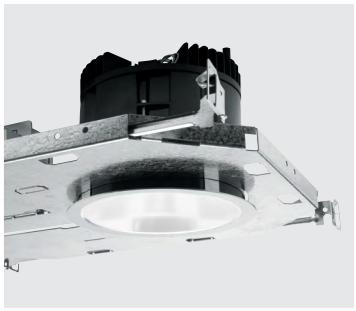
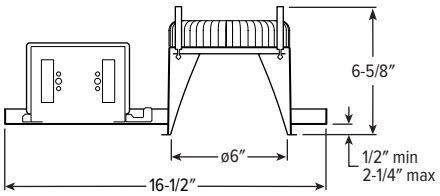
6DR LED
6" Downlight – Round



NEW CONSTRUCTION AND REMODEL



L30 – L40 Lumens shown

CATALOG #:

TYPE:

PROJECT:

BAA & BABA COMPLIANT · CCEA Approved · Low UGR · IP65 Rated · JA8 Compliant · TITLE 24 · WET/CC · ASTM-E283 · TW TrimLock®

ORDERING EXAMPLE: 6DR - TL - L20/835 - OPTIONS - CONTROL/DIM - UNV - OW - OF - CS - TRIM OPTIONS - N - F1
(HOUSING | TRIM | MOUNT.)

HOUSING

SERIES
6DR - TL TrimLock

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

Single CCT only
L50 5,000lm
L60 6,000lm
L70 7,000lm
L80 8,000lm
L100 10,000lm
L120 12,000lm

CRI
8 80
9 90 [2]

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.
See page 4 for APERTURE ADAPTOR ORDERING INFO.
SCA_ _ Sloped ceiling adapter [3]
ATH Airtight construction
F Fuse
CP Chicago plenum (CCEA) [4]
SDT Stepdown transformer [5]
(L__) Additional lower lumen packages available. [6] Example: 11,000 lumens = 6DR-TL-L120/835-**(L110)**

CONTROL
Click HERE for control options.
– None

DRIVER
See page 6 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
F Open reflector with polycarbonate frosted top diffuser [12]
L Flush lens
R Regressed lens
A Angled lens [13]
S Non-conductive flush lens for shower applications [14]

DISTRIBUTION
See page 2 for BEAM ANGLE.
W Wide
M Medium [15]
N Narrow [16]
WW Wall wash [17]

FLANGE TYPE
OF 1/2" standard flange
SF 1/4" mud-in flange [18]

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
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 [19]
IP IP65 rated trim [20]
AD Diffuse acrylic lens [21]
PD Diffuse 1/8" polycarbonate lens [22]
WET/CC Wet location, covered ceiling listed [23]
AM Anti-microbial [24]

MOUNTING

MOUNTING TYPE [25]
N Open pan for new construction
I IC-rated enclosure for new construction [27]
R Remodel kit [28]

MOUNTING HARDWARE [26]
F1 Integral 2-position fixed pan bracket, universal bar hanger included [29]
F1S New construction mounting pan shipped ahead, integral 2-position fixed bracket, universal bar hangers included [30]
BA1 Adjustable butterfly pan bracket, bar hanger not included [31]
CA1 Adjustable caterpillar pan bracket, universal bar hanger included [32]

NOTES

1 Lumen output based on CS (O and F Trim Types), or WH (L, R and A Trim Types) Reflector Finish, W distribution, 80 CRI, 3500K for static white and 4000K for tunable white. Actual performance may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA. Additional lumen packages available, see Options
2 Not available with tunable white.
3 11-1/2" aperture, specify degrees of slope in 5° increments, 05°-30°. Not available with I Mounting Type, S Trim Type, ATH, IP, or WET/CC Options. Painted white. Other colors available, consult factory. See page 4 for SLOPED CEILING ADAPTOR DETAILS.
4 I Mounting Type required.
5 May be required for 347V, see product builder at hew.com/product-builder
6 Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.
7 0.1% Driver with tunable white.
8 Not available with tunable white.
9 L15 min to L60 max lumen packages. Not available with tunable white.
10 Not available with Tunable White, EM batteries, or DMX Drivers.
11 Trim ships separately.
12 L50 lumen package max.
13 Available with WW Distribution only.
14 W Distribution, OF Flange Type and WH Reflector Finish only. Standard with AD, IP and WET/CC Trim Options.
15 Not available with lumen stops L50 and higher when specified with L or R Trim Types.
16 Not available with lumen stops L50 and higher when specified with L or R Trim Types.
17 O and A Trim Types only.
18 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, IP, or MWT Options.
19 Not available with WH Reflector Finish, L or S Trim Types.
20 L and R trim types only.
21 Not available with O or F Trim Types. W and WW Distributions only.
22 Not available with O or F Trim Types. W and WW Distributions only.
23 L50 lumen package max with O Trim Type.
24 WH and BL Reflector Finishes only. Not available with S Trim Type.
25 Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 5 for MOUNTING TYPE DETAILS.
26 Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.
27 L30 lumen package max. Not available with EM batteries.
28 Also used in new construction sheetrock ceilings. Pan-less installation.
29 N and I Mounting Types only. I Mounting requires external brackets.
30 N Mounting Type only.
31 N Mounting Type only.
32 N Mounting Type only.

6DR LED
6" Downlight – Round

FEATURES
- Innovative TrimLock reflector retention system ensures trim remains flush with ceiling plane
- Wide range of lumen options for general illumination
- Beam angles ranging from 10° narrow to 65° wide for tailored performance
- Industry-leading efficacies as high as 134 lm/W
- New construction mounting pan, IC-rated, or pan-less remodel kit available
- Fully room-side accessible
- Die-cast trim includes flush, regressed or angled lens
- Sloped adapter accommodates vaulted ceilings
- Optional non-conductive lens for shower applications
- IP65-rated die-cast trim includes easy-to-clean flush lens
- Open reflector with nine finishes complements any interior style
- Support human-centric design with adaptive, individualized lighting using tunable white light
- IP65-rated die-cast trim includes easy-to-clean flush 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 trim housing and 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".
- TRIMLOCK – Innovative TrimLock reflector retention system ensures the trim remains flush with the ceiling plane.
- 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. Minimum 24" O.C. marked spacing required for L60 – L120 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.
  - 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
  - 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 (O)		OPEN TOP DIFFUSER (F)		FLUSH (L)		REGRESSED (R)	
	DISTRIBUTION	WATTAGE	DELIVERED LUMENS	EFFICACY (lm/W)	DELIVERED LUMENS	EFFICACY (lm/W)	DELIVERED LUMENS	EFFICACY (lm/W)	DELIVERED LUMENS	EFFICACY (lm/W)
L10	W	8.5	1016	120	803	94	734	86	688	81
	M	8.5	993	117	825	97	894	105	875	103
	N	8.5	947	111	791	93	924	109	909	107
L15	W	12.8	1554	121	1228	96	1122	88	1052	82
	M	12.8	1518	119	1262	99	1368	107	1338	105
	N	12.8	1448	113	1211	95	1413	110	1391	109
L20	W	16.2	2078	128	1642	101	1500	93	1407	87
	M	16.2	2030	125	1687	104	1829	113	1789	110
	N	16.2	1937	120	1619	100	1889	117	1860	115
L30	W	23.0	3092	134	2458	107	2198	96	2081	90
	M	23.0	3018	131	2532	110	2538	110	2474	108
	N	23.0	2876	125	2427	106	2662	116	2613	114
L40	W	31.7	4105	129	3263	103	2919	92	2763	87
	M	31.7	4006	126	3362	106	3370	106	3284	104
	N	31.7	3818	120	3222	102	3534	111	3469	109
L50	W	38.7	5121	132	4148	107	3948	102	3703	96
	M	38.7	5060	131	4261	110	–	–	–	–
	N	38.7	4824	125	4099	106	–	–	–	–
L60	W	46.7	6166	132	–	–	4754	102	4458	95
	M	46.7	6092	130	–	–	–	–	–	–
	N	46.7	5808	124	–	–	–	–	–	–
L70	W	55.9	7177	128	–	–	5533	99	5189	93
	M	55.9	7091	127	–	–	–	–	–	–
	N	55.9	6761	121	–	–	–	–	–	–
L80	W	64.6	8161	126	–	–	6292	97	5900	91
	M	64.6	8063	125	–	–	–	–	–	–
	N	64.6	7688	119	–	–	–	–	–	–
L100	W	79.7	10018	126	–	–	7383	93	6912	87
	M	79.7	9748	122	–	–	–	–	–	–
	N	79.7	9287	117	–	–	–	–	–	–
L120	W	105.0	12219	116	–	–	9005	86	8431	80
	M	105.0	11889	113	–	–	–	–	–	–
	N	105.0	11327	108	–	–	–	–	–	–

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 CS (O and F Trim Types), or WH (L, R and A Trim Types) Reflector Finish, W Distribution, 80 CRI, 3500K for single CCT and 4000K for tunable white, wattage for 120V input, and 25ºC 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

	COLOR TEMPERATURE		
	CCT	SINGLE CCT	TW
80 CRI	2700K	0.98	0.83
	3000K	1.00	1.00
	3500K	1.00	0.99
	4000K	1.01	1.00
	5000K	0.99	0.98
90 CRI	2700K	0.93	–
	3000K	0.95	–
	3500K	0.96	–
	4000K	0.97	–
	5000K	0.94	–

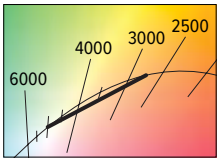
REFLECTOR FINISH		
CATALOG NUMBER	CONVERSION FACTOR	
	O TRIM	R TRIM
CS	1.00	0.98
SG [1]	0.92	–
GD	0.93	–
CG	0.96	–
PW	0.86	–
SPC	1.02	–
RG	0.88	–
WH [1]	0.89	1.00
BL [1]	0.47	0.79

TRIM OPTIONS	
CATALOG NUMBER	CONVERSION FACTOR
F	0.75
S	0.85
AD	0.85
PD	0.85
WET/CC	0.85

BEAM ANGLE

	TRIM TYPE [2]			
	O	F	L	R
W	65°	70°	55°	55°
M	35°	35°	35°	35°
N	10°	20°	25°	25°

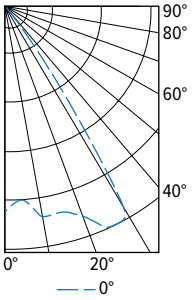
TUNABLE WHITE



6DR LED
6″ Downlight – Round

PHOTOMETRY

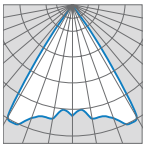
6DR-TL-L10/835-DIM-UNV-OW-OF-CS Total Luminaire Output: 1016 lumens; 8.5 Watts | Efficacy: 120 lm/W | 80 CRI; 3500K CCT

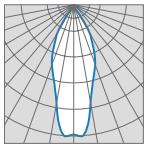


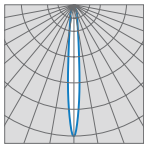
CANDLEPOWER DISTRIBUTION		
VERTICAL ANGLE	HORIZONTAL ANGLE 0°	ZONAL LUMENS
0	810	
5	765	76
15	842	242
25	961	434
35	293	238
45	22	19
55	6	6
65	1	1
75	0	0
85	0	0
90	0	

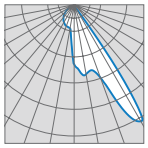
LUMEN SUMMARY		
ZONE	LUMENS	% FIXTURE
0 - 40	989	97
0 - 60	1015	100
0 - 90	1016	100
0 - 180	1016	100

OPEN (O)

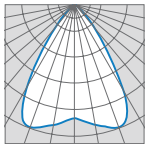

65° Wide

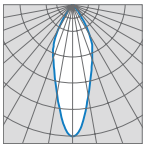

35° Medium

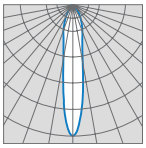

10° Narrow


Wall Wash

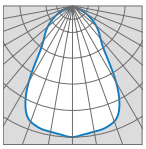
OPEN TOP DIFFUSER (F)

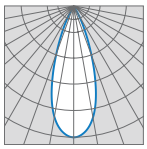

70° Wide

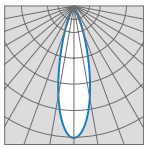

35° Medium


20° Narrow

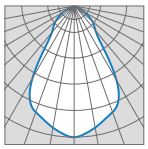
FLUSH (L)

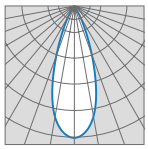

55° Wide

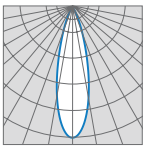

35° Medium


25° Narrow

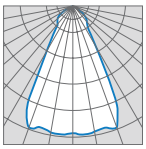
REGRESSED (R)


55° Wide


35° Medium


25° Narrow

ANGLED (A)


Wall Wash

EMERGENCY BATTERY OPTIONS

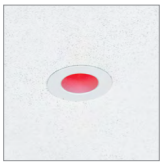
ORDERING EXAMPLE: EM/7W/RTS	
EMERGENCY BATTERY	TEST SWITCH
EM/7W 7-watt emergency battery **EM/10W** 10-watt emergency battery [1]	**–** Standard [2] **/RTS** Regressed test switch [3] **/IPRTS** IP65 rated regressed test switch [4] **/ITS** Integral test switch [5]

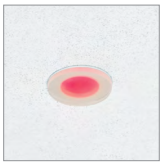
Additional limitations apply, see page 1. Specify CEC in the option code when California Energy Commission regulations are required. Max remote distance is 50′, connection by others.

1 Not available with L10 lumen package.
2 Not available with S Trim Type or IP Trim Option.
3 Not available with S Trim Type, IP or WET/CC Trim Options.
4 Must specify IP or WET/CC Trim Options.
5 O and F Trim Types only. N Mounting Type and OF Flange Type only. Top access required. Not available with WW Distribution, WET/CC Trim Option, ATH, CP or SCA Options. 3/8″ to 1-1/4" ceiling thickness only.

TEST SWITCH DETAILS

Standard
2-3/4″ x 4-1/2″


Regressed
ø1-3/4″


IP-Rated
ø1-3/4″

Integral
ø3/4″

6DR LED
6" Downlight – Round

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

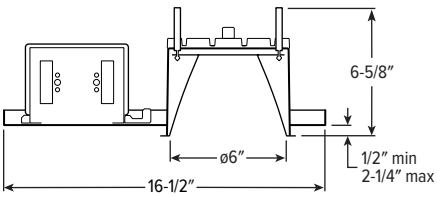
Adaptor (goof ring) corrects ceiling cutout errors during remodel downlight installation.

Additional finishes available, consult factory.

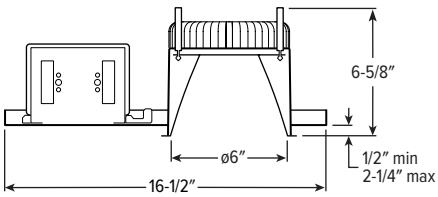
For limitations and instructions, see hew.com/aperture-adaptor.pdf

CROSS SECTIONS

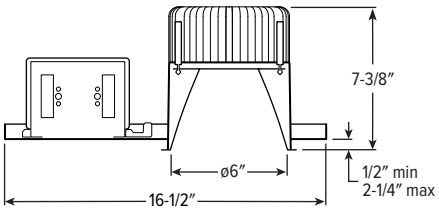
L10 – L20 LUMENS



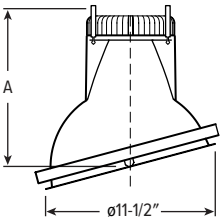
L30 – L40 LUMENS



L50 – L120 LUMENS



SLOPED CEILING ADAPTOR DETAILS



Ceiling cutout: ø11-7/8"

LUMENS	A (HEIGHT) 5°	10°	15°	20°	25°	30°	PLENUM HEIGHT
L10 - L40	10-11/16"	10-7/8"	10-15/16"	10-7/8"	10-13/16"	10-5/8"	11-1/4"
L50 - L120	11-7/16"	11-9/16"	11-5/8"	11-5/8"	11-1/2"	11-1/4"	12"

15° Shown

TRIMLOCK INSTALLATION DETAILS

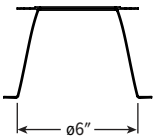
TWIST

PULL

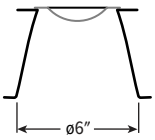
RELEASE

TRIM TYPE DETAILS

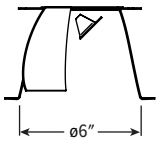
OPEN



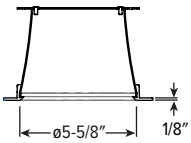
OPEN TOP DIFFUSER



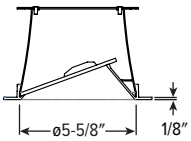
OPEN (WALL WASH)



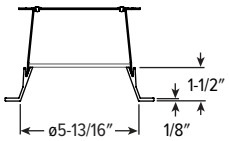
FLUSH | SHOWER



ANGLED

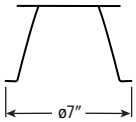


REGRESSED



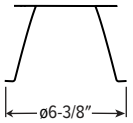
FLANGE TYPE DETAILS

1/2" STANDARD



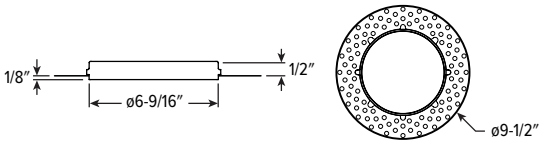
Ceiling Cutout: ø6-1/2"

1/4" MUD-IN



Ceiling cutout: ø7"

MUD FLANGE MOUNTING KIT (SLIM FLANGE TYPE)



6DR LED
6" Downlight – Round

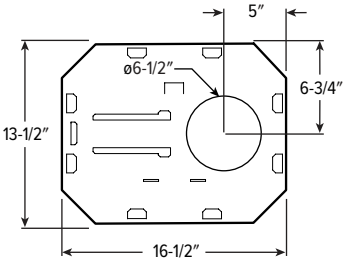
REFLECTOR FINISH DETAILS

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

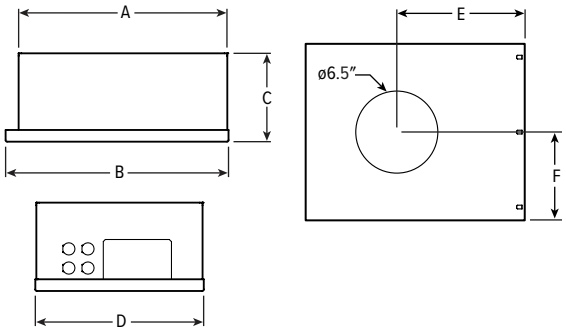
MOUNTING TYPE DETAILS

Flex conduit is recommended for installation.

NEW CONSTRUCTION



IC-RATED



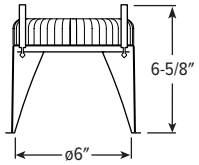
	LENGTH					
LUMENS	A	B	C	D	E	F
L10 - L20	15-3/16″	16″	6-3/8″	12-1/8″	9-1/2″	6-1/16″
L30	16-5/8″	17-1/2″	7-7/8″	14″	10-1/4″	7″

REMODEL

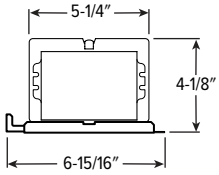
H.E. Williams Inc. strongly recommends installing a trial fixture to confirm fitment on-site prior to ordering full project quantities.

CROSS SECTION

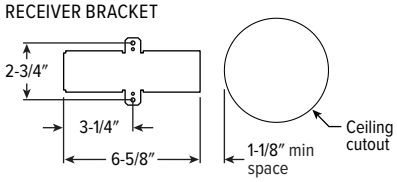
L30 – L40 lumens shown



DRIVER & JUNCTION BOX

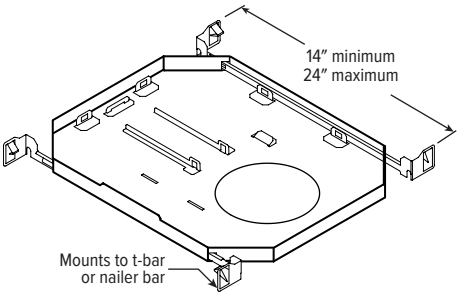


RECEIVER BRACKET

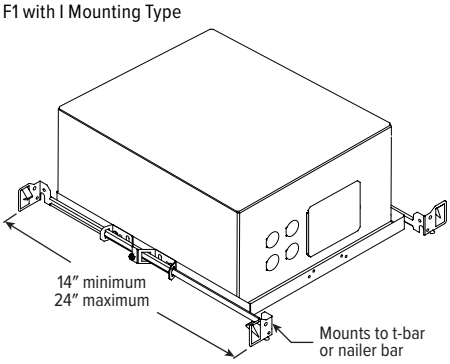


MOUNTING HARDWARE DETAILS

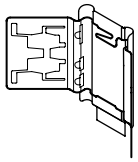
F1 Integral 2-position fixed pan bracket, universal bar hanger included



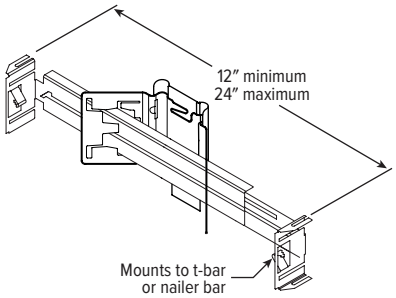
F1 with I Mounting Type



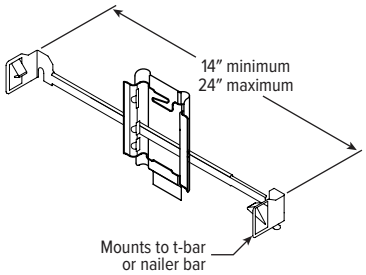
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



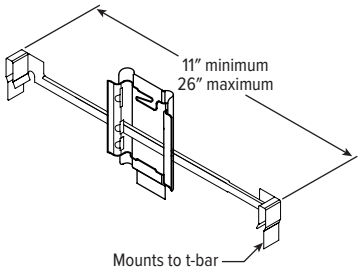
BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included. (N Mounting Type only)



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 DRIVER DETAILS.

6DR LED
6" Downlight – Round

ADDITIONAL DRIVER OPTIONS

Lumen restrictions apply: L40 max for DMX driver, L40 max for Lutron driver, L15 min to L60 max for DIM LINE driver. L15 min for LDE1 driver. R mounting type requires top access with DMX drivers. 347V may require stepdown transformer, see product builder at hew.com/product-builder. I Mounting Type not available with Lutron driver.

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

DIM

DALI

DMX

LD2