

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

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

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

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

HOUSING     
 TRIM     
 MOUNT

**HOUSING**

SERIES	LUMENS <sup>(1)</sup>	COLOR	OPTIONS	CONTROL <sup>(2)</sup>	VOLTAGE
2DS	L5	500lm	ATH Airtight construction	DALI Driver prewired for DALI applications	UNV 120-277V
	L7	700lm	F Fuse kit	DIM Dimming driver with (1) 0-10V signal to control dimming and (1) 0-10V signal to control CCT	
	L9	900lm	CP Chicago plenum (CCEA) <sup>(3)</sup>	DMX Driver prewired for DMX applications	
	L12	1,200lm	EM/5W 5-watt emergency battery <sup>(4)</sup>	PSQ Lutron T-Series 2-channel tunable white 1%. <sup>(8)</sup>	
	L15	1,500lm	EM/7W 7-watt emergency battery <sup>(5)</sup> EM/10W 10-watt emergency battery <sup>(6)</sup> EM/10W/RTS 10-watt emergency battery with regressed test switch <sup>(7)</sup>		

**TRIM<sup>(9)</sup>**

TRIM TYPE	DISTRIBUTION <sup>(10)</sup>	FLANGE TYPE	REFLECTOR FINISH	TRIM OPTIONS
L Flush lens	W 50° Wide	OF 1/2" standard flange	<b>Open trim types</b>	MWT Textured white trim flange <sup>(16)</sup>
O Open reflector	M 30° Medium	ZF Zero-flange mud-in <sup>(14)</sup>	CS Clear semi-specular anodize	AD Diffuse acrylic lens <sup>(17)</sup>
R Regressed lens	N 20° Narrow <sup>(12)</sup>		SG Satin-glow anodize	PD Diffuse 1/8" polycarbonate lens <sup>(18)</sup>
A Angled lens <sup>(11)</sup>	WW Wall wash <sup>(13)</sup>		GD Gold anodize	WET/CC Wet location, covered ceiling listed <sup>(19)</sup>
			CG Champagne gold anodize	AM Anti-microbial <sup>(20)</sup>
			PW Pewter anodize	
			SPC Clear specular anodize	
			RG Rose gold anodize	
			<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>(15)</sup>	

**MOUNTING**

MOUNTING TYPE <sup>(21)</sup>	MOUNTING HARDWARE <sup>(22)</sup>
N Open pan for new construction <sup>(23)</sup>	F1 Integral 2-position fixed pan bracket, universal bar hanger included <sup>(25)</sup>
I IC-rated enclosure for new construction <sup>(24)</sup>	BA1 Adjustable butterfly pan bracket, bar hanger not included <sup>(26)</sup>
	CA1 Adjustable caterpillar pan bracket, universal bar hanger included <sup>(27)</sup>

**NOTES**

- <sup>1</sup> 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.
- <sup>2</sup> See page 3 for CONTROL DETAILS.
- <sup>3</sup> I Mounting Type required.
- <sup>4</sup> N Mounting Type only. Not available with ATH option.
- <sup>5</sup> N Mounting Type only. Not available with ATH option.
- <sup>6</sup> Not available with L5 lumen package. N Mounting Type only. Not available with ATH option.
- <sup>7</sup> 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.
- <sup>8</sup> N Mounting Type only, top access required.
- <sup>9</sup> Trim ships separately.
- <sup>10</sup> Beam angle based on L Trim Type and WH Reflector Finish. Trim Type affects beam angle. See page 2 for FIXTURE PERFORMANCE DATA.
- <sup>11</sup> Available with WW Distribution only.
- <sup>12</sup> L12 lumen package max for N Mounting. L7 lumen package max for I Mounting.
- <sup>13</sup> A Trim Type only.
- <sup>14</sup> 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.
- <sup>15</sup> R Trim Type only. Not available with ZF Flange Type or MWT.
- <sup>16</sup> Not available with ZF Flange Type or WH Reflector Finish.
- <sup>17</sup> W distribution only. Not available with O Trim Type.
- <sup>18</sup> W and WW distributions only. Not available with O Trim Type.
- <sup>19</sup> Not available with O Trim Type. Not available with PD trim option.
- <sup>20</sup> WH and BL Reflector Finishes only.
- <sup>21</sup> Mounting hardware required, ordered separately, see MOUNTING HARDWARE ordering info. See page 4 for MOUNTING TYPE DETAILS.
- <sup>22</sup> Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.
- <sup>23</sup> Top access required when specified with EM battery.
- <sup>24</sup> L9 lumen package max.
- <sup>25</sup> I Mounting requires external brackets.
- <sup>26</sup> N Mounting Type only.
- <sup>27</sup> N Mounting Type only.

### FEATURES

- Tunable white from 2700K to 5000K CCT, minimum 90 CRI
- Beam angles ranging from 20° narrow to 50° wide for tailored performance
- 2" aperture is unobtrusive in small scale spaces
- Square shape accentuates architectural styles
- Zero-flange trim options for modern ceiling
- Spring clip retention system eliminates trim sag
- New construction mounting pan or IC-rated enclosure available
- Open reflector with seven finishes complements any interior style
- Die-cast trim choices include flush, regressed or angled lens
- Contemporary design provides glare-free illumination for a soft ceiling appearance
- 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" – 2-3/8".
- 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](http://hew.com/warranty).

### 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

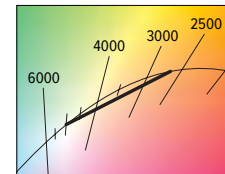
	REFLECTOR FINISH	
	CATALOG NUMBER	CONVERSION FACTOR
O TRIM	CS	1.00
	SG <sup>1</sup>	0.92
	GD	0.93
	CG	0.96
	PW	0.86
	SPC	1.02
	RG	0.88

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°



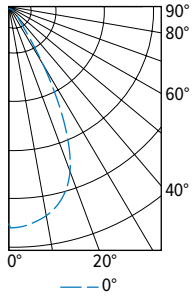
- 1 Distribution will also be affected, consult factory.
  - Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25°C ambient temperature.
  - Wattage shown is based on 120V input.
  - Results based on 4000K/90CRI and WH Reflector Finish. Actual lumens may vary +/-5%
  - Beam angle based on L Trim Type and WH Reflector Finish.
  - Use multiplier tables to calculate additional options.



# 2DS tunable WHITE 2" Downlight – Square

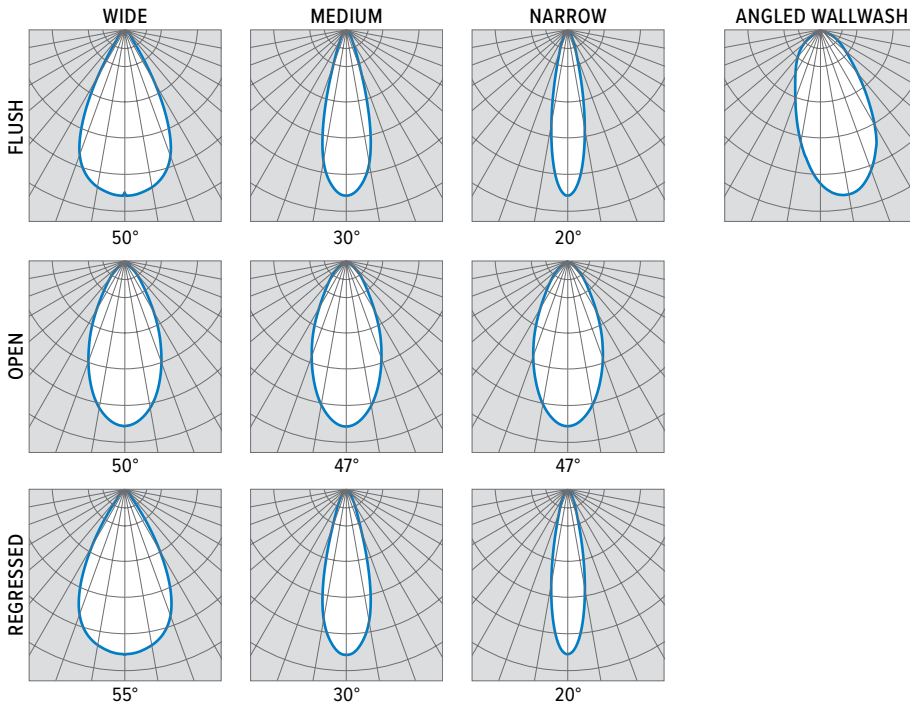
## PHOTOMETRY

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



## CONTROL DETAILS

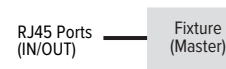
### DIM



### DALI



### DMX



### LUTRON T-SERIES

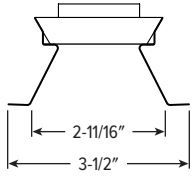


# 2DS tunable WHITE 2" Downlight – Square

## TRIM TYPE DETAILS

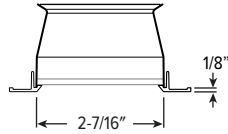
### 1/2" STANDARD FLANGE TYPE

#### OPEN

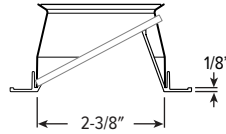


Ceiling Cutout: 3"

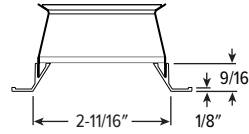
#### FLUSH



#### ANGLED

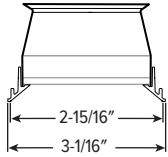


#### REGRESSED



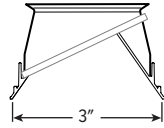
### ZERO-FLANGE MUD-IN

#### FLUSH

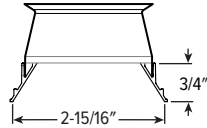


Ceiling Cutout: 3-1/2"

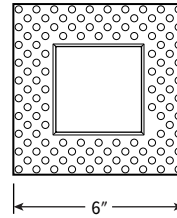
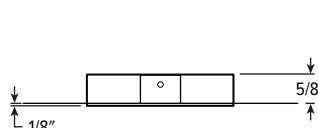
#### ANGLED



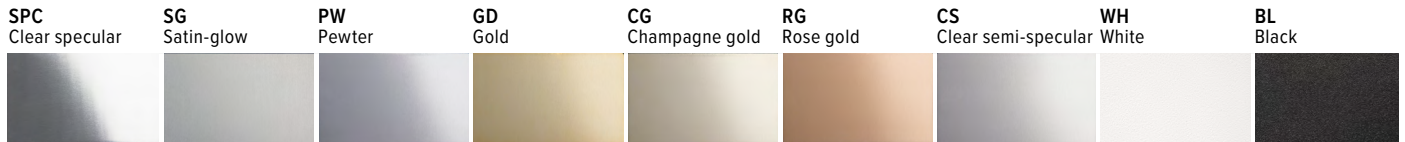
#### REGRESSED



### MUD FLANGE MOUNTING KIT

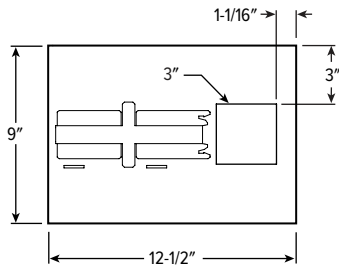


## REFLECTOR FINISH DETAILS

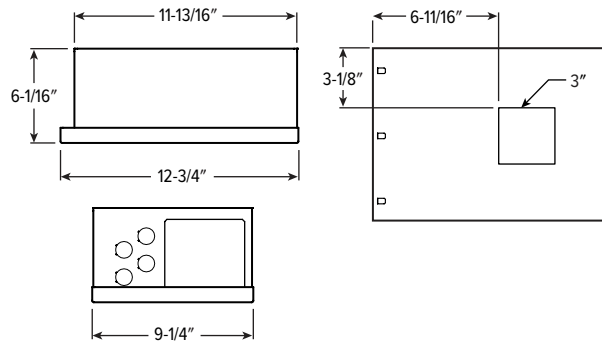


## MOUNTING TYPE DETAILS

### NEW CONSTRUCTION

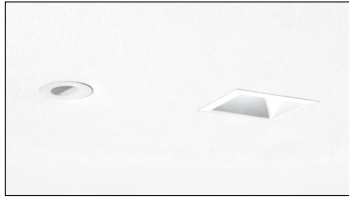


### IC-RATED

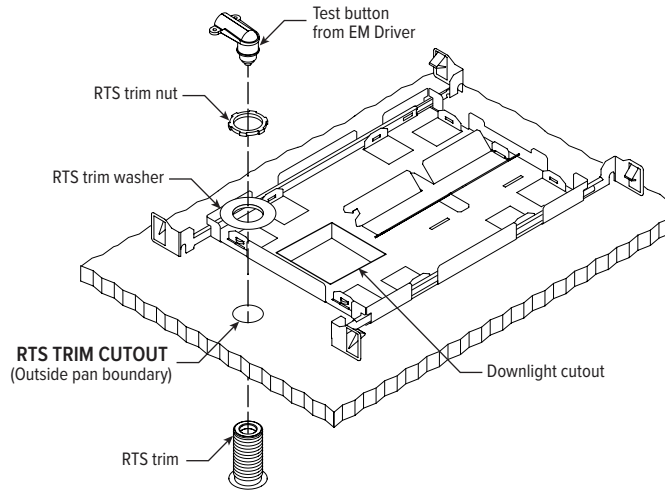


### EM BATTERY DETAILS

#### EM/10W/RTS MOUNTING

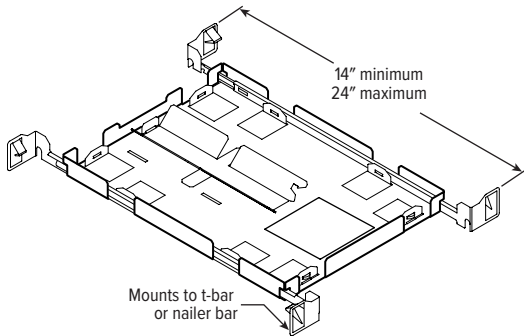


Shown Installed

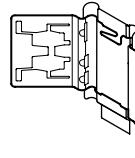


### MOUNTING HARDWARE DETAILS

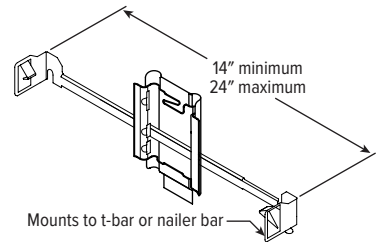
**F1** Integral 2-position fixed pan bracket, universal bar hanger included



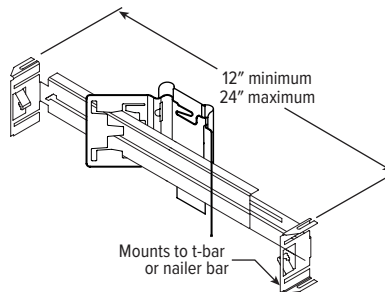
**BA1** Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



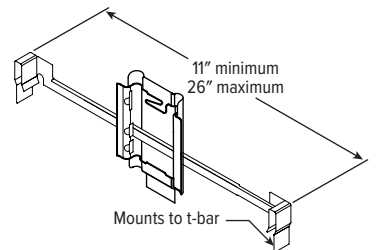
**CA1** Adjustable caterpillar pan bracket, universal bar hanger included (N Mounting Type only)



**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

