

DESCRIPTION

4 inch LED recessed narrow, medium, or wide beam downlight designed for glare free even illumination. Featuring a two-stage diffused reflector system producing smooth distribution with excellent light control and low aperture brightness. Lumen packages range from 1000 to 4000 with color temperatures of 2400K, 2700K, 3000K, 3500K, 4000K, and 5000K. Available with dim-to-warm technology – similar to halogen at full power, the 3000K LED warms smoothly as dimmed to 1850K creating a rich warm glow within the space.

SPECIFICATION FEATURES

Lower Shielding Reflector

Painted die cast aluminum or spun aluminum lower reflector with a lensed upper optical chamber providing superior lumen output with minimal source brightness. Spun reflectors are offered in all Portfolio Alzak® finishes. Available with non-conductive polymer trim. Reflector is retained with two torsion springs holding the flange tight to the finished ceiling surface. Plaster lathing ring accessory offered for flush reflector transition.

Plaster Frame / Collar

Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2". Universal mounting bracket accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

Junction Box

Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring. (4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs.

Thermal

Aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

LED

Chip on board with a multitude of highly efficient white LED's, combined with a high reflectance upper reflector and convex transitional lens produce even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses. Quick disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80, 90 or 97 CRI. D2W™ – dim-to-warm shifts CCT from 3000K to 1850K as fixture dims mimicking halogen sources.

Driver

Standard 120-277V 0-10V dimming driver provides flicker free dimming from 100% to 1%. Optional 120V leading edge, <1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

Connected Lighting Systems

WaveLinX tilemount daylight sensor includes control module, sensor and cable allowing use with the comprehensive lighting system.

LumaWatt Pro (powered by Enlighted) wireless tile mount sensor and relay accessory enables wireless control using a tile mount sensor accessory.

Code Compliance

Thermally protected and cULus listed for wet locations with covered ceiling. IP66 rated when used with IP66 gasket kit accessory. Optional City of Chicago environmental air (CEEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. 2000 lumen and above are Non-IC rated - Insulation must be kept 3" from top and sides of housing. IC rated up to 1500 lumens. RoHS Compliant. Photometric testing completed in accordance with IES LM 79 and TM-30 standards. LED life testing completed in accordance with LM 80 standards.

Warranty

5-year warranty



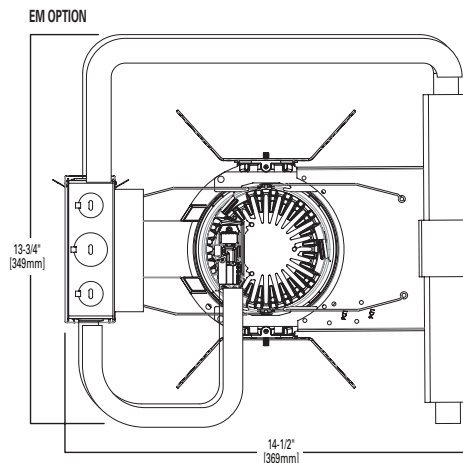
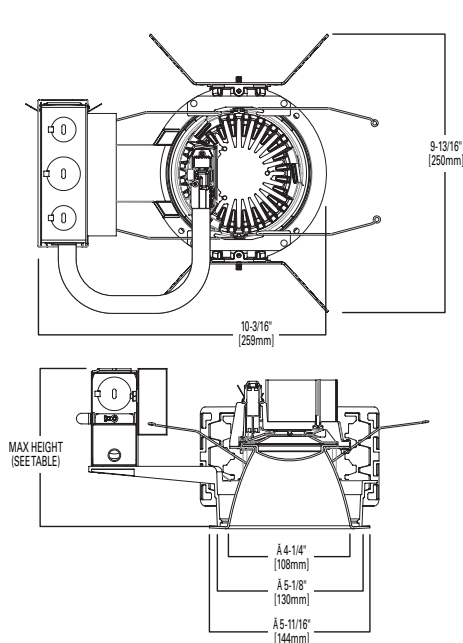
**LD4B EU4B
4LBW 4LBM
4LBN**

1000, 1500, 2000, 3000, 4000

Lumens LED

Narrow, Medium, or Wide Beam

New Construction



	1000-2000 LUMENS	3000-4000 LUMENS
NARROW/MEDIUM	5-1/2" [140mm]	5-1/2" [140mm]
WIDE	5-1/2" [140mm]	5-1/2" [140mm]
SHALLOW HOUSING/TRIM	3-1/2" [89mm] / 5-1/2" [140mm]	3-9/16" [90mm]

ORDERING INFORMATION

SAMPLE NUMBER: LD4B15D010IEMBOD

Housing	Lumens ¹	Voltage	Driver	Options
LD4B =LED Downlight 4" Nominal Aperture LD4BCP =LED Downlight 4" Nominal Aperture, Chicago Plenum	10 =1000 lumens 15 =1500 lumens 20 =2000 lumens 30 =3000 lumens 40 =4000 lumens	Blank =120-277V	1000 - 4000 Lumen D010 =0-10V Dimming, 1% to 100%, 120V-277V D010TR =0-10V or Line Voltage Dimming, 5% to 100%, 120V-277V DE010 =0-10V Dimming, 0% to 100%, 120V-277V D5LT =Fifth Light® (DALI) Dimming, 0% to 100%, 120V-277V DMX =DMX Dimming, 0% to 100%, 120V-277V DL2 =Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 120V Only DL3 =Lutron® Hi-Lume 3 Wire Dimming, 1% to 100%, 120V-277V DLE =Lutron Ecosystem dimming 1% to 100%, 120V-277V	EMBOD =Bodine® Emergency Module with Remote Test Switch ³ EM7 =7W Emergency Module with Remote Test Switch ^{3,4} EM14 =14W Emergency Module with Remote Test Switch ^{3,4} IEMBOD =Bodine® Emergency Module with Integral Test Switch ³ IEM7 =7W Emergency Module with Integral Test Switch ^{3,4} IEM14 =14W Emergency Module with Integral Test Switch ^{3,4}

SAMPLE NUMBER: EU4B10208035

Power Module	Lumen Levels ¹	CRI	Color	90 CRI	97 CRI
EU4B =4" Universal LED Module	1020 =1000, 1500, 2000 lumens 3040 =3000-4000 lumens 1015IC =1000, 1500 lumen IC rated	80 =80 CRI Minimum 90 =90 CRI Minimum 97 =97 CRI Minimum	80 CRI 27 =2700K 30 =3000K 35 =3500K 40 =4000K 50 =5000K	24 =2400K 27 =2700K 30 =3000K 35 =3500K 40 =4000K 50 =5000K	27 =2700K 30 =3000K
Dim 2 Warm 109030D2W =1000 lumen, 90 CRI, Dim 2 Warm 159030D2W =1500 lumen, 90 CRI, Dim 2 Warm 209030D2W =2000 lumen, 90 CRI, Dim 2 Warm					

SAMPLE NUMBER: 4LBM1LIE

Trim	Distribution ⁵	Flange	Finish	Options
4LB =4" LED	N =Narrow (25° Beam), Spun Aluminum M =Medium (50° Beam), Spun Aluminum W =Wide (75° Beam), Spun Aluminum S =Shallow (75° Beam), Spun Aluminum PS =Plastic Shallow (75° Beam), Injection Molded white ¹¹ CS =Cast Shallow (75° Beam), Die Cast Aluminum BA =Baffle, Spun Aluminum ⁷	0 =White Polymer Trim Ring 1 =Self-flanged 2 =White Painted Self-flanged	LI =Specular Clear ¹⁰ H =Semi-Specular Clear ¹⁰ WMH =Warm Haze ¹⁰ WH =Wheat ¹⁰ GPH =Graphite Haze ¹⁰ B =Specular Black ¹⁰ MW =Matte White MB =Matte Black ⁹ MMS =Matte Metallic Silver ⁸	E =Integral Emergency Test Switch Hole ⁶

Accessories

HSA4=Slope Adapter for 4" Aperture Housings, Specify Slope in 5° increments**TRM4**=Metal Trim Ring, Specify Color²**TRR4**=Rimless Trim Ring²**LGSKT4IP66**=IP66 Gasket Kit**PRR4**=Rimless Plaster Ring for Flush Mount²**Bar Hangers****HB26**=C-channel Bar Hanger, 26" Long, Pair**HB50**=C-channel Bar Hanger, 50" Long, Pair**RMB22**=Wood Joist Bar Hanger, 22" Long, Pair**Transformers****H347**=347 to 120V Step Down Transformer, 75VA**H347200**=347 to 120V Step Down Transformer, 200VA**Connected Lighting Systems****PORLWTPD1**=LumaWatt Pro wireless sensor kit (0-10V only)**TMSWPD1**=WaveLin tilemount daylight sensor (includes control module, sensor, cable and tile mount)

Notes:

- Nominal Lumens will vary depending on selected color, driver and reflector finish.
- Order spun trim with polymer trim ring or die cast with rimless flange (Consult specification sheet for color ordering information and options).
- Not available with Chicago Plenum.
- ULus approved only.
- Beam angles are nominal with LI finish trims.
- Only available with Narrow, Medium and Wide Spun Aluminum trims. Required for use with all IEMBOD, IEM7, and IEM14 housings.
- Only available with Matte White and Matte Black Finishes.
- Only available on CS distribution.
- Available only on BA and CS distributions.
- Not available on PS, CS or BA distributions.
- Matte white and self flanged only

ENERGY

ENERGY DATA
Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -30°C (-22°F)
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)
Input Voltage: UNV (120V - 277V)
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)
Input Frequency: 50/60Hz

1000 Lumen D010		1500 Lumen D010	
Input Power: 11W	THD: <14%	Input Power: 15.5W	THD: <13%
120V Input Current: 0.09A	277V Input Current: 0.04A	120V Input Current: 0.13A	277V Input Current: 0.06A

2000 Lumen D010		3000 Lumen D010	
Input Power: 21.2W	THD: <9%	Input Power: 27.6W	THD: <10%
120V Input Current: 0.18A	277V Input Current: 0.08A	120V Input Current: 0.23A	277V Input Current: 0.10A

4000 Lumen D010	
Input Power: 41.6W	THD: <13%
120V Input Current: 0.35A	277V Input Current: 0.15A

Lumens	120V		277V	
	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
1000 Lumen D010	1.02	0.041	2.18	0.021
1500 Lumen D010	1.02	0.042	2.24	0.064
2000 Lumen D010	1.02	0.077	2.43	0.027
3000 Lumen D010	1.15	0.067	3.26	0.027
4000 Lumen D010	1.2	0.088	3.9	0.03

PHOTOMETRY

NARROW (25° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201208					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD4B15D010					0	2790	0-30	926	82.1	45	489
Module	EU4B10208035					5	2550	0-40	1094	97	55	55
Trim	4LBN1LI					15	1421	0-60	1127	99.9	65	26
Lumens	1128					25	667	0-90	1128	100	75	0
Efficacy	78.9 Lm/W	35	266	90-180	0	0	85	0				
SC	0.5	45	32	0-180	1128	100						
		55	3									
		65	1									
		75	0									
		85	0									
		90	0									
		D	FC	L	W							
		5.5'	92	2.6	2.6							
		7'	57	3.4	3.4							
		8'	44	3.8	3.8							
		9'	34	4.4	4.4							
		10'	28	4.8	4.8							
		12'	19	5.8	5.8							

MEDIUM (50° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201206					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD4B15D010					0	2267	0-30	1144	77.3	45	1072
Module	EU4B10208035					5	2227	0-40	1406	95	55	151
Trim	4LBM1LI					15	1690	0-60	1477	99.7	65	77
Lumens	1481					25	1027	0-90	1481	100	75	42
Efficacy	103.6 Lm/W	35	409	90-180	0	0	85	0				
SC	0.71	45	70	0-180	1481	100						
		55	8									
		65	3									
		75	1									
		85	0									
		90	0									
		D	FC	L	W							
		5.5'	75	3.8	3.8							
		7'	46	5	5							
		8'	35	5.6	5.6							
		9'	28	6.4	6.4							
		10'	23	7	7							
		12'	16	8.4	8.4							

WIDE (75° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201204					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD4B15D010					0	914	0-30	816	53.8	45	4372
Module	EU4B10208035					5	925	0-40	1252	82.5	55	574
Trim	4LBW1LI					15	998	0-60	1513	99.7	65	100
Lumens	1518					25	977	0-90	1518	100	75	42
Efficacy	106.2 Lm/W	35	707	90-180	0	0	85	0				
SC	1.3	45	286	0-180	1518	100						
		55	30									
		65	4									
		75	1									
		85	0									
		90	0									
		D	FC	L	W							
		5.5'	30	7	7							
		7'	19	9	9							
		8'	14	10.4	10.4							
		9'	11	11.6	11.6							
		10'	9	13	13							
		12'	6	15.6	15.6							

SHALLOW (75° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201210					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD4B15D010					0	688	0-30	512	34.2	45	5827
Module	EU4B10208035					5	682	0-40	816	54.5	55	4771
Trim	4LBCS1MMS					15	645	0-60	1333	89	65	3226
Lumens	1497					25	577	0-90	1497	100	75	1339
Efficacy	104.7 Lm/W	35	486	90-180	0	0	85	124				
SC	1.16	45	380	0-180	1497	100						
		55	253									
		65	126									
		75	32									
		85	1									
		90	0									
		D	FC	L	W							
		5.5'	23	6.2	6.2							
		7'	14	8	8							
		8'	11	9.2	9.2							
		9'	9	10.4	10.4							
		10'	7	11.6	11.6							
		12'	5	13.8	13.8							

PHOTOMETRY

NARROW (25° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	PP201209					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD4B40D010					0	7625	0-30	2531	82.1	45	1337
Module	EU4B30408035					5	6969	0-40	2989	97	55	149
Trim	4LBN1LI					15	3883	0-60	3080	99.9	65	67
Lumens	3083					25	1822	0-90	3083	100	75	0
Efficacy	73.8 Lm/W	35	727	90-180	0	0	85	0				
SC	0.5	45	87	0-180	3083	100						
		55	8									
		65	3									
		75	0									
		85	0									
		90	0									
		D	FC	L	W							
		5.5'	252	2.6	2.6							
7'	156	3.4	3.4									
8'	119	3.8	3.8									
9'	94	4.4	4.4									
10'	76	4.8	4.8									
12'	53	5.8	5.8									

MEDIUM (50° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201207					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD4B40D010					0	6015	0-30	3036	77.3	45	2844
Module	EU4B30408035					5	5909	0-40	3731	95	55	400
Trim	4LBM1LI					15	4484	0-60	3918	99.7	65	205
Lumens	3929					25	2725	0-90	3929	100	75	113
Efficacy	94 Lm/W	35	1085	90-180	0	0	85	0				
SC	0.71	45	186	0-180	3929	100						
		55	21									
		65	8									
		75	3									
		85	0									
		90	0									
		D	FC	L	W							
		5.5'	199	3.8	3.8							
7'	123	5	5									
8'	94	5.6	5.6									
9'	74	6.4	6.4									
10'	60	7	7									
12'	42	8.4	8.4									

WIDE (75° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201205					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD4B40D010					0	2499	0-30	2230	53.8	45	11948
Module	EU4B30408035					5	2528	0-40	3421	82.5	55	1569
Trim	4LBW1LI					15	2727	0-60	4134	99.7	65	274
Lumens	4148					25	2670	0-90	4148	100	75	113
Efficacy	99.2 Lm/W	35	1933	90-180	0	0	85	0				
SC	1.3	45	780	0-180	4148	100						
		55	83									
		65	11									
		75	3									
		85	0									
		90	0									
		D	FC	L	W							
		5.5'	83	7	7							
7'	51	9	9									
8'	39	10.4	10.4									
9'	31	11.6	11.6									
10'	25	13	13									
12'	17	15.6	15.6									

SHALLOW (75° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201211					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD4B40D010					0	1880	0-30	1400	34.2	45	15933
Module	EU4B30508035					5	1864	0-40	2230	54.5	55	13046
Trim	4LBCS1MMS					15	1763	0-60	3645	89	65	8819
Lumens	4093					25	1578	0-90	4093	100	75	3657
Efficacy	97.9 Lm/W	35	1329	90-180	0	0	85	323				
SC	1.16	45	1040	0-180	4093	100						
		55	691									
		65	344									
		75	87									
		85	3									
		90	0									
		D	FC	L	W							
		5.5'	62	6.2	6.2							
7'	38	8	8									
8'	29	9.2	9.2									
9'	23	10.4	10.4									
10'	19	11.6	11.6									
12'	13	13.8	13.8									