PROJECT	Job Name	Catalog Number	
INFORMATION	Fixture Type	 Approved by	

# Luminaires for Behavioral Health Applications

#### **BHDL SERIES**

#### PRODUCT FEATURES:

- » 6" sealed, recessed downlight with flush lens trim
- » Ligature-resistant construction and Peace of Mind Guarantee® against breakage
- » 630 4,600 delivered lumens with multiple distribution, reflector finish and lens options
- » 1% Dimming via 0-10V or DALI-2 control
- » NSF2 and IP65 ingress protection rating
- » Ligature resistant construction

#### **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 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:** Clear tempered glass upper lens. 1/8" or 1/4" clear polycarbonate flush lens at ceiling trim. Continuous seal between lens and trim ring. Available with various reflector distribution patterns and 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 (DT6) / 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 compliant. Ligature resistant construction.















## ORDERING INFORMATION (EX: BHDL6-FF-2FW-18L-40K8-W-CSS-G-RIG6-DV-DIM1)

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	
BHDL6	FF		_					RIC	<b>36</b>			. <u></u>	
	Lens (With Fas	teners - IP65)		30K9	3000K / 80 CRI r 3000K / 90 CRI r	nin.		Rough RIG6	6" R	Rough-In			
5BR Typ	old-Rolled Steel i pe 304 Stainless pe 304 Stainless	Steel with 4B	Brushed Finish White	35K9 40K8 40K9	3500K / 80 CRI r 3500K / 90 CRI r 4000K / 80 CRI r 4000K / 90 CRI r 5000K / 80 CRI r	nin. nin. nin.		Input \ DV 120 277 347†	120 <sup>-</sup> 120' 277'	ge -277V, 50/60Hz VAC, 60Hz VAC, 60Hz VAC, 60Hz			
9L 18L 24L 32L	18L       18 Watt LED         24L       24 Watt LED         32L       32 Watt LED			Distribution M Medium W Wide WW* Wall Wash					Driver Type DIM1 0-10V Dimming to 1% with Dim-to-Dark DALI DALI-2/LEDcode2 Dimming to 1% without Dim-to-Da Options				
-132	<b>13L</b> <sup>▲</sup> 43 Watt LED		Reflector Finish FW Flat White CS Clear Specular CSS Clear Semi-Specular					LEL Emergency Battery Backup with Remote Test Switch FS Fuse & Holder CCEA • CCEA Approved (specified voltage required)					
				Flush Lens Type G 1/8" Clear Polycarbonate 9 1/4" Clear Polycarbonate				<ul> <li>Available with CSS reflector finish only</li> <li>N/A with DALI Driver Type. N/A with LEL and CCEA option</li> <li>Must be installed with a minimum 24" on-center spacing, 12" from wall, and have 3" clearance above the Trim/Housing</li> </ul>					



N/A with W-CS Distribution-Reflector Finish



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### **BHDL SERIES**

#### **PERFORMANCE - MEDIUM DISTRIBUTION**

	Optic		1	Initial Delivered Lumens, By Lamp Color					Efficacy	Input	TM-21	TM-21	
Distribution	Reflector Finish	Lens Type	- Lamp Power	30K8	35K8	35K9	40K8	40K9	50K8	(lm/W)	Power (W)	Reported L90 (hrs)	Reported L70 (hrs)
			9L	1,079	1,104	908	1,111	926	1,123	75 - 96	12	>55,000	>55,000
			18L	1,887	1,931	1,587	1,942	1,620	1,965	75 - 97	20	>55,000	>55,000
		G	24L	2,769	2,833	2,329	2,850	2,377	2,883	79 - 101	28	52,000	>55,000
			32L	3,482	3,564	2,929	3,584	2,990	3,625	75 - 97	38	52,000	>55,000
	CS		43L	4,459	4,564	3,751	4,590	3,829	4,643	71 - 91	51	51,000	>55,000
	CS		9L	1,055	1,080	888	1,086	906	1,099	73 - 94	12	>55,000	>55,000
			18L	1,846	1,889	1,553	1,900	1,585	1,922	74 - 95	20	>55,000	>55,000
		9	24L	2,709	2,772	2,279	2,788	2,326	2,820	77 - 99	28	52,000	>55,000
			32L	3,407	3,486	2,866	3,507	2,925	3,547	74 - 95	38	52,000	>55,000
			43L	4,363	4,465	3,670	4,491	3,746	4,542	70 - 89	51	51,000	>55,000
		G	9L	948	971	798	976	814	987	66 - 84	12	>55,000	>55,000
			18L	1,659	1,697	1,395	1,707	1,424	1,727	66 - 85	20	>55,000	>55,000
			24L	2,434	2,491	2,047	2,505	2,090	2,534	69 - 89	28	52,000	>55,000
			32L	3,061	3,133	2,575	3,151	2,629	3,187	66 - 85	38	52,000	>55,000
M	CSS		43L	3,920	4,012	3,298	4,035	3,366	4,081	62 - 80	51	51,000	>55,000
IVI	C33	9	9L	928	950	780	955	797	966	64 - 82	12	>55,000	>55,000
			18L	1,623	1,661	1,365	1,670	1,394	1,690	65 - 83	20	>55,000	>55,000
			24L	2,381	2,437	2,003	2,451	2,045	2,479	68 - 87	28	52,000	>55,000
			32L	2,995	3,065	2,519	3,083	2,572	3,118	65 - 83	38	52,000	>55,000
			43L	3,835	3,925	3,226	3,948	3,293	3,993	61 - 78	51	51,000	>55,000
			9L	980	1,003	824	1,009	842	1,020	68 - 87	12	>55,000	>55,000
			18L	1,714	1,754	1,442	1,764	1,472	1,785	69 - 88	20	>55,000	>55,000
		G	24L	2,515	2,574	2,116	2,589	2,160	2,618	72 - 92	28	52,000	>55,000
			32L	3,163	3,237	2,661	3,256	2,716	3,293	68 - 88	38	52,000	>55,000
	FW		43L	4,051	4,145	3,407	4,170	3,478	4,217	65 - 83	51	51,000	>55,000
	1 V V		9L	959	981	806	987	823	998	66 - 85	12	>55,000	>55,000
			18L	1,677	1,716	1,411	1,726	1,440	1,746	67 - 86	20	>55,000	>55,000
		9	24L	2,460	2,518	2,070	2,533	2,113	2,562	70 - 90	28	52,000	>55,000
			32L	3,094	3,167	2,603	3,185	2,657	3,222	67 - 86	38	52,000	>55,000
			43L	3,963	4,056	3,334	4,079	3,403	4,126	63 - 81	51	51,000	>55,000

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### **BHDL SERIES**

#### **PERFORMANCE - WIDE DISTRIBUTION**

	Optic		Lamp		Initial Del	ivered Lur	nens, By L	amp Colo	r	Efficacy	Input	TM-21 Reported L90 (hrs)	TM-21 Reported L70 (hrs)
Distribution	Reflector Finish	Lens Type	Power	30K8	35K8	35K9	40K8	40K9	50K8	Efficacy (lm/W)	Power (W)		
			9L	1,063	1,088	895	1,095	913	1,107	74 - 94	12	>55,000	>55,000
			18L	1,860	1,904	1,565	1,915	1,597	1,937	74 - 95	20	>55,000	>55,000
		G	24L	2,729	2,793	2,296	2,810	2,344	2,842	78 - 100	28	52,000	>55,000
			32L	3,433	3,513	2,888	3,534	2,948	3,574	74 - 95	38	52,000	>55,000
	C.C.		43L	4,396	4,499	3,698	4,525	3,775	4,577	70 - 90	51	51,000	>55,000
	CS		9L	1,040	1,065	875	1,071	893	1,083	72 - 92	12	>55,000	>55,000
			18L	1,820	1,862	1,531	1,873	1,563	1,895	73 - 93	20	>55,000	>55,000
		9	24L	2,670	2,733	2,246	2,749	2,293	2,780	76 - 98	28	52,000	>55,000
			32L	3,358	3,437	2,825	3,457	2,884	3,497	73 - 93	38	52,000	>55,000
			43L	4,301	4,401	3,618	4,427	3,693	4,478	69 - 88	51	51,000	>55,000
			9L	1,008	1,032	848	1,038	866	1,049	70 - 90	12	>55,000	>55,000
			18L	1,763	1,804	1,483	1,815	1,514	1,836	71 - 90	20	>55,000	>55,000
		G	24L	2,587	2,647	2,176	2,663	2,221	2,693	74 - 95	28	52,000	>55,000
			32L	3,253	3,329	2,737	3,349	2,794	3,387	70 - 90	38	52,000	>55,000
			43L	4,166	4,264	3,505	4,289	3,578	4,338	66 - 85	51	51,000	>55,000
W	CSS	9	9L	986	1,009	830	1,015	847	1,027	68 - 88	12	>55,000	>55,000
			18L	1,725	1,765	1,451	1,776	1,481	1,796	69 - 89	20	>55,000	>55,000
			24L	2,531	2,590	2,129	2,605	2,173	2,635	72 - 93	28	52,000	>55,000
			32L	3,183	3,257	2,678	3,277	2,733	3,314	69 - 88	38	52,000	>55,000
			43L	4,076	4,172	3,429	4,196	3,500	4,244	65 - 83	51	51,000	>55,000
		G	9L	899	920	756	925	772	936	62 - 80	12	>55,000	>55,000
			18L	1,572	1,609	1,323	1,618	1,350	1,637	63 - 81	20	>55,000	>55,000
	FW		24L	2,307	2,361	1,940	2,375	1,981	2,402	66 - 84	28	52,000	>55,000
			32L	2,901	2,969	2,441	2,987	2,491	3,021	63 - 81	38	52,000	>55,000
			43L	3,715	3,802	3,126	3,825	3,191	3,868	59 - 76	51	51,000	>55,000
		9	9L	879	900	740	905	755	916	61 - 78	12	>55,000	>55,000
			18L	1,538	1,574	1,294	1,583	1,321	1,601	62 - 79	20	>55,000	>55,000
			24L	2,257	2,310	1,898	2,323	1,938	2,350	64 - 83	28	52,000	>55,000
			32L	2,838	2,905	2,388	2,922	2,437	2,955	61 - 79	38	52,000	>55,000
			43L	3,635	3,720	3,058	3,742	3,121	3,785	58 - 74	51	51,000	>55,000
			9L	803	822	675	827	690	836	56 - 71	12	>55,000	>55,000
			18L	1,404	1,437	1,181	1,446	1,206	1,462	56 - 72	20	>55,000	>55,000
		G	24L	2,061	2,109	1,734	2,121	1,770	2,146	59 - 75	28	52,000	>55,000
			32L	2,592	2,652	2,180	2,668	2,226	2,698	56 - 72	38	52,000	>55,000
1444	ccc		43L	3,319	3,397	2,792	3,417	2,850	3,456	53 - 68	51	51,000	>55,000
WW	CSS		9L	786	804	661	809	675	818	54 - 70	12	>55,000	>55,000
			18L	1,374	1,406	1,156	1,414	1,180	1,431	55 - 71	20	>55,000	>55,000
		9	24L	2,016	2,063	1,696	2,075	1,731	2,099	57 - 74	28	52,000	>55,000
			32L	2,536	2,595	2,133	2,610	2,177	2,640	55 - 70	38	52,000	>55,000
			43L	3,247	3,323	2,732	3,343	2,789	3,381	52 - 66	51	51,000	>55,000

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### **BHDL SERIES**

#### PERFORMANCE

	BHDL6-FF-18L	-40K8-W-CS-G		BHDL6-FF-18L	-40K8-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	
523	54.5	5.3	5'	77.2	5.0	640	
1047	37.9	6.4	6'	53.6	6.0	1280	
1570	27.8	7.5	7'	39.4	7.0	1921 / 2561	
2034	21.3	8.5	8'	30.2	8.0		
	16.8	9.6	9'	23.8	9.0	$HT \setminus Y = I$	
	13.6	10.7	10'	19.3	10.0		
Spacing Criteria: 1.35	Foot-ca	ındle multipliers for	Spacing Criteria: 0.97				
Beam Angle: 56°			Beam Angle: 53°				

	BHDL6-FF-18L-	-40K8-W-CSS-G		BHDL6-FF-18L-	-40K8-M-CSS-G	Medium Distribution Candela Curve	
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)		
418	56.9	3.9	5'	105.0	4.5	656	
835	39.5	4.6	6'	72.9	5.4	1312	
1253	29.0	5.4	7'	53.5	6.3	1968 /	
1000	22.2	6.2	8'	41.0	7.2	2024	
	17.6	7.0	9'	32.4	8.1	++\>	
	14.2	7.7	10'	26.2	9.0	1	
Spacing Criteria: 1.28	Foot-ca	8 (1.01)	Spacing Criteria: 0.72				
Beam Angle: 42° Beam diameter is where foot-candles drop to 50% of maximum						Beam Angle: 49°	

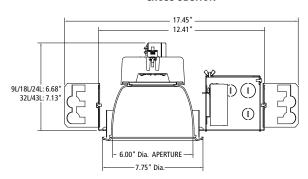
	BHDL6-FF-18L-40K8-W-FW-G			BHDL6-FF-18L	-40K8-M-FW-G		
Wide Distribution Candela Curve	Initial center beam foot-candles	Beam diameter (ft)	Distance to illuminated plane (ft)	Initial center beam foot-candles	Beam diameter (ft)	Medium Distribution Candela Curve	
348	55.7	6.3	5'	61.5	6.4	828	
696	38.6	7.6	6'	42.7	7.7	1242	
1043	28.4	8.8	7'	31.4	9.0	1056	
	21.7	10.1	8'	24.0	10.3		
	17.2	11.4	9'	19.0	11.6		
	13.9	12.6	10'	15.4	12.9		
Spacing Criteria: 1.1	Foot-ca	Spacing Criteria: 1.03					
Beam Angle: 65°		Beam Angle: 66°					

Luminaires for Behavioral Health Applications

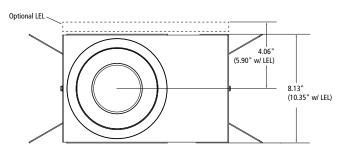
### **BHDL SERIES**

**DIMENSIONAL DATA** 

### **CROSS SECTION**



### **BOTTOM VIEW**



RECOMMENDED CEILING CUT-OUT: 7.38" Dia.