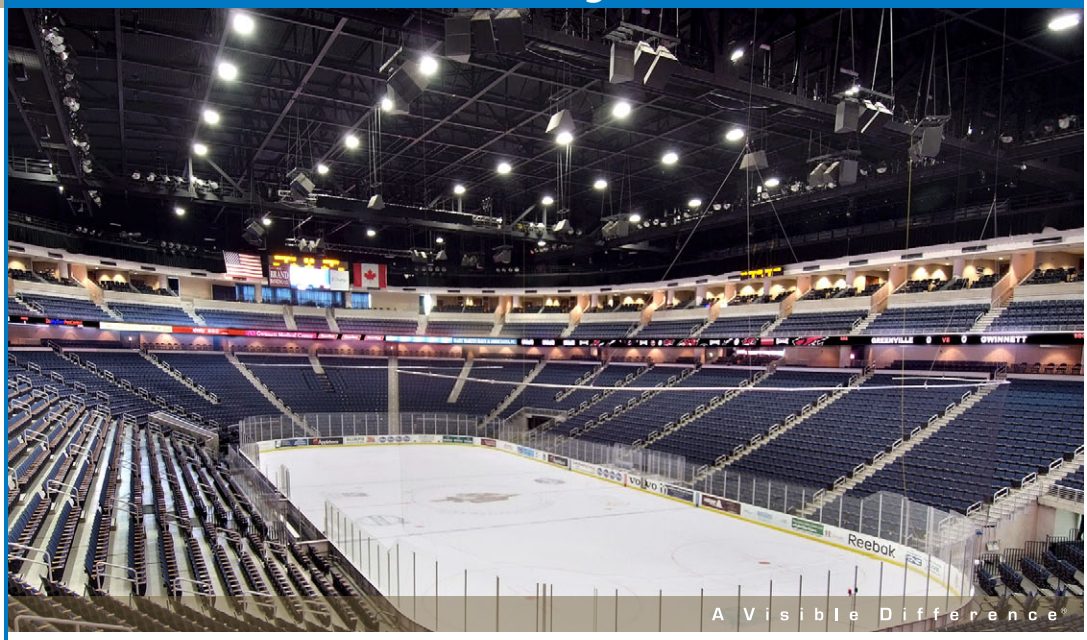
Case Study:

Gwinnett Center – Duluth, Georgia

Long-Life Induction System and Efficient Fixture Design Helps Williams' High-bay Lighting Shine Over Center Stage in Georgia Events Complex



The Arena at Gwinnett Center is a versatile destination in North Georgia for concerts, religious and civic gatherings, conventions and tradeshows. Additionally, the 13,000-seat venue is home to a pair of local professional ice hockey and arena football teams and host to numerous college and high-school sporting events and functions.

The facility, completed in 2003, has state-of-the-art technical features, including a reduction system that can easily downsize the space for groups as small as 3,500 people. However, the original house lighting system was a nagging problem from the start. For example, the light output was so meager that arena staff often needed to fire up 1000-watt sports lights to improve entry and exit visibility for visiting patrons. And, when crews needed to use house lights during basic maintenance periods when the arena's air conditioning was turned off, the accumulating heat actually caused the lighting system to prematurely fail.

"Those lights were a maintenance nightmare," said Wayne Maynard, outside sales representative for SESCO Lighting in Atlanta. "Each one had four ballasts, which produced a lot of heat, and when the air conditioning wasn't running those ballasts were going out all the time. In addition, those lamps were only rated for about 7,000 hours of use, which meant they were often going out as well."

The proof is in the maintenance log. Over the past eight years, Gwinnett crews replaced all ballasts in every fixture–not once, but twice. With more than 70 fixtures at a mounting height of 90 feet, the lighting maintenance job lasted a week, required a 120-foot boom, and occasionally needed a maintenance worker to crawl out of the lift onto the rigging.

H.E. Williams' product quality and service make the difference. To solve the problem, arena operations director Neal Humphreys enlisted SESCO's help to identify new lighting options that could handle temperature extremes, have instant restrike capability and provide better quality light output with less maintenance. While the final lighting system options were narrowed to induction technology, Humphreys said that H.E. Williams' product quality and strong customer focus closed the deal.

"One factor that sold me on Williams was their willingness to adapt a fixture to meet our needs," he said. "They actually designed what we were looking for, and let us test the prototype before buying the whole order. Even when the order was early in production, and we called asking to change the fixture color from silver to black, they said, 'No problem.' Those type things told us a lot about the company."

The custom-designed Williams ICEILN high-bay induction fixture met all of Humphreys' criteria for a lighting retrofit in the Gwinnett arena. In addition, the Sylvania ICETRON electrodeless lamps in Williams' induction lighting products are rated at 100,000 hours–over 14 times as long as the maximum rated lamp life for the old compact fluorescent luminaires. At 60,000 hours the lamp still has 70% light output without color shift!

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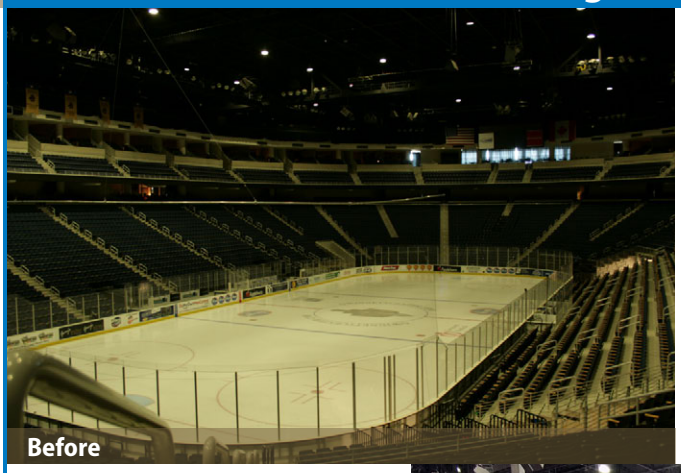
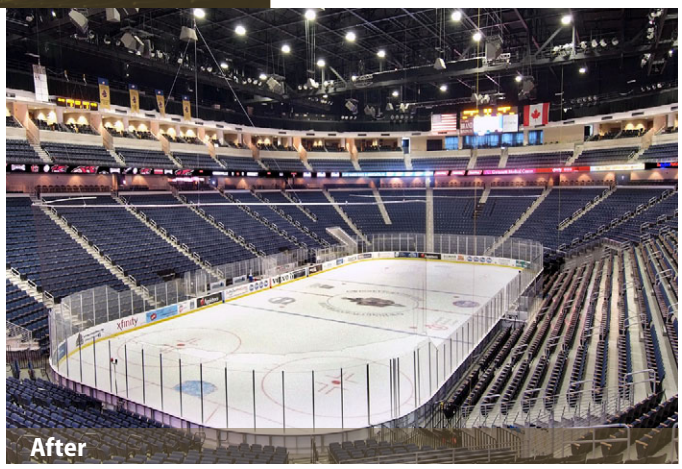
Job Specific Information:

- Number: (63) custom-designed H.E. Williams H.E. Williams ICEILN luminaires with twin 150-watt induction lamps. These were a one-for-one replacement for 8-lamp, 42-watt compact fluorescent high-bay fixtures.
- Mounting height: 90 feet
- Spacing: 30 feet on center
- Light output at ground level: 10 footcandles
- Color rendering: Induction lighting delivers an 80 CRI (color rendering index), which makes interior spaces look truer and brighter than those lit by metal halide, high-pressure sodium or mercury vapor lighting.
- Color temperature: 4100 Kelvin. Other color temperatures of 3500k and 5000k are available.
- Induction system life: Williams induction fixtures will operate up to 25 years, based on an average operating time of 10 hours per day. After 60,000 hours, the ICETRON lamp still delivers 70 percent of original lumen output with less than 10% ballast replacements.


Before


After

An impressive overall experience

Before the change, Humphreys said his team used Gwinnett Arena's 1000-watt sports lights to supplement the old house lights an average of 70 to 80 hours per month. But with the new induction lighting, the arena staff has tapped the high-wattage sport lights just 49 minutes in six months. That's because the Williams' ICEILN induction luminaire generates five times more footcandle output than the old compact fluorescent system. Even better, the induction fixtures have reduced the arena's house lighting energy use by about 65 percent.

From start to finish, Humphreys was very impressed with the overall guidance he received from SESCO and the performance delivered by H.E. Williams' products and people. The capstone of those experiences came when a Williams' team member told him that if any issues arose with the new induction fixtures, they would be quickly resolved–period. This is backed by a 5-year parts, labor, and repair equipment warranty.

"It was very impressive how they stand behind their equipment," Humphreys said. "Nothing I saw in the marketplace compared with what I got from Williams, and I am extremely pleased with the experience."

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