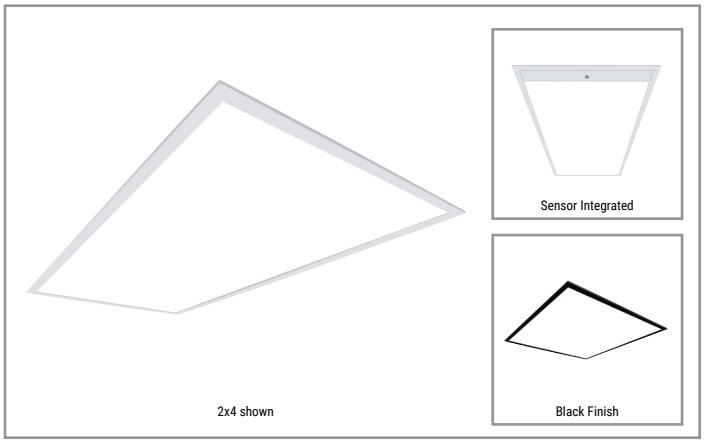
Project		**Catalog #**		**Type**	
Prepared by		**Notes**		**Date**	



Metalux

CGTX Panel

Configurable LED Backlit Panel, Recessed, Surface, Suspended

Typical Applications

• Commercial Office Spaces • Schools • Healthcare • Retail Merchandising Areas

Interactive Menu

- Order Information page 2
- Photometric Data page 7
- Control Solutions page 9
- Product Warranty

Product Certification

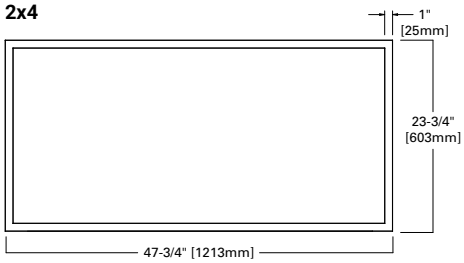
Product Features

Top Product Features

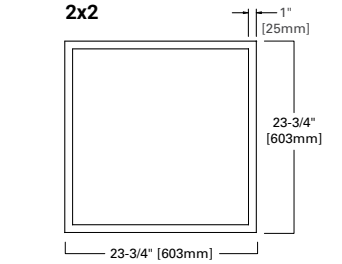
- Highly configurable backlit panel fits a variety of applications
- Integrated control and emergency options in all sizes
- Standard and high efficiency available for further energy savings
- Available in 3000K, 3500K, 4000K, and 5000K CCT, 80 and 90 CRI
- Options to meet Build America, Buy America, Buy American and other domestic preference requirements

Dimensional and Mounting Details

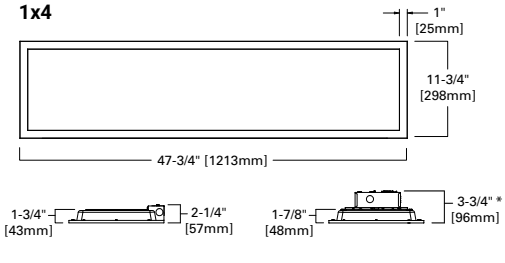
2x4



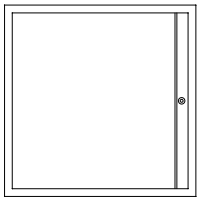
2x2



1x4



2x2 with sensor / integrated emergency test switch



*** Note:** For sensor, EM, flex, and certain drivers that do not fit in standard enclosure, the overall height increases to 3-3/4".

additional product diagrams

Order Information

SAMPLE ORDER NUMBER: **24CGTX-40-EL14W-L840-WLS**

Domestic Preferences [1]	Rating	Width/Length	Series	1x4 Lumen Output [3], [6]		2x2 Lumen Output [3], [6]		2x4 Lumen Output [3], [6]	
[Blank]=Standard **BAA**=Buy American Act **TAA**=Trade Agreements Act **BABAF**=FHWA and FTA projects funded through October 1, 2026	**[Blank]**=Standard **ATW-SW4**=Chicago Rated [2]	**14**=1' x 4' **22**=2' x 2' **24**=2' x 4'	**CGTX**=Configurable LED Backlit Panel	**Standard** [6] **20**=2000 **30**=3000 **42**=4200	**High Efficiency** **20HE**=2000 **30HE**=3000 **42HE**=4200 **70HE**=7000 **80HE**=8000	**Standard** [6] **20**=2000 **25**=2500 **35**=3500 **45**=4500 **50**=5000 [7]	**High Efficiency** **20HE**=2000 **25HE**=2500 **35HE**=3500 **45HE**=4500 **50HE**=5000 **60HE**=6000	**Standard** [6] **20**=2000 **30**=3000 **35**=3500 **40**=4000 **45**=4500 **55**=5500 **65**=6500 **72**=7200 [8]	**High Efficiency** **20HE**=2000 **30HE**=3000 **35HE**=3500 **40HE**=4000 **45HE**=4500 **55HE**=5500 **65HE**=6500 **72HE**=7200 **80HE**=8000 **90HE**=9000 **100HE**=10000 [4], [5]
Notes (1) Only product configurations with these prefixes are built to be compliant with the Buy American Act of 1933 (BAA), Trade Agreements Act of 1979 (TAA), or the Build America Buy America Act (BABA). BABA is the minimum Government compliance requirement for the Build America Buy America standards which is part of the Infrastructure and Investment Jobs Act (IIJA). Individual Government Agencies may have more stringent compliance standards. BABAF designates the product will meet the standards set for FHWA and FTA. As noted, these must be funded by October 1, 2026. Please refer to DOMESTIC PREFERENCES website or consult the CLS Domestic Preferences team for more information. Components shipped separately may be separately analyzed under domestic preference requirements.	**Notes** (2) Installed Flex not available with ATW-SW4 option.			**Notes** (3) Lumens are approximate. Refer to performance tables and IES files for actual delivered lumens and wattage. (4) 2x4 100E lumen output requires two drivers. (5) 2x4 100 lumen output requires two drivers. (6) VividTune white tuning and BioUp static and dynamic options are available only in standard efficacy lumens. (7) 2x2 50 Lumen is only available for BioUp and VividTune. (8) 7200 lumens not available for VividTune white tuning.					

Lens Options	Voltage	Emergency [10]	CCT / CRI	Flex/MWS [23]
[Blank]=Smooth White Frosted	**[Blank]**=Universal Voltage 120-277 **347V**=347 Volt [9]	**[Blank]**=None **EL7W**=7-watt, 120V-277V emergency battery pack installed [11] **EL14W**=14-watt 120V-277V emergency battery pack installed [11] **EL10W**=10-watt 120V-277V emergency battery pack installed [11] **EL10WSD**=10-watt 120V-277V emergency battery pack installed, with self-diagnostics [11] **GTRD**=Bodine Emergency Transfer Relay with dimming control [12] **ETRD**=Iota Emergency Transfer Relay with dimming control [13] **WNPS**=WaveLinx with Normal Power Sensing Beacon [14], [15], [16], [17] **WEM**=WaveLinx Enabled UL924 [14], [16], [17]	**L830**=3000K, 80 CRI **L835**=3500K, 80 CRI **L840**=4000K, 80 CRI **L850**=5000K, 80 CRI **L930**=3000K, 90 CRI [18] **L935**=3500K, 90 CRI [18] **L940**=4000K, 90 CRI [18] **L93050**=90CRI 3000K-5000K White Tuning [19] **L92765**=90CRI 2700K-6500K White Tuning [19] **B35**=BioUp Static 3500K [20] **B40**=BioUp Static 4000K [20] **B50**=BioUp Static 5000K [20] **B2750**=BioUp Tunable 2700K-5000K [21] **90 CRI only available with HE**	**[Blank]**=None **Dimming Flex** [22] **A3/8-4/18GDIM**=Flex, hot, neutral, ground, 2 dimming leads **A3/8-5/18GDIM**=Flex, 2 hots, neutral, ground, 2 dimming leads **Non-Dimming Flex** [22] **A3/8-2/18G**=Flex, hot, neutral, ground **A3/8-3/18G**=Flex, 2 hots, neutral, ground **A3/8-4/18G**=Flex, 3 hots, neutral, ground **MWS - Modular Wiring Systems -** Fixture Fitting [25] **MW12FF12/3G**=120V Fixture Feed, #12, 3 Conductors + Ground [24] **MW27FF12/3G**=277V Fixture Feed, #12, 3 Conductors + Ground [24] **MW12FF12/2G-010V**=120V Fixture Feed, #12, 2 Conductors, Ground, 0-10V Dimming [24] **MW27FF12/2G-010V**=277V Fixture Feed, #12, 2 Conductors, Ground, 0-10V Dimming [24]
	Notes (9) 347V with sensor and/or emergencies only available with HCD.	**Notes** (10) Fixture height increases to 3-3/4". (11) With integral test switch/indicator. 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. (12) Used to bypass local control during outage. Device is dual listed to UL 1008 (transfer switch) and UL 924 (switch bypass), 347V not available. (13) Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others). 347V not available. (14) Only available as part of a WaveLinx control system; must order with WLS or WPS sensor. Compatible with UNV CD/HCD drivers only. (15) WNPS is compatible with ESP-L or ESP-P emergency control devices. (16) Cannot be combined with other emergency, control or relay options. (17) For UL924 compliance, WEM and WNPS luminaires must be installed in the same application space.	**Notes** (18) 90 CRI only available in HE lumen packages. (19) VividTune provides correlated color temperatures (CCT) between 3000K (warm) to 5000K (cool) or 2700K (warm) to 6500K (cool). Must be used in conjunction with W2A driver only. Must be used with two (2) 10V dimming control channels, 1 CCT, 1 intensity. May be combined with WaveLinx Sensor Control Systems. WaveLinx Sensor Control Systems will control lumen output only for VividTune, for CCT control additional control devices required. (20) BioUp Static to be used with HCD driver. (21) BioUp Tunable provides correlated color temperatures (CCT) between 2700K (warm) to 5000K (cool). Must be used with W2A (for two channel 0-10V Control) or W2D (for 2 channel Dali Control) driver. See BioUp page for more information.	**Notes** (22) Fixture height increases to 3-3/4". (23) Multiple options available in online configurator. See additional notes on Flex below. (24) To be used with Modular Wiring System. Refer to MWS Fixture Fitting specification for additional details.(25) MWS Fixture Fitting increases overall fixture height to 4-7/8". **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.

continued next page

Order Information
CONTINUED

Driver Type	Number of Drivers
[Blank]=CD 0-10V Driver (10%-100% Dimming) **HCD**=0-10V Driver (1%-100% Dimming) (26), (28), (29) **5LTD**=DALI Driver (1%-100% Dimming) (26) **SD**=Step Dimming Driver (50%,100% Dimming) (26) **LH**=Lutron HiLume (LDE1 series) 1%-100% EcoSystem Driver with Soft-on Fade to Black dimming (26), (F) **CDW**=0-10V Dimming (10%-100%) (27) **W2A**=White Tuning, 2 ch, Analog 0-10V Intensity and CCT Control (30) **W2D**=White Tuning, DALI Type 8 (1%-100% Dimming) (31)	**[Blank]**=1 Driver **2**=2 Drivers (32)
Notes (26) Fixture height increases to 3-3/4". (27) Not available with 20, or 65 and higher lumen packages. (28) WPS and WPN node used with HCD drivers only. (29) WLS and WLN node used with HCD drivers only. (30) W2A used with two (2) 10V dimming control channels - CCT and intensity.(31) W2D for use withBioUp options only. White tuning CCT between 2700K and 5000K. Must be used with DALI controls; one address to control two channels - intensity and CCT. For Emergency options ONLY EL10WSD can be used 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: (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.	**Notes** (32) Fixture height increases to 3-3/4".

Integrated Sensing Systems (25)	Options	Packaging
[Blank]=No Sensor **WLS**=WaveLinx LITE Integrated Sensor, Dim and Daylight, Bluetooth, 8'-15' MH (27), (B) **WPS**=WaveLinx PRO Integrated Sensor, Dim and Daylight, ZigBee, 8'-15' MH (26), (A) **WLN**=WaveLinx LITE Integrated Node, Dim and Daylight, Bluetooth (27), (B) **WPN**=WaveLinx PRO Integrated Node, Dim and Daylight, Zigbee (26), (A)	**[Blank]**=None **BLKF**=Black Frame, Matte Finish	**[Blank]**=Unit Pack **PAL**=Job Pack, out of carton
Notes (25) Fixture height increases to 3-3/4". (26) WPS and WPN node used with CD, HCD or W2A drivers only. (27) WLS and WLN node used with CD or HCD drivers only. 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 PRO system pages for additional details and compatibility. (B) Consult WaveLinx LITE system pages for additional details and compatibility.		

Product Specifications

Construction
- Robust die-formed steel back plate to ensure durability
- Housing is absent of holes to resist debris/bug intrusion
- Aluminum frame weld and ground for a seamless appearance

Mounting
- Integral grid/EQ clips provided and include suspension / wire retention features
- Grid clip includes fold up hang points. Use FPSUS24-ML or other desired suspension methods for direct suspension
- Large junction box constructed of code gauge galvanized steel with access plate
- Multiple 7/8" KO's provided, suitable for up to 12AWG wiring
- Surface kits available for use in grid or hard surfaces
- Factory installed MWS fixture fitting or flexible conduit available to reduce installation time
- FPSUS2-ML is a 2-point suspension kit includes aircraft cable, carabiner, ceiling connection, SO cord, cord connectors, round 4" J-box cover and #8 sheet metal screws

Controls
- 0-10V dimming to 10% standard, 1% dimming available
- Integrated WaveLinx options provide wireless individual fixture control and enable code compliance, increased energy savings, grouping of fixtures, and connection to WaveLinx control systems
- DALI 2.0, Lutron, and step-dimming available

Electrical
- TM21 life at 60,000 hours up to L86 and calculated L70 exceeds 120,000 hrs
- Driver rated for FCC part 15 Class B for use in residential or commercial applications
- LED's available in 3000K, 3500K, 4000K, or 5000K at 80 CRI or 90 CRI minimum
- Color accuracy ≤3-Step MacAdam ellipse (SDCM)
- Integral emergency battery pack options available in 7W, 10W, and 14W. Test switch located on fixture lens band. Self-diagnostic options available
- Emergency/generator transfer options available
- Drivers available in 120-277V; 0-10V drivers also available in 347V
- Tunable white options available with Cooper Lighting Solutions' VividTune
- BioUp melanopic lighting options available in static or tunable white

WNPS - WaveLinx Normal Power Sensing
- Normal Power Sensing (NPS) wireless beacon enabled luminaire that signals normal power is present
- Must be ordered with WaveLinx LITE or PRO sensor as part of a WaveLinx control system
- For UL924 compliance, WNPS enabled luminaires with standard product and compatible emergency control devices (ESP-P/ESP-L) must be installed in same application space

WEM - WaveLinx UL924 Emergency Sensor
- Emergency control devices (ESP-P/ESP-L) not required when WEM and WNPS luminaires are installed in the same application space
- For UL924 compliance, order WEM and WNPS luminaires in the same application space
- WEM must be ordered with WLS or WPS sensor as part of a WaveLinx control system

Optical Shielding
- Micro-optics enable uniform distribution of the LEDs for uniform lens illumination
- Frosted smooth lens provides uniform illumination across the entire lens
- Durable lens with surface texture to minimize scratch and impact damage

Compliance
- cULus listed for 25°C ambient environments, indoor applications
- IC rated for direct insulation contact
- UL Damp Location listed
- IP5X rated from the room side with no modification needed
- Tested to IESNA LM-79 and LM-80
- Stated life per TM21 standards
- DesignLights Consortium® Qualified and classified for DLC Standard and DLC Premium, refer to www.designlights.org for details.
- Suitable for State of California Title 24 high efficacy luminaire
- RoHS compliant
- FCC part 15 class A compliant
- Fixture is rated for NSF/ANSI standard 2 - Light fixture for Non-Food Zone

BABA Domestic Preference Compliance
- FHWA and FTA agencies are utilizing their BAA rules for BABA compliance. Cooper's products with a BAA designation are manufactured in the US and utilize a BAA COTS exemption rule for compliance. To verify a configured product with specific accessories and options meet BABA Domestic Preference Requirements; submit this catalog number to Cooper Lighting Quotation team for validation by our Engineering and Manufacturing teams. Please refer to the DOMESTIC PREFERENCES website or consult the CLS Domestic Preferences team for more information. Components shipped separately may be separately analyzed under domestic preference requirements.

Warranty
- Five year warranty
- Extended warranty to 10 years available

Options and Accessories

Surface Mounting Options

Catalog No.	Description	UPC	Kit Height
CGTSURF24 (1)	2x4 CGT Surface Mount Kit	080083083107	3-7/8"
CGTSURF22 (1)	2x2 CGT Surface Mount Kit	080083083121	3-7/8"
CGTSURF14 (1)	1x4 CGT Surface Mount Kit	080083083145	3-7/8"
SK-xx-WT (3)	SK Surface Mount Kit	080083719372 (SK-24) 080083719396 (SK-22) 080083906703 (SK-14)	6-1/4"
SMK-24-W	2' x 4' Surface Mount Kit	080083295234	4"
SMK-22-W	2' x 2' Surface Mount Kit	080083295227	4"
SMK-14-W	1' x 4' Surface Mount Kit	080083295210	4"

Note: (1) Cannot be used with EL10W, EL10WSD, GTRD, 100HE lumen output, MWS, or 347V with alternative driver. Metalux Universal Surface Mount kits are compatible with these configurations – see #SK-24, #SK-22, and #SK-14). (2) SMK works with EL, Flex and GTRD options, see link. (3) Metalux Universal Surface Mount

Shipping Data

	1x4	2x2	2x4
Packaged Weight (lb.)	10	10	16
Pallet Qty - Standard (Tall)	17 (11)	34 (22)	16 (11)
Pallet Size	30x53		

Note: Base configurations; options may add weight.

Drywall Frame Kit

Catalog No.	Description	UPC
DF-24W-U	2x4 dry wall frame kit	662401232970
DF-22W-U	2x2 dry wall frame kit	662401232963
DF-14W-U	1x4 dry wall frame kit	662401232949

Surface Mount Kit

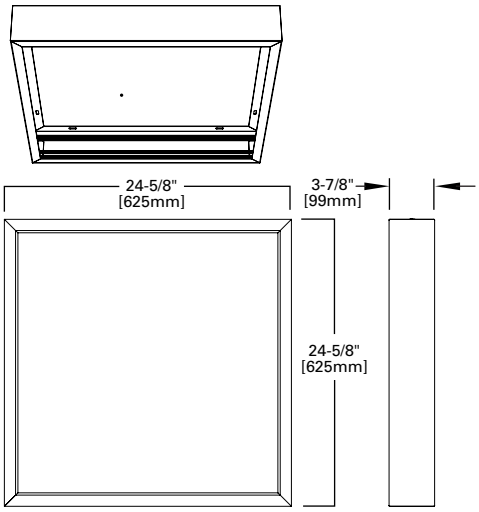
Size	Width	Length
1x4	12-5/8”	48-5/8”
2x2	24-5/8”	24-5/8”
2x4	24-5/8”	48-5/8”

Suspension Kit

Catalog	UPC	Description
FPSUS2-ML	080083802784	ML / Max Load Kit for CGTX with options. 2 point Y-hanger suspension kit includes aircraft cable, carabiner, ceiling connection, SO cord, cord connectors, round 4” J-box cover plate, and #8 sheet metal screws.

Mounting height from ceiling
Min.=7-1/4" [184mm]
Max.=27" [286mm]

Note: Suspension kit is intended to be used without surface mount box.



CGTSURF22 Shown

Energy and Performance Data

Electrical & Optical Performance - CGTX (3500K, 80 CRI)

Size	Lumen Pkg	Delivered Lumens	Input Watts	Efficacy lm/W	Current (A)		Glare Performance	
					120V	277V	UGR (1)	Max Luminance (1)
1x4	2000	1815	16.4	120	0.14	0.06	18.3	1590
	3000	2679	23.9	122	0.20	0.09	19.7	2347
	4200	3911	31.7	134	0.26	0.11	21	3427
1x4 HE	2000 HE	1877	14.8	138	0.12	0.05	18.4	1645
	3000 HE	2820	22.4	137	0.19	0.08	19.9	2471
	4200 HE	3984	31.9	136	0.27	0.12	21.1	3491
	7000 HE	6372	52.5	132	0.44	0.19	22.7	5583
	8000 HE	7346	61.9	129	0.52	0.22	23.2	6437
2x2	2000	2041	15.1	135	0.13	0.05	18.8	1786
	2500	2536	18.9	134	0.16	0.07	19.5	2219
	3500	3606	27.9	129	0.23	0.10	20.8	3155
	4500	4424	36.1	123	0.30	0.13	21.5	3870
2x2 HE	2000 HE	2024	14.8	137	0.12	0.05	18.8	1771
	2500 HE	2598	19.2	135	0.16	0.07	19.6	2272
	3500 HE	3633	27.2	134	0.23	0.10	20.8	3178
	4500 HE	4650	36.2	128	0.30	0.13	21.7	4068
	5000 HE	5121	40.0	128	0.33	0.14	22	4480
	6000 HE	6004	47.4	127	0.40	0.17	22.5	5253
2x4	2000	2232	16.7	134	0.14	0.06	16.8	982
	3000	3135	23.7	132	0.20	0.09	18	1378
	3500	3742	28.4	132	0.24	0.10	18.6	1646
	4000	4008	30.3	132	0.25	0.11	18.8	1763
	4500	4649	35.6	131	0.30	0.13	19.4	2044
	5500	5546	44.1	126	0.37	0.16	20	2439
	6500	6606	53.4	124	0.45	0.19	20.6	2905
	7200	7416	60.9	122	0.51	0.22	21	3261
2x4 HE	2000 HE	2031	14.9	136	0.12	0.05	16.5	893
	3000 HE	2988	21.9	136	0.18	0.08	17.8	1314
	3500 HE	3480	25.6	136	0.21	0.09	18.3	1530
	4000 HE	4052	29.9	136	0.25	0.11	18.9	1782
	4500 HE	4662	34.7	134	0.29	0.13	19.4	2050
	5500 HE	5509	41.3	133	0.34	0.15	19.9	2422
	6500 HE	6610	49.9	132	0.42	0.18	20.6	2907
	7200 HE	6969	53.6	130	0.45	0.19	20.8	3064
	8000 HE	8176	63.5	129	0.53	0.23	21.3	3595
	9000 HE	9001	70.3	128	0.59	0.25	21.6	3957
	10000 HE	10451	82.6	127	0.69	0.30	22.2	4596

Notes:
(1) UGR values per CIE 190:2010 with 4H, 8H, Reflectance: 70% Ceiling, 50% Wall, 20% Ref. Plane.
Luminance measured at 45-90 degrees from nadir.
UGR and Luminance values that meet WELL v2 L04 requirements for Managing Glare are shown with green highlighted cell (UGR < 16, Luminance < 6,000).
UGR and Luminance values that meet LEED v4.1 requirements for Glare Control are shown with green text (UGR < 19, Luminance < 7,000).

Key

	Meets WELL v2
TEXT	Meets LEED v4.1

Lumen Adjustment Factors

CCT Multiplier	80 CRI	90 CRI (2)
3000K	0.99	0.83
3500K	1.00	0.85
4000K	1.03	n/a
5000K	1.05	0.89

Notes: (2) 90 CRI only available in HE lumen outputs.

Example of Lumen Adjustment Calculation

24CGTX-45-L850
at 5000K

Lumen Adjustment Factor = 1.05

Total Light Output =
4,537 lm x 1.05 = 4,764 lm

$$\textit{Efficacy} = \frac{4{,}764\ lm}{35.6\ W} = 133\ lm/W$$

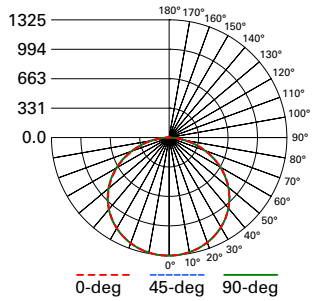
Lumen Maintenance

TM-21 Lumen Maintenance (60,000 hours) (3)	Theoretical L70 (Hours) (4)
> 86%	> 120,000

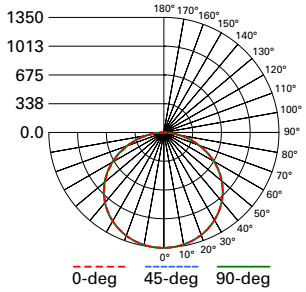
Notes: (3) Supported by IES TM-21 standards. (4) Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, that explains proper use of IES TM-21 and LM-80.

Photometric Data

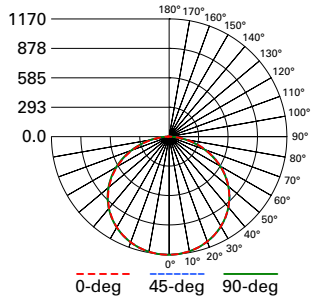
View IES files



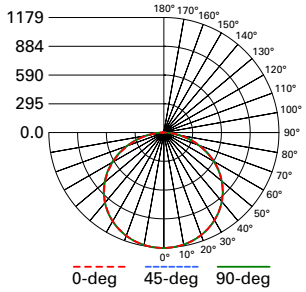
14CGTX-42-L835
Electronic Driver
LED 3500K
Spacing criterion: (II) 1.26 x mounting height, (⊥) 1.27 x mounting height
Lumens: 3911
Input Watts: 31.7W
Efficacy: 134 LPW
Test Report: 14CGTX-42-L835.IES



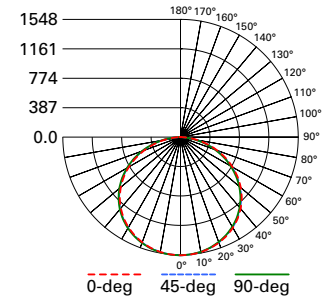
14CGTX-42HE-L835
Electronic Driver
LED 3500K
Spacing criterion: (II) 1.26 x mounting height, (⊥) 1.27 x mounting height
Lumens: 3984
Input Watts: 31.9W
Efficacy: 136 LPW
Test Report: 14CGTX-42HE-L835.IES



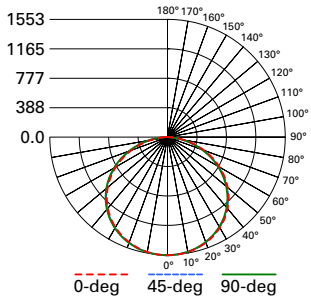
22CGTX-35-L835
Electronic Driver
LED 3500K
Spacing criterion: (II) 1.26 x mounting height, (⊥) 1.26 x mounting height
Lumens: 3606
Input Watts: 27.9W
Efficacy: 129 LPW
Test Report: 22CGTX-35-L835.IES



22CGTX-35HE-L835
Electronic Driver
LED 3500K
Spacing criterion: (II) 1.26 x mounting height, (⊥) 1.26 x mounting height
Lumens: 3633
Input Watts: 27.2W
Efficacy: 134 LPW
Test Report: 22CGTX-35HE-L835.IES



24CGTX-45-L835
Electronic Driver
LED 4000K
Spacing criterion: (II) 1.27 x mounting height, (⊥) 1.26 x mounting height
Lumens: 4649
Input Watts: 35.6W
Efficacy: 131 LPW
Test Report: 24CGTX-45-L835.IES

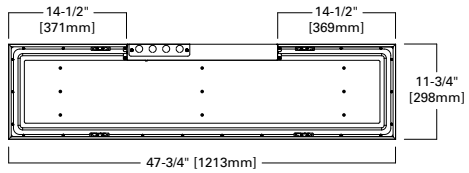


24CGTX-45HE-L835
Electronic Driver
LED 4000K
Spacing criterion: (II) 1.27 x mounting height, (⊥) 1.26 x mounting height
Lumens: 4662
Input Watts: 34.7W
Efficacy: 134 LPW
Test Report: 24CGTX-45HE-L835.IES

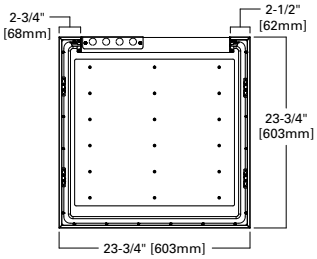
Dimensional and Mounting Details

Standard driver - no controls, EM, or flex

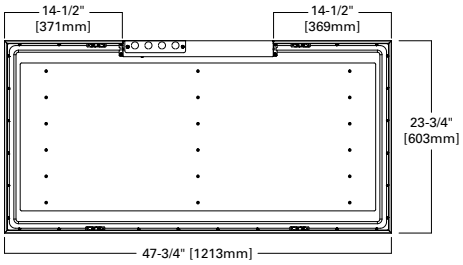
1x4



2x2

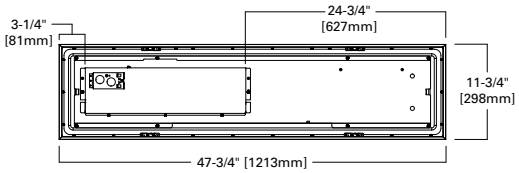


2x4

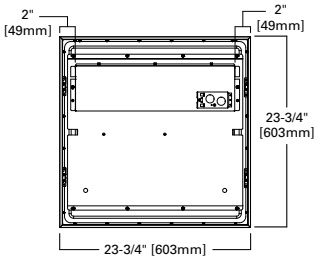


Alternative driver, with controls, EM and/or flex

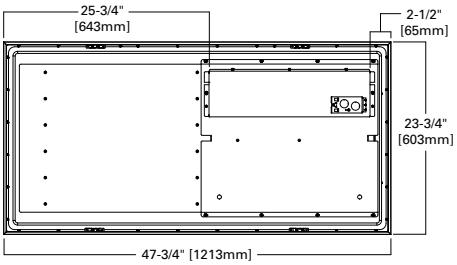
1x4



2x2



2x4

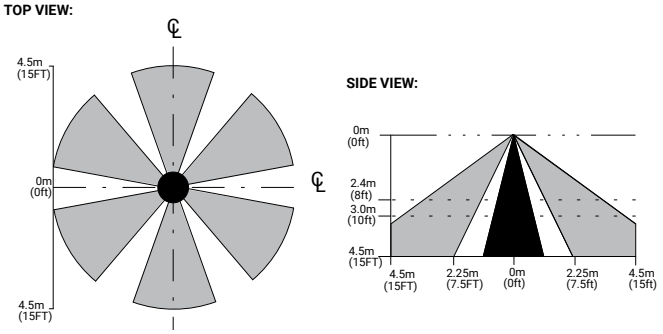


Control Solutions

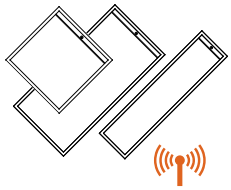
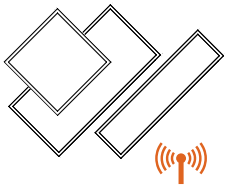
- WaveLinx LITE wireless
- WaveLinx PRO wireless
- WaveLinx CAT wired
- WaveLinx DALI wired

WaveLinx Digital Lighting Control Solutions

Integrated Sensor Coverage Pattern



***Note**: Installation of integrated sensors within 3-ft (1m) of HVAC air vents is not recommended. The pattern shown is intended solely as a general guide and is not to scale.*

With Integrated WaveLinx Sensor	With Integrated WaveLinx Node
	

Add a hidden WaveLinx Node (WPN, WLN) to your space lighting design!

To:

- Keep luminaire aesthetics
- Connect fixtures without space for a sensor, such as downlights
- Connect sealed fixtures without a standard sensor option such as products for clinical space

The CGTX with WaveLinx offers no-hassle lighting control with multiple luminaire level control solutions.

WaveLinx by Cooper Lighting Solutions is a wired and wireless solution for a single room, a parking lot, or an entire campus, helping meet energy codes, reduce energy use, and create healthier environments. As a true hybrid architecture, it enables the seamless integration of DALI, CAT, and PRO technologies and luminaires for unmatched reliability and flexibility, with sensor-enabled luminaires that can also share data with the WaveLinx CORE platform, further improving operations across office, education, healthcare, warehouse, and parking garage applications.

WaveLinx LITE is a Bluetooth wireless digital lighting control solution with out-of-the-box functionality that saves energy and meets energy codes. It's designed for applications that require occupancy-based, daylighting, or manual light control using WaveLinx LITE-enabled luminaires and a mobile app for cost-effective projects.

WaveLinx PRO is a Zigbee wireless solution that offers a rich portfolio of devices, WaveLinx PRO-enabled luminaires, and a mobile app and the WAC (WaveLinx Area Controller). It offers advanced energy savings and deep data integration to improve the occupant experience.

WaveLinx CAT is a scalable CAT5-wired solution for a single room and connected spaces, supporting applications that require occupancy-based, daylighting, or manual light control, with self-commissioning to meet energy codes and maximize energy savings.

WaveLinx DALI is a powerful two-wire DALI-2 solution for connected spaces, combining open-standard devices enabling interoperability with the simplicity of WaveLinx app-based commissioning. It delivers deterministic wired control, granular addressability, and tunable white.

Integrated Controls Options

Option	Out of the Box Functionality	Luminaire Level Lighting Control (LLLC)	Automatic Dimming Photocell	Occupancy Sensing	CCT Control*
WLS (WaveLinx LITE Sensor)	X	X	X	X	
WLN (WaveLinx LITE Node)		X			
WPS (WaveLinx PRO Sensor)		X	X	X	X
WPN (WaveLinx PRO Node)		X			X

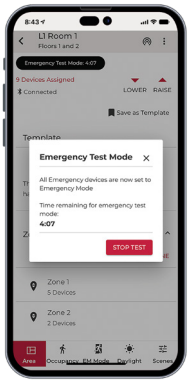
Note: *WaveLinx utilizes scenes to allow users to change an area's fixtures Correlated Color Temperature (CCT) and intensity using a commissioned wireless wallstation scene controller. To enable CCT adjustments through WaveLinx, include WPS or WPN devices in addition to VividTune or BioUp technologies for integrated fixture control. WPS with CCT controls the intensity of the fixture; an additional, externally mounted control device is needed to control the CCT. See RSP-P-010-347

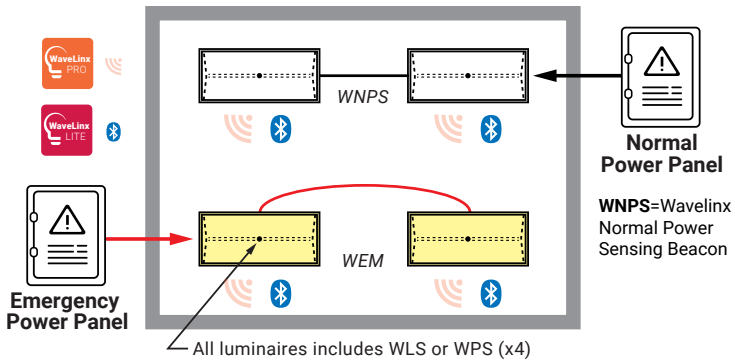
The WNPS and WEM (**UL924** option) only available with WLS or WPS sensors. Must be specified when ordered. WEM must be associated with a group that includes a normal power sensing device to receive NPS beacon. Learn more about WaveLinx EM here.

WaveLinx EM

The WaveLinx Emergency (WEM) solution offered by WaveLinx wireless (PRO and LITE) makes it easy to design your UL924 certified emergency lighting solution. Fixture-integrated WaveLinx Emergency Modules (WEM) override lighting controls and increases light output to emergency level (100%) until normal power is restored. Needs programming. WaveLinx emergency systems are designed to meet UL 924 standards. Learn more here.



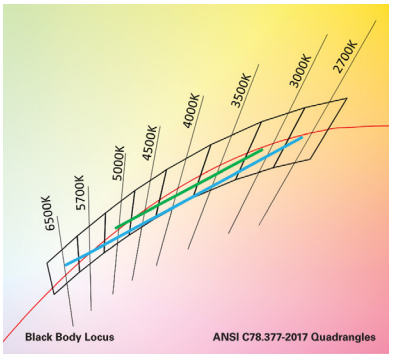




VividTune
color tuning solutions

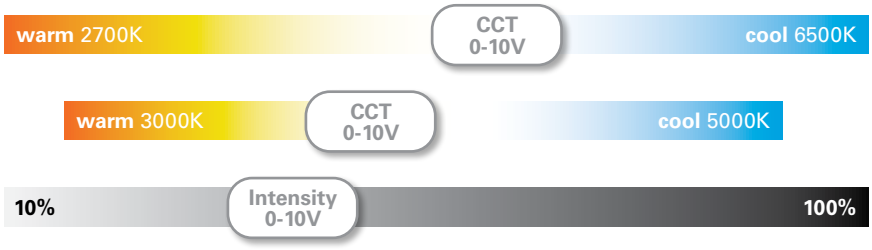
CCTX with VividTune Tunable White

VividTune tunable white luminaires from Cooper Lighting Solutions deliver high-quality light in a broad range of continuously variable color temperatures and intensities. Create a dynamic environment by adjusting the ambient light warmer or cooler to influence mood, support the task at hand, or create a dramatic ambience. The ability to control correlated color temperature and intensity separately using simple controls is the next evolution of LED lighting for the commercial, educational, healthcare and hospitality space. The unparalleled flexibility and number of available lighting environments enable users to find the right light with tunable white.



Controlling VividTune and BioUp Tunable White

VividTune and BioUp luminaires make tunable white more accessible by using simple and familiar controls. From wall dimmers to wireless controls, VividTune tunable white luminaires are compatible with industry standard 0-10V dimming controls. A single 0-10V dimming input is used to control intensity (brightness) while a second 0-10V dimming input is used to adjust CCT. For suggested control configurations, go to www.cooperlighting.com for tunable white application guides.



1' x 4' Performance Data*

Tunable White - Lumen Adjustment Factors				
CCT	VividTune 2700K-6500K	VividTune 3000K-5000K	BioUp 2700K-5000K	
	90 CRI	90 CRI	CRI	Lumen Adustment
2700K	0.9760	-	95	1.0061
3000K	0.9887	1.0189	92	1.0082
3500K	1.0098	1.0419	90	1.0152
4000K	1.0191	1.0573	88	1.0128
4500K	0.9978	1.0628	86	1.0102
5000K	1.0259	1.0637	85	1.0102
5700K	1.0133	-	-	-
6500K	1.0394	-	-	-

1' x 4' CGTX - Example of Approximate Lumen Calculation				
	Standard Catalog #	VividTune 2700K-6500K	VividTune 3000K-5000K	BioUp 2700K-5000K
CCT Setting	14CGTX-42-L835	14CGTX-42-L92765-W2A	14CGTX-42-L93050-W2A	14CGTX-42-B2750-W2A
2700K	-	3817	-	3935
3000K	-	3867	3985	3943
3500K	3911	3950	4075	3970
4000K	-	3986	4135	3961
4500K	-	3902	4156	3951
5000K	-	4012	4160	3951
5700K	-	3963	-	-
6500K	-	4065	-	-

Example of Lumen Adjustment Calculation

14CGTX-42-L92765-W2A at 90 CRI tuned to 3500K

Adjusted Lumen = published lm x adjusted lm factor

Adjusted Lumen = 3911 x 1.0098

Adjusted Lumen = 3950 lm

** Lumen adjustment factors are for reference and may be different for each product selected. Refer to IES files for actual performance data on each.*

VividTune™
color tuning solutions

2' x 2' Performance Data*

Tunable White - Lumen Adjustment Factors				
CCT	VividTune 2700K-6500K	VividTune 3000K-5000K	BioUp 2700K-5000K	
	90 CRI	90 CRI	CRI	Lumen Adustment
2700K	1.0023	-	95	1.0120
3000K	1.0154	1.1157	92	1.0140
3500K	1.0371	1.1409	90	1.0211
4000K	1.0466	1.1578	88	1.0187
4500K	1.0247	1.1637	86	1.0161
5000K	1.0535	1.1648	85	1.0161
5700K	1.0406	-	-	-
6500K	1.0674	-	-	-

2' x 2' CGTX - Example of Approximate Lumen Calculation				
	Standard Catalog #	VividTune 2700K-6500K	VividTune 3000K-5000K	BioUp 2700K-5000K
CCT Setting	22CGTX-45-L835	22CGTX-45-L92765-W2A	22CGTX-45-L93050-W2A	22CGTX-45-B2750-W2A
2700K	-	4434	-	4477
3000K	-	4492	4936	4486
3500K	4424	4588	5047	4517
4000K	-	4630	5122	4507
4500K	-	4533	5148	4495
5000K	-	4661	5153	4495
5700K	-	4604	-	-
6500K	-	4722	-	-

Example of Lumen Adjustment Calculation

22CGTX-45-L92765-W2A at 90 CRI tuned to 3500K

Adjusted Lumen = published lm x adjusted lm factor

Adjusted Lumen = 4424 x 1.0371

Adjusted Lumen = 4588 lm

** Lumen adjustment factors are for reference and may be different for each product selected. Refer to IES files for actual performance data on each.*

2' x 4' Performance Data*

Tunable White - Lumen Adjustment Factors				
CCT	VividTune 2700K-6500K	VividTune 3000K-5000K	BioUp 2700K-5000K	
	90 CRI	90 CRI	CRI	Lumen Adustment
2700K	1.1176	-	95	0.9780
3000K	1.1322	1.1223	92	0.9751
3500K	1.1564	1.1475	90	0.9717
4000K	1.1670	1.1645	88	0.9674
4500K	1.1426	1.1705	86	0.9876
5000K	1.1747	1.1716	85	0.9645
5700K	1.1603	-	-	-
6500K	1.1901	-	-	-

2' x 4' CGTX - Example of Approximate Lumen Calculation				
	Standard Catalog #	VividTune 2700K-6500K	VividTune 3000K-5000K	BioUp 2700K-5000K
CCT Setting	24CGTX-55-L835	24CGTX-55-L92765-W2A2	24CGTX-55-L93050-W2A2	24CGTX-55-B2750-W2A
2700K	-	6198	-	5424
3000K	-	6279	6224	5408
3500K	5546	6413	6364	5389
4000K	-	6472	6458	5365
4500K	-	6337	6492	5477
5000K	-	6515	6498	5349
5700K	-	6435	-	-
6500K	-	6601	-	-

Example of Lumen Adjustment Calculation

24CGTX-55-L92765-W2A2 at 90 CRI tuned to 3500K

Adjusted Lumen = published lm x adjusted lm factor

Adjusted Lumen = 5546 x 1.1564

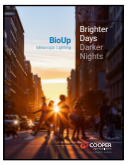
Adjusted Lumen = 6413 lm

** Lumen adjustment factors are for reference and may be different for each product selected. Refer to IES files for actual performance data on each.*

Proven Research. Industry Recognized.

BioUp
Melanopic Lighting

See better | Feel better | Function better



See BioUp brochure for more details

ANSI/IES RP-46-23

Illuminating Engineering Society

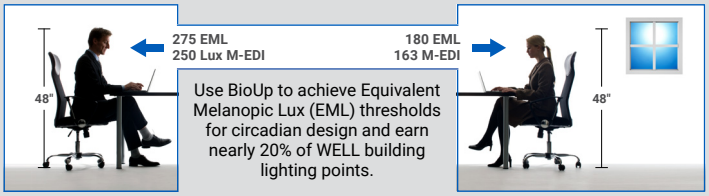
RECOMMENDED PRACTICE:
SUPPORTING THE PHYSIOLOGICAL AND BEHAVIORAL EFFECTS OF LIGHTING IN INTERIOR DAYTIME ENVIRONMENTS
AN AMERICAN NATIONAL STANDARD

ANSI/IES RP-46-23 / TM18 published March 2024 based on over 40 years of research.

"…circadian clock synchronization is paramount to the body's efficient and appropriate functioning." – TM18

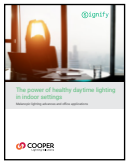
INTERNATIONAL WELL BUILDING INSTITUTE™

BioUp solutions maximize WELL points for Circadian Lighting Design (L03):



Use BioUp to achieve Equivalent Melanopic Lux (EML) thresholds for circadian design and earn nearly 20% of WELL building lighting points.

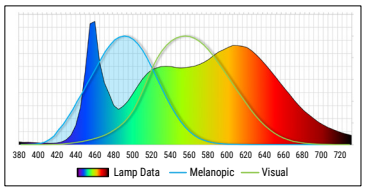
MDER, M-EDI and **EML** are key metrics used to quantify non-visual performance of indoor lighting systems.



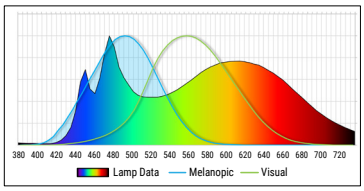
See BioUp white paper for more details

MDER - Melanopic Daylight Efficacy Ratio (MDER) measures the amount of light stimulating to the melanopsin receptors.

Standard 4000K LED
MDER = .62



BioUp 4000K LED
MDER = .82



30% boost Biological impact
compared to traditional LED sources

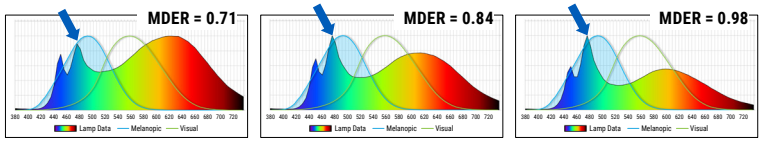
CCT	LED MDER ~83 CRI	BioUp Static		BioUp Dynamic	
		MDER	CRI	MDER	CRI
2700K	0.44	–	–	0.49	95
3000K	0.51	–	–	0.63	92
3500K	0.62	0.70	91	0.74	90
4000K	0.72	0.84	88	0.81	88
4500K	0.76	0.90	86	0.91	86
5000K	0.79	0.96	85	0.97	85

BioUp enhances the LED spectrum with cyan light at 475nm increasing the biological impact of the light to enhance our circadian rhythm which regulates our sleep/wake cycle, daytime engagement, and mood –
all without distorting visual color impression.

Static (non-tunable)

Static BioUp is used when simple Melanopic Lighting is desired at all times.

Arrow in graph shows BioUp spectrum boost is at 475nm where non-visual biological response is enhanced.



3500K or 4000K or 5000K

Cyan light component always present

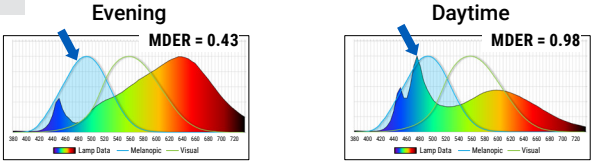
Dimming Control: 0% Intensity 100%

› no CCT control needed

Dynamic - (Tunable)

Dynamic BioUp is used when Melanopic Lighting is desired to adjust during the day.

Evening | Daytime



Warmer CCT **Without** Cyan content ⟷ Cooler Light **With** Cyan content

2700K – 5000K

CCT Control: warm 2700K — CCT — cool 5000K

Dimming Control: 0% Intensity 100%

› Control with Wavelinx, 2ch 0-10V, or DALI

Emergency Lighting

All buildings have to comply with emergency lighting codes to maintain their certificate of occupancy.
To enable this, Cooper Lighting Solutions has created multiple offerings to suit the building type and luminaire type.

Options to Enable Emergency (Stand Alone)

	Standard	Self-Diagnostic	FirstLink Connected ETO for Factory-Installed Only
Metalux Recessed, HALO, APG, Outdoor Medium forward voltage LED arrays usually 20-60V DC	**Batteries**: EBPLEDL7W, EBPLEDL14W **Inverters**: INVM-10W-AD	**Batteries**: EBPLED10WSD, EBPLED7.5WSD **Inverters**: INVM-25W-ADSD, INVM-50W-ADSD	**Batteries**: EBPLEDL10SF, EBPLEDL6SF
Metalux Industrial High forward voltage LED arrays usually 90-200V DC	**Batteries**: EBPLEDC1HV **Inverters**: INVM-10W-AD, INVM-100W-AD	**Inverters**: INVM-25W-ADSD, INVM-50W-ADSD	
How is emergency lighting inspection done?	Turn breakers off Walk around the building and collect compliance data.	No need to turn breakers off. Walk around, look up and collect compliance data.	No need to turn breaker off, No walking around. Open the app, push a button, and collect compliance data.

NOTE: 1. For factory installed First-Link EBP, order xSF option. Example: ETO_22CZ2-34HE-UNV-EBP10SF-L835-CD1-U (see Luminaire Order Info)
2. For factory installed standard EBP. Example: 22CZ2-34HE-UNV-EL7W-L835-CD1--U

Connected Emergency Lighting

ETO via Factory-Installed Only

Use our Connected Emergency Lighting products (FirstLink) to reduce the cost of compliance.

FirstLink is a complete and fully code compliant connected emergency egress lighting system comprised of FirstLink enabled exit signs, unit equipment, emergency LED drivers and the FirstLink application. The monthly and annual tests can be scheduled to be performed on a cadence. And the FirstLink app easy, instant access to compliance information and your system status. Reports can be easily exported to prove the system compliance status is 100%.

Compliance

- Avoid costly non-compliance fines
- Helps reduce risks and insurance premiums

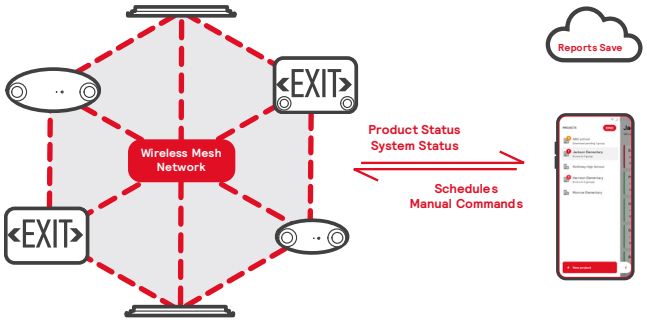
Convenience

- No ladders
- No documentation
- No searching for reports during an inspection.

Control

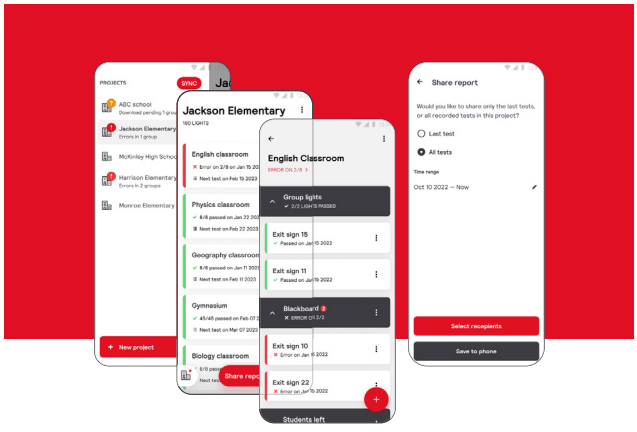
- Scheduling: Adjust the frequency and timing of testing.
- Troubleshooting: Receive complete product status information.
- Customization: Create custom groups and zones.

How does FirstLink work?



FirstLink is a standalone wireless mesh network that connects all devices and ensures a reliable connection through the network, even during the loss of individual devices.

If the app can communicate with just one device, the status of all devices can be read. Once the status is downloaded, the data is uploaded and saved to the cloud.



The FirstLink App

Complete control is in your hands

The FirstLink app is your portal to the FirstLink system. This easy-to-navigate iOS and Android application gives you the ability to configure your system, view and export results, change testing schedules, and more.

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www.cooperlighting.com

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