

DESCRIPTION

The Fail-Safe FSR combines maximum security construction features with energy saving technology. This recessed luminaire utilizes a one-piece overlapping door frame, security lensing and tamper-resistant fasteners to maximize impact-resistance and prevent contraband concealment and unauthorized fixture penetration. UL/cUL listed for damp locations. The FSR is ideal for confinement/security applications. Suitable for use in inmate cells, psychiatric wards, secure corridors and general population areas.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Fasteners

Stainless steel tamper-resistant T20 TORX® screws standard. Allen-head screws with center reject pin optional (SF3).

Housing

Die-formed CRS body with welded corners to form a one-piece housing which prevents contraband concealment and unauthorized fixture penetration.

Finish

High gloss, electrostatically applied, white powder coat finish, average minimum reflectance 92%.

Door

One-piece, CRS door frame (12, 14, 16, or 18 ga.) with die-formed edges and tightly closed corners increases rigidity. Aircraft cable secures door to housing.

Light Mask

Gasketing surrounds door frame and prevents light leaks.

Lens

Choice of prismatic acrylic, prismatic polycarbonate or prismatic tempered glass on fixture side, clear polycarbonate or clear tempered glass on environmental side.

Lamps

By others.

Lens Retention

Lens secured by thru-studs and vertically adjustable internal CRS hold-downs.

Ballast

Electronic Class P, CBM/ETL ballast.

Labels

UL/cUL listed for damp locations. Wet location under covered ceiling optional.



FSR24

2x2

2x4

T5

Biaxial

T8

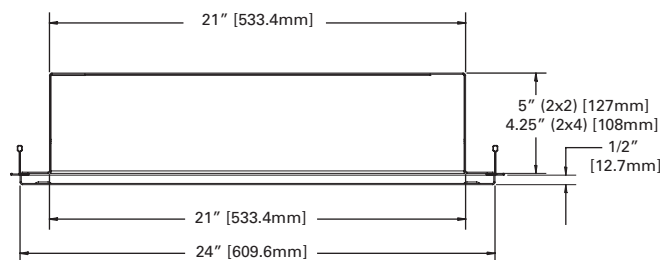
Fluorescent

Confinement/Correctional

RECESSED

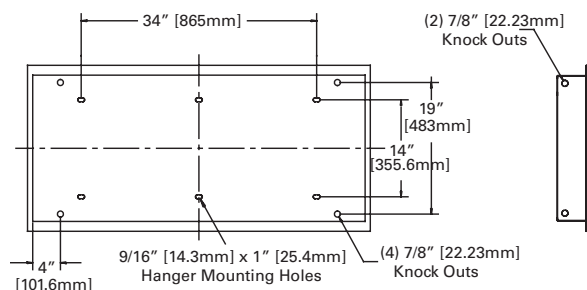
CROSS-SECTION DIMENSIONS

2x2 / 2x4

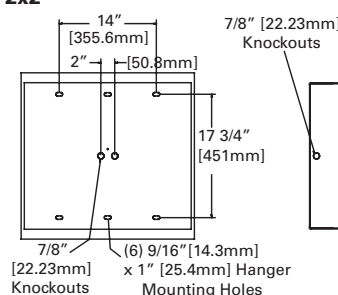


TYPICAL MOUNTING DETAIL

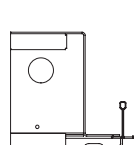
2x4



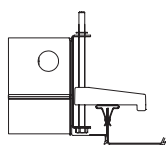
2x2



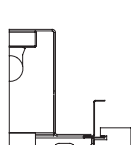
CEILING COMPATIBILITY



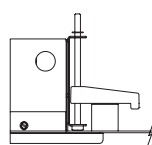
T-Grid (TG)



Metal Pan (MP)



Concealed Z-Spine (CZ)



Security Ceiling (SC)

Electronic Ballast Data
Consult Cooper Lighting Representative

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ORDERING INFORMATION

SAMPLE NUMBER: FSR-TG-X24-232-UNV-80/86-EB81-GLR

Product Family	Ceiling Type	Door	Fixture Width	Lamp Type	Voltage	Lens Type	Ballast	Options
FSR			24			/		
<div> <div> FSR = Maximum Security Recessed Luminaire </div> <div> TG =T-Grid ⁶ MP=Metal Pan ^{1, 5} CZ=Concealed Z-Spline ⁶ SC=Security Ceiling ^{7, 8, 9, 10} </div> <div> S=12 ga. (Ultimax) X=14 ga. (Maximum) D=16 ga. (Medium) N=18 ga. (Minimum) </div> <div> 24=24" Wide </div> </div> <div> <div> 2' Nom. Length T5 Fluorescent ⁴ 214=(2) 14W Lamps 224=(2) 24W Lamps 314=(3) 14W Lamps 324=(3) 24W Lamps 414=(4) 14W Lamps 424=(4) 24W Lamps 614=(6) 14W Lamps 624=(6) 24W Lamps </div> <div> 120=120V 277=277V UNV=120 -277V 347=347V </div> <div> Inner Layer ³ (Optional) 90=0.005 UV Absorbing Overlay Fixture Side 80 = 0.125 Prismatic Acrylic 81=0.156 Prismatic Polycarbonate 82=0.187 Prismatic Polycarbonate 93=0.156 Prismatic Tempered Glass Environmental Side ³ 84 =0.125 Clear Polycarbonate 85=0.187 Clear Polycarbonate 86 =0.250 Clear Polycarbonate 87 = 0.375 Clear Polycarbonate 88=0.500 Clear Polycarbonate 94=0.187 Clear Tempered Glass 96=0.250 Clear Tempered Glass 97=0.375 Clear Tempered Glass 98=0.500 Clear Tempered Glass </div> <div> Electronic Ballast ² EB51=(1) Ballast for use with T5 Lamp EB52=(2) Ballasts for use with T5 Lamp EB81=(1) Ballast for use with T8 Lamp EB82=(2) Ballasts for use with T8 Lamp EBX1=(1) Ballast for use with Biaxial Lamp EBX2=(2) Ballasts for use with Biaxial Lamp </div> <div> EL4 =EM Pack, T8, BX EL5 =EM Pack, T5, T5HO FNL=Fluorescent Night Light, 5, 7, 9 Watt FNL13=Fluorescent Night Light, 13 Watt LNL =LED Night Light GLR=Fuse and Holder CPHF=Concealed piano hinge, full length 14G =14-Gauge Housing RGT =Removable Gear Tray WL = Wet Location Stainless Steel Door SSN=Natural Brushed Finish SSP=Polyester Powder Coat Finish Fasteners SF3=Allen-Head (center pin reject) Mounting Options SWBR=Swing-out Brackets ⁴ YMF =Yoke Mounting Frame ² </div> </div> <div> <div> 4' Nom. Length T5 Fluorescent 228=(2) 28W Lamps 254=(2) 54W Lamps 328=(3) 28W Lamps 354=(3) 54W Lamps 428=(4) 28W Lamps 454=(4) 54W Lamps 628=(6) 28W Lamps 654=(6) 54W Lamps T8 Fluorescent 232 =(2) 32W Lamps 332 =(3) 32W Lamps 432 =(4) 32W Lamps 632 =(6) 32W Lamps </div> <div> T8 Fluorescent 217=(2) 17W Lamps 317=(3) 17W Lamps 417=(4) 17W Lamps 617=(6) 17W Lamps Biaxial Fluorescent 240BX =(2) 40W Lamps 340BX =(3) 40W Lamps 440BX =(4) 40W Lamps T8 U-Lamp 2U1 5/8 =(2) 31W Lamps 3U1 5/8 =(3) 31W Lamps 2U6T8=(2) 32W Lamps </div> </div>								

- Notes:**

¹ For metal pan ceilings, ceiling system specifications are required to assure compatibility. Signed submittal drawings may be required.

² For specific electronic ballast, specify brand and catalog number.

³ See Lens Ordering Guide for other available lens choices.

⁴ (2) T5 ballasts or (1) T5 ballast and (1) EBP maximum. Additional electrical components will require back-box which will increase fixture height and may cause extended delivery lead-time. Consult factory for exact dimensions.

⁵ MP ships with swing-out brackets standard. For yoke mounting fram, specify YMF.

⁶ TG and CZ ship without swing-out brackets or yoke mounting frame. Please specify SWBR or YMF if required.

⁷ SC ships with swing-out brackets standard. For yoke mounting frames, specify YMF.

⁸ SC designed for security ceilings that consist of metal "panels", either solid or perforated. A hole is cut in the "panel", and the fixture is placed below the cut-out, and pulled towards the ceiling by the SWBRs. Door frame protrudes below ceiling line, and fully conceals fixture/housing.

⁹ Ceiling cut-out dimensions; 2' x 2': 23-1/4" x 24-1/4", 2' x 4': 23-1/4" x 48-1/4"

¹⁰ Fixture ships with (4) swing-out brackets standard.
- Accessories (Order separately.)**

9306 =Allen-Head Wrench
VRSD=T20 Center Pin Tamperproof TORX ® - head screwdriver