





## ECL G2 4 | 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

## **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: ≥ 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 heavy gauge cold rolled steel
- Highly durable, highly reflective white finish

## 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.)













## Ordering Guide:

example: ECL G2 4 MD UV FR 940

MD Medium MH Medium High Mediu	Options	Controls	Hanging	CRI/CCT	Shielding	Voltage	Output	Length	Version	Series
Gen 2   4'   Low   120-277   No Lenses   90 CRI/3000K   None   No Controls								4	92	ECL
Medium Low  MD Medium  MH Medium High Medium High Medium Low  MH Medium High M	Blank No Options		_							ECL
High  VH Very High  SH  SH  SH  SH  SH Slide Hanger  SH  SH  SH  SH  SH  SH  SH  SH  SH  S	EXT10 10-Year Extended Warranty <sup>(5)</sup> C6 6' Single Circuit Cod ow Voltage Connect C10 10' Single Circuit Cod C105W 10' Single Circuit Cod with Low Voltage Connections	Leviton Intellect Solo Programmable PIR/Daylight Harvesting Sensor <sup>(1)</sup> ZLD1  Leviton Bluetooth-enabled Programmable Dimming/Occupancy/ Daylight Harvesting Sensor with Grouping (120-277V) <sup>(1)</sup> ZLDU  Leviton Bluetooth-enabled Programmable Dimming/Occupancy/ Daylight Harvesting Sensor with Grouping, Scheduling (120-480V) <sup>(1)</sup> Z211L_ Wattstopper FSP Programmable Photo/	V-Chain Hangers  QC 10' Quick Hang Cable Kit  QC20 20' Quick Hang Cable Kit  SH	90 CRI/3500K 940 90 CRI/4000K 950	Frosted Acrylic		Medium Low MD Medium MH Medium High HI High VH Very High			

#### **Notes**

- (1) See Page 4 for more details.
- (2) "\_" = lens type. See Page 4 for more details.
- (3) 120-277V only. See Page 4 for more details.
- (4) See Page 5 for more details.
- (5) Not available on all models. Certain conditions apply. Consult factory or sales representative for details.
- (6) EM1 and EM2: 120-277V / 0°C-50°C ambient.
- (7) "\_" for 2-circuit wiring, specify circuit A or B here.

## Accessories (order separately)

WG(ECL4) Wire Guard

## 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 DRKDN-U2W 2-Button Wireless Wall Controller 4-Button Wireless Wall Controller DRKDN-U2W DRKDN-U8W 8-Button Wireless Wall Controller



#### 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)

#### 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)(3)

#### **ZLDS**

Leviton Intellect DALI Sensor with Dimming/Occupancy/Daylight Harvesting with Newtork Capabilities<sup>(4)</sup>

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>

#### **ZENLO**

Enlighted Micro Sensor with Dimming/ Occupancy/Daylight Harvesting and Enlighted One System<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>

Finish

**Blank** White BK Matte Black SL Metallic Silver

ord

rd with ections

Cord

Cord

6' Dual Circuit Cord

10' Dual Circuit Cord

## P(NEMA)

Plug (Specify NEMA configuration)

SC

Safety Cable

Fuse

EM1

Emergency Pack - Up to 8W<sup>(6)</sup>

#### EM2

Emergency Pack - Up to 16W<sup>(6)</sup>

#### 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 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 G2 4 LW UV FR 9xx	15.4	2124.9	138.2	2133.9	138.8	2184.6	142.1	2184.6	142.1
ECL G2 4 ML UV FR 9xx	22.3	3158.3	141.7	3171.6	142.3	3246.9	145.7	3246.9	145.7
ECL G2 4 MD UV FR 9xx	29.6	4110.6	138.7	4127.9	139.3	4225.9	142.6	4225.9	142.6
ECL G2 4 MH UV FR 9xx	34.2	5054.2	147.8	5075.5	148.4	5196.1	151.9	5196.1	151.9
ECL G2 4 HI UV FR 9xx	43.5	6253.9	143.8	6280.2	144.4	6429.4	147.9	6429.4	147.9
ECL G2 4 VH UV FR 9xx	56.3	8202.0	145.7	8236.6	146.4	8432.2	149.8	8432.2	149.8
ECL G2 4 SH UV FR 9xx	73.0	10264.3	140.6	10307.6	141.2	10552.4	144.6	10552.4	144.6
ECL G2 4 LW UV 9xx	15.4	2233.5	145.2	2243.0	145.9	2296.2	149.3	2296.2	149.3
ECL G2 4 ML UV 9xx	22.3	3319.7	149.0	3333.7	149.6	3412.9	153.2	3412.9	153.2
ECL G2 4 MD UV 9xx	29.6	4320.6	145.8	4338.9	146.4	4441.9	149.9	4441.9	149.9
ECL G2 4 MH UV 9xx	34.2	5312.6	155.3	5334.9	156.0	5461.7	159.7	5461.7	159.7
ECL G2 4 HI UV 9xx	43.5	6573.5	151.2	6601.2	151.8	6758.0	155.4	6758.0	155.4
ECL G2 4 VH UV 9xx	56.3	8621.2	153.2	8657.6	153.8	8863.2	157.5	8863.2	157.5
ECL G2 4 SH UV 9xx	73.2	10788.9	147.5	10834.4	148.1	11091.7	151.6	11091.7	151.6

## **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).



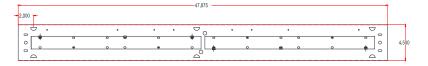


Hanging The QC hanging kit (1) comes in 10' or 20'. Cables are pre-looped for easy installation and designed for easy fixture height adjustment. V-hangers and slide hangers are also optional.

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



## Schematic:



# -UMENF©CUS 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
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

**FSIR-100** 

- 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

# 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) 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



integrated with the ECL

<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 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 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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## Photometric Data:

## **ECL G2 4 SH UV 950**

Test No.: LLIA001735-016 Luminaire Lumens: 11,092 lm Luminaire Watts: 73.2W Efficacy: 151.6 LPW

Spacing Criterion (0-180): 1.30 Spacing Criterion (90-270): 1.32

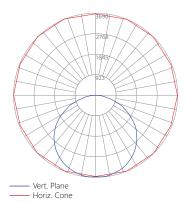
#### Luminance Data (cd/sq.m)

Angle In	Average	Average	Average
Degrees	0-Deg	45-Deg	90-Deg
45	26364	25480	25318
55	25916	24719	24038
65	24491	22492	21673
75	20865	17646	16519
85	11718	7923	7122

## Coefficients Of Utilization - Zonal Cavity Method Effective Floor Cavity Reflectance 0.20

RC		80				70				50			30	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25

Tested in accordance with IES standards utilizing absolute photometry per LM-79-08



Zonal Lumen Summary										
Zone	Lumens	%Fixt								
0-20	1356.53	12.20								
0-30	2905.02	26.20								
0-40	4809.58	43.40								
0-60	8701.86	78.50								
0-80	10912.54	98.40								
0-90	11090.75	100.00								
90-120	0.97	0.00								
90-130	0.97	0.00								
90-150	0.97	0.00								
90-180	0.97	0.00								
0-180	11091.72	100.00								

#### **ECL G2 4 SH UV FR 950**

Test No.: LLIA001735-018
Luminaire Lumens: 10,553 lm
Luminaire Watts: 73.0W
Efficacy: 144.6 LPW
Spacing Criterion (0-180): 1.26
Spacing Criterion (90-270): 1.30

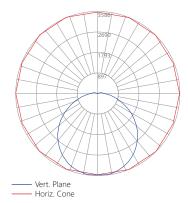
#### Luminance Data (cd/sq.m)

Angle In	Average	Average	Average
Degrees	0-Deg	45-Deg	90-Deg
45	22229	21400	21380
55	19375	19420	19637
65	15573	16982	17334
75	11302	14513	14676
85	6483	13505	12873

## Coefficients Of Utilization - Zonal Cavity Method Effective Floor Cavity Reflectance 0.20

RC		80				70				50			30	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105
1	108	103	98	94	105	100	96	92	95	92	89	91	88	86
2	98	89	82	76	95	87	81	75	83	78	73	80	75	71
3	89	78	70	63	86	77	69	63	73	67	61	70	65	60
4	82	69	60	54	79	68	60	53	65	58	52	63	56	51
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39
7	64	51	42	36	62	50	41	35	48	40	35	46	40	35
8	60	46	38	32	58	45	37	32	44	36	31	42	36	31
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25

Tested in accordance with IES standards utilizing absolute photometry per LM-79-08



Zonal Lumen Summary									
Zone	Lumens	%Fixt							
0-20	1311.98	12.40							
0-30	2790.06	26.40							
0-40	4568.43	43.30							
0-60	8008.15	75.90							
0-80	9982.62	94.60							
0-90	10364.20	98.20							
90-120	188.48	1.80							
90-130	188.48	1.80							
90-150	188.48	1.80							
90-180	188.48	1.80							
0-180	10552.68	100.00							

