





# 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
- Buy American Act compliant (All base luminaires are BAA compliant. Addition of options may change eligibility. Contact factory for details.)

# 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 with a highly durable matte white finish. Optional matte black and metallic silver options constructed of brake formed aluminum

#### 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.)











Series Version Length Output Voltage Shielding CRI/CCT Hanging Controls Options Finis	Orde	ring G	Guide:						eva	mple: ECL N G2 16 ML UV	ER 840 OC BI
See Page 4 for more details.   Size Page 5 for more details.   Size Page 6 for more details.	Series	Version	Length	Output	Voltage	Shielding	CRI/CCT	Hanging			Finish
No Centrols Strip	ECL N	<b>G</b> 2	16								
Notes   See Page 4 for more details.   See Page 5 for more details.   Notes Page 5 for more details.   Note 2777V off-C55°C ambient of conditions apply. Consult factory or sales representative for details.   Not available on all models. Certain conditions apply. Consult factory or sales representative for details.   Note 2 fo ML UV FR 940 EMIO → 150.5 LPW x 10W = 1,505 lm   Since Page 8 for more details.   Note 2 fo ML UV FR 940 EMIO → 150.5 LPW x 10W = 1,505 lm   For Leviton Programmable Sensor With Step-Dimming (High/Low/Off)//// SINGLE CONTROL Code (South Manual Configuration)   Notes (South Manual Code (Sout	Narrow		182"		_	-		-	-		Blank White
Notes  Notes  See Page 4 for more details.  See Page 4 for more details.  See Page 5 for more details.  Not available on all models. Certain conditions apply. Consult factory or sales representative for details.  Not available on all models. Certain conditions apply. Consult factory or sales representative for details.  Not available on all models. Certain conditions apply. Consult factory or sales representative for details.  Not available on all models. Certain conditions apply. Consult factory or sales representative for details.  Not available on all models. Certain conditions apply. Consult factory or sales representative for details.  Not available on all models. Certain conditions apply. Consult factory or sales representative for details.  Not available on all models. Certain conditions apply. Consult factory or sales representative for details.  Not available on all models. Certain conditions apply. Consult factory or sales representative for details.  Not available on all models. Certain conditions apply. Consult factory or sales representative for details.  Not available on all models. Certain conditions apply. Consult factory or sales representative for details.  Not available on all models. Certain conditions apply. Consult factory or sales representative for details.  Not available on all models.  Nattsopper FSP Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(2)</sup> Natisopper FSP Bluetooth-enabled Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(3)</sup> Not available on all models.  Natisopper FSP Bluetooth-enabled Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(3)</sup> Not available on all models.  Natisopper FSP Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(3)</sup> Not available on all models.  Natisopper FSP Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(3)</sup> Not available on all models.  Natisopper FSP Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(3)</sup> Not available on all models.  Natisopper FSP Programmable	Strip		,		_	Frosted Acrylic	90 CRI/3500K 940 90 CRI/4000K 950	10' Quick Hang Cable Kit	Leviton Intellect Solo Programmable PIR/Daylight Harvesting Sensor <sup>(1)</sup> ZLD1  Leviton Bluetooth-enabled Programmable Dimming/Occupancy/ Daylight Harvesting Sensor with	10-Year Extended Warranty <sup>(5)</sup> C6 6' Single Circuit Cord  C65W	Matte Black
Controls Accessories (order separately)  For Leviton Programmable Sensor ZLDS ZLSOR-RA1 IR Programming Remote  Keystone SmartLoop Wireless Bluetooth Mesh Occupancy/Daylight Harvesting Smart Sensor(1)  LVL 0-10V Dimming Leads for Easy Field Access  192" 192" Leviton Intellect DALI Sensor with Dimming/Occupancy/Daylight Harvesting with Newtork Capabilities(4) Length is 182")	(1) See Pag (2) "_" = lei (3) 120-277 (4) See Pag (5) Not ava represe (6) 120-277 EM watt ex. ECL I	e 4 for mons type. Se Vonly. So Je 5 for monitable on a native for V / 0°C-55 age by the N G2 16 ML	ee Page 4 for ee Page 5 for pre details. all models. details. o°C ambient Lumens pe UV FR 940	for more de Certain con To estimate To watt of the EM10 → 150	tails. ditions app e lumen out luminaire it 0.5 LPW x 10	put in emerger is installed in.	-	ltiply	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) <sup>(3)</sup>	C10 10' Single Circuit Cord C105W 10' Single Circuit Cord with Low Voltage Connections  D6 6' Dual Circuit Cord  D10 10' Dual Circuit Cord  P(NEMA) Plug (Specify NEMA configuration)  CC	
For WattStopper Controls  ZL7S  6.5W Emergency Pack (6)	00000000000000000000000000000000000000	or <b>Levito</b> r ZLSOR-RA1	n Program	<b>ımable Sen</b> IR Program	sor				Keystone SmartLoop Wireless Bluetooth Mesh Occupancy/Daylight Harvesting Smart Sensor <sup>(1)</sup> <b>ZLDS</b> Leviton Intellect DALI Sensor with Dimming/Occupancy/Daylight Harvesting with Newtork Capabilities <sup>(4)</sup>	0-10V Dimming Leads for Easy Field Access 192" 192" Length (Standard Length is 182") EM6	





FSIR-100 Wireless IR Programming Tool

(For Z211Lx)



#### For Keystone SmartLoop Controls

KTSL-WS1-B-SG/G2 5-Button Bluetooth Wireless Wall Switch

KTSL-TK1-USB USB Time Keeper



#### For Leviton Intellect Controls

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



#### For Enlighted Controls

Enlighted Remote Control Wall Switch WS-2-00

(for Enlighted Connected & IoT)

Leviton Intellect 0-10V Sensor with Dimming/Occupancy/Daylight Harvesting with Newtork Capabilities<sup>(4)</sup>

#### **ZLDC**

Leviton Intellect DALI Fixture Controller with Newtork Capabilities<sup>(4)</sup>

#### ZL7C

Leviton Intellect 0-10V Fixture Controller with Newtork Capabilities<sup>(4)</sup>

#### **ZENLC**

Enlighted Micro Sensor with Dimming/ Occupancy/Daylight Harvesting and Enlighted Connected System<sup>(4)</sup>

#### ZENLI

Enlighted Micro Sensor with Dimming/ Occupancy/Daylight Harvesting and Enlighted IoT System<sup>(4)</sup>

#### EM10 10W Emergency Pack<sup>(6)</sup>

EM14 14W Emergency Pack<sup>(6)</sup>

#### QWH()

Quick Wire Harness<sup>(7)</sup>

Aligner Clips for Continuous Row Mounting

#### BAA

Buy American Act Compliant



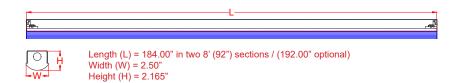


# Performance Chart:

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

### Schematic:



# 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
ZSLFC2	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling, LLLC (Keystone TechSmartLoop)	Wireless Bluetooth Mesh, Programmable via Keystone SmartLoop App for iOS or Android
ZLxS	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling, Demand Response*, BMS Integration*, LLLC (GreenMAX 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 (GreenMAX DRC)	Wireless Zigbee 2.4 GHz Mesh, Programmable via GreenMAX DRC app. for iOS or Android along with DRKDN-UxW Wall Controller (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
\* Additional equipment required. Contact LumenFocus representative for details



## 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

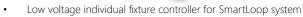
# **Keystone SmartLoop** Wireless Control System

The SmartLoop wireless lighting control system by Keystone is a Bluetooth mesh lighting control system that allows you to set up and manage your lighting ecosystem quickly and easily. It's powerful enough to run a space with multiple lighting zones, but simple enough to program in minutes with your smartphone – perfect for warehouses, offices, schools, and auditoriums, whether new construction or retrofit.

- Wireless Bluetooth 2.4 GHz mesh network
- Supports up to 100 devices on a single region, with unlimited regions
- Independent per-fixture control: Occupancy, Daylight Harvesting, Task Tuning, Grouping, Scene Setting, Scheduling
- Commissioned via SmartLoop mobile app for iPhone and Android



# ZSLFC2



- Integrated daylight and PIR motion sensors
- Up to 16' mounting height. 16' radius at 16' height.
- Works with 0-10V dim-to-off drivers with 12V aux. power

# SmartLoop Accessories

- Bluetooth Wireless Wall Switch: KTSL-WS1-B-SG/G2
  - Battery Powered: 2x CR2032
  - 5 Button: Power Toggle, Dimming, Automatic Sensor/Preset Level Operation, Scene Activation
- USB Time Keeper:

#### KTSL-TK1-USB

- Relays time to system components after a power loss
- Powered by standard USB charging port
- Internal CR1220 battery backup



# 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 G2'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 40 feet



# Leviton Intellect Solo Dimming Sensor (ZSOL)

The ECLN G2 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





# **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 DALL



- 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 Connected ("ZENLC") offers many features, including motion and switch groups, daylight harvesting, energy reporting, and more. The Enlighted IoT ("ZENLI") option allows the full implementation of Enlighted's services. Enlighted Connected can be fully upgraded to the next tier in the future. So if you start with ZENLC but want to add the functionality of the ZENLI option, you can.



Enlighted Capabilities*	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		✓

# 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

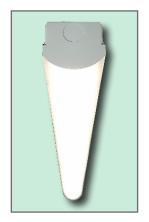


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# Other Options:



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

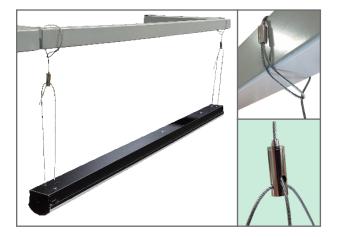


Conformal coating Grants LED boards added protection from moisture and corrosion in more hazardous environments.





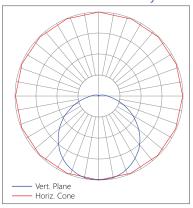
**Cords** are available in single circuit or dual circuit, 6' or 10'. Standard plug is optional, as are other NEMA configurations if specified.



**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.

### Photometric Data:

#### Relative Luminous Intensity







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. Learn more about Re-boardABILITY here.

