

F-RANGE FAP

Approach Centerline, Crossbar and
Siderow
unidirectional inset 12-inch



Compliance with standards (current Versions)

IEC	IEC 61827
FAA	AC150 / 5345-46 for mechanical requirements
ICAO	Annex 14, Volume I
EASA	CS-ADR-DSN
NATO	STANAG 3316
Canada	TP312
Australia	MOS139

Uses

- Approach centerline
- Approach crossbar
- Approach side row barrette

Features and Benefits

Efficiency

- Designed and built with simplicity and ease of maintenance in mind
- Extensive use of aluminum alloys limits fixture weight to less than 8 kg to ease handling in the field
- Many components are common to all F-range lights
- Outer prisms mechanically clamped to light cover through molded, 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
- Specific tools have been developed to ease installation and subsequent maintenance
- Plug for pressure-testing of fixture after overhaul

Sustainability

- Lightweight, sturdy, low-energy and environment friendly lighting fixtures (no cadmium plating)
- Normal protrusion (12,7 mm) reduces vibrations induced in aircraft
- Smooth outer surface of light cover avoids tire damage and makes light less sensitive to snowplows

- Long life halogen lamps: 1000 hours at full intensity, in excess of 3000 hours in practical use
- Low temperature lights: temperature at center of top cover remains below 160 °C ICAO specified limit
- IP67 protected, finish: aluminum alloy cover, inner cover and optical support; plain stainless steel hardware

Note: A standard adapter ring from 12 inch to 15 / 16 inch is necessary for installation in a 12-inch FAA deep base where it is used as dissipation ring (especially for the high-power fixtures with 3 lamps).

Safety

- Part of a comprehensive range of 8- and 12-inch diameter inset lights covering all aviation ground lighting requirements
- Shallow gully in front of prism windows maintains optimal light output under heavy rainfall

Accessories

Refer to the F-range user manual for 12-inch lights.

Power Supply

6,6 A through a 300 W isolating transformer installed under the light in the base can or in a separate housing.

Note:

- Refer to the appendix of F-range user manual for 12-inch lights for a complete power table and the cable loss formula.
- Refer to the annex section.

Maintenance and Installation

Refer to the F-Range user manual for 12-inch lights and to the interoperability info for installation in a specific base.

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Dimensions and Weight

Outer diameter / depth	Approx. 305 mm / 125 mm 12jin / 4.9 in
Weight without packaging	Approx. 7.5 kg 16.9 lb

Note:

- Deep base and / or adapter rings to be ordered separately.
- Use of a cutout is not compatible with the *Lamp Fault Detection (LFD)* functionality of a regulator.

Operating Conditions

Operating temperature	-58 to +122 °F / -50 to +50 °C
Storage temperature	-67 to +131 °F / -55 to +55 °C
Relative humidity	Up to 98 % at +77 °F / 25 °C

Ordering Code FAP 12-inch

1TA□□□□□□□□

FITTING VERSION

A = ADB
F = French
G = German

LAMP POWER

5 = 3 X 105 W (without cut-out)
6 = 3 X 105 W (with cut-out, only with 12- to 16-inch adapter ring)

COLOR LEFT

1 = White
2 = Red

COLOR RIGHT

9 = None (prism window in cover not machined)

INSTALLATION

1 = Left of C / L (Toe-in right)
2 = Right of C / L (Toe-in left)
3 = Straight (No Toe-in)

SUPPLY

1 = 1 Plug
3 = 3 Plugs

BASE

1 = None

SPECIAL EXECUTIONS

0 = Standard (1TAA... 1TAF... 1TAG...)

EXECUTIONS

3 = Without fixing hardware

ANNEX

Fixture type	Fixture load	Isolation transformer			CCR load
		Rating	Loss	Efficiency	
FAP (unidirectional)	315 VA	300 W	35 VA	0.9	350 VA
FED (unidirectional)	105 VA	100 W	19 VA	0.85	124 VA
FED (bidirectional)	210 VA	200 W	23 VA	0.9	233 VA
FEN (unidirectional)	105 VA	100 W	19 VA	0.85	124 VA
FTH threshold (unidirectional)	210 VA	200 W	23 VA	0.9	233 VA
FTH wingbar (unidirectional)	315 VA	300 W	35 VA	0.9	350 VA
FTE (bidirectional)	315 VA	300 W	35 VA	0.9	350 VA

Note:

- Extra losses in secondary cables or due to extra equipment (e.g. ILCMS remotes) are not included in above table; these extra losses will result in a higher required size of isolation transformers.
- Extra losses in primary cables are not included in above table; these extra losses will result in a higher required CCR load.
- Efficiency of the secondary transformer depends on the supplier of secondary transformers.