# AXON

## LED ADAL Light

### Uni and Bidirectional Inset, 8-inch and 12-inch



ADB SAFEGATE AXON

## Compliance with Standards

| | |
|---|---|
| **FAA** | AC 150/5345-46 and FAA Engineering Brief No. 67 |
| **ICAO** | Annex 14, Volume 1 |
| **IEC** | 61827 |
| **EASA** | CS-ADR-DSN |
| **STAC** | SPE/STAC/SE/E/VIS/6008 |
| **Canada** | TP 312 |
| **Australia** | MOS 139 |

CE

## Uses

**ICAO**

- Taxiway centerline
- Stop bar
- Intermediate holding position

**FAA**

- L-852C(L) taxiway centerline
- L-852K(L) taxiway centerline

## Use Cases

- Service road safety system
- Apron push back support
- Dynamic holding position
- Follow the Green

## ADAL (Adaptive Airfield Lighting)

AXON EQ ADAL adaptive lights bring next-generation intelligence to airfield ground lighting. Featuring EQ with integrated LINC360 remote control and monitoring, ADAL fixtures deliver multi-color signaling that adapts to changing operational needs. ADAL empowers airports to automate guidance, optimize throughput, and future-proof their operations.

## Technical Features and Benefits

**Efficiency**

- Fully configurable operation to adapt to customer requirement and operational needs. ADAL lights allow switching between signals/colors
- EQ has an integrated ILCMS remote for use with the LINC 360 system providing high data capacity and resisting degradation from various types of radio effects to provide a superior communication platform
- Precision aimed optics enhancing photometric performance and complementing extended LED life
- Reduced bottom pan profile allowing for very shallow base can installation
- LED pulse width modulated (PWM) at 400 Hz optimizing LED performance and eliminating perceptible flicker to a moving human observer throughout the range of brightness steps
- Operates at all steps of constant current regulator technologies designed in compliance with IEC or FAA requirements
- Low protrusion, high-intensity, Style 3 (≤ 6.35 mm) inset light fixtures
- No negative slope in front of the prisms

**Sustainability**

- Latest generation LEDs providing a long-lasting light source with high efficiency and low power consumption
- Reinforced top cover substantially exceeding standards to improve durability and longevity (directional beams only)
- IP68 rated enclosure designed for harsh environments; all fastenings are stainless steel
- Reinforced prism available as an option
- Compatible with existing infrastructure allowing for direct replacement of existing LED inset fixtures

**Safety**

- Improved mechanical design to strengthen and consolidate components, improving the customer maintenance experience
- Robust lightning protection complying with ANSI/IEEE C62.41-1991; Location Category C2 as required by FAA Engineering Brief 67 Category C2 is defined as a 1.2/50 µS – 8/20 µS combination wave, with a peak voltage of 10,000 V and a peak current of 5,000 A

## Ordering Code

RS □□□□□□□□□□□□□□

Application | Standard(s) | Market Specific | Dimensions | Prism | Beam Orientation | Toe-in | Color - Side 1 (Left) | Color - Side 2 (Right) | Power and Monitoring | Connector and Cable | Options | Version

**Application**
AR = ADAL Taxiway 2nd Color Red
AY = ADAL Taxiway 2nd Color Yellow

**Standard(s)**
2 = FAA
3 = ICAO

**Market Specific**
0 = None
1 = Buy American Preference (BAP)
2 = Anodized Finish

**Dimensions**
1 = 8 inch (203 mm) diameter, 2 bolt
2 = 12 inch (305 mm) diameter, 11.25 inch BC (285 mm)
3 = 8 inch (203 mm) diameter, 4 bolt

**Prism**
S = Standard prism
R = Reinforced prism

**Beam Orientation**
1 = Unidirectional
2 = Bidirectional

**Toe-in**
C = Curved, L-852K(L)
N = Narrow, L-852C(L)
W = Wide

**Color - Side 1 (Left)**
F = F-Green
G = G-Green (MOS and ICAO special)
Y = Yellow[1]
N = None

**Color - Side 2 (Right)**
F = F-Green
G = G-Green (MOS and ICAO special)
Y = Yellow[1]
N = None

**Power and Monitoring**
R = 2.8 - 6.6 A, EQ Integrated LINC 360

**Connector and Cable**
1 = 1 x Style 6 2-Pole Plug, 2 Individual Wires
2 = 1 x Style 1 2-Pole Plug, Jacketed SO 2 Core Cable
5 = 1 x Flat 3-Pole Plug, 3 Individual Wires[2]

**Options**
0 = None
1 = Arctic Kit

**Version**
1 = Version 1

### Ordering Code Notes

1. AR application only.
2. Not ETL submitted or not applicable to FAA market.

## Power Supply Options

- EQ with integrated ILCMS with OFDM technology for use with LINC 360 system

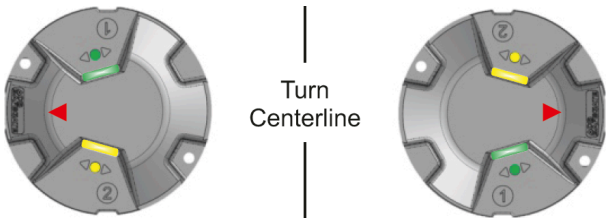
## Installation and Maintenance

The light fixture can be installed in a 12-inch or an 8-inch base. Gaskets are sold separately. Refer to the user manual INTEROPERABILITY appendix to identify the correct gasket and bolts for your specific base and ensure a reliable fit.

## Accessories

Refer to the user manual for inset light accessories.

## Toe-In Color Coding




Left and right side determined by viewing fixture from interior turn radius pavement edge. Side 1 is on your left, side 2 is on your right.

## Operating Conditions

| | |
|---|---|
| **Operating temperature** | -55 °C to +55 °C / -67 °F to +131 °F |
| **Storage temperature** | -60 °C to +80 °C / -76 °F to +176 °F |
| **Humidity** | Up to 100% |

## Dimensions and Weight

| | | |
|---|---|---|
| **Dimensions** | 203 mm (8 in) | 305 mm (12 in) |
| **Weight** | 3.0 kg / 6.6 lb (8 in) | 6.3 kg / 13.9 lb (12 in) |

## ANNEX

### 8-inch and 12-inch light fixtures without arctic kit (heater)

| **Fixture type – 1 cord set** | **Fixture load** | **Isolation transformer** | | **CCR load** |
|---|---|---|---|---|
| | | **Wattage** | **Load** | |
| ADAL AR, bidirectional | 20 VA | 45 W | 6 VA | 26 VA |
| ADAL AY, bidirectional | 14 VA | 25 W | 6 VA | 20 VA |
| ADAL AR, unidirectional | 15 VA | 25 W | 6 VA | 21 VA |
| ADAL AY, unidirectional | 11 VA | 25 W | 6 VA | 17 VA |

### 8-inch and 12-inch light fixtures with arctic kit (heater)

| **Fixture type – 1 cord set** | **Fixture load** | **Isolation transformer** | | **CCR load** |
|---|---|---|---|---|
| | | **Wattage** | **Load** | |
| ADAL AR, bidirectional | 76 VA | 100 W | 12 VA | 88 VA |
| ADAL AY, bidirectional | 50 VA | 65 W | 8 VA | 58 VA |
| ADAL AR, unidirectional | 47 VA | 65 W | 8 VA | 55 VA |
| ADAL AY, unidirectional | 47 VA | 65 W | 8 VA | 55 VA |

ADAL lights feature adaptive output, meaning the power consumption varies depending on the output signal. For proper transformer and CCR sizing, please use the fixture load listed above. Refer to the table below for detailed power consumption values corresponding to various signal usage.

| **Fixture type – TC (L-852C),TK (L-852K) and TW** | **Fixture load** |
|---|---|
| ADAL, bidirectional, red/red | 20 VA |
| ADAL, bidirectional, TC (L-852C),TK (L-852K),TW, green/green | 14 VA |
| ADAL, bidirectional, TC (L-852C),TK (L-852K),TW, yellow/yellow | 14 VA |
| ADAL, unidirectional, TC (L-852C),TK (L-852K),TW, green or yellow | 11 VA |

**Note:**

- EQ fixtures:
  - The isolation transformer must have an additional 8 VA available above the fixture load for communication bandwidth. Size transformer to next size up to assure additional 8 VA coverage
  - Legacy BRITE II or AGLAS 2 systems — Order "M" power supply
- Additional voltage loss not included in the above table which must be factored into the circuit load calculation:
  - Primary cables will result in a higher CCR load
  - Longer secondary cables may result in a larger size isolation transformer requirement
- Efficiency of the isolation transformer depends on the manufacturer of the transformer
- See user manual for cable loss formula and other power supplies

*For more information about the product, including manuals and certifications, please see our Product Center on the ADB SAFEGATE website: [www.adbsafegate.com](http://www.adbsafegate.com).*