

# MEDICAL/SURGICAL TROFFER – WIDE GRID

# MDS

tunable **WHITE**

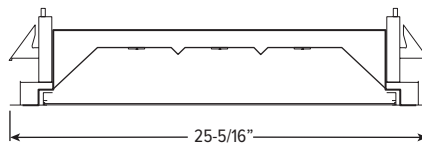
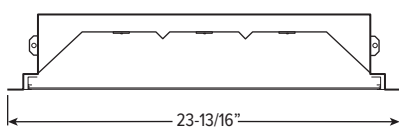
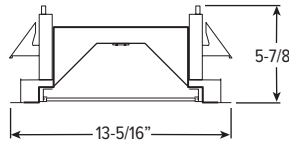
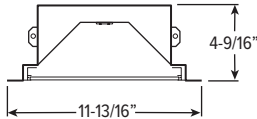


|            |        |
|------------|--------|
| CATALOG #: | TYPE:  |
| PROJECT:   | NOTES: |

**EXAMPLE** MDS G - 24 - L155/8TW - SYM - OPTIONS - DALI - UNV

SERIES CEILING TYPE NOM.NOM. W. L. LUMEN PACKAGE CRI & CCT SHIELDING OPTIONS/ACCESSORIES CONTROL VOLTAGE

## CROSS SECTIONS



NEMA Type "G"

NEMA Type "F"

## ORDERING INFORMATION

**SERIES**  
**MDS** Medical/Surgical Troffer - Wide Grid – Tunable White

**CEILING TYPE**  
**G** NEMA Type "G"  
**F** NEMA Type "F"

**NOMINAL WIDTH**  
**1** 1'  
**2** 2'

**NOMINAL LENGTH**  
**2** 2' (2' width only)  
**4** 4'

### LED PACKAGE

| Example: L155/8TW |                | WATTAGE |
|-------------------|----------------|---------|
| LUMEN PACKAGE     | NOMINAL LUMENS |         |
| 1x4               |                | 65      |
| L72               | 7,200          |         |
| 2x2               |                | 61      |
| L75               | 7,500          |         |
| 2x4               |                | 127     |
| L155              | 15,500         |         |

Nominal lumen output based on 4000K CCT. Actual lumens may vary +/-5%, see fixture performance data. Additional LED lumen packages available, see options.

**CRI & CCT**  
**8TW** Tunable white (80 CRI, 3000K–5000K)

**SHIELDING**  
**SYM** Symmetric  
**SYM/ASY** Symmetric/asymmetric (reduces fixture output up to 5%)  
**ASY** Asymmetric (reduces fixture output up to 23%)

**OPTIONS**  
**EM/10W** 10-watt emergency battery (120V-277V only)  
**TG** Triple gasket (field installed)  
**GLR** Fuse, fast blow (specify voltage), one per driver  
**(L\_\_)** Additional lower lumen packages available. Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.  
 Example: 11,500 nominal lumens = MDSG-24-L126/8TW-(L115).  
**CP** Chicago Plenum (CCEA)

**CONTROL**  
 See page 3 for details.  
**DALI** Driver prewired for DALI applications  
**DIM** (1) 0-10V signal to control dimming  
 (1) 0-10V signal to control CCT  
**DMX** Driver prewired for DMX applications

**VOLTAGE**  
**120** 120V  
**277** 277V  
**UNV** 120-277V

## FEATURES

- ▶ Tunable white from 3000K to 5000K CCT, minimum 80 CRI.
- ▶ Multiple distribution options provide effective, application specific lighting performance.
- ▶ Smooth surface doorframe and lens materials simplify cleaning and maintenance.
- ▶ Designed exclusively for hospitals and medical facilities utilizing 15/16", 1-1/2", and 2" face T-bars
- ▶ Suitable for grid or flange installations.
- ▶ Anti-microbial white finish standard
- ▶ Provides auxiliary illumination from the perimeter of the surgery or exam area
- ▶ Reduces intense contrast between surgery and work area lighting
- ▶ Supplies uniform ambient illumination for the remainder of the surgery room
- ▶ Optional triple gasket to protect against contaminants
- ▶ This fixture is proudly made in the USA

tunable **WHITE**

### SPECIFICATIONS

**Housing** – 20-gauge die-formed C.R.S.  
**Door Frame** – .050" extruded aluminum, flat with mitered corners. Fully enclosed spring-loaded cam latches and T-type hinges. Door frame and lens are grounded to the fixture housing.

#### Shielding –

- Symmetric: one-piece frosted acrylic, pattern #12, .125" thick
- Symmetric/Asymmetric: one-piece frosted acrylic, pattern #12, .125" thick
- Asymmetric: one-piece clear acrylic asymmetric/symmetric lens with radio suppression grid (KSH-34RF), nominal .150" thick

**Finish** – 92% minimum average reflective white anti-microbial powder coating bonded to phosphate-free, multi-stage pretreated metal. All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.

**Electrical** – High quality mid-power LED board. L70 > 60,000 hours per IES TM-21. Tunable White products use LEDs of multiple CCTs and may produce a perceptibly different shade of white from single-CCT products at the same CCT. All CCTs are within 3 MacAdam ellipses.

**Mounting** – NEMA Type "G" for 15/16", 1-1/2", and 2" grid ceiling systems. NEMA Type "F" available. Four (4) earthquake clips standard.

**Labels** – cCSAs certified as luminaire suitable for dry or damp locations. City of Chicago Environmental Air approved when specified with CP option.

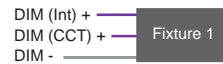
**Warranty** – 5-year limited warranty, see [hew.com/warranty](http://hew.com/warranty).

### IMPORTANT:

Electrostatic sensitive unit. Observe precautions when handling.

### CONTROL DETAILS

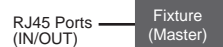
#### DIM



#### DALI



#### DMX



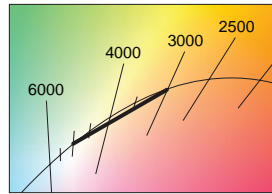
### FIXTURE PERFORMANCE DATA

| LED PACKAGE | DELIVERED LUMENS | WATTAGE | EFFICACY (lm/W) |
|-------------|------------------|---------|-----------------|
| 1x4         |                  |         |                 |
| L72         | 7202             | 65      | 111             |
| 2x2         |                  |         |                 |
| L75         | 7512             | 61      | 123             |
| 2x4         |                  |         |                 |
| L155        | 15569            | 127     | 123             |

- Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25°C ambient temperature.
- Wattage shown is average for 120V through 277V input.
- Results based on 4000K, 80 CRI, actual lumens may vary +/-5%
- Use multiplier table to calculate additional options.

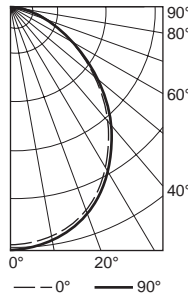
### MULTIPLIER TABLE

| CCT   | CONVERSION FACTOR |         |
|-------|-------------------|---------|
|       | LUMENS            | WATTAGE |
| 3000K | 0.95              | 1.04    |
| 3500K | 0.98              | 1.02    |
| 4000K | 1.00              | 1.00    |
| 5000K | 0.96              | 1.04    |



### PHOTOMETRY

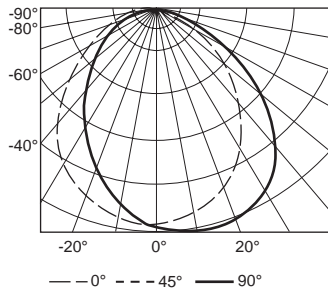
**MDSG-24-L155/8TW-SYM-DALI** Total Luminaire Output: 15569 lumens; 127 Watts | Efficacy: 123 lm/W



| Vertical Angle | Horizontal Angle |      |      | Zonal Lumens |
|----------------|------------------|------|------|--------------|
|                | 0°               | 45°  | 90°  |              |
| 0              | 6672             | 6672 | 6672 |              |
| 5              | 6694             | 6613 | 6605 | 629          |
| 15             | 6360             | 6293 | 6293 | 1777         |
| 25             | 5709             | 5644 | 5643 | 2604         |
| 35             | 4789             | 4713 | 4703 | 2952         |
| 45             | 3649             | 3570 | 3535 | 2759         |
| 55             | 2490             | 2409 | 2374 | 2170         |
| 65             | 1518             | 1457 | 1468 | 1473         |
| 75             | 816              | 803  | 868  | 875          |
| 85             | 286              | 296  | 346  | 330          |
| 90             | 8                | 33   | 44   |              |

| LUMEN SUMMARY | Zone    | Lumens | % Fixture |
|---------------|---------|--------|-----------|
|               | 0 - 30  | 5010   | 32        |
|               | 0 - 40  | 7962   | 51        |
|               | 0 - 60  | 12891  | 83        |
|               | 0 - 90  | 15568  | 100       |
|               | 0 - 180 | 15569  | 100       |

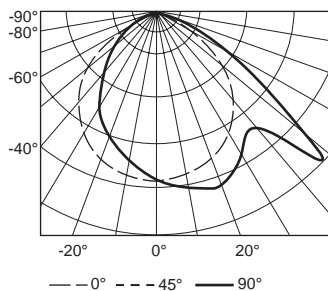
**MDSG-24-L155/8TW-SYM/ASY-DALI** Total Luminaire Output: 15223 lumens; 127 Watts | Efficacy: 120 lm/W



| Vertical Angle | Horizontal Angle |      |      |      |      | Zonal Lumens |
|----------------|------------------|------|------|------|------|--------------|
|                | 0°               | 45°  | 90°  | 135° | 180° |              |
| 0              | 6254             | 6254 | 6254 | 6254 | 6254 |              |
| 5              | 6463             | 6380 | 6265 | 6026 | 5967 | 590          |
| 15             | 6670             | 6442 | 5976 | 5412 | 5211 | 1674         |
| 25             | 6514             | 6156 | 5411 | 4560 | 4242 | 2474         |
| 35             | 5982             | 5529 | 4591 | 3572 | 3191 | 2852         |
| 45             | 4939             | 4476 | 3556 | 2596 | 2264 | 2738         |
| 55             | 3491             | 3168 | 2475 | 1755 | 1537 | 2216         |
| 65             | 2094             | 1915 | 1529 | 1105 | 1002 | 1517         |
| 75             | 1086             | 966  | 804  | 634  | 607  | 865          |
| 85             | 346              | 291  | 264  | 234  | 247  | 297          |
| 90             | 24               | 15   | 9    | 35   | 46   |              |

| LUMEN SUMMARY | Zone    | Lumens | % Fixture |
|---------------|---------|--------|-----------|
|               | 0 - 30  | 4738   | 31        |
|               | 0 - 40  | 7590   | 50        |
|               | 0 - 60  | 12544  | 82        |
|               | 0 - 90  | 15223  | 100       |
|               | 0 - 180 | 15223  | 100       |

**MDSG-24-L155/8TW-ASY-DALI** Total Luminaire Output: 13839 lumens; 127 Watts | Efficacy: 109 lm/W

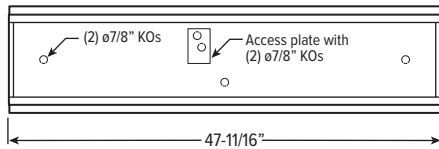
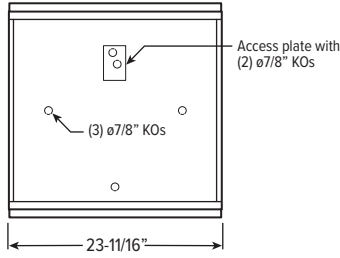
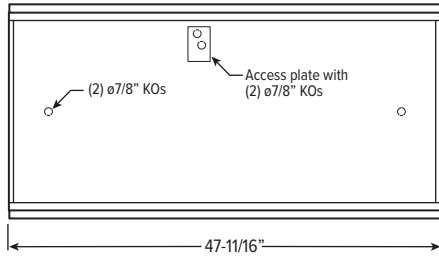


| Vertical Angle | Horizontal Angle |      |      |      |      | Zonal Lumens |
|----------------|------------------|------|------|------|------|--------------|
|                | 0°               | 45°  | 90°  | 135° | 180° |              |
| 0              | 5686             | 5686 | 5686 | 5686 | 5686 |              |
| 5              | 5856             | 5786 | 5706 | 5493 | 5420 | 537          |
| 15             | 6242             | 5922 | 5437 | 4913 | 4740 | 1534         |
| 25             | 5920             | 5737 | 4939 | 4231 | 4037 | 2282         |
| 35             | 5035             | 4945 | 4257 | 3457 | 3132 | 2613         |
| 45             | 6835             | 3740 | 3342 | 2453 | 2166 | 2714         |
| 55             | 4055             | 3882 | 2072 | 1485 | 1336 | 2174         |
| 65             | 1565             | 1767 | 976  | 957  | 736  | 1235         |
| 75             | 753              | 669  | 407  | 408  | 408  | 573          |
| 85             | 294              | 191  | 91   | 120  | 119  | 177          |
| 90             | 82               | 20   | 3    | 4    | 2    |              |

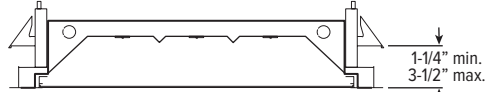
| LUMEN SUMMARY | Zone    | Lumens | % Fixture |
|---------------|---------|--------|-----------|
|               | 0 - 30  | 4352   | 31        |
|               | 0 - 40  | 6965   | 50        |
|               | 0 - 60  | 11853  | 86        |
|               | 0 - 90  | 13838  | 100       |
|               | 0 - 180 | 13839  | 100       |

## FIXTURE DETAILS

### BACK VIEW



### NEMA TYPE "F" INSTALLATION

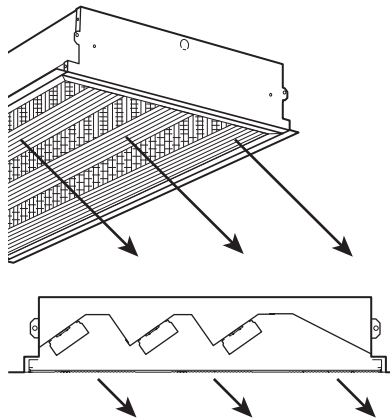


**Maximum recommended ceiling opening:** 24-3/8" X 48-3/8"

For continuous row mounting, add 49-5/16" for each additional fixture to obtain ceiling opening. 1-5/16" between end plates.

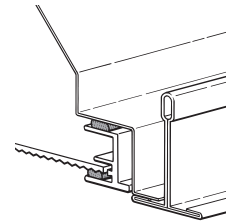
MDSF fixtures can be field converted to work with 1-1/2" or 2" NEMA Type "G" ceiling systems.

### DIRECTIONAL LENS DETAILS



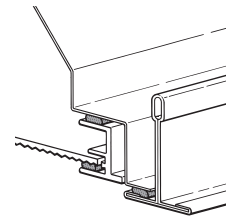
## GASKETING DETAILS

### DOUBLE GASKETING (STANDARD)



Gasketing is factory-installed continuously between door frame and luminaire housing; and between door frame and lens.

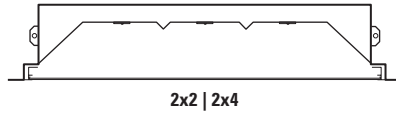
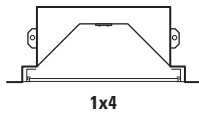
### TRIPLE GASKETING (TG)



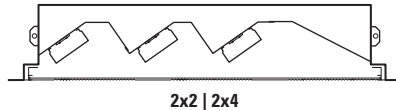
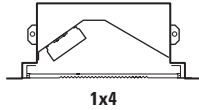
Gasketing is factory-installed continuously between door frame and luminaire housing; and between door frame and lens. Gasketing between bottom perimeter of unit (adjacent to T-bar or hardpan ceiling) is provided by factory and field installed.

### CROSS SECTIONS

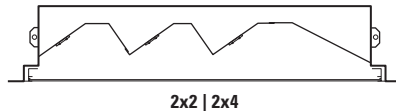
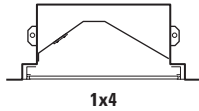
#### SYM



#### ASY



#### SYM/ASY



### TYPICAL SURGICAL SUITE LAYOUT

