

## DESCRIPTION

The Fail-Safe FMR 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 FMR 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 with center pin reject standard. Allen-head screws with center pin reject 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%.

### Hinge

Concealed piano hinge optional.

### 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.

### Mounting

Specify Yoke Mounting Frame (YMF) or Swing-Out Brackets (SWBR).

### Mounting Yoke Assembly

16 ga., galvanized steel plaster frame assembly (see Accessories).

### 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

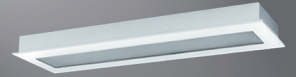
Lens secured by thru-studs and vertically adjustable internal CRS hold-downs.

### Ballast

Electronic Class P, CBM/ETL ballast.

### Labels

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



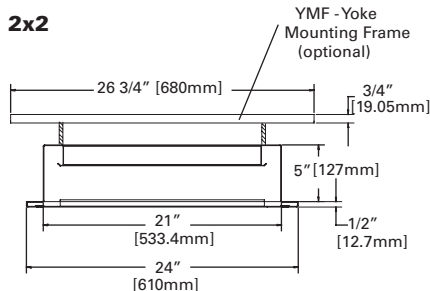
## FMR24

2 x 2  
2 x 4  
T5  
Biaxial  
T8  
Fluorescent  
Confinement/Correctional

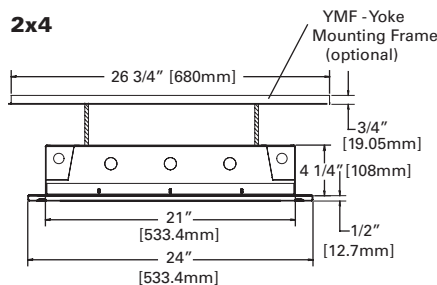
## RECESSED FLANGE

## CROSS-SECTION DIMENSIONS / SHOWN WITH OPTIONAL YOKE MOUNTING FRAME - YMF

### 2x2

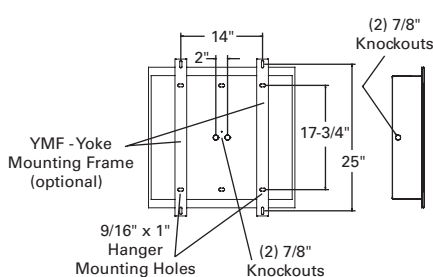


### 2x4

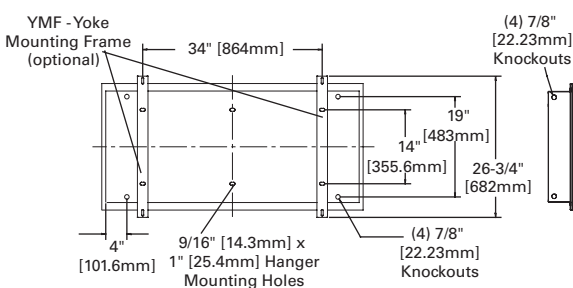


## TYPICAL MOUNTING DETAIL / SHOWN WITH OPTIONAL YOKE MOUNTING FRAME - YMF

### 2' x 2'

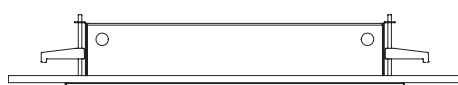


### 2' x 4'



## OPTIONAL SWING-OUT BRACKET (SWBR)

### 2' x 2' / 2' x 4'



## CEILING CUTOUT DIMENSIONS

Ceiling Cutout	Width	Length
2' x 2'	23-1/4"	24-1/4"
2' x 4'	23-1/4"	48-1/4"

**Electronic Ballast Data**  
Consult Cooper Lighting Representative

TORX® is a registered trademark of Camcar Division of Textron Inc.

## ORDERING INFORMATION

SAMPLE NUMBER: FMR-X24-332-UNV-80/86-EB81-GLR

Fixture ships with no mounting hardware, unless specified in "mounting options"

Product Family	Door	Fixture Width	Lamp Type	Voltage	Lens Type	Ballast	Options	Accessories
<b>FMR</b>		<b>24</b>			<b>/</b>			
<div> <b>FMR</b><sup>5</sup>   <b>S</b>=12 ga. (Ultimax)  <b>X</b>=14 ga. (Maximum)  <b>D</b>=16 ga. (Medium)  <b>N</b>=18 ga. (Minimum)   <b>24</b>=24" Wide </div> <div> <b>2' Nom. Length</b>  <b>T5 Fluorescent</b><sup>3</sup>  <b>214</b>=(2) 14W Lamp  <b>314</b>=(3) 14W Lamps  <b>414</b>=(4) 14W Lamps  <b>614</b>=(6) 14W Lamps  <b>224</b>=(2) 24W Lamps  <b>324</b>=(3) 24W Lamps  <b>424</b>=(4) 24W Lamps  <b>624</b>=(6) 24W Lamps   <b>T8 Fluorescent</b>  <b>217</b>=(2) 17W Lamp  <b>317</b>=(3) 17W Lamps  <b>417</b>=(4) 17W Lamps  <b>617</b>=(6) 17W Lamps   <b>Biaxial Fluorescent</b>  <b>240BX</b>=(2) 40W Lamp  <b>340BX</b>=(3) 40W Lamps  <b>440BX</b>=(4) 40W Lamps </div> <div> <b>2' Nom. Length</b>  <b>T5 Fluorescent</b>  <b>214</b>=(2) 14W Lamp  <b>314</b>=(3) 14W Lamps  <b>414</b>=(4) 14W Lamps  <b>614</b>=(6) 14W Lamps  <b>224</b>=(2) 24W Lamps  <b>324</b>=(3) 24W Lamps  <b>424</b>=(4) 24W Lamps  <b>624</b>=(6) 24W Lamps   <b>T8 Fluorescent</b>  <b>217</b>=(2) 17W Lamp  <b>317</b>=(3) 17W Lamps  <b>417</b>=(4) 17W Lamps  <b>617</b>=(6) 17W Lamps   <b>Biaxial Fluorescent</b>  <b>240BX</b>=(2) 40W Lamp  <b>340BX</b>=(3) 40W Lamps  <b>440BX</b>=(4) 40W Lamps </div> <div> <b>4' Nom. Length</b>  <b>T5 Fluorescent</b>  <b>228</b>=(2) 28W Lamp  <b>328</b>=(3) 28W Lamps  <b>428</b>=(4) 28W Lamps  <b>628</b>=(6) 28W Lamps   <b>T5 Fluorescent</b>  <b>254</b>=(2) 54W Lamp  <b>354</b>=(3) 54W Lamps  <b>454</b>=(4) 54W Lamps  <b>654</b>=(6) 54W Lamps   <b>T8 Fluorescent</b>  <b>232</b>=(2) 32W Lamp  <b>332</b>=(3) 32W Lamps  <b>432</b>=(4) 32W Lamps  <b>632</b>=(6) 32W Lamps </div> <div> <b>120</b>=120V  <b>277</b>=277V  <b>UNV</b>=120V-277V  <b>347</b>=347V   <b>Inner Layer (optional)</b><sup>2</sup> / <b>Environmental Side</b><sup>2</sup>  <b>90</b>=0.005 UV Absorbing Overlay  <b>Fixture Side</b>  <b>80</b>=0.125 Prismatic Acrylic  <b>81</b>=0.156 Prismatic Polycarbonate  <b>82</b>=0.187 Prismatic Polycarbonate  <b>93</b>=0.156 Prismatic Tempered Glass   <b>84</b>=0.125 Clear Polycarbonate  <b>85</b>=0.187 Clear Polycarbonate  <b>86</b>=0.250 Clear Polycarbonate  <b>87</b>=0.375 Clear Polycarbonate  <b>88</b>=0.500 Clear Polycarbonate  <b>94</b>=0.187 Clear Tempered Glass  <b>96</b>=0.250 Clear Tempered Glass  <b>97</b>=0.375 Clear Tempered Glass  <b>98</b>=0.500 Clear Tempered Glass </div> <div> <b>Electronic Ballasts</b><sup>1</sup>  <b>EB81</b>=One Ballast for use with T8 Lamp  <b>EB82</b>=Two Ballasts for use with T8 Lamp  <b>EB83</b>=Three Ballasts for use with T8 Lamp  <b>EBX1</b>=One Ballast for use with Biaxial Lamp  <b>EBX2</b>=Two Ballasts for use with Biaxial Lamp  <b>EB51</b>=One Ballast for use with T5 Lamp  <b>EB52</b>=Two Ballasts for use with T5 Lamp  <b>EB53</b>=Three Ballasts for use with T5 Lamp   <b>Notes:</b>  <sup>1</sup> For specific electronic ballast specify brand and catalog number.  <sup>2</sup> See Lens Ordering Guide for other available lens choices.  <sup>3</sup> (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.  <sup>4</sup> Yoke Mounting Frame consists of (2) C-channel frames 26-3/4" length, with (4) 3-1/2" bolts and nuts to attach the YMF to the fixture housing. Installer typically attaches the YMFs to a rigid structure above, using the (2) out-board holes in the YMF.  <sup>5</sup> Fixture does not include mounting hardware. SWR, YMF options or PF accessory required.  <sup>6</sup> Voltage specific. </div> <div> <b>EL4</b>=EM Pack, T8, Biax  <b>EL5</b>=EM Pack, T5, T5HO  <b>FNL</b>=Fluorescent Night Light - 5, 7, 9 Watt<sup>6</sup>  <b>FNL13</b>=Fluorescent Night Light - 13 Watt<sup>6</sup>  <b>LNL</b>=LED Night Light  <b>GLR</b>=Fuse and Holder  <b>14G</b>=14-Gauge Housing  <b>CPHF</b>=Concealed piano hinge, full length  <b>RGT</b>=Removable Gear Tray  <b>WL</b>= Wet Location   <b>Mounting Options</b>  <b>SWBR</b>=Swing-out brackets (4)  <b>YMF</b>=Yoke Mounting Frame (2)<sup>4</sup>   <b>Stainless Steel Door</b>  <b>SSN</b>=Natural Brushed Finish  <b>SSP</b>=Polyester Powder Coat Finish   <b>Fasteners</b>  <b>SF3</b>=Allen-Head (center pin reject)   <b>9306</b>=Allen-Head Wrench  <b>PF24-2FT</b>=Plaster Frame and Yoke Assembly  <b>PF24-4FT</b>=Plaster Frame and Yoke Assembly  <b>VRSD</b>=T20 Center Pin Tamperproof  <b>TORX</b>® - head screwdriver </div>								