

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

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

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

## FEATURES

- 590nm Amber LEDs provide safe lighting for photosensitive applications
- 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
- Optimized for hospitals, medical facilities and containment sensitive manufacturing facilities that utilize 15/16" and 1-1/2" face T-bars
- Made Right Here® in the USA

## SPECIFICATIONS

- HOUSING** – 20-gauge die-formed, seam-welded C.R.S. Aluminum.
- 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 acrylic 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). Available with amber LEDs only, or amber and white LEDs. Dedicated driver for each color included to allow dimming of the two circuits individually.
- 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. <sup>[16]</sup>
  - 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 fixture warranty, see [hew.com/warranty](http://hew.com/warranty).



## ORDERING EXAMPLE: MCTG - 24 - L61/AMB/L134/835 - CS - SAF12125 - OPTIONS - DRV - UNV

### ORDERING INFO

SERIES	CEILING TYPE	WIDTH	LENGTH	LUMENS <sup>(1)</sup>	CRI <sup>(2)</sup>	CCT
MCT	G NEMA Type "G"	1 1'	2 2' <sup>(4)</sup>	1x4	8 80	27 2700K
	F NEMA Type "F" <sup>(3)</sup>	2 2'	4 4'	L29/AMB 2,900lm amber only	9 90 <sup>(5)</sup>	30 3000K
				L54/AMB 5,400lm amber only		35 3500K
				L29/AMB/L45 2,900lm amber/4,500lm white		40 4000K
				2x2		50 5000K
				L52/AMB 5,200lm amber only		
				L82/AMB 8,200lm amber only		
				L28/AMB/L68 2,800lm amber/6,800lm white		
				L56/AMB/L36 5,600lm amber/3,600lm white		
				2x4		
				L114/AMB 11,400lm amber only		
				L176/AMB 17,600lm amber only		
				L60/AMB/L134 6,000lm amber/13,400lm white		
				L98/AMB/L74 9,800lm amber/7,400lm white		

HOUSING	DOOR FRAME	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
		AF125/PC .125" thick with polycarbonate
		AF19156/PC Pattern #19, .156" thick with polycarbonate

OPTIONS	CONTROL	VOLTAGE
EM/10W 10-watt emergency battery <sup>[6]</sup>	DRV Driver prewired for non-dimming applications	UNV 120-277V
EM/10WLP Low-profile 10-watt emergency battery <sup>[7]</sup>	DIM Dimming driver <sup>[13]</sup>	347 347V <sup>[14]</sup>
EQCLIPS Earthquake clips <sup>[8]</sup>		
MIL Complies with MIL-STD-461G specifications		
TG Triple gasket <sup>[9]</sup>		
NSWH Fixture provided without seam-welded housing <sup>[10]</sup>		
TP Tamper resistant stainless steel, Torx T-25 screws <sup>[11]</sup>		
2C Two circuit wiring <sup>[12]</sup>		

### ACCESSORIES

TPTX-25 TOOL Tamper-resistant tool for Torx T-25 screws. <sup>[15]</sup>

### NOTES

- Nominal lumen output based on 3500 CCT. Actual lumens may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
- Specify for fixtures with white LEDs only.
- See page 3 for NEMA TYPE "F" INSTALLATION.
- 2' width only.
- Extended lead times may apply. Consult factory for availability.
- 120V-277V only; 2x2, 2x4 only, connected to white circuit if applicable.
- 120V-277V only; 1x4 only, connected to white circuit if applicable.
- NEMA Type "G" only. 4 per fixture.
- Field installed. See page 4 for GASKETING DETAILS.
- 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.
- Requires a tamper-resistant tool, see Accessories. When TP option is specified, fixture is not NSF/ANSI 2 certified.
- 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. Fixture is wired as two circuit by default when specified with the "amber circuit" and does not require that the "2C" option be specified.
- Dimming driver prewired for 0-10V low voltage applications
- Not available with MIL or EM options.
- Tamper-resistant tool must be ordered separately. Please specify quantity required per project.
- Only available with 1x4: L29/AMB, 2x2: L52/AMB, L28/AMB/L68, 2x4: L114/AMB, L60/AMB/L134.



## FIXTURE PERFORMANCE DATA

AF12125 SHIELDING							AF125 SHIELDING				
LED PACKAGE	WATTAGE		DELIVERED LUMENS		EFFICACY (lm/W)		DELIVERED LUMENS		EFFICACY (lm/W)		
	AMBER	WHITE	AMBER	WHITE	AMBER	WHITE	AMBER	WHITE	AMBER	WHITE	
<b>AMBER/WHITE</b>							<b>AMBER/WHITE</b>				
1x4	L29/AMB/L45	31.7	39.1	2970	4546	93.7	116.2	2673	4091	84.3	104.6
	L28/AMB/L68	44.7	59.6	2787	6859	62.3	115.1	2506	6166	56.1	103.5
	L56/AMB/L36	86.9	33.3	5575	3677	64.1	110.5	5012	3306	57.6	99.4
2x2	L60/AMB/L134	89.4	101.7	5850	13496	65.4	132.7	5259	12133	58.8	119.3
	L98/AMB/L74	108.1	62.4	9886	7459	91.4	119.6	8888	6706	82.2	107.5
<b>AMBER ONLY</b>							<b>AMBER ONLY</b>				
1x4	L29/AMB	32.3	-	2970	-	91.9	-	2670	-	82.6	-
	L54/AMB	86.9	-	5437	-	62.5	-	4888	-	56.2	-
2x2	L52/AMB	55.4	-	5210	-	94.0	-	4684	-	84.5	-
	L82/AMB	126.5	-	8271	-	65.4	-	7436	-	58.8	-
2x4	L114/AMB	118.2	-	11542	-	97.6	-	10376	-	87.8	-
	L176/AMB	270.6	-	17550	-	64.9	-	15777	-	58.3	-

## MULTIPLIER TABLES

COLOR TEMPERATURE	
CCT	CONVERSION FACTOR
2700K	0.97
3000K	0.99
3500K	1.00
4000K	1.03
5000K	1.06

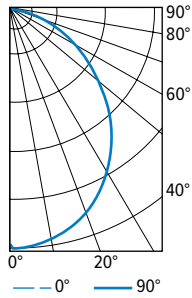
  

COLOR TEMPERATURE	
CCT	CONVERSION FACTOR
2700K	0.80
3000K	0.82
3500K	0.83
4000K	0.86
5000K	0.89

- 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 3500K, 80 CRI, actual lumens may vary +/-5%
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier table to calculate additional options.

## PHOTOMETRY

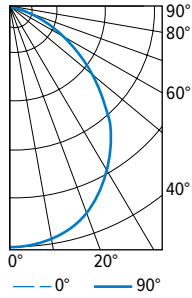
**MCTG-22-L56/AMB/L36/835-SAF12125 (Amber Only)** Total Luminaire Output: 5574 lumens; 86.9 Watts | Efficacy: 64.1 lm/W | 80 CRI; 3500K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	2360	2360	2360	
5	2390	2335	2334	223
15	2277	2231	2236	632
25	2056	2019	2030	934
35	1745	1715	1727	1076
45	1352	1333	1341	1031
55	934	921	928	828
65	548	542	554	544
75	233	236	253	257
85	33	36	43	49
90	1	2	2	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1789	32
	0 - 40	2865	51
	0 - 60	4724	85
	0 - 90	5574	100
	0 - 180	5574	100

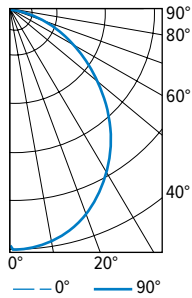
**MCTG-22-L56/AMB/L36/835-SAF12125 (White Only)** Total Luminaire Output: 3677 lumens; 33.3 Watts | Efficacy: 110.5 lm/W | 80 CRI; 3500K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	1635	1635	1635	
5	1631	1629	1626	155
15	1559	1565	1565	441
25	1415	1434	1433	659
35	1188	1218	1206	754
45	899	896	909	692
55	580	569	572	515
65	316	299	299	308
75	130	112	115	132
85	14	8	14	21
90	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1255	34
	0 - 40	2009	55
	0 - 60	3215	88
	0 - 90	3677	100
	0 - 180	3677	100

**MCTG-24-L98/AMB/L74/835-SAF125 (Amber Only)** Total Luminaire Output: 8888 lumens; 108.1 Watts | Efficacy: 82.2 lm/W | 80 CRI; 3500K CCT



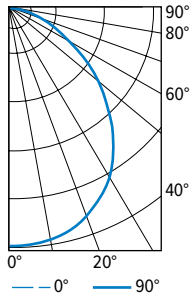
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	3863	3863	3863	
5	3888	3825	3820	364
15	3689	3639	3639	1028
25	3326	3276	3291	1514
35	2790	2760	2782	1733
45	2168	2145	2166	1662
55	1509	1486	1497	1336
65	855	852	857	852
75	313	321	313	351
85	25	25	23	49
90	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	2906	33
	0 - 40	4639	52
	0 - 60	7636	86
	0 - 90	8888	100
	0 - 180	8888	100



# MCT Amber LED Medical Clean Room Troffer

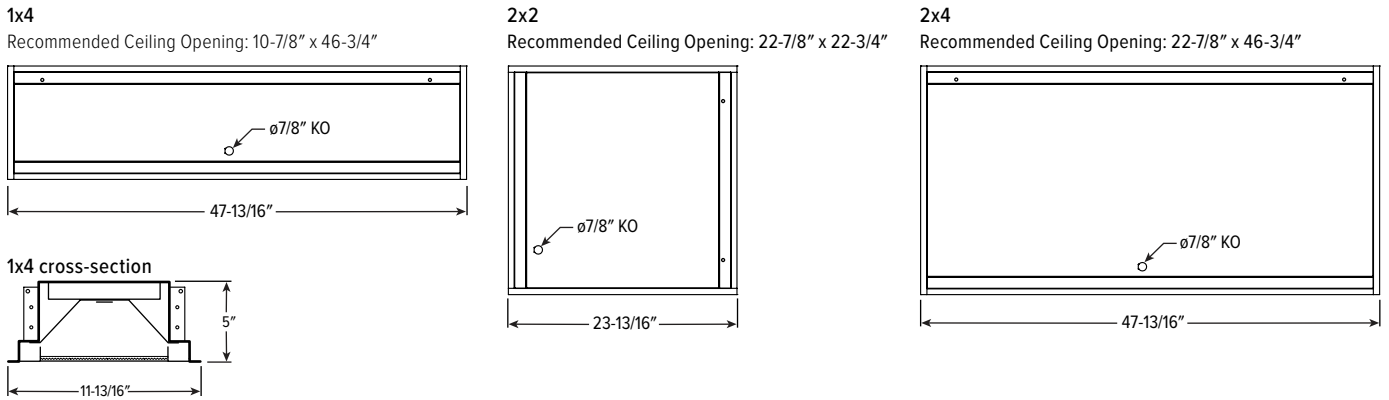
MCTG-24-L98/AMB/L74/835-SAF125 (White Only) Total Luminaire Output: 6706 lumens; 62.4 Watts | Efficacy: 107.5 lm/W | 80 CRI; 3500K CCT



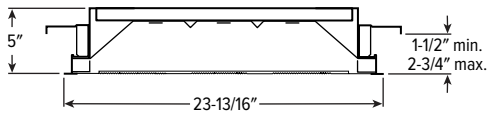
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	2900	2900	2900	
5	2911	2878	2869	274
15	2775	2742	2733	775
25	2509	2480	2469	1142
35	2130	2093	2065	1309
45	1662	1609	1591	1251
55	1154	1126	1091	1005
65	687	644	613	644
75	252	246	231	269
85	18	20	17	37
90	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	2191	33
	0 - 40	3500	52
	0 - 60	5756	86
	0 - 90	6706	100
	0 - 180	6706	100

## FIXTURE DETAILS

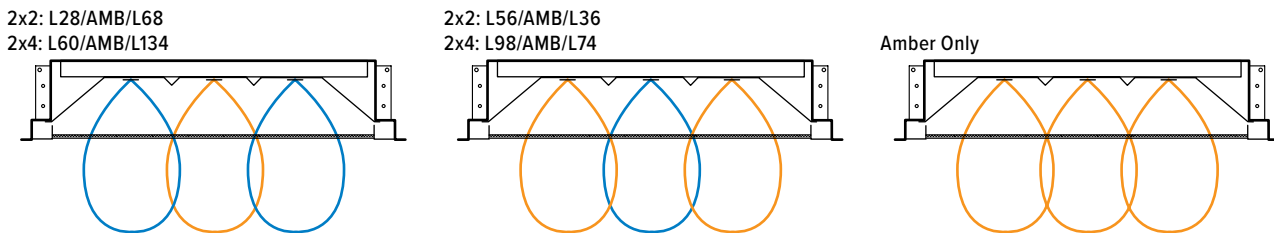


## NEMA TYPE "F" INSTALLATION



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

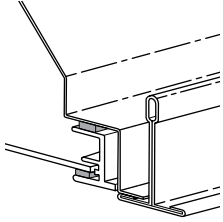
## AMBER LED DETAILS



## GASKETING DETAILS

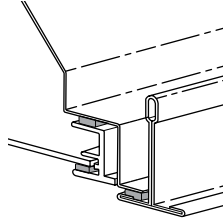
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### DOUBLE GASKETING (STANDARD)



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.

