

DESCRIPTION

6 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 7000 with color temperatures of 2400K, 2700K, 3000K, 3500K, 4000K, and 5000K. 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.

Catalog #		Type
Project		
Comments		Date
Prepared by		

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 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. Lever connectors for simple push in wiring.

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. Lumen output shall not decrease

by more than 10% over the minimum life of 55,000 hours (L90 > 55,000 hours). 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.

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

Driver

Standard 120-277V 0-10V dimming driver provides flicker free dimming from 100% to 1% (offered up to 4000 lumens). 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

Factory installed WaveLinX tile mount sensor kit and Field installed WaveLinX accessory tile mount sensor kit.

The WTA WaveLinX tile mount sensor kit offers daylight dimming, PIR motion sensing control, and optional RLTS - Real Time Location Services available. (Refer to WaveLinX system specifications and application guides for details) The WTA WaveLinX kit includes control module that mounts on the luminaire electrical junction box

via 1/2" knock-out, and tilemount sensor with direct-mount spring clips or for octagon ceiling box with included mounting bracket. (Field mount kit ordered and installed separately).

Enlighted wireless tile mount sensor and relay accessory enables wireless control using a tile mount sensor accessory.

Distributed low voltage power system combines power, lighting, and controls with ease of installation.

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 (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated - Insulation must be kept 3" from top and sides of housing. IC rated up to 1500 lumens. 5000 lumen and above are marked spacing and must follow spacing requirements. RoHS Compliant. Photometric testing completed in accordance with IES LM 79. Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11.

Warranty

5-year warranty



**LD6B EU6B
6LBW 6LBM
6LBN**

1000 - 7000 lumens LED

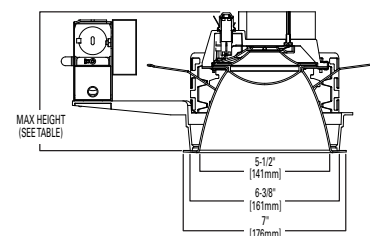
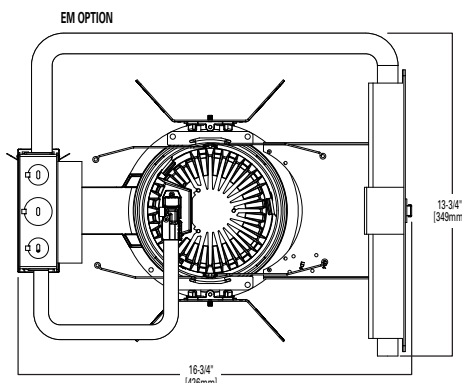
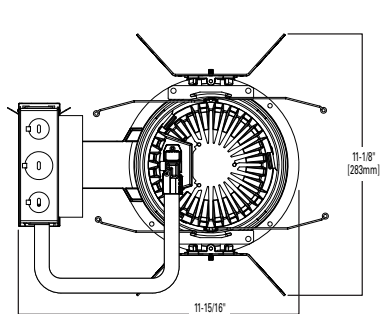
Die cast or Spun Aluminum
Narrow, Medium, or Wide Beam
Reflector
New Construction

VividTune
color tuning solutions

D2W™



Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements.



	1000-2000 LUMENS	3000-5000 LUMENS	6000-7000 LUMENS
NARROW	5-15/16" [151mm]	5-15/16" [151mm]	7-11/16" [195mm]
MEDIUM	5-7/8" [149mm]	5-7/8" [149mm]	7-5/8" [194mm]
WIDE	5-1/2" [140mm]	5-1/2" [140mm]	6-13/16" [173mm]
SHALLOW TRIM	5-1/2" [140mm]	5-1/2" [140mm]	NA

SAMPLE NUMBER: LD6B15D010EMBOD

Housing	Lumens ¹	Voltage	Driver	Options ³
LD6B =LED Downlight 6" Nominal Aperture	10 =1000 lumens 15 =1500 lumens 20 =2000 lumens 30 =3000 lumens	Blank =120-277V 3 =347V (step down transformer)	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 Linear Dimming, 0% to 100%, 120V-277V D5LT =Fifth Light® (DALI) Logarithmic Dimming, 0% to 100%, 120V-277V DMX =DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V ¹⁴ DL2 =Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 120V Only DLE =Lutron Ecosystem dimming 1% to 100%, 120V-277V 5000, 6000, and 7000 Lumen D010TE =0-10V 1% or Trailing Edge, 10% to 100%, 120V-277V (120V Only for Trailing Edge Dimming) 1000 - 3000 Lumen DLV =Low voltage dimming driver (1-100%) for use with DLVP system (3000 lumen and below) ^{3,15} Tunable white 1000-2000 Lumens ¹⁸ 1DE010W2N2050 =0-10V dimming, 0% to 100%, 120V, 2000K - 5000K 1DE010W2N2765 =0-10V dimming, 0% to 100%, 120V, 2700K - 6500K 1D5LTW2N2050 =Fifth Light (DALI), 0% to 100%, 120, 2000K - 5000K 1D5LTW2N2765 =Fifth Light (DALI), 0% to 100%, 120V, 2700K - 6500K 2DE010W2N2050 =0-10V dimming, 0% to 100%, 277V, 2000K - 5000K 2DE010W2N2765 =0-10V dimming, 0% to 100%, 277V, 2700K - 6500K 2D5LTW2N2050 =Fifth Light (DALI), 0% to 100%, 277V, 2000K - 5000K 2D5LTW2N2765 =Fifth Light (DALI), 0% to 100%, 277V, 2700K - 6500K	EMBOD =Bodine® Emergency Module with Remote Test Switch EMBOD7ST =Bodine® Emergency Module with Self Test Remote Test Switch EM7 =7W Emergency Module with Remote Test Switch EM14 =14W Emergency Module with Remote Test Switch IEMBOD =Bodine® Emergency Module with Integral Test Switch IEM7 =7W Emergency Module with Integral Test Switch IEM14 =14W Emergency Module with Integral Test Switch 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 WTA =Factory installed WaveLinX Sensor Kit (WTA = WaveLinX wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with D010 only) ¹⁵ LWTPD1 =Factory installed Enlighted wireless sensor kit
LD6BCP =LED Downlight 6" Nominal Aperture, Chicago Plenum	40 =4000 lumens 50 =5000 lumens ¹⁰ 60 =6000 lumens ¹⁰ 70 =7000 lumens ¹⁰			

SAMPLE NUMBER: EU6B10208035

Power Module	Lumen Levels ¹	CRI	Color
EU6B =6" Universal LED Module	1020 =1000, 1500, 2000 lumens 3050 =3000, 4000, 5000 lumens 6070 =6000, 7000 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 90 CRI 24 =2400K 27 =2700K 30 =3000K 35 =3500K 40 =4000K 50 =5000K 97 CRI 27 =2700K 30 =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 309030D2W =3000 lumen, 90 CRI, Dim 2 Warm		Tunable white ¹⁸ 1020W2N902050 =1000, 1500, 2000 lumens, 90 CRI, tunable white 2000K-5000K 1020W2N902765 =1000, 1500, 2000 lumens, 90 CRI, tunable white 2700K-6500K

SAMPLE NUMBER: 6LBM1LE

Trim	Distribution ⁵	Flange	Finish	Options
6LB =6" LED	N =Narrow (30° Beam), Spun Aluminum M =Medium (50° Beam), Spun Aluminum W =Wide (75° Beam), Spun Aluminum S =Shallow (75° Beam), Spun Aluminum ¹² PS =Non-Conductive Shallow (75° Beam), Injection Molded white, non-conductive ^{11, 12} CS =Cast Shallow (90° Beam), Die Cast Aluminum BA =Baffle (50° Beam), Spun Aluminum ⁷	0 =White Polymer Trim Ring 1 =Self-flanged ¹³ 2 =White Painted Self-flanged	LI =Specular Clear ⁹ H =Semi-Specular Clear ⁹ WMH =Warm Haze ⁹ WH =Wheat ⁹ GPH =Graphite Haze ⁹	B =Specular Black ⁹ MW =Matte White MB =Matte Black ⁸ MMS =Matte Metallic Silver ⁸ E =Integral Emergency Test Switch Hole ⁶

Accessories	
HSA6 =Slope Adapter for 6" Aperture Housings, Specify Slope	Transformers H347 =347 to 120V Step Down Transformer, 75VA H347200 =347 to 120V Step Down Transformer, 200VA
TRM6 =Metal Trim Ring, Specify Color ²	Connected Lighting Systems PORLWTPD1 =Enlighted wireless sensor kit (0-10V only) field installed ¹⁵
TRR6 =Rimless Trim Ring for Flush Mount ²	WTA =WaveLinX wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with D010 only (Refer to WaveLinX system specifications and guides for details) Field installed. ¹⁵
PRR6 =Plaster Lathing Ring ²	
LGSKT6IP66 =IP66 Gasket Kit	
DT6 =Deco Trim ²	
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	

- Notes:**
- Nominal Lumens will vary depending on selected color, driver and reflector finish.
 - Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).
 - Not available with Chicago Plenum.
 - ULUS listed only
 - Beam angles are nominal with LI finish trims.
 - Only available with Narrow and Medium Spun Aluminum trims. Required for use with all IEMBOD, IEM7, IEM14, IEMV7 and IEMV14 housings.
 - Only available with Matte White and Matte Black Finishes.
 - Available only on CS distributions.
 - Not available on PS, CS or BA distributions.
 - 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"
 - PS available in self-flanged MW finish only.
 - Offered up to 2000 lumens
 - Flange is the same finish as the reflector
 - DMX fixtures default to full on upon loss of DMX signal.
 - Refer to system specifications for additional information, features, and benefits. Order either factory installed option or accessory. Use with 0-10V driver.
 - Non-IC

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: 0.08A	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		5000 Lumen D010TE	
Input Power: 41.6W	THD: <13%	Input Power: 57.9W	THD: <14%
120V Input Current: 0.35A	277V Input Current: 0.15A	120V Input Current: 0.49A	277V Input Current: 0.22A
6000 Lumen D010TE		7000 Lumen D010TE	
Input Power: 59.7W	THD: <14%	Input Power: 75.8W	THD: <13%
120V Input Current: 0.50A	277V Input Current: 0.22A	120V Input Current: 0.64A	277V Input Current: 0.29A

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
5000 Lumen D010TE	5.1	0.132	10.2	0.153
6000 Lumen D010TE	5.4	0.123	10.8	0.154
7000 Lumen D010TE	4.9	0.13	9.8	0.156

PHOTOMETRY

NARROW (30° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT				CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201217							Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD6B15D010							0	2709	0-30	960	80.4	45	677
Module	EU6B10208035							5	2526	0-40	1149	96.2	55	76
Trim	6LBN1LI							15	1468	0-60	1193	99.9	65	26
Lumens	1195							25	708	0-90	1195	100	75	0
Efficacy	83.6 Lm/W	35	299	90-180	0	0	85	0						
SC	0.53	45	44	0-180	1195	100								
		D	FC	L	W									
		5.5'	90	2.8	2.8									
		7'	55	3.6	3.6									
		8'	42	4.2	4.2									
		9'	33	4.6	4.6									
		10'	27	5.2	5.2									
		12'	19	6.2	6.2									

MEDIUM (50° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT				CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201215							Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD6B15D010							0	1683	0-30	990	73.6	45	1159
Module	EU6B10208035							5	1661	0-40	1265	94	55	130
Trim	6LBM1LI							15	1386	0-60	1341	99.7	65	87
Lumens	1345							25	993	0-90	1345	100	75	71
Efficacy	94.1 Lm/W	35	430	90-180	0	0	85	0						
SC	0.85	45	76	0-180	1345	100								
		D	FC	L	W									
		5.5'	56	4.6	4.6									
		7'	34	5.8	5.8									
		8'	26	6.6	6.6									
		9'	21	7.6	7.6									
		10'	17	8.4	8.4									
		12'	12	10	10									

WIDE (75° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT				CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201213							Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD6B15D010							0	963	0-30	785	51.7	45	4835
Module	EU6B10208035							5	963	0-40	1207	79.5	55	1055
Trim	6LBW1LI							15	976	0-60	1510	99.4	65	151
Lumens	1519							25	913	0-90	1519	100	75	84
Efficacy	106.2 Lm/W	35	687	90-180	0	0	85	0						
SC	1.23	45	316	0-180	1519	100								
		D	FC	L	W									
		5.5'	32	6.6	6.6									
		7'	20	8.6	8.6									
		8'	15	9.8	9.8									
		9'	12	11	11									
		10'	10	12.2	12.2									
		12'	7	14.6	14.6									

SHALLOW (75° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT				CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201212							Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD6B15D010							0	710	0-30	529	34.2	45	36260
Module	EU6B10208035							5	704	0-40	843	54.5	55	29687
Trim	6LBCS1MMS							15	666	0-60	1377	89	65	20068
Lumens	1546							25	596	0-90	1546	100	75	8318
Efficacy	110.4 Lm/W	35	502	90-180	0	0	85	749						
SC	1.16	45	393	0-180	1546	100								
		D	FC	L	W									
		5.5'	24	6.2	6.2									
		7'	15	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 (30° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201218					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD6B40D010					0	7716	0-30	2735	80.4	45	1928
Module	EU6B30508035					5	7196	0-40	3274	96.2	55	215
Trim	6LBN1LI					15	4183	0-60	3399	99.9	65	74
Lumens	3404					25	2017	0-90	3404	100	75	0
Efficacy	81.4 Lm/W					35	853	90-180	0	0	85	0
SC	0.53	45	126	0-180	3404	100						
		55	11									
		65	3									
		75	0									
		85	0									
		90	0									

MEDIUM (50° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201216					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD6B40D010					0	4794	0-30	2819	73.6	45	3303
Module	EU6B30508035					5	4731	0-40	3602	94	55	370
Trim	6LBM1LI					15	3946	0-60	3819	99.7	65	251
Lumens	3831					25	2829	0-90	3831	100	75	205
Efficacy	91.7 Lm/W					35	1226	90-180	0	0	85	0
SC	0.85	45	216	0-180	3831	100						
		55	20									
		65	10									
		75	5									
		85	0									
		90	0									

WIDE (75° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201214					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD6B40D010					0	2742	0-30	2236	51.7	45	13769
Module	EU6B30508035					5	2742	0-40	3439	79.5	55	3006
Trim	6LBW1LI					15	2778	0-60	4301	99.4	65	430
Lumens	4326					25	2600	0-90	4326	100	75	234
Efficacy	103.5 Lm/W					35	1957	90-180	0	0	85	0
SC	1.23	45	899	0-180	4326	100						
		55	159									
		65	17									
		75	6									
		85	0									
		90	0									

SHALLOW (75° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P35144					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD6B40D010					0	2022	0-30	1506	34.2	45	17139
Module	EU6B30508035					5	2005	0-40	2399	54.5	55	14033
Trim	6LBCS1MMS					15	1897	0-60	3921	89	65	9486
Lumens	4403					25	1697	0-90	4403	100	75	3933
Efficacy	105.3 Lm/W					35	1430	90-180	0	0	85	348
SC	1.16	45	1119	0-180	4403	100						
		55	743									
		65	370									
		75	94									
		85	3									
		90	0									