

CATALOG #: _____

TYPE: _____

PROJECT: _____

NEW CONSTRUCTION AND REMODEL

FEATURES

- Available with BIOS® SkyBlue® technology to support proper daytime circadian stimulus
- 2" aperture is unobtrusive in small scale spaces
- Zero-flange trim options for modern ceiling
- Die cast trim choices
- Beam angles ranging from 8° spot to 70° wide for tailored performance

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" – 2-3/8".
- OPEN REFLECTOR** – Low-iridescent anodized aluminum. Clear semi-specular finish standard.
- LENSED TRIM** – Die-cast aluminum frame with micro-prismatic, tempered glass 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>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. Minimum 12-1/2" O.C. marked spacing required for L20 and L25 lumen packages when specified with R Mounting Type and L15 lumen package when specified with S Distribution.
- LISTINGS** –
 - cCSAus conforms to UL STD 1598; Certified to CAN/CSA STD C22.2 No. 250.0 for 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.
 - ENERGY STAR® certified in select configurations, see www.energystar.gov
 - 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.
 - Title 24 (JA8) compliant in select configurations, see energy.ca.gov
- WARRANTY** – 5-year limited warranty, see hew.com/warranty.

ORDERING EXAMPLE: 2DR - L20/835 - OPTIONS - DIM - UNV - OW - OF - CS - TRIM OPTIONS - N - F1

HOUSING

SERIES	LUMENS ^[1]	CRI	CCT	OPTIONS	CONTROL ^[2]	VOLTAGE
2DR	L5 500lm	8 80	27 2700K	EM/5W 5-watt emergency battery ^[4]	DIM Dimming driver, 0-10V	UNV 120-277V 347 347V ^[11]
	L7 700lm	9 90 ^[3]	30 3000K	EM/7W 7-watt emergency battery ^[5]		
	L9 900lm	35 3500K	EM/10W 10-watt emergency battery ^[6]	DIM1 1% Dimming driver, 0-10V ^[10]		
	L12 1,200lm	40 4000K	EM/10W/RTS 10-watt emergency battery with regressed test switch ^[7]			
	L15 1,500lm	50 5000K	ATH Airtight construction			
	L20 2,000lm		F Fuse			
L25 2,500lm		CP Chicago plenum (CCEA) ^[8]	SDT Stepdown transformer ^[9]			

TRIM^[12]

TRIM TYPE	DISTRIBUTION ^[13]	FLANGE TYPE	REFLECTOR FINISH	TRIM OPTIONS
O Open reflector	W 70° Wide	OF 1/2" standard flange	Open trim types	MWT Textured white trim flange ^[20]
L Flush lens	M 40° Medium	ZF Zero-flange mud-in ^[18]	CS Clear semi-specular anodize	AD Diffuse acrylic lens ^[21]
R Regressed lens	N 15° Narrow ^[15]		SG Satin-glow anodize	PD Diffuse 1/8" polycarbonate lens ^[22]
A Angled lens ^[14]	S 8° Narrow spot ^[16]		GD Gold anodize	TD Diffuse polycarbonate lens media at top of open reflector ^[23]
	WW Wall wash ^[17]		CG Champagne gold anodize	WET/CC Wet location, covered ceiling listed
			PW Pewter anodize	AM Anti-microbial ^[24]
			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 ^[19]	

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]
- BA1 Adjustable butterfly pan bracket, bar hanger not included^[30]
- CA1 Adjustable caterpillar pan bracket, universal bar hanger included^[31]

NOTES

- Lumen output based on O trim type, W distribution and CS finish, 3500K/80CRI. Actual lumens may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA
- See page 3 for ADDITIONAL CONTROL OPTIONS.
- Extended lead times may apply. Consult factory for availability.
- N and R Mounting Types only.
- L9 minimum lumen package required.
- N and R Mounting Types only.
- L12 minimum lumen package required.
- N and R Mounting Types only.
- L12 minimum lumen package required. Not available with WET/CC or ATH options.
- N Mounting Type only. Top access required. See page 5 for EM BATTERY DETAILS.
- I Mounting Type required.
- May be required for 347V, see product builder at hew.com/product-builder
- L9 minimum lumen package required
- Not available with EM batteries or DMX controls.
- Trim ships separately.
- Beam angle based on O Trim Type and CS Reflector Finish. Trim Type affects beam angle. See page 2 for FIXTURE PERFORMANCE DATA.
- Available with WW Distribution only.
- L20 lumen package max for N and R Mounting and L12 lumen package max for I Mounting when specified with L, R and A Trim types.
- L15 lumen package max for N and R Mounting. L12 lumen package max for I Mounting. Not available with 950 CRI/CCT.
- A Trim Type only.
- For use with mud-in plaster construction only, supplied with mud flange installation kit. See page 4 for TRIM TYPE DETAILS. Not available with O Trim Type or ATH Option.
- R Trim Type only. Not available with ZF Flange Type or MWT.
- Not available with ZF Flange Type or WH Reflector Finish.
- W distribution only. Not available with O Trim Type.
- W distribution only. Not available with O Trim Type.
- O Trim Type only. WET/CC standard.
- WH and BL Reflector Finishes only.
- Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 4 for MOUNTING TYPE DETAILS.
- Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.
- L15 lumen package max.
- Also used in new construction sheetrock ceilings. Additional plenum space required for R mounting when specified with EM battery. See page 5 for EM BATTERY DETAILS.
- N and I Mounting Types only. I Mounting requires external brackets.
- N Mounting Type only
- N Mounting Type only



Available with BIOS® consult factory

2DR LED 2" Downlight – Round

FIXTURE PERFORMANCE DATA

DISTRIBUTION	WATTAGE	OPEN REFLECTOR TRIM TYPE		FLUSH LENS TRIM TYPE		REGRESSED LENS TRIM TYPE		ANGLED LENS TRIM TYPE		
		DELIVERED LUMENS	EFFICACY (lm/W)	DELIVERED LUMENS	EFFICACY (lm/W)	DELIVERED LUMENS	EFFICACY (lm/W)	DELIVERED LUMENS	EFFICACY (lm/W)	
L5	W	6.7	516	77	540	82	535	82	–	–
	M	6.7	499	74	532	81	509	78	–	–
	N	6.7	407	61	528	81	515	79	–	–
	S	7.8	451	58	624	79	602	77	–	–
	WW	6.5	–	–	–	–	–	–	366	56
L7	W	8.7	725	83	759	89	751	88	–	–
	M	8.7	700	81	748	88	715	84	–	–
	N	8.7	572	66	742	87	723	85	–	–
	S	11.2	630	56	871	78	840	75	–	–
	WW	8.5	–	–	–	–	–	–	514	60
L9	W	10.7	929	87	973	93	963	92	–	–
	M	10.7	898	84	958	92	917	88	–	–
	N	10.7	799	69	950	91	927	89	–	–
	S	14.1	807	57	1115	79	1075	76	–	–
	WW	10.5	–	–	–	–	–	–	659	63
L12	W	14.3	1267	89	1327	95	1313	94	–	–
	M	14.3	1224	86	1307	93	1250	89	–	–
	N	14.3	1000	70	1296	93	1264	90	–	–
	S	20.4	1071	53	1480	72	1427	70	–	–
	WW	14.0	–	–	–	–	–	–	898	64
L15	W	17.7	1571	89	1645	95	1628	94	–	–
	M	17.7	1518	86	1620	94	1550	90	–	–
	N	17.7	1240	70	1607	93	1567	91	–	–
	S	26.7	1326	50	1832	68	1767	66	–	–
	WW	17.3	–	–	–	–	–	–	1114	64
L20	W	23.9	2063	86	2160	92	2138	92	–	–
	M	23.9	1993	83	2127	91	2035	87	–	–
	N	23.9	1629	68	2110	90	2058	88	–	–
	S	–	–	–	–	–	–	–	–	–
	WW	23.3	–	–	–	–	–	–	1463	63
L25	W	30.1	2479	82	2596	88	2569	87	–	–
	M	30.1	2395	80	2556	87	2446	83	–	–
	N	30.1	1957	65	–	–	–	–	–	–
	S	–	–	–	–	–	–	–	–	–
	WW	29.4	–	–	–	–	–	–	1758	60

MULTIPLIER TABLES

	COLOR TEMPERATURE	
	CCT	CONVERSION FACTOR
80 CRI	2700K	0.92
	3000K	0.98
	3500K	1.00
	4000K	1.01
	5000K	1.02
90 CRI	2700K	0.76
	3000K	0.79
	3500K	0.82
	4000K	0.84
	5000K	0.88

	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
CS		0.98
BL		0.79

	TRIM OPTIONS	
	CATALOG NUMBER	CONVERSION FACTOR
AD	0.85	
PD	0.85	
TD	0.67	
WET/CC ²	0.85	

BEAM ANGLE

	TRIM TYPE		
	OPEN	FLUSH	REGRESSED
W	70°	50°	55°
M	40°	30°	30°
N	15°	20°	20°
S	8°	14°	14°

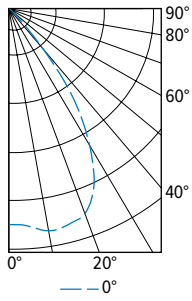
- Distribution will also be affected, consult factory.
- Use multiplier only when specified with O Trim Type.
 - Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25°C ambient temperature.
 - Wattage shown is based on 120V input.
 - Results based on 3500K/80CRI and CS (O Trim Type) or WH (F, R and A Trim Types) Reflector Finish. Actual lumens may vary +/-5%.
 - Beam angle based on O Trim Type and CS Reflector Finish.
 - Use multiplier tables to calculate additional options.



2DR LED 2" Downlight – Round

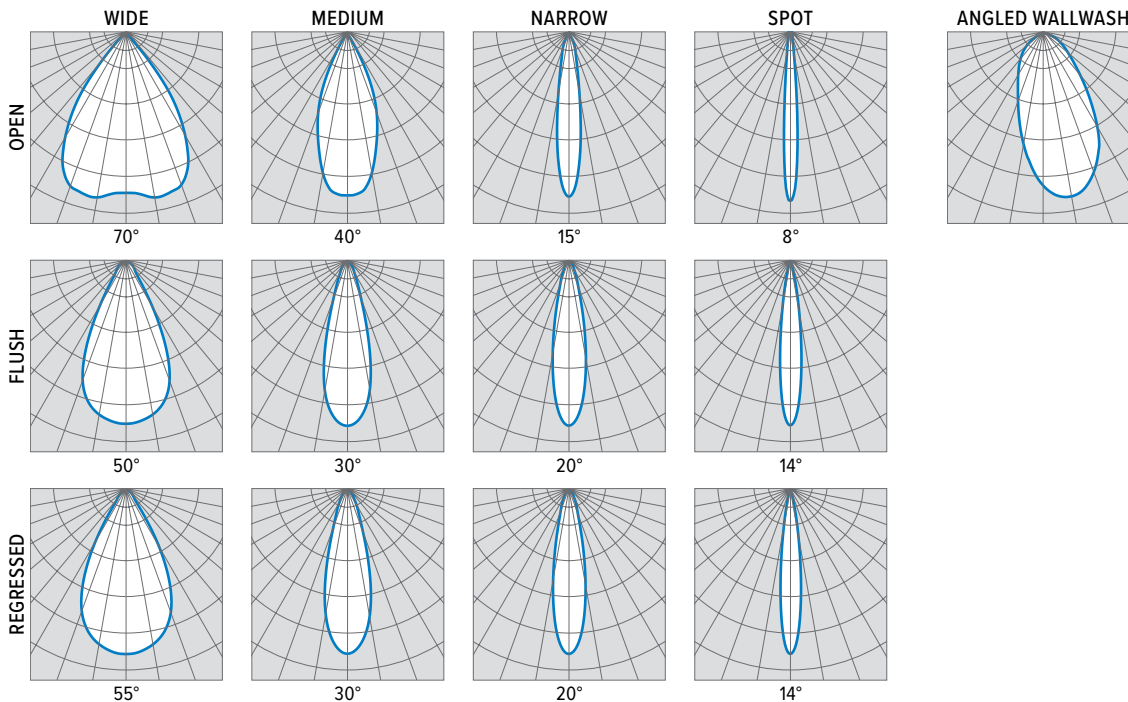
PHOTOMETRY

2DR-L25/835-DIM-UNV-OW-OF-CS Report #: 13131414; 11/22/19 | Total Luminaire Output: 2479 lumens; 30.1 Watts | Efficacy: 82.3 lm/W | 80 CRI; 3500K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE	ZONAL LUMENS
		0°	
	0	2011	
	5	2033	148
	15	2087	341
	25	1859	429
	35	1089	271
	45	150	39
	55	35	12
	65	12	4
	75	2	1
	85	0	0
	90	0	0

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 40	2281	92
	0 - 60	2464	99
	0 - 90	2479	100
	0-180	2479	100



ADDITIONAL CONTROL OPTIONS

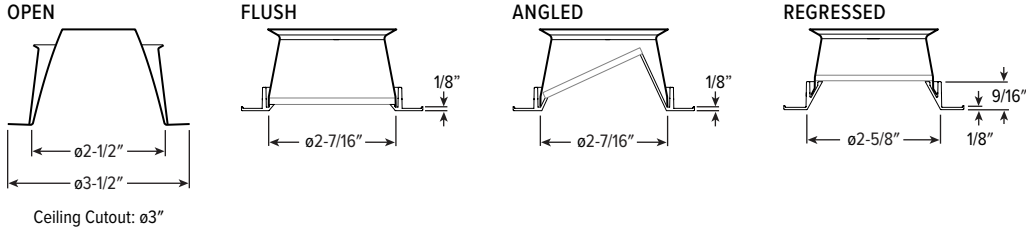
347V may require stepdown transformer, see product builder at hew.com/product-builder. R Mounting Type only available with DIM, DIM1, and DIM LINE controls.

CATALOG NUMBER	DESCRIPTION
DIM	Dimming driver prewired for 0-10V low voltage applications
DIM1	1% dimming driver prewired for 0-10V low voltage applications
DIM LINE	Line voltage dimming driver (TRIAC and ELV compatible at 120V only)
DMX	0.1% dimming driver for DMX controls
LTE LINE	Lutron Hi-lume 1% 2-wire dimming driver forward phase line voltage controls (120V only)
LDE1	Lutron Hi-lume 1% EcoSystem dimming LED driver
LDE5	Lutron 5-Series 5% EcoSystem dimming LED driver
VRF/DSR	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF) and sensor-ready driver
VRF/DBI/LDE1	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF), Lutron Hi-lume 1% EcoSystem dimming LED driver, and digital link interface
VRF/DBI/LDE5	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF), Lutron 5-Series 5% EcoSystem dimming LED driver, and digital link interface
FCJS/DIM	Lutron Vive PowPak wireless fixture control with dimming driver
FCJS/DIM1	Lutron Vive PowPak wireless fixture control with 1% dimming driver
ELDO SOLOB	EldoLED Solodrive, 0.1% dimming driver for 0-10V controls
ELDO SOLOB DALI	EldoLED Solodrive, 0.1% dimming driver for DALI controls
ELDO ECO1	EldoLED Ecodrive, 1% dimming driver for 0-10V controls
ELDO ECO1 DALI	EldoLED Ecodrive, 1% dimming driver for DALI controls

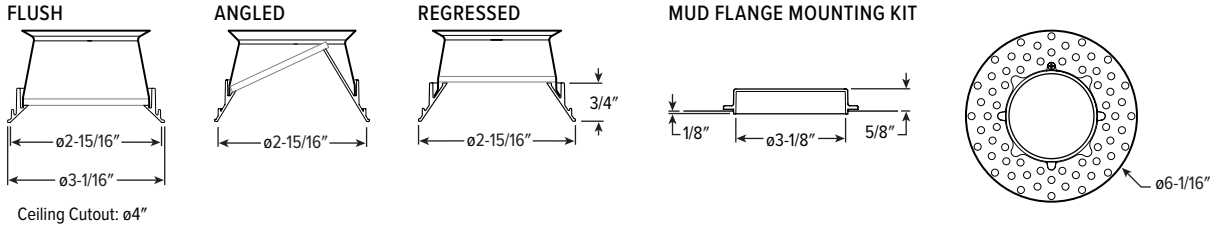
2DR LED 2" Downlight – Round

TRIM TYPE DETAILS

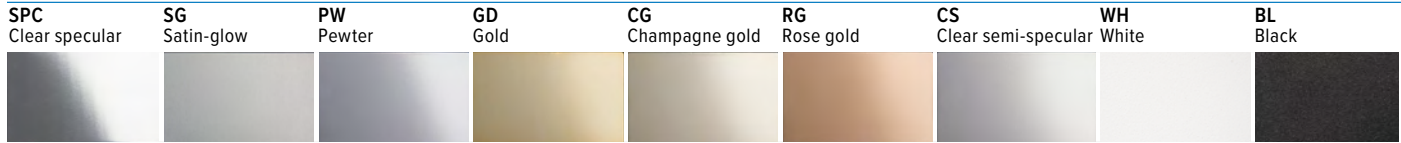
1/2" STANDARD FLANGE TYPE



ZERO-FLANGE MUD-IN

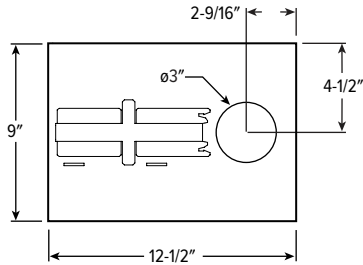


REFLECTOR FINISH DETAILS

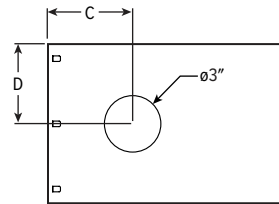
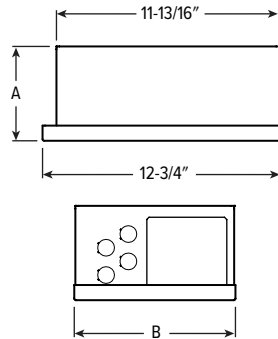


MOUNTING TYPE DETAILS

NEW CONSTRUCTION

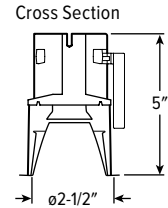


IC-RATED

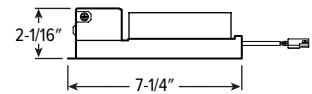


	DIM, DIM1, DIM LINE	ALL OTHER CONTROLS
A	5"	6-1/16"
B	8-9/16"	9-1/4"
C	4-9/16"	8-3/16"
D	4-5/16"	4-5/8"

REMODEL



Driver and Junction Box



2DR LED 2" Downlight – Round

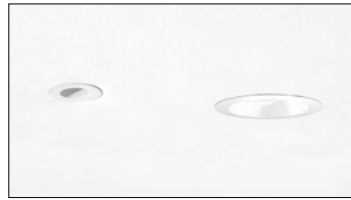
EM BATTERY DETAILS

REMODEL MOUNTING

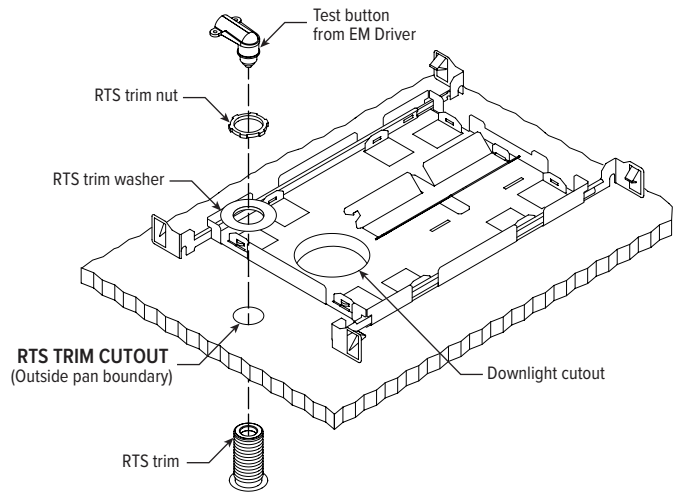
Additional plenum space required for R mounting when specified with EM battery.

PLENUM RESTRICTIONS	
CATALOG NUMBER	MINIMUM HEIGHT
EM/5W	9"
EM/7W	11"
EM/10W	12"

EM/10W/RTS MOUNTING

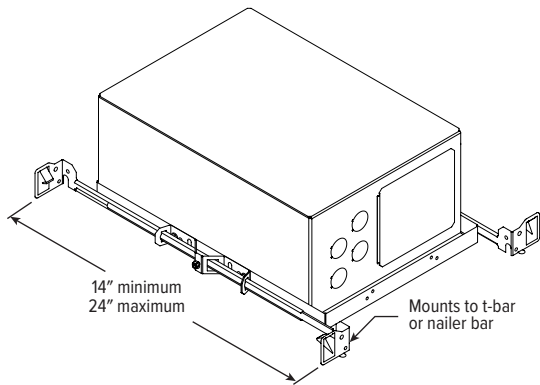
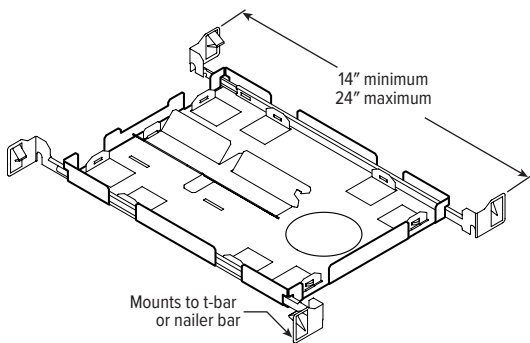


Shown Installed



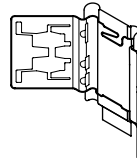
MOUNTING HARDWARE DETAILS

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

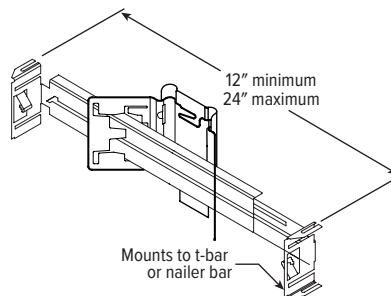


F1 with I Mounting Type

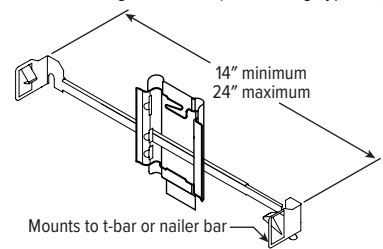
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



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)

