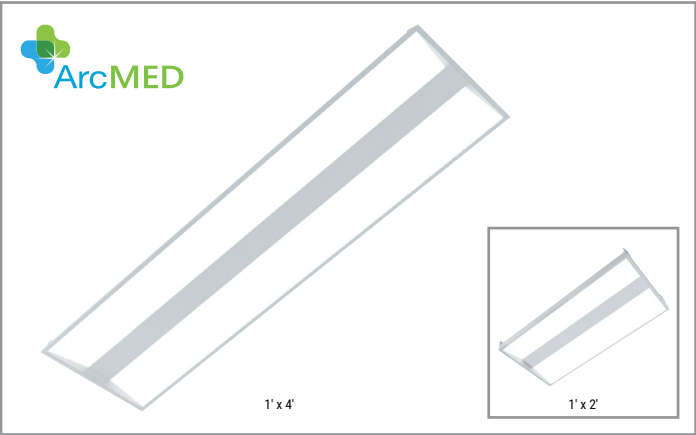


Project		Catalog #		Type	
Prepared by		Notes		Date	



# Fail-Safe

## ENW/ENC/ENV 1x2 / 1x4

**ENW:** Wet Location  
**ENC:** Cleanroom/Medical  
**ENV:** Vandal Resistant/High Abuse

**Typical Applications**

- Patient Rooms • Corridors • 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 4
- Product Warranty

### Product Certification

### Top Product Features

- Patented WaveStream technology AccuAim optics for uniform, soft illumination
- Aesthetically pleasing luminaire for use in high abuse, medical, wet location, and sterile applications
- Quick and easy cleaning and wipe-down
- Wet location standard, IP66 standard for dust and water ingress protection
- Clear polycarbonate outer lens for use in **behavioral health** applications. **Ligature resiatant.**
- ISO3-9 certified. For use in cleanroom applications or sterile environments

### Product Features

### Dimensional and Mounting Details

### 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	*

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

## Order Information

SAMPLE ORDER NUMBERS: **ENW-12-4-LD2-28-30-CA125-UNV-EDC1**  
**ENV-12-2-LD2-17-50-CP187-UNV-ED1D1**  
**ENC-12-4-LD2-33-2765-CA08-UNV-W2A (white tuning)**

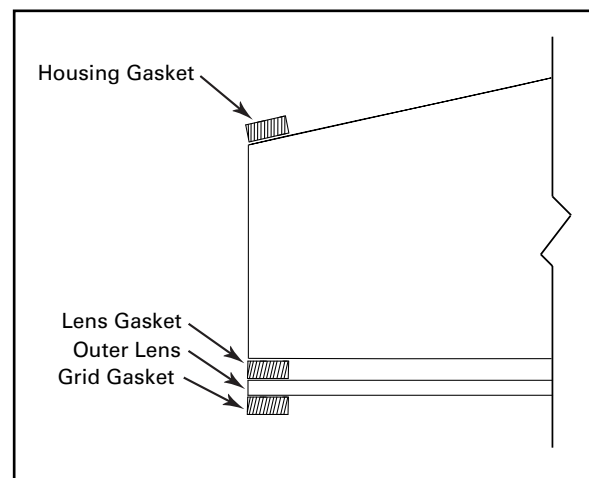
Domestic Preferences	Family	Type	Width	Length	LED Type	Lumen Outputs	Color Temperature	Outer Lens
Domestic Preferences <sup>(1)</sup>	Family	Type <sup>(2)</sup>	Width	Length	LED Type	Lumen Outputs <sup>(3)</sup>	Color Temperature <sup>(4)</sup>	Outer Lens
[Blank]=Standard BAA=Buy American Act	EN=Encounter	W=Wet Location, Wipe Down, Sealed C=Clean Room Rated, Wet Location V=Vandal Resistant <sup>(2)</sup>	12=12"	2=2' 4=4'	LD2=LED 2.0	1' x 2' 13=1300 Lumens <sup>(9)</sup> 17=1700 Lumens 27=2700 Lumens 35=3500 Lumens 1' x 4' 25=2500 Lumens 28=2800 Lumens 33=3300 Lumens 43=4300 Lumens	30=3000K 35=3500K 40=4000K 50=5000K L2765=White Tuning, 2700K-6500K <sup>(4)</sup> 3050=White Tuning, 3000K-5000K <sup>(4)</sup>	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
<b>Notes</b> (1) Only product configurations with this designated prefix are built to be compliant with the Buy American Act of 1933 (BAA). Please refer to <a href="#">DOMESTIC PREFERENCES</a> website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.		<b>Notes</b> (2) 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.				<b>Notes</b> (3) 1300 lumens not available with White Tuning.	<b>Notes</b> (4) 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 W2A driver only. Must be used with two 10V dimming control channels, 1 color, 1 intensity	

Voltage	Driver	Options
Voltage	Driver (1=Number of Drivers) <sup>(5), (6), (7), (8)</sup>	Options <sup>(9), (10), (11)</sup>
UNV=Universal Voltage 120-277V 120=120 Volt 277=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% SLTD1=Fifth Light DALI Driver, Single Circuit, (10%-100% Dimming) <sup>(7), (8)</sup> SLTHD1=Fifth Light Driver, Single Circuit, (1%-100% Dimming) EDSD1=Step Dim Driver, Single Circuit <sup>(7)</sup> LH1=Lutron HiLume, (LDE1 series) 1% -100% Ecosystem Driver with Soft-on Fade to Black Dimming W2A=White Tuning, 2ch, Intensity and CCT Control <sup>(5), (6)</sup>	GTR2=Bodine Generator Transfer Relay <sup>(10)</sup> ETRD=Iota Emergency Transfer Relay with dimming control CP=CCEA Compliant <sup>(9)</sup> 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). For use in behavioral high-risk areas, ligature resistant. Steel frame is attached to housing, tamper resistant hardware, and minimum of 0.250" clear polycarbonate lens (DFVR accessory not required with HS option) <sup>(12), (17)</sup> 90=90CRI
	<b>Notes</b> (5) 1300 lumens not available with White Tuning. (6) 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 W2A driver only. Must be used with two (2) 10V dimming control channels, 1 color, 1 intensity. (7) 1300, 1700, 2500, 2700, 2800, 3300 lumen packages not available with (DALI) SLTD1 or EDS1 drivers. (8) Must be used with DALI control system.	<b>Notes</b> (9) Row mounting not possible. (10) Must specify voltage of 120 or 277. Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others). GTR2 includes two relays on fixtures with dimming drivers. ETRD option only requires one relay when used on a dimming fixture. (11) Integral EM packs not available factory installed, internal test switch interferes with clear bottom lens. Field installed EM packs with remote test switch recommended. (12) For use in hard ceilings only. Ceiling cut-out sizes as follow: 1x2: 13.87" x 25.87" 1x4: 13.87" x 49.87". Blocking around the perimeter of the ceiling cut-out required. (17) DFVR accessory is not required for (HS) High Security option.

## Accessories

Accessories (order separately) <sup>(16)</sup>
MSC4-PK=Mounting Security Clips. Use to secure fixture to grid or to attach tie-wires <sup>(13)</sup> 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" <sup>(15)</sup> 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" <sup>(15)</sup> 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" <sup>(15), (18)</sup> 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" <sup>(15), (18)</sup>
<b>Notes</b> *Change W to AMW for antimicrobial matte white finish. (13) Mounting clips included standard with fixture. Order MSC4-PK for spare or replacement clips. (14) Test switch must be activated by LASER, ordered separately. (15) 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. (16) Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information. (18) DFVR not necessary with HS option.

## Gasket Detail





## 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
- 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

### 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
- Clear outer acrylic or polycarbonate lens precision cut and applied, for superior protection

### Compliance

- Components are UL recognized
- cULus Damp Location listed for 25C ambient indoor environments
- Complies with IESNA LM-79 and LM-80 standards
- IP66 from below the luminaire/ceiling
- ISO3-9 certified
- IK10 rating when ordering the EN with a polycarbonate lens (minimum 0.125" thickness)

- Tested for ISO 5 compliance. ISO3 and ISO4 environments typically employ uni-directional vertical air-flow and a ventilated raised floor to remove airborne particles. Not uncommon for the entire ceiling to be either HEPA or ULPA filters. Filtered air is continually directed downward, passing through the ventilated raised floor, and recirculated – to remove more of the airborne particles than are created. Often, laminar-flow surface mount luminaires are used to illuminate the space. With proper air flow and air exchanges, proper installation, this non-shedding luminaire is acceptable for use in ISO3-9 environments.

### Warranty

- Five year limited warranty standard. Optional ten year limited 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

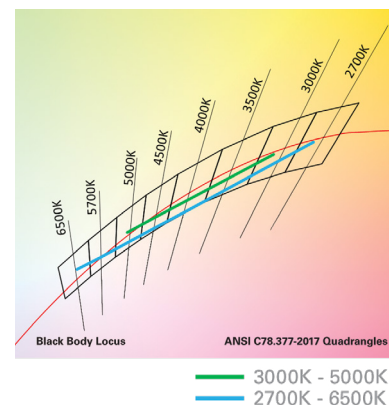
**Notes:** Delivered lumens in table above are approximate values. Refer to LM79 data/IES files for precise values.

### Shipping Data

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

## 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.



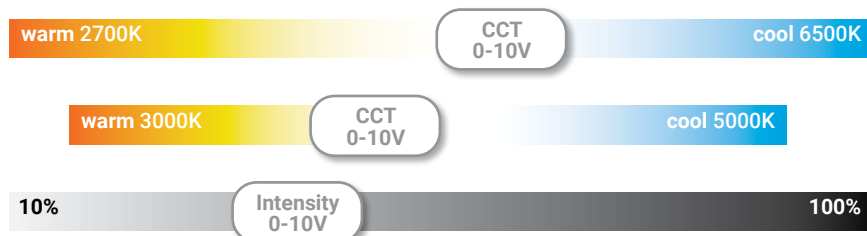
## Performance Data\*

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

1' x 4' Fail Safe Encounter LED- Example of Lumen Calculation			
	Standard Catalog #	VividTune 80 CRI Catalog #	VividTune 90 CRI Catalog #
CCT Setting	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.



## 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.