

Project		Catalog #		Type	
Prepared by		Notes		Date	



## Portfolio

### LDS4B | EU4B | 4LBS

4" round, new construction  
shallow downlight

#### Typical Applications

Office • Education • Healthcare • Hospitality • Retail •  
Code-Compliance Areas • Sports Venues

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#### Product Certification



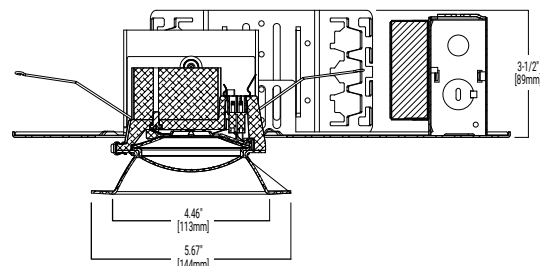
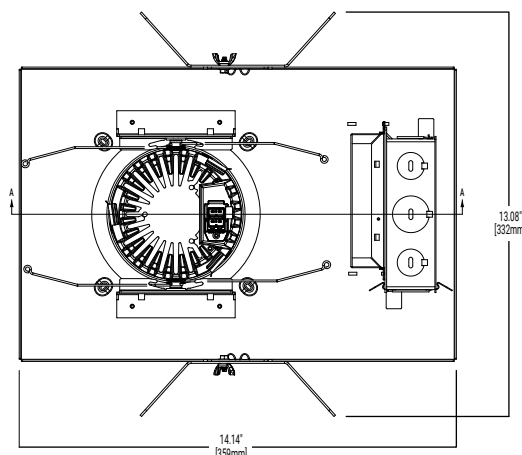
#### Product Features



#### Top Product Features

- 500, 1000, 1500, 2000, 3000 lumens
- 2400K, 2700K, 3000K, 3500K, 4000K, 5000K color temperature
- For standard or shallow plenum heights
- Dim-to-warm technology
- Tuneable white technology
- Options to meet Buy American and other domestic preference requirements

#### Dimensional and Mounting Details



## Order Information

SAMPLE ORDER NUMBER: LDS4B10D010-EU4B102027-4LBS1MW

Domestic Preferences	Housing	Lumens	Driver
Domestic Preferences <sup>(11)</sup>	Housing	Lumen <sup>(1)</sup>	Driver
<b>[Blank]</b> =Standard <b>BAA</b> =Buy American Act <b>TAA</b> =Trade Agreements Act	<b>LDS4B</b> = 4" Downlight 4" nominal aperture <b>LDS4BCP</b> = 4" Downlight 4" nominal aperture, Chicago Plenum	<b>05</b> = 500 Lumens <sup>(10)</sup> <b>10</b> = 1000 Lumens <b>15</b> = 1500 Lumens <b>20</b> = 2000 Lumens <b>30</b> = 3000 Lumens	<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 <sup>(5)</sup> <b>D5LT</b> = Fifth Light® DALI DT6 Logarithmic Dimming, 0% to 100%, 120V-277V <sup>(8)</sup> <b>DMX</b> = DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V <sup>(9)(8)</sup> <b>DMXCS</b> = DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, with RJ45 connection <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>DLV</b> = Low voltage dimming driver (1-100%) for use with DLVP system <sup>(3)</sup> <b>Tunable white 1000-2000 Lumens</b> <sup>(2)(5)</sup> <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 DT6 Logarithmic Dimming, 0% to 100%, 120V, 2000K - 5000K <b>1D5LTW2N2765</b> = Fifth Light DALI DT6 Logarithmic Dimming, 0% to 100%, 120V, 2700K - 6500K <b>2DE010W2N2050</b> = 0-10V dimming, 0% to 100%, 277V, 2000K - 6500K <b>2DE010W2N2765</b> = 0-10V dimming, 0% to 100%, 277V, 2700K - 6500K <b>2D5LTW2N2050</b> = Fifth Light DALI DT6 Logarithmic Dimming, 0% to 100%, 277V, 2000K - 5000K <b>2D5LTW2N2765</b> = Fifth Light DALI DT6 Logarithmic Dimming, 0% to 100%, 277V, 2700K - 6500K

Domestic Preferences	Power Module	Lumen	CRI / CCT		
Domestic Preferences <sup>(11)</sup>	Power Module	Lumen <sup>(1)</sup>	CRI / CCT		
<b>[Blank]</b> =Standard <b>BAA</b> =Buy American Act <b>TAA</b> =Trade Agreements Act	<b>EU4B</b> = 4" Universal LED Module	<b>1020</b> = 1000, 1500, 2000 Lumens <b>3040</b> = 3000 Lumens	<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 = 1000 lumen, 90 CRI, Dim 2 Warm	<b>Tunable White</b> 1020W2N902050 = 1000, 1500, 2000 lumens, 90 CRI, tunable white 2000K-5000K 1020W2N902650 = 1000, 1500, 2000 lumens, 90 CRI, tunable white 2700K-6500K	

Reflector	Flange	Finish
Reflector	Flange	Finish
<b>4LBS</b> = 4" Shallow wide beam spun aluminum <b>4LBCS</b> = 4" Shallow wide beam Die cast <b>4LBPS</b> = 4" Shallow non-conductive, injection molded white (self flanged white only)	<b>0</b> = White polymer trim ring <b>1</b> = Self-flanged (finish is the same as the reflector) <b>2</b> = White painted self- flanged	<b>Spun reflectors</b> <b>LI</b> = Specular Clear <b>H</b> = Semi-Specular Clear <b>WMH</b> = Warm Haze <b>WH</b> = Wheat <b>GPH</b> = Graphite Haze <b>B</b> = Specular Black <b>Die Cast reflectors</b> <b>MW</b> = Matte White <b>MB</b> = Matte Black <b>MMS</b> = Matte Metallic Silver

Accessories
Accessories <sup>(12)</sup>
<b>HSA4</b> = Slope Adapter for 4" Aperture Housings, Specify Slope in 5° increments <b>TRM4</b> = Metal Trim Ring, Specify Color <b>LGSKT4IP66</b> = IP66 Gasket Kit <b>PRR4</b> = Rimless Plaster Ring for Flush Mount (order reflector with polymer ring) <b>Bar Hangers</b> <b>HB26</b> = C-channel Bar Hanger, 26" Long, Pair <b>TAA-HB26</b> =Pair C-channel bar hanger, 26" long <sup>11</sup> <b>HB50</b> = C-channel Bar Hanger, 50" Long, Pair <b>RMB22</b> = Wood Joist Bar Hanger, 22" Long, Pair <b>Connected Lighting Systems</b> <sup>(7)</sup> <b>WTA</b> = Field installed WaveLinX sensor Kit <sup>(8)</sup> <b>WTK</b> = Field installed WaveLinX Lite Sensor Kit <sup>(9)</sup>

## Notes

(1) Nominal lumens will vary depending on selected color, driver and reflector finish.

(2) Non-IC

(3) Not available with Chicago Plenum.

(5) Requires above ceiling access.

(6) DMX fixtures default to full on upon loss of DMX signal.

(7) Refer to system specifications for additional information, features, and benefits. Order either factory installed option or accessory.

(8) WTA = WaveLinX wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with 0-10V only.

(9) WTK = WaveLinX Lite tile mount sensor kit for daylight dimming, PIR motion sensing, use with D010 only (Refer to WaveLinX Lite system specifications)

(10) Limited to D010 drivers

(11) Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to [DOMESTIC PREFERENCES](#) website for more information. Components shipped separately may be separately analyzed under domestic preference requirements. Offered with spun aluminum narrow, medium and wide trims.

(12) Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

## Product Specifications

### Lower Shielding Reflector

- Painted die cast aluminum, spun aluminum or non-conductive injection molded lower reflector with a lensed upper optical chamber providing superior lumen output with minimal source brightness
- Spun reflectors are offered in all Portfolio Alzak® finishes
- 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

- Galvanized steel plaster frame designed for ceiling thickness from ½ to 1-1/4-inch
- Universal mounting bracket accepts 1/2" EMT, C channel and bar

### Junction box

- Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring
- (4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs

### 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 2-step MacAdam ellipses. Flexible 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. Standard (requires above ceiling access)

### Driver

- 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
- W2N, DMX, DE010, and D5LT require above ceiling access and all other drivers can be accessed from above or through the aperture
- 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 tile mount 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 tile mount 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 wet locations
- 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
- IC rated up to 1500 lumens
- 2000 lumen and above are non-IC rated - insulation must be kept 3" from top and sides of housing
- 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

- Five year warranty

## Energy and Performance 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

	120V		277V	
Lumens	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

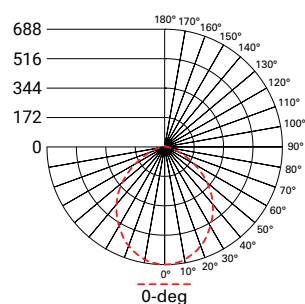
1000 Lumen D010	
Input power: 11W	THD: <14%
120V input current: 0.09A	277V Input Current: 0.04A

1500 Lumen D010	
Input power: 15.5W	THD: <13%
120V input current: 0.13A	277V Input Current: 0.06A

2000 Lumen D010	
Input power: 21.2W	THD: <9%
120V input current: 0.18A	277V Input Current: 0.08A

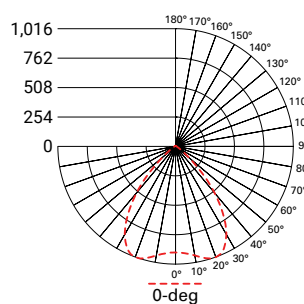
3000 Lumen D010	
Input power: 27.6W	THD: <10%
120V input current: 0.23A	277V Input Current: 0.10A

## Photometric Data

[View IES files](#)


## Test Report: P201210

Housing: LD4B15D010  
 Module: EU4B10208035  
 Trim: 4LBCS1MMS  
 Lumens: 1497  
 Input Watts: 14.3W  
 Efficacy: 104.7 Lm/W



## Test Report: P201204

Housing: LD4B15D010  
 Module: EU4B10208035  
 Trim: 4LBW1LI  
 Lumens: 1518  
 Input Watts: 14.3W  
 Efficacy: 106.2 Lm/W

## Connected Systems

## WaveLinX Lite - WTK 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



Device Security



Manual Dimmer



Occupancy Sensor



Daylighting Control



Manually Switched ON/OFF



Tuning Control

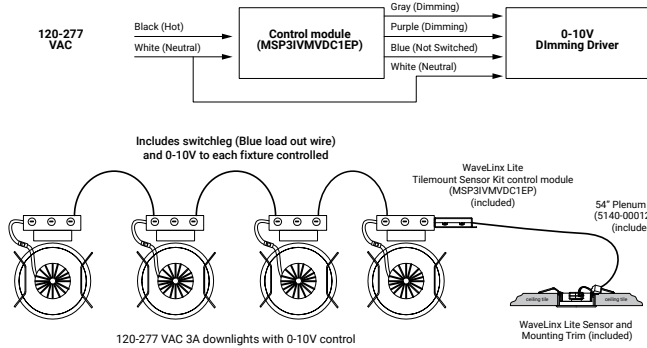


Lumen Maintenance Control

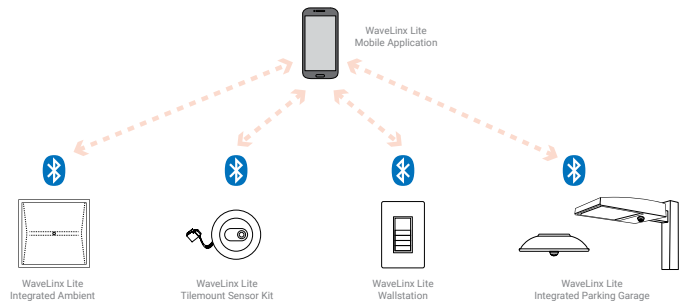


Scenes

## WaveLinX Lite WTK Tilemount Wiring Diagram



## WaveLinX Lite Bluetooth Enabled System



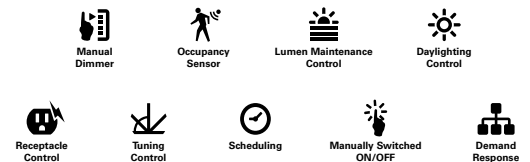
## WaveLinX Wireless – WTA Tilemount Sensor



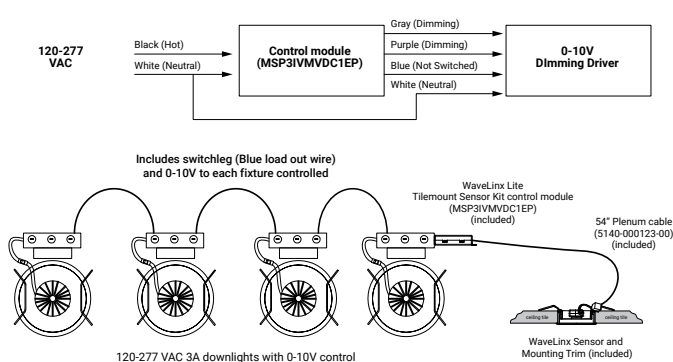
- WaveLinX Wireless functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with Wireless Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building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



## WaveLinX mobile app settings



## WaveLinX Lite WTA Tilemount Wiring Diagram



## WaveLinX Wireless Trellix Building Management Integration

