# **COMPARATIVE CASE STUDY**

**Cambridge Space Heaters vs. Infrared** Distribution Centers – IL and MI

# **Cambridge Space Heaters**



**Operating Costs** Based on 6,485 Heating Degree Days at 65°

\$0.18/ft<sup>2</sup> Gas cost @ \$1.00/therm \$0.03/ft<sup>2</sup> Electric cost @ \$0.08/kWh

\$0.21/ft<sup>2</sup> Total cost

# Infrared Heaters



**Operating Costs** Based on 6,440 Heating Degree Days at 65°

\$0.38/ft<sup>2</sup> Gas cost @ \$1.00/therm \$0.01/ft<sup>2</sup> Electric cost @ \$0.08/kWh

\$0.39/ft<sup>2</sup> Total cost

### **Building Specifications**

- 280,000 ft<sup>2</sup> x 33' high
- R-14 Roof / R-8 Walls
- · Located in Chicago, IL

### **Heating System**

- (4) Cambridge Space Heaters
- Roof top mounting
- 7.600 MBH total
- 40 HP total intermittent

- 50.000 CFM total

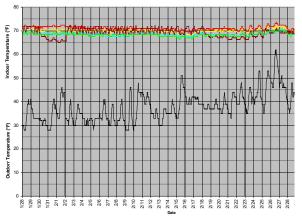


### **Building Specifications**

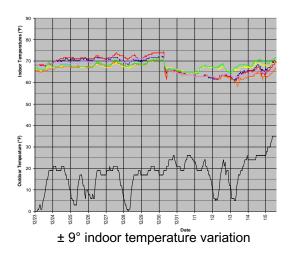
- 451.000 ft<sup>2</sup> x 35' high
- R-15 Roof / R-10 Walls
- Located in Detroit. MI

### **Heating System**

- (48) Infrared Tube Heaters
- Suspended mounting @ 28'
- 9.600 MBH total
- No outside air
- 12 HP total intermittent



± 5° indoor temperature variation





## **Summary**

The Cambridge system used over 46% less total energy.

If the 451,000 ft<sup>2</sup> facility had installed a Cambridge system they could have saved approximately **\$81,000/year** operating at \$0.21/ft<sup>2</sup> vs. \$0.39/ft<sup>2</sup>.