

# SIMPLESEAL™ NARROW SPECTRUM

## CSEDO SERIES –Amber & White LED – OVERLAPPING DOOR

### PROJECT INFORMATION

Job Name \_\_\_\_\_

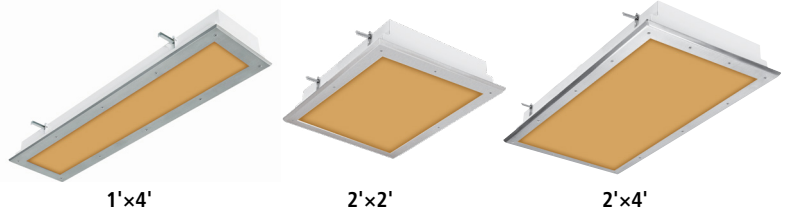
Fixture Type \_\_\_\_\_

Catalog Number \_\_\_\_\_

Approved by \_\_\_\_\_

#### PRODUCT FEATURES:

- » Narrow-spectrum 570nm amber LED circuit provides only high-purity light without UV for spectrally-sensitive applications
- » Available high-output, high-CRI white LED circuit provides visual acuity and accurate rendition
- » Diffused high-efficiency lens for reduced glare
- » One-piece overlapping door provides air-tight integrity of luminaire
- » Suitable for universal installation into 1.0" and 1.5" grid or flange (drywall) ceilings



#### SPECIFICATIONS

**HOUSING:** Standard 24-gauge (optional 20-gauge) cold rolled steel, hole-free, one-piece, seam-welded construction. 18-gauge housing flange with mitered and welded corners. White TGIC polyester powder coat finish – 5-step pre-treatment. Salt spray test: 1,000 hours; Reflectance: 92%.

**DOORFRAME:** 20-gauge type 304 stainless steel (#4 finish-post fabrication). One-piece 60° beveled perimeter construction. Continuous angle lens retention system. Mechanical guide for doorframe fastener alignment. Doorframe secured to housing with stainless steel aircraft cables and captive flush mounted Phillips head stainless steel fasteners (8) for 2x2, (12) for 2x4.

**OPTICS:** Symmetric optic includes diffused, impact-resistant 0.118" thick acrylic lens.

**DOORFRAME GASKET:** One-piece closed cell extruded Nitrile gasket seals doorframe to housing and ceiling structure.

**ELECTRICAL:** Replaceable 570nm amber (115 nm FWHM bandwidth) mid-power LED arrays produce no Ultraviolet and less than 0.019 watts of light below 480nm. Available separately circuited white mid-power LED arrays in 3500K, 4000K and 5000K color temperatures with maximum 3-step MacAdam variation allowance. Minimum 82 CRI. 120/277VAC or 347VAC, 50/60Hz electrical input with replaceable high power factor electronic, constant-current driver (<10% THD, >0.90 PF). Minimum 85% driver efficiency. Standard 0-10V dimming with 1-100% range and dim-to-dark capabilities on white and amber circuits (non dim-to-dark with 347V; 330µA maximum source current per circuit). Optional 0-10V dimming with 0.1-100% range and dim-to-dark capabilities via eldoLED SOLDrive series driver (n/a 347V input; ≤0.5V required from dimming control for dim-to-dark operation; 400µA max. source current). White circuit and amber circuit can be independently powered and dimmed.

**INSTALLATION:** Non-IC recessed ceiling mounting into grid and flange application types. Flange installation utilizes included adjustable swing-out mounting brackets. Grid installation suitable for 1" and 1.5" T-bar ceilings. Housing is field-convertible between grid and flange-style mounting types. See Options for continuous row mounting and install frames.

**PHOTOMETRICS:** Photometry tested to the IESNA LM-79-08 standard. For additional photometric data, please go to [www.kenall.com](http://www.kenall.com).

**WARRANTY:** Limited five (5) year warranty.

**LISTINGS:** Luminaire is certified to UL standards by Intertek Testing Laboratories for Wet Location. Certified IP66 per IEC 60598. CCEA Approved. Optional NSF Protocol P442 certified. FED-STD-209E/Class 1 (ISO 3) Cleanrooms. Suitable for BSL 1-4 laboratories. Suitable for EU GMP Grade A cleanrooms.



#### ORDERING INFORMATION (Ex: CSEDO-24-45AD/90L-40K8-DIM1-DV-2F-2H-SYM)

Model	Size	Lamp Power	Lamp Color	Driver	Voltage	Doorframe	Housing	Optics	Options
<b>CSEDO</b>								<b>SYM</b>	
<b>Size</b>		<b>Lamp Power</b>		<b>Driver Type</b>				<b>Options</b>	
<b>14</b> 1'x4'		<b>1'x4'</b>		<b>DIM1</b> 0-10V Dimming to 1%				<b>LEL</b> ‡ 8.4W Emergency Integral Battery Backup	
<b>22</b> 2'x2'		<b>45A/45L</b> 45W Amber/45W White		<b>DIM01</b> 0-10V Dimming to 0.1% (n/a with 347 Voltage)				<b>20KV</b> 20KV/KA Surge Protection per IEEE/ANSI C62.41.2 Cat. A	
<b>24</b> 2'x4'		<b>45A</b> 45 Watt Amber Only						<b>P442*</b> Optional NSF Protocol P442 Certified	
		<b>90A</b> 90 Watt Amber Only		<b>Voltage</b>				<b>AMF*</b> Antimicrobial Finish	
				<b>DV</b> 120-277VAC, 50/60Hz				<b>FS</b> Fuse & Holder	
		<b>2'x2'</b>		<b>120</b> 120VAC				<b>HJ</b> Sealed Wireway	
		<b>45AD/45LD</b> 45W Amber/ 45W White		<b>277</b> 277VAC				<b>RM</b> † Continuous Row Mounting	
		<b>45AD</b> 45 Watt Amber Only		<b>347</b> 347VAC				<b>Accessories</b>	
		<b>90A</b> 90 Watt Amber Only						<b>IF*</b> † Install Frame	
		<b>2'x4'</b>		<b>Doorframe Options</b>				* Add .375" to ceiling cut out dimensions	
		<b>45AD/45LD</b> 45W Amber/45W White		<b>5F</b> 20-Ga Type 304 SS (STD)				‡ Voltage specific selection required; n/a with 347V. Wired to Amber circuit when amber/white lamping is selected. Height of fixture is 5.875" with LEL option. 0°C/32°F min operating environment	
		<b>45AD/67L</b> 45W Amber/67W White		<b>2F</b> 20-Ga CRS				† Only available when installed in drywall ceilings (flange mount)	
		<b>45AD/90L</b> 45W Amber/90W White		<b>XF</b> 20-Ga Type 316 SS				‡ Applied only to exposed painted surfaces of luminaire (not available on stainless steel doorframes)	
		<b>90A/90L</b> 90W Amber/90W White		<b>PAF</b> .063" Painted Fabricated Aluminum				▲ P442 only available on CSEDO24	
		<b>45AD</b> 45 Watt Amber Only							
		<b>90A</b> 90 Watt Amber Only		<b>Housing Options</b>					
		<b>135A</b> 135 Watt Amber Only		<b>4H</b> 24-Ga CRS (STD)					
				<b>2H</b> 20-Ga CRS					
		<b>White Lamp Color</b>		<b>5H</b> 20-Ga Type 304 SS					
		<b>35K8</b> 3500K, 82 CRI		<b>XH</b> 20-Ga Type 316 SS					
		<b>40K8</b> 4000K, 82 CRI		<b>PAH</b> .050" Painted Aluminum					
		<b>50K8</b> 5000K, 82 CRI							
				<b>Optics</b>					
				<b>SYM</b> Symmetric, Diffused DR Acrylic					



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CSEDO-AMBER-050521

# SIMPLESEAL™

## CSEDO SERIES –Amber & White LED – OVERLAPPING DOOR

### PERFORMANCE

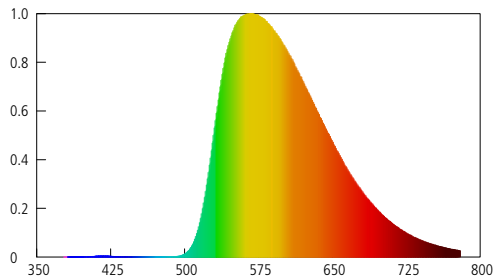
Amber/White		Amber Circuit			White Circuit			Amber/White Estd. L <sub>90</sub> LED Life (hrs)
Size	Lamp Code	Delivered lumens @ 25°C (lm)	Efficacy (lm/W)	Input Power (W)	Delivered lumens @ 25°C (lm)	Efficacy (lm/W)	Input Power (W)	
1' x 4'	45A/45L-35K8	5,622	115	49	5,140	105	49	60,000 / 80,000
	45A/45L-40K8	5,622	115	49	5,230	107	49	60,000 / 80,000
	45A/45L-50K8	5,622	115	49	5,439	111	49	60,000 / 80,000
2' x 2'	45AD/45LD-35K8	5,973	122	49	5,461	111	49	60,000 / 80,000
	45AD/45LD-40K8	5,973	122	49	5,556	113	49	60,000 / 80,000
	45AD/45LD-50K8	5,973	122	49	5,779	118	49	60,000 / 80,000
2' x 4'	45AD/45LD-35K8	6,538	139	47	6,593	143	46	60,000 / 80,000
	45AD/45LD-40K8	6,538	139	47	6,709	146	46	60,000 / 80,000
	45AD/45LD-50K8	6,538	139	47	6,977	152	46	60,000 / 80,000
	45AD/67L-35K8	6,538	139	47	9,171	127	72	60,000 / 80,000
	45AD/67L-40K8	6,538	139	47	9,331	130	72	60,000 / 80,000
	45AD/67L-50K8	6,538	139	47	9,704	135	72	60,000 / 80,000
	45AD/90L-35K8	6,538	139	47	11,784	121	97	60,000 / 80,000
	45AD/90L-40K8	6,538	139	47	11,990	124	97	60,000 / 80,000
	45AD/90L-50K8	6,538	139	47	12,470	129	97	60,000 / 80,000
	90A/90L-35K8	12,126	122	99	11,784	121	97	60,000 / 80,000
	90A/90L-40K8	12,126	122	99	11,990	124	97	60,000 / 80,000
	90A/90L-50K8	12,126	122	99	12,470	129	97	60,000 / 80,000

### Amber only

Size	Lamp Type	Delivered lumens @ 25°C (lm)	Efficacy (lm/W)	Input Power (W)	Estd. L <sub>90</sub> LED Life (hrs)
1' x 4'	45A	5,622	115	49	80,000
	90A	11,243	114	99	60,000
2' x 2'	45AD	5,973	122	49	80,000
	90A	11,946	121	99	60,000
2' x 4'	90A	12,126	122	49	80,000
	135A	18,189	122	99	80,000
	135A	17,208	116	148	60,000

Subject to change without notice. Visit [www.kenall.com](http://www.kenall.com) for .ies files and additional information

### Spectroradiometric Parameters



Purity: 0.985  
 UV: 0.0000% (<390nm)  
 Radiant Flux < 480nm: 0.08%  
 Bandwidth: 115nm  
 Peak Wavelength: 570nm



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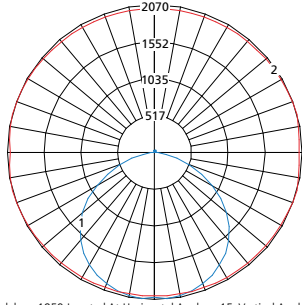
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# SIMPLESEAL™

## CSEDO SERIES – TECHNICAL DATA

### PERFORMANCE

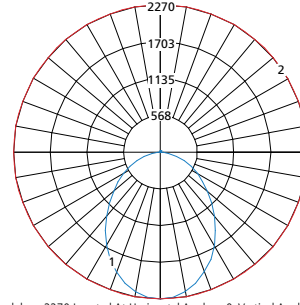
Model: CSEDO14-45A/45L-40K8-DIM1-120-2F-2H-SYM (White Mode)



Maximum Candela = 1859 Located At Horizontal Angle = 15, Vertical Angle = 5

- 1 - Vertical Plane Through Horizontal Angles (15-195) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

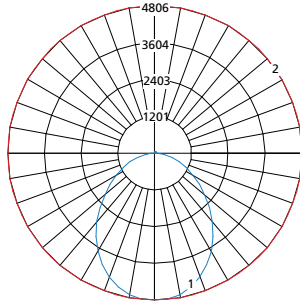
Model: CSEDO22-45AD/45LD-40K8-DIM1-120-2F-2H-SYM (White Mode)



Maximum Candela = 2270 Located At Horizontal Angle = 0, Vertical Angle = 0

- 1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

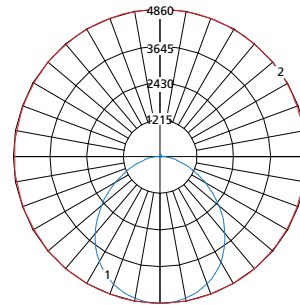
Model: CSEDO24-90A/90L-40K8-DIM1-120-2F-2H-SYM (White Mode)



Maximum Candela = 4806 Located At Horizontal Angle = 0, Vertical Angle = 0

- 1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

Model: CSEDO24-90A/90L-40K8-DIM1-120-2F-2H-SYM (Amber Mode)

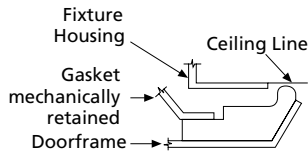


Maximum Candela = 4598 Located At Horizontal Angle = 75, Vertical Angle = 2.5

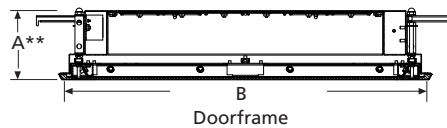
- 1 - Vertical Plane Through Horizontal Angles (75-255) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

### DIMENSIONAL DATA

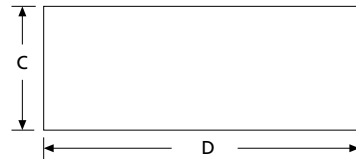
#### GASKET PROFILE



#### CROSS SECTION



#### CEILING CUTOUT



#### DIMENSIONAL DATA (IN INCHES)

	A	B	C	D
1x4	4.43	11.94 x 47.94	10.85	46.85
2x2	4.43	23.94 x 23.94	22.85	22.85
2x4	4.43	23.94 x 47.94	22.85	46.85

\* Add .375" to ceiling cut out dimensions when IF Option is specified

\*\* Height is 5.875" with LEL option



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