LED Ultrasonic Stairwell Lighting - DLC Listed

**40W/80W**

**40 Watt**

**FEATURES**
- Fully Control Minimum Dim Levels to Help Maintain Life Safety Codes for Unoccupied Areas with USBD option, Dimmable Between 10% and 100%
- Impact Resistant Radial Designed Lens
  - Internal Linear Ribbed, 25% DR Acrylic
- 5 Year Warranty
- DesignLights Consortium® Qualified

**Cavern Housing**
- .060” Aluminum Body
- .200” 6061 Machined Aluminum End Plates
- .500” Threaded End Plug
- Baked on Enamel Powder Coat Finish

**Cavern Lite Housing**
- .040” Aluminum Housing
- Baked on Pre-Paint Enamel

**LED SYSTEM**
- Board (Nichia Chips) 1 x 36
- Calculated L70 (TM-21) 70,000 hours
- Delivered Lumens 3,433 lm
- Total Input Watts 46.08 W
- Luminaire Efficacy Rating (LER) 74.50 lm/W
- Correlated Color Temperature (CCT) 5000 K
- Color Rendering Index (CRI) > 80
- Max Ambient Temp 111° F
- Universal Dimmable Driver 120-277 V

**DISTINGUISHING OPTIONS**
- User Selectable Bi-level Dimming with Occupancy Sensor (USBD)
- LED Battery Back-Up (LEDBB)
- Ultrasonic Sensor (FIOS)

**ORDERING GUIDE**

<table>
<thead>
<tr>
<th>Series</th>
<th>LED</th>
<th>Driver</th>
<th>Color</th>
<th>Options</th>
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</thead>
<tbody>
<tr>
<td>08S-</td>
<td>40WLED 1x36 Board</td>
<td>UNIV 120-277 Driver</td>
<td>3000K*</td>
<td>WHP White Paint (Std)</td>
</tr>
<tr>
<td>08S-</td>
<td>4000K</td>
<td>BRP Bronze Paint</td>
<td></td>
<td></td>
</tr>
<tr>
<td>08S-</td>
<td>5000K**</td>
<td>CPX Custom Paint (X = Spec Color)</td>
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<tr>
<td></td>
<td>FRAL Frosted Acrylic Lens</td>
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<td></td>
<td>CORDx Cord (X = ft)</td>
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<td></td>
<td>PLUGx Plug (X = Type, eg. L715P)</td>
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<tr>
<td></td>
<td>LEDBB LED Battery Backup (may reduce max ambient)</td>
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<td></td>
<td>SD480 480V Step Down Transformer</td>
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<td></td>
<td>TPS Tamper Proof Screws (Cavern Only)</td>
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<tr>
<td></td>
<td>DIM 0-10V Dimmable Driver</td>
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<td></td>
<td>FIOS On/Off Occupancy Sensor Installed</td>
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<td></td>
<td>USDC User Selectable Dimming Control</td>
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<tr>
<td></td>
<td>USBD User Select Bi-level Dim w/ Occ. Sensor</td>
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<tr>
<td></td>
<td>BDxx Preset Bi-level Dim Sensor (xx=1% eg. 20,30)</td>
<td></td>
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</tr>
</tbody>
</table>

*Call for Availability

**DLC Listed Configuration**
LED Ultrasonic Stairwell Lighting - DLC Listed

40W/80W

**40 Watt**

**C4-40WLED-UNIV**

LUMINAIRE OUTPUT = 3.430 LM S
120V AC, 384.57 mA 46.075W, 0.9976P F

**SUMMARY DATA**

- HEMISPHERES TESTED: BOTH
- EFFICIENCY (Total): 100.0 %
- EFFICIENCY (Down / Up): 95.0 % / 5.0 %
- EFFICIENCY (Street / House): 51.7 % / 48.3 %
- ROADWAY CLASSIFICATION: TYPE IV, VERY SHORT
- CUTOFF CLASSIFICATION: NONCU TO FF
- LUMENS / LAMP: 3433.649
- NO. OF LAMPS: 1
- LUMINOUS OPENING: RECTANGULAR
  - Width: 4.00 (Feet)
  - Length: 0.42
  - Height: 0.00
- INPUT WATTS: 46.1

**PLANE AND CONE DIAGRAM**

Max plane at H = 1 12.5
Max cone at V = 7.5
MAX CANDLEPOWER: WE R: 978.9

**OPTIONS**

USER CONTROLLED DIMMING (USDC) GIVES YOU THE ABILITY TO ADJUST THE LIGHT LEVEL BY SIMPLY TURNING AN INTERNAL CONTROL

- Fully Control the Minimum Light Level for the Occupied & Unoccupied Modes with the 40W LED
- Dimmable down to 10%.
- Internal dim control can be accessed without disassembling the fixture.

LED BATTERY BACKUP OPTION (LEDBB)

- Allows the fixture to remain fully functional as an Emergency Light during power failures.

ULTRASONIC SENSOR CONTROL IS INSTALLED WHEN THE (FIOS) OPTION IS ORDERED

- Ultrasonic detection operates by transmitting sound waves throughout an area and measuring the speed at which they return. Movement increases the return frequency, which triggers occupancy.
- Fail on mode can be set to ensure the lamps come on to 100% in the event of a control failure.
- Burn in and test modes are available for installation and servicing.
**LED Ultrasonic Stairwell Lighting - DLC Listed**

**40W/80W**

**FEATURES**

- Fully Control Minimum Dim Levels to Help Maintain Life Safety Codes for Unoccupied Areas with USBD option, Dimmable Between 10% and 100%
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**Cavern Housing**

- .060” Aluminum Body
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- Baked on Enamel Powder Coat Finish

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<td>UNIV 120-277 Driver</td>
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<td>WHP White Paint (Std)</td>
</tr>
<tr>
<td>08S</td>
<td>Stairwell 4ft</td>
<td></td>
<td>4000K</td>
<td>BRP Bronze Paint</td>
</tr>
<tr>
<td></td>
<td>Stairwell Lite 4ft</td>
<td></td>
<td>5000K**</td>
<td>CPX Custom Paint (X = Spec Color)</td>
</tr>
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*Call for Availability  **DLC Listed Configuration
LED Ultrasonic Stairwell Lighting - DLC Listed

**80 Watt**

**C4-80WLED-UNIV**

LUMINAIRE OUTPUT = 5988 LM S
120V AC, 672.1 m A 80.08W , 0.9923P F

**SUMMARY DATA**
- HEMISPHERES TESTED: 80.0%
- EFFICIENCY (Total): 95.1% / 49.3%
- EFFICIENCY (Street / House): 53.3% / 46.7%
- ROAD WAY CLASSIFICATION: TYPE III, VERY SHORT
- CUT OFF CLASSIFICATION: NONCUTOFF F
- LUMENS/AMP: 5991.279
- NO. OF LAMPS: 1
- LUMINOUS OPENING: RECTANGULAR
  - Width: 0.42 (Feet)
  - Length: 4.00
  - Height: 0.06
- INPUT WATT: 80.1

**OPTIONS**

**USER CONTROLLED DIMMING (USDC)** GIVES YOU THE ABILITY TO ADJUST THE LIGHT LEVEL BY SIMPLY TURNING AN INTERNAL CONTROL
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**ULTRASONIC SENSOR CONTROL IS INSTALLED WHEN THE (FIOS) OPTION IS ORDERED**
- Ultrasonic detection operates by transmitting sound waves throughout an area and measuring the speed at which they return. Movement increases the return frequency, which triggers occupancy.
- Fail on mode can be set to ensure the lamps come on to 100% in the event of a control failure.
- Burn in and test modes are available for installation and servicing.

**DIMENSIONS**

Max plane at H = 135 Max cone at V ≤ 5 MAX CANDLEPO WE R: 1903.9

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**Lighting Facts**

- Light Output (Lumens): 5094
- Watts: 80.06
- Lumens per Watt (Efficacy): 74
- Color Accuracy: 67

FS Low Voltage Ultrasonic Fixture Occupancy Sensors

Description
The FS Low Voltage Ultrasonic Fixture Sensors control lighting based on occupancy. They are designed with a low-profile, architecturally pleasing appearance to easily integrate into a wide range of lighting fixtures or a customized housing. The sensors’ modular plug-in system utilizes an RJ45 connector and 3’ cord for flexibility and ease of use.

Operation
When connected to an FS-PP Power Pack, the FS-505 Series sensors use high frequency (40 kHz) ultrasonic technology to sense motion within a space and automatically turn lights on even when the sensor has no direct line of sight to occupants. After the area is vacated and the time delay has elapsed, the sensors automatically turn the lights off. Ultrasonic detection operates by transmitting sound waves throughout an area and measuring the speed at which they return. Movement increases the return frequency, which triggers occupancy.

The FS-505 Series sensors provide functions for testing, overriding the fixture ‘ON’ and a 72-hour lamp burn-in mode.

Features
- Ultrasonic technology (40Khz)
- Compact design for installation in low-profile fixtures
- 24 VDC
- Three modes: override, burn-in and test modes

Applications
Typical applications for the FS-505 Series sensors include open office cubicles, offices, conference rooms, restrooms and hallways. This technology also provides superior detection in hard surfaced areas, such as stairwells and hallways.

For a large rectangular detection area with ceiling-mounted fixtures, the FS-505C provides excellent coverage. For specialized applications such as stairwells, the elongated coverage pattern of the FS-505 is ideal.

The FS-505 can provide bi-level lighting control in fixtures that have bi-level or dimming ballasts, resulting in up to 66% energy savings for fixtures that are on 24-hours a day, seven days a week, while still providing enough light for safety and egress.
### Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>FS-505 Low Voltage Ultrasonic Fixture Sensor</th>
<th>FS-505C Low Voltage Ultrasonic Fixture Sensor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>24VDC</td>
<td>24VDC</td>
</tr>
<tr>
<td>Current Consumption</td>
<td>43mA</td>
<td>43mA</td>
</tr>
<tr>
<td>Power Supply</td>
<td>FS-PP Fixture Power Pack</td>
<td>FS-PP Fixture Power Pack</td>
</tr>
<tr>
<td>Time Delay</td>
<td>5-30 minutes</td>
<td>5-30 minutes</td>
</tr>
<tr>
<td>Coverage at 8' ht.</td>
<td>24' (731.5cm) diameter</td>
<td>30' x 24' (457.2x365.7cm)</td>
</tr>
<tr>
<td>Operating Temp</td>
<td>32-131°F (0-55°C)</td>
<td>32-131°F (0-55°C)</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
<td>White</td>
</tr>
<tr>
<td>Dimensions*</td>
<td>5.2&quot; x 1.25&quot; x .62&quot; (132.4mm x 32.2mm x 15.7mm)</td>
<td>5.2&quot; x 1.25&quot; x .62&quot; (132.4mm x 32.2mm x 15.7mm)</td>
</tr>
</tbody>
</table>

### Applications

![Applications Diagram](image)

### Wiring & Coverage

**Coverage Patterns @ 8 ft Mounting Height**

![Coverage Patterns Diagram](image)

### Ordering Information

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FS-505</td>
<td>Low Voltage Ultrasonic Fixture Occupancy Sensor for Stairway Applications; 24 VDC fixture mount - Comes Standard with Fixture</td>
</tr>
<tr>
<td>FS-505C</td>
<td>Low Voltage Ultrasonic Fixture Occupancy Sensor for Open Areas; 24 VDC fixture mount - Additional Charge/ Not Standard</td>
</tr>
<tr>
<td>FS-PP</td>
<td>Fixture Power Pack 120/277 VAC, 60Hz - Additional Charge/ Not Standard</td>
</tr>
</tbody>
</table>

**NOTE:** All FS Low Voltage Sensors require an FS-PP or other Watt Stopper Power Pack (ordered separately) to operate.