

CATALOG #: \_\_\_\_\_

TYPE: \_\_\_\_\_

PROJECT: \_\_\_\_\_



**FEATURES**

- Support human-centric design with adaptive, individualized lighting using tunable white light
- Multiple distribution options provide effective, application specific lighting performance
- Smooth surface doorframe and lens materials simplify cleaning and maintenance
- Optional green circuit provides enhanced visual clarity for operating room staff and reduces eye fatigue during videoscopic surgical procedures
- Designed exclusively for hospitals and medical facilities utilizing 15/16", 1-1/2", and 2" face T-bars
- Anti-microbial white finish standard
- Reduces intense contrast between surgical and preparatory work areas
- Supplies uniform ambient illumination for the remainder of the surgery room
- Optional triple gasket protects against contaminant ingress
- Made Right Here® in the USA

**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** – One-piece frosted acrylic, pattern #12, .125" thick.
- FINISH** – 92% minimum average reflective white anti-microbial powder coating bonded to phosphate-free, multi-stage pretreated metal. Salt spray tested, 1,000 hours (ASTM B117). All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.
- ELECTRICAL** – High-quality mid-power LED boards. 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" 15/16" or 1-1/2" grid standard. (4) Earthquake clips provided. Drywall flange type available.
- LISTINGS** –
  - CCSAUS certified as luminaire suitable for dry or damp locations.
  - City of Chicago Environmental Air approved when specified with CP option.
  - Complies with the Buy American Act and other federal regulations. Request certification at [hew.com/baa](http://hew.com/baa).
- WARRANTY** – 5-year limited warranty, see [hew.com/warranty](http://hew.com/warranty).

**ORDERING EXAMPLE: MDSG - 24 - L155/8TW - SYM - OPTIONS - DALI - UNV**

**ORDERING INFO**

SERIES	CEILING TYPE	WIDTH	LENGTH	LUMENS <sup>(1)</sup>	CRI	CCT
MDS	G 15/16" or 1-1/2" grid	1 1' <sup>(3)</sup>	2 2' <sup>(4)</sup>	1x4	8 80	TW Tunable white (3000K-5000K)
		F Flange <sup>(2)</sup>	2 2'	4 4'	L72 7,200lm	9 90
				2x2		
				L75 7,500lm		
			2x4	L155 15,500lm		

**SHIELDING**

- SYM** Symmetric
- SYM/ASY** Symmetric/asymmetric <sup>(5)</sup>

**OPTIONS**

- EM/10W** 10-watt emergency battery
- GLR (L\_\_)** Fuse, fast blow (specify voltage), one per driver. Additional lower lumen packages available. **Example: 11,500 nominal lumens = MDSG-24-L155/8TW-(L15) <sup>(6)</sup>**
- CP** Chicago plenum (CCEA)
- TG** Triple gasket <sup>(7)</sup>

**CONTROL**

- See page 3 for **CONTROL 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
- LD2** Lutron DALI-2 digital driver, 1%

**VOLTAGE**

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

**NOTES**

- Lumen output based on 80 CRI/4000K CCT. Actual performance may vary +/-5%. See page 2 for **FIXTURE PERFORMANCE DATA**. Additional lumen packages available, see Options.
- See page 2 for **CROSS SECTIONS**.
- 4' length only.
- 2' width only.
- Reduces fixture output up to 5%.
- Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.
- Field-installed. See page 3 for **GASKETING DETAILS**.



## FIXTURE PERFORMANCE DATA

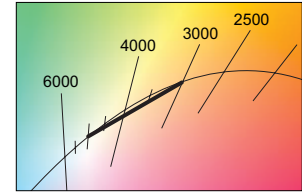
	LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
1x4	L72	7202	65	111
2x2	L75	7512	61	123
2x4	L155	15569	127	123

- Photometrics tested in accordance with IESNA LM-79. Results based on 80 CRI/4000K CCT, average wattage for 120V through 277V input, and 25°C ambient temperature. Actual performance may vary +/-5%.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier table to calculate additional options.

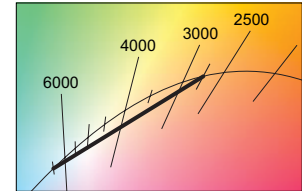
## MULTIPLIER TABLE

	CCT	COLOR TEMPERATURE			
		TW		TW2	
		LUMENS	WATTAGE	LUMENS	WATTAGE
80 CRI	2700K	-	-	0.93	1.02
	3000K	0.95	1.04	0.95	1.01
	3500K	0.98	1.02	0.98	1.00
	4000K	1.00	1.00	1.00	1.00
	5000K	0.96	1.04	1.02	1.00
6500K	-	-	1.01	1.04	
90 CRI	2700K	-	-	0.81	1.02
	3000K	0.83	1.04	0.83	1.01
	3500K	0.86	1.02	0.86	1.00
	4000K	0.88	1.00	0.88	1.00
	5000K	0.84	1.04	0.89	1.00
6500K	-	-	0.88	1.04	

## TW

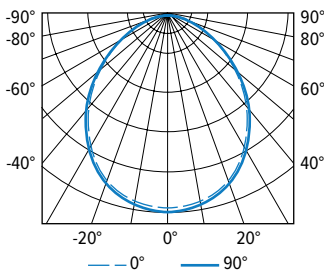


## TW2



## PHOTOMETRY

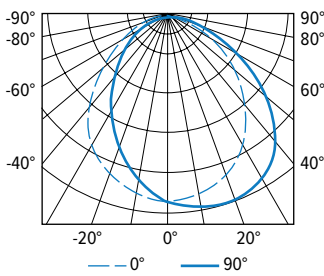
MDSG-24-L155/8TW-SYM-DALI Total Luminaire Output: 15569 lumens; 127 Watts | Efficacy: 123 lm/W



CANDLEPOWER DISTRIBUTION	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

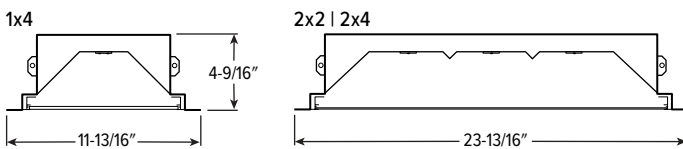


CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE					ZONAL LUMENS
		0°	45°	90°	135°	180°	
	0	6254	6254	6254	6254	6254	
	5	6463	6380	6265	6026	5967	590
	15	6670	6442	5976	5412	5211	1674
	25	6514	6156	5411	4560	4242	2474
	35	5982	5529	4591	3572	3191	2852
	45	4939	4476	3556	2596	2264	2738
	55	3491	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	

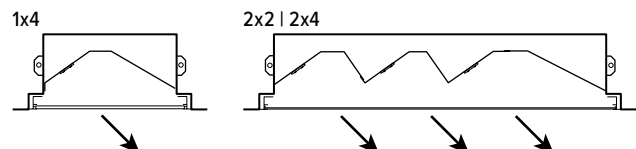
LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	4738	31
	0 - 40	7590	50
	0 - 60	12544	82
	0 - 90	15223	100
	0 - 180	15223	100

## CROSS SECTIONS

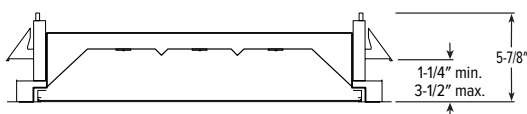
### SYM



### SYM/ASY



### F CEILING TYPE INSTALLATION



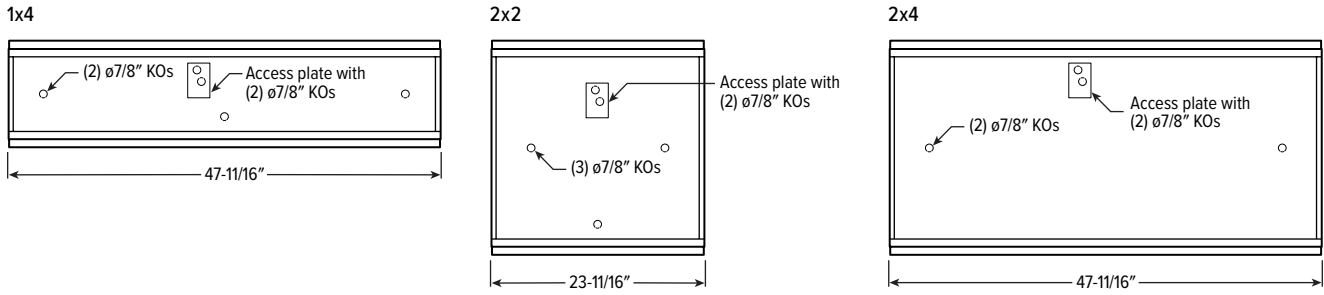
	ROUGH-IN	FINISH TRIM SIZE
1x4	12-3/8" x 48-3/8"	13-5/16" x 49-5/16"
2x2	24-3/8" x 24-3/8"	25-5/16" x 25-5/16"
2x4	24-3/8" x 48-3/8"	25-5/16" x 49-5/16"

For continuous row mounting, add finish trim size for each additional fixture.

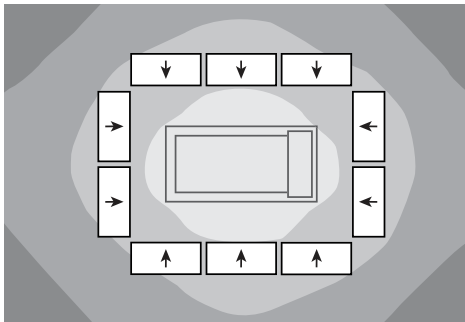
MDSF fixtures can be field converted to work with 1-1/2" or 2" NEMA Type "G" ceiling systems.



## FIXTURE DETAILS



## TYPICAL SURGICAL SUITE LAYOUT

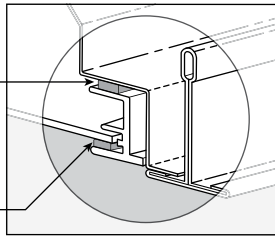


## GASKETING DETAILS

### DOUBLE GASKETING (STANDARD)

First gasketing factory-installed between door frame and luminaire housing prevents light leak and reduces dust ingress.

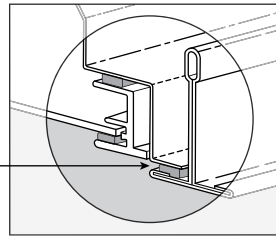
Second gasketing factory-installed between door frame and lens reduces dust and bug contaminants.



### TRIPLE GASKETING (TG OPTION)

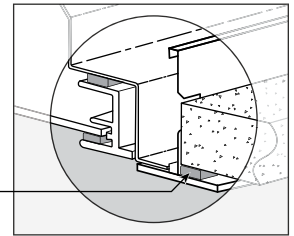
T-bar

Third gasketing field installed between bottom perimeter of fixture and T-bar ceiling seals plenum dust from the room.



Drywall

Between bottom perimeter of fixture and hardpan ceiling.



## CONTROL DETAILS

### DIM

DIM (Int) + Fixture 1  
 DIM (CCT) + Fixture 1  
 DIM -

### DALI

DALI + Fixture 1  
 DALI -

### DMX

RJ45 Ports (IN/OUT) Fixture (Master)

### LD2

DA + Fixture 1  
 DA -

