Deliver the Promise of LED
LEDs in outdoor lighting applications have created much excitement - justifiably so. The LED promises long life, energy savings and a better illuminated, safer outdoor environment.

Who better to deliver the optical performance and solid construction to support this emerging technology than Lithonia Lighting? For over 60 years, we have led the market with innovative lighting solutions that deliver on promises — promises, not too different than those LED luminaires are expected to deliver.

Long life, energy savings and a safer outdoor environment are enhanced when you include Acuity Brands digital controls as part of your LED solution. Intelligent control and management of luminaires increases energy savings and helps to maximize the benefits of your LED investment.
LEDs are new, but the way you use them does not have to be. Lithonia Lighting appreciates the fact that there are universal lighting application standards — recommended practices for measuring and applying light — so we designed the ALX to perform better than today’s common alternative, without changing the way you design or think about the application.

The ALX LED luminaire does much more than help you realize energy conservation goals and demonstrate environmental responsibility. Unique optics are placed below each LED to ensure light is placed where it needs to be, providing a uniform, Nighttime Friendly™ environment with minimal light trespass and light pollution.
Safety & Security

The ALX provides better illumination for an enhanced feeling of confidence and well being. Safety for users – security for owners.

Uniformity

Uniformity in lighting reduces the need for vision adaptation. The ALX LED luminaire provides a uniformly illuminated environment that is visually inviting and comfortable. Shadows, dark spots and harsh pools of light are minimized. Practical light levels, as governed by IES RP-20, are achieved without the wasteful impact of over-lighting or interspersed darkness.

Vertical Luminance

When lighting a public space used both by pedestrians and vehicles, a positive contrast between pedestrians and their environment is vital. ALX LED luminaires allow drivers to see obstructions sooner and with detail so they can respond appropriately. Pedestrians see more clearly too, facial details can be identified with clarity to allow a ready response to any situation.

Enterprise Risk

Property owners will appreciate the benefits of improved vertical luminance as it relates to enterprise risk management. Security personnel and surveillance equipment “see” with increased detail.
Energy Savings

The ALX family of LED area luminaires is the first LED product designed as a true retrofit for typical HID applications. Utilizing common industry standard pole heights and spacing, the ALX can deliver equivalent illumination to the task to meet or exceed current IES standards.

Energy Savings

Less energy consumed – less over-lighting.

As much as 80% of the total life cost of today’s HID solutions is tied to energy cost and maintenance expenses. Energy conservation is a paramount concern for society to day, making the LED an attractive alternative for exterior illumination. With the ALX, energy consumption is reduced by as much as 50% without compromising minimum footcandles on the target.

LED vs HID Equivalents

<table>
<thead>
<tr>
<th>Common Pole Height</th>
<th>HID System</th>
<th>System Wattage</th>
<th>Rated Life (hour)</th>
<th>LED System</th>
<th>System Wattage</th>
<th>Projected LED Life @ 40°C (hours)</th>
<th>Energy Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>15' - 20'</td>
<td>150w Pulse Start MH</td>
<td>185</td>
<td>10,000</td>
<td>ALX1 7000L</td>
<td>110</td>
<td>50,000+</td>
<td>41%</td>
</tr>
<tr>
<td></td>
<td>175w Probe Start MH</td>
<td>210</td>
<td>7,500</td>
<td>ALX1 7000L</td>
<td>110</td>
<td>50,000+</td>
<td>48%</td>
</tr>
<tr>
<td>20' - 30'</td>
<td>250w Probe Start MH</td>
<td>295</td>
<td>7,500</td>
<td>ALX1 14000L</td>
<td>220</td>
<td>50,000+</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>250w Pulse Start MH</td>
<td>291</td>
<td>12,000</td>
<td>ALX1 14000L</td>
<td>220</td>
<td>50,000+</td>
<td>24%</td>
</tr>
<tr>
<td>25' - 35'</td>
<td>320w Pulse Start MH</td>
<td>368</td>
<td>20,000</td>
<td>ALX2 21000L</td>
<td>330</td>
<td>50,000+</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>400w Probe Start MH</td>
<td>452</td>
<td>15,000</td>
<td>ALX2 21000L</td>
<td>330</td>
<td>50,000+</td>
<td>27%</td>
</tr>
<tr>
<td></td>
<td>400w Pulse Start MH</td>
<td>458</td>
<td>20,000</td>
<td>ALX2 21000L</td>
<td>330</td>
<td>50,000+</td>
<td>28%</td>
</tr>
<tr>
<td>32' - 42'</td>
<td>1000w Probe Start MH</td>
<td>2160</td>
<td>15,000</td>
<td>ALX2 28000L*</td>
<td>1320</td>
<td>50,000+</td>
<td>39%</td>
</tr>
</tbody>
</table>

*Typically three ALX luminaires to replace two HID luminaires.
Environmental Concerns

ALX addresses today’s environmental demands for Nighttime Friendly™, low trespass lighting. RoHS compliant components can be recycled without environmental harm.

Light Pollution

Place light directly on the target – not toward the sky. Precisely placed illumination improves uniformity with fewer “pools of light” – reducing your “Luminance Footprint™”

Luminance Footprint is a concept not often contemplated, but it is the result of overlighting directly below each HID luminaire. Up to 25% of this excess light can be reflected off the surface, resulting in skyglow.

Light Tresspass

Neighbor-approved, non-obtrusive spill to adjacent properties. Type III and IV distributions tightly control lighting behind the pole, without the use of external shielding devices. Should circumstances demand a shield for direct luminance control, an optional shield blocks light at the source, immediately behind each row of LEDs.

LED

Long-Life

ALX delivers the long-life promise of LEDs while requiring little maintenance throughout the life of the installation. It is designed to provide more than 50,000 hours of performance (L70) in ambient temperatures exceeding 104°F (40°C), eliminating the need for lamp replacement.
Lighting Application

Lighting without compromise – the ALX delivers uniformity and control for the optimal lighting layout. Four lumen packages and multiple distributions provide LED lighting solutions for today’s parking lot applications.

Distributions & Lumen Packages
Design with current distributions – now optimized with LED technology.

The ALX is designed to four lumen packages and three distributions that are applicable to nearly any lighting need.

- **SR3** Asymmetric Type III distribution provides wide lateral spacing.
- **SR4** Forward Throw Type IV distribution pushes most light directly forward.
- **SR5** Symmetric Type V distribution provides even illumination

Pole Spacing
Fewer poles and luminaires - improved lighting result. Improved uniformity and superior optical design deliver IES RP-20 recommended minimum foot-candles throughout the application and can enable fewer poles and luminaires. ALX can maximize pole spacing and reduce luminaire count, making retrofit from HID to LED practical. The higher delivered lumens can be applied to mounting heights as high as 42 feet.

**TYPE III**
Wider Spacing; Improved Forward Throw (Type III & IV); Better Uniformity

**TYPE IV**

**TYPE V**

**ALX LED:** Wider Spacing; Improved Forward Throw (Type III & IV); Better Uniformity
Sensors and Controls

To maximize your Return on Investment (ROI) driven by reduced energy and maintenance costs, LED lighting must be properly controlled and managed. Acuity Brands offers several LED lighting control solutions:

ENERGY SAVING SOLUTIONS

SensorSwitch™ - UL Listed Locking Type Photocontrols

Sensor Switch outdoor photocontrols for LED lighting are UL Listed and extend luminaire life.

Bi-Level Control

Bi-level control monitors the signal from a standard photocell and turns off one half of the luminaire at the mid-point of the evening, reducing energy consumption by 50% during off-peak times. Light engine alternates every evening to level electrical component wear and extend luminaire life. Day-burner protection saves energy and protects the luminaire from exposure to excessive heat.

LC&D - Relay Panels

Use the astronomical time clock or a single digital photocell to control multiple zones of lighting.

ROAM® - Smart Wireless Photocontrols

ROAM wireless controls complete your LED investment by providing the intelligent control and feedback necessary to successfully manage your outdoor LED luminaires. With ROAM, digital LED lighting creates connectivity, improved reliability and even greater energy savings.

• Self-diagnostic and self-protective.
• Precise and pin-point accurate control and status to each digital LED luminaire through the ROAM wireless network.
• Adaptive compensation for changing environmental conditions.
LEDs need protection. Like any other electrical device, LEDs and electrical gear must be protected from the elements: moisture, dust, natural debris, electrical surges and even high ambient temperatures.

ALX LED luminaires are the result of years of luminaire construction know-how and an understanding of the unique performance and application characteristics of the LED.

The ALX housing protects it from all the elements an outdoor environment delivers. Each light engine provides an industry-leading IP67 seal, assuring exceptional performance over life. Unique to the ALX is the fully open center to optimize thermal management: Because heat rises, cool air is drawn in from the bottom and distributed evenly across the light engines’ heatsinks to keep every LED protected from heat-induced failure.
ALX was developed to deliver the LED promise of long life and durability. Add the best materials, a design that can stand up to real world ambient temperatures up to 104°F (40°C) and the construction standards demanded by Lithonia Lighting — you can count on the ALX to deliver the LED promise.
IP Ratings
IP Ratings are the degree of protection to DIN 40050/July 1980 and publication IEC 529 of the International Electrotechnical Commission (IEC) and is indicated by the letters “IP” (International Protection) followed by two characteristic numerals.

The first numeral indicates protection against contact and foreign bodies;
6 - Full protection against contact with live or internal moving parts. Protection against ingress of dust.

the second refers to protection against water.
5 - Protection against jets of water. Jets of water hitting the luminaire from any direction must not have a harmful effect.
6 - Protection against floodwater. Temporary floodwater, e.g. caused by heavy seas, must not enter the luminaire in harmful quantities.

7 - Immersion protection. Ingress of water in harmful quantities must be prevented in the case of the luminaire being immersed in water under a specified pressure for an unspecified period.

<table>
<thead>
<tr>
<th>IP RATING</th>
<th>Luminaire Housing</th>
<th>LED Light Engine</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALX1</td>
<td>IP66</td>
<td>IP67</td>
</tr>
<tr>
<td>ALX2</td>
<td>IP65</td>
<td>IP67</td>
</tr>
<tr>
<td>ALX1-WBA</td>
<td>IP66</td>
<td>IP67</td>
</tr>
</tbody>
</table>

Structural Integrity
LEDs offer long life. So should the package they are wrapped in. ALX’s die-cast aluminum housing and door construction is familiar for exterior-grade lighting — durable materials deliver structural rigidity and accessibility to key components. Vibration and heat are no problem for ALX construction.
Moisture and Dust Protection
ALX's discretely placed optics are sealed for life in an IP67-rated optical assembly. All electrical components are contained in the IP66- (ALX1) or IP65- (ALX2) rated die cast aluminum housing and door assembly that is tightly secured with door-mounted, captive screw.

Integral Accessible Components
Unique configuration with uncommon accessibility. The ALX is open in the middle to enable thermal management. All electrical components - the driver(s), transformers, controls and surge protection device(s) - are integral to the housing. Components are accessed via the hinged door assembly.

Electronics
**SURGE PROTECTION**
Protect your investment. Our integrated surge protection device can withstand multiple surges typical to geographical areas susceptible to thunderstorm activity. (ANCI 62.41.2, Category C3)

**BYPASS CIRCUITRY**
Light engines have failsafe mechanisms built in. In the unlikely event of a single LED failure, the remaining LEDs in that light engine will remain illuminated.

Upgradeability/Sustainability
As technology advances, allowing greater energy savings and control functionality, Lithonia Lighting will allow you to keep pace with the sustainable ALX platform.

Installation
The ALX mounts easily for new construction as well as retrofit opportunities. The standard simplex mounting block attaches to the pole, allowing the luminaire to be hung on the mounting block. A single screw, accessible from inside the ALX, completes the installation to the pole. Lithonia Lighting encourages you to consult a certified engineer to determine whether existing poles are suitable for retrofit applications.
Popular perception holds that LEDs produce little heat. The truth is that the light emitted from an LED comes with a significant amount of heat generated at the die level, heat that must be dealt with effectively if the luminaire is to deliver the LED promise.
Debris Shielding
Debris from trees, snow and ice, insects – and even birds present challenges at any luminaire.

The coated stainless steel mesh top allows heat to escape while filtering natural debris. This durable material assures that the luminaire’s construction will last as long as the LEDs that it protects.

Self-Cleaning Design
The ALX is self-cleaning. Its flow-through design supports long-life by allowing water and debris to rinse through the ALX – thoroughly cleansing the heatsinks every time it rains.

Managing Heat
Delivering Long Life

The ALX features unique construction that is conceived to protect your LED investment. The center of the luminaire is open bottom-to-top to allow complete, even, convective cooling. The ALX delivers more than 50,000 hours of life at ambient temperatures up to 104°F (40°C) by applying conductive and convective thermal management techniques. Heat produced behind the LED is drawn up each heat sink fin, and cooled across the entire heatsink surface with cool air from beneath the luminaire.
Deliver the Promise of LED

With more than 60 years experience in developing high-quality illumination, Lithonia Lighting is a market leader in indoor and outdoor commercial and architectural lighting. Our commitment to authenticity ensures your complete satisfaction on all luminaires including our innovative solid-state LED lighting systems.

Our Promise:

• Provide lighting solutions that are enabled and enhanced by LED and other advanced technologies, including lighting controls.
• Develop high-performance, reliable products using the highest quality components rigorously tested in accordance with industry-adopted standards.
• Stand behind our products with the best warranty service in the lighting industry.

Partner with Lithonia Lighting for solutions that use the latest developments in solid-state technology to deliver sustainable lighting.

Acuity Brands Lighting family of LED products for any application.

- LEDR Roadway from American Electric Lighting®
- Ratio™ Outdoor from Tersen™
- Paradox™ PDX7 from Hydrel®
- RTLED Volumetric Lighting from Lithonia Lighting®
- Ecos™ Recessed from Gotham®