

Project		Catalog #		Type	
Prepared by		Notes		Date	



## PORTFOLIO

### LD8B ER8B 8LB

8" Narrow, Medium, or Wide  
New Construction Downlight  
1,000-20,000 Lumen

#### Typical Applications

Office • Education • Healthcare • Hospitality

#### Interactive Menu

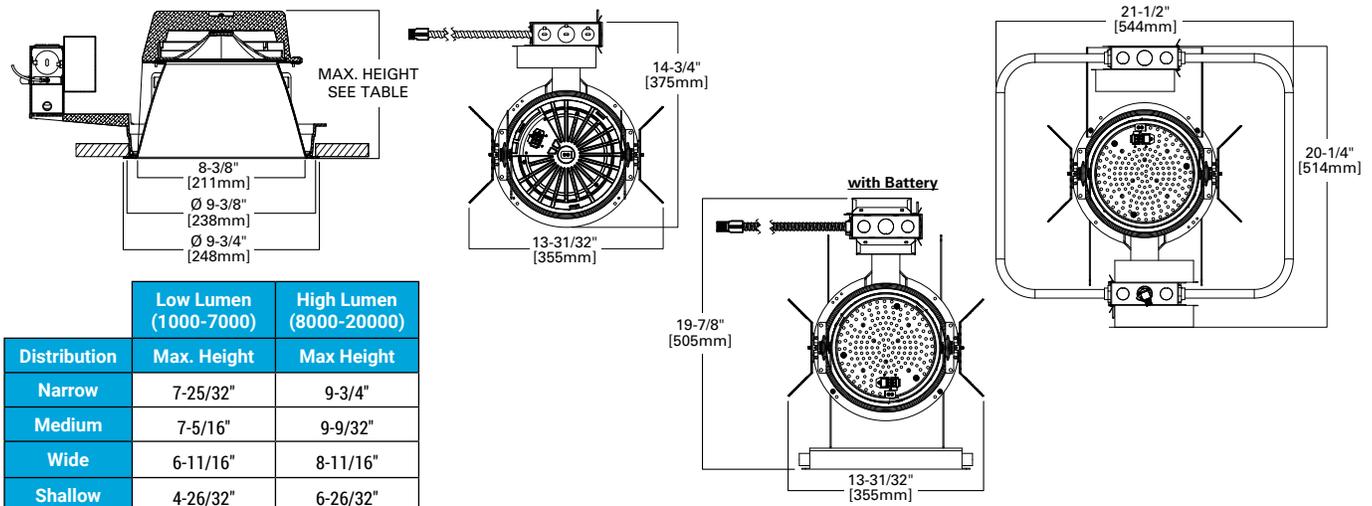
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### Top Product Features

- 1,000 to 20,000 lumens; Offered in 80, 90 and 97 CRI; narrow beam, medium beam and wide beam distributions
- Two-stage reflector system produces smooth beam; Color variation within 3-step MacAdam ellipses
- Flexible disconnect for easy LED engine replacement and installation
- 2400K, 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
- Options to meet Buy American and other domestic preference requirements

### Dimensional and Mounting Details



Order Information

SAMPLE ORDER NUMBER: LD8B50D010IEMBOD

Domestic Preferences <sup>(15)</sup>	Housing	Lumens <sup>(1)</sup>		Voltage <sup>(16)</sup>
<p>[Blank]=Standard                      BAA=Buy American Act                      TAA=Trade Agreements Act</p>	<p>LD8B=LED Downlight 8" Nominal Aperture                      LD8BCP=LED Downlight 8" Nominal Aperture, Chicago Plenum</p>	<p>10=1000 lumens                      15=1500 lumens                      20=2000 lumens                      30=3000 lumens                      40=4000 lumens                      50=5000 lumens                      60=6000 lumens <sup>(6)</sup>                      70=7000 lumens <sup>(6)</sup></p>	<p>80=8000 lumens <sup>(8)</sup>                      90=9000 lumens <sup>(8)</sup>                      100=10000 lumens <sup>(8)</sup>                      120=12000 lumens <sup>(8)</sup>                      150=15000 lumens <sup>(8)</sup>                      175=17500 lumens <sup>(8)</sup>                      200=20000 lumens <sup>(8)</sup></p>	<p>Blank=120-277V, for use with 1 driver                      1=120V, for use with 2 and 3 drivers                      2=277V, for use with 2 and 3 drivers                      3=347V step down transformer <sup>(11)</sup></p>

Driver Options	
<p><b>80/90/97 CRI</b>                      D010=0-10V Dimming, 1% to 100%, 120V-277V                      1 Driver: 1000-7000 Lumens                      2 Drivers: 8000-12,000 Lumens                      3 Drivers: 15,000-20,000 Lumens                      D010W=Fixed, Wired 0-10V Dimming, 1% to 100%, 120V-277V (BAA Only)                      1 Driver: 1000-7000 Lumens                      2 Drivers: 8000-12,000 Lumens                      3 Drivers: 15,000-20,000 Lumens                      D010TR=0-10V 120-277V or 120V Line Voltage Dimming, 1% to 100%                      1 Driver: 1000-5000 Lumens                      2 Drivers: 6000-10,000 Lumens                      3 Drivers: 12,000-15,000 Lumens                      DE010=0-10V Linear Dimming, 0.1% to 100%, 120V-277V                      1 Driver: 1000-5000 Lumens                      2 Drivers: 6000-9000 Lumens                      3 Drivers: 12,000 Lumens                      D5LT=Fifth Light® DALI DT6 Logarithmic Dimming, 0.1% to 100%, 120V-277V                      1 Driver: 1000-5000 Lumens                      2 Drivers: 6000-9000 Lumens                      3 Drivers: 12,000 Lumens                      DMX=DMX/RDM Logarithmic Dimming, 0.1% to 100%, 120V-277V <sup>(3)</sup>                      1 Driver: 1000-5000 Lumens                      2 Drivers: 6000-9000 Lumens                      3 Drivers: 12,000 Lumens                      DMXC5=DMX/RDM Logarithmic Dimming, 0.1% to 100%, 120V-277V, with RJ45 connection <sup>(3)</sup>                      1 Driver: 1000-5000 Lumens                      2 Drivers: 6000-9000 Lumens                      3 Drivers: 12,000 Lumens                      DLE=Lutron Ecosystem dimming 1% to 100%                      1 Driver: 1000-5000 Lumens                      2 Drivers: 6000-9000 Lumens                      3 Drivers: 12,000 Lumens                      DLV=Low Voltage System                      1 Driver: 1000-3000 Lumens</p>	<p><b>Tunable white</b>                      1 Driver: 1000-2000 Lumens                      2 Drivers: 3000-4000 Lumens                      DE010W2N2765 = 0-10V dimming, 0.1% to 100%, 120-277V, 2700K-6500K                      DE010W2N2050 = 0-10V dimming, 0.1% to 100%, 120-277V, 2000K-5000K                      D5LTW2N2765 = Fifth Light DALI DT6 Logarithmic Dimming, 0.1% to 100%, 120V-277V, 2700K-6500K                      D5LTW2N2050 =Fifth Light DALI DT6 Logarithmic Dimming, 0.1% to 100%, 120V-277V, 2000K-5000K  <b>BioUp Tunable white</b>                      1 Driver: 1000 Lumens                      2 Drivers: 2000-3000 Lumens                      DE010B2750 = 0-10V dimming, 0.1% to 100%, 120-277V, 2700K-5000K                      DE010B35 = 0-10V dimming, 0.1% to 100%, 120-277V, 3500K                      DE010B40 = 0-10V dimming, 0.1% to 100%, 120-277V, 4000K                      DE010B50 = 0-10V dimming, 0.1% to 100%, 120-277V, 5000K                      D5LTB2750 = Fifth Light DALI DT6 Logarithmic Dimming, 0.1% to 100%, 120V-277V, 2700K-5000K  <b>Dim-to-Warm</b>                      1 Driver: 1000-3000 Lumens                      2 Drivers: 4000 and 6000 Lumens                      3 Drivers: 9000 Lumens                      D010=0-10V Dimming, 1% to 100%, 120V-277V,                      D010TR=0-10V 120-277V or 120V Line Voltage Dimming, 1% to 100%                      DE010=0-10V Linear Dimming, 0.1% to 100%, 120V-277V                      D5LT=Fifth Light® DALI DT6 Logarithmic Dimming, 0.1% to 100%, 120V-277V                      DMX=DMX/RDM Logarithmic Dimming, 0.1% to 100%, 120V-277V <sup>(3)</sup>                      DMXC5=DMX/RDM Logarithmic Dimming, 0.1% to 100%, 120V-277V, with RJ45 connection <sup>(3)</sup>                      DLE=Lutron Ecosystem dimming 1% to 100%                      DLV=Low Voltage System <sup>(6)</sup></p>

Dim to Warm	Options <sup>(3)</sup>		
<p>Blank= For 3000 and below                      D2W = For 4000, 6000 and 9000</p>	<p>WPST=Factory installed WaveLinx PRO Sensor Kit <sup>(2)</sup> <sup>(14)</sup>                      WLST=Factory installed WaveLinx LITE Sensor Kit <sup>(2)</sup> <sup>(17)</sup>                      WPN = WaveLinx PRO Wireless Node without sensor <sup>(2)</sup> <sup>(19)</sup>                      WLN = WaveLinx LITE Wireless Node without sensor <sup>(2)</sup> <sup>(20)</sup></p>	<p>EMBOD=Bodine® 7W Emergency Module with Remote Test Switch <sup>(3)</sup>                      EMBOD7ST =Bodine® 7W Emergency Module with Self Test Remote Test Switch <sup>(3)</sup>                      EM7=7W Emergency Module with Remote Test Switch <sup>(3)</sup>                      EM14=14W Emergency Module with Remote Test Switch <sup>(3)</sup>                      IEMBOD=Bodine® Emergency Module with Integral Test Switch <sup>(3)</sup>                      IEM7=7W Emergency Module with Integral Test Switch <sup>(3)</sup>                      IEM14=14W Emergency Module with Integral Test Switch <sup>(3)</sup></p>	<p>EMV7=7W Low Voltage Emergency Module with Remote Test Switch <sup>(4)</sup>                      EMV14=14W Low Voltage Emergency Module with Remote Test Switch <sup>(4)</sup>                      IEMV7=7W Low Voltage Emergency Module with Integral Test Switch <sup>(4)</sup>                      IEMV14=14W Low Voltage Emergency Module with Integral Test Switch <sup>(4)</sup></p>

Order Information

SAMPLE ORDER NUMBER: ER8B30408035

Domestic Preferences <sup>(18)</sup>	Power Module	Lumen Levels <sup>(1),(21)</sup>	Color			
<b>[Blank]</b> =Standard <b>BAA</b> =Buy American Act <b>TAA</b> =Trade Agreements Act	ER8B=8" LED Module	<b>1 Driver (1 LED)</b> 1020=1000, 1500, or 2000 Lumens 3040=3000 or 4000 Lumens 5070=5000, 6000, or 7000 lumens	<b>80 CRI</b> 8027= 80CRI, 2700K 8030= 80CRI, 3000K 8035= 80CRI, 3500K 8040= 80CRI, 4000K 8050= 80CRI, 5000K	<b>90 CRI</b> 9027= 90CRI, 2700K 9030= 90CRI, 3000K 9035= 90CRI, 3500K 9040= 90CRI, 4000K 9050= 90CRI, 5000K	<b>97 CRI</b> 9727= 97CRI, 2700K 9730= 97CRI, 3000K	
		<b>2 Drivers (2 LEDs)</b> 60=6000 lumens 80120=8000, 9000, 10000, or 12000 lumens	<b>Dim 2 Warm 1 Driver</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, IC Rated 309030D2W=3000 Lumen, 90 CRI, Dim 2 Warm		<b>Dim 2 Warm 2 Drivers</b> 409030D2W=4000 Lumen, 90 CRI, Dim 2 Warm 609030D2W=6000 Lumen, 90 CRI, Dim 2 Warm	
		<b>3 Drivers (3 LEDs)</b> 120=12000 lumens 150200=15000, 17500 or 20000 lumens	<b>W2N Tunable White 1 Driver <sup>(9)</sup></b> 10W2N902050=1000 lumens, 90 CRI, Tunable white 2000K - 5000K 10W2N902765=1000 lumens, 90 CRI, Tunable white 2700K - 6500K 15W2N902050=1500 lumens, 90 CRI, Tunable white 2000K - 5000K 15W2N902765=1500 lumens, 90 CRI, Tunable white 2700K - 6500K 20W2N902050=2000 lumens, 90 CRI, Tunable white 2000K - 5000K 20W2N902765=2000 lumens, 90 CRI, Tunable white 2700K - 6500K		<b>W2N Tunable White 2 Drivers</b> 30W2N902050=3000 lumens, 90 CRI, Tunable white 2000K - 5000K 30W2N902765=3000 lumens, 90 CRI, Tunable white 2700K - 6500K 40W2N902050=4000 lumens, 90 CRI, Tunable white 2000K - 5000K 40W2N902765=4000 lumens, 90 CRI, Tunable white 2700K - 6500K	
			<b>BioUp Tunable White 1 Driver</b> 10B=1000 lumens  <b>BioUp Tunable White 2 Drivers</b> 20B=2000 lumens 30B=3000 lumens	35= Static 3500K 40= Static 4000K 50= Static 5000K 2750= BioUp Tunable White 2700K-5000K		

SAMPLE ORDER NUMBER: 8LBM1LI

Domestic Preferences <sup>(18)</sup>	Trim	Distribution <sup>(9)</sup>	Flange	Finish	Options
<b>[Blank]</b> =Standard <b>BAA</b> =Buy American Act	8LB=8" Reflector	N=Narrow Spun Aluminum M=Medium Spun Aluminum W=Wide Spun Aluminum S=Shallow Spun Aluminum	0=White Polymer Trim Ring 1=Self-flanged <sup>(7)</sup> 2=White Painted Self-flanged	LI=Specular Clear H=Semi-Specular Clear WMH=Warm Haze WH=Wheat GPH=Graphite Haze B=Specular Black MW=Matte White	E=Integral Emergency Test Switch Hole <sup>(6)</sup>

Accessories	
<b>HSA8</b> =Slope Adapter for 8" Aperture Housings, Specify Slope, use with self flange trim <sup>(15)</sup>  <b>Bar Hangers</b> HB26=C-channel Bar Hanger, 26" Long, Pair HB50=C-channel Bar Hanger, 50" Long, Pair	<b>Transformers</b> H347=347 to 120V Step Down Transformer, 75VA  <b>Connected Lighting Systems <sup>(9)</sup></b> WPST = Field installed WaveLinX PRO Sensor Kit <sup>(16)</sup> WLST = Field installed WaveLinX LITE Sensor Kit <sup>(17)</sup>

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.
- Beam angles are nominal with LI finish trims. See chart.
- Only available with Narrow, Medium and Wide Spun Aluminum trims. Required for use with all IEMBOD, IEM7, IEM14, IEMV7 and IEMV14 housings.
- Flange is the same finish as the reflector.
- 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"
  - No Through Branch Wiring for 8000-20000 lumens
- Non-IC
- For single driver.
- 347V step down transformer only available up to 7000 Lumen
- DMX fixtures default to full on upon loss of DMX signal.

- For D2W up to 3000 lumens.
- Not for use with D2W.
- Consult accessory specification sheet for ordering information.
- WPST = WaveLinX PRO 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)
- Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA). Please refer to [DOMESTIC PREFERENCES](#) website for more information. Components shipped separately may be separately analyzed under domestic preference requirements. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.
- 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.
- Reference Driver section for number of drivers

## 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

### Plaster Frame/Collar

- Die-cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2"

### Universal Mounting Bracket

- Accepts 1/2" Electric Metallic Tube (EMT), C-channel and bar hangers
- Adjusts 5" vertically from above and below the ceiling

### Junction Box

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

### 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
- Available in 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

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 without an integrated sensor; 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 wet locations with downlight with covered ceiling
- cULus listed for 25°C ambient environments
- cULus Certified IP65 below ceiling
- Optional City of Chicago environmental air (CCEA) marking for plenum applications
- 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
- T24 compliant
- IP20 above ceiling
- IP65 below ceiling finish
- 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)

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

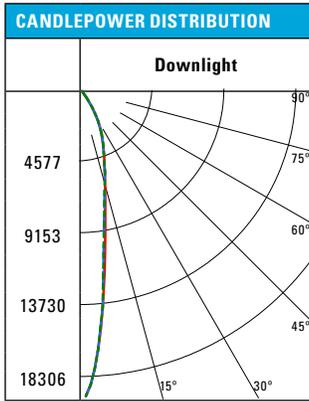
17500 Lumen D010TE	
Input Power: 179.1 W	THD <13%
Input Current: 1.49A	277V Input Current: 0.65A

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)	
Test Number	
Housing	LD8B50D010
Module	ER8B50835
Trim	8LBN0H
Lumens	4986
Efficacy	94.1 Lm/W
SC	0.32



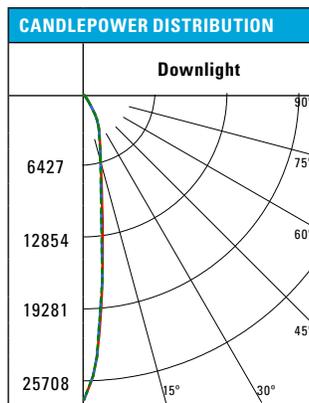
CONE OF LIGHT				
MH	FC	L	W	
4'	1144.4	1.2	1.2	
7'	373.7	2.2	2.2	
9'	226.1	2.8	2.8	
13'	108.3	4	4	
16'	71.5	5	5	

CANDELA TABLE	
Degrees Vertical	Candela
0	18310
5	14091
15	5762
25	3117
35	1021
45	99
55	5
65	1
75	1
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	4214	84.5
0-40	4883	97.9
0-60	4983	99.9
0-90	4986	100
90-180	0	0
0-180	4986	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	4330
55	253
65	88
75	143
85	0

NARROW (15° BEAM)	
Test Number	
Housing	LD8B50D010
Module	ER8B50835
Trim	8LBN0LI
Lumens	5248
Efficacy	99 Lm/W
SC	0.25



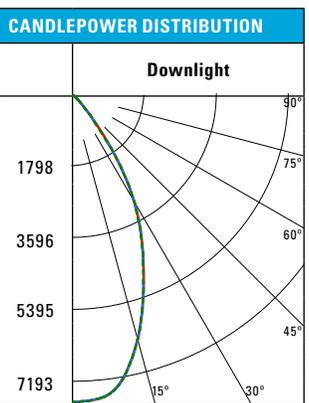
CONE OF LIGHT				
MH	FC	L	W	
4'	1607	1	1	
7'	524.7	1.6	1.6	
9'	317.4	2.2	2.2	
13'	152.1	3.2	3.2	
16'	100.4	4	4	

CANDELA TABLE	
Degrees Vertical	Candela
0	25712
5	17790
15	5743
25	3148
35	879
45	101
55	7
65	7
75	4
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	4514	86
0-40	5134	97.8
0-60	5238	99.8
0-90	5248	100
90-180	0	0
0-180	5248	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	4422
55	382
65	518
75	429
85	0

MEDIUM (40° BEAM)	
Test Number	
Housing	LD8B50D010
Module	ER8B50835
Trim	8LBM0H
Lumens	5426
Efficacy	102.4 Lm/W
SC	0.8



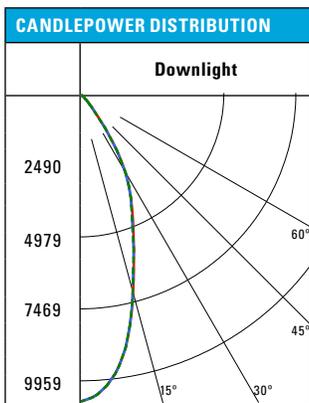
CONE OF LIGHT				
MH	FC	L	W	
4'	449.8	3.2	3.2	
7'	146.9	5.6	5.6	
9'	88.8	7.2	7.2	
13'	42.6	10.4	10.4	
16'	28.1	12.8	12.8	

CANDELA TABLE	
Degrees Vertical	Candela
0	7197
5	7141
15	5914
25	3883
35	1774
45	244
55	16
65	2
75	1
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	4078	75.2
0-40	5174	95.4
0-60	5422	99.9
0-90	5426	100
90-180	0	0
0-180	5426	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	10619
55	887
65	175
75	143
85	0

MEDIUM (40° BEAM)	
Test Number	
Housing	LD8B50D010
Module	ER8B50835
Trim	8LBM0LI
Lumens	5711
Efficacy	107.8 Lm/W
SC	0.63



CONE OF LIGHT				
MH	FC	L	W	
4'	622.7	2.4	2.4	
7'	203.3	4.4	4.4	
9'	123	5.6	5.6	
13'	59	8	8	
16'	38.9	10	10	

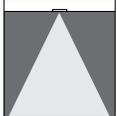
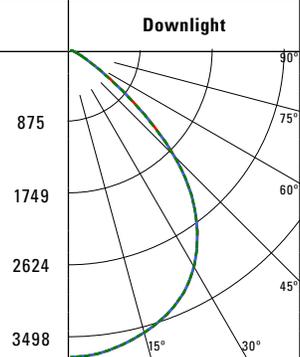
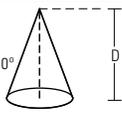
CANDELA TABLE	
Degrees Vertical	Candela
0	9963
5	9498
15	6587
25	3908
35	1559
45	219
55	27
65	7
75	2
85	0
90	0

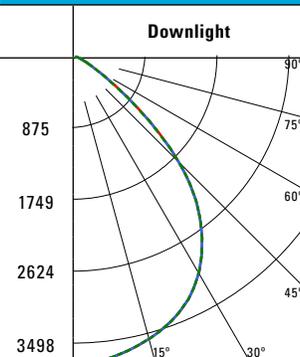
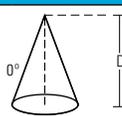
ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	4491	78.6
0-40	5481	96
0-60	5702	99.8
0-90	5711	100
90-180	0	0
0-180	5711	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	9546
55	1435
65	518
75	214
85	0

Photometric Data

[View IES files](#)

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 Systems

WaveLinx LITE - WLST Tilemount Sensor

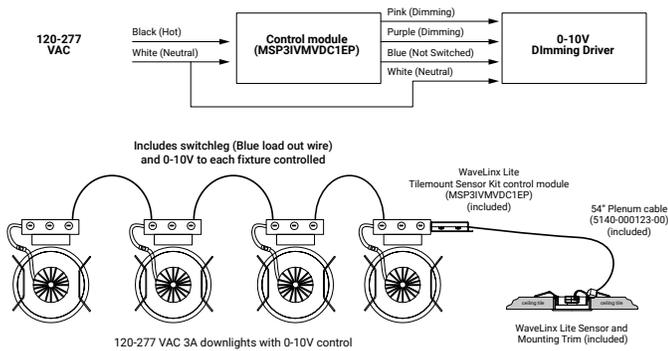
WaveLinx LITE devices only compatible with the WaveLinx LITE system.



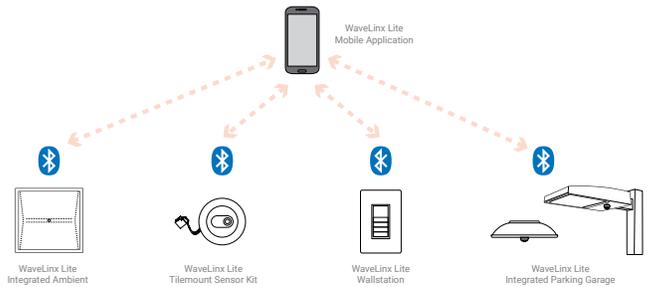
- Intuitive Android™ or Apple® iOS® app for basic system code compliant set up and configuration via Bluetooth
- Up to 28 unique areas per project site (WaveLinx LITE Bluetooth network)
- Up to 50 devices for an area, any one of 16 control zones, up to 6 occupancy sets, and custom lighting scenes
- Automatic 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

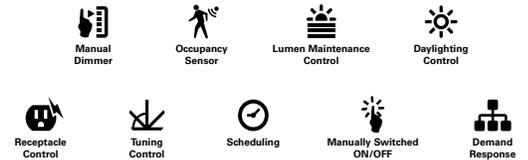
WaveLinx PRO devices only compatible with the WaveLinx PRO system.



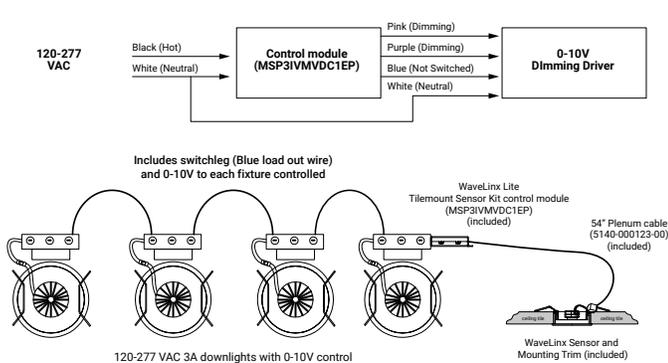
- WaveLinx PRO Wireless functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with Wireless Area Controller, Wall Stations, and Control Devices
- Stand-Along Offices or Entire Building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



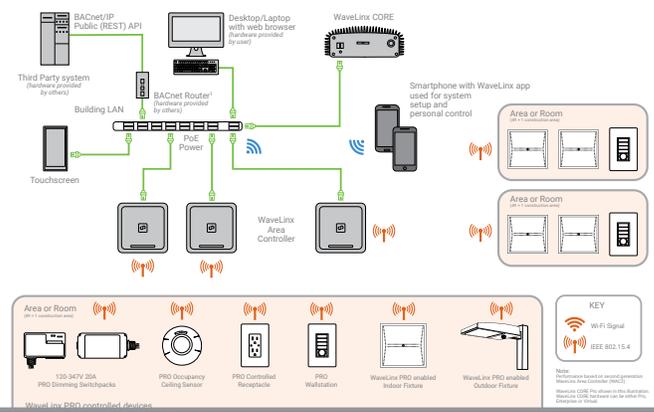
WaveLinx mobile app settings



WaveLinx PRO WPST Tilemount Wiring Diagram



WaveLinx CORE Building Management Integration



Connected Solutions



WaveLinX LITE Wireless Node - WLN

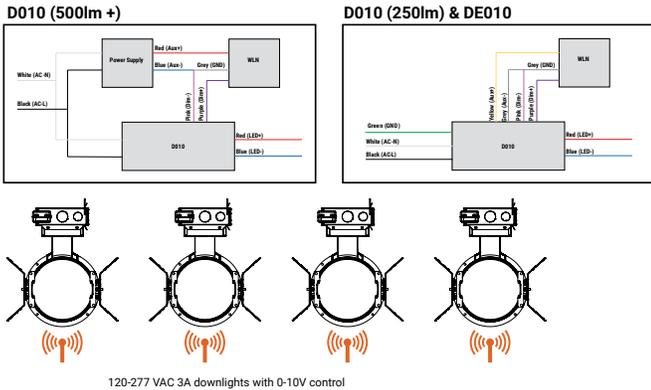
WaveLinX LITE devices only compatible with the WaveLinX LITE system.

- 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

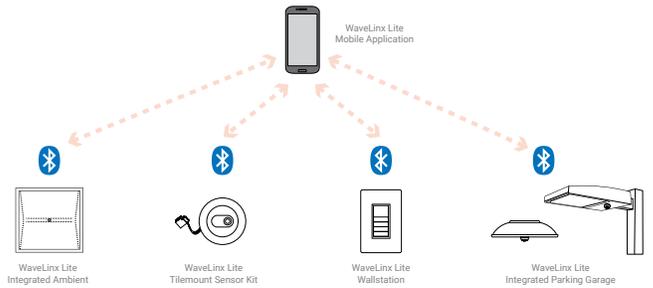
WaveLinX mobile app settings



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

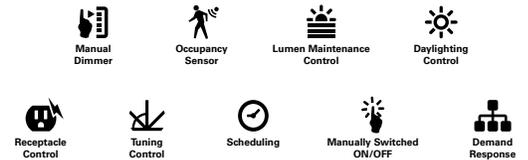
**Downlights with wireless communication**  
Highly efficient LED fixtures

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

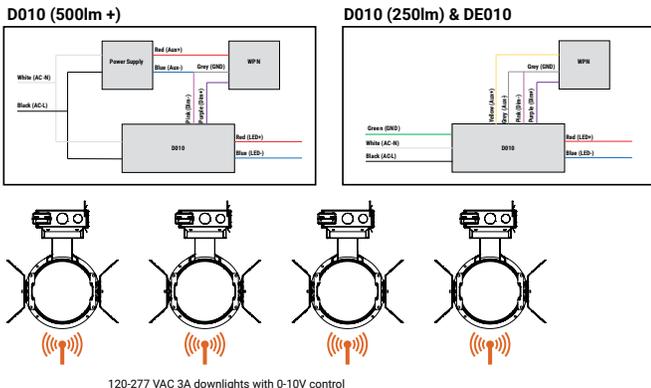
**Wireless Wall Station/Receptacle**  
Provides customized wireless control of each area

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

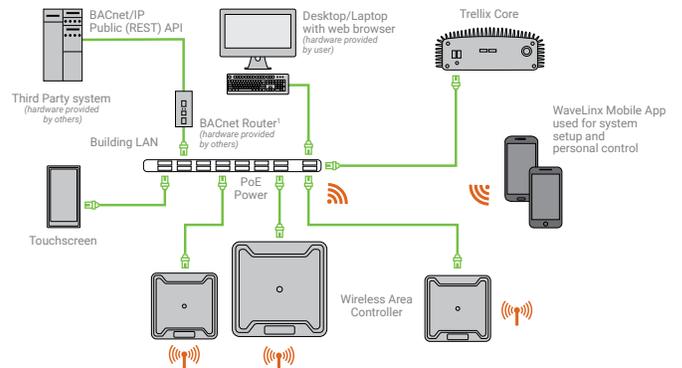
WaveLinX mobile app settings



WaveLinX PRO Wireless Node (WPN) Wiring Diagram



WaveLinX CORE Building Management Integration



# Proven Research. Industry Recognized.

## BioUp

Melanopic Lighting



See better



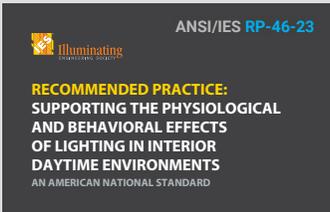
Feel better



Function better



See [BioUp brochure](#) for more details

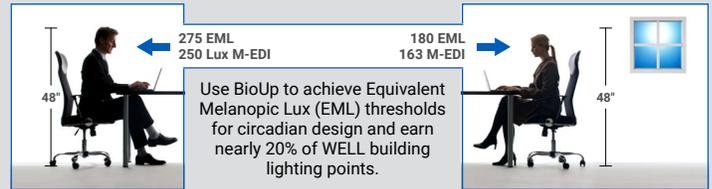


ANSI/IES RP-46-23 / TM18 published March 2024 based on over 40 years of research.

"...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.



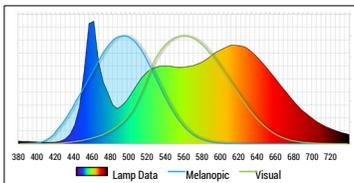
See [BioUp white paper](#) for more details

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

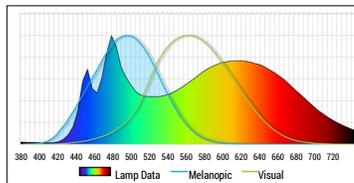
CCT	LED @ ~83 CRI	BioUp Static		BioUp Dynamic	
		MDER	CRI	MDER	CRI
2700K	0.45	-	-	0.43	95
3000K	0.50	-	-	0.57	94
3500K	0.57	0.71	90	0.71	90
4000K	0.65	0.84	87	0.84	87
5000K	0.79	1.00	84	1.00	84

**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

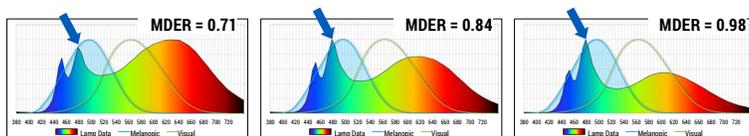


BioUp enhances the LED spectrum with cyan light at 475nm increasing the biological impact of the light to enhance our circadian rhythm which regulates our sleep/wake cycle, daytime engagement, and mood – *all without distorting visual color impression.*

### 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**

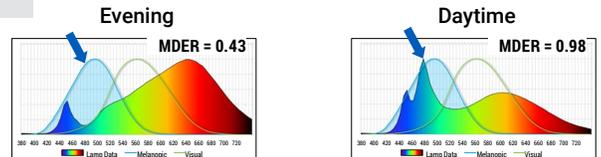
Cyan light component always present



> 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