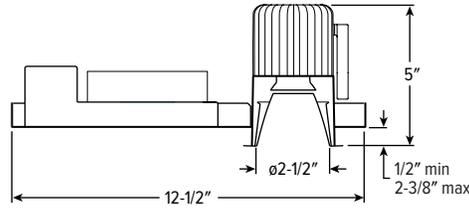
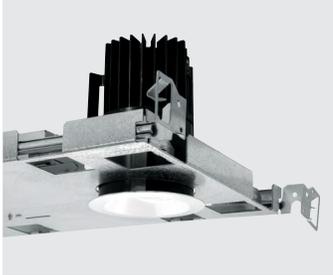


2DR LED 2" Downlight – Round



CATALOG #: _____

TYPE: _____

PROJECT: _____



NEW CONSTRUCTION AND REMODEL

ORDERING EXAMPLE: 2DR - L20/835 - OPTIONS - CONTROL/DIM - UNV - OW - OF - CS - TRIM OPTIONS - N - F1

HOUSING

TRIM

MOUNT.

HOUSING

| SERIES | LUMENS ^[1] | CRI | CCT | OPTIONS | CONTROL | DRIVER | VOLTAGE |
|--------|-----------------------|------|----------|---|---|---|-------------------------|
| 2DR | L5 500lm | 8 80 | 27 2700K | See page 3 for EMERGENCY BATTERY OPTIONS. | See page 6 for ADDITIONAL CONTROL/DRIVER OPTIONS. | See page 6 for ADDITIONAL CONTROL/DRIVER OPTIONS. | UNV 120-277V |
| | L7 700lm | 9 90 | 30 3000K | | | | 347 347V ^[7] |
| | L9 900lm | | 35 3500K | ATH Airtight construction | - None | DIM Dimming driver, 0-10V | |
| | L12 1,200lm | | 40 4000K | F Fuse | AVI-LVFA Avi-on wireless fixture control ^[4] | DIM1 1% Dimming driver, 0-10V | |
| | L15 1,500lm | | 50 5000K | CP Chicago plenum (CCEA) ^[2] | AWNR Lutron Athena wireless node integral fixture control, RF only ^[5] | DA Driver with 12V auxiliary power, without external dimming wires ^[6] | |
| | L20 2,000lm | | | SDT Stepdown transformer ^[3] | | | |
| | L25 2,500lm | | | | | | |

TRIM^[8]

| TRIM TYPE | DISTRIBUTION | FLANGE TYPE | REFLECTOR FINISH | TRIM OPTIONS |
|---|-------------------------------|---------------------------------------|--|--|
| O Open reflector | See page 2 for BEAM ANGLE. | OF 1/2" standard flange | Open trim types | MWT Smooth matte white trim flange ^[16] |
| F Open reflector with frosted top diffuser ^[9] | W Wide | ZF Zero-flange mud-in ^[14] | CS Clear semi-specular anodize | AD Diffuse acrylic lens ^[17] |
| L Flush lens | M Medium | | SG Satin glow anodize | PD Diffuse 1/8" polycarbonate lens ^[18] |
| R Regressed lens | N Narrow ^[11] | | GD Gold anodize | WET/CC Wet location, covered ceiling listed |
| A Angled lens ^[10] | S Narrow spot ^[12] | | CG Champagne gold anodize | AM Anti-microbial ^[19] |
| | WW Wall wash ^[13] | | PW Pewter anodize | |
| | | | SPC Clear specular anodize | |
| | | | RG Rose gold anodize | |
| | | | WH White texture powder coat | |
| | | | BL Black texture powder coat | |
| | | | Lens trim types | |
| | | | CS Clear semi-specular powder coat | |
| | | | WH White texture powder coat | |
| | | | BL Black texture powder coat | |
| | | | MB Black texture splay with white flange ^[15] | |

MOUNTING

| MOUNTING TYPE ^[20] | MOUNTING HARDWARE ^[21] |
|---|---|
| N Open pan for new construction ^[22] | F1 Integral 2-position fixed pan bracket, universal bar hanger included ^[25] |
| I IC-rated enclosure for new construction ^[23] | BA1 Adjustable butterfly pan bracket, bar hanger not included ^[26] |
| R Remodel kit ^[24] | CA1 Adjustable caterpillar pan bracket, universal bar hanger included ^[27] |

NOTES

- Lumen output based on O Trim Type, W Distribution, and CS Reflector Finish, 80 CRI/3500K CCT. Actual performance may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
- I Mounting Type required.
- Not available with R Mounting. May be required for 347V, see product builder at hew.com/product-builder
- DA Driver only. See page 6 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.
- DA Driver only.
- Avi-on and Lutron Athena Controls only. Not available with R Mounting Type.
- Not available with EM batteries, DA, or DMX drivers.
- Trim ships separately.
- WET/CC standard unless ordered with EM/RTS.
- Available with WW Distribution only.
- When specified with L or R Trim Type: L20 lumen package max for N and R Mounting Type and L12 lumen package max for I Mounting Type.
- L15 lumen package max for N and R Mounting. L12 lumen package max for I Mounting. Not available with 950 CRI/CCT.
- A Trim Type only.
- For use with mud-in plaster construction only, supplied with mud flange installation kit. See page 4 for TRIM TYPE DETAILS. Not available with O or F Trim Types or ATH Option.
- R Trim Type only. Not available with ZF Flange Type or MWT.
- Not available with L Trim Type, ZF Flange Type or WH Reflector Finish.
- W Distribution only. Not available with O or F Trim Types.
- W and WW Distributions only. Not available with O or F Trim Types.
- WH and BL Reflector Finishes only.
- Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 4 for MOUNTING TYPE DETAILS.
- Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.
- Top access required when specified with EM battery or controls other than DIM, DIM1, DIM LINE.
- L15 lumen package max. Not available with EM batteries.
- Also used in new construction sheetrock ceilings. Pan-less installation. Additional plenum space required for R mounting when specified with EM battery. See page 3 for REMODEL MOUNTING PLENUM RESTRICTIONS.
- N and I Mounting Types only. I Mounting requires external brackets.
- N Mounting Type only.
- N Mounting Type only.



2DR LED 2" Downlight – Round

FEATURES

- Beam angles ranging from 8° spot to 70° wide for tailored performance
- 2" aperture is unobtrusive in small scale spaces
- Zero-flange trim options for modern ceiling
- New construction mounting pan, IC-rated, or pan-less remodel kit available
- Die-cast trim includes flush, regressed or angled lens
- Open reflector with nine finishes complements any interior style
- Easily adjust mounting arms below ceiling to adapt to a range of ceiling thicknesses
- Contemporary design provides glare-free illumination for a soft ceiling appearance
- Low UGR meets LEED and WELL requirements
- Wireless in-fixture control solutions available
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING** – Die-cast aluminum trim housing with forged aluminum heat sink. Galvanized steel splice compartment with driver mounting plate/enclosure. Swing-out mounting arms field adjust for ceiling thickness from 1/2" – 2-3/8".
- OPEN REFLECTOR** – Low-iridescent anodized aluminum. Clear semi-specular finish standard.
- LENSED TRIM** – Die-cast aluminum frame with micro-prismatic, acrylic lens. Diffuse acrylic lens standard with A Trim Type.
- 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** – Recessed. 20 ga. galvanized steel mounting pan for new construction or IC-rated enclosure. Minimum 12-1/2" O.C. marked spacing required for L20 and L25 lumen packages when specified with R Mounting Type and L15 lumen package when specified with S Distribution.

- LISTINGS** –
 - cCSAus conforms to UL STD 1598; Certified to CAN/CSA STD C22.2 No. 250.0 for dry and damp locations. LED light assembly conforms to UL 2108 for remote installation.
 - Suitable for wet location under covered ceiling when specified with WET/CC option or F trim type.
 - IC-rated for direct contact with insulation when specified with I Mounting Type.
 - City of Chicago Environmental Air approved when specified with CP option.
 - Complies with ASTM-E283 when specified with ATH option.
 - RoHS compliant.
 - Title 24 (JA8) compliant in select configurations, see energy.ca.gov
 - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/buy-american
- WARRANTY** – 5-year limited warranty, see hew.com/warranty

FIXTURE PERFORMANCE DATA

| | DISTRIBUTION | WATTAGE | OPEN REFLECTOR TRIM TYPE | | FLUSH LENS TRIM TYPE | | REGRESSED LENS TRIM TYPE | | ANGLED LENS TRIM TYPE | |
|-----|--------------|---------|--------------------------|-----------------|----------------------|-----------------|--------------------------|-----------------|-----------------------|-----------------|
| | | | DELIVERED LUMENS | EFFICACY (lm/W) | DELIVERED LUMENS | EFFICACY (lm/W) | DELIVERED LUMENS | EFFICACY (lm/W) | DELIVERED LUMENS | EFFICACY (lm/W) |
| L5 | W | 6.7 | 516 | 77 | 540 | 81 | 535 | 80 | – | – |
| | M | 6.7 | 499 | 75 | 532 | 79 | 509 | 76 | – | – |
| | N | 6.7 | 407 | 61 | 528 | 79 | 515 | 77 | – | – |
| | S | 7.8 | 451 | 58 | 624 | 80 | 602 | 77 | – | – |
| | WW | 6.5 | – | – | – | – | – | – | 366 | 56 |
| L7 | W | 8.7 | 725 | 83 | 759 | 87 | 751 | 86 | – | – |
| | M | 8.7 | 700 | 81 | 748 | 86 | 715 | 82 | – | – |
| | N | 8.7 | 572 | 66 | 742 | 85 | 723 | 83 | – | – |
| | S | 11.2 | 630 | 56 | 871 | 78 | 840 | 75 | – | – |
| | WW | 8.5 | – | – | – | – | – | – | 514 | 61 |
| L9 | W | 10.7 | 929 | 87 | 973 | 91 | 963 | 90 | – | – |
| | M | 10.7 | 898 | 84 | 958 | 90 | 917 | 86 | – | – |
| | N | 10.7 | 799 | 75 | 950 | 89 | 927 | 87 | – | – |
| | S | 14.1 | 807 | 57 | 1115 | 79 | 1075 | 76 | – | – |
| | WW | 10.5 | – | – | – | – | – | – | 659 | 63 |
| L12 | W | 14.3 | 1267 | 89 | 1327 | 93 | 1313 | 92 | – | – |
| | M | 14.3 | 1224 | 86 | 1307 | 91 | 1250 | 87 | – | – |
| | N | 14.3 | 1000 | 70 | 1296 | 91 | 1264 | 88 | – | – |
| | S | 20.4 | 1071 | 53 | 1480 | 73 | 1427 | 70 | – | – |
| | WW | 14.0 | – | – | – | – | – | – | 898 | 64 |
| L15 | W | 17.7 | 1571 | 89 | 1645 | 93 | 1628 | 92 | – | – |
| | M | 17.7 | 1518 | 86 | 1620 | 92 | 1550 | 88 | – | – |
| | N | 17.7 | 1240 | 70 | 1607 | 91 | 1567 | 89 | – | – |
| | S | 26.7 | 1326 | 50 | 1832 | 69 | 1767 | 66 | – | – |
| | WW | 17.3 | – | – | – | – | – | – | 1114 | 64 |
| L20 | W | 23.9 | 2063 | 86 | 2160 | 90 | 2138 | 89 | – | – |
| | M | 23.9 | 1993 | 83 | 2127 | 89 | 2035 | 85 | – | – |
| | N | 23.9 | 1629 | 68 | 2110 | 88 | 2058 | 86 | – | – |
| | S | – | – | – | – | – | – | – | – | – |
| | WW | 23.3 | – | – | – | – | – | – | 1463 | 63 |
| L25 | W | 30.1 | 2479 | 82 | 2596 | 86 | 2569 | 85 | – | – |
| | M | 30.1 | 2395 | 80 | 2556 | 85 | 2446 | 81 | – | – |
| | N | 30.1 | 1957 | 65 | – | – | – | – | – | – |
| | S | – | – | – | – | – | – | – | – | – |
| | WW | 29.4 | – | – | – | – | – | – | 1758 | 60 |

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 |

| | 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 |
| R TRIM | WH ^[1] | 0.89 |
| | BL ^[1] | 0.47 |

| | | |
|--------|----|------|
| R TRIM | WH | 1.00 |
| | CS | 0.98 |
| | BL | 0.79 |

| | TRIM OPTIONS | |
|--------|----------------|-------------------|
| | CATALOG NUMBER | CONVERSION FACTOR |
| F | 0.67 | |
| AD | 0.85 | |
| PD | 0.85 | |
| WET/CC | 0.85 | |

¹ Distribution will also be affected, consult factory.

² Beam angle based on CS Reflector Finish.

- Photometrics tested in accordance with IESNA LM-79. Results based on CS (O and F trim types), or WH (L, R and A trim types) reflector finish, W distribution, 80 CRI/3500K CCT, wattage for 120V input, and 25°C ambient temperature. Actual performance may vary +/-5%.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier tables to calculate additional options.

BEAM ANGLE

| | TRIM TYPE ^[2] | | | |
|---|--------------------------|--------------------|-----|-----|
| | O | F | L | R |
| W | 70° | Consult Factory | 50° | 55° |
| M | 40° | | 30° | 30° |
| N | 15° | | 20° | 20° |
| S | 8° | | 14° | 14° |

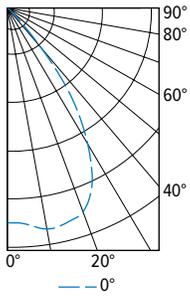
PHOTOMETRY CONTINUED ON NEXT PAGE



2DR LED 2" Downlight – Round

PHOTOMETRY

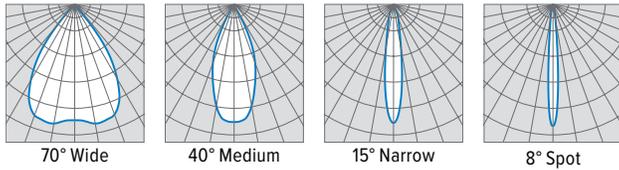
2DR-L25/835-DIM-UNV-OW-OF-CS Report #: 13131414; 11/22/19 | Total Luminaire Output: 2479 lumens; 30.1 Watts | Efficacy: 82.3 lm/W | 80 CRI; 3500K CCT



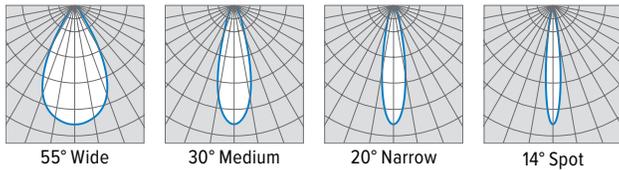
| CANDLEPOWER DISTRIBUTION | VERTICAL ANGLE | HORIZONTAL ANGLE | ZONAL LUMENS |
|--------------------------|----------------|------------------|--------------|
| | | 0° | |
| | 0 | 2011 | |
| | 5 | 2033 | 148 |
| | 15 | 2087 | 341 |
| | 25 | 1859 | 429 |
| | 35 | 1089 | 271 |
| | 45 | 150 | 39 |
| | 55 | 35 | 12 |
| | 65 | 12 | 4 |
| | 75 | 2 | 1 |
| | 85 | 0 | 0 |
| | 90 | 0 | 0 |

| LUMEN SUMMARY | ZONE | LUMENS | % FIXTURE |
|---------------|--------|--------|-----------|
| | 0 - 40 | 2281 | 92 |
| | 0 - 60 | 2464 | 99 |
| | 0 - 90 | 2479 | 100 |
| | 0-180 | 2479 | 100 |

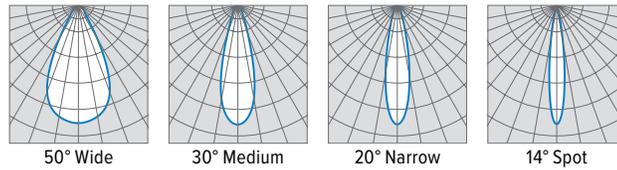
OPEN (O)



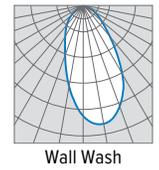
REGRESSED (R)



FLUSH (L)



ANGLED (A)



EMERGENCY BATTERY OPTIONS

Additional limitations apply, see page 1. Specify CEC in the option code when California Energy Commission regulations are required.

| CATALOG NUMBER | DESCRIPTION |
|----------------|--|
| EM/5W | 5-watt emergency battery |
| EM/7W | 7-watt emergency battery ^[1] |
| EM/7W/RTS | 7-watt emergency battery with regressed test switch ^[2] |
| EM/7W/IPRTS | 7-watt emergency battery with IP65 rated regressed test switch ^[3] |
| EM/10W | 10-watt emergency battery ^[4] |
| EM/10W/RTS | 10-watt emergency battery with regressed test switch ^[5] |
| EM/10W/IPRTS | 10-watt emergency battery with IP65 rated regressed test switch ^[6] |

- L9 minimum lumen package required.
- L9 minimum lumen package required. Not available with WET/CC Trim Option. N Mounting Type only. Top access required.
- Must specify IP Trim Option. L9 minimum lumen package required. N Mounting Type only. Top access required.
- L12 minimum lumen package required.
- L12 minimum lumen package required. Not available with WET/CC Trim Option. N Mounting Type only. Top access required.
- Must specify IP Trim Option. L12 minimum lumen package required. N Mounting Type only. Top access required.

MOUNTING DETAILS

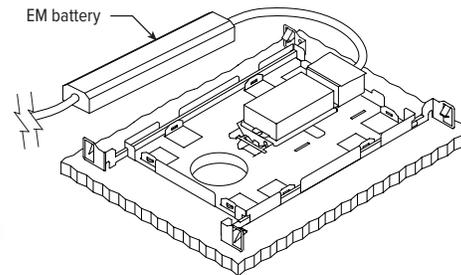
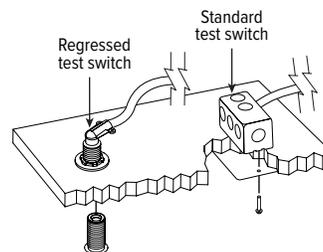


Regressed test switch
ø1-3/4"



Standard test switch
2-3/4" x 4-1/2"

Max remote distance is 50',
connection by others.



REMODEL MOUNTING PLENUM RESTRICTIONS

Additional plenum space required for R mounting when specified with EM battery.

| CATALOG NUMBER | MINIMUM HEIGHT |
|----------------|----------------|
| EM/5W | 9" |
| EM/7W | 11" |
| EM/10W | 12" |

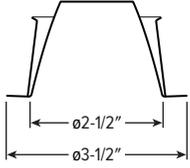


2DR LED 2" Downlight – Round

TRIM TYPE DETAILS

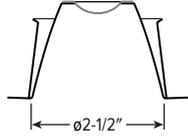
1/2" STANDARD FLANGE TYPE

OPEN (O)

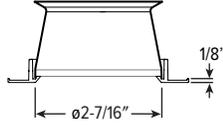


Ceiling Cutout: $\phi 3"$

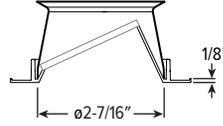
OPEN TOP DIFFUSER (F)



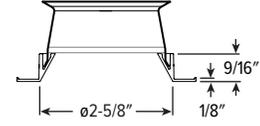
FLUSH (L)



ANGLED (A)

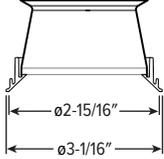


REGRESSED (R)



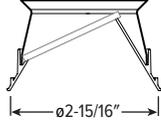
ZERO-FLANGE MUD-IN

FLUSH (L)

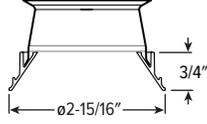


Ceiling Cutout: $\phi 4"$

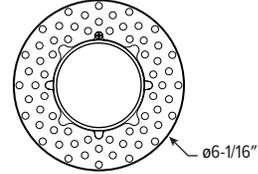
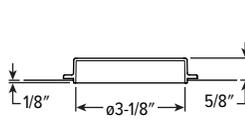
ANGLED (A)



REGRESSED (R)



MUD FLANGE MOUNTING KIT



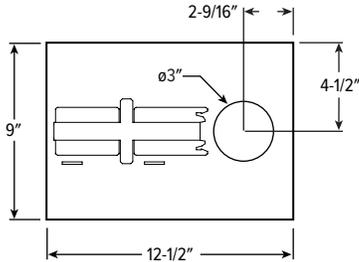
REFLECTOR FINISH DETAILS

| SPC | SG | PW | GD | CG | RG | CS | WH | BL |
|----------------|------------|--------|------|----------------|-----------|---------------------|-------|-------|
| Clear specular | Satin glow | Pewter | Gold | Champagne gold | Rose gold | Clear semi-specular | White | Black |

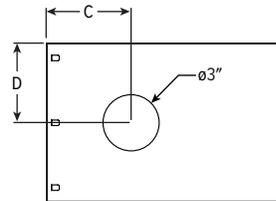
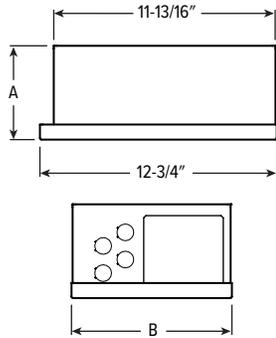


MOUNTING TYPE DETAILS

NEW CONSTRUCTION

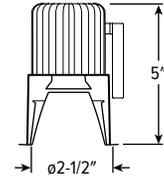


IC-RATED

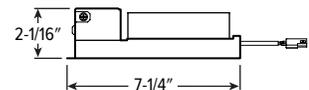


| | DIM, DIM1, DIM LINE | ALL OTHER CONTROLS |
|---|---------------------|--------------------|
| A | 5" | 6-1/16" |
| B | 8-9/16" | 9-1/4" |
| C | 4-9/16" | 8-3/16" |
| D | 4-5/16" | 4-5/8" |

REMODEL CROSS SECTION



DRIVER & JUNCTION BOX



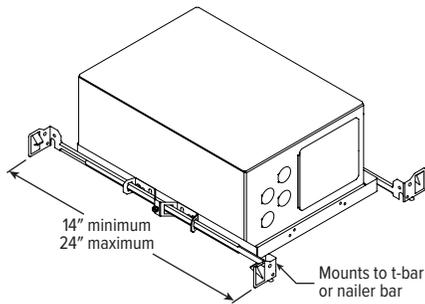
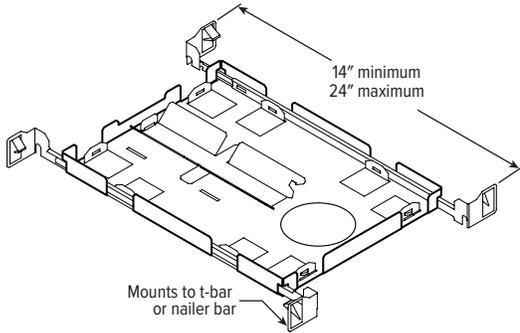
MOUNTING DETAILS CONTINUED ON NEXT PAGE



2DR LED 2" Downlight – Round

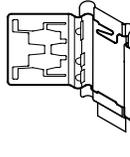
MOUNTING HARDWARE DETAILS

F1 Integral 2-position fixed pan bracket, universal bar hanger included

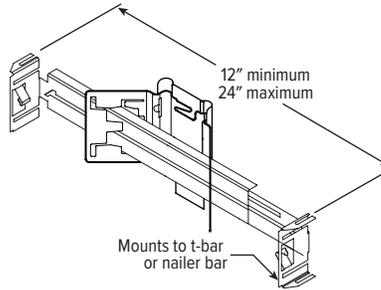


F1 with I Mounting Type

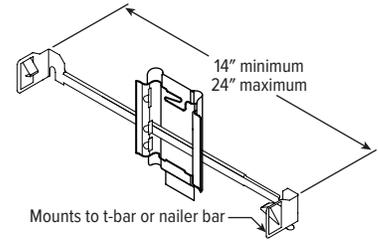
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



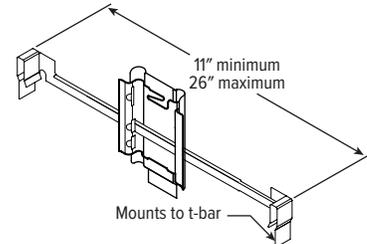
BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included (N Mounting Type only)



CA1 Adjustable caterpillar pan bracket, universal bar hanger included (N Mounting Type only)



CA2 Adjustable caterpillar pan bracket, t-bar hanger included (N Mounting Type only)



SEE NEXT PAGE FOR CONTROL DETAILS.



2DR LED 2" Downlight – Round

AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

FEATURES

Simple

- Gateway-free distributed control
- 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

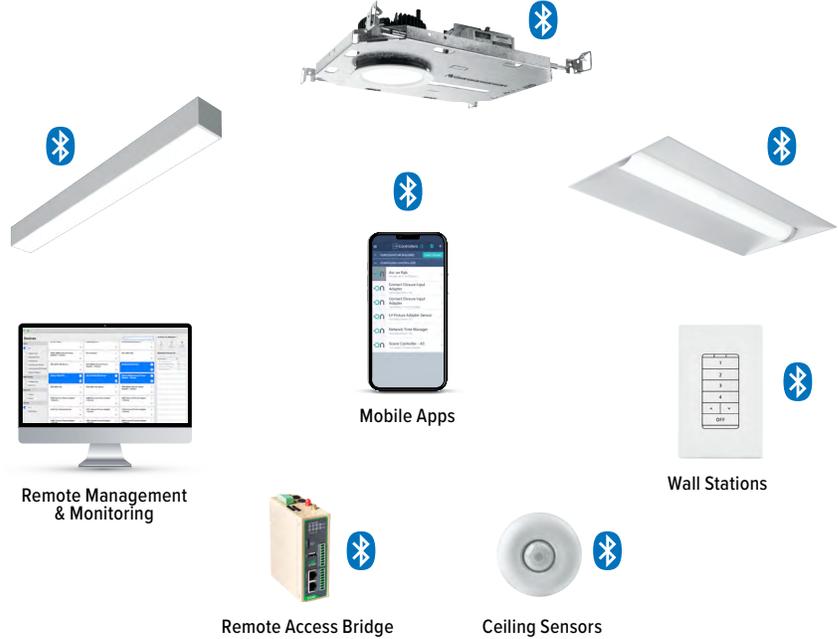


Zone Scanner Web App



Commissioning Pro App

SYSTEM COMPONENTS



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ACCESSORIES

| WALL STATIONS | |
|-----------------|---|
| AVI-B-2401AC-1 | Scene controller - buttons numbered 1-4 and up/down/off, 120-277VAC |
| AVI-B-2402BAT-1 | Scene controller - buttons numbered 1-4 and up/down/off, battery powered |
| AVI-B-2401AC-2 | Dimmer with presets - buttons with percentages and up/down/off, 120-277VAC |
| AVI-B-2402BAT-2 | Dimmer with presets - buttons with percentages and up/down/off, battery powered |
| AVI-B-2401AC-3 | Two button control on/off or hold to dim up/down, 120-277VAC |
| AVI-B-2402BAT-3 | Two button control on/off or hold to dim up/down, battery powered |

| NETWORK | |
|-----------------------|--|
| AVI-RAB-LTE | Remote access bridge |
| AVI-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: L9 minimum for DIM LINE driver when specified with W, M, or N distributions; L7 minimum when specified with S distribution.

R Mounting Type only available with DIM, DIM1, and DIM LINE controls. Top access required with N mounting except using DIM, DIM1, DIM LINE controls. Lutron controls available with N Mounting Type only. 347V may require stepdown transformer, see product builder at hew.com/product-builder

| CATALOG NUMBER | DESCRIPTION |
|----------------|--|
| AVI-LVFA/DA | Avi-on wireless fixture control for use with driver with 12V auxiliary power |
| AWN/DA | Lutron Athena wireless node integral fixture control, RF only, for use with driver with 12V auxiliary power |
| VRF/DBI/LDE1 | Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF) and digital link interface, with Lutron Hi-lume 1% EcoSystem dimming LED driver |
| FCJS/DIM | Lutron Vive PowPak wireless fixture control with dimming driver |
| FCJS/DIM1 | Lutron Vive PowPak wireless fixture control with 1% dimming driver |
| DIM | Dimming driver prewired for 0-10V low voltage applications |
| DIM1 | 1% dimming driver prewired for 0-10V low voltage applications |
| DIM LINE | Line voltage dimming driver (TRIAC and ELV compatible at 120V only) |
| DALI | DALI dimming driver |
| DMX | 0.1% dimming driver for DMX controls |
| LDE1 | Lutron Hi-lume 1% EcoSystem dimming LED driver |