

# SIMPLESEAL™

## CSERO SERIES – OVERLAPPING DOOR USING KORE TECHNOLOGY™

### PROJECT INFORMATION

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

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

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

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

#### PRODUCT FEATURES:

- » Designed specifically to improve the visual performance while providing industry leading efficacy of up to 175 lm/W
- » Distribution provides uniform flat-field illumination, suppressing central hot spots and allowing greater ceiling spacing
- » Evenly illuminated diffuser with reduced surface brightness
- » Recessed ceiling mount; grid or flange - 1'x4', 2'x2', 2'x4'
- » Suitable for universal installation into 1.0" and 1.5" grid or flange (drywall) ceilings
- » One piece overlapping doorframe



#### SPECIFICATIONS

**HOUSING:** Standard 20-gauge cold rolled steel, hole-free, welded construction. Rigid housing flange with mitered and welded corners. White TGIC polyester powder coat finish – 5-step pre-treatment. Salt spray test: 1,000 hours. Internal surfaces use a proprietary high reflectance coating (Reflectance: >92%).

**DOORFRAME:** Standard 20-gauge type 304 brushed stainless steel. One-piece overlapping style construction with welded corners and 60 degree beveled perimeter. Cold rolled steel and Aluminum are finished with gloss white TGIC polyester powder coat finish with 5-stage pre-treatment. Doorframe secured to housing with stainless steel aircraft cables and captive flush mounted Phillips head stainless steel fasteners (10) for 1x4, (8) for 2x2, (12) for 2x4. Thumb screws used for FN option.

**DOORFRAME GASKET:** One-piece closed-cell, NSF listed extruded Nitrile gasket with vulcanized corners seals doorframe to housing and ceiling structure.

**OPTICS:** Injection molded high refraction polycarbonate optics provided for each LED. Proprietary KORE Technology™ (Kenall Optical Radiance Engine) delivers improved visual performance and uniform diffuser luminance, impact-resistant acrylic lens (<1.5/1 max/min ratio within full lens area).

**ELECTRICAL:** Available 3000K, 3500K, 4000K and 5000K color temperatures with maximum 3-step MacAdam variation allowance. Minimum 82 CRI (R9 >0) or 90 CRI (R9 >50) options. 120-277VAC, 50/60Hz electrical input with room-side serviceable high power factor electronic, constant-current driver (<20% THD, >0.95 PF). Standard 0-10V dimming with 1-100% range and dim-to-dark capabilities (10-100% range without dim-to-dark on 100L and 120L models). 800µA maximum source current.

**INSTALLATION:** 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. Universal installation into grid or flange (drywall) ceiling applications. See Options below for 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 LED warranty.

**LISTINGS:** Luminaire is certified to UL standards by Intertek Testing Laboratories for Wet Location and IC recessed installations (non-IC when ordered with LEL). Certified IP66 per IEC 60598. NSF2 Splash/Non-Food Zone. CCEA Approved. Suitable for biosafety labs rated BSL 1 thru 4. Meets K230 Leakage Standard for luminaire leakage in pressurized environments and FED-STD-209E/Class 1 (ISO 3-9) Cleanrooms. Suitable for installation into -30°C to 40°C ambient environments, unless otherwise noted.



#### ORDERING INFORMATION (Ex: CSERO-24-60L-40K8-DCC-DV-2F-2H-SYMW)

Model	Size	Lamp Power	Lamp Color	Driver	Voltage	Doorframe	Housing	Optics	Options	Accessories
<b>CSERO</b>				<b>DCC</b>				<b>SYMW</b>		
<b>Size</b>			<b>Lamp Color</b>				<b>Housing Options</b>			
14	1'x4'		30K8 3000K LED, 82 CRI				2H 20-Ga CRS in White (STD)			
22	2'x2'		35K8 3500K LED, 82 CRI				5H 20-Ga Type 304 SS in White			
24	2'x4'		35K9 3500K LED, 90 CRI				XH 20-Ga Type 316 SS in White			
			40K8 4000K LED, 82 CRI				PAH .050" Aluminum in White			
			40K9 4000K LED, 90 CRI					<b>Optics</b>		
			50K8 5000K LED, 82 CRI					SYMW Wide Symmetric, Diffused DR Acrylic		
<b>Lamp Power</b>				<b>Driver Type</b>				<b>Options</b>		
1'x4'				DCC Dimming Constant Current				LEL 6.0W Self-Testing Emergency Battery Pack (n/a with 347V; 0°C/32°F min operating environment)		
14L	14 Watt LED			<b>Voltage</b>				FN Food Zone Non-Contact		
24L	24 Watt LED			DV‡ 120-277VAC, 50/60Hz				AMF▲ Antimicrobial Finish		
35L‡	35 Watt LED			120 120VAC				FS Fuse & Holder		
48L	48 Watt LED			277 277VAC				HJ Sealed Wireway		
60L	60 Watt LED			347 347VAC (consult factory)				<b>Accessories</b>		
2'x2'				<b>Doorframe Options</b>				IF*† Install Frame		
14L	14 Watt LED			5F 20-Ga Type 304 SS 4B Brushed Finish (STD)						
24L	24 Watt LED			2F 18-Ga CRS in Gloss White						
35L‡	35 Watt LED			XF 20-Ga Type 316 SS with 4B Brushed Finish						
42L	42 Watt LED			PAF Fabricated Aluminum in Gloss White						
48L	48 Watt LED									
60L	60 Watt LED									
2'x4'										
28L‡	28 Watt LED									
48L	48 Watt LED									
60L	60 Watt LED									
85L	85 Watt LED									
100L	100 Watt LED									
120L	120 Watt LED									

\* Add .375" to ceiling cut out dimensions  
 ‡ 28L and 35L n/a with 220-240V input  
 † Optionally used for flange mount in hard ceilings (not required)  
 ▲ Applied only to exposed painted surfaces of luminaire (not available on stainless steel doorframes)



[www.kenall.com](http://www.kenall.com) | P: 800-4-Kenall | F: 262-891-9701 | 10200 55th Street Kenosha, Wisconsin 53144, USA

A brand of **Legrand**

This product complies with the Buy American Act: manufactured in the United States with more than 50% of the component cost of US origin. It may be covered by patents found at [www.kenall.com/patents](http://www.kenall.com/patents). Content of specification sheets is subject to change; please consult [www.kenall.com](http://www.kenall.com) for current product details. ©2019 Kenall Mfg. Co.

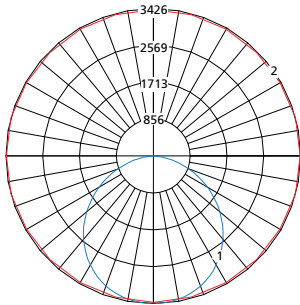
# SIMPLESEAL™

## CSERO SERIES – OVERLAPPING DOOR USING KORE TECHNOLOGY™

PERFORMANCE		Initial Delivered Lumens, By Lamp Color (lm)						Efficacy (lm/W)	Input Power (W)	LED Drive Current (mA)	Estd. L70 LED Life (hrs)
Size	Lamp Power	30K8	35K8	35K9	40K8	40K9	50K8				
1' x 4'	14L	2,418	2,438	2,109	2,486	2,130	2,554	116 - 140	18	31	100,000
	24L	4,010	4,044	3,499	4,124	3,533	4,237	119 - 144	29	52	95,000
	35L	5,719	5,767	4,990	5,881	5,038	6,043	123 - 149	41	75	90,000
	48L	6,944	7,003	6,059	7,141	6,118	7,337	110 - 134	55	97	80,000
	60L	8,952	9,028	7,810	9,205	7,887	9,459	116 - 140	67	63	90,000
2' x 2'	14L	2,491	2,512	2,173	2,561	2,194	2,632	119 - 144	18	31	100,000
	24L	4,112	4,147	3,588	4,229	3,623	4,345	122 - 147	29	52	90,000
	35L	5,714	5,763	4,986	5,876	5,034	6,038	123 - 149	41	75	95,000
	42L	6,686	6,743	5,834	6,875	5,890	7,065	119 - 144	49	88	90,000
	48L	7,121	7,181	6,213	7,322	6,274	7,524	108 - 131	57	100	85,000
2' x 4'	60L	9,180	9,258	8,010	9,440	8,088	9,700	120 - 145	67	125	80,000
	28L	5,443	5,489	4,749	5,597	4,795	5,751	144 - 175	33	31	95,000
	48L	8,438	8,510	7,362	8,677	7,434	8,916	141 - 170	52	50	100,000
	60L	10,637	10,728	9,281	10,939	9,372	11,240	139 - 168	67	63	90,000
	85L	14,406	14,529	12,570	14,814	12,692	15,222	135 - 163	93	88	90,000
2' x 4'	100L	17,569	17,718	15,329	18,066	15,478	18,564	133 - 162	115	106	85,000
	120L	20,476	20,650	17,866	21,057	18,040	21,637	131 - 159	136	125	80,000

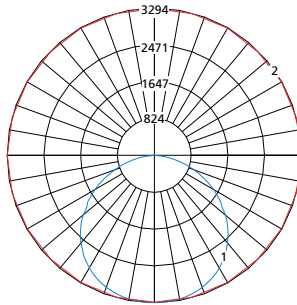
NOTE: Information subject to change without notice. All testing conducted by an ILAC/ISO17025 accredited laboratory. Please visit [www.kenall.com](http://www.kenall.com) for IES files and additional information.

Model: CSERO-14-60L-40K8-DCC-xxx-yyy-zzz-SYMW



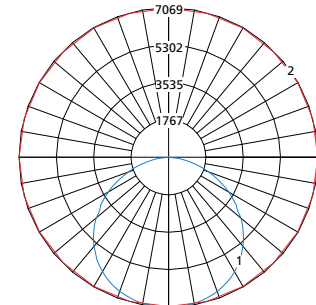
Maximum Candela = 3426 Located At Horizontal Angle = 15, Vertical Angle = 2.5  
 1 - Vertical Plane Through Horizontal Angles (15-195) (Through Max. Cd.)  
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: CSERO-22-60L-40K8-DCC-xxx-yyy-zzz-SYMW



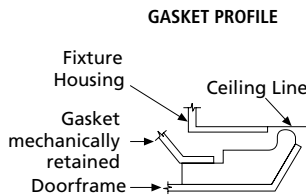
Maximum Candela = 3294 Located At Horizontal Angle = 0, Vertical Angle = 0  
 1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)  
 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

Model: CSERO-24-120L-40K8-DCC-xxx-yyy-zzz-SYMW

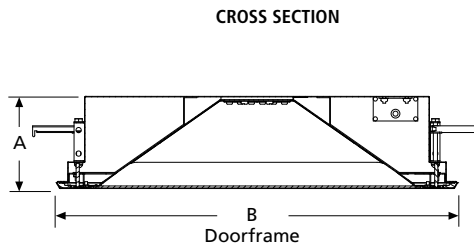


Max Candela = 7069 Located At Horizontal Angle = 0, Vertical Angle = 2.5  
 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

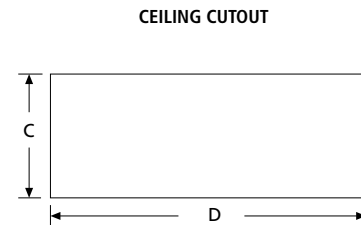
### DIMENSIONAL DATA



GASKET PROFILE



CROSS SECTION



CEILING CUTOUT

#### DIMENSIONAL DATA (IN INCHES)

	A	B	C	D
1x4	5.50	11.94 x 47.94	10.85	46.85
2x2	5.50	23.94 x 23.94	22.85	22.85
2x4	5.50	23.94 x 47.94	22.85	46.85

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



[www.kenall.com](http://www.kenall.com) | P: 800-4-Kenall | F: 262-891-9701 | 10200 55th Street Kenosha, Wisconsin 53144, USA

A brand of **legrand**

This product complies with the Buy American Act: manufactured in the United States with more than 50% of the component cost of US origin. It may be covered by patents found at [www.kenall.com/patents](http://www.kenall.com/patents). Content of specification sheets is subject to change; please consult [www.kenall.com](http://www.kenall.com) for current product details. ©2019 Kenall Mfg. Co.