

Project		Catalog #		Type	
Prepared by		Notes		Date	



# Metalux

## 22FR LED

2' x 2' LED Luminaire  
Premium Recessed Commercial LED Luminaire  
For Use in Insulated Ceilings

### Typical Applications

Commercial office spaces • Schools • Hospitals • Retail merchandising areas

### Interactive Menu

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- Product Warranty

### Top Product Features

- Improved asethetic over traditional prismatic lensed troffer
- 2 x 4 and 2 x 2 product configurations
- Excellent performance with up to 142 lm/W
- Two unique versions - Standard or High Performance (HP)
- 0 to 10V driver (standard), optional step dim, 1%, DALI, and DLVP
- Options to meet Buy American and other domestic preference requirements

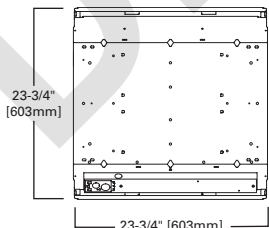
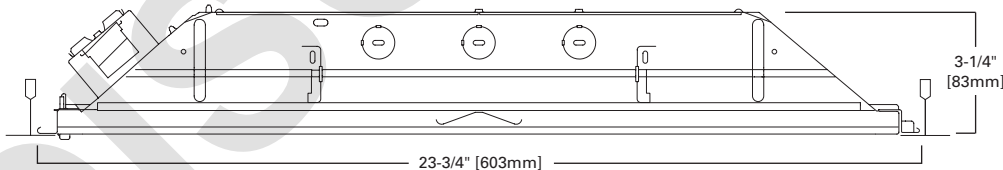
### Product Certification



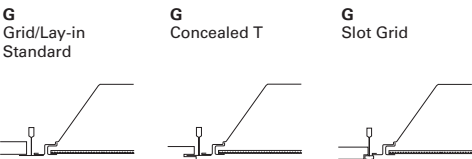
### Product Features



### Dimensional and Mounting Details



### Ceiling Compatibility



Ceiling Type	Trim Type
Exposed Grid	G
Concealed T	G
Slot Grid	G

(Verify compatibility/ consult factory.)

## Order Information

SAMPLE ORDER NUMBER: 22FR-LD4-32-UNV-L835-CD1-U

Domestic Preferences	Rating	Width/Length	Series	Door Frame	LED Type	LED Lumens Output	Shielding	Voltage
Domestic Preferences <sup>(1)</sup>	Rating	Width/Length	Series <sup>(2)</sup>	Door Frame	LED Type	LED Lumens Output <sup>(3)</sup>	Shielding	Voltage <sup>(4)</sup>
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act	[Blank]=Standard ATW-SW4=Chicago Rated	22=2' x 2'	FR=Premium Commercial Luminaire	Standard=Flat White Steel Door (Leave Blank)	LD4=LED 4.0	Stock 32=3200 MTQ 24=2400	[Blank]=Curved Frosted Acrylic Lens (standard) HP=High Performance, Curved Frosted Acrylic Lens	347V=347 Volt UNV=Universal Voltage 120-277 48V=48 Volt Low-voltage (Class 2) <sup>(5)</sup> 120V=120 Volt <sup>(5)</sup> 277V=277 Volt <sup>(5)</sup>
Notes  (1) 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 <a href="#">DOMESTIC PREFERENCES</a> website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.			Notes  (2) DesignLights Consortium® Qualified and classified for both DLC Standard and DLC Premium, refer to <a href="#">www.designlights.org</a> for details.			Notes  (3) Nominal lumen output.		Notes  (4) Products also available in non-US voltages and frequencies for international markets. (5) Must specify voltage as 120V or 277V when ordering GTR2 option. (C) Consult WaveLinX Low-Voltage or DLVP system pages for additional details and compatibility.

Emergency Options	CRI/CCT	Flex	Driver Type	Number of Drivers
Emergency Options	CRI/CCT	Flex	Driver Type	Number of Drivers
EL7W=7-watt 120V-277V emergency battery pack <sup>(6)</sup> EL10W=10-watt 120V-277V emergency battery pack <sup>(6)</sup> EL14W=14-watt 120V-277V emergency battery pack <sup>(6)</sup> EL10WSD=10W emergency battery pack with self-diagnostic installed <sup>(6),(15)</sup> EL14WSD=14W emergency battery pack with self-diagnostic installed <sup>(6),(15)</sup> ELV7W=Low-voltage system, 7-watt emergency battery pack <sup>(6)</sup> ELV14W=Low-voltage system, 14-watt emergency battery pack <sup>(6)</sup> GTR2=Bodine Generator Transfer Relay <sup>(7),(8)</sup> ETRD=Emergency Transfer Relay with dimming control <sup>(7)</sup>	L827=2700K L830=3000K L835=3500K L840=4000K L850=5000K	A3/8-4/18GDIM =3/8" Flex with 0-10V Dimming Leads Multiple other configurations available. See below for details. A3/8-5/18GDIM=Flex with 0-10V Dimming leads and Blue for alternate wiring. See below for details.	CD=0-10V Dimming Driver (10%-100% Dimming) HCD=0-10V Dimming Driver (1% - 100% Dimming) SR=Sensor-ready Dimming Driver (1%-100% Dimming) 5LTD=Fifth Light DALI Driver (10%-100% Dimming) <sup>(9),(E)</sup> 5LTHD=Fifth Light Dimming Driver (1%-100% Dimming) <sup>(9),(E)</sup> LV=Low-voltage System Dimming Driver (0%-100% Dimming) <sup>(9)</sup> SD=Step-Dim Driver (50% or 100% Dimming) LH=Lutron HiLume (LDE1 series) 1%-100% EcoSystem Driver with Soft-on Fade to Black dimming <sup>(F)</sup> L5=Lutron 5 Series (LDE5-Series) 5%-100% EcoSystem Driver <sup>(F)</sup>	1=1 Driver
Notes  (6) Factory installed with integral test switch/indicator/laser test. For approximate delivered lumens multiply the lumens per watt of the desired fixture by the wattage of the emergency battery pack (100 lm/W x 7=700 lumens). IES-format photometry for luminaire under emergency operation available. Battery option increases total height by 1 inch. (7) Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others). GTR2 option includes 2 relays on fixtures with dimming drivers. ETRD option only requires one relay when used on a dimming fixture. (8) Must specify voltage as 120V or 277V when ordering GTR2 option. (15) EL10WSD and EL14WSD not available with 347V.  Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following: (C) Consult WaveLinX Low-Voltage or DLVP system pages for additional details and compatibility.		Flexible Metal Conduit Options  Flex options available for 0-10V dimming control, DALI dimming control, emergency and night light functions. 72-inch factory-installed and pre-wired to driver, fitted to luminaire housing access plate with 90° enclosed FMC connector. Not all options may be combined and installation ratings vary by type.  A3/8-4/18GDIM series notes: Factory installed dimming option 3/8" flexible metal conduit with 2-#18 power and ground wires and 2-#18 UL-listed jacketed 0-10V +/- control wires. Meets UL 66, 89, 1479, 1569, 1581, 2556. NEC® 250.118, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645, 72; Federal Specification A-A-59544 (formerly J-C-308); all applicable OSHA and HUD Requirements. UL Classified 1-, 2-, and 3-hour through penetration with applicable fire stop product (not included). May be surface mounted, fished and/or embedded in plaster. Cable tray and approved raceway rated, install per NEC®; Environmental Air-Handling Space Installation per NEC® 300.22(C).	Notes  (9) Must be used in conjunction with a DALI control system. For complete DALI solutions by Fifth Light, visit <a href="#">www.cooperlighting.com</a>  Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following: (C) Consult WaveLinX Low-Voltage or DLVP system pages for additional details and compatibility. (E) Consult Fifth Light system pages for additional details and compatibility. (F) Consult Marketplace Options - Lutron system pages for additional details and compatibility. Compatible only with driver series shown, and may require two or more drivers. Requires field commissioning to operate or dim. Contact Lutron at <a href="#">www.lutron.com</a> .	

Options	Integrated Sensing Systems	Packaging	Accessories
Options	Integrated Sensing Systems	Packaging	Accessories <sup>(14)</sup>
PMW=Paint Matte White	[Blank]=No Sensor WAA=WaveLinX Wireless Integrated Sensor <sup>(10),(A)</sup> WLA=Low-voltage Integrated Sensor <sup>(11),(C)</sup>	U=Unit Pack PAL=Job Pack, out of carton PALC=Job Pack, in carton	EQ-CLIP-U=T-BAR Safety Earthquake Clips <sup>(13)</sup> DF-22W-U=2' x 2' Drywall Frame Kit SK-22-WS=2' x 2' Shallow Surface Mount Kit SK-22-WT=2' x 2' Tall Surface Mount Kit
	Notes  (10) WAA sensor to be used with CD or W2A driver. (11) WLA sensor to be used with LV driver.  Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following: (A) Consult WaveLinX system pages for additional details and compatibility. (C) Consult WaveLinX Low-Voltage or DLVP system pages for additional details and compatibility.		Notes  (13) An EQ Grid Clip is recommended for all 9/16" ceiling systems. Four required per fixture. (14) Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

## Product Specifications

### Construction

- Rigid housing is die formed of code gauge prime cold rolled steel and features full length die-formed stiffeners and unibody endplate for added strength
- Side flanges are hemmed
- Innovative design provides superior lens brightness uniformity and visual comfort
- Unibody endplates are securely attached with interlocking tabs and screws
- Four auxiliary fixture end suspension points provided
- Gridlock feature for safety and convenience

### Controls

- 0-10V dimming to 10% standard
- Optional 1% dimming is available
- WaveLinX wireless sensor compatible for connected and IoT capability
- Low-voltage sensor and driver compatible for WaveLinX Low-Voltage and DLVP applications
- DALI 2.0, Lutron, and step-dimming available



Connected Systems  
CLICK HERE

### Electrical

- Long-Life LED system coupled with electrical driver to deliver optimal performance
- LED's available in 2700, 3000K, 3500K, 4000K or 5000K with min. 80 CRI
- Rated life based on TM21 is greater than L88 at 60,000 hours
- Electronic drivers are available for 120-277V applications
- A 0-10V dimming driver is standard

### Emergency Battery Pack Option

- 120V-277V integral emergency battery pack comes in 7-watts, 10-watt, or 14-watts
- Self-diagnostic emergency battery available in 10 or 14-watts (NFPA 101® Life Safety Code®)
- Constant power to the LED system for controlled, predictable discharge
- Integrated test switch/indicator light visible from floor
- Min. 90-minute backup period for code compliance
- Integral emergency transfer relay available for generator equipped power systems

### Finish

- Multistage, iron phosphate pretreatment ensures maximum bonding and rust inhibition
- Housing and driver cover finished with new 90% reflective white enamel for superior performance

### Hinging / Latching

- Cam steel latches with baked white enamel finish
- Safety-lock T-hinges allow hinging and latching from either side

### Frame/Optical Shielding

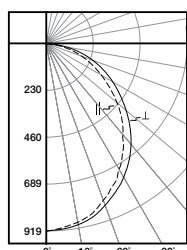
- Curved, Frost lens within steel hinged door frame
- Lens offers a balance of aesthetics and light stability

### Compliance

- Indoor luminaires are cULus listed for 25°C ambient environments
- Fixtures are suitable for direct insulation contact and are damp location listed
- RoHS compliant
- LED components comply with IESNA LM-79 and LM-80 standards
- DesignLights Consortium® Qualified and classified for both DLC Standard and DLC Premium, refer to [www.designlights.org](http://www.designlights.org) for details
- Can be used for State of California Title 24 high efficacy luminaire

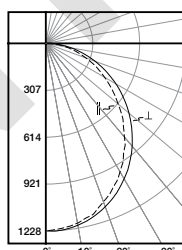
## Photometric Data

View IES files



### 22FR-LD4-24-UNV-L835-CD1-U

Electronic Driver  
Linear LED 3500K  
Spacing criterion: (II) 1.17 x mounting height,  
(⊥) 1.23 x mounting height  
Lumens: 2419  
Input Watts: 20.2W  
Efficacy: 119.8 lm/W  
Test Report: 22FR-LD4-24-UNV-L835-CD1-U.IES



### 22FR-LD4-32-UNV-L835-CD1-U

Electronic Driver  
Linear LED 3500K  
Spacing criterion: (II) 1.17 x mounting height,  
(⊥) 1.23 x mounting height  
Lumens: 3231  
Input Watts: 29.4W  
Efficacy: 109.9 lm/W  
Test Report: 22FR-LD4-32-UNV-L835-CD1-U

## Energy and Performance Data

### Wattage

Catalog Number	PerformanceType	Nominal Lumens	Wattage	Efficacy lm/W @ 3500K)
22FR-24-UNV-L8XX-CD1-U	Standard	2345	20.2	120.0
22FR-32-UNV-L8XX-CD1-U	Standard	3313	29.4	110.0
22FR-24-HP-UNV-L8XX-CD1-U	Premium	2365	19.4	126.2
22FR-32-HP-UNV-L8XX-CD1-U	Premium	3238	26.1	121.8

**Notes:** All models also available in 2700K, 3000K, 3500K, 4000K, and 5000K. Lumens based on 3500K. Use lumen multiplier for other performance values.

### CCT Table

Approximate Color Temperature Multiplier	
2700K	.93
3000K	.98
3500K	1.0
4000K	1.02
5000K	1.02

### Shipping Data

Catalog No.	Wt.	Pallet
22FR-LD4	10 lbs.	48