

Design Indoor Cooling Temp.: 75 °F

Design Indoor Heating Temp.: 70 °F

Design Outdoor Cooling Temp.: 88 °F

Design Outdoor Heating Temp.: -11 °F

Temp. Difference Cooling: 13°F

Area: Minneapolis St. Paul, MN

Temp. Difference Heating: 81°F

Indoor Humidity: 50 Grains difference: 24

Whole House Load Calculator

| | | | | | | | |
|-------------------------------|-------------------------|----------------------------------|-------------------------|-----------------|-------------------------|---------------------|-----------------------|
| CTD: Cool 13 Heat 81 | Sq. ft. - types 1 and 2 | shading | Sq. ft. - types 1 and 2 | shading | Sq. ft. - types 1 and 2 | Sq. ft. | |
| Outside Wall: North | 1: 400 2: | Windows x | 1: 56 2: | Glass Doors x | 1: 2: Doors | 19.75 | |
| Outside Wall: South | 1: 400 2: | Windows [L] | 1: 36 2: | Glass Doors [L] | 1: 39.48 2: Doors | | |
| Outside Wall: E & W | 1: 400 2: | Windows [L] | 1: 48 2: | Glass Doors [L] | 1: 2: Doors | 15.35 | |
| Outside Wall: NE & NW | 1: 2: Doors | Windows x | 1: 2: Doors | Glass Doors x | 1: 2: Doors | | |
| Outside Wall: SE & SW | 1: 2: Doors | Windows [L] | 1: 2: Doors | Glass Doors [L] | 1: 2: Doors | | |
| Sky Lights | N: S: | E-W: | NE-NW: | SE-SW: | | | |
| Floor - (linear ft. if slab) | 1: 1600 2: | insulators | | GFLD | | | |
| Ceiling | 1: 1600 2: | | | | | | |
| Number of Appliances | 1 | | | | | | |
| Number of People | 4 | Fresh air recommended: 11cfm --> | | | CFM | | |
| Conditioned - Sq. ft.: | 1924 | Cubic Ft.: | 16000 | Construction: | below av | Duct system: | crawlspe R-2 below av |
| Total Btu's Cooling | | Sensible Load | | Latent Load | | Total Btu's Heating | |
| 28486 | | 25059 | | 3427 | | 79955 | |
| sq. ft & cubic ft. calculator | length --> | width --> | height --> | Calculate | | | |
| air change calculator | cubic ft. --> | cfm's --> | changes --> | per hr. | Calculate | | |
| inches to feet | inches | equal | feet | | | | |

To change the structure & start over click here

Btu breakdown

| | Sensible | Latent | Heating |
|--------------|----------|--------|-----------|
| walls | 2246 | | 8461 |
| windows | 5408 | | 10206 |
| ceilings | 6480 | | 10497.6 |
| doors | 255.528 | | 796.068 |
| floors | 2274.24 | | 12195.2 |
| appliances | 1200 | | |
| people | 920 | 800 | |
| glass doors | 1263 | | 4061.3076 |
| skylights | 0 | | 0 |
| infiltration | 1147 | 1309 | 13597.85 |
| fresh air | 0 | 0 | 0 |
| duct load | 3866 | 1318 | 20140 |
| Totals | 25059 | 3427 | 79955 |

Structure types

- Outside Walls 1: Siding or Stucco no insulation w/R6 board
- Outside Walls 2:
- Windows 1: single pane - drapes
- Windows 2:
- Glass Doors 1: single pane - drapes
- Glass Doors 2:
- Floors 1: closed or vented crawl R-2 or R3 board
- Floor 2:
- Ceiling 1: Ceiling under attic space R-11
- Ceiling 2:
- Doors: Wood solid with storm
- Skylights: