

Project		Catalog #		Type	
Prepared by		Notes		Date	



## PORTFOLIO

### LDRT8B / LDRT810B / LDRT812B-ER8B-8LBSW / 8L 6L

8" - 12" LED Downlight / Wall Wash Retrofit  
1,000-20,000 Lumen / 1000-7500 Lumens

#### Typical Applications

Office • Education • Healthcare • Hospitality



**BioUp**  
Melanopic Lighting

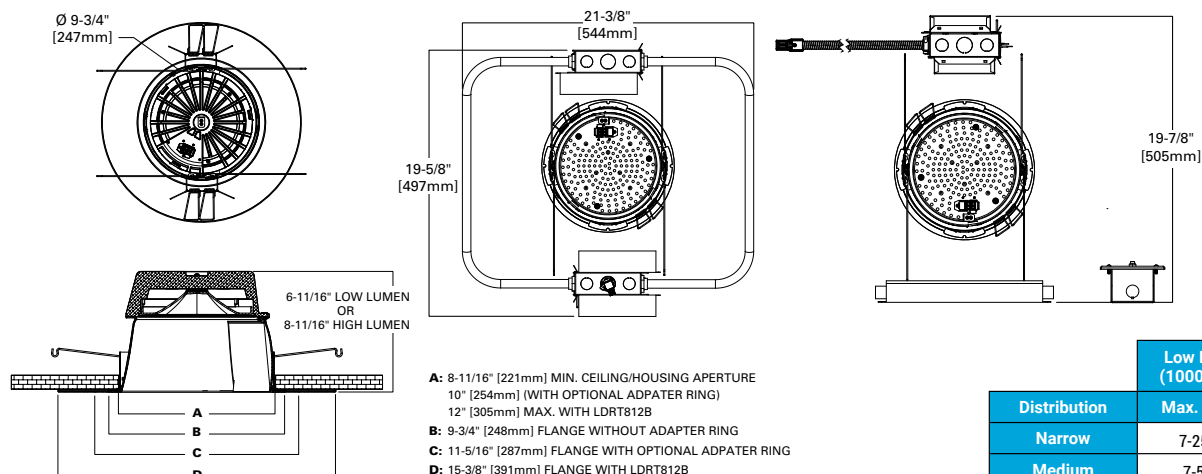
### Interactive Menu

- Order Information [page 2](#)
- Product Specifications [page 4](#)
- Energy Data [page 5](#)
- Photometric Data [page 6](#)
- Connected Systems [page 8](#)
- Product Warranty

### 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 / BioUp = 2700K 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: LD8B50D010IEMBOD

Housing	Lumens <sup>(1)</sup>	Voltage <sup>(9)</sup>	Driver Options
<p><b>LDRT8B</b>=LED downlight retrofit 8" nominal Aperture</p> <p><b>LDRT8BCP</b>=LED downlight Retrofit 8" Nominal Aperture, Chicago Plenum</p> <p><b>LDRT810B</b>=LED downlight retrofit 10" nominal Aperture, 11.3 OD</p> <p><b>LDRT810BCP</b>=LED downlight retrofit 10" nominal Aperture, 11.3 OD, Chicago Plenum</p> <p><b>LDRT812B</b>=LED Downlight Retrofit 12" Nominal Aperture</p> <p><b>LDRT812BCP</b>=LED Downlight Retrofit 12" Nominal Aperture, Chicago Plenum</p>	<p>10=1000 lumens</p> <p>15=1500 lumens</p> <p>20=2000 lumens</p> <p>30=3000 lumens</p> <p>40=4000 lumens</p> <p>50=5000 lumens</p> <p>60=6000 lumens <sup>(6)</sup></p> <p>70=7000 lumens <sup>(6)</sup></p> <p>80=8000 lumens <sup>(6)</sup></p> <p>90=9000 lumens <sup>(6)</sup></p> <p>100=10000 lumens <sup>(6)</sup></p> <p>120=12000 lumens <sup>(6)</sup></p> <p>150=15000 lumens <sup>(6)</sup></p> <p>175=17500 lumens <sup>(6)</sup></p> <p>200=20000 lumens <sup>(6)</sup></p>	<p>Blank=120-277 7000 lumen and below.</p> <p>3=347V step down transformer <sup>(11)</sup></p>	<p><b>80/90/97 CRI</b></p> <p><b>D010</b>=0-10V Dimming, 1% to 100%, 120V-277V</p> <p>1 Driver: 1000-7000 Lumens</p> <p>2 Drivers: 8000-12,000 Lumens</p> <p>3 Drivers: 15,000-20,000 Lumens</p> <p><b>D010TR</b>=0-10V 120-277V or 120V Line Voltage Dimming, 1% to 100%</p> <p>1 Driver: 1000-5000 Lumens</p> <p>2 Drivers: 6000-10,000 Lumens</p> <p>3 Drivers: 12,000-15,000 Lumens</p> <p><b>DE010</b>=0-10V Linear Dimming, 0.1% to 100%, 120V-277V</p> <p>1 Driver: 1000-5000 Lumens</p> <p>2 Drivers: 6000-9000 Lumens</p> <p>3 Drivers: 12,000 Lumens</p> <p><b>DSLT</b>=Fifth Light® DALI DT6 Logarithmic Dimming, 0.1% to 100%, 120V-277V</p> <p>1 Driver: 1000-5000 Lumens</p> <p>2 Drivers: 6000-9000 Lumens</p> <p>3 Drivers: 12,000 Lumens</p> <p><b>DMX</b>=DMX/RDM Logarithmic Dimming, 0.1% to 100%, 120V-277V <sup>(3)</sup></p> <p>1 Driver: 1000-5000 Lumens</p> <p>2 Drivers: 6000-9000 Lumens</p> <p>3 Drivers: 12,000 Lumens</p> <p><b>DMXC5</b>=DMX/RDM Logarithmic Dimming, 0.1% to 100%, 120V-277V, with RJ45 connection <sup>(3)</sup></p> <p>1 Driver: 1000-5000 Lumens</p> <p>2 Drivers: 6000-9000 Lumens</p> <p>3 Drivers: 12,000 Lumens</p> <p><b>DLE</b>=Lutron Ecosystem dimming 1% to 100%</p> <p>1 Driver: 1000-5000 Lumens</p> <p>2 Drivers: 6000-9000 Lumens</p> <p>3 Drivers: 12,000 Lumens</p> <p><b>DLV</b>=Low Voltage System</p> <p>1 Driver: 1000-3000 Lumens</p> <p><b>Tunable white</b></p> <p>1 Driver: 1000-2000 Lumens</p> <p>2 Drivers: 3000-4000 Lumens</p> <p><b>DE010W2N2765</b> = 0-10V dimming, 0.1% to 100%, 120-277V, 2700K-6500K</p> <p><b>DE010W2N2050</b> = 0-10V dimming, 0.1% to 100%, 120-277V, 2000K-5000K</p> <p><b>D5LTW2N2765</b> = Fifth Light DALI DT6 Logarithmic Dimming, 0.1% to 100%, 120V-277V, 2700K-6500K</p> <p><b>D5LTW2N2050</b> =Fifth Light DALI DT6 Logarithmic Dimming, 0.1% to 100%, 120V-277V, 2000K-5000K</p> <p><b>BioUp Tunable white</b></p> <p>1 Driver: 1000 Lumens</p> <p>2 Drivers: 2000-3000 Lumens</p> <p><b>DE010B2750</b> = 0-10V dimming, 0.1% to 100%, 120-277V, 2700K-5000K</p> <p><b>DE010B35</b> = 0-10V dimming, 0.1% to 100%, 120-277V, 3500K</p> <p><b>DE010B40</b> = 0-10V dimming, 0.1% to 100%, 120-277V, 4000K</p> <p><b>DE010B50</b> = 0-10V dimming, 0.1% to 100%, 120-277V, 5000K</p> <p><b>D5LTB2750</b> = Fifth Light DALI DT6 Logarithmic Dimming, 0.1% to 100%, 120V-277V, 2700K-5000K</p> <p><b>Dim-to-Warm</b></p> <p>1 Driver: 1000-3000 Lumens</p> <p>2 Drivers: 4000 and 6000 Lumens</p> <p>3 Drivers: 9000 Lumens</p> <p><b>D010</b>=0-10V Dimming, 1% to 100%, 120V-277V.</p> <p><b>D010TR</b>=0-10V 120-277V or 120V Line Voltage Dimming, 1% to 100%</p> <p><b>DE010</b>=0-10V Linear Dimming, 0.1% to 100%, 120V-277V</p> <p><b>DSLT</b>=Fifth Light® DALI DT6 Logarithmic Dimming, 0.1% to 100%, 120V-277V</p> <p><b>DMX</b>=DMX/RDM Logarithmic Dimming, 0.1% to 100%, 120V-277V <sup>(3)</sup></p> <p><b>DMXC5</b>=DMX/RDM Logarithmic Dimming, 0.1% to 100%, 120V-277V, with RJ45 connection <sup>(3)</sup></p> <p><b>DLE</b>=Lutron Ecosystem dimming 1% to 100%</p> <p><b>DLV</b>=Low Voltage System <sup>(6)</sup></p>

Dim to Warm	Options
<p><b>Blank</b>=No color control or D2W for 2000 lumens and below</p> <p><b>D2W</b>=For 4000, 6000 and 9000 dim 2 warm</p>	<p><b>WPST</b>=Factory installed WaveLinX PRO Sensor Kit <sup>(2)</sup> <sup>(3)</sup> <sup>(13)</sup></p> <p><b>WLST</b>=Factory installed WaveLinX LITE Sensor Kit <sup>(2)</sup> <sup>(3)</sup> <sup>(14)</sup></p> <p><b>WPN</b> = WaveLinX PRO Wireless Node without sensor <sup>(2)</sup> <sup>(15)</sup></p> <p><b>WLN</b> = WaveLinX LITE Wireless Node without sensor <sup>(2)</sup> <sup>(16)</sup></p> <p><b>EMBOD</b>=Bodine® 7W Emergency Module with Remote Test Switch <sup>(8)</sup></p> <p><b>EMBOD7ST</b> =Bodine® 7W Emergency Module with Self Test Remote Test Switch <sup>(3)</sup></p> <p><b>EM7</b>=7W Emergency Module with Remote Test Switch <sup>(3)</sup> <sup>(14)</sup></p> <p><b>EM14</b>=14W Emergency Module with Remote Test Switch <sup>(3)</sup> <sup>(14)</sup></p>

SAMPLE ORDER NUMBER: ER8B30408035

Power Module	Lumen Levels <sup>(1)</sup>	Color	
<p><b>ER8B</b>=8" LED Module</p> <p><b>1 Driver</b></p> <p>1020=1000, 1500, or 2000 Lumens</p> <p>3040=3000 or 4000 Lumens</p> <p>5070=5000, 6000, or 7000 lumens</p> <p><b>2 Drivers</b></p> <p>60=6000 lumens, 2 LEDs</p> <p>80120=8000, 9000, 10000, or 12000 lumens</p> <p><b>3 Drivers</b></p> <p>120=12000 lumens, 3 LEDs</p> <p>150200=15000, 17500 or 20000 lumens</p>	<p><b>80 CRI</b></p> <p>8027= 80CRI, 2700K</p> <p>8030= 80CRI, 3000K</p> <p>8035= 80CRI, 3500K</p> <p>8040= 80CRI, 4000K</p> <p>8050= 80CRI, 5000K</p>	<p><b>90 CRI</b></p> <p>9027= 90CRI, 2700K</p> <p>9030= 90CRI, 3000K</p> <p>9035= 90CRI, 3500K</p> <p>9040= 90CRI, 4000K</p> <p>9050= 90CRI, 5000K</p>	
	<p><b>Dim 2 Warm 1 Driver</b></p> <p>109030D2W=1000 Lumen, 90 CRI, Dim 2 Warm, IC Rated</p> <p>159030D2W=1500 Lumen, 90 CRI, Dim 2 Warm, IC Rated</p> <p>209030D2W=2000 Lumen, 90 CRI, Dim 2 Warm, IC Rated</p> <p>309030D2W=3000 Lumen, 90 CRI, Dim 2 Warm</p>	<p><b>Dim 2 Warm 2 Drivers</b></p> <p>409030D2W=4000 Lumen, 90 CRI, Dim 2 Warm</p> <p>609030D2W=6000 Lumen, 90 CRI, Dim 2 Warm</p>	<p><b>Dim 2 Warm 3 Drivers</b></p> <p>909030D2W=9000 Lumen, 90 CRI, Dim 2 Warm</p>
	<p><b>W2N Tunable White 1 Driver <sup>(12)</sup></b></p> <p>10W2N902050=1000 lumens, 90 CRI, Tunable white 2000K - 5000K</p> <p>10W2N902765=1000 lumens, 90 CRI, Tunable white 2700K - 6500K</p> <p>15W2N902050=1500 lumens, 90 CRI, Tunable white 2000K - 5000K</p> <p>15W2N902765=1500 lumens, 90 CRI, Tunable white 2700K - 6500K</p> <p>20W2N902050=2000 lumens, 90 CRI, Tunable white 2000K - 5000K</p> <p>20W2N902765=2000 lumens, 90 CRI, Tunable white 2700K - 6500K</p>	<p><b>W2N Tunable White 2 Drivers</b></p> <p>30W2N902050=3000 lumens, 90 CRI, Tunable white 2000K - 5000K</p> <p>30W2N902765=3000 lumens, 90 CRI, Tunable white 2700K - 6500K</p> <p>40W2N902050=4000 lumens, 90 CRI, Tunable white 2000K - 5000K</p> <p>40W2N902765=4000 lumens, 90 CRI, Tunable white 2700K - 6500K</p>	
	<p><b>BioUp Tunable White 1 Driver</b></p> <p>10B=1000 lumens</p> <p><b>BioUp Tunable White 2 Drivers</b></p> <p>20B=2000 lumens</p> <p>30B=3000 lumens</p>	<p>35= Static 3500K</p> <p>40= Static 4000K</p> <p>50= Static 5000K</p> <p>2750= BioUp Tunable White 2700K-5000K</p>	

continued on next page

**Order Information**

SAMPLE ORDER NUMBER: **8LBM1LI**

Trim	Distribution	Flange	Finish
<b>8LB=8" Reflector</b>	<b>SW=Single Wall Wash, Spun Aluminum</b> <b>DW=Double Wall Wash, Spun Aluminum</b>	<b>0=White Polymer Trim Ring</b> <b>1=Self-flanged (Flange will be same finish as reflector)</b> <b>2=White Painted Self-flanged</b>	<b>LI=Specular Clear</b> <b>H=Semi-Specular Clear</b> <b>WMH=Warm Haze</b> <b>WH=Wheat</b> <b>GPH=Graphite Haze</b> <b>B=Specular Black</b> <b>MW=Matte White</b>

Accessories
<p><b>Transformers</b>  <b>H347=347 to 120V Step Down Transformer, 75VA</b></p> <p><b>Connected Lighting Systems</b><sup>(9)</sup>  <b>WPST = Field installed WaveLinX PRO Sensor Kit</b><sup>(13)</sup>  <b>WLST = Field installed WaveLinX LITE Sensor Kit</b><sup>(14)</sup></p>

**Notes**

- Nominal Lumens will vary depending on selected color, driver and reflector finish.
- 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 Chicago Plenum or IC rating.
- ULus listed only.
- DMX fixtures default to full on upon loss of DMX signal.
- 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"
  - 7000 & 20,000 Lumens minimum overhead: 6"
- Field required for D2W 4000, 6000 and 9000 lumen only.
- For D2W up to 3000 lumens.
- For single driver.
- Not for use with D2W.

- 347V step down transformer only available up to 7000 Lumens
- Non-IC.
- 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 tile mount 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.
- 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 D010 or DE010 drivers only.

## 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
- **BioUp** - Tunable white CCT range 2700K to 5000K Provides the biological effectiveness of natural sunlight, with color temperatures that are more comfortable for indoor environments

### Driver

- Combination 0-10V/Phase Cut driver provides flicker free dimming from 100% to 1%
- 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 (with D010); reference ordering information for other variations
- Distributed low voltage power system combines power, lighting, and controls with ease of installation.

### Connected Lighting System Options

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

#### WaveLinX PRO Tilemount 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 LITE Tilemount 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.**

### Compliance

- Thermally protected
- cULus Certified to UL 1598 / C22.2 No. 250.0 suitable for damp location with wall wash with covered ceiling
- Optional City of Chicago environmental air (CCEA) marking for plenum applications
- cULus listed for 25°C ambient environments
- EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits
- Insulated ceiling (IC) rated up to 2000 lumens; 3000 lumens and above, Tunable White, BioUp 2000 lumens 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 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 Data

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	

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

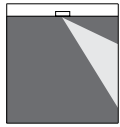
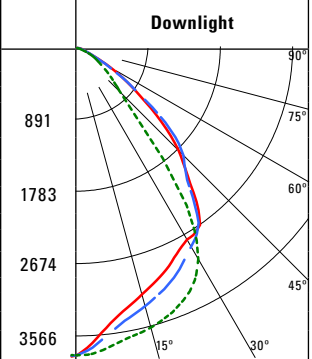
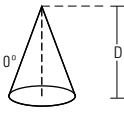
15000 Lumen D010TE	
Input Power: 173.7 W	THD <13%
Input Current: 1.45A	277V Input Current: 0.63A

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](#)

WALL WASH	CANDLEPOWER DISTRIBUTION	CONE OF LIGHT	CANDELA TABLE	ZONAL LUMEN SUMMARY	LUMINANCE																																																																																	
Test Number Housing LD8B50D010 Module ER8B50835 Trim 8LBSW0H Lumens 5506 Efficacy 103.9 Lm/W SC 1.15 		 <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>223.7</td> <td>4.4</td> <td>4.6</td> </tr> <tr> <td>7'</td> <td>73</td> <td>7.7</td> <td>8</td> </tr> <tr> <td>9'</td> <td>44.2</td> <td>10</td> <td>10.4</td> </tr> <tr> <td>13'</td> <td>21.2</td> <td>14.4</td> <td>15</td> </tr> <tr> <td>16'</td> <td>14</td> <td>17.8</td> <td>18.6</td> </tr> </tbody> </table>	MH	FC	L	W	4'	223.7	4.4	4.6	7'	73	7.7	8	9'	44.2	10	10.4	13'	21.2	14.4	15	16'	14	17.8	18.6	<table border="1"> <thead> <tr> <th>Degrees Vertical</th> <th>Candela</th> </tr> </thead> <tbody> <tr><td>0</td><td>3522</td></tr> <tr><td>5</td><td>3275</td></tr> <tr><td>15</td><td>2918</td></tr> <tr><td>25</td><td>2652</td></tr> <tr><td>35</td><td>2473</td></tr> <tr><td>45</td><td>1652</td></tr> <tr><td>55</td><td>758</td></tr> <tr><td>65</td><td>193</td></tr> <tr><td>75</td><td>72</td></tr> <tr><td>85</td><td>29</td></tr> <tr><td>90</td><td>0</td></tr> </tbody> </table>	Degrees Vertical	Candela	0	3522	5	3275	15	2918	25	2652	35	2473	45	1652	55	758	65	193	75	72	85	29	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>2618</td><td>47.5</td></tr> <tr><td>0-40</td><td>3983</td><td>72.3</td></tr> <tr><td>0-60</td><td>5260</td><td>95.5</td></tr> <tr><td>0-90</td><td>5506</td><td>100</td></tr> <tr><td>90-180</td><td>0</td><td>0</td></tr> <tr><td>0-180</td><td>5506</td><td>100</td></tr> </tbody> </table>	Zone	Lumens	% Fixture	0-30	2618	47.5	0-40	3983	72.3	0-60	5260	95.5	0-90	5506	100	90-180	0	0	0-180	5506	100	<table border="1"> <thead> <tr> <th>Average Candela Degrees</th> <th>Average 0° Luminance</th> </tr> </thead> <tbody> <tr><td>45</td><td>72047</td></tr> <tr><td>55</td><td>40773</td></tr> <tr><td>65</td><td>14097</td></tr> <tr><td>75</td><td>8638</td></tr> <tr><td>85</td><td>10260</td></tr> </tbody> </table>	Average Candela Degrees	Average 0° Luminance	45	72047	55	40773	65	14097	75	8638	85	10260
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Single Unit Footcandles 2.5" from wall (distance from fixture along wall)				
DD	•	1'	2'	3'
1'	8.9	7.2	4.3	2.2
2'	43.2	31.7	15.5	6
3'	64.9	56.2	35.5	17.3
4'	56.1	49.7	37	24.6
5'	38.3	36.7	31	20.8
6'	25.9	25	22.6	18.3
7'	18.4	17.8	16.4	14.2
8'	13.4	13.1	12.3	10.9
9'	9.9	9.8	9.3	8.5
10'	7.6	7.5	7.2	6.7

Multiple Unit Footcandles 2.5" from wall (spacing between fixtures)					
•	-- 3' --	•	•	-- 4' --	•
18.7	16.4	18.7	17.3	11	17.3
89.2	78.9	89.2	83.6	49.7	83.6
107.6	121.6	107.6	93.5	96	93.5
83.7	98.8	83.7	70.8	80.3	70.8
57.6	66.8	57.6	47.6	61.1	47.6
41.9	45.5	41.9	35.2	42.4	35.2
30	32.1	30	27	30.5	27
22	23.2	22	20.4	22.3	20.4
16.5	17.2	16.5	15.5	16.7	15.5
12.6	13.1	12.6	12	12.8	12

Photometric Data

[View IES files](#)

WALL WASH		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number						Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD8B50D010					0	3802	0-30	2863	49.2	45	75801
Module	ER8B50835					5	3360	0-40	4327	74.3	55	41515
Trim	8LBSW0LI					15	2871	0-60	5686	97.7	65	13192
Lumens	5820					25	2629	0-90	5820	100	75	5242
Efficacy	109.8 Lm/W	30	2574	90-180	0	0	85	4599				
SC	1.12	35	1738	0-180	5820	100						
		MH	FC	L	W							
		4'	247.6	4.1	4.6							
		7'	80.8	7.2	8.2							
		9'	48.9	9.3	10.4							
		13'	23.4	13.4	15.2							
		16'	15.5	16.5	18.6							

Single Unit Footcandles 2.5" from wall (distance from fixture along wall)					
DD	•	1'	2'	3'	
1'	6.4	4.9	2.5	1.1	
2'	43.7	32.8	15.3	5.5	
3'	68.3	58.2	36	17.6	
4'	58.9	52.2	38	24.8	
5'	38.8	37	31.3	21.6	
6'	25.7	24.5	22.1	18.5	
7'	18.2	17.5	15.9	14.1	
8'	13.2	12.8	11.9	10.7	
9'	9.8	9.6	9.1	8.4	
10'	7.5	7.3	7	6.6	

Multiple Unit Footcandles 2.5" from wall (spacing between fixtures)						
•	-- 3' --	•	•	-- 4' --	•	
15.2	11.8	15.2		14.4	7.3	14.4
91.9	79.9	91.9		86.1	49.6	86.1
114.1	124.1	114.1		99	96.5	99
85.8	100.2	85.8		72.1	82.8	72.1
58.3	65	58.3		48.2	60.9	48.2
41.9	44.1	41.9		35.7	41.5	35.7
29.9	31.1	29.9		27.1	29.9	27.1
22	22.6	22		20.5	22	20.5
16.5	16.8	16.5		15.7	16.6	15.7
12.7	12.8	12.7		12.2	12.7	12.2

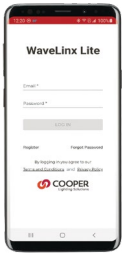
Nominal Scaling From 80 CRI 3500K		
CRI	CCT	Lumen Mult
80	2700	0.938
80	3000	0.962
80	3500	1.000
80	4000	0.993
80	5000	1.013
90	2700	0.784
90	3000	0.826
90	3500	0.853
90	4000	0.891
90	5000	0.922
97	2700	0.696
97	3000	0.737

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 Systems

WaveLinx LITE - WLST Tilemount Sensor

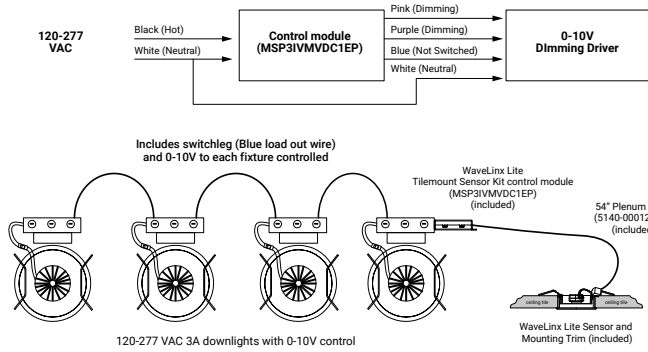
WaveLinx LITE devices only compatible with the WaveLinx LITE system.



- 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 WLST Tilemount Wiring Diagram



WaveLinx LITE Bluetooth Enabled System



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

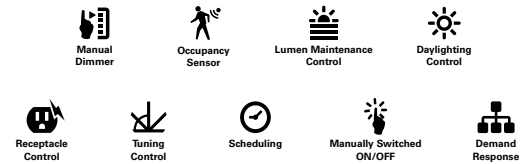
**Downlights with tilemount sensor wireless communication**  
Highly efficient LED fixtures

**WaveLinx Area Controller**  
Provides centralized coordination of multiple area control options

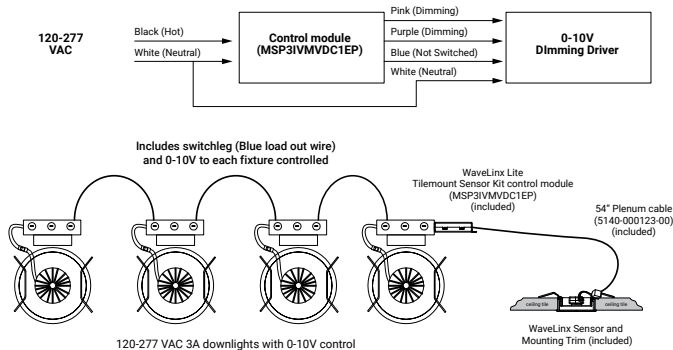
**Wireless Wall Station/Receptacle**  
Provides customized wireless control of each area

**Mobile Applications**  
Provides personalized, local control from a tablet or smartphone

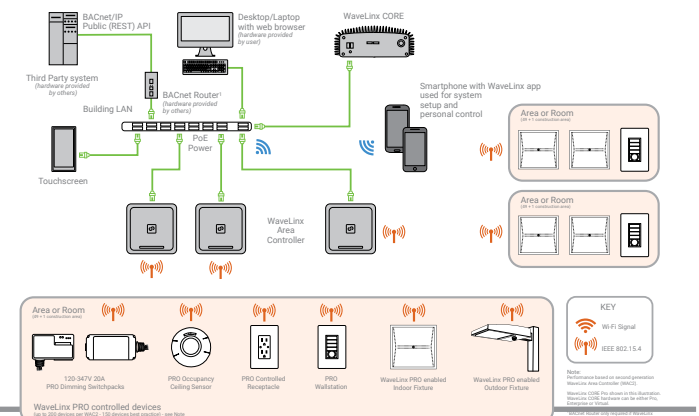
WaveLinx mobile app settings



WaveLinx PRO WPST Tilemount Wiring Diagram



WaveLinx CORE Building Management Integration



Connected Solutions



WaveLinX LITE Wireless Node - WLN

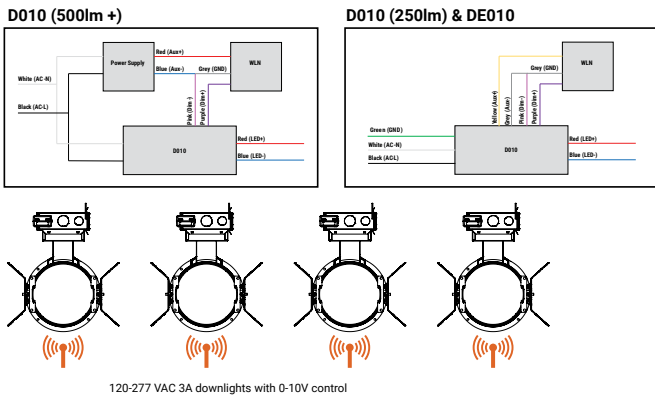
WaveLinX LITE devices only compatible with the WaveLinX LITE system.

- 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 LITE Bluetooth Enabled System



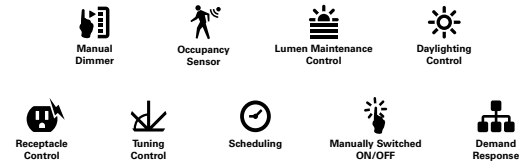
WaveLinX PRO Wireless Node - WPN

WaveLinX PRO devices only compatible with the WaveLinX PRO system.

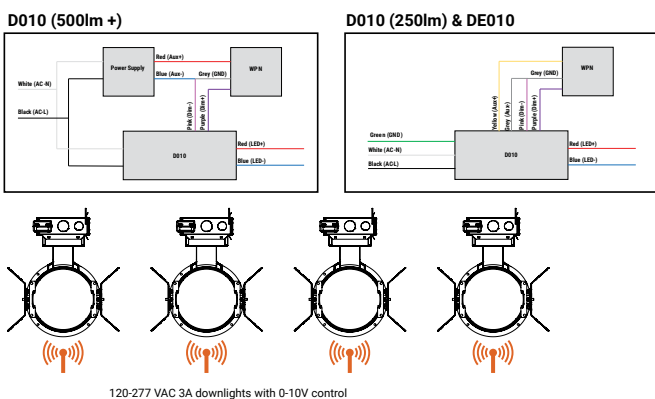
- WaveLinX Wireless functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with WaveLinX Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building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



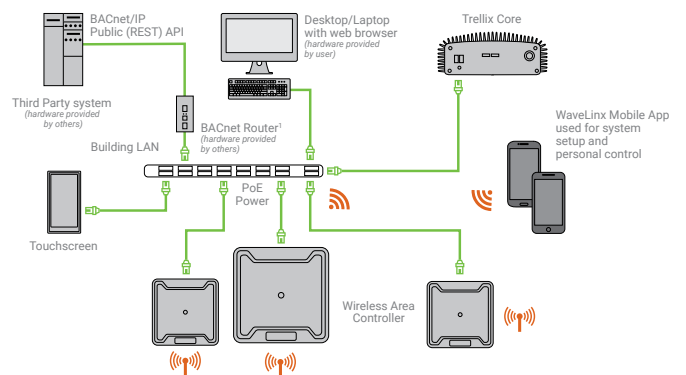
WaveLinX mobile app settings



WaveLinX PRO Wireless Node (WPN) Wiring Diagram



WaveLinX CORE Building Management Integration



# Proven Research. Industry Recognized.

## BioUp

Melanopic Lighting



See better



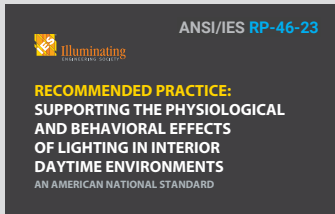
Feel better



Function better



See [BioUp brochure](#) for more details

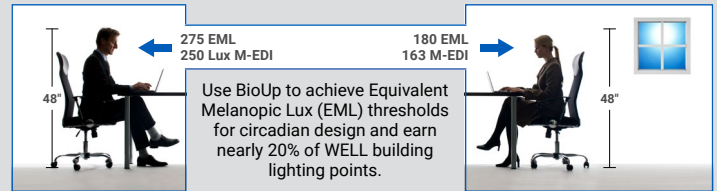


ANSI/IES RP-46-23 / TM18 published March 2024 based on over 40 years of research.

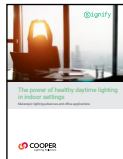
"...circadian clock synchronization is paramount to the body's efficient and appropriate functioning." – TM18



BioUp solutions maximize WELL points for Circadian Lighting Design (L03):



**MDER, M-EDI** and **EML** are key metrics used to quantify non-visual performance of indoor lighting systems.



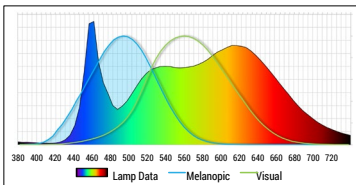
See [BioUp white paper](#) for more details

## 30% boost Biological impact compared to traditional LED sources

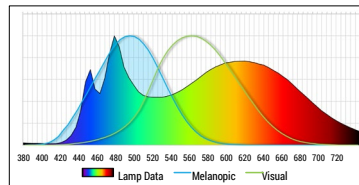
CCT	LED @ ~83 CRI	BioUp Static		BioUp Dynamic	
		MDER	CRI	MDER	CRI
2700K	0.45	-	-	0.43	95
3000K	0.50	-	-	0.57	94
3500K	0.57	0.71	90	0.71	90
4000K	0.65	0.84	87	0.84	87
5000K	0.79	1.00	84	1.00	84

**MDER** - Melanopic Daylight Efficacy Ratio (MDER) measures the amount of light stimulating to the melanopsin receptors.

**Standard 4000K LED**  
MDER = .62



**BioUp 4000K LED**  
MDER = .82

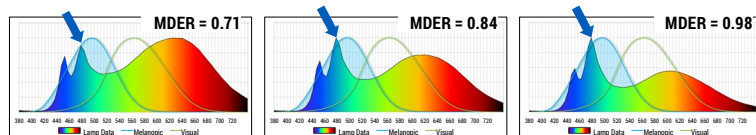


BioUp enhances the LED spectrum with cyan light at 475nm increasing the biological impact of the light to enhance our circadian rhythm which regulates our sleep/wake cycle, daytime engagement, and mood – *all without distorting visual color impression.*

### Static (non-tunable)

Static BioUp is used when simple Melanopic Lighting is desired at all times.

Arrow in graph shows BioUp spectrum boost is at 475nm where non-visual biological response is enhanced.



**3500K** or **4000K** or **5000K**

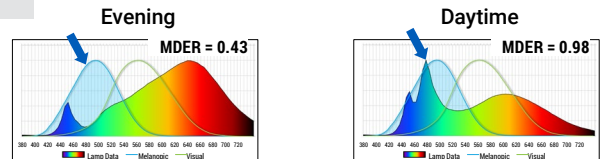
Cyan light component always present



> no CCT control needed

### Dynamic - (Tunable)

Dynamic BioUp is used when Melanopic Lighting is desired to adjust during the day.



Warmer CCT Without Cyan content ← → Cooler Light With Cyan content

**2700K – 5000K**



> Control with Wavelinx, 2ch 0-10V, or DALI