

CASE STUDY // Port of entry



With a goal of net-zero energy consumption, San Ysidro-Tijuana port of entry goes LED on mastheads

High performance LED fixtures help illuminate US-Mexico border, reducing federal energy spend

Overview

The busiest port of entry in the world is between San Diego and Tijuana, in a little California border town called San Ysidro. Nearly 20,000 people cross the border everyday in San Ysidro, with most crossing through in vehicles. The port operates 24 hours a day, seven days a week, and the stream of vehicles is constant.

The U.S. government has been working on upgrading and adding to the campus of border patrol buildings in San Ysidro, and part of that project includes a transition to net-zero energy consumption. Solar panels line the roofs of the government buildings at the port, and other energy-efficient solutions are spread around the campus at San Ysidro.

With this broader set of green initiatives in mind, LED lighting was a natural choice at the border. But beyond the energy component, there were some practical considerations at play when they were looking at the lighting.

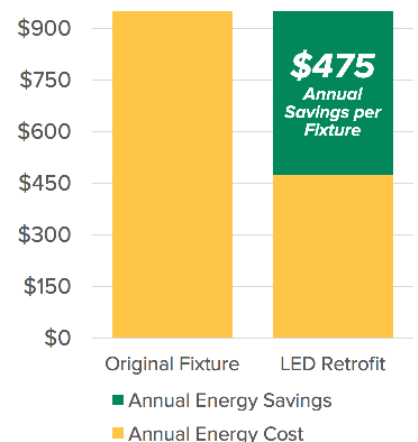
OBJECTIVES:

- Increased visibility for border patrol and customs agents
- Increased life rating to limit difficult, costly maintenance
- Achieve net-zero energy usage by increasing efficiency of lighting

Project Outcomes

- Long life rating, reduced maintenance
- Strong visibility at checkpoints for agents

Annual Savings



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The importance of quality, long-life lighting

When you've got 20,000 people crossing the border a day, with many going through customs in the middle of the night, visibility for customs and border patrol agents is critical. They have visa and immigration documents to review, vehicles to inspect and, sometimes, dangerous situations to manage.

This requires proper light levels, of course, and infrequent burnouts. And when burnouts do occur, maintenance is about as complex as it gets. The San Ysidro port of entry mounts its lighting fixtures 122 feet in the air on 150-foot-high mastheads, which are extremely difficult to service. And even if you find the right subcontractor with the right insurance and equipment to service the mastheads, the job shuts down five port lanes for a full day, backing up traffic more than it already is.



"If you shut down just one lane, it will back up all the lanes by 15 minutes," Paul Knabe, the port's property manager, said. "So if we're at an average of an hour and a half coming across, shutting down a single lane will back that time up to an hour and 45 minutes. And of course, if you shut down multiple lanes, we're talking hours of delays."

Regency engaged Southern California Illumination (SCI) for pricing on the on the fixture Knabe ultimately decided on — a 1,000 watt Ephesus Stadium LED fixture that emits 115,000 lumens. With an L70 of 225,000 hours, the port can trust that they won't have to shut down lanes to install or maintain lighting for years.

"The main thing for us is not having to maintain lighting on 150-foot masts. That, and giving the agents good visibility for inspecting vehicles, checking paperwork, or dealing with situations where they need to do a secondary check on a vehicle."

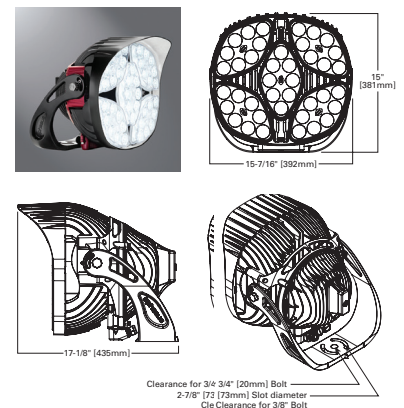
Paul Knabe

Property Manager,
U.S. General Services
Administration

San Ysidro, CA

Ephesus Stadium 1,000

- 115,000 lumens
- L70 of 225,000 hours
- 1,000 watts
- 5,600K CCT



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