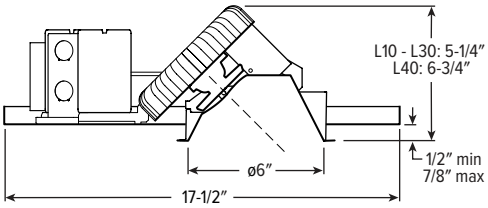
6AR LED
6″ Adjustable Downlight – Round

NEW CONSTRUCTION AND REMODEL



CATALOG #:

TYPE:

PROJECT:

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

ORDERING EXAMPLE: 6AR - L20/835 - OPTIONS - CONTROL/DIM - UNV - OW - OF - CS - TRIM OPTIONS - N - F1
(6AR … UNV = HOUSING; OW … CS = TRIM; N … F1 = MOUNT.)

HOUSING

SERIES
6AR

LUMENS [1]
Single CCT or TW
L10 1,000lm [2]
L15 1,500lm
L20 2,000lm
Single CCT only
L30 3,000lm
L40 4,000lm

CRI
8 80
9 90 [3]

CCT
27 2700K
30 3000K
35 3500K
40 4000K
50 5000K
TW Tunable white (80 CRI, 2700K-5000K)

OPTIONS
See page 3 for EMERGENCY BATTERY OPTIONS.
ATH Airtight construction [4]
CP Chicago plenum (CCEA) [5]
F Fuse kit
SDT Stepdown transformer [6]

CONTROL
Click HERE for control options.
– None

DRIVER
See page 5 for ADDITIONAL DRIVER OPTIONS.
DIM Dimming driver, 0-10V [7]
DIM1 1% Dimming driver, 0-10V [8]
DIM LINE Driver with line voltage dimming wires [9]

VOLTAGE
UNV 120-277V
347 347V [10]

TRIM [11]

TRIM TYPE
O Open reflector
L Flush lens
A Angled lens

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

FLANGE TYPE
OF 1/2″ standard flange
SF 1/4″ mud-in flange [12]

REFLECTOR FINISH
Open trim types
CS Clear semi-specular anodize
WH White texture powder coat
BL Black texture powder coat
Lens trim types
CS Clear semi-specular powder coat
WH White texture powder coat
BL Black texture powder coat

TRIM OPTIONS
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]
N Open pan for new construction
I IC-rated enclosure for new construction [20]
R Remodel kit [21]

MOUNTING HARDWARE [19]
F1 Factory-installed 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 static white and 4000K for tunable white. Actual performance may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
2 Not available with EM/10W emergency batteries.
3 Not available with tunable white.
4 I Mounting Type required.
5 I Mounting Type required.
6 May be required for 347V, see product builder at hew.com/product-builder
7 0.1% Driver with tunable white.
8 Not available with tunable white.
9 Not available with tunable white.
10 Not available with Tunable White, EM batteries, or DMX Driver.
11 Trim ships separately.
12 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 Option.
13 Not available with WH Reflector Finish or L Trim Type.
14 L and A Trim Types only. W Distribution only.
15 L and A Trim Types only. W Distribution only.
16 L and A Trim Types only.
17 WH and BL Reflector Finishes only.18 Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 4 for MOUNTING TYPE DETAILS.
19 Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.
20 Not available with L40 lumen package. Not available with EM batteries.
21 Also used in new construction sheetrock ceilings. Pan-less installation.
22 N and I Mounting Types only. Universal bar hanger ships uninstalled. I Mounting requires external brackets.
23 N Mounting Type only.
24 N Mounting Type only.

6AR LED
6" Adjustable Downlight – Round

FEATURES

- Adjustable aim with 0° - 45° tilt and 360° rotation
- Beam angles ranging from 25° narrow to 55° wide for tailored performance
- Spring clip retention system eliminates trim sag
- Etched degree markers and directional indicator make it simple to fine-tune the illumination angle
- New construction mounting pan, IC-rated, or pan-less remodel kit available
- Choice of open reflector or die-cast lensed trims to complement interior style
- Contemporary design provides glare-free illumination for a soft ceiling appearance
- Fully room-side accessible
- Support human-centric design with adaptive, individualized lighting using tunable white light
- 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" - 7/8".
- OPEN REFLECTOR – Low-iridescent anodized aluminum. Clear semi-specular finish standard.
- 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. 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. Remodel kit option includes receiver bracket hardware. N and R mounting types for use in non-fire rated installations only. Minimum 24" O.C. marked spacing required for L30 and L40 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.
  - 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

	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	1020	10.5	97
	M	1023	10.5	97
	N	1022	10.5	97
L15	W	1537	15.1	102
	M	1542	15.1	102
	N	1541	15.1	102
L20	W	2039	21.0	97
	M	2045	21.0	97
	N	2044	21.0	97
L30	W	2917	31.3	93
	M	2915	31.3	93
	N	2790	31.3	89
L40	W	3889	42.0	93
	M	3886	42.0	93
	N	3720	42.0	89

FLUSH LENS TRIM TYPE

	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	896	10.5	85
	M	956	10.5	91
	N	951	10.5	91
L15	W	1350	15.1	89
	M	1442	15.1	96
	N	1433	15.1	95
L20	W	1791	21.0	85
	M	1912	21.0	91
	N	1901	21.0	91
L30	W	2559	31.3	82
	M	2717	31.3	87
	N	2609	31.3	83
L40	W	3411	42.0	81
	M	3622	42.0	86
	N	3478	42.0	83

ANGLED LENS TRIM TYPE

	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	744	10.5	71
	M	889	10.5	85
	N	907	10.5	86
L15	W	1122	15.1	74
	M	1340	15.1	89
	N	1368	15.1	91
L20	W	1488	21.0	71
	M	1777	21.0	85
	N	1814	21.0	86
L30	W	2144	31.3	69
	M	2507	31.3	80
	N	2441	31.3	78
L40	W	2858	42.0	68
	M	3342	42.0	80
	N	3254	42.0	78

1 Distribution will also be affected, consult factory.

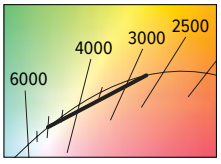
2 Beam angle based on CS or WH Reflector Finish.

- Photometrics tested in accordance with IESNA LM-79. Results based on O Trim Type, CS Reflector Finish, 0° tilt, W Distribution, 80 CRI, 3500K for single CCT and 4000K, average 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.

BEAM ANGLE

	TRIM TYPE [2]		
	O	L	A
W	55°	55°	50°
M	35°	35°	35°
N	25°	25°	30°

TUNABLE WHITE



MULTIPLIER TABLES

	COLOR TEMPERATURE		
	CCT	SINGLE CCT	TW
80 CRI	2700K	0.92	0.83
	3000K	0.98	1.00
	3500K	1.00	0.99
	4000K	1.01	1.00
	5000K	1.02	0.98
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
WH	0.89
BL	0.79

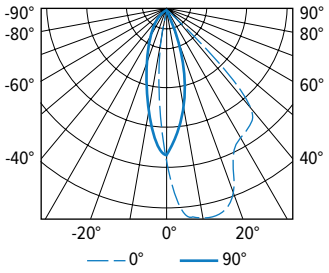
TRIM	
CATALOG NUMBER	CONVERSION FACTOR
AD [1]	0.85
PD [1]	0.85

PHOTOMETRY CONTINUED ON NEXT PAGE

6AR LED
6″ Adjustable Downlight – Round

PHOTOMETRY

6AR-L20/835-DIM-UNV-OW-OF-CS (25° tilt) Report #: 20390; 05/16/18 | Total Luminaire Output: 1958 lumens; 21.2 Watts | Efficacy: 92.5 lm/W | 82.3 CRI; 3571K CCT



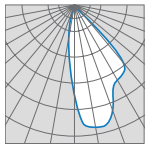
CANDLEPOWER DISTRIBUTION

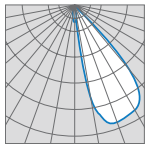
VERTICAL ANGLE	HORIZONTAL ANGLE 0°	45°	90°	135°	180°	ZONAL LUMENS
0	2605	2605	2605	2605	2605	
5	3639	3208	2308	1607	1297	227
15	3810	2844	1321	442	310	469
25	2919	2543	541	122	92	548
35	2592	1908	109	26	20	499
45	1695	212	11	6	6	212
55	20	2	0	0	2	3
65	0	0	0	0	0	0
75	0	0	0	0	0	0
85	0	0	0	0	0	0
90	0	0	0	0	0	

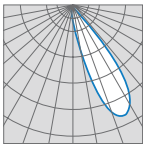
LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0 - 30	1244	64
0 - 40	1743	89
0 - 60	1958	100
0 - 90	1958	100
0 - 180	1958	100

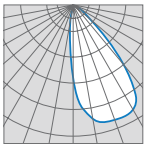
OPEN (O)


55° Wide


35° Medium


25° Narrow

FLUSH (L)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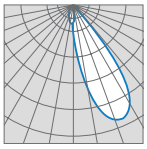
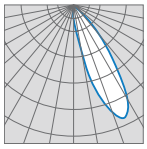
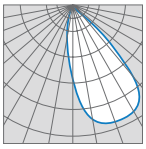
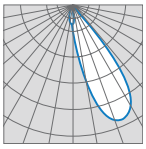
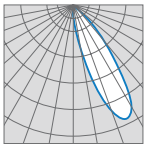

35° Medium


25°

ANGLED (A)


50° Wide


35° Medium


30° Narrow

EMERGENCY BATTERY OPTIONS

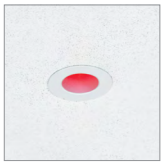
ORDERING EXAMPLE: EM/7W/RTS	
EMERGENCY BATTERY	**TEST SWITCH**
EM/7W 7-watt emergency battery	**–** Standard
EM/10W 10-watt emergency battery	**/RTS** Regressed test switch [1]

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 WET/CC Trim Option.

TEST SWITCH DETAILS

Standard
2-3/4″ x 4-1/2″


Regressed
ø1-3/4″

APERTURE ADAPTOR ORDERING INFO

ORDERING EXAMPLE: 4DR - GR - 0575 - WHT			
SERIES	**CATALOG #**	**CEILING CUTOUT**	**FINISH**
4AR 6AR 8DR **4DR 6DR** **4DS 6DS** **4PR 6PR** **4PS 6PS**	**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.

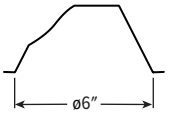
Additional finishes available, consult factory.

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

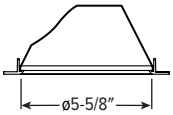
6AR LED
6″ Adjustable Downlight – Round

TRIM TYPE DETAILS

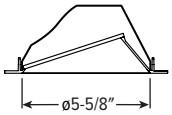
OPEN



FLUSH



ANGLED

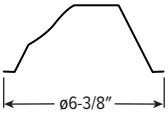


FLANGE TYPE DETAILS

1/2″ STANDARD

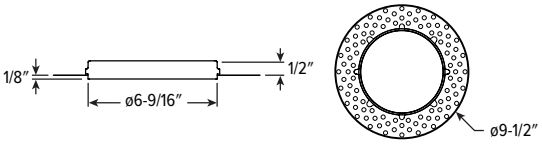
Ceiling Cutout: ø6-1/2″

1/4″ MUD-IN



Ceiling cutout: ø6-3/4″

MUD FLANGE MOUNTING KIT (SLIM FLANGE TYPE)

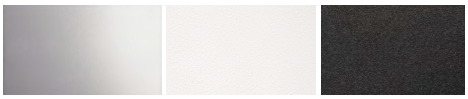


REFLECTOR FINISH DETAILS

CS
Clear semi-specular

WH
White

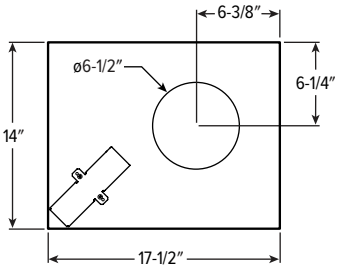
BL
Black



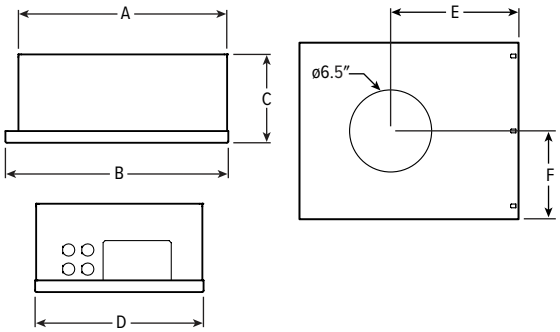
MOUNTING TYPE DETAILS

Flex conduit is recommended for installation.

NEW CONSTRUCTION



IC-RATED

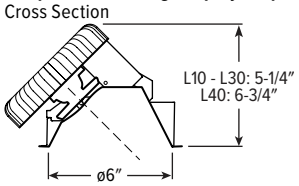


	LENGTH					
LUMENS	A	B	C	D	E	F
L10 - L20	15-3/16″	16″	6-3/8″	12-1/8″	9-1/2″	6-1/16″
L30	16-5/8″	17-1/2″	7-7/8″	14″	10-1/4″	7″

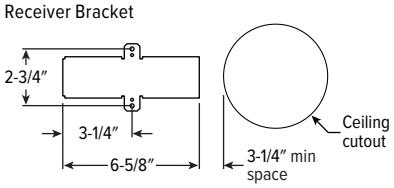
REMODEL

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

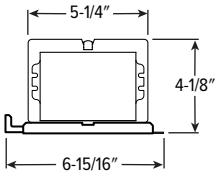
Cross Section



Receiver Bracket



Driver and Junction Box

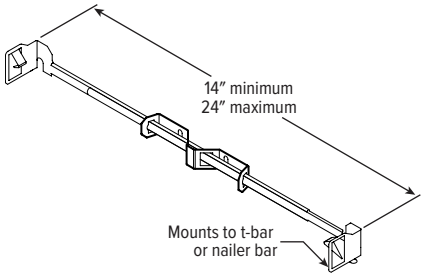


MOUNTING DETAILS CONTINUED ON NEXT PAGE.

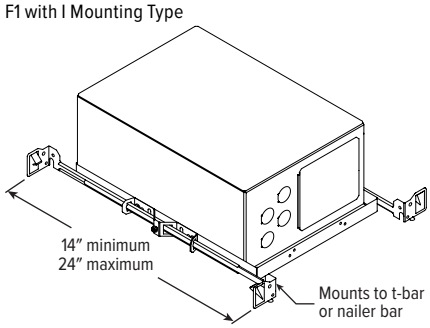
6AR LED
6″ Adjustable Downlight – Round

MOUNTING HARDWARE DETAILS

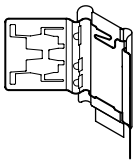
F1 Factory-installed 2-position fixed pan bracket, universal bar hanger included, ships uninstalled



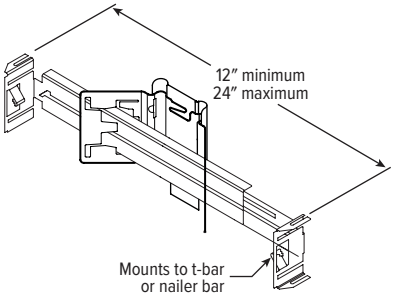
F1 with I Mounting Type



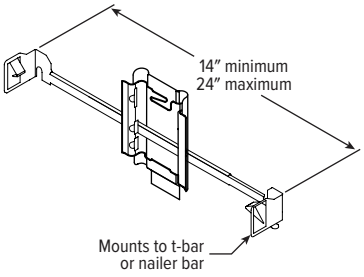
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



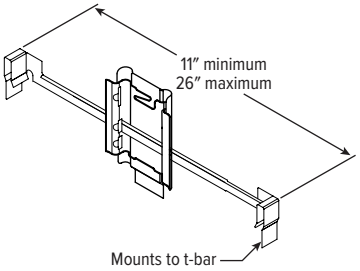
BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included (N Mounting Type only)



CA1 Adjustable caterpillar pan bracket, universal bar hanger included (N Mounting Type only)



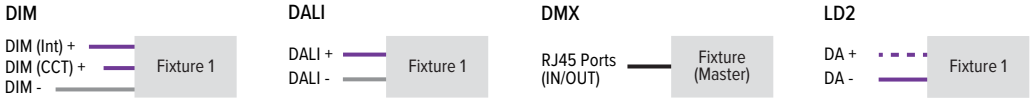
CA2 Adjustable caterpillar pan bracket, t-bar hanger included (N Mounting Type only)



ADDITIONAL DRIVER OPTIONS

Lumen restrictions apply: L30 max for DMX driver, L40 max for Lutron and DIM LINE drivers. L15 min for LDE1 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. I Mounting Type not available with Lutron controls. 347V may require stepdown transformer, see product builder at hew.com/product-builder

CATALOG NUMBER	DESCRIPTION
DIM	Driver with external dimming wires 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% driver with external dimming wires prewired for 0-10V low voltage applications
DIM LINE [1]	Line voltage dimming driver (TRIAC and ELV compatible, 120V only)
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 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