

CATALOG #: _____

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, see hew.com
- Available with BIOS® SkyBlue® technology to support proper daytime circadian stimulus
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING** – 20-gauge die-formed, seam-welded C.R.S. Aluminum 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” 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. ^[18]
 - IP65 rated
 - ISO 5, Class 100 rated
 - NSF/ANSI 2
 - Complies with MIL-STD-461G with DIM or DRV drivers.
 - Available with BIOS® consult factory
 - City of Chicago Environmental Air approved (not available when specified with NSWH)
 - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/baa.
- WARRANTY** – 5-year limited warranty, see hew.com/warranty.

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

ORDERING INFO

SERIES	CEILING TYPE	WIDTH	LENGTH	LUMENS ^[1]	CRI	CCT
MCT	G 15/16” or 1-1/2” grid	1 1’ ^[3]	2 2’ ^[4]	1x4	8 80	30 3000K
		F Flange ^[2]	2 2’	L40 4,000lm	9 90 ^[5]	35 3500K
			4 4’	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	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 underlay
		AF125/PC .125” thick with polycarbonate underlay
		AF19156/PC Pattern #19, .156” thick with polycarbonate underlay

OPTIONS	CONTROL ^[6]	VOLTAGE
EM/10W 10-watt emergency battery ^[7]	DRV Non-dimming driver	UNV 120-277V
EM/10WLP Low-profile 10-watt emergency battery ^[8]	DIM Dimming driver	347 347V ^[16]
(L___) Additional lower lumen packages available. Example: 15,000 nominal lumens = MCTG-24-L208/835-(L150) ^[9]		
EQCLIPS Earthquake clips ^[10]		
MIL Complies with MIL-STD-461G specifications ^[11]		
TG Triple gasket ^[12]		
NSWH Fixture provided without seam-welded housing ^[13]		
TP Tamper resistant stainless steel, Torx T-25 screws ^[14]		
2C Two circuit wiring ^[15]		

ACCESSORIES

TPTX-25 TOOL Tamper-resistant tool for Torx T-25 screws. ^[17]

NOTES

- Lumen output based on 80 CRI/3500K CCT. Actual performance may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA. Additional lumen packages available, see Options.
- See page 3 for CROSS SECTIONS.
- 4’ length only.
- 2’ width only.
- Extended lead times may apply. Consult factory for availability.
- See page 3 for ADDITIONAL CONTROL OPTIONS.
- 120V-277V only; 2x2, 2x4 only.
- 120V-277V only; 1x4 only.
- Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.
- G Ceiling Type only. 4 per fixture.
- Must specify voltage, DIM, DIM1 and DRV Controls only.
- Field-installed. See page 3 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.
- Not available with MIL or EM options.
- Tamper-resistant tool must be ordered separately. Please specify quantity required per project.
- Only available with 1x4: L40, 2x2: L34 and L65, 2x4: L60 and L121.



FIXTURE PERFORMANCE DATA

	LED PACKAGE	AF12125 SHIELDING			AF125 SHIELDING			TOTAL AMP DRAW			
		DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)	STANDARD		MIL OPTION	
1x4	L40	4021	32.6	123	3615	32.6	111	120V	277V	120V	277V
	L79	7962	66.1	121	7158	66.1	108	0.28	0.12	0.30	0.21
	L34	3452	26.1	132	3103	26.1	119	0.56	0.24	0.58	0.29
2x2	L65	6522	50.2	130	5863	50.2	117	0.22	0.10	0.25	0.19
	L95	9534	77.1	124	8571	77.1	111	0.43	0.19	0.44	0.25
	L60	6078	45.3	134	5464	45.3	121	0.65	0.28	0.66	0.32
2x4	L121	12124	89.9	135	10899	89.9	121	0.39	0.17	0.40	0.23
	L208	20805	167.0	125	18704	167.0	112	0.76	0.33	0.77	0.38
								1.40	0.61	1.42	0.73

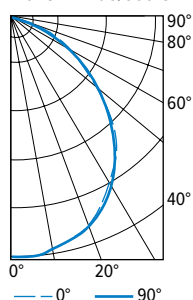
- Photometrics tested in accordance with IESNA LM-79. Results based on 80 CRI/3500K CCT, average wattage for 120V through 277V input, and 25°C ambient temperature. Actual performance may vary +/-5%.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier table to calculate additional options.

MULTIPLIER TABLE

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

PHOTOMETRY

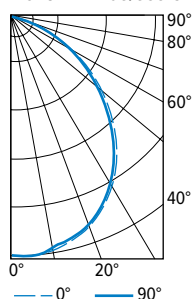
MCTG-22-L95/835-SAF12125-DRV-UNV Total Luminaire Output: 9534 lumens; 77.1 Watts | Efficacy: 123.7 lm/W | 80 CRI; 3500K CCT



	VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
		0°	45°	90°	
CANDLEPOWER DISTRIBUTION	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
LUMEN SUMMARY	0 - 30	3254	34
	0 - 40	5208	55
	0 - 60	8337	88
	0 - 90	9534	100
	0 - 180	9534	100

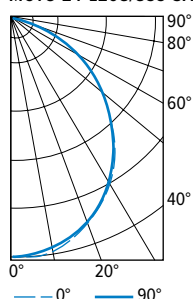
MCTG-24-L208/835-SAF12125-DRV-UNV Total Luminaire Output: 20805 lumens; 167.0 Watts | Efficacy: 124.6 lm/W | 80 CRI; 3500K CCT



	VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
		0°	45°	90°	
CANDLEPOWER DISTRIBUTION	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
LUMEN SUMMARY	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; 167.0 Watts | Efficacy: 112.0 lm/W | 80 CRI; 3500K CCT

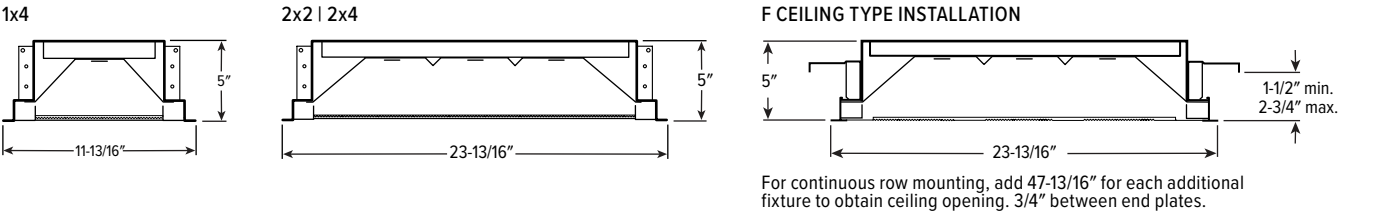


	VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
		0°	45°	90°	
CANDLEPOWER DISTRIBUTION	0	7962	7962	7962	
	5	7994	7902	7885	752
	15	7624	7571	7529	2132
	25	6878	6853	6826	3149
	35	5816	5781	5768	3616
	45	4530	4544	4548	3489
	55	3217	3131	3191	2824
	65	1837	1791	1849	1828
	75	720	746	690	785
	85	48	91	74	130
	90	0	0	0	

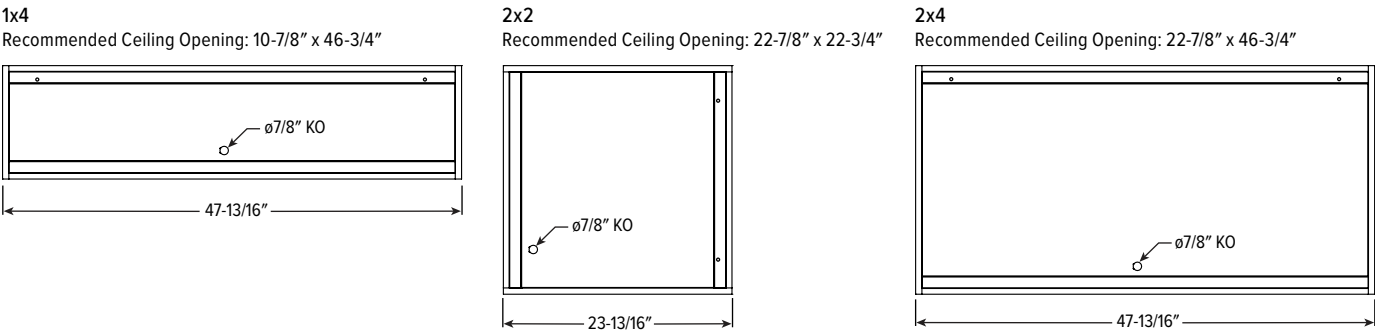
	ZONE	LUMENS	% FIXTURE
LUMEN SUMMARY	0 - 30	6033	32
	0 - 40	9649	52
	0 - 60	15962	85
	0 - 90	18704	100
	0 - 180	18704	100



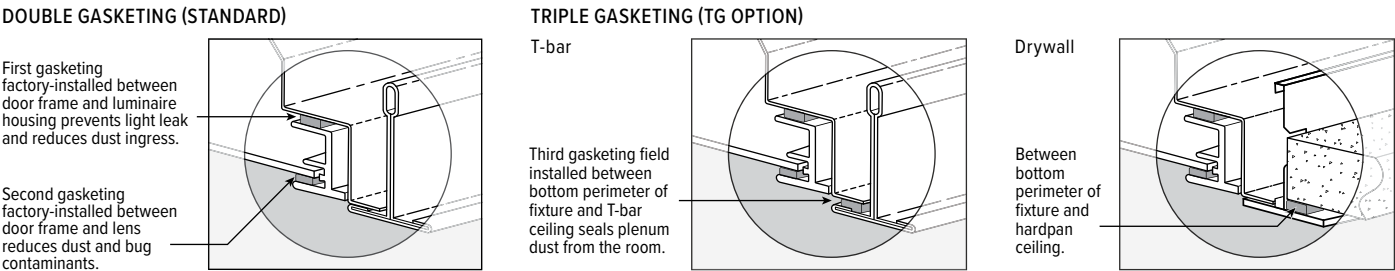
CROSS SECTIONS



FIXTURE DETAILS



GASKETING DETAILS



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 only)
SD40	40% step-dimming driver
SD50	50% step-dimming driver
DALI	DALI dimming driver
LDE1	Lutron Hi-lume 1% EcoSystem dimming LED driver