

MEDMASTER ENVELA®

ME SERIES with BIOS SkyBlue™

PRODUCT FEATURES:

- » Recessed Ceiling mount – 1'x4', 2'x2', 2'x4'
- » High R9 value and High CRI provide biologically optimized LED spectrum for early detection of cyanosis.
- » Features BIOS SkyBlue Technology to benefit daytime alertness, cognition, mood and circadian rhythms
- » Cleanable to NSF2 and sealed to IP64 construction standards
- » Tool-less access for servicing



SPECIFICATIONS

HOUSING: 20-gauge CRS. One-piece seam welded construction. Housing flange in 18-gauge CRS, with mitered and welded corners, spot-welded to housing. Mitered and welded corners. Black TGIC polyester powder coat – 5-stage pre-treatment. Salt spray test: 1,000 hours.

REFLECTOR/LENS ASSEMBLY: Fully gasketed, sealed luminous shield diffuser constructed of impact-resistant frost DR acrylic. Reflector constructed in one-piece, formed 20-gauge CRS. Low-gloss white TGIC polyester powder coat with 5-stage pre treatment. Salt spray test 1,000 hours. Tool less lamp access.

LED MODULE: Serviceable static, dynamic or tunable mid-power Gen 2 BIOS Biological LED modules. Biological Static, Biological Dynamic, and Biological Tunable LED source with blue spectrum peak at 490nm and higher melanopic ratio. CRI 80+ with R9 > 90. Dynamic features 500K downward CCT shift when dimmed for evening applications requiring lower melanopic ratio. Tunable features 2700K CCT for evening applications. Refer to table for specific melanopic values.

DRIVER/CONTROL: 120-277VAC, 50/60Hz electrical input (PF ≥ 0.9, THD < 20%). **Biological Static:** Serviceable, constant-current single channel driver with single analog (0-10V) control input for intensity. 1-100% range with dim to dark capabilities and a linear dimming curve. **Biological Dynamic:** Serviceable constant-current driver with the BIOS Dynamic Bio-Dimming™ module keeps light output constant while reducing melanopic lux. Single analog (0-10V) control input. 1-100% dimming range with dim-to-dark capabilities and a linear dimming curve. Dimming from 100-75% reduces CCT by 500K, dimming below 75% reduces light level. **Biological Tunable:** 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.

INSTALLATION: **GRID MOUNT:** Designed for 1" and Slot-T grid. Includes hardware to secure hanger wire. **FLANGE MOUNT:** Includes Drywall Frame Kit.

PHOTOMETRICS: Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory. For additional photometric data, please go to www.kenall.com.

WARRANTY: Limited five (5) year warranty on LED lamps.

LISTINGS: Luminaire is certified to UL standards by Intertek Testing Laboratories for Wet Locations and non-IC recessed installations. Certified IP64 per IEC 60598. NSF2 Splash/Non-Food Zone. CCEA Approved.



ORDERING INFORMATION (Ex: ME24-G-45B-35K8-ATW-DV-FA-LVCD)

Model	Mounting	Lamp Power	Lamp Color	Driver Type	Voltage	Lens Type	Options
					DV	FA	
Series Model		Lamp Type			Input Voltage		
ME14 1'x4'		1x4			DV 120-277 Volts		
ME22 2'x2'		45B 45 Watt BIOS					
ME24 2'x4'		2x2			Lens Type		
		45B 45 Watt BIOS			FA Frosted DR Acrylic		
Mounting Options		2x4			Options		
G Grid (1")		45B 45 Watt BIOS			AMF Antimicrobial Low-Gloss White on exposed surfaces of Reflector/Lens Frame		
ST Slot-T Grid (2x2 & 2x4 only)		67B 67 Watt BIOS			FS Fuse & Holder		
F Flange		90B 90 Watt BIOS			LVC* Low Voltage Controller (Click here for specifications)		
					LVCD* Low Voltage Controller with Dimming (Click here for specifications)		
		Lamp Color					
		35K8 3500K SkyBlue / 80CRI min / R9 90+					
		40K8 4000K SkyBlue / 80CRI min / R9 90+					
		Driver Type					
		DIM1 BIOS Biological Static with 0-10V Dimming to 1% with Dim-to-Dark Capabilities					
		BIODIM1 BIOS Biological Dynamic with 0-10V Intensity Dimming to 1% and Dim-to-Dark Capabilities					
		ATW BIOS Biological Tunable White with 0-10V Control of Intensity and CCT independently on 2 separate channels					
		DTW BIOS Biological Tunable White with DALI Control of Intensity and CCT independently on 2 separate channels					

* Low Voltage Controller compatible with bed controls. Not compatible with DTW option. **LVC** wired to provide ON/OFF control. **LVCD** wired to provide ON/OFF and dimming control.

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

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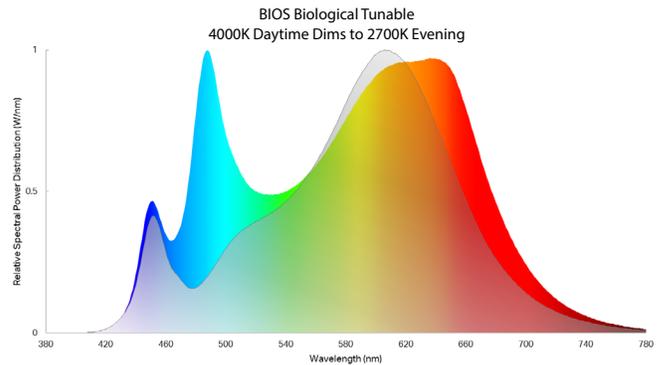
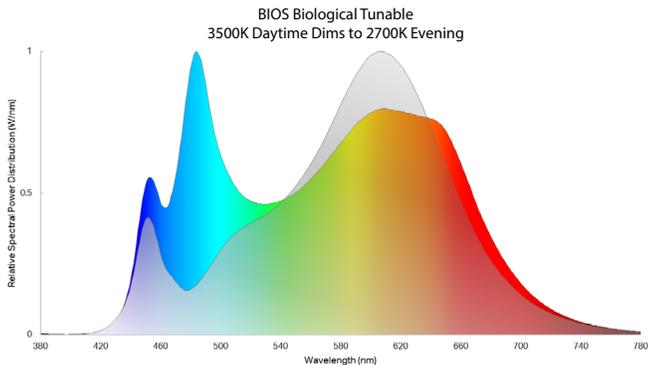
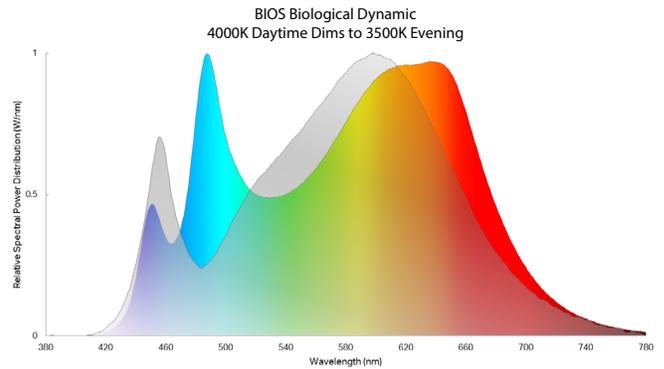
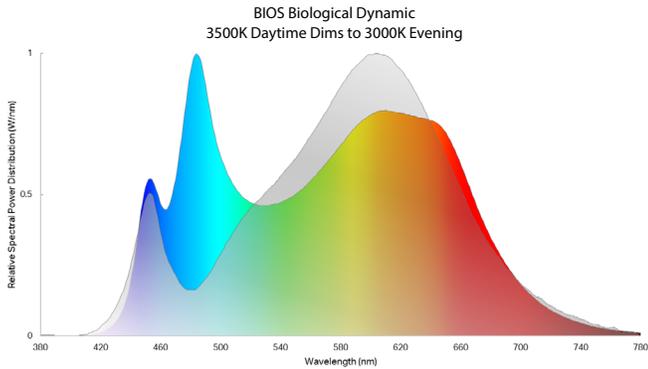
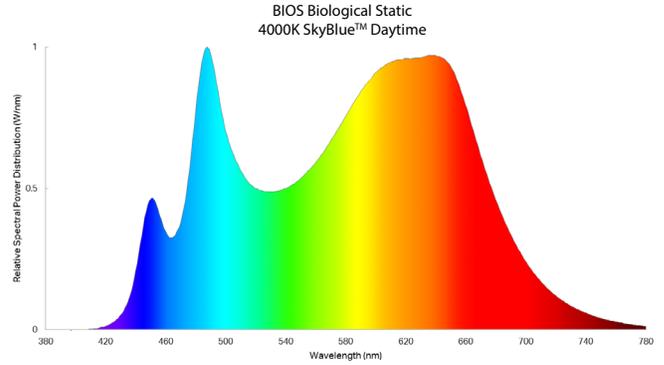
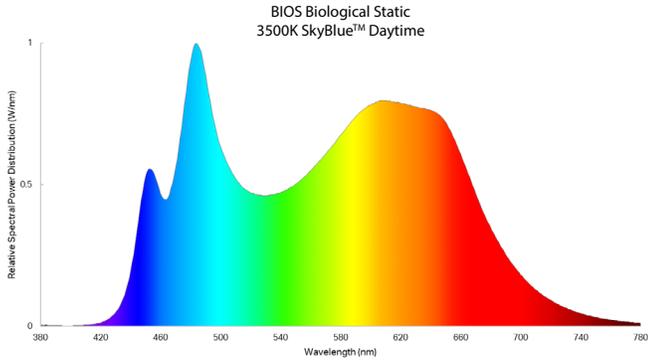
DELIVERED MELANOPIC RATIO OF 35K8 BIOS

BIOS Type	Spectral Mode	Nominal CCT	Melanopic Ratio*	
			m-EER	m-DER
Biological Static	Daytime	3500K	≥0.80	≥0.72
Biological Dynamic	Daytime	3500K	≥0.80	≥0.72
	Evening	3000K	≤0.49	≤0.44
Biological Tunable	Daytime	3500K	≥0.80	≥0.72
	Evening	2700K	≤0.47	≤0.42

DELIVERED MELANOPIC RATIO OF 40K8 BIOS

BIOS Type	Spectral Mode	Nominal CCT	Melanopic Ratio*	
			m-EER	m-DER
Biological Static	Daytime	4000K	≥0.90	≥0.81
Biological Dynamic	Daytime	4000K	≥0.90	≥0.81
	Evening	3500K	≤0.57	≤0.51
Biological Tunable	Daytime	4000K	≥0.90	≥0.81
	Evening	2700K	≤0.47	≤0.42

*Melanopic ratios are provided in two forms: (m-EER) which is calculated using the WELL v2 methodology and the corresponding CIE melanopic Daylight Equivalent Ratio, (m-DER).



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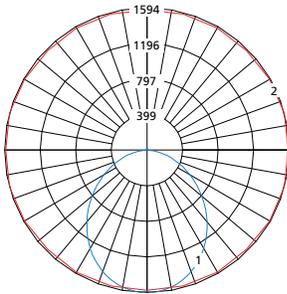
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PERFORMANCE

Model	Lamp Code	Initial Delivered Lumens		Input Power (W)	Drive Current (mA)	Estd. L70 LED Life (Hrs)
		Lumen Output (lm)	Efficacy (lm/W)			
ME14	45B-35K8	4,000	80	50	100	80,000
	45B-40K8	4,344	87			
ME22	45B-35K8	3,537	71	50	100	80,000
	45B-40K8	3,840	77			
ME24	45B-35K8	4,599	92	50	100	80,000
	45B-40K8	4,994	100			
	67B-35K8	6,899	93	74	75	80,000
	67B-40K8	7,491	101			
	90B-35K8	9,197	94	98	100	80,000
	90B-40K8	9,987	102			

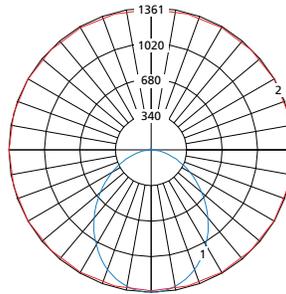
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Model: ME14-zz-45B-35K8-DIM1-1-DV-FA



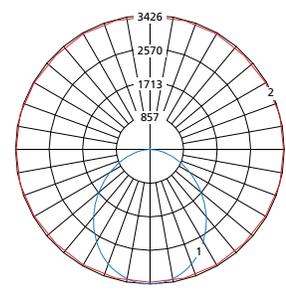
Max Candela = 1594 Located At Horizontal Angle = 15, Vertical Angle = 2.5
 1 - Vertical Plane Through Horizontal Angles (15 - 195) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: ME22-zz-45B-35K8-DIM1-1-DV-FA



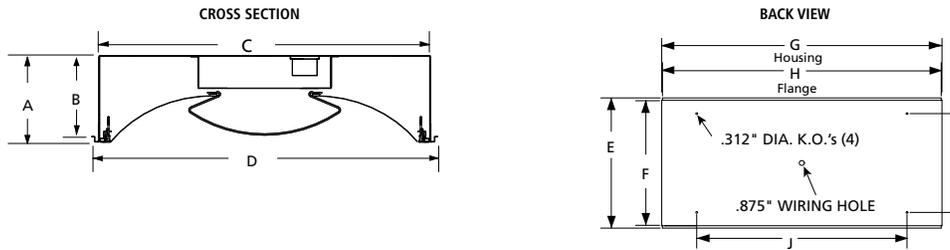
Max Candela = 1361 Located At Horizontal Angle = 15, Vertical Angle = 2.5
 1 - Vertical Plane Through Horizontal Angles (15 - 195) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

Model: ME24-xx-90B-35K8-DIM1-1-DV-FA



Max Candela = 3426 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.)

DIMENSIONAL DATA



DIMENSIONAL DATA (IN INCHES)										
	A	B*	C	D	E	F	G	H	I	J
1x4	6.30	5.93*	10.70	11.70	10.70	11.70	47.98	47.72	8.00	36.00
Recommended Ceiling Cut-Out 12.50x48.50 (Flange fixtures)										
2x2	6.30	5.93*	22.70	23.72	23.72	22.70	23.98	23.72	18.00	18.00
Recommended Ceiling Cut-Out 24.50x24.50 (Flange fixtures)										
2x4	6.30	5.93*	22.70	23.72	23.72	22.70	47.98	47.72	18.00	36.00
Recommended Ceiling Cut-Out 24.50x48.50 (Flange fixtures)										

*ST Mounting Option Only



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