# 4CRDI LED
## 4″ Direct/Indirect Cylinder – Round

**Williams**

7-15/16″

17-1/16″

6-1/2″

ø2-1/2″

ø4-1/4″

CATALOG #: _____

TYPE: _____

PROJECT: _____

*BUY AMERICAN ACT COMPLIANT*

**ORDERING EXAMPLE:** 4CRDI - L12/835U/L12/835D - OPTIONS - WHT - CONTROL/DIM - UNV - OW/LM - CS - TRIM OPTIONS - WM

— HOUSING — | — TRIM — | MOUNT.

## HOUSING

| SERIES | LUMEN PACKAGE (Example: L12/835U/L9/835D) | | | | OPTIONS | HOUSING FINISH [1] | | CONTROL | | DRIVER | | VOLTAGE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **4CRDI** | Specify lumen packages: **U** for Up and **D** for Down | | | | *See page 3 for EMERGENCY BATTERY OPTIONS.* | **ALUM** | Silver sparkle aluminum | *See page 5 for ADDITIONAL CONTROL/ DRIVER OPTIONS.* | | *See page 5 for ADDITIONAL CONTROL/ DRIVER OPTIONS.* | | **UNV** | 120-277V |
| | **LUMENS [8]** | **CRI** | **CCT** | **U OR D** | | **BLK** | Textured black | | | **DIM** | Entire fixture switches and dims together [5] | **347** | 347V [7] |
| | **L9** 900lm | **8** 80 | **27** 2700K | **U** Uplight | **RDB** Remote mount control/driver box, painted black [2] | **BRZ** | Textured bronze | **–** | None | | | | |
| | **L12** 1,200lm | **9** 90 [9] | **30** 3000K | **D** Downlight | | **NKL** | Textured nickel | **AVI-LVFA** | Avi-on wireless fixture control [3] | **DIM1** | 1% Dimming driver, 0-10V | | |
| | **L15** 1,500lm | | **35** 3500K | | | **SLV** | Textured silver | **AWNR** | Lutron Athena wireless node fixture control, RF only [4] | **DA** | Driver with 12V auxiliary power, without external dimming wires [6] | | |
| | **L20** 2,000lm | | **40** 4000K | | | **WHT** | Textured white | | | | | | |
| | | | **50** 5000K | | | | | | | | | | |

## TRIM

### TRIM TYPE AND DISTRIBUTION [10]
(Example Uplight/Downlight: **OW/LM**)

**TRIM TYPE**

Uplight
- **O** Open reflector with clear glass shield [15]

Downlight
- **O** Open reflector
- **L** Flush lens
- **R** Regressed lens

**DISTRIBUTION**

Uplight
- **W** 70° Wide
- **M** 40° Medium
- **N** 15° Narrow [16]
- **S** 8° Narrow spot [17]

Downlight
- **W** 70° Wide
- **M** 40° Medium
- **N** 15° Narrow
- **S** 8° Narrow spot [18]

### REFLECTOR FINISH [11]

**Downlight Open Trim Types**
- **CS** Clear semi-specular anodize
- **SG** Satin-glow anodize
- **GD** Gold anodize
- **CG** Champagne gold anodize
- **PW** Pewter anodize
- **SPC** Clear specular anodize
- **RG** Rose gold anodize
- **WH** White texture powder coat
- **BL** Black texture powder coat

**Downlight Lens Trim Types**
- **CS** Clear semi-specular powder coat
- **WH** White texture powder coat
- **BL** Black texture powder coat
- **BZ** Bronze texture powder coat
- **NK** Nickel texture powder coat
- **SV** Silver texture powder coat
- **AL** Silver sparkle aluminum

### TRIM OPTIONS
- **AD** Diffuse acrylic lens [12]
- **PD** Diffuse 1/8″ polycarbonate lens [13]
- **TD** Diffuse polycarbonate lens media at top of open reflector [14]

## MOUNTING

### MOUNTING TYPE [19]
**WM** Wall mount

## NOTES

1 See page 4 for HOUSING FINISH DETAILS.
2 Painted white available, specify RDB/WHT.
3 DA Driver only. Installed in remote box, must specify RDB Option. See page 5 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.
4 DA Driver only. Installed in remote box, must specify RDB Option.
5 Requires 5 conductor cord.
6 Avi-on and Lutron Athena Controls only.
7 Not available with EM batteries or DA drivers.
8 Lumen output based on O Trim Type, W Distribution and CS Reflector Finish, 80CRI/3500K CCT. Actual performance may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
9 Extended lead times may apply. Consult factory for availability.

10 Beam angle based on O Trim Type and CS Reflector Finish. Trim Type affects beam angle. See page 2 for FIXTURE PERFORMANCE DATA.
11 Specified for Downlight Trim Type only. See page 4 for REFLECTOR FINISH DETAILS.
12 Not available with O Trim Type. Downlight only. W distribution only.
13 Not available with O Trim Type. Downlight only. W distribution only.
14 O Trim Type only. Downlight only.
15 CS Reflector Finish standard. Other colors available, consult factory.
16 O Trim Type only.
17 Not available with L20 lumen package, L Trim Type, or 950 CRI/CCT.
18 Not available with L20 lumen package or 950 CRI/CCT.
19 See page 4 for MOUNTING DETAILS.

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Cylinders
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# 4CRDI LED
## 4″ Direct/Indirect Cylinder – Round

## FEATURES

- Slim profile for unobtrusive illumination
- Smoothly accent walls and eliminate dark ceilings with direct and indirect lighting
- Parallel the performance and style of the Williams downlight collection
- Superior optical control with beams as narrow as 8° and field changeable optics as wide as 70°
- Complement the architectural elements of any space with a multitude of housing and trim finishes
- Precision-engineered extruded aluminum housing and die-cast aluminum trim face for clean aesthetic
- Open, flush, and regressed lens trim options
- Reflectors create smooth, low-glare radiance
- Wireless in-fixture control solutions available

## SPECIFICATIONS

- HOUSING – Extruded aluminum with die-cast aluminum accent ring.
- FINISH – Polyester powder coat bonded to phosphate-free, multi-stage pretreated metal. All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.
- OPEN REFLECTOR – Low-iridescent anodized aluminum. Clear semi-specular finish standard.
- LENSED TRIM – Die-cast aluminum frame with micro-prismatic, acrylic lens.
- ELECTRICAL – High-performance Class 2 C.O.B. LED array. Modular quick-connect plug for easy field-connection of LED light assembly to driver. Reported L70>55,000 hours. Reported L90 = 49,000 hours. Estimated L70 = 179,000 hours.
- MOUNTING – Wall mount. Indoor applications only. Max weight 5-1/2 lbs.
- LISTINGS –
  - cCSAus conforms to UL STD 1598 and UL STD 8750. Certified to CAN/CSA STD C22.2 No. 250.0. Suitable for dry and damp locations.
  - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/baa.
- WARRANTY – 5-year limited warranty, see hew.com/warranty.

## FIXTURE PERFORMANCE DATA

| DIST. | | WATTAGE | DOWNLIGHT | | | | | | UPLIGHT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | OPEN REFLECTOR | | FLUSH LENS | | REGRESSED LENS | | WATTAGE | OPEN REFLECTOR | |
| | | | DELIVERED LUMENS | EFFICACY (lm/W) | DELIVERED LUMENS | EFFICACY (lm/W) | DELIVERED LUMENS | EFFICACY (lm/W) | | DELIVERED LUMENS | EFFICACY (lm/W) |
| L9 | W | 10.7 | 929 | 87 | 973 | 91 | 963 | 90 | 10.6 | 760 | 72 |
| | M | 10.7 | 898 | 84 | 958 | 90 | 917 | 86 | 10.6 | 734 | 69 |
| | N | 10.7 | 799 | 75 | 950 | 89 | 927 | 87 | 10.6 | 653 | 62 |
| | S | 14.1 | 807 | 57 | 1115 | 79 | 1075 | 76 | 14.0 | 660 | 47 |
| L12 | W | 14.3 | 1267 | 89 | 1327 | 93 | 1313 | 92 | 14.2 | 1036 | 73 |
| | M | 14.3 | 1224 | 86 | 1307 | 91 | 1250 | 87 | 14.2 | 1001 | 70 |
| | N | 14.3 | 1000 | 70 | 1296 | 91 | 1264 | 88 | 14.2 | 818 | 58 |
| | S | 20.4 | 1071 | 53 | 1480 | 73 | 1427 | 70 | 20.2 | 876 | 43 |
| L15 | W | 17.7 | 1571 | 89 | 1645 | 93 | 1628 | 92 | 17.5 | 1285 | 73 |
| | M | 17.7 | 1518 | 86 | 1620 | 92 | 1550 | 88 | 17.5 | 1241 | 71 |
| | N | 17.7 | 1240 | 70 | 1607 | 91 | 1567 | 89 | 17.5 | 1014 | 58 |
| | S | 26.7 | 1326 | 50 | 1832 | 69 | 1767 | 66 | 26.5 | 1084 | 41 |
| L20 | W | 23.4 | 1999 | 85 | 2160 | 92 | 2138 | 91 | 23.2 | 1687 | 73 |
| | M | 23.4 | 1931 | 83 | 2127 | 91 | 2035 | 87 | 23.2 | 1630 | 70 |
| | N | 23.4 | 1578 | 67 | 2110 | 90 | 2058 | 88 | 23.2 | 1332 | 57 |
| | S | – | – | – | – | – | – | – | – | – | – |

- Photometrics tested in accordance with IESNA LM-79. Results based on O trim type, W distribution and CS reflector finish, 80 CRI/3500K CCT, average wattage for 120V input, and 25°C ambient temperature. Actual performance may vary +/-5%.
- Wattage is for downlight or uplight components. Add wattages together for selected lumen packages to find total fixture wattage.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier tables to calculate additional options.

## MULTIPLIER TABLES

### COLOR TEMPERATURE

| | CCT | CONVERSION FACTOR |
|---|---|---|
| 80 CRI | 2700K | 0.92 |
| | 3000K | 0.98 |
| | 3500K | 1.00 |
| | 4000K | 1.01 |
| | 5000K | 1.02 |
| 90 CRI | 2700K | 0.76 |
| | 3000K | 0.79 |
| | 3500K | 0.82 |
| | 4000K | 0.84 |
| | 5000K | 0.88 |

### TRIM OPTIONS

| CATALOG NUMBER | CONVERSION FACTOR |
|---|---|
| AD | 0.85 |
| PD | 0.85 |
| TD | 0.67 |

### REFLECTOR FINISH

| | CATALOG NUMBER | CONVERSION FACTOR |
|---|---|---|
| O TRIM | CS | 1.00 |
| | SG [1] | 0.92 |
| | GD | 0.93 |
| | CG | 0.96 |
| | PW | 0.86 |
| | SPC | 1.02 |
| | RG | 0.88 |
| | WH [1] | 0.89 |
| | BL [1] | 0.47 |
| R TRIM | WH | 1.00 |
| | CS [1] | 0.98 |
| | BL [1] | 0.79 |
| | BZ [1] | 0.76 |
| | NK [1] | 0.81 |
| | SV [1] | 0.81 |
| | AL [1] | 0.86 |

[1] Distribution will also be affected, consult factory.

### BEAM ANGLE

| | TRIM TYPE | | |
|---|---|---|---|
| | OPEN | FLUSH | REGRESSED |
| W | 70° | 50° | 55° |
| M | 40° | 30° | 30° |
| N | 15° | 20° | 20° |
| S | 8° | 14° | 14° |

## PHOTOMETRY

**4CRDI-L12/835U/L12/835D-WHT-DIM1-UNV-OW/OW-CS-WM** Total Luminaire Output: 2228 lumens; 28.5 Watts | Efficacy: 78 lm/W | 80 CRI; 3500K CCT
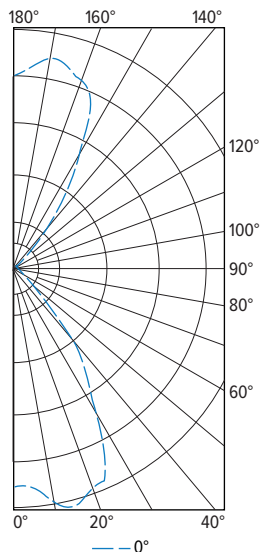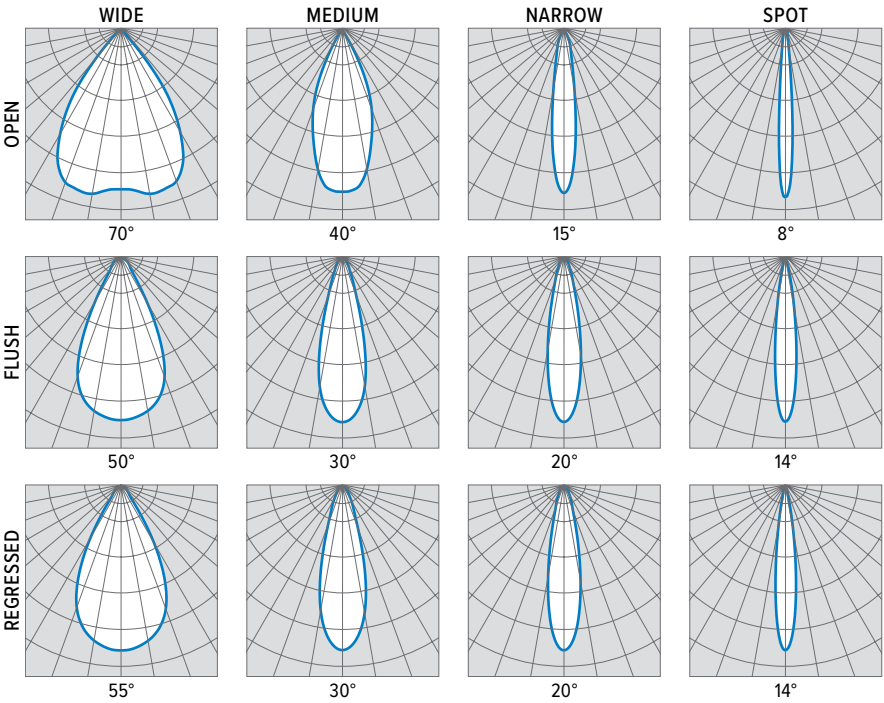
| VERTICAL ANGLE | HORIZONTAL ANGLE 0° | ZONAL LUMENS |
|---|---|---|
| 0 | 948 | |
| 5 | 959 | 95 |
| 15 | 1059 | 295 |
| 25 | 917 | 406 |
| 35 | 514 | 306 |
| 45 | 72 | 77 |
| 55 | 19 | 18 |
| 65 | 6 | 7 |
| 75 | 3 | 3 |
| 85 | 2 | 2 |
| 90 | 2 | |
| 95 | 3 | 3 |
| 105 | 6 | 6 |
| 115 | 13 | 13 |
| 125 | 30 | 28 |
| 135 | 77 | 70 |
| 145 | 370 | 227 |
| 155 | 773 | 339 |
| 165 | 883 | 249 |
| 175 | 867 | 84 |
| 180 | 826 | |

| LUMEN SUMMARY | ZONE | LUMENS | % FIXTURE |
|---|---|---|---|
| | 0 - 30 | 796 | 36 |
| | 0 - 40 | 1102 | 49 |
| | 0 - 60 | 1196 | 54 |
| | 0 - 90 | 1208 | 54 |
| | 90 - 120 | 23 | 1 |
| | 90 - 150 | 347 | 16 |
| | 90 - 180 | 1020 | 46 |
| | 0 - 180 | 2228 | 100 |

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Cylinders
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# 4CRDI LED
## 4″ Direct/Indirect Cylinder – Round

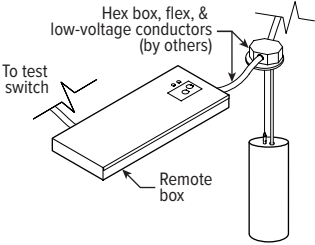| | WIDE | MEDIUM | NARROW | SPOT |
|---|---|---|---|---|
| **OPEN** | 70° | 40° | 15° | 8° |
| **FLUSH** | 50° | 30° | 20° | 14° |
| **REGRESSED** | 55° | 30° | 20° | 14° |

## EMERGENCY BATTERY OPTIONS

Max remote distance 50′, including suspension length. Emergency light defaults to downlight output. Specify CEC in the option code when California Energy Commission regulations are required.

| CATALOG NUMBER | DESCRIPTION |
|---|---|
| EM/7WRM | Remote mount 7-watt emergency battery |
| EM/7WRM/RTS | Remote mount 7-watt emergency battery with regressed test switch [1] |
| EM/10WRM | Remote mount 10-watt emergency battery |
| EM/10WRM/RTS | Remote mount 10-watt emergency battery with regressed test switch [1] |
| EM/12WRM | Remote mount 12-watt emergency battery [2] |
| EM/12WRM/RTS | Remote mount 12-watt emergency battery with regressed test switch [1] [2] |

[1] For use in grid ceiling installations only.          [2] Not available when CEC regulations are required.
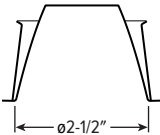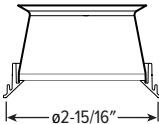
### RDB OPTION DETAILS

Hex box, flex, & low-voltage conductors (by others)

To test switch

Remote box

### TEST SWITCH DETAILS

Standard
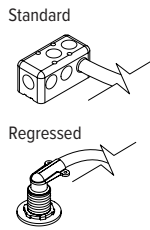
Regressed

## TRIM TYPE DETAILS

### DOWNLIGHT

**OPEN**
ø2-1/2″
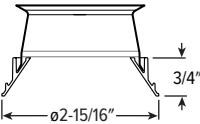
**FLUSH**
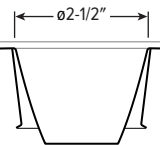ø2-15/16″

**REGRESSED**
ø2-15/16″
3/4″

### UPLIGHT

**OPEN**
ø2-1/2″

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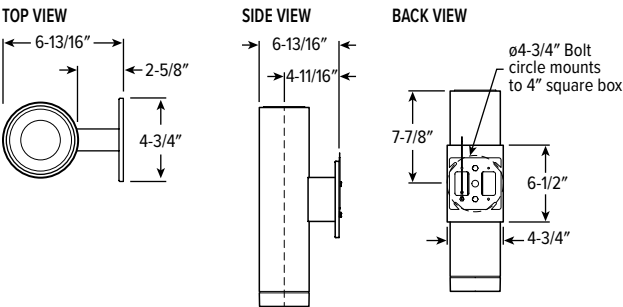Information contained herein is subject to change without notice.
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Cylinders
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# 4CRDI
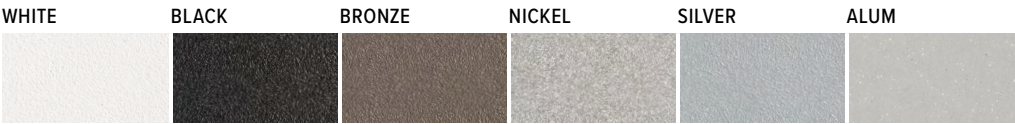### LED
### 4″ Direct/Indirect Cylinder – Round
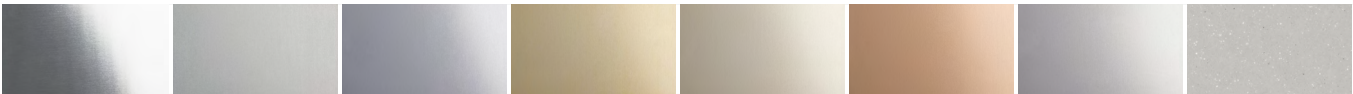
## MOUNTING DETAILS

Mounts to 4″ square J-box

**TOP VIEW**

6-13/16″
2-5/8″
4-3/4″

**SIDE VIEW**

6-13/16″
4-11/16″

**BACK VIEW**

ø4-3/4″ Bolt circle mounts to 4″ square box

7-7/8″

6-1/2″

4-3/4″

## HOUSING FINISH DETAILS

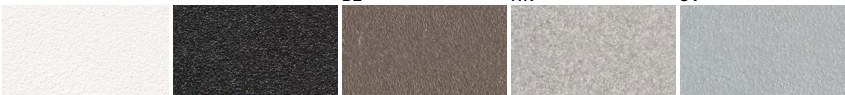| WHITE | BLACK | BRONZE | NICKEL | SILVER | ALUM |
|-------|-------|--------|--------|--------|------|

For custom color, please specify RAL code or a manufacturer code with description. All custom colors other than RAL require two sample swatches, minimum 1″ square.

## REFLECTOR FINISH DETAILS

*Smooth Finish*

| SPC | SG | PW | GD | CG | RG | CS | AL |
|-----|----|----|----|----|----|----|----|

*Textured Finish*

| WH | BL | BZ | NK | SV |
|----|----|----|----|----|

**SEE NEXT PAGE FOR CONTROL DETAILS**

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# 4CRDI LED
## 4″ Direct/Indirect Cylinder – Round

## AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

### FEATURES

**Simple**
- Gateway-free distributed control
- Factory pre-commissioning
- Contractor friendly installation
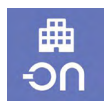- Occupancy/vacancy/daylight sensing

**Scalable**
- Virtually unlimited network size
- Spans small offices to large warehouses
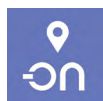- Flexible control strategies

**Secure**
- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

### COMMISSIONING & INSTALLATION TOOLS

Avi-on mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers. Live commissioning training and on-site or remote support by Avi-on must be ordered separately through Avi-on.
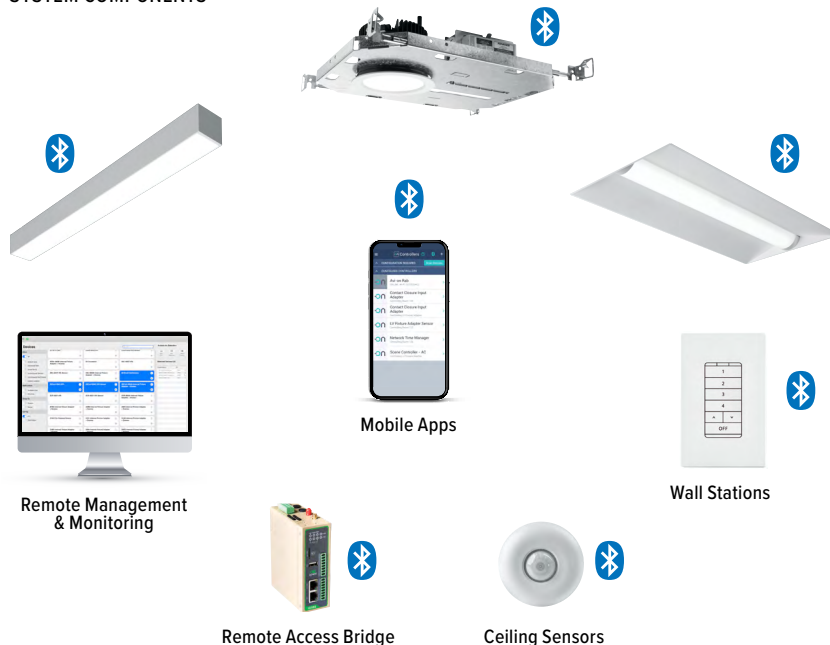
Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

### SYSTEM COMPONENTS

Mobile Apps

Remote Management & Monitoring

Wall Stations

Remote Access Bridge

Ceiling Sensors

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## ACCESSORIES

| WALL STATIONS | |
| --- | --- |
| **AVI-2401AC** | Scene controller - numbered 1-4, 120-277VAC |
| **AVI-2402BAT** | Scene controller - numbered 1-4, battery powered |
| **AVI-2401AC-2** | Dimmer with presets - percentages, 120-277VAC |
| **AVI-2402BAT-2** | Dimmer with presets - percentages, battery powered |
| **AVI-2401AC-3** | On/off/dimming, 120-277VAC |
| **AVI-2402BAT-3** | On/off/dimming, battery powered |

| NETWORK | |
| --- | --- |
| **AVI-RAB-LTE** | Remote access bridge |
| **AVI-KIT-NTM** | Network time manager with battery backup |

| CEILING MOUNT SENSORS | |
| --- | --- |
| **AVI-KIT-SEN-DUCM** | PIR motion and ultrasonic sensor kit |
| **AVI-KIT-SEN-ICM** | PIR motion and photocell sensor kit |

For load controllers and additional accessory info, see hew.com/avi-on

## ADDITIONAL CONTROL/DRIVER OPTIONS

Lumen restrictions apply: Avi-on, Lutron Athena controls and DMX, DALI, LDE1 drivers installed in remote box, must specify RDB Option.

| CATALOG NUMBER | DESCRIPTION |
| --- | --- |
| AVI-LVFA/DA | Avi-on wireless fixture control for use with driver with 12V auxiliary power. Up and down switch together. |
| AVI-LVFA/DA-U/D | Avi-on wireless fixture control for use with driver with 12V auxiliary power. Up and down switch separately. |
| AWNR/DA | Lutron Athena wireless node fixture control, RF only, for use with driver with 12V auxiliary power. Up and down switch together. |
| AWNR/DA-U/D | Lutron Athena wireless node fixture control, RF only, for use with driver with 12V auxiliary power. Up and down switch separately. |
| DIM | Dimming driver prewired for 0-10V low voltage applications; entire fixture switches and dims together |
| DIMU/DIMD | Dimming driver prewired for 0-10V low voltage applications; up and down portions switch and dim separately |
| DIM1 | 1% dimming driver prewired for 0-10V low voltage applications |
| DIM1U/DIM1D | 1% dimming driver prewired for 0-10V low voltage applications; up and down portions switch separately |
| DIM LINE | Line voltage dimming driver (TRIAC and ELV compatible, 120V only) |
| DIM LINEU/DIM LINED | Line voltage switching and line voltage dimming; up and down portions switch separately |
| DMX | 0.1% dimming driver for DMX controls |
| DMX/DMX | 0.1% dimming driver for DMX controls; up and down portions switch separately |
| DALI | DALI dimming driver |
| DALI/DALI | DALI dimming driver; up and down portions switch separately |
| LDE1 | Lutron Hi-lume 1% EcoSystem dimming LED driver |
| LDE1/LDE1 | Lutron Hi-lume 1% EcoSystem dimming LED driver; up and down portions switch separately |

### RDB OPTION DETAILS

Hex box, flex, & low-voltage conductors (by others)

Remote box