

F-RANGE FEN

Runway End

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

- Runway end

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 landing gear and in lighting fixture itself, thereby increasing lifetime, particularly for the lamps
- 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: Standard adapter rings for installation on 15- / 16-inch diameter FAA deep bases.

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 100 W isolating transformer installed under the light in the base can or in a separate housing.

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.

Dimensions and Weight

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

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

F-RANGE FEN

Ordering Code FEN 12-inch

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FITTING VERSION

A = ADB
 F = French
 G = German

LAMP POWER

1 = 1 X 105 W (without cut-out)
 2 = 1 X 105 W (with cut-out)

COLOR LEFT

2 = Red

COLOR RIGHT

9 = None (prism window in cover not machined)

INSTALLATION

3 = Straight (No Toe-in)

SUPPLY

1 = 1 Plug

BASE

1 = None

SPECIAL EXECUTIONS

0 = Standard (1TEA... 1TEF... 1TEG...)

EXECUTIONS

3 = Without fixing hardware

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.

ANNEX

Fixture type	Fixture load	Isolation transformer			CCR load
		Size	Load	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 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.