

ELECTRIC INFRARED SIZING INFORMATION

TYPES OF ELECTRIC INFRARED APPLICATIONS

1. Total Area / Building Heating

Average: 8-20 Watts per Square Foot

Calculation: Sq. Ft. of Area x .5 x Desired Temp Rise* = Total Watts Required.

* - Desired Temperature Rise = Desired Comfort Level - Outside Design Temp

Note: Above calculation is an **AVERAGE ONLY**. Always Reference Fostoria's Heating Manual to determine ALL heat loss calculations.

Principles of Total Area / Building Heating:

- ~Always complete a "Heat Loss Calculation" ~Avoid mounting below 8' ft.
- ~Concentrate heat on perimeter areas ~Avoid mounting unit directly over an individual's head

2. Indoor Spot Heating

Average: 25-60 Watts per Square Foot

Calculation: Sq. Ft. of Area x 1 x Desired Temp Rise = Total Watts Required.

Principles of Indoor Spot Heating:

- ~Always cross beam patterns ~Avoid mounting below 8' ft.
- ~Always try to heat from both sides of object ~Avoid mounting unit directly over an individual's head

3. Outdoor Spot Heating

Average: 2 Watts per Square Foot per Desired Temp. Rise

Calculation: Sq. Ft. of Area x 2 x Desired Temp Rise = Total Watts Required.

Principles of Outdoor Spot Heating:

- ~Use Quartz Lamps or Quartz Tubes ~Never use 90-Degree Patterns
- ~Always use the MTM, OCH & RPH Heaters ~Strive for Blanket Coverage of Area

4. Snow and Ice Control Heating System

Average: 85-110 Watts per Square Foot

Calculation: Sq. Ft. of Area x Required Watts / Sq.Ft.* = Total Watts Required.

* - Required Watts = Table B Result (Table A: Factor I + Factor II)

Principles of IR Snow & Ice Control Systems:

- ~Always use Quartz Lamps ~Never use 90-Degree Patterns
- ~Always use the Mul-T-Mount Heater ~Never Mount Above 16' ft.
- ~Strive for Blanket Coverage of Area

Table A			
Factor I		Factor II	
Outside Design Temp. Deg.F	Value	Annual Snowfall (In.)	Value
-20 to -60 Deg.F	4	80" to 115"	4
-10 to -19 Deg.F	3	50" to 79"	3
0 to -9 Deg.F	2	20" to 49"	2
+19 to 1 Deg.F	1	10" to 19"	1
+40 to 18 Deg.F	0	0" to 9"	0

Note: Must Reference Table 4 of Fostoria's Heating Manual to determine the outside design temp. and the annual snowfall for the designated area.

Table B			
Total Value (From TABLE A)	Watt Densities per Square Foot (*)		
	Exposed	Semi-Protected	Protected
8	200	185	160
7	175	160	145
6	125	110	100
5	110	100	90
4	100	90	85
3	95	80	75
2	90	70	65

(*) - Exposed = Totally Open Area; Semi-Protected = One side closed plus roof or overhang; Protected = Three sides plus roof or overhang.

NOTE: Always refer to your Electric Infrared Heating Manual to verify all calculations. The above formulas are for average heating requirements in average locations.