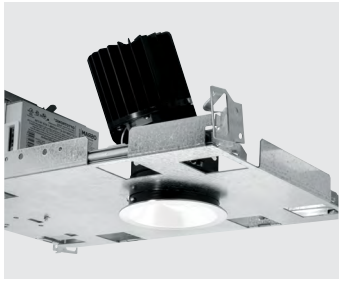
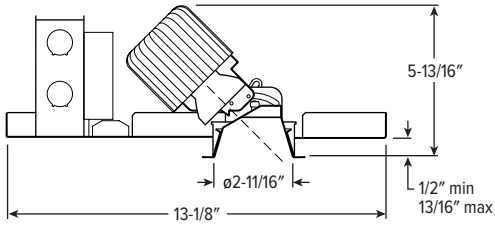
2AR LED
2″ Adjustable Downlight – Round



NEW CONSTRUCTION AND REMODEL



CATALOG #: _____

TYPE: _____

PROJECT: _____

BAA & BABA COMPLIANT | CCEA Approved | Low UGR | WET/CC | TW

ORDERING EXAMPLE: 2AR - L15/835 - OPTIONS - CONTROL/DIM - UNV - OW - OF - CS - TRIM OPTIONS - N - F1
(HOUSING | TRIM | MOUNT.)

HOUSING

SERIES
2AR

LUMENS [1]
Single CCT or TW
L5 500lm
L7 700lm
L9 900lm
Single CCT only
L12 1,200lm
L15 1,500lm

CRI
8 80
9 90 [2]

CCT
27 2700K
30 3000K
35 3500K
40 4000K
50 5000K
TW Tunable white (90 CRI, 2700K-5000K)

OPTIONS
See page 4 for EMERGENCY BATTERY OPTIONS.
ATH Airtight construction [3]
F Fuse
CP Chicago plenum (CCEA) [4]
SDT Stepdown transformer [5]

CONTROL
Click HERE for control options.
– None

DRIVER
See page 5 for ADDITIONAL DRIVER OPTIONS.
DIM Dimming driver, 0-10V [6]
DIM1 1% Dimming driver, 0-10V [7]
DIM LINE Driver with line voltage dimming wires [8]

VOLTAGE
UNV 120-277V
347 347V [9]

TRIM [10]

TRIM TYPE
O Open reflector
L Flush lens
R Regressed lens
A Angled lens

DISTRIBUTION
See page 2 for BEAM ANGLE.
W Wide
M Medium
N Narrow

FLANGE TYPE
OF 1/2″ standard flange
ZF Zero-flange mud-in [11]

REFLECTOR FINISH
CS Clear semi-specular anodize
WH White texture powder coat
BL Black texture powder coat

TRIM OPTIONS
MWT Smooth matte white trim flange [12]
AD Diffuse acrylic lens [13]
PD Diffuse 1/8″ polycarbonate lens [14]
WET/CC Wet location, covered ceiling listed [15]
AM Anti-microbial [16]

MOUNTING

MOUNTING TYPE [17]
N Open pan for new construction [19]
I IC-rated enclosure for new construction [20]
R Remodel kit [21]

MOUNTING HARDWARE [18]
F1 Integral 2-position fixed pan bracket, universal bar hanger included [22]
BA1 Adjustable butterfly pan bracket, bar hanger not included [23]
CA1 Adjustable caterpillar pan bracket, universal bar hanger included [24]

NOTES

1 Lumen output based on O Trim Type, W Distribution, and CS Reflector Finish, 80 CRI/3500K for single CCT and 90 CRI/4000K for tunable white. Actual performance may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA
2 Not available with 5000K CCT or tunable white.
3 I Mounting Type required.
4 I Mounting Type required.
5 Not available with R Mounting. May be required for 347V, see product builder at hew.com/product-builder
6 0.1% Driver with tunable white.
7 L9 minimum lumen package required. Not available with tunable white.
8 L7 lumen package minimum. Not available with tunable white.
9 Not available with Tunable White, EM batteries, or DMX Driver.
10 Trim ships separately.
11 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.
12 Not available with L Trim Type, ZF Flange Type or WH Reflector Finish.
13 W distribution only. Not available with O Trim Type.
14 W distribution only. Not available with O Trim Type.
15 Not available with O Trim Type or ZF Flange Type.
16 WH and BL Reflector Finishes only.
17 Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 4 for MOUNTING TYPE DETAILS.
18 Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.
19 Top access required.
20 L9 lumen package max. Top access required. Not available with EM batteries.
21 Not available with tunable white. 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.
22 N and I Mounting Types only. I Mounting requires external brackets.
23 N Mounting Type only.
24 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
- Support human-centric design with adaptive, individualized lighting using tunable white light
- 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. Tunable White products use LEDs of multiple CCTs and may produce a perceptibly different shade of white from single-CCT products at the same CCT. All CCTs are within 3 MacAdam ellipses.
- 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. N or I mounting: top access required. R mounting: top access required when specified with EM battery.
- 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.
  - Build America, Buy America (BABA) and Buy American Act (BAA) compliant. Request certification at hew.com/buy-american
- WARRANTY – 5-year limited warranty, see hew.com/warranty

FIXTURE PERFORMANCE DATA

			OPEN REFLECTOR TRIM TYPE		FLUSH LENS TRIM TYPE		REGRESSED LENS TRIM TYPE		ANGLED LENS TRIM TYPE	
	DISTRIBUTION	WATTAGE	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		
	CCT	SINGLE CCT	TW
80 CRI	2700K	0.92	–
	3000K	0.98	–
	3500K	1.00	–
	4000K	1.01	–
	5000K	1.02	–
90 CRI	2700K	0.76	0.87
	3000K	0.79	0.96
	3500K	0.82	1.02
	4000K	0.84	1.00
	5000K	0.88	1.02

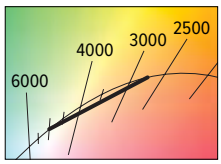
REFLECTOR FINISH	
CATALOG NUMBER	CONVERSION FACTOR
CS	1.00
WH	0.89
BL	0.47

TRIM OPTIONS	
CATALOG NUMBER	CONVERSION FACTOR
AD	0.85
PD	0.85

BEAM ANGLE

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

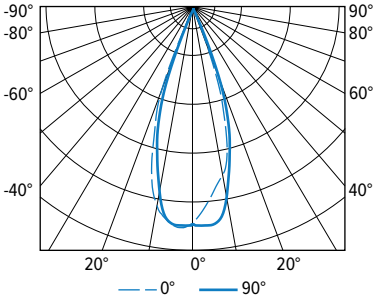
TUNABLE WHITE



- Photometrics tested in accordance with IESNA LM-79. Results based on O trim type, W distribution, CS finish, 80 CRI/3500K for single CCT and 90 CRI/4000K for tunable white, 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

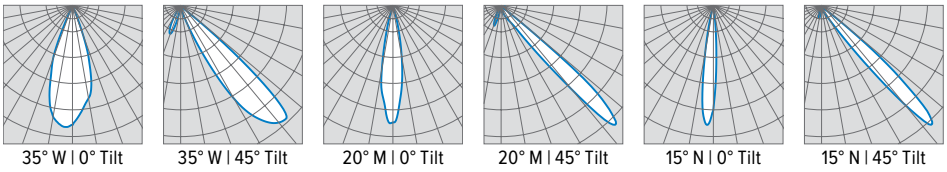


CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE 0°	45°	90°	135°	180°	ZONAL LUMENS
	0	4289	4289	4289	4289	4289	
	5	3774	3951	4315	4457	4336	101
	15	2373	2461	2698	2969	3068	382
	25	65	79	145	260	278	133
	35	7	9	12	13	14	5
	45	2	3	5	5	5	2
	55	1	2	2	2	2	1
	65	1	1	1	1	0	0
	75	0	0	0	0	0	0
	85	0	0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

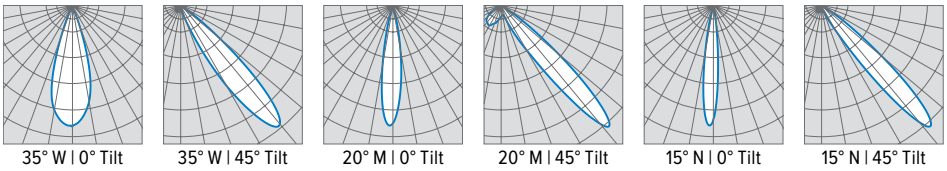
LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 40	1266	100
	0 - 60	1271	100
	0 - 90	1272	100
	0 - 180	1272	100

2AR LED
2″ Adjustable Downlight – Round

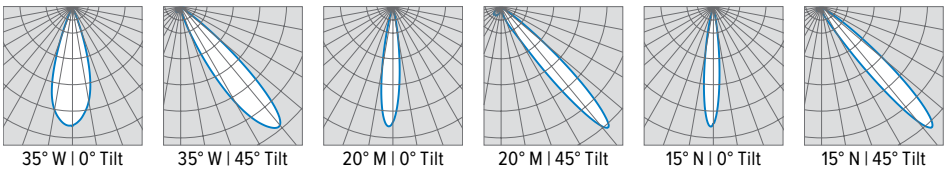
OPEN (O)



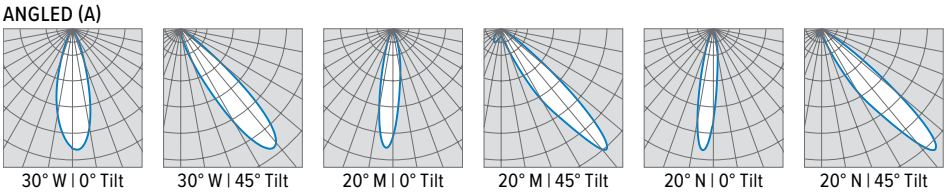
FLUSH (L)



REGRESSED (R)



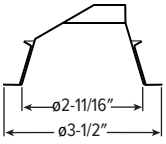
ANGLED (A)



TRIM TYPE DETAILS

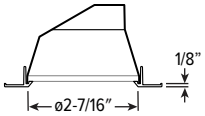
1/2″ STANDARD FLANGE TYPE

OPEN



Ceiling Cutout: ø3″

FLUSH



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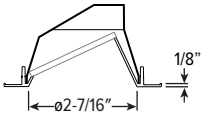

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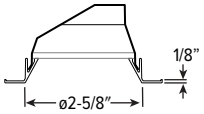
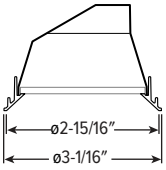


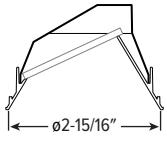
ZERO-FLANGE MUD-IN

FLUSH

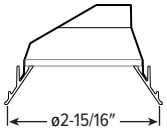


Ceiling Cutout: ø4″

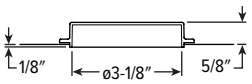
ANGLED

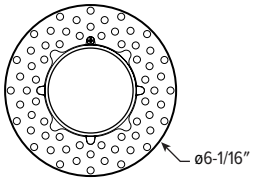


REGRESSED



MUD FLANGE MOUNTING KIT





2AR LED
2″ Adjustable Downlight – Round

EMERGENCY BATTERY OPTIONS

ORDERING EXAMPLE: EM/7W/RTS	
EMERGENCY BATTERY	TEST SWITCH
EM/5W 5-watt emergency battery **EM/7W** 7-watt emergency battery **EM/10W** 10-watt emergency battery [1]	**–** Standard **/RTS** Regressed test switch [2]

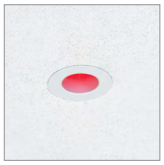
Top access required.

Additional limitations apply, see page 1. Specify CEC in the option code when California Energy Commission regulations are required. Max remote distance is 50′, connection by others.

1 Not available with L5 lumen package.
2 Not available with WET/CC Trim Option.

TEST SWITCH DETAILS

Standard
2-3/4″ x 4-1/2″



Regressed
ø1-3/4″

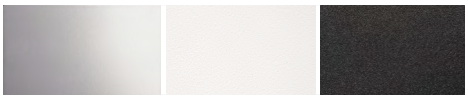
REMODEL MOUNTING PLENUM RESTRICTIONS

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

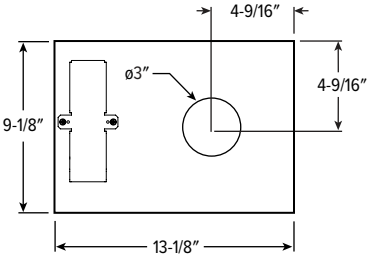
CS Clear semi-specular
WH White
BL Black



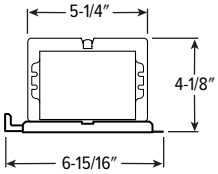
MOUNTING TYPE DETAILS

Flex conduit is recommended for installation.

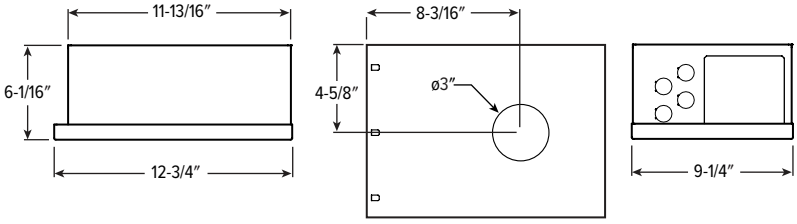
NEW CONSTRUCTION



Driver and Junction Box



IC-RATED

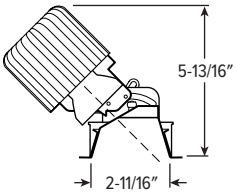


REMODEL

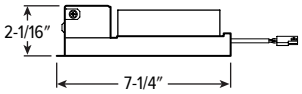
Not available in tunable white.

H.E. Williams Inc. strongly recommends installing a trial fixture to confirm fitment on-site prior to ordering full project quantities.

Cross Section



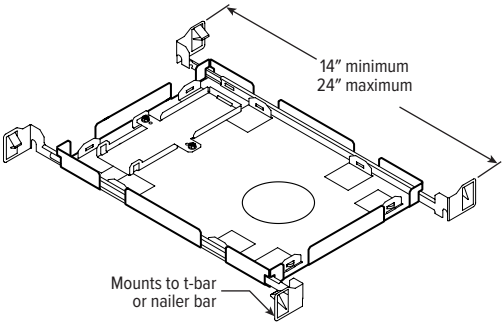
Driver and Junction Box



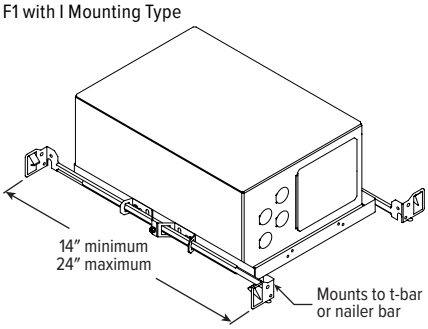
2AR LED
2″ Adjustable Downlight – Round

MOUNTING HARDWARE DETAILS

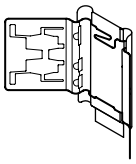
F1 Integral 2-position fixed pan bracket, universal bar hanger included



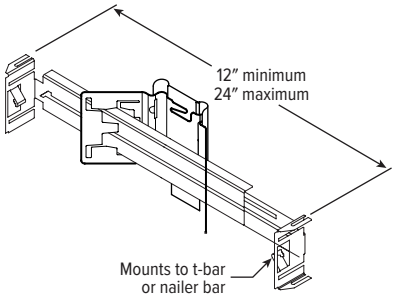
F1 with I Mounting Type



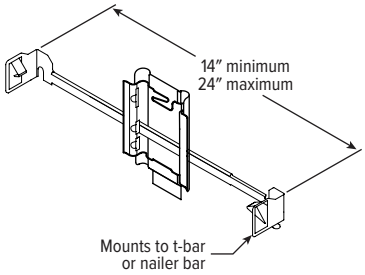
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



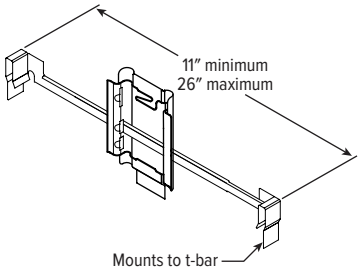
BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included. (N Mounting Type only)



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)



ADDITIONAL DRIVER OPTIONS

Lumen restrictions apply: L7 minimum for DIM LINE and LDE1 drivers. 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
BELOW CEILING ACCESS	
DIM	Dimming driver prewired for 0-10V low voltage applications (tunable white: (1) 0-10V signal controls 0.1% dimming and (1) 0-10V signal controls CCT)
DIM1 [1]	1% dimming driver prewired for 0-10V low voltage applications
DIM LINE [1]	Line voltage dimming driver (TRIAC and ELV compatible at 120V only)
TOP ACCESS REQUIRED	
DA	Driver with 12V auxiliary power, without external dimming wires (not available with 347V)
DALI	DALI dimming driver
DMX	Driver prewired for DMX applications
LDE1 [1]	Lutron Hi-lume 1% EcoSystem dimming LED driver
LD2	Lutron DALI-2 digital driver, 1%
DCC	Remote UL Class 2 DC constant current supply, UL- or CSA-listed, by others

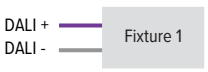
1 Single CCT only.

TUNABLE WHITE DRIVER DETAILS

Not available with R mounting type.

DIM

DALI



DMX

LD2