

Project		Catalog #		Type	
Prepared by		Notes		Date	



## Portfolio

### LDRT8B / LDRT810B / LDRT812B-ER8B-8LB

8" - 12" LED Narrow, Medium or Wide Beam Retrofit/Remodel Downlight  
1,000-20,000 Lumen

#### Typical Applications

Office • Education • Healthcare • Hospitality

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- Product Warranty

#### Product Certification



#### Product Features



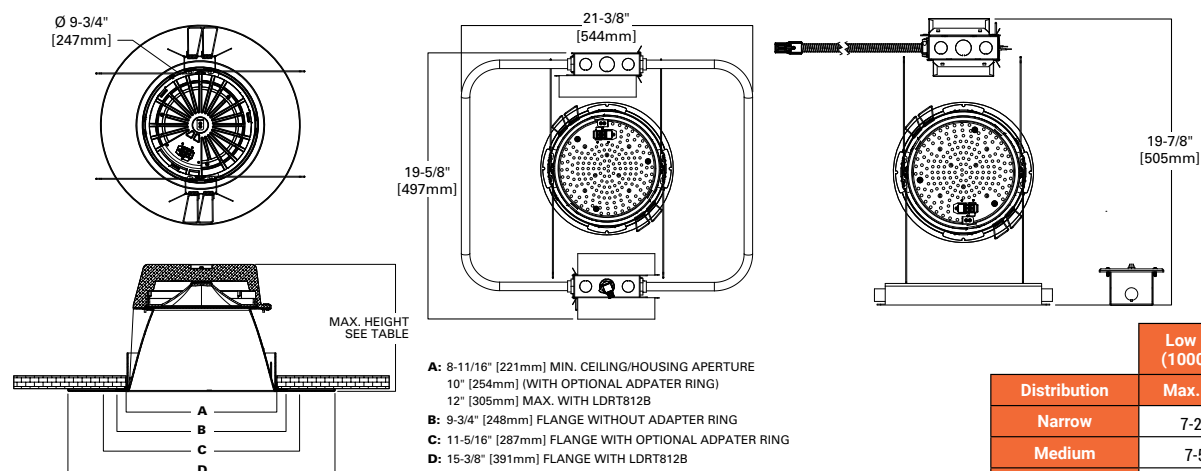
#### Control Compatibility



#### Top Product Features

- Retrofits in ceiling openings from 8.7-inch to 12-inch; Flexible disconnect for easy LED engine replacement and installation
- 1,000 to 20,000 lumens; Offered in 80, 90 and 97 CRI; narrow beam, medium beam and wide beam distributions
- Coverts existing 8", 9", 10" and 12" incandescent, HID and compact fluorescent housings to LED
- 2700K, 3000K, 3500K, 4000K, 5000K; D2W™ option from 3000K to 1850K
- W2N tunable white CCT range 2700K to 6500K or 2000K to 5000K

#### Dimensional and Mounting Details



	Low Lumen (1000-7000)	High Lumen (8000-20000)
<b>Distribution</b>	<b>Max. Height</b>	<b>Max Height</b>
Narrow	7-25/32"	9-3/4"
Medium	7-5/16"	9-9/32"
Wide	6-11/16"	8-11/16"
Shallow	4-26/32"	6-26/32"

## Order Information

SAMPLE ORDER NUMBER: **LDRT8B50D010IEMBOD**

Housing	Lumens	Voltage	Driver Options	
Housing	Lumens <sup>(1)</sup>	Voltage <sup>(10)</sup>	1 Driver	2 and 3 Drivers
<b>LDRT8B</b> =LED downlight retrofit 8" nominal Aperture <b>LDRT8BCP</b> =LED downlight Retrofit 8" Nominal Aperture, Chicago Plenum <b>LDRT810B</b> =LED downlight retrofit 10" nominal Aperture, 11.3 OD <b>LDRT810BCP</b> =LED downlight retrofit 10" nominal Aperture, 11.3 OD, Chicago Plenum <b>LDRT812B</b> =LED Downlight Retrofit 12" Nominal Aperture <b>LDRT812BCP</b> =LED Downlight Retrofit 12" 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 <b>60</b> =6000 lumens <sup>(7)</sup> <b>70</b> =7000 lumens <sup>(7)</sup> <b>80</b> =8000 lumens <sup>(7)</sup> <b>90</b> =9000 lumens <sup>(7)</sup> <b>100</b> =10000 lumens <sup>(7)</sup> <b>120</b> =12000 lumens <sup>(7)</sup> <b>150</b> =15000 lumens <sup>(7)</sup> <b>175</b> =17500 lumens <sup>(7)</sup> <b>200</b> =20000 lumens <sup>(7)</sup>	<b>Blank</b> =120-277 7000 lumen and below. <b>3</b> =347V step down transformer <sup>(11)</sup>	<b>1000-4000 Lumen<sup>(13)</sup></b> <b>D010</b> =0-10V Dimming, 1% to 100% <b>D010TR</b> =0-10V 120-277V or 120V Line Voltage Dimming, 1% to 100% <b>DE010</b> =0-10V Linear Dimming, 0% to 100%, 120V-277V <b>D5LT</b> =Fifth Light® DALI DT6 Logarithmic Dimming, 0% to 100%, 120V-277V <b>DMX</b> =DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V <sup>(12)</sup> <b>DMXC5</b> =DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, with RJ45 connection <b>DLE</b> =Lutron Ecosystem dimming 1% to 100% <b>DMXC5</b> =DMX/RDM Logarithmic Dimming 0% to 100% with RJ45 connection  <b>1000-3000 Lumen</b> <b>DLV</b> =Low voltage dimming driver (1-100%) for use with DLVP system  <b>5000, 6000, and 7000 Lumen<sup>(14)</sup></b> <b>D010TE</b> =0-10V or Trailing Edge Dimming, 5% to 100%, 120V-277V (120V Only for Trailing Edge Dimming)  <b>Tunable white 1000-2000</b> <b>DE010W2N</b> =0-10V dimming, 0% to 100%, 120V <b>D5LTW2N</b> =Fifth Light DALI DT6 Logarithmic Dimming, 0% to 100%	<b>4000 and 6000 Lumen D2W (2 Drivers)</b> <b>6000, 8000 and 9000 Lumen (2 Drivers)</b> <b>9000 Lumen D2W (3 Drivers)</b> <b>12,000 Lumen (3 Drivers)</b> <b>1D010</b> =0-10V, 120V Dimming, 1% to 100% <b>2D010</b> =0-10V, 277V Dimming, 1% to 100% <b>1D010TR</b> =0-10V or 120V Line Voltage Dimming, 1% to 100% <b>2D010TR</b> =0-10V, 277V Dimming, 1% to 100% <b>1DE010</b> =0-10V, 120V Linear Dimming, 0% to 100% <b>2DE010</b> =0-10V, 277V Linear Dimming, 0% to 100% <b>1D5LT</b> =120V Fifth Light® DALI DT6 Logarithmic Dimming, 0% to 100% <b>2D5LT</b> =277V Fifth Light® DALI DT6 Logarithmic Dimming, 0% to 100% <b>1DMX</b> =120V, DMX/RDM Logarithmic Dimming, 0% to 100% <sup>(12)</sup> <b>2DMX</b> =277V, DMX/RDM Logarithmic Dimming, 0% to 100% <sup>(12)</sup> <b>1DMXC5</b> =120V, DMX/RDM Logarithmic Dimming, 0% to 100% with RJ45 connection <b>2DMXC5</b> =277V, DMX/RDM Logarithmic Dimming 0% to 100% with RJ45 connection <b>1DL2</b> =120V Lutron® Hi-Lume Forward Phase Dimming, 1% to 100% <b>1DLE</b> =120V, Lutron Ecosystem dimming 1% to 100% <b>2DLE</b> =277V, Lutron Ecosystem dimming 1% to 100%  <b>10,000, 12,000, 15,000, 17,500, 20,000 Lumen</b> <b>1D010TE</b> =0-10V or Trailing Edge Dimming, 5% to 100%, 120V <b>2D010TE</b> =0-10V, 5% to 100%  <b>Tunable white 3000-4000</b> <b>1DE010W2N</b> =0-10V dimming, 0% to 100%, 120V <b>2DE010W2N</b> =0-10V dimming, 0% to 100%, 277V <b>1D5LTW2N</b> =120V, Fifth Light DALI DT6 Logarithmic Dimming, 0% to 100% <b>2D5LTW2N</b> =277V, Fifth Light DALI DT6 Logarithmic Dimming, 0% to 100%

Color Control	Options
Color Control <sup>(9)</sup>	Options
<b>Blank</b> =No color control or D2W for 2000 lumens and below <b>D2W</b> =For 4000, 6000 and 9000 dim 2 warm <b>2050</b> =For W2N 2000K - 5000K <b>2765</b> = For W2N 2700K - 6500K	<b>WTA</b> =Factory installed WaveLinX Sensor Kit <sup>(2)</sup> <sup>(9)</sup> <sup>(16)</sup> <b>WTK</b> =Factory installed WaveLinX Lite Sensor Kit <sup>(2)</sup> <sup>(3)</sup> <sup>(17)</sup> <b>WPN</b> = WaveLinX PRO Wireless Node without sensor <sup>(18)</sup>  <b>EMBOD</b> =Bodine® Emergency Module with Remote Test Switch <sup>(3)</sup> <b>EMBOD7ST</b> =Bodine® Emergency Module with Self Test Remote Test Switch <sup>(3)</sup> <b>EM7</b> =7W Emergency Module with Remote Test Switch <sup>(3)</sup> <b>EM14</b> =14W Emergency Module with Remote Test Switch <sup>(3)</sup> <b>EMV7</b> =7W Low Voltage Emergency Module with Remote Test Switch <sup>(3)</sup> <sup>(4)</sup> <b>EMV14</b> =14W Low Voltage Emergency Module with Remote Test Switch <sup>(3)</sup> <sup>(4)</sup>

### Notes

- (1) Nominal Lumens will vary depending on selected color, driver and reflector finish.
- (2) Refer to system specifications for additional information, features and benefits. Order either factory installed option or accessory, use with 0-10V driver.
- (3) Not available with Chicago Plenum or IC rating.
- (4) ULus listed only.
- (7) 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"
  - 20,000 Lumens minimum overhead of 6"
- (9) Field required for D2W 4000, 6000 and 9000 lumens only.
- (10) For single driver.
- (11) 347V step down transformer only available up to 7000 Lumen
- (12) DMX fixtures default to full on upon loss of DMX signal.
- (13) For D2W up to 3000 lumens.
- (14) Not for use with D2W.
- (16) WTA = WaveLinX wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with 0-10V only.
- (17) WTK = WaveLinX Lite tile mount sensor kit for daylight dimming, PIR motion sensing, use with D010 only (Refer to WaveLinX Lite system specifications)
- (18) 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.

## Order Information

SAMPLE ORDER NUMBER: **ER8B30408035**

Power Module	Lumen Levels	Color	
Power Module	Lumen Levels <sup>(1)</sup>	Color	
ER8B=8" LED Module	<b>1 Driver</b> <b>1020</b> =1000, 1500, or 2000 Lumens <b>3040</b> =3000 or 4000 Lumens <b>5070</b> =5000, 6000, or 7000 lumens  <b>2 Drivers</b> <b>60</b> =6000 lumens, 2 LEDs <b>80120</b> =8000, 9000, 10000, or 12000 lumens  <b>3 Drivers</b> <b>120</b> =12000 lumens, 3 LEDs <b>150200</b> =15000, 17500 or 20000 lumens	<b>80 CRI</b> <b>8027</b> = 80CRI, 2700K <b>8030</b> = 80CRI, 3000K <b>8035</b> = 80CRI, 3500K <b>8040</b> = 80CRI, 4000K <b>8050</b> = 80CRI, 5000K	<b>90 CRI</b> <b>9027</b> = 90CRI, 2700K <b>9030</b> = 90CRI, 3000K <b>9035</b> = 90CRI, 3500K <b>9040</b> = 90CRI, 4000K <b>9050</b> = 90CRI, 5000K  <b>97 CRI</b> <b>9727</b> = 97CRI, 2700K <b>9730</b> = 97CRI, 3000K
		<b>Dim 2 Warm 1 Driver</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, IC Rated <b>309030D2W</b> =3000 Lumen, 90 CRI, Dim 2 Warm  <b>Dim 2 Warm 2 Drivers</b> <b>409030D2W</b> =4000 Lumen, 90 CRI, Dim 2 Warm <b>609030D2W</b> =6000 Lumen, 90 CRI, Dim 2 Warm  <b>Dim 2 Warm 3 Drivers</b> <b>909030D2W</b> =9000 Lumen, 90 CRI, Dim 2 Warm	<b>W2N Tunable White 1 Driver<sup>(15)</sup></b> <b>10W2N902050</b> =1000 lumens, 90 CRI, Tunable white 2000K - 5000K <b>10W2N902765</b> =1000 lumens, 90 CRI, Tunable white 2700K - 6500K <b>15W2N902050</b> =1500 lumens, 90 CRI, Tunable white 2000K - 5000K <b>15W2N902765</b> =1500 lumens, 90 CRI, Tunable white 2700K - 6500K <b>20W2N902050</b> =2000 lumens, 90 CRI, Tunable white 2000K - 5000K <b>20W2N902765</b> =2000 lumens, 90 CRI, Tunable white 2700K - 6500K  <b>W2N Tunable White 2 Drivers</b> <b>30W2N902050</b> =3000 lumens, 90 CRI, Tunable white 2000K - 5000K <b>30W2N902765</b> =3000 lumens, 90 CRI, Tunable white 2700K - 6500K <b>40W2N902050</b> =4000 lumens, 90 CRI, Tunable white 2000K - 5000K <b>40W2N902765</b> =4000 lumens, 90 CRI, Tunable white 2700K - 6500K

SAMPLE ORDER NUMBER: **8LBM1LI**

Trim	Distribution	Flange	Finish	Options
Trim	Distribution <sup>(5)</sup>	Flange	Finish	Options
8LB=8" Reflector	<b>N</b> =Narrow Spun Aluminum <b>M</b> =Medium Spun Aluminum <b>W</b> =Wide Spun Aluminum <b>S</b> =Shallow Spun Aluminum	<b>0</b> =White Polymer Trim Ring <b>1</b> =Self-flanged <sup>(8)</sup> <b>2</b> =White Painted Self-flanged	<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>MW</b> =Matte White	<b>E</b> =Integral Emergency Test Switch Hole <sup>(6)</sup>

### Accessories

Accessories
<b>Transformers</b> <b>H347</b> =347 to 120V Step Down Transformer, 75VA <b>H347200</b> =347 to 120V Step Down Transformer, 200VA  <b>Connected Lighting Systems<sup>(2)</sup></b> <b>WTA</b> = Field installed WaveLinX sensor Kit <sup>(16)</sup> <b>WTK</b> = Field installed WaveLinX Lite Sensor Kit <sup>(17)</sup>

### Notes

- (1) Nominal Lumens will vary depending on selected color, driver and reflector finish.
- (2) Refer to system specifications for additional information, features and benefits. Order either factory installed option or accessory, use with 0-10V driver.
- (5) Beam angles are nominal with LI finish trims. See chart.
- (6) DMX fixtures default to full on upon loss of DMX signal.
- (8) Flange is the same finish as the reflector.
- (15) Non-IC.
- (16) WTA = WaveLinX wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with 0-10V only.
- (17) WTK = WaveLinX Lite tile mount sensor kit for daylight dimming, PIR motion sensing, use with D010 only (Refer to WaveLinX Lite system specifications)

## Product Specifications

### Lower Shielding Reflector

- Self-flanged, spun .060" thick aluminum lower reflector
- Lensed upper optical chamber
- Provides superior lumen output with minimal source brightness
- Available in all Portfolio Alzak® finishes

### Trim Retention

- Two torsion springs hold lower reflector flange tightly to the finished ceiling surface

### Retrofit Ring

- Galvanized steel ring installs with four mouse trap springs for secure installation
- Accommodates up to 2" ceiling thickness
- Installs in ceiling openings from 8.7" to 10" with optional adapter ring
- Pre-wired flexible conduit with snap in connector installs into 1/2" knockout on the existing junction box

### Thermal

- Aluminum heat sink conducts heat away from the LED module for improved performance and longer life

### LED System

- Contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and transitional lens producing 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)
- Color variation within 2-step MacAdam ellipses
- Flexible disconnect allows for tool-less replacement of LED engine from below ceiling
- 2700K, 3000K, 3500K, 4000K and 5000K correlated color temperature (CCT)
- Available in 80, 90 or 97 color rendering index (CRI)

### VividTune™ Color Tuning Solutions

- D2W™ – Dim-to-Warm shifts CCT from 3000K to 1850K as fixture dims, mimicking halogen sources
- W2N – Tunable white CCT range from 2700K to 6500K or 2000K to 5000K; 90 CRI

### Driver

- Combination 0-10V/trailing edge driver provides flicker free dimming from 100% to 10%
- Optional 1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem
- Driver can be serviced from above or through the aperture
- 1,000-7,000 lumens utilize one driver; 8,000-12,000 lumens utilize two drivers; 15,000-20,000 lumens utilize three drivers; reference ordering information for other variations
- 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 PRO Tilemount Sensor Kit

- WaveLinX 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 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.

#### WaveLinX LITE Tilemount Sensor Kit

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

### WaveLinX Tilemount Kits Application

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

### Compliance

- Thermally protected
- cULus Listed for wet locations with covered ceilings
- 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 3000 Lumens 4000 Lumens and above are non-IC rated
- RoHS compliant
- T24 compliant
- IP20 above ceiling
- IP65 below ceiling
- Photometric testing completed in accordance with IES LM-79 standards
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11
- 6,000 lumens and above are marked spacing and must follow spacing requirements

### Warranty

- Five year warranty [www.cooperlighting.com/legal](http://www.cooperlighting.com/legal)

## Housing Compatibility

Manufr.	Series	Nom. Size	Housing Aperture	Housing Catalog #	Ceiling Aperture	Retrofit Kit
Cooper	Portfolio	8	8.730	C8	8.73" MIN 9" MAX	LDRT8B
Philips	Lightolier Calculite	8	8.750	S8		
Philips	Capri	8	8.875	CM8		
Cooper	PDS	8	8.875	PD8		
Juno		9	8.938	C9H		
Juno	Indy Performance Series (Elate)	9	9.000	C9 and M9	8.73" MIN 10.3" MAX	LDRT810B
Philips	Capri	10	9.625	CM10		
Philips	Omega	10	9.813	OM10 and S10		
Juno	Indy Performance Series (Elate)	10	9.875	M10		
Cooper	Portfolio	9	10.000	C9		
Lithonia	Gotham	10	10.125	GRSF		
Lithonia	Gotham	10	10.125	AF, LGF, LGH, AH, A		
Lithonia	Gotham	10	10.250	GRSH		

## Color Metric Summary

8027		8030		8035		8040		8050		9027	
R <sub>f</sub>	93.2	R <sub>f</sub>	83.4	R <sub>f</sub>	83.7	R <sub>f</sub>	83.3	R <sub>f</sub>	82.5	R <sub>f</sub>	92
R <sub>g</sub>	94.1	R <sub>g</sub>	94.4	R <sub>g</sub>	94.8	R <sub>g</sub>	94	R <sub>g</sub>	94.3	R <sub>g</sub>	98.4
CRI	81.3	CRI	82.4	CRI	83.1	CRI	83.7	CRI	94.2	CRI	93.4
R <sub>9</sub>	0.7	R <sub>9</sub>	4.5	R <sub>9</sub>	9.1	R <sub>9</sub>	9.9	R <sub>9</sub>	11.9	R <sub>9</sub>	59.3

9030		9035		9040		9050		9727		9730	
R <sub>f</sub>	91.6	R <sub>f</sub>	90.9	R <sub>f</sub>	89.4	R <sub>f</sub>	88.4	R <sub>f</sub>	95	R <sub>f</sub>	94.2
R <sub>g</sub>	98.6	R <sub>g</sub>	98.3	R <sub>g</sub>	96.6	R <sub>g</sub>	96.8	R <sub>g</sub>	100.1	R <sub>g</sub>	99.6
CRI	93.2	CRI	93.3	CRI	91.8	CRI	91	CRI	98	CRI	98.5
R <sub>9</sub>	60.2	R <sub>9</sub>	63.1	R <sub>9</sub>	58	R <sub>9</sub>	55.2	R <sub>9</sub>	93.9	R <sub>9</sub>	94.7

## Energy

ENERGY DATA
Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -20°C (-4°F)
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)
Power Factor: >0.90
Input Frequency: 50-60Hz

	NOMINAL BEAM ANGLES WITH LI FINISH			
	Narrow	Medium	Wide	Shallow
1000-7000	15	40	73	86
8000-12000	30	44	73	86
15000-20000	34	46	73	86

1000 Lumen D010	
Input Power: 11W	THD <14%
Input Current: 0.09A	277V Input Current: 0.04A

1500 Lumen D010	
Input Power: 15.5W	THD <13%
Input Current: 0.13A	277V Input Current: 0.06A

2000 Lumen D010	
Input Power: 21.2 W	THD <9%
Input Current: 0.18A	277V Input Current: 0.08A

3000 Lumen D010	
Input Power: 27.6 W	THD <10%
Input Current: 0.23A	277V Input Current: 0.10A

4000 Lumen D010	
Input Power: 41.6 W	THD <13%
Input Current: 0.35A	277V Input Current: 0.15A

5000 Lumen D010TE	
Input Power: 52.5 W	THD <12%
Input Current: 0.44A	277V Input Current: 0.19A

6000 Lumen D010TE	
Input Power: 59.7W	THD: <14%
Input Current: 0.50A	277V Input Current: 0.22A

7000 Lumen D010TE	
Input Power: 75.8 W	THD <13%
Input Current: 0.64A	277V Input Current: 0.29A

8000 Lumen D010	
Input Power: 73.8 W	THD <13%
Input Current: 0.62A	277V Input Current: 0.26A

9000 Lumen D010	
Input Power: 86.9 W	THD <13%
Input Current: 0.72A	277V Input Current: 0.32A

10000 Lumen D010TE	
Input Power: 115.4 W	THD <13%
Input Current: 0.96A	277V Input Current: 0.42A

12000 Lumen D010TE	
Input Power: 119.4 W	THD <13%
Input Current: 1.0A	277V Input Current: 0.43A

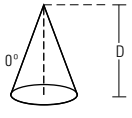
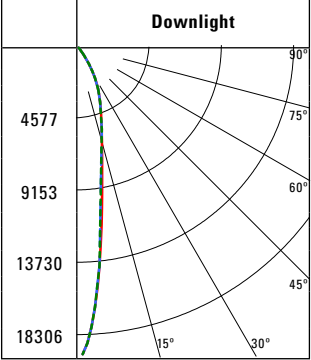

15000 Lumen D010TE	
Input Power: 173.7 W	THD <13%
Input Current: 1.45A	277V Input Current: 0.63A

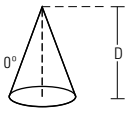
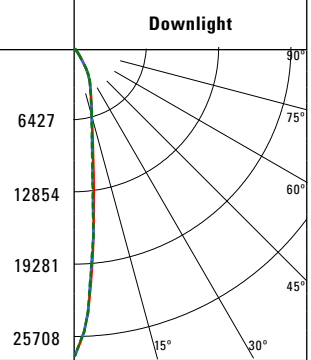

17500 Lumen D010TE	
Input Power: 179.1 W	THD <13%
Input Current: 1.49A	277V Input Current: 0.65A

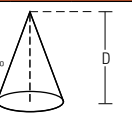
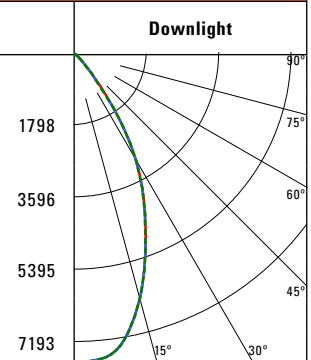

20000 Lumen D010TE	
Input Power: 227.4 W	THD <13%
Input Current: 1.9A	277V Input Current: 0.82A

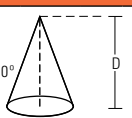
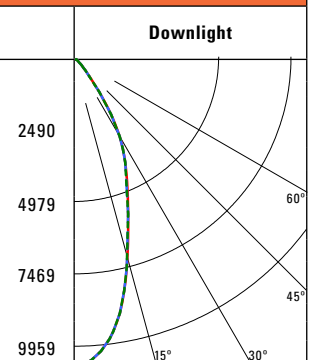

## Photometric Data

 View IES files

NARROW (15° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number		<b>Downlight</b>				Degrees Vertical	Canдела	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD8B50D010					0	18310	0-30	4214	84.5	45	4330
Module	ER8B50835					5	14091	0-40	4883	97.9	55	253
Trim	8LBN0H					15	5762	0-60	4983	99.9	65	88
Lumens	4986					25	3117	0-90	4986	100	75	143
Efficacy	94.1 Lm/W					35	1021	90-180	0	0	85	0
SC	0.32					45	99	0-180	4986	100		
						55	5					
						65	1					
						75	1					
						85	0					
						90	0					

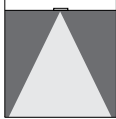
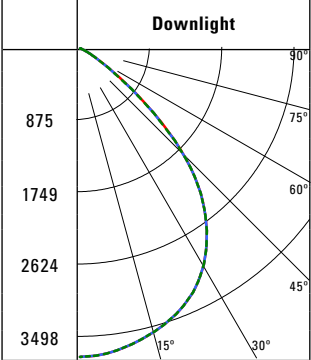
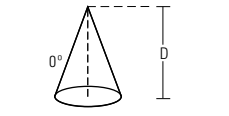
NARROW (15° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number		<b>Downlight</b>				Degrees Vertical	Canдела	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD8B50D010					0	25712	0-30	4514	86	45	4422
Module	ER8B50835					5	17790	0-40	5134	97.8	55	382
Trim	8LBN0LI					15	5743	0-60	5238	99.8	65	518
Lumens	5248					25	3148	0-90	5248	100	75	429
Efficacy	99 Lm/W					35	879	90-180	0	0	85	0
SC	0.25					45	101	0-180	5248	100		
						55	7					
						65	7					
						75	4					
						85	0					
						90	0					


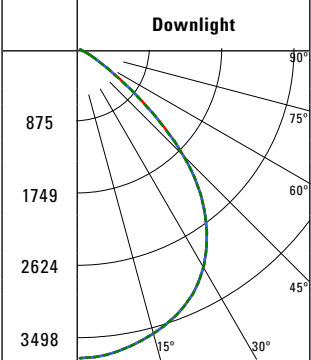
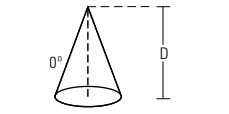
MEDIUM (40° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number		<b>Downlight</b>				Degrees Vertical	Canдела	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD8B50D010					0	7197	0-30	4078	75.2	45	10619
Module	ER8B50835					5	7141	0-40	5174	95.4	55	887
Trim	8LBM0H					15	5914	0-60	5422	99.9	65	175
Lumens	5426					25	3883	0-90	5426	100	75	143
Efficacy	102.4 Lm/W					35	1774	90-180	0	0	85	0
SC	0.8					45	244	0-180	5426	100		
						55	16					
						65	2					
						75	1					
						85	0					
						90	0					

MEDIUM (40° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number		<b>Downlight</b>				Degrees Vertical	Canдела	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD8B50D010					0	9963	0-30	4491	78.6	45	9546
Module	ER8B50835					5	9498	0-40	5481	96	55	1435
Trim	8LBM0LI					15	6587	0-60	5702	99.8	65	518
Lumens	5711					25	3908	0-90	5711	100	75	214
Efficacy	107.8 Lm/W					35	1559	90-180	0	0	85	0
SC	0.63					45	219	0-180	5711	100		
						55	27					
						65	7					
						75	2					
						85	0					
						90	0					

## Photometric Data

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SHALLOW (86° BEAM)	CANDLEPOWER DISTRIBUTION	CONE OF LIGHT	CANDELA TABLE	ZONAL LUMEN SUMMARY	LUMINANCE																																																																																	
<b>Test Number</b> Housing LD8B50D010 Module ER8B50835 Trim 8LBS0H Lumens 6035 Efficacy 113.9 Lm/W SC 1.2 	<b>Downlight</b> 	 <table border="1"> <thead> <tr> <th>MH</th> <th>FC</th> <th>L</th> <th>W</th> </tr> </thead> <tbody> <tr><td>4'</td><td>218.9</td><td>4.6</td><td>4.6</td></tr> <tr><td>7'</td><td>71.5</td><td>8.2</td><td>8.2</td></tr> <tr><td>9'</td><td>43.2</td><td>10.6</td><td>10.6</td></tr> <tr><td>13'</td><td>20.7</td><td>15.4</td><td>15.4</td></tr> <tr><td>16'</td><td>13.7</td><td>19</td><td>19</td></tr> </tbody> </table>	MH	FC	L	W	4'	218.9	4.6	4.6	7'	71.5	8.2	8.2	9'	43.2	10.6	10.6	13'	20.7	15.4	15.4	16'	13.7	19	19	<table border="1"> <thead> <tr> <th>Degrees Vertical</th> <th>Candela</th> </tr> </thead> <tbody> <tr><td>0</td><td>3502</td></tr> <tr><td>5</td><td>3477</td></tr> <tr><td>15</td><td>3322</td></tr> <tr><td>25</td><td>3056</td></tr> <tr><td>35</td><td>2525</td></tr> <tr><td>45</td><td>1630</td></tr> <tr><td>55</td><td>459</td></tr> <tr><td>65</td><td>84</td></tr> <tr><td>75</td><td>18</td></tr> <tr><td>85</td><td>4</td></tr> <tr><td>90</td><td>0</td></tr> </tbody> </table>	Degrees Vertical	Candela	0	3502	5	3477	15	3322	25	3056	35	2525	45	1630	55	459	65	84	75	18	85	4	90	0	<table border="1"> <thead> <tr> <th>Zone</th> <th>Lumens</th> <th>% Fixture</th> </tr> </thead> <tbody> <tr><td>0-30</td><td>2670</td><td>44.2</td></tr> <tr><td>0-40</td><td>4240</td><td>70.2</td></tr> <tr><td>0-60</td><td>5920</td><td>98.1</td></tr> <tr><td>0-90</td><td>6035</td><td>100</td></tr> <tr><td>90-180</td><td>0</td><td>0</td></tr> <tr><td>0-180</td><td>6035</td><td>100</td></tr> </tbody> </table>	Zone	Lumens	% Fixture	0-30	2670	44.2	0-40	4240	70.2	0-60	5920	98.1	0-90	6035	100	90-180	0	0	0-180	6035	100	<table border="1"> <thead> <tr> <th>Average Candela Degrees</th> <th>Average 0° Luminance</th> </tr> </thead> <tbody> <tr><td>45</td><td>71087</td></tr> <tr><td>55</td><td>24682</td></tr> <tr><td>65</td><td>6100</td></tr> <tr><td>75</td><td>2121</td></tr> <tr><td>85</td><td>1274</td></tr> </tbody> </table>	Average Candela Degrees	Average 0° Luminance	45	71087	55	24682	65	6100	75	2121	85	1274
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Nominal Scaling From 80 CRI 3500K		
CRI	CCT	Lumen Mult
80	2700	0.938
80	3000	0.962
80	3500	1.000
80	4000	0.993
80	5000	1.013
90	2700	0.784
90	3000	0.826
90	3500	0.853
90	4000	0.891
90	5000	0.922
97	2700	0.696
97	3000	0.737

Nominal Scaling From 5000 lumen package	
LUMEN PACKAGE	LUMEN MULT
1000 LUMEN	0.207
1500 LUMEN	0.280
2000 LUMEN	0.398
3000 LUMEN	0.562
4000 LUMEN	0.799
5000 LUMEN	1.000
6000 LUMEN	1.133
7000 LUMEN	1.368
8000 LUMEN	1.535
9000 LUMEN	1.729
10,000 LUMEN	1.994
12,000 LUMEN	2.261
15,000 LUMEN	2.949
17,500 LUMEN	3.329
20,000 LUMEN	3.924

## Connected Solutions

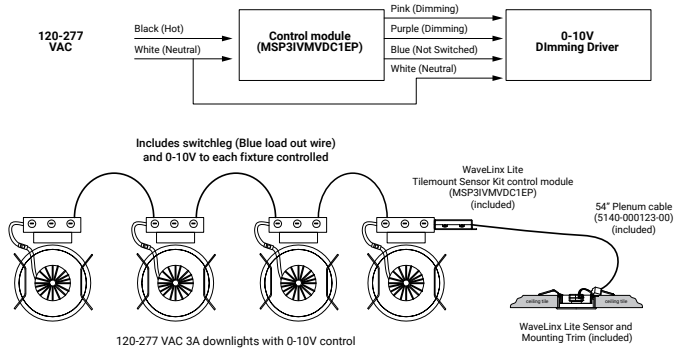
### WaveLinX LITE - WLST Tilemount Sensor



- 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



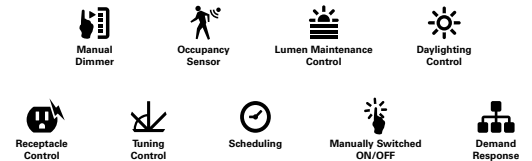
### WaveLinX PRO Wireless – WPST Tilemount Sensor



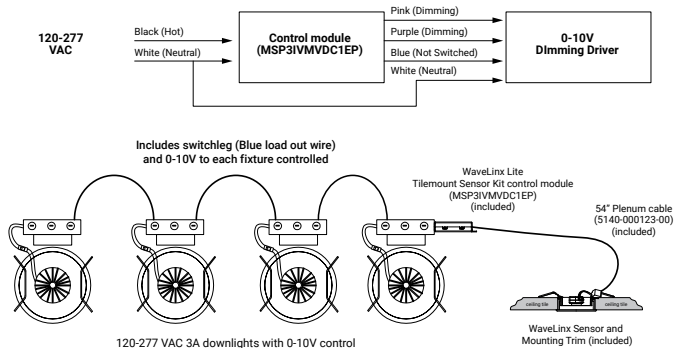
- WaveLinX PRO Wireless functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with Wireless Area Controller, Wall Stations, and Control Devices
- Stand-Along Offices or Entire Building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



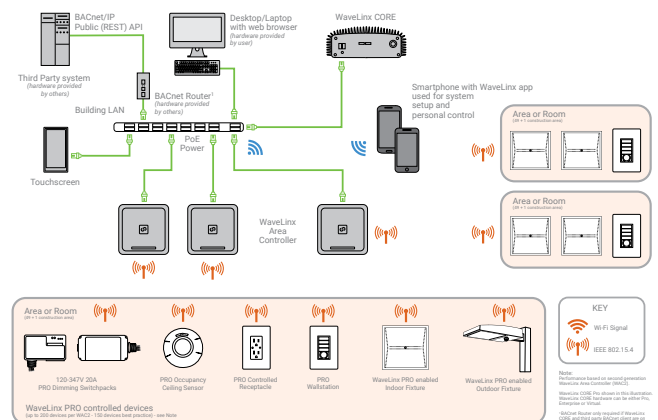
#### WaveLinX mobile app settings



#### WaveLinX PRO WPST Tilemount Wiring Diagram



#### WaveLinX CORE Building Management Integration

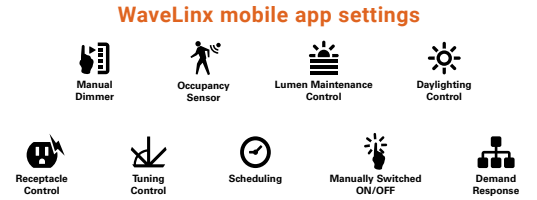




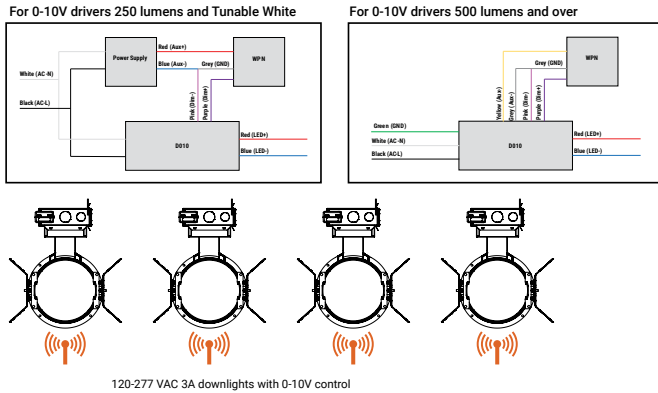
## Connected Solutions

### WaveLinx PRO Wireless Node - WPN

- WaveLinx Wireless functionality configures zones and customizes settings from one secure mobile app
- 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 PRO Wireless Node (WPN) Wiring Diagram



### WaveLinx CORE Building Management Integration

