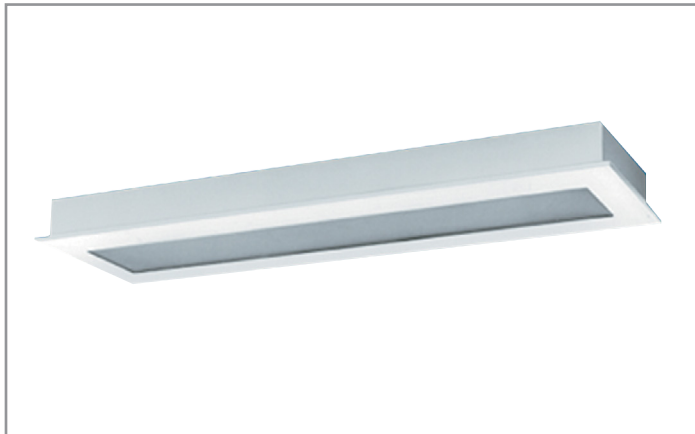


Project		Catalog #		Type	
Prepared by		Notes		Date	



Fail-Safe

FSR | LD4 LED

Confinement/Correctional Security
Recessed Grid LED
1' x 1', 1' x 2' and 2' x 2'

Typical Applications

Office • Healthcare • Hospitality • Industrial • Manufacturing

Interactive Menu

- Order Information [page 2](#)
- Product Specifications [page 2](#)
- Nominal Input Watts/Delivered Lumens [page 3](#)
- Product Warranty

Product Certification



Product Features

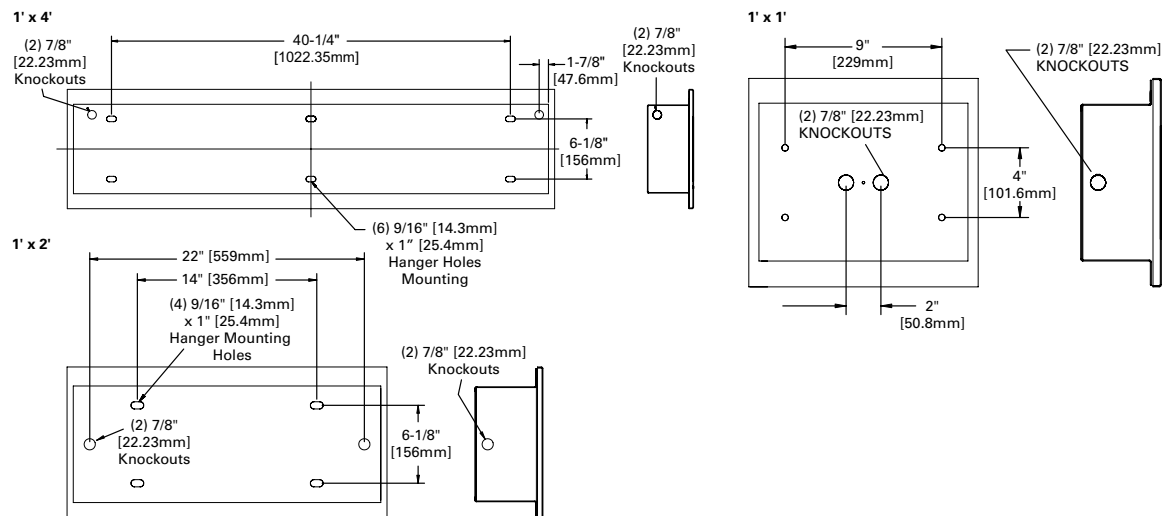


Top Product Features

- For use with grid, metal pan or concealed Z-spline ceilings
- Die-formed 16-gauge one-piece housing (14-gauge option); 12- to 18-gauge door
- Prismatic acrylic, polycarbonate or tempered glass lens
- Optional installation swing-out brackets or yoke mounting frames
- 3500K, 4000K and 5000K CCT; 80 CRI minimum
- Options to meet Buy American and other domestic preference requirements

Dimensional and Mounting Details

1' WIDTH TYPICAL MOUNTING DETAIL



[additional product diagrams](#)

Order Information

SAMPLE ORDER NUMBER: **FSR-TG-X24-4-LD4-4STD-40-80/86-EDC1**

Domestic Preferences	Product Family	Ceiling Type	Door	Width	Length	LED	No. of LEDs	Illumination Level	Color Temperature
Domestic Preferences ⁽⁸⁾	Product Family	Ceiling Type	Door	Width	Length	LED	No. of LEDs	Illumination Level	Color Temperature
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act Compliant	FSR	TG=T-grid ⁽³⁾ CZ=Concealed Z-spline ⁽³⁾ SC=Security Ceiling ^{(4), (5)}	S=12 ga. (Ultimax) X=14 ga. (Maximum) D=16 ga. (Medium) N=18 ga. (Minimum)	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 ⁽⁷⁾	30=3000K 35=3500K 40=4000K 50=5000K
Notes (8) Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.		Notes (3) TG and CZ ship without swing-out brackets or yoke mounting frame. Please specify SWBR or YMF if required. (4) SC ships with swing-out brackets standard. For yoke mounting frames, specify YMF. (5) 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 above. Door frame protrudes below ceiling line, and fully conceals fixture/housing.						Notes (7) 24" width fixture, 4HI not available. 12" width fixture, 2HI not available.	

Voltage	Inner Lens	Outer Lens	Driver	No. of Circuits	Options	Accessories
Voltage	Inner Lens	Outer Lens	Driver	No. of Circuits	Options	Accessories ⁽⁹⁾
UNV=120-277V	Lens Type Inner Layer (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 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	EDC =Electronic Driver, Non-Dimming EDD =Electronic Driver, 0-10V Dimming 10% ED1D =Electronic Driver, 0-10V Dimming 1%	1=1 Circuit 2=2 Circuits 3=3 Circuits	EL7W=7W Emergency Battery Pack ^{(1), (6)} EL10W=10W Emergency Battery Pack ^{(1), (6)} EL14W=14W Emergency Battery Pack ^{(1), (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 AM=Anti-microbial matte white finish 90=90crl Mounting Options SWBR=Swing-out Brackets (4) YMF=Yoke Mounting Frame (2) ⁽²⁾ Stainless Steel Door SSN=Natural Brushed Finish SSP=Polyester Powder Coat Finish Fasteners SF3=Allen-Head (center pin reject)	9306=Allen-Head Wrench VRSD=T20 Center Pin Tamperproof TORX® - head screwdriver
					Notes (1) Emergency not available 1' x 1' or 1' x 2'. May be necessary to back mount Emergency on 2' x 2' fixtures using a backbox, causing fixture depth to increase by 2". (2) YMF consists of (2) C-channel frames, with (4) 3-1/2" bolts and nuts. Not valid with 2x2 fixture with back box. (6) Emergency available with "LO" or "STD" illumination levels only.	Notes (9) Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

Product Specifications

Application

- Confinement/correctional luminaire suitable for use in:
 - Inmate cells
 - Psychiatric wards
 - Secure corridors
 - General population areas

Housing

- Die-formed 16-gauge CRS body construction; 14-gauge option
- One-piece, seamless housing
- Continuous welded corners
- Maximum impact resistance and prevention of unauthorized fixture penetration
- High gloss, electrostatically applied, White powder coat finish
- Average minimum reflectance 92%

Fasteners and Hinge

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

- Two stainless steel aircraft cables to attach door to housing is provided
- Concealed piano hinge to prevent removal optional

Door and Light Mask

- One-piece, CRS door frame with die-formed edges
- Available in 12-, 14-, 16- or 18-gauge
- Tightly closed corners increase rigidity
- Aircraft cable secures door to housing
- Gasketing around door prevents light leaks

Lens and Lens Retention

- Choice of prismatic acrylic, prismatic polycarbonate or prismatic tempered glass on fixture side
- Clear polycarbonate or clear tempered glass on environmental side (see lens options)
- Lens secured by thru-studs
- Vertically adjustable internal CRS hold-downs

LEDs

- Available in 3500K, 4000K and 5000K; 80 CRI minimum

- Choice of Standard, Low or High illumination levels
- Projected life is 50,000 hours at 70% lumen maintenance

Electrical

- Electronic driver 120-277V, dimming driver standard
- 0-10V dimming down to 1% or 10%
- Non-dimming available

Compliances

- cULus listed for damp locations
- Wet location listed under covered ceiling optional

Warranty

- Five year limited warranty on LEDs and Electrical, consult website for details. www.cooperlighting.com/legal

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Nominal Input Watts/Delivered Lumens

[View IES files](#)

*CRI: 80; CCT: 4000				80/84 Shielding	
Fixture Size	# Modules	Level	Nominal Input Watts	Nominal Delivered Lumens	LPW
1' x 1'	1	LO	5.85	593	101.4
	1	STD	8.325	795	95.5
	1	HI	10.8	975	90.3
	2	LO	11.7	1187	101.5
	2	STD	16.65	1589	95.4
	2	HI	21.6	1950	90.3
1' x 2'	1	LO	11.7	1150	98.3
	1	STD	16.65	1541	92.6
	1	HI	21.6	1890	87.5
	2	LO	23.4	2301	98.3
	2	STD	33.3	3081	92.5
	2	HI	43.2	3779	87.5
1' x 4'	1	LO	23.4	2505	107.1
	1	STD	33.3	3355	100.8
	1	HI	43.2	4115	95.3
	2	LO	46.8	5010	107.1
	2	STD	66.6	6709	100.7
	2	HI	86.4	8229	95.2
2' x 2'	1	LO	11.7	1472	125.8
	1	STD	16.65	1971	118.4
	1	HI	21.6	2417	111.9
	2	LO	23.4	2943	125.8
	2	STD	33.3	3941	118.3
	2	HI	43.2	4834	111.9
	3	LO	35.1	4415	125.8
	3	STD	49.95	5912	118.4
	3	HI	64.8	7252	111.9
	4	LO	46.8	5886	125.8
	4	STD	66.6	7883	118.4
	4	HI	86.4	9669	111.9
2' x 4'	1	LO	23.4	2943	125.8
	1	STD	33.3	3941	118.3
	1	HI	43.2	4834	111.9
	2	LO	46.8	5886	125.8
	2	STD	66.6	7883	118.4
	2	HI	86.4	9669	111.9
	3	LO	70.2	8829	125.8
	3	STD	99.9	11824	118.4
	3	HI	129.6	14503	111.9
	4	LO	93.6	11773	125.8
	4	STD	133.2	15766	118.4
	4	HI	172.8	19338	111.9

Lumen Calculator

CCT	Multiplier
2000	0.673
2700	0.893
3000	0.943
3500	0.99
4000	1
5000	1.017

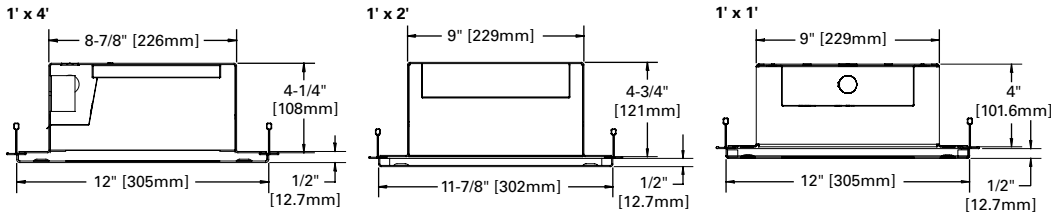
Lens Multiplier Table

	Lens	Multiplier
Fixture Side	80	1
	81	0.95
	82	0.93
	93	1
Environment Side	84	1
	85	0.981
	86	0.969
	87	0.938
	88	0.844
	94	1
	96	0.991
	97	0.956

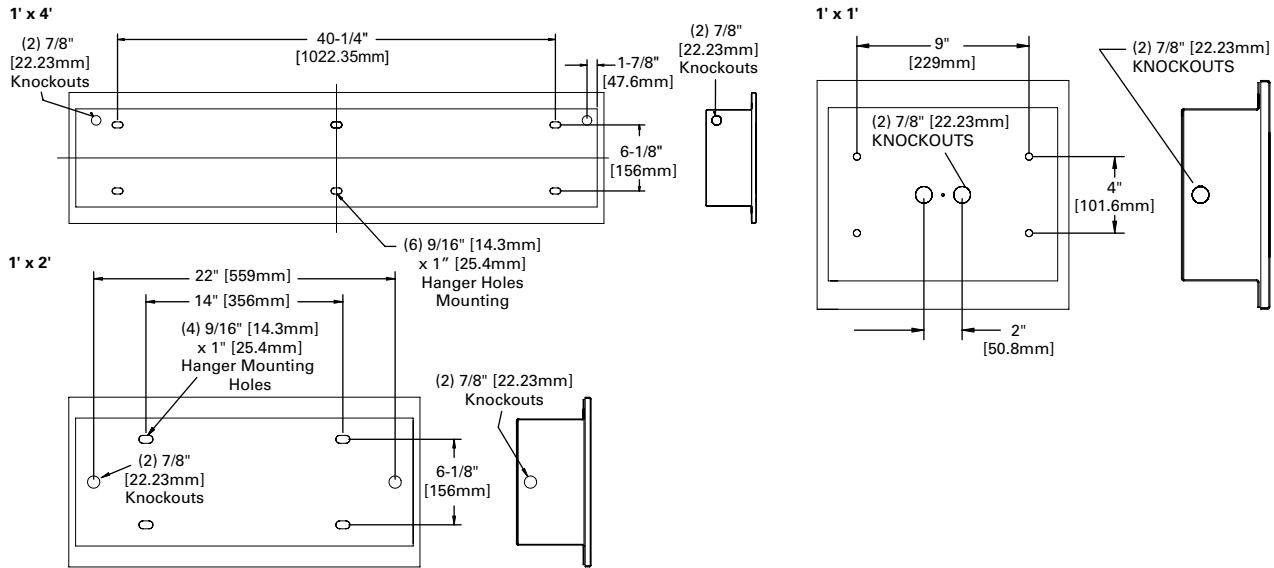
Nominal input wattage values include LED voltage, drive current, and typical driver efficiency. Refer to LM79 data/photometric files for exact delivered lumen values and input wattage. Values in table are nominal values only.

Dimensional and Mounting Details

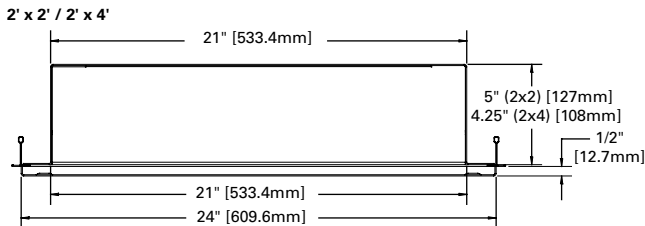
1' WIDTH CROSS-SECTION DIMENSIONS



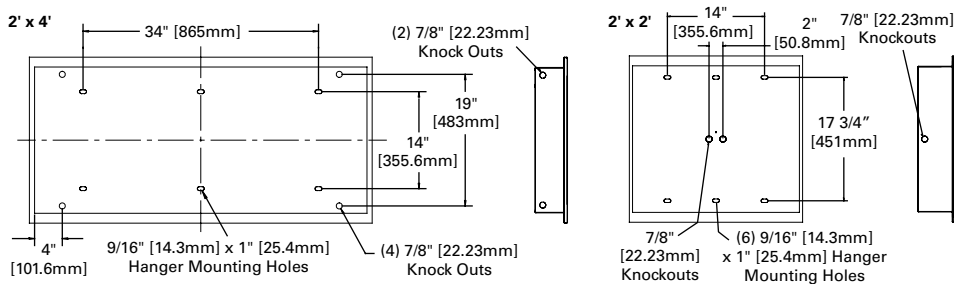
1' WIDTH TYPICAL MOUNTING DETAIL



CROSS-SECTION DIMENSIONS



2' WIDTH TYPICAL MOUNTING DETAIL



CEILING COMPATIBILITY

