

Nedap Luxon

e-HID ballast 250-2,000W for HID Light Management



Distribution runs at full speed with Luxon e-HID Lighting

Industrial case study | Brian Kurtz Truck Service Ltd.



Project outlines

Brian Kurtz Trucking Ltd. In North America has been in operation since 1980 and provides regular LTL and Truckload services between Southwestern Ontario in Canada and 48 US states. Their service program includes temperature controlled services, hazardous materials services, expedite

services, one call logistics services and dedicated truck services. The company's mission is to provide better, more reliable service than anyone. No ifs, ands, buts, or maybes! The management plans are set to continue growth based on the finest quality and service in the industry.

nedap
Luxon

Get the best out of your HID Lighting

Nedap Luxon

Industrial case | Brian Kurtz Truck Service Ltd.

The company has installed lighting for various locations, including their warehouse/distribution center, maintenance shop, truck shop and the outdoor packaging areas. In the Breslau facility all the lighting needed modernization. A plan was developed to upgrade the existing T12 8'x 2 lamps and some 400W MH Core on Coil units. The following in depth audit that was performed by Eco-Shift Power Corp. resulted in the recommendation to replace the majority of lighting units for the 250W MH Nedap Luxon solution. In some low-bay areas the logical decision was made to replace existing lighting units for modern T5 4'x 2 – 54W lamps.



Key Achievements Nedap Luxon

Energy savings

reduced by 67 %

Maintenance cost

reduced by 22 %

Lamp power

reduced from 400W to 250W MH (Pole lighting)

reduced from T12 8'x2 to 250W MH (Warehouse and maintenance shop)

- *0-10V analogue dimming*
- *Extended HID lamp life*

reduced from T12 8'x2 to T5 4'x2 54W (Shop)

CO₂ savings per year

32 metric Tons CO₂ saved

ROI

57 % savings on capital investment

Payback period

1.6 years / 19 months

Total annual operating cost savings

\$ 13,671 (operational costs only)

Situation before upgrade

For the high bay facilities and for the outdoor area the potential for energy saving on lighting equipment was evident. A lighting assessment and detailed 10-year life cycle analysis showed that for most area's a 250W Metal Halide pulse start solution in combination with the Nedap Luxon electronic ballast would provide the highest light output and cost savings.

- Operating time 13/6 days indoor and 12/7 days outdoor
- 400W MH probe start, Core On Coil
- T12 8'x2 lamps, Core on Coil
- 15 Foot-candles on work floor with 38 Lumen/W lamp output

Upgrade and final result

Kurtz Trucking selected a Nedap Luxon installation for their manufacturing facilities to gain maximum efficiency and to improve working conditions. In addition, each HID luminaire was equipped with an occupancy/motion sensor in order to fully maximize the energy savings by dimming the lamp. This allowed Kurtz Trucking to apply for rebates from the Electricity Retrofit Incentive Program (ERIP) in Ontario.

Technical upgrade

- 400W MH Core On Coil unit replaced by 250W Nedap Luxon electronic HID ballast with acrylic reflector

- T12 8'x3 lamps units replaced by 250W Nedap Luxon electronic HID ballast with acrylic reflector and some additional T5 4'x2 lamp units for the low-bay area
- Each luminaire was equipped with a motion sensor
- Total number of luminaires has been decreased by 45% due to superior HID technology
- Light levels increased significantly from 15 to 30 foot-candles after the retrofit

Energy savings

- Achieved a 67.4% energy consumption reduction
- Actual results at the site indicate that energy savings after the retrofit are in line with the initial project calculations

Less maintenance costs

- Maintenance costs were slashed by 22.2% change to period
- Due to extended lamp life, less lamp degradation (lumen depreciation) and an innovative luminaire design, the cleaning regime has improved significantly
- Improved quality of light and no flickering

Dimming capabilities

- Lamps automatically dim by the incorporation of individual motion sensors that constantly monitor for movement on the work floor

Before



Before lighting upgrade

After



After Nedap Luxon upgrade

Core Elements	Before Upgrade	After Retrofit	Improvements and Savings
Operating hours	6 days / 13 hours 7 days / 12 hours	6 days / 13 hours 7 days / 12 hours	
HID Fixture profile and Power settings	460W MH probe start	263W MH pulse start	197 Watts per unit = 43% reduction
Ballast type	Core on Coil (magnetic)	Electronic Luxon ballast	New 0-10V analogue dimming capabilities
System Lumen / W Foot-candles	38 (T12 8'x2) 15	99 (250W MH) 30	Indoor: high visibility and better working conditions
System Lumen / W Foot-candles	55 (MH 400W) 5	99 (250W MH) 5	Outdoor: similar light level for parking and buildings with substantial savings
Payback / ROI			➔ 1.6 years / 57%
Total Savings / year (10 year period, incl. initial costs)			➔ \$ 11,485



Nedap Luxon ballast 250 - 575W



Nedap Motion Sensor on reflector

Nedap Light Controls Europe | Head Office | Parallelweg 2 | 7141 DC Groenlo | The Netherlands | P.O. Box 101 | 7140 AC Groenlo
The Netherlands | T +31 (0)544 471888 | F +31 (0)544 466008 | info@nedap-luxon.com | www.nedap-luxon.com

Nedap Light Controls North America | 14A Industrial Way | Atkinson, NH 03811 | USA
T + 1 603.458.2089 | F + 1 603.458.5632 | info@nedap-luxon.com | www.nedap-luxon.com



Distribution Partner:



Eco-Shift Power (ESP) is a dedicated energy management solutions provider that has put together a professional team of lighting consultants. Their core business model focuses on providing turnkey advanced lighting solutions that exceed customer expectations. With a proven track record for executing top quality energy efficient lighting projects the ESP team facilitates audits, installations and manages rebate applications. For more information please visit: www.eco-shiftpower.com

Corporate Head Office Sales / Operations & Distribution:
125 McGovern Drive | Units 10, 11 & 12 Cambridge ON | N3H 4R7 | P. 519-341-5268
F. 519-5763169 | E. info@eco-shiftpower.com | I. www.eco-shiftpower.com

Regional Sales Offices ESP:
British Columbia – Lower Mainland | Chris Meehan
P. 604 614 3953 | E. cmeehan@eco-shiftpower.com

North East Greater Toronto Area | Erik Fonseca
P. 647-985-6137 | E. efonseca@eco-shiftpower.com

Atlantic Canada | Derek Percival
P. 902-497-0039 | E. dpercival@eco-shiftpower.com