

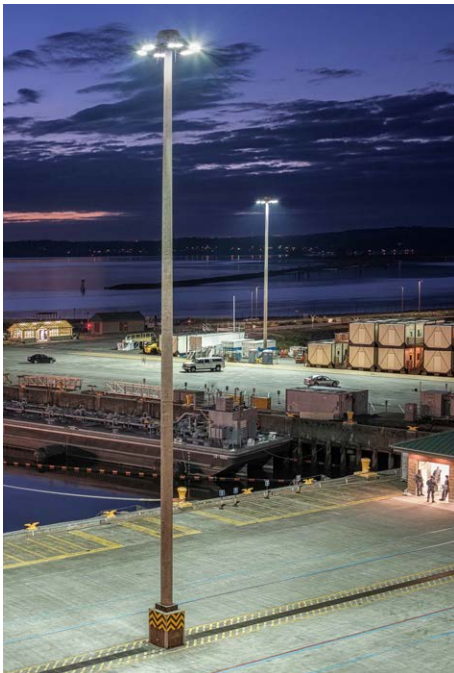


High-Mast Lighting... A Powerful, New Combination to Save Energy & Reduce Operating Costs

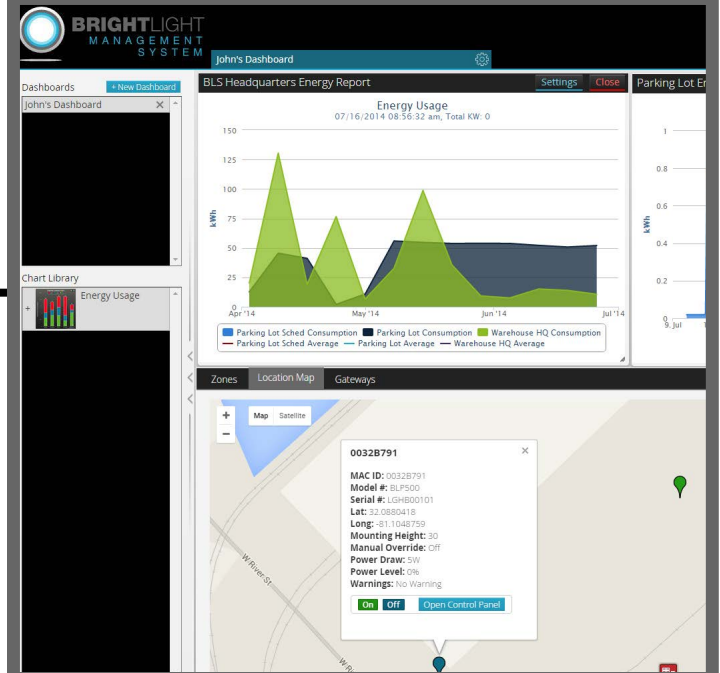
Bright Light Systems - a trusted leader in high-mast lighting and controls for ports, airports, rail yards, correctional facilities, highways, roadways, and parking areas.

Bright Light Systems NOVA HM LED high-mast luminaire with optional Bright Light Management System (BLMS) wireless controls.

Hardware



Software



BLS High-Mast Luminaires. 802.15.4 Wireless Controller & Gateway.

BLMS Web-based software is easy to learn and use.

NOVA HM LED high-mast luminaires with BLMS reduces your energy costs 80% by intelligently controlling and monitoring your lights.

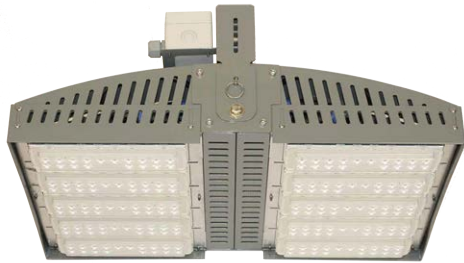
Take Control of your Lighting

(404) 490-4132



NOVA HM LED Luminaire

The NOVA HM (High-Mast) LED provides superior lighting performance in high-mast applications. Delivering over 65,000 lumens, this low-profile LED fixture offers a 112 lm/w efficacy that surpasses all in its class.



Consuming 580 watts, the NOVA HM LED offers 50% energy savings over a traditional 1000 watt high pressure sodium or metal halide fixture and creates uniform light distribution across large areas. Offering high-quality drivers rated for hazardous location, this durable luminaire offers longevity and reliability in a small, lightweight package. Suitable for wet locations.

Features

- NOVA HM LED achieves 50% energy savings over HID
- 100,000 hour L₈₅ lifetime eliminates maintenance cycles
- IP68 rated LED Modules suitable for wet location
- High lumen package delivers uniform lighting coverage
- Wireless control for remote monitoring and reporting

Energy Savings

Based on 5¢ utility rebate per annual kWh saved and use of BLMS wireless controls.

Annual Savings Per Fixture: \$452

Annual Savings per Installation (500 fixtures): \$225,000



Specifications

Illumination Source	10 High Brightness LED modules
Power Consumption	580 Watts
Lumens	65,000
Lumen Maintenance	85% @ 100,000 hours
Input Voltage	110V - 480V 50/60Hz
Color Temperature	3000K, 4000K, 5000K, 5700K
CRI	>70/80
Operating Temperature	-40°C to +40°C
Approvals	UL/cUL 1598 Listed, DLC v4.0 Certified, CE
Warranty	5 Years

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The Bright Light Management System (BLMS)

The Bright Light Management System (BLMS) is a centralized, cloud-based lighting management platform that provides adaptive lighting control for any solid-state luminaire. The BLMS provides customers with unprecedented control of their energy investment down to the network, zone, and individual luminaire level while achieving an additional 25-30% in energy savings and prolonging the life of the luminaires. Built in HTML5 and CSS3, the web-based application is accessible from any smartphone, laptop, or computer connected to the internet. The simple, intuitive interface displays the real-time status of lights in the network, current and historical energy usage data, and monitors any alarms or warning states. It also offers role-based access to different areas of the application for additional user security. Additional BLMS features include grouping lights into zones, three different control modes: Sunset/Sunrise, Manual, and Schedules, and Motion Control for motion detection or occupancy sensing.

BLMS Architecture

Each luminaire contains a built-in wireless lighting controller that allows remote on/off powering, dimming control from 100% to 20%, and monitors Watts, kWhours, and lamp maintenance information. Luminaires form a 802.15.4 self-healing wireless mesh network and send data to a BLS Gateway device which provides secure backhaul communication to the Bright Light Management System (BLMS).

Cloud-based lighting management system with database and web services



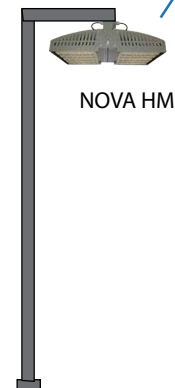
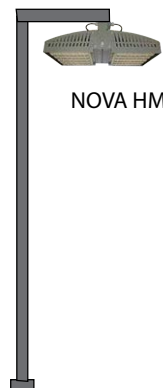
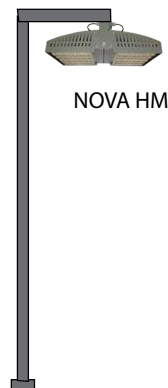
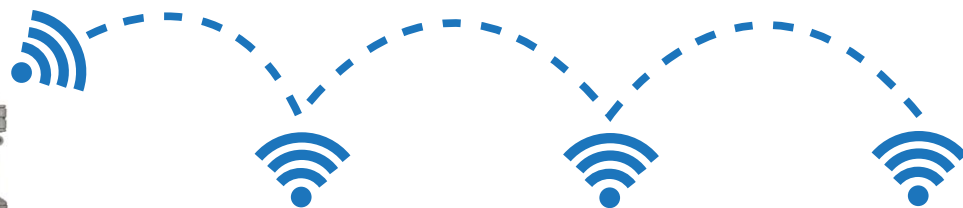
BLMS Interface

- Intuitive, easy to use...provides real-time sensor data from lights in the network
- Secure, web-based user interface accessible from any smartphone, tablet, or pc
- Enhanced reporting capabilities and maintenance notifications
- Create custom lighting schedules based on operations to maximize energy savings
- Create unique zone control profiles and move lights from one zone to another

802.15.4 wireless mesh network



BLS Gateway
• Data link between LCs and BLMS
• Supports up to 250 LCs
• Ethernet or 4G/Cellular



Wireless Light Controller (LC)

Efficiency. Intelligence. Durability.

Light Source	1000W HID	NOVA HM LED
System Wattage	1200W	580W
Daily Usage	12 Hrs	12 Hrs
Annual Energy Consumption	5256 kWh	2540 kWh
Cost per kWh	\$0.13	\$0.13
Annual Operating Cost	\$683	\$330
Rated Lifetime	15,000 Hrs	100,000 Hrs
Replacement Lamps per Year	.29	.05
Maintenance Cost per Lamp	\$200	\$200
Annual Maintenance Cost	\$58	\$10
Total Annual Cost	\$741	\$340
Savings per Fixture		\$401
Estimated Utility Rebate		\$136
Total Savings per Fixture		\$537
Savings/Installation	500 units	\$268,500

LED luminaires outlast traditional HID technology

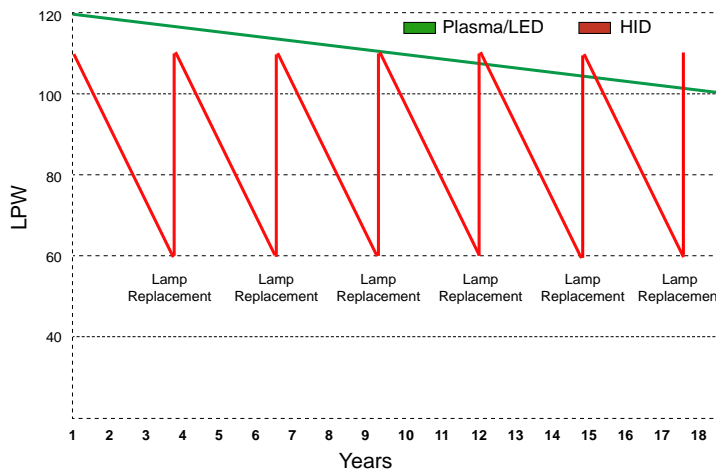
With a rated lifetime well over 100,000 hours, BLS NOVA Series luminaires have the ability to last significantly longer than legacy 1000 watt sources with minimal lumen depreciation over time. While traditional HID sources may experience catastrophic failure or rapidly-depreciating lamp lumens around 15,000 hours, our solid-state LED luminaires will continue to operate for 10-20 years until replacement is needed.

BLS products reduce maintenance costs

The longevity of our LED luminaires help eliminate up to 3 or 4 lamp replacements over the course of the life of a typical HID fixture. This translates into significant operational savings for the customer due to reduced labor and equipment costs.

Light quality improves safety and security

The brilliant white light delivered from LED light sources offer better uniformity and increased visibility at low light levels providing a safer and more secure work environment. The superior-quality light offers enhanced color rendering to aid security cameras and color recognition.



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About Bright Light Systems

Bright Light Systems (BLS) is a Georgia-based lighting manufacturer that integrates best-in-class lighting technology with wireless capabilities and an energy management platform to provide up to 80% energy savings to customers in the high-mast lighting market. Our patented luminaires use high-performance LEDs with advanced thermal management to achieve a 50% energy reduction over legacy HID systems while maintaining a system lifetime well over 100,000 hours. Our Bright Light Management System (BLMS) provides a comprehensive lighting management, monitoring, and reporting interface that delivers an additional 30% energy savings by taking advantage of intelligent wireless control and scheduling capabilities. Our high-quality, durable luminaires are designed and manufactured in the USA and come with a limited 5-year warranty.



Texas Department of Transportation (TxDOT) replaced 1000w HPS fixtures at an I-20 interchange with NOVA HM Series High-Mast LED. Conforming to the latest TxDOT standards, the new NOVA HMs delivered a significant improvement in illuminance levels and light quality in the lanes. “The LED lights have made a big difference and they are definitely a tremendous improvement in the safety of the interchanges.”
- Brad Tiemann, Transportation Director, Tyler District, TxDOT.



Victoria International Container Terminal, Melbourne, Australia chose BLS high-mast luminaires for their state-of-the-art automated container terminal at Webb Dock. “Installing Bright Light Systems’ leading-edge lighting with sophisticated networked lighting controls helps us achieve VICT’s project goals of reducing energy consumption and minimising obtrusive lighting for surrounding communities, while providing the safest possible environment for our workers.” - Anders Dømmestrup, CEO of Victoria International Container Terminal.

For more information:

NOVA HM LED Fixtures. Please email or call and request BLS Data Sheet, or visit our website to download at www.brightlightsystems.com/NovaHM.html

BLS Adaptive Lighting Controls. Please email or call and request BLS Data Sheet, or visit our website to download at www.brightlightsystems.com/controls.html

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

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