# LUMENFOCUS



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



# ECL G2 8 | LED Strip

#### Features:

- High performance LED technology
- 0-10V dimming drivers standard
- DALI drivers available
- Field replaceable LED boards and drivers
- Frosted diffuser available to help minimize glare and improve aesthetics
- A wide variety of lumen packages and lengths allows for flexibility in design and helps maximize energy savings
- 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, industrial and institutional applications

- Office
- Retail
- Warehouse
- Coves
- Valences

# Ambient Operating Temp.: • -30°C to 40°C

#### Predicted Lifetime:

- L70:  $\geq$  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
- DesignLights Consortium qualified on specific configurations (refer to DLC qualified products list for exact model numbers) http://designlights.org/



#### Warranty:

- 5 year limited system warranty see www.LumenFocus.com 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.)



USING DOMESTIC AND FOREIGN COMPONENTS







### **LumenF@cus**

## Ordering Guide:

	Guide							example: ECL G2 8 MD	UV FR 9
Series Versior	Length	Output	Voltage	Shielding	CRI/CCT	Hanging	Controls	Options	Finish
ECL G2	8								
ECL Gen 2	<b>8</b> 8′	LW Low	UV 120-277	Blank No Lenses	<b>930</b> 90 CRI/3000K	Blank None	<b>Blank</b> No Controls	Blank No Options	Blank White
Notes See Page 5 for r "_" = lens type. 120-277V only. 5 See Page 6 for r Not available or ales representativ 120-277V / 0°C- emergency mode of the luminaire it ex. ECL G2 8 MD "_" for 2-circuit v	nore details See Page 5 nore details all models re for detail 55°C ambie s, multiply El is installed i UV 940 EM	ML Medium Low MD Medium HI High VH Very High Super High Super High Schor more de for more de for more de for more de s. c. Certain co ls. n. To estimat W wattage b n. 10 $\rightarrow$ 152.7 Li	34 347V etails. etails. etails. ate lumen o y the Lume PW x 10W =	FR Frosted Acrylic Diffusers	935 90 CRI/3500K 940 90 CRI/4000K 90 CRI/5000K	VC V-Chain Hangers QC 10' Quick Hang Cable Kit SH Slide Hanger	No Controls <b>ZSOL</b> Leviton Intellect Solo Programmable PIR/Daylight Harvesting Sensor <sup>(1)</sup> <b>ZLD1</b> Leviton Bluetooth-enabled Programmable Dimming/Occupancy/ Daylight Harvesting Sensor with Grouping (120-277V) <sup>(1)</sup> <b>ZLDU</b> Programmable Dimming/Occupancy/ Daylight Harvesting Sensor with Grouping, Scheduling (120-480V) <sup>(1)</sup> <b>Z2111_</b> Wattstopper FSP Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(2)</sup> <b>Z311L_</b> Wattstopper FSP Bluetooth-enabled Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(2)</sup> <b>Z311L_</b> Wattstopper FSP Bluetooth-enabled Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(2)</sup> <b>ZOSMD</b> Microwave Daylight/Motion Sensor With Step-Dimming (High/Low/Off) <sup>(2)</sup> <b>ZELFC2</b> 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> <b>ZLTS</b> Leviton Intellect 0-10V Sensor with Dimming/Occupancy/Daylight Harvesting with Newtork Capabilities <sup>(4)</sup> <b>ZLYC</b> Leviton Intellect O-10V Fixture Controller with Newtork Capabilities <sup>(4)</sup> <b>ZLYC</b> Leviton Intellect O-10V Fixture Controller with Newtork Capabilities <sup>(4)</sup> <b>ZLYC</b> Leviton Intellect O-10V Fixture Controller with Newtork Capabilities <sup>(4)</sup> <b>ZENEC</b> Enlighted Micro Sensor with Dimming/Occupancy/Daylight Harvesting and Enlighted Micro Sensor	EXT10 10-Year Extended Warranty <sup>(5)</sup> C6 6' Single Circuit Cord C65W 6' Single Circuit Cord with Low Voltage Connections C10 10' Single Circuit Cord C105W 10' Single Circuit Cord with Low Voltage Connections C10 10' Dual Circuit Cord D10 10' Dual Circuit Cord P(NEMA) Plug (Specify NEMA configuration) SC Safety Cable F Fuse EM6 6.5W Emergency Pack <sup>(6)</sup> EM10 10W Emergency Pack <sup>(6)</sup> EM14 14W Emergency Pack <sup>(6)</sup> CWH(_) QWH(_) Quick Wire Harness <sup>(7)</sup> SDT(480V) 480V to 277V Step Down Transformer CC Conformal Coating LVL 0-10V Dimming Leads for Easy Field Access	White BK Matte Blau SL Metallic Sit

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#### Accessories (order separately) Wire Guard

WG(ECL8)



#### Controls Accessories (order separately)

#### For Leviton Programmable Sensor



IR Programming Remote ZLSOR-RA1

#### For WattStopper Controls 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



400

1-Button Wireless Wall Controller 2-Button Wireless Wall Controller 4-Button Wireless Wall Controller 8-Button Wireless Wall Controller

#### For Enlighted Controls WS-2-00

Enlighted Remote Control Wall Switch (for Enlighted Connected & IoT)

### Performance Chart:

Catalog #	Watts	Lumens (930)	LPW (930)	Lumens (935)	LPW (935)	Lumens (940)	LPW (940)	Lumens (950)	LPW (950)
ECL G2 8 LW UV FR 9xx	28.5	4249.9	148.9	4267.8	149.5	4369.2	153.1	4369.2	153.1
ECL G2 8 ML UV FR 9xx	43.1	6316.6	146.6	6343.2	147.2	6493.9	150.7	6493.9	150.7
ECL G2 8 MD UV FR 9xx	58.2	8221.1	141.3	8255.8	141.9	8451.8	145.2	8451.8	145.2
ECL G2 8 MH UV FR 9xx	68.1	10253.6	150.5	10296.8	151.1	10541.3	154.7	10541.3	154.7
ECL G2 8 HI UV FR 9xx	85.1	12507.7	146.9	12560.4	147.5	12858.8	151.0	12858.8	151.0
ECL G2 8 VH UV FR 9xx	112.6	16404.0	145.7	16473.2	146.4	16864.4	149.8	16864.4	149.8
ECL G2 8 SH UV FR 9xx	146.7	20528.6	139.9	20615.1	140.5	21104.8	143.9	21104.8	143.9
ECL G2 8 LW UV 9xx	28.5	4467.1	156.5	4485.9	157.1	4592.5	160.9	4592.5	160.9
ECL G2 8 ML UV 9xx	43.1	6639.4	154.1	6667.4	154.8	6825.8	158.4	6825.8	158.4
ECL G2 8 MD UV 9xx	58.2	8641.3	148.5	8677.7	149.1	8883.8	152.7	8883.8	152.7
ECL G2 8 MH UV 9xx	68.1	10777.6	158.2	10823.0	158.8	11080.1	162.6	11080.1	162.6
ECL G2 8 HI UV 9xx	85.1	13147.0	154.4	13202.4	155.1	13516.0	158.7	13516.0	158.7
ECL G2 8 VH UV 9xx	112.6	17242.4	153.2	17315.1	153.8	17726.4	157.5	17726.4	157.5
ECL G2 8 SH UV 9xx	146.7	21577.8	147.1	21668.7	147.7	22183.4	151.2	22183.4	151.2

## Schematic:

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#### **LUMENF©CUS**

### ECL G2 8 | LED STRIP

#### Photometric Data:

Relative Luminous Intensity ECL G2 - no lens



#### **Relative Luminous Intensity** ECL G2 - with Frosted Diffuser



# LUMENFÓCUS Re-boardABILITY

The ECL G2 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.



#### **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 Monitor- ing*, 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 Monitor- ing*, 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



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#### 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 right)
- 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 smart-phone – 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





- 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

ZSLFC2

- 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 ECL 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 ECL 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) sensorsFeatures 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

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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

Connected (ZENLC)

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Enlighted IoT (ZENLI)

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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 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.

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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



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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

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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.

Wireguards are available for added protection (shipped separately).





Hanging The

QC hanging kit (1) comes in 10' or 20'. Cables are pre-looped for easy installation and designed for easy fixture height adjustment. V-hangers and slide hangers are also optional.

**Finish** in addition to the standard white finish, the ECL G2 is also available in matte black (pictured) and metallic silver.



