

# KOCH AIR

## PROJECT OVERVIEW

- ▶ 48,000 ft<sup>2</sup> retrofit
- ▶ 50% more light
- ▶ 37% less energy

*"After testing the SES lighting system I was sold. Better lighting leads to a safer work environment with fewer mistakes. The energy savings was just an added bonus"*

*Tom Ancelet*  
Warehouse Manager  
Koch Air

## Background

Koch Air is a distributor of residential and commercial heating and cooling equipment. The lighting system at one of their warehouses consisted of 400-watt high pressure sodium fixtures. The "yellow" light of HPS combined with inadequate light levels prompted warehouse manager Tom Ancelet to seek out better and more energy efficient lighting for his warehouse. A Stingray Energy Systems salesman called on Tom to introduce him to Stingray's products and value proposition. After a short testing period, Tom was convinced the SES solution was the best option.

## Solution

The best retrofit solution was a simple one-for-one replacement of all 102 existing 400-watt HPS fixtures with Stingray's dual-reflector SPA acrylic highbays utilizing 250-watt pulse-start metal halide lamp and ballast technology.

The luminaires were shipped to the Koch Air facility and the SES installation crew assembled, set and installed the fixtures in two and a half days.



## Results

The result of this retrofit was a 37% reduction in lighting wattage which corresponds to an annual energy savings of over 68,000 kWh. As predicted ahead of time with light modeling software, the energy savings was accompanied by a much needed 50% increase in light levels. The higher levels combined with the greatly improved color temperature and color rendering of the metal halide lamps significantly improved the visibility and overall look of the facility.

## CARBON REDUCTION EQUIVALENTS

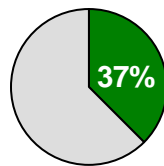


⇒ 140

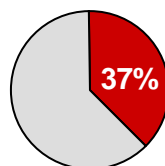


⇒ 9

**Cost Savings**



**Energy Savings**



**Light Levels**

above IESNA <sup>‡</sup>	meets IESNA	below IESNA
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Lighting Quality\***

better	same	worse
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<sup>‡</sup>application specific maintained illuminance recommended by the Illumination Engineering Society of North America

\*as judged by the facility's staff and workers

