stn Type: Secondary  
 SHADING GEOMETRY IN DIMENSIONLESS UNITS

Window: 1  
 Overhang: 0.398  
 Vert Gap: 0.287

| 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  | 940  | 1240 | 1600 | 2020 | 2220 | 2360 | 2280 | 2070 | 1740 | 1420 | 1030 | 860  | 1650 |
|                                                                               | Std Dev | 63   | 73   | 91   | 86   | 95   | 105  | 76   | 97   | 82   | 102  | 72   | 61   | 31   |
|                                                                               | Minimum | 800  | 1110 | 1420 | 1880 | 2050 | 2150 | 2140 | 1940 | 1610 | 1220 | 840  | 710  | 1590 |
|                                                                               | Maximum | 1060 | 1370 | 1770 | 2180 | 2380 | 2580 | 2430 | 2290 | 1960 | 1610 | 1140 | 990  | 1710 |
|                                                                               | Diffuse | 300  | 390  | 510  | 580  | 670  | 660  | 680  | 640  | 520  | 380  | 320  | 270  | 490  |
| Clear Day                                                                     | Global  | 1150 | 1500 | 1970 | 2410 | 2660 | 2750 | 2670 | 2440 | 2060 | 1610 | 1210 | 1040 | 1960 |
| NORTH                                                                         | Global  | 230  | 290  | 370  | 450  | 580  | 660  | 620  | 490  | 390  | 310  | 250  | 210  | 400  |
|                                                                               | Diffuse | 230  | 290  | 370  | 430  | 490  | 510  | 500  | 460  | 390  | 310  | 250  | 210  | 370  |
| Clear Day                                                                     | Global  | 210  | 260  | 330  | 430  | 610  | 720  | 660  | 480  | 350  | 280  | 220  | 190  | 400  |
| EAST                                                                          | Global  | 650  | 800  | 1000 | 1190 | 1260 | 1320 | 1300 | 1210 | 1040 | 900  | 690  | 600  | 1000 |
|                                                                               | Diffuse | 290  | 360  | 460  | 540  | 590  | 600  | 610  | 570  | 480  | 390  | 300  | 260  | 450  |
| Clear Day                                                                     | Global  | 840  | 1030 | 1260 | 1430 | 1520 | 1520 | 1500 | 1430 | 1280 | 1070 | 860  | 770  | 1210 |
| SOUTH                                                                         | Global  | 1530 | 1520 | 1360 | 1110 | 850  | 730  | 770  | 970  | 1240 | 1530 | 1530 | 1520 | 1220 |
|                                                                               | Diffuse | 400  | 450  | 510  | 530  | 530  | 520  | 530  | 540  | 510  | 460  | 410  | 370  | 480  |
| Clear Day                                                                     | Global  | 2110 | 2060 | 1780 | 1300 | 920  | 750  | 810  | 1090 | 1540 | 1930 | 2060 | 2080 | 1530 |
| WEST                                                                          | Global  | 650  | 810  | 980  | 1160 | 1200 | 1230 | 1180 | 1120 | 1040 | 910  | 700  | 610  | 970  |
|                                                                               | Diffuse | 290  | 370  | 470  | 550  | 610  | 620  | 620  | 580  | 490  | 390  | 310  | 270  | 460  |
| Clear Day                                                                     | Global  | 840  | 1030 | 1260 | 1430 | 1520 | 1520 | 1500 | 1430 | 1280 | 1070 | 860  | 770  | 1210 |

## 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 | 620  | 850  | 1150 | 1470 | 1620 | 1740 | 1680 | 1510 | 1260 | 1000 | 690  | 560  | 1180 |
| NORTH                                                                                               | Unshaded | 160  | 200  | 260  | 300  | 370  | 420  | 390  | 330  | 270  | 210  | 170  | 150  | 270  |
|                                                                                                     | Shaded   | 150  | 190  | 240  | 290  | 350  | 380  | 360  | 310  | 250  | 200  | 160  | 140  | 250  |
| EAST                                                                                                | Unshaded | 450  | 560  | 710  | 850  | 900  | 940  | 920  | 860  | 740  | 640  | 480  | 410  | 710  |
|                                                                                                     | Shaded   | 420  | 520  | 650  | 770  | 810  | 840  | 830  | 780  | 680  | 590  | 450  | 390  | 640  |
| SOUTH                                                                                               | Unshaded | 1140 | 1100 | 920  | 680  | 490  | 420  | 440  | 580  | 810  | 1080 | 1140 | 1150 | 830  |
|                                                                                                     | Shaded   | 1130 | 1050 | 760  | 470  | 350  | 340  | 340  | 390  | 620  | 980  | 1120 | 1130 | 720  |
| WEST                                                                                                | Unshaded | 450  | 570  | 700  | 830  | 860  | 870  | 830  | 800  | 740  | 650  | 490  | 420  | 680  |
|                                                                                                     | Shaded   | 420  | 530  | 640  | 750  | 770  | 780  | 740  | 720  | 680  | 590  | 460  | 390  | 620  |

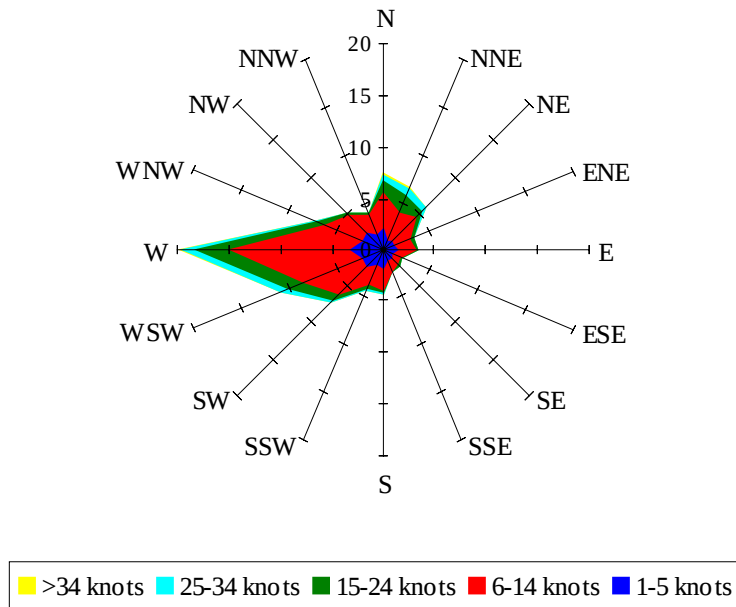
| AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9 |          | March |      |     |     |     | June |      |     |     |     |
|------------------------------------------------------------------------------------------------------------------|----------|-------|------|-----|-----|-----|------|------|-----|-----|-----|
|                                                                                                                  |          | 9am   | 11am | 1pm | 3pm | 5pm | 9am  | 11am | 1pm | 3pm | 5pm |
| HORIZ.                                                                                                           | M.Clear  | 48    | 82   | 89  | 69  | 28  | 52   | 89   | 106 | 98  | 68  |
|                                                                                                                  | M.Cloudy | 32    | 57   | 65  | 50  | 19  | 37   | 70   | 85  | 79  | 52  |
| NORTH                                                                                                            | M.Clear  | 10    | 14   | 15  | 13  | 8   | 21   | 16   | 16  | 16  | 14  |
|                                                                                                                  | M.Cloudy | 11    | 16   | 17  | 15  | 7   | 17   | 18   | 18  | 18  | 16  |
| EAST                                                                                                             | M.Clear  | 83    | 56   | 15  | 13  | 8   | 84   | 72   | 27  | 16  | 14  |
|                                                                                                                  | M.Cloudy | 43    | 39   | 17  | 15  | 7   | 49   | 55   | 26  | 18  | 15  |
| SOUTH                                                                                                            | M.Clear  | 44    | 73   | 79  | 62  | 26  | 12   | 27   | 39  | 33  | 14  |
|                                                                                                                  | M.Cloudy | 26    | 48   | 55  | 42  | 15  | 12   | 25   | 35  | 31  | 15  |
| WEST                                                                                                             | M.Clear  | 10    | 14   | 27  | 72  | 72  | 12   | 16   | 16  | 55  | 82  |
|                                                                                                                  | M.Cloudy | 11    | 16   | 24  | 48  | 34  | 12   | 18   | 18  | 47  | 58  |
| M.Clear                                                                                                          | (% hrs)  | 50    | 49   | 45  | 42  | 42  | 61   | 62   | 63  | 54  | 45  |

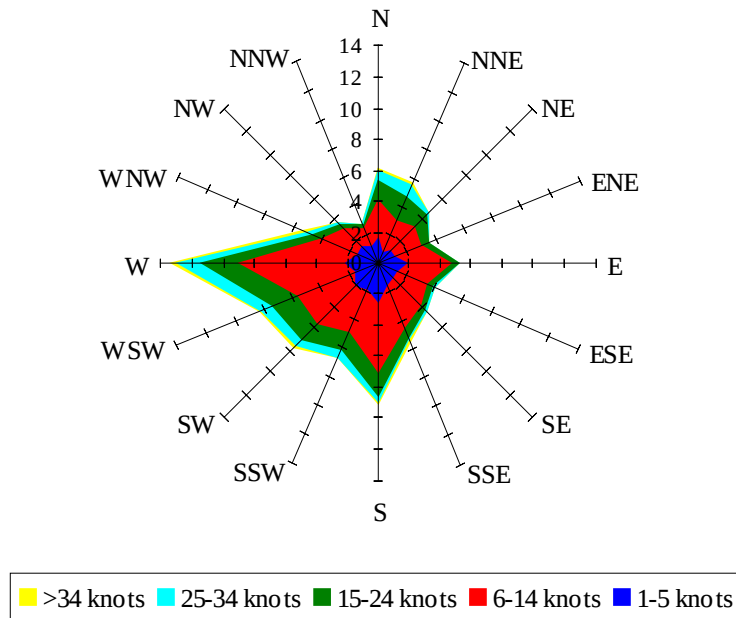
|         |          | Sept |      |     |     |     | Dec |      |     |     |     |
|---------|----------|------|------|-----|-----|-----|-----|------|-----|-----|-----|
|         |          | 9am  | 11am | 1pm | 3pm | 5pm | 9am | 11am | 1pm | 3pm | 5pm |
| HORIZ.  | M.Clear  | 35   | 75   | 92  | 83  | 49  | 24  | 52   | 56  | 35  | 3   |
|         | M.Cloudy | 22   | 53   | 68  | 60  | 36  | 16  | 36   | 40  | 25  | 3   |
| NORTH   | M.Clear  | 9    | 14   | 16  | 15  | 11  | 7   | 11   | 11  | 9   | 2   |
|         | M.Cloudy | 9    | 16   | 18  | 17  | 12  | 6   | 12   | 12  | 9   | 2   |
| EAST    | M.Clear  | 78   | 71   | 25  | 15  | 11  | 57  | 41   | 11  | 9   | 2   |
|         | M.Cloudy | 32   | 45   | 24  | 17  | 12  | 24  | 26   | 12  | 9   | 2   |
| SOUTH   | M.Clear  | 24   | 57   | 72  | 64  | 36  | 54  | 90   | 94  | 69  | 10  |
|         | M.Cloudy | 14   | 37   | 51  | 44  | 24  | 23  | 48   | 54  | 37  | 4   |
| WEST    | M.Clear  | 9    | 14   | 16  | 58  | 81  | 7   | 11   | 27  | 58  | 15  |
|         | M.Cloudy | 9    | 16   | 18  | 41  | 47  | 6   | 12   | 20  | 32  | 6   |
| M.Clear | (% hrs)  | 56   | 58   | 57  | 55  | 51  | 49  | 50   | 51  | 51  | 53  |



# **Wind Summary - December, January, and February** **Labels of Percent Frequency on North Axis**

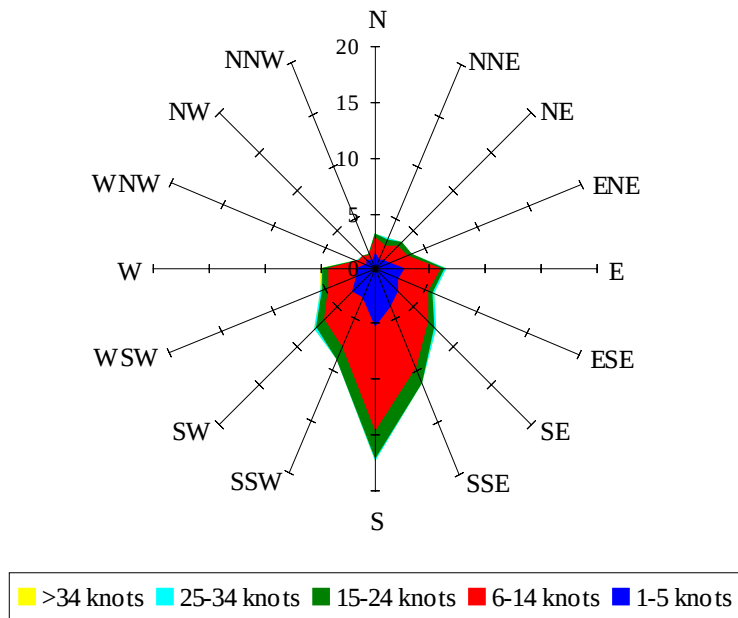


# **Wind Summary - March, April, and May** **Labels of Percent Frequency on North Axis**



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

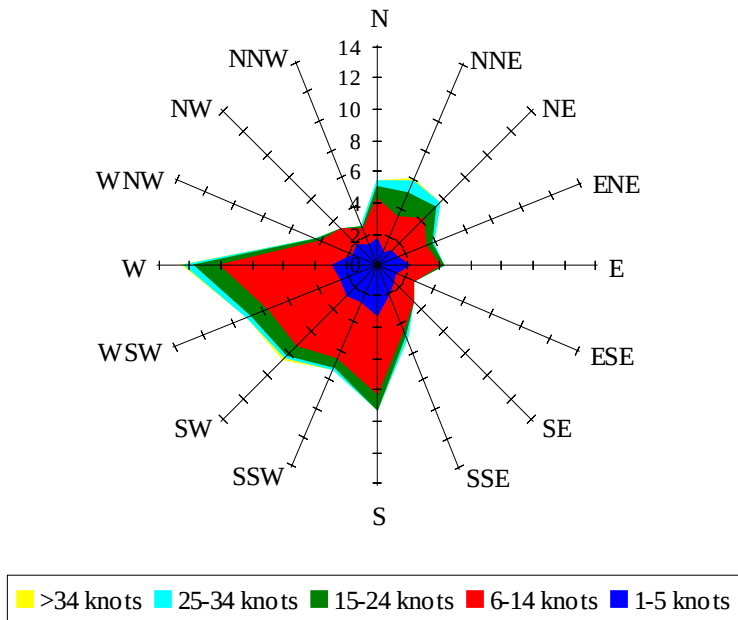
Labels of Percent Frequency on North Axis



Percent Calm = 8.27

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

Labels of Percent Frequency on North Axis



Percent Calm = 8.17