Project Profile
FOUNTAIN SQUARE
City of Cincinnati Outdoor

One of America's largest municipalities, the city of Cincinnati is steeped in tradition and history dating back to the 1790's. The city center is showcased by the Tyler Davidson fountain, a bronze statue gifted to the people of Cincinnati in 1881. The fountain and its surrounding square remain a central gathering place for the community and preservation using modern technology has become a new municipal standard.

Facility Type:
Outdoor Lighting

# of Fixtures:
38

Products:
LED color changing technology

Savings:
80% of the lighting portion of the electricity bill plus $5,000 annual maintenance expenses

Situation
A community wide green initiative was endorsed by the city council and a comprehensive approach was undertaken for the design and implementation of energy savings projects involving all forms of consumption among city owned properties. Outdoor lighting, especially at Fountain Square, was quickly identified as a source of energy savings and offered the potential to reduce city maintenance expenses. Improved lighting quality and color changing technology also carried strong aesthetic implications for the community.

Solution
More than 65 high wattage, incandescent flood lights adorned the fountain. Given heat output from these floods, the fountain's waters were needed to cool the fixtures making the display inoperable in winter months. Beneath the water pool these old floods were subject to fixture corrosion, leaking and electrical mishaps. All existing lights were replaced with 90w LED color changing floods with the ability to direct light – using less fixtures, less energy and enhancing the aesthetic effects of the fountain itself. Sixteen pre-programmed shows were enabled through the LED displays, changing colors for different seasons, holidays and events. The LED solution deployed lamps rated for over 50,000 hours of use, capable of generating significant reductions in city maintenance expense in addition to the energy efficiency savings.

Lighting specialist Eco Engineering performed both the design/engineering and implementation phases of the Fountain Square lighting project.

Results
The color changing displays were an immediate social media sensation throughout the community. The directed light brought new life to Fountain Square in addition to the economic benefits of energy efficient lighting.

Reduced Billings and Maintenance Expenses
- The implementation is expected to reduce the lighting portion of the utility bill by 80%.
- Over $5,000 per year in material and labor expenses will be avoided by reduced maintenance.

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