

# World's Largest Aluminum Can Manufacturer Sees Clear ROI From Lighting Makeover

## A look inside

Welcome to the birthplace of the two-piece aluminum can in Golden, Colorado. Inside the sprawling 1 million square feet of Rocky Mountain Metal Container you'll find that every detail matters. After all, this is the world's largest can manufacturing facility, where can lines run in excess of 2,000 cans per minute.

## Reaching back to forge forward

The key to the vision of Patrick Sullivan, facility manager of the plant, was greater lighting quality and efficiency. "Being in beverage manufacturing most of my career, I knew we had to focus on continual energy efficiency improvements. It's why I took on the project of assessing our lighting. I had success with this before and felt we could have success here."

## Vital objective: Identifying the right lighting vendor

Sullivan points out that, "Confidence and relative experience were primary factors in the vendor selection process." They chose an industry proven energy efficiency vendor with lighting experience. They started by performing an initial lighting assessment for the entire plant, and the results were enlightening.

## The dilemma: Too many lighting options in place

With the assessment, the facilities team realized how varied their lighting stock was across the entire plant. They were using 15 to 20 different lighting fixtures. This made inventory expensive and just plain tedious. "It became obvious we needed some streamlining," stated Sullivan.

## The approach: Slowly warm up management

While facilities folks can get pretty excited about the benefit of more efficient lighting, you must have buy-in from management who analyzes the ROI and other financial aspects.

Prudently, they started small by first utilizing a warehouse lighting re-vamp. By combining T8 fixtures in 4-foot, 12-bulb configurations with automatic motion sensor devices; they found greater efficiency, easier maintenance and a better lighting and working environment. Plus the rebates from Xcel Energy really put the ROI (less than three years) over the top as a success.



"The most notable result for us was the fact **we are spending less** per lumen."

**PATRICK SULLIVAN**

Manager, Tooling, Metrology and Facilities Maintenance at Rocky Mountain Metal Container

## PROJECT SNAPSHOT

Project	Replaced T5, T8, T12 and HID's with high-efficiency T8 fluorescents in warehouse and production areas. Added ceiling mount occupancy sensors.
Cost	\$606,950.31
Xcel Energy rebate	\$ 154,683.04
Cost after rebate	\$452,267.27
Estimated annual energy savings	\$190,000 and 2.924 GWh
Payback term	Less than 2.5 years
Demand reduction	345 kW

With the warehouse conversion a winner, Rocky Mountain Metal Container had momentum. However, as they approached the lighting makeover for the production areas, new challenges emerged. The existing 1,000-watt fixtures were varied and not delivering the quality of light for production. There was a clear need for better illumination and control.

The most challenging aspect was in the decorating area where final visual inspections to the labeled cans required very bright, consistent lighting. This is where mistakes can be costly.

Operations people liked the new T8 bulbs because they got better lighting that made work more productive.

### Carrying on the corporate green theme

This facility is proud of the fact that aluminum cans are the most environmentally sustainable beverage container today. Most aluminum cans have 68 percent recycled metal. On average, a recycled aluminum can will become a new can in less than 60 days.

The added electric efficiency works right into MillerCoors environmental objectives. The company has no problem spending money to save money, and this lighting efficiency project proved itself worthy.

### Added bonuses to this lighting makeover

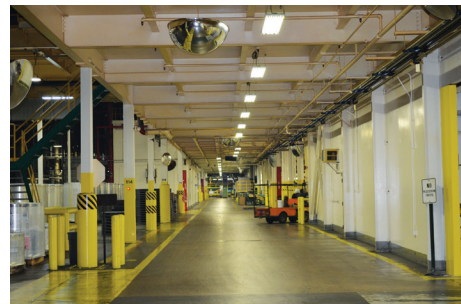
The facilities team found additional value in the new lighting configurations. Because the new bulbs produced less heat, this led to a longer working life of the bulb. The new lighting has provided a much safer working environment.

### Over-arching theme: "Less cost per lumen"

Sullivan summarizes by saying, "The most notable result for us is the fact we are spending less per lumen." Other added outcomes are also clear ...

- Excellent ROI
- Reduced lighting inventory
- Interchangeability of bulbs with fixtures
- A better quality of light—a more desirable place which improves productivity

Consider evaluating your lighting needs with an on-site survey coordinated through Xcel Energy. When your business leverages various rebates and incentives, the savings can be both immediate and long-term. For more about Xcel Energy's Lighting Efficiency rebates, visit [xcelenergy.com/LightingEfficiency](http://xcelenergy.com/LightingEfficiency).



### A three phase approach to projects

- Warehouse area 2010
- Production area 2012
- More challenging production areas 2013

