

RELIANCE 2

LED ICAO Approach Centerline,
Crossbar and Siderow

Unidirectional Inset, 12-inch



ADB SAFEGATE
RELIANCE²

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
China	CAAC
CE	

Uses

ICAO

- Approach centerline
- Approach crossbar
- Approach siderow (red)

Features and Benefits

Efficiency

- Available in three versions:
 - RELIANCE IQ with integrated intelligence
 - RELIANCE with integrated fail - open (Mon) technology. Fuse resistors are part of the Mon - functionality and spares need to be ordered separately
 - RELIANCE Non-MON, non-monitored lights
- 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
- 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
- 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

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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
LS	<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

AC = Approach Centerline / Crossbar

AS = Approach Siderow

SF = Approach Siderow Flash

Standard(s)

3 = ICAO¹

Market Specific

2 = Anodized Finish

Dimensions

2 = 12 inch (305 mm) diameter, 11.25 inch BC (285 mm)

Prism

S = Standard prism

Beam Orientation

1 = Unidirectional

Toe-in

N = None

L = Left Side Toe-in (Unidirectional)

R = Right Side Toe-in (Unidirectional)

Color - Side 1 (Left)

R = Red (AS)

W = White (AC)

Color - Side 2 (Right)

N = None

Power and Monitoring

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

M = 2.8 - 6.6 A, Fail-Open Monitoring

P = 2.8 - 6.6 A IQ0 Integrated (IQ disabled)

Q = 2.8 - 6.6 A IQ1 Integrated (IQ enabled)

Connector and Cable

1 = 1 x Style 6 2-Pole Plug, 2 Individual Wires

5 = 1 x Flat 3-Pole Plug, 3 Individual Wires

Options

0 = None

Version

1 = Version 1

Ordering Code Notes

1. Includes standards NATO, EASA, STAC, TP 312 and MOS 139.

Power Supply Options

- Non-monitored — power only
- Monitored — integrated fail-open technology
- IQ with integrated ILCMS remote for RELIANCE IL

Installation and Maintenance

The light fixture can be installed in a 12-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.

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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 305 mm (12 in)
Weight 6.8 kg / 15 lb (12 in)

ANNEX

Fixture type – 1 cord set ¹	Fixture load	Isolation transformer		CCR load
		Wattage	Load	
Approach centerline	52 VA	65 W	15 VA	67 VA
Crossbar	52 VA	65 W	15 VA	67 VA
Approach siderow	42 VA	45 W	12 VA	54 VA

¹Values provided are for the "S" option non-monitored power only.

Note:

- IQ fixtures:
 - The minimum rating (dimension) for the isolation transformer is 65 W
 - The isolation transformer must have an additional 12 VA available above the fixture load for communication bandwidth. Size transformer to next size up to assure additional 12 VA coverage
- 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 other power supplies