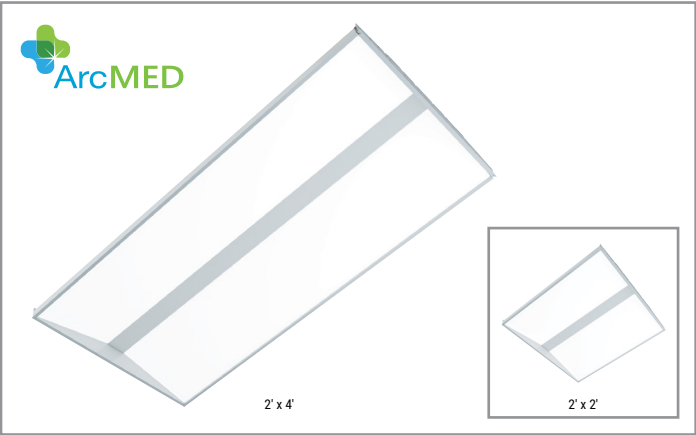


Project		Catalog #		Type	
Prepared by		Notes		Date	



### Interactive Menu

- Order Information page 2
- VividTune Tunable White page 4
- Product Warranty

- ### Top Product Features

  - Patented WaveStream technology with 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

## Fail-Safe

### ENW/ENC/ENV 2x2 / 2x4

**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.

### Product Certification

### Product Features

### Dimensional and Mounting Details

#### Ceiling Compatibility

G	F	Ceiling Type	Trim Type
Grid/Lay-in Standard	Drywall Frame Kit	Exposed Grid	G
		Concealed T	G or T
		Slot Grid	G or T
		Flange	*

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

# Fail-Safe

## 2x2 and 2x4 ENW/ENC/ENV

### Order Information

SAMPLE ORDER NUMBER: **ENV-24-2-LD2-25-40-CP125-UNV-EDD1**

SAMPLE ORDER NUMBER: **ENW-24-2-LD2-34-35-CA125-UNV-EDC1**

SAMPLE ORDER NUMBER: **ENC-24-4-LD2-54-30-CA125-UNV-EDC1**

Products configured using shaded options typically ship quicker than products with non-shaded options. Consult customer service for exact lead times.



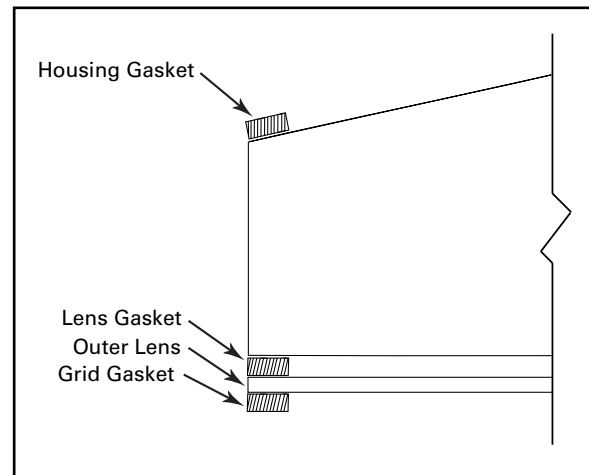
Domestic Preferences	Family	Type	Width	Length	LED Type	Lumen Outputs	Color Temperature	Lens
Domestic Preferences <sup>(1)</sup>	Family	Type	Width	Length	LED Type	Lumen Outputs	Color Temperature	Lens
<b>[Blank]</b> =Standard <b>BAA</b> =Buy American Act	<b>EN</b> =Encounter	<b>W</b> =Wet Location, Wipe Down, Sealed <b>C</b> =Clean Room Rated, Wet Location <b>V</b> =Vandal Resistant	<b>24</b> =24"	<b>2</b> =2' <b>4</b> =4'	<b>LD2</b> =LED 2.0	<b>2' x 2'</b> 25=2500 Lumens 34=3400 Lumens 39=3900 Lumens 43=4300 Lumens <b>2' x 4'</b> 45=4500 Lumens 54=5400 Lumens 67=6700 Lumens 70=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> (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.								

Voltage	Driver	Number of Drivers	Options
Voltage	Driver	Number of Drivers	Options
<b>UNV</b> =Universal Voltage 120-277V <b>120</b> =120 Volt <b>277</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% <b>SLTD</b> =Fifth Light DALI Driver, (10%-100% Dimming) <sup>(2), (4)</sup> <b>SLTHD</b> =Fifth Light Driver, (1%-100% Dimming) <sup>(3), (4)</sup> <b>EDSD1</b> =Step Dim Driver, (50% or 100% Dimming) <sup>(5)</sup> <b>LH</b> =Lutron HiLume, (LDE1 series) 1% -100% Ecosystem Driver with Soft-on Fade to Black Dimming <b>W2A</b> =White Tuning, 2ch, Intensity and CCT Control <sup>(6)</sup>	<b>1</b> =1 Driver <b>2</b> =2 Drivers <sup>(7)</sup>	<b>EL7W</b> =Emergency Driver, 7W <sup>(9), (10)</sup> <b>EL14W</b> =Emergency Driver, 14W <sup>(9), (10)</sup> <b>GTR2</b> =Bodine Generator Transfer Relay <sup>(11)</sup> <b>ETRD</b> =Iota Emergency Transfer Relay with dimming control <sup>(11)</sup> <b>CP</b> =CCEA Compliant <sup>(8)</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/HS</b> =Gasket on back side of housing (standard on ENC) <b>HS</b> =High Security (ENV only). For use in behavioral high-risk areas, ligature resistant. Steel frame is attached to housing, tamper resistant hardware, and minimum 0.250" clear polycarbonate lens ( <b>DFVR accessory not required with HS option</b> ) <sup>(12), (17)</sup> <b>90</b> =90CRI
<b>Notes</b> (2) Fifth-Light DALI, SLTD option is not available with 3000 and 3400 lumen packages. (3) Two drivers required on SLTHD option for 6700 lumens and up. (4) Must be used with DALI Control System. (5) Step dim driver not available with 3000, 3400, and 7000 lumen packages. (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) Two drivers required on SLTHD option for 6700 lumens and up. (8) Row mounting not possible. (9) 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. (10) Test switch must be activated by LASER, ordered separately. (11) Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others). GTR2 includes (2) two relays on fixtures with dimming drivers. GTR2 requires specified voltage of 120V or 277V. ETRD option only requires (1) one relay when used on a dimming fixture. (12) For use in hard ceilings only. Ceiling cut-out sizes as follow: <b>2x2</b> : 25.87" x 25.87" <b>2x4</b> : 25.87" 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>(14)</sup>
<b>MSC4-PK</b> =Mounting Security Clips. Use to secure fixture to grid or to attach tie-wires <sup>(13)</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>(15)</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>(15)</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>(18)</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>(18)</sup> <b>LASER</b> =Laser pointer, enables remote testing to simulate AC power loss and engagement of emergency operation <sup>(14)</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) <b>DFVR not necessary with HS option.</b>

### Gasket Detail





## 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
- 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
- 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 rated standard
- ISO3-9 certified
- 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.
- IK10 rating when ordering the EN with a polycarbonate lens (minimum 0.125" thickness)

### Warranty

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

## Nominal Delivered Lumen Chart

					Lumens							LPW						
Size	Lumen PKG	CCT	CRI	Watts	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

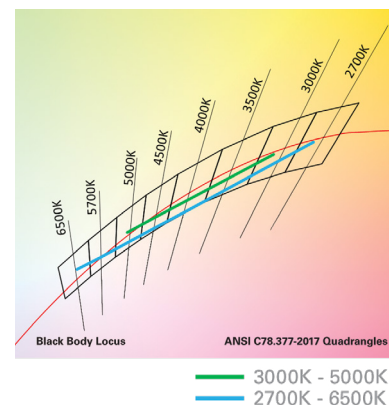
**Notes:** Delivered lumens in table above are approximate values. Refer to LM79 data/IES files for precise values.

### Shipping Data

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

## 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.



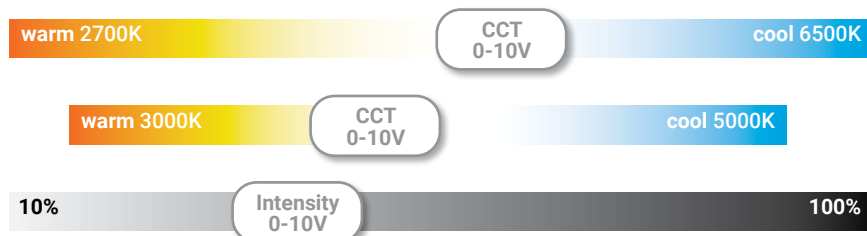
## Performance Data\*

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

Adjusted Lumen =  
published lm x adjusted lm factor

Adjusted Lumen = 4935 \* 0.984

Adjusted Lumen = 4856 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.