MCT LED
Medical Clean Room Troffer

GET A QUOTE ›

Williams®

CATALOG #: _____

5″
23-13/16″
2x2 | 2x4 shown

TYPE: _____

PROJECT: _____

FEATURES

- Designed to meet the demanding requirements of controlled environments
- Seam-welded fixture housing and doorframe are designed for infection controlled environments
- Smooth surface doorframe and lens materials simplify cleaning and maintenance
- Optional MIL-STD-461G for environments requiring conducted emission mitigation
- NSF approved closed cell foam gasketing meets all required testing criteria for ISO 5, Class 100 certification
- Anti-microbial white finish is standard
- Narrow-spectrum color LEDs available for vivarium and manufacturing applications, consult factory
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – 20-gauge die-formed, seam-welded C.R.S. Aluminum and stainless steel options available.
- DOOR FRAME – One-piece 20-gauge seam-welded C.R.S. Hinged from one side with stainless steel safety cables. Attached to fixture using captive, stainless steel screws.
- SHIELDING – Choice of frosted lens with smooth clear acrylic or polycarbonate underlay.
- 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 boards. Rated for 50,000 hours at 70% lumen maintenance (L70).
- MOUNTING – NEMA Type "G" for 15/16" and 1-1/2" systems. NEMA Type "F" available.
- LISTINGS –
  - CCSAus certified as luminaire suitable for wet location under covered ceiling.
  - IC-rated for direct contact with insulation. [19]
  - IP65 rated
  - ISO 5, Class 100 rated
  - NSF/ANSI 2
  - Complies with MIL-STD-461G with DIM or DRV drivers.
  - City of Chicago Environmental Air approved (not available when specified with NSWH)
- WARRANTY – 5-year limited warranty, see hew.com/warranty.

IP65 | ISO 5 Class 100 | MIL STD 461G | NSF

bios ILLUMINATED
*Available with BIOS®
consult factory*

ORDERING EXAMPLE: MCTG - 24 - L208/835 - CS - SAF12125 - OPTIONS - DRV - UNV

ORDERING INFO

SERIES	CEILING TYPE	WIDTH	LENGTH	LUMENS [1]		CRI	CCT
MCT	G NEMA Type "G"	1 1′ [3]	2 2′ [4]	**1x4**		8 80	30 3000K
	F NEMA Type "F" [2]	2 2′	4 4′	L40	4,000lm	9 90 [5]	35 3500K
				L79	7,900lm		40 4000K
							50 5000K
				2x2			
				L34	3,400lm		
				L65	6,500lm		
				L95	9,500lm		
				2x4			
				L60	6,000lm		
				L121	12,100lm		
				L208	20,800lm		

HOUSING [6]	DOOR FRAME [7]	SHIELDING	
CS 20-gauge C.R.S.	S Flat white steel	AF12125	Pattern #12, .125″ thick with acrylic underlay
AL Flat white aluminum	F Flat white aluminum	AF125	.125″ thick with acrylic underlay
		AF19156	Pattern #19, .156″ thick with acrylic underlay
		AF12125/PC	Pattern #12, .125″ thick with polycarbonate underlay
		AF125/PC	.125″ thick with polycarbonate underlay
		AF19156/PC	Pattern #19, .156″ thick with polycarbonate underlay

OPTIONS

EM/10W	10-watt emergency battery [9]
EM/10WLP	Low-profile 10-watt emergency battery [10]
(L__)	Additional lower lumen packages available. **Example**: 15,000 nominal lumens = MCTG-24-L208/835-**(L150)** [11]
EQCLIPS	Earthquake clips [12]
MIL	Complies with MIL-STD-461G specifications
TG	Triple gasket [13]
NSWH	Fixture provided without seam-welded housing [14]
TP	Tamper resistant stainless steel, Torx T-25 screws [15]
2C	Two circuit wiring [16]

CONTROL [8]

DRV	Non-dimming driver
DIM	Dimming driver

VOLTAGE

UNV	120-277V
347	347V [17]

ACCESSORIES

TPTX-25 TOOL   Tamper-resistant tool for Torx T-25 screws. [18]

NOTES

1. Nominal lumen output based on 3500 CCT. Actual lumens may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA. Additional lumen packages available, see options.
2. See page 3 for NEMA TYPE "F" INSTALLATION.
3. 4′ length only.
4. 2′ width only.
5. Extended lead times may apply. Consult factory for availability.
6. Stainless steel options available, consult factory.
7. Stainless steel options available, consult factory.
8. See page 3 for ADDITIONAL CONTROL OPTIONS.
9. 120V-277V only; 2x2, 2x4 only.
10. 120V-277V only; 1x4 only.
11. Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.
12. NEMA Type "G" only. 4 per fixture.
13. See page 3 for GASKETING DETAILS.
14. NSWH option does not affect NSF, ISO, IP65, or MIL-STD461G listings. Fixture is not City of Chicago Environmental Air approved when specified with NSWH.
15. Requires a tamper-resistant tool, see Accessories.
16. Inboard-outboard wiring where applicable unless specified otherwise. Allows for independent dimming of each circuit when ordered with DIM driver configuration. Consult factory for additional wiring configurations.
17. Not available with MIL or EM options.
18. Tamper-resistant tool must be ordered separately. Please specify quantity required per project.
19. Only available with 1x4: L40, 2x2: L34 and L65, 2x4: L60 and L121.

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FIXTURE PERFORMANCE DATA

LED PACKAGE		AF12125 SHIELDING			AF125 SHIELDING		
		DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
1x4	L40	4021	34.0	118.4	3615	34.0	106.5
1x4	L79	7962	67.4	118.2	7158	67.4	106.2
2x2	L34	3452	28.6	120.7	3103	28.6	108.5
2x2	L65	6522	52.9	123.3	5863	52.9	110.9
2x2	L95	9534	80.8	118.0	8571	80.8	106.1
2x4	L60	6078	46.7	130.1	5464	46.7	117.0
2x4	L121	12124	91.9	132.0	10899	91.9	118.6
2x4	L208	20805	169.2	123.0	18704	169.2	110.6

MULTIPLIER TABLES

| COLOR TEMPERATURE		
	CCT	CONVERSION FACTOR
80 CRI	3000K	0.99
80 CRI	3500K	1.00
80 CRI	4000K	1.03
80 CRI	5000K	1.06
90 CRI	3000K	0.83
90 CRI	3500K	0.84
90 CRI	4000K	0.86
90 CRI	5000K	0.90

- Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25ºC ambient temperature.
- Wattage shown is average for 120V through 277V input.
- Results based on 3500K, 80 CRI, actual lumens may vary +/-5%
- Use multiplier table to calculate additional options.

PHOTOMETRY

MCTG-22-L95/835-SAF12125-DRV-UNV Total Luminaire Output: 9534 lumens; 80.8 Watts | Efficacy: 118.0 lm/W | 82.8 CRI; 3536K CCT
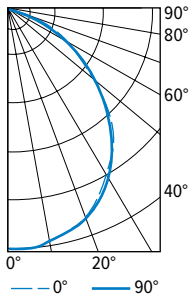
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0º	45º	90º	
0	4239	4239	4239	
5	4228	4224	4215	401
15	4042	4057	4059	1145
25	3669	3719	3716	1708
35	3081	3158	3127	1954
45	2330	2324	2357	1795
55	1504	1475	1482	1334
65	820	776	775	799
75	338	290	298	342
85	37	22	36	55
90	0	0	0	

| ZONE	LUMENS	% FIXTURE
0 - 30	3254	34
0 - 40	5208	55
0 - 60	8337	88
0 - 90	9534	100
0 - 180	9534	100

MCTG-24-L208/835-SAF12125-DRV-UNV Total Luminaire Output: 20805 lumens; 169.2 Watts | Efficacy: 123.0 lm/W | 82.8 CRI; 3536K CCT
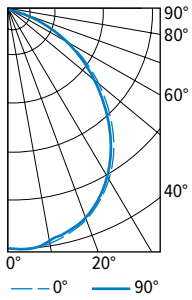
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0º	45º	90º	
0	9063	9063	9063	
5	9108	8999	8980	857
15	8752	8679	8655	2447
25	7995	7954	7923	3653
35	6819	6746	6686	4201
45	5202	5174	5033	3952
55	3488	3420	3228	3007
65	1864	1842	1709	1801
75	680	699	694	763
85	50	69	71	125
90	0	0	0	

ZONE	LUMENS	% FIXTURE
0 - 30	6956	33
0 - 40	11157	54
0 - 60	18117	87
0 - 90	20805	100
0 - 180	20805	100

MCTG-24-L208/835-SAF125-DRV-UNV Total Luminaire Output: 18704 lumens; 169.2 Watts | Efficacy: 110.6 lm/W | 83.5 CRI; 3530K CCT
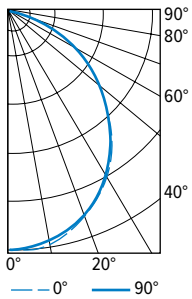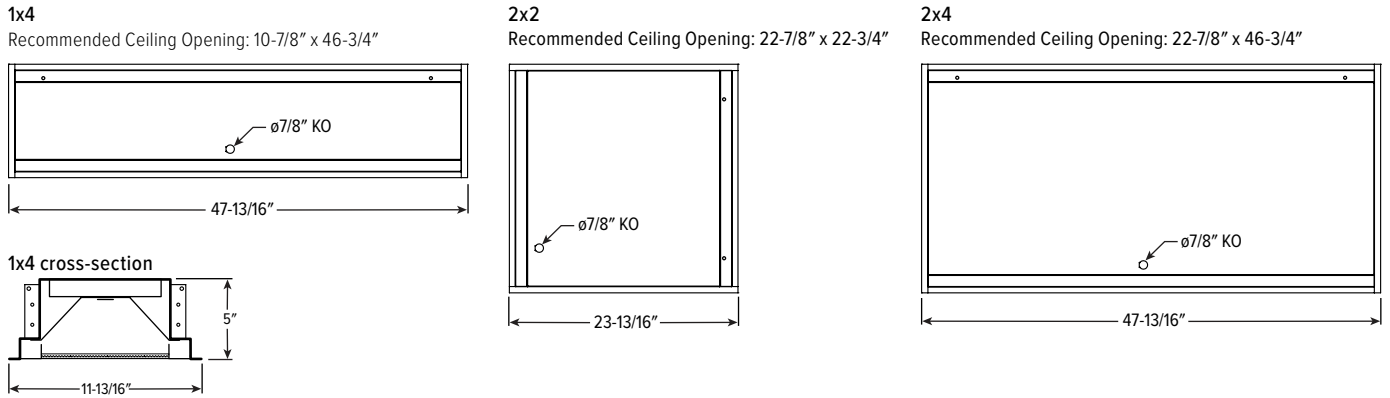
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0º	45º	90º	
0	7962	7962	7962	
5	7994	7902	7885	752
15	7624	7571	7529	2132
25	6878	6853	6826	3149
35	5816	5781	5768	3616
45	4530	4544	4548	3489
55	3217	3131	3191	2824
65	1837	1791	1849	1828
75	720	746	690	785
85	48	91	74	130
90	0	0	0	

ZONE	LUMENS	% FIXTURE
0 - 30	6033	32
0 - 40	9649	52
0 - 60	15962	85
0 - 90	18704	100
0 - 180	18704	100

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FIXTURE DETAILS

1x4
Recommended Ceiling Opening: 10-7/8″ x 46-3/4″

ø7/8″ KO

47-13/16″

1x4 cross-section

5″

11-13/16″

2x2
Recommended Ceiling Opening: 22-7/8″ x 22-3/4″

ø7/8″ KO

23-13/16″

2x4
Recommended Ceiling Opening: 22-7/8″ x 46-3/4″

ø7/8″ KO

47-13/16″

NEMA TYPE "F" INSTALLATION

5″

1-1/2″ min.
2-3/4″ max.

23-13/16″

For continuous row mounting, add 47-13/16″ for each additional fixture to obtain ceiling opening. 3/4″ between end plates.

ADDITIONAL CONTROL OPTIONS

DIM, DIM1 and DRV only for MIL-STD-461G compliance

Note: Lumen restrictions apply, consult product builder at hew.com/product-builder.

| CATALOG NUMBER	DESCRIPTION
DRV	Driver prewired for non-dimming applications
DIM	Dimming driver prewired for 0-10V low voltage applications
DIM1	1% dimming driver prewired for 0-10V low voltage applications
DIM LINE	Line voltage dimming driver (TRIAC and ELV compatible, 120V only)
DIM TRC	Line voltage dimming driver (TRIAC compatible, 120V or 277V only)
SD40	40% step-dimming driver
SD50	50% step-dimming driver
DALI	DALI dimming driver
LTE LINE	Lutron Hi-lume 1% 2-wire dimming driver forward phase line voltage controls (120V only)
LDE1	Lutron Hi-lume 1% EcoSystem dimming LED driver
LDE5	Lutron 5-Series 5% EcoSystem dimming LED driver
ELDO SOLOB	EldoLED Solodrive, 0.1% dimming driver for 0-10V controls
ELDO SOLOB DALI	EldoLED Solodrive, 0.1% dimming driver for DALI controls
ELDO ECO1	EldoLED Ecodrive, 1% dimming driver for 0-10V controls
ELDO ECO1 DALI	EldoLED Ecodrive, 1% dimming driver for DALI controls

GASKETING DETAILS

DOUBLE GASKETING (STANDARD)
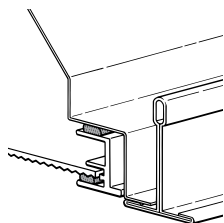
Gasketing is factory-installed continuously between door frame and luminaire housing; and between door frame and lens.

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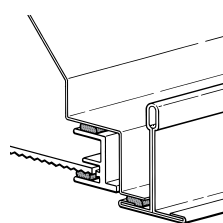
Gasketing is factory-installed continuously between door frame and luminaire housing; and between door frame and lens. Gasketing between bottom perimeter of unit (adjacent to T-bar or hardpan ceiling) is provided by factory and field-installed.

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