6DR tunable WHITE
6" Downlight – Round

Williams

CATALOG #: _____

L13 - L23: 6-5/8"
L42: 7-3/8"

ø6"

1/2" min
2-1/4" max

16-1/2"

TYPE: _____

PROJECT: _____

NEW CONSTRUCTION AND REMODEL

ORDERING EXAMPLE: 6DR - TL - L13/8TW - OPTIONS - DIM - UNV - OW - OF - CS - TRIM OPTIONS - N - F1

|——————— HOUSING ———————| |———— TRIM ————| |MOUNT.|

BUY AMERICAN ACT COMPLIANT

HOUSING

SERIES	LUMENS [1]	COLOR	OPTIONS	CONTROL	VOLTAGE
6DR-TL TrimLock	**L13** 1,300lm **L23** 2,300lm **L42** 4,200lm	**8TW** Tunable white (80 CRI, 2700K-5000K)	*See page 3 for EMERGENCY BATTERY OPTIONS.* **SCA__** Sloped ceiling adapter [2] **ATH** Airtight construction **CP** Chicago plenum (CCEA) [3] **F** Fuse kit	*See page 4 for CONTROL DETAILS.* **DALI** Driver prewired for DALI applications **DIM** Dimming driver with (1) 0-10V signal to control dimming and (1) 0-10V signal to control CCT **DMX** Driver prewired for DMX applications **PSQ** Lutron T-Series 2-channel tunable white 1%. [4]	**UNV** 120-277V

TRIM [5]

TRIM TYPE	DISTRIBUTION [6]	FLANGE TYPE	REFLECTOR FINISH	TRIM OPTIONS

O Open reflector
L Flush lens
R Regressed lens
A Angled lens [7]
S Non-conductive flush lens for shower applications [8]
	W Wide
	  65° Open
	  55° Flush
	  55° Regressed
	M Medium [9]
	  35° Open
	  35° Flush
	  35° Regressed
	N Narrow [10]
	  10° Open
	  25° Flush
	  25° Regressed
	WW Wall wash [11]
		OF 1/2" standard flange
		SF 1/4" mud-in flange [12]
			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
			MB Black texture splay with white flange [13]
				MWT Textured white trim flange [14]
				IP IP65 rated trim [15]
				AD Diffuse acrylic lens [16]
				PD Diffuse 1/8" polycarbonate lens [17]
				TD Diffuse polycarbonate lens media at top of open reflector [18]
				WET/CC Wet location, covered ceiling listed [19]
				AM Anti-microbial [20]

MOUNTING

MOUNTING TYPE [21]

N Open pan for new construction
I IC-rated enclosure for new construction [23]
R Remodel kit [24]

MOUNTING HARDWARE [22]

F1 Integral 2-position fixed pan bracket, universal bar hanger included [25]
BA1 Adjustable butterfly pan bracket, bar hanger not included [26]
CA1 Adjustable caterpillar pan bracket, universal bar hanger included [27]

NOTES

[1] Lumen output based on O trim type, W distribution and CS finish, 4000K/80CRI. Actual lumens may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
[2] 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.
[3] I Mounting Type required.
[4] Not available with I Mounting Type.
[5] Trim ships separately.
[6] Beam angle based on CS or WH reflector finish.
[7] Available with WW Distribution only.
[8] W Distribution, OF Flange Type, WH Reflector Finish only. Standard with AD diffuse acrylic lens. IP and WET/CC options standard.
[9] Not available with lumen stop L42 when specified with flush or regressed trim types.

[10] Not available with lumen stop L42 when specified with flush or regressed trim types.
[11] O and A Trim Types only.
[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 or IP options.
[13] R Trim Type only.
[14] Not available with WH Reflector Finish, L or S Trim Types.
[15] L and R trim types only.
[16] Not available with O trim type. W and WW distributions only.
[17] Not available with O trim type. W and WW distributions only.
[18] O Trim Type only. WET/CC standard unless ordered with EM/RTS.
[19] Not available with PD trim option.
[20] WH and BL Reflector Finishes only. Not available with S Trim Type.

[21] Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 5 for MOUNTING TYPE DETAILS.
[22] Additional mounting hardware options available. SEE PAGE 5 FOR MOUNTING HARDWARE DETAILS.
[23] L13 and L23 lumen packages only. Not available with EM batteries.
[24] Also used in new construction sheetrock ceilings. Pan-less installation.
[25] N and I Mounting Types only. I Mounting requires external brackets.
[26] N Mounting Type only.
[27] N Mounting Type only.

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Downlights
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6DR tunable WHITE
6" Downlight – Round

FEATURES

TrimLock®

- Innovative TrimLock reflector retention system ensures trim remains flush with ceiling plane
- Support human-centric design with adaptive, individualized lighting using tunable white light
- New construction mounting pan, IC-rated, or pan-less remodel kit available
- Optional non-conductive lens for shower applications
- Contemporary design provides glare-free illumination for a soft ceiling appearance
- Die-cast trim includes flush, regressed or angled lens
- Open reflector with nine finishes complements any interior style
- Sloped adapter accommodates vaulted ceilings
- IP65-rated die-cast trim includes easy-to-clean flush lens
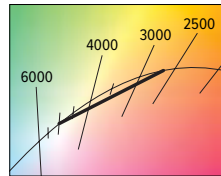- Easily adjust mounting arms below ceiling to adapt to a range of ceiling thicknesses

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″.
- 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 LED array. Modular quick-connect plug for easy field-connection of LED light assembly to driver. Reported L70>50,000 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 L42 lumen package.

- 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 or TD options.
  - 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.
- 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	
			DELIVERED LUMENS	EFFICACY (lm/W)	DELIVERED LUMENS	EFFICACY (lm/W)	DELIVERED LUMENS	EFFICACY (lm/W)
L13	W	14.6	1320	90	1135	78	1098	75
	M	14.6	1317	90	1220	84	1183	81
	N	14.6	1345	92	1231	84	1199	82
L23	W	24.0	2357	98	1964	82	1900	79
	M	24.0	2285	95	2117	88	2059	86
	N	24.0	2187	91	2129	89	2075	87
L42	W	44.9	4304	96	3596	80	3480	78
	M	44.9	4173	93	–	–	–	–
	N	44.9	3994	89	–	–	–	–

[1] Distribution will also be affected, consult factory.
[2] Use multiplier when specified with O Trim Type.
- Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25°C ambient temperature.
- Wattage shown is based on 120V input.
- Results based on 4000K, 80 CRI, actual lumens 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	LUMENS	WATTS
2700K	0.83	1.03
3000K	1.00	1.00
3500K	0.99	0.99
4000K	1.00	1.00
5000K	0.98	1.03

TRIM

CATALOG NUMBER	CONVERSION FACTOR
S	0.85
AD	0.85
PD	0.85
TD	0.75
WET/CC [2]	0.85

REFLECTOR FINISH

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

BEAM ANGLE

	TRIM TYPE		
	OPEN	FLUSH	REGRESSED
W	65°	55°	55°
M	35°	35°	35°
N	10°	25°	25°

PHOTOMETRY

6DR-TL-L13/8TW-DIM-UNV-OW-OF-CS Total Luminaire Output: 1320 lumens; 14.6 Watts | Efficacy: 90.4 lm/W | 80.0 CRI; 4037K CCT
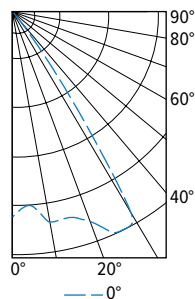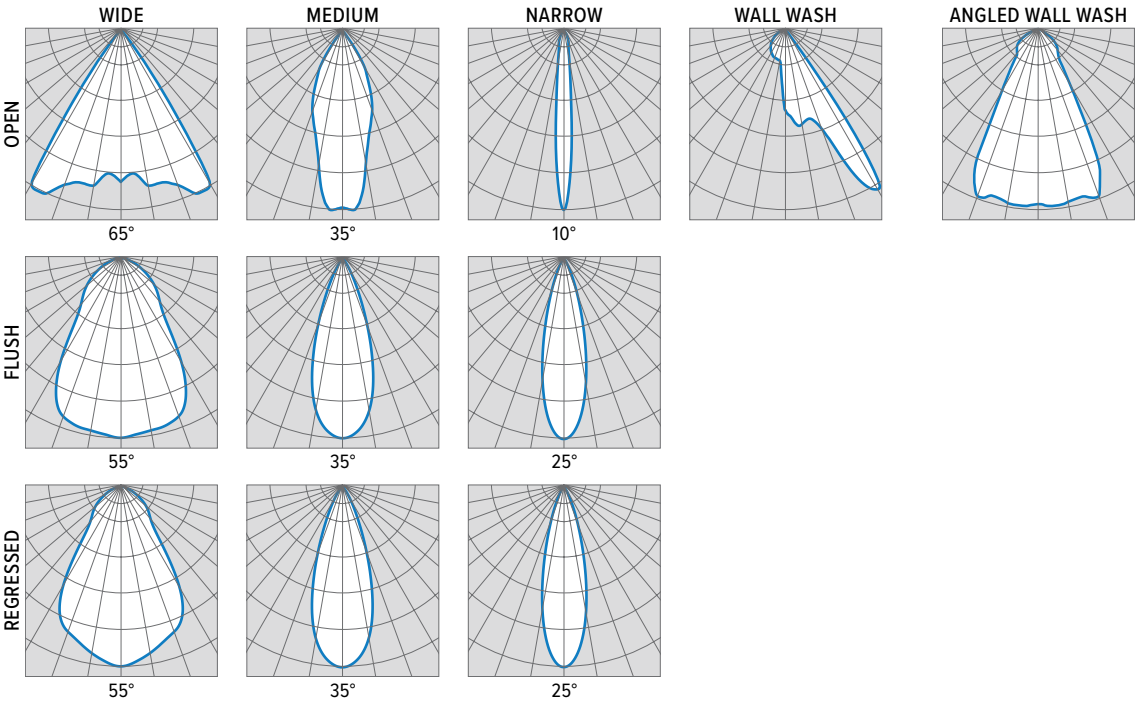
CANDLEPOWER DISTRIBUTION

VERTICAL ANGLE	HORIZONTAL ANGLE 0°	ZONAL LUMENS
0	1110	
5	1049	100
15	1152	327
25	1316	609
35	401	252
45	31	24
55	9	8
65	1	1
75	0	0
85	0	0
90	0	

LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0 - 40	1288	98
0 - 60	1320	100
0 - 90	1320	100
0 - 180	1320	100

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OPEN

WIDE	MEDIUM	NARROW	WALL WASH	ANGLED WALL WASH
65°	35°	10°		

FLUSH

55°	35°	25°

REGRESSED

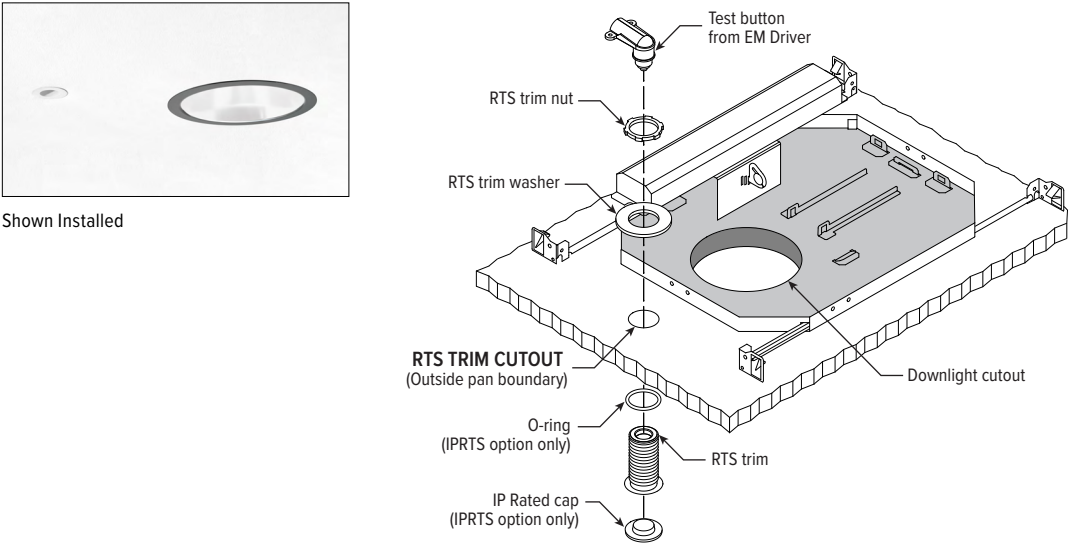| 55°	35°	25°

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/7W	7-watt emergency battery [1]
EM/7W/RTS	7-watt emergency battery with regressed test switch [2]
EM/7W/IPRTS	7-watt emergency battery with IP65 rated regressed test switch
EM/10W	10-watt emergency battery [1]
EM/10W/RTS	10-watt emergency battery with regressed test switch [2]
EM/10W/IPRTS	10-watt emergency battery with IP65 rated regressed test switch

[1] Not available with S Trim Type or IP Option.
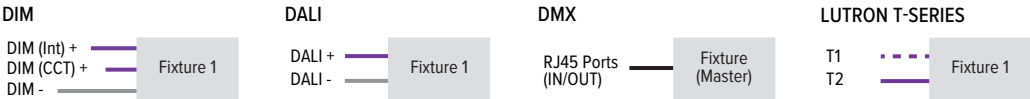[2] Not available with S Trim Type, IP or WET/CC Options.

REGRESSED TEST SWITCH DETAILS

Shown Installed

Test button from EM Driver

RTS trim nut

RTS trim washer

Downlight cutout

RTS TRIM CUTOUT
(Outside pan boundary)

O-ring
(IPRTS option only)

RTS trim

IP Rated cap
(IPRTS option only)

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CONTROL DETAILS

DIM
DIM (Int) +
DIM (CCT) +
DIM - → Fixture 1

DALI
DALI +
DALI - → Fixture 1

DMX
RJ45 Ports (IN/OUT) → Fixture (Master)

LUTRON T-SERIES
T1
T2 → Fixture 1

TRIMLOCK DETAILS

TWIST

PULL

RELEASE

SLOPED CEILING ADAPTOR DETAILS

LUMENS	A (HEIGHT)						PLENUM HEIGHT
	5°	10°	15°	20°	25°	30°	
L13 - L23	10-11/16″	10-7/8″	10-15/16″	10-7/8″	10-13/16″	10-5/8″	11-1/4″
L42	11-7/16″	11-9/16″	11-5/8″	11-5/8″	11-1/2″	11-1/4″	12″

A
11-1/2″
Ceiling cutout: ø11-7/8″
15° Shown

TRIM TYPE DETAILS

OPEN
ø6″

OPEN (WALL WASH)
ø6″

FLUSH
ø5-5/8″ — 1/8″

SHOWER
ø5-5/8″ — 1/8″

ANGLED
ø5-5/8″ — 1/8″

REGRESSED
ø5-13/16″ — 1/8″ — 1-1/2″

FLANGE TYPE DETAILS

1/2″ STANDARD
ø7″
Ceiling Cutout: ø6-1/2″

1/4″ MUD-IN
ø6-3/8″
Ceiling cutout: ø7″

MUD FLANGE MOUNTING KIT (SLIM FLANGE TYPE)
1/8″ — ø6-9/16″ — 1/2″
ø9-1/2″

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
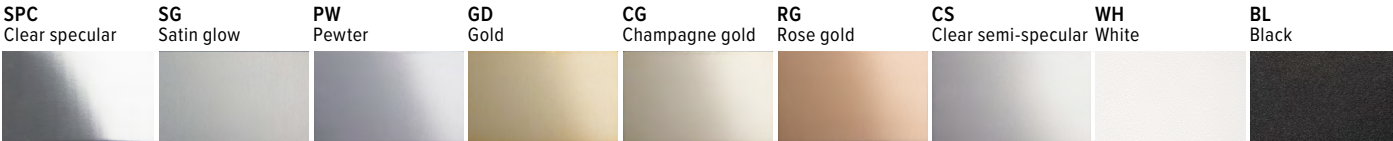
APERTURE ADAPTOR ORDERING INFO

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

For use with remodel downlights. Additional finishes available, consult factory.
For limitations and instructions, see hew.com/aperture-adaptor.pdf

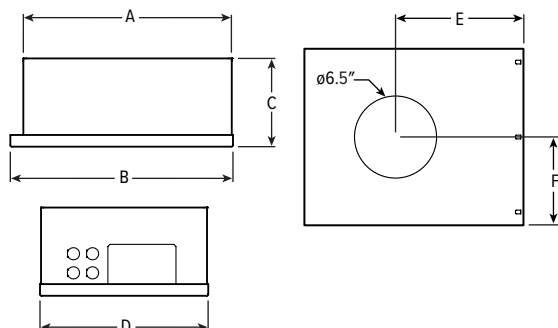H.E. Williams, Inc. ▪ Carthage, Missouri ▪ www.hew.com ▪ 417-358-4065 ▪ Designed and Manufactured in the USA
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MOUNTING TYPE DETAILS

NEW CONSTRUCTION

ø6-1/2"
5"
13-1/2"
6-3/4"
16-1/2"

IC-RATED

A
B
C
D
ø6.5"
E
F
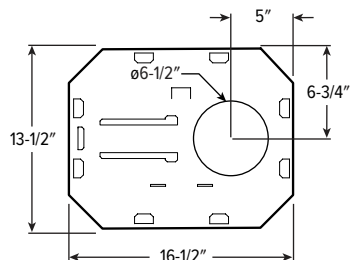
LUMENS	LENGTH					
	A	B	C	D	E	F
L13	15-3/16"	16"	6-3/8"	12-1/8"	9-1/2"	6-1/16"
L23	16-5/8"	17-1/2"	7-7/8"	14"	10-1/4"	7"

REMODEL

Cross Section

L13 - L23: 6-5/8"
L42: 7-3/8"

ø6"

Receiver Bracket
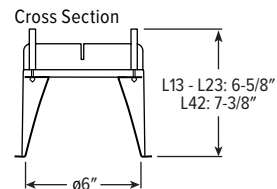
2-3/4"
3-1/4"
6-5/8"
1-1/8" min space
Ceiling cutout
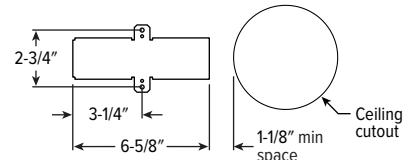
Driver and Junction Box

5-1/4"
4-1/8"
6-15/16"
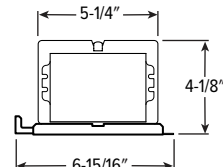
MOUNTING HARDWARE DETAILS

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

14" minimum
24" maximum

Mounts to t-bar or nailer bar

14" minimum
24" maximum

Mounts to t-bar or nailer bar
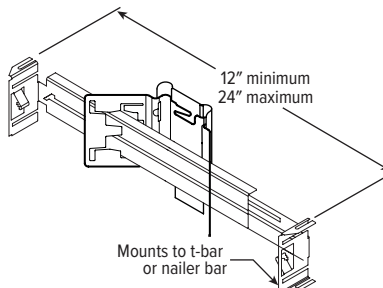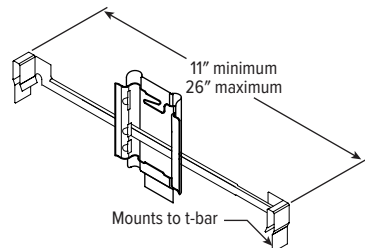
F1 with I Mounting Type
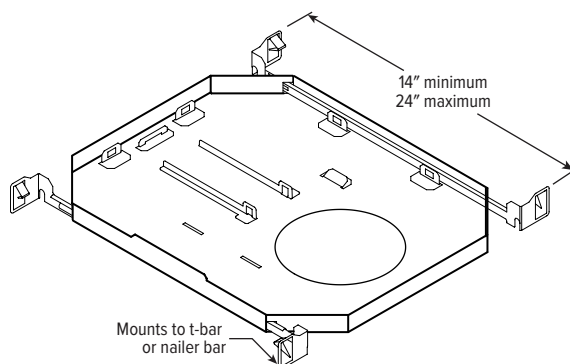
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)
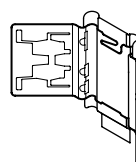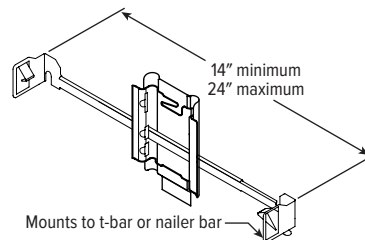
BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included (N Mounting Type only)

12" minimum
24" maximum

Mounts to t-bar or nailer bar

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

14" minimum
24" maximum

Mounts to t-bar or nailer bar

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

11" minimum
26" maximum

Mounts to t-bar

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