

OBERLIN COLLEGE



Photo: Tanya Rosen-Jones

OBERLIN, OHIO Efficient Lighting Project

Oberlin is a highly selective, four-year, independent, coeducational institution that uniquely combines an outstanding school of music with a leading undergraduate college of arts and sciences. Founded in 1833, it holds a distinguished place among American colleges and universities. The Oberlin community is known for its exemplary academic and musical pedagogy and its commitment to social justice, sustainability, and creative entrepreneurship.

PROJECT GOALS: Reduce energy costs while creating a standard for lighting across the 440-acre campus.

SOLUTION: Retrofit standard T8 fixtures to reduced-wattage, high-performance T8 (HPT8) fixtures, replace standard incandescent light bulbs with compact fluorescent light bulbs (CFLs), and install light-emitting diode (LED) streetlight fixtures in parking lots.

PROJECT SUMMARY: In 2012, Oberlin College completed efficient lighting projects in 44 buildings to reduce energy consumption across campus, while standardizing fixtures and lighting levels. Efficiency Smart worked with the college's service provider and certified lighting expert, Sommer Electric Corporation, to verify that all proposed products were high-performance equivalents and met Design Lights Consortium (DLC) and Consortium for Energy Efficiency (CEE) performance guidelines.

The project included:

- Retrofitting 17,500 light fixtures across 44 campus buildings, primarily consisting of a re-lamp and re-ballast of standard T8 fixtures to HPT8s
- Replacing 500 incandescent light bulbs with CFLs
- Evaluated LM79 and LM80 testing results to verify saving levels for LED lights
- Installing 30 LED streetlight fixtures across five parking lots

As a result of the lighting project, Oberlin College was able to reduce energy use while saving on electric costs, supporting the college's goal of sustainability. Additionally, the LED lights installed are Dark Sky compliant, reducing light pollution across campus and providing an added benefit for the college's observatory.



Photo: Polk Photography

PROJECT FACTS AT A GLANCE¹

Annual kWh Savings:
1,773,000 (combined)

Annual Cost Savings:
\$177,300 (combined)

Lifetime Cost Savings:
\$1,477,000 (combined)

Payback:
3.03 years (average)

Annual CO₂ Reduction²:
2,756,000 pounds

PROJECT PARTNERS

Keith Watkins, Director of Facilities Operations, Oberlin College

Robert Lamppa, Director of Sustainability and Energy Management, Oberlin College

Tom Piccorelli, Assistant VP for Facilities, Oberlin College

Bob Krause, CEO, Sommer Electric Corporation

Steve Dupee, Utility Director, City of Oberlin

Doug McMillan, Energy Services & Sustainability Initiatives Manager, City of Oberlin