

AXON

LED ICAO Taxiway Centerline

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



ADB SAFEGATE
AXON

Compliance with Standards

| | |
|------------------|------------------------|
| ICAO | Annex 14, Volume 1 |
| IEC | 61827 |
| NATO | STANAG 3316 |
| EASA | CS-ADR-DSN |
| STAC | SPE/STAC/SE/E/VIS/6008 |
| Canada | TP 312 |
| Australia | MOS 139 |

CE

Uses

ICAO

- Taxiway centerline
- Intermediate holding position
- Turn pad centerline light
- Enhanced taxiway centerline

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 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
- 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 (directional beams only)
- 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 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 ¹¹ | 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"/> |

Application

TC = Taxiway Centerline Narrow¹
 TK = Taxiway Centerline Curved²
 TR = Enhanced Taxiway Centerline for Rapid Exit³
 TW = Taxiway centerline Wide^{4, 5}

Standard(s)

3 = ICAO⁶

Market Specific

0 = None

Dimensions

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

Prism

S = Standard prism
 R = Reinforced prism

Beam Orientation

1 = Unidirectional
 2 = Bidirectional

Toe-in

N = None⁸
 C = Curved^{7, 8}

Color - Side 1 (Left)

F = F-Green (ICAO, default green)
 Y = Yellow
 B = Blue
 G = G-Green (MOS and ICAO special)
 N = None⁹

Color - Side 2 (Right)

F = F-Green (ICAO, default green)
 Y = Yellow
 B = Blue
 G = G-Green (MOS and ICAO special)
 N = None

Power and Monitoring

S = 2.8 - 6.6 A, Non-Monitored — Power Only
 M = 2.8 - 6.6 A, Fail-Open Monitoring
 R = 2.8 - 6.6 A, EQ Integrated LINC 360¹⁰

Connector and Cable¹¹

1 = 1 x Style 6 2-Pole Plug, 2 Individual Wires
 2 = 1 x Style 1 2-Pole Plug, Jacketed SO 2 Core Cable¹²
 3 = 2 x Style 6 2-Pole Plug, 2 Individual Wires
 4 = 2 x Style 1 2-Pole Plug, Jacketed SO 2 Core Cable¹²
 5 = 1 x Flat 3-Pole Plug, 3 Individual Wires
 6 = 2 x Flat 3-Pole Plug, 3 Individual Wires

Options

0 = None
 1 = Arctic Kit

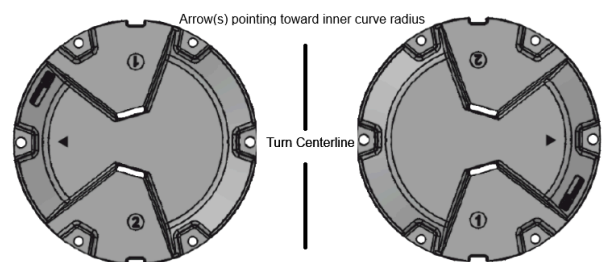
Version

1 = Version 1

Ordering Code Notes

1. Straight sections, narrow Beam, < 350 m RVR. used for turn pad centerline light.
2. Lead-on/exit, curved beam, < 350 m RVR. used for turn pad light.
3. Taxiway centerline, wide beam, < 350 m RVR.
4. Taxiway centerline, straight sections, wide beam, < 350 m RVR.
5. TW application includes intermediate holding position light which is yellow/blank with wide beam distribution.
6. Includes standards NATO, EASA, STAC, CAP 168, TP 312 and MOS 139.
7. TK application only.
8. 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.
9. LE application only.
10. EQ light fixtures are only available as a one connector option.
11. 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).
12. SO cord set option is not compatible with shallow bases. If required please contact ADB Safegate.

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.

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

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.

ANNEX

8-inch and 12-inch Light Fixtures without Arctic Kit (Heater)

| Fixture type – 1 cord set ¹ | Fixture load | Isolation transformer | | CCR load |
|---|--------------|-----------------------|---------|----------|
| | | Wattage | Load | |
| Taxiway centerline wide, bidirectional | 13.5 VA | 15 W | 7.6 VA | 21.1 VA |
| Taxiway centerline curved, bidirectional | 12.4 VA | 15 W | 7.6 VA | 20 VA |
| Taxiway centerline narrow, unidirectional | 7.8 VA | 15 W | 10.1 VA | 18 VA |

| Fixture type – 2 cord sets ¹ | Fixture load Side 1/Side 2 | Isolation transformer | | CCR load Side 1/Side 2 |
|--|----------------------------|-----------------------|--------------------|------------------------|
| | | Wattage Side 1/Side 2 | Load Side 1/Side 2 | |
| Taxiway centerline narrow, bidirectional | 10.9 VA/10.9 VA | 15 W/15 W | 7.9 VA/7.9 VA | 18.8 VA /18.8 VA |
| Taxiway centerline wide, bidirectional | 13.1 VA/13.1 VA | 15 W/15 W | 7.7 VA/7.7 VA | 20.8 VA/20.8 VA |

¹Values 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 (a correctly calibrated CCR is important to achieve an accurate fail open response)
- 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 the complete power table and 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.