

Project		Catalog #		Type	
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

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Product Certification



Control Compatibility



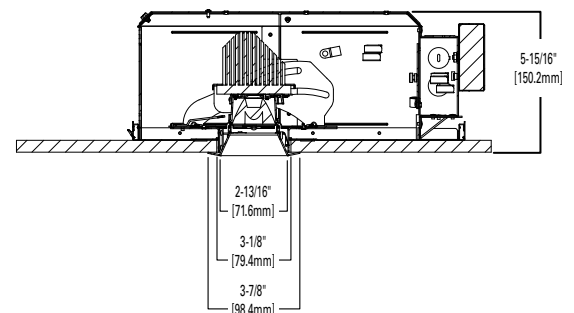
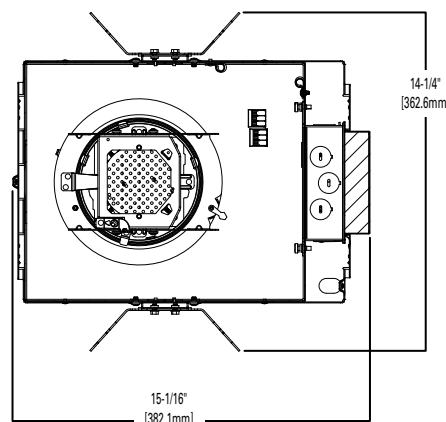
Product Features



Top 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°, 25°, 40° or 55°
- 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 ⁽⁷⁾	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 2R55WFL =55° optic 2R60 =60° optic 2R65 =65° optic 2R70 =70° optic Blank =no optic (order accessory reflector)	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	Blank =120-277V 3 =347V 0-10V only 1000-2000 lumens
Dim to Warm (1000 & 1500 lumens only) 9030D2W =Dim to warm, 90CRI Tunable White (1000 lumens only) W2N902050 = 2000K-5000K W2N902765 = 2700K-6500K Choose SLT or DE010 driver							

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⁾ DSLT =Fifth Light® DALI DT6 Logarithmic Dimming, 0% to 100%, 120V-277V ⁽⁵⁾ DMX =DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V ^{(3) (5)} DMXC5 =DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, with RJ45 connection ^{(3) (5)} DLE =Lutron Ecosystem dimming 1% to 100%, 120V-277V ⁽⁵⁾ DLV =Low voltage dimming driver 1-100% for use with DLVP system ⁽⁵⁾	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 (not for use with DLVP driver) EMV7 =7W Low Voltage Emergency Module with Remote Test Switch (for use with DLVP driver) ⁽⁸⁾ EMV14 =14W Low Voltage Emergency Module with Remote Test Switch (for use with DLVP driver) ⁽⁸⁾ WPST =Factory installed WaveLinX (includes control module, sensor, cable, tilemount and ceiling mount sensor) ^{(4) (14)} WLST =Factory installed WaveLinX LITE Sensor Kit ^{(4) (15)} WPN = WaveLinX PRO Wireless Node without sensor ⁽¹⁶⁾

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 ⁽⁴⁾ 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 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.

Notes

- Nominal Lumens will vary depending on selected color, driver and reflector finish.
- Not available with Chicago Plenum.
- Housing ships standard at 15° tilt for optimal wall wash position.
- Refer to system specifications for additional information, features and benefits. Order either factory installed option or accessory, use with 0-10V driver.
- Requires above ceiling access.
- DMX fixtures default to full on upon loss of DMX signal.
- Must be used with lensed reflector.
- UL US approved only.

- Must be used with lensed reflector.
- Limited to D010, D010A and DLVP drivers.
- WPST = WaveLinX wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with 0-10V only.
- WLST = WaveLinX LITE tilemount sensor kit for daylight dimming, PIR motion sensing, use with D010 only (Refer to WaveLinX LITE system specifications)
- 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.

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 surface.

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.

Optic

- 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 hours).
- 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.

Driver

- 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 Options

Two WaveLinX connected systems to choose from. Refer to WaveLinX system specifications and application guides for details.

WaveLinX Wireless System Tilemount Sensor Kit

- WaveLinX Wireless WTA tilemount sensor kit offers daylight dimming, PIR motion sensing, scene and zone configuration, automatic commissioning; and optional RLTS - Real Time Location Services available.

WaveLinX LITE System Tilemount Sensor Kit

- WaveLinX LITE WTK tilemount sensor kit offers daylight dimming and PIR motion sensing, scene and grouping configuration.

WaveLinX Tilemount Kits Application

- The WTA and WTK tilemount 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 WTA and WTK tilemount kits may be ordered as factory installed on the luminaire, or ordered separately as a field installed accessory kit.

Code Compliance

- Thermally protected and cULus listed for protected damp locations with open trims and wet 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 IES LM 79.
- 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

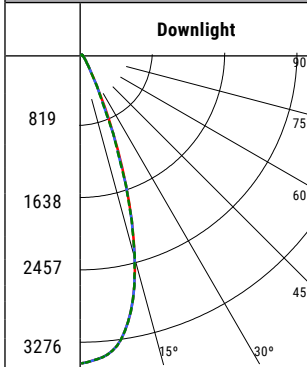
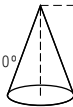
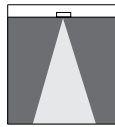
500 Lumen D010		1000 Lumen D010	
Input Power: 7.4W	THD: <14.4%	Input Power: 11W	THD: <13.8%
120V Input Current: 0.06A	277V Input Current: 0.03A	120V Input Current: 0.086A	277V Input Current: 0.042A

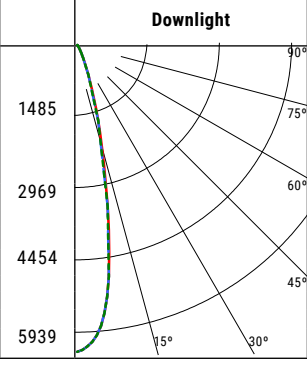
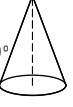
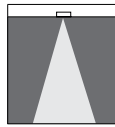
1500 Lumen D010		2000 Lumen D010	
Input Power: 15.1W	THD: <13.0%	Input Power: 21.2W	THD: <8.6%
120V Input Current: 0.13A	277V Input Current: 0.06A	120V Input Current: 0.18A	277V Input Current: 0.081A

Lumens	120V		277V	
	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

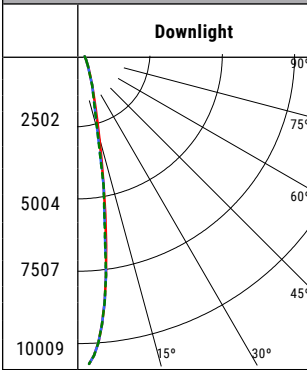
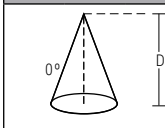
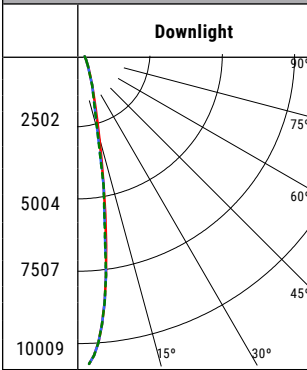
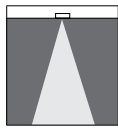
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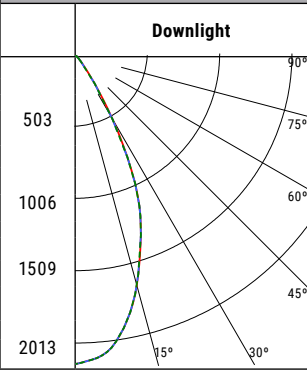
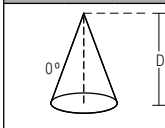
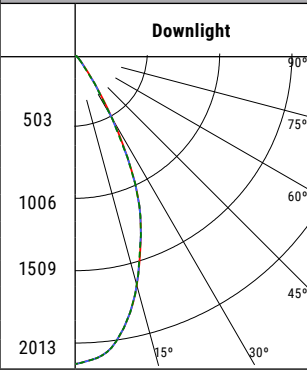
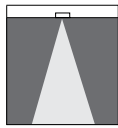
FLOOD		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT				CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE				
Test Number	G2-1811-033-3							Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance			
Housing	LDA2B108035D010											0-30	1124	95.5	45	7536	
Module	EU2B10FL408035			D	FC	L	W	5	3198	0-40	1164	98.9					
Trim	2LBD1H			4'	205	2.4	2.4	15	2208	0-60	1176	99.9					
Lumens	1177			7'	66.9	4.2	4.2	25	456	0-90	1177	100					
Efficacy	117.7 Lm/W	9'	40.5	5.4	5.4	35	57	90-180	0	0							
SC	0.61																
								13'	19.4	7.8	7.8	45	11	0	0	75	0
								16'	12.8	9.6	9.6	55	3	0	0	85	0
												65	0	0	90	0	
												75	0				
												85	0				

NARROW FLOOD		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT				CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE		
Test Number	G2-1811-033-2							Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance	
Housing	LDA2B108035D010														
Module	EU2B10NFL258035			D	FC	L	W								
Trim	2LBD1H			4'	371.4	1.4	1.4								
Lumens	1145			7'	121.3	2.6	2.6								
Efficacy	114.5 Lm/W			9'	73.4	3.4	3.4								
SC	0.39			13'	35.2	5	5								
				16'	23.2	6.2	6.2								

Photometric Data

 View IES files

SPOT		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT				CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE											
Test Number	G2-1811-033-1							Degrees Vertical	Canдела	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance										
Housing	LDA2B108035D010							0	10013	0-30	1061	97.1	45	4117										
Module	EU2B10SP158035							5	7952	0-40	1085	99.2												
Trim	2LBD1H							15	1157	0-60	1093	99.9	55	1892										
Lumens	1093							25	201	0-90	1093	100	65	584										
Efficacy	109.3 Lm/W							35	34	90-180	0	0	75	0										
SC	0.28							45	6	0-180	1093	100	85	0										
								55	2															
								65	0															
								75	0															
								85	0															
								90	0															

WIDE FLOOD		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT				CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE											
Test Number	G2-1811-033-5							Degrees Vertical	Canдела	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance										
Housing	LDA2B108035D010							0	2017	0-30	1016	87.2	45	15839										
Module	EU2B10WFL558035							5	1968	0-40	1140	97.9												
Trim	2LBD1H							15	1549	0-60	1164	99.9	55	3699										
Lumens	1165							25	920	0-90	1165	100	65	584										
Efficacy	116.5 Lm/W							35	168	90-180	0	0	75	0										
SC	0.74							45	23	0-180	1165	100	85	0										
								55	4															
								65	0															
								75	0															
								85	0															
								90	0															

Connected Solutions

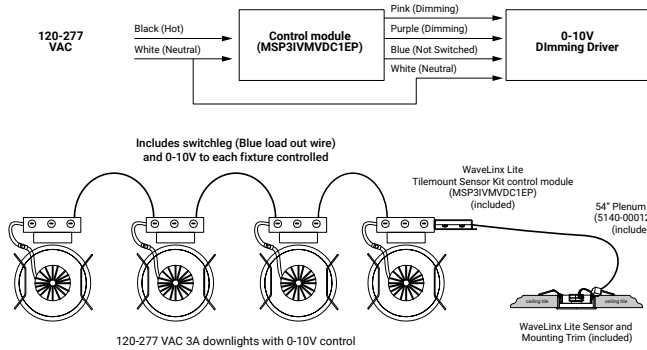


WaveLinX LITE - WLST Tilemount Sensor

- 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 WLST Tilemount Wiring Diagram



WaveLinX LITE Bluetooth Enabled System



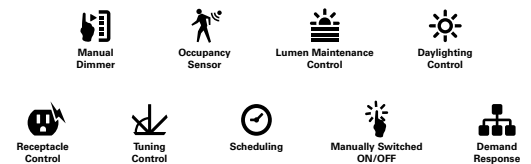
WaveLinX PRO Wireless – WPST Tilemount Sensor



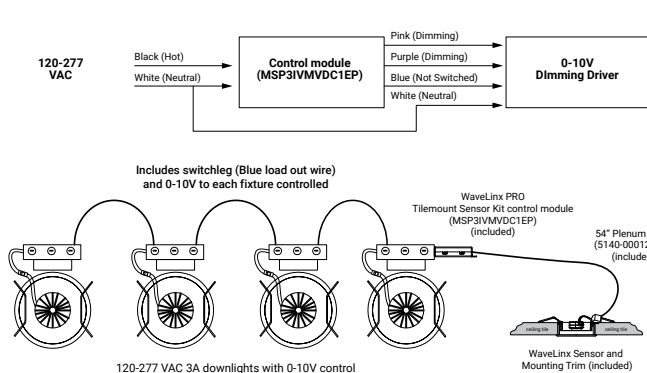
- WaveLinX PRO Wireless functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with Wireless Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building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



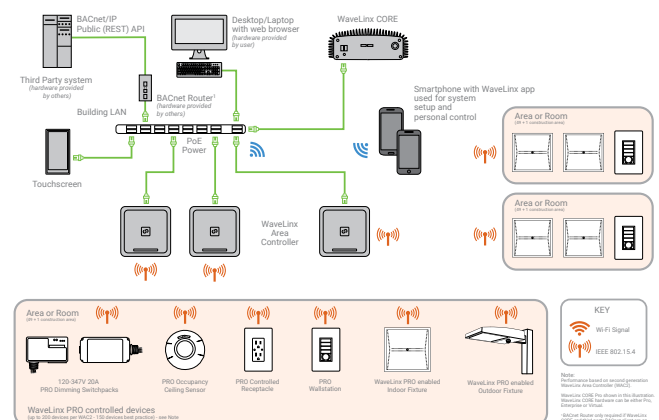
WaveLinX mobile app settings



WaveLinX PRO WPST Tilemount Wiring Diagram



WaveLinX CORE Building Management Integration



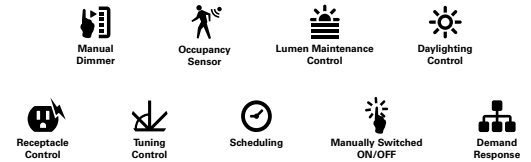
Connected Solutions

WaveLinx PRO Wireless Node - WPN

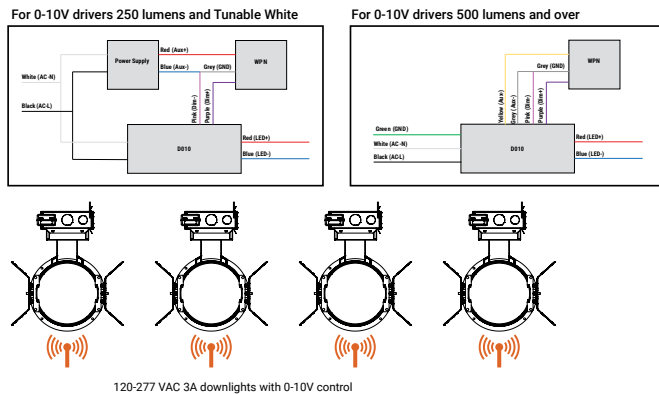
- WaveLinx Wireless functionality configures zones and customizes settings from one secure mobile app
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- Fixtures and sensors integrate with WaveLinx Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building Network Installations



WaveLinx mobile app settings



WaveLinx PRO Wireless Node (WPN) Wiring Diagram



WaveLinx CORE Building Management Integration

