The historic Wind Point Lighthouse gets a lighting upgrade. Now what’s history?
The old metal halide floodlights — replaced with a Cree® LED lighting solution.
HISTORIC LIGHTHOUSE WAVES GOODBYE TO METAL HALIDE

Opportunity

Located on the shores of Lake Michigan in the Village of Wind Point, Wisconsin, the historic Wind Point Lighthouse has reliably stood for more than a century. Built in 1880 to help ships navigate safely in the area, the 108-foot-tall lighthouse remains one of the oldest and tallest active lighthouses on the Great Lakes.

The lighthouse has certainly seen some significant changes in its more than 100 years of operation. Electricity was brought to the structure in 1924. This eliminated the daily climbs to its top made by Lighthouse Keepers to deliver the needed fuel to keep its beacon lit. Later, in 1964, the U.S. Coast Guard updated the lighthouse with a fully automated system and stopped staffing the site. In 1980, the lighthouse was added to the National Register of Historic Places. And in 1997, ownership was transferred from the Coast Guard to the Village of Wind Point, with the requirement that the lighthouse be maintained as a historical landmark.

Owning and acting as caretakers of this beloved landmark is a source of pride for the Village, but maintaining a nearly 140-year-old lighthouse isn’t always easy. Open year-round at no charge to the public, the Village relies on fee-based tours and space rentals for events to assist in generating the needed funding to maintain the grounds and lighthouse. “Historically property taxes have been used as the funding source to maintain the lighthouse, but today we are trying to be more strategic and working towards a model where the lighthouse is self-sufficient or revenue neutral,” said Susan Sanabria, Wind Point Village President. Saving energy and maintenance dollars that could be diverted elsewhere was certainly appealing to the Village, but when it came to illuminating one of the most important landmarks in the region, the lighting of the lighthouse could not be compromised, at any price.

Solution

On October 1, 2017, Joseph and Mary Ann Huser assumed their new roles as Wind Point Lighthouse Keepers. Joseph, who also serves as the Director of Facilities for the Pabst Theater Group in Milwaukee, understood the benefits of well-designed LED luminaires. “After I became Lighthouse Keeper, I almost immediately thought a quality LED solution could help us here,” Joseph Huser said. But lighting a 108’ lighthouse isn’t something you do every day. The lighting challenge was to have a wide enough distribution to illuminate the width of the lighthouse, but with enough punch to reach the top of the 108’ structure. Enter Cree. With more than a dozen distribution types, as well as a wide range of wattages to choose from, the OSQ Series seemed to have the versatility needed to find an optimized solution.

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Michael Hawes | Administrator, Village of Wind Point
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Joseph Huser  |  Wind Point Lighthouse Keeper

Benefits

Significant energy savings common in Cree LED lighting projects today were also achieved on this project. The three 400W metal halide fixtures were replaced with three 130W Cree® OSQ flood luminaires – a 71% energy savings, meaning the combined wattage of all three new OSQ luminaires is now less than the wattage of just one of the old metal halide fixtures. The Village can also expect a maintenance-free experience for a decade or longer, allowing Lighthouse Keeper Joseph Huser to focus on other high-value projects, rather than lighting.

“Beyond the Village, the lighthouse is a source of pride and identity for surrounding communities as well,” said Michael Hawes, Administrator for the Village of Wind Point. “It’s celebrated, with many companies and organizations in the area incorporating its likeness into their logos.” So, although energy and maintenance savings are important, this is really a story about light. Not only the dependable guiding light this historic lighthouse continues to produce, but also the reliable light it now receives each night—revealing its beauty from miles away.

BEFORE

(3) 400 MH = 1,365W

AFTER

(3) 130W Cree OSQs = 390W

After a few lighting designs modeled some of the possibilities, the 130W OSQ™ Flood luminaire with 25° distribution was thought to be the best product for the job. However, due to the importance and visibility of the project, a sample unit was then utilized to demonstrate its ability to hit the mark, allowing the project to move forward with dramatic results. “The light just popped and the detail of the green ornate design near the top of the lighthouse that was lost with the metal halide fixtures, revealed itself at night for the first time,” said Joseph Huser.
Cree® LED Lighting Used

- Cree® OSQ Series Flood

Participants

End User: Village of Wind Point