



**Project:** Canadian Tire Store (One of 490 Locations)

**Highlights:** Retrofit of Emergency Lighting Fixtures in 65,538 sq. ft. Facility

**Address:** 656 Erb St. West, Waterloo, ON, Canada, N2T 2Z7

**Owner:** Canadian Tire Store ([www.canadiantire.ca](http://www.canadiantire.ca))

**LED Installation:** Spring 2014



## 71% SAVINGS

**Opportunity** The 24/7 emergency lighting (EL) fixtures consume a significant amount of electricity in a large retail center. Canadian Tire had T8 fluorescent tubes with (8) 32 watt 4' tubes in each 224 watt fixture. With a 24/7 run time of 8,760h/year, each EL fixture used 1,962 kWh per year. At a \$.135/kWh electricity rate, the T8 fixtures cost \$264.90 Canadian per year to operate.

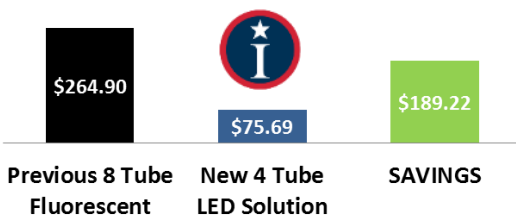


**Solution** Independence LED's Canadian Manufacturer Representative, Accolades Inc., provided an LED solution with (4) 16w LED tubes per fixture that create an average energy savings of 71% over the existing fluorescent tubes.

Accolades Inc. delamped the EL fixtures in the retail floor with one 16w LED tube for every two 28w fluorescent tubes. The LED tubes also reduce the load required by the Uninterruptable Power Supply to power the EL fixtures.



### Annual Electricity Cost Sample Fixture



**Results** By reducing the EL fixture wattage by an average of 71%, the annual savings is 1,401 kWh and \$189.22 Canadian per fixture every year. Over the approximate 7 year life of the LED's at 24h/day, the lifetime energy savings is over \$1,324. The retrofit project also earned a *Save on Energy* incentive. If each of the 490 Canadian Tire stores switched to LED technology for their EL systems, the total annual savings would be \$2.6 million with lifetime savings over \$25 million given maintenance labor savings and expected energy inflation.