

SIMPLESEAL™

CSEDI SERIES – BIOS SkyBlue™ – INSET DOOR

- PRODUCT FEATURES:**
- » Features BIOS SkyBlue Technology to benefit daytime alertness, cognition, mood and circadian rhythms
 - » Diffused high-efficiency lens for reduced glare
 - » 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 inset doorframe, secured to housing with aircraft cables



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 static, dynamic or tunable mid-power Gen 2 BIOS Biological LED modules. Biological Static, Biological Dynamic, and Biological Tunable LED source with blue spectrum peak at 490nm and higher melanopic ratio. CRI 80+ with R9 > 90. Dynamic features 500K downward CCT shift when dimmed for evening applications requiring lower melanopic ratio. Tunable features 2700K CCT for evening applications. Refer to table for specific melanopic values.

DRIVER/CONTROLS: 120-277VAC, 50/60Hz electrical input (PF ≥ 0.9, THD < 20%). Biological Static: Serviceable, constant-current single channel driver with single analog (0-10V) control input for intensity. 1-100% range with dim to dark capabilities and a linear dimming curve. Biological Dynamic: Serviceable constant-current driver with the BIOS Dynamic Bio-Dimming™ module keeps light output constant while reducing melanopic lux. Single analog (0-10V) control input. 1-100% dimming range with dim-to-dark capabilities and a linear dimming curve. Dimming from 100-75% reduces CCT by 500K, dimming below 75% reduces light level. Biological Tunable: 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.

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 LED warranty.

LISTINGS: Luminaire is certified to UL standards by Intertek Testing Laboratories for Wet Location. Certified IP65 per IEC 60598. NSF2 Splash/Non-Food Zone. CCEA Approved. Suitable for biosafety labs rated BSL 1 and 2. Meets FED-STD-209E/Class 1 (ISO 3) Cleanrooms. Suitable for EU GMP Grade A cleanrooms. Suitable for installation into -30°C to 40°C ambient environments, unless otherwise noted. CSEDI is participating in Declare.



ORDERING INFORMATION (Ex: CSEDI-24-67B-35K8-DIM1-DV-2F-4H-SYM)

Model	Size	Lamp Power	Lamp Color	Driver	Voltage	Doorframe	Housing	Optics	Options	Accessories
CSEDI							SYM			
Size	Lamp Power			Driver Type			Optics			
14	1'×4'	1'×4'		DIM1	BIOS Biological Static with 0-10V Dimming to 1% with Dim-to-Dark Capabilities		SYM Symmetric, Diffused DR Acrylic			
22	2'×2'	45B	45 Watt BIOS		BIOS Biological Dynamic with 0-10V Intensity Dimming to 1% and Dim-to-Dark Capabilities		Options			
24	2'×4'	67B	67 Watt BIOS	BIODIM1*	BIOS Biological Tunable White with 0-10V Control of Intensity and CCT independently on 2 separate channels		LEL‡ 10W Emergency Battery Pack			
		90B	90 Watt BIOS	ATW	BIOS Biological Tunable White with DALI Control of Intensity and CCT independently on 2 separate channels		20KV 20KV/KA Surge Protection per IEEE/ANSI C62.41.2 Cat. A			
		2'×2'		DTW			AMF▲ Antimicrobial Finish			
		45BD	45 Watt Dual-Row BIOS				FS Fuse & Holder			
		67B	67 Watt BIOS				HJ Sealed Wireway			
		90B	90 Watt BIOS				MS Motion Sensor			
		2'×4'					RF• Radio Frequency Filter			
		45BD	45 Watt Dual-Row BIOS		Voltage		RM† Continuous Row Mounting			
		67B	67 Watt BIOS		DV 120-277VAC, 50/60Hz		2C Two Circuit Wiring (1'x4'-45B single circuit operation will yield uneven lens luminance)			
		90B	90 Watt BIOS		120 120VAC		Accessories			
		135B	135 Watt BIOS		277 277VAC		IF*† Install Frame			
		180B	180 Watt BIOS		Doorframe Options		* Add .375" to ceiling cut out dimensions			
		Lamp Color			5F 20-Ga Type 304 SS Brushed		† Only available when installed in drywall ceilings (flange mount)			
		35K8	3500K SkyBlue / 80CRI min / R9 90+		2F 18-Ga CRS (STD)		• Voltage specific selection required			
		40K8	4000K SkyBlue / 80CRI min / R9 90+		AF Anodized Aluminum		‡ 0°C/32°F min. ambient.			
					PAF Painted Fabricated Aluminum		▲ Applied only to exposed painted surfaces of luminaire (not available on stainless steel doorframes)			
					Housing Options		• Not available with 135B and 180B.			
					4H 24-Ga CRS (STD)					
					2H 20-Ga CRS					
					5H 20-Ga Type 304 SS					
					PAH .050" Painted Aluminum					

SIMPLESEAL™

CSEDI SERIES – BIOS SkyBlue™ – INSET DOOR

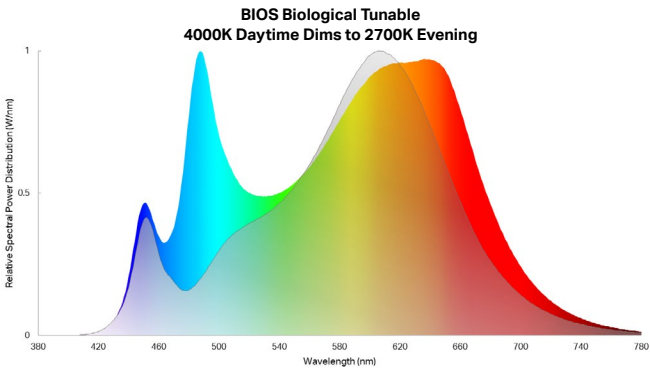
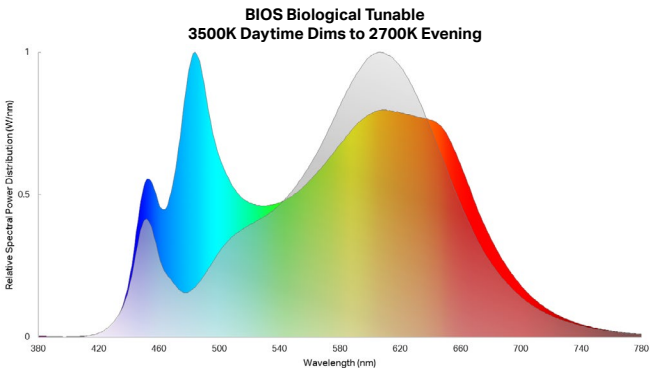
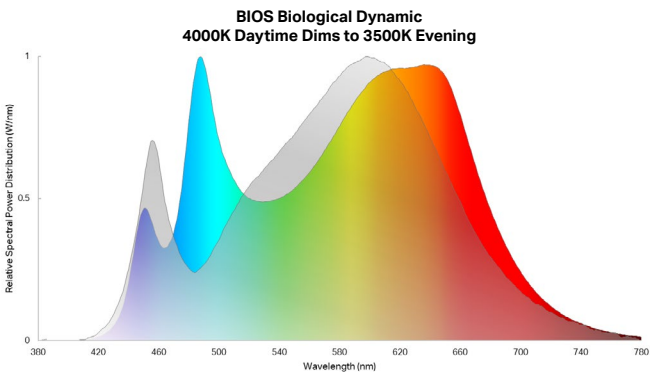
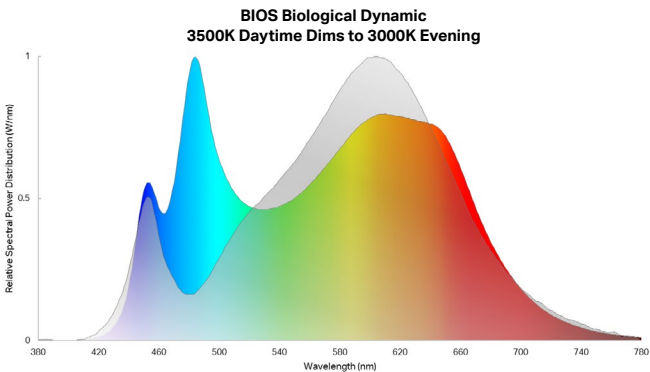
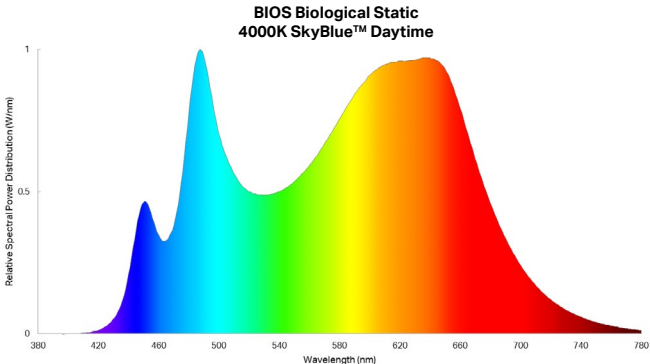
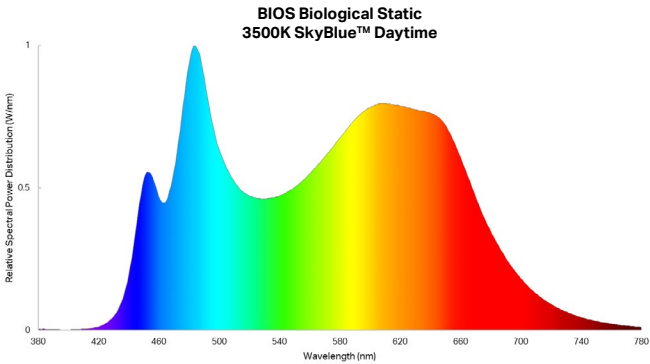
DELIVERED MELANOPIC RATIO OF 35K8 BIOS

BIOS Type	Spectral Mode	Nominal CCT	Melanopic Ratio*	
			m-EER	m-DER
Biological Static	Daytime	3500K	≥0.80	≥0.72
Biological Dynamic	Daytime	3500K	≥0.80	≥0.72
	Evening	3000K	≤0.49	≤0.44
Biological Tunable	Daytime	3500K	≥0.80	≥0.72
	Evening	2700K	≤0.47	≤0.42

*Melanopic ratios are provided in two forms: (m-EER) which is calculated using the WELL v2 methodology and the corresponding CIE melanopic Daylight Equivalent Ratio, (m-DER).

DELIVERED MELANOPIC RATIO OF 40K8 BIOS

BIOS Type	Spectral Mode	Nominal CCT	Melanopic Ratio*	
			m-EER	m-DER
Biological Static	Daytime	4000K	≥0.90	≥0.81
Biological Dynamic	Daytime	4000K	≥0.90	≥0.81
	Evening	3500K	≤0.57	≤0.51
Biological Tunable	Daytime	4000K	≥0.90	≥0.81
	Evening	2700K	≤0.47	≤0.42



www.kenall.com | P: 800-4-Kenall | F: 262-891-9700 | 10200 55th Street Kenosha, Wisconsin 53144, USA
This product is able to comply with the latest domestic preference legislation, such as the Buy American Act (BAA), Trade Agreement Act (TAA), Build America, Buy America Act (BABA), and others. It may be covered by patents found at www.kenall.com/patents. Content of specification sheets is subject to change; please consult www.kenall.com for current product details. ©2025 Kenall Mfg. Co.

A brand of **legrand**

SIMPLESEAL™**CSEDI SERIES – BIOS SkyBlue™ – INSET DOOR**

PERFORMANCE		Initial Delivered Lumens		Input Power (W)	Drive Current (mA)	Estd. L ₇₀ LED Life (Hrs)
Model	Lamp Type	@ 25°C	Efficacy (lm/W)			
CSEDI14	45B-35K8	4,322	88	49	100	80,000
	45B-40K8	4,693	96			
	67B-35K8	6,621	92	72	75	80,000
	67B-40K8	7,190	100			
	90B-35K8	8,448	86	98	100	80,000
	90B-40K8	9,173	94			
CSEDI22	45BD-35K8	4,181	85	49	100	80,000
	45BD-40K8	4,539	93			
	67B-35K8	6,404	89	72	75	80,000
	67B-40K8	6,954	97			
	90B-35K8	8,229	84	98	100	80,000
	90B-40K8	8,935	91			
CSEDI24	45BD-35K8	4,990	108	46	50	100,000
	45BD-40K8	5,331	116			
	67B-35K8	6,941	96	72	75	80,000
	67B-40K8	7,416	103			
	90B-35K8	8,776	90	98	100	60,000
	90B-40K8	9,529	97			
	135B-35K8	12,440	85	147	100	60,000
	135B-40K8	13,508	92			
	180B-35K8	16,963	87	196	100	60,000
	180B-40K8	18,419	94			

Displayed information is for described luminaires only. Subject to change without notice.
Visit www.kenall.com for IES files and additional information.



www.kenall.com | P: 800-4-Kenall | F: 262-891-9700 | 10200 55th Street Kenosha, Wisconsin 53144, USA

This product is able to comply with the latest domestic preference legislation, such as the Buy American Act (BAA), Trade Agreement Act (TAA), Build America, Buy America Act (BABA), and others. It may be covered by patents found at www.kenall.com/patents. Content of specification sheets is subject to change; please consult www.kenall.com for current product details. ©2025 Kenall Mfg. Co.

A brand of **legrand**

SIMPLESEAL™

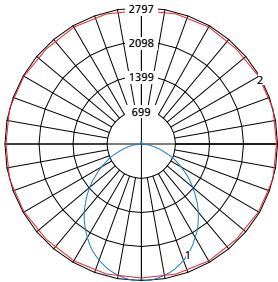
CSEDI SERIES – BIOS SkyBlue™ – INSET DOOR

PERFORMANCE

Model: CSEDI-14-67B-35K8-DIM1-DV-2F-2H-SYM

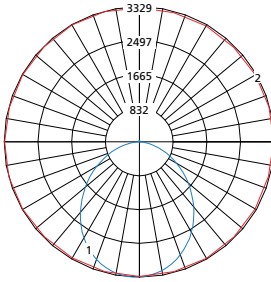
Model: CSEDI-22-90B-35K8-DIM1-DV-2F-2H-SYM

Model: CSEDI-24-180B-35K8-DIM1-DV-2F-2H-SYM



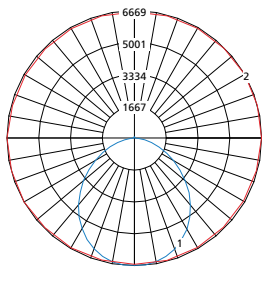
Maximum Candela = 2797 Located At Horizontal Angle = 15, Vertical Angle = 2.5

1 - Vertical Plane Through Horizontal Angles (15-195) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)



Max Candela = 3329 Located At Horizontal Angle = 195, Vertical Angle = 2.5

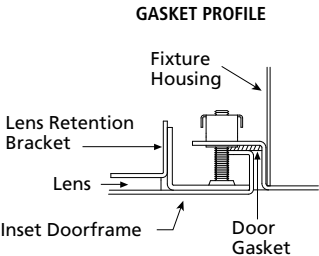
1 - Vertical Plane Through Horizontal Angles (195 - 15) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)



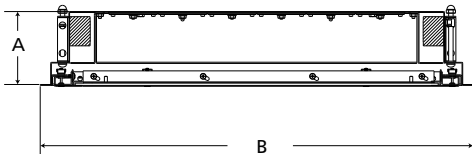
Max Candela = 6669 Located At Horizontal Angle = 0, Vertical Angle = 5

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

DIMENSIONAL DATA



CROSS SECTION



CEILING CUTOUT



DIMENSIONAL DATA (IN INCHES & CENTIMETERS)

	A	B	C	D
12x48	4.20	11.75 x 47.75	10.85	46.85
30.48cmx121.92cm	10.67	29.85 x 121.29	27.56	119.00
24x24	4.20	23.75 x 23.75	22.85	22.85
60.96cmx60.96cm	10.67	60.33 x 60.33	58.04	58.04
24x48	4.20	23.75 x 47.75	22.85	46.85
60.96cmx121.92cm	10.67	60.33 x 121.29	58.04	119.00

* Add .375" (.95cm) to ceiling cut out dimensions when IF Option is specified



www.kenall.com | P: 800-4-Kenall | F: 262-891-9700 | 10200 55th Street Kenosha, Wisconsin 53144, USA
This product is able to comply with the latest domestic preference legislation, such as the Buy American Act (BAA), Trade Agreement Act (TAA), Build America, Buy America Act (BABA), and others. It may be covered by patents found at www.kenall.com/patents. Content of specification sheets is subject to change; please consult www.kenall.com for current product details. ©2025 Kenall Mfg. Co.

A brand of legrand