DS PoE | tunable WHITE 4.5" Downlight – Square





NEW CONSTRUCTION AND REMODEL

FEATURES

Deliver scalable, data-driven smart buildings with PoEenabled fixtures and controls



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'' - 2-1/4''.
- OPEN REFLECTOR Low-iridescent anodized aluminum.
- LENSED TRIM Die-cast aluminum frame with micro-prismatic, acrylic lens.
- ELECTRICAL High-performance Class 2 LED array. Modular quick-connect plug for easy field-connection of LED light assembly to driver. Reported L70>50,000 hours. Low-voltage DC fixture, to be fed by Class 2 power supply. 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 for new construction or IC-rated enclosure. Remodel kit option includes receiver bracket hardware. Minimum 24" O.C. marked spacing required for P35 and P49 lumen packages.
- LISTINGS
 - cCSAus conforms to UL STD 1598; Certified to CAN/CSA STD C22.2 No. 250.0 for dry and 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.
- Complies with the Buy American Act and other federal regulations. Request certification at hew.com/baa.
- WARRANTY 5-year limited warranty, see hew.com/warranty.

SYSTEM REQUIREMENTS

PoE-ready luminaires are connected to building power systems through network integration and require other components for complete PoE lighting system. For additional PoE info, see hew.com/poe.

P11 - P22: 5" P35 - P49: 6-1/2" ¥ 1/2″ min 2-1/4″ max 4-1/2

CATALOG #:

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TYPF.
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PROJECT: _

HOUSIN	 ۱G		— HOUSING ———		TRIM -		^I MOUNT. ^J
SERIES	LUMENS ^[1]	CRI	ССТ	OPTI	ONS	CONT	ROL [2]
4DS	P11 1,100lm P22 2,200lm P35 3,500lm P49 4,900lm ^[3]	8 80 9 90 ^[4]	27 2700K 30 3000K 35 3500K 40 4000K 50 5000K TW Tunable white (80 CRI, 2700K-5000K) ¹	СР	Airtight construction ^[6] Chicago plenum (CCEA) ^{[7}		Power over Ethernet-ready
				DEFLECT			
TRIM TY		BUTION [9]	FLANGE TYPE		OR FINISH	TRIM OPT	
L Flush I O Open r R Regres A Angleo	eflector 55 sed lens 60	de ° Open ° Flush ° Regresseo	OF 1/2" standard flange SF 1/4" mud-in flango [14]	an	1 types ear semi-specular odize tin-glow anodize	fi IP II	extured white trim lange ^[15] P65 rated trim ^[16] Diffuse acrylic lens ^{[1}

	55° Open 60° Flush		standard flange	CS	Clear semi-specular anodize	IP	IP65 rated trim ^[16]
				SG	Satin-glow anodize	AD	Diffuse acrylic lens [17]
М	Medium ^[11]		flange [14]	GD	Gold anodize	PD	Diffuse 1/8"
	45° Open			CG	Champagne gold anodize		polycarbonate lens [18]
	35° Flush			PW	Pewter anodize		Wet location, covered
	35° Regressed			SPC	Clear specular anodize		ceiling listed ^[19]
Ν	Narrow ^[12]			RG	Rose gold anodize	AM	Anti-microbial ^[20]
	40° Open			Lens t	rim types		
	25° Flush					r coat	
	25° Regressed			WH	White texture powder coat		
ww	Wall wash [13]			BL	Black texture powder coat		
				MB	Black texture splay with whi	te flange	[21]
	N	60° Flush 60° Regressed M Medium ^[11] 45° Open 35° Flush 35° Regressed N Narrow ^[12] 40° Open 25° Flush	60° Flush 60° Regressed M Medium ^[11] 45° Open 35° Flush 35° Regressed N Narrow ^[12] 40° Open 25° Flush 25° Regressed	60° Flush 60° Regressed M Medium ^[11] 45° Open 35° Flush 35° Regressed N Narrow ^[12] 40° Open 25° Flush 25° Regressed	S0 Open flange CS 60° Flush flange 1/4" mud-in flange [14] SG M Medium [11] 45° Open CG 35° Flush PW 35° Regressed SPC N Narrow ^[12] RG 40° Open Lens tu 25° Flush 25° Flush CS 25° Regressed WH WW Wall wash ^[13] BL	So Open flange anodize 60° Flush flange anodize 60° Regressed SF 1/4" mud-in flange [14] SG Satin-glow anodize M Medium [11] flange [14] GD Gold anodize 35° Flush PW Pewter anodize 35° Regressed SPC Clear specular anodize N Narrow ^[12] RG Rose gold anodize 40° Open Lens trim types CS Clear semi-specular powder 25° Flush CS CS Celar semi-specular powder coat WW Wall wash ^[13] BL Black texture powder coat	60° Flush flange anodize IP 60° Regressed SF 1/4" mud-in flange [14] SG Satin-glow anodize AD M Medium [11] 45° Open GD Gold anodize PD 35° Flush 35° Regressed PW Pewter anodize WET/CC 35° Regressed SPC Clear specular anodize AM N Narrow [12] RG Rose gold anodize AM 40° Open Lens trim types 25° Flush CS Clear semi-specular powder coat 25° Regressed WH White texture powder coat BL Black texture powder coat

MOUNTING

MOUNTING TYPE [22]

- N Open pan for new construction
- I IC-rated enclosure for new construction [24] R Remodel kit [25]
- MOUNTING HARDWARE [23]

Integral 2-position fixed pan bracket, universal bar hanger included [26] F1

- BA1 Adjustable butterfly pan bracket, bar hanger not included [27]
- CA1 Adjustable caterpillar pan bracket, universal bar hanger included [28]

NOTES

- Static white lumen output based on L trim type, W distribution and WH finish, 80 CRI, 3000K for single CCT and 4000K for TW. Actual lumens may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
- For additional PoE connection details, consult factory. N Mounting Type only. Extended lead times may apply. Consult
- factory for availability. Not available with Tunable White.
- P11 and P22 lumen packages only.
- I Mounting Type required. I Mounting Type required. P11 lumen 7 package only.
- Trim ships separately. Beam angle based on CS or WH reflector finish.

- ¹⁰ Available with WW Distribution only.
- 11 Not available with P49. 12
- Not available with P49 13
- O and A Trim Types only For use with mud-in plaster construction only, supplied with mud flange installation kit. See page 3 for FLANGE TYPE DETAILS. Not available with ATH or IP options.
- 15 Not available with WH Reflector Finish or L Trim Type. L and R trim types only. Not available with O trim type. W and
- WW distributions only. Not available with 0 trim type. W and 18
- WW distributions only. Not available with O Trim Type. Not 19
- available with PD trim option.
- ²⁰ WH and BL Reflector Finishes only.

²¹ R Trim Type only. Not available with

- MWT. 22 Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 4 for MOUNTING TYPE DETAILS.
- 23 Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.
- ²⁴ P11 lumen package only.
 ²⁵ Also used in new construction sheetrock ceilings. Pan-less installation.
- P11 and P22 lumen packages only.
 ²⁶ N and I Mounting Types only. I Mounting requires external brackets.
- ²⁷ N Mounting Type only.
 ²⁸ N Mounting Type only.

DS PoE | tunable WHITE 4.5" Downlight – Square 4

FIXTURE PERFORMANCE DATA

STANDARD

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P22

P35

P49

OPEN REFLECTOR TRIM TYPE

DISTRIBUTION DELIVERED LUMENS WATTAGE EFFICACY (Im/W) W 1101 12.3 89.9 Μ 1215 12.3 99.2 1241 101.3 Ν 12.3 W 2067 25.0 82.7 М 2281 25.0 91.2 25.0 93.3 Ν 2331 37.5 W 3221 85.9 37.5 93.6 М 3510 Ν 3417 37.5 91.1 W 4543 50.0 90.9 М Ν _ _

TUNABLE WHITE

OPEN REELECTOR TRIM TYPE

015						
	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (Im/W)		
	W	956	12.3	78.1		
F	М	1051	12.3	85.8		
	Ν	1074	12.3	87.7		
	W	1944	25.0	77.8		
P22	Μ	2118	25.0	84.7		
	Ν	2062	25.0	82.5		
	W	-	-	-		
P35	М	-	-	-		
	Ν	-	-	-		
	W	-	-	-		
P49	М	-	-	-		
	Ν	-	-	-		

FLUSH LENS TRIM TYPE

	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (Im/W)
	W	1193	12.3	97.4
P1	М	1310	12.3	107.0
	Ν	1330	12.3	108.6
	W	2239	25.0	89.6
P22	М	2469	25.0	98.8
	Ν	2495	25.0	99.8
	W	3488	37.5	93.0
P35	М	3799	37.5	101.3
	Ν	3657	37.5	97.5
	W	4919	50.0	98.4
P49	М	_	_	_
	Ν	-	-	-

FLUSH LENS TRIM TYPE

	W	1031	12.3	84.2
P	Μ	1138	12.3	92.9
	Ν	1150	12.3	93.8
	W	2105	25.0	84.2
P22	Μ	2293	25.0	91.7
	Ν	2207	25.0	88.3
	W	-	-	-
P35	Μ	-	-	-
	Ν	-	-	-
	W	-	-	-
P49	Μ	-	-	-
	N	-	-	_

DISTRIBUTION DELIVERED LUMENS WATTAGE EFFICACY (Im/W)

REGRESSED LENS TRIM TYPE

	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (Im/W)
	W	1147	12.3	93.6
P1	М	1292	12.3	105.4
	N	1310	12.3	107.0
	W	2151	25.0	86.0
P22	М	2425	25.0	97.0
	N	2469	25.0	98.8
	W	3352	37.5	89.4
P35	М	3732	37.5	99.5
	N	3619	37.5	96.5
	W	4727	50.0	94.5
P49	М	-	-	-
	N	-	-	-

REGRESSED LENS TRIM TYPE

	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (Im/W)
	W	991	12.3	80.9
P11	М	1117	12.3	91.2
	Ν	1138	12.3	92.9
	W	2023	25.0	80.9
P22	М	2252	25.0	90.1
	Ν	2184	25.0	87.4
	W	-	-	-
P35	М	-	-	-
	Ν	-	-	-
	W	_	-	_
P49	М	_	-	_
	N	-	-	-

MULTIPLIER TABLES

	COLOR TEMPERATURE						
	ССТ	LUMENS					
	CCI	STANDARD	TUNABLE WHITE				
	2700K	0.92	0.83				
~	3000K	0.98	1.00				
80 CRI	3500K	1.00	0.99				
õ	4000K	1.01	1.00				
	5000K	1.02	0.98				
	2700K	0.76	-				
~	3000K	0.79	-				
90 CRI	3500K	0.82	-				
6	4000K	0.84	_				
	5000K	0.88	_				

	OPEN REFLECTOR FINISH				
CATALOG NUMBER	REFLECTOR FINISH	CONVERSION FACTOR			
CS	Clear semi-specular	1.00			
SG	Satin-glow	0.92			
GD	Gold	0.93			
CG	Champagne Gold	0.96			
PW	Pewter	0.86			
SPC	Specular	1.02			
RG	Rose Gold	0.88			
WH	White, textured	0.89			
BL	Black, textured	0.79			

1	TRIM		3000 25
CATALOG NUMBER	CONVERSION FACTOR		4000
AD	0.85]	
PD	0.85]	1 1 1

- Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25°C ambient temperature. Standard results based on 3500K/80 CRI, actual lumens may vary +/-5% Tunable white results based on 4000K/80 CRI, actual lumens may vary +/-5% Use multiplier tables to calculate additional options. ÷
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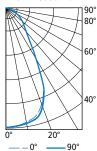


4.5" Downlight – Square

CANDLEPOWER DISTRIBUTION

PHOTOMETRY

4DS-P22/835-POE PR-LW-OF-WH Total Luminaire Output: 2239 lumens; 25.0 Watts | Efficacy: 89.6 lm/W | 80 CRI; 3500K CCT



VERTICAL ANGLE	HORI	ZONTAL A	NGLE	ZONAL LUMENS	
VERTICAL ANGLE	0°	45°	90°	ZUNAL LUMENS	
0	1665	1665	1665		
5	1650	1650	1651	157	
15	1556	1579	1589	442	
25	1208	1367	1211	575	
35	547	831	536	421	
45	346	375	343	281	
55	209	215	208	193	
65	110	107	108	111	
75	46	45	46	50	
85	5	4	6	9	
90	0	0	0		

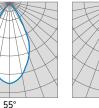
LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE				
	0 - 30	1173	52				
	0 - 40	1594	71				
	0 - 60	2069	92				
	0 - 90	2239	100				
	0 - 180	2239	100				

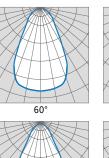


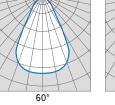
OPEN

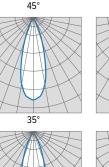
FLUSH

REGRESSED

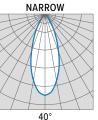


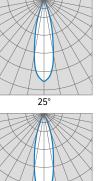


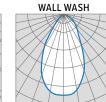




MEDIUM









TRIM TYPE DETAILS

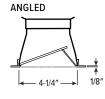


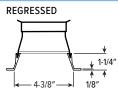


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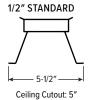


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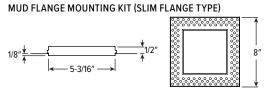


FLANGE TYPE DETAILS





1/4" MUD-IN



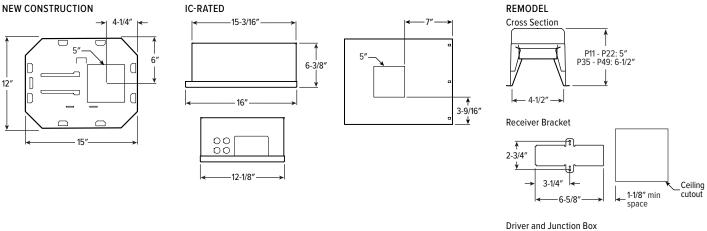
Ceiling cutout: 5-1/2"

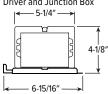
4.5" Downlight – Square

REFLECTOR FINISH DETAILS



MOUNTING TYPE DETAILS





APERTURE ADAPTOR ORDERING INFO

ORDERING EXAMPLE: 4DR - GR - 0575 - WHT								
SERIES	CATALOG NUMBER	CEILING CUTOUT	FINISH					
4AR 6AR 4DR 6DR 4DS 6DS 4PR 6PR 4PS 6PS 8DR	GR	Specify ceiling cutout in 1/8" increments. Example: 5.75" = 0575 See Kit Components for application limits.	CS WH BL	Clear semi-specular powder coat White texture powder coat Black texture powder coat				

For use with remodel downlights. Additional finishes available, consult factory. For limitations and instructions, see hew.com/aperture-adaptor.pdf

4.5" Downlight – Square

MOUNTING HARDWARE DETAILS

Br

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

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14" minimum

24" maximum

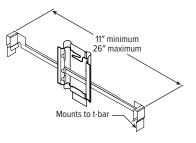
B

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- 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)

Mounts to t-bar or nailer bar

- Mounts to t-bar or nailer bar 14" minimum 24" maximum Mounts to t-bar or nailer bar
- BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included (N Mounting Type only) 12" minimum 24" maximum Var maximum Mounts to t-bar or nailer bar
- CA2 Adjustable caterpillar pan bracket, t-bar hanger included (N Mounting Type only)



F1 with I Mounting Type