



Products

- BLP1000 LEP High Mast Luminaire
- Bright Light Management System (BLMS)

Customer

Norfolk Southern operates 20,000 route miles in 22 states and the District of Columbia, and serves every major container port in the eastern United States. Norfolk Southern has the most extensive intermodal network in the East and is a major transporter of coal, automotive, and industrial products.

Problem

Norfolk's automotive distribution facility in North Carolina covers 68 acres and is illuminated by traditional 1000 watt high pressure sodium (HPS) fixtures. The HPS fixtures are mounted on 80 ft poles and are expensive to service when a lamp or ballast goes out. In addition, the illuminance levels in the center of the yard are less than .25 foot-candles resulting in safety and security concerns.



Solution

Retrofit 1000W HPS high mast lighting with Bright Light Systems, BLP1000 Light Emitting Plasma (LEP) High Mast fixtures. The BLP1000 uses an IES Type IV asymmetric optic with forward throw. LEP luminaires last for 50,000 hours, are dimmable to 20%, and provide enhanced color recognition. The inclusion of wireless controls enables remote on/off control, energy (kWh) monitoring, and scheduling capabilities resulting in 30% additional energy savings.

Results

- Projected annual kWh saved: 1,038,831 kWh
- Projected annual energy savings: \$93,495
- Projected annual maintenance savings: \$25,116
- Increased light levels 50% with fewer fixtures
- Reduced CO₂ emissions: 716 metric tons
- Payback: < 2.5 years

Payback Calculation

Description	Units	1000W HPS	BLP1000	Savings
Operating Costs				
Average Fixture Power	Watts	1280	540	740
Number of Fixtures	#	229	148	
Annual Energy Consumption	kWh	1,283,866	245,035	1,038,831
Annual Energy Cost	\$/Yr	\$115,548	\$22,053	\$93,495
Annual Maintenance Cost	\$/Yr	\$30,309	\$5,193	\$25,116
Annual Operating Cost	\$/Yr	\$145,857	\$27,246	\$118,611
Payback	Yrs	-	-	2.5
Annual Environmental Impact and Emissions				
Carbon Dioxide Emissions	Tons	885	169	716

* Assumes HPS 15K hrs, L70, 12 hrs/day operation, \$0.09 per kWh

"The BLS plasma fixtures are a big improvement over the standard HPS lighting. They provide a clean, white light across the entire area and meet and exceed the illuminance levels we had previously." says Ben Winkler, Norfolk Southern Terminal Manager. "Not only are the lights enhancing safety and security in the yard, but they're reducing our operating costs with significant maintenance and energy savings."

(404) 490-4132



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Features

- 80% Lower Energy Costs
- Integrated Wireless Control
- Dark Sky Compliant
- UL 1598 Wet Location Listed
- Rated Lifetime 50,000 hours
- Uniform Light Distribution
- Full Illumination in 60 seconds
- 5-Year Limited Warranty

Specifications

Illumination Source	2 High Powered LEPs (Light Emitting Plasma)
Power Consumption	540 Watts
Source Lumens	46,000
Lumen Maintenance	70% @ 50,000 hours
Color Temperature	5200K
CRI	75
Operating Temperature	-40°C to +50°C
Approvals	UL1598, IP65, CE



BLP1000

Lighting Controls

Features & Specifications:

- Wireless Technology
 - 802.15.4 Controllers communicating over 2.4 Ghz band with 128-bit AES Encryption
 - 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:

BLP1000 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/BLP1000.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