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

- Order Information page 2
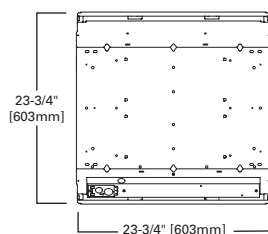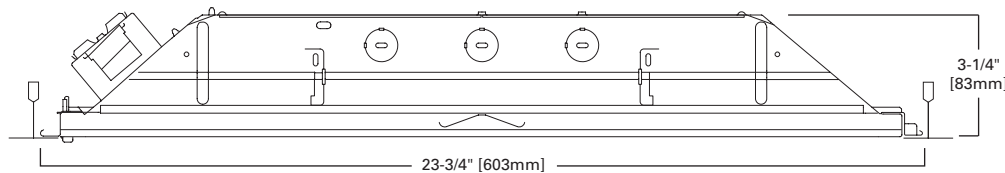- Photometric Data page 3
- Product Warranty

Product Certification

UL CERTIFIED SAFETY · DLC PREMIUM · DLC LISTED · RoHS COMPLIANT · IC RATED · T24 Efficiency Standards Can be used to comply with California Title 24 Non-Residential · BAA · ISO SYSTEMS CERTIFIED

Product Features

damp location · Connected Systems · Bluetooth® · LINEAR DISCONNECT Safe and convenient means of disconnecting power · MWS MODULAR WIRING SYSTEM CLICK HERE
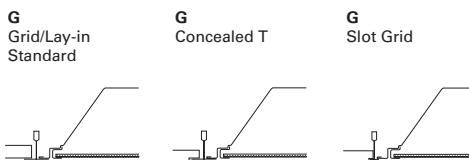
Top Product Features

- 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

Dimensional and Mounting Details

3-1/4" [83mm]

23-3/4" [603mm]

23-3/4" [603mm]

23-3/4" [603mm]

Ceiling Compatibilty

G
Grid/Lay-in
Standard

G
Concealed T

G
Slot Grid

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

(Verify compatibility/ consult factory.)

COOPER Lighting Solutions

Order Information

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

Domestic Preferences [1]	Rating	Width/Length	Series [2]	Door Frame	LED Type	LED Lumens Output [3]	Shielding	Voltage [4]
[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 **MTO** **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) [C] **120V**=120 Volt [5] **277V**=277 Volt [5]
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 DOMESTIC PREFERENCES 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 www.designlights.org for details.			**Notes** (3) Nominal lumen output.	**Notes**	**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
EL7W=7-watt, 120V-277V emergency battery pack installed [6] **EL14W**=14-watt 120V-277V emergency battery pack installed [6] **ELV7W**=Low-voltage system, 7-watt emergency battery pack [C] **ELV14W**=Low-voltage system, 14-watt emergency battery pack [C] **GTR2**=Bodine Generator Transfer Relay [7], [8] **ETRD**=Emergency Transfer Relay with dimming control [7]	**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) [9], [E] **5LTHD**=Fifth Light Dimming Driver (1%-100% Dimming) [9], [E] **LV**=Low-voltage System Dimming Driver (0%-100% Dimming) [C] **SD**=Step-Dim Driver (50% or 100% Dimming) **LH**=Lutron HiLume (LDE1 series) 1%-100% EcoSystem Driver with Soft-on Fade to Black dimming [F] **L5**=Lutron 5 Series (LDE5-Series) 5%-100% EcoSystem Driver [F]	**1**=1 Driver
Notes (6) External 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. (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. 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, 83, 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-30B); 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 www.cooperlighting.com 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 www.lutron.com.	

Options	Integrated Sensing Systems	Packaging	Accessories [14]
PMW=Paint Matte White	**[Blank]**=No Sensor **WAA**=WaveLinx Wireless Integrated Sensor [10], [A] **WLA**=Low-voltage Integrated Sensor [11], [C] **SVPD1**=0-10V Stand-alone Integrated Sensor [12], [D]	**U**=Unit Pack **PAL**=Job Pack, out of carton **PALC**=Job Pack, in carton	**EQ-CLIP-U**=T-BAR Safety Earthquake Clips [13] **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 **ISHH-01**=Programming Remote for Integrated Sensor [D] **ISHH-02**=Personal Control Remote for Integrated Sensor [D]
	Notes (10) WAA sensor to be used with CD or W2A driver. (11) WLA sensor to be used with LV driver. (12) SVPD1 sensor to be used with CD 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. (D) Consult SVPD series 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. (D) For use with SVPD sensor only. Consult SVPD series system pages for additional details and compatibility.

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
- SVPD sensor compatible for standalone functionality
- 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

- Optional 120V-277V integral emergency battery pack is available in 7-watts or 14-watts to meet critical life-safety lighting requirements
- The 90-minute batteries provide constant power to the LED system, ensuring code-compliance
- A test switch/indicator button can be tested safely from the ground using a laser pointer, while the patented EZ Key prevents accidental discharge of the battery during construction
- Emergency/generator transfer options available – see ordering information for details

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
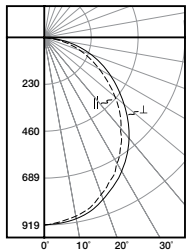
Frame/Optical Shielding

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

Compliance

- Indoor luminaires are cULus listed for 25ºC 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 for details
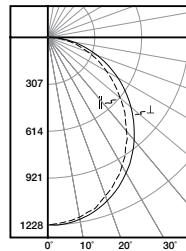- Can be used for State of California Title 24 high efficacy luminaire

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	Efficancy 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

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