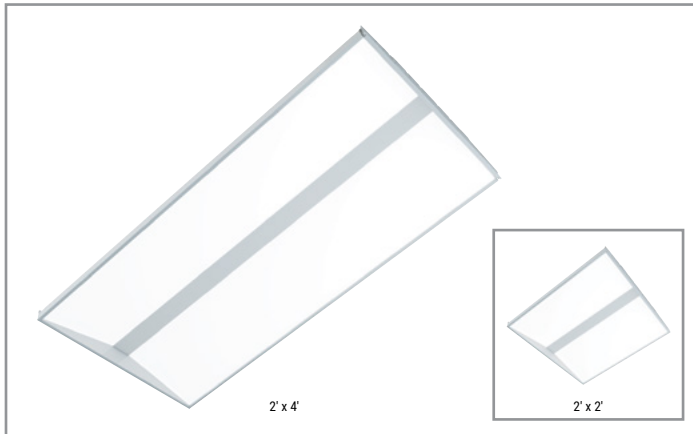


Project		Catalog #		Type	
Prepared by		Notes		Date	



## 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 • Behavioral
- Health • Public Spaces • Canopies • Locker Rooms.

#### Interactive Menu

- Order Information [page 2](#)
- VividTune Tunable White [page 5](#)
- Product Warranty

#### Product Certification



#### Product Features

**VividTune**  
color tuning solutions

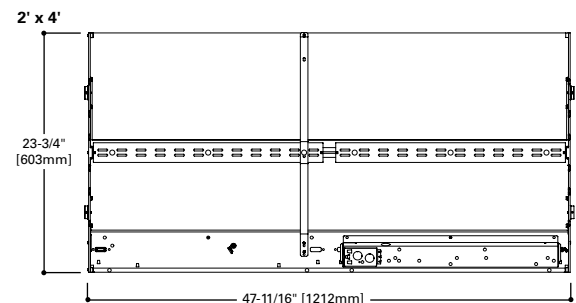
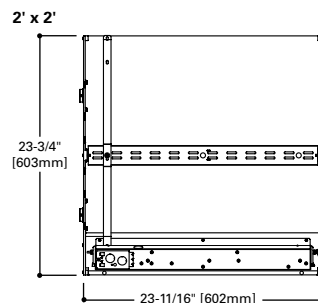
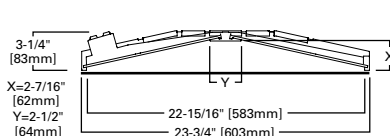
**MWS**  
MODULAR WIRING SYSTEM  
[CLICK HERE](#)

**LINEAR DISCONNECT**  
Safe and convenient means of  
disconnecting power

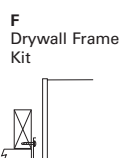
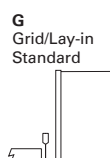
#### Top Product Features

- 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

#### Dimensional and Mounting Details



#### Ceiling Compatibility



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

#### Notes:

\*See Drywall Frame Kit Accessory in Ordering Information section.

## Order Information

SAMPLE ORDER NUMBER: **ENW-24-4-LD2-54-30-CA125-UNV-EDC1 or ENV-24-2-LD2-34-50-CP187-UNV-ED1D1-CP**

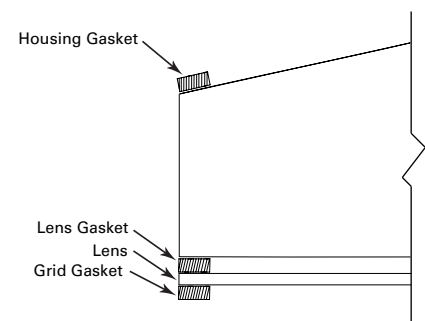
Family	Type	Width	Length	LED Type	Lumen Outputs	Color Temperature	Lens
Family	Type	Width	Length	LED Type	Lumen Outputs	Color Temperature	Lens
<b>EN</b> =Encounter	<b>W</b> =Wet Location, Wipe Down, Sealed <b>C</b> =Clean Room Rated, Wet Location <b>V</b> =Vandal Resistant <sup>(13)</sup>	<b>24</b> =24"	<b>2</b> =2' <b>4</b> =4'	<b>LD2</b> =LED 2.0	<b>2' x 2'</b> <b>25</b> =2500 Lumens <sup>(14)</sup> <b>34</b> =3400 Lumens <b>39</b> =3900 Lumens <b>43</b> =4300 Lumens <b>2' x 4'</b> <b>45</b> =4500 Lumens <b>54</b> =5400 Lumens <b>67</b> =6700 Lumens <b>70</b> =7000 Lumens	<b>30</b> =3000K <b>35</b> =3500K <b>40</b> =4000K <b>50</b> =5000K <b>2765</b> =White Tuning, 2700K-6500K <b>3050</b> =White Tuning, 3000K-5000K	<b>ENW and ENC</b> <b>CA08</b> =Clear Acrylic, 0.080" Thick <b>CA125</b> =Clear Acrylic, 0.125" Thick <b>ENV</b> <b>CP125</b> =Clear Polycarbonate, 0.125" Thick <b>CP187</b> =Clear Polycarbonate, 0.187" Thick <b>CP250</b> =Clear Polycarbonate, 0.250" Thick
<b>Notes</b> (13) 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.					<b>Notes</b> (14) 2500 lumens is not available with WN driver.		

Voltage	Driver	Number of Drivers	Options
Voltage <sup>(1)</sup>	Driver	Number of Drivers	Options
<b>UNV</b> =Universal Voltage 120-277V <b>120</b> =120 Volt <b>120</b> =277 Volt	<b>EDC</b> =Electronic Driver, Non-Dimming <b>EDD</b> =Electronic Driver, 0-10V Dimming, 10% <b>ED1D</b> =Electronic Driver, 0-10V Dimming, 1% <sup>(10)</sup> <b>5LTD</b> =Fifth Light DALI Driver, (10%-100% Dimming) <sup>(2), (8)</sup> <b>5LTHD</b> =Fifth Light Driver, (1%-100% Dimming) <sup>(5), (8)</sup> <b>EDSD1</b> =Step Dim Driver, (50% or 100% Dimming) <sup>(9)</sup> <b>LH</b> =Lutron HiLume, (LDE1 series) 1% -100% Ecosystem Driver with Soft-on Fade to Black Dimming <b>L5</b> =Lutron 5 Series (LDE5 series) 5% -100% Ecosystem Driver <b>WZA</b> =White Tuning, 2ch, Intensity and CCT Control <sup>(16)</sup> <b>WN</b> =WaveLinx Wireless Driver <sup>(14), (15)</sup>	<b>1</b> =1 Driver <b>2</b> =2 Drivers <sup>(5)</sup>	<b>EL7W</b> =Emergency Driver, 7W <sup>(4), (7)</sup> <b>EL14W</b> =Emergency Driver, 14W <sup>(4), (7)</sup> <b>GTR2</b> =Bodine Generator Transfer Relay <sup>(12), (15)</sup> <b>ETRD</b> =Iota Emergency Transfer Relay with dimming control <sup>(12), (15)</sup> <b>CP</b> =CCEA Compliant <sup>(1)</sup> <b>GSK/GRD</b> =Gasket around perimeter of bottom edge of lens to seal between the fixture and T-Grid (standard on ENC) <b>GSK/HS6</b> =Gasket on back side of housing (standard on ENC) <b>HS</b> =High Security (ENV only) <sup>(13)</sup> <b>90</b> =90CRI
<b>Notes</b> (2) Fifth-Light DALI, 5LTD option is not available with 3000 and 3400 lumen packages. (5) Two drivers required on 5LTHD option for 6700 lumens and up. (8) Must be used with DALI Control System. (9) Step dim driver not available with 3000, 3400, and 7000 lumen packages. (10) ED1D 1% dimming driver option is not available with the 7000 lumen package. (14) 2500 lumens is not available with WN driver. (15) Not compatible with GTR, ETRD, or integrated sensor options. Available with UNV voltage only. (16) White tuning provides correlated color temperatures (CCT) between 3000K (warm) to 5000K (cool) or 2700K (warm) to 6500K (cool). Must be used in conjunction with WZA driver only. Must be used with two (2) 10V dimming control channels, 1 color, 1 intensity.		<b>Notes</b> (5) Two drivers required on 5LTHD option for 6700 lumens and up.	<b>Notes</b> (2) Row mounting not possible. (4) Repositionable adhesive is used to secure the lens to the fixture. Separate the lens from the fixture to disengage the EZ key. Then re-attach the lens to the fixture. (7) Test switch must be activated by LASER, ordered separately. (12) 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. (13) 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) Not compatible with GTR, ETRD, or integrated sensor options. Available with UNV voltage only.

## Accessories

Accessories (order separately)
<b>MSC4-PK</b> =Mounting Security Clips. Use to secure fixture to grid or to attach tie-wires <sup>(6)</sup> <b>DFCL-2424W-U</b> =2' x 2' gasketed drywall framing kit. Ships with gasket to be applied in field. Cut out dimension 24.25" x 24.25" <sup>(11)</sup> <b>DFCL-2448W-U</b> =2' x 4' gasketed drywall framing kit. Ships with gasket to be applied in field. Cut out dimension 24.25" x 48.25" <sup>(11)</sup> <b>DFVR/ENV-2424W-U</b> =2' x 2' vandal gasketed drywall framing kit. Ships with gasket to be applied in field. Cut out dimension 24.25" x 24.25" <sup>(13)</sup> <b>DFVR/ENV-2448W-U</b> =2' x 4' vandal gasketed drywall framing kit. Ships with gasket to be applied in field. Cut out dimension 24.25" x 48.25" <sup>(13)</sup> <b>LASER</b> =Laser pointer, enables remote testing to simulate AC power loss and engagement of emergency operation <sup>(7)</sup>
<b>Notes</b> *Change W to AMW for antimicrobial matte white finish. (6) Mounting clips included standard with fixture. Order MSC4-PK for spare or replacement clips. (7) Test switch must be activated by LASER, ordered separately. (11) 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. (13) 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.

## Gasket Detail



## Stock SKU

ENW-24-2-LD2-34-35-CA125-UNV-EDC1

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

## Product Specifications

### Construction

- 3-1/4" 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
22	19	4000	80	16.5	1902	1861	1902	1861	1740	1720	1699	115.3	112.8	115.3	112.8	105.5	104.2	103
22	25	4000	80	20.7	2459	2407	2459	2407	2250	2224	2198	118.8	116.3	118.8	116.3	108.7	107.4	106.2
22	30	4000	80	25	2959	2896	2959	2896	2707	2676	2645	118.4	115.8	118.4	115.8	108.3	107	105.8
22	34	4000	80	28.6	3352	3281	3352	3281	3067	3031	2996	117.2	114.7	117.2	114.7	107.2	106	104.8
22	39	4000	80	33.1	3835	3754	3835	3754	3509	3468	3427	115.9	113.4	115.9	113.4	106	104.8	103.5
22	43	4000	80	36.8	4268	4177	4268	4177	3905	3859	3814	116	113.5	116	113.5	106.1	104.9	103.6
24	30	4000	80	22.3	2933	2870	2933	2870	2683	2652	2621	131.5	128.7	131.5	128.7	120.3	118.9	117.5
24	34	4000	80	25.2	3333	3262	3333	3262	3050	3014	2979	132.3	129.4	132.3	129.4	121	119.6	118.2
24	40	4000	80	30.1	3962	3878	3962	3878	3625	3583	3541	131.6	128.8	131.6	128.8	120.4	119	117.6
24	45	4000	80	34.5	4479	4384	4479	4384	4098	4051	4003	129.8	127.1	129.8	127.1	118.8	117.4	116
24	49	4000	80	37	4867	4764	4867	4764	4453	4402	4350	131.5	128.8	131.5	128.8	120.4	119	117.6
24	54	4000	80	41.2	5377	5263	5377	5263	4919	4862	4805	130.5	127.7	130.5	127.7	119.4	118	116.6
24	58	4000	80	44.5	5728	5606	5728	5606	5240	5179	5118	128.7	126	128.7	126	117.8	116.4	115
24	67	4000	80	50.4	6618	6477	6618	6477	6055	5984	5914	131.3	128.5	131.3	128.5	120.1	118.7	117.3
24	70	4000	80	53	6942	6794	6942	6794	6351	6278	6204	131	128.2	131	128.2	119.8	118.5	117.1
24	74	4000	80	56.2	7298	7143	7298	7143	6677	6600	6522	129.9	127.1	129.9	127.1	118.8	117.4	116

### Approximate Color Temperature Multiplier

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

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

### Shipping Data

Catalog No.	Weight (lbs)
2x4 CA125 Lens	30
2x2 CA125 Lens	15

## Control Systems

- WaveLinX
- DLVP
- Enlighted
- iLumin Plus
- VividTune



Connected Systems  
CLICK HERE

## Systems comparison chart

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

	Distributed Low-Voltage Power System	WaveLinX	Enlighted
Space type	Interior	Interior/Outdoor	Any
Stand-alone or Network	Stand-alone	Both	Network
Need-based feature progression			
Basic compliance only	•	•	•
Occupancy sensing	•	•	•
Daylight harvesting	•	•	•
Zone control	•	•	•
Scheduling	•	•	•
0-10V dimming	•	•	•
Individual fixture control	•	•	•
Retrofit+Building Integration	•	•	•
Total wireless connectivity		•	•
A/V integration		•	•
BMS integration		•	•
UI options (touchscreen, apps, etc.)		•	•
Enterprise level building integration		•	•
Facility management & tools		•	•
Floor plan & reporting tools			•
Value-added services			•
Asset tracking			•
API integration		•	•
Analytics/higher problem solving			•

## Integrated Sensor

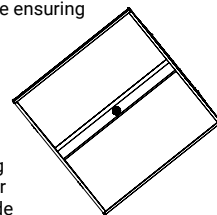
The Encounter with Integrated Sensor technology provides automatic energy savings without sacrificing performance. Traditionally, these types of energy savings required coordination between the luminaire and a lighting control system. The Encounter delivers superior lighting with integrated occupancy and daylighting controls.

Capture the benefits of traditional lighting controls, without complicated coverage planning or special wiring. Ideal for new construction or retrofit, the Encounter delivers automatic ON to an energy saving light level, while ensuring lighting is turned OFF when the space is unoccupied.

The integral daylight sensor reduces the need for special daylight zone planning. Each luminaire will automatically adjust the light level based on reflected light beneath the sensor in a closed loop method.

Occupied daylight light levels and unoccupied light levels can be adjusted using the integrated sensor programming remote (Catalog Number: ISHH-01). The integrated sensor personal remote (Catalog Number: ISHH-02) provides code compliant manual raise, lower, ON, OFF control.

The Encounter with Integrated Sensor is easy to install with no special wiring and ensures energy savings out-of-the-box with default control settings.



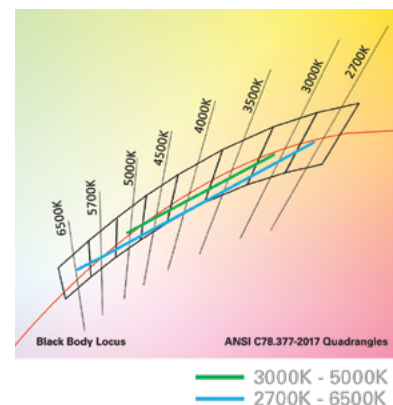
### How it works:

- As the user enters the space controlled by the integral sensor, the lighting turns ON to the default daylight level.
- Lighting will remain at that the daylight level until the space is unoccupied. This will start the occupancy timeout period (default 20 minutes).
- If the space remains unoccupied for half of the timeout period, the lighting will automatically reduce to the Energy Saver light level. This adjustable light level is typically half of the occupied daylight level.
- At the end of the timeout period the lighting will go to the unoccupied light level. This adjustable light level uses the OFF default setting.



## 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.



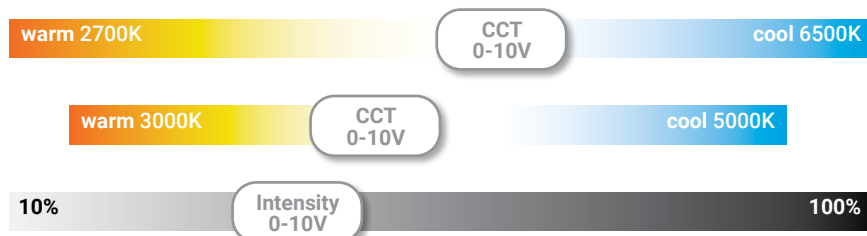
## Performance Data\*

Tunable White - Lumen Adjustment Factors (example only)				
CCT	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

2' x 4' Fail Safe Encounter LED- Example of Lumen Calculation			
	Standard Catalog #	VividTune 80 CRI Catalog #	VividTune 90 CRI Catalog #
CCT Setting	ENW-24-4-LD2-54-35-CA125-UNV-EDC1	ENW-24-4-LD2-54-3050-CA125-UNV-W2A1	ENW-24-4-LD2-54-3050-CA125-UNV-W2A1-90
3000K	-	4777	3992
3500K	4935	4856	4081
4000K	-	4876	4244
4500K	-	4945	4264
5000K	-	4950	4283

## 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.



## Example of Lumen Adjustment Calculation

ENW-24-4-LD2-54-3050-CA125-UNV-W2A1  
at 80 CRI tuned to 3500K

$\text{Adjusted Lumen} = \text{published } lm \times \text{adjusted } lm \text{ factor}$

$\text{Adjusted Lumen} = 4935 \times 0.984$

$\text{Adjusted Lumen} = 4856 \text{ lm}$

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