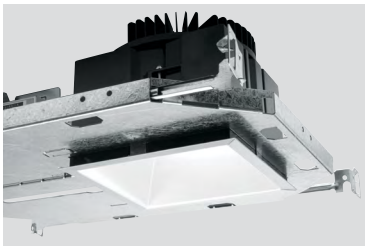
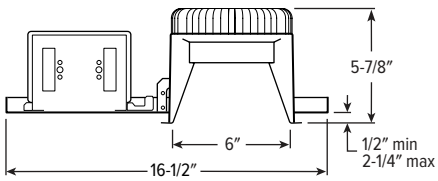
6DS dim to WARM
6″ Downlight – Square





CATALOG #:

TYPE:

PROJECT:

NEW CONSTRUCTION AND REMODEL

BAA & BABA COMPLIANT | CCEA Approved | IP65 Rated | WET/CC | ASTM-E283

ORDERING EXAMPLE: 6DS - L21/9DW - OPTIONS - DIM1 - UNV - LW - OF - WH - TRIM OPTIONS - N - F1
(HOUSING | TRIM | MOUNT.)

HOUSING

SERIES
6DS

LUMENS [1]
L7 700lm
L13 1,300lm
L21 2,100lm

COLOR
9DW Dim to warm (95 CRI, 1800K – 3000K)

OPTIONS
See page 3 for EMERGENCY BATTERY OPTIONS.
See page 3 for APERTURE ADAPTOR ORDERING INFO.
ATH Airtight construction
CP Chicago plenum (CCEA) [2]
F Fuse kit
SDT Stepdown transformer [3]

CONTROL
DIM1 1% dimming driver (0-10V signal to control dimming and CCT)
LUT Lutron Ecosystem enabled [4]

VOLTAGE
UNV 120-277V
347 347V [5]

TRIM [6]

TRIM TYPE
O Open reflector
L Flush lens
R Regressed lens
A Angled lens [7]

DISTRIBUTION
See page 2 for BEAM ANGLE.
W Wide
M Medium
N Narrow
WW Wall wash [8]

FLANGE TYPE
OF 1/2″ standard flange
SF 1/4″ mud-in flange [9]

REFLECTOR FINISH
Open trim types
CS Clear semi-specular anodize
SG Satin-glow anodize
GD Gold anodize
CG Champagne gold anodize
PW Pewter anodize
SPC Clear specular anodize
RG Rose gold anodize
WH White 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 [10]
IP IP65 rated trim [11]
AD Diffuse acrylic lens [12]
PD Diffuse 1/8″ polycarbonate lens [13]
WET/CC Wet location, covered ceiling listed [14]
AM Anti-microbial [15]

MOUNTING

MOUNTING TYPE [16]
N Open pan for new construction
I IC-rated enclosure for new construction [18]
R Remodel kit [19]

MOUNTING HARDWARE [17]
F1 Integral 2-position fixed pan bracket, universal bar hanger included [20]
BA1 Adjustable butterfly pan bracket, bar hanger not included [21]
CA1 Adjustable caterpillar pan bracket, universal bar hanger included [22]

NOTES

1 Lumen output based on full light output, L Trim Type, W Distribution and WH Reflector Finish, 95 CRI/3000K CCT. Actual performance may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
2 I Mounting Type required.
3 May be required for 347V, see product builder at hew.com/product-builder
4 Not available with I Mounting Type.
5 Not available with EM batteries.
6 Trim ships separately.
7 Available with WW Distribution only.
8 A Trim Type only.
9 For use with mud-in plaster construction only, supplied with mud flange installation kit. See page 3 for FLANGE TYPE DETAILS. Not available with O Trim Type, ATH, IP, or MWT Options.
10 Not available with WH Reflector Finish or L Trim Type.
11 L and R Trim Types only.
12 Not available with O trim type. W and WW Distributions only.
13 Not available with O trim type. W and WW Distributions only.
14 Not available with O Trim Type.
15 WH and BL Reflector Finishes only.
16 Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 4 for MOUNTING TYPE DETAILS.
17 Specify for N and I Mounting Types only. Additional mounting hardware options available. See page 4 for MOUNTING HARDWARE DETAILS.
18 L7 and L13 lumen packages only. Not available with EM batteries.
19 Also used in new construction sheetrock ceilings. Pan-less installation.
20 N and I Mounting Types only. I Mounting requires external brackets.
21 N Mounting Type only.
22 N Mounting Type only.

6DS dim to WARM
6" Downlight – Square

FEATURES

- Mimic the comfortable, welcoming glow of incandescent with warm-dimming technology
- Beam angles ranging from 25° narrow to 65° wide for tailored performance
- Square shape accentuates architectural styles
- Open reflector with seven finishes complements any interior style
- Die-cast trim choices include flush, regressed or angled lens
- Spring clip retention system eliminates trim sag
- Contemporary design provides glare-free illumination for a soft ceiling appearance
- Fully room-side accessible
- Made Right Here® in the USA

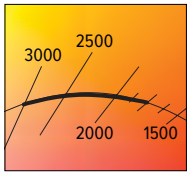
SPECIFICATIONS

- 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.
- 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.
  - 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

	CCT AT 100% (FULL OUTPUT)	CCT AT 1% (FULL DIM)	DIST.	WATTAGE	OPEN REFLECTOR DELIVERED LUMENS	OPEN REFLECTOR EFFICACY (lm/W)	FLUSH LENS DELIVERED LUMENS	FLUSH LENS EFFICACY (lm/W)	REGRESSED LENS DELIVERED LUMENS	REGRESSED LENS EFFICACY (lm/W)
L7	3000K	1800K	W	14.0	715	51	761	54	731	52
			M	14.0	581	42	779	56	759	54
			N	14.0	573	41	759	54	755	54
L13			W	23.4	1253	54	1334	57	1282	55
			M	23.4	1019	44	1366	58	1330	57
			N	23.4	1005	43	1331	57	1324	57
L21			W	37.7	2052	54	2194	58	2099	56
			M	37.7	1668	44	2234	59	2171	58
			N	37.7	1648	44	2181	58	2168	58

- Photometrics tested in accordance with IESNA LM-79. Results based on full light output, L Trim Type, WH Reflector Finish, W Distribution, 95 CRI/3000K CCT, 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 tables to calculate additional options.



MULTIPLIER TABLES

OPEN REFLECTOR FINISH	
CATALOG NUMBER	CONVERSION FACTOR
CS	1.00
SG	0.92
GD	0.93
CG	0.96
PW	0.86
SPC	1.02
RG	0.88
WH	0.89

TRIM OPTIONS	
CATALOG NUMBER	CONVERSION FACTOR
AD	0.85
PD	0.85

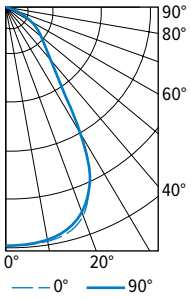
BEAM ANGLE

	TRIM TYPE [1]		
	O	L	R
W	55°	65°	65°
M	50°	35°	35°
N	45°	25°	25°

[1] Beam angle based on CS or WH Reflector Finish.

PHOTOMETRY

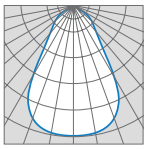
6DS-L21/9DW-DIM1-UNV-LW-OF-WH Total Luminaire Output: 2194 lumens; 37.7 Watts | Efficacy: 58.2 lm/W | 95.0 CRI; 3000K CCT

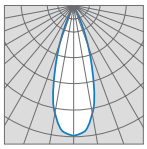


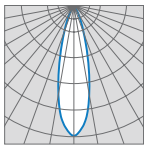
CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE 0°	45°	90°	ZONAL LUMENS
	0	1482	1482	1482	
	5	1486	1478	1481	141
	15	1452	1433	1433	405
	25	1209	1334	1214	566
	35	553	892	556	445
	45	336	388	328	283
	55	212	218	210	192
	65	109	109	106	109
	75	42	41	40	45
	85	3	2	4	7
	90	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1112	51
	0 - 40	1557	71
	0 - 60	2032	93
	0 - 90	2194	100
	0 - 180	2194	100

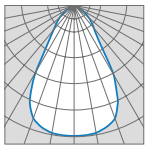
FLUSH (L)


65° Wide


35° Medium


25° Narrow

REGRESSED (R)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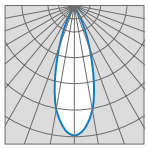
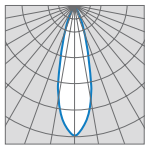
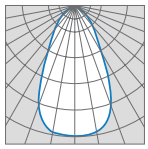
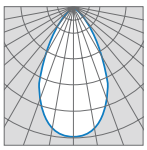

35° Medium

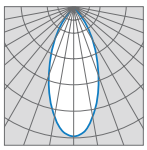

25° Narrow

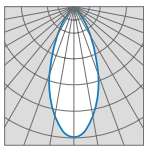
ANGLED (A)


Wall Wash

OPEN (O)


55° Wide


50° Medium


45° Narrow

6DS dim to WARM
6″ Downlight – Square

EMERGENCY BATTERY OPTIONS

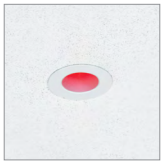
ORDERING EXAMPLE: EM/7W/RTS	
EMERGENCY BATTERY	**TEST SWITCH**
EM/7W 7-watt emergency battery	**–** Standard [2]
EM/10W 10-watt emergency battery [1]	**/RTS** Regressed test switch [3]
	/IPRTS IP65 rated regressed test switch [4]

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.

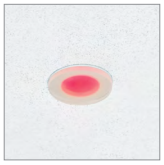
1 Not available with L10 lumen package.
2 Not available with IP Trim Option.
3 Not available with IP or WET/CC Trim Options.
4 Must specify IP or WET/CC Trim Option.

TEST SWITCH DETAILS

Standard
2-3/4″ x 4-1/2″



Regressed
ø1-3/4″



IP-Rated
ø1-3/4″

APERTURE ADAPTOR ORDERING INFO

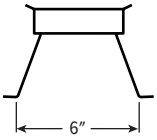
ORDERING EXAMPLE: EM/7W/RTS	
EMERGENCY BATTERY	**TEST SWITCH**
EM/7W 7-watt emergency battery	**–** Standard [2]
EM/10W 10-watt emergency battery [1]	**/RTS** Regressed test switch [3]
	/IPRTS IP65 rated regressed test switch [4]

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.

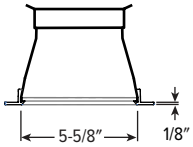
1 Not available with L10 lumen package.
2 Not available with IP Trim Option.
3 Not available with IP or WET/CC Trim Options.
4 Must specify IP or WET/CC Trim Option.

TRIM TYPE DETAILS

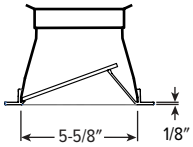
OPEN



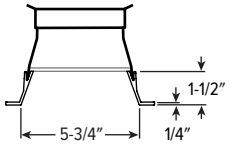
FLUSH



ANGLED

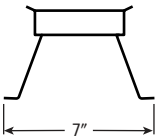


REGRESSED



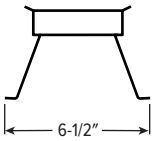
FLANGE TYPE DETAILS

1/2″ STANDARD



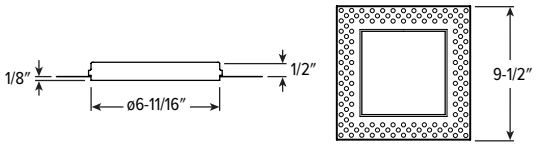
Ceiling Cutout: 6-1/2″

1/4″ MUD-IN



Ceiling cutout: 7″

MUD FLANGE MOUNTING KIT (SLIM FLANGE TYPE)



REFLECTOR FINISH DETAILS

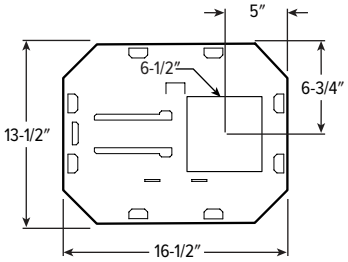
SPC Clear specular
SG Satin glow
PW Pewter
GD Gold
CG Champagne gold
RG Rose gold
CS Clear semi-specular
WH White
BL Black

6DS dim to WARM
6″ Downlight – Square

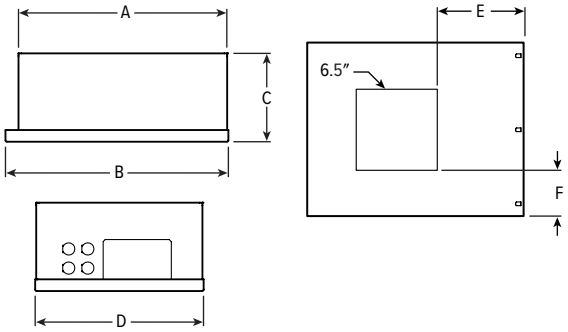
MOUNTING TYPE DETAILS

Flex conduit is recommended for installation.

NEW CONSTRUCTION



IC-RATED

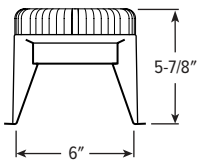


	LENGTH					
LUMENS	A	B	C	D	E	F
L7 - L13	15-3/16″	16″	6-3/8″	12-1/8″	6-1/4″	2-7/8″

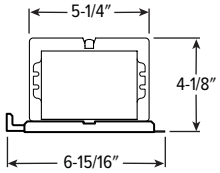
REMODEL

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

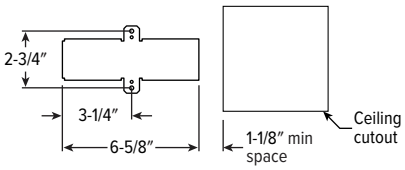
CROSS SECTION



DRIVER & JUNCTION BOX

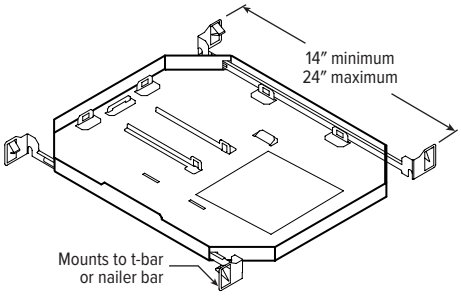


RECEIVER BRACKET

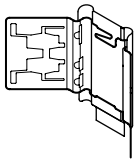


MOUNTING HARDWARE DETAILS

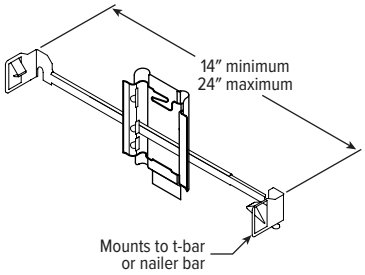
F1 Integral 2-position fixed pan bracket, universal bar hanger included



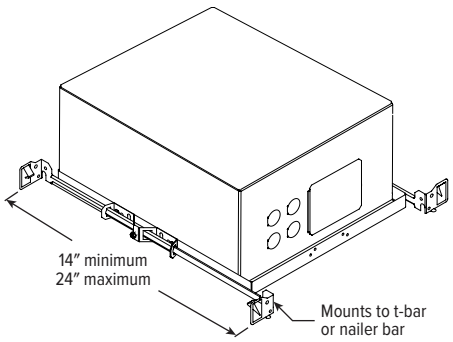
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



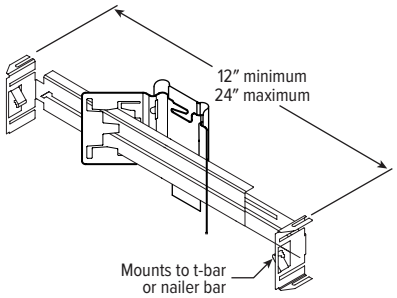
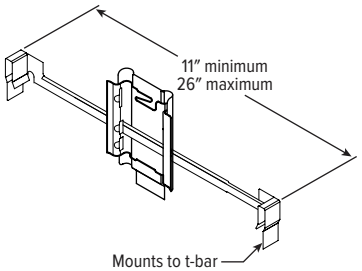
CA1 Adjustable caterpillar pan bracket, universal bar hanger included (N Mounting Type only)



F1 with I Mounting Type



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



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