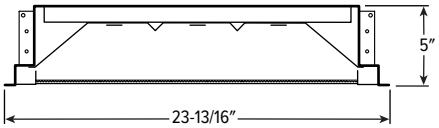
MCTV LED
Vandal-Resistant Clean Room Troffer





2x2 | 2x4 shown

CATALOG #:

TYPE:

PROJECT:

BAA & BABA COMPLIANT · IK10 Rated · ISO 5 Class 100 · BSL 1–4 · IP65 Rated · WET/CC · CCEA Approved

FEATURES

- Designed to meet the demanding requirements of high-abuse environments such as correctional facilities and behavioral health spaces
- Durable polycarbonate lens and tamper-resistant screws provide protection in high-risk areas
- Ligature-resistant design with seam-welded fixture housing and inset door frame
- Smooth surface doorframe and lens materials simplify cleaning and maintenance
- Closed cell foam gasketing in three locations meets all required testing criteria for ISO 5, Class 100 certification
- Optional plenum panel allows access to the plenum space without disturbing the ceiling structure or compromising cleanroom integrity
- Anti-microbial finish suppresses the spread of dangerous micro-organisms, mold, and bacterial growth
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – 20-gauge die-formed, seam-welded C.R.S. standard. 18-gauge aluminum available.
- DOOR FRAME – One-piece 20-gauge seam-welded C.R.S. 18-gauge aluminum available. Secured from one side with stainless steel safety cables. Attached to fixture using tamper-resistant stainless steel Torx T-25 screws, (1) tamper-resistant tool provided.
- SHIELDING – Frosted lens with smooth clear polycarbonate underlay.
- 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 at 50,000 hours. 50/60hz, THD < 10%.
- MOUNTING – NEMA Type "G" 15/16" or 1-1/2" grid standard. Drywall flange type available.
- LISTINGS –
  - cCSAus certified as luminaire suitable for wet location under covered ceiling.
  - IC-rated for direct contact with insulation. [13]
  - IK10 rated
  - IP65 rated
  - ISO 5, Class 100 rated
  - Suitable for use in BSL 1-4 laboratories in most applications (consult CDC)
  - City of Chicago Environmental Air approved
  - Build America, Buy America (BABA) and Buy American Act (BAA) compliant. Request certification at hew.com/buy-american
- WARRANTY – 5-year limited warranty, see hew.com/warranty

ORDERING EXAMPLE: MCTV G - 24 - L60/835 - CS - SAF12125/PC250 - OPTIONS - DRV - UNV

SERIES	CEILING TYPE	WIDTH	LENGTH	LUMENS [1]	CRI	CCT
MCTV	**G** 15/16" or 1-1/2" grid **F** Flange [2]	**1** 1′ [3] **2** 2′	**2** 2′ [4] **4** 4′	**1x4** **L31** 3,100lm **L68** 6,800lm **2x2** **L30** 3,000lm **L65** 6,500lm **L85** 8,500lm **2x4** **L60** 6,000lm **L120** 12,000lm **L200** 20,000lm	**8** 80 **9** 90	**27** 2700K **30** 3000K **35** 3500K **40** 4000K **50** 5000K

HOUSING	DOOR FRAME	SHIELDING
CS Cold rolled steel **AL** Aluminum	**S** Cold rolled steel **F** Aluminum	**AF12125/PC250** Pattern #12, .125" thick with polycarbonate underlay, .250" thick **AF125/PC250** .125" thick with polycarbonate underlay, .250" thick

OPTIONS		DRIVER [5]	VOLTAGE
EM/10W	10-watt emergency battery [6]	**DIM** Dimming driver, 0-10V	**120** 120V
EM/10WLP	Low-profile 10-watt emergency battery [7]	**DRV** Non-dimming driver	**277** 277V
(L__)	Additional lower lumen packages available [8] **Example**: 10,000 nominal lumens = MCTVG-24-L120/835-**(L100)**		**UNV** 120V-277V
EQCLIPS	Earthquake clips [9]		**347** 347V [12]
2C	Two circuit wiring [10]		
PA	Plenum access [11]		

NOTES

1. Lumen output based on AF12125/PC250 Shielding and 80 CRI/3500K CCT. Actual performance may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA. Additional lumen packages available, see Options.
2. See page 2 for CROSS SECTIONS.
3. 4′ Length only.
4. 2′ Width only.
5. See page 3 for ADDITIONAL CONTROL OPTIONS.
6. 2x2 and 2x4 only.
7. 1x4 only.
8. Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.
9. G Ceiling Type only. 4 per fixture.
10. 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.
11. 2x2 and 2x4 only. See page 3 for FIXTURE DETAILS.
12. Not available with EM battery Options.
13. Only available with 1x4: L31, 2x2: L30 and L65, 2x4: L60 and L120.

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FIXTURE PERFORMANCE DATA

	LED PACKAGE	AF12125/PC250 SHIELDING			AF125/PC250 SHIELDING		
		DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
1x4	L31	3119	25.3	123	3132	25.3	124
	L68	6802	60.5	112	6829	60.5	113
2x2	L30	3002	27.3	110	3014	27.3	110
	L65	6527	58.5	112	6553	58.5	112
	L85	8533	77.8	110	8567	77.8	110
2x4	L60	6020	48.9	123	6044	48.9	124
	L120	12000	101.8	118	12048	101.8	118
	L200	20055	186.5	108	20135	186.5	108

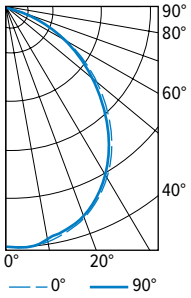
MULTIPLIER TABLE

COLOR TEMPERATURE		
CCT	CONVERSION FACTOR	
	80 CRI	80 CRI
2700K	0.97	0.80
3000K	0.99	0.83
3500K	1.00	0.84
4000K	1.03	0.85
5000K	1.06	0.90

- Photometrics tested in accordance with IESNA LM-79. Results based on AF12125/PC250 shielding and 80 CRI/3500K 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.

PHOTOMETRY

MCTVG-24-L60/835-AF12125/PC250 Total Luminaire Output: 6020 lumens; 48.9 Watts | Efficacy: 123 lm/W | 80 CRI; 3500K CCT



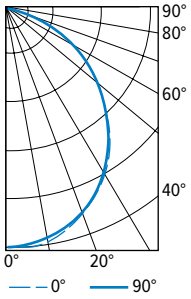
CANDLEPOWER DISTRIBUTION

VERTICAL ANGLE	HORIZONTAL ANGLE 0°	HORIZONTAL ANGLE 45°	HORIZONTAL ANGLE 90°	ZONAL LUMENS
0	2623	2623	2623	
5	2636	2604	2598	248
15	2532	2511	2504	708
25	2313	2302	2293	1057
35	1973	1952	1935	1216
45	1505	1497	1456	1144
55	1009	989	934	870
65	539	533	494	521
75	197	202	201	221
85	14	20	21	36
90	0	0	0	

LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0 - 30	2013	33
0 - 40	3228	54
0 - 60	5242	87
0 - 90	6020	100
0 - 180	6020	100

MCTVG-24-L60/835-AF125/PC250 Total Luminaire Output: 6044 lumens; 48.9 Watts | Efficacy: 124 lm/W | 80 CRI; 3500K CCT



CANDLEPOWER DISTRIBUTION

VERTICAL ANGLE	HORIZONTAL ANGLE 0°	HORIZONTAL ANGLE 45°	HORIZONTAL ANGLE 90°	ZONAL LUMENS
0	2573	2573	2573	
5	2583	2553	2548	243
15	2464	2447	2433	689
25	2223	2215	2206	1018
35	1879	1868	1864	1169
45	1464	1468	1470	1127
55	1040	1012	1031	913
65	594	579	598	591
75	233	241	223	254
85	15	29	24	42
90	0	0	0	

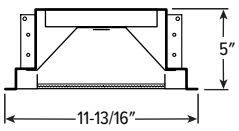
LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0 - 30	1950	32
0 - 40	3118	52
0 - 60	5158	85
0 - 90	6044	100
0 - 180	6044	100

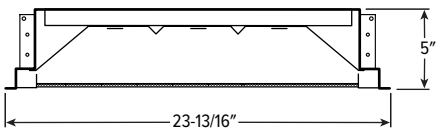
CROSS SECTIONS

G CEILING TYPE INSTALLATION

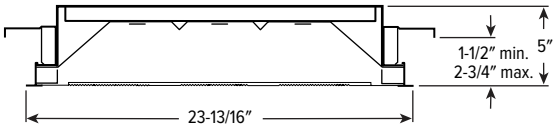
1x4



2x2 | 2x4



F CEILING TYPE INSTALLATION



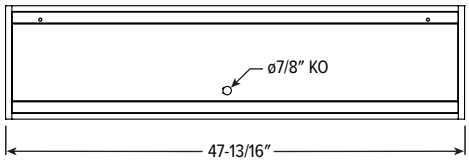
	ROUGH-IN	FINISH TRIM SIZE
1x4	11″ x 46-7/8″	13-13/16″ x 49-13/16″
2x2	22-7/8″ x 22-7/8″	23-13/16″ x 23-13/16″
2x4	22-7/8″ x 46-3/4″	23-13/16″ x 47-13/16″

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

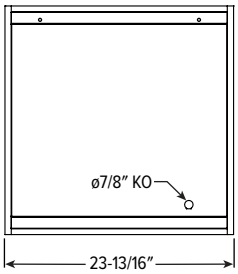
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FIXTURE DETAILS

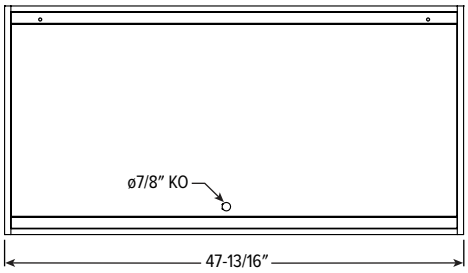
1x4



2x2

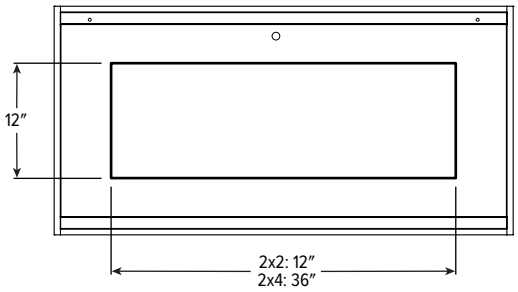


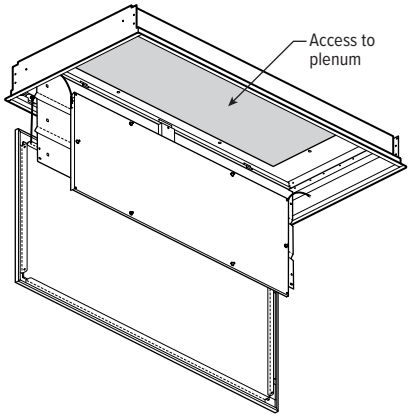
2x4



PA OPTION

Backview





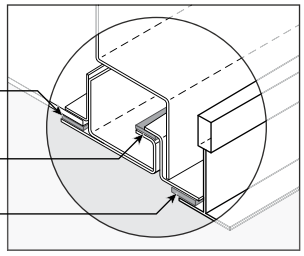
GASKETING DETAILS

T-BAR

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

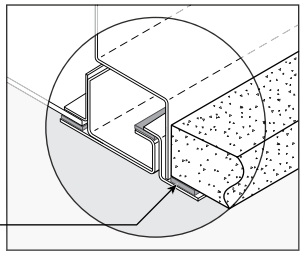
Door frame gasketing factory-installed between door frame and luminaire housing prevents light leak and reduces dust ingress.

Housing gasketing (supplied with fixture) field installed between bottom perimeter of fixture and T-bar ceiling seals plenum dust from the room.



DRYWALL

Between perimeter of fixture and hardpan ceiling.



ADDITIONAL CONTROL OPTIONS

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

CATALOG NUMBER	DESCRIPTION
DRV	Driver without external dimming wires prewired for non-dimming applications
DIM	Driver with external dimming wires prewired for 0-10V low voltage applications
DIM1	1% driver with external dimming wires 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 only)
SD40	40% step-dimming driver
SD50	50% step-dimming driver
DALI	DALI dimming driver
LDE1	Lutron Hi-lume 1% EcoSystem dimming driver