



Most of the distinctive 12 boathouses on Philadelphia's Schuylkill River were built more than 130 years ago. This summer, they came to life in a new light with LEDs.

The LEDs by [Color Kinetics](#) show off these historic structures to their architectural advantage, while saving the city of Philadelphia \$57,000 a year in operating costs.

The previous lighting system, installed for the country's Bicentennial in 1976, used incandescent light bulbs that required continual maintenance as they burned out. The Fairmount Park Commission was spending \$50,000 annually on bulb replacement and \$7,000 each year in energy costs.

The new system encompasses more than 12,000 individually controllable nodes of Color Kinetics iColor Flex SL—a flexible, LED-based “string light.” Each node allows for intricate, colorful lighting sequences, as well as white lights.

The LEDs' life will be measured in years, not months, and they are far more energy efficient than the previous system.

Lighting Designer Troy A. Martin-O'Shia of [Hase & Associates, Ltd.](#) designed the light show that accompanied Boathouse Row's inaugural display, and helped select the “right white” that would keep the incandescent color alive for purists. His co-architectural designer was Shannon Yott of Pennell & Wiltberger, Inc.

“The lights will be traditional Boathouse Row White about 85 to 90% of the time they're on,” says Martin-O'Shia. “Thank God for LEDs. We mixed colors to get a white that mimicked incandescents, which was agreed upon by the historical society.”

“One of the big benefits of LEDs is that you can discuss which version of ‘white light’ you want to use. You don't get to do that with a light bulb,” he explains. “People might think it's a very simple thing. It can be a place of great debate when you start working on things of an emotional importance or a historical importance,” he says.

The extra option of doing special shows with colored lights was demonstrated during the unveiling on June 30, in time to help celebrate the LiveAID concert and the Fourth of July.

To see the a nine-minute Quick-time movie of the opening ceremony video, [click here](#).

Martin-O'Shia programmed a dynamic light show, incorporating themes that showed off the system's capabilities. Assisting him were Joshua L. Schulman and Krista K. Billings.

Among the effects he created:

- Showing the shapes of the houses, in white light, one by one, highlighting architectural details like chimneys.
- Changing to midnight green, the official color of the Philadelphia Eagles
- Continuing with the sports theme, the Philadelphia Phillies' and Flyers' colors were demonstrated
- Switching the LEDs to the pink color that has become associated with Breast Cancer Awareness month
- A “Warhol” cue in lavender and yellow, showing the tops of the houses separated from the bottoms
- The American flag in static “red-white-and-blue”, then in motion
- Rainbow colors “chasing” across the buildings
- A candy cane red-and-white moving at a 45-degree angle across the row
- A regatta theme, with the flag colors of each boating club
- Holiday lighting, with roofs white representing snow and the bottom of houses in red green and gold
- A sparkling black-and-white twinkle

“We wanted to show the capabilities of what LEDs can do,” Martin-O'Shia says of his show. “It

begins a conversation about what can be done with this canvas.”

The reaction from the community was overwhelmingly positive, he reports.

“When you’re talking about a technology that will last 25-35 years, that uses half the energy, and operates at half the cost of any traditional light bulb including fluorescents, the LED technology really is exciting.”