

# NationalLED

Education

## Trinity Christian Private School

Retrofit Lighting Upgrade

With new LED lighting throughout its facilities and football field, one Atlanta-area private school lowered annual costs and enhanced students' development.





## The Opportunity

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Located just southwest of Atlanta, Trinity Christian School is a fully accredited private school that enrolls more than 1,200 students. Since 1991, they have experienced significant growth thanks to families who appreciate their holistic approach to student preparation and shared their satisfaction with their students' education with others.

While the expansion of the school has been positive, it does have some disadvantages. As Trinity Christian School continued to grow with the construction of multiple buildings, so did their energy and maintenance costs. The existing lighting system throughout the school facilities was identified as something that could lead to substantial energy savings and reduced maintenance costs if upgraded.

In addition to reducing energy consumption, Trinity Christian School aimed to implement green initiatives that could positively impact students and improve the learning environment to meet their needs. The school is well-known for its focus on enriching student development and commitment to high standards, previously accredited by the Advance-ED/Southern Association of Colleges and Schools (SACS).



**75% SAVINGS**

IN THE SCHOOL'S ENERGY USAGE  
PER YEAR

**UP TO 161,000 HRS.**

US LED LIGHTING PRODUCT  
L70 LIFETIME

**10 YEARS**

INDUSTRY-LEADING  
PRODUCT WARRANTY

## The Solution

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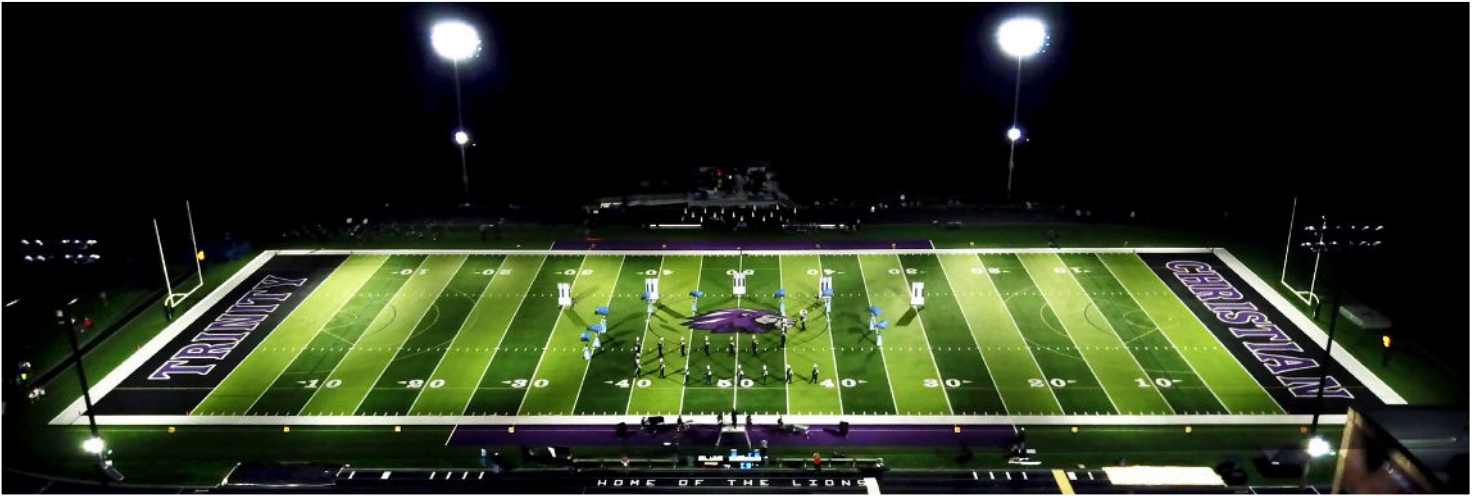
The administrators at Trinity Christian School chose US LED luminaires because it exceeded project specifications and provided the best financial value. In addition, the Ten-Year Warranty and ultra-long product lifetimes helped seal the deal with the school's stakeholders. National LED proposed multiple US LED solutions for the school facilities, which included:

- **TEG LED** recessed troffers for areas like classrooms, large offices, and hallways.
- **PJF1 LED** linear strips for maintenance rooms, storage areas, and closets.
- **LSF1 LED** linear wraparound for locker rooms and smaller offices.
- **Atleta LED** sports lighter for all the athletic fields.

Working collaboratively with Green Owl Energy Solutions, the team installed over 1,000 luminaires across the campus. In addition, as a value-added solution, the TEG, PJF1, and LSF1 LED indoor luminaires are integrated with the Smart Blu dynamic lighting control system.

By choosing LED luminaires integrated with **Smart Blu**, Trinity has an invaluable system that quickly optimizes energy savings while offering students and teachers a practical and comfortable visual environment. Furthermore, this Bluetooth lighting control system is easy to operate, provides the ultimate flexibility should rooms and needs change in the future, and provides ongoing maintenance savings.





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**National LED and US LED worked impeccably and completed this project within our desired timeline without interruption to activities. We are very thrilled with the improvement in lighting, the environmental impact it has made, and the energy savings received.**

Trinity Christian Private School

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## The Benefits

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Trinity Christian School expects to realize a 75 percent savings in energy usage per year, which amounts to almost **\$55,400** saved annually. For perspective, the environmental impact the school has made by reducing its energy consumption is equivalent to:

- Carbon dioxide emissions: -131,320 lbs.
- Coal burned annually to make electricity: - 65,633 lbs.
- Acres of forest added: +78 acres
- Number of cars removed from the road: -13

While LED lighting usually gets immense focus on its energy-saving benefits and environmental impact, it also enhances students' academic performance and supports their long-term development. For example, the US LED luminaires enabled with Smart Blu in Trinity's classrooms will give teachers complete control of the brightness and color of white light, boost students' cognitive skills, and lower error rates.

Several studies have shown that LED lighting in schools offers health-focused benefits of improvements in circadian rhythms, mental cognition, hyperactivity, and mood. Also, because their new LED lighting has Smart Blu dynamic lighting controls integrated, it allows teachers to make the necessary adjustments to the learning needs of their classes and schedule accordingly. Administrators were pleased with the outcome of the project and have vowed to continue to use LED technology throughout the school facilities.