PROJECT	Job Name	Catalog Number
INFORMATION	Fixture Type	Approved by

Luminaires for Behavioral Health Applications

BHRS4 SERIES with BIOS SkyBlue™

PRODUCT FEATURES:

- » 4" recessed linear slot luminaire in multiple lengths
- » Single-function luminaire provides ambient lighting within the patient room
- » One-piece doorframe with continuous lens retention and tamper-resistant fasteners
- » Features BIOS SkyBlue Technology to benefit daytime alertness, cognition, mood and circadian rhythms
- » High R9 value and High CRI provide biologically optimized LED spectrum for early detection of cvanosis
- » Ligature resistant construction



SPECIFICATIONS

HOUSING: Extruded 6063-T5 aluminum construction with aluminum endcaps. Low-gloss anti-microbial white TGIC polyester powder-coat finish with five-stage pre-treatment applied to exterior, room-side components.

DOORFRAME: One-piece extruded 6063-T5 aluminum outer frame with low-gloss anti-microbial white TGIC polyester powder-coat finish with five-stage pre-treatment. Inner aluminum extrusion continuously bonds lens to door. Closed-cell gasketing. Tamper-resistant T20 TORX fasteners secure doorframe to housing.

OPTIC: Symmetric (Lambertian) distribution. Diffused polycarbonate lens with 0.188" overall thickness.

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-DimmingTM 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: Suitable for Type-IC recessed ceiling installation into 9/16" and 15/16" lay-in and tegular grid ceilings, flanged drywall ceilings and trimless mud-in installations with 5/8" drywall. See Ordering Information for selection. Suitable for 0°C - 40°C ambient temperature environments.

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

WARRANTY: Limited five (5) year warranty.

LISTINGS: Luminaire is certified to UL standards by Intertek Testing Laboratories for Type-IC and Wet Location installations. IP65 rating per IEC60598. NSF2 Splash/Non-Food Zone rated. Standard CCEA compliance. Ligature resistant construction.













ORDERING INFORMATION (Ex: BHRS4-48-FL-SYM-800LFB-35K8-DIM1-DV-LVC/S-LEL)

LVC Master / Model Length Ceiling Driver Type Voltage Low-Voltage Options Accessories Configuration Satellite BHRS4 **SYM** DV

Nominal Length

48

Ceiling Configuration

9/16" and 15/16" Lay-In Grid 9/16" and 15/16" Tegular Grid TG FL

Flange

Trimless Mud-In for 5/8" Drywall TM

Optical Distribution

SYM Symmetric

Lumen Output

400LFB 400 lumens/ft 600LFB 600 lumens/ft 800LFB 800 lumens/ft

Lamp Color

3500K SkyBlue / 80CRI min / R9 90+ 35K8 4000K SkyBlue / 80CRI min / R9 90+ 40K8

Driver Type

DIM₁ BIOS Biological Static with 0-10V Dimming

to 1% with Dim-to-Dark Capabilities 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 BIOS Biological Tunable White with DALI

Control of Intensity and CCT independently

on 2 separate channels

DTW

Input Voltage DV 120-277VAC, 50/60Hz

Low-Voltage Controller (Optional)

Low Voltage Controller (click here for specifications)

LVCD* Low Voltage Controller with Dimming (click here for specifications)

LVC Master/Satellite for Paired Installations^

M Paired 'Master-Control' Luminaire Paired 'Satellite-Control' Luminaire

Options LĖL*•

Integral Emergency Battery Backup with Remote Test Button FS Fuse & Holder

Accessories

T20 T20 Tamper-Resistant Torx Bit (D-0552)

- * n/a with BIODIM1 in 2' length
- ^ N/A for products not configured with an LVC option. Paired installations shall be ordered with equal quantities of Type 'M' and 'S' units. AC power feed required to both. Lamp control originates from LVC located in the Master unit. Control wiring method between luminaires supplied by others.
- LEL only available in Satellite unit when ordered in conjunction with an LVC or LVCD controller. Not available with DTW Driver Type.

ACCESSORIES ORDERED SEPARATELY

Low Voltage Wall Switch (Click here for Specifications)



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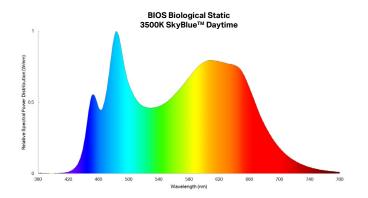
DELIVERED MELANOPIC RATIO OF 35K8 BIOS

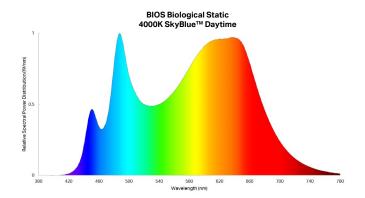
BIOS Type	Spectral	Nominal	Melanopic Ratio*		
вюз туре	Mode	CCT	m-EER	m-DER	
Biological Static	Daytime	3500K	≥0.80	≥0.72	
Biological Dynamic	Daytime	3500K	≥0.80	≥0.72	
Biological Dynamic	Evening	3000K	≤0.49	≤0.44	
Biological Tunable	Daytime	3500K	≥0.80	≥0.72	
Biological Turiable	Evening	2700K	≤0.47	≤0.42	

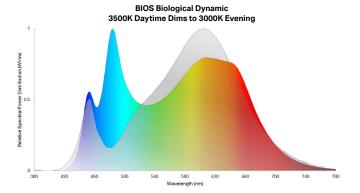
DELIVERED MELANOPIC RATIO OF 40K8 BIOS

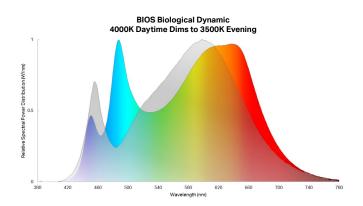
BIOS Type	Spectral	Nominal	Melanopic Ratio*		
вюз туре	Mode	ССТ	m-EER	m-DER	
Biological Static	Daytime	4000K	≥0.90	≥0.81	
Biological Dynamic	Daytime	4000K	≥0.90	≥0.81	
Biological Dynamic	Evening	3500K	≤0.57	≤0.51	
Biological Tunable	Daytime	4000K	≥0.90	≥0.81	
Biological Turnable	Evening	2700K	≤0.47	≤0.42	

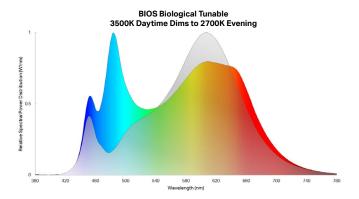
^{*}Melanopic ratios are provided in two forms: (m-EER) which is calculated using the WELL v2 methodology and the corresponding CIE melanopic Daylight Equivalent Ratio, (m-DER).

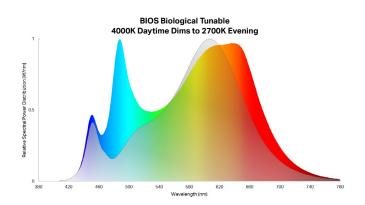














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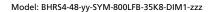
Luminaires for Behavioral Health Applications

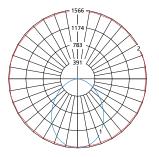
BHRS4 SERIES with BIOS SkyBlue™

PERFORMANCE	Initial Delivered Lumens per Foot, by CCT

		initial belivered Editiens per 100t, by eer		<u> </u>			
Length	Distribution Type	Nominal Lumen Output	35K8	40K8	Efficacy (lm/W)	Unit Input Power (W/ft)	Estd. L ₇₀ LED Life (Hrs)
24", 48"	SYM	400LFB	393	427	65 - 70	6	85,000
		600LFB	593	644	63 - 68	9	
		800LFB	781	848	61 - 66	13	

NOTE: Nominal Lumen Output values based on 40K8 lamp color. Information subject to change without notice. Visit www.kenall.com for IES files and additional





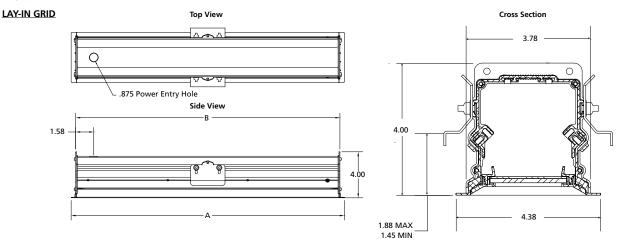
 $Maximum\ Candela = 1566\ Located\ At\ Horizontal\ Angle = 15,\ Vertical\ Angle = 2.5$

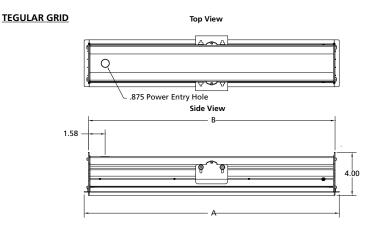
— 1 - Vertical Plane Through Horizontal Angles (15-195) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

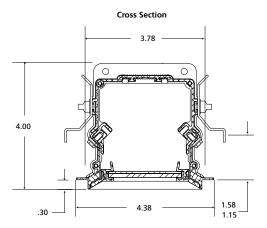
Luminaires for Behavioral Health Applications

BHRS4 SERIES with BIOS SkyBlue $^{\text{\tiny TM}}$

DIMENSIONAL DATA







Nominal Length	Ceiling Configuration	А	В	
24	LAY-IN GRID	23.75"	22.97"	
24	TEGULAR	23.75"	22.97"	
48	LAY-IN GRID	47.75"	46.97"	
40	TEGULAR	47.75"	46.97"	

NOTE: Standard (non-LVC) and LVC Satellite units supplied with one (1) 0.875" hole on back of housing. When ordered with the LVC or LVCD option, the Master unit is provided with two (2) 0.875" holes.

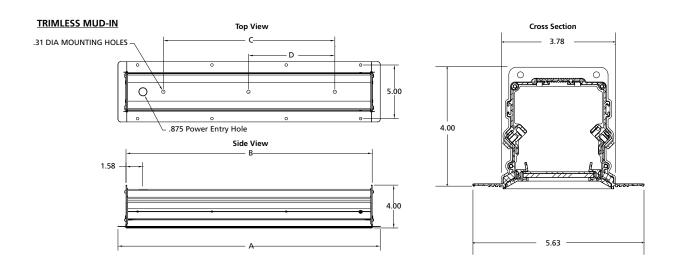


Luminaires for Behavioral Health Applications

BHRS4 SERIES with BIOS SkyBlue™

DIMENSIONAL DATA

Top View Cross Section 3.78 875 Power Entry Hole Side View B 4.00



Nominal Length	Ceiling Configuration	A	В	С	D	Ceiling Cut-Out	
24	FLANGE	23.75"	22.97"	16.00"		3.875" × 23.25"	
24	TRIMLESS	24.47"	22.97"	16.00"		3.875 × 23.25	
48	FLANGE	47.75"	46.97"	40.00"		3.875" × 47.25"	
	TRIMLESS	48.47"	46.97"	40.00"		3.073 X 47.23	

NOTE: Standard (non-LVC) and LVC Satellite units supplied with one (1) 0.875" hole on back of housing. When ordered with the LVC or LVCD option, the Master unit is provided with two (2) 0.875" holes.



4.38