

# Project Profile

## KUEHNE + NAGEL

### Lighting Renovation

The Kuehne + Nagel Group (K&N) is a global transportation and logistics provider based in Switzerland with more than 1,000 offices in over 100 countries. Throughout their 120 year history, K&N has evolved from a traditional international freight forwarder to a leading global provider of innovative and fully integrated supply chain solutions. The company is committed to offering environmentally sound, sustainable and innovative supply chain solutions that continually reduce the impact on the environment and considers energy efficiency a cornerstone to their green strategy.

#### Facility Type:

Distribution Center

#### Square Footage:

480,000 SF

#### Products:

T5 Aisle Fixtures and Occupancy Controls

#### Savings:

\$99,132 Annually

#### Incentives:

Credits from Georgia Power

*"... timing also allowed K&N to qualify for a substantial tax deduction under federal EPACK laws, which accelerated the total project payback period to less than one year."*

#### Situation

In 2012 Kuehne + Nagel were interested in identifying ways to reduce energy consumption while improving the quality of light for added safety and security in their McDonough GA distribution center facility. Specific goals with respect to energy savings, project payback and very aggressive timelines for implementation were put forth in a competitive bid request.

#### Solution

The energy efficient lighting project incorporated T5 fixtures that were designed to better distribute light in the narrow aisle ways of the facility. Occupancy sensors were also incorporated to reduce the operating hours of fixtures during non-occupied periods in specific areas of the facility. The solution was not simply a one-for-one fixture upgrade but was based upon an engineering grade audit conducted prior to project implementation. The audit led to a comprehensive plan to re-design lighting that helped eliminate unnecessary fixtures in order to maximize energy savings while meeting all lighting quality and safety objectives. Both the design/audit and implementation phases were performed by Eco Engineering - on-time and on-budget.

#### Results

The project exceeded expectations with regard to reductions in energy demand and consumption over the first year.

- Annual Demand Reductions  
More than 1,247 kW over first year
- Annual Consumption Savings  
Estimated at 1,003,776 kWh per year
- Reduced Billings  
Coupled with the credits earned from a rebate program offered by local utility provider Georgia Power the project delivered total energy savings of \$99,132 for the first year following the renovation. The aggressive implementation timeline was achieved, enabling the project to deliver savings within the current fiscal year as required. This timing also allowed K&N to qualify for a substantial tax deduction under federal EPACK laws, which accelerated the total project payback period to less than one year.