# Airfield Lighting

Product Description

12" Unidirectional High/Medium-Intensity Inset Light (INL-AP)

- Runway Threshold Wing Bars
- Runway End
- Approach

**IDMAN** 

- Centre Line
- Crossbars
- Side Row Barrettes





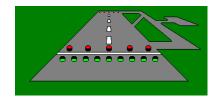
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### 1. INTRODUCTION

INL-AP is a 12" unidirectional high/medium intensity inset light.

### Utilisation

- Runway Threshold Wing Bars
- Runway End
- Approach
  - Centre Line, Crossbars, Side Row Barettes



### Compliance

- ICAO: Annex 14 Volume I Paragraphs 5.3.4 and 5.3.10 for use in CAT I, II and III
- NATO: STANAG 3316
- French STNA
- CAP 168
- BS 3224

### 2. MAIN ADVANTAGES

- Low power consumption: only 105 Watts for runway end and 2 x 105 W for runway threshold.
- Lamp life greater than 1,000 hours at 6.6 Amps.
- Low projection: 12.7 mm (1/2")
- Small diameter: 304 mm (12")
- Shallow depth: installation in 150 mm shallow base (shallow cover version).
- Excellent photometric performances obtained by the use of 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.
- Very easy and high-speed maintenance: small quantity of components so lights can be easily dismantled.
- Non-sealed prism easy to replace.
- · Valve for water-tightness test.
- Many parts common with other lights in the same model range.
- Fitting installation parallel to approach centre line axis.
- Easy handling and transport due to small size and low weight.





### 3. TECHNICAL CHARACTERISTICS

Component	Description			
Lamp:	105 Watts 6.6 Amps pre-focused halogen lamp with an			
	integral dichroic-coated reflector. Lamp life at 6.6 Amps			
	greater than 1,000 hours.			
Power Supply:	The fitting is supplied complete with one x two-pole secondary FAA plug for connection to an isolating transformer.			
Photometry:	Distribution and homogeneity comply with Appendix 2 of ICAO			
,	Annex 14 Volume I and with FAA L-850D.			
Colour:	Green or Red 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:	By six M10 studs and nuts (supplied with the base or the adapter ring).			
Draination	12.7 mm (1/2").			
Projection:	` '			
External diameter:	304 mm (12").			
Net Weight:	6 kg.			

Packing Data			
Designation	Volume m <sup>3</sup>	Dimensions mm	Weight kg
INL-AP	0.019	350 x 350 x 155	7.0

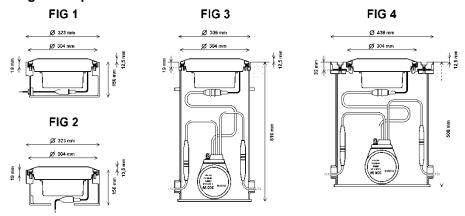
### 4. INSTALLATION OPTIONS

### **Description**

- On 12" shallow base 150 mm deep with side access (see FIG 1).
- On 12" shall0w base 150 mm deep with bottom access (see FIG 2).
- On FAA L-868B deep base (see FIG 3).
- On FAA L-868C or FAA LB-1 deep base with 16"/ 12" adapter ring (see FIG 4).
- On SR9 seating ring by means of SR9/12"adapter ring.

**Note**: Fitting installation is always parallel to approach centre line axis. For more information, see the Design section.

### Image examples



### 5. PHOTOMETRICS

This section includes photometric examples of different light configurations.

Photometric examples					
Approach Centre Line and Crossbars INL-APC (3 x 105 Watts) White Light I average: 29,300 cd I max / I min: 2.35	Deg Vert  +15  +10				
Approach Side Row barrettes INL-APS (3 x 105 Watts) Red Light Toe-in: 2° I average: 6,550 cd I max / I min: 1.65	Deg Vert				
Threshold Wing Bars INL-APW (3 x 105 Watts) Green Light Toe-in: 2° I average: 12,950 cd I max / I min: 2.10	Deg Vert  1000 cd  5000 cd  115  100 cd  5000 cd  5000 cd  100 cd  5000 cd  100 cd  10				





### 6. DESIGN

Components		INL-AP		
2. 3 3. 1 4. 4 5. 6 6. 6 7. 1 8. 1 9. 1 11. 1 12. 6 14. 6 15. 1 16. 6 17. 1 18. 1	Body of the Fitting Silicone Prism Gasket Non Sealed Prism Prism Clamp with Screws Cover Gasket Cable with FAA Secondary Plug and Compression Packer Lamp Spring Lamp Support Filter Spring Dichroic Filter Pre-focused Halogen Dichroic Reflector Lamp105 Watts at 6.6 Amp Cable Terminal Cover of the Fitting Cover Screws Valve for Water tightness Test Cable for Connection Between Terminals Film Disk Cut—Out O ring gasket for THORN 12" base.			

### 7. ORDER CODES

The table below is a guide to order codes for a fitting with available component parts.

Description	Components	INL-	APC	FD
Туре				
Approach Centre line	APC			
Approach Cross bar	APC			
Approach Side row barrettes	APS			
Threshold wing bar	APW			
Cut out device (option)				
Film disk cut out (x3)	FD			
Additional				
12" shallow base and Adap	ter ring			
For more information, contact Safegate Group or see <a href="www.safegate.com">www.safegate.com</a> .				

### 8. SPECIFICATION

- The runway approach or threshold wing bar inset light shall be unidirectional high intensity complying with ICAO recommendations in Annex 14, Volume I, paragraphs 5.3.4 and 5.3.10, STANAG 3316 standards, CAP168 and British Standards BS 3224.
- It shall be equipped with three 105 Watts 6.6 Amps halogen pre-focused dichroic reflector lamps. Lamp life at full intensity shall be greater than 1,000 hours.
- 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 12.7 mm (1/2").
- 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 or a seating ring.
- It will be designed to allow easy maintenance.
  - The prisms shall not be sealed.
  - The filters shall be dichroic.
  - The fittings in this model range shall 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.







## 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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