LED Outdoor Lighting Project Profile

Holiday Inn Express®

Douglasville, GA

Situation

The Holiday Inn Express brand of the InterContinental Hotels Group offers comfort and convenience for frequent business and leisure travelers. The hotel's Douglasville, Ga., location, 20 miles west of Atlanta off of I-20, is in a growing retail and commercial area of Douglasville.

Hotel management noted that many of the new neighboring properties were illuminated at night with high-wattage metal halide (MH) outdoor lighting while their property used 400-watt high-pressure sodium (HPS) lights. They felt that a change to brighter white lighting was needed, both to match nearby properties and also to enhance the safety and security of their guests. They also had a concern about an under-lit section of their 200-space parking lot.

Action Plan

The outdoor lighting experts at Georgia Power were contacted by the Douglasville Holiday Inn Express management, who requested an outdoor lighting analysis of the property. Georgia Power conducted the analysis in the fall of 2012 and proposed two upgrade options. One option was to change to higher wattage metal halide fixtures and add a pole with additional fixtures to illuminate the current dark area of the parking lot. A second option was to upgrade to Light-Emitting Diode (LED) lighting using existing poles, pole locations, and no added poles or fixtures.

Hotel management chose the LED option as it would provide the improved illumination and white light that they were seeking. It did not require an additional pole and lights, and the energy-efficient LED lights would provide white light illumination that matched that of neighboring properties while using only a fraction of the energy used at those properties.

New LED fixtures were ordered and the installation of the new LED lights was completed in early January 2013.

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The new lighting installed utilized 12 Cooper Lighting 310-watt Navion LED lights in the six LED Light Square configuration. All fixtures have a Correlated Color Temperature (CCT) of 4000K and a Color Rendering Index (CRI) of 70.









Results/Benefits

Old HPS System:

2 400-watt (465 system watt) HPS flood lights = 930 watts 10 400-watt (465 system watt) HPS shoebox fixtures = 4,650 watts

Total = 5,580 watts

New LED system:

12 310-watt LED area fixtures = 3,720 watts

- 33 percent reduction in energy usage related to outdoor lighting
- White light matches neighboring properties without the use of high-wattage MH fixtures
- Dark area eliminated without adding additional poles or lights
- Enhanced the safety and security of guests, staff, and property
- LED lighting is directional all light is directed toward the area to be illuminated
- Minimized/eliminated light trespass
- Greatly improved lighting uniformity (eliminated dark spots and hot spots)
- · Long fixture life and reduced maintenance requirements
- Environmentally friendly (no hazardous materials to recycle, reduced energy usage lowers greenhouse gas emissions)
- Instant on/no warm-up time