

# MEDMASTER™

## MPCAIE SERIES - TUNABLE WHITE LED

### PRODUCT FEATURES:

- » Ceiling mount – recessed grid, flange or surface; 2'x4'
- » High-output high-CRI LED lamp services with 2700K-6500K white tuning capability (Ambient function)
- » Ambient/Reading and indirect exam functions
- » Ingress Barrier Door provides consistent surface for cleanliness



### PROJECT INFORMATION

Job Name \_\_\_\_\_

Fixture Type \_\_\_\_\_

Catalog Number \_\_\_\_\_

Approved by \_\_\_\_\_

### SPECIFICATIONS

**HOUSING:** **FLANGE AND GRID:** 20-gauge CRS one-piece seam welded construction. **SURFACE:** 18-gauge CRS one-piece seam welded construction. White TGIC polyester powder coat – 5-stage pre-treatment. Salt spray test 1,000 hours. Reflectance 92%. (See options for Antimicrobial Finish). Housing Flanges – 18-gauge CRS .

**DOORFRAME:** Heavy duty extruded aluminum with clear satin anodized finish. Doorframe supported to housing with aircraft cables (IB-AC) to provide NSF2 listing, or an optional continuous hinged doorframe (IB-HD). Select in ordering options below. Phillips-head stainless steel fasteners secure door to housing - (8) with IB-AC and (2) with IB-HD. Extruded closed cell gasket seals lens frame to housing.

**OPTIC:** Outer lens constructed of 0.125" clear impact-resistant acrylic and sealed to doorframe with vinyl gasketing. Inner basket constructed with extruded frost acrylic over central Ambient function lamping, flanked on both sides with diffused painted aluminum perforated shields over Exam function lamping.

**LED MODULE:** **AMBIENT:** Serviceable tunable-white, mid-power LED array provides 2700K through 6500K CCT range with a two-point path. 3-step MacAdam variation allowance on each CCT. Minimum 82 CRI standard (R9 >20) with optional minimum 92 CRI (R9 >50). **EXAM:** Serviceable mid-power LED array. See Ordering Information for CCT options. 3-step MacAdam variation allowance. 82 CRI minimum.

**DRIVER:** 120-277VAC, 50/60Hz electrical input (PF ≥ 0.9, THD < 20%). Minimum 85% electrical efficiency. **AMBIENT:** 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. **EXAM:** Serviceable constant-current programmable driver. Dimming protocol matches tunable white circuit selection: 0-10V dimming with 1-100% range and dim-to-dark capabilities or DALI with 1-100% range and dim-to-dark capability.

**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 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. Recessed configurations rated for non-IC applications. CCEA approved (Flange). NSF2 Splash/Non-Food Zone (IB-AC only).



### ORDERING INFORMATION (Ex: MPCAIE24-S-45T/90L-27/65K8-40K8-ATW-DV-IB-AC-LVCD)

Model	Mounting Options	Lamp Power	Ambient Color	Exam Color	Driver	Voltage	Doorframe	Options	Accessories
<b>MPCAIE24</b>							<b>IB-</b>		
	<b>Mounting</b> <b>S</b> Surface <b>G</b> Recessed Grid <b>F</b> Recessed Flange	<b>Lamp Type</b> <b>Lamp Power (Ambient/Exam)</b> <b>45T/90L</b> 45W Tunable White/90W Fixed White	<b>Ambient Lamp Color</b> <b>27/65K8</b> 2700-6500K CCT Range (82 CRI min) <b>27/65K9</b> 2700-6500K CCT Range (92 CRI min)	<b>Exam Lamp Color</b> <b>35K8</b> 3500K LED (82 CRI) <b>40K8</b> 4000K LED (82 CRI) <b>50K8</b> 5000K LED (82 CRI)	<b>Driver Type</b> <b>ATW</b> Analog (0-10V) Dimming Tunable White Driver <b>DTW</b> DALI Tunable White Driver <b>DMX</b> DMX Tunable White Driver (Consult Factory)	<b>Input Voltage</b> <b>DV</b> 120-277 Volts <b>120</b> 120 Volts <b>277</b> 277 Volts	<b>Doorframe</b> <b>AC</b> Ingress Barrier w/Aircraft Cables (STD) <b>HD</b> Ingress Barrier w/Continuous Piano Hinge	<b>Options</b> <b>LEL</b> ▲ 10W LED Emergency Battery Pack <b>AMF</b> Antimicrobial Finish on exposed surfaces <b>NLW</b> 2700K White LED Night Light <b>NLA</b> Amber LED Night Light <b>FS</b> Single Fuse & Holder <b>LRL</b> † Dual 3500K, 90CRI Reading Lights <b>LVC</b> * Low Voltage Controller (Click <a href="#">here</a> for specifications) <b>LVCS</b> * Low Voltage Controller with Secondary Conduit Entry (Click <a href="#">here</a> for specifications) <b>LVCD</b> * Low Voltage Controller with Dimming (Click <a href="#">here</a> for specifications) <b>LVCD5</b> * Low Voltage Controller with Dimming and Secondary Conduit Entry (Click <a href="#">here</a> for specifications)	<b>Accessories</b> <b>IF</b> Install Frame (Flange only)

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

▲ Wired to cool white LED circuit in Ambient function  
 † Not color-tunable. Consult factory for DALI or DMX control selection.  
 \* Low Voltage Controller compatible with bed controls; CCT on Ambient controlled separately; not compatible with DTW option.



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MPCAIE24-TW-042822

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## MPCAIE SERIES - TUNABLE WHITE LED

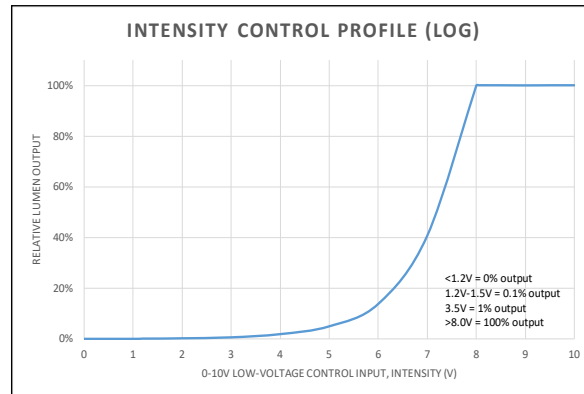
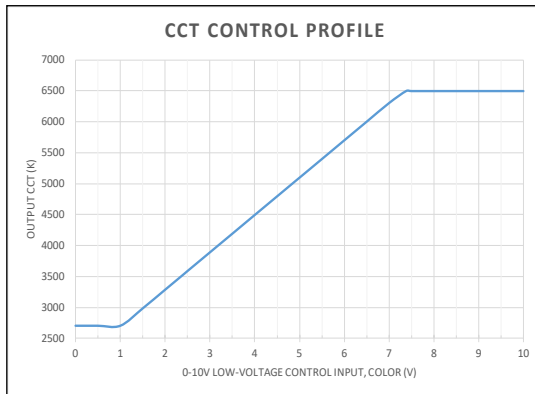
PERFORMANCE		Delivered Performance*			
Function	Lamp Type	Lumen Output (lm)	Efficacy (lm/W)	Input Power (W)	Estd. L70 LED Life (Hrs)
Ambient	45T-27/65K8	4,946	108	46	80,000
	45T-27/65K9	3,987	87	46	80,000
Exam	90L35K	8,494	87	100	80,000
	90L40K	9,055	92	100	80,000
	90L50K	9,055	92	100	80,000

\*Tunable white Ambient function performance provided at 4000K. Information subject to change without notice. Visit [www.kenall.com](http://www.kenall.com) for ies files additional information.

### PERFORMANCE SCALING, BY LAMP COLOR

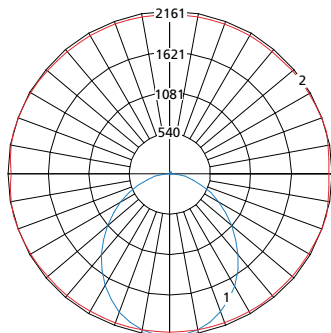
CCT (K)	27/65K8					27/65K9				
	LUMEN SCALE FACTOR	Ra	R9	Rf	Rg	LUMEN SCALE FACTOR	Ra	R9	Rf	Rg
2700	0.92	83	10	83	97	0.95	92	57	89	98
3000	0.95	84	15	83	98	0.97	94	70	91	99
3500	0.99	86	23	84	98	0.99	95	77	92	99
4000	1.00	86	26	84	98	1.00	96	83	92	99
4600	1.00	86	28	84	98	1.00	96	90	92	100
5000	1.01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

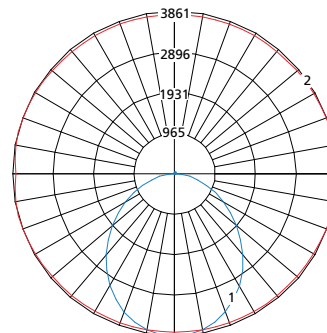
Model: MPCAIE24-G-45T-90L-27-65K8-40K8-ATW-DCC-DV-IB-AC Ambient



Maximum Candela = 2161 Located At Horizontal Angle = 15, Vertical Angle = 2.5

- 1 - Vertical Plane Through Horizontal Angles (15-195) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: MPCAIE24-G-45T-90L-27-65K8-40K8-ATW-DCC-DV-IB-AC Exam



Maximum Candela = 3861 Located At Horizontal Angle = 15, Vertical Angle = 2.5

- 1 - Vertical Plane Through Horizontal Angles (15-195) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)



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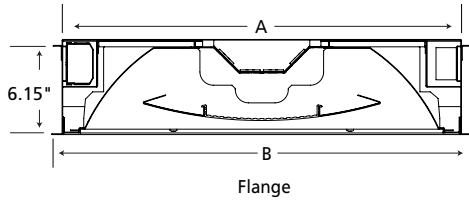
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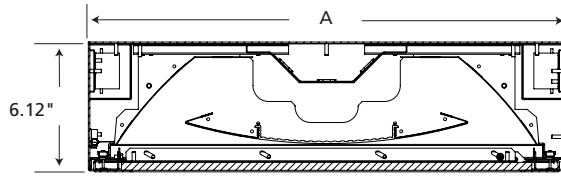
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### DIMENSIONAL DATA

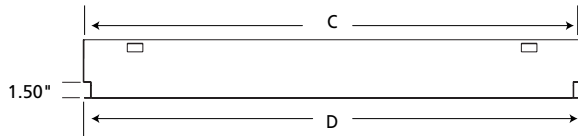
GRID/FLANGE MOUNT



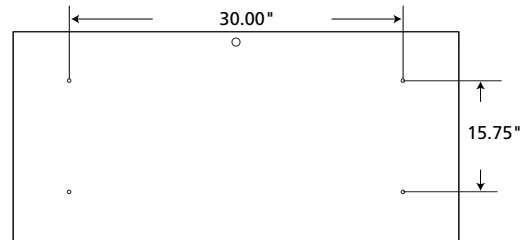
SURFACE MOUNT



GRID/FLANGE MOUNT SIDE VIEW



SURFACE MOUNT TOP VIEW  
(MOUNTING HOLE PATTERN)



DIMENSIONAL DATA (IN INCHES)				
	A	B	C	D
GRID	6.00	22.60	48.00	47.75
FLANGE	6.00	22.60	48.12	49.28
RECOMMENDED CEILING CUTOUT (FLANGE)** - 22.60x48.13				
** ADD .25" TO EACH CUT-OUT DIMENSION WHEN INSTALL FRAME (IF ACCESSORY IS SPECIFIED (FLANGE ONLY)				



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