## **APPLICATION CASE STUDY**

# Security & Energy Savings a Lock Up with Kenall Lighting





"The (Mighty Mac™) luminaires' superior performance is allowing us to install fewer fluorescent tubes, reducing the watts per square meter usage, while still maintaining equivalent lighting levels when compared to other options."

Matt Strickland
Project Manager, Canem Systems





### **Project Summary**

**Challenge:** To obtain LEED Certification and energy savings without sacrificing safety.

**Solution:** Installation of over 5,000 Kenall fluorescent luminaires — many with LED night lights — in inmate access areas.

Benefit: Reduced maintenance and energy costs and obtained LEED certification within budget.



# Correctional Facility Achieves High Performance Lighting Goals with Kenall Luminaires Edmonton Remand Centre, Alberta, CA



The Edmonton Remand Centre is the largest public building project ever undertaken by the The Government of Alberta (GOA). The Centre is the largest, most technologically advanced remand facility in Canada.

The 609,000 square foot facility houses approximately 2,000 inmates. At a cost of \$580 million, the Centre is targeted to meet LEED® Silver certified.

Energy consumption and photometrics were a factor for the electrical contractor, British Columbia-based Canem Systems, in their selection of high-abuse fluorescent luminaires for the Centre.

At the time of lighting specification, LED luminaires were not an option as they were very early in development, not readily available in a detention luminaire, and the price point was still very high.

As a result, Canem Systems specified Mighty Mac™ surface ceiling and corner mounts; MedMaster™ ceiling mount ambient/indirect exam fixtures; and Nova™ ceiling surface mount fluorescent luminaires.

Over 5,000 luminaires were installed in the inmate-access areas including cells, corridors, program areas and the facility's full-service medical treatment center.

### Mighty Mac luminaires feature:

- Irretrievable blade traps
- Impact resistant lensing material in a variety of thicknesses
- Dimming to 20 percent of brightness and adjustable up to 100 percent brightness
- Fully recessed, tamper-resistant fasteners

#### **Benefits for Centre:**

- Reduced energy cost
- Reduced maintenance time and cost
- Safer bed checks
- Minimized vandalism
- Ability to achieve sustainability goals within budget

"These luminaires were specified to help us reach lighting goals and meet LEED requirements within budget."

 Mark Strickland, Project Manager, Canan Systems

The luminaire's power tray can easily be removed and replaced with a spare assembly, reducing the amount of time spent in the cell. Should a repair become necessary, it can be completed back in the maintenance shop rather than in the cell.



The Mighty Mac surface ceiling luminaire enhances light levels to minimize vandalism in the interview area of the correctional facility.

Almost 1,200 of the T8 surface ceiling mount fixtures installed have an LED night light, which combines energy efficiency with reduced maintenance costs. The light levels of the 5-watt LED night light are field adjustable, thereby minimizing inmate vandalism due to excessive brightness when they are trying to sleep.

Additionally, these luminaires are dimmable to 20 percent and may be adjusted up to 100 percent of full brightness for bed checks.

### Safety and Energy Savings Locked Up

Energy reduction is a valuable tool for environmental protection. Integrating energy efficiency into contruction project is simply good business. A one-time investment in energy efficiency today will achieve ongoing financial savings for years to come — benefitting staff and taxpayers alike.

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