# **Comparative Case Study**

Cambridge HTHV vs. Direct Fired Recirculation

# **Chicago Distribution Centers**

### **Cambridge HTHV Space Heaters**



#### **Operating Costs**

Based on 4,913 Heating Degree Days @ 60°

\$0.17/ft<sup>2</sup> Gas cost @ \$1.00/therm \$0.01/ft<sup>2</sup> Electric cost @ \$0.08/kWh

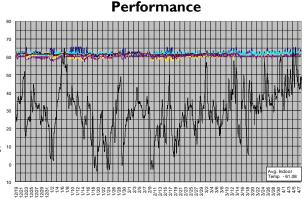
\$0.18/ft<sup>2</sup> Total cost

### **Building Specifications**

- $440,000 \text{ ft}^2 \times 35$ ' high
- R-14 Roof / R-10 Wall

#### **Heating System**

- (4) Cambridge HTHV Space Heaters
- 8,096 MBH total
- 40.800 CFM
- 30 HP total intermittent



#### **Direct Fired Recirculation Heaters**



#### **Operating Costs**

Based on 4,913 Heating Degree Days @  $60^{\circ}$ 

\$0.21/ft<sup>2</sup> Gas cost @ \$1.00/therm \$0.07/ft<sup>2</sup> Electric cost @ \$0.08/kWh

\$0.28/ft<sup>2</sup> Total cost

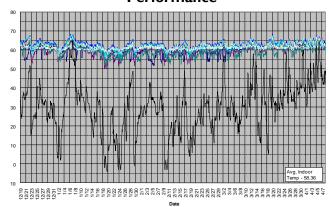
#### **Building Specifications**

- $370,000 \text{ ft}^2 \times 34$  high
- R-14 Roof / R-10 Walls

#### **Heating Systems**

- (4) Direct Fired Recirculation
- 5,600 MBH total
- 100,000 CFM
- 60 HP total continuous

#### **Performance**



## Summary

The Cambridge system used over **36% less** total energy with less temperature variation. If the 370,000 ft<sup>2</sup> facility had installed a Cambridge HTHV system they could have saved approximately **\$37,000/year** operating at \$0.18/ft<sup>2</sup> vs. \$0.28/ft<sup>2</sup>.

