



## Johnson Granite Supply Lighting Retrofit Case Study

### About the Client

Johnson Granite Supply is a leading nationwide supplier to memorialists of domestic and imported granite monuments, supplies and equipment. Johnson Granite has been in business for 40 years, with locations in Elberton GA and North Kansas City, Mo. The company sought to upgrade their existing T12 lighting to energy efficient T8 technology.

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### *Project Cost/Savings...*

*Total Cost: \$18,094*

*Incentives: \$14,215*

*Net Price: \$3,879*

*Annual kWh Savings: 21,793*

*Annual Utility Savings: \$3,092*

*Projected R.O.I.: About 1.5 years*



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## Project Details...

### **About the Project**

The main warehouse/showroom had un-even lighting and numerous “dead fixtures”. We created a new lighting layout for these areas resulting in consistent light levels and reduced fixture counts.

This project included removal of over sixty outdated T12 lamps; and installation of eighteen energy-efficient T8, 4 and 6 lamp fixtures. The addition of motion sensors also increased their savings.

The project also included replacing twenty-eight T12 4-lamp recessed troffers with T8 3-lamp recessed troffers, and install motion sensors in private office, the break room, and rest rooms.

### **Savings**

This lighting upgrade resulted in:  
74% reduction in kWh consumed.  
75% of project cost off-set by incentives.

### **Greenhouse Emissions**

Carbon Dioxide reduced by 26,729 pounds (12.1 metric tons)

Equivalent to:  
Annual gas emissions from 2.5 passenger vehicles or 1,359 gallons of gasoline consumed.

### **About Worldwide Energy..**

*As commercial energy efficiency experts, we help our clients minimize utility expenses with energy efficiency solutions.*

*Our efforts focus primarily on the areas that provide the greatest utility cost savings and where financial incentives create a rapid return on investment.*

*Worldwide Energy offers a total turnkey solution; utility rebate and Federal EPAct documentation; complete design & installation services; recycling and project financing.*

## **Client Concerns**

Johnson Granite had several objectives including:

- Better quality consistent light distribution
- Removal of un-operable (dead) fixtures
- Reducing annual operating expense
- Reducing energy consumption
- Increasing employee productivity
- Rapid return on investment
- Professional installation within a limited time frame

## **The Scope of Work**

The main warehouse and showroom had inefficient lighting with varying lamp colors, resulting in poor lighting for customers and employees.

The existing fixture count was 41 fixtures. Twelve existing fixtures were retrofitted with lamps and ballasts. Fifty-two premium T8 fixtures were installed. The Worldwide Energy installation crew completed the project in 5 days with no disruption to the client’s business hours.

## **Recommendations & Benefits**

**Better Visual Acuity** – the specified lamps will result in significantly higher lumen maintenance, more uniformity of illumination, and 30% higher color rendering index (CRI), resulting in fewer errors, and improved morale and safety conditions.

**Reduced Maintenance, Repair and Replacement Expenditures** – 5-year ballast warranty, 24-36-month\* lamp warranties, & 20,000 hour lamp life will result in lower maintenance and repair costs.

**Indirect Utility Expense Reduction** –the specified fixtures will reduce peak demand charges, and reduce the heating & cooling load further reducing utility bills.

## **Photos**

