Airfield Lighting

Product Description

8" Uni- or Bidirectional High-Intensity Inset Light (INL-HSE)

- Enhanced Rapid Exit Taxiway Centre Line

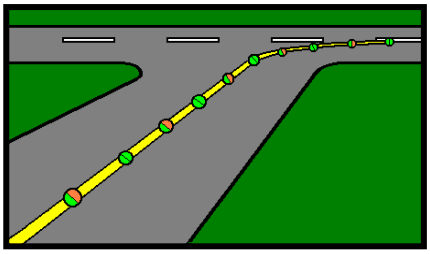
THORN Airfield Lighting IDMAN

SAFEGATE GROUP

***Note**: This page is blank for convenient double-sided printing.*

1. INTRODUCTION

INL-HSE is a 8” bidirectional high intensity inset light.



Utilisation

- Enhanced rapid exit taxiway centre line light

Compliance

- ICAO: Annex 14 Volume 1, 2009 Paragraph 5.3.16.9
- FAA: L- 852 AC150/5345-46B
- NATO: STANAG 3316
- French STNA
- CAP 168
- BS 3224

2. MAIN ADVANTAGES

- ICAO requirements include a better visual guidance adaptation for pilots during transit between the high intensity lights area of the runway and the medium intensity lights area of the taxiways. The INL-HSE is designed to provide high intensity lighting for runway high speed exit (800 cd).
- Low power consumption: only 45 Watts for unidirectional fittings and 2 x 45 W for bi-directional fittings.
- Lamp life greater than 1,500 hours at 6.6 Amps.
- Very low projection: 12.7 mm (1/2").
- Small diameter: 203 mm (8").
- Shallow depth: installation in 100 mm shallow base (shallow cover version).
- Excellent photometric performance obtained by the use of a reflector lamp:
  - Improved luminous efficacy.
  - Identical lamp performance: Reflector being an integral part of the lamp, hence each time the lamp is changed there will be a new reflector.
  - High optical stability: no internal adjustment needed since the pre-focused lamp is always correctly positioned inside the lamp reflector.
- Possibility of separate lighting in both approach directions for bi-directional fittings.
- Very easy and high-speed maintenance: a small quantity of components allows for lights to be easily dismantled.
- Non-sealed prism for easy replacement.
- Valve for water-tightness testing.
- Many parts are common with other lights in the same model range.
- Easy handling and transport due to small size and light weight.

3. TECHNICAL CHARACTERISTICS

Component	Description
Lamp:	45 Watts 6.6 Amps pre-focused halogen lamp with an integral dichroic-coated reflector. Lamp life at 6.6 Amps greater than 1,500 hours.
Electrical Power Supply:	The fitting is delivered equipped with one (or two) two-pole secondary FAA plug(s) to connect it to one (or two) an isolating transformer(s).
Photometry:	Distribution and homogeneity comply with Appendix 2 of I.C.A.O Annex 14 Volume I.
Colour:	Green or Yellow dichroic filter. Chromaticity complies with Appendix 1 of ICAO Annex 14. Volume I.
Finish:	All external parts are made of anodised tempered aluminium alloy casting. All fixings and fastenings are stainless steel.
Fixing on support:	Two M10 studs and nuts (supplied with the base or the adapter ring).
Projection:	12.7 mm (1/2”).
External diameter:	203 mm (8").
Net Weight:	2.8 kg.

Packing Data			
Designation	**Volume in m^3**	**Dimensions in mm**	**Weight in kg**
INL-HSE Fitting with short cover	0.007	220 x 220 x 145	2.9
INL-HSE Fitting with long cover	0.007	220 x 220 x 145	3.0

4. INSTALLATION OPTIONS

- On 8" shallow base 100 mm deep with side access (Fig 1) or with bottom access (Fig 2). Shallow Cover.
- On 8" shallow base 133 mm deep with side access (Fig 3) or with bottom access (Fig 4). Long Cover.
- On FAA L-868B deep base by means of 12"/ 8" adapter ring (Fig 5).
- On SR8 seating ring by means of SR8/8"adapter ring.

***Note**: When the fitting is equipped with a cut-out device (relay or film disk) option, a long cover must be used and the minimum depth of the base must be 133 mm.*

FIG 1

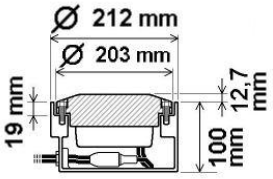


FIG 3

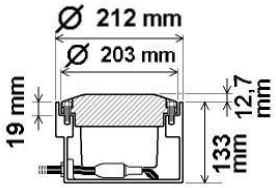


FIG 5

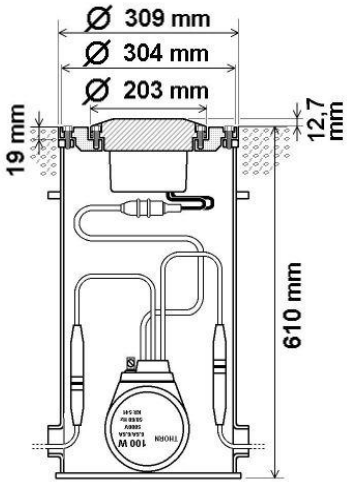


FIG 2

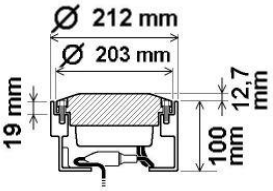
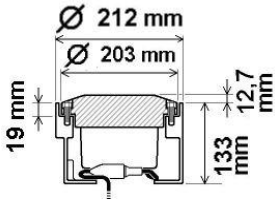
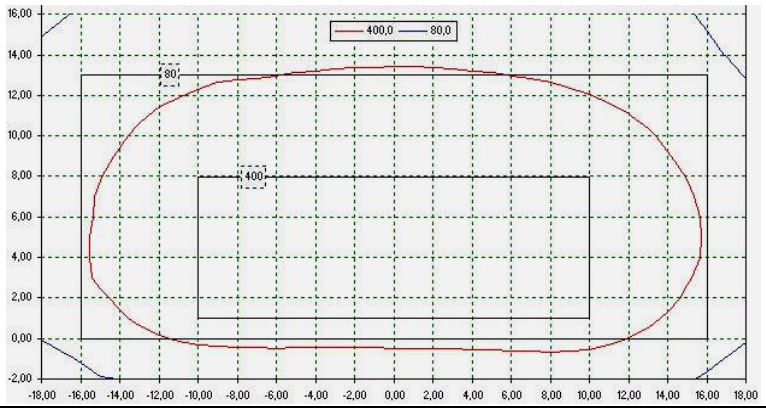
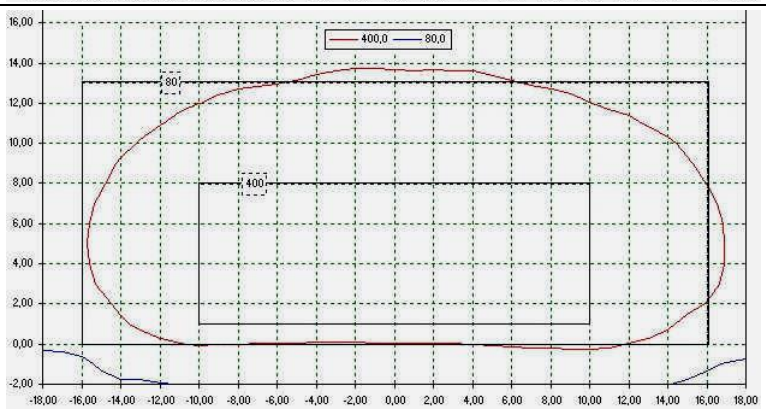


FIG 4

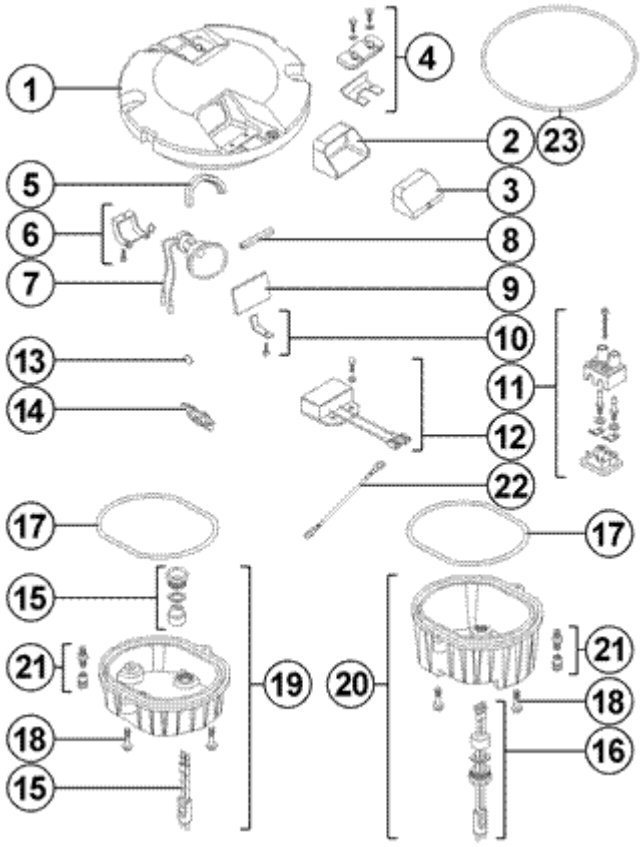


5. PHOTOMETRICS

This section includes photometric examples of different light configurations.

Photometric example	
	Runway High Speed Exit ICAO INL-HSE (1 x 45 Watts) Green Light I average: 1362 cd I max / I min: 2,5
	Runway High Speed Exit ICAO INL-HSE (1 x 45 Watts) Yellow Light I average: 1417 cd I max / I min: 2,8

6. DESIGN

Components	INL-HSE
1. Body (Bi or Unidirectional) 2. Silicone prism gasket 3. Non-sealed prism 4. Prism clamp with accessories 5. Lamp support 6. Lamp fixing spring and its screw 7. Pre-focused halogen dichroic reflector lamp 45 Watts at 6.6 Amps Diameter 50 mm 8. Filter protection gasket 9. Filter 10. Filter fixing spring its screw 11. Cable terminal 12. Cut out relay (*) 13. Film disk cut out (*) 14. Film disk cut out holder (*) 15. Cable subassembly for short cover 16. Cable subassembly for long cover 17. Cover gasket 18. Cover screw 19. Equipped short cover 20. Equipped long cover (*) 21. Valve for water tightness tests 22. Cable for connection between terminals 23. O ring gasket for THORN 8" shallow base	

Note: *The complete fitting is delivered with water tightness O ring gasket for THORN 8" shallow base.*

7. ORDER CODES

Component	Order code
FITTING INL-HSE	
Type of fitting:	
• Bi-directional fitting	B
• Unidirectional fitting	U
Connection:	
• To one isolating transformer	1C
• To one isolating transformers	2C
Colour:	
• Green filter	G
• Yellow filter	Y
Cut out device (Option):	
• Two cut out relay	RL
• Two film disk cut out	FD
FITTING SUPPORTS	
8" shallow base	See E_IN_SUPPORT documents.
Adapter ring	See E_IN_SUPPORT documents.

8. SPECIFICATION

- The INL-HSE shall answer to ICAO requirements for a better visual guidance adaptation for pilots during transit between the high intensity lights area of the runway and the medium intensity lights area of the taxiways. The INL-HSE shall be designed to provide high intensity lighting for runway high speed exit (800 cd).
- The runway high speed exit inset light INL-HSE shall be bi- or unidirectional high intensity complying with ICAO recommendations in Annex 14, Volume I, paragraph 5.3.16, with FAA L-852 standards, and STANAG 3316 standards, CAP168 and British Standards BS 3224.
- It shall be fitted with one or two 6.6 Amps halogen pre-focused dichroic reflector lamps not exceeding 45 Watts. Lamp life shall be at full intensity greater than 1,500 hours for 45 W.
- For bi-directional fittings the design shall allow separate lighting in both approach direction.
- 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 203 mm (8”) and its projection shall not exceed 12.7 mm (1/2”).
- It must be able to be installed directly on an 8" shallow base, or by means of an adapter on an FAA L-868B deep base or a seating ring.
- It will be designed to allow for 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.
  - The weight of the fitting shall be less than 2.8 kg.

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.*

***Note**: This page is blank for convenient double-sided printing.*

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SAFEGATE GROUP

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