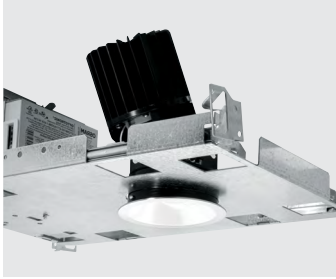
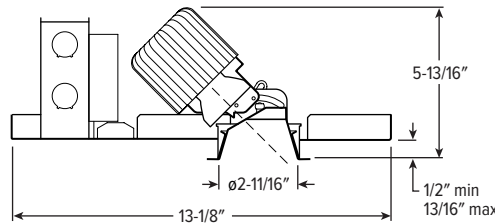


2AR LED 2" Adjustable Downlight – Round



NEW CONSTRUCTION AND REMODEL



CATALOG #: _____

TYPE: _____

PROJECT: _____



ORDERING EXAMPLE: 2AR - L15/835 - OPTIONS - CONTROL/DIM - UNV - OW - OF - CS - TRIM OPTIONS - N - F1

HOUSING

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

TRIM ^[11]

TRIM TYPE	DISTRIBUTION	FLANGE TYPE	REFLECTOR FINISH	TRIM OPTIONS
O Open reflector L Flush lens R Regressed lens A Angled lens	See page 2 for BEAM ANGLE. W Wide M Medium N Narrow	OF 1/2" standard flange ZF Zero-flange mud-in ^[12]	CS Clear semi-specular anodize WH White texture powder coat BL Black texture powder coat	MWT Smooth matte white trim flange ^[13] AD Diffuse acrylic lens ^[14] PD Diffuse 1/8" polycarbonate lens ^[15] WET/CC Wet location, covered ceiling listed ^[16] AM Anti-microbial ^[17]

MOUNTING

MOUNTING TYPE ^[18]	MOUNTING HARDWARE ^[19]
N Open pan for new construction ^[20] I IC-rated enclosure for new construction ^[21] R Remodel kit ^[22]	F1 Integral 2-position fixed pan bracket, universal bar hanger included ^[23] BA1 Adjustable butterfly pan bracket, bar hanger not included ^[24] CA1 Adjustable caterpillar pan bracket, universal bar hanger included ^[25]

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
- Not available with 5000K CCT.
- I Mounting Type required.
- 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.
- L9 minimum lumen package required.
- 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.
- For use with mud-in plaster construction only, supplied with mud flange installation kit. See page 3 for TRIM TYPE DETAILS. Not available with O Trim Type, or ATH or WET/CC options.
- Not available with L Trim Type, ZF Flange Type or WH Reflector Finish.
- W distribution only. Not available with O Trim Type.
- W distribution only. Not available with O Trim Type.
- Not available with O Trim Type or ZF Flange 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.
- Top access required.
- L9 lumen package max. Top access required. 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 4 for REMODEL MOUNTING PLENUM RESTRICTIONS.
- N and I Mounting Types only. I Mounting requires external brackets.
- N Mounting Type only.
- N Mounting Type only.



2AR^{LED} 2" Adjustable Downlight – Round

FEATURES

- Beam angles ranging from 15° narrow to 35° wide for tailored performance
- Adjustable aim with 0° - 45° tilt and 360° rotation
- 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
- Contemporary design provides glare-free illumination for a soft ceiling appearance
- Etched degree markers and directional indicator make it simple to fine-tune the illumination angle
- Die-cast trim choices include flush, regressed or angled lens
- Low UGR meets LEED and WELL requirements
- Wireless in-fixture control solutions available
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING** – Die-cast aluminum spun and stamped articulating mechanism with forged aluminum heat sink. Galvanized steel splice compartment with driver mounting plate/enclosure. Mounting clips allow for ceiling thickness from 1/2" – 13/16".
- 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 > 44,000 hours. Reported L90 = 28,000 hours. Estimated L70 = 117,000 hours.
- MOUNTING** – Recessed. 20 ga. galvanized steel mounting pan for new construction or IC-rated enclosure. N and R mounting types for use in non-fire rated installations only. Minimum 17" O.C. marked spacing required for L12 and L15 lumen packages when specified with R Mounting Type.

- 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.
 - 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	8.2	543	66	454	55	441	54	360	44
	M	8.2	391	48	303	37	292	36	195	24
	N	8.2	466	57	407	50	400	49	298	36
L7	W	11.5	770	67	643	56	626	54	511	44
	M	11.5	554	48	430	37	415	36	276	24
	N	11.5	661	58	578	50	567	49	423	37
L9	W	14.5	955	66	798	55	776	54	634	44
	M	14.5	687	47	533	37	514	35	342	24
	N	14.5	820	57	716	49	703	49	525	36
L12	W	20.9	1272	61	1063	51	1034	50	844	40
	M	21.0	915	44	710	34	685	33	456	22
	N	20.9	1092	52	954	46	937	45	699	33
L15	W	27.9	1436	51	1200	43	1167	42	953	34
	M	27.9	1033	37	802	29	773	28	515	19
	N	27.9	1233	44	1077	39	1058	38	789	28

MULTIPLIER TABLES

	COLOR TEMPERATURE		REFLECTOR FINISH	
	CCT	CONVERSION FACTOR	CATALOG NUMBER	CONVERSION FACTOR
80 CRI	2700K	0.92	CS	1.00
	3000K	0.98	WH	0.89
	3500K	1.00	BL	0.47
	4000K	1.01		
	5000K	1.02		
	TRIM OPTIONS		TRIM OPTIONS	
	CATALOG NUMBER	CONVERSION FACTOR	CATALOG NUMBER	CONVERSION FACTOR
90 CRI	2700K	0.76	AD	0.85
	3000K	0.79	PD	0.85
	3500K	0.82		
	4000K	0.84		

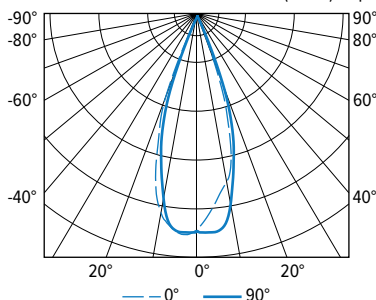
BEAM ANGLE

	TRIM TYPE			
	O	L	R	A
W	35°	35°	35°	30°
M	20°	20°	20°	20°
N	15°	15°	15°	20°

- Photometrics tested in accordance with IESNA LM-79. Results based on O trim type, W distribution, CS finish, 80 CRI/3500K CCT, average wattage for 120V input, and 25°C ambient temperature. Actual performance may vary +/-5%
- Beam angle based on O Trim Type and CS Reflector Finish.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier tables to calculate additional options.

PHOTOMETRY

2AR-L12/835-DIM-UNV-OW-OF-CS (0° tilt) Report #: 13257190; 03/16/20 | Total Luminaire Output: 1272 lumens; 20.9 Watts | Efficacy: 60.8 lm/W | 80 CRI; 3500K CCT

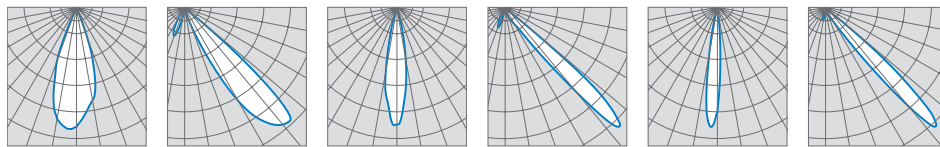


VERTICAL ANGLE	HORIZONTAL ANGLE					ZONAL LUMENS
	0°	45°	90°	135°	180°	
0	4289	4289	4289	4289	4289	
5	3774	3951	4315	4457	4336	101
15	2373	2461	2698	2969	3068	382
25	65	79	145	260	278	133
35	7	9	12	13	14	5
45	2	3	5	5	5	2
55	1	2	2	2	2	1
65	1	1	1	1	0	0
75	0	0	0	0	0	0
85	0	0	0	0	0	0
90	0	0	0	0	0	

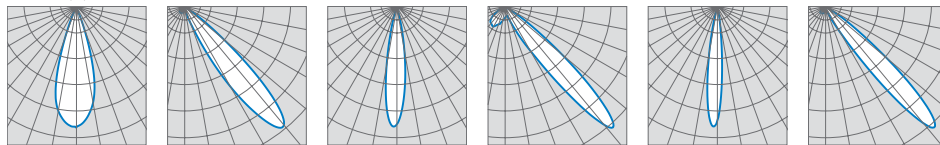
LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 40	1266	100
	0 - 60	1271	100
	0 - 90	1272	100
	0 - 180	1272	100

2AR^{LED} 2" Adjustable Downlight – Round

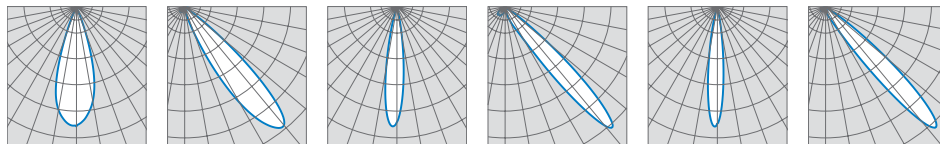
OPEN (O)



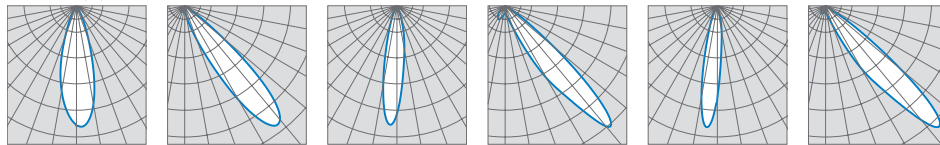
FLUSH (L)



REGRESSED (R)

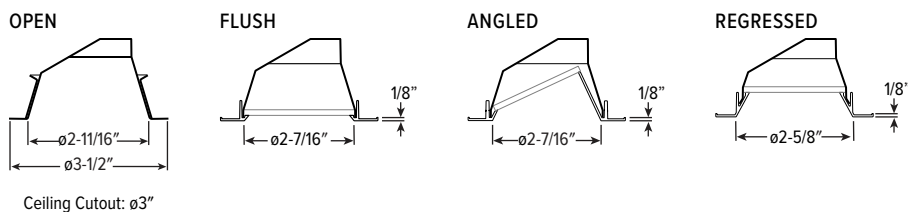


ANGLED (A)

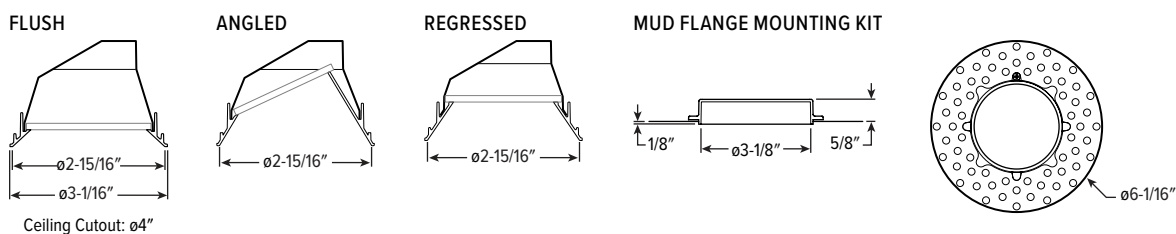


TRIM TYPE DETAILS

1/2" STANDARD FLANGE TYPE



ZERO-FLANGE MUD-IN



2AR^{LED} 2" Adjustable Downlight – Round

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
EM/7W/RTS	7-watt emergency battery with regressed test switch ^[1]
EM/10W	10-watt emergency battery ^[2]
EM/10W/RTS	10-watt emergency battery with regressed test switch ^[3]

- ¹ Not available with WET/CC Trim Option. N Mounting Type only. Top access required.
- ² Not available with L5 lumen package.
- ³ Not available with L5 lumen package or WET/CC Trim Option. N Mounting Type only. Top access required.

MOUNTING DETAILS

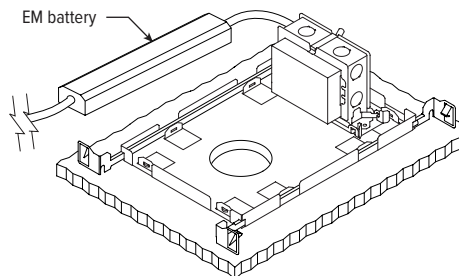
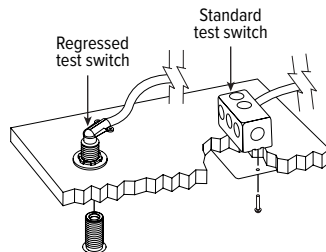


Regressed test switch
ø1-3/4"



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

Max remote distance is 50',
connection by others.



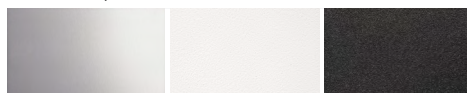
REMODEL MOUNTING PLENUM RESTRICTIONS

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"

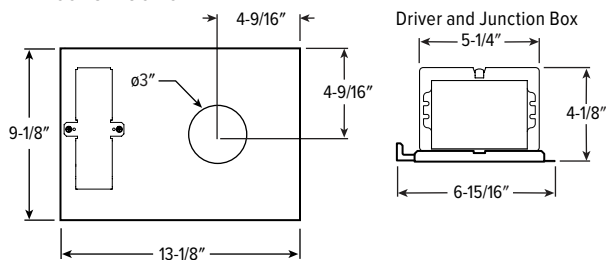
REFLECTOR FINISH DETAILS

CS Clear semi-specular
WH White
BL Black

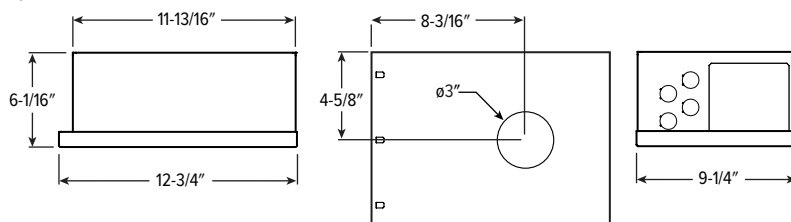


MOUNTING TYPE DETAILS

NEW CONSTRUCTION

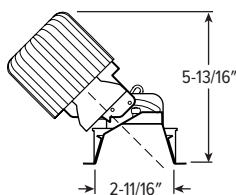


IC-RATED

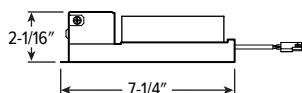


REMODEL

Cross Section



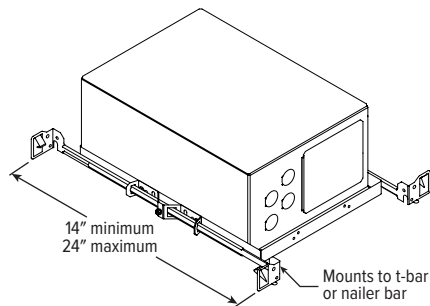
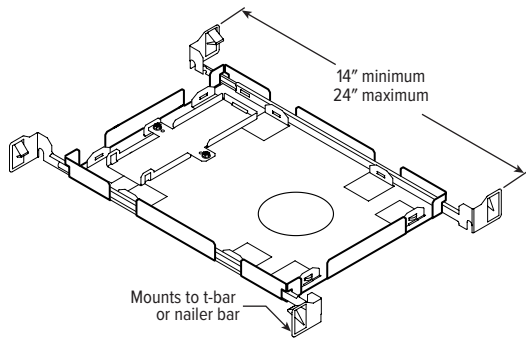
Driver and Junction Box



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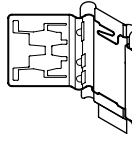
MOUNTING HARDWARE DETAILS

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

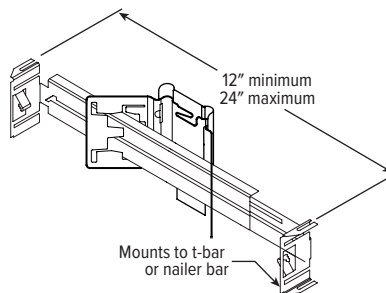


F1 with I Mounting Type

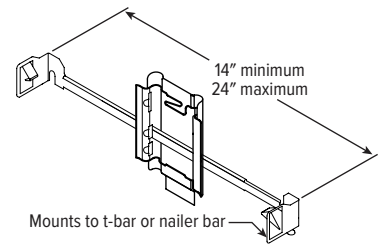
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



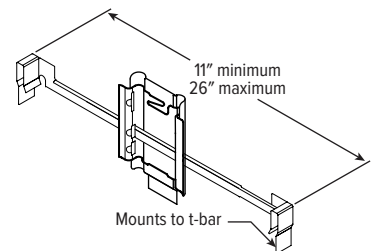
BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included (N Mounting Type only)



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.



2AR LED

2" Adjustable 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

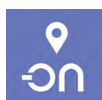
- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

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

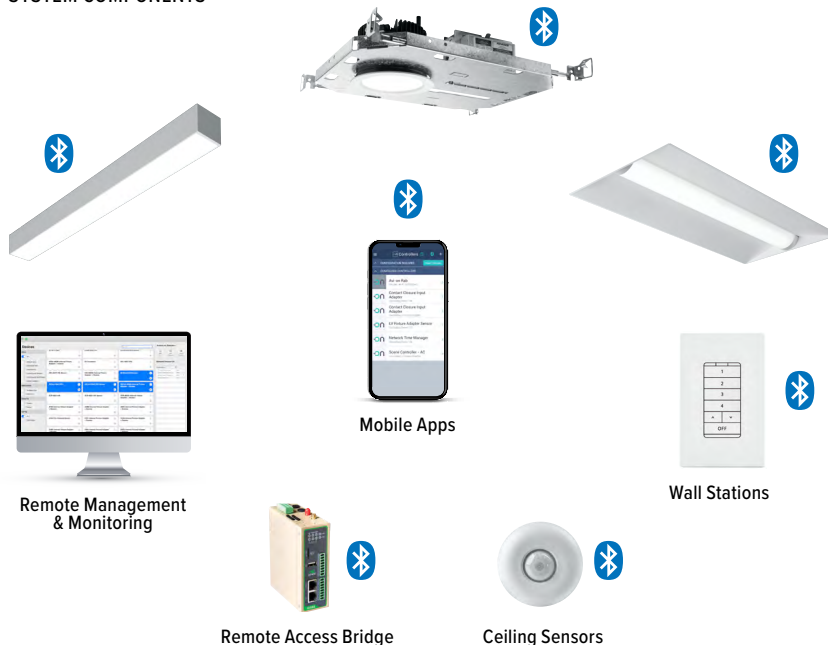


Zone Scanner Web App



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: L7 minimum for DIM LINE driver. R Mounting Type only available with DIM, DIM1, and DIM LINE controls. Lutron controls available with N Mounting Type only, top access required. 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

