



Project Summary

A retail shopping plaza in Murrieta, California, wanted to replace its existing parking lot lighting fixtures. After some consideration, they decided to retrofit their existing low-pressure sodium fixtures which were beginning to age (eight years old), with a more cost-effective solution. The decision was made to install new, higher-efficiency LED lighting fixtures. The fixture chosen was the RVL T Cobra Head with photo sensor.

End User: Shopping Plaza, Murrieta, CA

Application: Street Lighting

Products: ■ Cobra Head Type III, Cool White (5500K), w/photocell

- Benefits:**
- \$1,964 annual savings
 - 10-15 year lifespan of new LED light engines vs. 2-3-year lifespan of LPS fixtures
 - Half the energy use of prior LPS lighting
 - Estimated 3.9-year payback
 - 9,069 pounds annual reduction in carbon emissions
 - Improved light output and color rendition for enhanced safety and visibility

Project Overview



Greenworks Energy Group worked with the facility to install 11 fixtures. The installation was completed on July 26, 2014, and was finished in 4 hours. The installation will result in energy and maintenance savings while improving safety and enhancing visitor perceptions.

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Pounds of Coal Saved @ 0.08 lbs/per kWh	439 lbs.
Gallons of Oil Saved @ 0.07 gals/kWh	384 gals
Pounds of Carbon Dioxides Saved @ 1.95 lbs/kWh	10,710 lbs.
Pounds of Sulfur Dioxides Saved @ 0.008477 lbs/kWh	47 lbs.
Pounds of Nitrogen Oxides Saved @ 0.004092 lbs/kWh	22 lbs.

Project Overview (cont')

The installed fixtures brought the lighting levels from 1700K up to 5500K and resulted in a much more even light; the impact was dramatic!



"Wow, what a difference," stated the owner of the shopping plaza.

Cost Analysis

Annual LED Life-Cycle Cost Analysis

Existing Fixture	Number	Energy Use (kWh)	Cost/Unit	Total Cost
LPS 180W	11	10,404	\$ 0.16	\$1,665
Maintenance				807
Total Costs for Period				\$ 2,472

Replacement Fixture	Number	Energy Use (kWh)	Cost/Unit	Total Cost
Cobra Head 70W Type III	11	3,178	\$ 0.16	\$ 508
Maintenance				0
Total Costs for Period				\$ 508

Savings	Savings
Energy Savings	\$1,157
Maintenance Savings (est.)	807
Total Savings LED Fixtures	\$ 1,964

Using the RVLT Parking Lot LED fixtures results in an overall savings of 20% annually, estimated at more than \$1,964. With a 60% savings in energy costs and additional maintenance savings, the project will have an estimated simple payback of 3.9 years. With the addition of included Photocell Sensors, the client can expect additional energy savings of 15%.

Visit www.rvlti.com for more information.