

FX850ED

Runway Threshold and
runway end
High intensity
lighting solutions

Compliant to Latest International Standards*

- ▶ ICAO Annex 14. Vol 1
- ▶ FAA AC 150/5345-46[†]
- ▶ FAA Engineering Brief No.67
- ▶ TP312
- ▶ MOS139
- ▶ IEC 61827
- ▶ EASA
- ▶ Stannag 3316 (NATO)

Applications

CAT II/III all weather operation airfield ground
lighting (agl) systems.

* As applicable to the application, compliance with other civil aviation and
military regulations confirmed on request

[†] Electrical/Mechanical/Environmental characteristics only

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Electrical Performance

Main Beam Aperture		Colour	Typical Power Consumption Watts @ 6.6A Fitting each side	
Horiz(°)	Vert(°)		Watts	PF
-2 to +9	1 to 10	Green	35	>0.95
-6 to +6	0.25 to 4.75	Red	40	>0.95

Fixture Operational Current Range: 2.8 to 6.7A RMS

* as measured at the input leads of the fixture.

** as measured across the primary winding of an appropriately sized isolation transformer with a total fixture and transformer secondary length not exceeding - 1.85m (72").

*** electrical characteristics measured with 45 watt transformer, fitting can operate from transformers up to 210 watts.

Note: Isolating transformer shall be suitably sized to accommodate specific secondary and other applicable losses.

Photometry

Specification

Runway Threshold/End/CAO Fig. A2-3, Fig. A2-8

Colour	Red
Max/Min Intensity ratio	<3.0
Main ellipse average intensity	2500cdfs
Main ellipse minimum intensity	1250cdfs
Second ellipse minimum intensity	250cdfs
Third ellipse minimum intensity	125cdfs

Typical Measured Values

Colour	Red
Max/Min Intensity ratio	2.3
Main ellipse average intensity	2556cdfs
Main ellipse minimum intensity	1855cdfs
Second ellipse minimum intensity	1124cdfs
Third ellipse minimum intensity	767cdfs

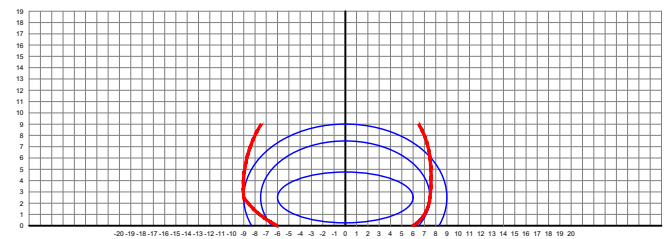
Specification

Colour	Green
Max/Min Intensity ratio	<3.0
Main ellipse average intensity	10000cdfs
Main ellipse minimum intensity	5000cdfs
Second ellipse minimum intensity	1000cdfs
Third ellipse minimum intensity	500cdfs

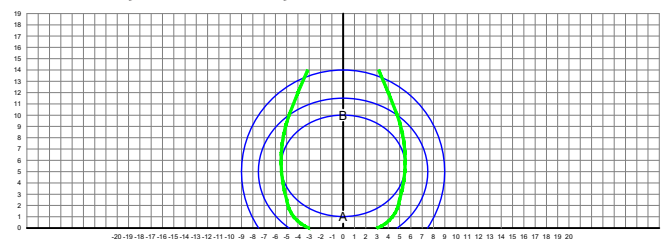
Typical Measured Values

Colour	Green
Max/Min Intensity ratio	1.91
Main ellipse average intensity	10824cdfs
Main ellipse maximum intensity	10436cdfs
Main ellipse minimum intensity	4628cdfs
Second ellipse minimum intensity	2035cdfs
Third ellipse minimum intensity	1514cdfs

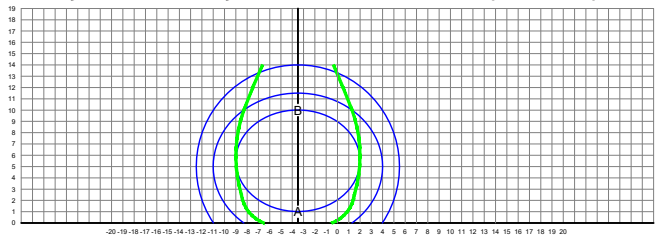
Intensity Chart - Runway Threshold/End Luminaire - Red



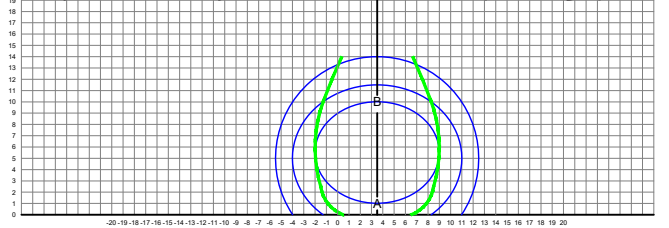
Intensity Chart - Runway Threshold/End Luminaire - Green



Intensity Chart - Runway Threshold/End Luminaire (toe-in left) - Green



Intensity Chart - Runway Threshold/End Luminaire (toe-in right) - Green



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Features

Low energy consumption compared with the tungsten halogen equivalent.

Greatly reduced maintenance: calculated MTBF of 75,000 hours at 6.6A.

Operates on the full range of 2.8A to 6.6A on either 3 or 5 step IGBT, ferroresonant or thyristor CCRs that are designed in compliance with IEC or FAA requirements.

Fully dimmable lights, replicating the response curve of traditional halogen lights.

Full compatibility with existing airfield lighting series circuits. Installation on same mounting device as most conventional lights, for a straightforward replacement.

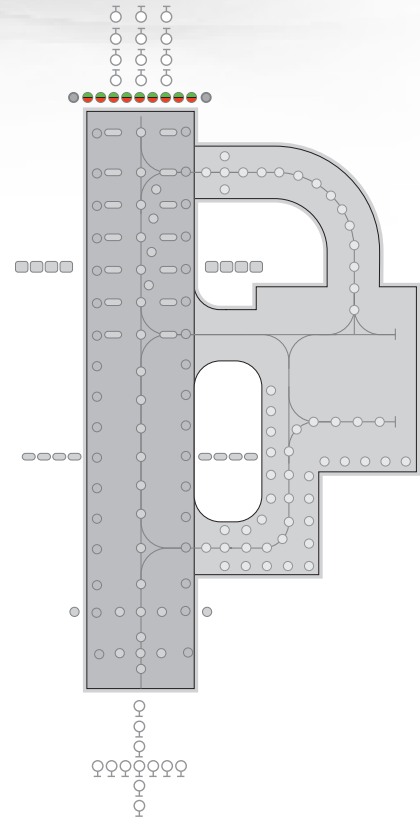
Monitoring function of the individual light arrays for open circuit, short circuit, and over temperature. The LED light automatically disconnects from the secondary side of the isolation transformer, resulting in an open circuit condition.

Low operating temperature, ensuring longer component life.

FAA style 3, ICAO style 4 fixture with a 6.0 mm profile above gradient

L-823 connectors

Integral surge protection



Environmental Conditions

▶ Ambient Temperature -55 °C to +55°C (-67 °F to +131°F)

▶ Storage Temperature -55°C to +70°C (-67 °F to +158°F)

▶ Atmospheric Altitude up to 10,000 feet (3000m)

▶ Relative Humidity 0-100% (sealed unit)

Standards	
EMC protection	Immunity IEC 61000-4 Emission IEC 61000-2
Ingress protection class dust/liquids	IP68 (IEC69598-1)
Vibration resistance	IEC60068-2-6

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Ordering Codes: **FX** **850ED12** **4**

Application
FX850ED (L) Threshold / End

Beam Type
A Side
 1=Straight/Axial
 2=Toe in left
 3=Toe in right
 0=Blank

B Side
 1=Straight/Axial
 0=Blank

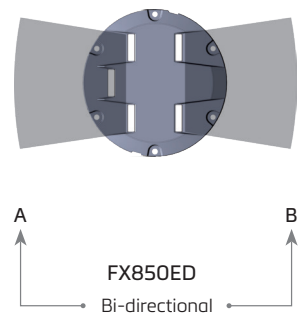
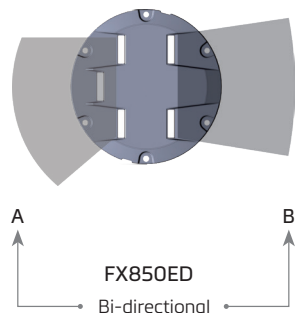
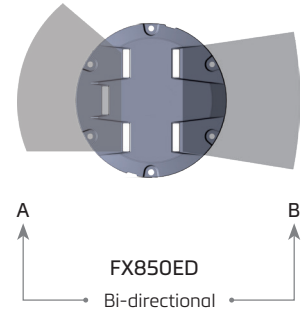
Colour
A Side
 G=Green
 0=Blank

B Side
 R=Red
 0=Blank

Specification
Refer to front cover

Connections
 1 = 1 Bi Pin Plug
 2 = 2 Bi Pin Plug

Beam Options



Additional optional features may be available upon request

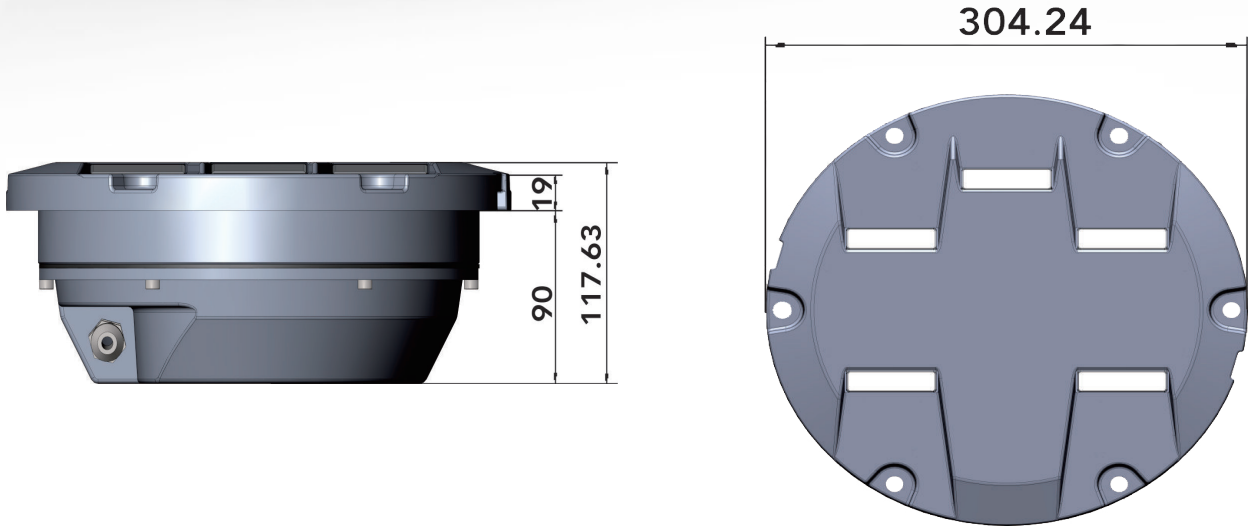
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Dimensions



Packaging

- ▶ Net weight 8.9Kg
- ▶ Gross weight 9.5 (boxed)
- ▶ Box 220mm (L) x 220mm (W) x 225mm (H)

weights and dimensions are nominal



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