



# CONNERSVILLE HIGH SCHOOL

## Connersville, IN

Cree® LED lighting in the Spartan Bowl gym delivered improved light levels and color quality with half the energy use and near zero maintenance for years to come. Now that's a financial slam dunk.



# SPARTAN LIGHTING BOWL: FROM DIM PROSPECTS TO BRIGHT SAVINGS

## Opportunity

The sports teams at Connersville High School (CHS) are the crown jewels of their small, tight-knit community in Connersville, Indiana. On game nights, town residents swarm to the Spartan Bowl – one of the largest gymnasiums in the state – to cheer for their beloved Spartans. Only they couldn't see the action on the court for minutes at a time.

Lighting in the Spartan Bowl was fraught with obstacles. The existing 26 fixtures – 400-watt metal halide high-bay lights – had grown dim over time, costing the school considerable time, utility and maintenance costs as the fixtures aged. In fact, lighting at the Spartan Bowl neared 30 foot-candles (fc) when they should have been at 70+ fc for varsity basketball. But that wasn't the worst of it. Turning the lights to full capacity took a full eight minutes, forcing school officials to choreograph athletic events and other ceremonies around this pesky delay. It was a ritual Brent Duncan, athletic director for the Spartans, knew well: "In the past, as soon as we brought

the kids out for the pregame activities, we turned the lights down and whipped spotlights around the Bowl, trying to time it just right to allow the lights to cool down and come back up," says Duncan. "At times, we've had to introduce opponents in the dark." Officials would often stand on the floor, holding the ball, waiting for the lights to come to full brightness.

## Solution

The fixtures' dim output, low energy efficiency and costly maintenance brought diminishing returns for the school's investment. So the school sought to redirect that investment to newer technology that not only performed better, but was easier (and cheaper) to maintain.

Following a referral from another school that had completed a successful gym LED lighting project, Connersville High School engaged CM Buck & Associates and Cree to find an answer to its lighting woes. The solution? Swapping existing fixtures for Cree® CXB Series 23,000-lumen high-bay fixtures with a 4000K color temperature, boosting light levels from 30 to 70 fc with improved color rendering, while cutting energy usage in half.

## Benefits

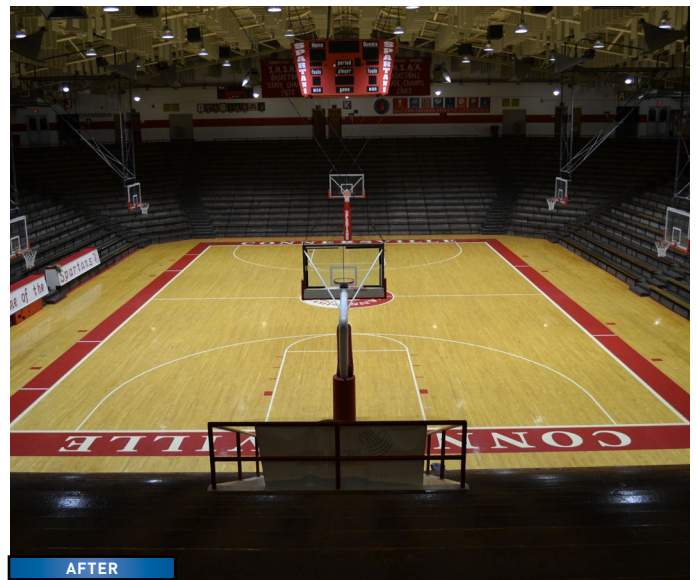
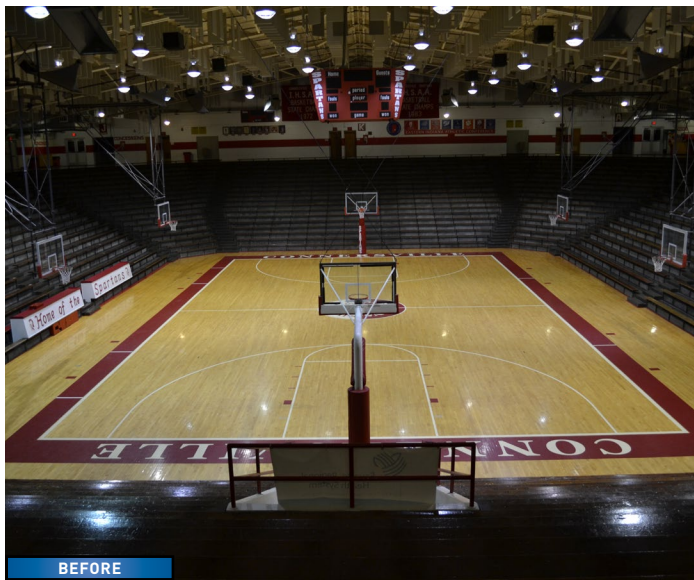
The full project was completed within a month after the school first considered adopting Cree LED lights. "From the time we placed the order to the finished installation wasn't more than a couple of weeks," Duncan recalls. "We were happy with how quick and seamless the process was."

The 1-for-1 swap of existing 400-watt metal halide fixtures to LED used the same mounting and junction boxes, enabling an easy installation that pleased John Green, facilities director.

**"The shelf life of those lights alone is a maintenance money-saver, and they use a fraction of energy, so it's the best of both worlds."**

John Green | Facilities Director  
Connersville High School





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"I couldn't have asked for a better lighting retrofit," says Green. "The whole process worked out really well — without a hitch." As an added bonus, the Cree CXB Series is DesignLights Consortium™ listed, qualifying the project for utility rebates. Throughout the project, school officials worked with their local distributor to secure those rebates, reducing the project cost and allowing for a quicker payback.

Ask CHS officials, students and patrons, and they'll tell you: The new light fixtures have made a significant difference and the return on investment — like night and day, as the saying goes. The most visible improvement is the instant light output at the flick of a switch.

"With LED technology, fixtures are now 'instant on' and 'instant full,'" Green explains. "We can turn the lights completely off, have the spotlights on the team for introductions, then kick them to full in an instant."

**"When contractors were replacing the fixtures, half of the gym looked like we were standing in broad daylight and the other half looked like dusk."**

Brent Duncan | Athletic Director  
Connersville High School

And, boy, are they bright. "When contractors were replacing the fixtures, half of the gym looked like we were standing in broad daylight, and the other half looked like dusk." Students noticed too: "We recently held practice in another gym and the kids kept telling me to turn on the lights, which were already on," Duncan shares. "They've grown so used to the new brightness in the Spartan Bowl, other gyms seem dark in comparison."

And yet, energy consumption has dropped to half that of previous fixtures — down to 230 watts from 458 watts — with more than double the brightness. "We think the energy savings over the next two or three years will pay for these fixtures," says Duncan. Green agrees: "We saved a lot of money on the front end of the project and look forward to continued savings in the future. I mean, the shelf life of those lights alone is a maintenance money-saver, and they use a fraction of the energy, so it's the best of both worlds."

Last but not least, the gym's colors, once murky, now "pop" under the new lighting. "They're truly our school colors now," boasts Duncan. The new lighting's impact on the building has onlookers thinking the gym looks freshly repainted.

In all, the Spartan Bowl project delivered improved light levels and color quality at half the energy use and zero maintenance for years to come — a financial slam dunk. But for Spartan fans, the new lights beaming down on their hometown teams play an even bigger role. Says Green, "The basketball team and the Spartan Bowl are the Holy Grail. The whole community is happy with our lighting project and how it was executed."

Any way you look at it, the Spartans' future looks mighty bright.



Education



## Cree® LED Lighting Used

- CXB Series High-Bay

## Participants

**End User:** Connersville High School - Connersville, IN

**Agent:** CM Buck & Associates (Photos courtesy of Tammi Kegerreis)

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