

LED Outdoor Lighting Project Profile

Alcon®

Johns Creek, GA

Situation

Alcon, a part of the Novartis Group, is a leading eye health and vision care products company with a large office and manufacturing campus located just north of Atlanta in the Johns Creek Technology Park.

Alcon had concerns about the cost of their current outdoor lighting system of 180 400-watt high-pressure sodium (HPS) fixtures, and their lighting maintenance challenges. Their current system had been on-site for almost 20 years and Alcon wanted to evaluate a system upgrade. Alcon contacted their Georgia Power key account manager and asked for help in identifying options for an outdoor lighting upgrade.

Action Plan

Georgia Power’s outdoor lighting experts visited the Alcon facility and evaluated the current lighting system. Georgia Power then provided Alcon with an outdoor lighting design and proposal to replace the current system with 182 Light-Emitting Diode (LED) fixtures. The proposal detailed the advantages of the new plan and LED lighting, which included reduced maintenance requirements, lower energy usage, and improved lighting uniformity and color clarity, providing a safer environment for employees and improved visibility for Alcon’s security personnel.

Novartis, Alcon’s parent company, has a corporate sustainability goal to reduce its carbon footprint. Alcon realized that this goal could be achieved at the Johns Creek campus through a reduction in their energy usage by converting to LED outdoor lighting.

Based on the proposal, Alcon signed a contract with Georgia Power for the lighting system upgrade and conversion to LED lighting. LED lighting fixtures were ordered and the removal of the old fixtures and installation of the new

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LED fixtures was completed in February 2012. The new lighting installed utilized 182 GE Evolve 202-watt Modular LED area fixtures. All fixtures have a Correlated Color Temperature (CCT) of 4000K and a Color Rendering Index (CRI) of 70. All existing poles and pole locations were used.



Results/Benefits

- **Old HID System:**

180 400-watt (465 system watt) HPS shoebox fixtures = 83,700 watts

- **New LED system:**

182 202-watt LED area fixtures = 36,764 watts

- 56 percent reduction in energy usage related to outdoor lighting
- Enhanced the safety and security of employees and property
- Color rendering and visual acuity enhanced for security personnel
- 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

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