# **AXON**

LED Runway Edge, 60 m Width
Uni- and Bidirectional Inset 12-inch



## **Compliance with Standards (current version)**

ICAO Annx 14, Volume 1

**IEC** 61827

NATO STANAG 3316 EASA CS-ADR-DSN

STAC PRO/STAC/SE/VIS

Canada TP 312
Australia MOS 139
China CAAC

CE

## **Uses**

#### **ICAO**

· Runway edge

## **Features and Benefits**

#### **Efficiency**

- EQ has an integrated ILCMS remote for use with the LINC 360 system providing high data capacity and resisting degradation from various types or 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
- Fully dimmable lights, conforming to the dimming curve of traditional halogen lights
- Low protrusion, high-intensity, Style 3 (≤ 6.35 mm) inset light fixtures
- · No negative slope in front of the prisms

#### Sustainability

- Fully encapsulated all-in-one universal power supplies for Runway, Taxiway, Approach and Omni inset families
- 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
- One single family of fixtures covering all runway, taxiway and approach applications
- 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
- Fail-open option for compatibility with legacy monitoring systems and optimization of advanced control and monitoring systems
- Failed-LED Detection as required by Engineering Brief 67D
- Robust lightning protection complying with ANSI/IEEE C62.41-1991; Location Category C2 as required by FAA Eng. Brief 67 Category C2 is defined as a 1.2/50  $\mu$ S 8/20  $\mu$ S combination wave, with a peak voltage of 10,000 V and a peak current of 5,000 A

## **Power Supply Options**

- Non-Monitored Power only
- Monitored integrated Fail-open technology
- EQ with integrated ILCMS with OFDM technology for use with LINC 360 system



## **AXON**

## **Ordering Code**

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

#### **Application**

R6 = Runway Edge 60m

#### **Standard**

 $3 = ICAO^1$ 

#### **Market Specific**

0 = None

4 = German MIL 7-step

#### **Dimensions**

2 = 12 inch (304 mm) diameter

#### **Prism**

S = Standard Prism

R = Reinforced Prism

#### **Beam Orientation**

1 = Unidirectional

2 = Bidirectional

#### Toe-in

L = Left Side Toe-in (unidirectional)<sup>2</sup>

R = Right Side Toe-in (unidirectional)<sup>2</sup>

C = Both Sides Toe-in (bidirectional)

## Color - Side 1 (Left)

 $W = White^3$ 

 $Y = Yellow^3$ 

R = Red

## Color - Side 2 (Right)

 $W = White^3$ 

Y = Yellow<sup>3</sup>

R = Red

N = None

#### **Power and Monitoring**

S = 2.8 A - 6.6 A, Non-Monitored - Power Only

M = 2.8 A - 6.6 A, Fail-open monitoring

R = 2.8 A - 6.6 A EQ Integrated LINC 360

## **Cable and Connector**

1 = 1 x Style 6 2-pole plug, 2 individual wires<sup>2</sup>

2 = 1 x Style 1 2-pole plug, jacketed SO 2-core cable<sup>2</sup>

3 = 2 x Style 6 2-pole plug, 2 individual wires <sup>2</sup>

4 = 2 x Style 1 2-pole plug, jacketed SO 2-core cable<sup>2</sup>

 $5 = 1 \times \text{flat } 3\text{-pole plug, } 3 \text{ individual wires}^2$ 

6 = 2 x flat 3-pole plug, 3 individual wires<sup>2</sup>

## **Options**

0 = None

1 = Arctic Kit

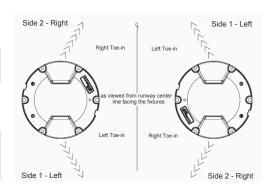
## Version

1 = Version 1

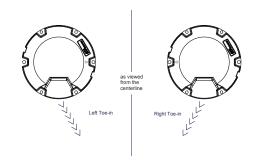
## **Ordering Code Notes**

- 1. Includes standards NATO, EASA, STAC, CAP 168, TP 312 and MOS 139.
- 2. All Style 1 corded fixtures will include a ground lug. All Style 6 or 3-pole corded fixtures will be provided with grounding screw(s).
- RE white/white and white/yellow applications meet the heat rise requirements in Engineering Brief 67D, section 2.13.1, "Arctic Kit Testing Requirements" WITHOUT an arctic kit. We do not offer an Arctic Kit with this configuration as the additional heat would be detrimental to the life of the LEDs.

## Defining left and right side for color placement



# Defining toe direction for unidirectional applications



#### **Maintenance and Installation**

The light fixture can be installed on a 12-inch base. Gaskets are sold separately. Check what gasket and bolts to order depending on base and installation. Refer to the interoperability section of the user manual for installation on a specific base.





## **Operating Conditions**

Operating

-60 °C to +55 °C / -76 °F to +131 °F temperature

**Storage temperature**  $-60 \,^{\circ}\text{C}$  to  $+80 \,^{\circ}\text{C}$  /  $-76 \,^{\circ}\text{F}$  to  $+176 \,^{\circ}\text{F}$ 

**Humidity** Up to 100%

## **Dimensions and Weight**

**Dimensions** 304 mm (12 in)

**Weight** 6.8 kg / 15 lb (12 in)

## **ANNEX**

#### 12-inch light fixtures without Arctic Kit (heater)

First up type 1 coud set 1	Fixture load	Isolation transfor	CCR load		
Fixture type – 1 cord set <sup>1</sup>		Wattage	Load	CCK IUau	
Runway Edge, bidirectional, White/White	61 VA	65 W	13 VA	74 VA	
Runway Edge, unidirectional, White	30 VA	45 W	10 VA	40 VA	

**Note:** Values provided are for the "S" option non-monitored power only.

## 12-inch light fixtures with Arctic Kit (heater)

Firston Towns 4 and sat 1	First and	Isolation transfor	CCD load		
Fixture Types – 1 cord set <sup>1</sup>	Fixture load	Wattage	Load	CCR load	
Runway Edge, bidirectional, White/Red	72 VA	65 W	15 VA	87 VA	
Runway Edge, unidirectional, Red	40 VA	45 W	10 VA	50 VA	

Note: Values provided are for the "S" option non-monitored power only.

#### 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
- · Fail-open fixtures:
  - The maximum rating for the isolation transformer is 150 W
- · 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 runway user manual UM-5055 for other power supplies

For more information about the product, including manuals and certifications, please see our Product Center on the ADB SAFEGATE website: <a href="https://www.adbsafegate.com">www.adbsafegate.com</a>.