

CATALOG #: \_\_\_\_\_

TYPE: \_\_\_\_\_

PROJECT: \_\_\_\_\_

## NEW CONSTRUCTION AND REMODEL

ORDERING EXAMPLE: 6DS - L20/835 - OPTIONS - CONTROL/DIM - UNV - LW - OF - WH - TRIM OPTIONS - N - F1



## HOUSING

| SERIES | LUMENS <sup>[1]</sup>   | CRI                         | CCT  | OPTIONS  | CONTROL  | DRIVER   | VOLTAGE                                 |
|--------|---|-----------------------------|--|--|--|--|---|
| 6DS    | L10 1,000lm <sup>[2]</sup><br>L15 1,500lm<br>L20 2,000lm<br>L30 3,000lm<br>L40 4,000lm<br>L50 5,000lm<br>L60 6,000lm<br>L70 7,000lm | 8 80<br>9 90 <sup>[3]</sup> | 27 2700K<br>30 3000K<br>35 3500K<br>40 4000K<br>50 5000K | See page 4 for EMERGENCY BATTERY OPTIONS.<br>ATH Airtight construction<br>CP Chicago plenum (CCEA) <sup>[4]</sup><br>F Fuse kit<br>SDT Stepdown transformer <sup>[5]</sup> | See page 6 for ADDITIONAL CONTROL/DRIVER OPTIONS.<br>None<br>AVI-LVFA Avi-on wireless fixture control <sup>[6]</sup><br>AWNRLutron Athena wireless node integral fixture control, RF only <sup>[7]</sup> | See page 6 for ADDITIONAL CONTROL/DRIVER OPTIONS.<br>DIM Dimming driver, 0-10V<br>DIM1 1% Dimming driver, 0-10V<br>DA Driver with 12V auxiliary power, without external dimming wires <sup>[8]</sup> | UNV 120-277V<br>347 347V <sup>[9]</sup> |

## TRIM<sup>[10]</sup>

| TRIM TYPE   | DISTRIBUTION <sup>[11]</sup>  | FLANGE TYPE  | REFLECTOR FINISH   | TRIM OPTIONS  |
|---|---|--|--|---|
| O Open reflector<br>L Flush lens<br>R Regressed lens<br>A Angled lens <sup>[12]</sup> | W Wide<br>55° Open<br>65° Flush<br>M Medium <sup>[13]</sup><br>50° Open<br>35° Flush<br>35° Regressed<br>N Narrow <sup>[14]</sup><br>45° Open<br>25° Flush<br>25° Regressed<br>WW Wall wash <sup>[15]</sup> | OF 1/2" standard flange<br>SF 1/4" mud-in flange <sup>[16]</sup> | Open trim types<br>CS Clear semi-specular anodize<br>SG Satin-glow anodize<br>GD Gold anodize<br>CG Champagne gold anodize<br>PW Pewter anodize<br>SPC Clear specular anodize<br>RG Rose gold anodize<br><br>Lens trim types<br>CS Clear semi-specular powder coat<br>WH White texture powder coat<br>BL Black texture powder coat<br>MB Black texture splay with white flange <sup>[17]</sup> | MWT Textured white trim flange <sup>[18]</sup><br>IP IP65 rated trim <sup>[19]</sup><br>AD Diffuse acrylic lens <sup>[20]</sup><br>PD Diffuse 1/8" polycarbonate lens <sup>[21]</sup><br>WET/CC Wet location, covered ceiling listed <sup>[22]</sup><br>AM Anti-microbial <sup>[23]</sup> |

## MOUNTING

### MOUNTING TYPE<sup>[24]</sup>

- N Open pan for new construction
- I IC-rated enclosure for new construction<sup>[26]</sup>
- R Remodel kit<sup>[27]</sup>

### MOUNTING HARDWARE<sup>[25]</sup>

- F1 Integral 2-position fixed pan bracket, universal bar hanger included<sup>[28]</sup>
- BA1 Adjustable butterfly pan bracket, bar hanger not included<sup>[29]</sup>
- CA1 Adjustable caterpillar pan bracket, universal bar hanger included<sup>[30]</sup>

## NOTES

- Lumen output based on L trim type, W distribution and WH finish, 3500K/80CRI. Actual lumens may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
- Not available with EM/10W emergency batteries.
- Extended lead times may apply. Consult factory for availability.
- I Mounting Type required.
- May be required for 347V, see product builder at [hew.com/product-builder](http://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 EM batteries, DA or DMX Drivers.
- Trim ships separately.
- Beam angle based on CS or WH reflector finish.
- Available with WW Distribution only.
- Not available with L50 lumen package or higher.
- Not available with L50 lumen package or higher.
- O and A Trim Types only.
- For use with mud-in plaster construction only, supplied with mud flange installation kit. See page 3 for FLANGE TYPE DETAILS. Not available with ATH or IP options.

- R Trim Type only Not available with MWT.
- Not available with WH Reflector Finish or L Trim Type.
- L and R trim types only.
- Not available with O trim type. W and WW distributions only.
- Not available with O trim type. W and WW distributions only.
- Not available with O Trim Type. Not available with PD trim option.
- WH and BL Reflector Finishes only.
- Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 5 for MOUNTING TYPE DETAILS.
- Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.
- L20 lumen package max. L30 available, wide distribution only. Not available with EM batteries.
- Also used in new construction sheetrock ceilings. Pan-less installation.
- N and I Mounting Types only. I Mounting requires external brackets.
- N Mounting Type only.
- N Mounting Type only.



# 6DS<sup>LED</sup> 6" Downlight – Square

## FEATURES

- Beam angles ranging from 25° narrow to 65° wide for tailored performance
- Square shape accentuates architectural styles
- New construction mounting pan, IC-rated, or pan-less remodel kit available
- Die-cast trim choices include flush, regressed or angled lens
- Spring clip retention system eliminates trim sag
- Fully room-side accessible
- Wireless in-fixture control solutions available



## 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" – 2-1/4".
- **OPEN REFLECTOR** – Low-iridescent anodized aluminum with top diffuser.
- **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>55,000 hours. Estimated L70 = 200,000 hours.
- **MOUNTING** – Recessed. 20 ga. galvanized steel mounting pan for new construction or IC-rated enclosure. Remodel kit option includes receiver bracket hardware. Minimum 24" O.C. marked spacing required for L50 - L70 lumen packages.
- **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.
  - 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 [www.cacertappliances.energy.ca.gov](http://www.cacertappliances.energy.ca.gov).
  - Complies with the Buy American Act and other federal regulations. Request certification at [hew.com/baa](http://hew.com/baa).
- **WARRANTY** – 5-year limited warranty, see [hew.com/warranty](http://hew.com/warranty).

## FIXTURE PERFORMANCE DATA

### OPEN REFLECTOR TRIM TYPE

|     | DIST. | DELIVERED LUMENS | WATTAGE | EFFICACY (lm/W) |
|-----|-------|------------------|---------|-----------------|
| L10 | W     | 966              | 10.6    | 91              |
|     | M     | 789              | 10.6    | 74              |
|     | N     | 777              | 10.6    | 73              |
| L15 | W     | 1452             | 16.0    | 91              |
|     | M     | 1185             | 16.0    | 74              |
|     | N     | 1167             | 16.0    | 73              |
| L20 | W     | 1936             | 22.5    | 86              |
|     | M     | 1580             | 22.5    | 70              |
|     | N     | 1556             | 22.5    | 69              |
| L30 | W     | 2823             | 31.0    | 91              |
|     | M     | 2283             | 31.0    | 74              |
|     | N     | 2196             | 31.0    | 71              |
| L40 | W     | 3807             | 41.7    | 91              |
|     | M     | 3066             | 41.7    | 74              |
|     | N     | 2855             | 41.7    | 69              |
| L50 | W     | 4786             | 52.0    | 92              |
|     | M     | –                | –       | –               |
|     | N     | –                | –       | –               |
| L60 | W     | 5599             | 64.6    | 87              |
|     | M     | –                | –       | –               |
|     | N     | –                | –       | –               |
| L70 | W     | 6557             | 78.1    | 84              |
|     | M     | –                | –       | –               |
|     | N     | –                | –       | –               |

### FLUSH LENS TRIM TYPE

|     | DIST. | DELIVERED LUMENS | WATTAGE | EFFICACY (lm/W) |
|-----|-------|------------------|---------|-----------------|
| L10 | W     | 1037             | 10.6    | 98              |
|     | M     | 1056             | 10.6    | 100             |
|     | N     | 1031             | 10.6    | 97              |
| L15 | W     | 1551             | 16.0    | 97              |
|     | M     | 1589             | 16.0    | 99              |
|     | N     | 1547             | 16.0    | 97              |
| L20 | W     | 2068             | 22.5    | 92              |
|     | M     | 2118             | 22.5    | 94              |
|     | N     | 2063             | 22.5    | 92              |
| L30 | W     | 3030             | 31.0    | 98              |
|     | M     | 3056             | 31.0    | 99              |
|     | N     | 2916             | 31.0    | 94              |
| L40 | W     | 4087             | 41.7    | 98              |
|     | M     | 4104             | 41.7    | 98              |
|     | N     | 3791             | 41.7    | 91              |
| L50 | W     | 5137             | 52.0    | 99              |
|     | M     | –                | –       | –               |
|     | N     | –                | –       | –               |
| L60 | W     | 6009             | 64.6    | 93              |
|     | M     | –                | –       | –               |
|     | N     | –                | –       | –               |
| L70 | W     | 7038             | 78.1    | 90              |
|     | M     | –                | –       | –               |
|     | N     | –                | –       | –               |

### REGRESSED LENS TRIM TYPE

|     | DIST. | DELIVERED LUMENS | WATTAGE | EFFICACY (lm/W) |
|-----|-------|------------------|---------|-----------------|
| L10 | W     | 994              | 10.6    | 94              |
|     | M     | 1026             | 10.6    | 97              |
|     | N     | 1008             | 10.6    | 95              |
| L15 | W     | 1494             | 16.0    | 93              |
|     | M     | 1547             | 16.0    | 97              |
|     | N     | 1514             | 16.0    | 95              |
| L20 | W     | 1992             | 22.5    | 89              |
|     | M     | 2062             | 22.5    | 92              |
|     | N     | 2019             | 22.5    | 90              |
| L30 | W     | 2905             | 31.0    | 94              |
|     | M     | 2971             | 31.0    | 96              |
|     | N     | 2849             | 31.0    | 92              |
| L40 | W     | 3917             | 41.7    | 94              |
|     | M     | 3990             | 41.7    | 96              |
|     | N     | 3705             | 41.7    | 89              |
| L50 | W     | 4924             | 52.0    | 95              |
|     | M     | –                | –       | –               |
|     | N     | –                | –       | –               |
| L60 | W     | 5760             | 64.6    | 89              |
|     | M     | –                | –       | –               |
|     | N     | –                | –       | –               |
| L70 | W     | 6746             | 78.1    | 86              |
|     | M     | –                | –       | –               |
|     | N     | –                | –       | –               |

## 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              |

| OPEN REFLECTOR FINISH |                     |                   |
|-----------------------|---------------------|-------------------|
| CATALOG NUMBER        | REFLECTOR FINISH    | CONVERSION FACTOR |
| CS                    | Clear semi-specular | 1.00              |
| SG                    | Satin-glow          | 0.92              |
| GD                    | Gold                | 0.93              |
| CG                    | Champagne Gold      | 0.96              |
| PW                    | Pewter              | 0.86              |
| SPC                   | Specular            | 1.02              |
| RG                    | Rose Gold           | 0.88              |
| WH                    | White, textured     | 0.89              |
| BL                    | Black, textured     | 0.79              |

| TRIM           |                   |
|----------------|-------------------|
| CATALOG NUMBER | CONVERSION FACTOR |
| AD             | 0.85              |
| PD             | 0.85              |

- Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25°C ambient temperature.
- Wattage shown is based on 120V input.
- Results based on 3500K, 80 CRI, actual lumens may vary +/-5%
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier table to calculate additional options.

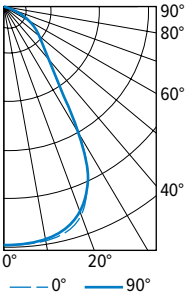


# 6DS LED

## 6" Downlight – Square

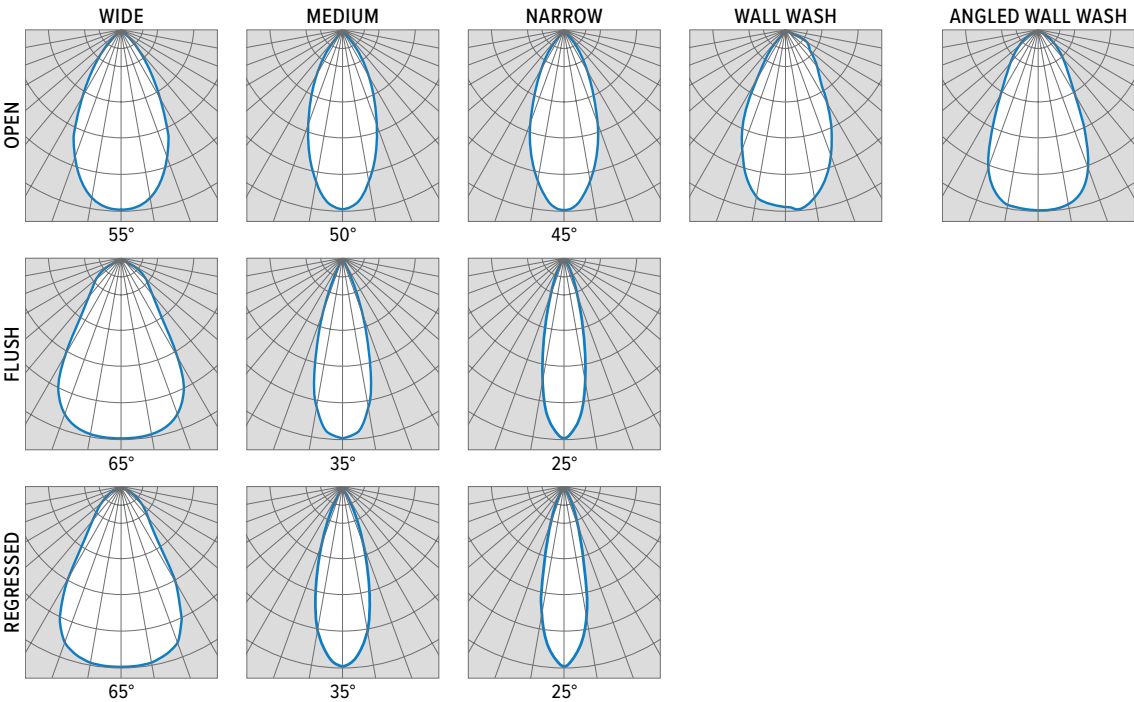
### PHOTOMETRY

6DS-L20/835-DIM-UNV-LW-OF-WH Report #: 20349; 04/24/18 | Total Luminaire Output: 2068 lumens; 22.5 Watts | Efficacy: 92.1 lm/W | 83.5 CRI; 3456K CCT

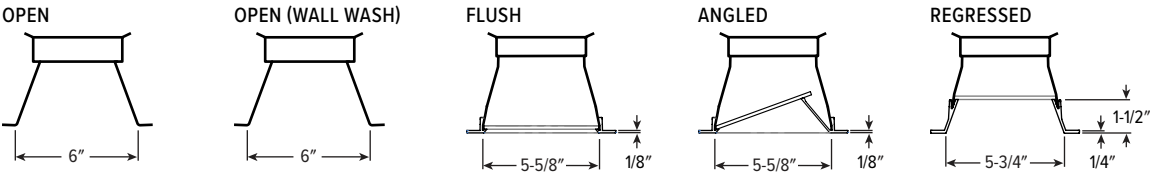


| CANDLEPOWER DISTRIBUTION | VERTICAL ANGLE | HORIZONTAL ANGLE |      |      | ZONAL LUMENS |
|--------------------------|----------------|------------------|------|------|--------------|
|                          |                | 0°               | 45°  | 90°  |              |
|                          | 0              | 1403             | 1403 | 1403 |              |
|                          | 5              | 1407             | 1400 | 1402 | 134          |
|                          | 15             | 1375             | 1357 | 1357 | 386          |
|                          | 25             | 1145             | 1263 | 1150 | 553          |
|                          | 35             | 524              | 845  | 526  | 408          |
|                          | 45             | 318              | 367  | 311  | 261          |
|                          | 55             | 201              | 206  | 199  | 182          |
|                          | 65             | 103              | 103  | 100  | 101          |
|                          | 75             | 40               | 39   | 38   | 41           |
|                          | 85             | 3                | 2    | 4    | 4            |
|                          | 90             | 0                | 0    | 0    |              |

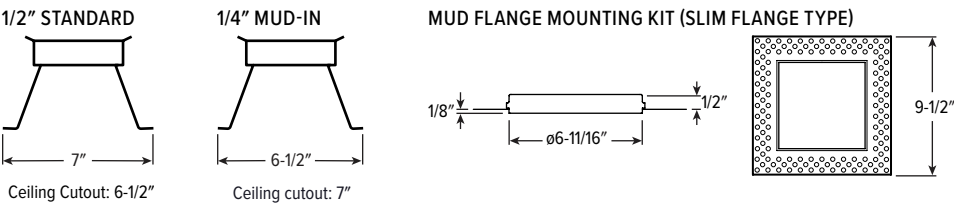
| LUMEN SUMMARY | ZONE    | LUMENS | % FIXTURE |
|---------------|---------|--------|-----------|
|               | 0 - 30  | 1072   | 52        |
|               | 0 - 40  | 1480   | 72        |
|               | 0 - 60  | 1922   | 93        |
|               | 0 - 90  | 2068   | 100       |
|               | 0 - 180 | 2068   | 100       |



### TRIM TYPE DETAILS










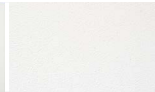
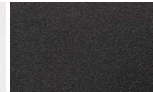
### FLANGE TYPE DETAILS



# 6DS LED

## 6" Downlight – Square

### 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   |
|  |  |  |  |  |  |  |  |  |

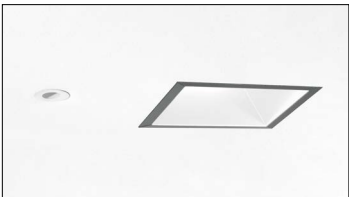
### EMERGENCY BATTERY OPTIONS

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

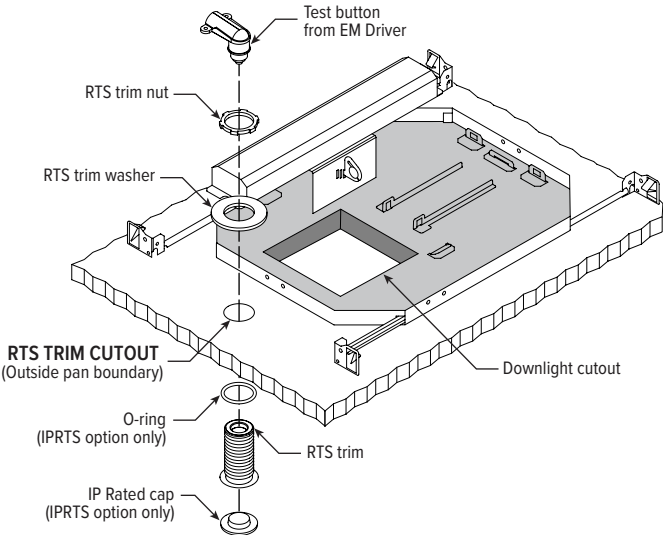
| CATALOG NUMBER | DESCRIPTION   |
|----------------|---|
| EM/7W          | 7-watt emergency battery <sup>[1]</sup>                             |
| EM/7W/RTS      | 7-watt emergency battery with regressed test switch <sup>[2]</sup>  |
| EM/7W/IPRTS    | 7-watt emergency battery with IP65 rated regressed test switch      |
| EM/10W         | 10-watt emergency battery <sup>[1]</sup>                            |
| EM/10W/RTS     | 10-watt emergency battery with regressed test switch <sup>[2]</sup> |
| EM/10W/IPRTS   | 10-watt emergency battery with IP65 rated regressed test switch     |

- <sup>1</sup> Not available with IP Option.  
<sup>2</sup> Not available with IP or WET/CC Options.

### REGRESSED TEST SWITCH DETAILS



Shown Installed



### APERTURE ADAPTOR ORDERING INFO

| ORDERING EXAMPLE: 4DR - GR - 0575 - WHT                    |                |   |  |
|--|----------------|---|--|
| SERIES   | CATALOG NUMBER | CEILING CUTOUT  | FINISH   |
| 4AR 6AR<br>4DR 6DR<br>4DS 6DS<br>4PR 6PR<br>4PS 6PS<br>8DR | GR             | Specify ceiling cutout in 1/8" increments.<br>Example: 5.75" = 0575<br><br>See Kit Components for application limits. | CS Clear semi-specular powder coat<br>WH White texture powder coat<br>BL Black texture powder coat |

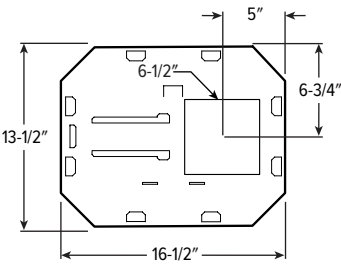
For use with remodel downlights. Additional finishes available, consult factory.  
For limitations and instructions, see [hew.com/aperture-adaptor.pdf](http://hew.com/aperture-adaptor.pdf)



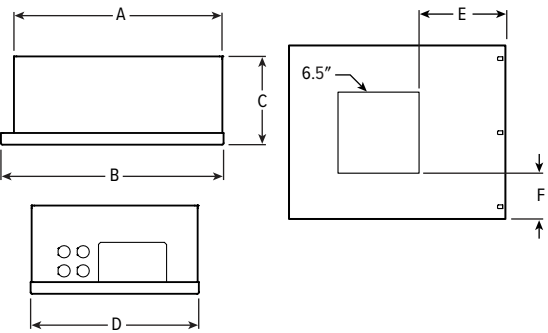
# 6DS<sup>LED</sup> 6" Downlight – Square

## MOUNTING TYPE DETAILS

### NEW CONSTRUCTION

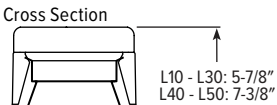


### IC-RATED

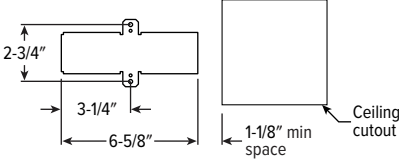


| LUMENS    | LENGTH   |         |        |         |        |        |
|-----------|----------|---------|--------|---------|--------|--------|
|           | A        | B       | C      | D       | E      | F      |
| L10 - L20 | 15-3/16" | 16"     | 6-3/8" | 12-1/8" | 6-1/4" | 2-7/8" |
| L30       | 16-5/8"  | 17-1/2" | 7-7/8" | 14"     | 7"     | 3-3/4" |

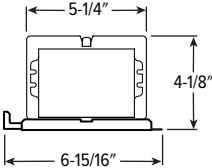
### REMODEL



### Receiver Bracket

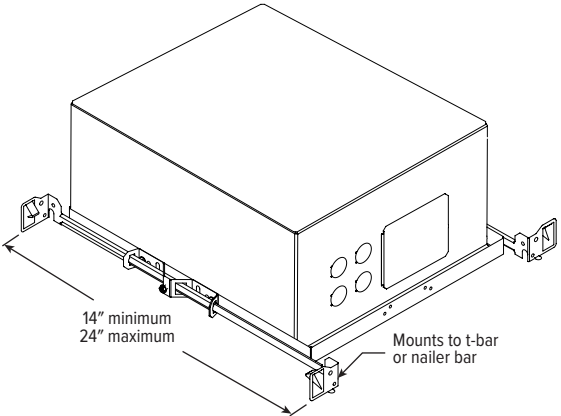
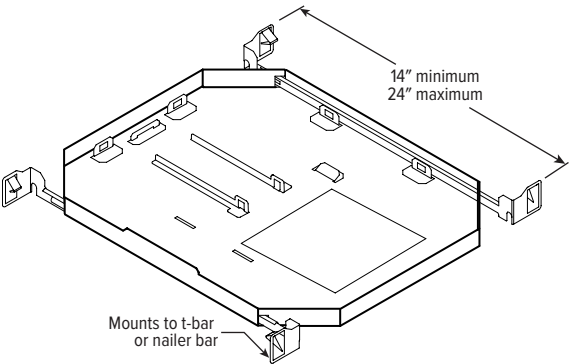


### Driver and Junction Box



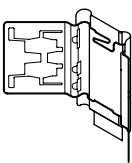
## MOUNTING HARDWARE DETAILS

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

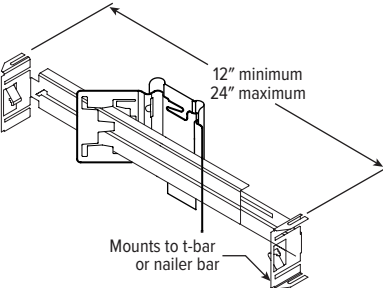


F1 with I Mounting Type

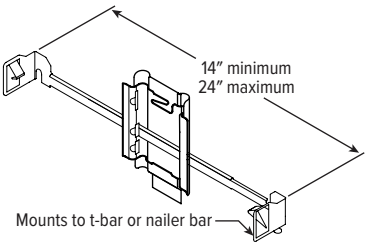
### BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



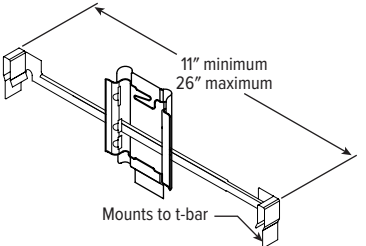
### BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included (N Mounting Type only)



### 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)



# 6DS<sup>LED</sup> 6" Downlight – Square

## 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

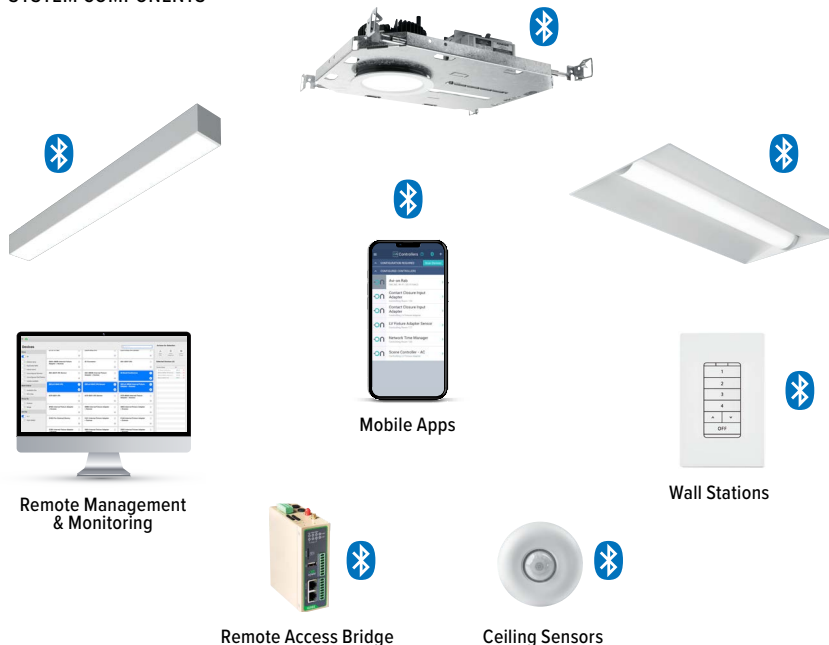


Zone Scanner  
Web App



Commissioning  
Pro App

### SYSTEM COMPONENTS



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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 – LTE connection    |
| AVI-2001RAB-01-C      | Remote access bridge – Wifi connection   |
| 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](http://hew.com/avi-on)

### ADDITIONAL CONTROL/DRIVER OPTIONS

Lumen restrictions apply: L40 max for DMX, Lutron, and DALI drivers, L50 max for DIM LINE driver. R mounting type requires top access with DMX controls. R Mounting Type not available with FCJS controls. R Mounting Type requires 12" minimum plenum depth when specified with VRF/DBI controls. 347V may require stepdown transformer, see product builder at [hew.com/product-builder](http://hew.com/product-builder). I Mounting Type not available with Lutron controls.

| CATALOG NUMBER | DESCRIPTION  |
|----------------|--|
| AVI-LVFA/DA    | Avi-on wireless fixture control 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   |

