

# LED Upgrade Elevates Visibility and Energy Efficiency



Location: Wayne, NJ  
Details: Wayne Township Library  
Engineer: LAN Associates

***"We are very excited about the elevation in visibility and energy efficiency that this outstanding upgrade has brought to our library."***

– Jody Treadway, library director  
Wayne Township Library



## Project Summary

**Challenge:** A lighting solution that provides uniform light, reduces glare, enhances energy savings and is easier to maintain.

**Solution:** Replacement of metal halide floodlights with EnviroPro® LED high bays.

**Benefit:** Enhanced visibility, glare reductions, reduced maintenance costs and greater energy savings.

## EnviroPro® brightens patron and staff experience

Wayne Township Library, Wayne, NJ



***"My maintenance crew was changing these burned out floodlights every six months at a cost of \$95 per bulb and with a reduced staff because of budget cuts it was really difficult to keep up."***

— Matthew Cavello, purchasing agent,  
Wayne Township

Since its founding in 1922, the Wayne Township library has undergone many changes to accommodate its residents and expanding collections, including significant remodeling and a grand opening in 2000. Unfortunately, at that time, metal halide (MH) floodlights were installed around the library's interior perimeter providing harsh, glaring illumination. Additionally, the MH floodlights didn't illuminate the area efficiently and burned out quickly.

Recently, the library board and Wayne Township Common Council voted to provide funding for updated lighting.

Wayne Township Purchasing Agent, Matthew Cavallo, retained New York-based electrical planning firm LAN Associates to assess the situation and recommend a solution to meet the challenge of providing uniform light while reducing energy and maintenance expenses.

LAN Associates Director of Electrical Engineering, William Hodges, proposed eliminating the 14, 400W perimeter MH floodlights and installing 14, 216W and 4, 160W LED EnviroPro® high bay luminaires. Hodges also recommended daylight sensors to make use of the library's large windows that supply an abundance of natural light.

The LED luminaires are suspended from the ceiling and mounted an equal distance to maintain a uniform level of illumination.

They have an available dimming and control system connected to a photocell to permit daylight harvesting. Basically, the lighting levels in the space are maintained at a specific set value and the artificial light from the LED luminaires ramp up and down depending on the available natural ambient daylighting. The lighting controls have a built in safety factor to make fine adjustments to the artificial lighting levels unnoticeable to the room occupants.

***"We have received nothing but thanks from staff and patrons for improving lighting in the open book stacks."***

— Jody Treadway, library director

### EnviroPro® Features:

- LED lifetime of 60,000 hours
- uplighting eliminates cave effect
- marine-grade aluminum housings
- UV-resistant polycarbonate lens



EnviroPro® high bays light the book stacks at Wayne Township library.

### Benefits for Library:

- brighter library and open book stacks
- approximate energy savings of 56 percent
- annual savings of thousands of dollars in MH replacement bulbs

### LED Savings

Before the lighting upgrade, the library's light fixtures were on seven days each week—ranging from four hours on Sunday to 12 hours Monday through Thursday—costing the city approximately \$5,400 annually. The installation of the new LED luminaires reduces the energy consumption from 6,552W to 3,664W and, the library has an energy savings of approximately 56 percent even without taking the daylight harvesting into account.

The City is also saving its taxpayers additional money through rebates of \$150 per luminaire offered by the New Jersey Board of Public Utilities.

For more information, please visit us on the web at [www.kenall.com](http://www.kenall.com)



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