



### Products

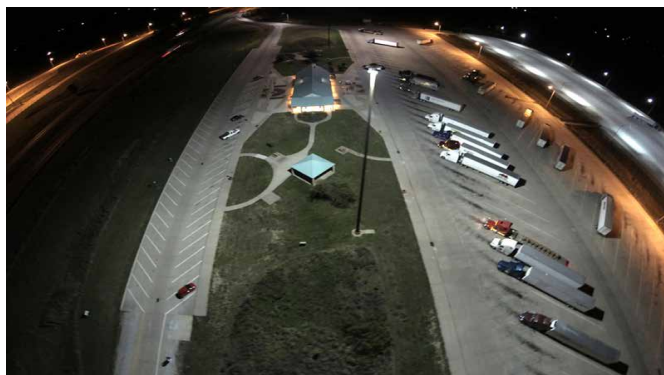
- BLP1000 LEP High Mast Luminaire

### Customer

Indiana Department of Transportation (INDOT) maintains more than 11,000 centerline miles and nearly 6,000 bridges across the state. Along the highways, INDOT is responsible for the lighting at 19 rest area locations along with 30 separate rest area facilities.

### Problem

Interstate I-70 stretches across Indiana going through downtown Indianapolis. Rest areas along I-70 are dimly lit with 1000W high pressure sodium (HPS) fixtures mounted on 120 foot poles. Insufficient high mast lighting impacts the security and comfort of drivers and passengers using these facilities. In addition, HPS lighting is expensive to maintain and require frequent lamp replacements every year. INDOT wants to reduce their maintenance costs while still meeting the AASHTO illuminance criteria of a 1.0 foot candle maintained average in the parking area.



### Solution

Retrofit traditional 1000W HPS high mast lighting with Bright Light Systems, BLP1000 Light Emitting Plasma (LEP) High Mast fixtures. LEP fixtures utilize an IES Type V symmetrical distribution for optimal light coverage and consume only 540 watts. The full-spectrum, white light offers improved color recognition and better night-time visibility for increased safety and security of drivers and passengers in the rest area. A 50,000 hour lifetime reduces maintenance costs by \$1,556 annually.

### Results

- Projected annual kWh saved: 51,859 kWh
- Projected annual energy savings: \$4,273
- Projected annual maintenance savings: \$1,556
- Achieved 1.5 fc avg and 4:1 uniformity ratio
- Payback: < 5 years

### Payback Calculation

Description	Units	1000W HPS	BLP1000	Savings
<b>Operating Costs</b>				
Average Fixture Power	Watts	1280	540	740
Number of Fixtures	#	16	16	
Annual Energy Consumption	kWh	89,702	37,843	51,859
Annual Energy Cost	\$/Yr	\$7,391	\$3,118	\$4,273
Annual Maintenance Cost	\$/Yr	\$2,118	\$561	\$1,556
<b>Annual Operating Cost</b>	<b>\$/Yr</b>	<b>\$9,509</b>	<b>\$3,680</b>	<b>\$5,829</b>
<b>Payback</b>	<b>Yrs</b>	-	-	<b>4.9</b>
<b>Annual Environmental Impact and Emissions</b>				
<b>Carbon Dioxide Emissions</b>	<b>Tons</b>	<b>62</b>	<b>26</b>	<b>36</b>

\* Assumes HPS 15K hrs, L70, 12 hrs/day operation, \$0.0824 per kWh

“We installed Bright Light Systems LEP high mast luminaires at the rest area east of Indianapolis on I-70 about two years ago and they have been performing exactly as advertised without any need for maintenance.” says **Dave Boruff, Manager, INDOT Office of Traffic Administration**. “The luminaires provide more than adequate output to meet AASHTO recommended light levels while using considerably less energy than the traditional HPS lamps.

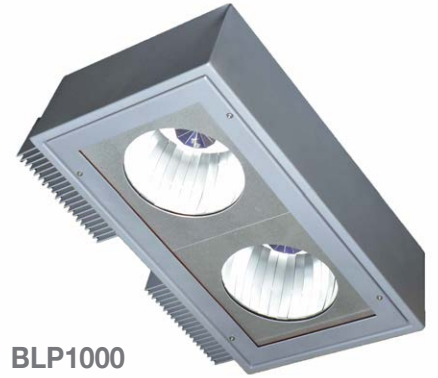
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### • BLP1000 LEP High Mast Luminaire

## Features

- 50% Lower Energy Costs
- Optional 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

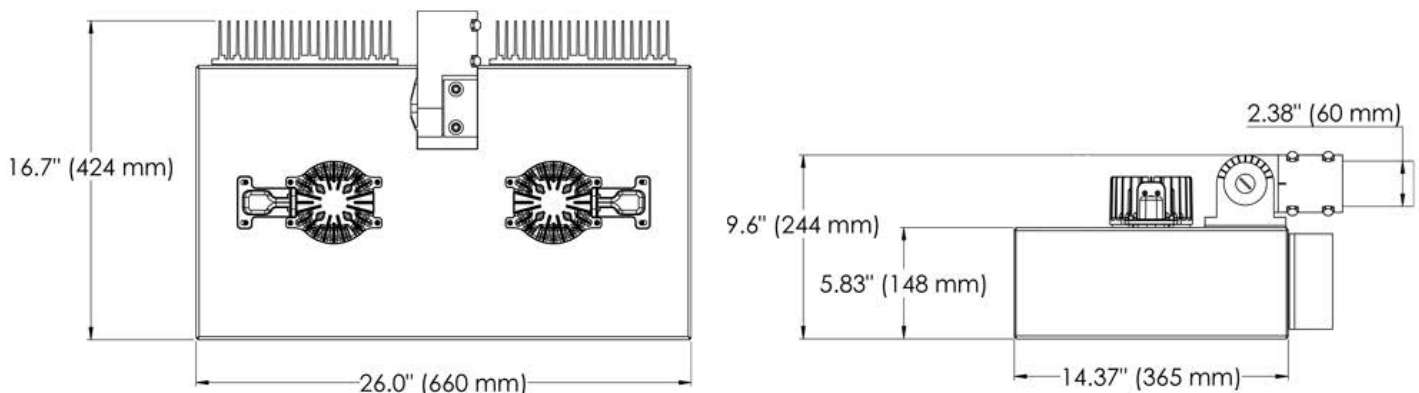


BLP1000

## 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

## Dimensions



### 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](http://www.brightlightsystems.com/BLP1000.html)

## Take Control of Your Lighting

(404) 490-4132