RAB LIGHTING®

GDRAIL20W/ GDRAIL30W WIRE GUARD

Thank you for buying RAB lighting fixtures. Our goal is to design the best quality products to get the job done right. We'd like to hear your comments. Call the Marketing Department at 888-RAB-1000, or email: marketing@rabweb.com

IMPORTANT

READ CAREFULLY BEFORE INSTALLING FIXTURE. RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.

RAB fixtures must be wired in accordance with the National Electrical Code and all applicable local codes. Proper grounding is required for safety. This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and the hazards involved.

WARNING: Make certain power is OFF before installing or maintaining fixture.

INSTALLATION

Remove lower screws (2) on the **End Plate(2). Wire Guard** mounts with **Clips(4)** and **Screws(4)** to **End Plate** as shown. Hardware is provided with guard.

Housing · End Plate · Screws (4) · Clips (4) · Wire Guard
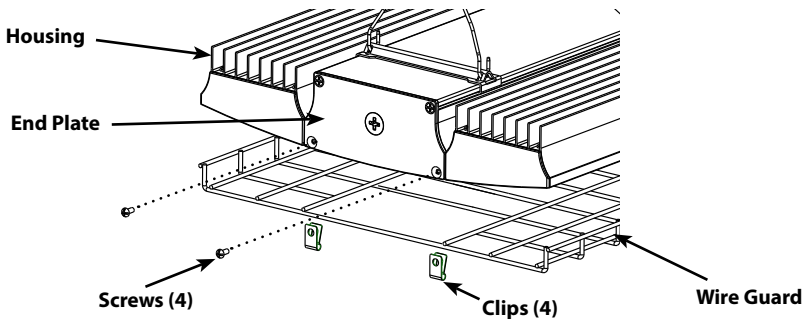
CLEANING

Clean lens with nonabrasive cleaning solution.

CAUTION: Be sure fixture temperature is cool enough to touch. Do not clean or maintain while fixture is energized.

Note: These instructions do not cover all details or variations in equipment nor do they provide for every possible situation during installation, operation or maintenance.

PORTO™ INSTALLATION INSTRUCTIONS

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Fixtures must be wired in accordance with the National Electrical Code and all applicable local codes. Proper grounding is required for safety. THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.

WARNING: Make certain power is OFF before installing or maintaining fixture. No user serviceable parts inside.

CAUTION: For proper weatherproof function all gaskets must be seated properly and all screws inserted and tightened firmly. Apply weatherproof silicone sealant around the edge of the Junction Box. This is especially important with an uneven ceiling surface. Silicone all plugs and unused conduit entries.

CEILING MOUNTING

Fixture is suitable for outdoor applications in wet locations.

1. Loosen **Screws (2)** to free **Junction Box** from **LED Housing**. Remove **NPS Adaptor** as marked (Fig. 2) if ceiling mounting is flush without recessed box.

2. Mount **Junction Box** to ceiling by knocking out **(4) Knock Out Locations** as marked in Fig. 3. Use the appropriate mounting hardware for the mounting surface. May alternately be mounted to recessed junction boxes.

3. For hands-free wiring hang the fixture on the **EZ Hang Hook** as shown in Fig. 1. Connect supply wires to **Fixture Wires.** Supply can come from back or through either of four 1/2" **Plugs** to make electrical splices. Use appropriate UL approved wire connectors as required by code to complete wiring.

4. Close fixture and tighten **Screws (2)**

5. If mounting surface is irregular, use caulk to seal any gaps around **Junction Box**.
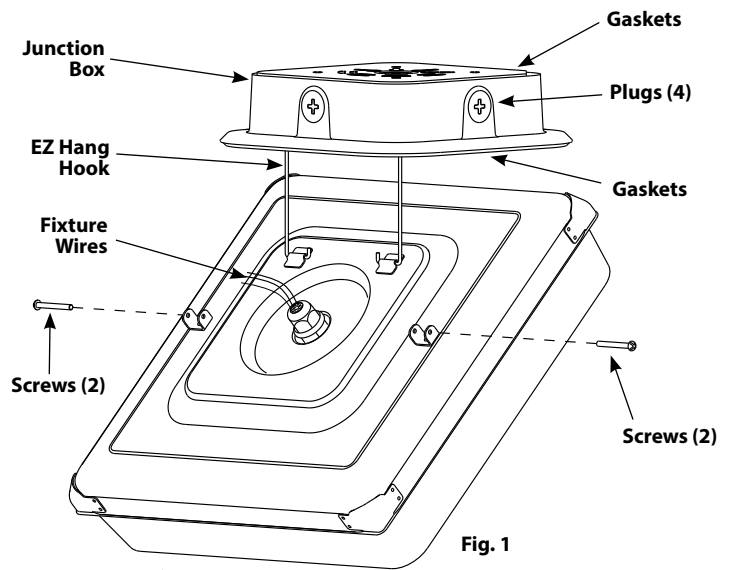
PENDANT MOUNTING

Fixture can be mounted to a 1/2" or 3/4" NPS Pendant. 1/2" to 3/4" NPS Adaptor is included.

1. Feed supply wires through Pendant (supplied by others)**.**

2. Loosen **Screws (2)** on **LED Housing.**

3. Remove 1/2" plug and mount **Junction Box** to Pendant. For 3/4" Pendant, remove plug and **NPS Adaptor.** Hang LED fixture with **EZ Hang Hook** as shown in Fig. 1.

4. Make supply connections wiring sections as shown in **Ceiling Mounting** section above.

Fig. 1

Fig. 2
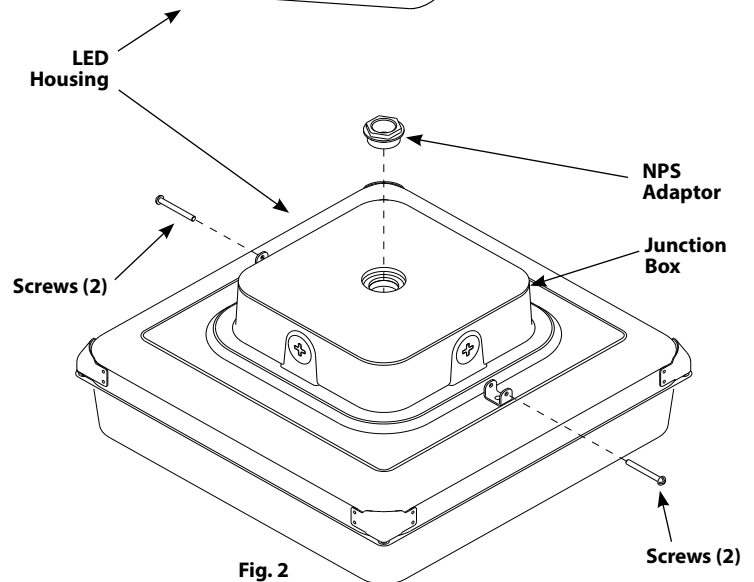
PORTO™ INSTALLATION INSTRUCTIONS

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KNOCK OUT LOCATIONS

Ø 4.13"
[104.8 mm]

Ø 5.25"
[133.4 mm]

GND

3.54"
[89.8 mm]

3.54"
[89.8 mm]

Fig. 3

TROUBLESHOOTING

1. Check that the line voltage at the fixture is correct. Refer to wiring directions.
2. Be sure the fixture is grounded properly.
3. Is the photocell, if used, functioning properly?

CLEANING & MAINTENANCE

CAUTION: Be sure fixture temperature is cool enough to touch. Do not clean or maintain while fixture is energized.

1. Clean polycarbonate lens with non-abrasive cleaning solution.
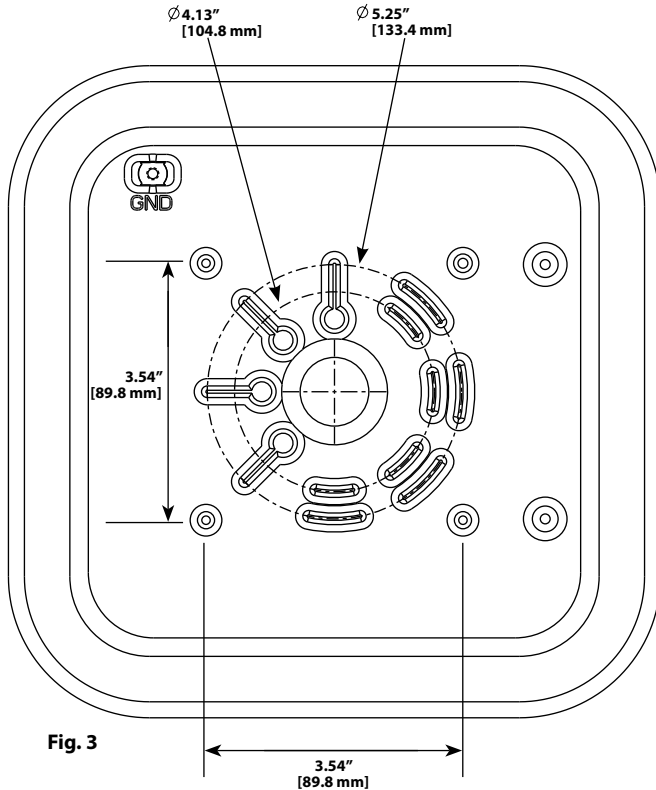2. Do not open the fixture to clean the LEDs. Do not touch the LEDs.

ON-OFF WIRING

Universal voltage driver permits operation at 120V thru 277V, 50 or 60 Hz. Units ordered with (/480V) suffix are 480V, 50Hz or 60Hz. For Non-Dimming, follow the wiring directions in fig. 4.

1. Connect the black fixture lead to the (+) LINE supply lead.
2. Connect the white fixture lead to the (-) COMMON supply lead.
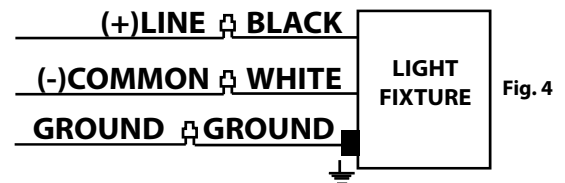3. Connect the GROUND wire from fixture to supply ground.

(+)LINE — BLACK

(-)COMMON — WHITE

GROUND — GROUND

LIGHT FIXTURE

Fig. 4

0-10V DIMMABLE WIRING

Universal voltage driver permits operation at 120V thru 277V, 50 or 60 Hz. Units ordered with (/480V) suffix are 480V, 50Hz or 60Hz. For 0-10V Dimming, follow the wiring directions in fig. 5.

1. Connect the black fixture lead to the (+) LINE supply lead.
2. Connect the white fixture lead to the (-) COMMON supply lead.
3. Connect the GROUND wire from fixture to supply ground. Do NOT connect the GROUND of the dimming fixture to the output.
4. Connect the purple fixture lead to the (V+) DIM lead.
5. Connect the gray fixture lead to the (V-) DIM lead.
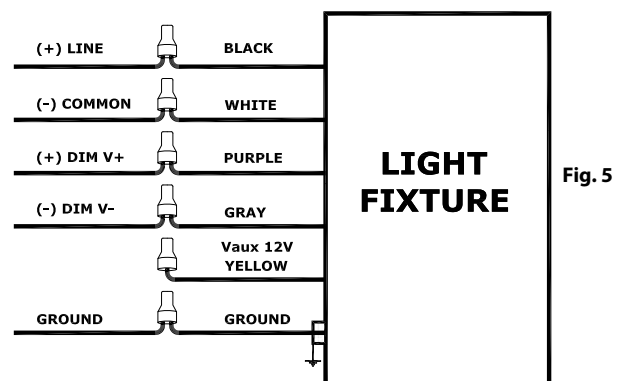6. Cap the yellow fixture lead, if present. Do NOT connect.

(+) LINE — BLACK

(-) COMMON — WHITE

(+) DIM V+ — PURPLE

(-) DIM V- — GRAY

Vaux 12V YELLOW

GROUND — GROUND

LIGHT FIXTURE

Fig. 5

PATENT - Pending

Note: These instructions do not cover all details or variations in equipment nor do they provide for every possible situation during installation operation or maintenance.

Easy Installation & Product Help

Tech Help Line
Call our experts 888 RAB-1000

rabweb.com
Visit our website for product info

email
Answered promptly sales@rabweb.com

18745 BILEVEL SENSOR FOR D10

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FSP-211 is used with a120-277VAC dimmable driver and is shipped with the Factory Settings (refer to **Specifications** and **Operation** below for details). If settings other than factory pre-sets are desired, the consumer must purchase FSIR-100(RAB CAT# WSREM) wireless commissioning tool (remote) to re-program sensor settings.

CAUTION: *If replacing lens:* **For proper weatherproof function gasket must be properly sealed.**

SPECIFICATIONS

Sensor is IP66 rated. Suitable for Wet locations as factory installed.
MAX Load: 800W at 120V, 1200W at 277V
Operating Temperature: -40°C to +75°C (-40°F to +167°F)
Relay Rating: 200,000 cycles

Factory Settings:

- *High Mode:* 10V
  (100% lumen output)

- *Low Mode:* 1V
  (10% lumen output)

- *Time Delay:* 5 minutes

- *Cut-off:* 1 hour

- *Setpoint:* 4 fc

- *Sensitivity:* Max

- *Ramp-up Time:* none

- *Fade-down Time:* none

FSP-211
Sensor

Gasket

Nut

Lens

Twist On

OPERATION (DIMMABLE DRIVER)

- Ambient light above the *Setpoint* causes sensor to keep fixture light off, despite detected motion

- *High Mode* activates with initial motion detection

- After *High Mode* activation, no motion detection for duration of *Time Delay* activates *Low Mode*

- After *Low Mode* activation, no motion detection for duration of *Cut-off* turns off light fixture

TESTING

Walk Test is used to check and adjust the coverage pattern
*Without remote (RAB CAT#WSREM), Factory Settings apply (See **SPECIFICATIONS**). With remote, **Test Mode** can be selected from Main Menu with automatically set functions of Time Delay: 30 seconds and Cut-off: 30 seconds.*

1. Locate the sensor/fixture to approximately cover the desired area

2. Start outside the detection zone and walk across the zone until the fixture lights. As distance from the sensor increases, it will take more movement for the sensor to detect motion. At 10 feet only a half step may produce light, while at 30 feet it may take several steps.
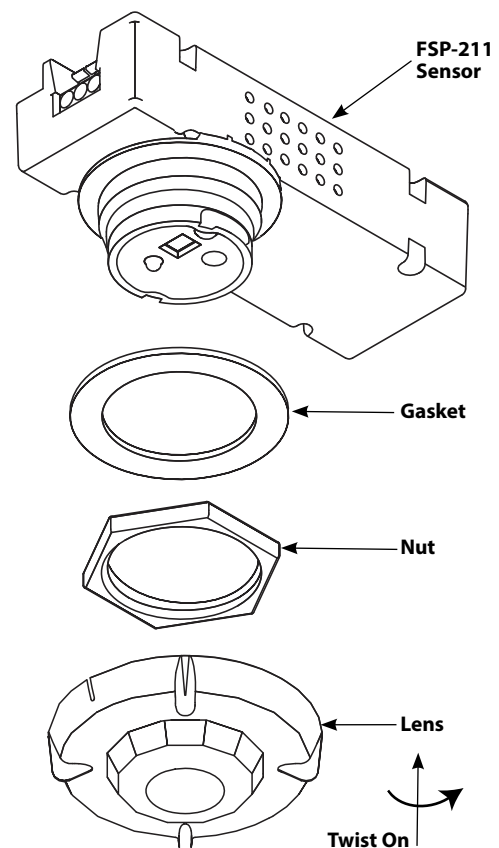
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FSIR-100 (RAB CAT#WSREM) REMOTE

Fig. 4

Power

Back
Left
Down

Main Menu
Up
Right/Next
Select
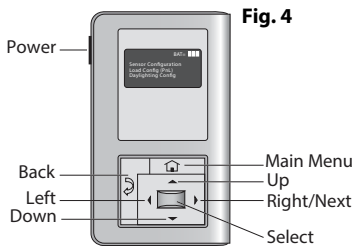
- Follow screen prompts
- When changing sensor settings, be sure to select **SEND** at the bottom right of the screen
- Sensor confirms setting change by blinking on and running through 1 cycle

CUSTOMIZATION

FSIR-100 remote (RAB CAT#WSREM) is necessary to customize settings.

For 24 hour operation: Change Setpoint=DIS (disabled)

Adjustment ranges:

- *Auto* calculates appropriate *Setpoint* based on surrounding light: 2 minute warm-up, blinks on/off 8 times, then turns off until motion is detected
- *High Mode:* 0-10V with 0.2V increments
- *Low Mode:* 0-9.8V with 0.2V increments
- *Time Delay:* 30 seconds, 1-30 minutes
- *Cut-off:* 1-59 minutes, 1-5 hours, DIS (disabled)
- *Setpoint:* 1-250 fc, AUTO, DIS (disabled)
- *Sensitivity:* NONE, LOW, MED, MAX
- *Ramp-up Time:* 1-60 seconds
- *Fade-down Time:* 1-60 seconds

ACCESSORIES

- WSREM remote
- WSLENS-8: 48' diameter coverage from 8' height
- WSLENS-20: 40' diameter coverage from 20' height
- WSLENS-40: 60' diameter coverage from 40' height
- WSLENS-40W: 100' diameter coverage from 40' height

OPERATION (NON-DIMMABLE DRIVER)

- Ambient light above the *Setpoint* causes sensor to keep fixture light off, despite detected motion
- Light turns on with motion detection
- Light turns off with lack of motion after reaching the *Time Delay* period

TROUBLESHOOTING ON FACTORY SETTINGS (WITHOUT REMOTE)

If the sensor does not detect motion as expected:

1. Check fixture mounting and compare fixture location and sensor coverage with the coverage diagrams
2. Check that movement is not directly towards sensor pattern, but across the pattern
   - Adjust fixture location as necessary
3. Check that far away movement directly towards sensor is not entirely within one **Detection Pattern Finger** (see coverage pattern diagrams on the next page)
   - Adjust sensitivity to maximum for best results with far away movement

TROUBLESHOOTING WITH REMOTE

*Adjusting sensor with remote (RAB CAT#WSREM) turns on fixture automatically. Once settings are changed, wait for fixture to turn off according to settings, then perform Walk Test.

1. Check current sensor settings by:
   - Select FSP-211 on main screen after powerup
   - Select **Current Settings** in menu
   - Point remote at sensor, press center button and release
   - Be sure that sensor blinks and fixture lights, confirming connection with remote
   - Current settings will be shown on remote screen
2. Fixture will not light/sensor does not detect motion: Using increments of 1 fc, adjust **Setpoint** to a larger value until fixture lights with motion, and/or raise **Sensitivity**
3. Fixture and sensor are too active: Using increments of 1 fc, adjust **Setpoint** to a lower value until fixture only lights at desired intervals/motions, and/or lower **Sensitivity**
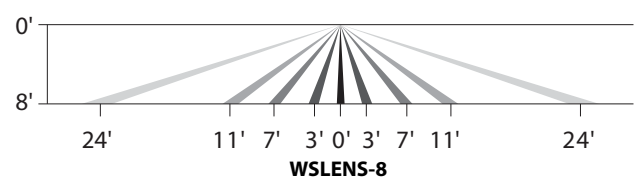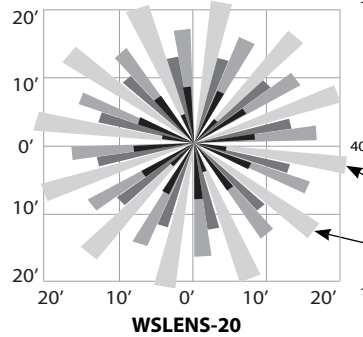4. Fixture lights at installation and follows expected pattern, but does not turn on with subsequent detected motion: See 2 and 3 above to adjust **Setpoint** or change **Setpoint** to *Auto*
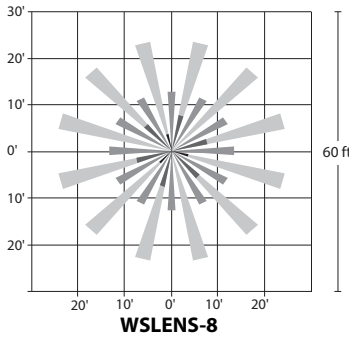
18745 BILEVEL SENSOR FOR D10
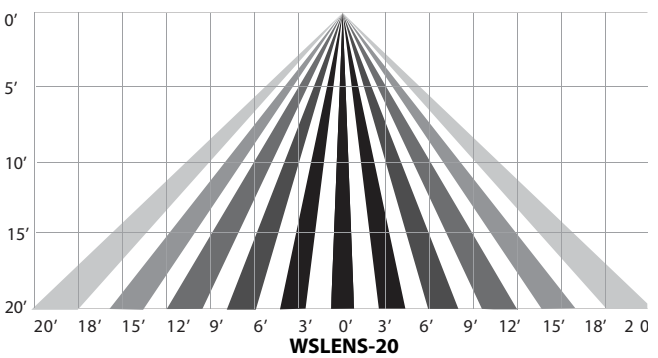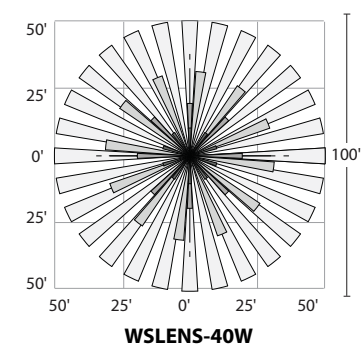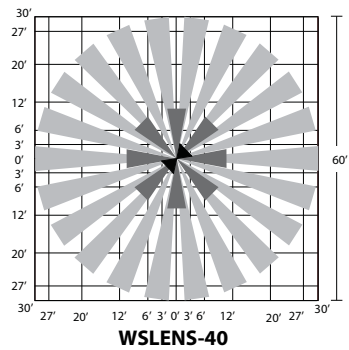
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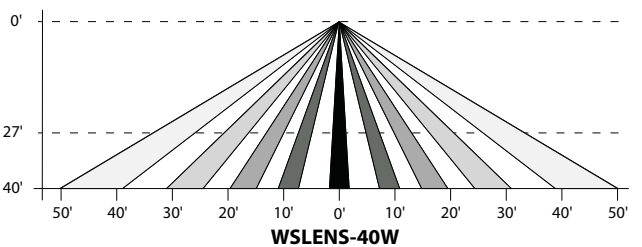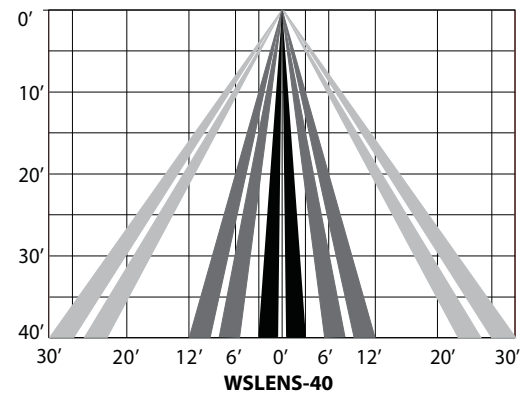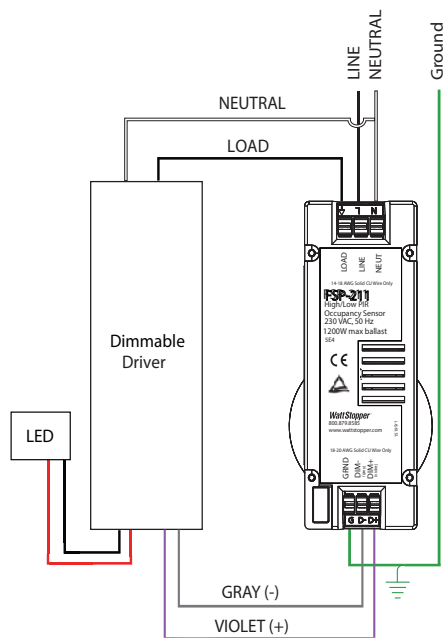
SENSOR TOP COVERAGE DIAGRAMS

WSLENS-8

WSLENS-20

WSLENS-40

WSLENS-40W

SENSOR SIDE COVERAGE DIAGRAMS

WSLENS-8

Detection Pattern Fingers

WSLENS-20

WSLENS-40

WSLENS-40W

DIMMABLE WIRING DIAGRAM

LINE
NEUTRAL
Ground

NEUTRAL

LOAD

Dimmable Driver

LED

FSP-211
High/Low PIR
Occupancy Sensor
230 VAC, 50 Hz
1200W max ballast
SE4

WattStopper
800.879.8585
www.wattstopper.com

GRAY (-)

VIOLET (+)

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