BRIGHTLIGHT SYSTEMS

Case Study

San Juan, Puerto Rico Airport Parking Garage

Products

- **BLP450 LEP Parking Area Luminaire**
- **Bright Light Management System (BLMS)**

Customer

Marin International Airport, San Juan, Puerto Rico (SJU). Opened in 1955, the busiest airport in the Caribbean handles more than 8 million passengers a year. It is engaged in a $400,000,000 expansion project.

Problem

As part of the airport renovation and expansion project, the Puerto Rico Ports Authority had a mandate to reduce electrical demand and diminish the impact of the local high cost of energy. Since lighting was a major operating cost component, the Authority saw the opportunity to reduce lighting energy use and maintenance costs by replacing forty eight legacy 460 watt HPS fixtures. By cutting the electric bill, the Authority would also be in a better position to invest in renewable technologies such as solar power for other projects.

Solution

Replace inefficient HPS with Bright Light Systems 160 watt, BLP450 Light Emitting Plasma (LEP) Parking Area fixtures. To increase savings even further, wireless lighting controls with motion sensing capabilities manage the system at 40% power (102 watts). When motion is detected, the lights increase to 70% (123 watts) for optimal illumination. And with the system using an astronomical clock instead of photocells, an additional 12% energy savings is achieved.

Results

- Projected annual kWh saved: 73,954 kWh
- Projected annual energy savings: $22,186.
- Projected annual maintenance savings: $1,486
- Reduced CO_2 emissions by 51 metric tons
- Payback: < 1.8 years

Payback Calculation

Description	Units	400W HPS	BLP400	Savings
Operating Costs				
Average Fixture Power	Watts	460	123	337
Number of Fixtures	#	48	48	
Annual Energy Consumption	kWh	96,710	22,756	73,954
Annual Energy Cost	$/Yr	$29,013	$6,827	$22,186
Annual Maintenance Cost	$/Yr	$2,118	$632	$1,486
Annual Operating Cost	**$/Yr**	**$31,131**	**$7,458**	**$23,672**
Payback	**Yrs**	-	-	**1.8**
Annual Environmental Impact and Emissions				
Carbon Dioxide Emissions	**Tons**	**67**	**16**	**51**

*assumes HPS 15K hrs L70, 12 hours / day operation

"With the high electricity costs in Puerto Rico, we are looking to solution providers like Bright Light Systems to help us reduce our energy consumption. The BLP450 LEP lights together with their Bright Light Management System increased our energy efficiency by 75% while enabling more cost-effective maintenance for the parking area."

- Randall Corsi, Special Projects, Aerostar Airport Holdings LLC

(404) 490-4132

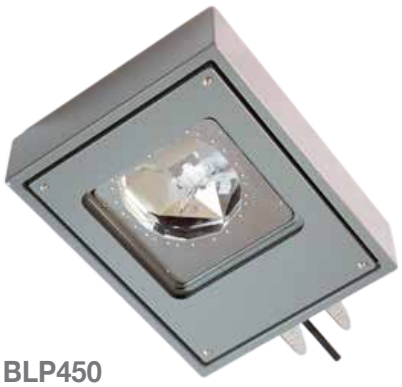
Bright Light Systems, Inc. | 1867-B McFarland Pkwy, Alpharetta, GA 30005 USA | sales@brightlightsystems.com | www.brightlightsystems.com

BRIGHTLIGHT SYSTEMS

Case Study

San Juan, Puerto Rico Airport Parking Garage

- **BLP450 LEP Parking Area Luminaire**



BLP450

Features

- 80% Less Energy Consumed
- Enhanced Color Recognition
- Dimmable 100% to 20%
- Easy Lamp Maintenance
- Rated Lifetime 50,000 hours
- Integrated Wireless Controls
- 5-Year Limited Warranty
- Uniform Light Distribution

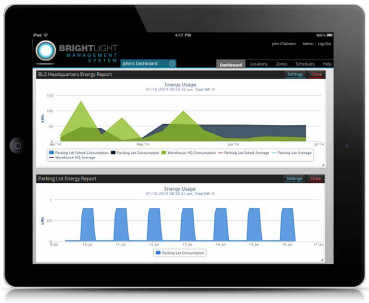
Specifications

Illumination Source	1 High Powered LEP (Light Emitting Plasma)
Power Consumption	160 Watts
Source Lumens	17,000
Lumen Maintenance	70% @ 50,000 hours
Color Temperature	5200K
CRI	95
Operating Temperature	-40°C to +45°C
Approvals	ETL, CE, IP65

Lighting Controls

Features & Specifications:

- Motion Sensors
  - 7 BLS Wireless Motion Sensors
  - 1 BLS Gateway
- Bright Light Management System (BLMS)
  - Cloud-based application accessible from any laptop, smartphone, or tablet
  - Provides real-time energy usage, maintenance, and scheduling capabilities



For more information:

BLP450 Light Emitting Plasma (LEP) High Mast Luminaires. Please email or call and request BLS Data Sheet, or visit our website to download at www.brightlightsystems.com/BLP450.html

Bright Light Management System (BLMS) Wireless Control. Please email or call and request BLS Data Sheet, or visit our website to download at www.brightlightsystems.com/BLMS.html

Take Control of Your Lighting

(404) 490-4132

Bright Light Systems, Inc. | 1867-B McFarland Pkwy, Alpharetta, GA 30005 USA | sales@brightlightsystems.com | www.brightlightsystems.com