SIMPLESEAL™ NARROW SPECTRUM CSEDI SERIES – RED & TUNABLE WHITE LED – INSET DOOR

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



Job Name

PROJECT INFORMATION



SPECIFICATIONS

HOUSING: Standard 24-gauge (optional 20-gauge) cold rolled steel, hole-free, one-piece, seam-welded construction. 18-gauge housing flange with mittered 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. Optional DALI (Type 8) driver. Logarithmic intensity profile with 0.1-100% range, with dim-to-dark capabilities. Linear profile on CCT adjustment. Refer to charts on page 2 for further details. 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 biosafetly labs rated 1-2 and FED-STD-209E/Class 1 (ISO 3) Cleanrooms. Suitable for EU GMP Grade A cleanrooms. CSEDI is participating in Declare. Build America, Buy America Act compliant.









2700-6500K CCT Range (92 CRI min)

ATW Analog (0-10V) Dimming Tunable White Driver

DMX DMX Tunable White Driver (Consult Factory)











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

Model	Size	Lamp Power	Lamp Color	Drive	r Voltage	Doorframe	Housir	ng	Optics	Options
CSEDI									SYM	
Size				Volta			Option			
14 1'×4'				DV	120-277VAC, 50/60H	Z	LEL*		ergency Batte	ery Pack
22 2'×2'				120	120VAC		AMF▼		obial Finish	
24 2'×4'				277	277VAC		FS	Fuse & F		
				_			HJ	Sealed W		
Lamp Power					frame Options		RF●		equency Filte	
<u>1'×4'</u>				2F	18-Ga CRS (STD)		RM†	Continuo	ous Row Mou	inting
23R/45T		tt Red/45 Watt Tunable		5F	20-Ga Type 304 SS Br	ushed				
23R/67T	23 Wat	tt Red/67 Watt Tunable	e White LED	AF	Anodized Aluminum		Acces	sories		
				PAF	Painted Fabricated Alu	minum	IF*†	Install Fr	ame	
<u>2'×2'</u>										
23RD/45TD	23 Wat	tt Red/45 Watt Tunable	e White LED	Hous	ing Options					
23RD/67T	23 Wat	tt Red/67 Watt Tunable	e White LED	4H	24-Ga CRS (STD)		* Add	.375" to 0	ceiling cut ou	t dimensions
				2H	20-Ga CRS		† Only	available	when installe	ed in drywall ceilings (flange mount),
2'×4'				5H	20-Ga Type 304 SS		Cons	sult factor	y for ceiling la	ayout assistance
23RD/45TD	23 Wat	tt Red/45 Watt Tunable	e White LED	PAH	.050" Painted Alumin	um	▲ 0°C/3	32°F min.	ambient. Wi	red to cool white channel
23RD/67T	23 Wat	tt Red/67 Watt Tunable	e White LED				▼ Appli	ied only to	exposed pai	inted surfaces of luminaire
23RD/90T	23 Wat	tt Red/90 Watt Tunable	e White LED	Optio	:S					eel doorframes)
				SÝM	Symmetric, Diffused	DR Acrylic				quired. n/a with 23R/67T lamp on 1'×4'
Lamp Color 27/65K8	2700-6	500K CCT Range (82 (CRI min)				and .	2'×2' size	S	



DTW DALI Tunable White Driver

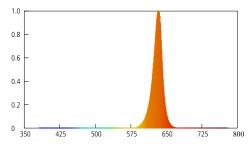
27/65K9

Driver Type

SIMPLESEAL™ CSEDI SERIES – RED & TUNABLE WHITE LED – INSET DOOR

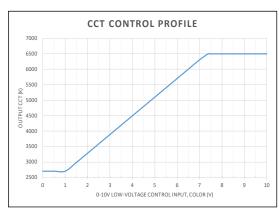
		Red LED Circuit Tunable White LED Circuit Initial Delivered Lumens Delivered Performance at 4000K						
Size	Lamp Code	Lumen Output (lm)	Efficacy (lm/W)	Input Power (W)	Lumen Output (lm)	Efficacy (lm/W)	Input Power (W)	Red/White Estd. L ₇₀ LED Life (hrs)
1' × 4'	23R/45T-27/65K8	1,019	36	28	5,305	115	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
	23RD/45TD-27/65K8	1,108	50	22	6,153	137	45	36,000 / 80,000
2' × 4'	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

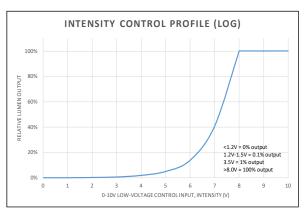
SPECTRAL POWER DISTRIBUTION - RED



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.

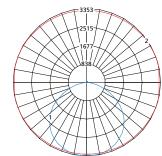


SIMPLESEAL™

CSEDI SERIES – TECHNICAL DATA

PERFORMANCE

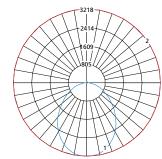
Model: CSEDI14-23RD/67T-27/65K8-ATW-DV-2F-2H-SYM (White @ 4000K)



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.)

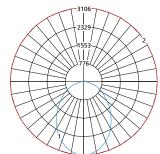
Model: CSEDI24-23RD/67T-27/65K8-ATW-DV-2F-2H-SYM (White @ 4000K)



 $\label{eq:maximum Candela} \mbox{Maximum Candela} = 3218 \mbox{ Located At Horizontal Angle} = 0, \mbox{Vertical Angle} = 5$

1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

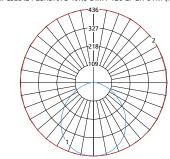
Model: CSEDI22-23RD/67T-27/65K8-ATW-DV-2F-2H-SYM (White @ 4000K)



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/67L-40K8-DIM1-120-2F-2H-SYM (Red Mode)*

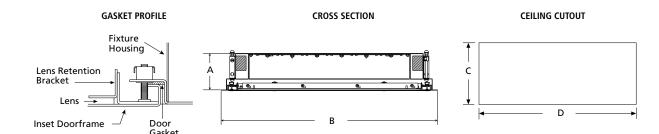


Maximum Candela = 436 Located At Horizontal Angle = 75, Vertical Angle = 2.5

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)							
	Α	В	c c	D			
1×4	4.20	11.75 × 47.75	10.85	46.85			
2×2	4.20	23.75 × 23.75	22.85	22.85			
2×4	4.20	23.75 × 47.75	22.85	46.85			
* Add .375" to ceiling cut out dimensions when IF Option is specified							

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

