



**Date: Feb 21, 2019**

Electra Sales Ltd  
1810 E. Turvey Rd.  
Regina SK S4N-2G7  
Phone: (306) 791-0266  
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Job Name  
**REGIONAL PSYCHIATRIC CENTRE - CHURCHILL AND BOW UNIT REDEVELOPMENT  
PHASE 2**  
ESL19-61656  
SASKATOON SK

Bid Date  
Mar 6, 2019

Submittal Date  
Feb 21, 2019

*Engineer:*  
WSP GROUP INC.  
203 WELLMAN CRESCENT  
SASKATOON SK S7T 0J1



# Transmittal

Electra Sales Ltd  
1810 E. Turvey Rd.  
Regina SK S4N-2G7  
Phone: (306) 791-0266  
**From: Scott Harrower**

**Project** REGIONAL PSYCHIATRIC CENTRE -  
CHURCHILL AND BOW UNIT  
REDEVELOPMENT PHASE 2

**Quote#** ESL19-61656

**Location** SASKATOON SK  
Contact:

ATTACHED WE ARE SENDING YOU 1 COPY OF THE FOLLOWING ITEM:

- |                                              |                                                |        |
|----------------------------------------------|------------------------------------------------|--------|
| <input checked="" type="checkbox"/> Drawings | <input type="checkbox"/> Specifications        | Other: |
| <input type="checkbox"/> Prints              | <input type="checkbox"/> Information           |        |
| <input type="checkbox"/> Plans               | <input checked="" type="checkbox"/> Submittals |        |

THESE ARE TRANSMITTED FOR:

- |                                                    |                                                   |                                 |
|----------------------------------------------------|---------------------------------------------------|---------------------------------|
| <input checked="" type="checkbox"/> Prior Approval | <input type="checkbox"/> Resubmittal for Approval | <input type="checkbox"/> Record |
| <input type="checkbox"/> Approval                  | <input type="checkbox"/> Corrections              | Bids due on:                    |
| <input type="checkbox"/> Approval as Submitted     | <input type="checkbox"/> Your Use                 | Other:                          |
| <input type="checkbox"/> Approval as Noted         | <input type="checkbox"/> Review and Comment       |                                 |

**Type**  
CC

**MFG**  
FAIL-SAFE

**Part**  
FMR-S12-4-LD4-1HI-35-UNV-80/84-  
EDD1

## APPROVAL OF EQUIVALENCY

GRANTED ON BASIS OF MANUFACTURER,  
PRODUCT MUST MEET ALL SPECIFIED  
REQUIRMENTS.

Per: Taylor McKenzie Date: Mar 20, 2019

**wsp**

## Fail-Safe

### DESCRIPTION

The Fail-Safe FMR LED 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. ETL listed for damp locations. The FMR LED is ideal for confinement/security applications. Suitable for use in inmate cells, psychiatric wards, secure corridors and general population areas.

### 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

Fixture provided with (2) stainless steel aircraft cables to attach door to housing. 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 optional Yoke Mounting Frame (YMF) or Swing-Out Brackets (SWBR). Eye-bolt kit for 4-point attachment to rigid structure above, included standard.

#### 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.

#### LEDs

LEDs available in 3500k, 4000k, 5000k with CRI > 85. Projected life is 50,000 hours at 70% lumen maintenance.

#### Lens Retention

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

#### Transformer/Driver

Electronic driver 120-277V. 0-10V dimming standard.

#### Labels

ETL listed for damp locations. Wet location under covered ceiling optional.



## FMR LED

### LD4 LED

1' Width  
2' Width  
Confinement/Correctional

### SECURITY

Recessed Flange

### NOMINAL INPUT WATTS/DELIVERED LUMENS (80/86 SHIELDING)

Fixture Size	# Modules	Level	(80/86 shielding)		Fixture Size	# Modules	Level	(80/86 shielding)	
			Nominal Input Watts	Nominal Delivered Lumens				Nominal Input Watts	Nominal Delivered Lumens
1' x 1'	1	STD	12.3	800		1	LO	26.2	1808
	2	STD	24.6	1600		1	STD	36.6	2488
1' x 2'	1	LO	13.1	904	1' x 4'	1	HI	47.2	3166
	1	STD	18.3	1245		2	LO	52.4	3595
	1	HI	23.6	1583		2	STD	73.2	4980
	2	LO	26.2	1810					
	2	STD	36.6	2490					
2' x 2'	3	LO	39.3	2715	2' x 4'	3	LO	78.6	5430
	3	STD	54.9	4325		3	STD	109.8	7495
	3	HI	70.8	4849		3	HI	141.8	9577
	4	LO	52.4	3620		4	LO	104.8	7215
	4	STD	73.2	4980		4	STD	146.4	9960

Nominal input wattage values include LED voltage, drive current, and typical driver efficiency. Refer to LM79 data/photometric files for exact delivered lumen values and input wattage. Values in table are nominal values only.

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

**Job Name:**

REGIONAL PSYCHIATRIC CENTRE - CHURCHILL  
AND BOW UNIT REDEVELOPMENT PHASE 2  
Engineer: WSP GROUP INC. (SASKATOON)

**Catalog Number:**

FMR-S12-4-LD4-1HI-35-UNV-80/84-  
EDD1

Notes:

**Type:****CC**

ESL19-61656

**ORDERING INFORMATION****FMR LED**

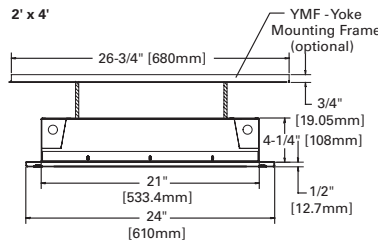
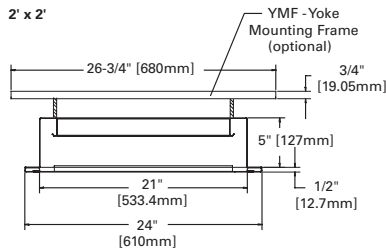
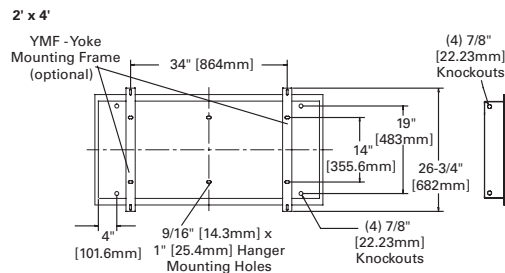
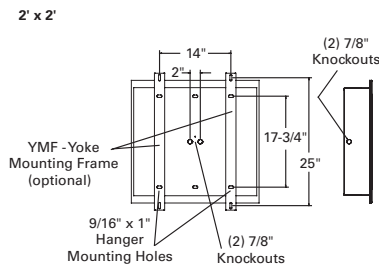
SAMPLE NUMBER: FMR-X24-4-LD4-4STD-40-80/86-EDC1 or FMR-S12-2-LD4-2LO-50-82/87-EDD1

Product Family	Door	Width	Length	LED	No. of LED	Illumination Level	Color Temp.	Voltage	Inner/Outer Lens	Driver	No. of Circuits	Options	Accessories
<b>FMR</b>				<b>LD4</b>					/				
FMR													
S=12 ga. X=14 ga. D=16 ga. N=18 ga.													
24=24" Wide 12=12" Wide													
1=1' Length (1' x 1' only) 2=2' Length 4=4' Length													
LD4=LED													
1=(1) LED Module 2=(2) LED Modules 3=(3) LED Modules (24" width only) 4=(4) LED Modules (24" width only)													
STD=Standard LO=Low HI=High <sup>5</sup>													
35=3500K 40=4000K 50=5000K													
<b>UNV=120-277V</b> <b>Lens Type</b> <b>Inner Layer (optional)</b> 90=0.005 UV Absorbing Overlay <b>Fixture Side</b> 80=0.125 Prismatic Acrylic 81=0.156 Prismatic Polycarbonate 82=0.187 Prismatic Polycarbonate 93=0.156 Prismatic Tempered Glass <b>Environmental Side</b> 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													
<b>Driver</b> EDC=Electronic Driver, Non-dimming EDD=Electronic Driver, 0-10V Dimming 10% ED1D=Electronic Driver, 0-10V Dimming 1% <b>Circuits</b> 1=1 Circuit 2=2 Circuits 3=3 Circuits													
EL10W=10W Emergency Battery Pack 3, 4, 6 LLNL=Linear LED Night Light, Dimmable GLR=Fuse and Holder 14G=14 Gauge Housing CPHF=Continuous Piano Hinge, Full Length WL=Wet Location Under Covered Ceiling <b>Mounting Options</b> SWBR=Swing-out Brackets (4) YMF=Yoke Mounting Frame (2) <b>Stainless Steel Door</b> SSN=Natural Brushed Finish SSP=Polyester Powder Coat Finish <b>Fasteners</b> SF3=Allen-Head (center pin reject)													
9306=Allen-Head Wrench PF24-2FT=Plaster Frame and Yoke Assembly PF24-4FT=Plaster Frame and Yoke Assembly VRSD=T20 Center Pin Tamperproof TORX® - head screwdriver													

Default fixture includes eye-bolt kit. Does not include SWBR or YMF Mounting hardware found in "Mounting Options". Specify "SWBR" or "YMF" if necessary.

**Notes:**

- See Lens Guide for additional lens choices.
- YMF consists of (2) C-channel frames, with (4) 3-1/2" bolts and nuts to attach YMF to fixture housing. YMF's attach to rigid structure above.
- EM not available 1' x 1' or 1' x 2'. May be necessary to mount EM on back of 2' x 2' fixture adding 2" to fixture depth.
- EM only available in "LO" or "STD" illumination levels.
- 24" width fixture, 4HI not available. 12" width fixture, 2HI not available.
- Specify voltage.
- LLNL not available on 1x1.

**2' WIDTH CROSS-SECTION DIMENSIONS / SHOWN WITH OPTIONAL YOKE MOUNTING FRAME - YMF****2' WIDTH TYPICAL MOUNTING DETAIL / SHOWN WITH OPTIONAL YOKE MOUNTING FRAME - YMF****2' WIDTH OPTIONAL SWING-OUT BRACKET (SWBR)**

2' x 2' / 2' x 4'

**2' WIDTH CEILING CUTOUT DIMENSIONS**

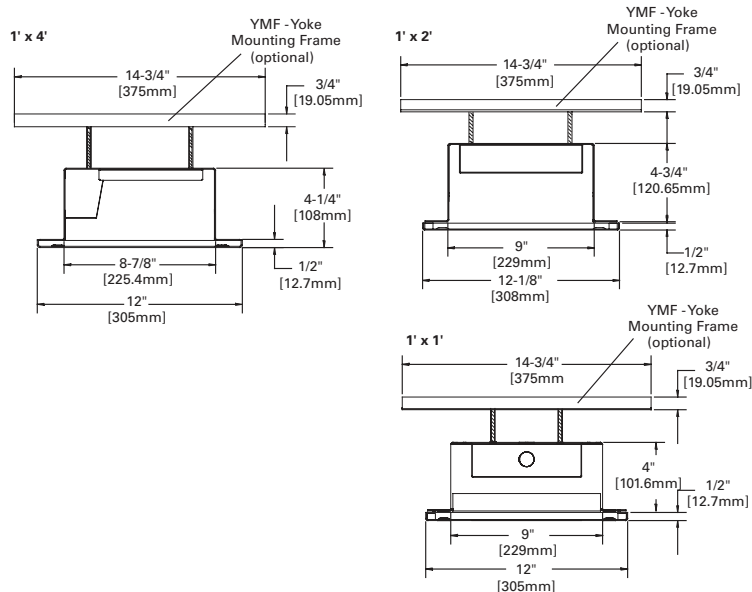
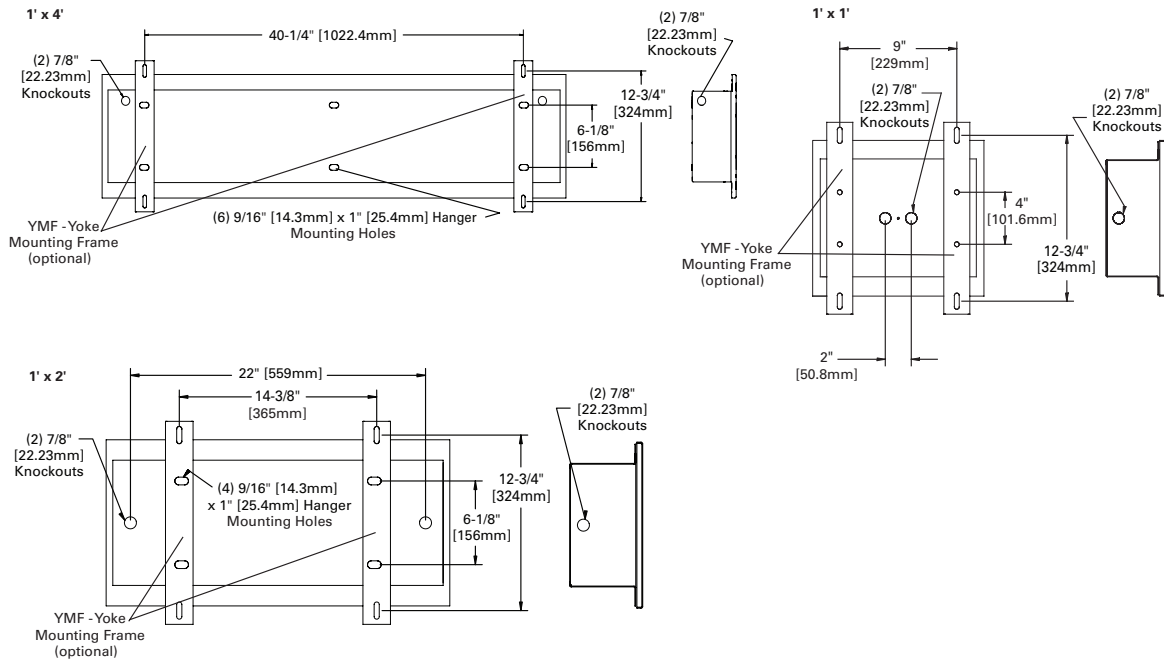
Ceiling Cutout	Width	Length
2' x 2'	23-1/4"	24-1/4"
2' x 4'	23-1/4"	48-1/4"

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**FMR-S12-4-LD4-1HI-35-UNV-80/84-  
EDD1**

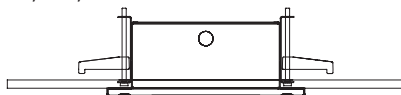
Notes:

**Type:****CC**

ESL19-61656

**FMR LED****1' WIDTH CROSS-SECTION DIMENSIONS / SHOWN WITH OPTIONAL YOKE MOUNTING FRAME - YMF****1' WIDTH TYPICAL MOUNTING DETAIL / SHOWN WITH OPTIONAL YOKE MOUNTING FRAME - YMF****1' WIDTH OPTIONAL SWING-OUT BRACKET (SWBR)**

1' x 1', 1' x 2', 1' x 4'

**1' WIDTH CEILING CUTOUT DIMENSIONS**

Ceiling Cutout	Width	Length
1' x 1'	10-1/2"	12-1/2"
1' x 2'	10-1/2"	24-1/2"
1' x 4'	10-1/2"	48-1/2"