

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

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

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



**FEATURES**

- 3-7/16" deep housing installs easily within limited plenum space
- Gasketed door frame features offset mitered corners to eliminate light leaks
- Cam latches close securely and allow hassle-free maintenance
- Reversible door hinges and latches allow access on either side
- Deep reinforcement ribs provide added strength
- Integral T-bar clips quickly secure fixture to structure
- Maximize energy savings with efficacies as high as 137 lm/W
- Wireless in-fixture control solutions available
- Made Right Here® in the USA

**SPECIFICATIONS**

- HOUSING – 22-gauge die-formed C.R.S.
- DOOR FRAME – 22-gauge C.R.S., offset mitered corners, cam latches, and T-style hinges.
- SHIELDING – Frosted acrylic, pattern #12, .095" thick.
- FINISH – 92% minimum average reflective white polyester powder coat bonded to phosphate-free, multi-stage pretreated metal. All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.
- ELECTRICAL – High quality mid-power LED boards. L85 at 50,000 hours. 25°C maximum ambient operating temperature.
- MOUNTING – NEMA Type "G" 15/16" or 1" grid standard. For NEMA Type "NFG" and "SG" 9/16" grid installations, specify EQCLIPS option. Drywall flange kit available, shipped separately, see page 3 for DRYWALL KIT (DFK) OPTIONS.
- LISTINGS –
  - cCSAus certified as luminaire suitable for dry or damp locations.
  - IC-rated for direct contact with insulation.<sup>[19]</sup>
  - City of Chicago Environmental Air approved when specified with CP option.
  - 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).

**ORDERING EXAMPLE: LPT - 2 4 - L90/835 - S AF12095 - OPTIONS - CONTROL/DIM - UNV**

**ORDERING INFO**

| SERIES | WIDTH | LENGTH              | LUMENS <sup>[1]</sup> | CRI                 | CCT                                                           | DOOR FRAME         | SHIELDING                                                     |
|--------|-------|---------------------|-----------------------|---------------------|---------------------------------------------------------------|--------------------|---------------------------------------------------------------|
| LPT    | 2 2'  | 2 2' <sup>[2]</sup> | 2x2                   | 8 80                | 27 2700K                                                      | S White flat steel | AF12095 Frosted acrylic, pattern #12, .095" thick             |
|        |       | 4 4'                | L27 2,700lm           | 9 90 <sup>[3]</sup> | 30 3000K                                                      |                    | A12125 Clear acrylic, pattern #12, .125" thick <sup>[4]</sup> |
|        |       | L45 4,500lm         |                       | 35 3500K            | AF12125 Frosted acrylic, pattern #12, .125" thick             |                    |                                                               |
|        |       | L54 5,400lm         |                       | 40 4000K            | A19156 Clear acrylic, pattern #19, .156" thick <sup>[5]</sup> |                    |                                                               |
|        |       | 2x4                 | L43 4,300lm           |                     | 50 5000K                                                      |                    | AF19156 Frosted acrylic, pattern #19, .156" thick             |
|        |       |                     | L75 7,500lm           |                     |                                                               |                    |                                                               |
|        |       | L90 9,000lm         |                       |                     |                                                               |                    |                                                               |

**OPTIONS<sup>[6]</sup>**

- See page 2 for EMERGENCY BATTERY OPTIONS.
- EQCLIPS Earthquake clips<sup>[8]</sup>
  - (L\_\_) Additional lower lumen packages available.<sup>[9]</sup> Example: 8,000 nominal lumens = LPT-24-L90/835-SAF12095-(L80).
  - F338 6', 3/8" flex, 3-conductor, No. 18 AWG<sup>[10]</sup>
  - F348 6', 3/8" flex, 4-conductor, No. 18 AWG<sup>[11]</sup>
  - CP Chicago Plenum (CCEA)

**CONTROL<sup>[7]</sup>**

- See page 5 for ADDITIONAL CONTROL OPTIONS.
- None
  - AVI-LVFA Avi-on wireless fixture control<sup>[12]</sup>
  - AVI-LVFA-CS2-PIR Avi-on wireless fixture control with PIR motion and daylight sensor<sup>[13]</sup>
  - AWNR Lutron Athena wireless node integral fixture control, RF only<sup>[14]</sup>
  - AWNS Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing<sup>[15]</sup>

**DRIVER**

See page 5 for ADDITIONAL DRIVER OPTIONS.

- DIM Driver with external dimming wires
- DRV Driver without external dimming wires
- DA Driver with 12V auxiliary power, without external dimming wires<sup>[16]</sup>
- DSR Sensor-ready driver without external dimming wires (D4i DALI-2)<sup>[17]</sup>
- SD40 40% step-dimming driver<sup>[18]</sup>

**VOLTAGE**

- 120 120V
- 277 277V
- UNV 120-277V

**NOTES**

- Lumen output based on AF12095 shielding, 80 CRI/3500K CCT. Actual performance may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA. Additional lumen package available, see options.
- 2' width only.
- Extended lead times may apply. Consult factory for availability.
- LED pixelation will be visible.
- LED pixelation will be visible.
- See page 3 for FLEXIBLE WHIP OPTIONS. See page 3 for DRYWALL KIT (DFK) OPTIONS.
- See page 4 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS. See page 3 for SENSOR & NODE PLACEMENT DETAILS.
- 4 per fixture. Optional for 1" grid installations. Required for 9/16" grid mounting.
- Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.
- DRV only.
- DRV only.
- DA Driver only.
- DA Driver only.
- DA and DSR Drivers only.
- DA and DSR Drivers only.
- Avi-on and Lutron Athena Controls only.
- Lutron Athena Controls only.
- Must specify 120V or 277V.
- IC rating does not apply when L54 and L90 lumen stops are specified with EM options.



## FIXTURE PERFORMANCE DATA

|     | LED PACKAGE | DELIVERED LUMENS | WATTAGE | EFFICACY (lm/W) |
|-----|-------------|------------------|---------|-----------------|
| 2x2 | L27         | 2662             | 21.4    | 124             |
|     | L45         | 4425             | 33.7    | 131             |
|     | L54         | 5376             | 42.4    | 127             |
| 2x4 | L43         | 4306             | 31.4    | 137             |
|     | L75         | 7556             | 61.0    | 124             |
|     | L90         | 9031             | 67.4    | 134             |

- Photometrics tested in accordance with IESNA LM-79. Results based on AF12095 shielding, 80 CRI/3500K CCT, average wattage for 120V through 277V 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.

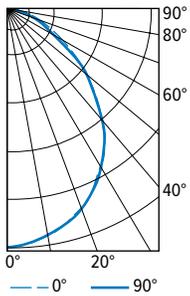
## MULTIPLIER TABLES

|        | COLOR TEMPERATURE |                   |
|--------|-------------------|-------------------|
|        | CCT               | CONVERSION FACTOR |
| 80 CRI | 2700K             | 0.97              |
|        | 3000K             | 0.99              |
|        | 3500K             | 1.00              |
|        | 4000K             | 1.03              |
|        | 5000K             | 1.06              |
| 90 CRI | 2700K             | 0.80              |
|        | 3000K             | 0.82              |
|        | 3500K             | 0.83              |
|        | 4000K             | 0.86              |
|        | 5000K             | 0.89              |

| LENS    | CONVERSION FACTOR |
|---------|-------------------|
| AF12095 | 1.00              |
| AF12125 | 1.00              |
| AF19156 | 0.98              |
| A12125  | 0.99              |
| A19156  | 0.94              |

## PHOTOMETRY

LPT-24-L90/835-SAF12095-DIM Total Luminaire Output: 9031 lumens; 67.4 Watts | Efficacy: 133lm/W | 80 CRI; 3500K CCT

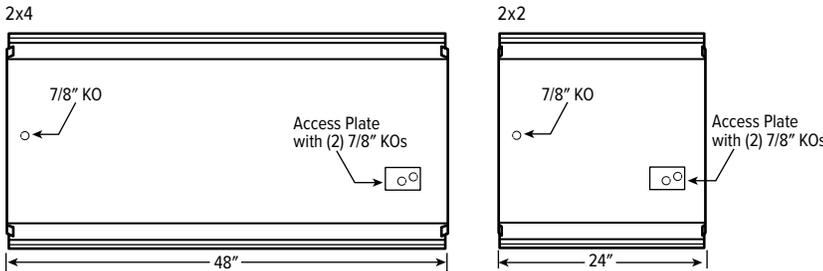


| CANDLEPOWER DISTRIBUTION | VERTICAL ANGLE | HORIZONTAL ANGLE |      |      | ZONAL LUMENS |
|--------------------------|----------------|------------------|------|------|--------------|
|                          |                | 0°               | 45°  | 90°  |              |
|                          | 0              | 4131             | 4131 | 4131 |              |
|                          | 5              | 4070             | 4066 | 4066 | 386          |
|                          | 15             | 3852             | 3852 | 3856 | 1089         |
|                          | 25             | 3477             | 3477 | 3490 | 1597         |
|                          | 35             | 2892             | 2892 | 2900 | 1798         |
|                          | 45             | 2146             | 2115 | 2082 | 1629         |
|                          | 55             | 1378             | 1304 | 1250 | 1186         |
|                          | 65             | 788              | 716  | 718  | 744          |
|                          | 75             | 398              | 378  | 428  | 433          |
|                          | 85             | 152              | 154  | 186  | 168          |
|                          | 90             | 0                | 0    | 0    |              |

| LUMEN SUMMARY | ZONE    | LUMENS | % FIXTURE |
|---------------|---------|--------|-----------|
|               | 0 - 30  | 3072   | 34        |
|               | 0 - 40  | 4870   | 54        |
|               | 0 - 60  | 7685   | 85        |
|               | 0 - 90  | 9031   | 100       |
|               | 0 - 180 | 9031   | 100       |

## FIXTURE DETAILS

### BACKVIEW



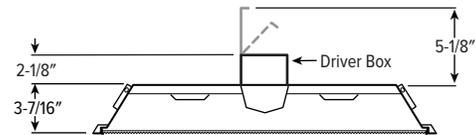
## EMERGENCY BATTERY OPTIONS

Specify CEC in the option code when California Energy Commission regulations are required.

| CATALOG NUMBER | DESCRIPTION                                         |
|----------------|-----------------------------------------------------|
| EM/10W         | 10-watt emergency battery <sup>1</sup>              |
| EM/10W/BMTD    | Back-mounted 10-watt emergency battery <sup>2</sup> |
| EM/12W/BMTD    | Back-mounted 12-watt emergency battery <sup>3</sup> |
| EM/14W         | 14-watt emergency battery <sup>1</sup>              |
| EM/14W/BMTD    | Back-mounted 14-watt emergency battery <sup>2</sup> |

- 2x4 only.
- 2x2 only.
- Not available when CEC regulations are required.

### BMTD DETAILS



Additional plenum depth is required for installation and servicing. Not available with NEMA Type "F" applications. Access required through adjacent tile in grid system.



## FLEXIBLE WHIP OPTIONS

All Williams recessed troffers are available with a flexible metallic wiring harness, factory-attached and hard-wired to the luminaire. See ordering information table.

Straight connectors are a snap-in type. Consult factory for wiring harness utilizing connectors secured by lock nuts, optional flex size, lengths, and other wire sizes or circuitry. Three-wire flex utilizes black, white, and green wire. Four-wire flex utilizes black, white, red, and green wire. Adding an emergency option requires an additional wire.

Williams fixtures are UL listed to provide factory-installation of several manufacturers' modular wiring devices. Consult factory for availability and ordering information.

| DESIGNATION | DESCRIPTION                                                        | DRIVER        |
|-------------|--------------------------------------------------------------------|---------------|
| F338        | 6' of 3/8" flex, (3) No. 18 AWG wires with (2) straight connectors | DRV, LTE LINE |
| F348        | 6' of 3/8" flex, (4) No. 18 AWG wires with (2) straight connectors | SD40          |
| F334        | 6' of 3/8" flex, (3) No. 14 AWG wires with (2) straight connectors | DRV, LTE LINE |
| F344        | 6' of 3/8" flex, (4) No. 14 AWG wires with (2) straight connectors | SD40          |
| F358        | 6' of 3/8" flex, (5) #18 AWG wires with (2) straight connectors    | DIM, DALI     |

## DRYWALL KIT (DFK) OPTIONS

### ORDERING INFO

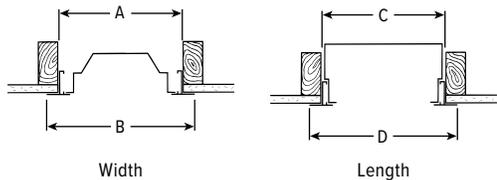
| EXAMPLE: DFK - 24 48 W |       |        |                          |
|------------------------|-------|--------|--------------------------|
| SERIES                 | WIDTH | LENGTH | FINISH                   |
| DFK Drywall kit        | 24 2' | 24 2'  | W White                  |
|                        | 24 2' | 48 4'  | AMW Anti-microbial white |

### INSTALLATION DIMENSIONS

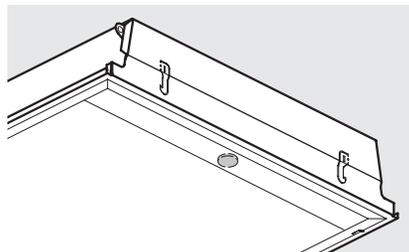
| NOMINAL SIZE | ROUGH-IN  |            | FINISH TRIM SIZE |            |
|--------------|-----------|------------|------------------|------------|
|              | WIDTH (A) | LENGTH (C) | WIDTH (B)        | LENGTH (D) |
| 2' x 2'      | 24-3/8"   | 24-3/8"    | 25-5/16"         | 25-5/16"   |
| 2' x 4'      | 24-3/8"   | 48-3/8"    | 25-5/16"         | 49-5/16"   |

### TYPICAL INSTALLATION

Refer to table for dimensions.



## SENSOR & NODE PLACEMENT DETAILS



SEE NEXT PAGE FOR CONTROL DETAILS.



## 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

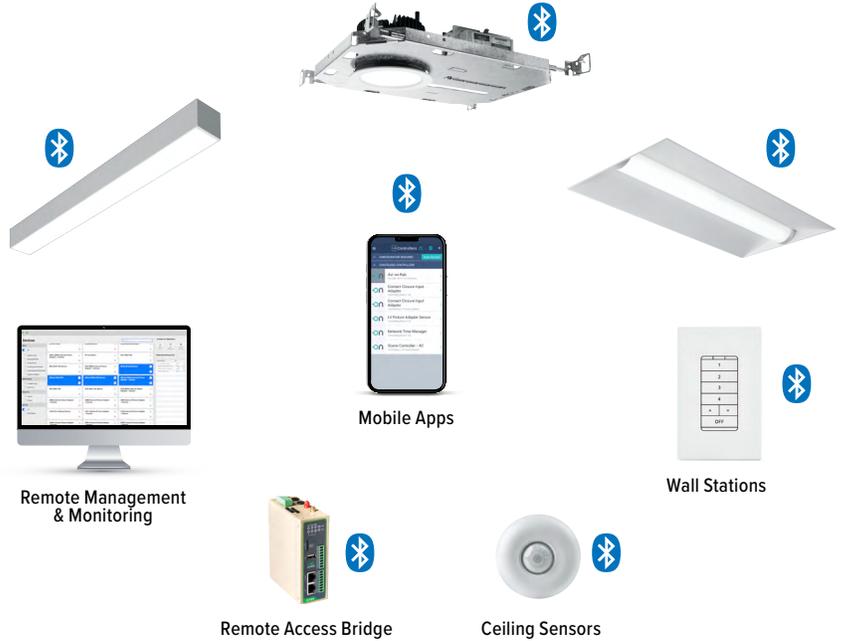


Zone Scanner Web App



Commissioning Pro App

### SYSTEM COMPONENTS



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### ACCESSORIES

#### WALL STATIONS

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

#### NETWORK

|                    |                                          |
|--------------------|------------------------------------------|
| <b>AVI-RAB-LTE</b> | Remote access bridge                     |
| <b>AVI-KIT-NTM</b> | Network time manager with battery backup |

#### CEILING MOUNT SENSORS

|                         |                                      |
|-------------------------|--------------------------------------|
| <b>AVI-KIT-SEN-DUCM</b> | PIR motion and ultrasonic sensor kit |
| <b>AVI-KIT-SEN-ICM</b>  | PIR motion and photocell sensor kit  |

For load controllers and additional accessory info, see [hew.com/avi-on](http://hew.com/avi-on)

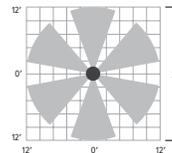
### AVI-LVFA-CS2-PIR Avi-on wireless fixture control with PIR motion and daylight sensor. DA Driver only.

#### SPECIFICATIONS

|                          |                          |
|--------------------------|--------------------------|
| <b>TYPE</b>              | PIR Motion + Daylight    |
| <b>MOUNTING HEIGHT</b>   | 8' - 10'                 |
| <b>DETECTION ANGLE</b>   | 360°                     |
| <b>TEMPERATURE RANGE</b> | -30° to 50°C             |
| <b>RELATIVE HUMIDITY</b> | 10 to 80% non-condensing |
| <b>IP RATING</b>         | IP20                     |
| <b>MANUFACTURER</b>      | Avi-On                   |



#### SENSOR COVERAGE PATTERNS



#### SENSOR DETAIL



Dimensions: 13/16" x 2-1/4"



## ADDITIONAL CONTROL OPTIONS

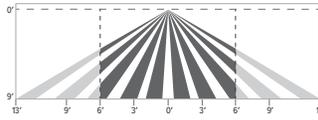
**AWNS** Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing. DA and DSR Drivers only.

| SPECIFICATIONS    |                                                          |
|-------------------|----------------------------------------------------------|
| TYPE              | Radio Frequency                                          |
| MOUNTING HEIGHT   | 8' – 12'                                                 |
| DETECTION ANGLE   | 360°                                                     |
| TEMPERATURE RANGE | 0° to 55°C                                               |
| RELATIVE HUMIDITY | 0 to 90%, non-condensing                                 |
| COMMISSIONING     | Clear Connect gateway – Type X with app (iOS or Android) |
| MANUFACTURER      | Lutron                                                   |



### SENSOR COVERAGE PATTERNS

9' height: ø12' coverage



Motion Sensor Coverage

| CEILING HEIGHT | COVERAGE AREA (SQ FT) |
|----------------|-----------------------|
| 8'             | 114                   |
| 9'             | 144                   |
| 10'            | 178                   |
| 12'            | 256                   |

### SENSOR DETAIL



Dimensions: ø1-1/8"

## ATHENA CONTROL OPTIONS

| CATALOG NUMBER | DESCRIPTION                                                                                                                                                            |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AWNDR          | Lutron Athena wireless node integral fixture control, RF only, for use with D4i DALI-2 or driver with 12V auxiliary power                                              |
| AWNS           | Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing, for use with D4i DALI-2 or driver with 12V auxiliary power               |
| AWNDR-BL       | Lutron Athena wireless node integral fixture control, RF only, for use with D4i DALI-2 or driver with 12V auxiliary power, black finish                                |
| AWNS-BL        | Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing, for use with D4i DALI-2 or driver with 12V auxiliary power, black finish |

## ADDITIONAL DRIVER OPTIONS

Note: Lumen restrictions apply, consult product builder at [hew.com/product-builder](http://hew.com/product-builder).

| CATALOG NUMBER | DESCRIPTION                                                       |
|----------------|-------------------------------------------------------------------|
| DRV            | Driver prewired for non-dimming applications                      |
| 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, 120V only) |
| DIM TRC        | Line voltage dimming driver (TRIAC compatible, 120V only)         |
| DA             | Driver with 12V auxiliary power                                   |
| DSR            | Sensor-ready driver (D4i DALI-2)                                  |
| SD40           | 40% step-dimming driver                                           |
| SD50           | 50% step-dimming driver                                           |
| DALI           | DALI dimming driver                                               |
| LDE1           | Lutron Hi-lume 1% EcoSystem dimming LED driver                    |

