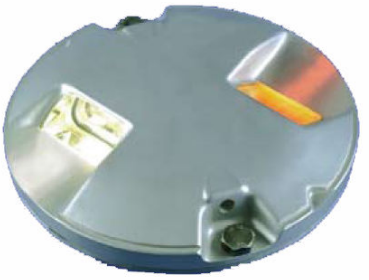
F-RANGE FRC

Runway Centerline

unidirectional and bidirectional inset 8-inch



Compliance with Standards (current Versions)

IEC	IEC 61827
FAA	AC 150 / 5345-46: for mechanical requirements
ICAO	Annex 14, Volume I
NATO	STANAG 3316

Uses

- Runway centerline

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 lamp, prism or reflector
- 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: 1500 hours at full intensity, in excess of 4000 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 12-inch 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 8-inch lights.

Power Supply

6.6 A through one 100 W or two 45 W isolating transformers installed under the light in the base can or in a separate housing.

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Note:

- Refer to the appendix of F-range user manual for 8-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 8-inch lights and to the interoperability info for installation in a specific base.

Dimensions and Weight

Outer diameter / depth	Approx. 210 x 210/ 100 mm
	8.3 x 8.3/ 3.9 in
Weight without packaging	Approx. 2.7 kg
	5.9 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

Ordering Code FRC 8-inch

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FITTING VERSION
A = ADB
F = French
G = German

LAMP POWER
1 = 1 X 48 W (without cut-out)
2 = 2 X 48 W (without cut-out)
4 = 1 X 48 W (with cut-out)
5 = 2 X 48 W (with cut-out)

COLOR LEFT
1 = White
2 = Red
4 = Yellow
8 = Blank (with blank filter)
9 = None (prism window in cover not machined)

COLOR RIGHT
1 = White
2 = Red
8 = Blank (with blank filter)
9 = None (prism window in cover not machined)

INSTALLATION
3 = Straight (No Toe-in)

SUPPLY
1 = 1 Plug
2 = 2 Plugs

BASE
1 = None

SPECIAL EXECUTIONS
0 = Standard (1RCA... 1RCE... 1RCF 1RCG...)

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
		Rating	Loss	Efficiency	
FRC (unidirectional)	48 VA	45 W	9 VA	0.85	57 VA
FRC (bidirectional)	96 VA	100 W	11 VA	0.9	107 VA
FTD (unidirectional)	45 VA	45 W	9 VA	0.85	54 VA
FTD (bidirectional)	90 VA	100 W	10 VA	0.9	100 VA
FTZ (unidirectional)	48 VA	45 W	9 VA	0.85	57 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.