# **CASE STUDY**

## Apartment Garage, Los Gatos, CA

#### The Situation

An apartment complex with an emphasis on quality and community. The ownership organization was very interested in the benefits of converting the garage under the building from fluorescent tubes to LED tubes. Converting the fluorescent lighting to LED-based lighting would bring an immediate and significant savings to the property. In addition, the fluorescent tubes would darken as they aged, which slowly reduced the quality of the lighting in the parking garage.

#### The Solution

Because of their interest in saving money, improving the quality of the garage lighting, and, in addition, testing LED lighting technology, the ownership group considered the financial scenario offered by LED Light Technology that would produce an 82% reduction in power consumption, eliminate maintenance expenses, lower their carbon footprint, and improve the overall quality of the lighting.

LED Light Technology proposed to convert each 110W fixture of three F32T8 fluorescent tubes to two T84 LED tubes (34W), install motion sensors that would reduce power consumption to only one 17W LED tube during inactivity, and alternate between the two LED tubes for increased savings and product life. The emergency ballasts would be converted to LLT battery backup devices.

The proposed payback period was 19 months and maintenance expenses would be eliminated for almost 10 years. The net project cost to the apartment complex was approximately \$51,000.

Installation of the tubes was on a two-for-three replacement basis and no new conduit or wiring was required to install the LED tubes and motion sensors.

#### The Result

Approximately \$31,000 in total savings.

Electricity savings of over \$30,000 per year (185,000 kWh/Yr).

No maintenance expenses for almost 10 years.

Increase in light levels of approximately 25%.

Owner's return on investment of 511%



### **Solution Overview**

Application: Garage lighting in a luxury apartment complex in Los Gatos, CA.

Profile: Apartment garage in Los Gatos, CA with underground parking.

Challenge: Convert fluorescent tubes to energy efficient LED tubes from LED Light Technology to test LED lighting technology.

Solution: New LED tubes reduced annual power consumption by 82% and paid for themselves in 19 months.

Result: Dramatic reduction of operating expenses, an ROI of 511%, no maintenance for almost ten years, and overall savings of over \$31,000 per year.

