

Note: This product has been discontinued and replaced with the ECL G2.



Project: _____
Location: _____
Cat. #: _____
Type: _____
Quantity: _____

LED

ECL 4 | LED Strip

Features:

- High performance LED technology
- 0-10V dimming drivers standard
- 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 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 heavy gauge cold rolled steel
- Highly durable, highly reflective white finish

Certifications:

- UL 1598 listed for US and Canada, suitable for damp locations



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 4 MD UV FR 840

| Series | Length | Output | Voltage | Shielding | CRI/CCT | Hanging | Controls | Options | Finish |
|--------|---------|-------------------|---------------|---------------------------------|---------------------|----------------------------------|---|---|-----------------------|
| ECL | 4 | | | | | | | | |
| ECL | 4 4' | LW Low | UV 120-277 | Blank No Lenses | 835 80 CRI/3500K | Blank None | Blank No Controls | Blank No Options | Blank White |
| | | MD Medium | 34 347V | FR Frosted Acrylic Diffusers | 840 80 CRI/4000K | VC V-Chain Hangers | ZOS Occupancy Sensor (On/Off) ⁽¹⁾ | EXT10 10-Year Extended Warranty ⁽⁸⁾ | BK Matte Black |
| | | MH Medium High | | | 850 80 CRI/5000K | QC 10' Quick Hang Cable Kit | ZOSD Occupancy Sensor w/ Daylight Harvesting (On/Off/Dim) ⁽¹⁾ | C6 6' Single Circuit Cord | SL Metallic Silver |
| | | HI High | | | | QC20 20' Quick Hang Cable Kit | ZSOL Leviton Intellect Solo PIR Sensor ⁽²⁾ | C65W 6' Single Circuit Cord with Low Voltage Connections | |
| | | VH Very High | | | | SH Slide Hanger | | C10 10' Single Circuit Cord | |

Notes

- ⁽¹⁾ Max mounting height 40'. End mounted.
- ⁽²⁾ Max mounting height 10'. See Page 6 for more details.
- ⁽³⁾ Max mounting height 49'. See Page 6 for more details.
- ⁽⁴⁾ " _ " = lens type. See Page 6 for lens descriptions.
- ⁽⁵⁾ Max mounting height 16.4'. See Page 5 for more details.
- ⁽⁶⁾ See Page 5 for more details.
- ⁽⁷⁾ Max mounting height 15'. See page 5 for more details.
- ⁽⁸⁾ Not available on all models. Certain conditions apply. Consult factory or sales representative for details.
- ⁽⁹⁾ EM1 and EM2: 120-277V / 0°C-50°C ambient.
- ⁽¹⁰⁾ " _ " 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

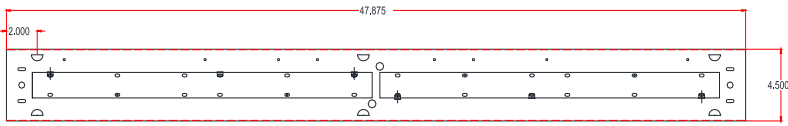
For Enlighted Controls
 WS-2-00 Enlighted Remote Control Wall Switch (for Enlighted Connected & IoT)
 WS-2-00-IL Enlighted Remote Control Wall Switch (for Enlighted One)



Matte Black finish option

| | | | |
|--------|---|-----------|--|
| Z211L_ | Wattstopper FSP Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) ⁽⁴⁾ | C105W | 10' Single Circuit Cord with Low Voltage Connections |
| Z311L_ | Wattstopper FSP Bluetooth-enabled Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) ⁽⁴⁾ | D6 | 6' Dual Circuit Cord |
| ZOSMD | Microwave Daylight/Motion Sensor With Step-Dimming (High/Low/Off) ⁽³⁾ | D10 | 10' Dual Circuit Cord |
| ZPC | Photocell | P(NEMA) | Plug (Specify NEMA configuration) |
| ZIFS | Douglas IFS sensor with dimming/occupancy/daylight harvesting and network capabilities ⁽⁵⁾ | WG | Wire Guard |
| ZIFC | Douglas IFC controller with network capabilities ⁽⁶⁾ | SC | Safety Cable |
| ZENLO | Enlighted Micro Sensor with Dimming/Occupancy/Daylight Harvesting and Enlighted One System ⁽⁷⁾ | F | Fuse |
| ZENLC | Enlighted Micro Sensor with Dimming/Occupancy/Daylight Harvesting and Enlighted Connected System ⁽⁷⁾ | EM1 | Emergency Pack - Up to 8W ⁽⁹⁾ |
| ZENLI | Enlighted Micro Sensor with Dimming/Occupancy/Daylight Harvesting and Enlighted IoT System ⁽⁷⁾ | EM2 | Emergency Pack - Up to 16W ⁽⁹⁾ |
| | | QWH(_) | Quick Wire Harness ⁽¹⁰⁾ |
| | | 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 |

Schematic:



Performance Chart:

| Catalog # | Lumens | Watts | LPW |
|--------------------|--------|-------|-------|
| ECL 4 LW UV 835 | 2305 | 18 | 128.0 |
| ECL 4 MD UV 835 | 3832 | 32 | 119.7 |
| ECL 4 MH UV 835 | 4829 | 36 | 134.1 |
| ECL 4 HI UV 835 | 6705 | 46 | 145.8 |
| ECL 4 VH UV 835 | 8901 | 68 | 130.9 |
| ECL 4 LW UV FR 835 | 2212 | 18 | 122.9 |
| ECL 4 MD UV FR 835 | 3640 | 32 | 115.5 |
| ECL 4 MH UV FR 835 | 4635 | 36 | 128.7 |
| ECL 4 HI UV FR 835 | 6436 | 46 | 139.9 |
| ECL 4 VH UV FR 835 | 8543 | 68 | 125.6 |

| Catalog # | Lumens | Watts | LPW |
|--------------------|--------|-------|-------|
| ECL 4 LW UV 840 | 2376 | 18 | 132.0 |
| ECL 4 MD UV 840 | 3950 | 32 | 123.4 |
| ECL 4 MH UV 840 | 4978 | 36 | 138.3 |
| ECL 4 HI UV 840 | 6913 | 46 | 150.3 |
| ECL 4 VH UV 840 | 9177 | 68 | 134.9 |
| ECL 4 LW UV FR 840 | 2280 | 18 | 126.7 |
| ECL 4 MD UV FR 840 | 3752 | 32 | 119.1 |
| ECL 4 MH UV FR 840 | 4778 | 36 | 132.7 |
| ECL 4 HI UV FR 840 | 6635 | 46 | 144.2 |
| ECL 4 VH UV FR 840 | 8807 | 68 | 129.5 |

| Catalog # | Lumens | Watts | LPW |
|--------------------|--------|-------|-------|
| ECL 4 LW UV 850 | 2447 | 18 | 136.0 |
| ECL 4 MD UV 850 | 4069 | 32 | 127.1 |
| ECL 4 MH UV 850 | 5128 | 36 | 142.4 |
| ECL 4 HI UV 850 | 7120 | 46 | 154.8 |
| ECL 4 VH UV 850 | 9452 | 68 | 139.0 |
| ECL 4 LW UV FR 850 | 2349 | 18 | 130.5 |
| ECL 4 MD UV FR 850 | 3865 | 32 | 122.7 |
| ECL 4 MH UV FR 850 | 4921 | 36 | 136.7 |
| ECL 4 HI UV FR 850 | 6834 | 46 | 148.6 |
| ECL 4 VH UV FR 850 | 9071 | 68 | 133.4 |

LUMENFOCUS
Re-boardABILITY

The ECL 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.](#)

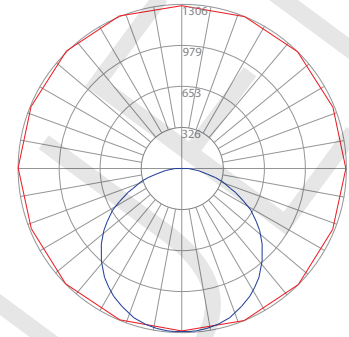


Photometric Data:

ECL 4 MD UV 835

Test No.: LLIA000584-035
 Luminaire Lumens: 3,832 lm
 Luminaire Watts: 32.0W
 Efficacy: 119.7 LPW
 Spacing Criterion (0-180): 1.30
 Spacing Criterion (90-270): 1.28

| Luminance Data (cd/sq.m) | | | |
|--------------------------|---------------|----------------|----------------|
| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
| 45 | 9235 | 9059 | 8867 |
| 55 | 8996 | 8731 | 8490 |
| 65 | 8454 | 8006 | 7741 |
| 75 | 7075 | 6525 | 6317 |
| 85 | 3661 | 3475 | 3231 |



| Zone | Lumens | %Fixt |
|--------|---------|--------|
| 0-20 | 477.46 | 12.50 |
| 0-30 | 1019.39 | 26.60 |
| 0-40 | 1681.25 | 43.90 |
| 0-60 | 3014.67 | 78.70 |
| 0-80 | 3768.32 | 98.30 |
| 0-90 | 3831.59 | 100.00 |
| 90-120 | 0.41 | 0.00 |
| 90-130 | 0.41 | 0.00 |
| 90-150 | 0.41 | 0.00 |
| 90-180 | 0.41 | 0.00 |
| 0-180 | 3832.00 | 100.00 |

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

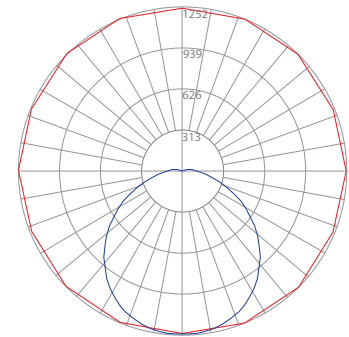
| RC | 80 | | | | 70 | | | | 50 | | | | 30 | | | | |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 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 | 80 | 75 | 82 | 77 | 73 | | | |
| 3 | 90 | 79 | 71 | 64 | 87 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 66 | 62 | | | |
| 4 | 82 | 70 | 61 | 54 | 80 | 69 | 60 | 54 | 66 | 59 | 53 | 64 | 58 | 52 | | | |
| 5 | 75 | 62 | 53 | 47 | 73 | 61 | 53 | 46 | 59 | 52 | 46 | 57 | 51 | 45 | | | |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | 52 | 45 | 40 | | | |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 48 | 41 | 35 | 47 | 40 | 35 | | | |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 31 | | | |
| 9 | 56 | 42 | 34 | 29 | 55 | 42 | 34 | 29 | 41 | 33 | 28 | 40 | 33 | 28 | | | |
| 10 | 53 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | | | |

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

ECL 4 MD UV FR 835

Test No.: LLIA000614-007
 Luminaire Lumens: 3,683 lm
 Luminaire Watts: 31.5W
 Efficacy: 116.9 LPW
 Spacing Criterion (0-180): 1.26
 Spacing Criterion (90-270): 1.28

| Luminance Data (cd/sq.m) | | | |
|--------------------------|---------------|----------------|----------------|
| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
| 45 | 7819 | 7539 | 7456 |
| 55 | 6856 | 6841 | 6847 |
| 65 | 5573 | 5936 | 6015 |
| 75 | 4180 | 5033 | 4992 |
| 85 | 3378 | 4593 | 4238 |



| Zone | Lumens | %Fixt |
|--------|---------|--------|
| 0-20 | 457.01 | 12.40 |
| 0-30 | 972.24 | 26.40 |
| 0-40 | 1591.93 | 43.20 |
| 0-60 | 2792.60 | 75.80 |
| 0-80 | 3480.09 | 94.50 |
| 0-90 | 3611.53 | 98.10 |
| 90-120 | 71.49 | 1.90 |
| 90-130 | 71.50 | 1.90 |
| 90-150 | 71.50 | 1.90 |
| 90-180 | 71.50 | 1.90 |
| 0-180 | 3683.03 | 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 | 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 | 62 | 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 | 31 | 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

Douglas Lighting Controls, Inc.: Cloud-based controls

The ECL 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.

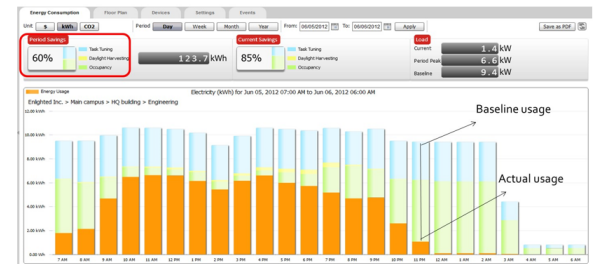
| Enlighted Capabilities* | Enlighted One (ZENLO) | Enlighted Connected (ZENLC) | Enlighted IoT (ZENLI) |
|--|-----------------------|-----------------------------|-----------------------|
| Motion and Switch Groups | ✓ | ✓ | ✓ |
| Daylight Harvesting | ✓ | ✓ | ✓ |
| Schedule Lighting | | ✓ | ✓ |
| Energy 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:

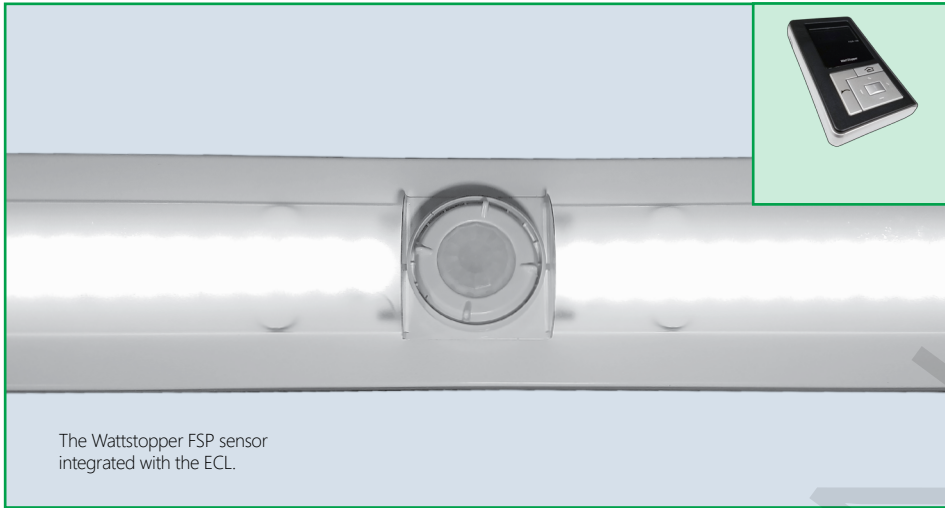
www.lumenfocus.com/controls-overview

© 2021 Enlighted for all Enlighted content and images.

© 2021 Douglas Lighting Controls, Inc. for all Douglas content and images. The Bluetooth® word, mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by Douglas Lighting Controls is under license. Other trademarks and trade names are those of their respective owners.



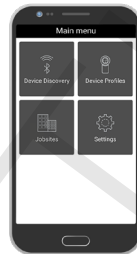
Other controls available:



The Wattstopper FSP sensor integrated with the ECL.

Dimming Sensors (Z211/Z311)

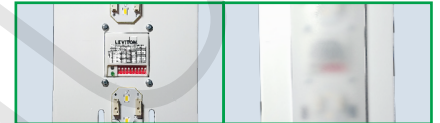
- The Wattstopper FSP sensor provides multi-level control based on motion and/or daylight contribution
- Comes pre-installed on the fixture
- Rated for cold locations
- Parameters for Bluetooth-enabled Z311 adjustable via phone app - iOS or Android
- Parameters for Z211 adjustable via wireless configuration 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



Left: The phone app interface for the Z311 sensor

Microwave Occupancy Sensor (ZOSMD)

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



Leviton Intellect Solo PIR Sensor (ZSOL)

The ECL 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. It includes partial-on and partial-off capabilities. Mounting height is 8' to 10'. It is IP20 rated with a detection angle of 120 degrees. An IR remote is available for programming sensor from the floor (sold separately). The sensor can be used to comply with IECC, ASHRAE 90.1 and 2019 Title 24, Part 6 dimming, occupancy/vacancy sensing and daylight harvesting requirements.



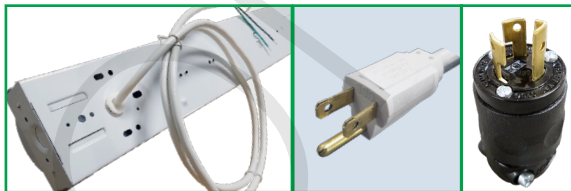
Other Options:



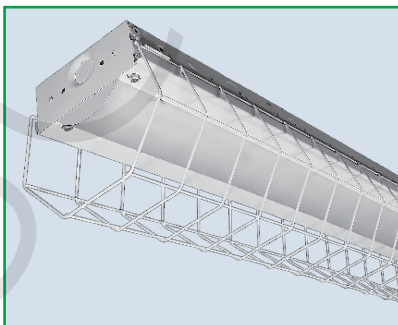
Shielding Frosted acrylic diffuser lenses minimize glare and improve aesthetics.



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. QCs come boxed with each fixture. V-hangers and slide hangers are also optional.

