

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

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

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

## NEW CONSTRUCTION AND REMODEL

### FEATURES

- Williams turn-key Power over Ethernet (PoE) solution provides plug-and-play networked lighting and control
- Fully room-side accessible
- Contemporary design provides glare-free illumination for a soft ceiling appearance

### SYSTEM REQUIREMENTS

- Lighting system (site software)
- Gateway or alternate server (runs software)
- PoE switches or Ethernet switches and mid-span power injectors
- See [hew.com/poe](http://hew.com/poe) for details

### 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 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 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: 4DS - P22/835 - OPTIONS - POE N | LW - OF - WH - TRIM OPTIONS - N - F1

### HOUSING

SERIES	LUMENS <sup>[1]</sup>	CRI	CCT	OPTIONS <sup>[2]</sup>	CONTROL <sup>[3]</sup>
4DS	P11 1,100lm	8 80	27 2700K	ATH Airtight construction <sup>[7]</sup>	POE N Power over Ethernet network node
	P22 2,200lm	9 90 <sup>[6]</sup>	30 3000K	CP Chicago plenum (CCEA) <sup>[8]</sup>	POE D Power over Ethernet device node
	P35 3,500lm <sup>[4]</sup>		35 3500K	TC Adjustable mounting arms for 1-1/2" – 2-1/4" thick ceilings	
	P49 4,900lm <sup>[5]</sup>		40 4000K		
			50 5000K		
			TW Tunable white (80 CRI, 2700K–5000K)		

### TRIM <sup>[9]</sup>

TRIM TYPE	DISTRIBUTION <sup>[10]</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>[16]</sup>
O Open reflector	55° Open	SF 1/4" mud-in flange <sup>[15]</sup>	CS Clear semi-specular anodize	IP IP65 rated trim <sup>[17]</sup>
R Regressed lens	60° Flush		SG Satin-glow anodize	AD Diffuse acrylic lens <sup>[18]</sup>
A Angled lens <sup>[11]</sup>	60° Regressed		GD Gold anodize	PD Diffuse 1/8" polycarbonate lens <sup>[19]</sup>
	M Medium <sup>[12]</sup>		CG Champagne gold anodize	WET/CC Wet location, covered ceiling listed <sup>[20]</sup>
	45° Open		PW Pewter anodize	AM Anti-microbial <sup>[21]</sup>
	35° Flush		SPC Clear specular anodize	
	35° Regressed		RG Rose gold anodize	
	N Narrow <sup>[13]</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>[14]</sup>		MB Black texture splay with white flange <sup>[22]</sup>	

### MOUNTING

#### MOUNTING TYPE <sup>[23]</sup>

- N Open pan for new construction
- I IC-rated enclosure for new construction <sup>[25]</sup>
- R Remodel kit <sup>[26]</sup>

#### MOUNTING HARDWARE <sup>[24]</sup>

- F1 Integral 2-position fixed pan bracket, universal bar hanger included <sup>[27]</sup>
- BA1 Adjustable butterfly pan bracket, bar hanger not included <sup>[28]</sup>
- CA1 Adjustable caterpillar pan bracket, universal bar hanger included <sup>[29]</sup>

### NOTES

- Static white 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 [hew.com/poe](http://hew.com/poe) for compatible sensors & switches.
- For additional PoE info, see [hew.com/poe](http://hew.com/poe)
- Not available with Tunable White.
- N Mounting Type only. Not available with Tunable White.
- Extended lead times may apply. Consult factory for availability. Not available with Tunable White.
- I Mounting Type required.
- I Mounting Type required. P11 lumen package max.
- Trim ships separately.
- Beam angle based on CS or WH reflector finish.
- Available with WW Distribution only.
- Not available with P49.
- Not available with P49.
- 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 ATH or IP options.
- Not available with WH Reflector Finish or L Trim Type.
- L and R trim types only.
- Not available with O trim type. W distribution only.
- Not available with O trim type. W distribution only.
- Not available with O Trim Type.
- WH and BL Reflector Finishes only.
- R Trim Type only. Not available with MWT.
- Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 5 for MOUNTING TYPE DETAILS.
- Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.
- P11 lumen package max.
- Also used in new construction sheetrock ceilings. P22 lumen package max.
- N and I Mounting Types only.
- N Mounting Type only.
- N Mounting Type only.



### FIXTURE PERFORMANCE DATA

#### STANDARD

##### OPEN REFLECTOR TRIM TYPE

	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
P11	W	1101	12.3	89.9
	M	1215	12.3	99.2
	N	1241	12.3	101.3
P22	W	2067	25.0	82.7
	M	2281	25.0	91.2
	N	2331	25.0	93.3
P35	W	3221	37.5	85.9
	M	3510	37.5	93.6
	N	3417	37.5	91.1
P49	W	4543	50.0	90.9
	M	-	-	-
	N	-	-	-

#### TUNABLE WHITE

##### OPEN REFLECTOR TRIM TYPE

	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
P11	W	956	12.3	78.1
	M	1051	12.3	85.8
	N	1074	12.3	87.7
P22	W	1944	25.0	77.8
	M	2118	25.0	84.7
	N	2062	25.0	82.5
P35	W	-	-	-
	M	-	-	-
	N	-	-	-
P49	W	-	-	-
	M	-	-	-
	N	-	-	-

##### FLUSH LENS TRIM TYPE

	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
P11	W	1193	12.3	97.4
	M	1310	12.3	107.0
	N	1330	12.3	108.6
P22	W	2239	25.0	89.6
	M	2469	25.0	98.8
	N	2495	25.0	99.8
P35	W	3488	37.5	93.0
	M	3799	37.5	101.3
	N	3657	37.5	97.5
P49	W	4919	50.0	98.4
	M	-	-	-
	N	-	-	-

##### FLUSH LENS TRIM TYPE

	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
P11	W	1031	12.3	84.2
	M	1138	12.3	92.9
	N	1150	12.3	93.8
P22	W	2105	25.0	84.2
	M	2293	25.0	91.7
	N	2207	25.0	88.3
P35	W	-	-	-
	M	-	-	-
	N	-	-	-
P49	W	-	-	-
	M	-	-	-
	N	-	-	-

##### REGRESSED LENS TRIM TYPE

	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
P11	W	1147	12.3	93.6
	M	1292	12.3	105.4
	N	1310	12.3	107.0
P22	W	2151	25.0	86.0
	M	2425	25.0	97.0
	N	2469	25.0	98.8
P35	W	3352	37.5	89.4
	M	3732	37.5	99.5
	N	3619	37.5	96.5
P49	W	4727	50.0	94.5
	M	-	-	-
	N	-	-	-

##### REGRESSED LENS TRIM TYPE

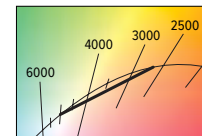
	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
P11	W	991	12.3	80.9
	M	1117	12.3	91.2
	N	1138	12.3	92.9
P22	W	2023	25.0	80.9
	M	2252	25.0	90.1
	N	2184	25.0	87.4
P35	W	-	-	-
	M	-	-	-
	N	-	-	-
P49	W	-	-	-
	M	-	-	-
	N	-	-	-

#### MULTIPLIER TABLES

	COLOR TEMPERATURE		
	CCT	LUMENS	
		STANDARD	TUNABLE WHITE
80 CRI	2700K	0.92	0.83
	3000K	0.98	1.00
	3500K	1.00	0.99
	4000K	1.01	1.00
	5000K	1.02	0.98
90 CRI	2700K	0.76	-
	3000K	0.79	-
	3500K	0.82	-
	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

TRIM	
CATALOG NUMBER	CONVERSION FACTOR
AD	0.85
PD	0.85



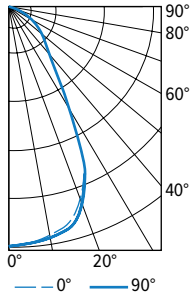
- Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25°C ambient temperature.
- Standard results based on 3500K/80 CRI, actual lumens may vary +/-5%
- Tunable white results based on 4000K/80 CRI, actual lumens may vary +/-5%
- Use multiplier tables to calculate additional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



# 4DS PoE | tunable **WHITE** 4.5" Downlight – Square

## PHOTOMETRY

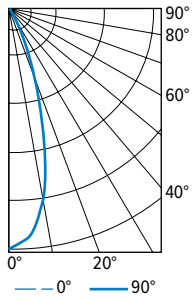
**4DS-P22/835-DIM-UNV-LW-OF-WH** Total Luminaire Output: 2239 lumens; 25.0 Watts | Efficacy: 89.6 lm/W | 83.8 CRI; 3478K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
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

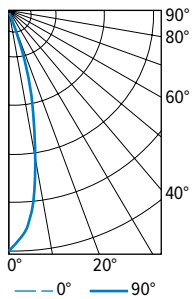
**4DS-P22/835-DIM-UNV-LM-OF-WH** Total Luminaire Output: 2469 lumens; 25.0 Watts | Efficacy: 98.8 lm/W | 83.8 CRI; 3478K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	6627	6627	6627	
5	6386	6345	6316	576
15	3827	3850	3757	1043
25	1039	1082	938	525
35	235	270	208	172
45	84	92	79	70
55	44	46	44	42
65	27	26	27	26
75	11	11	10	12
85	2	1	2	3
90	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	2144	87
	0 - 40	2316	94
	0 - 60	2428	98
	0 - 90	2469	100
	0 - 180	2469	100

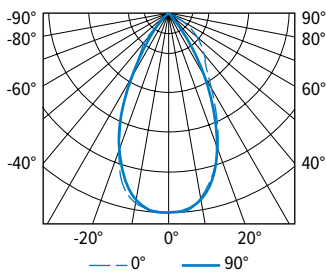
**4DS-P22/835-DIM-UNV-LN-OF-WH** Total Luminaire Output: 2495 lumens; 25.0 Watts | Efficacy: 99.8 lm/W | 83.8 CRI; 3478K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	10437	10437	10437	
5	9460	9301	9373	813
15	3925	3659	3507	1069
25	824	722	637	391
35	172	163	133	111
45	64	68	58	51
55	35	35	33	32
65	20	19	19	19
75	10	9	9	9
85	0	0	0	1
90	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	2273	91
	0 - 40	2384	96
	0 - 60	2466	99
	0 - 90	2495	100
	0 - 180	2495	100

**4DS-P22/835-DIM-UNV-OWW-OF-CS** Total Luminaire Output: 1920 lumens; 25 Watts | Efficacy: 76.8 lm/W | 83.8 CRI; 3478K CCT



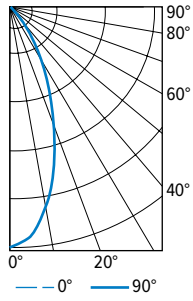
VERTICAL ANGLE	HORIZONTAL ANGLE					ZONAL LUMENS
	0°	45°	90°	135°	180°	
0	2032	2032	2032	2032	2032	
5	2030	2020	2022	2024	2023	190
15	1731	1749	1741	1826	1814	493
25	1183	1237	1132	1291	1143	546
35	676	633	446	614	524	370
45	495	291	146	211	195	198
55	299	92	21	34	23	81
65	181	20	0	0	0	32
75	61	0	0	0	0	10
85	0	0	0	0	0	0
90	0	0	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1229	64
	0 - 40	1599	83
	0 - 60	1878	98
	0 - 90	1920	100
	0 - 180	1920	100



# 4DS PoE | tunable **WHITE** 4.5" Downlight – Square

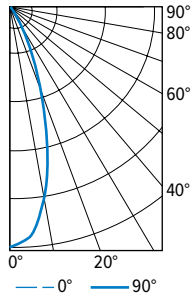
4DS-P22/835-DIM-UNV-OM-OF-CS Total Luminaire Output: 2281 lumens; 25.0 Watts | Efficacy: 91.2 lm/W | 83.8 CRI; 3478K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
		0°	45°	90°	
	0	4068	4068	4068	
	5	3908	3868	3869	356
	15	2823	2795	2791	776
	25	1505	1489	1495	695
	35	487	608	473	352
	45	69	142	66	91
	55	7	11	7	11
	65	0	0	0	0
	75	0	0	0	0
	85	0	0	0	0
	90	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1827	80
	0 - 40	2180	96
	0 - 60	2281	100
	0 - 90	2281	100
	0 - 180	2281	100

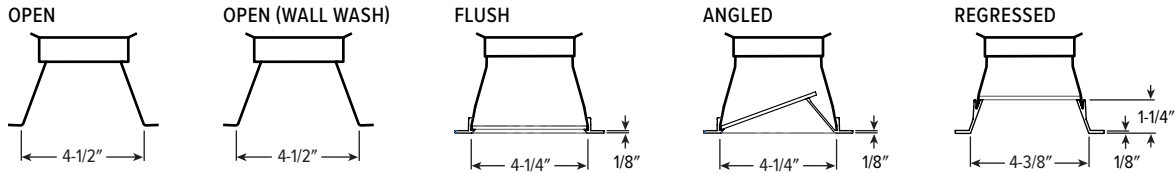
4DS-P22/835-DIM-UNV-RM-OF-WH Total Luminaire Output: 2425 lumens; 25.0 Watts | Efficacy: 97.0 lm/W | 83.8 CRI; 3478K CCT



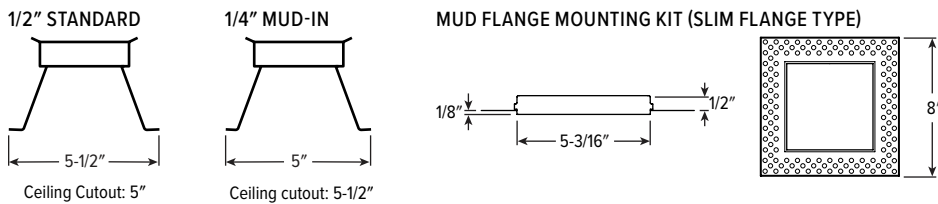
CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
		0°	45°	90°	
	0	6479	6479	6479	
	5	6249	6176	6141	561
	15	3807	3787	3710	1028
	25	1030	1101	1051	541
	35	205	278	228	174
	45	67	86	69	63
	55	37	38	35	33
	65	19	17	19	17
	75	4	3	3	5
	85	0	0	0	1
	90	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	2130	88
	0 - 40	2305	95
	0 - 60	2401	99
	0 - 90	2425	100
	0 - 180	2425	100

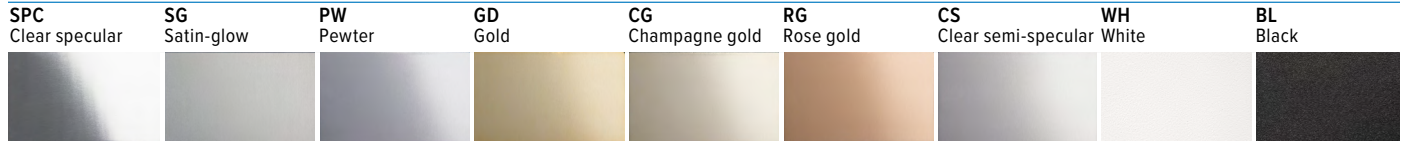
## TRIM TYPE DETAILS



## FLANGE TYPE DETAILS



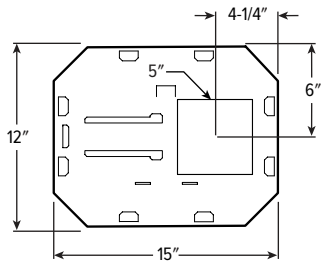
## REFLECTOR FINISH DETAILS



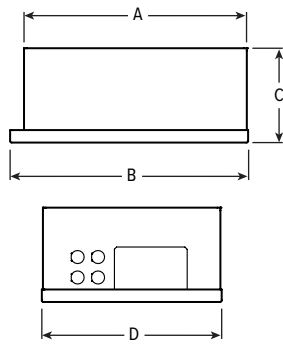
# 4DS PoE | tunable **WHITE** 4.5" Downlight – Square

## MOUNTING TYPE DETAILS

### NEW CONSTRUCTION

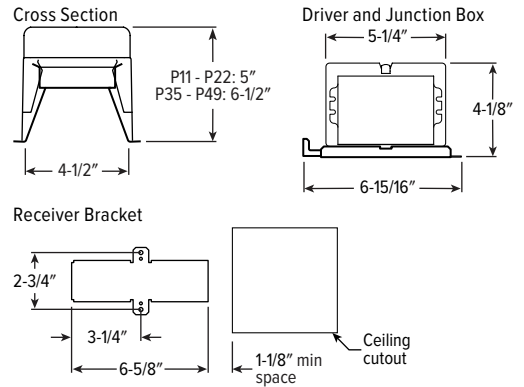


### IC-RATED



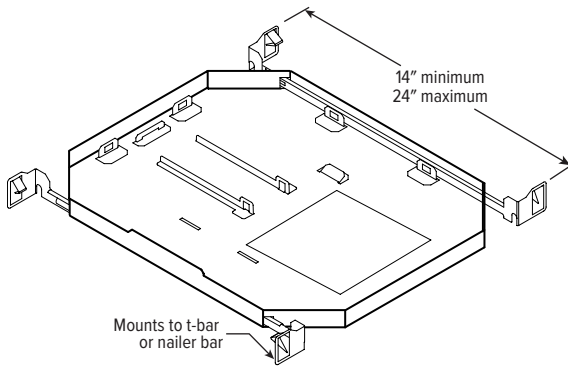
LUMENS	LENGTH			
	A	B	C	D
P11	15-3/16"	16"	6-3/8"	12-1/8"

### REMODEL

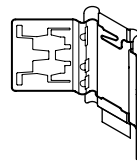


## MOUNTING HARDWARE DETAILS

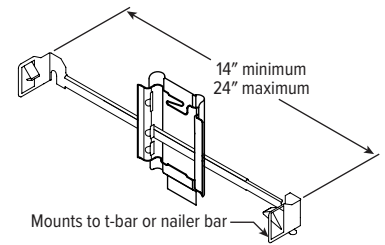
**F1** Integral 2-position fixed pan bracket, universal bar hanger included



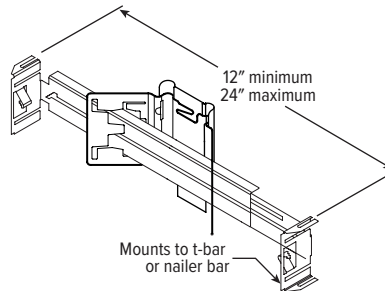
**BA1** Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



**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)

