

## **Case Study**

## **Alphonse D'Amato Federal Courthouse, 2017**

## Project Highlights The Numbers

- Power Savings kWh 939K (65%)

- Increase in Light Level +20%

- Annual Savings \$191K

- Rebate Qualified \$90K

- ROI 2.2 yr

- 10 yr Total Savings \$1.5M

## Atlantic Energy Concepts won the bid for the LED upgrades

By 2017 the original fluorescent fixtures were all needing new ballasts and tubes. This made it easy to justify a building-wide LED upgrade. The uncommon design of the many of the installed fixtures and cove lighting made the Stripit Kit one of the few retrofit systems able to fit the space envelope and meet all other requirements. The resulting performance surpassed expectations: cutting power by 65%; giving a 20% increase in light levels; and with an superior spectral distribution of the light.





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Alphonse D'Amato Federal Courthouse in Central Islip, NY opened in 2000 and is the third largest federal courthouse in the country. With 870,000 square feet it contains 23 courtrooms, 24 judge's chambers, and a large law library. The original lighting employed T8 fluorescent tubes, a common choice at the time.



This phase of a building-wide lighting upgrade program was completed in 2017 by Atlantic Energy Concepts. The goals were to reduce electricity consumption, improve the level and quality of light while eliminating all maintenance for the next decade. After careful revue of all retrofit options AEC specified the RedBird LED Stripit Kit<sup>R</sup> system to replace >6500 of the installed fluorescent tubes and ballasts. In addition, the need for Buy-American-Act compliance was for this Federal facility was another feature of the RedBird system that few other options met. The Stripit Kit's slim profile and universal design made for a rapid, trouble-free installation.

The high efficacy of the Stripit Kit meant only 12 watts were needed to for each 4' Strip. Even at this low power level the resulting measured light levels showed an average increase of 20% over the original fluorescent output, while reducing energy consumption by 65%, a 22 watt saving for each 4' fluorescent tube replaced. With local electricity costing \$0.204/kWh, an on-time of 6,570 hrs/yr, this yields an annual savings of \$191K/year. With a utility rebate of \$90K the Return-On-Investment is 2.2 years. NET savings over the 10 year system lifetime is \$1,490,000.