PROJECT	Job Name	Catalog Number	
INFORMATION	Fixture Type	 Approved by	

MEDMASTER DOWNLIGHT

Luminaires for Behavioral Health Applications

BHDL4 SERIES

PRODUCT FEATURES:

- » 4" sealed, recessed downlight with a flush trim; round or square aperture
- » 850 2,400 lm with multiple distribution, lens and color options
- » 1% Dimming via 0-10V or DALI-2 control
- » Peace of Mind Guarantee® against breakage





Round

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 1.5", adjustable post-installation. Adjustable mounting bars for installation with wood and steel frame joists and T-grid ceiling systems spaced up to 24" on center. Quick-access junction box accessible post-installation from above and below ceiling. Includes (5) 1/2" knock-outs to allow straight conduit runs.

TRIM/HOUSING SECTION: IP-rated housing section incorporates the heat sink, LED module, optics and lower trim. Flush lens trim secured with three (Round) or four (Square) Torx® tamper-resistant, captive fasteners. Closed-cell gasketing at ceiling flange. See Trim Ordering Information for available options.

OPTICAL: Clear tempered-glass upper lens. 1/8" clear polycarbonate flush lens at ceiling trim with continuous seal to trim ring. Available with various reflector finishes. See Ordering Information for available options.

ELECTRICAL: LED source available in multiple CCT and CRI combinations with a maximum 3-step MacAdam variation allowance. See Trim Ordering Information for available options. 120-277VAC or 347VAC, 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 and dim-to-dark capabilities; 0.2mA maximum source current. Optional eldoLED ECOdrive DALI-2/LEDcode2 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.

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. NSF2 Splash/Non-Food Zone. Optional CCEA compliance.













ORDERING INFORMATION (EX: BHDL4-FF-5FW-11L-30K9-FW-G-RIG4-277-DALI)

TRIM							ROUGH-IN				
Model	Trim Style	Trim Finish	Lamp Power	Lamp Color	Reflector Finish	Flush Lens Type	Rough-In	Input Voltage	Driver Type	Options	
						G			<u></u>		
Model				Lamp Color			Rough-In				
3HDL4	4" Medical - Round			30K8 3000K	/ 80 CRI min.		RIG4 4"	Behavioral Rough-	In - Round		
BHDL4	S 4" Medical - Square			30K9 3000K / 90 CRI min.			RIG4S 4" Behavioral Rough-In - Square				
	•			35K8 3500K	/ 80 CRI min.			,			
rim St	:vle			35K9 3500K	/ 90 CRI min.		Input Volta	ige			
F	Flush Lens (With Fasten	ers)		40K8 4000K	/ 80 CRI min.		120 120V	AC, 50/60Hz			
	,	,		40K9 4000K	/ 90 CRI min.			AC, 50/60Hz			
rim Fi	nish			50K8 5000K	/ 80 CRI min.		347 † 347V				
2FW	Cold-Rolled Steel in Fla	White						,			
BR	Type 304 Stainless Stee		ed Finish	Reflector Finish			Driver Type	4			
FW	Type 304 Stainless Stee			FW Flat White				IOV Dimming to 1%	6 with Dim-to-Da	ark	
	Type 50 Totaliness Stee			CD Clear Diffus	ie.			.LI-2/LEDcode2 Dim			
amp I	Power			CS Clear Speci	ılar (square only)						
11L	11 Watt LED				Specular (round o	nlv)	Options				
23L*	23 Watt LED			CSS Cical Scilli	specular (rouria or	···y/		gency Battery Back	un with Remote	Test Switch	
	25 Wall LED			Flush Lens Type				& Holder	up with hemote	rest switch	
					Polycarbonate		CCEA CCEA				

 $[\]ensuremath{^{\dagger}}$ N/A with DALI Driver Type. N/A with LEL and CCEA option



Must be installed with a minimum 24" on-center spacing, 12" from wall, and have 6" clearance above the Trim/Housing

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PERFORMANCE

Optic			Laman	Initial Delivered Lumens, By Lamp Color					Efficacy	Input	TM-21	TM-21				
Aperture	Trim Style	Reflector Finish	Lens Type	- Lamp Power	30K8	30K9	35K8	35K9	40K8	40K9	50K8	(lm/W)	Power (W)	Reported L90 (hrs)	Reported L70 (hrs)	
		CD		11L	1,201	975	1,229	1,011	1,236	1,031	1,251	73 - 93	13	>55,000	>55,000	
Round	FF	CD		23L	2,333	1,894	2,387	1,962	2,401	2,003	2,429	69 - 89	27	52,000	>55,000	
		CSS	G	11L	1,217	988	1,246	1,024	1,253	1,045	1,268	74 - 95	13	>55,000	>55,000	
				23L	2,364	1,919	2,419	1,989	2,433	2,030	2,462	70 - 90	27	52,000	>55,000	
		FW		11L	1,140	926	1,167	959	1,174	979	1,187	69 - 89	13	>55,000	>55,000	
				23L	2,214	1,798	2,266	1,863	2,279	1,901	2,306	66 - 85	27	52,000	>55,000	
		CD		11L	1,026	833	1,050	863	1,056	881	1,069	62 - 80	13	>55,000	>55,000	
		CD	CD		23L	1,993	1,618	2,040	1,677	2,051	1,711	2,075	59 - 76	27	52,000	>55,000
Sauara	FF	CS	CS G	11L	1,201	975	1,229	1,010	1,236	1,031	1,250	73 - 93	13	>55,000	>55,000	
Square				23L	2,332	1,893	2,386	1,962	2,400	2,002	2,428	69 - 89	27	52,000	>55,000	
			5144	E)A/		11L	1,055	856	1,079	887	1,086	906	1,098	64 - 82	13	>55,000
		1 00		23L	2,048	1,663	2,096	1,723	2,108	1,759	2,133	61 - 78	27	52,000	>55,000	

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

	BHDL4-FF-rrrr-	23L-40K8-CSS-G		BHDL4S-FF-rrr	r-23L-40K8-CS-G		
Round Aperture Candela Curve	Initial center beam foot-candles	Beam diameter (ft)	Distance to illuminated plane (ft)	Initial center beam foot-candles	Beam diameter (ft)	Square Aperture Candela Curve	
1509	147.5	2.5	5'	189.2	3.5	1182	
3019	102.4	3.0	6'	131.4	4.2	2365	
4528	75.2	3.5	7'	96.5	4.9	3547 /	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	57.6	4.0	8'	73.9	5.6		
	45.5	4.5	9'	58.4	6.3	$HT \setminus Y \mid$	
	36.9	5.0	10'	47.3	7.0		
Spacing Criteria: 0.72	foot-	3(1.01)	Spacing Criteria: 0.64				
Beam Angle: 28		Beam Angle: 39					

	BHDL4-FF-rrrr-	23L-40K8-CD-G		BHDL4S-FF-rrri	r-23L-40K8-CD-G		
Round Aperture Candela Curve	Initial center beam foot-candles	Beam diameter (ft)	Distance to illuminated plane (ft)	Initial center beam foot-candles	Beam diameter (ft)	Square Aperture Candela Curve	
839	134.3	5.2	5'	124.3	4.6	777	
1678	93.2	6.3	6'	86.3	5.5	1553	
2518	68.5	7.3	7'	63.4	6.4	2330 /	
	52.5	8.4	8'	48.5	7.3		
	41.4	9.4	9'	38.4	8.2	$HH \setminus Y \mid$	
	33.6	10.5	10'	31.1	9.1		
Spacing Criteria: 0.74	foot-	Spacing Criteria: 0.79					
Beam Angle: 55		Beam diam	eter is where foot-candles drop to 50%	of maximum		Beam Angle: 49	



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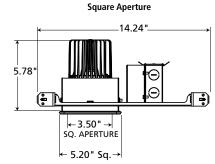
PERFORMANCE

	BHDL4-FF-rrrr-	23L-40K8-FW-G		BHDL4S-FF-rrri	r-23L-40K8-FW-G	
Round Aperture Candela Curve	Initial center beam foot-candles	Beam diameter (ft)	Distance to illuminated plane (ft)	Initial center beam foot-candles	Beam diameter (ft)	Square Aperture Candela Curve
607	97.2	5.4	5'	96.4	4.8	602
1215	67.5	6.5	6'	66.9	5.8	1205
1822	49.6	7.6	7'	49.2	6.8	1807 7
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	38.0	8.7	8'	37.7	7.7	
	30.0	9.7	9'	29.8	8.7	+t/
	24.3	10.8	10'	24.1	9.7	
Spacing Criteria: 0.88	foot	Spacing Criteria: 0.85				
Beam Angle: 57		Beam Angle: 52				

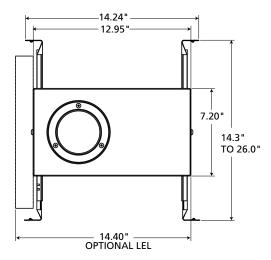
DIMENSIONAL DATA

Round Aperture 14.24" 5.78" APERTURE -5.20" Dia.

CROSS SECTION



BOTTOM VIEW



14.24" 12.95" 7.20" 14.3" TO 26.0"

RECOMMENDED CEILING CUTOUT: 4.875" DIA.

RECOMMENDED CEILING CUTOUT: 4.875" X 4.875"

