

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
- Beam angles ranging from 20° narrow to 50° wide for tailored performance
- Die cast trim choices include flush, regressed or angled lens
- Spring clip retention system eliminates trim sag

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 with top diffuser.
- 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 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.
 - Complies with ASTM-E283 when specified with ATH option.
 - RoHS compliant.
- WARRANTY** – 5-year limited warranty, see hew.com/warranty.

ORDERING EXAMPLE: 2DS - L15/9TW - OPTIONS - DIM - UNV - LW - OF - WH - TRIM OPTIONS - N - F1

HOUSING

SERIES	LUMENS ⁽¹⁾	COLOR	OPTIONS	CONTROL ⁽²⁾	VOLTAGE	
2DS	L5	500lm	ATH	Airtight construction	DALI	Driver prewired for DALI applications
	L7	700lm	F	Fuse kit		
	L9	900lm	CP	Chicago plenum (CCEA) ⁽³⁾	DIM	Dimming driver with (1) 0-10V signal to control dimming and (1) 0-10V signal to control CCT
	L12	1,200lm	EM/5W	5-watt emergency battery ⁽⁴⁾		
	L15	1,500lm	EM/7W	7-watt emergency battery ⁽⁵⁾		
			EM/10W	10-watt emergency battery ⁽⁶⁾	DMX	Driver prewired for DMX applications
			EM/10W/RTS	10-watt emergency battery with regressed test switch ⁽⁷⁾		

TRIM⁽⁸⁾

TRIM TYPE	DISTRIBUTION ⁽⁹⁾	FLANGE TYPE	REFLECTOR FINISH	TRIM OPTIONS
L Flush lens	W 50° Wide	OF 1/2" standard flange	Open trim types	MWT Textured white trim flange ⁽¹⁴⁾
O Open reflector	M 30° Medium	ZF Zero-flange mud-in ⁽¹³⁾	CS Clear semi-specular anodize	AD Diffuse acrylic lens ⁽¹⁵⁾
R Regressed lens	NW 20° Narrow ⁽¹¹⁾		SG Satin-glow anodize	PD Diffuse 1/8" polycarbonate lens ⁽¹⁶⁾
A Angled lens ⁽¹⁰⁾	WW Wall wash ⁽¹²⁾		GD Gold anodize	WET/CC Wet location, covered ceiling listed ⁽¹⁷⁾
			CG Champagne gold anodize	AM Anti-microbial ⁽¹⁸⁾
			PW Pewter anodize	
			SPC Clear specular anodize	
			RG Rose gold anodize	
			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⁽²⁰⁾

- N Open pan for new construction
- I IC-rated enclosure for new construction⁽²²⁾

MOUNTING HARDWARE⁽²¹⁾

- F1 Integral 2-position fixed pan bracket, universal bar hanger included⁽²³⁾
- BA1 Adjustable butterfly pan bracket, bar hanger not included⁽²⁴⁾
- CA1 Adjustable caterpillar pan bracket, universal bar hanger included⁽²⁵⁾

NOTES

- Lumen output based on L trim type, W distribution and WH finish, 4000K/90CRI. Actual lumens may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA
- See page 3 for CONTROL DETAILS.
- I Mounting Type required.
- N Mounting Type only.
- N Mounting Type only.
- Not available with L5 lumen package.
- N Mounting Type only.
- 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.
- Trim ships separately
- Beam angle based on L Trim Type and WH 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.
- 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
- 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.
- Not available with O Trim Type.
- WH and BL Reflector Finishes only.
- R Trim Type only. Not available with ZF Flange Type or MWT.
- 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



FIXTURE PERFORMANCE DATA

	DISTRIBUTION	WATTAGE	FLUSH LENS TRIM TYPE		OPEN REFLECTOR 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	581	55	421	40	586	56	–	–
	M	10.5	609	58	416	40	600	57	–	–
	N	10.5	552	53	402	38	553	53	–	–
	WW	10.5	–	–	–	–	–	–	450	43
L7	W	13.5	776	57	562	42	782	58	–	–
	M	13.5	813	60	556	41	801	59	–	–
	N	13.5	737	55	537	40	738	55	–	–
	WW	13.5	–	–	–	–	–	–	601	44
L9	W	18.3	1083	59	784	43	1091	60	–	–
	M	18.3	1134	62	776	42	1117	61	–	–
	N	18.3	1029	56	750	41	1030	56	–	–
	WW	18.3	–	–	–	–	–	–	838	46
L12	W	22.5	1332	59	964	43	1342	60	–	–
	M	22.5	1395	62	954	42	1374	61	–	–
	N	22.5	1265	56	922	41	1266	56	–	–
	WW	22.5	–	–	–	–	–	–	1031	46
L15	W	28.4	1570	55	1137	40	1582	56	–	–
	M	28.4	1645	58	1125	40	1620	57	–	–
	N	–	–	–	–	–	–	–	–	–
	WW	28.4	–	–	–	–	–	–	1216	43

MULTIPLIER TABLES

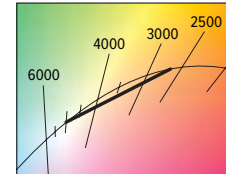
COLOR TEMPERATURE		
CCT	LUMENS	WATTS
2700K	0.87	1.05
3000K	0.96	1.11
3500K	1.02	1.06
4000K	1.00	1.00
5000K	1.02	1.06

	REFLECTOR FINISH	
	CATALOG NUMBER	CONVERSION FACTOR
O TRIM	CS	1.00
	SG 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

TRIM OPTIONS	
CATALOG NUMBER	CONVERSION FACTOR
AD	0.85
PD	0.85

BEAM ANGLE

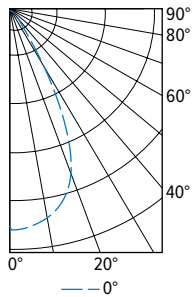
	TRIM TYPE		
	FLUSH	OPEN	REGRESSED
W	50°	50°	55°
M	30°	47°	30°
N	20°	47°	20°



- ¹ Distribution will also be affected, consult factory.
- 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 WH Reflector Finish. Actual lumens may vary +/-5%
 - Beam angle based on L Trim Type and WH Reflector Finish.
 - Use multiplier tables to calculate additional options.

PHOTOMETRY

2DS-L15/9TW-DIM-UNV-LW-OF-WH Total Luminaire Output: 1570 lumens; 28.4 Watts | Efficacy: 55 lm/W | 90 CRI; 4000K CCT

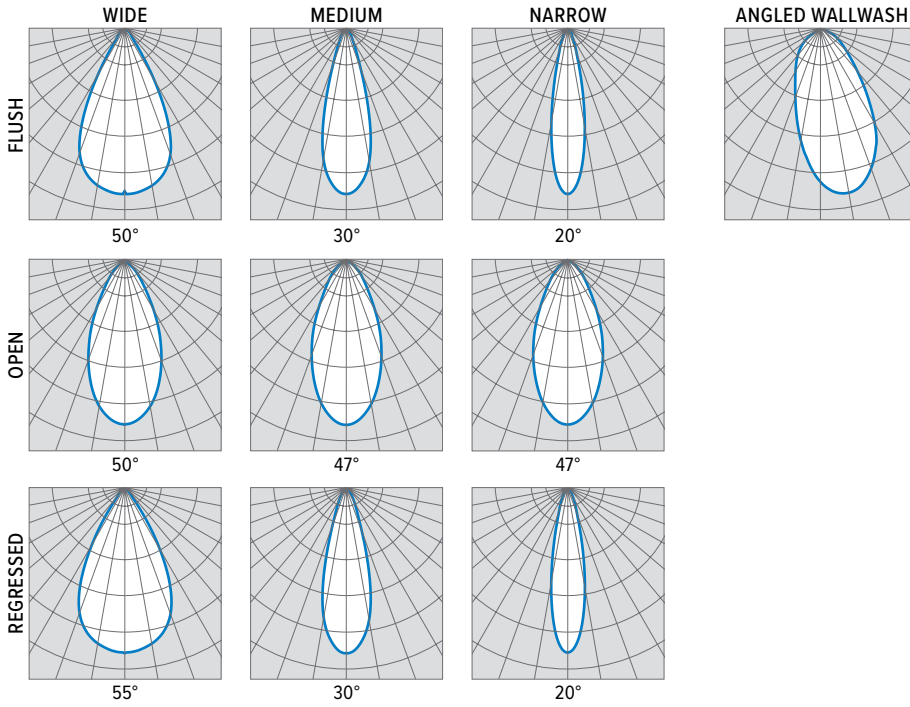


	VERTICAL ANGLE	HORIZONTAL ANGLE	ZONAL LUMENS
		0°	
CANDLEPOWER DISTRIBUTION	0	1815	
	5	1832	170
	15	1656	454
	25	1044	487
	35	264	223
	45	107	95
	55	70	67
	65	45	46
	75	22	23
	85	4	5
	90	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 40	1333	85
	0 - 60	1495	95
	0 - 90	1570	100
	0-180	1570	100



2DS tunable WHITE 2" Downlight – Square



CONTROL DETAILS

DIM

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

DALI

DALI + Fixture 1
 DALI -

DMX

RJ45 Ports (IN/OUT) Fixture (Master)

LUTRON T-SERIES

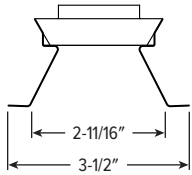
T1 Fixture 1
 T2

2DS tunable WHITE 2" Downlight – Square

TRIM TYPE DETAILS

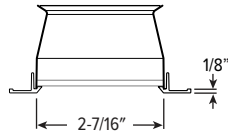
1/2" STANDARD FLANGE TYPE

OPEN

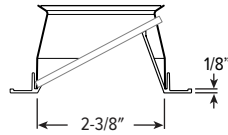


Ceiling Cutout: 3"

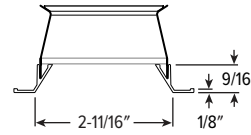
FLUSH



ANGLED

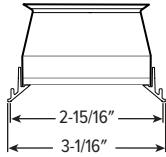


REGRESSED



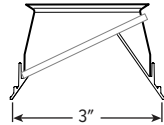
ZERO-FLANGE MUD-IN

FLUSH

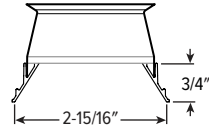


Ceiling Cutout: 3-1/2"

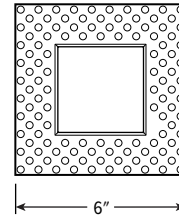
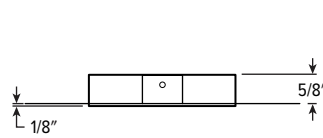
ANGLED



REGRESSED



MUD FLANGE MOUNTING KIT

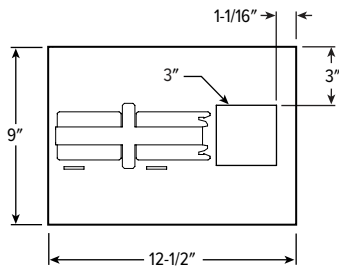


REFLECTOR FINISH DETAILS

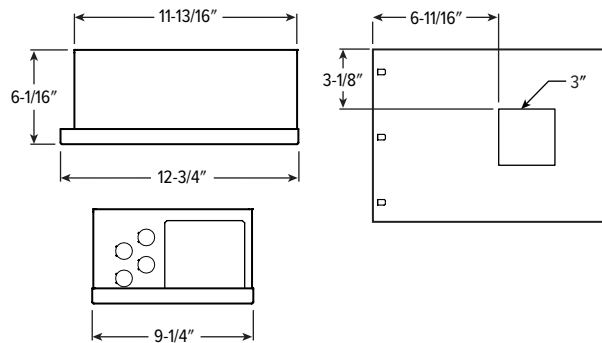
SPC	SG	PW	GD	CG	RG	CS	WH	BL
Clear specular	Satin-glow	Pewter	Gold	Champagne gold	Rose gold	Clear semi-specular	White	Black

MOUNTING TYPE DETAILS

NEW CONSTRUCTION

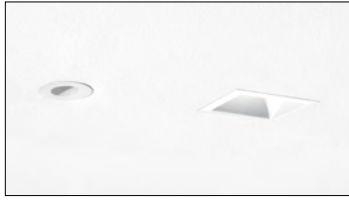


IC-RATED

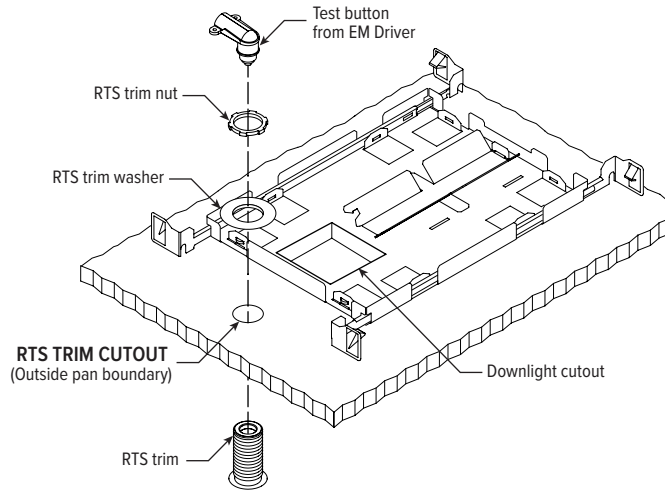


EM BATTERY DETAILS

EM/10W/RTS MOUNTING

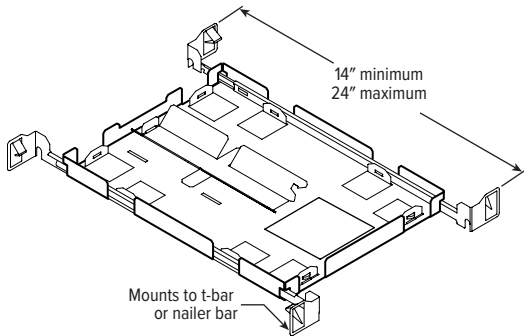


Shown Installed

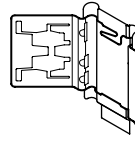


MOUNTING HARDWARE DETAILS

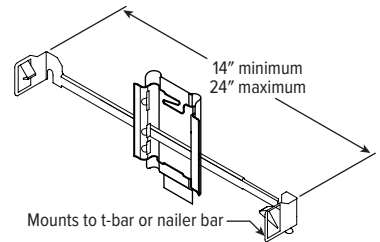
F1 Integral 2-position fixed pan bracket, universal bar hanger included



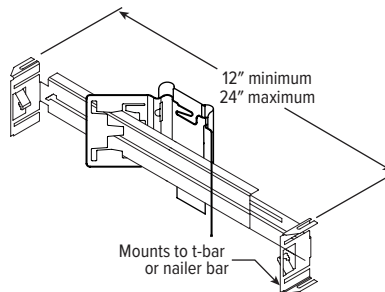
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



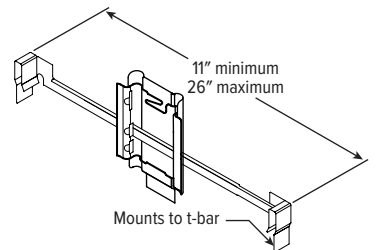
CA1 Adjustable caterpillar pan bracket, universal bar hanger included (N Mounting Type only)



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

