AEL American Electric Lighting®

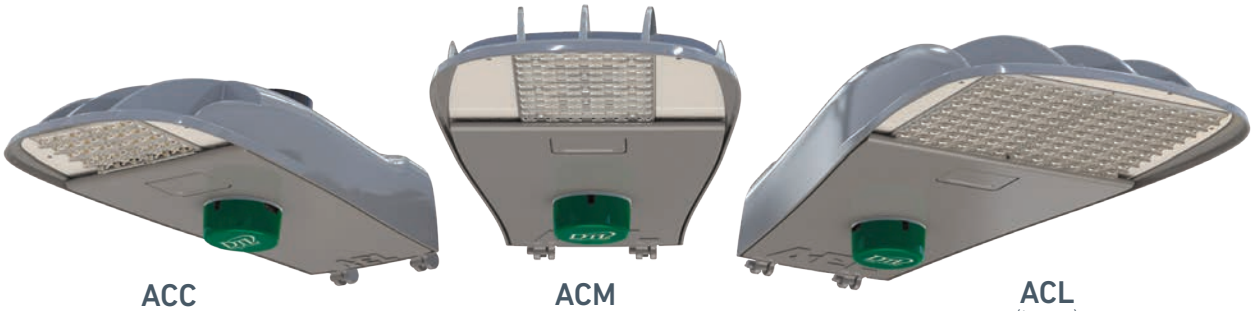
AutoConnect™

Smart & Connected Roadway Lighting

AcuityBrands.

AutoConnect™

The Next Generation of Smart City Roadway Lighting and Controls



ACC (compact)

ACM (medium)

ACL (large)

The AutoConnect portfolio from AEL provides robust, utility-grade cobra head solutions designed to hold up and perform in up to 400W HID roadway and outdoor area applications. It utilizes highly engineered silicone optics and LED engine design for industry-leading output and efficacy with a broad spectrum of lumen packages and distributions.

AutoConnect combines visually comfortable performance with a wide assortment of embedded and field-installed controls to improve energy savings, enhance system security and simplify asset management.

AutoConnect was designed from the ground up specifically to address the needs of Utilities, Municipalities and DOTs. With AutoConnect you get simplified installation and maintenance with long, reliable system life.

Zigbee 4 | Bluetooth® | CSA C US

Simple

Efficient

Connected

Municipal Streets | High-speed Roadway | Residential Area | Industrial Parks | Recreation Centers

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At a Glance

- Industry-leading lighting and controls platform for simplified connectivity and asset management
- Three sizes for 50-400W replacement
- Energy-efficient - up to 177 LPW
- Light weight and small footprint (8, 12 and 17 lbs)
- Precision silicone optics enhance visual comfort
- Types 2, 3, 4 & 5 distributions
- 2700K, 3000K, 4000K & 5000K CCT, 70 CRI min.
- ANSI C136 20kV/10kA "extreme" surge protection
- IP65 rated drivers including DALI® options
- Nighttime Friendly™ zero-uplight design
- Robust castings and 5000 hr. rated finish
- Utility-friendly installation with toolless features
- Pre-wired terminal block and internal bubble level

AutoConnect, a controls platform designed for simplicity and efficiency

With the introduction of the AutoConnect portfolio, AEL has transformed the way that we should be approaching the task of designing lighting and controls products. When designing the AutoConnect, we started with a blank page to engineer a solutions platform from the ground up with next generation controls built around emerging standards in drivers, LED technology, optical advancements and most importantly, simplified but powerful user interfaces.

The result is an industry leading cobra head family that is available with your choice of four categories of control options that are cost-effective, simple to use and highly customizable, while driving down operational costs.

	Dusk to Dawn	Dimming	Scheduling	Embedded Occupancy Sensor	Remote Control	Asset Management	Network Controls	Sensors	Monitoring
DTL DC Connect	✓								
nLight	✓	✓	✓	✓	✓		✓		
DTL Local Connect	✓	✓	✓		Bluetooth	✓			
Global Connect	❋	❋	❋	❋	❋	❋	❋	❋	❋

❋ Capabilities with P7 & Zhaga receptacles are obtained through a variety of DTL or 3rd party plug-in control nodes and sensors.

AutoConnect control and sensor configurations

With configuration options to mount controls or sensors in either top or bottom mounting positions, the four categories of control packages shown below provide a high level of flexibility. This facilitates the customization that customers require to obtain a solution that meets their specific application needs.

DTL DC Connect™	
Top	Bottom
DEP Embedded	n/a

DTL Local Connect™	
Top	Bottom
n/a	DELC Embedded
P7	DELC Embedded
Zhaga	DELC Embedded

Global Connect™	
Top	Bottom
P7	n/a
Zhaga	n/a
P7	Zhaga
Zhaga	Zhaga

nLight®	
Top	Bottom
n/a	rSDGR

D4i and Zhaga technology

The AutoConnect lighting control platform provides interoperability with Dexal D4i driver technology. D4i is the DALI standard for intelligent IoT-ready luminaires. D4i is about the network inside the luminaire (driver, sensor, control) and it ensures interoperability between all components. D4i defines a feature set that is supported by the driver and accessed via DALI-2 protocol. Note that per ANSI C137.4 the committee for lighting systems has adopted the D4i standard for roadway products.

POWER - D4i takes care of power supply requirements inside luminaires:

- D4i drivers with on-board bus power supply - Power available for DALI bus and some control devices
- D4i includes 24V auxiliary power supply for higher-power requirements - e.g., city-wide wireless transceivers
- Eliminates components, simplifies designs

DATA - D4i includes LED drivers with smart data capabilities:

- D4i drivers can store and report data for:
  - Enhanced asset tracking
  - Performance monitoring (energy usage, diagnosis & maintenance)
- Data storage in DALI memory banks - standardized format & locations
- Benefits include automated commissioning, asset tracking, accurate point-of-use billing, predictive maintenance etc.

Zhaga is an interconnect standard defined by the Zhaga Consortium to support D4i. The Zhaga standard defines 4-pin, low voltage plugs, receptacles, and housings that provide 2-wire DC power and DALI messaging. Zhaga receptacles provide a standardized electro-mechanical connection point for devices, enabling multi-vendor support for controls and sensors. These are intended primarily to be used for DC photocontrols and sensors and can be mounted on top or bottom of lighting fixture.

DTL Local Connect™: Simple, Secure, Affordable

Coming Soon!

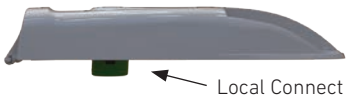
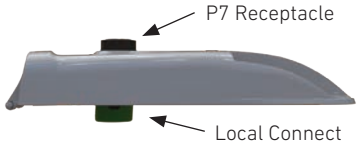
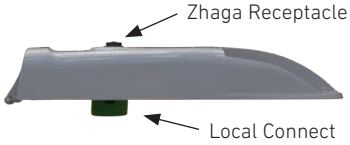
DTL Local Connect controls were designed to make the AutoConnect portfolio the most simplistic and cost-effective solution possible for roadway lighting control and asset management. From the embedded DELC node to intuitive software apps, the Local Connect solution will reduce installation time and hassle at a fraction of the cost of much larger 3rd party control systems.

With a rated 20-year system life, Local Connect simplifies installation and commissioning using point-to-point Bluetooth® wireless technology. It provides easy to use inventory management tools and local control with 24-hour profiles.

- Simplified wireless installation process
- Variety of maintenance features
- Audit with scan and sync feature
- Flexible site attribute management
- Maintain multiple custom control profiles

DELC Embedded Node

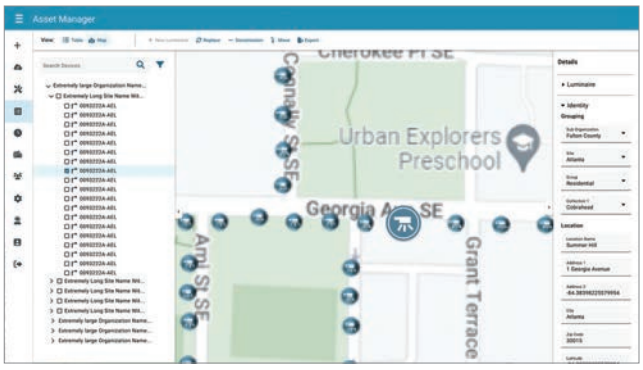
DTL DARK TO LIGHT Bluetooth®

Local Connect	Local Connect with NEMA Receptacle	Local Connect with Zhaga Receptacle
		
For customers who are not looking for future upgrade paths	Future upgradeable to AC NEMA or DC NEMA wireless control (Global Connect)	Future upgradeable to low voltage wireless NLCs (Global Connect)

Mobile App and Web Portal

The power and simplicity of the Local Connect solution is enabled by factory preloading luminaire attributes along with customer specific information. At time of install, luminaire asset data is wirelessly synced to the Local Connect cloud via the installer's mobile device. The information can then be easily accessed through the powerful app or through a web browser, allowing for full lifecycle asset management.

Mobile App



Web Portal

DTL DC Connect™: Embedded Dusk-to-Dawn

DC Connect is the greatest value for simple and reliable dusk-to-dawn control with a design that greatly reduces common failure points and water ingress experienced in field-installed photocontrols. Utilizing this low-voltage embedded control simplifies installation and reduces inventory hassles and operating costs.

DEP Embedded Node

Global Connect™: A World of Possibilities

Global Connect offers the greatest levels of flexibility and scalability in luminaire configuration options for networked controls, sensors and asset management. These configurations have been designed to meet NEMA industry standards and Zhaga certifications for receptacles. A wide variety of NEMA P7 and Zhaga receptacle configurations are available with DTL and third-party devices for use with the Global Connect solution..

NEMA ANSI C136.41 Receptacle on Top

- Can be configured with 0-10V or D4i drivers
- Works with DTL and nLight controls
- Other third-party NEMA controls

Zhaga Receptacle Top and/or Bottom

- Can be configured with 0-10V or D4i drivers
- Works with DTL lighting controls
- Third-party Zhaga-D4i controls and sensors such as radar, motion, etc.

Combined NEMA P7 and Zhaga Receptacles

- Can be configured with D4i drivers
- Works with NEMA P7 Controls
- Other third-party zD4i sensors such as radar, motion, etc.

nLight® Lighting Controls

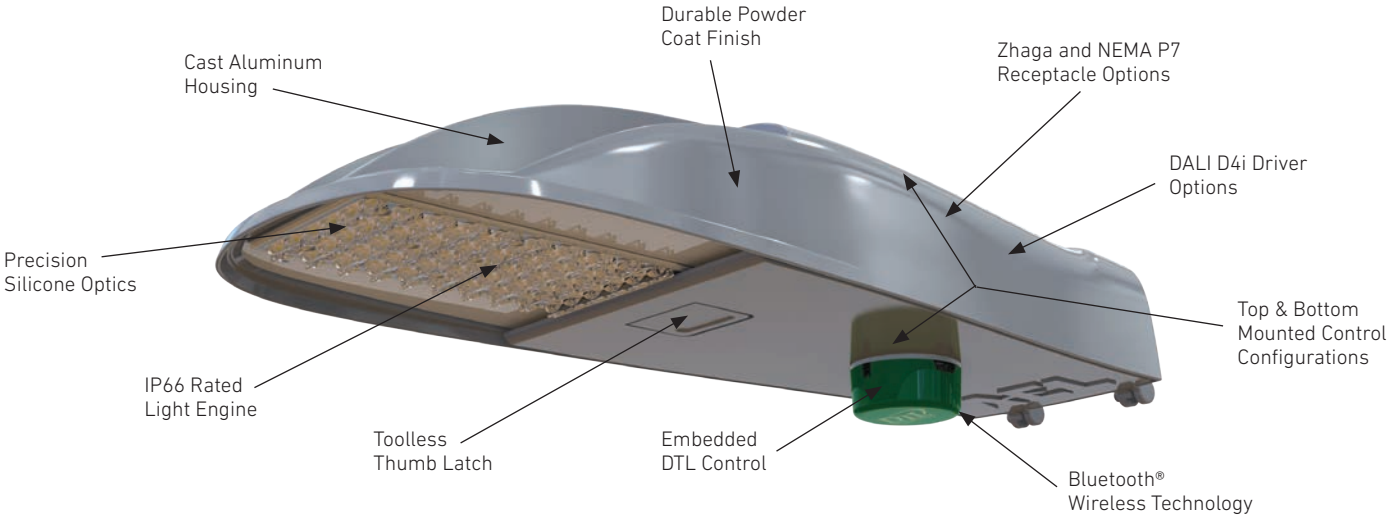
nLight is a networked lighting controls platform with wired and wireless options for indoor and outdoor spaces on a single platform. nLight wireless (AIR) is a great solution for outdoor spaces and offers an embedded controls option (rSDGR) for AEL AutoConnect.

nLIGHT

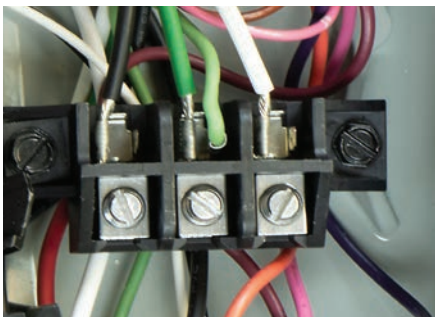
Engineered for Performance and Reliability

The rugged die-cast aluminum housing provides superior thermal management to effectively cool internal electronics and LED's. This coupled with the durable polyester powder coat paint insures corrosion resistance and product longevity. Its light weight and lineman-friendly features make the AutoConnect easy to install, and the extremely long operating life significantly reduces lighting maintenance.

AutoConnect Features



Internal bubble level simplifies installation



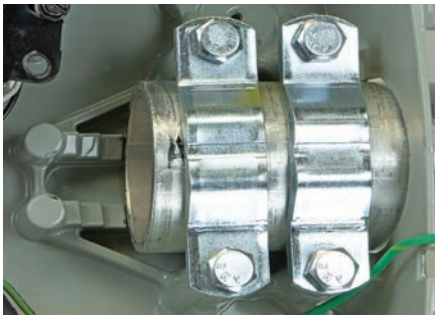
Terminal block can be wired using only a flatblade screwdriver

Don't Be Left in the Dark

Get protection against dropped neutral and other power quality issues that surge protection can't address.

- 0-10V dimming suitable with programmed output current
- 277V-480V operating range in most configurations
- 50,000+ hour rated service life

Industry leading 20kV/10kA surge protection

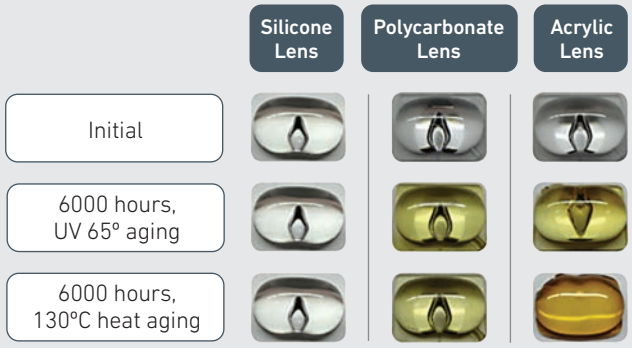


2-bolt mounting on ACC
2-bolt and 4-bolt mounting on ACM, ACL

Visually Comfortable Silicone Optics

The most advanced optical technology available was chosen for the AutoConnect portfolio. Durable, precision optical control is obtained with new silicone materials that permit superior mold detail and denser population for a far more visually comfortable appearance. The optics provide zero-uplight in Type II, III, IV and V distributions.

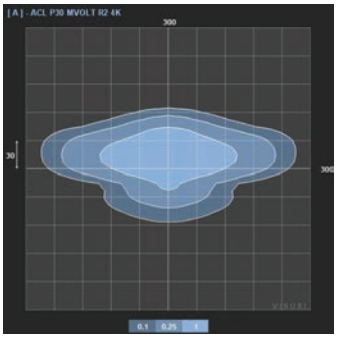
Married with the efficient, cutting-edge LED engine and driver technology, the AutoConnect stands above all other choices available.



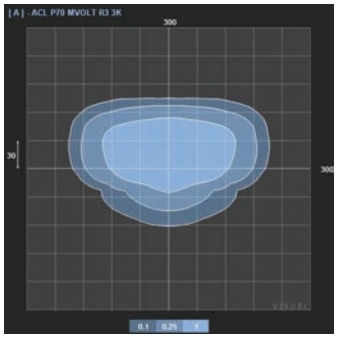
Silicone provides superior aging integrity and clarity

- Increased optical efficiency with lower index of refraction
- Greater UV, abrasion and impact resistance
- High chemical resistance
- Greater debris shedding
- Much higher tolerance to vibration
- Self gasketing properties
- Overall superior long-term stability

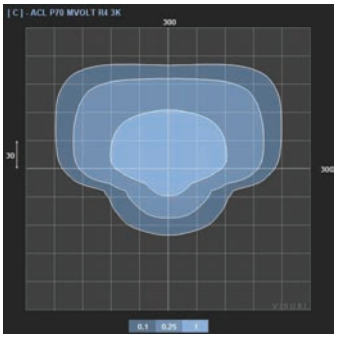
Type II Distribution



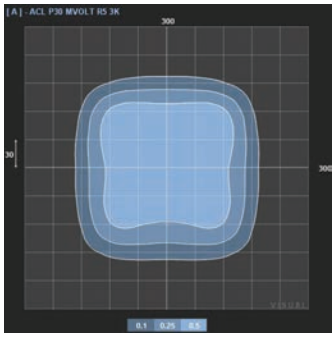
Type III Distribution



Type IV Distribution



Type V Distribution



Solutions to reduce your time in the bucket

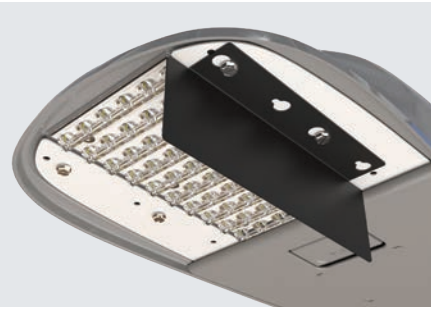
Features like toolless access, prewired terminal block, bubble level and cast-in leveling steps offer “plug and play” installation to reduce the time you spend in the bucket.

State-of-the-art components, durable materials and cutting-edge engineering work together to provide long system life and reliability.

Light shields to reduce trespass and glare

For applications where high angle glare or light trespass are a concern, AEL offers a variety of light shields to address the issue. The image at left is the house-side shield option which can be factory-installed or field-installed.

The three images below demonstrate field-installed light trespass shields. These shields have universal mounting that allows them to be rotated 180 degrees to address opposing directions. They can also be combined together in a variety of configurations.

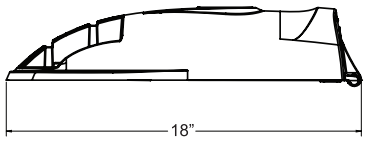


Left/right side trespass shield (field-installed)

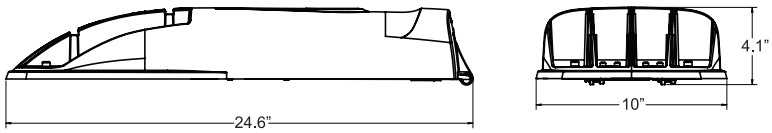
Street/house side trespass shield (field-installed)

Cul-de-sac trespass shield (field-installed)

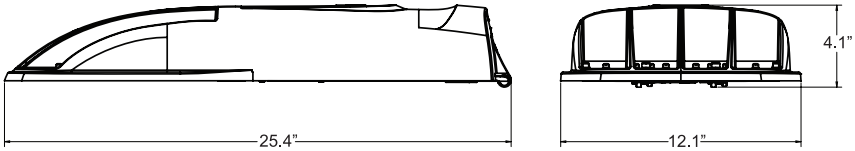
AutoConnect Dimensions, Weights and EPA



ACC
Effective Projected Area (EPA)
The EPA for the ACC is 0.28 sq. ft.
Approx. Wt. = 8lbs. (3.6 kg)



ACM
Effective Projected Area (EPA)
The EPA for the ACM is 0.35 sq. ft.
Approx. Wt. = 12lbs. (5.4 kg)



ACL
Effective Projected Area (EPA)
The EPA for the ACL is 0.36 sq. ft.
Approx. Wt. = 17lbs. (7.7 kg)

Enhance your sustainability efforts with AutoConnect

- Reduction of materials & freight
- Maximized performance for minimal energy consumption
- Reduction of CO2
- Digital transformation (DC controls)
- Operations and maintenance (less bucket truck runs, process waste)

AEL American Electric Lighting®

Warranty Five-year limited warranty. Full warranty terms located at https://www.acuitybrands.com/support/warranty
Visit our web site at www.americanelectriclighting.com
Product specifications may change without notice. Please contact your sales representative for the latest product information.

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