

BetaLED™ Project Brief Overview

I-35W St. Anthony Falls Bridge, Minneapolis, MN



PROJECT SUMMARY

End User:	Minnesota Department of Transportation (Mn/DOT)
Application:	Roadway lighting for I-35W Bridge deck
Product:	Approximately 16 Type V THE EDGE™ Area luminaires were installed on the Bridge deck and feature 10 light bars each. Four Type III THE EDGE Area luminaires were installed on the approaches of the Bridge deck and feature 10 light bars each.
Benefits:	<p>THE EDGE luminaires deliver more than five times the life of traditional 250-Watt high-pressure sodium (HPS) lamps supporting the sustainability goals of the bridge design. By eliminating maintenance associated from relamping or replacement, costs are significantly reduced.</p> <p>Patent-pending NanoOptic™ product technology refractors within each BetaLED fixture layer light efficiently into target areas dramatically improving visibility and increasing traffic safety.</p> <p>Mn/DOT expects an annual energy savings of approximately 15 percent compared to the 250-Watt HPS fixtures previously installed.</p>

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Sustainability and Safety



Photo Credit: FIGG

Shortly after the tragic collapse of the I-35W Bridge in August 2007, Figg Engineering Group began designing a new structure with the highest safety standards and state-of-the-art technology.

When exploring lighting options for the bridge deck, Figg Engineering wanted an environmental solution and BetaLED was the natural choice.

“We wanted to use state-of-the-art lighting for the I-35W project and consider BetaLED to be a company that’s in the forefront,” said Tom Jenkins, Figg Engineering Group’s Bridge Construction Quality Assurance Engineer. “We can actually see from one side of the deck to the other and that’s quite a long distance. Motorists now have an unobstructed view of the roadway and are very receptive to the performance of the fixtures.”

BetaLED fixtures are mounted in the center of the median along the deck and Mn/DOT is looking forward to a reduction in maintenance costs and an annual energy savings of 15 percent by installing the luminaires.

The new 10 lane I-35W Bridge has a rated life span of 100 years and features the latest safety and environmental technology, such as “Smart Bridge,” a built-in sensor system that monitors structural behavior, runs the anti-icing system and operates the signals and message signs. Other features include high-performance concrete and multiple levels of steel reinforcing bars to ensure structural soundness.

The I-35W Bridge provides direct access to downtown Minneapolis and reopened Sept. 16, more than three months ahead of schedule.