Fig. 1 FTH

Threshold High Intensity Inset Lightt

Type FTH

ADB
Airfield Solutions

Compliance with standards

ICAO: Annex 14, Volume I, para 5.3. for use in Category I, II and III conditions.
AA: L-850 E, specification AC 150/5345-46 (current edition).
NATO: STANAG 3316.

Fig. 2

Uses

Threshold and threshold wingbars.

Features

- Part of a comprehensive range of 8 and 12 inch diameter inset lights covering all aviation ground lighting requirements.
- Lightweight, sturdy, low-energy and environment friendly lighting fixtures (no cadmium plating).
- Designed and built with simplicity and ease of maintenance in mind.
- Extensive use of aluminium alloys limits fixture weight to 8 kg to ease handling in the field.
- Many components are common to all F-range lights.
- Halved protrusion above ground (from 25.4 mm down to 12.7 mm) reduces vibrations induced in aircraft landing gear and in lighting fixture itself, thereby increasing lifetime, particularly for the lamps.
- Shallow dully in front of prism windows maintains optimal light output under heavy rainfall.
- Smooth outer surface of light cover avoids tire damage and makes light less sensitive to snowplows.
- Outer prisms mechanically clamped to light cover through moulded, replaceable seals. Prism replacement by airport maintenance personnel is fast and easy and does not require any sealing compound or resin.
- No optical adjustment required after replacement of lamp or prism.
- Long life halogen lamps. 1000 hours at full intensity, in excess of 3000 hours in practical use.
- Standard adaptor rings for installation on 15"/16" dia. FAA deep bases. Specific rings available to fit mounting bases and seating rings to other standards.
- Specific tools have been developed to ease installation and subsequent maintenance.
- Plug for pressure-testing of fixture after overhaul.
- Low temperature lights. Temperature at centre of top cover remains below 160°C ICAO specified limit.

Construction

1. High tensile strength screw with washers (6)
2. Aluminium alloy cover
3. "O" ring seal
4. Prism with retainer and gaskets (2 or 3)
5. Cold mirror prefocus halogen lamp 105 W – 6.6 A (2 or 3)
6. Optical assembly
7. Film disc cut-out (2 or 3) (optional)
8. Terminal block (2 or 3)
9. Die cast aluminium inner cover
10. "O" ring seal
11. Wire clamp with grommets (1)
12. FAA L-823 2-pole plug moulded on heat resistant wires (1)
13. Pressure relief and test plug
14. Heat resistant wires (1 or 2)

Finish

Aluminium alloy cover, inner cover and optical assembly.
Plain stainless steel hardware.

Electrical supply

6.6 A through a 200 W or 300 W isolating transformer (cat. leaflet A.06.110) installed under the light (Fig. 8) or in a separate housing.

Photometric performance

Lamps: Two or three 105 W – 6.6 A cold mirror prefocus halogen, 1000 hours rated life at full intensity.

Applications	Colour	Curve Fig.	Performance (typical data)			
			Average Intensity Cd.	Ratio	Beam spread (degrees)	
					Horiz.	Vert
2 lamps						
Threshold						
ICAO	Green	5	13500	1.5	-2 to +9	1 to 10
FAA L-850 E	Green	-	11800	-	-6 to +6	1 to 9
3 lamps						
Threshold wingbar						
ICAO	Green	6	14200	2.1	-5 to +9	0.5 to 10.5

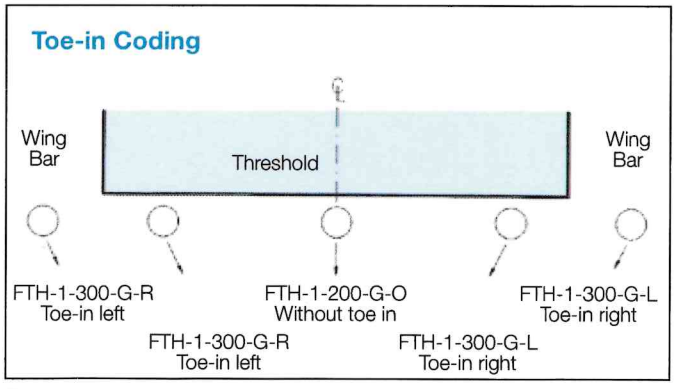


Fig. 3

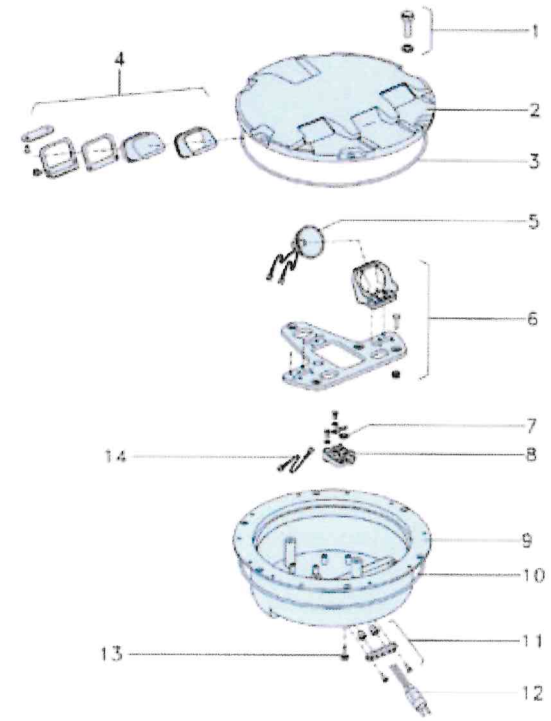


Fig. 4

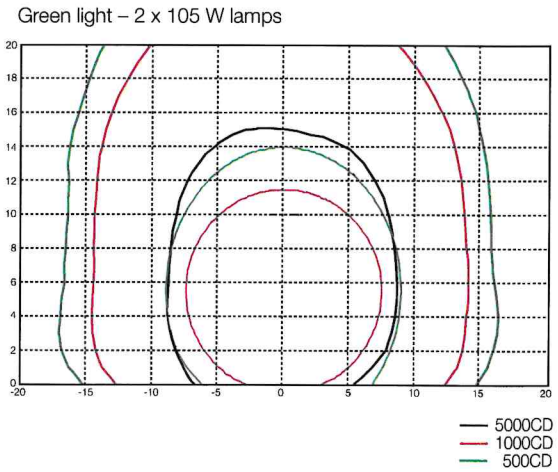


Fig. 5

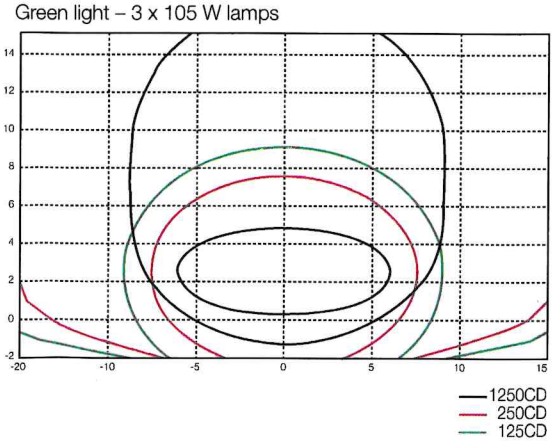
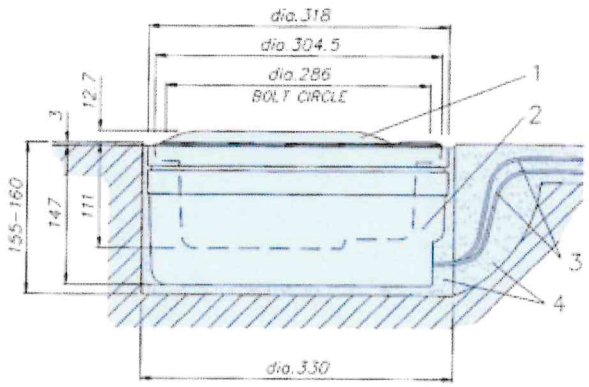


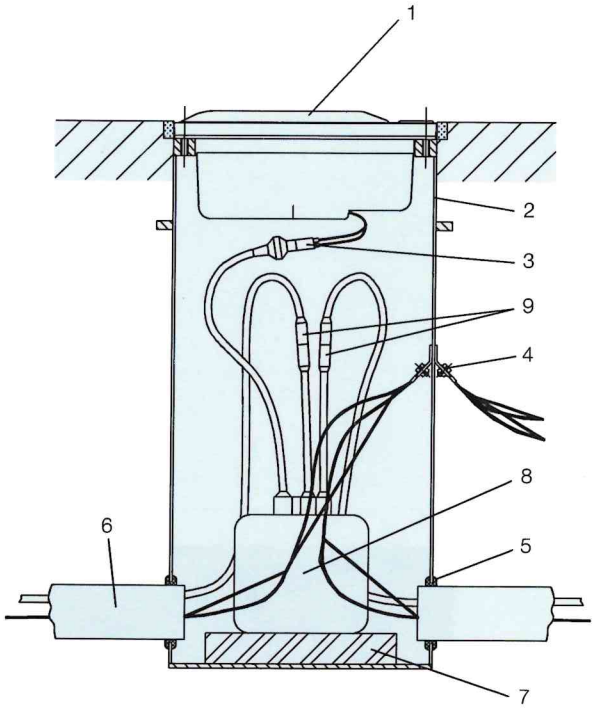
Fig. 6

Installation and Outline Dimension (in mm)



1. Light fitting
2. Shallow base
3. Secondary wiring
4. Resin filler

Fig. 7



1. Light fitting
2. Deep base
3. Secondary connector
4. Earthing lugs
5. Rubber grommet
6. Conduit
7. Spacer
8. Isolating transformer
9. Primary connectors

Fig. 8

Installation

The fitting may be installed either:

1) On a 12" aluminium shallow base with a depth of only 150 mm developed for this purpose. After correct positioning and levelling with a dedicated jig, the base is sealed in the pavement with suitable resin. The wiring between fitting and isolating transformer is installed in sawcuts filled with a similar sealant.
2) On a deep FAA L-868, LB1 or LB4 base (see cat. leaflet A.05.120) using a dedicated adaptor/flange ring.
   Fig. 8 shows the example of a FTH-light mounted on a 12" diameter L-868 base.

For detailed information, please refer to the mounting instructions supplied with the fittings.

ADB's technical team is at your disposal to provide guidance and advice in order to help solving any particular installation problem

Packing data

	Dimensions (mm)	Gross weight (kg)	Net weight (kg)
FTH-fitting	305 x 305 x 125	8.3	8
Shallow base	320 x 320 x 165	6.9	6.6
FTH-fitting with base	320 x 320 x 165	15.4	15.1

Ordering code

FTH 1 200 G R I 0 S

Unidirectional = 1
Lamp power
- 2 x 105 W = 200
- 3 x 105 W = 300

Colour
- Green = G

Toe-in
- Left = R
- No toe-in = O
- Right = L

Inlet
- One 2-pole plug = I

Mounting*
- Without shallow base = 0
- With shallow base = 1

Special requirements to be specified in full text = S

* Deep base (cat. leaflet A.05.120) and/or adaptor rings to be ordered separately.

Complete, delete or modify as necessary.

Suggested specification

The Threshold and Threshold Wingbar High Intensity Inset Light shall be in compliance with ICAO Annex 14, Vol. I, para. 5.3. and FAA L-850 E, specification AC 150/5345-46 (current edition) for use as threshold light in Category I, II and III.
Max. three lamps equally rated 105 W max. shall be used. For the threshold, the number of lamps shall be limited to two. The expected life of lamps shall not be less than 1000 hours at full intensity. The projection above ground level shall not exceed 12.7 mm.
Major parts of the light shall be made from aluminium alloy. All parts, including hardware shall be fully corrosion proof. The prisms shall be user-replaceable without making use of sealing compounds. The light shall resist all stresses imposed by impact, rollover and static load of present-day aircraft without damage to light and to aircraft and vehicle tyres.
The light shall suit for mounting on a 12" shallow base with a depth of 150 mm max. or, using an adaptor/flange ring, on a standard FAA 12" to 16" deep base. It shall be equipped with a pressure relief plug to facilitate removal of inner cover and to allow for air pressure testing in water before reinstallation.

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