CASE STUDY // Multi-family high-rise





Atlanta apartment building achieves rapid payback from multi-stage retrofit

Luxury residential high-rise in midtown Atlanta goes LED in common areas, hallways, parking garage for staggering ROI

Overview

Midtown Atlanta high-rise 77 12th wanted to adopt more sustainable lighting, and not just for the sake of saving on the cost of energy, but to alleviate maintenance challenges and decrease its environmental impact. The building's management dove in head-first, moving forward with a series of lighting retrofit projects throughout the building.

Though the main driver for these projects wasn't necessarily ROI, the savings for 77 12th were pretty eye-popping. The 23-story building was able to achieve an average payback in less than six months on the five retrofit projects it performed, going with LED lighting in several high-burn-time areas.

All in all, over 1,600 fixtures were retrofitted to LED, proviing remarkable impact.

OBJECTIVES:

- Invest in sustainable lighting throughout building
- Increase light levels for safety in parking garage and stairwells
- Reduce monthly cost of energy
- Alleviate maintenance challenges

Project Outcomes

- Over \$85,000 in firstyear energy savings
- Average payback of less than six months
- 1,665 fixtures retrofitted to LED
- Estimated first-year ROI of 160%
- Five fixture types retrofitted

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How much is 77 12th saving?

77 12th identified the five areas of its building with the highest burn times — three different common areas, the parking garage, and the stairwells. There were a total of 1,665 fixtures in these areas, providing ample opportunity to reduce energy costs by maximizing efficiency.

The three common areas had a total of 925 fixtures — a mixture of MR16s, A19s, and 4-pin CFLs. All applications cut wattage at least in half. In fact, the 540 total 60 W incandescent A19s in the common areas were replaced with 7 W LEDs, a savings of 88 percent.

Regency suggested 77 12th shouldn't stop with the common areas, but should also look at its other two ultra high-burn-time areas: its stairwells and parking garage.

The stairwells were previously lit by 32 W T8 fluorescents. After retrofitting all 250 four-foot fixtures to 15 W plug-and-play LED T8s, the building achieved full payback in just 11 months.

In the parking garage, 77 12th retrofitted its four-foot T5s from 54 W fluorescents to 27 W LEDs. This yielded over \$19,000 in first-year energy savings and full project payback in just eight months on the 490-fixture retrofit.

It is important to note that all of the ROI figures quoted in this case study include the cost of labor needed to change out lamps.

"The team at 77 12th knew retrofitting to LED lighting could provide rapid ROI and shore up capital for other building improvement projects. We helped them to identify the highest burn time areas in the building, and looked for easy lamp swap opportunities in existing fixtures to keep things simple. We're thrilled to see our work in such a great Atlanta building."

Matt DeSoto

Lighting Specialist, Regency Supply







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