

# Fail-Safe

## DESCRIPTION

The Fail-Safe CFL is designed for use in non-laminar air flow clean rooms. The CFL is enclosed and gasketed to maintain ceiling integrity and to protect against infiltration of particles and airborne bacteria. The housing and door are designed to work with standard 1" and 1 1/2" T-grid ceilings. The sealed, hole-free housing and inset door frame allow relamping without contamination of the clean areas. UL/cUL listed for wet locations.

<b>Catalog #</b>		<b>Type</b>
<b>Project</b>		
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		

## SPECIFICATION FEATURES

### Application

The CFL is suitable for use in I.E.S. Class 100, 1,000, 10,000 and 100,000 clean room environments. Applications include clean rooms, technical and biomedical labs, food processing/testing centers and pharmaceutical labs.

### Fasteners

Flush mounted, stainless steel machine screws secure through captive cage nuts in housing and are evenly spaced to compress gasketing on all sides.

### Housing

Die-formed, 20 ga. CRS with tightly butted and seam welded, sealed end caps. Contains no holes that would allow air passage. Standard white high reflectance polyester powder coat finish. Gloss: 85%; Reflectance: 93%; Hardness: 2H; Salt Spray: 500 Hours.

### Finish

High gloss, electrostatically applied, white powder coat finish, average minimum reflectance 92%. 1000 hour salt spray test.

### Hinge

Two braided, stainless steel cables on one side of door provide hinging.

### Door

Fully gasketed, rigid extruded aluminum, inset door with baked white polyester powder coat and mitered corners.

### Gasket

White, closed cell, Flexiseal(TM) gasketing surrounds perimeter of lens to seal lens to door frame and around perimeter of door to seal door to housing. Another layer seals fixture to ceiling system after installation.

### Access

A gasketed access plate on top of the housing with two flattened, 7/8" diameter knockouts allows connection of vapor tight conduit fitting. Optional, above ceiling, top access door for luminaire maintenance is available and ideal for food processing and cleanroom applications.

### Lens

Lens is clear Pattern 12 acrylic with prisms positioned inside fixture and smooth surface on the outside for easy cleaning.

### Lamps

(By Others)

### Lens Retention

Continuous, Flexiseal(TM) gasketing integrates door frame and lens to prohibit contamination exchange between room and fixture.

### Ballast

Electronic Class P, CBM/ETL ballast.

### Listings

UL/cUL listed for wet location under covered ceilings.



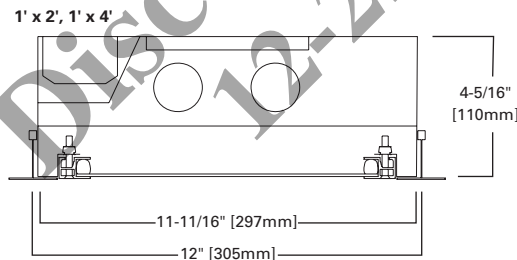
**CFL**

1x2

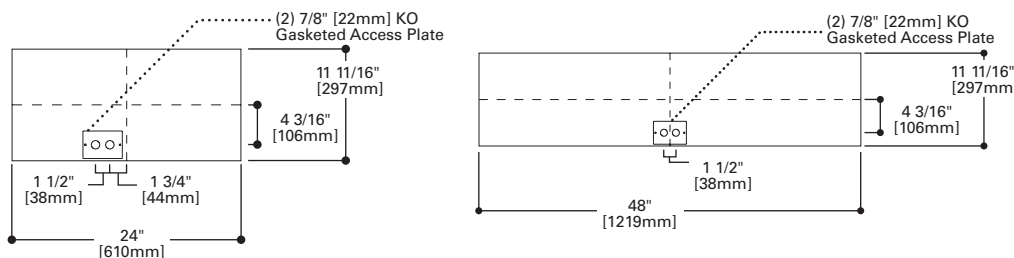
1x4

Cleanroom

**RECESSED GRID  
Inset Flat Door**

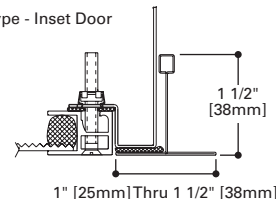


## MOUNTING DIMENSIONS



## DOOR FRAME

Grid Type - Inset Door



## ENERGY DATA

Input Watts:

**STD Ballasts & STD Lamps**

- (1) 40W Biaxial Fluorescent: 45W
- (2) 40W Biaxial Fluorescent: 82W

**ES Ballasts & STD Lamps**

- (1) 17W T8 Fluorescent: 23W
- (2) 17W T8 Fluorescent: 45W
- (3) 17W T8 Fluorescent: 68W
- (1) 32W T8 Fluorescent: 37W
- (2) 32W T8 Fluorescent: 71W
- (3) 32W T8 Fluorescent: 108W

**Electronic Ballast Data**

Consult Cooper Lighting Solutions Representative

ORDERING INFORMATION

SAMPLE NUMBER: CFL-12-228-277-IP12-EB81-SHN

Product Family	Width	Lamp Type	Voltage	Lens Type <sup>4</sup>	Ballast	Inset Door/Finish Options	Options
<b>CFL</b>	<b>12</b>						
<p>CFL=Fluorescent Grid Type</p> <p>12=12" (3 lamp max.)</p>			<p>120= 120V 277=277V 347=347V UNV=120V-277V</p>		<p><b>Electronic Ballast<sup>2</sup></b></p> <p>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=EB1 Ballast for use with Biaxial Lamp EBX2=(2) Ballast for use with Biaxial Lamps</p>	<p>Blank=Aluminum extruded door, white powder coat paint ALX=Aluminum extruded door, clear anodized finish</p>	
<p><b>2' Fixture Length</b></p> <p><b>T5 Fluorescent</b></p> <p>114=(1) 14W Lamps 214=(2) 14W Lamps 314=(3) 14W Lamps 124=(1) 24W Lamps 224=(2) 24W Lamps</p> <p><b>T8 Fluorescent</b></p> <p>117=(1) 17W Lamps 217=(2) 17W Lamps 317=(3) 17W Lamps</p> <p><b>Biaxial Fluorescent</b></p> <p>140BX=(1) 40W Lamps 240BX=(2) 40W Lamps</p>	<p><b>4' Fixture Length</b></p> <p><b>T5 Fluorescent</b></p> <p>128=(1) 28W Lamps 228=(2) 28W Lamps 328=(3) 28W Lamps 154=(1) 54W Lamps 254=(2) 54W Lamps</p> <p><b>T8 Fluorescent</b></p> <p>132=(1) 32W Lamps 232=(2) 32W Lamps 332=(3) 32W Lamps</p>	<p>IK12=Pattern 12 Prismatic Acrylic, 0.110" thick IP12=Pattern 12 Prismatic Polycarbonate, 0.110" thick KSH25= Linear Ribbed Acrylic, 0.115" thick<sup>1</sup> 93=Prismatic Tempered Glass, 0.156" thick</p>	<p><b>NOTES:</b></p> <p>1 The KSH25 provides improved visual performance and wide angle distribution. This lens has an integral prism pattern designed so that prisms face the lamp cavity and still supply superior photometrics. Highly recommended for all high-tech manufacturing environments. 2 For specific electronic ballast, specify brand and catalog number. 3 Contact your Cooper Lighting Solutions Representative for dimensional details. 4 Refer to Lens Ordering Guide for additional lens choices. 5 AM not available with ALX anodized finish.</p>	<p>EL4=EM Pack, T8, BX EL5=EM Pack, T5, T5HO GLR=Fuse and Holder RIF=Radio Frequency Interference Filter TAD=Top Access Door<sup>3</sup> AM=Anti-microbial matte white finish<sup>5</sup></p> <p><b>Housing Options</b></p> <p>ALH=Die formed Aluminum, powder coat painted white SHN=Stainless Steel, Brushed finish SHP=Stainless Steel, powder coat painted white</p>			

Discontinued  
12-21-2022