# MEDMASTER DOWNLIGHT BHDL SERIES - TUNABLE WHITE LED

#### PRODUCT FEATURES:

- » 6" sealed, recessed downlight with flush lens trim
- » High-output, high CRI LED lamp sources with 2700K-6500K white tuning capability
- » Peace of Mind Guarantee® against breakage
- » Ligature resistant construction

# E

PROJECT INFORMATION
Job Name
Fixture Type
Catalog Number
Approved by

#### **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 (4) 12AWG, 90°C conductors and feed-thru branch wiring. Provided with FMC with electrical quick-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:** High-efficiency mixing chamber design producing uniform light output. Clear flush-mounted outer lens. Available with various reflector distribution patterns, finishes and lens materials—see Ordering Information for available options.

LED MODULE: Tunable-white LED array provides 2700K through 6500K CCT range with a two-point path. 3-step MacAdam variation allowance on each CCT. Minimum 82 CRI (R9 > 20).

**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.

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

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. Ligature resistant construction.















# ORDERING INFORMATION (EX: BHDL6-FF-2FW-22T-27/65K8-M-CSS-G-RIG6-DV-ATW-FS)

TRIM									ROUG	H-IN			
Model		Trim Style	Trim Finish	Lamp Power	Lamp Color	Distribution	Reflector Finish	Flush Lens Type	Rough-	-In	Input Voltage	Driver Type	Options
BHD	<u>L6</u>	FF			27/65K8				RIC	<b>G6</b>			
Trim St	tyle					Distributi	on		Rough	n-In			
FF i	Flush L	ens (With F	asteners - IP6	5)		M W	Medium Wide		RIG6	6" Rou	igh-In		
Trim Fi	inish								Input	Voltag	e		
2FW	Cold	I-Rolled Ste	el in Flat White	e		Reflector Finish			<b>DV</b> 120-277V, 50/60Hz				
5BR	Type	304 Stainl	ess Steel with	4B Brushed Fini	sh	FW	Flat White		<b>120</b> 120VAC, 60Hz				
<b>5FW</b> Type 304 Stainless Steel in Flat White					CS	Clear Specular		<b>277</b> 277VAC, 60Hz					
						CSS	Clear Semi-Specular						
Lamp I	Power	•							Driver	r Type			
22T	22W	/ Tunable W	hite LED			Flush Lens Type			ATW Analog (0-10V) Dimming Tunable White Driver				
28T	28W	/ Tunable W	hite LED			G	1/8" Clear Polycarbo	nate	DTW DALI Tunable White Driver				
						9	1/4" Clear Polycarbo	nate	DMX DMX Tunable White Driver (Consult Factory)				ory)
Lamp (	Color						,						,,
27/65K	<b>(8</b> 27	700-6500K	CCT Range (8	2 CRI min)					Option	ns			
			5 ,	*					LĖL	Emerge	ency Battery Back	up with Remote 1	Test Switch
										Fuse &			
									CCEA	CCEA A	Approved (specifie	ed voltage require	ed)
											crewdriver	go roquir	,



# **MEDMASTER DOWNLIGHT**

Luminaires for Behavioral Health Applications

# **BHDL SERIES**

# **PERFORMANCE**

	Optic			Deliver	Estd. L70 LED Life		
Distribution	Reflector Finish	Lens Type	Lamp Code	Lumen Output (lm)	Efficacy (lm/W)	Input Power (W)	(hrs)
		G	22T-27/65K8	1,388	58	24	75,000
		G	28T-27/65K8	2,221	74	30	60,000
	CS	9	22T-27/65K8	1,222	51	24	75,000
		9	28T-27/65K8	1,955	65	30	60,000
		6	22T-27/65K8	1,302	55	24	75,000
	ccc	G	28T-27/65K8	2,084	69	30	60,000
М	CSS	0	22T-27/65K8	1,147	48	24	75,000
		9	28T-27/65K8	1,835	61	30	60,000
	F14/	G 9	22T-27/65K8	1,287	54	24	75,000
			28T-27/65K8	2,059	69	30	60,000
	FW		22T-27/65K8	1,133	48	24	75,000
			28T-27/65K8	1,813	60	30	60,000
		G	22T-27/65K8	1,562	66	24	75,000
	66	G	28T-27/65K8	2,500	83	30	60,000
	CS	0	22T-27/65K8	1,375	58	24	75,000
		9	28T-27/65K8	2,201	73	30	60,000
		G 9	22T-27/65K8	1,326	56	24	75,000
W	CSS		28T-27/65K8	2,121	71	30	60,000
VV	C22		22T-27/65K8	1,167	49	24	75,000
			28T-27/65K8	1,868	62	30	60,000
		G	22T-27/65K8	1,469	62	24	75,000
	FW	G	28T-27/65K8	2,351	78	30	60,000
	FVV	0	22T-27/65K8	1,293	54	24	75,000
		9	28T-27/65K8	2,069	69	30	60,000

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

# **MEDMASTER DOWNLIGHT**

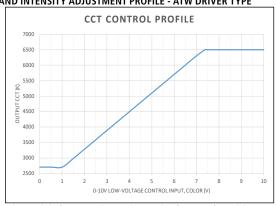
Luminaires for Behavioral Health Applications

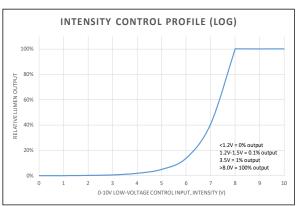
# **BHDL SERIES**

PERFORMANCE SCALING, BY LAMP COLOR

		27/65	K8		27/65K9					
CCT (K)	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) luminaires or less.

#### **PERFORMANCE**

	BHDL6-FF-22T-2	7/65K8-W-CS-G		BHDL6-FF-22T-2	?7/65K8-M-CS-G			
Wide Distribution Candela Curve	Initial center beam foot-candles	Beam diameter (ft)	Distance to illuminated plane (ft)	Initial center beam foot-candles	Beam diameter (ft)	Medium Distribution Candela Curve		
326	36.2	7.8	5'	110.0	3.0	767		
653	28.6	7.9	6'	76.4	3.5	1534		
1305	20.9	8.5	7'	56.1	4.0	2302 7		
1303	16.1	9.8	8'	43.0	4.6	3069		
	12.8	11.0	9'	33.9	5.2	$HY \setminus Y \mid$		
	10.3	12.5	10'	27.5	5.8			
Spacing Criteria: 1.4	pacing Criteria: 1.4 Delivered performance at 4000K. See "Performance Scaling, By Lamp Color" chart for foot-candle multipliers at alternate CCTs							
Beam Angle: 59°	Beam Angle: 59° Beam diameter is where foot-candles drop to 50% of maximum							

	BHDL6-FF-28T-27/65K8-W-CS-G			BHDL6-FF-28T-2	7/65K8-M-CS-G		
Wide Distribution Candela Curve	Initial center beam foot-candles	Beam diameter (ft)	Distance to illuminated plane (ft)	Initial center beam foot-candles	Beam diameter (ft)	Medium Distribution Candela Curve	
585	60.8	7.0	5'	347.0	3.0	2169	
1170	54.0	7.1	6'	241.0	3.2	4338	
1755	39.8	7.8	7'	177.1	3.5	6507 / 8676	
2340	30.5	8.8	8'	135.6	3.8		
	24.0	10.0	9'	107.1	4.0	$HT \setminus Y \mid$	
	19.4	11.2	10'	66.8	4.8		
Spacing Criteria: 1.36	pacing Criteria: 1.36 Delivered performance at 4000K. See "Performance Scaling, By Lamp Color" chart for foot-candle multipliers at alternate CCTs						
Beam Angle: 54°		Beam Angle: 21°					



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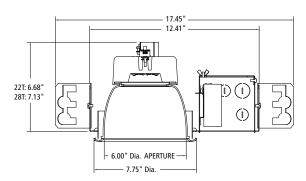
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Luminaires for Behavioral Health Applications

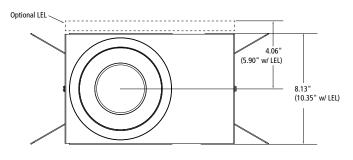
# **BHDL SERIES**

**DIMENSIONAL DATA** 

#### **CROSS SECTION**



# **BOTTOM VIEW**



RECOMMENDED CEILING CUT-OUT 7.38" Dia.