

DESCRIPTION

8-inch LED recessed narrow, medium, or wide beam downlight specially designed for LED technology. Two-stage reflector system produces smooth distribution with excellent light control and low aperture brightness. Offered with 1000-20,000 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K, 5000K available in 80, 90 or 97 CRI. VividTune: 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. Tunable white technology - adjust the color temperature from warm white to cool white while independently controlling intensity.

SPECIFICATION FEATURES

Lower Shielding Reflector

Self-flanged, spun .060" thick aluminum lower reflector in combination with a lensed upper optical chamber provides superior lumen output with minimal source brightness. Available in all Portfolio Alzak® finishes.

Trim Retention

Lower reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

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

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

Thermal

Aluminum heat sink conducts heat away from the LED module for improved performance and longer life.

LED

LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Color variation within 3-step MacAdam ellipses. Flexible 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.

W2N - Tunable white CCT range 2700K to 6500K or 2000K to 5000K, 90 CRI.

Driver

Combination 0-10V/trailing edge driver provides flicker free dimming from 100% to 10%. Optional 1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem.

Catalog #		Type
Project		
Comments		Date
Prepared by		

Driver can be serviced from above or through the aperture. 1000 - 7000 lumen utilize one driver. 8000-12,000 utilize two drivers, 15,000-20,000 lumen utilizes three drivers.

Code Compliance

Thermally protected and cULus listed for protected wet locations. cULus certified IP65 below ceiling. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/ RFI emissions per FCC 47CFR Part 18 Class B consumer limits. IC rated up to 2000 lumens. 3000 lumens and above are non-IC rated - Insulation must be kept 3" from top and sides of housing. RoHS Compliant. T24 compliant with IP66 gasket kit. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards. 8000 lumen and above are marked spacing and must follow spacing requirements.

Warranty

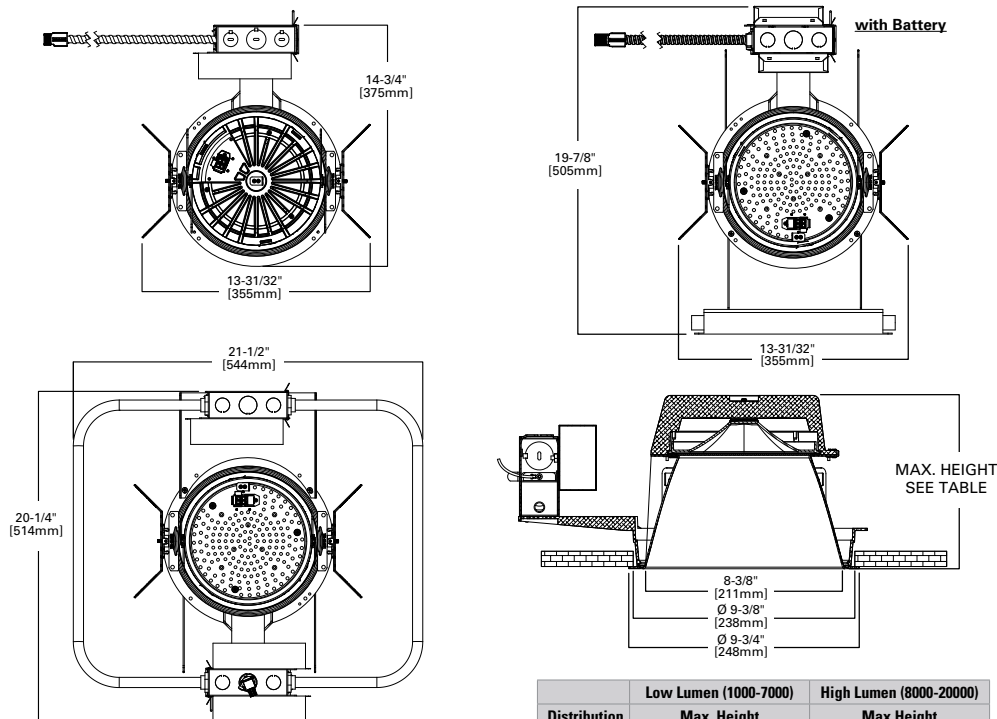
5-year warranty.



LD8B ER8B 8LB

1,000-20,000 Lumen LED

8-Inch Narrow, Medium, or Wide
Downlight
New Construction



	Low Lumen (1000-7000)	High Lumen (8000-20000)
Distribution	Max. Height	Max. Height
Narrow	7-25/32"	9-3/4"
Medium	7-5/16"	9-9/32"
Wide	6-11/16"	8-11/16"
Shallow	4-26/32"	6-26/32"

ORDERING INFORMATION

SAMPLE NUMBER: LD8B50D010IEMBOD

Housing	Lumens ¹	Voltage	Driver
LD8B =LED Downlight 8" Nominal Aperture	10 =1000 lumens 15 =1500 lumens 20 =2000 lumens	Blank =120-277 7000 lumen and below. D2W below 3000 lumens. W2N 1500 lumens and below. 1 =120V 8000 lumen and above. D2W and DMX above 4000 lumens. W2N 1500-4000 lumens. 2 =277V 8000 lumen and above. D2W and DMX above 4000 lumens. W2N 1500-4000 lumens. 3 =347V step down transformer ¹³	1000-4000 Lumen and 8000-9000 Lumen 6000 lumen (2 drivers) & 12,000 Lumen (3 drivers) ¹⁴ D010 =0-10V Dimming, 1% to 100% D010TR =0-10V 120-277V or 120V Line Voltage Dimming, 1% to 100% DE010 =0-10V Linear Dimming, 0% to 100% D5LT =Fifth Light® (DALI) Logarithmic Dimming, 0% to 100% DMX =DMX/RDM Logarithmic Dimming, 0% to 100% ⁷ DMXC5 =DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V with RJ45 connection port ⁷ DL2 =Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 120V Only DLE =Lutron Ecosystem dimming 1% to 100% DMXC5 =DMX/RDM Logarithmic Dimming, 0% to 100% with RJ45 connection port
LD8BCP =LED Downlight 8" Nominal Aperture, Chicago Plenum	30 =3000 lumens 40 =4000 lumens 50 =5000 lumens 60 =6000 lumens 70 =7000 lumens 80 =8000 lumens ⁸ 90 =9000 lumens ⁸ 100 =10000 lumens ⁸ 120 =12000 lumens ⁸ 150 =15000 lumens ⁸ 175 =17500 lumens ⁸ 200 =20000 lumens ⁸		
Color Control ⁹	Options ³		
4000, 6000 & 9000 lumens D2W =2 drivers for 4000 and 6000 lumen. 3 drivers for 9000 lumen.	SWPD1 =Factory Installed WaveLinX Tilemount Daylight Sensor (includes Control Module, Sensor, Cable and Tile Mount (use with 0-10V driver) ^{2,3} LWTPD1 =Factory Installed LumaWatt Pro Wireless Sensor Kit (use with 0-10V driver) ^{2,3}	EMBOD =Bodine® Emergency Module with Remote Test Switch ³ EM7 =7W Emergency Module with Remote Test Switch ³ EM14 =14W Emergency Module with Remote Test Switch ³ IEMBOD =Bodine® Emergency Module with Integral Test Switch ³ IEM7 =7W Emergency Module with Integral Test Switch ³ IEM14 =14W Emergency Module with Integral Test Switch ³	EMV7 =7W Low Voltage Emergency Module with Remote Test Switch ⁴ EMV14 =14W Low Voltage Emergency Module with Remote Test Switch ⁴ IEMV7 =7W Low Voltage Emergency Module with Integral Test Switch ⁴ IEMV14 =14W Low Voltage Emergency Module with Integral Test Switch ⁴

SAMPLE NUMBER: ER8B30408035

Power Module	Lumen Levels ¹	Color
ER8B =8" LED Module	1020 =1000, 1500, 2000 lumens 3040 =3000 or 4000 lumens (3000 lumen IC Rated) 5070 =5000, 6000, or 7000 lumens 80120 =8000, 9000, 10000, or 12000 lumens 150200 =15000 or 20000 lumens 60 =6000 lumens, 2 LED's for use with 2 drivers 120 =12000 lumens, 3 LED's for use with 3 drivers	80 CRI 8027 = 80CRI, 2700K 8030 = 80CRI, 3000K 8035 = 80CRI, 3500K 8040 = 80CRI, 4000K 8050 = 80CRI, 5000K
	90 CRI 9027 = 90CRI, 2700K 9030 = 90CRI, 3000K 9035 = 90CRI, 3500K 9040 = 90CRI, 4000K 9050 = 90CRI, 5000K	97 CRI 9727 = 97CRI, 2700K 9730 = 97CRI, 3000K
	Dim 2 Warm 109030D2W =1000 Lumen, 90 CRI, Dim 2 Warm, IC Rated 159030D2W =1500 Lumen, 90 CRI, Dim 2 Warm, IC Rated 209030D2W =2000 Lumen, 90 CRI, Dim 2 Warm, IC Rated 309030D2W =3000 Lumen, 90 CRI, Dim 2 Warm 409030D2W =4000 Lumen, 90 CRI, Dim 2 Warm 609030D2W =6000 Lumen, 90 CRI, Dim 2 Warm 909030D2W =9000 Lumen, 90 CRI, Dim 2 Warm	Tunable white 10W2N902050 =1000 lumens, 90 CRI, tunable white 2000K-5000K 10W2N902765 =1000 lumens, 90 CRI, tunable white 2700K-6500K 15W2N902050 =1500 lumens, 90 CRI, tunable white 2000K-5000K 15W2N902765 =1500 lumens, 90 CRI, tunable white 2700K-6500K 20W2N902050 =2000 lumens, 90 CRI, tunable white 2000K-5000K 20W2N902765 =2000 lumens, 90 CRI, tunable white 2700K-6500K 30W2N902050 =3000 lumens, 90 CRI, tunable white 2000K-5000K 30W2N902765 =3000 lumens, 90 CRI, tunable white 2700K-6500K 40W2N902050 =4000 lumens, 90 CRI, tunable white 2000K-5000K 40W2N902765 =4000 lumens, 90 CRI, tunable white 2700K-6500K

SAMPLE NUMBER: 8LBM1LI

Trim	Distribution ⁵	Flange	Finish	Options
8LB =8" Reflector	N =Narrow Spun Aluminum M =Medium Spun Aluminum W =Wide Spun Aluminum S =Shallow Spun Aluminum	0 =White Polymer Trim Ring 1 =Self-flanged ¹⁰ 2 =White Painted Self-flanged	L =Specular Clear H =Semi-Specular Clear WMH =Warm Haze WH =Wheat	GPH =Graphite Haze B =Specular Black MW =Matte White E =Integral Emergency Test Switch Hole ⁶

Accessories

HSAB=Slope Adapter for 8" Aperture Housings, Specify Slope¹¹
LGSKT8BIPAIR=IP65 and Airtight Gasket Kit¹²

Bar Hangers
HB26=C-channel Bar Hanger, 26" Long, Pair
HB50=C-channel Bar Hanger, 50" 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 (use with 0-10V), field installed²
TMSWPD1=WaveLinX Tilemount Daylight Sensor (Includes Control Module, Sensor, cable and Tile Mount, use with 0-10V Driver) Field Installed²

Notes:

- Nominal Lumens will vary depending on selected color, driver and reflector finish.
- Refer to system specifications for additional information, features, and benefits. Order either factory installed option or accessory.
- Not available with Chicago Plenum or IC rating.
- ULus listed only
- Beam angles are nominal with LI finish trims. See chart.
- Only available with Narrow, Medium and Wide Spun Aluminum trims. Required for use with all IEMBOD, IEM7, IEM14, IEMV7 and IEMV14 housings.
- DMX fixtures default to full on upon loss of DMX signal
- Product is marked spacing and must be installed with the following minimum spacing
 - Center to center of adjacent luminaires: 36"
 - Center of luminaire to side of building member: 18"
 - Minimum overhead: 1/2"
 - 20,000 Lumens minimum overhead: 6"
- Field required for D2W 4000, 6000 and 9000 lumens only.
- Flange is the same finish as the reflector.
- Consult accessory specification sheet for ordering information.
- Required for T24 compliance.
- 7000 lumens and below
- Order light engine with 2 LEDs for 6000 lumens and 3 for 12,000 lumens.

NOMINAL BEAM ANGLES WITH LI FINISH				
	Narrow	Medium	Wide	Shallow
1000-7000	15	40	73	86
8000-12000	30	44	73	86
15000-20000	34	46	73	86

ENERGY DATA

Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -20°C (-4°F)
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)
Power Factor: >0.90
Input Frequency: 50-60Hz

1000 Lumen D010	
Input Power: 11W	THD <14%
Input Current: 0.09A	277V Input Current: 0.04A

1500 Lumen D010	
Input Power: 15.5 W	THD <13%
Input Current: 0.13A	277V Input Current: 0.06A

2000 Lumen D010	
Input Power: 21.2 W	THD <9%
Input Current: 0.18A	277V Input Current: 0.08A

3000 Lumen D010	
Input Power: 27.6 W	THD <10%
Input Current: 0.23A	277V Input Current: 0.10A

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

5000 Lumen D010TE	
Input Power: 57.9 W	THD <14%
Input Current: 0.49A	277V Input Current: 0.22A

6000 Lumen D010TE	
Input Power: 59.7 W	THD <14%
Input Current: 0.50A	277V Input Current: 0.22A

7000 Lumen D010TE	
Input Power: 75.8 W	THD <13%
Input Current: 0.64A	277V Input Current: 0.29A

8000 Lumen D010	
Input Power: 73.8 W	THD <13%
Input Current: 0.62A	277V Input Current: 0.26A

9000 Lumen D010	
Input Power: 86.9 W	THD <13%
Input Current: 0.72A	277V Input Current: 0.32A

10000 Lumen D010TE	
Input Power: 115.4 W	THD <13%
Input Current: 0.96A	277V Input Current: 0.42A

12000 Lumen D010TE	
Input Power: 119.4 W	THD <13%
Input Current: 1.0A	277V Input Current: 0.43A

15000 Lumen D010TE	
Input Power: 173.7 W	THD <13%
Input Current: 1.45A	277V Input Current: 0.63A

17500 Lumen D010TE	
Input Power: 179.1 W	THD <13%
Input Current: 1.49A	277V Input Current: 0.65A

20000 Lumen D010TE	
Input Power: 227.4 W	THD <13%
Input Current: 1.9A	277V Input Current: 0.82A

COLOR METRIC SUMMARY

8027		8030		8035		8040		8050	
R _f	93.2	R _f	83.4	R _f	83.7	R _f	83.3	R _f	82.5
R _g	94.1	R _g	94.4	R _g	94.8	R _g	94	R _g	94.3
CRI	81.3	CRI	82.4	CRI	9.1	CRI	83.7	CRI	94.2
R ₉	0.7	R ₉	4.5	R ₉	9.1	R ₉	9.9	R ₉	11.9

9027		9030		9035		9040		9050	
R _f	92	R _f	91.6	R _f	90.9	R _f	89.4	R _f	88.4
R _g	98.4	R _g	98.6	R _g	98.3	R _g	96.6	R _g	96.8
CRI	93.4	CRI	93.2	CRI	93.3	CRI	91.8	CRI	91
R ₉	59.3	R ₉	60.2	R ₉	63.1	R ₉	58	R ₉	55.2

9727		9730	
R _f	95	R _f	94.2
R _g	100.1	R _g	99.6
CRI	98	CRI	98.5
R ₉	93.9	R ₉	94.7

PHOTOMETRY

NARROW (15° BEAM)	CANDLEPOWER DISTRIBUTION	CONE OF LIGHT	CANDELA TABLE	ZONAL LUMEN SUMMARY	LUMINANCE																																																																																	
Test Number Housing LD8B50D010 Module ER8B50835 Trim 8LBN0H Lumens 4986 Efficacy 94.1 Lm/W SC 0.32			<table border="1"> <thead> <tr> <th>Degrees Vertical</th> <th>Candela</th> </tr> </thead> <tbody> <tr><td>0</td><td>18310</td></tr> <tr><td>5</td><td>14091</td></tr> <tr><td>15</td><td>5762</td></tr> <tr><td>25</td><td>3117</td></tr> <tr><td>35</td><td>1021</td></tr> <tr><td>45</td><td>99</td></tr> <tr><td>55</td><td>5</td></tr> <tr><td>65</td><td>1</td></tr> <tr><td>75</td><td>1</td></tr> <tr><td>85</td><td>0</td></tr> <tr><td>90</td><td>0</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>MH</th> <th>FC</th> <th>L</th> <th>W</th> </tr> </thead> <tbody> <tr><td>4'</td><td>1144.4</td><td>1.2</td><td>1.2</td></tr> <tr><td>7'</td><td>373.7</td><td>2.2</td><td>2.2</td></tr> <tr><td>9'</td><td>226.1</td><td>2.8</td><td>2.8</td></tr> <tr><td>13'</td><td>108.3</td><td>4</td><td>4</td></tr> <tr><td>16'</td><td>71.5</td><td>5</td><td>5</td></tr> </tbody> </table>	Degrees Vertical	Candela	0	18310	5	14091	15	5762	25	3117	35	1021	45	99	55	5	65	1	75	1	85	0	90	0	MH	FC	L	W	4'	1144.4	1.2	1.2	7'	373.7	2.2	2.2	9'	226.1	2.8	2.8	13'	108.3	4	4	16'	71.5	5	5	<table border="1"> <thead> <tr> <th>Zone</th> <th>Lumens</th> <th>% Fixture</th> </tr> </thead> <tbody> <tr><td>0-30</td><td>4214</td><td>84.5</td></tr> <tr><td>0-40</td><td>4883</td><td>97.9</td></tr> <tr><td>0-60</td><td>4983</td><td>99.9</td></tr> <tr><td>0-90</td><td>4986</td><td>100</td></tr> <tr><td>90-180</td><td>0</td><td>0</td></tr> <tr><td>0-180</td><td>4986</td><td>100</td></tr> </tbody> </table>	Zone	Lumens	% Fixture	0-30	4214	84.5	0-40	4883	97.9	0-60	4983	99.9	0-90	4986	100	90-180	0	0	0-180	4986	100	<table border="1"> <thead> <tr> <th>Average Candela Degrees</th> <th>Average 0° Luminance</th> </tr> </thead> <tbody> <tr><td>45</td><td>4330</td></tr> <tr><td>55</td><td>253</td></tr> <tr><td>65</td><td>88</td></tr> <tr><td>75</td><td>143</td></tr> <tr><td>85</td><td>0</td></tr> </tbody> </table>	Average Candela Degrees	Average 0° Luminance	45	4330	55	253	65	88	75	143	85	0
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Nominal Scaling From 80 CRI 3500K		
CRI	CCT	Lumen Mult
80	2700	0.938
80	3000	0.962
80	3500	1.000
80	4000	0.993
80	5000	1.013
90	2700	0.784
90	3000	0.826
90	3500	0.853
90	4000	0.891
90	5000	0.922
97	2700	0.696
97	3000	0.737

Nominal Scaling From 5000 lumen package	
LUMEN PACKAGE	LUMEN MULT
1000 LUMEN	0.207
1500 LUMEN	0.280
2000 LUMEN	0.398
3000 LUMEN	0.562
4000 LUMEN	0.799
5000 LUMEN	1.000
6000 LUMEN	1.133
7000 LUMEN	1.368
8000 LUMEN	1.535
9000 LUMEN	1.729
10,000 LUMEN	1.994
12,000 LUMEN	2.261
15,000 LUMEN	2.949
17,500 LUMEN	3.329
20,000 LUMEN	3.924