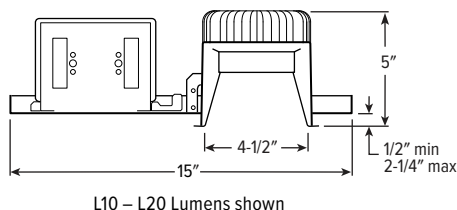
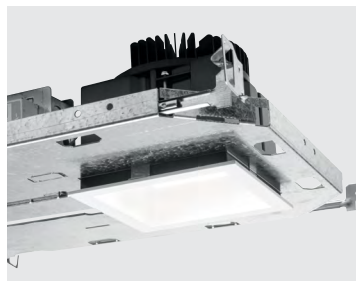


4DS^{LED} 4.5" Downlight – Square



CATALOG #: _____

TYPE: _____

PROJECT: _____

L10 – L20 Lumens shown

NEW CONSTRUCTION AND REMODEL



ORDERING EXAMPLE: 4DS - L20/835 - OPTIONS - CONTROL/DIM - UNV - LW - OF - WH - TRIM OPTIONS - N - F1

HOUSING

SERIES	LUMENS ^[1]	CRI	CCT	OPTIONS	CONTROL	DRIVER	VOLTAGE
4DS	L10 1,000lm ^[2]	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
	L15 1,500lm	9 90	30 3000K				347 347V ^[8]
	L20 2,000lm		35 3500K	See page 3 for APERTURE ADAPTOR ORDERING INFO.	– None	DIM Dimming driver, 0-10V	
	L30 3,000lm		40 4000K		AVI-LVFA Avi-on wireless fixture control ^[5]	DIM1 1% Dimming driver, 0-10V	
	L40 4,000lm		50 5000K		AWNRLutron Athena wireless node integral fixture control, RF only ^[6]	DA Driver with 12V auxiliary power, without external dimming wires ^[7]	
				ATH Airtight construction			
				F Fuse kit			
				SDT Stepdown transformer ^[3]			
				CP Chicago plenum (CCEA) ^[4]			

TRIM^[9]

TRIM TYPE	DISTRIBUTION	FLANGE TYPE	REFLECTOR FINISH	TRIM OPTIONS
L Flush lens	See page 2 for BEAM ANGLE.	OF 1/2" standard flange	Open trim types	MWT Smooth matte white trim flange ^[16]
O Open reflector		SF 1/4" mud-in flange ^[14]	CS Clear semi-specular anodize	IP IP65 rated trim ^[17]
R Regressed lens	W Wide		SG Satin-glow anodize	AD Diffuse acrylic lens ^[18]
A Angled lens ^[10]	M Medium ^[11]		GD Gold anodize	PD Diffuse 1/8" polycarbonate lens ^[19]
	N Narrow ^[12]		CG Champagne gold anodize	WET/CC Wet location, covered ceiling listed ^[20]
	WW Wall wash ^[13]		PW Pewter anodize	AM Anti-microbial ^[21]
			SPC Clear specular anodize	
			RG Rose gold anodize	
			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 ^[22]	MOUNTING HARDWARE ^[23]
N Open pan for new construction	F1 Integral 2-position fixed pan bracket, universal bar hanger included ^[26]
I IC-rated enclosure for new construction ^[24]	BA1 Adjustable butterfly pan bracket, bar hanger not included ^[27]
R Remodel kit ^[25]	CA1 Adjustable caterpillar pan bracket, universal bar hanger included ^[28]

NOTES

- Lumen output based on L Trim Type, W Distribution and WH Reflector Finish, 80CRI/3500K CCT. Actual performance may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
- Not available with EM/10W emergency batteries.
- May be required for 347V, see product builder at hew.com/product-builder
- I Mounting Type required.
- 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.
- Available with WW Distribution only.
- Not available with L40 lumen package.
- Not available with L40 lumen package.
- A Trim Type only.
- For use with mud-in plaster construction only, supplied with mud flange installation kit. See page 4 for FLANGE TYPE DETAILS. Not available with ATH or IP option.
- 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.
- 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.
- Not available with L30 or L40 lumen packages. 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.



4DS^{LED} 4.5" Downlight – Square

FEATURES

- Beam angles ranging from 25° narrow to 60° wide for tailored performance
- Die-cast trim choices include flush, regressed or angled lens
- Spring clip retention system eliminates trim sag
- IP65-rated die-cast trim includes easy-to-clean flush lens
- Fully room-side accessible
- Low UGR meets LEED and WELL requirements
- Wireless in-fixture control solutions available
- 4 inch aperture is unobtrusive in small scale spaces
- Square shape accentuates architectural styles
- New construction mounting pan, IC-rated, or pan-less remodel kit available
- Title 24 | JA8 compliant
- 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" – 2-1/4".
- **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 L40 lumen package.
- **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.
 - IP65 rated trim when specified with IP option.
 - Complies with ASTM-E283 when specified with ATH option.
 - RoHS compliant.
 - Title 24 (JA8) compliant in select configurations, see cacertappliances.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		FLUSH LENS		REGRESSED LENS	
			DELIVERED LUMENS	EFFICACY (lm/W)	DELIVERED LUMENS	EFFICACY (lm/W)	DELIVERED LUMENS	EFFICACY (lm/W)
L10	W	12.0	947	79	1026	86	986	82
	M	12.0	1045	87	1127	94	1111	93
	N	12.0	1067	89	1144	95	1127	94
L15	W	17.4	1395	80	1511	87	1453	84
	M	17.4	1540	89	1666	96	1637	94
	N	17.4	1573	90	1684	97	1660	95
L20	W	25.0	1893	76	2050	82	1972	79
	M	25.0	2089	84	2261	90	2221	89
	N	25.0	2134	85	2285	91	2253	90
L30	W	36.0	2839	79	3077	86	2957	86
	M	36.0	3090	86	3333	93	3285	91
	N	36.0	2999	83	3214	89	3166	88
L40	W	45.0	3739	83	4053	90	3895	87
	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	CONVERSION FACTOR
CS	1.00
SG	0.83
GD	0.93
CG	0.96
PW	0.86
SPC	1.02
RG	0.88
WH	0.99
BL	0.79

BEAM ANGLE

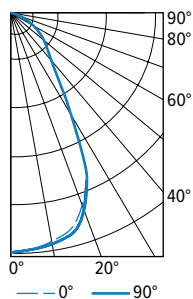
	TRIM TYPE ⁽¹⁾		
	O	L	R
W	55°	60°	60°
M	45°	35°	35°
N	40°	25°	25°

TRIM OPTIONS	
CATALOG NUMBER	CONVERSION FACTOR
AD	0.85
PD	0.85

- ¹ Beam angle based on CS or WH Reflector Finish.
- Photometrics tested in accordance with IESNA LM-79. Results based on L Trim Type, W Distribution and WH Reflector Finish, 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 table to calculate additional options.

PHOTOMETRY

4DS-L20/835-DIM-UNV-LW-OF-WH Report #: 20316; 04/16/18 | Total Luminaire Output: 2050 lumens; 25.0 Watts | Efficacy: 82 lm/W | 83.8 CRI; 3478K CCT



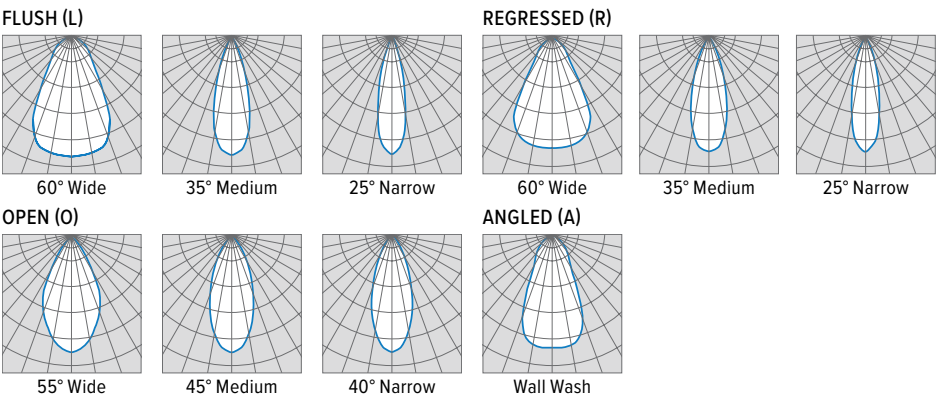
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	1526	1526	1526	
5	1512	1512	1513	144
15	1426	1447	1456	410
25	1107	1253	1110	546
35	501	762	491	372
45	317	344	314	254
55	192	197	191	175
65	101	98	99	100
75	42	41	42	44
85	5	4	6	5
90	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1100	54
	0 - 40	1472	72
	0 - 60	1902	93
	0 - 90	2050	100
	0 - 180	2050	100

PHOTOMETRY CONTINUED ON NEXT PAGE.



4DS^{LED} 4.5" Downlight – Square



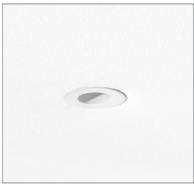
EMERGENCY BATTERY OPTIONS

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 ^[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 ^[1]
EM/10W/RTS	10-watt emergency battery with regressed test switch ^[2]
EM/10W/IPRTS	10-watt emergency battery with IP65 rated regressed test switch ^[3]

- ¹ Not available with IP Trim Option.
² Not available with IP or WET/CC Trim Options.
³ Must specify IP Trim Option.

MOUNTING DETAILS

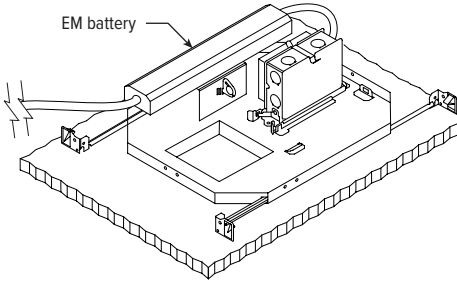
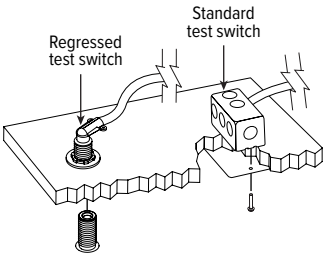


Regressed test switch
ø1-3/4"



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

Max remote distance is 50',
connection by others.



APERTURE ADAPTOR ORDERING INFO

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

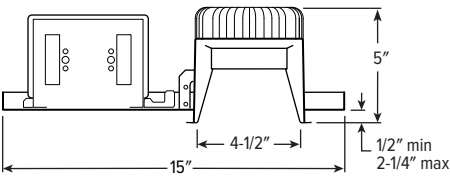
Adaptor (goof ring) corrects ceiling cutout errors during remodel downlight installation.

Additional finishes available, consult factory.

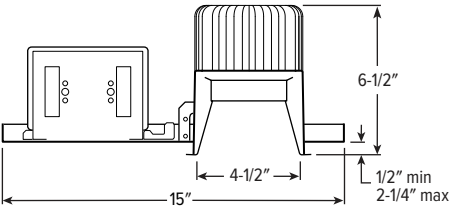
For limitations and instructions, see hew.com/aperture-adaptor.pdf

CROSS SECTIONS

L10 – L20 LUMENS

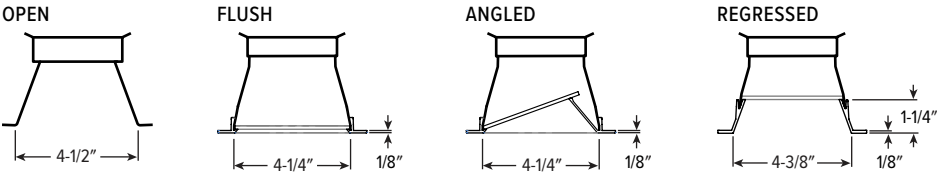


L30 – L40 LUMENS

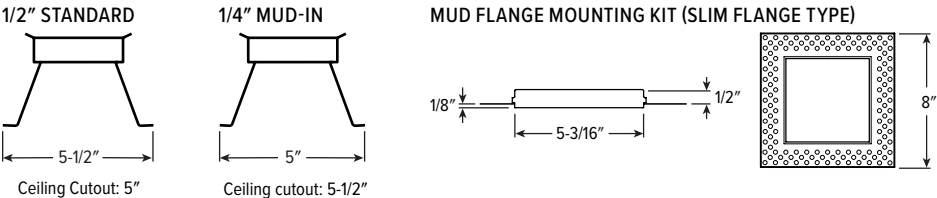


4DS^{LED} 4.5" Downlight – Square

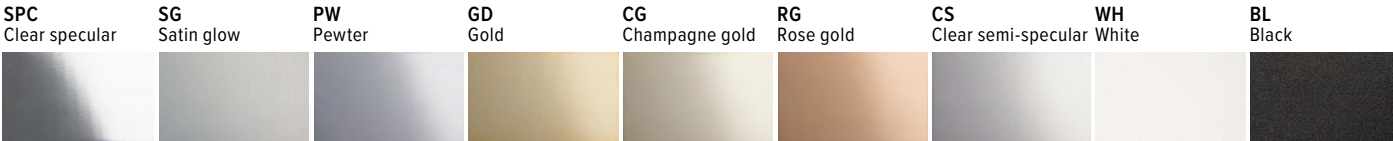
TRIM TYPE DETAILS



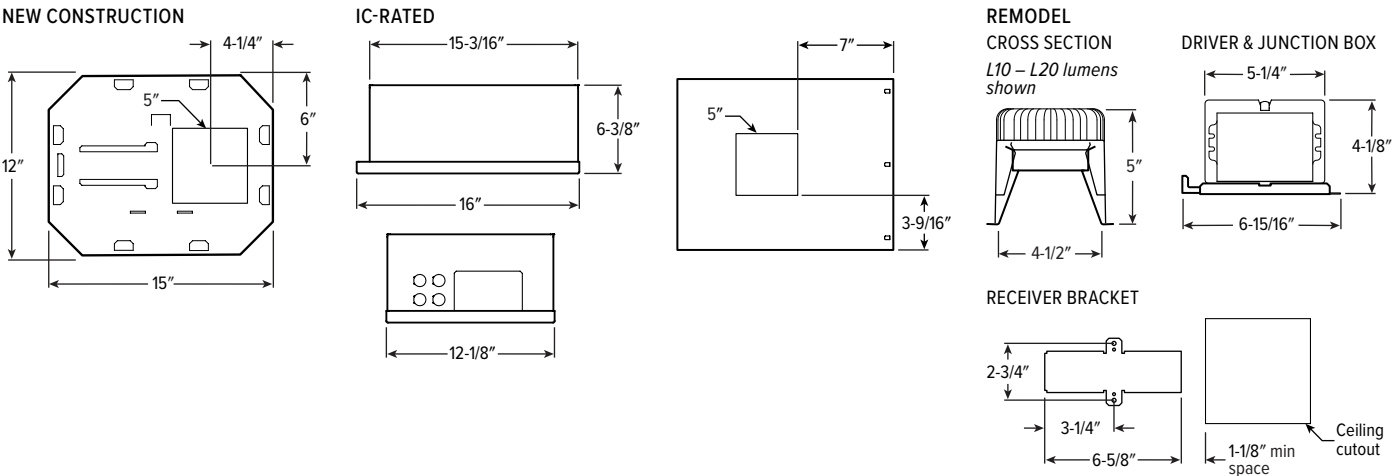
FLANGE TYPE DETAILS



REFLECTOR FINISH DETAILS



MOUNTING TYPE DETAILS



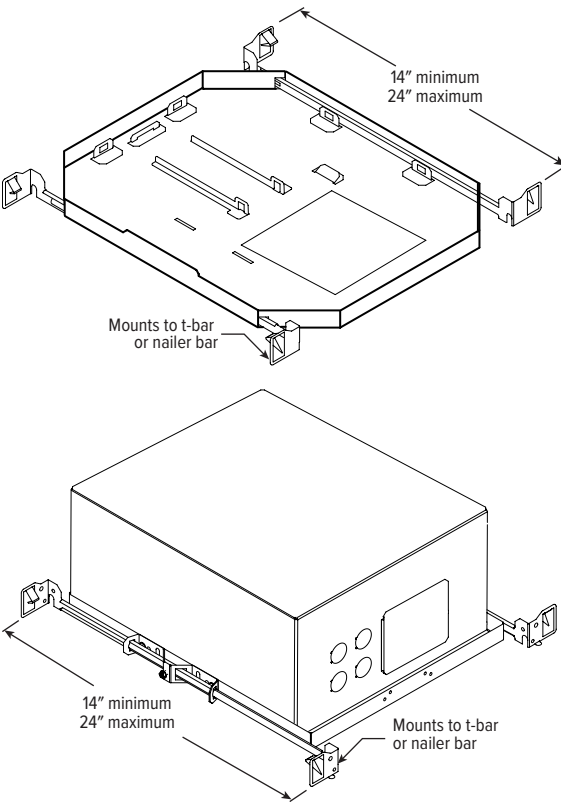
SEE NEXT PAGE FOR MOUNTING DETAILS



4DS^{LED} 4.5" Downlight – Square

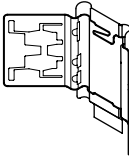
MOUNTING HARDWARE DETAILS

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

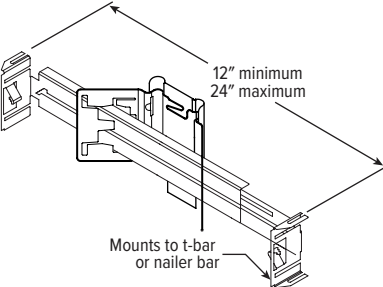


F1 with I Mounting Type

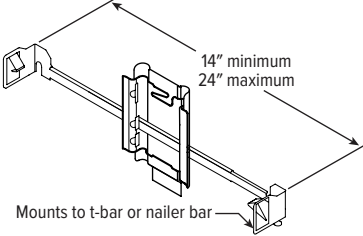
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



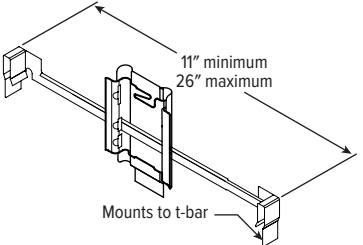
BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included (N Mounting Type only)



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



4DS^{LED} 4.5" Downlight – Square

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

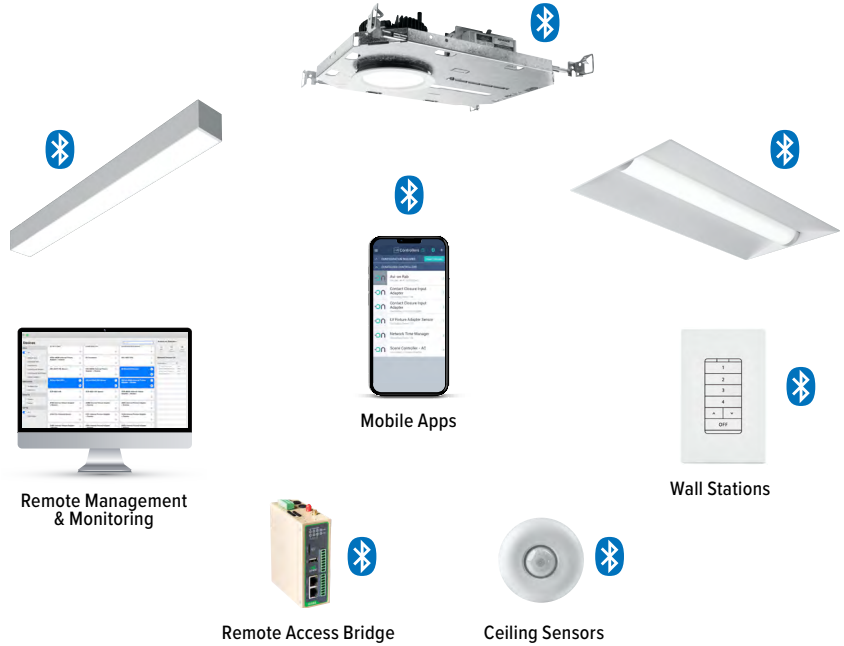


Zone Scanner
Web App



Commissioning
Pro App

SYSTEM COMPONENTS



The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Avi-on is under license. Other trademarks and trade names are those of their respective owners.

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: L30 max for DMX driver, L30 max for Lutron drivers, L40 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. 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

