

Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat. #: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Quantity: \_\_\_\_\_

LED

## ECLN 2 | 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 L70 Lifetime:

- Up to 189,000 hrs (calculated)  
*(L70 information for specific configurations available upon request)*
- For BAA compliant configurations - up to 189,000 hrs (calculated)

### 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
- 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](http://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 N 2 MD UV FR 840 QC BK

Series	Width	Length	Output	Voltage	Shielding	CRI/CCT	Hanging	Controls	Options	Finish
ECL	N	2								
ECL	N	2 24"	<b>LW</b> Low	<b>UV</b> 120-277	<b>Blank</b> No Lenses	<b>835</b> 80 CRI/3500K	<b>Blank</b> None	<b>Blank</b> No Controls	<b>Blank</b> No Options	<b>Blank</b> White
			<b>MD</b> Medium	<b>34</b> 347V	<b>FR</b> Frosted Acrylic Diffusers	<b>840</b> 80 CRI/4000K	<b>QC</b> 10' Quick Hang Cable Kit	<b>ZSOL</b> Leviton Intellect Solo PIR Sensor <sup>(1)</sup>	<b>EXT10</b> 10-Year Extended Warranty <sup>(7)</sup>	<b>BK</b> Matte Black
			<b>HI</b> High			<b>850</b> 80 CRI/5000K		<b>Z211L</b> Wattstopper FSP Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(2)</sup>	<b>C6</b> 6' Single Circuit Cord	<b>SL</b> Metallic Silver
			<b>VH</b> Very High					<b>Z311L</b> Wattstopper FSP Bluetooth-enabled Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(2)</sup>	<b>C65W</b> 6' Single Circuit Cord with Low Voltage Connections	

## Notes

- <sup>(1)</sup> Max mounting height 10'. See Page 5 for more details.  
<sup>(2)</sup> " \_ " = lens type. See Page 5 for lens descriptions.  
<sup>(3)</sup> Max mounting height 49'. See Page 5 for more details.  
<sup>(4)</sup> Max mounting height 16.4'. See Page 4 for more details.  
<sup>(5)</sup> See Page 4 for more details.  
<sup>(6)</sup> Max mounting height 15'. See Page 4 for more details.  
<sup>(7)</sup> Not available on all models. Certain conditions apply. Consult factory or sales representative for details.  
<sup>(8)</sup> " \_ " for 2-circuit wiring, specify circuit A or B here.

## Controls Accessories (order separately)



### For Douglas Controls

- BT-DMSW-U-A Bluetooth 1 Zone Dimmer  
 BT-4BTSW-U-A Bluetooth 4-Button Wall Station  
 BT-8BTSW-U-A Bluetooth 8-Button Wall Station



### For Enlighted Controls

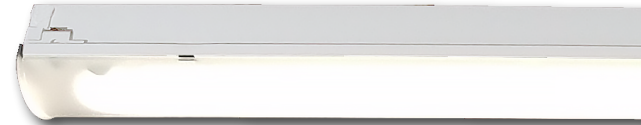
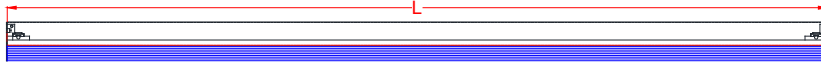
- WS-2-00 Enlighted Remote Control Wall Switch (for Enlighted Connected & IoT)  
 WS-2-00-IL Enlighted Remote Control Wall Switch (for Enlighted One)

<b>ZSOL</b> Leviton Intellect Solo PIR Sensor <sup>(1)</sup>	<b>C6</b> 6' Single Circuit Cord
<b>Z211L</b> Wattstopper FSP Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(2)</sup>	<b>C65W</b> 6' Single Circuit Cord with Low Voltage Connections
<b>Z311L</b> Wattstopper FSP Bluetooth-enabled Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(2)</sup>	<b>C10</b> 10' Single Circuit Cord
<b>ZOSMD</b> Microwave Daylight/Motion Sensor With Step-Dimming (High/Low/Off) <sup>(3)</sup>	<b>C105W</b> 10' Single Circuit Cord with Low Voltage Connections
<b>ZIFS</b> Douglas IFS sensor with dimming/occupancy/daylight harvesting and network capabilities <sup>(4)</sup>	<b>D6</b> 6' Dual Circuit Cord
<b>ZIFC</b> Douglas IFC controller with network capabilities <sup>(5)</sup>	<b>D10</b> 10' Dual Circuit Cord
<b>ZENLO</b> Enlighted Micro Sensor with Dimming/Occupancy/Daylight Harvesting and Enlighted One System <sup>(6)</sup>	<b>P(NEMA)</b> Plug (Specify NEMA configuration)
<b>ZENLC</b> Enlighted Micro Sensor with Dimming/Occupancy/Daylight Harvesting and Enlighted Connected System <sup>(6)</sup>	<b>CC</b> Conformal Coating
<b>ZENLI</b> Enlighted Micro Sensor with Dimming/Occupancy/Daylight Harvesting and Enlighted IoT System <sup>(6)</sup>	<b>LVL</b> 0-10V Dimming Leads for Easy Field Access
	<b>QWH(_)</b> Quick Wire Harness <sup>(8)</sup>
	<b>AC</b> Aligner Clips for Continuous Row Mounting
	<b>BAA</b> Buy American Act Compliant





## Schematic:



Length (L) = 24.00"  
Width (W) = 2.50"  
Height (H) = 2.165"

## LUMENFOCUS Re-boardABILITY

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.](#)

## Performance Chart:

Catalog #	Lumens	Watts	LPW
ECL N 2 LW UV FR 835	1021	8	125.2
ECL N 2 MD UV FR 835	1980	15	131.6
ECL N 2 HI UV FR 835	3013	23	132.0
ECL N 2 VH UV FR 835	4006	31	129.1

Catalog #	Lumens	Watts	LPW
ECL N 2 LW UV FR 840	1055	8	129.3
ECL N 2 MD UV FR 840	2045	15	135.9
ECL N 2 HI UV FR 840	3113	23	136.4
ECL N 2 VH UV FR 840	4138	31	133.3

Catalog #	Lumens	Watts	LPW
ECL N 2 LW UV FR 850	1087	8	133.2
ECL N 2 MD UV FR 850	2107	15	140.0
ECL N 2 HI UV FR 850	3206	23	140.5
ECL N 2 VH UV FR 850	4263	31	137.3

Scaling Factor:  
No lens: 1.05

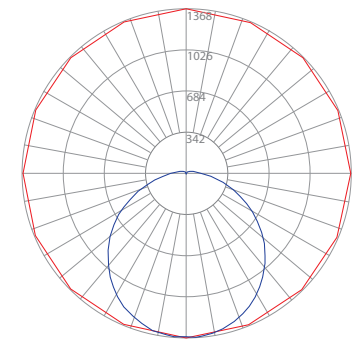
## Photometric Data:

### ECL N 2 VH UV FR 835

Test No.: LLIA001215-001  
Luminaire Lumens: 4,006 lm  
Luminaire Watts: 31.0W  
Efficacy: 129.1 LPW  
Spacing Criterion (0-180): 1.24  
Spacing Criterion (90-270): 1.28

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	29881	26593	25973
55	25525	23294	23050
65	19803	19414	19342
75	13735	15301	14984
85	7004	11911	11023



— Vert. Plane  
— Horiz. Cone

#### 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	118	118	118	118		115	115	115	115		109	109	109		104	104	104
1	107	102	98	94		104	100	96	92		95	92	89		91	88	85
2	98	89	82	76		95	87	81	75		83	78	73		79	75	71
3	89	78	70	63		86	76	69	63		73	66	61		70	64	60
4	81	69	60	54		79	68	60	53		65	58	52		62	56	51
5	75	62	53	46		73	61	52	46		58	51	45		56	49	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	39	34
8	60	46	38	32		58	45	37	32		44	36	31		42	36	31
9	56	42	34	29		54	42	34	28		40	33	28		39	32	28
10	52	39	31	26		51	38	31	26		37	30	26		36	30	25

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

#### Zonal Lumen Summary

Zone	Lumens	%Fixt
0-20	498.20	12.40
0-30	1057.67	26.40
0-40	1728.19	43.10
0-60	3015.54	75.30
0-80	3744.76	93.50
0-90	3882.92	96.90
90-120	105.49	2.60
90-130	114.04	2.80
90-150	121.32	3.00
90-180	123.10	3.10
0-180	4006.02	100.00





## Douglas Lighting Controls, Inc.: Cloud-based controls

The ECLN can be equipped with the Douglas Bluetooth Intelligent Fixture Sensor (IFS) as well as the Intelligent Fixture Controller.



- Occupancy, vacancy, partial-on and partial-off
- Occupancy timeout adjustable from 5 to 90 minutes
- Primary and secondary daylight harvesting



- Listed for emergency control when used on dedicated emergency power bus
- Same occupancy and daylight controls as the IFS when networked with one or more IFS sensors

### Available with both IFS and IFC:

- 0-10V dimming with dim-to-off
- Bluetooth beacon for digital ceiling, IoT and location service strategies
  - 150-foot clear line of sight, 50 feet through standard walls
- May be used with dual-channel, tunable white LED drivers providing auxiliary power and dim-to-off capability
- Commissioning through Douglas Lighting Controls, Inc. app from Apple app store

**Note:** Additional equipment required for IoT capabilities; max mounting height for sensor: 16.4 ft

## CheckLight® Energy Management System

Douglas controls can be integrated with the CheckLight® Energy Management system. This system can help you uncover energy conversion opportunities, create conservation strategies, analyze lighting load inefficiencies, and make configuration changes from anywhere with Douglas' user-friendly interface. You can get measurements, reports, and control your system from a web-based application.

CheckLight® has the capability to look at different facilities within a portfolio and use data benchmarks to compare building performances.

- Find energy conservation opportunities
- Create energy saving strategies
- Analyze load inefficiencies
- Optimize energy management

## 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.



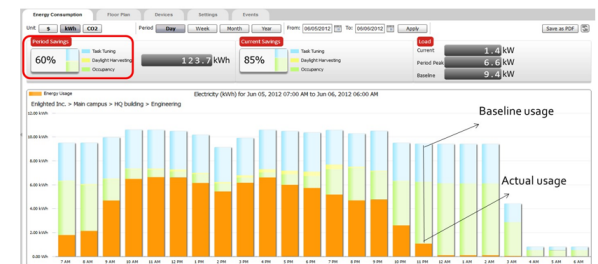
Enlighted Capabilities*	Enlighted One (ZENLO)	Enlighted Connected (ZENLC)	Enlighted IoT (ZENLI)
Motion and Switch Groups	✓	✓	✓
Daylight Harvesting	✓	✓	✓
Schedule Lighting		✓	✓
Energy Reporting & Optimization		✓	✓
Environment Data & Lighting Controls API		✓	✓
Building Management System Integration		✓	✓
Where & Space Applications			✓
Location & Occupancy APIs & Beacons			✓
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](http://www.lumenfocus.com/controls-overview)

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## Other controls available:



### Z211 sensor with lens in black



FSIR-100

### Phone app interface for Z311 sensor



## Leviton Intellect Solo PIR 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



Other features:

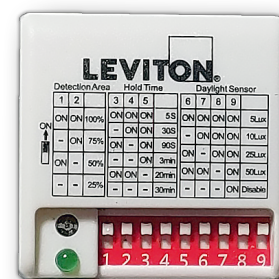
- Partial-on
- Partial-off
- 8' to 10' mounting height
- IP20 rated
- Detection angle: 120 degrees
- IR remote available for

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.

## Microwave Occupancy Sensor (ZOSMD)

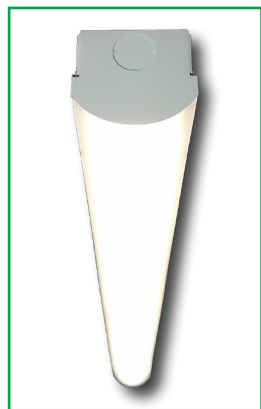
The Leviton OSM3D-V1W (or equivalent) detects motion through low density frequency electromagnetic waves. This means it can sit discretely behind the ECLN's frosted lens. The ZOSMD features automatic switching based on motion and ambient light level. ZOSMD option adds step-dimming functionality - standby dimming level 10% / 20% / 30% / 50%. Max mounting height for ZOSMD 49 feet.



## 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)
- Three 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

## 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.

