



Education - Upgrade

# St. Catherine's High School

Racine, WI

St. Catherine's High School is implementing sustainable practices and reducing the school's operating expenses with the installation of Cree® luminaires in the school's John Foster Auditorium.

- Eighty-four percent anticipated annual energy savings
- Significantly reduced maintenance
- Dramatic increase in reliability

**CREE** 

# CREE INTERIOR LIGHTING IMPROVES HIGH SCHOOL AUDITORIUM

## OPPORTUNITY

Parochial and public schools are realizing they can have an impact on both the environment and bottom line — through methods such as redirecting energy savings to fund school programs and curriculum needs.

St. Catherine's High School (SCHS), in Racine, Wisconsin, is implementing sustainable practices and reducing the school's operational expenses with the installation of Cree ESA Series luminaires within the school's John Foster Auditorium — last renovated approximately 20 years ago.

## SOLUTION

In an effort to reduce energy consumption and maintenance, the high school recently retrofitted 500-watt T4 quartz luminaires with a one-for-one replacement of 15 ESA Series architectural downlights. The previous quartz technology experienced typical short lamp lives and frequent maintenance that was cumbersome, time-consuming and expensive.

According to Mike Kost, director of maintenance for the school, it was inconvenient to access the crawl space to replace burned-out lamps; the school waited until a number of lamps would burn out before they went through the replacement effort, sacrificing aesthetics and illumination performance within the space. Since ESA recessed LED downlights can provide virtually maintenance-free operation for over 50,000 hours, the school expects to see well beyond 15 years of near maintenance-free operation.

## BENEFITS

In addition to the maintenance savings, the high school anticipates an astounding 84 percent energy savings while optimizing the illumination performance and uniformity of the lighting. As someone who spends a lot of time in the auditorium, Richard Hagopian, drama department head, is delighted with the uniform, bright, clean white light.

According to Hagopian, "When the previous lights got too hot, they automatically shut off, which would become a problem during an assembly. The new ESA luminaires produce far less heat than the previous quartz system and with exceptional thermal management provide a significant improvement in reliability and sustainable illumination performance.

From solar panels on the roof, to a recycling program, replacing inefficient windows and eliminating incandescent bulbs — the school's leadership team believes implementing sustainability efforts is the morally right thing to do.

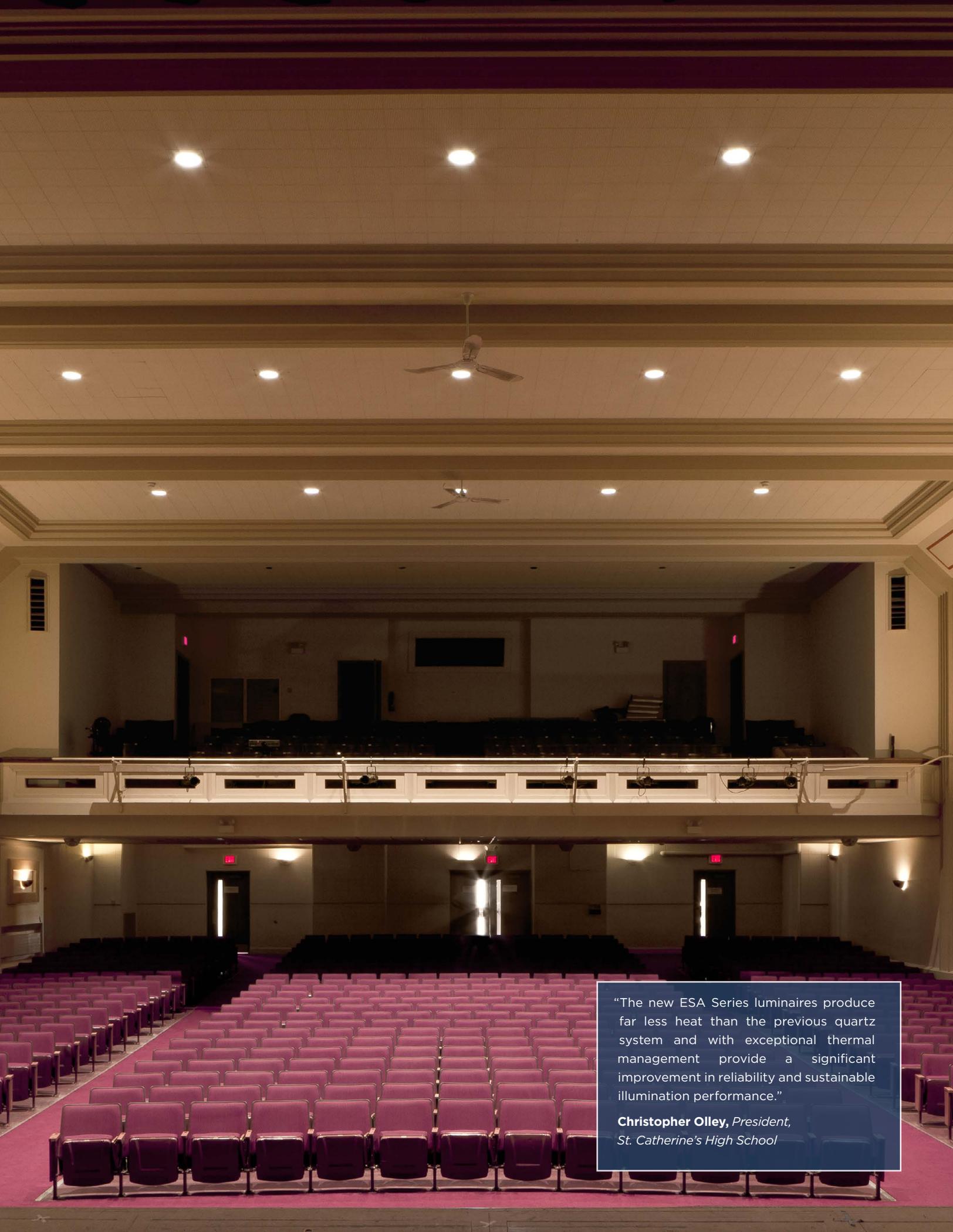
"We anticipate greatly reducing the school's energy consumption and costs by installing these new LED luminaires. This is one way St. Catherine's is helping to preserve our environment," said SCHS president Christopher Olley.



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**Christopher Olley**, *President,*  
*St. Catherine's High School*





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## IN THIS CASE STUDY

### ESA Series

#### ARCHITECTURAL RECESSED DOWNLIGHTS

- Minimum 80 CRI
- CCT: 2700K, 3000K, 3500K or 4000K
- Utilizes BetaLED™ Technology
- NanoOptic® Technology for precise optical control
- 0-10V dimming
- Available as downlight, adjustable and lensed wall wash



Cree BetaLED® Technology uses a total systems approach combining the most advanced LED sources, driver technologies, optics and form into each product. The patented NanoOptic® technology, available in more than 20 distributions, provides a level of optical control and thermal management that traditional light source technology cannot provide. Combined with the DeltaGuard® Finish, the finest industrial-grade finish available, the result is outstanding target illumination, lasting performance and optimum energy efficiency.

#### PARTICIPANTS

**End User:** St. Catherine's High School

**Installation:** Power Plus Electric, Sturtevant, WI

**Cree Rep Agency:** Enterprise Lighting, Waukesha, WI



Cree **IS** LED Lighting

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