

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, acrylic 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	9TW Tunable white (90 CRI, 2700K-5000K)	ATH Airtight construction	DALI Driver prewired for DALI applications	UNV 120-277V
	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⁾	DMX Driver prewired for DMX applications	
	L15 1,500lm		EM/7W 7-watt emergency battery ⁽⁵⁾	PSQ Lutron T-Series 2-channel tunable white 1%. ⁽⁸⁾	
			EM/10W 10-watt emergency battery ⁽⁶⁾		
			EM/10W/RTS 10-watt emergency battery with regressed test switch ⁽⁷⁾		

TRIM⁽⁹⁾

TRIM TYPE	DISTRIBUTION ⁽¹⁰⁾	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 ⁽¹⁵⁾
O Open reflector	M 30° Medium	ZF Zero-flange mud-in ⁽¹⁴⁾	CS Clear semi-specular anodize	AD Diffuse acrylic lens ⁽¹⁶⁾
R Regressed lens	N 20° Narrow ⁽¹²⁾		SG Satin-glow anodize	PD Diffuse 1/8" polycarbonate lens ⁽¹⁷⁾
A Angled lens ⁽¹¹⁾	WW Wall wash ⁽¹³⁾		GD Gold anodize	WET/CC Wet location, covered ceiling listed ⁽¹⁸⁾
			CG Champagne gold anodize	AM Anti-microbial ⁽¹⁹⁾
			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 ⁽²⁰⁾	

MOUNTING

MOUNTING TYPE ⁽²¹⁾	MOUNTING HARDWARE ⁽²²⁾
N Open pan for new construction ⁽²³⁾	F1 Integral 2-position fixed pan bracket, universal bar hanger included ⁽²⁵⁾
I IC-rated enclosure for new construction ⁽²⁴⁾	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 L trim type, W distribution and WH finish, 4000K/90CRI. Actual lumens may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
- 2 See page 3 for CONTROL DETAILS.
- 3 I Mounting Type required.
- 4 N Mounting Type only. Not available with ATH option.
- 5 N Mounting Type only. Not available with ATH option.
- 6 Not available with L5 lumen package.
- 7 N Mounting Type only. Not available with ATH option.
- 8 N Mounting Type only, top access required.
- 9 Trim ships separately.
- 10 Beam angle based on L Trim Type and WH Reflector Finish. Trim Type affects beam angle. See page 2 for FIXTURE PERFORMANCE DATA.
- 11 Available with WW Distribution only.
- 12 L12 lumen package max for N Mounting. L7 lumen package max for I Mounting.
- 13 A Trim Type only.
- 14 For use with mud-in plaster construction only, supplied with mud flange installation kit. See page 3 for TRIM TYPE DETAILS. Not available with O Trim Type or ATH Option.
- 15 Not available with ZF Flange Type or WH Reflector Finish.
- 16 W distribution only. Not available with O Trim Type.
- 17 W and WW distributions only. Not available with O Trim Type.
- 18 Not available with O Trim Type. Not available with PD trim option.
- 19 WH and BL Reflector Finishes only.
- 20 R Trim Type only. Not available with ZF Flange Type or MWT.
- 21 Mounting hardware required, ordered separately, see MOUNTING HARDWARE ordering info. See page 4 for MOUNTING TYPE DETAILS.
- 22 Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.
- 23 Top access required when specified with EM battery.
- 24 L9 lumen package max.
- 25 I Mounting requires external brackets.
- 26 N Mounting Type only.
- 27 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

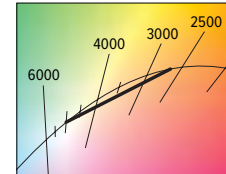
COLOR TEMPERATURE		
CCT	LUMENS	WATTS
2700K	0.87	1.05
3000K	0.96	1.11
3500K	1.02	1.06
4000K	1.00	1.00
5000K	1.02	1.06

	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
R TRIM	WH	1.00
	CS	0.98
	BL	0.79
	RG	0.88

TRIM OPTIONS	
CATALOG NUMBER	CONVERSION FACTOR
AD	0.85
PD	0.85

BEAM ANGLE

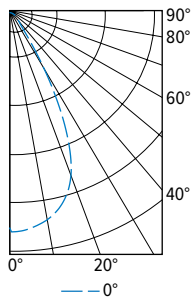
	TRIM TYPE		
	FLUSH	OPEN	REGRESSED
W	50°	50°	55°
M	30°	47°	30°
N	20°	47°	20°



- 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

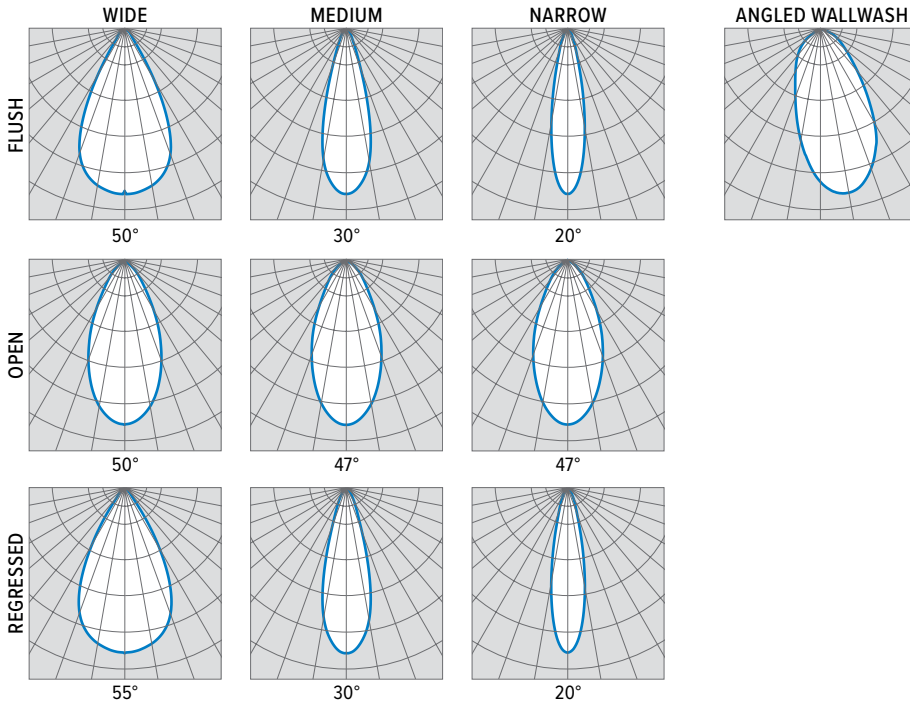


CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE	ZONAL LUMENS
		0°	
	0	1815	
	5	1832	170
	15	1656	454
	25	1044	487
	35	264	223
	45	107	95
	55	70	67
	65	45	46
	75	22	23
	85	4	5
	90	0	

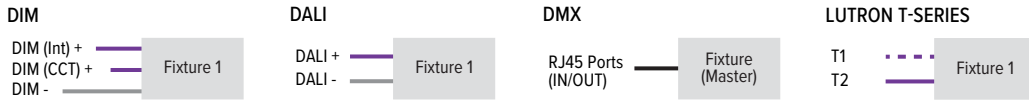
LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 40	1333	85
	0 - 60	1495	95
	0 - 90	1570	100
	0-180	1570	100



2DS tunable WHITE 2" Downlight – Square

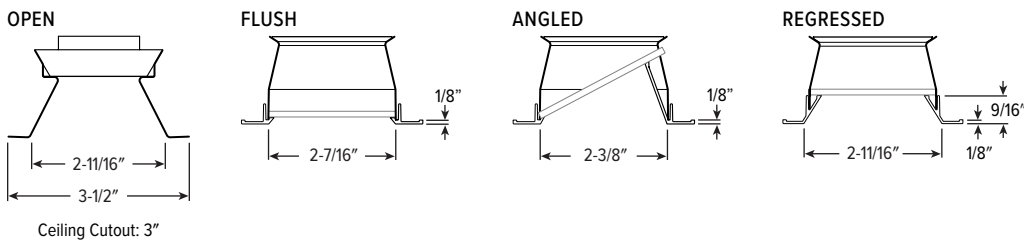


CONTROL DETAILS

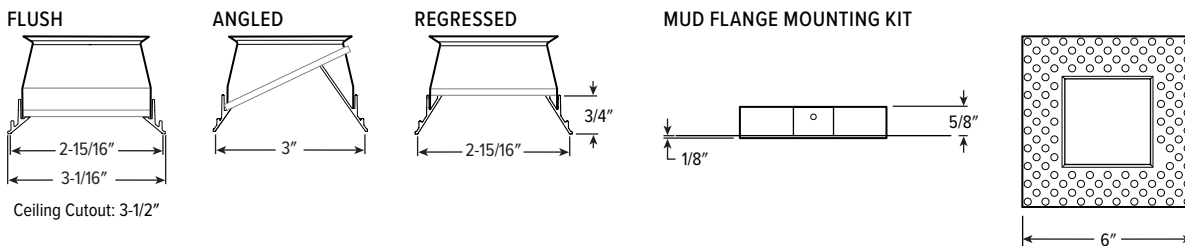


TRIM TYPE DETAILS

1/2" STANDARD FLANGE TYPE

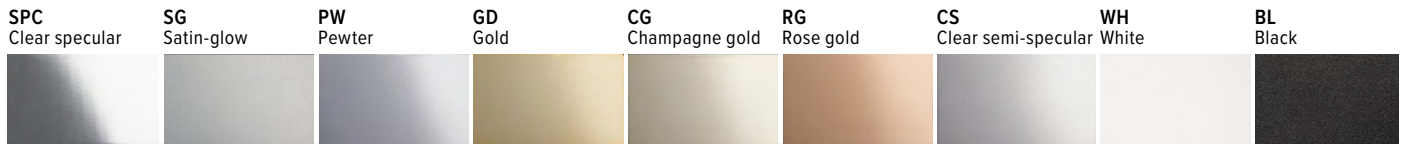


ZERO-FLANGE MUD-IN



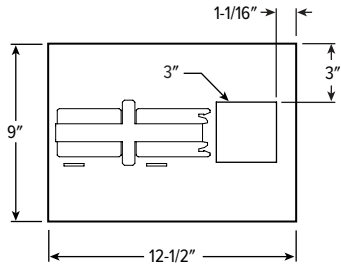
2DS tunable WHITE 2" Downlight – Square

REFLECTOR FINISH DETAILS

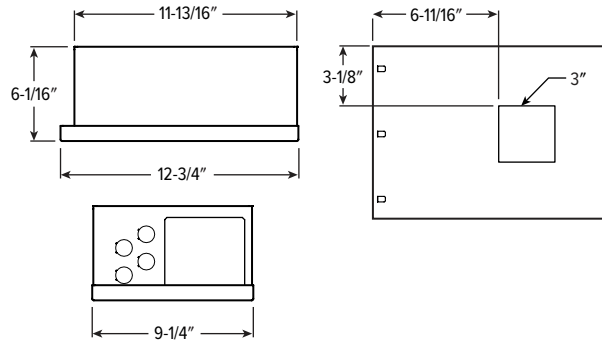


MOUNTING TYPE DETAILS

NEW CONSTRUCTION

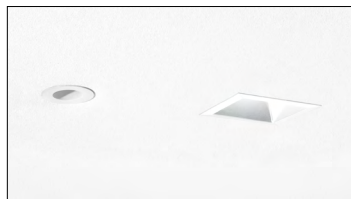


IC-RATED

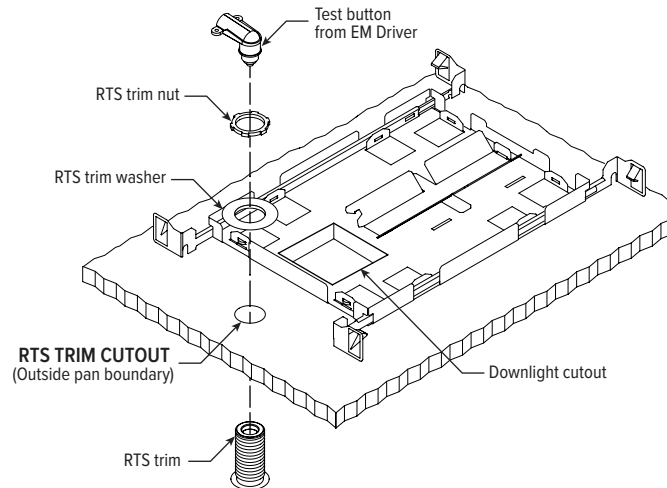


EM BATTERY DETAILS

EM/10W/RTS MOUNTING

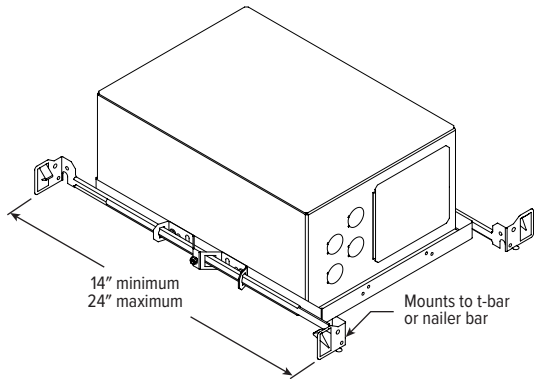
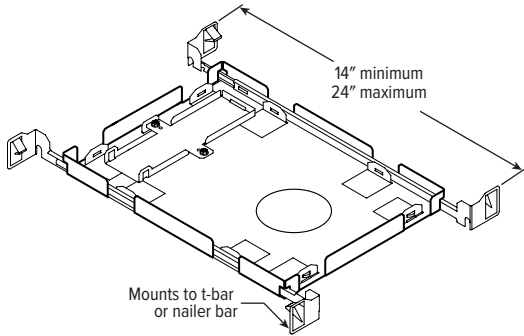


Shown Installed



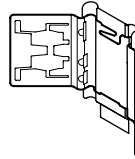
MOUNTING HARDWARE DETAILS

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

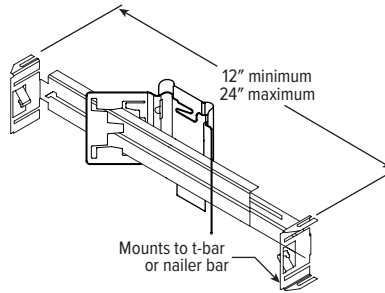


F1 with I Mounting Type

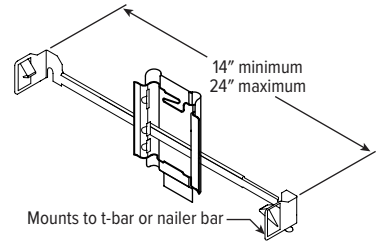
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



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)

