



PROJECT

CATALOG #

Fixture Type

SIMPLESEAL™ CSSETO

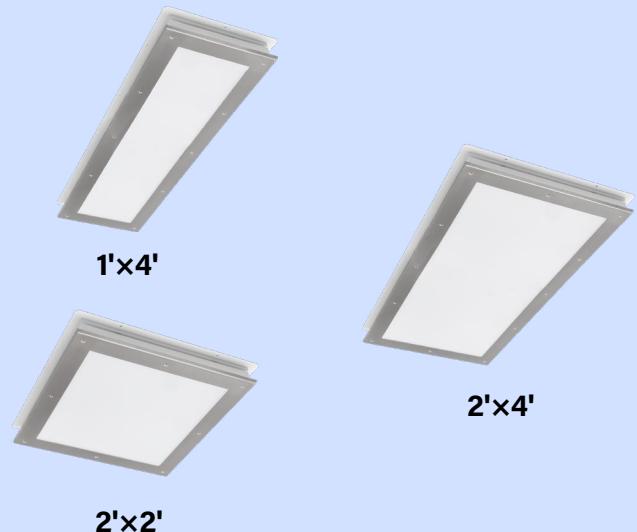
RECESSED WALKABLE TROFFER

Luminaires for Cleanroom Applications



PRODUCT FEATURES

- Flush walkable top surface; 1'x4', 2'x2' and 2'x4' Sizes
- Side or top conduit entry available
- Designed for 2, 3 or 4" modular ceilings
- Enhanced lens luminance and 90CRI standard for better visual performance
- Serviceable from above or below



SPECIFICATIONS

HOUSING: Internal housing and room-side ceiling flange constructed of seam-welded, die-formed 18-gauge CRS. Walkable side ceiling flange constructed of die-formed and seam-welded 16-gauge CRS, secured to housing during installation with provided hardware dependent on ceiling thickness. See Ordering Information for ceiling thickness selection - for use with 2"-4" ceiling systems.

TOP ACCESS DOOR: 16-gauge door with welded stiffening rails and die-formed perimeter. One-piece, closed cell extruded Nitrile gasketing seals doorframe to housing. Secured to housing with stainless steel counter-sunk flush-head screws. Single, hinged D-ring flush with walkable surface provides lifting point. Closed cell silicone gasket seals door to housing. Provides access to service all internal electrical components.

ROOM-SIDE DOOR: Standard one-piece, 18-gauge Type 304 stainless steel with 4B brushed finish. Other materials available. Die-formed with welded corners and a 60° progressive perimeter bend construction. Secured by countersunk flush-head stainless steel screws. Self-retracting safety cable supports doorframe during room-side servicing.

LENS: High impact diffuse acrylic lens, nominal .125" thick. Sealed to perimeter ledge of door aperture using RTV silicone and secured with continuous brackets.

FINISH: All painted metal surfaces finished after fabrication in gloss white TGIC polyester powder coat with 5-step pre-treatment. Salt spray test: 1,000 hours; Reflectance: 92%.

LED MODULE: Serviceable back-lit LED array. Standard 90CRI min. (R9>50). See Ordering Information for available color temperature options. Serviceable from above or below ceiling structure.

DRIVER: 120-277VAC or 347VAC, 50/60Hz electrical input with serviceable constant-current drivers (<20% THD, >0.90 PF). Minimum 85% driver efficiency. Standard 0-10V dimming with 1-100% range and dim-to-dark capabilities. 0.4mA maximum driver source current. Serviceable from above or below ceiling structure.

INSTALLATION: Recessed installation into 2", 3" or 4" thick modular structural ceiling panels. One 7/8" KO on each side of housing for conduit run internal to ceiling system. One 7/8" KO on top of luminaire for vertical conduit entry into luminaire, or horizontal surface run conduit entry via TCE option which provides a surface junction box and sealed feed into luminaire. Tested to 900lbs of uniform loading without damage or deflection of the luminaire structure. Suitable for -30°C to 40°C ambient environments, unless otherwise noted.

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 recessed ceiling insulation contact (IC-rated) and Indoor Wet Location installations. IP66 rating per IEC60598. NSF2 Splash/Non-Food Zone rated. For use in spaces that are ISO 14644-1 rated ISO3-9. Build America, Buy America Act. Compliant

ORDERING INFORMATION (EX: CSSETO-24-162L-40K9-DIM1-DV-5F-2H-SYM-3IN-LEL)

| Model | Size | Lamp Power | Lamp Color | Driver | Voltage | Room-side Doorframe | Housing | Optics | Ceiling Options | Options |
|---------------|-------------------|---------------|----------------------------|--|---------|---------------------|------------------------|-------------------------------------|-----------------|---------|
| CSSETO | | | | DIM1 | | | 2H | SYM | | |
| | Size | | Lamp Color | | | | Housing Options | | | |
| | 14 | 1'x4' Nominal | 30K9 | 3000K / 90CRI min. | | | 2H | 18-Ga CRS in Gloss White | | |
| | 22 | 2'x2' Nominal | 35K9 | 3500K / 90CRI min. | | | Optics | | | |
| | 24 | 2'x4' Nominal | 40K9 | 4000K / 90CRI min. | | | SYM | Diffuse DR Acrylic .125" thick | | |
| | Lamp Power | | Driver Type | | | | Ceiling Options | | | |
| | 1'x4' | | DIM1 | 0-10V Dimming to 1% | | | 2IN | 2-2.5" thick (50-64mm) | | |
| | 44L | 44 Watt LED | | | | | 3IN | 3-3.5" thick (75-89mm) | | |
| | 63L | 63 Watt LED | | | | | 4IN | 4-4.5" thick (101-114mm) | | |
| | 80L | 80 Watt LED | | | | | Options | | | |
| | 2'x2' | | Voltage | | | | LEL† | Integral 10W Emergency Battery Pack | | |
| | 44L | 44 Watt LED | DV | 120-277VAC, 50/60Hz | | | FS | Fuse & Holder | | |
| | 63L | 63 Watt LED | 347 | 347VAC, 60Hz | | | FN* | Food Zone/Non-Contact | | |
| | 80L | 80 Watt LED | | | | | TCE | Top Conduit Entry | | |
| | 2'x4' | | Room-side Doorframe | | | | | | | |
| | 44L | 44 Watt LED | 5F | 18-Ga Type 304 SS with 4B Brushed Finish (STD) | | | | | | |
| | 63L | 63 Watt LED | 2F | 18-Ga CRS in Gloss White | | | | | | |
| | 80L | 80 Watt LED | XF | 18-Ga Type 316 SS with 4B Brushed Finish | | | | | | |
| | 120L | 120 Watt LED | PAB | .063" Fabricated Aluminum in Gloss White | | | | | | |
| | 162L | 162 Watt LED | | | | | | | | |

† n/a 347V input; 0°C min. ambient

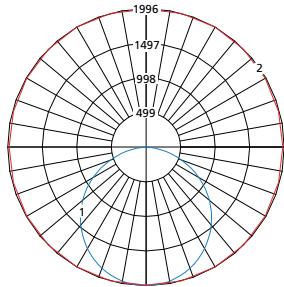
* Lensing consists of FDA approved Food Zone clear polycarbonate outer lens and diffused acrylic inner lens.

PERFORMANCE

| SIZE | LAMP CODE | Initial Delivered Lumens, By Lamp Color (lm) | | | | EFFICACY (LM/W) | INPUT POWER (W) | TM-21 REPORTED L70 (HRS) |
|------|-----------|--|--------|--------|--------|-----------------|-----------------|--------------------------|
| | | 30K9 | 35K9 | 40K9 | 50K9 | | | |
| 1x4 | 44L | 5,405 | 5,606 | 5,738 | 6,046 | 114 - 128 | 47 | >102,000 |
| | 63L | 7,788 | 8,077 | 8,267 | 8,711 | 113 - 126 | 69 | |
| | 80L | 10,024 | 10,396 | 10,641 | 11,212 | 115 - 128 | 87 | |
| 2x2 | 44L | 5,877 | 6,096 | 6,239 | 6,574 | 118 - 132 | 50 | >102,000 |
| | 63L | 8,374 | 8,685 | 8,889 | 9,366 | 121 - 135 | 69 | |
| | 80L | 10,523 | 10,914 | 11,171 | 11,770 | 121 - 135 | 87 | |
| 2x4 | 44L | 6,307 | 6,542 | 6,696 | 7,055 | 130 - 146 | 48 | >102,000 |
| | 63L | 9,210 | 9,552 | 9,777 | 10,301 | 134 - 150 | 69 | |
| | 80L | 11,080 | 11,492 | 11,763 | 12,394 | 127 - 142 | 87 | |
| | 120L | 16,146 | 16,746 | 17,140 | 18,059 | 124 - 138 | 131 | |
| | 162L | 21,451 | 22,248 | 22,772 | 23,993 | 122 - 136 | 176 | |

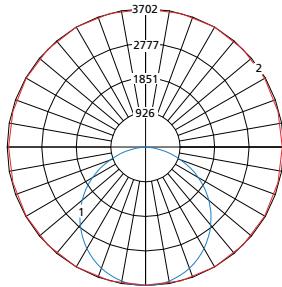
NOTE: Lumen scaling factor for FN lens option is 0.93. Information subject to change without notice. All testing conducted by an ILAC/ISO17025 accredited laboratory. Please visit www.kenall.com for IES files and additional information.

Model: CSSETO-14-44L-40K9-tt-uu-vv-ww-SYM-2IN-zz



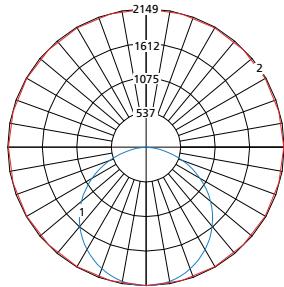
Max Candela = 1996 Located At Horizontal Angle = 60, Vertical Angle = 2.5
 1 - Vertical Plane Through Horizontal Angles (60 - 240) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: CSSETO-14-82L-40K9-tt-uu-vv-ww-SYM-2IN-zz



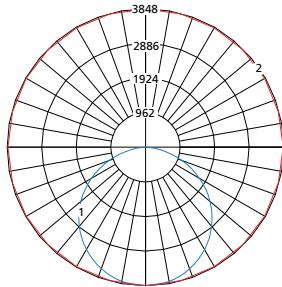
Max Candela = 3702 Located At Horizontal Angle = 60, Vertical Angle = 2.5
 1 - Vertical Plane Through Horizontal Angles (60 - 240) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: CSSETO-22-44L-40K9-tt-uu-vv-ww-SYM-2IN-zz



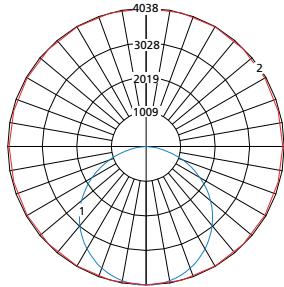
Max Candela = 2149 Located At Horizontal Angle = 90, Vertical Angle = 2.5
 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: CSSETO-22-82L-40K9-tt-uu-vv-ww-SYM-2IN-zz



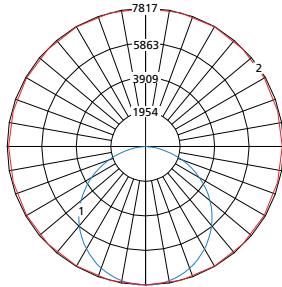
Max Candela = 3848 Located At Horizontal Angle = 90, Vertical Angle = 2.5
 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: CSSETO-24-80L-40K9-tt-uu-vv-ww-SYM-2IN-zz



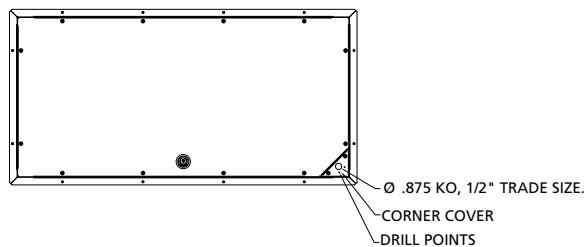
Max Candela = 4038 Located At Horizontal Angle = 90, Vertical Angle = 2.5
 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: CSSETO-24-162L-40K9-tt-uu-vv-ww-SYM-2IN-zz

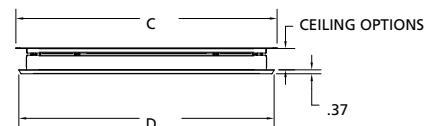
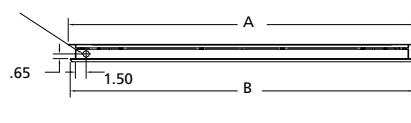
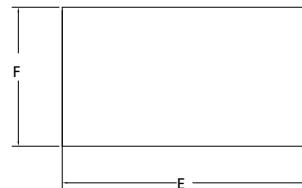


Max Candela = 7817 Located At Horizontal Angle = 90, Vertical Angle = 2.5
 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

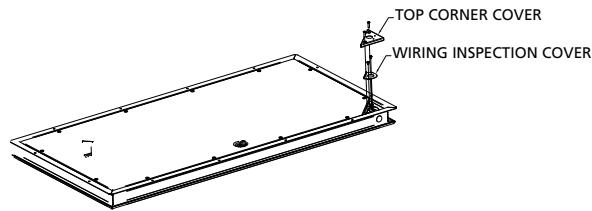
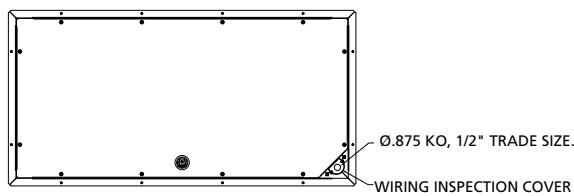
DIMENSIONAL DATA



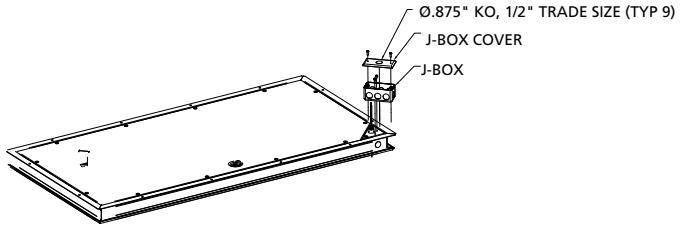
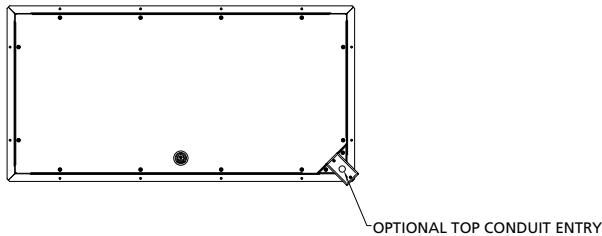
RECOMMENDED CEILING CUTOUT



TOP WIRING INSPECTION ACCESS



TOP CONDUIT ENTRY OPTION



DIMENSIONAL DATA (IN INCHES)

| | A | B | C | D | E | F |
|-----|-------|-------|-------|-------|-------|-------|
| 1x4 | 48.50 | 47.94 | 12.50 | 11.94 | 46.70 | 10.70 |
| 2x2 | 26.10 | 25.54 | 24.50 | 23.94 | 24.30 | 22.70 |
| 2x4 | 48.50 | 47.94 | 24.50 | 23.94 | 46.70 | 22.70 |