MEDMASTER™
Patient Room Luminaires
MAC SERIES – TUNABLE WHITE LED

PRODUCT FEATURES:
» Surface, recessed grid or recessed flange mount – 1'×4', 2'×2', 2'×4'

» High-output, high-CRI LED lamp sources with 2700K-6500K white tuning capability

» Ingress Barrier Door provides consistent surface for cleanability

SPECIFICATIONS

HOUSING: 20-gauge CRS. one-piece construction Housing Flanges – 18-gauge CRS, standard 4-piece construction, spotwelded to housing. White TGIC polyester powder coat – 5-stage pre-treatment. Salt spray test 1,000 hours. Reflectance 92%. See Ordering Options for Antimicrobial Finish.

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 – eight (8) with IB-AC (1×4, 2×2), ten (10) with IB-AC (2×4), two (2) with IB-HD (2×2) and three (3) with IB-HD (1×4, 2×4). Extruded closed cell gasket seals doorframe to housing. Outer lens sealed to doorframe with a vinyl gasket.

OPTICS: Extruded high-efficiency frosted DR acrylic inner diffuser. Clear impact-resistant acrylic outer lens.

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: <u>SURFACE MOUNT:</u> Four .312" diameter holes. <u>GRID MOUNT:</u> Designed for 1" and 1.5" grid. (Housing includes hanging brackets to secure housing with wire to super structure). <u>FLANGE MOUNT:</u> 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 Zone (IB-AC only).

TW | LED | c ETL us | IP65 | NSF
IB-AC ONLY

ORDERING INFORMATION (Ex:MAC22-G-FA-45T-27/65K8-DTW-DV-IB-AC-LEL)

Model	Mounting	Diffuser	Lamp Power	Lamp Color	Driver Type	Voltage DV	Doorframe IB-	Options	Accessories

Model
MAC14 1'×4'
MAC22 2'×2'
MAC24 2'×4'

Mounting Options
F   Flange
S   Surface
G   Grid (1" and 1.5")

Diffuser Type
FA   Frosted Acrylic
CAP‡   Clear Acrylic with Perforated Insert

Lamp Power
1×4
45T   45 Watt Tunable White

2'×2'
45T   45 Watt Tunable White

2'×4'
45T   45 Watt Tunable White
67T   67 Watt Tunable White
90T   90 Watt Tunable White

Lamp Color
27/65K8   2700K-6500K CCT Range, 82 CRI
27/65K9   2700K-6500K CCT Range, 92 CRI

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

Doorframe
AC   Ingress Barrier w/Aircraft Cables
HD   Ingress Barrier w/Continuous Piano Hinge (not NSF2 listed)

Options
LEL*   10W LED Emergency Battery Backup
AMF   Antimicrobial Finish on exposed painted surfaces
NLW^   2700K White LED Night Light
NLA^   Amber LED Night Light
FS   Single Fuse & Holder
LVC▲   Low Voltage Controller (Click here for specifications)
LVCS▲   Low Voltage Controller with Secondary Conduit Entry (Click here for specifications)
LVCD▲   Low Voltage Controller with Dimming (Click here for specifications)
LVCDS▲   Low Voltage Controller with Dimming and Secondary Conduit Entry (Click here for specifications)

Accessories
IF†   Install Frame
PF†   Plaster Frame

* Wired to cool-white LED circuit
^ n/a with 1x4 size
▲ Low Voltage Controller compatible with bed controls; CCT on Ambient controlled separately; not compatible with DTW option.
† Add 0.375" to ceiling cutout dimensions. Flange mounting only.
‡ Selection results in significant reduction in lighting performance.

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

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PERFORMANCE

Model	Lamp Type	Performance at 4000K Tuning			
		Lumen Output (lm)	Efficacy (lm/W)	Input Power (W)	Estd. L_{70} LED Life (Hrs)
MAC14	45T-27/65K8	4,532	99	46	80,000
	45T-27/65K9	3,652	79	46	80,000
MAC22	45T-27/65K8	4,328	94	46	80,000
	45T-27/65K9	3,489	76	46	80,000
MAC24	45T-27/65K8	5,306	115	46	80,000
	45T-27/65K9	4,276	93	46	80,000
	67T-27/65K8	7,939	117	68	80,000
	67T-27/65K9	6,575	97	68	80,000
	90T-27/65K8	10,311	112	92	60,000
	90T-27/65K9	8,310	90	92	60,000

Displayed information is for type 'FA' diffuser. 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	Ra	R9	Rf	Rg	LUMEN SCALE	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
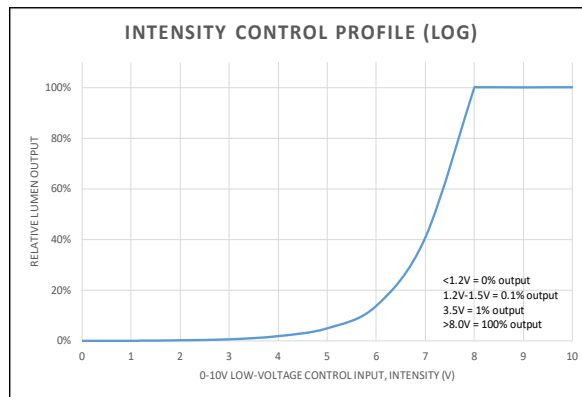
NOTE: The provided information is the typical expected performance of a single luminaire. Additional luminaires on the same 0-10V line may result in different control profiles. Fine tuning of system performance should be completed after installation is complete. To avoid CCT shift between luminaires, 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.

www.kenall.com | P: 800-4-Kenall | F: 262-891-9701 | 10200 55th Street Kenosha, Wisconsin 53144, USA   A brand of legrand
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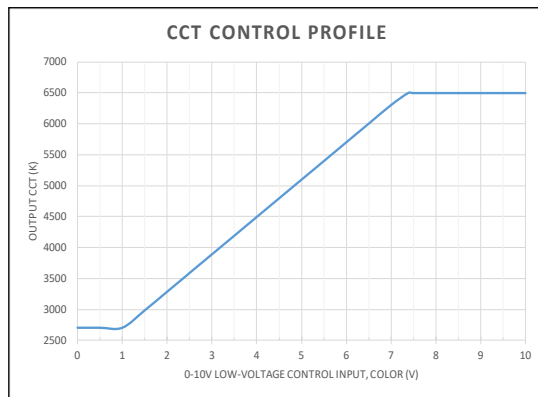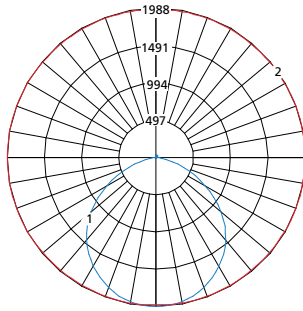### MAC SERIES - TUNABLE WHITE LED
PERFORMANCE

Model: MAC14-G-FA-45T-27/65K8-ATW-DV-IB-AC

1988
1491
994
497
2

1

Maximum Candela = 1988 Located At Horizontal Angle = 75, Vertical Angle = 2.5

— 1 - Vertical Plane Through Horizontal Angles (75-255) (Through Max. Cd.)
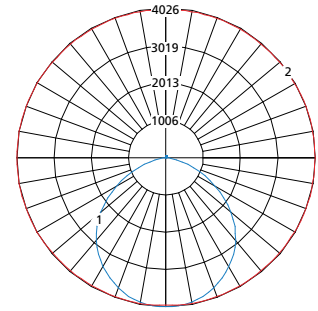— 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: MAC22-G-FA-45T-27/65K8-ATW-DV-IB-AC

1718
1289
859
430
2

1
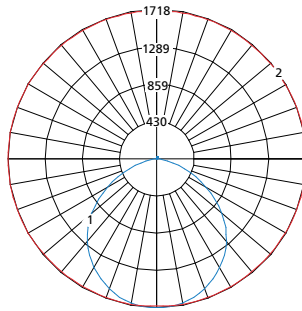
Maximum Candela = 1718 Located At Horizontal Angle = 210, Vertical Angle = 2.5

— 1 - Vertical Plane Through Horizontal Angles (75-255) (Through Max. Cd.)
— 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: MAC24-G-FA-90T-27/65K8-ATW-DV-IB-AC

4026
3019
2013
1006
2

1

Maximum Candela = 4026 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.)
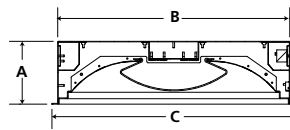
DIMENSIONAL DATA

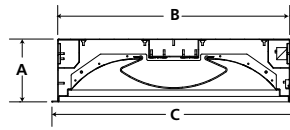**GRID MOUNT**

CROSS SECTION

MAC14

MAC22 & MAC24

SIDE VIEW

GRID DIMENSIONAL DATA (IN INCHES)

	A	B	C	D	E
1×4	5.56	10.60	11.75	46.60	47.75
2×2	6.10	22.60	23.75	22.60	23.75
2×4	6.10	22.60	23.75	46.60	47.75
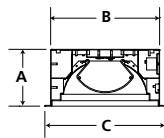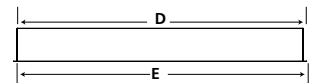
FLANGE MOUNT

CROSS SECTION

MAC14

MAC22 & MAC24

SIDE VIEW

TOP VIEW

F
YOKE SPACING

G
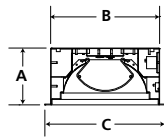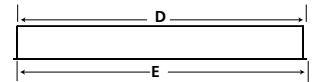
FLANGE DIMENSIONAL DATA (IN INCHES)

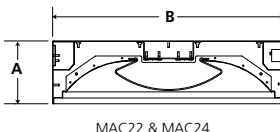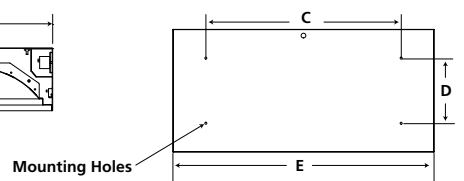|	A	B	C	D	E	F	G
1×4	5.56	10.60	11.75	46.60	47.75	30.00	5.25
Recommended Ceiling Cutout: 10.88" × 46.88"
2×2	6.10	22.60	23.75	22.60	23.75	12.00	12.00
Recommended Ceiling Cutout: 22.88" × 22.88"
2×4	6.10	22.60	23.75	46.60	47.75	30.00	12.00
Recommended Ceiling Cutout: 22.88" × 46.88"
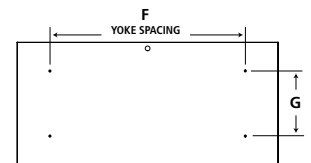
SURFACE MOUNT

CROSS SECTION
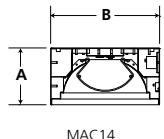
MAC14

MAC22 & MAC24

TOP VIEW

Mounting Holes

SURFACE DIMENSIONAL DATA (IN INCHES)

	A	B	C	D	E
1×4	5.56	10.60	30.00	5.25	46.60
2×2	6.13	22.60	12.00	12.00	22.60
2×4	6.13	22.60	30.00	12.00	46.60