# FX862ED

Runway threshold and runway end Elevated LED fixture 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 I/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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# FX862ED

## LED Elevated Threshold and Runway End High intensity lighting solutions

## Electrical Performance

| Main Beam Aperture | | Colour | Typical Power Consumption - Watts (VA) @ 6.6A | | | | |
|---|---|---|---|---|---|---|---|
| Horiz(°) | Vert(°) | | Per Beam Watts nominal | Fitting* Watts (VA) | Fitting* PF | Tx Primary** Watts (VA) | Tx Primary** PF |
| -2 to +9 | 1 to 10 | Green | 39 | 59.3 (59.6) | 0.99 | 77.4 (77.7) | 0.99 |
| -6 to +6 | 0.25 to 4.75 | Red | 7.5 | 30.9 (31.0) | 0.99 | 48.7 (49.6) | 0.98 |

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**
**threshold / runway end ICAO Fig. A2-3, Fig. A2-8**

**Specification**

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

**Typical Measured Values**

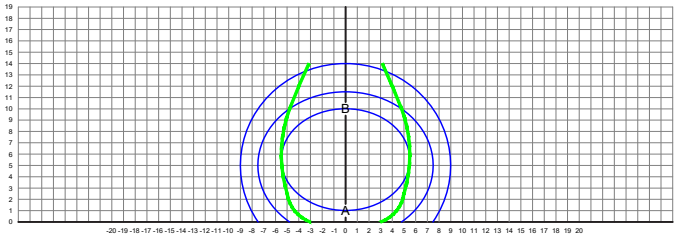
| | |
|---|---|
| Colour | Green |
| Max/Min Intensity ratio | 1.91 |
| Main ellipse average intensity | 10824cds |
| Main ellipse maximum intensity | 10436cds |
| Main ellipse minimum intensity | 4628cds |
| Second ellipse minimum intensity | 2035cds |
| Third ellipse minimum intensity | 1514cds |

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

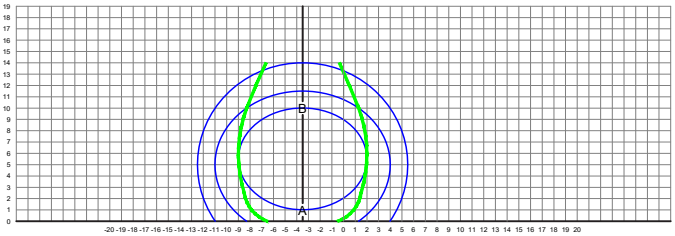
**Typical Measured Values**

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

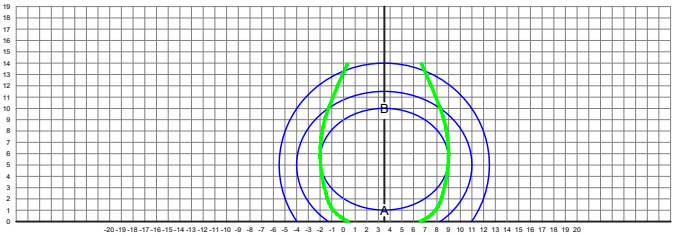
Intensity Chart - Elevated Threshold runway end - Green



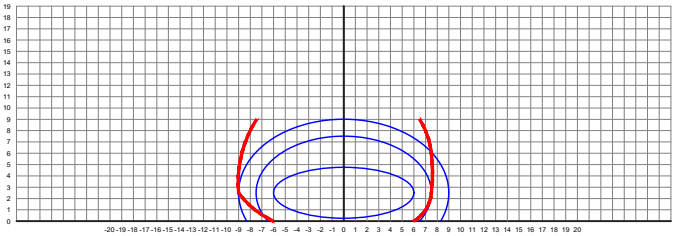

Intensity Chart - Elevated threshold runway end toe-in left - Green




Intensity Chart - Elevated threshold runway end toe-in right - Green




Intensity Chart - Elevated threshold runway end - Red



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## Features

Low energy consumption compared with the tungsten halogen equivalent.

Greatly reduced maintenance: Estimated lamp life 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.

Omnidirectional beam for circular guidance is available for bidirectional runway Edge fixture

No need to replace the CCRs, series transformers, or cables. 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 source. In case of a defect, the LED light automatically disconnects from the secondary side of the isolation transformer, resulting in an open circuit condition.

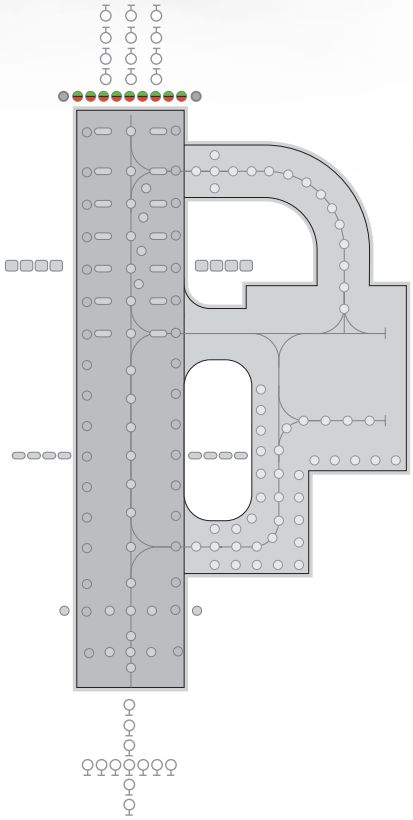
Low operating temperature, ensuring longer component life.

FAA L-823 connector

Sealed cable entry to main assembly interface preventing insect and water ingress.

powder coating, aviation yellow colour

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<br>Emission IEC 61000-2 |
| Ingress protection class dust/liquids | IP67 (IEC69598-1) |
| Vibration resistance | IEC60068-2-6 |
| | |
| | |
| | |
| | |

# FX862ED

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Ordering Codes: FX 862ED _ _ _ _ _ _

**Application**
L-862ED(L) Threshold End

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

**Beam Type**
**B Side**
1 = Straight / Axial
0 = Blank

**Colour**
**A Side**
G = Green
0 = Blank

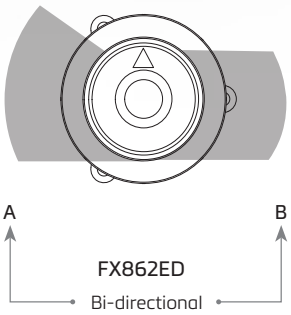
**B Side**
R = Red
0 = Blank

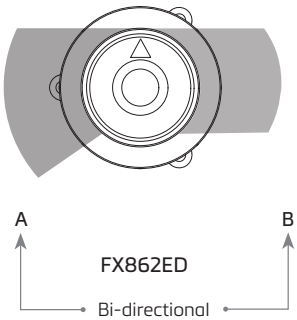
**Specification**
1 = FAA
2 = ICAO
3 = MOS139

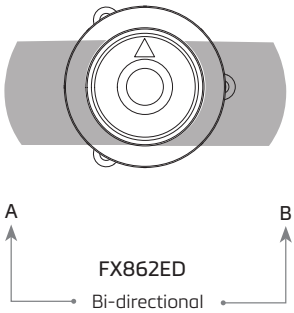
**Connections**
1 = 1 x Bi-pin plug
2 = 2 x Bi-pin plug

Additional optional features are available upon request

## Beam Options



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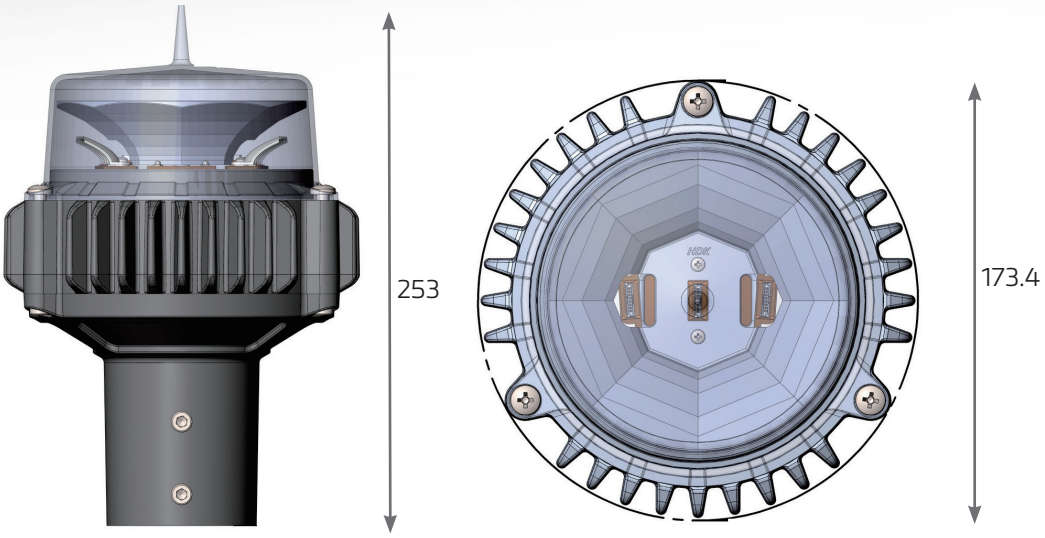
## Dimensions




## Packaging

- Net weight 3.0Kg
- Gross weight 3.3 (boxed)
- Box 350mm (L) x 218mm (W) x 216mm (H)

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