Project	Catalog #	Туре	
Prepared by	Notes	Date	



Portfolio

LDSQA2B | 2LB

2-inch LED Square Adjustable, New Construction 500, 1000, 1500, 2000 Lumens

Typical Applications

Healthcare • Hospitality • Retail • Institutional • Indoor Display & Signage

Interactive Menu

- Order Information page 2
- Product Specifications page 3
- Energy & Performance Data page 4
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- · Product Warranty

Product Certification

et location

Control Compatibility











Product Features



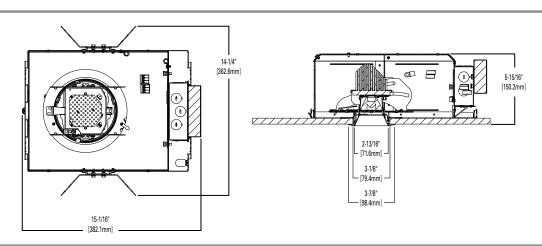






- Square adjustable accent or lensed wall wash (flat or sloped ceilings)
- · Excellent light control and low aperture brightness
- 365° rotation and 45° tilt holds any aiming position
- · Die-cast aluminum reflectors; Holds 2 lens media
- · 6 color temperatures: 2400K, 2700K, 3000K, 3500K, 4000K and 5000K CCT
- CRI: 80, 90 or 97; D2W™ option from 3000K to 1850K;
- Lumens: 500-2,800; Field-interchangeable optics: 15° to 70°
- 0-10V 1% dimming driver; Optional 100%-1% (DALI), 0-10V or DMX drivers

Dimensional and Mounting Details





Order Information

SAMPLE ORDER NUMBER: LDA2B159030D010

Housing	Lumens ⁽¹⁾	Distribution	CRI	Color		Voltage
LDSQA2B=New Construction Adjustable 2" Nominal Aperture LDSQA2BCP=New Construction Adjustable 2" Nominal Aperture Chicago Plenum(")	05=500 lumens ⁽⁹⁾ 10=1000 lumens 15=1500 lumens 20=2000 lumens	2R15SP=15° optic 2R20=20° optic 2R25NFL=25° optic 2R30=30° optic 2R35=35° optic 2R40FL=40° optic 2R45=45° optic 2R50=50° optic 2R50=60° optic 2R60=60° optic 2R70=70° optic 2R70=70° optic definition optic (order accessory reflector)	80=80 CRI minimum 90=90 CRI minimum 97=97 CRI minimum 97=97 CRI minimum Dim to Warm (1000 & 1500 lume 9030D2W=Dim to warm, 90CRI Tunable White (1000 lumens onl W2N902050 = 2000K-5000K W2N902765 = 2700K-6500K Choose SLT or DE010 driver	 90 CRI 24=2400K 27=2700K 30=3000K 35=3500K 40=4000K 50=5000K	97 CRI 27=2700K 30=3000K	Blank=120-277V 3=347V 0-10V only 1000-2000 lumens

Driver ⁽⁷⁾	Options (2) (5)
D010=0-10V Dimming 1%-100%, 120-277V D010A=0-10V Dimming 1%-100%, 120-277V for installations with above ceiling access ⁽⁵⁾ D010TR=0-10V 120-277V Dimming 1%-100%, or 120V 5% line voltage dimming D010ATR=0-10V 120-277V Dimming 1%-100%, or 120V 5% line voltage dimming for installations with above ceiling access ⁽⁵⁾ DE010=0-10V Linear Dimming, 0% to 100%, 120V-277V ⁽⁵⁾ D5LT=Fifth Light® DALI DT6 Logarithmic Dimming, 0% to 100%, 120V-277V ⁽⁶⁾ DMX=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V ⁽⁶⁾ DMXCS=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, with RJ45 connection ⁽³⁾ DLE=Lutron Ecosystem dimming 1% to 100%, 120V-277V ⁽⁶⁾ DLY=Low voltage dimming driver 1-100% for use with DLVP system ⁽⁶⁾	EMB0D=Bodine® Emergency Module with Remote Test Switch EMB0D7ST=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 (not for use with DLVP driver) EMV7=7W Low Voltage Emergency Module with Remote Test Switch (for use with DLVP driver) EMV14=14W Low Voltage Emergency Module with Remote Test Switch (for use with DLVP driver) EMV14=14W Low Voltage Emergency Module with Remote Test Switch (for use with DLVP driver) WPST=Factory installed Wavelinx (includes control module, sensor, cable, tilemount and ceiling mount sensor) WLST=Factory installed WaveLinx LITE Sensor Kit (4) (15) WPN = WaveLinx PRO Wireless Node without sensor (16) WLN = WaveLinx LITE Wireless Node without sensor (17)

SAMPLE ORDER NUMBER: LDA2B159030D010

Trim	Reflector	Flange	Finish
2LB=2" trim(11)	ASQC=Square cast aluminum ALSQC=Square lensed cast aluminum ASWSQC=Square lensed wall wash cast aluminum ⁽³⁾ APINSQ=Square adjustable Pinhole ALPINSQ=Square adjustable lensed Pinhole	1=Self-flanged 2=White Painted Self-flanged 3=Rimless Blank=Pinhole	MW=Matte White MB=Matte Black MMS=Matte Metallic Silver

Accessories					
2SQAPR=Square plaster lathing ring (order with rimless option) EDC2SQ=Ceiling extension kit for ceilings 7/8" - 1-1/4" Bar Hangers HB26=Pair C-channel bar hanger, 26" long HB50=Pair C-channel bar hanger, 50" long RMB22=Pair wood joist bar hanger 22" long Connected Lighting Systems (9 WPST = Field installed WaveLinx sensor Kit (14) WLST = Field installed WaveLinx LITE Sensor Kit (15)	Beam Forming Optic. (required when ordering no optic for distribution) 2R15SP=15° 2R20=20° 2R25NFL=25° 2R30=30° 2R35=35° 2R40FL=40° 2R45=45° 2R50=50° 2R55WFL=55° 2R60=60° 2R65=65° 2R70=70°	L100 lenses - color filters L112-Red Gel Filter L114-Ultraviolet, Dichoric Filter L120-Red, Dichoric Filter L121-Amber, Dichoric Filter L122-Yellow, Dichoric Filter L123-Green, Dichoric Filter L124-Daylight Blue, Dichoric Filter L125-Blue, Dichoric Filter L127-Cosmetic (2700K), Dichoric Filter L127-Cosmetic (2700K), Dichoric Filter L131-Amber, Gel Filter	L100 lenses - optical lenses L110N-Diffuse Sandblasted Lens: Provides an even beam spread - especially useful in wall washing. L111=Soft Focus Lens: Smooths irregular beam pattern while maintaining high controlled illumination levels and beam angles. L113=Prismatic Spread Lens: Provides a symmetrical broadening of lamp beam. Suitable when a wide, uniform light distribution is required. L115=Linear Spread Lens: Fans out the beam 55° (27- 1/2° to each side) to produce a wide rectangular pattern. L100MB-Black finished metal hexagonal-cell louver - controls light spill while retaining lamp optics.		

- $1. \ Nominal \ Lumens \ will \ vary \ depending \ on \ selected \ color, \ driver \ and \ reflector \ finish.$
- 2. Not available with Chicago Plenum.
- 3. Housing ships standard at 15° tilt for optimal wall wash position.
- 4. Refer to system specifications for additional information, features and benefits. Order either factory installed option or accessory, use with 0-10V
- 5. Requires above ceiling access.
- 6. DMX fixtures default to full on upon loss of DMX signal.

- 7. Must be used with lensed reflector.
- 8. UL US approved only.
- 11. Must be used with lensed reflector.
- 13. Limited to D010, D010A and DLVP drivers.
- 14. WPST = WaveLinx wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with 0-10V only. 15. WLST = WaveLinx LITE tilemount sensor kit for daylight dimming, PIR motion sensing, use with D010 only (Refer to WaveLinx LITE system
- 16. WPN = WaveLinx PRO wireless node provides luminaire-level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only.
- 17. WLN = WaveLinx LITE wireless node provides luminaire-level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only.



Product Specifications

Lower Reflector

- Painted die cast aluminum lower reflector providing superior lumen output with minimal source brightness
- Flat cut cone allows for full output and tilt range.
- Plaster lathing ring accessory offered for flush reflector transition.

Trim Retention

Reflector is retained with four pressure springs holding the flange tight to the finished ceiling

Housing

- Steel housing and collar painted matte black to eliminate stray light.
- Housing is top accessible.
- Collar adjusts vertically to accommodate 1/2" to 7/8" thick ceilings and locks in position with (4) screws.
- Extended depth collar accessory for 7/8" to 1.25" ceiling thickness.
- Integral gun sights facilitate the use of guide strings or laser lines
- Shipped with overspray protector installed.

Adjustment Mechanism

- Mechanism allows smooth 365° rotation and lockable 45° tilt adjustment and locks in position with 1/4" Phillips hex driver.
- Aiming scale enables consistent setting across multiple fixtures.

- Interchangeable silicone optic in 5° increments from 15°-70° provides smooth beam without color separation.
- Media holder fits onto optic holder and holds up to two lens media.

Universal Mounting Bracket

Accepts 1/2" EMT, C Channel, Tbar fasteners and hanger bars.

Junction Box

- (4) 1/2" trade size pry outs positioned to allow straight conduit runs.
- Listed for (4) #12AWG (two in, two out) 90°C conductors and feed thru branch wiring for top access units (with top access units only).
- Lever connectors for simple push in wiring.

Thermal

Forged aluminum heat sink conducts heat away from the LED COB for optimal performance and long life.

LED

- Chip on board with a multitude of highly efficient white LED's, combined with TIR optic produces an 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
- Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded.
- Color variation within 2-step MacAdam ellipses.
- Available in 80, 90 or 97 CRI. D2W™ dim-to-warm shifts CCT from 3000K to 1850K as fixture dims mimicking halogen sources.

- Standard 120-277V 0-10V dimming driver provides flicker free dimming from 100% to 1%.
- Optional 120V leading edge, <1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem (standard 0-10V driver and 0-10V/ leading edge can be serviced from above or through the aperture others require above ceiling access)
- Distributed low voltage power system combines power, lighting, and controls with ease of installation.

Connected Lighting System

Two WaveLinx connected solutions to choose from. Refer to WaveLinx system specifications and application guides for details.

WaveLinx PROTilemount Sensor Kit

WaveLinx PRO WPST tilemount sensor kit offers daylight dimming, PIR motion sensing, scene and zone configuration, automatic commissioning: and optional RLTS - Real Time Location Services available.

WaveLinx PRO Wireless Node

WaveLinx PRO WPN wireless node provides luminaire-level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only. Note: Not compatible with 347V or Chicago plenum.

WaveLinx LITETilemount Sensor Kit

WaveLinx LITE WLST tilemount sensor kit offers daylight dimming and PIR motion sensing, scene and grouping configuration.

WaveLinx LITE Wireless Node

WaveLinx LITE WLN wireless node provides luminaire level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only. Note: Not compatible with 347V or Chicago plenum.

WaveLinx Tilemount Sensor Kits Application

- The WPST and WLST tilemount sensor kits include a control module mounted on the luminaire junction box via 1/2" knock-out, and a tilemount sensor on 54-inch whip; for ceiling installation by direct-mount spring clips or via mounting bracket in octagon ceiling boxes.
- The WPST and WLST tilemount sensor kits may be ordered as factory installed on the luminaire, or ordered separately as a field installed accessory kit.
- Note: WaveLinx PRO devices are only compatible with the WaveLinx PRO system.
- Note: WaveLinx LITE devices are only compatible with the WaveLinx LITE system.

Code Compliance

- Thermally protected and cULus listed for protected damp locations with open trims location with lensed trims.
- EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits.
- IC-rated and air tight with lensed trims, RoHS Compliant.
- Photometric testing completed in accordance with
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11.
- Can be used for State of California Title 24 high efficacy LED compliance under JA8, reference Modernized Appliance Efficiency Database System (MAEDBS) for 2016 JA8 High Efficacy Lighting
- ENERGY STAR® certified, reference certified light fixtures database

Warranty

· 5 year warranty



Energy Data

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

500 Lum	en D010	1000 Lumen D010		
Input Power: 7.4W	THD: <14.4%	Input Power: 11W	THD: <13.8%	
120V Input Current: 0.06A	277V Input Current: 0.03A	120V Input Current: 0.086A	277V Input Current: 0.042A	
1500 Lumen D010		2000 Lumen D010		
1500 Lur	nen D010	2000 Lun	nen D010	
1500 Lun Input Power: 15.1W	nen D010 THD: <13.0%	2000 Lun Input Power: 21.2W	nen D010 THD: <8.6%	

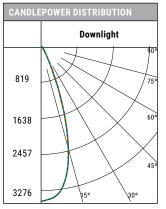
	120V		277V	
Lumens	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
500 Lumen D010	0.64	0.05	1.4	0.04
1000 Lumen D010	1.02	0.041	2.18	0.021
1500 Lumen D010	1.02	1.02	2.24	0.064
2000 Lumen D010	1.02	0.077	2.43	0.027

Photometric Data









CONE OF LIGHT				
000				
D	FC	L	W	
4'	205	2.4	2.4	
7'	66.9	4.2	4.2	
9'	40.5	5.4	5.4	
13'	19.4	7.8	7.8	
16'	12.8	9.6	9.6	

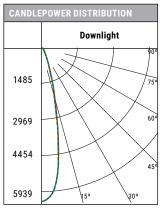
CANDEL	ATABLE
Degrees Vertical	Candela
0	3280
5	3198
15	2208
25	456
35	57
45	11
55	3
65	0
75	0
85	0
90	0

ZONAL LUMEN SUMMARY				
Zone	Lumens	%		
		Fixture		
0-30	1124	95.5		
0-40	1164	98.9		
0-60	1176	99.9		
0-90	1177	100		
90-180	0	0		
0-180	1177	100		

_		
	LUMINANC	E
	Average Candela Degrees	Average 0° Lumi- nance
	45	7536
	55	2322
	65	584
	75	0
	85	0

NARROW	FLOOD
Test Number	G2-1811-033-2
Housing	LDA2B108035D010
Module	EU2B10NFL258035
Trim	2LBD1H
Lumens	1145
Efficacy	114.5 Lm/W
sc	0.39





CONE OF LIGHT			
000			
D	FC	L	W
4'	371.4	1.4	1.4
7'	121.3	2.6	2.6
9'	73.4	3.4	3.4
13'	35.2	5	5
16'	23.2	6.2	6.2

CANDELA	A TABLE
Degrees Vertical	Candela
0	5943
5	5460
15	1759
25	277
35	43
45	9
55	2
65	0
75	0
85	0
90	0

ZONAL	LUMEN SI	JMMARY
Zone	Lumens	%
		Fixture
0-30	1104	96.4
0-40	1135	99.1
0-60	1144	99.9
0-90	1145	100
90-180	0	0
0-180	1145	100

LUMINANC	E
Average Candela Degrees	Average 0° Lumi- nance
45	6001
55	1892
65	584
75	0
85	0

Photometric Data



SPOT	
Test Number	G2-1811-033-1
Housing	LDA2B108035D010
Module	EU2B10SP158035
Trim	2LBD1H
Lumens	1093
Efficacy	109.3 Lm/W
sc	0.28



CANDLEPOWER DISTRIBUTION	
	Downlight
2502	75°
5004	60°
7507	45°
10009	15° 30°

CONE OF LIGHT			
0%			
D	FC	L	W
4'	625.8	1	1
7'	204.3	1.8	1.8
9'	123.6	2.4	2.4
13'	59.2	3.6	3.6
16'	39.1	4.4	4.4

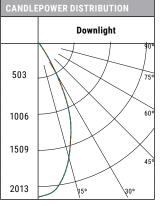
	A TABLE
Degrees Vertical	Candela
0	10013
5	7952
15	1157
25	201
35	34
45	6
55	2
65	0
75	0
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
		rixture
0-30	1061	97.1
0-40	1085	99.2
0-60	1093	99.9
0-90	1093	100
90-180	0	0
0-180	1093	100

MARY	LUMINANCE	
%	Average	Average
xture	Candela Degrees	0° Lumi-
97.1		nance
	45	4117
99.2		,
	55	1892
99.9		
100	65	584
100		
0	75	0
100	85	0

WIDE FLO	OD
Test Number	G2-1811-033-5
Housing	LDA2B108035D010
Module	EU2B10WFL558035
Trim	2LBD1H
Lumens	1165
Efficacy	116.5 Lm/W
sc	0.74





CONE OF LIGHT					
000					
D	FC	L	W		
4'	126	2.8	2.8		
7'	41.2	5.2	5.2		
9'	24.9	6.6	6.6		
13'	11.9	9.6	9.6		
16'	7.9	11.8	11.8		

CANDELA	CANDELA TABLE		
Degrees Vertical	Candela		
0	2017		
5	1968		
15	1549		
25	920		
35	168		
45	23		
55	4		
65	0		
75	0		
85	0		
90	0		

ZONAL LUMEN SUMMARY				
Zone	Lumens	%		
		Fixture		
0-30	1016	87.2		
0-40	1140	97.9		
0-60	1164	99.9		
0-90	1165	100		
90-180	0	0		
0-180	1165	100		

Average Candela Degrees	Average O° Lumi- nance
45	15839
55	3699
65	584
75	0
85	0

Connected Systems



WaveLinx LITE - WLST Tilemount Sensor

WaveLinx LITE devices only compatible with the WaveLinx LITE system.

- Intuitive Android™ or Apple® iOS® app for basic system code compliant set up and configuration via Bluetooth
- Up to 28 unique areas per project site (WaveLinx LITE Bluetooth network)
- Up to 50 devices for an area, any one of 16 control zones, up to 6 occupancy sets, and custom lighting scenes
- Automatic occupancy or vacancy, sensor sensitivity, daylight dimming, etc. configurable through the app
- Refer to the WaveLinx system specifications for details









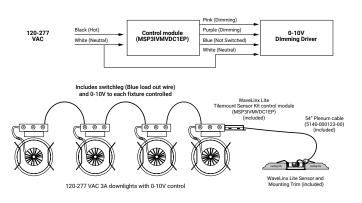












WaveLinx LITE Bluetooth Enabled System 9 8 8 8

WaveLinx PRO Wireless - WPST Tilemount Sensor

WaveLinx PRO devices only compatible with the WaveLinx PRO system.

- · WaveLinx PRO Wireless functionality configures zones and customizes settings from one secure mobile app
- · Automatic code commissioning that meets the strictest codes
- · Fixtures and sensors integrate with Wireless Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building Network Installations



WaveLinx mobile app settings











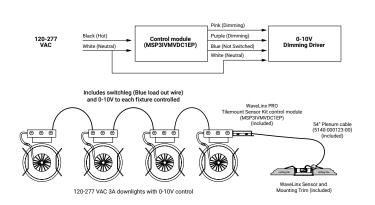




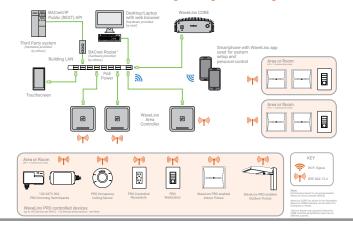




WaveLinx PRO WPST Tilemount Wiring Diagram



WaveLinx CORE Building Management Integration



Connected Solutions



WaveLinx LITE Wireless Node - WLN

WaveLinx LITE devices only compatible with the WaveLinx LITE system.

- Intuitive Android™ or Apple® iOS® app for basic system code compliant set up and configuration via Bluetooth
- Up to 28 unique areas per project site (WaveLinx LITE Bluetooth network)
- · Up to 50 devices for an area, any one of 16 control zones, up to 6 occupancy sets, and custom lighting scenes
- · Refer to the WaveLinx system specifications for details
- Not available with BioUp or Tunable White

WaveLinx mobile app settings









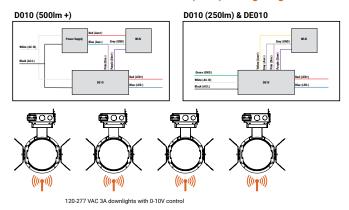








WaveLinx LITE Wireless Node (WLN) Wiring Diagram





WaveLinx PRO Wireless Node - WPN

WaveLinx PRO devices only compatible with the WaveLinx PRO system.

- · WaveLinx Wireless functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with WaveLinx Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building Network Installations



WaveLinx mobile app settings









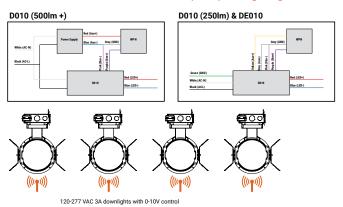




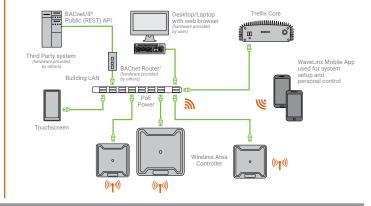




WaveLinx PRO Wireless Node (WPN) Wiring Diagram



WaveLinx CORE Building Management Integration





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Specifications and dimensions subject to change without notice.