

## **Stainless Sales**

**Project Name:** Stainless Sales  
**Project Location:** Stainless Sales Plant, Chicago, IL  
**Date of Installation:** December 2001

Stainless Sales is a 50,000 square foot plant that cuts aluminum rolls into various sizes. They chose a new electricity supplier, Mid American Energy in Des Moines, Iowa, who asked MetalOptics to help solve their lighting issues.

**Objective:** The customer wanted increased light over slitting machinery and lower energy consumption. They were planning to purchase a new metal halide lighting system. The existing system was 17 years old, using 400-watt mercury vapor high bay fixtures mounted at 28 feet. Plant wide average footcandles were 25 to 30. The system was using a 240v feed, supplying two 400-amp panels running at 380 to 400 amps.

**Solution:** MetalOptics recommended the 2x4 4 lamp T5HO MRU series fixture with task beam reflectors. Due to the existing 240v system, we used a multi-volt ballast. Over machinery, a one-for-one replacement yielded 70 footcandles, while reducing wattage from 450 to 240. In non-production areas (warehouse, shipping) we installed one new fixture for every two existing. Footcandles still increased to 45, while wattage decreased from 900 to 240.

The customer also avoided an \$18,000 cost to replace the existing amp panels, which are now drawing only 320 amps each. Overall building electrical usage is down 20%. Reports of metal imperfections prior to cutting have increased 400%, resulting in fewer returns from customers.

**Material:** Fixture – MRU24 4 54T5HO T1X20 MVOLT 3/2 BF10 OSPS; Ballast – QT2X54/120-277PHO; Lamp – FP54/841/HO.

### **Energy Savings:**

Total Existing Wattage:	59,400
Total New Wattage:	21,060
Total kW Savings:	38 per month
Total kWh Savings:	153,360 per year
Total Energy Savings:	\$10,735 per year



**Before**



**After**