

TRUCKEE-TAHOE, CA, USA

WMO#: 725846

Lat: 39.32N

Long: 120.13W

Elev: 1798

StdP: 81.51

Time Zone: -8.00 (NAP)

Period: 94-10

WBAN: 93201

Annual Heating and Humidification Design Conditions

| Coldest Month | Heating DB | | Humidification DP/MCDB and HR | | | | | | Coldest month WS/MCDB | | | | MCWS/PCWD to 99.6% DB | |
|---------------|------------|-------|-------------------------------|-----|-------|-------|-----|-------|-----------------------|------|------|------|-----------------------|------|
| | | | 99.6% | | | 99% | | | 0.4% | | 1% | | | |
| | 99.6% | 99% | DP | HR | MCDB | DP | HR | MCDB | WS | MCDB | WS | MCDB | MCWS | PCWD |
| (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) | (m) | (n) | (o) |
| 1 | -17.5 | -14.1 | -19.3 | 0.8 | -14.1 | -17.2 | 1.0 | -10.5 | 12.9 | 3.2 | 11.7 | 3.6 | 0.2 | 190 |

Annual Cooling, Dehumidification, and Enthalpy Design Conditions

| Hottest Month | Hottest Month DB Range | Cooling DB/MCWB | | | | | | Evaporation WB/MCDB | | | | | | MCWS/PCWD to 0.4% DB | |
|---------------|---------------------------|-----------------|------|------|------|------|------|---------------------|------|------|------|------|------|-------------------------|------|
| | | 0.4% | | 1% | | 2% | | 0.4% | | 1% | | 2% | | | |
| | | DB | MCWB | DB | MCWB | DB | MCWB | WB | MCDB | WB | MCDB | WB | MCDB | MCWS | PCWD |
| (a) | | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) | (m) | (n) | (o) | (p) |
| 7 | 22.9 | 31.3 | 14.4 | 29.8 | 13.8 | 28.0 | 13.0 | 16.2 | 26.8 | 15.2 | 26.2 | 14.3 | 25.8 | 4.5 | 230 |

| Dehumidification DP/MCDB and HR | | | | | | | | | Enthalpy/MCDB | | | | | | Hours 8 to 4 & 12.8/20.6 |
|---------------------------------|------|------|------|------|------|-----|-----|------|---------------|------|------|------|------|------|--------------------------------|
| 0.4% | | | 1% | | | 2% | | | 0.4% | | 1% | | 2% | | |
| DP | HR | MCDB | DP | HR | MCDB | DP | HR | MCDB | Enth | MCDB | Enth | MCDB | Enth | MCDB | |
| (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) | (m) | (n) | (o) | (p) |
| 12.7 | 11.4 | 18.7 | 11.2 | 10.3 | 18.9 | 9.0 | 8.9 | 17.4 | 52.4 | 27.1 | 49.1 | 26.1 | 46.2 | 25.8 | 668 |

Extreme Annual Design Conditions

| Extreme Annual WS | | | Extreme Max WB | Extreme Annual DB | | | | | | n-Year Return Period Values of Extreme DB | | | | | | | |
|-------------------|------|-----|----------------|-------------------|------|--------------------|-----|-----------|------|---|------|------------|------|------------|------|--|--|
| 1% | 2.5% | 5% | | Mean | | Standard deviation | | n=5 years | | n=10 years | | n=20 years | | n=50 years | | | |
| (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) | (m) | (n) | (o) | (p) | | |
| 9.8 | 8.4 | 7.4 | 20.6 | -22.2 | 33.4 | 3.2 | 1.0 | -24.5 | 34.1 | -26.4 | 34.7 | -28.2 | 35.2 | -30.5 | 35.9 | | |

Monthly Climatic Design Conditions

| | | Annual (d) | Jan (e) | Feb (f) | Mar (g) | Apr (h) | May (i) | Jun (j) | Jul (k) | Aug (l) | Sep (m) | Oct (n) | Nov (o) | Dec (p) |
|---|----------|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Temperatures, Degree-Days and Degree-Hours | Tavg | 6.5 | -2.3 | -0.7 | 1.6 | 4.2 | 8.9 | 12.7 | 17.1 | 16.0 | 12.4 | 7.1 | 2.5 | -1.7 |
| | Sd | | 4.33 | 3.78 | 4.06 | 3.87 | 3.88 | 3.47 | 2.85 | 2.50 | 3.19 | 3.78 | 4.32 | 4.85 |
| | HDD10.0 | 1904 | 380 | 301 | 262 | 174 | 68 | 16 | 0 | 1 | 14 | 102 | 224 | 362 |
| | HDD18.3 | 4332 | 638 | 534 | 519 | 423 | 292 | 169 | 57 | 78 | 179 | 347 | 474 | 621 |
| | CDD10.0 | 640 | 0 | 0 | 0 | 2 | 34 | 97 | 221 | 188 | 86 | 13 | 0 | 0 |
| | CDD18.3 | 27 | 0 | 0 | 0 | 0 | 0 | 1 | 19 | 7 | 1 | 0 | 0 | 0 |
| | CDH23.3 | 2426 | 0 | 0 | 0 | 1 | 57 | 283 | 1024 | 761 | 276 | 24 | 0 | 0 |
| CDH26.7 | 717 | 0 | 0 | 0 | 0 | 6 | 52 | 373 | 228 | 55 | 3 | 0 | 0 | |
| Precipitation | PrecAvg | 803 | 141 | 119 | 108 | 54 | 29 | 20 | 11 | 14 | 23 | 47 | 112 | 125 |
| | PrecMax | 2448 | 737 | 731 | 624 | 328 | 182 | 58 | 115 | 76 | 100 | 480 | 489 | 793 |
| | PrecMin | 456 | 22 | 12 | 33 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 20 | 0 |
| | PrecSD | 434.5 | 191.3 | 161.4 | 137.4 | 75.4 | 44.7 | 15.7 | 17.9 | 16.7 | 26.7 | 85.3 | 133.4 | 181.9 |
| Monthly Design Dry Bulb and Mean Coincident Wet Bulb Temperatures | 0.4% | DB | 11.1 | 13.9 | 18.9 | 22.4 | 27.5 | 30.1 | 33.7 | 32.4 | 29.9 | 26.3 | 19.8 | 12.8 |
| | | MCWB | 4.2 | 5.2 | 8.2 | 9.4 | 13.1 | 14.9 | 15.3 | 14.4 | 13.1 | 11.2 | 9.1 | 4.7 |
| | 2% | DB | 8.6 | 11.0 | 16.1 | 19.9 | 25.0 | 27.8 | 32.2 | 31.0 | 28.0 | 22.9 | 16.3 | 10.1 |
| | | MCWB | 3.7 | 4.3 | 6.9 | 8.7 | 12.1 | 13.3 | 14.9 | 13.8 | 12.0 | 9.8 | 7.0 | 4.4 |
| | 5% | DB | 7.1 | 7.9 | 12.9 | 17.3 | 22.6 | 27.0 | 30.6 | 29.0 | 27.1 | 21.2 | 12.9 | 7.9 |
| | | MCWB | 2.4 | 2.6 | 5.1 | 7.7 | 10.9 | 12.9 | 14.5 | 13.3 | 11.9 | 9.1 | 5.7 | 3.6 |
| | 10% | DB | 4.4 | 6.1 | 10.2 | 14.0 | 20.1 | 24.9 | 28.7 | 27.7 | 24.8 | 18.1 | 11.0 | 6.2 |
| | | MCWB | 1.6 | 2.3 | 4.0 | 5.8 | 10.1 | 11.9 | 13.7 | 12.7 | 11.3 | 8.2 | 4.9 | 2.9 |
| Monthly Design Wet Bulb and Mean Coincident Dry Bulb Temperatures | 0.4% | WB | 6.4 | 6.2 | 8.9 | 10.9 | 14.8 | 16.5 | 18.0 | 16.7 | 16.1 | 12.3 | 9.5 | 7.7 |
| | | MCDB | 7.8 | 11.2 | 17.4 | 19.7 | 24.1 | 27.0 | 28.1 | 26.6 | 22.3 | 23.1 | 17.1 | 10.1 |
| | 2% | WB | 4.1 | 4.8 | 7.3 | 9.4 | 13.1 | 15.0 | 16.6 | 15.4 | 14.2 | 10.9 | 8.0 | 5.9 |
| | | MCDB | 7.5 | 9.4 | 15.2 | 18.0 | 22.9 | 25.4 | 27.9 | 26.2 | 24.8 | 21.4 | 14.6 | 8.4 |
| | 5% | WB | 2.9 | 3.6 | 5.9 | 8.0 | 11.7 | 13.7 | 15.6 | 14.5 | 12.9 | 9.6 | 6.7 | 4.4 |
| | | MCDB | 5.0 | 7.0 | 12.2 | 16.2 | 21.4 | 24.5 | 27.2 | 26.1 | 23.8 | 19.5 | 12.0 | 7.1 |
| | 10% | WB | 2.2 | 2.5 | 4.4 | 6.7 | 10.4 | 12.6 | 14.8 | 13.5 | 11.8 | 8.3 | 5.3 | 3.0 |
| | | MCDB | 4.4 | 5.2 | 9.5 | 13.6 | 19.1 | 23.1 | 26.6 | 25.5 | 23.8 | 17.1 | 10.1 | 5.3 |
| Mean Daily Temperature Range | 5% DB | MDBR | 12.5 | 12.9 | 14.4 | 14.9 | 17.7 | 20.6 | 22.9 | 22.7 | 22.2 | 19.4 | 15.2 | 13.0 |
| | | MCDBR | 15.7 | 17.1 | 19.1 | 21.9 | 22.8 | 24.4 | 24.7 | 25.0 | 25.9 | 25.1 | 20.4 | 16.0 |
| | | MCWBR | 10.7 | 11.0 | 10.8 | 11.5 | 10.7 | 11.1 | 9.5 | 10.4 | 11.8 | 12.9 | 12.0 | 10.5 |
| | 5% WB | MCDBR | 12.2 | 14.4 | 18.1 | 20.1 | 21.7 | 23.2 | 22.6 | 22.2 | 22.9 | 23.2 | 18.4 | 13.2 |
| | | MCWBR | 8.7 | 9.6 | 10.5 | 10.9 | 10.5 | 11.0 | 9.3 | 9.9 | 11.2 | 12.4 | 11.3 | 9.1 |
| Clear Sky Solar Irradiance | taub | | 0.270 | 0.280 | 0.265 | 0.256 | 0.257 | 0.258 | 0.263 | 0.270 | 0.276 | 0.290 | 0.278 | 0.269 |
| | taud | | 2.635 | 2.569 | 2.654 | 2.656 | 2.672 | 2.666 | 2.669 | 2.669 | 2.717 | 2.665 | 2.687 | 2.628 |
| | Ebn,noon | | 927 | 957 | 1007 | 1026 | 1022 | 1015 | 1008 | 998 | 981 | 934 | 910 | 901 |
| | Edh,noon | | 67 | 82 | 83 | 89 | 89 | 90 | 89 | 86 | 77 | 73 | 63 | 63 |

Nomenclature:

See separate page