

AXON

LED ADAL Light

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



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)
- L-852K(L)

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 μ S – 8/20 μ S combination wave, with a peak voltage of 10,000 V and a peak current of 5,000 A

Ordering Code

	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
RS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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)

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
 Y = Yellow¹
 N = None

Color - Side 2 (Right)

F = F-Green
 Y = Yellow¹
 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

Options

0 = None
 1 = Arctic Kit

Version

1 = Version 1

Ordering Code Notes

- AR application only.

Power Supply Options

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

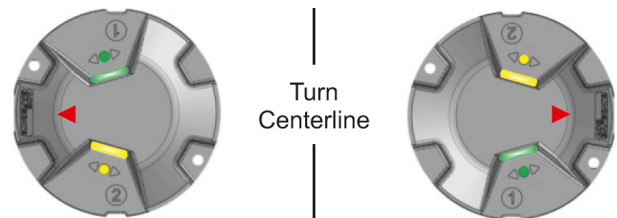
Installation and Maintenance

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