

San Diego Gaslamp Quarter & QL Induction Lighting

A · C A S E · S T U D Y

In the warm Southern California evenings, local residents and tourists flock to San Diego's historic Gaslamp Quarter, the city's shopping, dining, and entertainment mecca. The Gaslamp, a 16-block National Historic District, shines anew with 895 high-tech QL Induction Lighting Systems from Philips Lighting Company—the largest installation of QL lamps in the United States.

The fresh white light of QL light sources glows from atop the district's trademark Victorian-style streetlights, illuminating the vibrant nightlife. And, according to city engineers, QL will save the city almost \$12,700 a year in energy and maintenance costs.

Philips revolutionary QL systems offer an extraordinary maintenance cycle, with a rated life of 100,000 hours! "I don't think I'll ever have to replace those lamps," said Jim Toci, electrical engineer with the City of San Diego, CA. "It should be about 20 years, and I'll be retired long before then." Because the light is produced by a high-frequency generator, which induces current in a fluorescent-like bulb, the system contains no filaments or electrodes. In other light sources, breakdown of the filament or electrodes is what most often causes a lamp to fail.

Toci championed the use of QL and arranged a mock-up in the Quarter for the Gaslamp Quarter Association and the Centre City Development Corporation (CCDC). Both organizations were very pleased with the mock-up, and unanimously agreed to use 55W QL lamp systems. Toci had been a fan of QL, having proven its super maintenance properties years ago in a test installation at nearby Balboa Park.

"What made a believer out of me was that it was more of a fluorescent kind of light, a softer white light that was comfortable to look at. And the colors beneath it were true," said Al Mercer, senior project manager of public works at the CCDC. "The Philips induction lights worked ideally in the Gaslamp Quarter, which is a very busy pedestrian area with lots of people out strolling, shopping, and enjoying outdoor cafes and concerts....Everybody's very, very happy with it."



TED WALTON PHOTOGRAPHY



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"QL's white light not only looks so much better, it gave us great savings in cost of ownership."

*—Jim Toci
Electrical Engineer,
City of San Diego*

Let's make things better.



PHILIPS

PHILIPS LIGHTING MEETS THE CHALLENGE

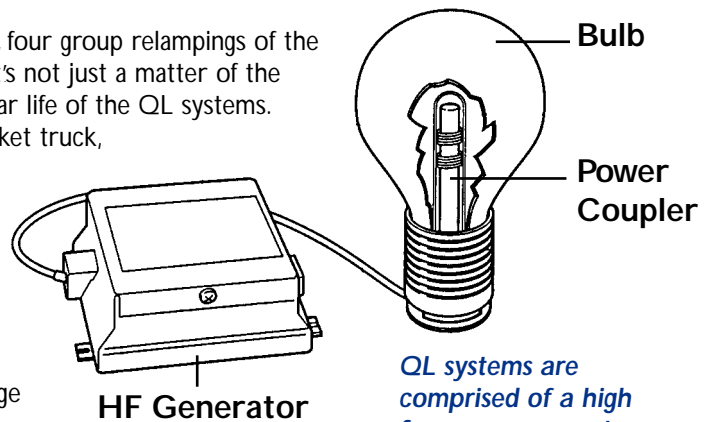
The 179 scrolled, five-globe Gaslamp fixtures were previously sourced with High Pressure Sodium lamps, but over the years the fixtures' condition had markedly deteriorated. Originally, CCDC had planned to stay with HPS and just replace the aging fixtures. "But HPS, especially in the lower wattages, is kind of a golden brown color. The white light [of the QL systems] looks so much better, especially with the white globes," Toci said.

"The area looks brighter because of the whiter color. QL flatters the colors of people's faces, clothing, and cars, making them look completely natural. I think it looks great!" Toci exclaimed.

Cost savings over the life of the lamp is the other important benefit of choosing QL over HPS. According to Toci, a reduction of 28W per lamp compared to HPS, adds up to an annual savings of \$10,525 in energy costs alone.

He estimates that to equal the life of the QL system, four group relampings of the originally proposed HPS fixture would be required. It's not just a matter of the \$43,000 savings in maintenance costs over the 20 year life of the QL systems. In order to relamp, personnel must be lifted in a bucket truck, which creates a safety hazard and a traffic headache. "QL gave us white light as well as great savings in cost of ownership," Toci said.

Teresa McTighe, executive director of the Gaslamp Quarter Association, added, "We're extremely happy with the results of this streetlight upgrade. Come to the Gaslamp in the evening and see the newest change in a turn-of-the-century setting."



QL systems are comprised of a high frequency generator and a bulb containing the power coupler -- a ferrite core that works on the basis of magnetic induction.

BENEFITS OF QL

- *Ultra-long rated life of 100,000 hours*
- *Ideal for difficult, costly, or hazardous-to-maintain sites*
- *Soft white light with a choice of warm 3000°K or cool 4000°K*
- *Outstanding color rendering; greater than 80 CRI*
- *Compact, globe-shaped bulb suits a wide variety of luminaires*
- *High-frequency operation guarantees a flicker-free environment*
- *Instant-on/instant restrike; reliable starting down to -40°C (-40°F)*
- *No color shift over system life*
- *Can be switched on/off frequently—excellent with occupancy sensors*

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