

MEDMASTER™

MMAC SERIES - TUNABLE WHITE LED

PRODUCT FEATURES:

- » High-output, high-CRI LED lamp sources with 2700K-6500K white tuning capability
- » Ceiling mount – flange, recessed grid or surface; 1'x4', 2'x2' and 2'x4'
- » Center diffuser provides direct/indirect ambient lighting
- » Heavy-duty one-piece TIG and spot welded housing
- » Doorframe with Polycarbonate lens secured with Torx® fasteners for security



PROJECT INFORMATION

Job Name _____

Fixture Type _____

Catalog Number _____

Approved by _____

SPECIFICATIONS

HOUSING: Die-formed prime grade material as specified – see Ordering Information. TIG and spot welded construction.

DOOR: One-piece die-formed prime grade material as specified – see Ordering Information. Doorframe supported to housing with two aircraft cables. Corners continuously seam welded and smooth with no post grinding (TIG). Phillips head stainless steel fasteners secure door to housing – eight (8) for (1x4, 2x2) or ten (10) for (2x4). Extruded closed cell gasket seals doorframe to housing. Outer lens sealed to doorframe with a vinyl gasket.

FINISH: TGIC polyester powder coat – 5-stage pre-treatment. Salt spray test: 1,000 hours; Reflectance: 92%. Optional antimicrobial finish.

OPTICS: Extruded high-efficiency frosted DR acrylic inner diffuser. Clear impact-resistant polycarbonate outer lens as specified—see Ordering Information.

GASKET: Closed cell silicone gasket seals door to housing.

FASTENERS: Torx® head with center pin hardened security screws. Fully recessed.

LED MODULE: Serviceable tunable-white, mid-power LED array provides 2700K through 6500K CCT range with a two-point path. Minimum 82 CRI standard (R9 >20) with optional minimum 90 CRI (R9 >50).

DRIVER: 120-277VAC, 50/60Hz electrical input (PF ≥ 0.9, THD < 20%). Minimum 85% electrical efficiency. Serviceable, constant-current multi-channel programmable driver with dual analog (0-10V) control inputs for intensity and CCT. Optional DALI (Type 8) driver. Logarithmic intensity profile with 0.1-100% range, with dim-to-dark capabilities. Linear profile on CCT adjustment. Refer to charts on page 2 for further details.

INSTALLATION: SURFACE MOUNT: Four .312" diameter holes. **GRID MOUNT:** Designed for 1" and 1.5" grid. (Housing includes hanging brackets to secure housing with wire to super structure).

FLANGE MOUNT: Yoke mounting hardware & brackets included. Install Frame and Plaster Frames both positively locates yoke brackets within ceiling opening assures alignment of fixture. Install frame has no need for drywall backing; backing is supplied on the frame brackets.

WARRANTY: Limited five (5) year warranty.

LISTINGS: Luminaire is certified to UL Standards by Intertek Testing Laboratory for Wet Location and non-IC recessed installation. ETL certified IP65 per IEC 60598. NSF2 Splash/Non-Food Zone.



ORDERING INFORMATION (Ex: MMAC22-F-1/2-9-FA-45T-27/65K8-ATW-DV-FS)

Model	Mounting	Door/Housing	Outer Lens	Diffuser Type	Lamp Power	Lamp Color	Driver Type	Voltage	Options	Accessory	
								DV			
Model				Diffuser Type			Options				
MMAC14 1'x4'				FA Frosted Acrylic			LEL* 10W LED Emergency Battery Pack				
MMAC22 2'x2'				CAP▲ Clear Acrylic with Perforated Insert			AMF Antimicrobial Finish on exposed surfaces				
MMAC24 2'x4'							NLW^ 2700K White LED Night Light				
Mounting Options				Lamp Power			NLA^ Amber LED Night Light				
F Flange				1x4			FS Fuse & Holder				
S Surface				45T 45 Watt Tunable White			LVC† Low Voltage Controller (Click here for specifications)				
G Grid (1" and 1.5")				2'x2'			LVCD† Low Voltage Controller with Dimming (Click here for specifications)				
45T 45 Watt Tunable White				2'x4'			Accessory				
Door/Housing Material				45T 45 Watt Tunable White			IF Install Frame (Flange only; add .375 to each Ceiling Cutout dimension)				
0 14-Ga CRS (Painted)				67T 67 Watt Tunable White			TC T-Bar Clips (Grid Mount only)				
1 16-Ga CRS (Painted)				90T 90 Watt Tunable White							
2 18-Ga CRS (Painted) (n/a as Door Material)											
A 18-Ga SS (Brushed) (n/a as Door Material)											
B 18-Ga SS (Painted) (n/a as Door Material)											
3 14-Ga SS (Painted)											
4 16-Ga SS (Painted)											
6 14-Ga SS (Brushed)											
7 16-Ga SS (Brushed)											
Outer Lens Type				Lamp Color							
7 .187" Clear Polycarbonate				27/65K8 2700K-6500K CCT Range, 82 CRI							
9 .250" Clear Polycarbonate				27/65K9 2700K-6500K CCT Range, 92 CRI							
B .375" Clear Polycarbonate											
				Driver Type							
				ATW Analog (0-10V) Dimming Tunable White Driver							
				DTW DALI Tunable White Driver							
				DMX DMX Tunable White Driver (Consult Factory)							
				Input Voltage							
				DV 120-277 VAC, 50/60Hz							

ACCESSORIES ORDERED SEPARATELY
MPWS Low Voltage Wall Switch (Click [here](#) for Specifications)



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PERFORMANCE

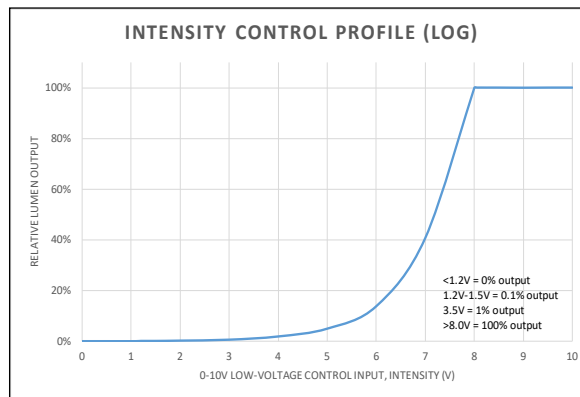
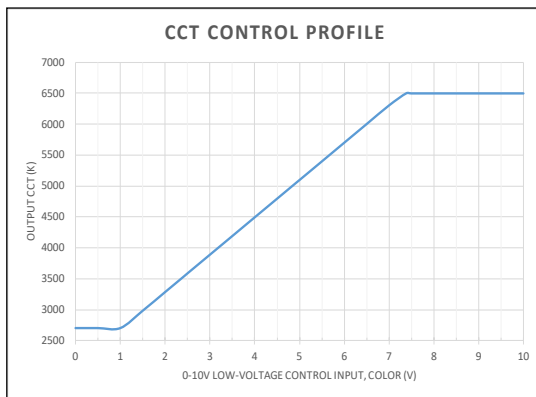
		Performance at 4000K Tuning			
Model	Lamp Type	Lumen Output (lm)	Efficacy (lm/W)	Input Power (W)	Estd. L70 LED Life (Hrs)
MMAC14	45T-27/65K8	4,429	96	46	80,000
	45T-27/65K9	3,570	78	46	80,000
MMAC22	45T-27/65K8	4,231	92	46	80,000
	45T-27/65K9	3,410	74	46	80,000
MMAC24	45T-27/65K8	5,186	113	46	80,000
	45T-27/65K9	4,180	91	46	80,000
	67T-27/65K8	7,760	114	68	80,000
	67T-27/65K9	6,427	95	68	80,000
	90T-27/65K8	10,078	110	92	60,000
	90T-27/65K9	8,123	88	92	60,000

Displayed information is for type 'FA' diffuser. Apply lumen output factor of 1.05 for Type 7 and Type 9 lens. Information subject to change without notice. Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory. For photometric data, please go to www.kenall.com

PERFORMANCE SCALING, BY LAMP COLOR

CCT (K)	27/65K8					27/65K9				
	LUMEN SCALE FACTOR	Ra	R9	Rf	Rg	LUMEN SCALE FACTOR	Ra	R9	Rf	Rg
2700	0.92	83	10	83	97	0.95	92	57	89	98
3000	0.95	84	15	83	98	0.97	94	70	91	99
3500	0.99	86	23	84	98	0.99	95	77	92	99
4000	1.00	86	26	84	98	1.00	96	83	92	99
4600	1.00	86	28	84	98	1.00	96	90	92	100
5000	1.01	86	25	83	98	1.01	96	96	91	101
5700	0.99	85	23	82	98	0.99	96	96	91	100
6500	0.99	84	16	82	96	0.99	96	96	90	100

CCT AND INTENSITY ADJUSTMENT PROFILE - ATW DRIVER TYPE



NOTE: The provided information is the typical expected performance of a single luminaire. Additional luminaires on the same 0-10V line may result in different control profiles. Fine tuning of system performance should be completed after installation is complete. To avoid CCT shift between luminaires, care should be taken to minimize voltage drop on the CCT Control line. It is recommended to limit the load on the CCT control circuit to twenty (20) 45T or ten (10) 67T/90T luminaires or less.



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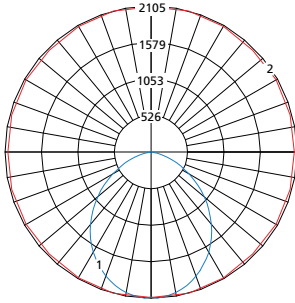
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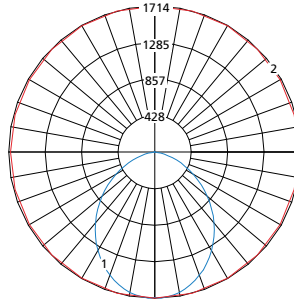
PERFORMANCE

Model: MMAC14-F-1/1-FA-9-45T-27/65K8-ATW-DV



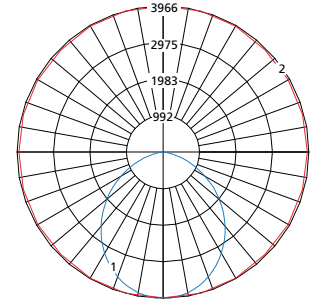
Max Candela = 2105 Located At Horizontal Angle = 75, Vertical Angle = 2.5
 1 - Vertical Plane Through Horizontal Angles (75 - 255) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: MMAC22-F-1/1-FA-9-45T-27/65K8-ATW-DV



Max Candela = 1714 Located At Horizontal Angle = 90, Vertical Angle = 2.5
 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: MMAC24-F-1/1-FA-9-90T-27/65K8-ATW-DV



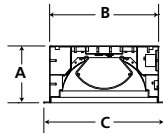
Max Candela = 3966 Located At Horizontal Angle = 75, Vertical Angle = 2.5
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 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

DIMENSIONAL DATA

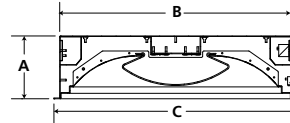
GRID DIMENSIONAL DATA (IN INCHES)

	A	B	C	D	E
1x4	5.56	10.60	11.75	46.60	47.75
2x2	6.10	22.60	23.75	22.60	23.75
2x4	6.10	22.60	23.75	46.60	47.75

CROSS SECTION



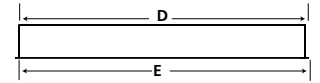
MAC14



MAC22 & MAC24

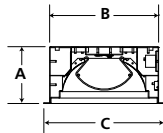
GRID MOUNT

SIDE VIEW

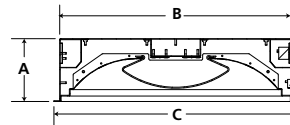


FLANGE MOUNT

CROSS SECTION

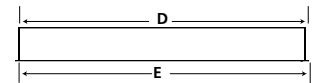


MAC14



MAC22 & MAC24

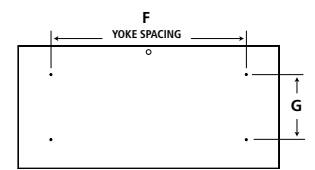
SIDE VIEW



FLANGE DIMENSIONAL DATA (IN INCHES)

	A	B	C	D	E	F	G
1x4	5.56	10.60	11.75	46.60	47.75	30.00	5.25
Recommended Ceiling Cutout: 10.88" x 46.88"							
2x2	6.10	22.60	23.75	22.60	23.75	12.00	12.00
Recommended Ceiling Cutout: 22.88" x 22.88"							
2x4	6.10	22.60	23.75	46.60	47.75	30.00	12.00
Recommended Ceiling Cutout: 22.88" x 46.88"							

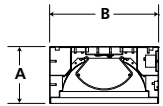
TOP VIEW



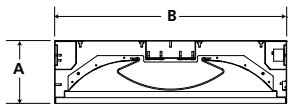
SURFACE DIMENSIONAL DATA (IN INCHES)

	A	B	C	D	E
1x4	5.56	10.60	30.00	5.25	46.60
2x2	6.13	22.60	12.00	12.00	22.60
2x4	6.13	22.60	30.00	12.00	46.60

CROSS SECTION

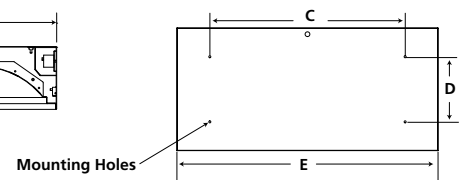


MAC14



MAC22 & MAC24

TOP VIEW



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