

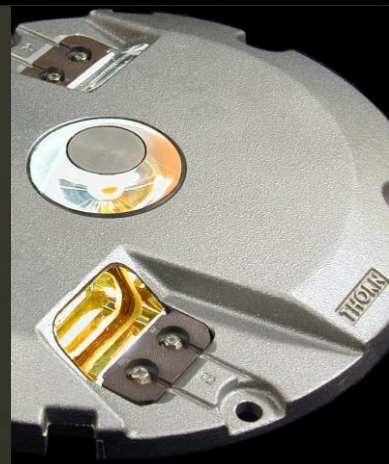
Airfield Lighting

Product Description

INL-REO

Bidirectional and
Omnidirectional Inset Light

- Runway Edge with Circling Guidance



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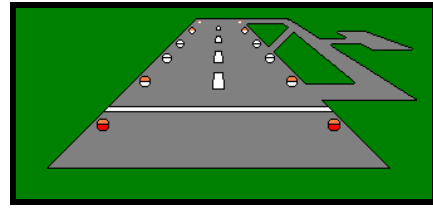
1. INTRODUCTION

Utilisation

- Runway edge with circling guidance light

Compliance with Standards

- ICAO: Annex 14 Volume 1, 2009 Paragraph 5.3.9
- FAA: L-850C AC150/5345-46B
- NATO: STANAG 3316
- French STNA
- CAP 168
- BS 3224



2. MAIN ADVANTAGES

- The INL-REO is designed to replace the runway edge elevated fitting on airports which receive the Airbus A380. It supports A380 jet blast, provides a bi-directional HI runway edge light and an omnidirectional MI runway edge light for circling guidance.
- Low power consumption: 45W for omnidirectional MI light and 2 x 105W for Bi-directional MI light.
- Lamp life greater than 1,000 hours at 6.6A.
- Low projection: 22,5 mm (< 1")
- Limited diameter: 304 mm (12")
- Shallow depth: installation in 150 mm shallow base.
- Excellent photometric performances obtained by the use of reflector lamps.
- Easy and fast maintenance: limited components.
- Non-sealed prism easy to replace
- Valve for water-tightness test.
- Many parts common with other lights in the same model range.
- Possibility of separate lighting of HI and MI lights.
- Fitting installation parallel to approach centre line axis.
- Easy handling due to small size and low weight.

3. TECHNICAL CHARACTERISTICS

Component	Description
Lamp:	105 and 45W 6.6A pre-focused halogen lamp with an integral dichroic-coated reflector.
Power Supply:	Lamp life at 6.6A greater than 1,000 hours. The fitting is supplied with one (or two) two-pole secondary FAA plug(s) for connection to one (or two) isolating transformer(s).
Photometry:	Distribution and homogeneity comply with ICAO and with FAA (L-850C) recommendations.
Colour:	Yellow or Red dichroic filter. Chromaticity complies with ICAO recommendations
Finish:	All external parts are made of anodised tempered aluminium alloy casting. All fixings and fastenings are stainless steel.
Fixing:	By six M10 studs and nuts (supplied with the base or the adapter ring).
Projection:	22,5 mm (< 1").
External diameter:	304 mm (12").
Net Weight:	6 kg.

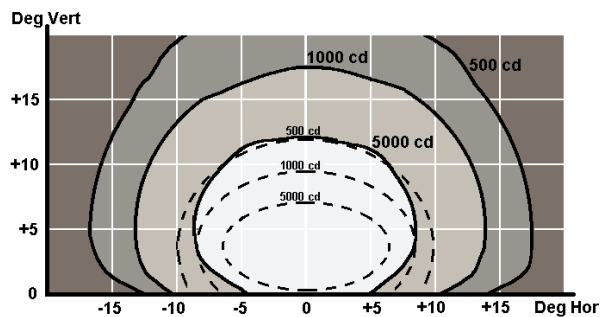


Packing Data			
Designation	Volume in m ³	Dimensions in mm	Weight in kg
INL-REO	0.019	350 x 350 x 155	7,0

4. PHOTOMETRICS

This section includes photometric examples of different light configurations.

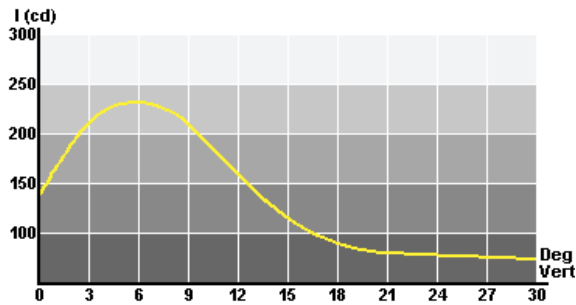
Photometric example



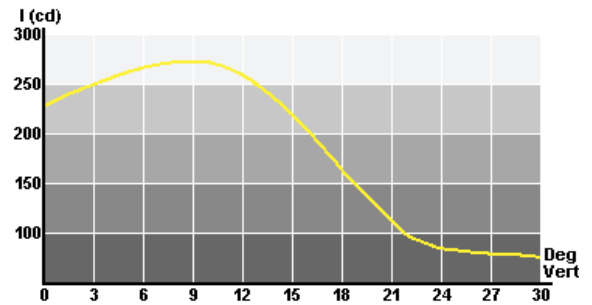
Runway Edge HI
 ICAO and FAA L-850C

INL-REO (1 x 105 Watts)
 White Light
 Toe-in : 4.5°

I average : 11,040 cd
 I max / I min : 1,90



Runway Edge MI INL-REO (1 x 45 Watts)
 White Light



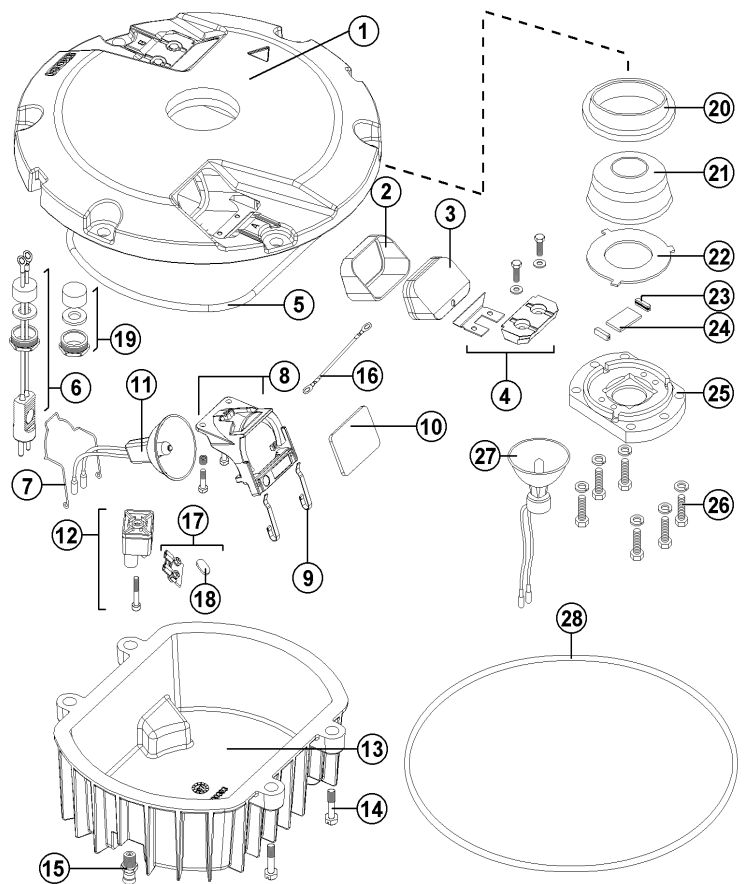
Runway Edge MI INL-REO (1 x 105 Watts)
 White Light

5. DESIGN

Components

INL-REO

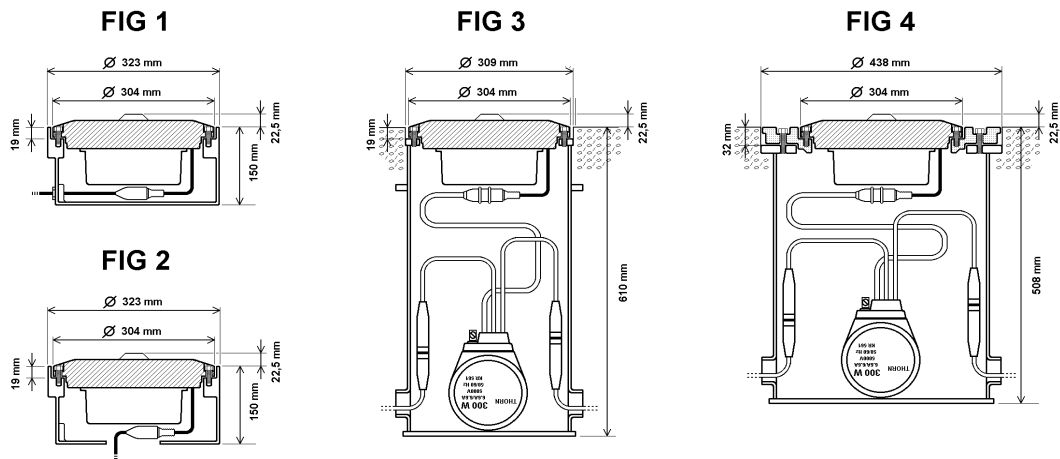
1. Body of the Fitting
2. Silicone HI Prism Gasket
3. Non Sealed HI Prism
4. Prism Clamp with Screws
5. Cover Gasket
6. Cable with FAA Plug and compression Packer
7. HI Lamp Spring
8. HI Lamp Support
9. HI Filter Spring
10. HI Dichroic Filter
11. Prefocused 105W Halogen Lamp with Dichroic Reflector
12. Cable Terminal
13. Cover of the Fitting
14. Cover Screws
15. Valve for Water tightness Test
16. Cable for Connection Between Terminals
17. Film Disk Cut-Out Holder
18. Film Disk Cut-Out
19. Plug (For One Connector Version)
20. Silicone MI prism gasket
21. Non-sealed MI prism
22. HI Prism Protection Plate in Teflon
23. Filter protection gasket
24. MI Dichroic filter
25. MI Optical support
26. Optical support fixing screws
27. Prefocused 45W Halogen Lamp with Dichroic Reflector
28. O ring gasket for THORN 12" shallow base



6. INSTALLATION

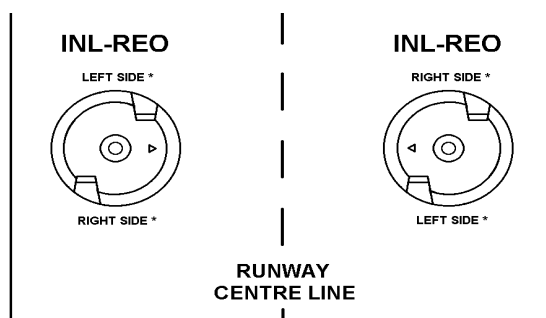
- On 12" shallow base 150 mm deep with side access (Fig 1).
- On 12" shallow base 150 mm deep with bottom access (Fig 2).
- On FAA L-868B deep base (Fig 3).
- On FAA L-868C or FAA LB-1 deep base by means of 16"/ 12" adapter ring (Fig 4).
- On SR9 seating ring by means of SR9/12" adapter ring.

Fitting installation is always parallel to approach centre line axis.



7. ORDER CODES

Component	Order code
FITTING INL-REO	
Connection:	
To one isolating transformer	1C
To one isolating transformers	2C
Colour filters:	
Left side	
None (white)	W
Red filter	R
Right side	
Yellow filter	Y
Blank Screen	B
Cut out device (Option):	
Film disk cut out (x 2)	FD
FITTING SUPPORTS	
12" shallow base	See DOC 1402.E
Adapter ring	See DOC 1402.E



8. SPECIFICATION

- The inset runway edge INL-REO shall be designed to replace the runway edge elevated fitting on airports that receive the Airbus A380. It shall Support A380 jet blast and shall provide bi-directional HI runway edge light and omnidirectional MI runway edge light for circling guidance.
- The INL-REO shall comply with ICAO recommendations in Annex 14, Volume I, paragraph 5.3.9, with FAA L-850C standards, and STANAG 3316 standards, CAP168 and British Standards BS 3224.
- It shall be fitted with three 6.6A halogen pre-focused dichroic reflector lamps (2x 105W and 1x45W). Lamp life shall be at full intensity greater than 1,000 hours.
- Its design shall allow separate lighting for HI and MI lights.
- All external parts shall be made of anodised tempered aluminium alloy casting. All fixings and fastenings shall be stainless steel.
- It shall have a maximum outer diameter of 304 mm (12") and its projection shall not exceed 22.5 mm (< 1").
- It must be able to be installed directly on a 12" shallow base, on a FAA L-868B deep base or by means of adapter ring on a FAA L-868C or FAA LB deep base.
- It will allow easy maintenance:
 - The prisms shall not be sealed.
 - The filters shall be dichroic.
 - The fittings in this model range share many of the same components.
 - No internal adjustment shall be needed.

Note: All descriptions and photometric characteristics in this publication present only general particulars and shall not form part of any contract. The right is reserved to change them without prior notification.

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Check in to the future

How many aircraft can your airport handle today?
Can this number be increased without adverse effects on the airport's safety level?
It is a known fact that traffic volume will rise in the foreseeable future. More movements will demand monitoring of the entire airport. Requirements will be sharpened and the development of an integrated system

controlling not only ground movements but also air traffic close to the airport is of the highest interest.
The International Civil Aviation Organization (ICAO) already describes A-SMGCS, Advanced Surface Movement Guidance and Control System, as the answer to the future modern airport need to control the entire airport space in one superior system.

To a larger extent than today's systems, A-SMGCS will rely on automated processes to give both pilots and traffic controllers exact information about positions and directions. Safegate Group delivers complete A-SMGCS solutions already, as well as all vital parts relating to it. Safegate Group can check your airport into the future – today!



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THORN
Airfield Lighting

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