

Built in 1891, the Walnut Street Bridge in Chattanooga, Tennessee is a high profile historical landmark, boasting the title of the world's longest pedestrian bridge, connecting downtown to the north shore. Once on the brink of destruction, the bridge has become a staple in the city's revitalization and now serves as a highly visible attraction at the heart of community activity.

Walnut Street Bridge

Chattanooga, Tennessee

Challenge

In 1978 the bridge was closed to traffic due to deteriorating conditions, however was reopened in 1993 thanks to a group of preservationists who banded together to save the bridge and help restore a vibrant dynamic to the city of Chattanooga. As a valuable enhancement to both the aesthetics of the bridge and safety of the residents and tourists using it, a decision was made to upgrade the lighting from inefficient conventional lamps to reliable, efficient LED light sources. Finding a LED lamp that could withstand the constant exposure to outdoor weather and moisture from the river without failing, however, proved to be a challenge.

Solution

By enlisting the help of a local energy management company, Global Green Lighting, a solution was identified using Shat-R-Shield, Inc.'s waterproof, safety-coated LED lamps. These LEDs have a thin layer of IP68 rated silicone coating that completely seals the lamps, protecting fragile electronic components against moisture, corrosion and premature failure. The coating also provides added durability against vibration caused by wind and other harsh elements. After testing several of the lamps on the bridge, they proved to withstand the harsh elements of the environment while using 75% less energy than the lamps being replaced.

Results

Global Green Lighting installed Shat-R-Shield's waterproof A19 LED lamps on the Walnut Street Bridge and have effectively provided crisp, uniform illumination for the area that will last up to 25,000 hours. These lamps use only 12 watts of energy, thus saving the city of Chattanooga immensely in power consumption costs. The improved quality of light creates a safer atmosphere for pedestrians while dramatically enhancing the landmark's visual appearance.

Customer Feedback

"We evaluated numerous LED manufacturers for this retrofit project but many of the lamps we tested proved unable to hold up in this environment," says Brock Herron, Vice President of Global Green Lighting. "We are very pleased to have found lamps that save us money in both energy consumption and labor costs. Shat-R-Shield's waterproof LED lamps are the perfect complement to our beautiful bridge."

