

## DESCRIPTION

6 inch LED square recessed 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 anodized aluminum lower reflector with a lensed upper optical chamber providing superior lumen output with minimal source brightness. Anodized 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

Galvanized steel plaster frame with adjustable collar adjusts for up to 2" thick ceilings and rotates +/- 7.5°.

### 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. 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%. Optional 120-277V phase dimming, <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.

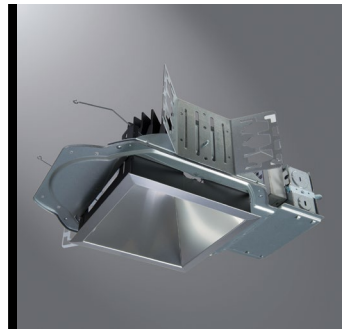
Distributed low voltage power system combines power, lighting, and controls with ease of installation.

### 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. 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. 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

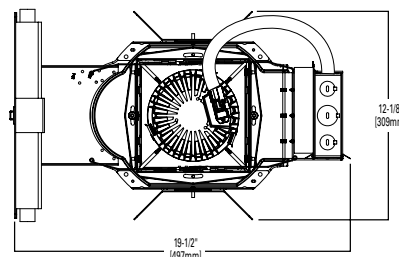
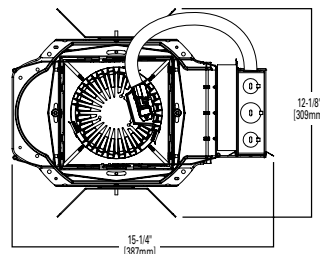
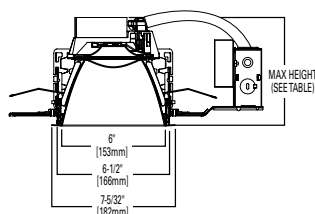
5-year warranty



## LDSQ6B EU6B 6LBSQ

1000, 1500, 2000, 3000, 4000, 5000,  
6000, 7000 Lumens LED

Die Cast or Anodized Aluminum  
Square Downlight  
New Construction



	1000-2000 LUMENS	3000-5000 LUMENS	6000-7000 LUMENS
STANDARD	6-7/16" [163mm]	6-7/16" [163mm]	8-3/15" [208mm]
SHALLOW	4-7/16" [113mm]	5-5/8" [143mm]	5-5/8" [143mm]

VividTune  
color tuning solutions

D2W™



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

ORDERING INFORMATION

SAMPLE NUMBER: LDSQ6B15D010EMBOD

Housing	Lumens <sup>1</sup>	Voltage	Driver	Options <sup>4</sup>
<b>LDSQ6B</b> =LED Square Downlight 6" Nominal Aperture <b>LDSQ6B</b> <b>CP</b> =LED Square Downlight 6" Nominal Aperture, Chicago Plenum	10=1000 lumens 15=1500 lumens 20=2000 lumens 30=3000 lumens 40=4000 lumens 50=5000 lumens <sup>6</sup> 60=6000 lumens <sup>6</sup> 70=7000 lumens <sup>6</sup>	Blank=120-277V 3=347V (step down transformer)	<b>1000 - 4000 Lumen</b> <b>D010</b> =0-10V Dimming, 1% to 100%, 120V-277V <b>D010TR</b> =0-10V or Line Voltage Dimming, 5% to 100%, 120V-277V <b>DE010</b> =0-10V Linear Dimming, 0% to 100%, 120V-277V <b>D5LT</b> =Fifth Light® (DALI) Logarithmic Dimming, 0% to 100%, 120V-277V <b>DMX</b> =DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V <sup>9</sup> <b>DL2</b> =Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 120V Only <b>DLE</b> =Lutron Ecosystem dimming 1% to 100%, 120V-277V <b>5000, 6000 and 7000 Lumen</b> <b>D010TE</b> =0-10V 1% or Trailing Edge, 10% to 100%, 120V-277V (120V Only for Trailing Edge Dimming) <b>1000 - 3000 Lumen</b> <b>DLV</b> =Low voltage dimming driver (1-100%) for use with DLVP system (3000 lumen and below) <sup>4,10</sup> <b>Tunable white 1000-2000 Lumens<sup>12</sup></b> <b>1DE010W2N2050</b> =0-10V dimming, 0% to 100%, 120V, 2000K - 5000K <b>1DE010W2N2765</b> =0-10V dimming, 0% to 100%, 120V, 2700K - 6500K <b>1D5LTW2N2050</b> =Fifth Light (DALI), 0% to 100%, 120, 2000K - 5000K <b>1D5LTW2N2765</b> =Fifth Light (DALI), 0% to 100%, 120V, 2700K - 6500K <b>2DE010W2N2050</b> =0-10V dimming, 0% to 100%, 277V, 2000K - 5000K <b>2DE010W2N2765</b> =0-10V dimming, 0% to 100%, 277V, 2700K - 6500K <b>2D5LTW2N2050</b> =Fifth Light (DALI), 0% to 100%, 277V, 2000K - 5000K <b>2D5LTW2N2765</b> =Fifth Light (DALI), 0% to 100%, 277V, 2700K - 6500K	<b>EMBOD</b> =Bodine® Emergency Module with Remote Test Switch <b>EMBOD7ST</b> =Bodine® Emergency Module with Self Test Remote Test Switch <b>EM7</b> =7W Emergency Module with Remote Test Switch <b>EM14</b> =14W Emergency Module with Remote Test Switch <b>EMV7</b> =7W Low Voltage Emergency Module with Remote Test Switch <sup>5</sup> <b>EMV14</b> =14W Low Voltage Emergency Module with Remote Test Switch <sup>5</sup> <b>WTA</b> =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) <sup>10</sup> <b>LWTPD1</b> =Factory installed Enlighted wireless sensor kit

SAMPLE NUMBER: EU6B10208035

Power Module	Lumen Levels <sup>1</sup>	CRI	Color		
<b>EU6B</b> =6" Universal LED Module	1020=1000, 1500, 2000 lumens 3050=3000, 4000, 5000 lumens <sup>6</sup> 6070=6000, 7000 lumens <sup>6</sup> 1015IC=1000, 1500 lumen IC rated	80=80 CRI Minimum 90=90 CRI Minimum 97=97 CRI Minimum	<b>80 CRI</b> 27=2700K 30=3000K 35=3500K 40=4000K 50=5000K	<b>90 CRI</b> 24=2400K 27=2700K 30=3000K 35=3500K 40=4000K 50=5000K	<b>97 CRI</b> 27=2700K 30=3000K
	<b>Dim 2 Warm</b> 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		<b>Tunable white<sup>12</sup></b> 1020W2N902050 =1000, 1500, 2000 lumens, 90 CRI, tunable white 2000K-5000K 1020W2N902765 =1000, 1500, 2000 lumens, 90 CRI, tunable white 2700K-6500K		

SAMPLE NUMBER: 6LBSQ1LI

Trim	Distribution	Flange	Finish	
<b>6LB</b> =6" LED	<b>SQ</b> =Square Anodized Aluminum <b>CSSQ</b> =Cast Shallow Square, Die Cast Aluminum <sup>7</sup>	<b>0</b> =White Polymer Trim Ring <sup>11</sup> <b>1</b> =Self-flanged <sup>8</sup> <b>2</b> =White Painted Self-flanged	<b>LI</b> =Specular Clear <sup>2</sup> <b>H</b> =Semi-Specular Clear <sup>2</sup> <b>WMH</b> =Warm Haze <sup>2</sup> <b>WH</b> =Wheat <sup>2</sup> <b>GPH</b> =Graphite Haze <sup>2</sup>	<b>B</b> =Specular Black <sup>2</sup> <b>MW</b> =Matte White <b>MB</b> =Matte Black <sup>3</sup> <b>MMS</b> =Matte Metallic Silver <sup>3</sup>

Accessories

**PRSQ6**=Plaster Lathing Ring for Flush Mount for use with Rimless Flange (order with white polymer trim ring flange option)  
**LGSKT6SQIP66**=IP66 Gasket Kit  
**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**=Enlighted wireless sensor kit (0-10V only) field installed<sup>10</sup>  
**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.<sup>10</sup>

Notes:

- Nominal Lumens will vary depending on selected color, driver and reflector finish.
- Available on anodized aluminum
- Available only on cast aluminum
- Not available with Chicago Plenum
- UL/US approved only
- 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"  
 - Not available with CSSQ or PSSQ trims.

- Offered up to 5000 lumens
- Flange is the same finish as 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.
- Not available with cast shallow
- Non-IC

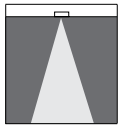
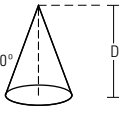
ENERGY

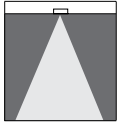
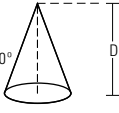
ENERGY DATA
Sound Rating: Class A standards (Values at non-dimming line voltage)
Minimum Starting Temperature: -30°C (-22°F)
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)
Input Voltage: UNV (120V - 277V)
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)
Input Frequency: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

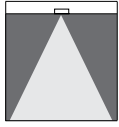
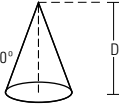
1000 Lumen D010		1500 Lumen D010	
Input Power: 11W	THD: <14%	Input Power: 15.5W	THD: <13%
120V Input Current: 0.09A	277V Input Current: 0.04A	120V Input Current: 0.13A	277V Input Current: 0.06A
2000 Lumen D010		3000 Lumen D010	
Input Power: 21.2W	THD: <9%	Input Power: 27.6W	THD: <10%
120V Input Current: 0.18A	277V Input Current: 0.08A	120V Input Current: 0.23A	277V Input Current: 0.10A
4000 Lumen D010		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

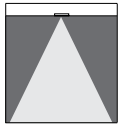
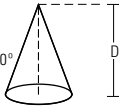
Lumens	120V		277V	
	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
1000 Lumen D010	1.02	0.041	2.18	0.021
1500 Lumen D010	1.02	0.042	2.24	0.064
2000 Lumen D010	1.02	0.077	2.43	0.027
3000 Lumen D010	1.15	0.067	3.26	0.027
4000 Lumen D010	1.2	0.088	3.9	0.03
5000 Lumen D010TE	5.1	0.132	10.2	0.153
6000 Lumen D010TE	5.4	0.123	10.8	0.154
7000 Lumen D010TE	4.9	0.13	9.8	0.156

PHOTOMETRY

Test Number: P35359 Housing: LDSQ6B15D010 Module: EU4B10208035 Trim: 6LBCSSQ1MMS Lumens: 1637 Efficacy: 116.9 Lm/W SC: 1.24 	<b>CANDLEPOWER DISTRIBUTION</b>		<b>CONE OF LIGHT</b>		<b>CANDELA TABLE</b>		<b>ZONAL LUMEN SUMMARY</b>			<b>LUMINANCE</b>	
	<b>Downlight</b>				Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
	171	90°	D	FC	L	W	0-30	522	31.9	45	25574
	342	75°	5.5'	23	6.6	6.6	0-40	848	51.8	55	22144
	513	60°	7'	14	8.6	8.4	0-60	1442	88.1	65	14161
	684	45°	8'	11	9.8	9.6	0-90	1637	100	75	3327
	30°	9'	8	11	10.8	90-180	0	0	85	0	
	15°	10'	7	12.2	12	0-180	1637	100			
		12'	5	14.6	14.4						

Test Number: P35360 Housing: LDSQ6B15D010 Module: EU4B10208035 Trim: 6LBSQ0LI Lumens: 1491 Efficacy: 106.5 Lm/W SC: 0.92 	<b>CANDLEPOWER DISTRIBUTION</b>		<b>CONE OF LIGHT</b>		<b>CANDELA TABLE</b>		<b>ZONAL LUMEN SUMMARY</b>			<b>LUMINANCE</b>	
	<b>Downlight</b>				Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
	399	90°	D	FC	L	W	0-30	1029	69	45	5054
	798	75°	5.5'	53	5	5	0-40	1364	91.4	55	1051
	1197	60°	7'	33	6.4	6.4	0-60	1485	99.6	65	408
	1596	45°	8'	24	7.2	7.2	0-90	1491	100	75	166
	30°	9'	20	8.2	8.2	90-180	0	0	85	0	
	15°	10'	16	9	9.2	0-180	1491	100			
		12'	11	11	11						

Test Number: P202483 Housing: LDSQ6B40D010 Module: EU6B30508035 Trim: 6LBCSSQ1MMS Lumens: 4636 Efficacy: 107.8 Lm/W SC: 1.24 	<b>CANDLEPOWER DISTRIBUTION</b>		<b>CONE OF LIGHT</b>		<b>CANDELA TABLE</b>		<b>ZONAL LUMEN SUMMARY</b>			<b>LUMINANCE</b>	
	<b>Downlight</b>				Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
	484	90°	D	FC	L	W	0-30	1479	31.9	45	18216
	969	75°	5.5'	64	6.6	6.6	0-40	2401	51.8	55	15774
	1453	60°	7'	39	8.6	8.4	0-60	4083	88.1	65	10088
	1937	45°	8'	30	9.8	9.6	0-90	4636	100	75	2368
	30°	9'	24	11	10.8	90-180	0	0	85	0	
	15°	10'	19	12.2	12	0-180	4636	100			
		12'	13	14.6	14.4						

Test Number: P202482 Housing: LDSQ6B40D010 Module: EU6B30508035 Trim: 6LBSQ1LI Lumens: 4222 Efficacy: 98.2 Lm/W SC: 0.92 	<b>CANDLEPOWER DISTRIBUTION</b>		<b>CONE OF LIGHT</b>		<b>CANDELA TABLE</b>		<b>ZONAL LUMEN SUMMARY</b>			<b>LUMINANCE</b>	
	<b>Downlight</b>				Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
	1130	90°	D	FC	L	W	0-30	2913	69	45	3599
	2259	75°	5.5'	149	5	5	0-40	3861	91.4	55	748
	3389	60°	7'	92	6.4	6.4	0-60	4204	99.6	65	290
	4519	45°	8'	70	7.2	7.2	0-90	4222	100	75	117
	30°	9'	56	8.2	8.2	90-180	0	0	85	0	
	15°	10'	45	9	9.2	0-180	4222	100			
		12'	31	11	11						