PROJECT	Job Name	 Catalog Number	
NFORMATION	Fixture Type	 Approved by	

### MEDMASTER NARROW SPECTRUM

# Luminaires for Behavioral Health Applications

#### **BHDL SERIES**

#### PRODUCT FEATURES:

- » 6" sealed, recessed downlight with flush lens trim
- » Peace of Mind Guarantee® against breakage
- » Phosphor-converted 590nm Amber LED source provides higher lumen output and lifetime than native Amber sources
- » Suitable for circadian and other spectrally sensitive healthcare applications
- » 1% Dimming via 0-10V or DALI control



470nm (Blue)



590nm (Phosphor Amber)

#### **SPECIFICATIONS**

**HEAT SINK:** Die-cast aluminum with external radial fins for natural convection.

ROUGH-IN FRAME: 18-gauge die-formed, corrosion-resistant steel. Vertically adjustable collar accommodates ceiling thicknesses up to 2", adjustable post-installation. Universal mounting brackets accept 3/4" and 1-1/2" lathers channel, 1/2" EMT conduit and hanger bars. Quick-access junction box accessible post-installation from above and below ceiling. Includes (4) 1/2" and (2) 3/4" knock-outs to allow straight conduit runs. Listed for (8) 12AWG, 90°C conductors and feed-thru branch wiring. Provided with FMC with electrical guick-connect to Trim Section.

TRIM/HOUSING SECTION: IP-rated housing section incorporates the heat sink, LED module, optics and lower trim. Flush lens trim secured with four (4) Torx® tamper-resistant, captive fasteners. Anti-microbial finish standard on all exposed painted surfaces. See trim ordering information for available options.

**OPTICAL:** Diffused tempered-glass upper lens. Available with various reflector distribution patterns and finishes. Flush lens trim options include a clear lens. See distribution and reflector finish ordering information for available options.

**ELECTRICAL:** Phosphor-converted (PC) LED source provides Amber light with a 590nm nominal peak wavelength. Phosphor-converted InGaN-based source provides a higher output and efficacy as well as longer lifetime compared to native amber (AlinGaP-based) source for applications where a broader spectrum is acceptable. Native Blue LED option with 470nm nominal peak wavelength. 120-277VAC, 50/60Hz electrical input with serviceable constant current driver (<20% THD, >0.90 PF). Minimum 85% driver efficiency. Standard 0-10V dimming with 1-100% range; 165μA max. source current. Optional eldoLED ECOdrive DALI driver with 1-100% range.

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

1/4" Clear Polycarbonate

WARRANTY: Limited five (5) year LED warranty. Peace of Mind Guarantee against breakage.

LISTINGS: Luminaire is certified to UL standards by Intertek Testing Laboratory for non-IC and Wet Location installations. IP65 rating per IEC60598. Optional CCEA compliant.











#### ORDERING INFORMATION (EX: BHDL6-FF-2FW-12PA-W-CSS-G-RIG6-DV-DIM1)

TRIM							
Model	Trim Style	Trim Finish	Lamp Power	Distril	bution	Reflector Finish	Flush Lens Type
BHDL6	FF						
Trim Style				.Dist	ributio	n	
<b>FF</b> Flush	Lens (With Fast	teners - IP65)		M	N	1edium	
				W	V	/ide	
Trim Finish							
2FW Co	ld-Rolled Steel i	n Flat White		Refle	ector Fi	nish	
5BR Typ	e 304 Stainless	Steel with 4B	Brushed Finish	FW	Flat W	hite	
	e 304 Stainless			CS	Clear !	Specular	
,,				CSS	Clear !	Semi-Specular	
Lamp Pow	er / Color						
	12 Watt Phosph	or-Converted	Amber LED	Flush	1 Lens 1	vpe	
	18 Watt 470nm			G		lear Polycarbonate	

Rough	-In	Input Voltage	Driver Type	Options	
RI	<b>G6</b>				
Roug RIG6	<b>h-In</b> 6" Rou	ıgh-In			
Input DV	Voltag	<b>je</b> 77V, 50/60Hz			
120	120VA	.C, 50/60Hz .C, 50/60Hz			

LEL 7W Emergency Battery Backup with Remote Test Switch
FS Fuse & Holder

CCEA CCEA Approved (specified voltage required)



# **MEDMASTER NARROW SPECTRUM**

Luminaires for Behavioral Health Applications

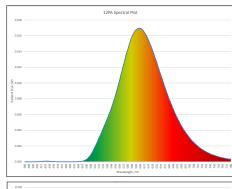
# **BHDL SERIES**

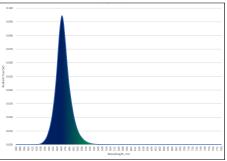
### PHOTOMETRIC PERFORMANCE

Trim Style		Optic		Lamp Lamp Calar	Initial Dalinanad Lumana	Input Power	Estd. L70 LED Life	
	Distribution	Reflector Finish	Lens Type	Code	Lamp Color	Initial Delivered Lumens	(W)	(hrs)
			6	12PA	590nm PC Amber	785	15	72,000
		CS	G	18BL	470nm Blue	275	21	60,000
			9	12PA	590nm PC Amber	767	15	72,000
				18BL	470nm Blue	269	21	60,000
			6	12PA	590nm PC Amber	737	15	72,000
	M	CSS	G	18BL	470nm Blue	258	21	60,000
	141			12PA	590nm PC Amber	720	15	72,000
			9	18BL	470nm Blue	252	21	60,000
		FW	G	12PA	590nm PC Amber	728	15	72,000
				18BL	470nm Blue	255	21	60,000
			9	12PA	590nm PC Amber	711	15	72,000
				18BL	470nm Blue	249	21	60,000
FF		CSS	G	12PA	590nm PC Amber	883	15	72,000
				18BL	470nm Blue	310	21	60,000
			9	12PA	590nm PC Amber	863	15	72,000
				18BL	470nm Blue	303	21	60,000
			G	12PA	590nm PC Amber	750	15	72,000
	W			18BL	470nm Blue	263	21	60,000
	, vv		0	12PA	590nm PC Amber	733	15	72,000
			9	18BL	470nm Blue	257	21	60,000
			6	12PA	590nm PC Amber	831	15	72,000
			G	18BL	470nm Blue	291	21	60,000
		FW	9	12PA	590nm PC Amber	812	15	72,000
				18BL	470nm Blue	285	21	60,000

Subject to change without notice. Visit www.kenall.com for ies files and additional information.

## SPECTROPHOTOMETRIC PERFORMANCE





12PA						
Purity	0.993					
UV (<400nm)	0.003%					
Radiant Flux ( ≤560nm)	13.400%					
Bandwidth	101.6 nm					
Peak Wavelength	590 nm					

18BL	
Purity	0.9583
Bandwidth	24.4 nm
Peak Wavelength	470 nm



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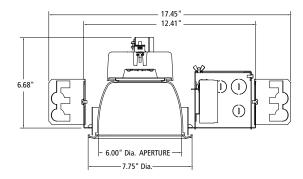
#### PHOTOMETRIC PERFORMANCE

	BHDL6-FF-1	2PA-W-CS-G		BHDL6-FF-1	2PA-M-CS-G	
Wide Distribution Candela Curve	Initial center beam footcandles	Beam diameter (ft)	Distance to illuminated plane (ft)	Initial center beam footcandles	Beam diameter (ft)	Medium Distribution Candela Curve
185	5.7	7.3	5'	18.2	2.8	436
370	3.9	8.8	6'	12.6	3.4	873
739 554	2.9	10.2	7'	9.3	3.9	1309
	2.2	11.7	8'	7.1	4.5	
	1.8	13.2	9'	5.6	5.0	
	1.4	14.6	10'	4.5	5.6	
Spacing Criteria: 1.38	Footcandle multipliers for 12PA (1.00); 18BL (0.35)					Spacing Criteria: 0.61
Beam Angle: 72°	Beam diameter is where foot-candles drop to 50% of maximum				Beam Angle: 31°	

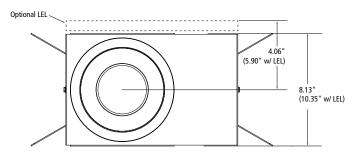
	BHDL6-FF-12	2PA-W-CSS-G		BHDL6-FF-12	2PA-M-CSS-G	
Wide Distribution Candela Curve	Initial center beam footcandles	Beam diameter (ft)	Distance to illuminated plane (ft)	Initial center beam footcandles	Beam diameter (ft)	Medium Distribution Candela Curve
134	6.18	5.7	5'	11.5	4.6	258
268	4.29	6.8	6'	8.0	5.5	511
536 402	3.15	7.9	7'	5.9	6.5	766 / 1022
330	2.42	9.1	8'	4.5	7.4	1022
	1.91	10.2	9'	3.6	8.3	$HH \setminus Y \mid$
	1.55	11.3	10'	2.9	9.2	
Spacing Criteria: 1.13	Footcandle multipliers for 12PA (1.00); 18BL (0.35)					Spacing Criteria: 0.77
Beam Angle: 59°	Beam diameter is where foot-candles drop to 50% of maximum				Beam Angle: 50°	

### **DIMENSIONAL DATA**

#### **CROSS SECTION**



#### **BOTTOM VIEW**



RECOMMENDED CEILING CUT-OUT: 7.38" Dia.