

## Lockheed Martin Facility Roadways – Orlando, Florida Florida's Largest Installation of Solar LED Outdoor Lighting



Carmanah EverGEN™ 1520 at Lockheed Martin facility.

### Project Summary

**End User:**

Lockheed Martin, Lake Underhill Facility

**Lighting Agent:**

SESCO Lighting

**Project Scope:**

Outdoor lighting systems for a main entrance roadway and the main loop road serving the facility

**Product:**

Carmanah EverGEN™ 1520 solar LED street lights

**Cost Savings (Solar vs. Hard Wire):**

Initial costs and maintenance savings over 20 yrs: \$221,000

**Other Benefits:**

Maintenance cost reduction, dark-sky friendly BetaLED™ LEDway™ street light fixture

**Project Specifications:**

35 systems:

Type II distribution - 5625 lumens

Coverage area: each fixture provides useful illumination over a 125ft. stretch of roadway (26ft. wide)

Mounting height: 24 ft.

Minimum: 0.2 fc

Average: 1 fc

**Operating Profile:**

Split Night, 5hr, 25%, 2hr: The light comes on at dusk at full intensity for five hours, then dims to 25% of full intensity, the light returns to full intensity two hours before dawn.

## Lockheed Martin Facility Roadways – Orlando, Florida Continued...

When global security company Lockheed Martin performed an assessment of their Orlando, Florida facility, the results revealed that their existing 25-year-old streetlights were in need of replacement – including the underground wiring that powered them.

In partnership with Florida-based Carmanah distributor, SESCO and HD Supply, Lockheed specified the ideal solution to be an easy to install, electricity-independent, field-proven lighting system that could seamlessly transition the facility's lighting requirements. With that, SESCO, HD Supply and Lockheed outlined an ideal application for solar-powered lighting.

The decision to investigate the feasibility of a solar-powered street light option was one already in-line with the company's movement towards sustainable business practices. Lockheed had already committed itself to find ways to reduce energy usage across their facilities worldwide, and had already benefited from the successful installation of energy-efficient lighting at other facilities. As a result, Lockheed was looking to build similar momentum in Orlando.

But environmental responsibility aside, Lockheed had another 'green' consideration to contend with: cost. In the past, solar-powered outdoor lighting was a costly alternative for outdoor illumination.

But SESCO disagreed. Following a comparison between solar and AC-powered fixtures, representatives from both sides affirmed that the Carmanah solar LED streetlights would save significant cost. At \$342,000 (including purchase price and maintenance) over a twenty year period, the EverGEN lights far outweighed conventional AC-powered streetlights with a cost of \$563,000 (including new wiring and electricity costs) over twenty years.

As Robert Carey, Chief Facilities Engineer at Lockheed commented, the decision to go solar was an easy one.

In searching for the best solar-powered light for the job, SESCO and HD Supply chose the Carmanah EverGEN™ 1520. Featuring, bright, dark-sky friendly BetaLED™ LEDway™ fixtures, a cost-effective installation, and an energy management system that provides enhanced autonomy and ensures reliable, all-night operation, the Carmanah EverGEN 1520 systems had virtually specified themselves.

Representing the state's largest installation of solar outdoor lighting, the EverGEN solar LED lights, offered the most practical and economical alternative to conventional hard-wire systems. At the same time, the installation helped to achieve Lockheed's larger commitment to sustainable business practices through energy-efficient and environmentally-friendly technologies.

Headquartered in Bethesda, MD, Lockheed Martin is a global security company that employs about 146,000 people worldwide, and is engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services.



Carmanah EverGEN solar LED lighting systems were chosen to provide lighting over the roadways at Lockheed Martin's Lake Underhill facility.