

MEDICAL/SURGICAL TROFFER – WIDE GRID

MDS

PoE

CATALOG #:

TYPE:

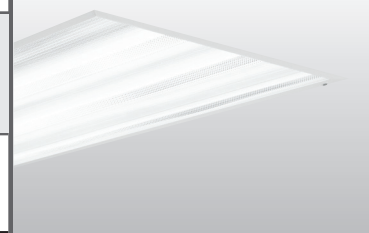
PROJECT:

NOTES:

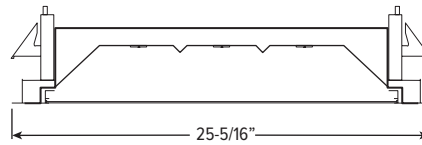
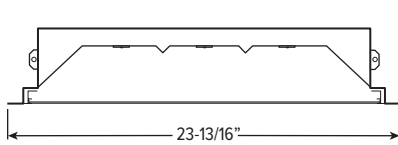
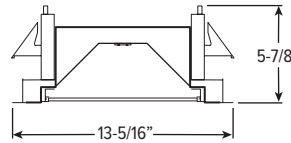
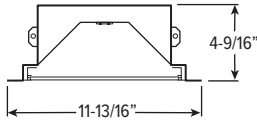
EXAMPLE

MDS G - 2 4 - P91/840/P21/GRN - SYM - OPTIONS - POE N

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



CROSS SECTIONS



NEMA Type "G"

NEMA Type "F"

FEATURES

- ▶ Williams turn-key Power over Ethernet (PoE) solution provides plug-and-play networked lighting and control.
- ▶ Efficacies up to 144 lm/W.
- ▶ 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 videooscopic surgical procedures.
- ▶ 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

ORDERING INFORMATION

SERIES

MDS Medical/Surgical Troffer - Wide Grid - PoE

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

	WHITE LUMENS	WHITE CRI & CCT	GREEN LUMENS/CIRCUIT
WHITE EXAMPLE: P141/840			
1x4	P30 = 3,000	830 = 82 CRI, 3000K	—
	P66 = 6,600	835 = 82 CRI, 3500K	—
2x2	P34 = 3,400	840 = 82 CRI, 4000K	—
	P71 = 7,100	850 = 80 CRI, 5000K	—
2x4	P71 = 7,100	940 = 90 CRI, 4000K	—
	P141 = 14,100	950 = 90 CRI, 5000K	—
GREEN/WHITE EXAMPLE: P91/840/P21/GRN			
2x2	P23 = 2,300	830 = 82 CRI, 3000K	P6/GRN = 600 Green
		835 = 82 CRI, 3500K	P10/GRN = 1,000 Green
		840 = 82 CRI, 4000K	
2x4	P47 = 4,700	850 = 80 CRI, 5000K	P12/GRN = 1,200 Green
		940 = 90 CRI, 4000K	
		950 = 90 CRI, 5000K	P21/GRN = 2,100 Green

Nominal lumen output based on 4000K for single CCT. Actual lumens may vary +/-5%, see fixture performance data.

SHIELDING

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

OPTIONS

EM/CP12 Remote mount 12-watt lota emergency LED battery, controls ambient compartment only (requires one additional category cable run to switch, see page 3 for details)
TG Triple gasket (field installed)

ACCESSORIES

See hew.com/poe for compatible sensors & switches

CONTROL

For additional PoE info, see hew.com/poe
POEN Power over Ethernet network node
POED Power over Ethernet device node

SYSTEM REQUIREMENTS

- Lighting system (site software)
- Gateway or alternate server (runs software)
- PoE switches or Ethernet switches and mid-span power injectors
- See hew.com/poe for details



FIXTURE PERFORMANCE DATA

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. Low-voltage DC fixture, to be fed by Class 2 power supply.

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 – cCSAus certified as luminaire suitable for dry or damp locations.

Warranty – 5-year limited warranty, see hew.com/warranty.

IMPORTANT:

Electrostatic sensitive unit. Observe precautions when handling.

	LED PACKAGE	WATTAGE		SYMMETRIC				SYMMETRIC/ASYMMETRIC				ASYMMETRIC			
				DELIVERED LUMENS		EFFICACY (lmW)		DELIVERED LUMENS		EFFICACY (lmW)		DELIVERED LUMENS		EFFICACY (lmW)	
				WHITE	GREEN	WHITE	GREEN	WHITE	GREEN	WHITE	GREEN	WHITE	GREEN	WHITE	GREEN
White															
1x4	P30	25	—	3022	—	122	—	2950	—	119	—	2627	—	106	—
	P66	50	—	6595	—	133	—	6438	—	129	—	5420	—	109	—
2x2	P34	25	—	3403	—	138	—	3327	—	135	—	3289	—	133	—
	P71	50	—	7080	—	143	—	6923	—	140	—	6844	—	138	—
2x4	P71	50	—	7111	—	144	—	6953	—	141	—	6321	—	128	—
	P141 ¹	99	—	14161	—	143	—	13846	—	140	—	12587	—	127	—
Green/White															
2x2	P23/P6	17	8	2330	611	130	76	2278	598	136	75	2252	590	91	74
	P47/P10	34	16	4720	972	127	61	4615	950	137	59	4563	940	92	59
2x4	P47/P12	34	16	4700	1222	140	76	4615	1195	138	75	4000	978	81	61
	P91/P21 ¹	65	35	9084	2126	140	61	8882	2078	137	59	8075	1888	81	54

¹ Fixture contains two nodes, one power drop per node required.

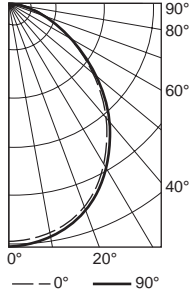
MULTIPLIER TABLE

	CCT	CONVERSION FACTOR
80 CRI	3000K	0.96
	3500K	0.97
	4000K	1.00
	5000K	1.03
90 CRI	4000K	0.83
	5000K	0.86

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

PHOTOMETRY

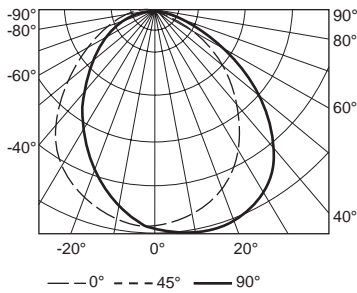
MDSG-24-P141/840-SYM-POE Total Luminaire Output: 14161 lumens; 99 Watts | Efficacy: 143 lm/W



CANDLEPOWER DISTRIBUTION	Vertical Angle	Horizontal Angle			Zonal Lumens
		0°	45°	90°	
0	6069	6069	6069		
5	6089	6015	6008	572	
15	5785	5723	5723	1617	
25	5193	5134	5133	2368	
35	4356	4287	4278	2685	
45	3319	3247	3216	2509	
55	2264	2192	2159	1974	
65	1381	1325	1335	1340	
75	742	731	790	796	
85	260	269	315	300	
90	7	30	40		

LUMEN SUMMARY	Zone	Lumens	% Fixture
	0 - 30	4557	32
	0 - 40	7242	51
	0 - 60	11725	83
	0 - 90	14161	100
	0 - 180	14161	100

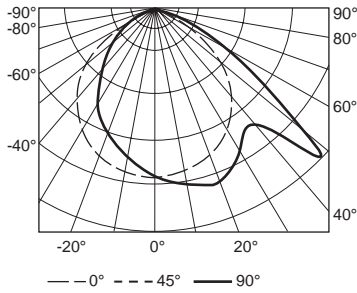
MDSG-24-P141/840-SYM/ASY-POE Total Luminaire Output: 13846 lumens; 99 Watts | Efficacy: 140 lm/W



CANDLEPOWER DISTRIBUTION	Vertical Angle	Horizontal Angle					Zonal Lumens
		0°	45°	90°	135°	180°	
0	5688	5688	5688	5688	5688		
5	5879	5803	5698	5481	5428	537	
15	6067	5859	5435	4923	4739	1523	
25	5925	5599	4921	4148	3859	2250	
35	5441	5029	4176	3249	2902	2594	
45	4492	4071	3234	2361	2059	2490	
55	3175	2881	2251	1597	1398	2015	
65	1904	1742	1391	1005	912	1380	
75	988	878	731	577	552	786	
85	315	265	241	213	225	270	
90	22	14	8	32	42		

LUMEN SUMMARY	Zone	Lumens	% Fixture
	0 - 30	4310	31
	0 - 40	6904	50
	0 - 60	11409	82
	0 - 90	13846	100
	0 - 180	13846	100

MDSG-24-P141/840-ASY-POE Total Luminaire Output: 12587 lumens; 99 Watts | Efficacy: 127 lm/W



CANDLEPOWER DISTRIBUTION	Vertical Angle	Horizontal Angle					Zonal Lumens
		0°	45°	90°	135°	180°	
0	5172	5172	5172	5172	5172		
5	5326	5263	5189	4996	4930	488	
15	5677	5386	4945	4468	4311	1395	
25	5385	5218	4492	3848	3672	2075	
35	4579	4497	3872	3144	2849	2376	
45	6216	3402	3040	2231	1970	2469	
55	3688	3530	1884	1351	1215	1977	
65	1423	1607	887	871	670	1123	
75	685	608	370	371	371	521	
85	267	174	83	109	108	161	
90	75	18	3	4	2		

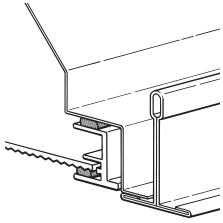
LUMEN SUMMARY	Zone	Lumens	% Fixture
	0 - 30	3958	31
	0 - 40	6335	50
	0 - 60	10781	86
	0 - 90	12587	100
	0 - 180	12587	100



PoE

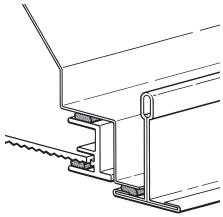
GASKETING DETAILS

DOUBLE GASKETING (STANDARD)



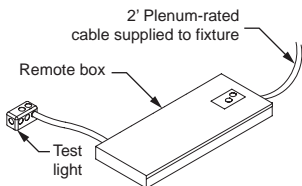
Gasketing is factory-installed continuously between door frame and luminaire housing; and between door frame and lens.

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.

REMOTE MOUNT EM OPTION DETAILS



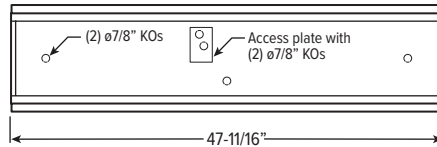
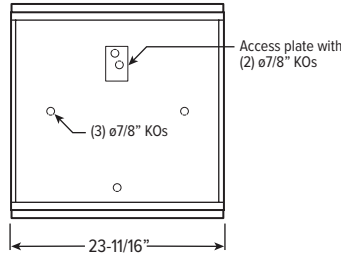
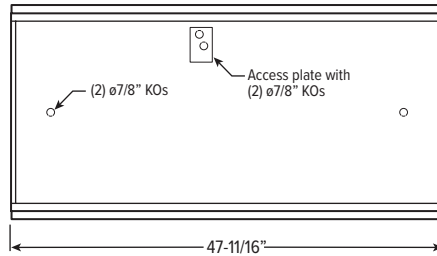
Includes 2' plenum rated 18ga. solid cable. Remote box can be installed in:

- Above ceiling grid
- Remote closet (within 100ft)
- Surface below ceiling

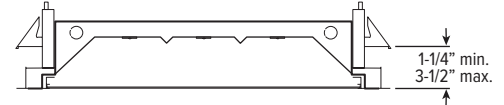
See [Technical Info](#) for dimension details.

FIXTURE DETAILS

BACK VIEW



NEMA TYPE "F" INSTALLATION

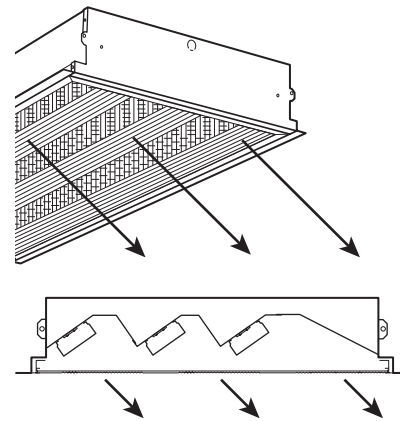


Maximum recommended ceiling opening: 24-3/8" X 48-3/8"

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

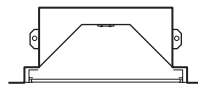
MDSF fixtures can be field converted to work with 1-1/2" or 2" NEMA Type "G" ceiling systems.

DIRECTIONAL LENS DETAILS

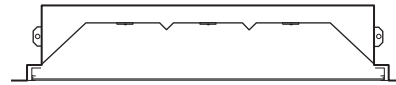


CROSS SECTIONS

SYM

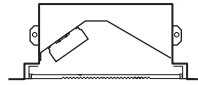


1x4

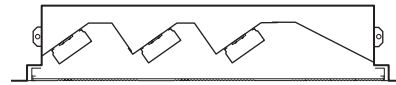


2x2 | 2x4

ASY

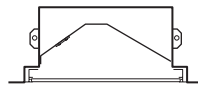


1x4

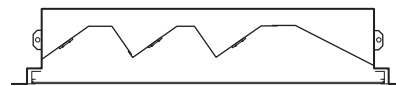


2x2 | 2x4

SYM/ASY



1x4



2x2 | 2x4

TYPICAL SURGICAL SUITE LAYOUT

