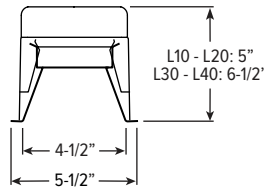


# 4DS LED 4.5" Downlight – Square



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

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

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

## NEW CONSTRUCTION AND REMODEL

### FEATURES

- Beam angles ranging from 25° narrow to 60° wide for tailored performance
- 4 inch aperture is unobtrusive in small scale spaces
- Square shape accentuates architectural styles
- Open reflector with 7 finishes to complement any interior style
- Die cast trim choices include flush, regressed or angled lens
- Spring clip retention system eliminates trim sag
- Industry-leading efficacies as high as 97 lm/W
- Contemporary design provides glare-free illumination for a soft ceiling appearance
- Fully room-side accessible

### 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 adjust for ceiling thickness from 1/2" - 1-7/16" (see options for additional ceiling thicknesses).
- **OPEN REFLECTOR** – Low-iridescent anodized aluminum.
- **LENSED TRIM** – Die-cast aluminum frame with micro-prismatic, tempered glass lens.
- **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. Remodel kit option includes receiver bracket hardware. Minimum 24" O.C. marked spacing required for L40 lumen package.
- **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).

ORDERING EXAMPLE:<sup>(1)</sup> **4DS - L20/835 - OPTIONS - DIM - UNV - LW - OF - WH - TRIM OPTIONS - N - F1**

### HOUSING

SERIES	LUMENS <sup>(2)</sup>	CRI	CCT	OPTIONS	DRIVER <sup>(3)</sup>	VOLTAGE
4DS	L10 1,000lm	8 80	27 2700K	EM/10W 10-watt emergency battery <sup>(4)</sup>	DIM Dimming driver, 0-10V	UNV 120-277V
	L15 1,500lm	9 90	30 3000K	ATH Airtight construction	DIM1 1% Dimming driver, 0-10V	347 347V <sup>(7)</sup>
	L20 2,000lm	35	3500K	CP Chicago plenum (CCEA) <sup>(5)</sup>		
	L30 3,000lm	40	4000K	F Fuse kit		
	L40 4,000lm			SDT Stepdown transformer <sup>(6)</sup>		
				TC Adjustable mounting arms for 1-1/2" – 2-1/4" thick ceilings		

### TRIM

TRIM TYPE	DISTRIBUTION <sup>(8)</sup>	FLANGE TYPE	REFLECTOR FINISH	TRIM OPTIONS
L Flush lens	W Wide	OF 1/2" standard flange	<b>Open trim types</b>	MWT Textured white trim flange <sup>(14)</sup>
O Open reflector	55° Open	SF 1/4" mud-in flange <sup>(13)</sup>	CS Clear semi-specular anodize	MB Regressed lens trim with texture black splay and white flange <sup>(15)</sup>
R Regressed lens	60° Flush		SG Satin-glow anodize	IP IP65 rated trim <sup>(16)</sup>
A Angled lens <sup>(9)</sup>	60° Regressed		GD Gold anodize	AD Diffuse acrylic lens <sup>(17)</sup>
	M Medium <sup>(10)</sup>		CG Champagne gold anodize	PD Diffuse 1/8" polycarbonate lens <sup>(18)</sup>
	45° Open		PW Pewter anodize	WET/CC Wet location, covered ceiling listed <sup>(19)</sup>
	35° Flush		SPC Clear specular anodize	
	35° Regressed		RG Rose gold anodize	
	N Narrow <sup>(11)</sup>		<b>Lens trim types</b>	
	40° Open		CS Clear semi-specular powder coat	
	25° Flush		WH White texture powder coat	
	25° Regressed		BL Black texture powder coat	
	WW Wall wash <sup>(12)</sup>			

### MOUNTING

#### MOUNTING TYPE <sup>(20)</sup>

- N Open pan for new construction
- I IC-rated enclosure for new construction <sup>(22)</sup>
- R Remodel kit <sup>(23)</sup>

#### MOUNTING HARDWARE <sup>(21)</sup>

- F1 2-Position fixed pan bracket, universal bar hanger included
- F2 2-Position fixed pan bracket, t-bar hanger included
- BA1 Adjustable butterfly pan bracket, bar hanger not included <sup>(24)</sup>
- BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included <sup>(25)</sup>
- CA1 Adjustable caterpillar pan bracket, universal bar hanger included
- CA2 Adjustable caterpillar pan bracket, t-bar hanger included

### NOTES

- Housing, trim, and mounting ship separately.
- Lumen output based on L trim type, W distribution and WH finish, 3500K/80CRI. Actual lumens may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
- See page 4 for ADDITIONAL DRIVER OPTIONS.
- N Mounting Type only.
- I Mounting Type required.
- May be required for 347V, see product builder at [hew.com](http://hew.com).
- Not available with EM batteries.
- Beam angle based on CS or WH reflector finish.
- Available with WW Distribution only.
- Not available with L40.
- Not available with L40.
- O and A Trim Types only.
- For use with mud-in plaster construction only, supplied with mud flange installation kit, see page 4 for FLANGE TYPE DETAILS, not available with CP, ATH or IP options.
- O Trim Type and OF Flange Type only. Not available with WH Reflector Finish.
- R trim type only.
- L and R trim types only.
- L and R Trim Types only. Wide distribution only.
- L and R Trim Types only. Wide distribution only.
- Not available with O Trim Type. Reduces lumen output, use .85 multiplier.
- Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info.
- Specify for N and I Mounting Types only. See page 5 for MOUNTING HARDWARE DETAILS.
- L20 lumen package max.
- Also used in new construction sheetrock ceilings.
- N Mounting Type only.
- N Mounting Type only.



# 4DS LED 4.5" Downlight – Square

## FIXTURE PERFORMANCE DATA

### OPEN REFLECTOR TRIM TYPE

LED PACKAGE	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	947	12.0	78.6
	M	1045	12.0	86.7
	N	1067	12.0	88.6
L15	W	1395	17.4	80.1
	M	1540	17.4	88.4
	N	1573	17.4	90.3
L20	W	1893	25.0	75.7
	M	2089	25.0	83.6
	N	2134	25.0	85.4
L30	W	2839	36.0	78.9
	M	3090	36.0	85.8
	N	2999	36.0	83.3
L40	W	3739	45.0	83.1
	M	4048	45.0	90.0
	N	3727	45.0	82.8

### FLUSH LENS TRIM TYPE

LED PACKAGE	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	1026	12.0	85.2
	M	1127	12.0	93.5
	N	1144	12.0	94.9
L15	W	1511	17.4	86.7
	M	1666	17.4	95.6
	N	1684	17.4	96.6
L20	W	2050	25.0	82.1
	M	2261	25.0	90.5
	N	2285	25.0	91.5
L30	W	3077	36.0	85.5
	M	3333	36.0	92.6
	N	3214	36.0	89.3
L40	W	4053	45.0	90.1
	M	4366	45.0	97.0
	N	3994	45.0	88.8

### REGRESSED LENS TRIM TYPE

LED PACKAGE	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	986	12.0	81.8
	M	1111	12.0	92.2
	N	1127	12.0	93.5
L15	W	1453	17.4	83.4
	M	1637	17.4	93.9
	N	1660	17.4	95.3
L20	W	1972	25.0	78.9
	M	2221	25.0	88.9
	N	2253	25.0	90.1
L30	W	2957	36.0	82.2
	M	3285	36.0	91.3
	N	3166	36.0	88.0
L40	W	3895	45.0	86.6
	M	4304	45.0	95.6
	N	3935	45.0	87.4

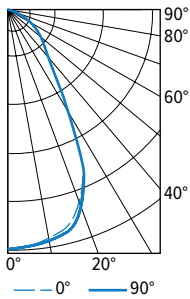
### MULTIPLIER TABLES

	COLOR TEMPERATURE		OPEN REFLECTOR FINISH		
	CCT	CONVERSION FACTOR	CATALOG NUMBER	REFLECTOR FINISH	CONVERSION FACTOR
80 CRI	2700K	0.95	CS	Clear semi-specular	1.00
	3000K	0.96	SG	Satin-glow	0.83
	3500K	1.00	GD	Gold	0.93
	4000K	1.01	CG	Champagne Gold	0.96
90 CRI	2700K	0.74	PW	Pewter	0.86
	3000K	0.85	SPC	Specular	1.02
	3500K	0.90	RG	Rose Gold	0.88
	4000K	0.91	WH	White, textured	0.99
			BL	Black, textured	0.79

- 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, 80 CRI, actual lumens may vary +/-5%
- Use multiplier table to calculate additional options.

## PHOTOMETRY

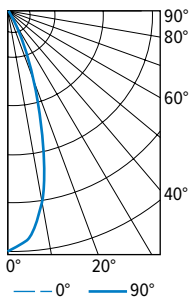
4DS-L20/835-DIM-UNV-LW-OF-WH Report #: 20316; 04/16/18 | Total Luminaire Output: 2050 lumens; 25.0 Watts | Efficacy: 82.1 lm/W | 83.8 CRI; 3478K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	1526	1526	1526	
5	1512	1512	1513	144
15	1426	1447	1456	410
25	1107	1253	1110	546
35	501	762	491	372
45	317	344	314	254
55	192	197	191	175
65	101	98	99	100
75	42	41	42	44
85	5	4	6	5
90	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1100	54
	0 - 40	1472	72
	0 - 60	1902	93
	0 - 90	2050	100
	0 - 180	2050	100

4DS-L20/835-DIM-UNV-LM-OF-WH Report #: 20318; 04/20/18 | Total Luminaire Output: 2261 lumens; 25.0 Watts | Efficacy: 90.5 lm/W | 83.8 CRI; 3478K CCT



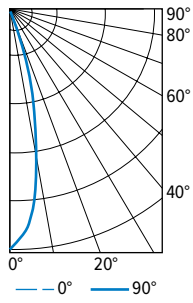
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	6047	6047	6047	
5	5827	5790	5763	553
15	3492	3513	3428	994
25	948	987	856	438
35	214	246	190	142
45	77	84	72	61
55	40	42	40	37
65	25	24	25	24
75	10	10	9	11
85	2	1	2	2
90	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1985	88
	0 - 40	2126	94
	0 - 60	2224	98
	0 - 90	2261	100
	0 - 180	2261	100



# 4DS LED 4.5" Downlight – Square

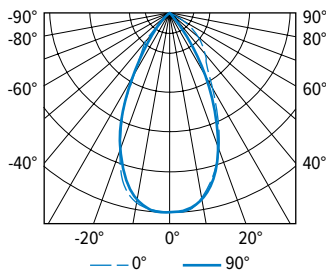
4DS-L20/835-DIM-UNV-LN-OF-WH Report #: 20319; 04/20/18 | Total Luminaire Output: 2285 lumens; 25 Watts | Efficacy: 91.5 lm/W | 83.8 CRI; 3478K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	9567	9567	9567	
5	8671	8526	8592	820
15	3598	3354	3215	966
25	755	662	584	310
35	158	149	122	90
45	59	62	53	45
55	32	32	30	28
65	18	17	17	17
75	9	8	8	8
85	0	0	0	0
90	0	0	0	0

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	2096	92
	0 - 40	2186	96
	0 - 60	2259	99
	0 - 90	2285	100
	0 - 180	2285	100

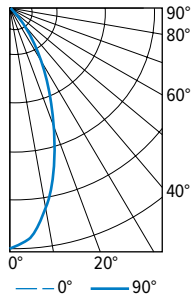
4DS-L20/835-DIM-UNV-OWW-OF-CS Report #: 20314; 04/16/18 | Total Luminaire Output: 1770 lumens; 25 Watts | Efficacy: 70.9 lm/W | 83.8 CRI; 3478K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE					ZONAL LUMENS
	0°	45°	90°	135°	180°	
0	1863	1863	1863	1863	1863	
5	1861	1852	1853	1855	1854	177
15	1587	1603	1596	1674	1663	462
25	1084	1134	1038	1183	1048	507
35	620	580	409	563	480	332
45	454	267	134	193	179	178
55	274	84	19	31	21	73
65	166	18	0	0	0	33
75	56	0	0	0	0	10
85	0	0	0	0	0	0
90	0	0	0	0	0	0

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1145	65
	0 - 40	1478	84
	0 - 60	1728	98
	0 - 90	1770	100
	0 - 180	1770	100

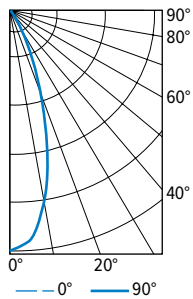
4DS-L20/835-DIM-UNV-OM-OF-CS Report #: 20312; 04/20/18 | Total Luminaire Output: 2089 lumens; 25 Watts | Efficacy: 83.6 lm/W | 83.8 CRI; 3478K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	3726	3726	3726	
5	3579	3542	3543	339
15	2585	2560	2556	726
25	1378	1364	1369	638
35	446	557	433	309
45	63	130	60	69
55	6	10	6	7
65	0	0	0	0
75	0	0	0	0
85	0	0	0	0
90	0	0	0	0

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1703	82
	0 - 40	2013	96
	0 - 60	2089	100
	0 - 90	2089	100
	0 - 180	2089	100

4DS-L20/835-DIM-UNV-RM-OF-WH Report #: 20323; 04/23/18 | Total Luminaire Output: 2221 lumens; 25 Watts | Efficacy: 88.9 lm/W | 83.8 CRI; 3478K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	5934	5934	5934	
5	5723	5656	5624	540
15	3487	3468	3398	981
25	943	1008	963	453
35	188	255	209	142
45	61	79	63	54
55	34	35	32	30
65	17	16	17	17
75	4	3	3	4
85	0	0	0	0
90	0	0	0	0

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1974	89
	0 - 40	2116	95
	0 - 60	2200	99
	0 - 90	2221	100
	0 - 180	2221	100



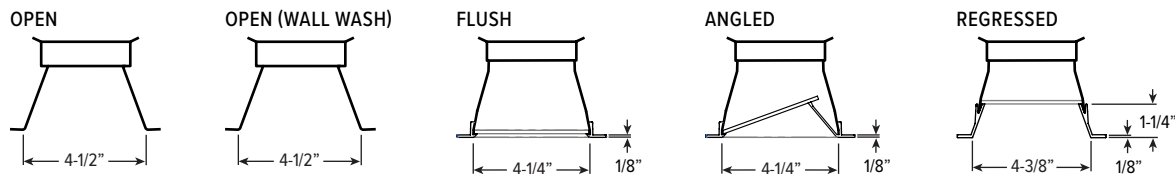
# 4DS LED 4.5" Downlight – Square

## ADDITIONAL DRIVER OPTIONS

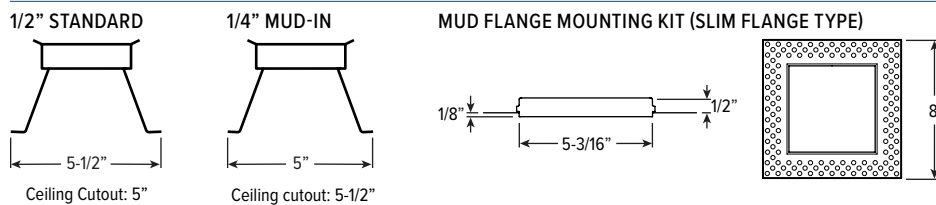
Lumen restrictions apply: L30 max for DMX driver, L30 max for Lutron drivers, L40 max for ELDO drivers. 347V may require stepdown transformer, see product builder at [hew.com](http://hew.com).

CATALOG NUMBER	DESCRIPTION
<b>DIM</b>	Dimming driver prewired for 0-10V low voltage applications
<b>DIM1</b>	1% dimming driver prewired for 0-10V low voltage applications
<b>DMX</b>	0.1% dimming driver for DMX controls
<b>LTE LINE</b>	Lutron Hi-Lume® A-Series 1% dimming driver for forward phase line voltage controls (120V only)
<b>LDE1</b>	Lutron EcoSystem® H-Series 1% dimming driver for EcoSystem® controls
<b>LDE5</b>	Lutron EcoSystem® 5-Series 5% dimming driver for EcoSystem® controls
<b>ELDO SOLOB</b>	EldoLED Solodrive, 0.1% dimming driver for 0-10V controls
<b>ELDO SOLOB DALI</b>	EldoLED Solodrive, 0.1% dimming driver for DALI controls
<b>ELDO ECO1</b>	EldoLED Ecodrive, 1% dimming driver for 0-10V controls
<b>ELDO ECO1 DALI</b>	EldoLED Ecodrive, 1% dimming driver for DALI controls

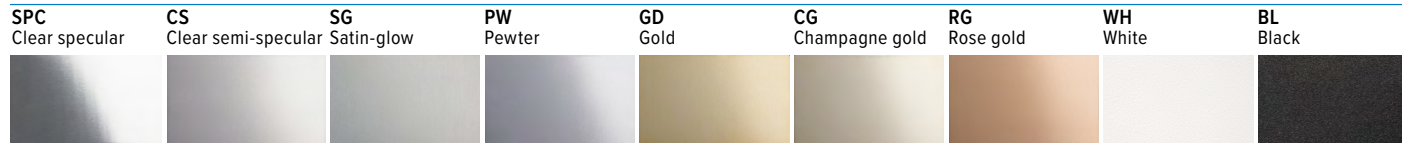
## TRIM TYPE DETAILS



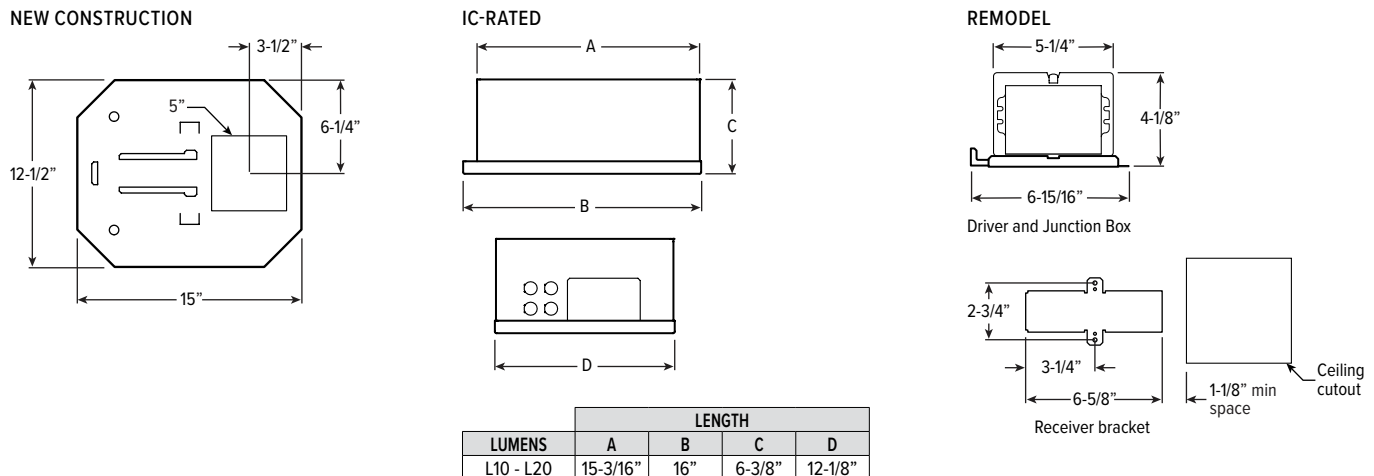
## FLANGE TYPE DETAILS



## REFLECTOR FINISH DETAILS



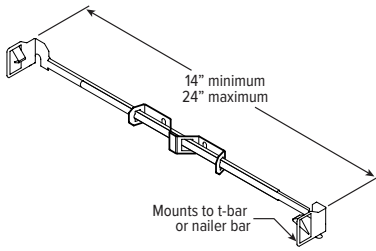
## MOUNTING TYPE DETAILS



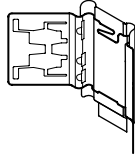
# 4DS<sup>LED</sup> 4.5" Downlight – Square

## MOUNTING HARDWARE DETAILS

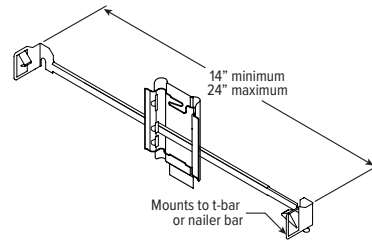
**F1** 2-Position fixed pan bracket, universal bar hanger included



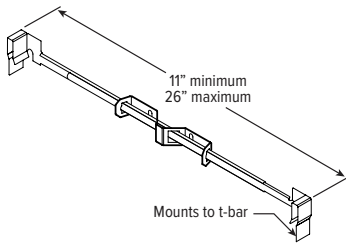
**BA1** Adjustable butterfly pan bracket, bar hanger not included



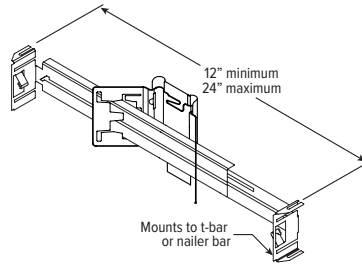
**CA1** Adjustable caterpillar pan bracket, universal bar hanger included



**F2** 2-Position fixed pan bracket, t-bar bar hanger included



**BA2** Adjustable butterfly pan bracket, heavy-duty universal bar hanger included



**CA2** Adjustable caterpillar pan bracket, t-bar hanger included

