

CATALOG #: \_\_\_\_\_

TYPE: \_\_\_\_\_

PROJECT: \_\_\_\_\_

## FEATURES

- Tunable white from 2700K to 5000K CCT, minimum 90 CRI
- 2" aperture is unobtrusive in small scale spaces
- Zero-flange trim options for modern ceiling
- Die cast trim choices include flush, regressed or angled lens
- Beam angles ranging from 15° narrow 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. 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. Top access required for driver maintenance.
- 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.
  - 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](http://hew.com/warranty).

ORDERING EXAMPLE: **2DR - L15/9TW - OPTIONS - DIM - UNV - OW - OF - CS - TRIM OPTIONS - N - F1**

## HOUSING

SERIES	LUMENS <sup>[1]</sup>	COLOR	OPTIONS	CONTROL <sup>[2]</sup>	VOLTAGE
2DR	L5 500lm	9TW Tunable white (90 CRI, 2700K-5000K)	EM/5W 5-watt emergency battery <sup>[3]</sup>	DALI Driver prewired for DALI applications	UNV 120-277V
	L7 700lm		EM/7W 7-watt emergency battery <sup>[4]</sup>		
	L9 900lm		EM/10W 10-watt emergency battery <sup>[5]</sup>	DMX Driver prewired for DMX applications	
	L12 1,200lm		EM/10W/RTS 10-watt emergency battery with regressed test switch <sup>[6]</sup>		
	L15 1,500lm		ATH Airtight construction		
		F Fuse			
		CP Chicago plenum (CCEA) <sup>[7]</sup>			

## TRIM<sup>[8]</sup>

TRIM TYPE	DISTRIBUTION <sup>[9]</sup>	FLANGE TYPE	REFLECTOR FINISH	TRIM OPTIONS
O Open reflector	W 70° Wide	OF 1/2" standard flange	<b>Open trim types</b>	MWT Textured white trim flange <sup>[15]</sup>
L Flush lens	M 40° Medium	ZF Zero-flange mud-in <sup>[13]</sup>	CS Clear semi-specular anodize	AD Diffuse acrylic lens <sup>[16]</sup>
R Regressed lens	N 15° Narrow <sup>[11]</sup>		SG Satin-glow anodize	PD Diffuse 1/8" polycarbonate lens <sup>[17]</sup>
A Angled lens <sup>[10]</sup>	WW Wall wash <sup>[12]</sup>		GD Gold anodize	TD Diffuse polycarbonate lens media at top of open reflector <sup>[18]</sup>
			CG Champagne gold anodize	WET/CC Wet location, covered ceiling listed
			PW Pewter anodize	AM Anti-microbial <sup>[19]</sup>
			SPC Clear specular anodize	
			RG Rose gold anodize	
			WH White texture powder coat	
			BL Black texture powder coat	
			<b>Lens trim types</b>	
			CS Clear semi-specular powder coat	
			WH White texture powder coat	
			BL Black texture powder coat	
			MB Black texture splay with white flange <sup>[14]</sup>	

## MOUNTING

### MOUNTING TYPE<sup>[20]</sup>

- N Open pan for new construction
- I IC-rated enclosure for new construction<sup>[22]</sup>

### MOUNTING HARDWARE<sup>[21]</sup>

- F1 Integral 2-position fixed pan bracket, universal bar hanger included<sup>[23]</sup>
- BA1 Adjustable butterfly pan bracket, bar hanger not included<sup>[24]</sup>
- CA1 Adjustable caterpillar pan bracket, universal bar hanger included<sup>[25]</sup>

## NOTES

- Lumen output based on O trim type, W distribution and CS finish, 4000K/90CRI. Actual lumens may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA
- See page 3 for CONTROL DETAILS.
- N Mounting Type only.
- N Mounting Type only.
- Not available with L5 lumen package.
- Not available with L5 lumen package, WET/CC or ATH options. N Mounting Type only. Top access required. See page 5 for EM BATTERY DETAILS.
- I Mounting Type required.
- 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.
- L12 lumen package max for N Mounting, L7 lumen package max for I Mounting when specified with L or R Trim Types.
- 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, 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.
- L9 lumen package max.
- I Mounting requires external brackets.
- N Mounting Type only
- N Mounting Type only

# 2DR tunable WHITE 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	10.5	570	54	597	57	591	56	–	–
	M	10.5	575	55	614	58	587	56	–	–
	N	10.5	440	42	571	54	557	53	–	–
	WW	10.5	–	–	–	–	–	–	404	38
L7	W	13.5	761	56	797	59	789	58	–	–
	M	13.5	768	57	819	61	784	58	–	–
	N	13.5	588	44	762	56	743	55	–	–
	WW	13.5	–	–	–	–	–	–	540	40
L9	W	18.3	1062	58	1112	61	1101	60	–	–
	M	18.3	1071	59	1144	62	1094	60	–	–
	N	18.3	821	45	1063	58	1037	57	–	–
	WW	18.3	–	–	–	–	–	–	753	41
L12	W	22.5	1306	58	1368	61	1353	60	–	–
	M	22.5	1318	59	1406	63	1346	60	–	–
	N	22.5	1009	45	1308	58	1275	57	–	–
	WW	22.5	–	–	–	–	–	–	926	41
L15	W	28.4	1540	54	1613	57	1596	56	–	–
	M	28.4	1554	55	1658	58	1587	56	–	–
	N	28.4	1190	42	–	–	–	–	–	–
	WW	28.4	–	–	–	–	–	–	1092	38

### MULTIPLIER TABLES

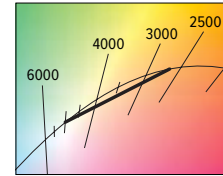
COLOR TEMPERATURE		
CCT	LUMENS	WATTS
2700K	0.87	1.05
3000K	0.96	1.11
3500K	1.02	1.06
4000K	1.00	1.00
5000K	1.02	1.06

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

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

### BEAM ANGLE

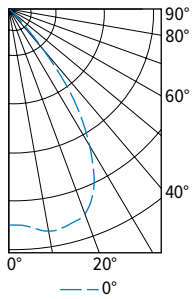
	TRIM TYPE		
	OPEN	FLUSH	REGRESSED
W	70°	50°	55°
M	40°	30°	30°
N	15°	20°	20°



- 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 4000K/90CRI and CS (O Trim Type) or WH (L, 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.

### PHOTOMETRY

2DR-L15/9TW-DIM-UNV-OW-OF-CS Total Luminaire Output: 1540 lumens; 28.4 Watts | Efficacy: 54 lm/W | 90 CRI; 4000K CCT

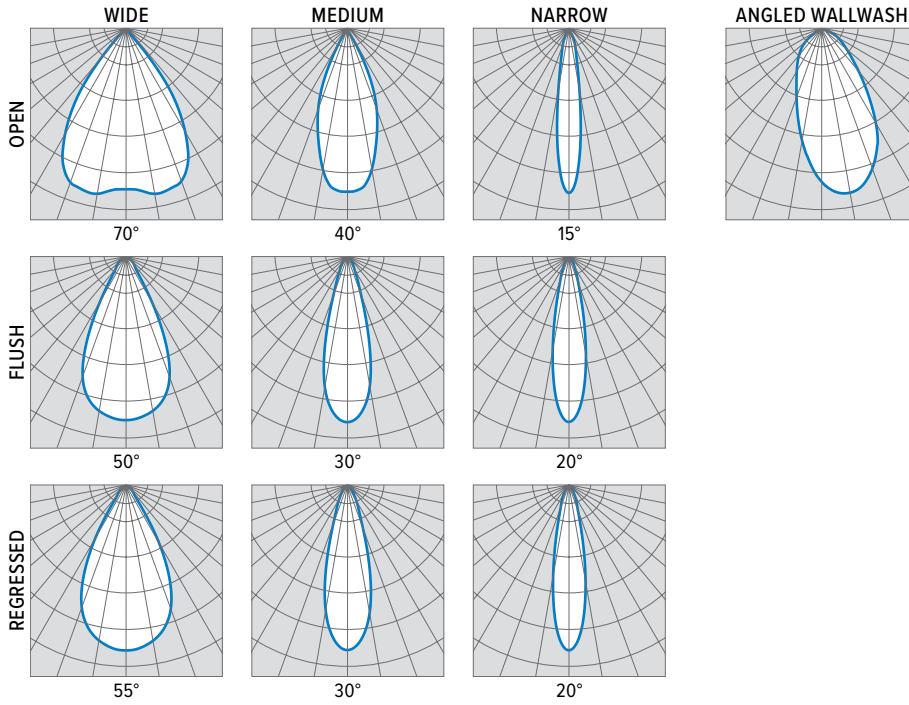


CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE	ZONAL LUMENS
		0°	
	0	1325	
	5	1327	128
	15	1393	389
	25	1259	549
	35	628	369
	45	85	76
	55	21	20
	65	8	8
	75	1	2
	85	0	0
	90	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 40	1434	93
	0 - 60	1530	99
	0 - 90	1540	100
	0-180	1540	100

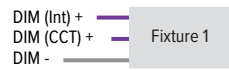


# 2DR tunable WHITE 2" Downlight – Round



## CONTROL DETAILS

### DIM



### DALI



### DMX



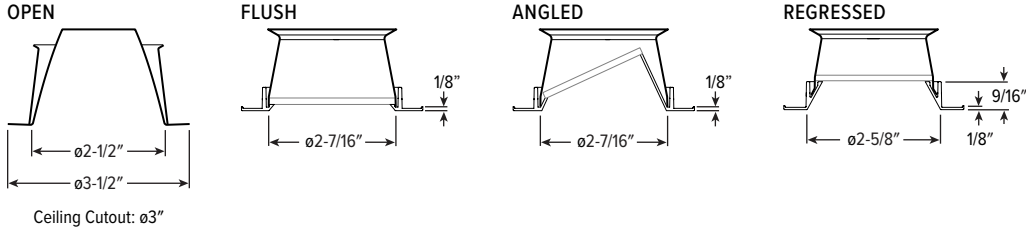
### LUTRON T-SERIES



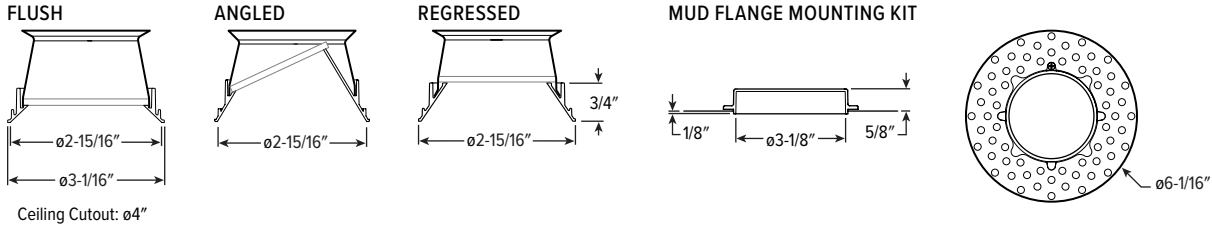
# 2DR tunable WHITE 2" Downlight – Round

## TRIM TYPE DETAILS

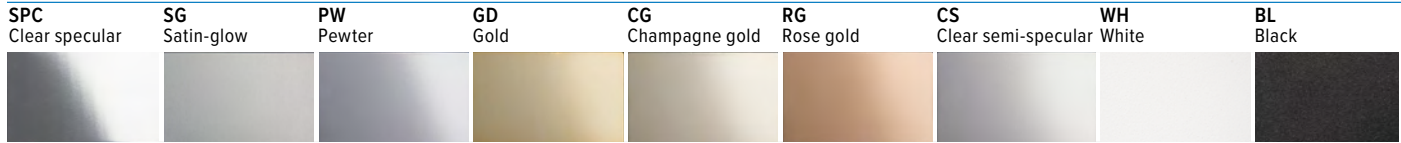
### 1/2" STANDARD FLANGE TYPE



### ZERO-FLANGE MUD-IN

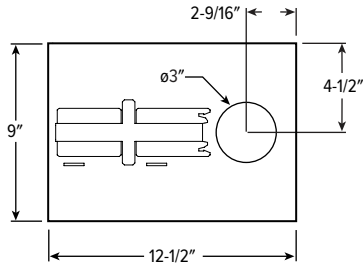


## REFLECTOR FINISH DETAILS

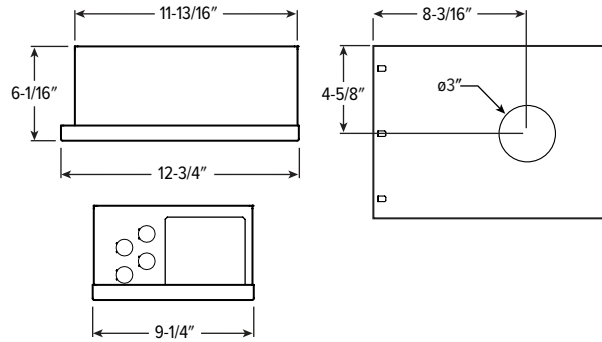


## MOUNTING TYPE DETAILS

### NEW CONSTRUCTION



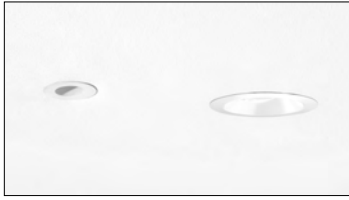
### IC-RATED



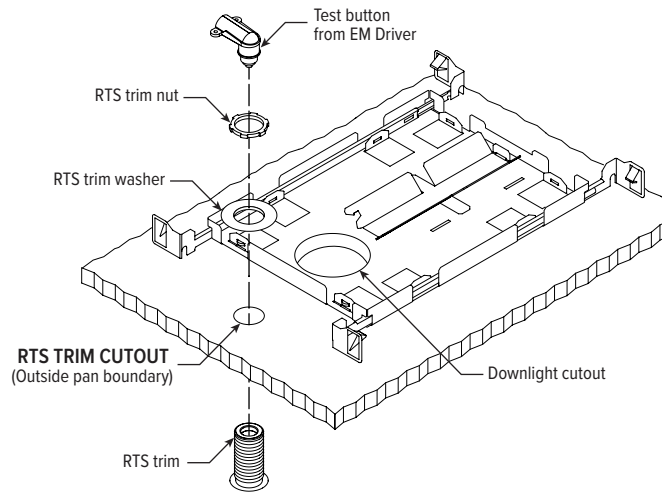
# 2DR tunable WHITE 2" Downlight – Round

## EM BATTERY DETAILS

### EM/10W/RTS MOUNTING

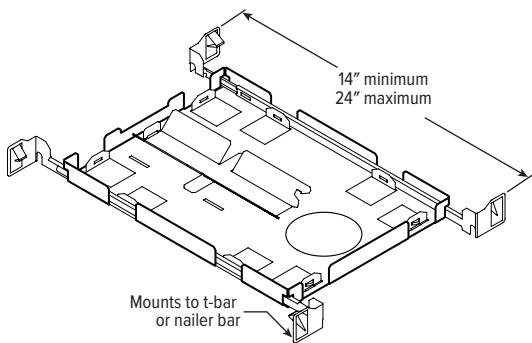


Shown Installed

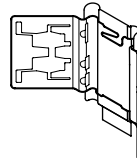


## MOUNTING HARDWARE DETAILS

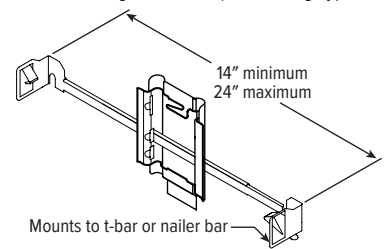
**F1** Integral 2-position fixed pan bracket, universal bar hanger included



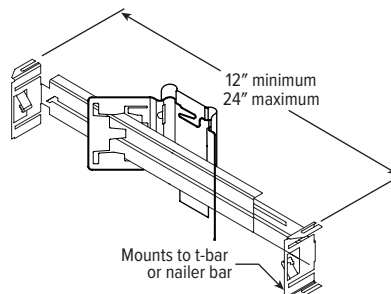
**BA1** Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



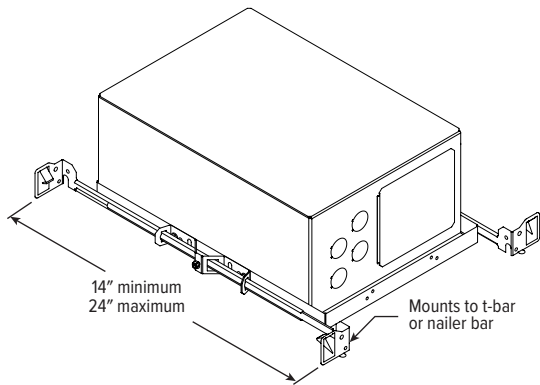
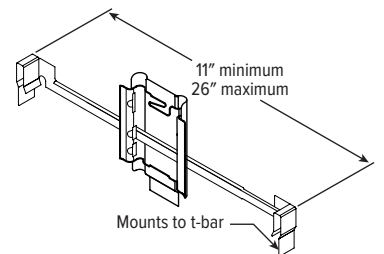
**CA1** Adjustable caterpillar pan bracket, universal bar hanger included (N Mounting Type only)



**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)



F1 with I Mounting Type

