





# ECL N G2 16 | LED Narrow Strip

#### **Features:**

- High performance LED technology
- 0-10V dimming drivers standard
- Field replaceable LED boards and drivers
- Frosted diffuser helps minimize glare and improve aesthetics
- Advanced controls available

# **Applications:**

Suitable for most commercial and institutional applications

- Office
- Retail
- Coves
- Valences

# **Ambient Operating Temp.:**

• -30°C to 40°C

## Predicted Lifetime:

- L70: ≥ 129,000 hrs (calculated)
- L80: ≥ 81,000 hrs (calculated)
- L90: ≥ 39,000 hrs (reported)
- 85% lumen maintenance @ 60,000 hrs (based on LM80 and insitu laboratory testing)

### Construction:

- Precision brake formed from cold rolled steel
- Highly durable matte white finish.
   Optional matte black or metallic silver finish

#### Certifications:

 UL 1598 listed for US and Canada, suitable for damp locations



## Warranty:

- 5 year limited system warranty see <u>www.LumenFocus.com</u> for complete warranty terms and conditions
- 10 year warranty option available on specific models (Not available on all models. Certain conditions apply. Consult factory or sales representative for details.)











# Ordering Guide:

example: ECL N G2 16 ML UV FR 840 QC BK

Series	Version	Length	Output	Voltage	Shielding	CRI/CCT	Hanging	Controls	Options	Finish
ECL N	<b>G</b> 2	16								
ECL N Narrow Strip	<b>G2</b> Gen 2	<b>16</b> 182"	<b>LW</b> Low	<b>UV</b> 120-277	Blank No Lenses	930 90 CRI/3000K	Blank None	<b>Blank</b> No Controls	Blank No Options	Blank White
эшр		(192" Optional)	ML Medium Low	<b>34</b> 347V	FR Frosted Acrylic Diffusers	935 90 CRI/3500K 940 90 CRI/4000K	QC 10' Quick Hang Cable Kit	ZSOL Leviton Intellect Solo Programmable PIR/Daylight Harvesting Sensor <sup>(1)</sup> ZLD1 Leviton Bluetooth-enabled	EXT10 10-Year Extended Warranty <sup>(4)</sup> C6 6' Single Circuit Cord	BK Matte Black SL Metallic Silver
						950 90 CRI/5000K		Programmable Dimming/Occupancy/ Daylight Harvesting Sensor with Grouping (120-277V) <sup>(1)</sup>	C65W 6' Single Circuit Cord with	
								ZLDU	Low Voltage Connections	

#### **Notes**

- (1) See Page 4 for more details.
- (2) "\_" = lens type. See Page 4 for more details.
- (3) See Page 5 for more details.
- (4) Not available on all models. Certain conditions apply. Consult factory or sales representative for details.
- (5) 120-277V / 0°C-50°C ambient.
- (6) "\_" for 2-circuit wiring, specify circuit A or B here.

# Controls Accessories (order separately)



#### For Leviton Intellect Solo Sensor

ZLSOR-RA1 IR Programming Remote



#### For WattStopper Controls

Wireless IR Programming Tool FSIR-100

(For Z211Lx)



#### For Leviton Intellect Networked Controls

DRKDN-U1W 1-Button Wireless Wall Controller 2-Button Wireless Wall Controller DRKDN-U2W DRKDN-U2W 4-Button Wireless Wall Controller 8-Button Wireless Wall Controller DRKDN-U8W



#### For Enlighted Controls

WS-2-00 Enlighted Remote Control Wall Switch (for Enlighted Connected & IoT)

WS-2-00-IL Enlighted Remote Control Wall Switch

(for Enlighted One)

Leviton Bluetooth-enabled Programmable Dimming/Occupancy/ Daylight Harvesting Sensor with Grouping, Scheduling (120-480V)<sup>(1)</sup>

#### Z211L\_

Wattstopper FSP Programmable Photo/Motion Multi-Voltage Sensor (high/low/off)<sup>(2)</sup>

#### Z311L

Wattstopper FSP Bluetooth-enabled Programmable Photo/Motion Multi-Voltage Sensor (high/low/off)<sup>(2)</sup>

#### **ZOSMD**

Microwave Daylight/Motion Sensor With Step-Dimming (High/Low/Off)(1)

#### **ZLDS**

Leviton Intellect DALI Sensor with Dimming/Occupancy/Daylight Harvesting with Newtork Capabilities<sup>(3)</sup>

Leviton Intellect 0-10V Sensor with Dimming/Occupancy/Daylight Harvesting with Newtork Capabilities<sup>(3)</sup>

#### **ZLDC**

Leviton Intellect DALI Fixture Controller with Newtork Capabilities<sup>(3)</sup>

#### ZL7C

Leviton Intellect 0-10V Fixture Controller with Newtork Capabilities<sup>(3)</sup>

#### **ZENLO**

Enlighted Micro Sensor with Dimming/ Occupancy/Daylight Harvesting and Enlighted One System<sup>(3)</sup>

#### **ZENLC**

Enlighted Micro Sensor with Dimming/ Occupancy/Daylight Harvesting and Enlighted Connected System(3)

#### ZENLI

Enlighted Micro Sensor with Dimming/ Occupancy/Daylight Harvesting and Enlighted IoT System(3)

#### C10

10' Single Circuit Cord

#### C105W

10' Sinale Circuit Cord with Low Voltage Connections

6' Dual Circuit Cord

#### D10

10' Dual Circuit Cord

#### P(NEMA)

Plug (Specify NEMA configuration)

#### CC

Conformal Coating

#### LVL

0-10V Dimming Leads for Easy Field Access

192" Length (Standard Length is 182")

#### EM1

Emergency Pack - Up to 8W<sup>(5)</sup>

### EM2

Emergency Pack - Up to 16W<sup>(5)</sup>

### QWH(\_)

Quick Wire Harness<sup>(6)</sup> AC

Aligner Clips for Continuous Row Mounting

#### BAA

Buy American Act Compliant





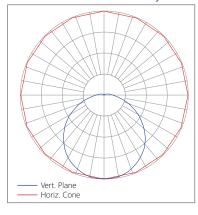
# Performance Chart:

Catalog #	Watts	Lumens (930)	LPW (930)	Lumens (935)	LPW (935)	Lumens (940)	LPW (940)	Lumens (950)	LPW (950)
ECL N G2 16 LW UV FR 9xx	56.1	8368.0	149.3	8403.3	149.9	8602.8	153.4	8602.8	153.4
ECL N G2 16 ML UV FR 9xx	84.9	12437.3	146.4	12489.8	147.1	12786.4	150.5	12786.4	150.5

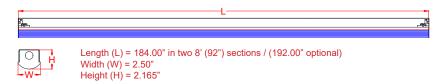
Scaling Factor: No lens: 1.05

### Photometric Data:

#### Relative Luminous Intensity



### Schematic:





The ECLN features field replaceable boards and drivers. This allows you to upgrade to more efficient technology in the future. Or, in the rare event of a failure, you can rapidly replace defective components. Re-boardABILITY helps to ensure you won't get stuck with an obsolete light fixture. <u>Learn more about Re-boardABILITY here.</u>





# **Controls Summary:**

Control Code	Туре	Capabilities	Communication	
ZSOL	Motion (PIR), Daylight Harvesting	High/Low/Off	Wired 0-10V, Programmable via IR remote (sold separately)	
ZLD1	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping	Wired 0-10V, Programmable via Bluetooth App (iOS, Android)	
ZLDU	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling	Wired 0-10V, Programmable via Bluetooth App (iOS, Android)	
Z211Lx	Motion (PIR), Photosensor	High/Low/Off, High-End Trim	Wired 0-10V, Programmable via IR remote (sold separately)	
Z311Lx	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim	Wired 0-10V, Programmable via Bluetooth App (iOS, Android)	
ZOSMD	Motion (Microwave), Photosensor	On/Low/Off	Wired 1-10V	
ZLxS	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling, Demand Response*, BMS Integration*, LLLC (Green- MAX DRC)	Wireless Zigbee 2.4 GHz Mesh, Programmable via GreenMAX DRC app. for iOS or Android along with DRKDN- UxW Wall Controller (sold separately)	
ZLxC	Controller, No Sensors	High/Low/Off, High-End Trim, Grouping, Scheduling, Demand Response*, BMS Integration*, LLLC (Green- MAX DRC)	Wireless Zigbee 2.4 GHz Mesh, Programmable via GreenMAX DRC app. for iOS or Android along with DRKDN- UxW Wall Controller (sold separately)	
ZENLO	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Upgradable to Connected (ZENLC) or IoT (ZENLI)	Wireless Bluetooth Low Energy Mesh, Programmable via Enlighted Room Controller WS-2-00-IL (sold separately)	
ZENLC	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling*, Energy Monitoring*, BMS Integration*, Upgradable to IoT (ZENLI), LLLC (Enlighted IoT)*	Wireless Bluetooth Low Energy Mesh, Programmable via Enlighted IoT Software	
ZENLI	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling*, Energy Monitoring*, BMS Integration*, LLLC (Enlighted IoT)*, Space - Building Utilization*, Where - Real Time Location Services*	Wireless Bluetooth Low Energy Mesh, Programmable via Enlighted IoT Software	

LLLC = Luminaire Level Lighting Control

# Dimming Sensors (Z211/Z311)

- The Wattstopper FSP sensor provides multi-level control based on motion and/or daylight contribution
- Comes pre-installed on the fixture
- Rated for cold locations
- Parameters for Bluetooth-enabled Z311 adjustable via phone app iOS or Android
- Parameters for Z211 adjustable via wireless configuration tool (FSIR-100 sold separately)
- Available with black lens for black finishes (pictured below)
- Two lenses available, tailored for the ideal detection area and mounting height:
  - L2: 360° lens, maximum coverage 48', diameter from 8' height
  - L3: 360° lens, maximum coverage 40', diameter from 20' height





Phone app interface for Z311 sensor

# Microwave Occupancy Sensor (ZOSMD)

The Leviton OSM3D-DDW (or equivalent) detects motion through low density materials using high frequency electromagnetic waves. This means it can sit discretely behind the ECLN's frosted

lens. The ZOSMD features automatic switching based on motion and ambient light level. ZOSMD option adds step-dimming functionality - standby dimming level 10% / 20% / 30% / 50%.

Max mounting height for ZOSMD is 40 feet.



# Leviton Intellect Solo Dimming Sensor (ZSOL)

The ECLN can be equipped with an integrated Leviton Intellect Solo Sensor ("ZSOL" option). This is a 0-10V dimming Passive Infrared (PIR) occupancy and daylight harvesting sensor.

Other features:

- Partial-on
- Partial-off
- 8' to 10' mounting height
- IP20 rated
- Detection angle: 120 degrees
- IR remote available for
- programming sensor from the floor (sold separately)
- Can be used to comply with IECC, ASHRAE 90.1 and 2019 Title 24, Part 6 dimming, occupancy/vacancy sensing and daylight harvesting requirements.



# Smart Sensors (ZLD1/ZLDU)





The ZLDx option includes high bay and low bay lenses along with aisleway masks that can easily be installed

or swapped out in the field. The high bay lens is good for 20'-40' mounting heights, while the low bay lens is good for 8'-20' mounting heights.

- Leviton Smart IP66 passive infrared (PIR) sensors
- Features mesh grouping (16 devices per group), occupancy sensing, daylight harvesting, scheduling (for ZLDU only), single-level switching
- Comes pre-installed on the center face of the fixture
- · Rated for cold locations
- Configurable through the Leviton Smart Sensor App using a smartphone or other Bluetoothenabled iOS or Android device



<sup>\*</sup> Additional equipment required. Contact LumenFocus representative for details



# **GreenMAX DRC Wireless Networked Control System**

### with Leviton Intellect Sensors & Controllers

The GreenMAX DRC Wireless Keypad Room Controllers are used as the brain of the system, managing the fixture integrated Leviton Intellect sensors & controllers. Wirelessly commission, configure, control, monitor and provision the GreenMAX DRC system using the GreenMAX DRC App and an Android or iOS smart device.

- Occupancy/Vacancy Sensing
- Multi-Level Lighting, Partial-On, Partial-Off
- Daylight Harvesting
- Task Tuning
- Scheduling
- Grouping
- Demand Response
- BMS Integration
- ZigBee 2.4 GHz Wireless Mesh Network
- Up to 75' between devices
- \* DRKDN-UxW room controller required for full functionality and programming of Intellect sensors & controllers





- PIR Occupancy Sensor
- Daylight Sensor
- 0-10V or DALI
- Up to 20' mounting height



- Wireless fixture controller, no sensor
- 0-10V or DALI



- 1-, 2-, 4-, and 8-button configurations
- Line voltage powered: 120-277V
- Max capacity: 60 devices
- Programmable: On/Off/Raise/Lower/ Toggle/Scene
- Use any Android or iOS device for configuration using the GreenMAX DRC App

# Enlighted: All-in-one sensors, upgradeable systems

Enlighted's SMART Micro Sensor is an all-in-one unit: task tuning, high-end trimming, daylight harvesting, and occupancy/vacancy detection. **Max installation height is 15 feet.** 

Enlighted sensors come standard with the Enlighted One system (the "ZENLO" option). Enlighted Connected ("ZENLC") offers even more options. The Enlighted IoT ("ZENLI") option allows the full implementation of Enlighted's services. Each system can be fully upgraded to the next tier in the future. So if you start with Enlighted One but want to add energy reporting or building management systems integration in the future, you can.



Enlighted Capabilities*	Enlighted One (ZENLO)	Enlighted Connected (ZENLC)	Enlighted IoT (ZENLI)
Motion and Switch Groups	✓	✓	✓
Daylight Harvesting	✓	✓	✓
Schedule Lighting		✓	✓
Energy Reporting & Optimization		✓	✓
Environment Data & Lighting Controls API		✓	✓
Building Management System Integration		✓	✓
Where & Space Applications			✓
Location & Occupancy APIs & Beaconing			✓
Future App & API Ready			✓

Note: Additional equipment required for ZENLC and ZENLI

# Real-time data analytics

Enlighted's control units compile data in real-time, which can be viewed via the Energy Manager. The Energy Manager is part of the Enlighted Connected and Enlighted IoT configurations.

- Real-time measurements and verification of energy savings
- Space analytics data can be compiled into motion trails and heat maps
- Analyze traffic density and congestion in a space



Learn more about our available advanced controls options here:

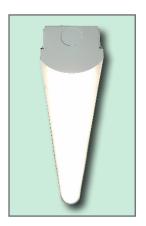
www.lumenfocus.com/controls-overview

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# Other Options:



**Shielding** Frosted acrylic diffuser lenses minimize glare and improve aesthetics.

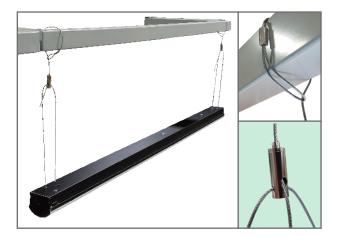


Conformal coating Grants LED boards added protection from moisture and corrosion in more hazardous environments.





**Cords** are available in single circuit or dual circuit, 6' or 10'. Standard plug is optional, as are other NEMA configurations if specified.



**Hanging** The QC hanging kit from ALP comes in 10' or 20'. Cables are pre-looped for easy installation and designed for easy fixture height adjustment. When ordered, QCs come boxed with each fixture.