

SIMPLESEAL™ NARROW SPECTRUM

CSEFL SERIES – RED & WHITE LED – LF EXTENDED FLANGE

PROJECT INFORMATION

Job Name _____

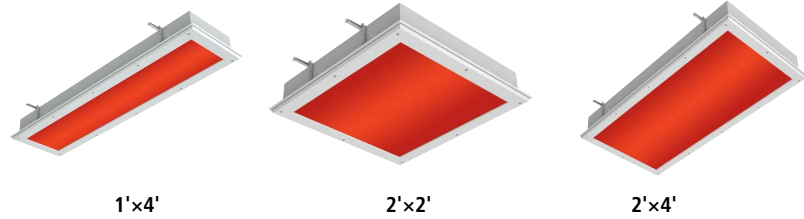
Fixture Type _____

Catalog Number _____

Approved by _____

PRODUCT FEATURES:

- » Narrow-spectrum 630nm red LED circuit provides only high-purity light for spectrally-sensitive applications.
- » High-output, high-CRI white LED circuit provides visual acuity and accurate color rendition.
- » Diffused high-efficiency lens for reduced glare
- » One-piece seam welded housing with extruded aluminum extended flange assures seal against rough ceilings
- » One-piece lapping door provides air-tight integrity of luminaire
- » Flanged for drywall or plaster ceilings.



SPECIFICATIONS:

HOUSING: 20-gauge CRS. Hole-free one-piece seam welded construction. White TGIC polyester powder coat finish – 5-step pre-treatment. Salt spray test: 1,000 hours; Reflectance: 92%. Housing Flange: Heavy duty extruded marine grade aluminum with anodized finish.

DOORFRAME: Heavy duty extruded marine grade aluminum with anodized finish. 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. (12) for 1x4, (10) for 2x2, (14) for 2x4. Doorframe Gasket: One-piece closed cell extruded nitrile gasket seals doorframe to housing flange.

OPTICS: Symmetric optic includes diffused, impact-resistant acrylic lens.

ELECTRICAL: Replaceable white mid-power LED array. Available 3500K, 4000K and 5000K color temperatures with maximum 3-step MacAdam variation allowance. Minimum 82 CRI, R9>0. 630nm red mid-power LED array (16nm FWHM bandwidth). 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 3-100% range on white and red circuit. 600 µA max. source current per circuit. White circuit and red circuit can be independently powered and dimmed.

INSTALLATION: Adjustable swing-out mounting brackets standard. See Options for continuous row mounting and plaster frames.

WARRANTY: Limited five (5) year warranty.

LISTINGS: UL and CUL Listed for Wet Locations. UL Classified IP65 per IEC 60598. NSF2 Splash/Non-Food Zone. CCEA Approved. Suitable for BSL 1-4 laboratories.



ORDERING INFORMATION (Ex: CSEFL14-23R-40K8-DCC-DV-5F-2H-SYM)

Model	Lamp Type	Lamp Color	Driver Type	Voltage	Doorframe Option	Housing	Optics	Options	Accessories
			DCC						
					SYM				
Model			Lamp Color†		Housing Options		Options		
CSEFL14	1'x4'		35K8	3500K, 82 CRI	2H	20-Ga CRS (STD)	LEL	LED Emergency Battery Backup	
CSEFL22	2'x2'		40K8	4000K, 82 CRI	5H	20-Ga Type 304 SS	DLN	LED Night Light w/Light Level Control (100% - 20%; Voltage specific selection required; n/a 347V)	
CSEFL24	2'x4'		50K8	5000K, 82 CRI	XH	20-Ga Type 316 SS	FS	Fuse & Holder	
					PAH	.050" Painted Aluminum	FN	Food Zone/Non-Contact	
Lamp Type			Driver Type		Optics		HJ	Sealed Wireway	
1'x4'			DCC	Dimming Constant Current Driver	SYM	Symmetric, Diffused DR Acrylic	RF	Radio Frequency Filter	
23R/45L	23 Watt Red/45 Watt White LED		Voltage				RM	Continuous Row Mounting (consult factory for ceiling cut-out)	
23R/67L	23 Watt Red/67 Watt White LED		120	120 Volts			TH	1/2" Trade Size Threaded Hub	
23R	23 Watt Red LED		277	277 Volts			TN	5/7/9 Watt Night Light (FL)	
2'x2'			347	347 Volts			UV	UV Filtering Lens (Specify)	
23R/45L	23 Watt Red/45 Watt White LED		DV	120-277 Volts					
23R/67L	23 Watt Red/67 Watt White LED		Doorframe/Flange Options				Accessories		
23R	23 Watt Red LED		PAF	.063" Painted Fabricated Aluminum			PF	Plaster Frame	
2'x4'			5F	20-Ga/18-Ga Type 304 SS					
23R/67L	23 Watt Red/67 Watt White LED		XF	20-Ga/18-Ga Type 316 SS					
23R/90L	23 Watt Red/90 Watt White LED								
23R/135L	23 Watt Red/135 Watt White LED								
46R	46 Watt Red LED								



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CSEFL_14_22_24-RED-101618

SIMPLESEAL™

CSEFL SERIES – RED & WHITE LED – LF EXTENDED FLANGE

PERFORMANCE

Red/White LED

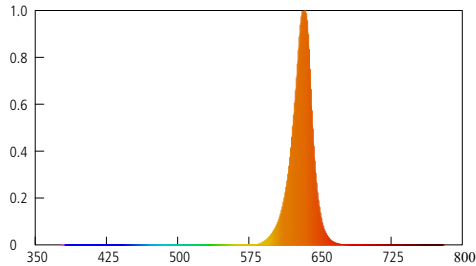
Size	Lamp Code	Initial Delivered Lumens			Initial Delivered Lumens			White/Red Estd. L ₇₀ LED Life (hrs)
		White Lamp @ 25°C (lm)	Efficacy - White (lm/W)	Input Power White (W)	Red Lamp @ 25°C (lm)	Efficacy - Red (lm/W)	Input Power Red (W)	
1' x 4'	23R/45L-35K8	5,057	103	49	1,021	36	28	80,000 / 36,000
	23R/45L-40K8	5,230	107	49	1,021	36	28	80,000 / 36,000
	23R/45L-50K8	5,588	114	49	1,021	36	28	80,000 / 36,000
	23R/67L-35K8	7,747	108	72	1,021	36	28	80,000 / 36,000
	23R/67L-40K8	8,011	111	72	1,021	36	28	80,000 / 36,000
	23R/67L-50K8	8,559	119	72	1,021	36	28	80,000 / 36,000
2' x 2'	23R/45L-35K8	5,373	110	49	1,021	36	28	80,000 / 36,000
	23R/45L-40K8	5,556	113	49	1,021	36	28	80,000 / 36,000
	23R/45L-50K8	5,936	121	49	1,021	36	28	80,000 / 36,000
	23R/67L-35K8	8,231	114	72	1,021	36	28	80,000 / 36,000
	23R/67L-40K8	8,511	118	72	1,021	36	28	80,000 / 36,000
	23R/67L-50K8	9,094	126	72	1,021	36	28	80,000 / 36,000
2' x 4'	23R/67L-35K8	9,023	125	49	1,021	36	28	80,000 / 36,000
	23R/67L-40K8	9,331	130	49	1,021	36	28	80,000 / 36,000
	23R/67L-50K8	9,969	138	49	1,021	36	28	80,000 / 36,000
	23R/90L-35K8	11,594	120	72	1,021	36	28	60,000 / 36,000
	23R/90L-40K8	11,990	124	72	1,021	36	28	60,000 / 36,000
	23R/90L-50K8	12,810	132	72	1,021	36	28	60,000 / 36,000
	23R/135L-35K8	16,436	112	147	1,021	36	28	60,000 / 36,000
	23R/135L-40K8	16,997	116	147	1,021	36	28	60,000 / 36,000
	23R/135L-50K8	18,160	124	147	1,021	36	28	60,000 / 36,000

Red LED

Size	Lamp Type	Initial Delivered Lumens			Estd. L ₇₀ LED Life (hrs)
		Red Lamp @ 25°C (lm)	Efficacy - Red (lm/W)	Input Power Red (W)	
1' x 4'	23R	1,021	36	28	36,000
2' x 2'	23R	1,021	36	28	36,000
2' x 4'	46R	2,042	36	56	36,000

Subject to change without notice. Visit www.kenall.com for .ies files and additional information.

Spectroradiometric Parameters



Purity: 1.0
 UV: 0.0000% (<390nm)
 Radiant Flux < 575nm: 0.000%
 Bandwidth: 16nm
 Peak Wavelength: 630nm



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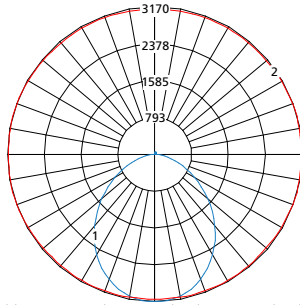
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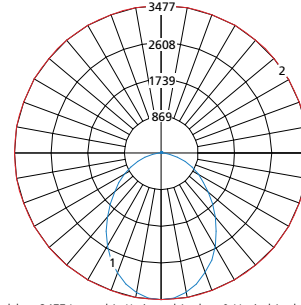
PERFORMANCE

Model: CSEFL14-23R/67L-40K8-DCC-120-2F-2H-SYM (White Mode)



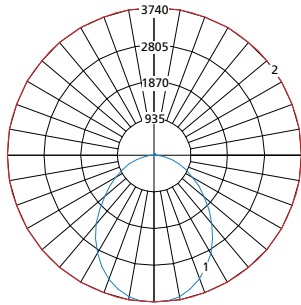
Maximum Candela = 3170 Located At Horizontal Angle = 15, Vertical Angle = 5
 1 - Vertical Plane Through Horizontal Angles (15-195) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

Model: CSEFL22-23R/67L-40K8-DCC-120-2F-2H-SYM (White Mode)



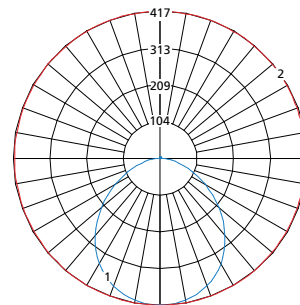
Maximum Candela = 3477 Located At Horizontal Angle = 0, Vertical Angle = 0
 1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

Model: CSEFL24-23R/67L-40K8-DCC-120-2F-2H-SYM (White Mode)



Maximum Candela = 3740 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: CSEFL24-23R/67L-40K8-DCC-120-2F-2H-SYM (Red Mode)*

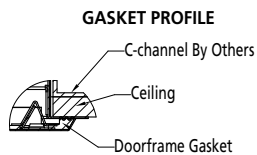
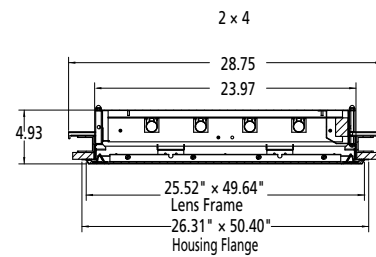
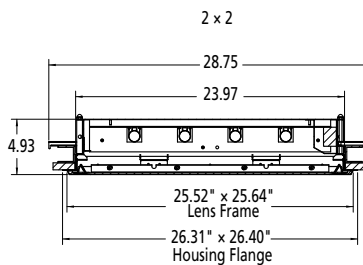
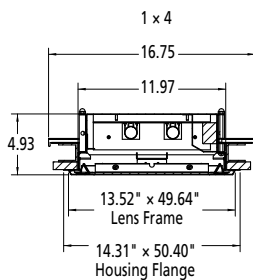


Maximum Candela = 417 Located At Horizontal Angle = 75, Vertical Angle = 2.5
 1 - Vertical Plane Through Horizontal Angles (75-255) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

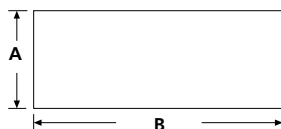
*Luminous intensity of "red" mode is equal across all product sizes

DIMENSIONAL DATA

CROSS SECTION



RECOMMENDED CEILING CUTOUT



NOTE: Ceiling cut-out dimensions with 5F Option: 24.125" x 48.25" (61.28cm x 122.56cm)

CEILING CUT-OUT DIMENSIONS

	A	B
1x4	12.13	48.25
2x2	24.13	24.25
2x4	24.13	48.25



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