

## DESCRIPTION

4 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 6000 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 and push in lever connectors.

### 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.

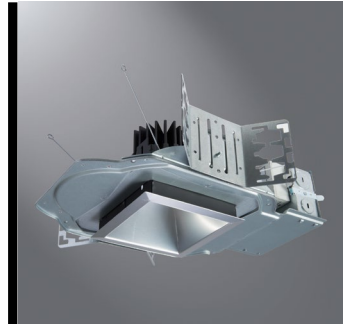
Distributed low voltage power system combines power, lighting, and controls with ease of installation.

### Code Compliance

Thermally protected and cULus listed for wet locations with covered ceiling. 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

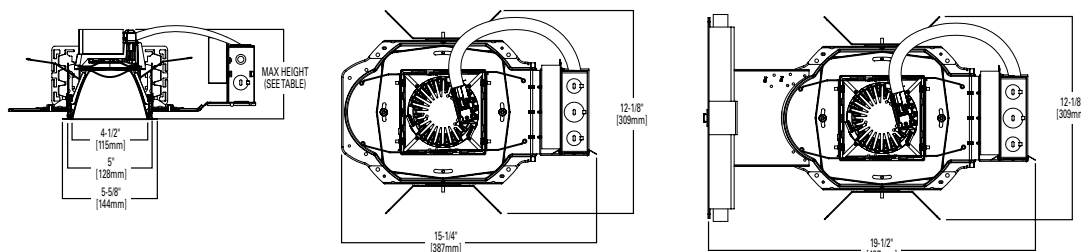
5-year warranty



## LDSQ4B EU4B 4LBSQ

1000-6000 Lumen LED

Die cast or Anodized Aluminum  
Square Downlight  
New Construction



	1000-2000 LUMENS	3000-5000 LUMENS	6000 LUMENS
STANDARD	5-3/8" [137mm]	5-3/8" [137mm]	7-1/8" [181mm]
SHALLOW	4-7/16" [113mm]	4-7/16" [113mm]	NA

VividTune  
color tuning solutions  
D2W™



Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Title 20 Appliance Efficiency Database.

**ORDERING INFORMATION**

**SAMPLE NUMBER:** LDSQ4B15D010EMBOD

Housing	Lumens <sup>1</sup>	Voltage	Driver	Options <sup>5</sup>
<b>LDSQ4B</b> =LED Square Downlight 4" Nominal Aperture <b>LDSQ4BCP</b> =LED Square Downlight 4" Nominal Aperture, Chicago Plenum	<b>10</b> =1000 lumens <b>15</b> =1500 lumens <b>20</b> =2000 lumens <b>30</b> =3000 lumens <b>40</b> =4000 lumens <b>50</b> =5000 lumens <sup>12</sup> <b>60</b> =6000 lumens <sup>12</sup>	<b>Blank</b> =120-277V <b>3</b> =347V (step down transformer)	<b>1000-4000</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>DLV</b> =Low voltage dimming driver (1-100%) for use with DLVP system (3000 lumen and below) <sup>6,10</sup> <b>5000-6000</b> <b>D010TE</b> =0-10V 1% or trailing edge 10%, 120-277V (120V only with trailing edge dimming) <b>Tunable white 1000-2000 Lumens<sup>13</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>2</sup> <b>EMV14</b> =14W Low Voltage Emergency Module with Remote Test Switch <sup>2</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:** EU4B10208035

Power Module	Lumen Levels <sup>1</sup>	CRI	Color		
<b>EU4B</b> =4" Universal LED Module	<b>1020</b> =1000, 1500, 2000 lumens <b>3040</b> =3000-4000 lumens <b>5000</b> =5000 lumens <sup>12</sup> <b>6000</b> =6000 lumens <sup>12</sup> <b>1015IC</b> =1000, 1500 lumen IC rated	<b>80</b> =80 CRI Minimum <b>90</b> =90 CRI Minimum <b>97</b> =97 CRI Minimum	<b>80 CRI</b> <b>27</b> =2700K <b>30</b> =3000K <b>35</b> =3500K <b>40</b> =4000K <b>50</b> =5000K	<b>90 CRI</b> <b>24</b> =2400K <b>27</b> =2700K <b>30</b> =3000K <b>35</b> =3500K <b>40</b> =4000K <b>50</b> =5000K	<b>97 CRI</b> <b>27</b> =2700K <b>30</b> =3000K
	<b>Dim 2 Warm</b> <b>109030D2W</b> =1000 lumen, 90 CRI, Dim 2 Warm, IC rated <b>159030D2W</b> =1500 lumen, 90 CRI, Dim 2 Warm, IC rated <b>209030D2W</b> =2000 lumen, 90 CRI, Dim 2 Warm <b>309030D2W</b> =3000 lumen, 90 CRI, Dim 2 Warm		<b>Tunable white<sup>13</sup></b> <b>1020W2N902050</b> =1000, 1500, 2000 lumens, 90 CRI, tunable white 2000K-5000K <b>1020W2N902765</b> =1000, 1500, 2000 lumens, 90 CRI, tunable white 2700K-6500K		

**SAMPLE NUMBER:** 4LBSQ1L

Trim	Distribution	Flange	Finish
<b>4LB</b> =4" LED	<b>SQ</b> =Square Anodized Aluminum <b>CSSQ</b> =Cast Shallow Square, Die Cast Aluminum <sup>7</sup> <b>PSSQ</b> =Plastic Shallow Non-Conductive <sup>5,7</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>3</sup> <b>H</b> =Semi-Specular Clear <sup>3</sup> <b>WMH</b> =Warm Haze <sup>3</sup> <b>WH</b> =Wheat <sup>3</sup> <b>GPH</b> =Graphite Haze <sup>3</sup> <b>B</b> =Specular Black <sup>3</sup> <b>MW</b> =Matte White <b>MB</b> =Matte Black <sup>4</sup> <b>MMS</b> =Matte Metallic Silver <sup>4</sup>

**Accessories**

**PRSQ4**=Plaster Lathing Ring for use with Rimless Flange (order with polymer trim ring flange option)

**LGSKT4SQIP66** = 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.
- UL/US approved only.
- Available on anodized aluminum
- Available on cast aluminum only
- Matte white finish and self flange
- Not available with Chicago Plenum.
- Offered up to 4000 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.
- Not available with cast shallow
- Product is marked spacing and must be installed with the following minimum spacing
  - Center to center of adjacent luminaire: 36"
  - Center of luminaire to side of building member: 18"
  - Minimum overhead: 1/2"
- Non-IC

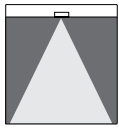
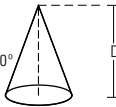
**ENERGY**

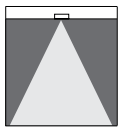
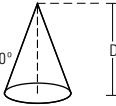
ENERGY DATA
Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -30°C (-22°F)
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)
Input Voltage: UNV (120V - 277V)
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)
Input Frequency: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


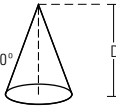
1000 Lumen D010		1500 Lumen D010	
Input Power: 11W	THD: <14%	Input Power: 15.5W	THD: <13%
120V Input Current: 0.09A	277V Input Current: 0.04A	120V Input Current: 0.13A	277V Input Current: 0.06A
2000 Lumen D010		3000 Lumen D010	
Input Power: 21.2W	THD: <9%	Input Power: 27.6W	THD: <10%
120V Input Current: 0.18A	277V Input Current: 0.08A	120V Input Current: 0.23A	277V Input Current: 0.10A
4000 Lumen D010			
Input Power: 41.6W	THD: <13%		
120V Input Current: 0.35A	277V Input Current: 0.15A		


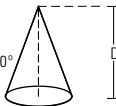
Lumens	120V		277V	
	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
1000 Lumen D010	1.02	0.041	2.18	0.021
1500 Lumen D010	1.02	0.042	2.24	0.064
2000 Lumen D010	1.02	0.077	2.43	0.027
3000 Lumen D010	1.15	0.067	3.26	0.027
4000 Lumen D010	1.2	0.088	3.9	0.03

PHOTOMETRY

Test Number P35089 Housing LDSQ4B15D010 Module EU4B10208035 Trim 4LBCSSQ1MMS Lumens 1504 Efficacy 107.4 Lm/W SC 1.19 	CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
	<b>Downlight</b>				Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
	178	90°	D	FC	L	W	0-30	534	35.5	45	43408
	357	75°	5.5'	24	6.4	6.4	0-40	857	57	55	30960
	535	60°	7'	15	8.2	8.2	0-60	1395	92.7	65	13765
	713	45°	8'	11	9.4	9.4	0-90	1504	100	75	591
	30°	9'	9	10.6	10.6	90-180	0	0	85	0	
	15°	10'	7	11.8	11.8	0-180	1504	100			
		12'	5	14.2	14.2						

Test Number P35088 Housing LDSQ4B15D010 Module EU4B10208035 Trim 4LBSQ1LI Lumens 1453 Efficacy 103.8 Lm/W SC 0.91 	CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
	<b>Downlight</b>				Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
	395	90°	D	FC	L	W	0-30	996	68.5	45	10500
	791	75°	5.5'	52	4.8	4.8	0-40	1322	91	55	1868
	1186	60°	7'	32	6.2	6.2	0-60	1447	99.5	65	724
	1581	45°	8'	25	7.2	7.2	0-90	1453	100	75	296
	30°	9'	20	8	8	90-180	0	0	85	0	
	15°	10'	16	9	9	0-180	1453	100			
		12'	11	10.8	10.8						

Test Number P202481 Housing LDSQ4B40D010 Module EU4B30508035 Trim 4LBCSSQ1MMS Lumens 4110 Efficacy 95.5 Lm/W SC 1.19 	CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
	<b>Downlight</b>				Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
	484	90°	D	FC	L	W	0-30	1458	35.5	45	18216
	969	75°	5.5'	64	6.4	6.4	0-40	2342	57	55	15774
	1453	60°	7'	40	8.2	8.2	0-60	3812	92.7	65	10088
	1937	45°	8'	30	9.4	9.4	0-90	4110	100	75	2368
	30°	9'	24	10.6	10.6	90-180	0	0	85	0	
	15°	10'	19	11.8	11.8	0-180	4110	100			
		12'	14	14.2	14.2						

Test Number P202480 Housing LDSQ4B40D010 Module EU4B30508035 Trim 4LBSQ1LI Lumens 3970 Efficacy 92.3 Lm/W SC 0.91 	CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
	<b>Downlight</b>				Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
	1080	90°	D	FC	L	W	0-30	2720	68.5	45	4058
	2160	75°	5.5'	142	4.8	4.8	0-40	3613	91	55	723
	3240	60°	7'	88	6.2	6.2	0-60	3952	99.5	65	279
	4320	45°	8'	67	7.2	7.2	0-90	3970	100	75	113
	30°	9'	53	8	8	90-180	0	0	85	0	
	15°	10'	43	9	9	0-180	3970	100			
		12'	30	10.8	10.8						