Mongoose LED
Roadway and Area Lighting Luminaire

Patent Pending
Mongoose LED
Roadway and Area Lighting Luminaire

The Mongoose LED roadway and area lighting product provides significant energy and maintenance savings vs. HID luminaires. It offers the ultimate in application flexibility with a uniquely designed advanced optical system and attractive appearance. This combined with multiple lighting distributions, mounting options, and the ability to tilt the fixture offers unequalled performance in a diverse set of applications ranging from interstates to parking lots.

The use of LED’s within traditional street and area lighting applications is becoming a wide spread consideration when lighting design and selection is being performed. In order to take advantage of technology performance advancements, it is essential that the lighting system choice come from a reputable supplier where comprehensive engineering and testing has been conducted. Holophane has undergone extensive research and development to ensure reliability of our luminaires utilizing LED technology so as to provide exceptional value to our customers.
**Features and Benefits**

- Multiple lumen packages to replace 150 – 1000 watt HPS and 175 – 1000 watt MH luminaires
- IP66 rated glass optics ensure longevity and minimize dirt depreciation
- Integrated controls reduce energy cost
- Area and roadway lighting distributions
- Multiple mounting configurations for added flexibility
- Fixture tilt from 0 – 45 degrees allows optimal lighting performance
- Extremely long life with low maintenance reduces operating costs

**Typical Applications**

- Interstate Highways and Municipal Streets
- Residential Areas
- Campuses
- Military Bases
- Industrial Parks
- Hotels/Resorts
- Bridges
- Municipal Parks
- Recreation Centers
- Parking Lots
Multiple lighting distributions & mounting options combined with the ability to tilt the fixture offer unequalled performance and flexibility in a diverse set of applications ranging from interstates to parking lots.
From durable, high performance glass optics and highly engineered thermal management, to tilt options, tool-less entry and multiple mounting configurations, the new Mongoose LED is a true game-changer for the outdoor lighting industry. One that is ultimately worthy of the name and legacy of the Holophane Mongoose.
Roadway Lighting Performance

For customers who use offset roadway lighting, the Mongoose LED is the next generation of the well-established Mongoose product. In addition to the wider pole spacing, reduced install costs for pipe and wire, and the reduced pole cost that are hallmarks of traditional offset lighting, the LED Mongoose will provide at least 30% reduction in energy cost, coupled with a minimum of 50% reduction in maintenance cost while extending fixture life to 100K hrs.

**System Comparison:**

<table>
<thead>
<tr>
<th>Luminaire Performance</th>
<th>400W HPS Mongoose</th>
<th>MGLED 7 COB</th>
<th>MGLED 6 COB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pole Spacing</td>
<td>325</td>
<td>320</td>
<td>300</td>
</tr>
<tr>
<td>Input Power</td>
<td>465</td>
<td>288</td>
<td>249</td>
</tr>
<tr>
<td>Energy Reduction</td>
<td>Baseline</td>
<td>38%</td>
<td>46%</td>
</tr>
</tbody>
</table>

Up to **46% Energy Savings**

Long life – **20 year** service life
**Area Lighting Performance**

For commercial area lighting, the Mongoose LED provides a very attractive and flexible alternative to traditional shoebox and cobrahead luminaires, while achieving a 30% reduction in energy cost, coupled with a minimum of 50% reduction in maintenance cost while extending fixture life to 100K hrs.

### Visualization of Applied Lumens

<table>
<thead>
<tr>
<th>MGLED 6 COB</th>
<th>400 Watt Probe Start Metal-Halide</th>
<th>400 Watt Pulse Start Metal-Halide</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGLED 9 COB</td>
<td>775 Watt Pulse Start Metal-Halide</td>
<td></td>
</tr>
</tbody>
</table>

### System Comparisons:

<table>
<thead>
<tr>
<th>Description</th>
<th>MGLED 6 COB</th>
<th>400 Watt Probe Start Metal-Halide</th>
<th>400 Watt Pulse Start Metal-Halide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>0.56 fc</td>
<td>0.51 fc</td>
<td>0.52 fc</td>
</tr>
<tr>
<td>Max/Min.</td>
<td>6.1:1</td>
<td>3.9:1</td>
<td>6.3:1</td>
</tr>
<tr>
<td>Avg./Min.</td>
<td>3.5:1</td>
<td>2.2:1</td>
<td>2.2:1</td>
</tr>
<tr>
<td>Input Power</td>
<td>249</td>
<td>465</td>
<td>465</td>
</tr>
<tr>
<td>Energy Reduction</td>
<td>46%</td>
<td>Baseline</td>
<td>Baseline</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>MGLED 9 COB</th>
<th>775 Watt Pulse Start Metal-Halide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>0.84 fc</td>
<td>0.83 fc</td>
</tr>
<tr>
<td>Max/Min.</td>
<td>6.1:1</td>
<td>3.6:1</td>
</tr>
<tr>
<td>Avg./Min.</td>
<td>3.5:1</td>
<td>2.2:1</td>
</tr>
<tr>
<td>Input Power</td>
<td>363</td>
<td>845</td>
</tr>
<tr>
<td>Energy Reduction</td>
<td>57%</td>
<td>Baseline</td>
</tr>
</tbody>
</table>

**Up to 57% Energy Savings**

Reduce Maintenance **50%**
Control Solutions

A lighting strategy that incorporates modern energy efficient lighting with advanced controls allows customers to realize significant advantages over lighting-only installations.

- Applying lighting controls saves 25% - 40% in annual energy costs
- Controls allow the fixture to produce only the necessary amount of light, and only when it is needed
- The right control strategy also has a positive impact on maintenance costs.
- Running the fixtures at less than 100% light output, lowers operating temps, slowing depreciation rates on electronic components
- Turning fixtures off when they are not needed reduces burn hours and extends installed fixture life

### FEATURE EXPLANATION

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>EXPLANATION</th>
<th>FIXTURE OPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEMA 3 Pin Photocontrol Receptacle</td>
<td>ANSI standard locking style receptacle that accepts 3 pin controls for On/Off operation</td>
<td>P3</td>
</tr>
<tr>
<td>NEMA 5 Pin Photocontrol Receptacle</td>
<td>ANSI standard locking style receptacle that accepts 3 pin controls, as well as 5 pin controls. The 5 pin controls provide fixture dimming.</td>
<td>P5</td>
</tr>
<tr>
<td>Dimmable Driver</td>
<td>Fixture is supplied with a 0-10 volt dimming driver. Control device is provided by others</td>
<td>DM</td>
</tr>
<tr>
<td>Premium Solid State Photocontrol</td>
<td>Premium Dark to Light®, solid state approved locking style photocontrol with 10 year rated life and 5 year warranty</td>
<td>PCSS</td>
</tr>
<tr>
<td>Extreme Long Life Solid State Photocontrol</td>
<td>Premium Dark to Light®, solid state approved locking style photocontrol with 20 year rated life and 10 year warranty</td>
<td>PCL1, PCL3, PCL4</td>
</tr>
<tr>
<td>Remote Wireless Monitoring &amp; Control (On/Off/Dim)</td>
<td>Fixture is supplied with a ROAM dimming control module and 0-10 volt dimming driver installed. The ROAM smart photocontrol and additional hardware and services must be purchased separately.</td>
<td>DE, VE</td>
</tr>
<tr>
<td>Factory Preset Multi-Level Dimming</td>
<td>On board 0-10 volt device that is preprogrammed to provide up to 5 dimming levels and five time periods scheduled as requested by the customer. (See ML chart below)</td>
<td>ML*</td>
</tr>
<tr>
<td>Constant Lumen Output</td>
<td>On board programming that initially dims the fixture and then gradually increases the input power to compensate for LED lumen depreciation over time. (See CLO chart below)</td>
<td>CLO*</td>
</tr>
</tbody>
</table>

* These options are available upon request, additional customer information is required. Please contact Infrastructure TSG.
Applications

The Mongoose LED is the most technologically advanced luminaire available for roadway and area lighting applications. The Mongoose LED provides an energy-saving and sustainable solution for applications that typically used 150-400 watt HPS luminaires and 175-1000 watt MH luminaires.
**Dimensional Details**

**Mongoose LED**

**Maximum Weight:** 120-277V = 50lbs.; 347, 400V = 60lbs.

**Maximum E.P.A.:** 2.05 sq. ft.

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**Mounting Options**

- **V=Vertical Tenon**
  - Attaches to 2” Vertical Tenon

- **H=Horizontal Arm**
  - Attaches to 2” Horizontal Arm

- **A=Architectural**
  - Attaches to Square Pole

**Uplight Skirt Option**

- 561mm (22.1”)
- 1095mm (43.1”)
- 170mm (6.7”)

**Tilt Option**

- 630mm (24.8”)
- 820mm (32.3”)
- 630mm (24.8”)
- 820mm (32.3”)

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**Performance Specifications**

**Optical**

Performance is comparable to 150-1000 watt HID. IP66 rated borosilicate glass optics ensure longevity and minimize dirt depreciation. 4,000K CCT, 70 CRI Min. or optional 5,000K CCT, 70 CRI Min. Available with Narrow Roadway, Medium Roadway, Wide Roadway, Forward Throw, and Area Type lighting distributions. Optional Uplight Skirt ensures no light above 90°.

**Electrical**

LED light engines are rated > 100,000 at 25°C, L70. Electronic driver has an expected life of 100,000 hours at 25°C. Robust ANSI I.E.E.E C62.4 Category C (1OkV/5kA) fixture protection is provided by a specially designed Acuity surge protection device.

**Mechanical**

Rugged low copper diecast aluminum coupled with a rigorous 5-stage pretreatment, epoxy basecoat and polyester topcoat yield a finish that achieves a scribe creepage rating of 8 after 5,000 hours of salt spray. Removable “power door” facilitates product installation and maintenance. Corrosion resistant stainless steel latches ensure secure closure over the long fixture life. Multiple mounting configurations allow for attachment to horizontal mast arms, pole top tenons, and direct mounting to square poles. All Mountings are 3G vibration rated per ANSI C136 Adjustable fixture tilt from 0-45 degrees provides flexibility to optimize lighting performance.

**Controls**

Premium solid state locking-style photocontrol - PCSS (10 year rated life). Extreme long life solid state locking-style photocontrol - PCLL (20 year rated life). Multi-level dimming. DE and VE options allow the fixture to be dimmed using the ROAM control system.

**Warranty & Standards**

5 Year limited warranty. Full warranty terms located at http://www.acuitybrands.com/customerresources/terms_and_conditions.aspx

Rated for -40°C to 40°C ambient

CSA Certified to US and Canadian standards
**STEP 1: LUMINAIRE**

MGLED

**STEP 2: NUMBER OF LED’S**
4, 5, 6, 7, 8, 9

**STEP 3: COLOR TEMPERATURE**
4K, 5K

**STEP 4: VOLTAGE**
AS (Auto-sensing voltage: 120-277V), AH (Auto-sensing voltage: 347-480V)

**STEP 5: OPTICS**
N (Narrow Roadway), M (Medium Roadway), W (Wide Roadway), F (Forward Throw (Type 4)), A (Area (Type 5))

**STEP 6: TILT RANGE**
H (High: 27°-45°), L (Low: 0°-18°)

**STEP 7: MOUNTING**
V (Vertical Tenon), H (Horizontal Arm), A (Architectural)

**STEP 8: COLOR**
G (Gray), W (White), H (Graphite), Z (Bronze), K (Black), N (Green)

*Colors are just a representation. Custom colors are available upon request.

**STEP 9: STANDARD OPTIONS**
NL (NEMA Label), P3 (3 PIN NEMA Photocontrol Receptacle), P5 (5 PIN NEMA Photocontrol Receptacle), DM (0V-10V Dimmable Driver), DE (ROAM Concierge/Enterprise), VE (ROAMview), PCSS (DSS 120-277V Photocontrol), PCL1 (DLL 120V Photocontrol), PCL3 (DLL 347V Photocontrol), PCL4 (DLL 480V Photocontrol), US (Uplight Skirt (DLC Approved)), SP (Individual Unit/Sample Pack)

**STEP 10: SPECIAL OPTIONS**
ML (Multi-Level Dimming), CLO (Constant Lumen Output)

*Additional information is required from the customer. Please contact Infrastructure TSG for assistance.

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**Preferred Selections:**

Most Frequently Ordered Catalog Numbers

<table>
<thead>
<tr>
<th>MGLED</th>
<th>9</th>
<th>5K</th>
<th>AH</th>
<th>N</th>
<th>H</th>
<th>V</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGLED</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

**Ordering Information**

**Catalog Numbers for Entire Product Offering**

(Pricing and lead times may be affected)

**Operating Characteristics**

The Mongoose LED is a direct replacement for installed high intensity discharge (HID) luminaires.

The chart below gives general guidance on replacement of the Mongoose LED to HID luminaires.

<table>
<thead>
<tr>
<th>Replacing</th>
<th>Typical Wattage</th>
<th>MGLED Unit</th>
<th>Absolute Lumens</th>
<th>LED Wattage</th>
<th>LPW</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000 HPS</td>
<td>1100</td>
<td>MGLED9</td>
<td>38,181</td>
<td>367</td>
<td>104</td>
<td>67%</td>
</tr>
<tr>
<td>1000 MH</td>
<td>1070</td>
<td>MGLED8</td>
<td>34,068</td>
<td>328</td>
<td>104</td>
<td>69%</td>
</tr>
<tr>
<td>400 HPS</td>
<td>464</td>
<td>MGLED7</td>
<td>30,046</td>
<td>290</td>
<td>104</td>
<td>38%</td>
</tr>
<tr>
<td>400 MH</td>
<td>464</td>
<td>MGLED6</td>
<td>25,609</td>
<td>245</td>
<td>105</td>
<td>47%</td>
</tr>
<tr>
<td>250 HPS</td>
<td>295</td>
<td>MGLED5</td>
<td>21,514</td>
<td>206</td>
<td>104</td>
<td>30%</td>
</tr>
<tr>
<td>250 MH</td>
<td>298</td>
<td>MGLED4</td>
<td>17,357</td>
<td>168</td>
<td>103</td>
<td>43%</td>
</tr>
</tbody>
</table>

*DLC Listed*
The eco savings in the production of this brochure:

1 tree preserved for the future
4 lbs waterborne waste not created
527 gallons wastewater flow saved
58 lbs solid waste not generated
115 lbs net greenhouse gases prevented
878,220 BTUs energy not consumed