

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

LED

## EWL 4 | LED Wrap

### Features:

- High performance LED technology
- 0-10V dimming drivers standard
- Field replaceable LED boards and drivers
- Can be surface, stem, or cable mounted as individual units or in continuous rows

### Applications:

Suitable for industrial, retail, and institutional applications

- Warehouse
- Manufacturing Facility
- Stock Room
- Classroom

### 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:

- Die-formed heavy-gauge cold rolled steel
- Pre-painted with a highly durable, highly reflective white finish
- Clear Prismatic Acrylic Lens

### 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/>



Ordering Guide:

example: EWL 4 MD UV CPA 840 11" QC

Series	Length	Output	Voltage	Shielding	CRI/CCT	Width	Hanging	Controls	Options
EWL	4			CPA					
EWL	4 4'	<b>VL</b> Very Low	<b>UV</b> 120-277	<b>CPA</b> Clear Prismatic Acrylic	<b>835</b> 80 CRI/3500K	<b>9"</b> 9.25" Width	<b>Blank</b> None (Surface or Pendant Mount)	<b>Blank</b> No Controls	<b>Blank</b> No Options
		<b>LW</b> Low	<b>34</b> 347V		<b>840</b> 80 CRI/4000K	<b>11"</b> 11.25" Width	<b>VC</b> V-Chain Hangers	<b>ZOS</b> Occupancy Sensor (On/Off)	<b>EXT10</b> 10-Year Extended Warranty <sup>(4)</sup>
		<b>MD</b> Medium			<b>850</b> 80 CRI/5000K	<b>16"</b> 16.00" Width	<b>QC</b> 10' Quick Hang Cable Kit	<b>Z221BL_</b> Wattstopper Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(1)</sup>	<b>F</b> Fuse
		<b>HI</b> High					<b>QC15</b> 15' Quick Hang Cable Kit	<b>Z321BL</b> Wattstopper Bluetooth-enabled Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(1)</sup>	<b>EM1</b> Emergency Pack - Up to 8W <sup>(5)</sup>
							<b>QC20</b> 20' Quick Hang Cable Kit	<b>ZOSM</b> Microwave Occupancy Sensor	<b>EM2</b> Emergency Pack - Up to 16W <sup>(5)</sup>
								<b>ZPC</b> Photocell	<b>CC</b> Conformal Coating
								<b>ZIFS</b> Douglas IFS Sensor with Dimming/Occupancy/Daylight Harvesting with Newtork Capabilities <sup>(2)</sup>	<b>LVL</b> 0-10V Dimming Leads for Easy Field Access
								<b>ZIFC</b> Douglas IFC Controller with Newtork Capabilities <sup>(2)</sup>	<b>BAA</b> Buy American Act Compliant
								<b>ZENLO</b> Enlighted One Micro Sensor with Dimming/Occupancy/Daylight Harvesting <sup>(3)</sup>	
								<b>ZENLC</b> Enlighted Connected Micro Sensor with Dimming/Occupancy/ Daylight Harvesting <sup>(3)</sup>	
								<b>ZENLI</b> Enlighted IoT Micro Sensor with Dimming/Occupancy/Daylight Harvesting <sup>(3)</sup>	

Notes

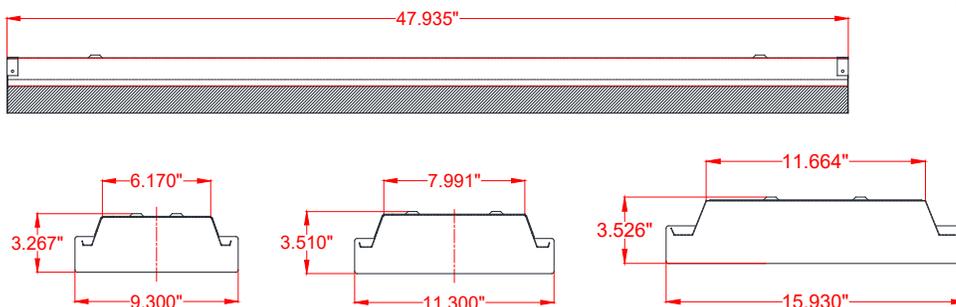
- <sup>(1)</sup> " " = lens type. See Page 3 for lens descriptions.
- <sup>(2)</sup> Max ceiling height for Douglas sensors: 16.4 feet. See Page 4 for more details on advanced controls.
- <sup>(3)</sup> Max ceiling height for Enlighted sensors: 15 feet. See Page 4 for more details on advanced controls.
- <sup>(4)</sup> Not available on all models. Certain conditions apply. Consult factory or sales representative for details.
- <sup>(5)</sup> EM1 and EM2: 120-277V / 0°C-50°C ambient.

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)

Schematic:



Performance Chart:

Catalog #	Lumens	Watts	LPW
EWL 4 VL UV CPA 835	3923	27	144.1
EWL 4 LW UV CPA 835	4679	33	141.8
EWL 4 MD UV CPA 835	5917	42	140.5
EWL 4 HI UV CPA 835	7899	58	135.7

Catalog #	Lumens	Watts	LPW
EWL 4 VL UV CPA 840	4052	27	148.9
EWL 4 LW UV CPA 840	4833	33	146.5
EWL 4 MD UV CPA 840	6113	42	145.1
EWL 4 HI UV CPA 840	8161	58	140.2

Catalog #	Lumens	Watts	LPW
EWL 4 VL UV CPA 850	4174	27	153.3
EWL 4 LW UV CPA 850	4978	33	150.9
EWL 4 MD UV CPA 850	6296	42	149.5
EWL 4 HI UV CPA 850	8405	58	144.4

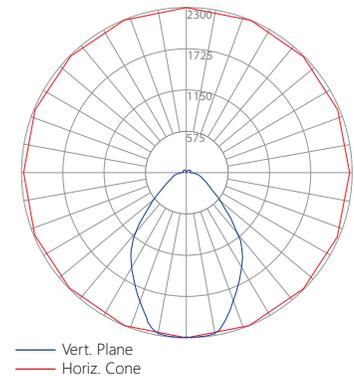
Photometric Data:

EWL 4 LW UV CPA 840-9"

Test No.: LLIA001110-001A  
 Luminaire Lumens: 4,833 lm  
 Luminaire Watts: 33.0W  
 Efficacy: 146.5 LPW  
 Spacing Criterion (0-180): 1.28  
 Spacing Criterion (90-270): 1.04

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6391	4366	3526
55	3914	2874	2233
65	2501	2237	1726
75	2242	2063	1676
85	1966	1653	1620



Zonal Lumen Summary

Zone	Lumens	%Fixt
0-20	828.12	17.10
0-30	1691.67	35.00
0-40	2639.43	54.60
0-60	3956.59	81.90
0-80	4508.65	93.30
0-90	4616.09	95.50
90-120	118.01	2.40
90-130	154.69	3.20
90-150	201.43	4.20
90-180	217.37	4.50
0-180	4833.45	100.00

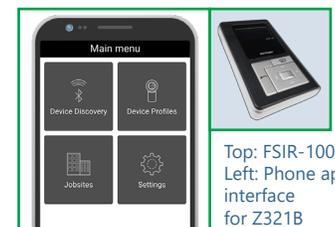
Coefficients Of Utilization - Zonal Cavity Method  
 Effective Floor Cavity Reflectance 0.20

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	103	103	103		
1	109	104	101	97	106	102	98	95	97	94	91	92	90	88		
2	100	93	87	81	97	90	85	80	86	82	78	82	79	75		
3	92	83	76	70	90	81	74	69	77	72	67	74	69	65		
4	85	75	67	61	83	73	66	60	70	64	59	67	62	57		
5	79	67	59	53	77	66	58	53	64	57	52	61	55	51		
6	74	61	53	47	72	60	53	47	58	51	46	56	50	46		
7	69	56	48	42	67	55	48	42	53	47	42	52	46	41		
8	64	52	44	38	62	51	43	38	49	42	38	48	42	37		
9	60	48	40	35	59	47	40	35	46	39	34	44	38	34		
10	57	44	37	32	55	44	37	32	42	36	31	41	35	31		

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

Dimming Sensors (Z221B/Z321B)

- The Wattstopper FSP sensor provides multi-level control based on motion and/or daylight contribution
- Comes pre-installed on the end cap
- Rated for cold locations
- Parameters for Bluetooth-enabled Z321B adjustable via phone app - iOS or Android
- Parameters adjustable via wireless configuration tool (FSIR-100 - sold separately)
- 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
  - L7: 360° lens, maximum coverage 100'; diameter from 40' height



Top: FSIR-100; Left: Phone app interface for Z321B



The EWL 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.](#)



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

The EWL can be equipped with the Douglas Bluetooth Intelligent Fixture Sensor (IFS) as well as the Intelligent Fixture Controller. Max mounting height is 16.4 feet.



IFS

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



IFC

- 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

## 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.

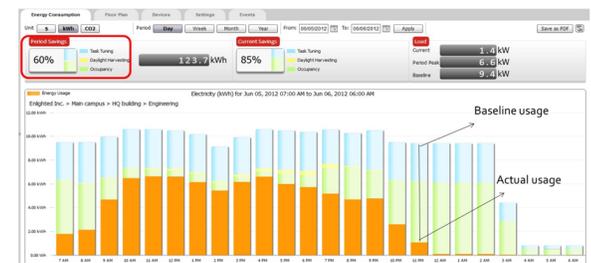
Enlighted sensors come standard with the Enlighted One system (the "ZENLO" option). Enlighted Connected ("ZENLC") offers even more options. The Enlighted IoT ("ZENLI") option allows the full implementation of Enlighted's services. Each system can be fully upgraded to the next tier in the future. So if you start with Enlighted One but want to add energy reporting or building management systems integration in the future, you can.



## 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



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 ZENLC and ZENLI

Learn more about our available advanced controls options here:  
[www.lumenfocus.com/controls-overview](http://www.lumenfocus.com/controls-overview)

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