

IMPROVING ENERGY COSTS & MAINTENANCE WITH LIGHTING



CASE STUDY

CANADIAN BIO-SYSTEMS, CALGARY, ALBERTA

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SITUATION

Canadian Bio-Systems Inc. is an innovation-focused company that researches, develops and manufactures a wide range of products used in feed, food, industrial and environmental applications. Established in 1984 and headquartered in Calgary, Alberta, Canada, the company has manufacturing and warehouse locations east and west that serve customers around the globe.

Company leadership felt that the illumination in its Calgary manufacturing plant could be improved

and environmentally responsible at the same time. Krisjan Jones, operations director at Canadian Bio-Systems, turned to Nedco, one of Canada's largest electrical wholesale suppliers.

Darven Smetaniuk, lighting specialist at Nedco, said, **"We went with SYLVANIA LED lighting products from LEDVANCE because of their solid performance and ease of doing business"**

SOLUTION

In the manufacturing area, metal halide high bays and traditional T8 fixtures were replaced with **SYLVANIA Vapor Tight** and **High Bay LED Luminaires** which deliver energy savings of up to 67 percent and last up to 120,000 or 150,000 hours, respectively. The **SYLVANIA Vapor Tight Luminaire** is IP65 rated, ETL Sanitation certified for NSF splash zones. **SYLVANIA High Bay Luminaires** are light weight with a traditional design and interchangeable optics. These luminaires are ideal in place of traditional luminaires, or as new installations, and offered in three wattages/lumen packages for use in warehouses, manufacturing facilities, big-box retail, gymnasiums, and loading docks.

In the office and common areas, the traditional lighting was replaced with a variety of long-lasting, energy-saving **SYLVANIA LED**

indoor luminaires and lamps. The traditional fluorescent 2X4 and 1X4 troffers were replaced with **SYLVANIA Edge-Lit Panels**, environmentally preferable LED alternatives that offer up to 47 percent in energy savings. Traditional T8 lamps were replaced with **SYLVANIA SubstiTUBE IPS LED T8** lamps, that boast a 50,000 hour life (L70). The 54 watt traditional fluorescent T5HO lamps were replaced with 25 watt **SYLVANIA SubstiTUBE LED T5HO** lamps which mimic the look of the traditional lamps with an optimized glass optic design and deliver energy savings up to 40 percent.

The 50 watt traditional MR16 lamps were replaced with **SYLVANIA ULTRA LED™ MR16** lamps. The LED lamps also boast a 25,000 hours life (L70), providing 12.5 times longer life than halogen MR16 lamps which reduces maintenance costs.

GOALS:

Increasing light levels and light quality while reducing energy usage and maintenance costs

PRODUCTS INSTALLED:

- 26 SYLVANIA High Bay Luminaires
- 24 SYLVANIA Vapor Tight Luminaires
- 57 SYLVANIA Edge-Lit Panels
- 18 SYLVANIA SubstiTUBE® LED T5HO Lamps
- 28 SYLVANIA SubstiTUBE IPS LED T8 Lamps
- 3 ULTRA LED™ MR16 Lamps

ANTICIPATED ANNUAL SAVINGS:

- Energy savings = 43,019 kWh
- Energy and maintenance cost savings = \$4,400
- CO₂ emissions savings = 10,500 kg of CO₂



BOTTOM LINE

"We really appreciate how clean and crisp our facility looks under the new lighting... and our employees really like the improved light levels."

Krisjan Jones, Operations Director

In addition to enjoying beautiful light, Canadian Bio-Systems is also benefiting from annual energy and maintenance cost savings of \$4,400. As a result of the LED lighting upgrade, the office building is saving approximately 43,019 kWh annually, resulting in an anticipated 10,500 kg of CO₂ emissions also reduced each year.

\$4,400 SAVED IN ANNUAL ENERGY AND MAINTENANCE COSTS

43,019 KILOWATT HOURS SAVED ANNUALLY

10,500 KILOGRAMS OF CO₂ EMISSIONS REDUCED PER YEAR