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*Certified Woman Owned Business WBENC#2005118320*



### **Magna Seating Detroit LED Lighting Case Study**

Magna Seating Detroit was approached by The Safety Source during the 2nd quarter of 2014 in reference to upgrading the interior and exterior lighting to new energy efficient LED fixtures. The Safety Source started the lighting upgrade in late October and completed the project by late November. The entire building envelope was retrofitted with energy efficient LED fixtures and lamps, including high bay, task/inspection, office fixtures as well as all parking lot and wall packs on the exterior of the 350,000 sq. ft. facility. The LED upgrade resulted in the following savings, improved light levels and maintenance costs avoidance.

#### **SAVINGS**

- Reduced high bay lighting consumption by 57% | replaced (485) T5 6 lamp fluorescent fixtures that consumed 356 watts each with (456) 159W LED fixtures 100,000 hour life expectancy
- Reduced task lighting consumption by 74% | replaced (140) T12 & T8 8 ft 2 lamp fluorescent fixtures that consumed 192 watts with (140) 50W LED strips
- Reduced office lighting consumption by 50% | replaced (402) T8 2 & 3 lamp fixtures with (402) T8 18W LED tubes 50,000 hour life expectancy
- Reduced exterior HID parking lot & wall packs consumption by 74% | replaced (44) 400 watt metal halides that consumed 460 watts with (44) 120W LED fixtures 100,000 hour life expectancy
- **Reduced maintenance costs by \$10,000 annually**
- **Annual Electricity Savings \$100,800**
- **Rebate amount captured from DTE Energy \$86,707**

#### **LIGHT QUALITY**

- Warehouse area from 34 to 57 FC +40%
- Production area from 45 to 99 FC +65%
- Inspection area from 55 to 122 FC +65%

#### **PAYBACK | ROI**

- 11 Months
- 5 year warranty on LED High bay fixtures, LED tubes and LED parking lot and wall pack fixtures

#### **ENVIRONMENTAL IMPACT**

- Pounds of Carbon Dioxide reduced 2,029,041
- Equivalent number of cars removed from road 169
- Equivalent number of trees planted 19,880