

## CASE STUDY OF ENERGY SAVINGS IN LAS OLAS PARKING GARAGE FT. LAUDERDALE, FLORIDA

### ABSTRACT

The Las Olas parking garage is located on the busy Las Olas Boulevard lined with dining, browsing, arts, shops, cafes and entertainment. The parking facility consists of interior and exterior parking space which operates seven days a week.

### CLIENT PROFILE



Two adjacent parking structures both including three-story, 200-vehicle capacity is integrated with a three and eight-story office building. The parking garages use Metal Halide lighting fixtures in 175W and 400W to light the interior parking, exterior parking, roof parking, and perimeter lighting.

### BUSINESS NEED

Both parking garages cater to clientele from the connected office buildings and adjacent shopping and retail stores. As such, lighting for the interior parking operates 24 hours a day, seven days a week. Exterior lighting operates 12 hours a day, seven days a week. With

electricity representing one of the highest operation costs, the management looked for ways of savings electricity from the enormous amount of lighting necessary for the 24 hour facility. With the garages open to traffic every day, the solution needed to be non-interrupting to daily business and customers.

### SOLUTION

Survey results showed that four LEC units would control voltage for both facilities. A LEC A Tp 80A controls the lighting in one facility, with a LEC A Tp 30A installed on the emergency lighting circuits. The second facility required a LEC A Tp 50A unit with a LEC A Tp 30A on the emergency lighting system. All LEC installations were completed during one day, with no interruption to any of the lighting systems or daily business.

### RESULTS

The LECs reduced electrical consumption of the lighting by 21.8%. This results in savings of \$22,160 annually on the electric bill. By qualifying for the Florida Power & Lighting Company rebate, the total ROI is 21 months.

Annual electricity consumption for lighting	KWh 990,000
Total annual savings	% 21.8
on electricity –	\$ 22,160
on KWh –	KWh 215,820
Return on investment	Months 21