

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. 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.

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. 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 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

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

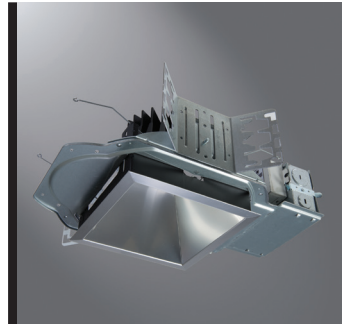
LumaWatt Pro (powered by Enlighted) wireless tile mount sensor and relay accessory enables wireless control using a tile mount sensor accessory. Distributed low voltage power system combines power, lighting, and controls with ease of installation.

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 and TM-30 standards. LED life testing completed in accordance with LM 80 standards.

Warranty

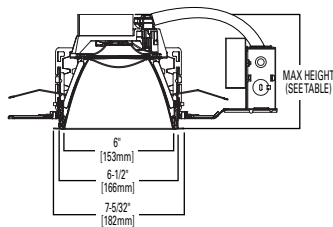
5-year warranty



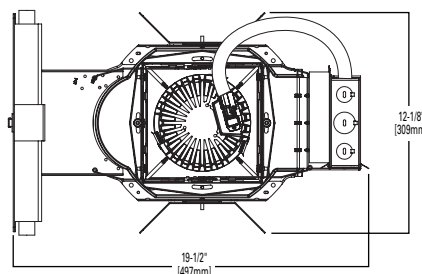
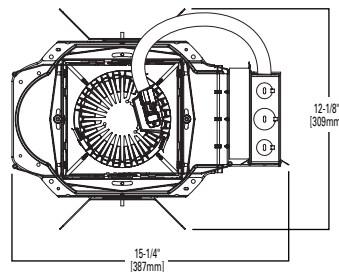
LDSQ6B EU6B 6LBSQ

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

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]	NA	NA



D2W™



Can be used to comply with **T24** California Non-Residential Lighting Controls requirements



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 ¹	Voltage	Driver	Options
LDSQ6B=LED Square Downlight 6" Nominal Aperture	10=1000 lumens 15=1500 lumens 20=2000 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	EMBOD=Bodine® Emergency Module with Remote Test Switch ⁴ EM7=7W Emergency Module with Remote Test Switch ^{4,5} EM14=14W Emergency Module with Remote Test Switch ^{4,5} EMV7=7W Low Voltage Emergency Module with Remote Test Switch ^{4,5} EMV14=14W Low Voltage Emergency Module with Remote Test Switch ^{4,5} SWPD1=Factory installed WaveLinX tilemount daylight sensor (includes control module, sensor, cable, and tile mount) ¹⁰ LWTPD1=Factory installed LumaWatt Pro wireless sensor kit ¹⁰
LDSQ6BCP=LED Square Downlight 6" Nominal Aperture, Chicago Plenum	30=3000 lumens 40=4000 lumens 50=5000 lumens ⁶ 60=6000 lumens ⁶ 70=7000 lumens ⁶		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 ⁹ 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 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) ^{4,10}	

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 ⁶ 6070=6000, 7000 lumens ⁶ 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					

SAMPLE NUMBER: 6LBSQ1LI

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

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=LumaWatt Pro wireless sensor kit (0-10V only) field installed¹⁰
TMSWPD1=WaveLinX tilemount daylight sensor (includes control module, sensor, cable and tile mount) field installed¹⁰

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 2000 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


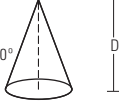
ENERGY


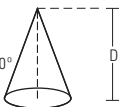
ENERGY DATA
Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -30°C (-22°F)
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)
Input Voltage: UNV (120V - 277V)
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)
Input Frequency: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


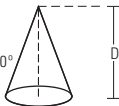
1000 Lumen D010		1500 Lumen D010	
Input Power: 11W	THD: <14%	Input Power: 15.5W	THD: <13%
120V Input Current: 0.09A	277V Input Current: 0.04A	120V Input Current: 0.13A	277V Input Current: 0.06A
2000 Lumen D010		3000 Lumen D010	
Input Power: 21.2W	THD: <9%	Input Power: 27.6W	THD: <10%
120V Input Current: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


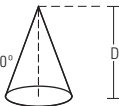
Lumens	120V		277V	
	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
1000 Lumen D010	1.02	0.041	2.18	0.021
1500 Lumen D010	1.02	0.042	2.24	0.064
2000 Lumen D010	1.02	0.077	2.43	0.027
3000 Lumen D010	1.15	0.067	3.26	0.027
4000 Lumen D010	1.2	0.088	3.9	0.03
5000 Lumen D010TE	5.1	0.132	10.2	0.153
6000 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 	CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
	Downlight				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 	CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
	Downlight				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 	CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
	Downlight				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 	CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
	Downlight				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						