

SIMPLESEAL™ NARROW SPECTRUM

CSEDI SERIES – RED & TUNABLE WHITE LED – INSET DOOR

PROJECT INFORMATION

Job Name _____

Fixture Type _____

Catalog Number _____

Approved by _____

PRODUCT FEATURES:

- » Click [here](#) for fixed white CCT Product
- » Narrow-spectrum 630nm red LED circuit provides only high-purity light for spectrally-sensitive applications
- » High-output, tunable white LED circuit provides visual acuity and accurate color rendition with an adjustable color spectrum
- » Diffused high-efficiency lens for reduced glare
- » One-piece inset doorframe, secured to housing with aircraft cables
- » 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: 18-gauge CRS. One-piece inset-style construction with welded corners. 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 fasteners. Closed-cell silicone gasket seals doorframe to housing.

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

LED MODULE: Serviceable tunable-white, mid-power LED array provides 2700K through 6500K CCT range with a two-point path. 3-step MacAdam variation allowance on each CCT. Minimum 82 CRI standard (R9 >20) with optional minimum 92 CRI (R9 >50). Serviceable 630nm red mid-power LED array (16nm FWHM bandwidth).

DRIVER: 120-277VAC, 50/60Hz electrical input (PF ≥ 0.9, THD < 20%). Minimum 85% electrical efficiency. Tunable white circuit can be independently powered and dimmed. **TW:** Serviceable, constant-current multi-channel programmable driver with dual analog (0-10V) control inputs for intensity and CCT. Linear intensity and CCT adjustment profiles with 1-100% range and dim-to-dark capabilities on intensity. Optional DALI (Type 8) driver with 1-100% range and dim-to-dark intensity dimming with linear intensity and CCT adjustment profiles. **RED:** Serviceable constant-current programmable driver. Dimming protocol matches tunable white circuit selection: 0-10V dimming with 1-100% range and dim-to-dark capabilities or DALI with 1-100% range and dim-to-dark capability.

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. Universal installation into grid or flange (drywall) ceiling applications. 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

WARRANTY: Limited five (5) year warranty.

LISTINGS: Luminaire is certified to UL standards by Intertek Testing Laboratories for Wet Locations and non-IC recessed installation. Certified IP65 per IEC 60598. NSF2 Splash/Non-Food Zone. CCEA Approved. Suitable for biosafety labs rated 1-2 and FED-STD-209E/Class 1 (ISO 3) Cleanrooms. Suitable for EU GMP Grade A cleanrooms.



ORDERING INFORMATION (Ex: CSEDI-24-23RD/67T-27/65K9-ATW-DV-2F-2H-SYM)

Model	Size	Lamp Power	Lamp Color	Driver	Voltage	Doorframe	Housing	Optics	Options	
CSEDI								SYM		
Size				Voltage				Options		
14	1'x4'			DV	120-277VAC, 50/60Hz			LEL▲	8.4W Emergency Battery Pack	
22	2'x2'			120	120VAC			AMF*	Antimicrobial Finish	
24	2'x4'			277	277VAC			FS	Fuse & Holder	
Lamp Power				Doorframe Options				Accessories		
1'x4'				2F				RF		
23R/45T		23 Watt Red/45 Watt Tunable White LED		5F	20-Ga Type 304 SS Brushed			HJ	Sealed Wireway	
23R/67T		23 Watt Red/67 Watt Tunable White LED		AF	Anodized Aluminum			RM†	Continuous Row Mounting	
2'x2'				Housing Options				IF*†		
23RD/45TD		23 Watt Red/45 Watt Tunable White LED		4H	24-Ga CRS (STD)			* Add .375" to ceiling cut out dimensions		
23RD/67T		23 Watt Red/67 Watt Tunable White LED		2H	20-Ga CRS			† Only available when installed in drywall ceilings (flange mount), Consult factory for ceiling layout assistance		
2'x4'				5H				▲ Voltage specific selection required. Wired to cool white LED circuit.		
23RD/45TD		23 Watt Red/45 Watt Tunable White LED		PAH	.050" Painted Aluminum			Height of fixture is 5.875" with LEL Option		
23RD/67T		23 Watt Red/67 Watt Tunable White LED		▼ Applied only to exposed painted surfaces of luminaire (not available on stainless steel doorframes)						
23RD/90T		23 Watt Red/90 Watt Tunable White LED		Optics						
Lamp Color				SYM						
27/65K8		2700-6500K CCT Range (82 CRI min)		Symmetric, Diffused DR Acrylic						
27/65K9		2700-6500K CCT Range (92 CRI min)								
Driver Type										
ATW		Analog (0-10V) Dimming Tunable White Driver								
DTW		DALI Tunable White Driver								



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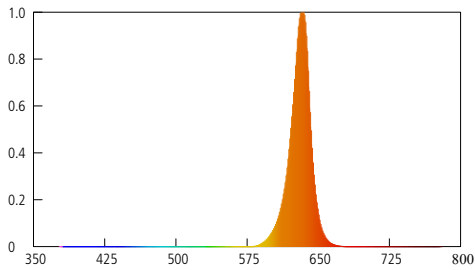
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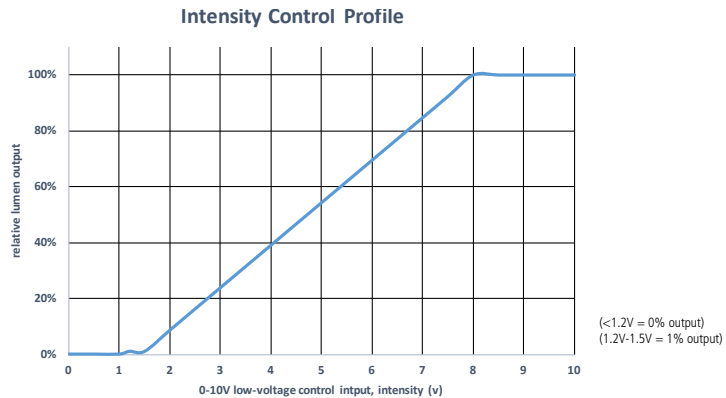
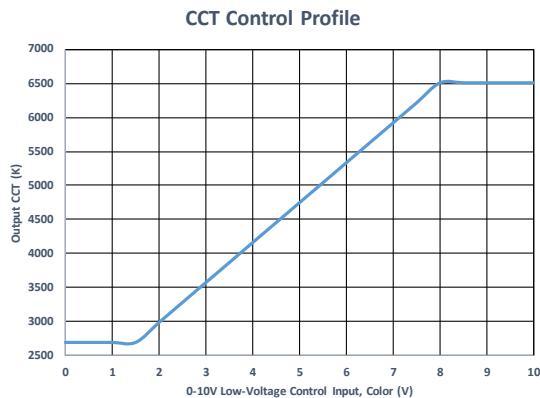
Size	Lamp Code	Red LED Circuit Initial Delivered Lumens			Tunable White LED Circuit Delivered Performance at 4000K			Red/White Estd. L ₇₀ LED Life (hrs)
		Lumen Output (lm)	Efficacy (lm/W)	Input Power (W)	Lumen Output (lm)	Efficacy (lm/W)	Input Power (W)	
1' × 4'	23R/45T-27/65K8	1,019	36	28	5,305	115	46	36,000 / 80,000
	23R/45T-27/65K9	1,019	36	28	4,275	93	46	36,000 / 80,000
	23R/67T-27/65K8	1,019	36	28	7,937	117	68	36,000 / 80,000
	23R/67T-27/65K9	1,019	36	28	6,574	97	68	36,000 / 80,000
2' × 2'	23RD/45TD-27/65K8	993	35	28	5,131	112	46	36,000 / 80,000
	23RD/45TD-27/65K9	993	35	28	4,135	90	46	36,000 / 80,000
	23RD/67T-27/65K8	993	35	28	7,676	113	68	36,000 / 80,000
	23RD/67T-27/65K9	993	35	28	6,358	93	68	36,000 / 80,000
2' × 4'	23RD/45TD-27/65K8	1,108	50	22	6,153	137	45	36,000 / 80,000
	23RD/45TD-27/65K9	1,108	50	22	4,958	110	45	36,000 / 80,000
	23RD/67T-27/65K8	1,108	50	22	8,186	120	68	36,000 / 80,000
	23RD/67T-27/65K9	1,108	50	22	6,780	100	68	36,000 / 80,000
	23RD/90T-27/65K8	1,108	50	22	10,632	116	92	36,000 / 80,000
	23RD/90T-27/65K9	1,108	50	22	8,569	93	92	36,000 / 80,000

SPECTRAL POWER DISTRIBUTION - RED



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

CCT AND INTENSITY ADJUSTMENT PROFILE - ATW DRIVER TYPE



NOTE: The provided information is the typical expected performance of a single luminaire. Additional luminaires on the same 0-10V line may result in different control profiles. Fine tuning of system performance should be completed after installation is complete. To avoid CCT shift between luminaires, care should be taken to minimize voltage drop on the CCT Control line. It is recommended to limit the load on the CCT control circuit to twenty (20) 45T or ten (10) 67T/90T luminaires or less.



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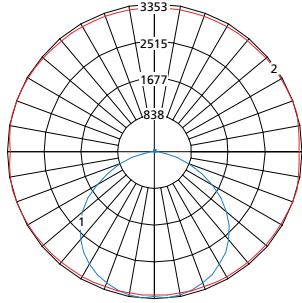
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CSEDI SERIES – TECHNICAL DATA

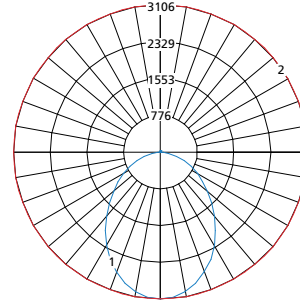
PERFORMANCE

Model: CSEDI14-23RD/67T-27/65K8-ATW-DV-2F-2H-SYM (White @ 4000K)



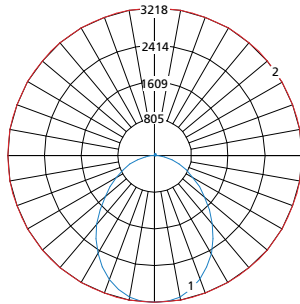
Maximum Candela = 3353 Located At Horizontal Angle = 15, Vertical Angle = 2.5
 1 - Vertical Plane Through Horizontal Angles (15-195) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: CSEDI22-23RD/67T-27/65K8-ATW-DV-2F-2H-SYM (White @ 4000K)



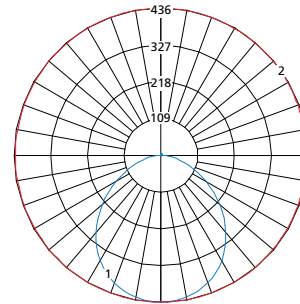
Maximum Candela = 3106 Located At Horizontal Angle = 195, Vertical Angle = 2.5
 1 - Vertical Plane Through Horizontal Angles (195-15) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: CSEDI24-23RD/67T-27/65K8-ATW-DV-2F-2H-SYM (White @ 4000K)



Maximum Candela = 3218 Located At Horizontal Angle = 0, Vertical Angle = 5
 1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

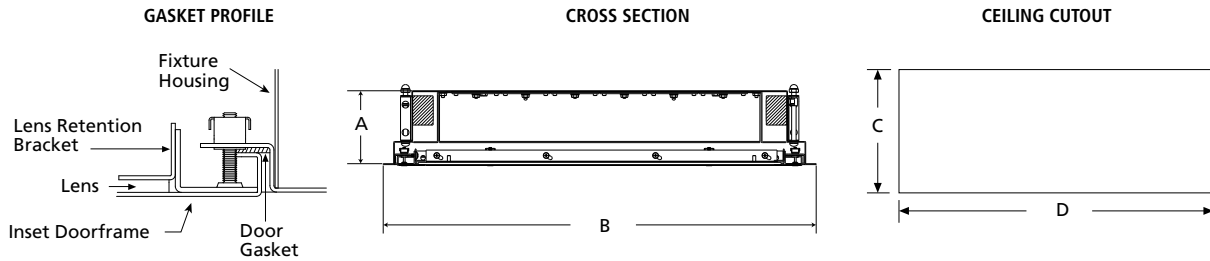
Model: CSEDI24-23RD/67L-40K8-DIM1-120-2F-2H-SYM (Red Mode)*



Maximum Candela = 436 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



DIMENSIONAL DATA (IN INCHES)

	A	B	C	D
1x4	4.20	11.75 x 47.75	10.85	46.85
2x2	4.20	23.75 x 23.75	22.85	22.85
2x4	4.20	23.75 x 47.75	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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