




LED FACILITY LIGHTING CASE STUDY

“I have found LAS to be a great organization to work with on several lighting projects within our municipality over the past couple of years.”

James Tkachyk , Parks & Facilities Division Lead

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ABOUT LAS

LAS is a preferred provider of competitively-priced and sustainable business services for Ontario municipalities and the broader public sector. LAS helps its customers *Save Money, Make Money & Solve Capacity.*



Facility & Address

Kenora Aquatic Centre
18 Mike Richards Way, Kenora, ON

Use(s)

Pool & Aquatics Facility

Annual Operating Hours

5,828 hours

Project Size

92 T5 fixtures with 3 lamps / fixture

Existing Fixtures

T5 @ 180W

LED Replacement Fixtures

Acuity DSX PGT @ 134W

Reason for Lighting Upgrade

High energy consumption, increasing failure rates and maintenance costs

Project Cost

\$49,200




THE SITUATION

The Kenora Recreation Centre provides members of the community access to a diverse range of recreational and leisure activities, as well as room rentals. Among them is the Kenora Aquatic Centre, offering a leisure pool, lane pool, tot pool, sauna, and hot tub. Pre-existing pool lighting was provided by pendant mount tandem 3 lamp T5 fixtures @180W each (360W per tandem). Many fixture housings were rusted, making them difficult to open and service. Lamp and ballast failures had increased annually, as had the cost to maintain them. Light levels, however, remained adequate to good.

THE SOLUTION

The tandem 3 lamp T5 fixtures were replaced with Acuity DSX PGT fixtures @ 134W. The upgraded lighting resulted in a decrease in energy consumption of 60,588 kWh, from 96,512 kWh to 49,224 kWh. Failure rates have been drastically reduced, with corresponding maintenance savings estimated at \$2,000 annually.

INSTALLED FIXTURES			
DSX PGT High Bay			
			
Total # Fixtures	Wattage / Fixture	Total kWh	kWh Savings
46	134	35,923	60,588

**“Work is completed professionally,
on time, and on budget.”**

-James Tkachyk, Parks & Facilities Division Lead

THE RESULTS	
Annual Consumption Before Upgrade	96,512 kWh
Annual Consumption After Upgrade	35,924 kWh
Energy Consumption Savings	60,588 kWh
Energy Costs Before Upgrade	\$15,442
Energy Costs After Upgrade	\$5,748
Energy Cost Savings	\$9,694
Maintenance Cost Savings*	\$2,000
IESO Incentives	\$4,158
Return On Investment	26%
Simple Payback	3.85 years

63%
Decrease in
Energy Usage

63%
Decrease in
Energy Costs

8.5%
Project Cost in
IESO Incentives

3.85
Years
Simple Payback

* Energy costs and savings are based on an average cost of \$0.16/kWh at the time of the project

**Maintenance cost savings are estimated based on established lamp and ballast failure rates.