#### **SIMPLESEAL™**

#### CSERO SERIES – OVERLAPPING DOOR USING KORE TECHNOLOGY™

#### PRODUCT FEATURES:

- » Designed specifically to improve the visual performance while providing industry leading efficacy of up to 152 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'×4', 2'×2', 2'×4'
- » Suitable for universal installation into 1.0" and 1.5" grid or flange (drywall) ceilings
- » One piece overlapping doorframe

# Job Name Fixture Type Catalog Number Approved by

PROJECT INFORMATION



#### **SPECIFICATIONS**

HOUSING: Standard 24-gauge cold rolled steel with dust-tight, sealed construction. Alternate material options available. 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 selections 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 1×4, (8) for 2×2, (12) for 2×4.

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 80 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 (non dim-to-dark with 347V). 330µA maximum source current.

SENSOR & CONTROLS: Optional sensor available with compatible third party controls. To see the full list of compatible controls, click here.

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

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. Certified IP66 per IEC 60598. NSF2 Splash/Non-Food Zone. CCEA Approved. Suitable for biosafety labs rated BSL 1 thru 4. Meets Standard for FED-STD-209E/Class 1 (ISO 3-9) Cleanrooms. Suitable for installation into -30°C to 40°C ambient environments, unless otherwise noted

Doorframo

Housing

Ontice

Ontions

Accordanias















#### ORDERING INFORMATION (Ex: CSERO-24-60L-40K8-DIM1-DV-5F-4H-SYMW) Lamn Color Model Lamp Dower

Model	l	Size	Lamp Power	Lamp	Color	Driver	voitage	Doorframe	Housi	ng	Optics	Options	Accessories
CSE	RO					DIM1					SYMW		
Size				Lamı	Color				— Housi	ing Option	s		
14	1'×4'				3000K / 80	CRI min.			4H		in White (S	TD)	
22	2'×2'			35K8	3500K / 80	CRI min.			2H	20-Ga CRS	in White		
24	2'×4'			35K9	3500K / 90	CRI min.			P5H	20-Ga Type	e 304 SS in \	White	
				40K8	4000K / 80	CRI min.			PXH	20-Ga Type	e 316 SS in \	White	
Lamp	Power			40K9	4000K / 90	CRI min.			PAH	.050" Alun	ninum in Wh	nite	
1'×4'				50K8	5000K / 80	CRI min.							
14L	14 Watt I	LED							Optic	s			
24L	24 Watt I	LED		Drive	er Type				SYMV	Wide Syr	mmetric, Dif	fused DR Acrylic	:
30L	30 Watt I	LED		DIM1	I 0-10V Dimn	ning to 1% with	Dim-to-Dark						
48L	48 Watt I	LED			(non dim-to	dark with 347V	/)		Optio	ns			
60L	60 Watt I	LED							LEL	10W Eme	rgency Batte	ery Pack	
				Volta	ige					(n/a with i	347V; 0°C/3	2°F min operati	ng environment)
2'×2'				DV	120-277VA	.C, 50/60Hz			FN	Food Zone	Non-Conta	ict (no thumb so	rews)
14L	14 Watt I			347	347VAC, 60	)Hz			AMF <del>^</del>	<ul> <li>Antimicrol</li> </ul>	bial Finish		
24L	24 Watt I								FS	Fuse & Ho	older		
30L	30 Watt I			Door	frame Optic	ns			HJ	Sealed Wi	reway		
	42 Watt I			5F	20-Ga Type	304 SS with 4B	Brushed Finish (STI	D)					
48L	48 Watt I			2F		n Gloss White				sories			
60L	60 Watt I	LED		XF	20-Ga Type	316 SS with 4B	Brushed Finish		IF*†	Install Frai	me		
				PAF	Fabricated A	luminum in Glo	ss White						
2'×4'													
28L	28 Watt I											dimensions	
48L	48 Watt I												eilings (not required)
60L	60 Watt I											nted surfaces of	luminaire
	84 Watt I								(not a	available on	stainless ste	eel doorframes)	
96L	96 Watt I	LED											



**120L** 120 Watt LED

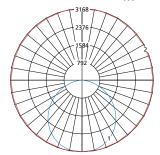
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PERFORMANCE		li	nitial Deliv	ered Lume	ns, By Lam							
Size	Lamp Power	30K8	35K8	35K9	40K8	40K9	50K8	Efficacy (lm/W)	Input Power (W)	TM-21 Reported L70 (hrs)		
	14L	2,099	2,121	1,801	2,195	1,854	2,217	100 - 123	18			
	24L	3,457	3,492	2,966	3,615	3,054	3,650	104 - 128	28	>72,000		
1' x 4'	30L	4,184	4,226	3,589	4,375	3,695	4,417	108 - 132	33			
	48L	6,606	6,673	5,667	6,908	5,835	6,975	105 - 130	54			
	60L	8,114	8,197	6,961	8,485	7,167	8,567	104 - 128	67			
	14L	2,154	2,176	1,848	2,252	1,902	2,274	103 - 126	18	- >72,000		
	24L	3,467	3,502	2,974	3,626	3,062	3,661	108 - 133	27			
2' x 2'	30L	4,238	4,281	3,636	4,432	3,743	4,475	109 - 134	33			
2 X Z	42L	5,940	6,000	5,096	6,212	5,247	6,272	109 - 135	47			
	48L	6,739	6,807	5,781	7,046	5,952	7,115	106 - 130	55			
	60L	8,281	8,365	7,104	8,659	7,314	8,743	104 - 128	68			
	28L	4,782	4,831	4,103	5,001	4,224	5,049	121 - 149	34			
	48L	8,015	8,096	6,875	8,381	7,079	8,462	124 - 152	56			
2' x 4'	60L	9,723	9,822	8,341	10,168	8,588	10,266	123 - 151	68	>72,000		
2 X 4	84L	13,192	13,326	11,317	13,795	11,652	13,929	122 - 150	93	>72,000		
	96L	15,022	15,175	12,887	15,708	13,268	15,861	118 - 145	110			
	120L	18,388	18,574	15,774	19,228	16,241	19,414	115 - 142	137			

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

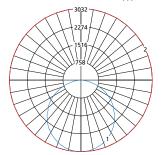
#### Model: CSERO-14-60L-40K8-DIM1-xxx-yyy-SYMW-zzz



Maximum Candela = 3168 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.)

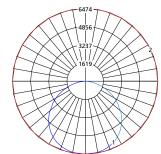
## Model: CSERO-22-60L-40K8-DIM1-xxx-yyy-SYMW-zzz



Maximum Candela = 3032 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-DIM1-xxx-yyy-SYMW-zzz



Max Candela = 6474 Located At Horizontal Angle = 90, Vertical Angle = 2.5

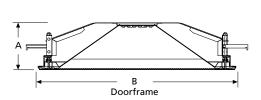
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

#### **DIMENSIONAL DATA**

# Fixture Housing Gasket mechanically retained Doorframe

**GASKET PROFILE** 

#### CROSS SECTION



DIMENSIONAL DATA (IN INCHES)									
	Α	В	C	D					
1×4	5.50	11.94 × 47.94	10.85	46.85					
2×2	5.50	$23.94 \times 23.94$	22.85	22.85					
2×4	5.50	23.94 × 47.94	22.85	46.85					

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

# CEILING CUTOUT



