



Light is cool: LED lighting for freezers

Mike & Lori's No Frills

Brighton, Ontario

The situation.

The No Frills banner is part of Loblaw Companies Limited, a Canadian company synonymous with the grocery business and the largest food retailer in the country. The No Frills stores, each bearing the name or names of its owners, are designed to promote a community store with lower food prices thanks to a simple, unadorned retail format. However, simple doesn't mean the guiding principles of good retail lighting don't apply. Mike & Lori's No Frills store was very interested in improving the lighting in its freezer cases, but to keep costs down, they needed an efficient, low maintenance solution.

One of the most difficult grocery areas to light effectively and efficiently has always been the freezer cases. They have very little space to mount light fixtures and the product is often placed up close to the glass door fronts leaving

little room for effective light distribution. The standard practice is to mount fluorescent lamps vertically, top to bottom, in the mullions of the doors and display frames. Unfortunately, fluorescent technology loses light output in cold temperatures and the light becomes less uniform over time. The life of fluorescent lamps is also shortened with frequent switching on and off.

The solution.

Linda Conejo, OSRAM Account Manager works very closely with businesses to help them incorporate the best LED solutions for their applications. As it happens, LEDs are ideal for freezer cases, since they have a slim profile, they use very little energy and cold temperatures actually enhance their performance. In addition, their 50,000 hour (L70) life is unaffected by frequent switching.

Goals & Results

Improve freezer display lighting while reducing energy and maintenance costs in a grocery store.

- Estimated annual energy cost savings: \$4,800
- Estimated annual kWh savings: 40,000 kWh at \$0.12/kWh
- Estimated annual maintenance cost savings: \$1,000



Working with the OSRAM team, the Loblaw corporate office and Mike & Lori's No Frills, Conejo recommended the OSRAM LEDstixx® family of products that are designed specifically for freezer cases. At the time, the store had a very typical setup of 128 T8 fluorescent lamps (106 32-watt and 22 72-watt lamps) lighting up the vertical cases in their freezer aisle. Conejo looked at the various LEDstixx options, eventually selecting the 5-foot, 4000K colour temperature units for shallow set-back freezers (LSX/V/S/24V/840/60). The OSRAM LEDstixx product range offers different fixtures for left, right and centre case mullions, allowing for very efficient optics that shine light only where it is needed. The left and right units consume 15 watts each, while the centre unit, which shines light to both sides of the fridge, consumes 22 watts.

In addition to energy savings, LEDstixx offer an excellent colour rendering of over 80 and their uniform light saturates the merchandise with more colour and punch, yet less glare than traditional fluorescent lamps.

About OSRAM SYLVANIA, Inc.

OSRAM SYLVANIA is part of OSRAM Americas, a group of OSRAM companies located in North and South America. As a leader in lighting solutions and services, specializing in innovative design and energy saving technology, the company sells products for homes, businesses and vehicles under the brand names OSRAM, Traxon, ENCELIUM and SYLVANIA. The company's portfolio covers the entire lighting value chain of components, ranging from lamps, control units and optical semiconductors such as light-emitting diodes (LED) to luminaires, light management systems and lighting solutions. The OSRAM SYLVANIA and OSRAM Americas regional headquarters is located in Danvers, Massachusetts. For more information, visit www.osram-americas.com.  [/sylvania](https://twitter.com/sylvania)  [/sylvania](https://facebook.com/sylvania)

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The bottom line.

Choosing the LEDstixx fixtures for the freezer cases allows Mike & Lori's No Frills to realize up to a 40,000 kWh annual energy savings which would result a \$4,800 cost saving. In addition, thanks to the long life of LEDs, the store can expect to save up to \$1,000 in maintenance costs annually.

The installation of the LEDstixx was handled by SYLVANIA Lighting Services, the experts in LED lighting product installation, from the circuit breaker to the bulb. This made the changeover process very simple.

Mike and Lori's No Frills store now has an efficient, cost-saving lighting solution that not only enhances the bottom line, but improves the appearance of their merchandise; something that would please any retailer. The owner of Mike and Lori's has already recommended the choice to two other No Frills stores in the area.

OSRAM LEDstixx for refrigeration cases are a superior lighting solution to replace fluorescent lamps.

