# LumenFécus

Project:
Location:
Cat. #:
Туре:
Quantity:



# 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:  $\geq$  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.)







# LumenF@cus

# Ordering Guide:

	Version	Length	Output	Voltage	Shielding	CRI/CCT	Hanging	Controls	Options	Finis
CLN	G2	16								
<b>CL N</b> Narrow Strip	<b>G2</b> Gen 2	<b>16</b> 182″	LW Low	UV 120-277	Blank No Lenses	<b>930</b> 90 CRI/3000K	Blank None	<b>Blank</b> No Controls	Blank No Options	Blan White
sup		(192″ Optional)	ML Medium Low	<b>34</b> 347V	<b>FR</b> Frosted Acrylic Diffusers	935 90 CRI/3500K	<b>QC</b> 10' Quick Hang Cable Kit	<b>ZSOL</b> Leviton Intellect Solo Programmable PIR/Daylight Harvesting Sensor <sup>(1)</sup>	<b>EXT10</b> 10-Year Extended Warranty <sup>(4)</sup>	BK Matte B
						940 90 CRI/4000K 950 90 CRI/5000K	<b>SH</b> Slide Hanger	<b>ZLD1</b> Leviton Bluetooth-enabled Programmable Dimming/Occupancy/ Daylight Harvesting Sensor with Grouping (120-277V) <sup>(1)</sup>	C6 6' Single Circuit Cord C65W 6' Single Circuit Cord with	SL Metallic S
				I		I	I	ZLDU Leviton Bluetooth-enabled Programmable Dimming/Occupancy/ Daylight Harvesting Sensor with Grouping, Scheduling (120-480V) <sup>(1)</sup>	Low Voltage Connections C10 10' Single Circuit Cord C105W	
	e 4 for mo							<b>Z211L_</b> Wattstopper FSP Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(2)</sup>	10' Single Circuit Cord with Low Voltage Connections <b>D6</b> 6' Dual Circuit Cord	
<ul> <li>2<sup>n</sup> " = lens type. See Page 4 for more details.</li> <li><sup>30</sup> See Page 5 for more details.</li> <li><sup>40</sup> Not available on all models. Certain conditions apply. Consult factory or sales representative for details.</li> <li><sup>50</sup> 120-277V / 0°C-55°C ambient. To estimate lumen output in emergency mode, multiply EM wattage by the Lumens per Watt of the luminaire it is installed in.</li> <li>ex. ECL N G2 16 ML UV FR 940 EM10 → 150.5 LPW x 10W = 1,505 Im</li> <li><sup>60</sup> "_" for 2-circuit wiring, specify circuit A or B here.</li> </ul>						Z311L_ Wattstopper FSP Bluetooth-enabled Programmable Photo/Motion Multi- Voltage Sensor (high/low/off) <sup>(2)</sup>	D10 10' Dual Circuit Cord P(NEMA) Plug (Specify NEMA			
						ZOSMD Microwave Daylight/Motion Sensor With Step-Dimming (High/Low/Off) <sup>(1)</sup> ZLDS	configuration) <b>CC</b> Conformal Coating			
								Leviton Intellect DALI Sensor with Dimming/Occupancy/Daylight Harvesting with Newtork Capabilities <sup>(3)</sup>	LVL 0-10V Dimming Leads for Easy Field Access	
<u>^</u>			Solo Senso		arately)			ZL7S Leviton Intellect 0-10V Sensor with Dimming/Occupancy/Daylight	<b>192"</b> 192" Length (Standard Length is 182")	
	LSOR-RA1		IR Program		ote			Harvesting with Newtork Capabilities <sup>(3)</sup> <b>ZLDC</b> Leviton Intellect DALI Fixture Controller	EM6 6.5W Emergency Pack <sup>(5)</sup>	
For WattStopper Controls FSIR-100 Wireless IR Programming Tool (For Z211Lx)						with Newtork Capabilities <sup>(3)</sup> <b>ZL7C</b> Leviton Intellect 0-10V Fixture Controller with Newtork Capabilities <sup>(3)</sup>	EM10 10W Emergency Pack <sup>(5)</sup> EM14 14W Emergency Pack <sup>(5)</sup>			
3 0	<b>or Levitor</b> DRKDN-U1 DRKDN-U2	N	<b>Networkec</b> 1-Button Wir 2-Button Wi	reless Wall				Enlighted Micro Sensor with Dimming/ Occupancy/Daylight Harvesting and Enlighted One System <sup>(3)</sup>	QWH(_) Quick Wire Harness <sup>(6)</sup> AC	
_	DRKDN-U2 DRKDN-U8	W ited Contro	4-Button Wi 8-Button Wi <b>ols</b>					ZENLC Enlighted Micro Sensor with Dimming/ Occupancy/Daylight Harvesting and Enlighted Connected System <sup>(3)</sup>	Aligner Clips for Continuous Row Mounting BAA	
F	VS-2-00				trol Wall Switcl				Buy American Act	

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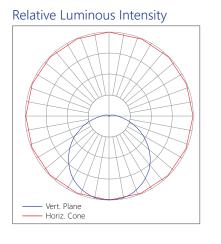
# Lumen Fécus

# Performance Chart:

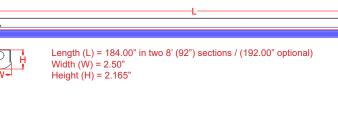
Catalog #	Watts	Lumens (930)	LPW (930)	Lumens (935)	LPW (935)	Lumens (940)	LPW (940)	Lumens (950)	LPW (950)
ECL N G2 16 LW UV FR 9xx	56.1	8368.0	149.3	8403.3	149.9	8602.8	153.4	8602.8	153.4
ECL N G2 16 ML UV FR 9xx	84.9	12437.3	146.4	12489.8	147.1	12786.4	150.5	12786.4	150.5

Scaling Factor: No lens: 1.05

## Photometric Data:



## 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. Learn more about Re-boardABILITY here.





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# 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

\* 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



#### 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 Bluetooth-
- enabled iOS or Android device

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# 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



# ZLxS

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



Wireless fixture controller, no sensor0-10V or DALI

#### DRKDN-UxW Room Controllers



- 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 One** 

(ZENLO)

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Enlighted

Connected (ZENLC)

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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

IoT (ZENLI)

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# 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

www.idmemocds.com/controls\_over

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Enlighted Capabilities\*

Motion and Switch Groups

Energy Reporting & Optimization

Where & Space Applications

Future App & API Ready

Environment Data & Lighting Controls API

Building Management System Integration

Location & Occupancy APIs & Beaconing

Daylight Harvesting

Schedule Lighting

Note: Additional equipment required for ZENLC and ZENLI

# Other Options:



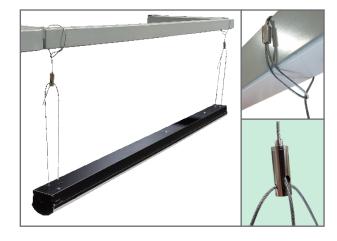
Shielding Frosted acrylic diffuser lenses minimize glare and improve aesthetics.



**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.

