Project		Catalog #		Type	
Prepared by		Notes		Date	
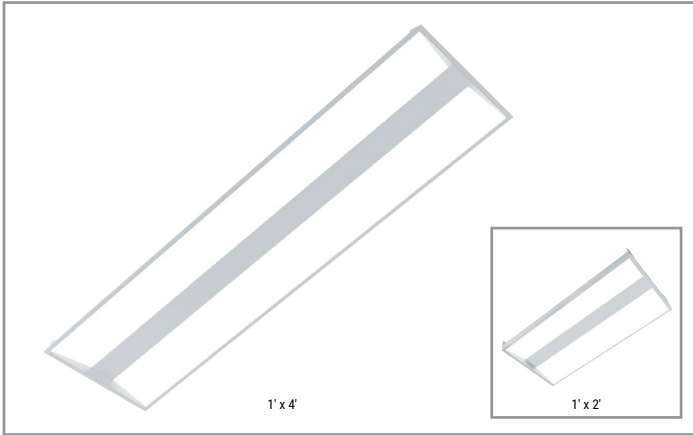
Fail-Safe

ENW/ENC/ENV

ENW: Wet Location/Wipe Down
ENC: Cleanroom
ENV: Vandal Resistant

Typical Applications

• Patient Rooms • Corridors • Food Preparation • Schools • Laboratories
• Sterile Environments • Clean Rooms • Detention Centers • Behaviorial
• Health • Public Spaces • Canopies • Locker Rooms.

1' x 4'

1' x 2'

🔗 Interactive Menu

- Order Information page 2
- VividTune Tunable White page 5
- Product Warranty

Product Certification

UL CERTIFIED SAFETY · RoHS COMPLIANT · DLC LISTED · DLC PREMIUM · IP66 · IC RATED · BAA

NSF · CSA C US · wet location · ISO CERTIFIED

Product Features

VividTune color tuning solutions · MWS MODULAR WIRING SYSTEM CLICK HERE · LINEAR DISCONNECT Safe and convenient means of disconnecting power

Top Product Features

- Leverages our patented WaveStream Technology with AccuAim™ optics
- 0-10V dimming standard
- Clear acrylic or polycarbonate lens adhered to fixture
- White tuning solutions available, either 3000K - 5000K or 2700K - 6500K
- Use the DFCL for hard ceiling applications
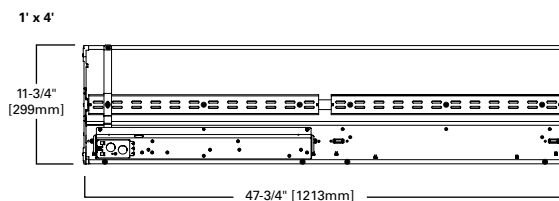- Options to meet Buy American Act requirements

Dimensional and Mounting Details

3-1/16" [78mm]

11-3/4" [298mm]

1' x 2'

11-3/4" [299mm]

23-3/4" [603mm]
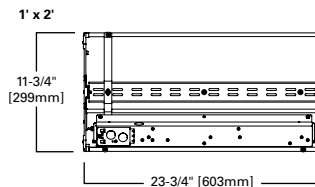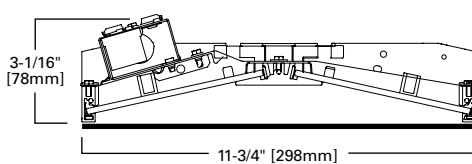
Ceiling Compatibility

G
Grid/Lay-in
Standard

F
Drywall Frame
Kit

Ceiling Type	Trim Type
Exposed Grid	G
Concealed T	G or T
Slot Grid	G or T
Flange	*

1' x 4'

11-3/4" [299mm]

47-3/4" [1213mm]

Notes:
*See Drywall Frame Kit Accessory in Ordering Information section.

Order Information

SAMPLE ORDER NUMBER: **ENW-12-4-LD2-28-30-CA125-UNV-EDC1 or ENV-12-2-LD2-17-50-CP187-UNV-ED1D1**

Domestic Preferences [14]	Family	Type	Width	Length	LED Type	Lumen Outputs	Color Temperature	Lens
[Blank]=Standard **BAA**=Buy American Act	**EN**=Encounter	**W**=Wet Location, Wipe Down, Sealed **C**=Clean Room Rated, Wet Location **V**=Vandal Resistant [7], [9]	**12**=12"	**2**=2' **4**=4'	**LD2**=LED 2.0	**1' x 2'** **13**=1300 Lumens [10] **17**=1700 Lumens **27**=2700 Lumens **35**=3500 Lumens **1' x 4'** **25**=2500 Lumens [16] **28**=2800 Lumens **33**=3300 Lumens **43**=4300 Lumens	**30**=3000K **35**=3500K **40**=4000K **50**=5000K **2765**=White Tuning, 2700K-6500K **3050**=White Tuning, 3000K-5000K	**ENW and ENC** **CA08**=Clear Acrylic, 0.080" Thick **CA125**=Clear Acrylic, 0.125" Thick **ENV** **CP125**=Clear Polycarbonate, 0.125" Thick **CP187**=Clear Polycarbonate, 0.187" Thick **CP250**=Clear Polycarbonate, 0.250" Thick
Notes (14) Only product configurations with this designated prefix are built to be compliant with the Buy American Act of 1933 (BAA). Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.		**Notes** (7) DFCL is used to install the ENW and ENC in hard ceiling applications. For applications requiring the ENV to be installed in a hard ceiling, the DFVR is required. (9) HS (high security) option requires a minimum .250" thick polycarbonate lens (CP250), and for hard ceiling application, specify the DFVR framing kit (see accessories for ordering logic). DFVR is an optional behavioral framing kit that includes countersunk holes in the face of the T-bar, and countersunk tamper resistant screws. The screws are used to secure the DFVR to the ceiling. Installer attaches the fixture to the DFVR, then the DFVR to the ceiling.				**Notes** (10) 1300 lumens not available with White Tuning. (16) 2500 lumens not available WN driver.	

Voltage [1]	Driver (1=Number of Drivers)	Options
UNV=Universal Voltage 120-277V **120**=120 Volt **120**=277 Volt	**EDC1**=Electronic Driver, Single Circuit, Non-Dimming **EDD1**=Electronic Driver, Single Circuit, 0-10V Dimming,10% **ED1D1**=Electronic Driver, Single Circuit, 0-10V Dimming,1% **5LTD1**=Fifth Light DALI Driver, Single Circuit, (10%-100% Dimming) [2], [6] **5LTHD1**=Fifth Light Driver, Single Circuit, (1%-100% Dimming) [2] **EDSD1**=Step Dim Driver, Single Circuit [2] **LH1**=Lutron HiLume, (LDE1 series) 1% -100% Ecosystem Driver with Soft-on Fade to Black Dimming **L51**=Lutron 5 Series (LDE5 series) 5% -100% Ecosystem Driver **W2A**=White Tuning, 2ch, Intensity and CCT Control [10], [13]	**GTR2**=Bodine Generator Transfer Relay [8], [12] **ETRD**=Iota Emergency Transfer Relay with dimming control [8], [12] **CP**=CCEA Compliant [1] **GSK/GRD**=Gasket around perimeter of bottom edge of lens to seal between the fixture and T-Grid (standard on ENC) **GSK/HSG**=Gasket on back side of housing (standard on ENC) **HS**=High Security (ENV only) [9] **90**=90CRI
	Notes (2) 1300,1700,2500,2700,2800,3300 lumen packages not available with 5LTD1 or EDSD1 drivers. (6) Must be used with DALI control system. (10) 1300 lumens not available with White Tuning. (13) White Tuning provides correlated color temperature (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, 1color, 1 intensity	**Notes** (1) Row mounting not possible. (8) Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others). GTR2 includes (2) relays on fixtures with dimming drivers. ETRD option only requires (1) relay when used on a dimming fixture. Must specify voltage as 120V or 277V when ordering these devices. (9) HS (high security) option requires a minimum .250" thick polycarbonate lens (CP250), and for hard ceiling application, specify the DFVR framing kit (see accessories for ordering logic). DFVR is an optional behavioral framing kit that includes countersunk holes in the face of the T-bar, and countersunk tamper resistant screws. The screws are used to secure the DFVR to the ceiling. Installer attaches the fixture to the DFVR, then the DFVR to the ceiling. (12) Not compatible with GTR, ETRD, or integrated sensor options. Available with UNV voltage only.

Accessories

Accessories (order separately) [15]
MSC4-PK=Mounting Security Clips. Use to secure fixture to grid or to attach tie-wires [3] **DFCL-1224W-U**=1' x 2' gasketed drywall framing kit. Ships with gasket to be applied in field. Cut out dimension 12.25" x 24.25" [7] **DFCL-1248W-U**=1' x 4' gasketed drywall framing kit. Ships with gasket to be applied in field. Cut out dimension 12.25" x 48.25" [7] **DFVR/ENV-1224W-U**=1' x 2' vandal gasketed drywall framing kit. Ships with gasket to be applied in field. Cut out dimension 12.25" x 24.25" [9] **DFVR/ENV-1248W-U**=1' x 4' vandal gasketed drywall framing kit. Ships with gasket to be applied in field. Cut out dimension 12.25" x 48.25" [9] **LASER**=Laser pointer, enables remote testing to simulate AC power loss and engagement of emergency operation [5]
Notes (3) Mounting clips included standard with fixture. Order MSC4-PK for spare or replacement clips. (5) Test switch must be activiated by LASER, ordered separately. (7) DFCL is used to install the ENW and ENC in hard ceiling applications. For applications requiring the ENV to be installed in a hard ceiling, the DFVR is required. (9) HS (high security) option requires a minimum .250" thick polycarbonate lens (CP250), and for hard ceiling application, specify the DFVR framing kit (see accessories for ordering logic). DFVR is an optional behavioral framing kit that includes countersunk holes in the face of the T-bar, and countersunk tamper resistant screws. The screws are used to secure the DFVR to the ceiling. Installer attaches the fixture to the DFVR, then the DFVR to the ceiling. (15) Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

Gasket Detail

Housing Gasket

Lens Gasket
Lens
Grid Gasket
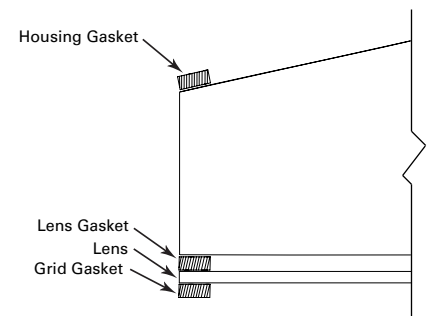
Product	Wet Location	NSF	IP66	Class / ISO	Lens Gasket	Housing Gasket	Grid Gasket
ENW	Standard	Standard	Standard	Class 100 / ISO5-8	Standard	Option	Option
ENC	Standard	Standard	Standard	Class 100 / ISO5-8	Standard	Standard	Standard
ENV	Standard	Standard	Standard	Class 100 / ISO5-8	Standard	Option	Option

COOPER Lighting Solutions

Product Specifications

Construction
- Shallow 3-1/16" deep housing extruded aluminum frame
- Injected molded composite end plates
- End plates screws for strength, rigidity and gap eliminations
- End plates accessory grid-lock feature adds safety
- Four auxiliary fixture end suspension points
- Large access plate for supply connection

Controls
- 0-10V dimming drivers to 1% standard
- WaveLinx wireless fixture for sensor-less wireless control
- WaveLinx sensor compatible for IoT capability
- Enlighted sensor compatible for IoT capability
- SVPD sensor compatible for out-of-the-box functionality
- DLVP sensor and driver compatible for low-voltage applications
- Fifth Light DALI driver, step-dimming and 3rd party drivers available

Electrical
- LED's available in 3000K, 3500K, or 4000K at 80 CRI or 90 CRI minimum
- TM21 life at 60,000 hours up to L92 and calculated L70 exceeds 288,000 hrs
- Drivers available in 120-277V and 347V
- White Tuning options available with Cooper Lighting's Vividtune

Emergency Battery Pack Options
- Optional 120V-277V integral emergency battery pack available in 7W or 14W
- 90-minute backup period for code compliance
- Test switch with laser pointer allows safe testing from floor
- Patented EZ Key prevents accidental discharge during construction

Driver Access
- Drivers can be accessed via plenum

Finish
- High reflectance baked matte white enamel finish

Optics
- Precision formed optical assembly
- Positively retained high optical grade acrylic lenses
- WaveStream technology provides a visually comfortable fully luminous surface

Compliance
- Components are UL recognized
- cULus Damp Location listed for 25C ambient indoor environments
- Complies with IESNA LM-79 and LM-80 standards
- DesignLights Consortium® Qualified and classified for DLC Standard and DLC Premium (refer to www.designlights.org)
- IP66 rated standard
- Class100,ISO5-8. NSF2 Listed standard.

Warranty
- Five year warranty standard. Optional ten year warranty available

Nominal Delivered Lumen Chart

Size	Lumen PKG	CCT	CRI	Watts	Lumens							LPW						
					CA08	CA125	CA08	CA125	CP125	CP187	CP250	CA08	CA125	CA08	CA125	CP125	CP187	CP250
1x2	13	4000	80	12.1	1245	1219	1245	1219	1139	1126	1113	102.9	100.7	102.9	100.7	94.1	93.1	92
1x2	17	4000	80	15.6	1641	1606	1641	1606	1501	1484	1466	105.2	102.9	105.2	102.9	96.2	95.1	94
1x2	27	4000	80	24.8	2584	2529	2584	2529	2364	2336	2309	104.2	102	104.2	102	95.3	94.2	93.1
1x2	35	4000	80	31.2	3297	3226	3297	3226	3016	2981	2946	105.7	103.4	105.7	103.4	96.7	95.5	94.4
1x4	25	4000	80	20.5	2335	2585	2335	2585	2136	2112	2087	113.9	111.5	113.9	111.5	104.2	103	101.8
1x4	28	4000	80	23	2624	2568	2624	2568	2400	2373	2345	114.1	111.7	114.1	111.7	104.3	103.2	102
1x4	33	4000	80	27.3	3104	3038	3104	3038	2480	2807	2774	113.7	111.3	113.7	111.3	104	102.8	101.6
1x4	43	4000	80	35.7	4046	3960	4046	3960	3702	3659	3616	113.3	110.9	113.3	110.9	103.7	102.5	101.3

Approximate Color Temperature Multiplier

4000K	1.0
3000K	0.944
3500K	0.972
5000K	1.078

Shipping Data

Catalog No.	Weight (lbs)
1x4 CA125 Lens	18
1x2 CA125 Lens	10

Notes: Delivered lumens in table above are approximate values. Refer to LM79 data/IES files for precise values.

🛰 Control Systems

- WaveLinx Wireless
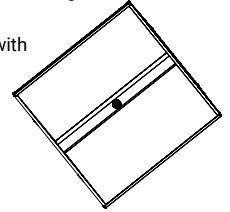- WaveLinx Wired
- WaveLinx Lite
- DLVP
- VividTune

Connected Systems
CLICK HERE

The Encounter with Integrated Sensor technology provides automatic energy savings without sacrificing performance. The Encounter delivers superior lighting with integrated occupancy and daylighting controls.
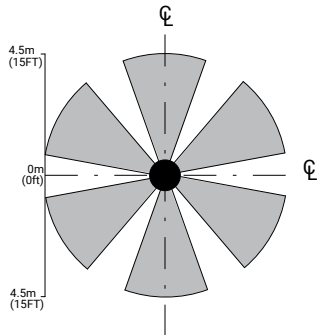
For standalone and controlled applications, the WaveLinx Lite integral sensor provides out-of-the-box functionality with no gateways required and factory startup is not needed.

When more connectivity is required, the WaveLinx Wireless sensor meets modern code and utility requirements, delivers energy and cost savings, while enabling buildings to become smart buildings.
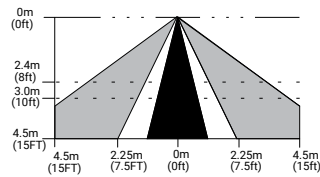
The WaveLinx Wireless Connected Lighting System combined with Trellix provides an open IoT platform and infrastructure that connects intelligent sensors leveraging the real-estate of the physical light fixture to solve higher complexity problems to deliver actionable insights through the aggregation of valuable data.

TOP VIEW:

4.5m (15FT)

0m (0ft)

4.5m (15FT)

SIDE VIEW:

0m (0ft)
2.4m (8ft)
3.0m (10ft)
4.5m (15FT)

4.5m (15FT) · 2.25m (7.5FT) · 0m (0ft) · 2.25m (7.5ft) · 4.5m (15ft)

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.

Systems comparison chart

Cooper Lighting Solutions provides many lighting system solutions designed to satisfy code requirements and meet the unique needs of any project.

	Standalone	Controlled WaveLinx Lite	Connected WaveLinx Pro	Enterprise Trellix
Occupancy	Yes	Yes	Yes	Yes
Daylighting	Yes	Yes	Yes	Yes
Wallstations	–	Yes	Yes	Yes
Gateways	–	–	1 WAC	300 WACs
Devices (MAX)	–	50 per Area (1400 per site)	200 per WAC2	32,500 per Core Enterprise
Software	–	WaveLinx Lite Mobile App	WaveLinx Pro Mobile App	Trellix Core
Areas	–	28 per Site	50 per WAC2	up to 3,000
Zones	–	16 per Area	16 per Area	up to 9,000
Scheduling	–	–	Local	Global
VividTune™	–	–	Yes	Yes
Plug-Load Control	–	–	Yes	Yes
Low-Voltage Power	–	–	Yes	Yes
Integration	–	–	–	BACnet, API
Dashboards	–	–	–	Energy, Occupancy
Configuration	–	Installer	Technician	Technician / IT

SCALABILITY

devices ➤ areas ➤ floors ➤ buildings

VividTune™
color tuning solutions

## EN LED 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.

Black Body Locus | ANSI C78.377-2017 Quadrangles

— 3000K - 5000K
— 2700K - 6500K
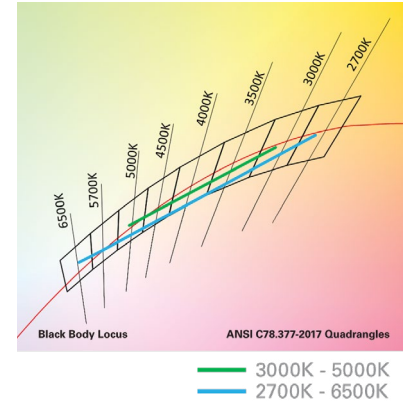
Performance Data*

CCT	Tunable White - Lumen Adjustment Factors (example only)			
	3000K-5000K		2700K-6500K	
	80 CRI	90 CRI	80 CRI	90 CRI
2700K	-	-	0.894	0.738
3000K	0.968	0.809	0.903	0.762
3500K	0.984	0.827	0.932	0.779
4000K	0.988	0.860	0.919	0.814
4500K	1.002	0.864	0.946	0.808
5000K	1.003	0.868	0.945	0.829
6500K	-	-	0.949	0.850

CCT Setting	1' x 4' Fail Safe Encounter LED- Example of Lumen Calculation		
	Standard Catalog #	VividTune 80 CRI Catalog #	VividTune 90 CRI Catalog #
	ENW-12-4-LD2-28-35-CA125-UNV-EDC1	ENW-12-4-LD2-28-3050-CA125-UNV-W2A1	ENW-12-4-LD2-28-3050-CA125-UNV-W2A1-90
3000K	-	2484	2076
3500K	2566	2525	2122
4000K	-	2535	2270
4500K	-	2571	2217
5000K	-	2574	2470

Controlling VividTune Tunable White

VividTune 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, click here for tunable white application guides.

warm 2700K | CCT 0-10V | cool 6500K

warm 3000K | CCT 0-10V | cool 5000K

10% | Intensity 0-10V | 100%
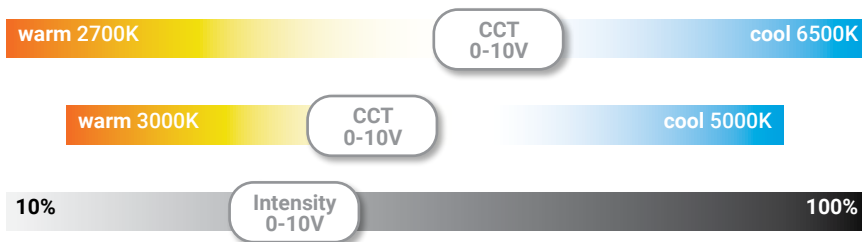
Example of Lumen Adjustment Calculation

ENW-12-4-LD2-28-3050-CA125-UNV-W2A1
at 80 CRI tuned to 3500K

Adjusted Lumen = published lm x adjusted lm factor

*Adjusted Lumen = 2566 * 0.984*

Adjusted Lumen = 2525 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.

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