

# ROOM HEATING CALCULATOR

[OHM'S LAW CALCULATOR \(OHMS-LAW.ASPX\)](#)

[ROOM HEATING CALCULATOR \(COMFORT-HEATER.ASPX\)](#)

Use our room heating calculator to determine the most efficient and economical way to heat a large enclosed area.

## INSTRUCTIONS

The Room Heating Calculator is designed to be an approximate sizing guide for determining heat loss from a room. The Wizard will determine a total heat loss value based on your specific room data. The resulting value can then be used for specifying the appropriate Chromalox comfort heater for your heating needs.

### 1. ROOM SIZE & SPECS

Length:  ft.      Width:  ft.      Height:  ft.

Total Sq. Footage:  ft.      Room Cu. Footage:  ft.

Item	Area	R-Factor	= BTU/Hr/Degrees F
Windows	<input type="text" value="88"/> Sq. ft.	x <input type="text" value="0.88"/>	= <input type="text" value="100.0000"/>
Doors	<input type="text" value="21"/> Sq. ft.	x <input type="text" value="3"/>	= <input type="text" value="7"/>
Net Walls	<input type="text" value="1152"/> Sq. ft.	x <input type="text" value="1"/>	= <input type="text" value="1152"/>
Roof	<input type="text" value="636"/> Sq. ft.	x <input type="text" value="0.5"/>	= <input type="text" value="1272"/>
Floor Perimeter*	<input type="text" value="96"/> Sq. ft.	x <input type="text" value="1.25"/>	= <input type="text" value="76.80000"/>
<b>Transmission Losses Total</b>			= <input type="text" value="2607.8"/>

\*Use the R-Factor Reference to lookup common material R-Factor values. Important: R-Factor values are additive. For example, 2" of softwood results in an R-Factor of 2 x 1.25 = 2.5.

\*For floor perimeter use U-factor of 1.2 for 1" insulation or 0.7 for 2" insulation.

### 2. DESIGN INFORMATION

Air Changes per hour:       Outside Design Temp:

Inside Design Temp:

Temperature Difference:

*Design Temperature Reference*

### 3. CALCULATIONS

**Air Changes Loss:**  Cu. Ft / hr x 0.019 BTU / Cu. Ft =

**Total Losses** Transmission Losses + Air Change Loss =

Total Heating Requirement

Total Losses	x Temperature Difference	= Total BTU / Hr
<input type="text" value="2607.8"/> BTU/Hr/Degrees F	x <input type="text" value="40"/> Degrees F	= <input type="text" value="104312"/> BTU / Hr

Conversion to Watts

Total BTU / Hr / 3.412 BTU per watt =  Total Watts per hour

*Select a Comfort Heater (/catalog/industrial-heating-products-and-systems/comfort-air-heaters)*