

# SIMPLESEAL™

## CSEDI SERIES using Indigo-Clean Technology

### PRODUCT FEATURES:

- » Provides environmental disinfection and effective, efficient lighting performance via visible LED light
- » Dual-Mode Indigo-Clean Technology is independently tested to kill 94% of SARS CoV-2 and Influenza-A\*\*\*, in addition to MRSA
- » Single-Mode Indigo-Clean Technology is independently tested to kill harmful bacteria, such as Staph\*, including MRSA\*\*
- » Suitable for universal installation into 1" and 1.5" grid and 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.

**ELECTRICAL: (Single- and Dual-Mode ICT)** Serviceable mid-power white and 405nm Indigo LED array. Available 3200K, 3700K and 4300K color temperatures with 3-step MacAdam variation allowance. Minimum 82 CRI standard. 120-277VAC and 347VAC electrical input with serviceable high power factor electronic, constant-current drivers (<10% THD, >0.90 PF). Minimum 85% driver efficiency. Standard 0-10V dimming with 1-100% range and dim-to-dark capabilities (non-dim-to-dark on Dual-Mode ICT). 495µA maximum source current. **Single-Mode ICT** provides a single, white disinfection operational mode. **Dual-Mode ICT** provides two operational modes based on room occupancy. White Disinfection Mode is a white LED array for ambient lighting plus a simultaneous low-power 405nm LED array for low-level, continuous and safe environmental disinfection. Indigo Disinfection Mode is a higher-level 405nm array for continuous safe environmental disinfection during periods of room vacancy. The operational mode is determined via internal low-voltage device based upon the input signal provided by an external control device/system, such as the IC150 product. Luminaire dimming is overridden in this operational state. Refer to the [Kenall Dual-Mode ICT Control Application Guide](#) for further description.

**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" (2.54cm) and 1.5" (3.81cm) 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](http://www.kenall.com)

**WARRANTY:** Limited five (5) year 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. FED-STD-209E/Class 1 (ISO 3) Cleanrooms. Suitable for EU GMP Grade A cleanrooms. EPA Est. No. 99283-WI-1.

\* Per independent lab report #SGS-09517036476. Contact Kenall for a copy of this report.

\*\*Antimicrobial Activity of a Continuous Visible Light Disinfection System by Rutala, et al, ID Week 2016.

\*\*\*Refer to [www.indigo-clean.com](http://www.indigo-clean.com) for details.



### ORDERING INFORMATION (Ex: CSEDI-24-46I/110C-43K8-DIM1-DV-2F-2H-SYM)

| Model           | Size | Lamp Power                         | Lamp Color | Driver                                 | Voltage | Doorframe | Housing | Optics  | Options | Accessories |
|-----------------|------|------------------------------------|------------|--|---------|-----------|---------|---|---------|-------------|
| <b>CSEDI</b>    |      |                                    |            | <b>DIM1</b>                            |         |           |         | <b>SYM</b>  |         |             |
| <b>Size</b>     |      | <b>Lamp Power</b>                  |            | <b>Lamp Color</b>                      |         |           |         | <b>Optics</b>   |         |             |
| <b>14</b> 1'x4' |      | <b>1'x4'</b>                       |            | <b>32K8</b> 3200K / 82 CRI min.        |         |           |         | <b>SYM</b> Symmetric, Diffused DR Acrylic   |         |             |
| <b>22</b> 2'x2' |      | <b>55C</b> 55W Single-Mode ICT     |            | <b>37K8</b> 3700K / 82 CRI min.        |         |           |         | <b>Options</b>  |         |             |
| <b>24</b> 2'x4' |      | <b>82C</b> 82W Single-Mode ICT     |            | <b>43K8</b> 4300K / 82 CRI min.        |         |           |         | <b>LEL</b> ‡ 8.4 W Emergency Battery Pack   |         |             |
|                 |      | <b>110C</b> 110W Single-Mode ICT   |            | <b>Driver Type</b>                     |         |           |         | <b>AMF</b> ▲ Antimicrobial Finish   |         |             |
|                 |      | <b>23I/55C</b> 55W Dual-Mode ICT   |            | <b>DIM1</b> 0-10V Dimming to 1%        |         |           |         | <b>FS</b> Fuse & Holder   |         |             |
|                 |      | <b>34I/82C</b> 82W Dual-Mode ICT   |            | <b>Voltage</b>                         |         |           |         | <b>HJ</b> Sealed Wireway  |         |             |
|                 |      | <b>46I/110C</b> 110W Dual-Mode ICT |            | <b>DV</b> 120-277VAC, 50/60Hz          |         |           |         | <b>RM</b> † Continuous Row Mounting   |         |             |
|                 |      |                                    |            | <b>120</b> 120VAC                      |         |           |         | <b>2C</b> • Two Circuit Wiring  |         |             |
|                 |      | <b>2'x2'</b>                       |            | <b>277</b> 277VAC                      |         |           |         | <b>Accessories</b>  |         |             |
|                 |      | <b>55CD</b> 55W Single-Mode ICT    |            | <b>347</b> 347VAC                      |         |           |         | <b>IF</b> *† Install Frame  |         |             |
|                 |      | <b>82C</b> 82W Single-Mode ICT     |            | <b>Doorframe Options</b>               |         |           |         | * Add .375" to ceiling cut out dimensions   |         |             |
|                 |      | <b>110C</b> 110W Single-Mode ICT   |            | <b>5F</b> 20-Ga Type 304 SS Brushed    |         |           |         | † Only available when installed in drywall ceilings (flange mount)  |         |             |
|                 |      | <b>23I/55CD</b> 55W Dual-Mode ICT  |            | <b>2F</b> 18-Ga CRS (STD)              |         |           |         | • 1'x4'-55C single circuit operation will yield uneven lens luminance   |         |             |
|                 |      | <b>34I/82C</b> 82W Dual-Mode ICT   |            | <b>AF</b> Anodized Aluminum            |         |           |         | ‡ n/a with 165W lamp options or 347V input; voltage-specific selection required and height of fixture is 5.875" when specified with 110W lamp options; 0°C/32°F min. operating environment. |         |             |
|                 |      | <b>46I/110C</b> 110W Dual-Mode ICT |            | <b>PAF</b> Painted Fabricated Aluminum |         |           |         | ▲ Applied only to exposed painted surfaces of luminaire (not available on stainless steel doorframes)   |         |             |
|                 |      | <b>68I/165C</b> 165W Dual-Mode ICT |            | <b>Housing Options</b>                 |         |           |         |   |         |             |
|                 |      |                                    |            | <b>4H</b> 24-Ga CRS (STD)              |         |           |         |   |         |             |
|                 |      |                                    |            | <b>2H</b> 20-Ga CRS                    |         |           |         |   |         |             |
|                 |      |                                    |            | <b>5H</b> 20-Ga Type 304 SS            |         |           |         |   |         |             |
|                 |      |                                    |            | <b>PAH</b> .050" Painted Aluminum      |         |           |         |   |         |             |

Click [HERE](#) for CSEDI-ICT 'Fast Track' Ordering Options  
Ships in 10 days

**ACCESSORIES ORDERED SEPARATELY**  
**IC150** External Room Control System for Dual-Mode ICT Products (click [here](#) for Specifications)



[www.kenall.com](http://www.kenall.com) | P: 800-4-Kenall | F: 262-891-9701 | 10200 55th Street Kenosha, Wisconsin 53144, USA

A brand of **Legrand**

This product complies with the Buy American Act: manufactured in the United States with more than 50% of the component cost of US origin. It may be covered by patents found at [www.kenall.com/patents](http://www.kenall.com/patents). Content of specification sheets is subject to change; please consult [www.kenall.com](http://www.kenall.com) for current product details. ©2022 Kenall Mfg. Co.

# SIMPLESEAL™

## CSEDI SERIES using Indigo-Clean Technology

### PERFORMANCE

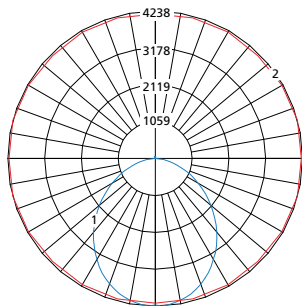
| Technology      | Length | Lamp Code | Lumen Output by Color (lm) <sup>1</sup> |        |        | Efficacy (lm/W) | Power Consumption <sup>2</sup> |         |                | Estd L70 LED Life (Hrs) |
|-----------------|--------|-----------|---|--------|--------|-----------------|--------------------------------|---------|----------------|-------------------------|
|                 |        |           | 32K8                                    | 37K8   | 43K8   |                 | Occupied (W)                   | LPD (W) | Unoccupied (W) |                         |
| Single-Mode ICT | 1 x 4  | 55C       | 5,254                                   | 5,390  | 5,445  | 86 - 89         | 61                             | 51      | n/a            | 80,000                  |
|                 |        | 82C       | 7,933                                   | 8,139  | 8,222  | 85 - 88         | 93                             | 77      |                |                         |
|                 |        | 110C      | 9,776                                   | 10,030 | 10,132 | 80 - 83         | 122                            | 101     |                |                         |
|                 | 2 x 2  | 55CD      | 5,081                                   | 5,213  | 5,266  | 83 - 86         | 61                             | 51      |                |                         |
|                 |        | 82C       | 7,673                                   | 7,872  | 7,952  | 83 - 86         | 93                             | 77      |                |                         |
|                 |        | 110C      | 9,456                                   | 9,701  | 9,800  | 78 - 80         | 122                            | 101     |                |                         |
|                 | 2 x 4  | 55CD      | 6,167                                   | 6,327  | 6,392  | 106 - 110       | 58                             | 48      |                |                         |
|                 |        | 82C       | 7,576                                   | 7,773  | 7,852  | 81 - 84         | 93                             | 77      |                |                         |
|                 |        | 110C      | 9,337                                   | 9,579  | 9,677  | 77 - 79         | 122                            | 101     |                |                         |
|                 |        | 165C      | 13,558                                  | 13,910 | 14,052 | 74 - 77         | 183                            | 152     |                |                         |
| Dual-Mode ICT   | 1 x 4  | 23I/55C   | 5,254                                   | 5,390  | 5,445  | 86 - 89         | 61                             | 51      | 29             | 80,000                  |
|                 |        | 34I/82C   | 7,933                                   | 8,139  | 8,222  | 85 - 88         | 93                             | 77      | 44             |                         |
|                 |        | 46I/110C  | 9,776                                   | 10,030 | 10,132 | 80 - 83         | 122                            | 101     | 58             |                         |
|                 | 2 x 2  | 23I/55CD  | 5,081                                   | 5,213  | 5,266  | 83 - 86         | 61                             | 51      | 29             |                         |
|                 |        | 34I/82C   | 7,673                                   | 7,872  | 7,952  | 83 - 86         | 93                             | 77      | 44             |                         |
|                 |        | 46I/110C  | 9,456                                   | 9,701  | 9,800  | 78 - 80         | 122                            | 101     | 58             |                         |
|                 | 2 x 4  | 23I/55CD  | 6,167                                   | 6,327  | 6,392  | 106 - 110       | 58                             | 48      | 29             |                         |
|                 |        | 34I/82C   | 7,576                                   | 7,773  | 7,852  | 81 - 84         | 93                             | 77      | 46             |                         |
|                 |        | 46I/110C  | 9,337                                   | 9,579  | 9,677  | 77 - 79         | 122                            | 101     | 61             |                         |
|                 |        | 68I/165C  | 13,558                                  | 13,910 | 14,052 | 74 - 77         | 183                            | 152     | 91             |                         |

<sup>1</sup>Lumen output is with the SYM lens type. Information subject to change without notice. Visit [www.kenall.com](http://www.kenall.com) for IES files and additional information.

<sup>2</sup>Lighting Power and Energy Calculations:

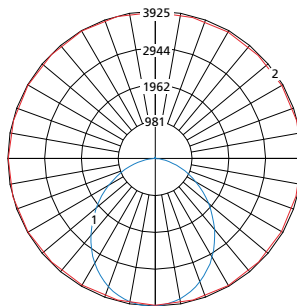
- Use **Occupied Power** for total electrical load calculations. Use this value to estimate branch circuit lighting loads.
- Use **LPD Power** for lighting power density calculations. Only the power attributed to white light is required per NEMA LSD EB 84-202X. Power used toward germicidal disinfection has been removed for this calculation.
- Use **Unoccupied** and **Occupied Power** for Energy calculations to determine the power consumed over time based on the use of the space.

Model: CSEDI14-110C-37K8-DIM1-DV-2F-2H-SYM and CSEDI14-46I/110C-37K8-DIM1-DV-2F-2H-SYM



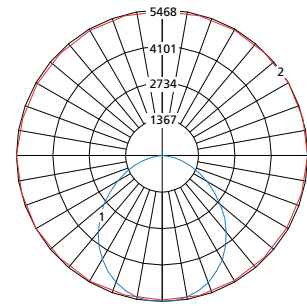
Maximum Candela = 4238 Located At Horizontal Angle = 15, Vertical Angle = 2.5  
 1 - Vertical Plane Through Horizontal Angles (15-195) (Through Max. Cd.)  
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: CSEDI22-110C-37K8-DIM1-DV-2F-2H-SYM and CSEDI22-46I/110C-37K8-DIM1-DV-2F-2H-SYM



Maximum Candela = 3925 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: CSEDI24-165C-37K8-DIM1-DV-2F-2H-SYM and CSEDI24-68I/165C-37K8-DIM1-DV-2F-2H-SYM



Max Candela = 5468 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.)



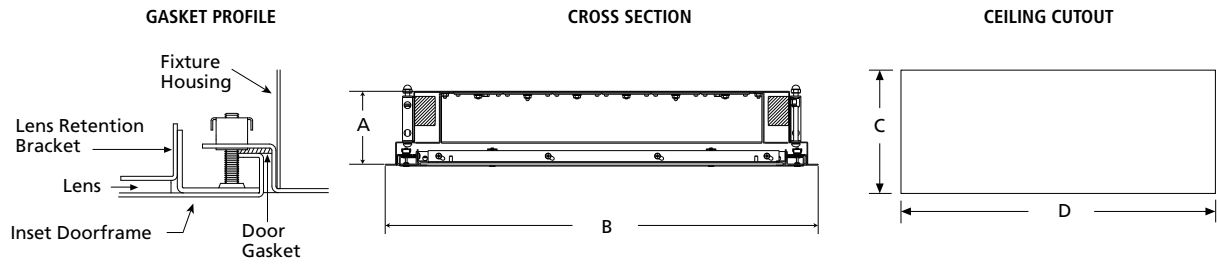
[www.kenall.com](http://www.kenall.com) | P: 800-4-Kenall | F: 262-891-9701 | 10200 55th Street Kenosha, Wisconsin 53144, USA

A brand of **Legrand**

This product complies with the Buy American Act: manufactured in the United States with more than 50% of the component cost of US origin. It may be covered by patents found at [www.kenall.com/patents](http://www.kenall.com/patents). Content of specification sheets is subject to change; please consult [www.kenall.com](http://www.kenall.com) for current product details. ©2022 Kenall Mfg. Co.

**SIMPLESEAL™**  
**CSEDI SERIES using Indigo-Clean Technology**

**DIMENSIONAL DATA**



**DIMENSIONAL DATA (IN INCHES & CENTIMETERS)**

|                         | A     | B              | C     | D      |
|-------------------------|-------|----------------|-------|--------|
| <b>12x48</b>            | 4.20  | 11.75 × 47.75  | 10.85 | 46.85  |
| <b>30.48cm×121.92cm</b> | 10.67 | 29.85 × 121.29 | 27.56 | 119.00 |
| <b>24x24</b>            | 4.20  | 23.75 × 23.75  | 22.85 | 22.85  |
| <b>60.96cm×60.96cm</b>  | 10.67 | 60.33 × 60.33  | 58.04 | 58.04  |
| <b>24x48</b>            | 4.20  | 23.75 × 47.75  | 22.85 | 46.85  |
| <b>60.96cm×121.92cm</b> | 10.67 | 60.33 × 121.29 | 58.04 | 119.00 |

\* Add .375" (.95cm) to ceiling cut out dimensions when IF Option is specified  
 \*\* Height is 5.875" (15 cm) with 110W lamp options when ordered in conjunction with LEL option



www.kenall.com | P: 800-4-Kenall | F: 262-891-9701 | 10200 55th Street Kenosha, Wisconsin 53144, USA

A brand of **legrand**

This product complies with the Buy American Act: manufactured in the United States with more than 50% of the component cost of US origin. 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. ©2022 Kenall Mfg. Co.