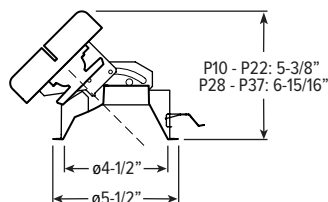


# 4AR PoE | tunable **WHITE** 4.5" Adjustable Downlight – Round



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

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

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

## NEW CONSTRUCTION AND REMODEL

### FEATURES

- Williams turn-key Power over Ethernet (PoE) solution provides plug-and-play networked lighting and control.
- Tunable white from 2700K to 5000K CCT, minimum 80 CRI
- Etched degree markers and directional indicator make it simple to fine-tune the illumination angle

### 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 spun and stamped articulating mechanism with forged aluminum heat sink. Galvanized steel splice compartment with driver mounting plate/enclosure. Mounting clips allow for ceiling thickness from 1/2" - 7/8" (consult factory for additional ceiling thicknesses).
- OPEN REFLECTOR** – Low-iridescent anodized aluminum. Clear semi-specular finish standard.
- 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. N and R mounting types for use in non-fire rated installations only. Minimum 24" O.C. marked spacing required for P28 and P37 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.
  - 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> 4AR - P22/835 - OPTIONS - POE N - OW - OF - CS - TRIM OPTIONS - N - F1

HOUSING TRIM MOUNT.

### HOUSING

SERIES	LUMENS <sup>(2)</sup>	CRI	COLOR	OPTIONS	ACCESSORIES	CONTROL <sup>(3)</sup>
4AR	P10 1,000lm	8	27 2700K	ATH Airtight construction <sup>(5)</sup>	See <a href="http://hew.com/poe">hew.com/poe</a> for compatible sensors & switches	POE N Power over Ethernet network node
	P22 2,200lm		30 3000K	CP Chicago plenum (CCEA) <sup>(6)</sup>		
	P28 2,800lm		35 3500K			
	P37 3,700lm <sup>(4)</sup>		40 4000K			
			TW Tunable white (80 CRI, 2700K-5000K)			

### TRIM

TRIM TYPE	DISTRIBUTION <sup>(7)</sup>	FLANGE TYPE	REFLECTOR FINISH	TRIM OPTIONS
O Open reflector	W Wide	OF 1/2" standard flange	<b>Open trim types</b>	MWT Textured white trim flange <sup>(10)</sup>
L Flush lens	55° Open	SF 1/4" mud-in flange <sup>(9)</sup>	CS Clear semi-specular anodize	AD Diffuse acrylic lens <sup>(11)</sup>
A Angled lens	65° Flush		WH White texture powder coat	PD Diffuse 1/8" polycarbonate lens <sup>(12)</sup>
	60° Angled		BL Black texture powder coat	
	M Medium		<b>Lens trim types</b>	
	35° Open		CS Clear semi-specular powder coat	
	45° Flush		WH White texture powder coat	
	45° Angled		BL Black texture powder coat	
	N Narrow <sup>(8)</sup>			
	20° Open			
	25° Flush			
	25° Angled			

### MOUNTING

MOUNTING TYPE <sup>(13)</sup>	MOUNTING HARDWARE <sup>(14)</sup>
N Open pan for new construction	F1 2-Position fixed pan bracket, universal bar hanger included
I IC-rated enclosure for new construction <sup>(15)</sup>	F2 2-Position fixed pan bracket, t-bar hanger included
R Remodel kit <sup>(16)</sup>	BA1 Adjustable butterfly pan bracket, bar hanger not included <sup>(17)</sup>
	BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included <sup>(18)</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.
- Static white lumen output based on O trim type, M distribution and CS finish, 4000K/80CRI. Actual lumens may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
- For additional PoE info, see [hew.com/poe](http://hew.com/poe)
- Not available with Tunable White; N Mounting Type only.
- I Mounting Type required.
- I Mounting Type required. P22 lumen package max.
- Beam angle based on CS or WH reflector finish.
- Not available with Tunable White when specified with O Trim Type.
- 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 or ATH option.

- O Trim Type and OF Flange Type only. Not available with WH Reflector Finish.
- L and A Trim Types only. Wide distribution only.
- L and A Trim Types only. Wide distribution only.
- Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 4 for MOUNTING TYPE DETAILS.
- Specify for N and I Mounting Types only. See page 5 for MOUNTING HARDWARE DETAILS.
- P22 lumen package max.
- Also used in new construction sheetrock ceilings. P22 lumen package max.
- N Mounting Type only.
- N Mounting Type only.



# 4AR PoE | tunable WHITE 4.5" Adjustable Downlight – Round

## FIXTURE PERFORMANCE DATA

### STANDARD

#### OPEN REFLECTOR TRIM TYPE

LED PACKAGE	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
P10	W	764	12.3	62.1
	M	1048	12.3	85.2
	N	1123	12.3	91.3
P22	W	1570	25.0	62.8
	M	2152	25.0	86.1
	N	2307	25.0	92.3
P28	W	1698	37.5	45.3
	M	2768	37.5	73.8
	N	3087	37.5	82.3
P37	W	2276	50.0	45.5
	M	3710	50.0	74.2
	N	4138	50.0	82.8

#### FLUSH LENS TRIM TYPE

LED PACKAGE	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
P10	W	757	12.3	61.6
	M	1014	12.3	82.4
	N	1056	12.3	85.8
P22	W	1556	25.0	62.2
	M	2083	25.0	83.3
	N	2169	25.0	86.8
P28	W	2318	37.5	61.8
	M	3013	37.5	80.4
	N	2994	37.5	79.8
P37	W	3106	50.0	62.1
	M	4039	50.0	80.8
	N	4013	50.0	80.3

#### ANGLED LENS TRIM TYPE

LED PACKAGE	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
P10	W	538	12.3	43.8
	M	789	12.3	64.1
	N	951	12.3	77.3
P22	W	1106	25.0	44.2
	M	1621	25.0	64.8
	N	1954	25.0	78.2
P28	W	1693	37.5	45.2
	M	2291	37.5	61.1
	N	2564	37.5	68.4
P37	W	2270	50.0	45.4
	M	3071	50.0	61.4
	N	3437	50.0	68.7

### TUNABLE WHITE

#### OPEN REFLECTOR TRIM TYPE

LED PACKAGE	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
P10	W	708	12.3	57.6
	M	982	12.3	79.9
	N	–	–	–
P22	W	1330	25.0	53.2
	M	1829	25.0	73.2
	N	–	–	–
P28	W	2270	43.5	52.2
	M	3124	43.5	71.8
	N	–	–	–

#### FLUSH LENS TRIM TYPE

LED PACKAGE	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
P10	W	689	12.3	56.0
	M	953	12.3	77.5
	N	1012	12.3	82.3
P22	W	1323	25.0	52.9
	M	1784	25.0	71.3
	N	1785	25.0	71.4
P28	W	2260	43.5	51.9
	M	3045	43.5	70.0
	N	3048	43.5	70.1

#### ANGLED LENS TRIM TYPE

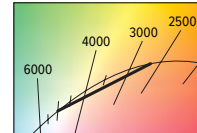
LED PACKAGE	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
P10	W	616	12.3	50.1
	M	708	12.3	57.6
	N	903	12.3	73.4
P22	W	1330	25.0	53.2
	M	1364	25.0	54.6
	N	1569	25.0	62.7
P28	W	2270	43.5	52.2
	M	2330	43.5	53.6
	N	2679	43.5	61.6

### MULTIPLIER TABLES

STANDARD		
	CCT	LUMENS
80 CRI	2700K	0.95
	3000K	0.96
	3500K	1.00
	4000K	1.01
90 CRI	2700K	0.74
	3000K	0.85
	3500K	0.90
	4000K	0.91

TUNABLE WHITE		
	CCT	LUMENS
80 CRI	2700K	0.83
	3000K	1.00
	3500K	0.99
	4000K	1.00
	5000K	0.98

OPEN REFLECTOR FINISH		
CATALOG NUMBER	REFLECTOR FINISH	CONVERSION FACTOR
CS	Clear semi-specular	1.00
WH	White, textured	0.89
BL	Black, textured	0.79



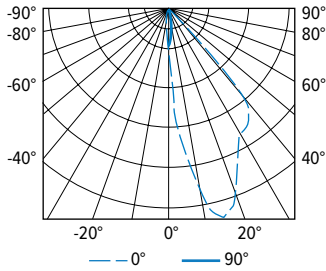
- Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25°C ambient temperature.
- Standard results based on 3500K/80 CRI, 0° tilt, actual lumens may vary +/-5%
- Tunable white results based on 4000K/80 CRI, 0° tilt, actual lumens may vary +/-5%
- Use multiplier tables to calculate additional options.



# 4AR PoE | tunable WHITE 4.5" Adjustable Downlight – Round

## PHOTOMETRY

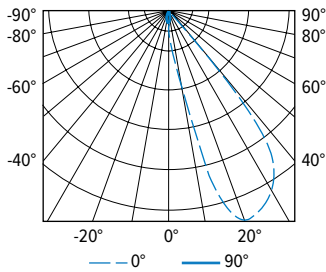
**4AR-P22/835-DIM-POE-OW-OF-CS (25° tilt)** Total Luminaire Output: 1588 lumens; 25.0 Watts | Efficacy: 63.5 lm/W | 81.7 CRI; 3628K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE					ZONAL LUMENS
		0°	45°	90°	135°	180°	
	0	924	924	924	924	924	
	5	2800	1964	766	317	229	114
	15	5066	2767	296	72	47	374
	25	3815	2520	75	19	17	498
	35	3302	1161	14	9	13	468
	45	682	35	6	5	3	131
	55	7	0	0	0	3	3
	65	1	0	0	0	0	0
	75	0	0	0	0	0	0
	85	0	0	0	0	0	0
	90	0	0	0	0	0	0

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	986	62
	0 - 40	1454	92
	0 - 60	1588	100
	0 - 90	1588	100
	0 - 180	1588	100

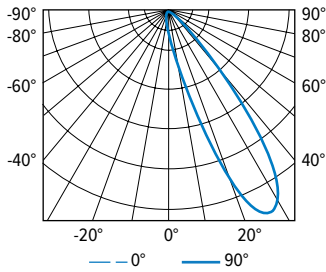
**4AR-P22/835-DIM-POE-OM-OF-CS (25° tilt)** Total Luminaire Output: 1940 lumens; 25.0 Watts | Efficacy: 77.6 lm/W | 81.7 CRI; 3627K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE					ZONAL LUMENS
		0°	45°	90°	135°	180°	
	0	475	475	475	475	4750	
	5	1349	899	422	228	186	64
	15	6801	1676	212	70	41	384
	25	7789	1703	80	15	12	718
	35	6436	731	11	0	0	646
	45	741	37	0	0	0	127
	55	7	0	0	0	0	2
	65	0	0	0	0	0	0
	75	0	0	0	0	0	0
	85	0	0	0	0	0	0
	90	0	0	0	0	0	0

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1166	60
	0 - 40	1811	93
	0 - 60	1940	100
	0 - 90	1940	100
	0 - 180	1940	100

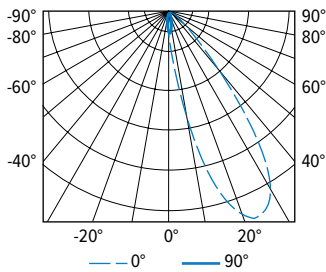
**4AR-P22/835-DIM-POE-ON-OF-CS (25° tilt)** Total Luminaire Output: 2313 lumens; 25.0 Watts | Efficacy: 92.5 lm/W | 81.7 CRI; 3628K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE					ZONAL LUMENS
		0°	45°	90°	135°	180°	
	0	317	317	317	317	317	
	5	1083	696	270	133	112	48
	15	5111	1594	137	43	41	341
	25	11460	1746	48	28	41	890
	35	8945	745	8	6	0	825
	45	1419	68	0	0	0	200
	55	33	0	0	0	0	9
	65	0	0	0	0	0	0
	75	0	0	0	0	0	0
	85	0	0	0	0	0	0
	90	0	0	0	0	0	0

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1278	55
	0 - 40	2103	91
	0 - 60	2313	100
	0 - 90	2313	100
	0 - 180	2313	100

**4AR-P22/835-DIM-POE-LM-OF-CS (25° tilt)** Total Luminaire Output: 1876 lumens; 25.0 Watts | Efficacy: 75.0 lm/W | 81.7 CRI; 3627K CCT

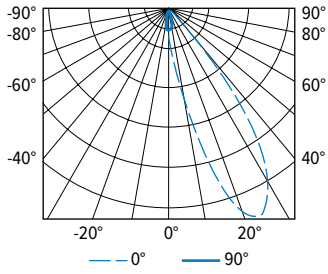


CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE					ZONAL LUMENS
		0°	45°	90°	135°	180°	
	0	573	573	573	573	573	
	5	1419	1089	538	294	239	73
	15	4617	1998	331	131	113	342
	25	6025	1935	155	92	98	605
	35	3953	854	80	90	111	498
	45	1106	211	59	94	120	214
	55	198	63	45	77	98	83
	65	49	26	27	51	67	42
	75	18	10	11	23	32	18
	85	2	0	0	0	1	2
	90	0	0	0	0	0	0

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1019	54
	0 - 40	1517	81
	0 - 60	1815	97
	0 - 90	1876	100
	0 - 180	1876	100

# 4AR PoE | tunable WHITE 4.5" Adjustable Downlight – Round

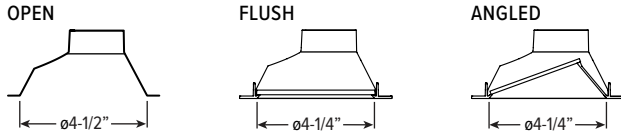
4AR-P22/835-DIM-POE-AM-OF-CS (25° tilt) Total Luminaire Output: 1589 lumens; 25.0 Watts | Efficacy: 63.6 lm/W | 81.7 CRI; 3627K CCT



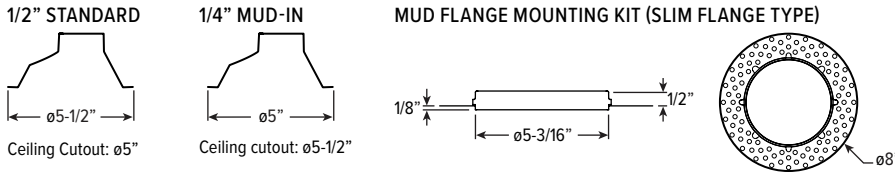
VERTICAL ANGLE	HORIZONTAL ANGLE					ZONAL LUMENS
	0°	45°	90°	135°	180°	
0	515	515	515	515	515	
5	1327	920	495	261	187	65
15	4478	1872	288	88	59	320
25	6115	1691	107	43	38	569
35	3859	620	48	44	48	441
45	782	110	38	43	47	145
55	78	25	27	30	30	34
65	19	15	13	11	8	13
75	7	3	0	0	1	3
85	0	0	0	0	0	0
90	0	0	0	0	0	0

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	954	60
	0 - 40	1394	88
	0 - 60	1573	99
	0 - 90	1589	100
	0 - 180	1589	100

## TRIM TYPE DETAILS



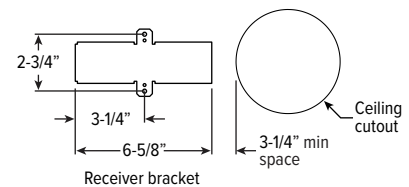
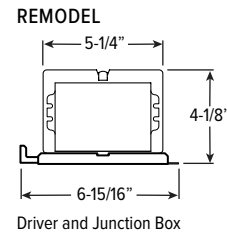
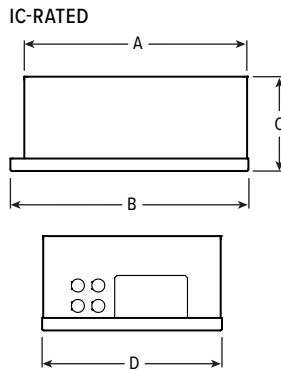
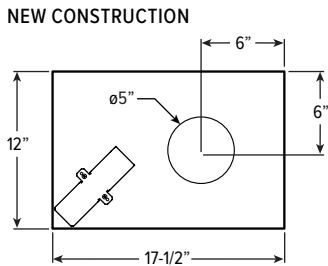
## FLANGE TYPE DETAILS



## REFLECTOR FINISH DETAILS



## MOUNTING TYPE DETAILS



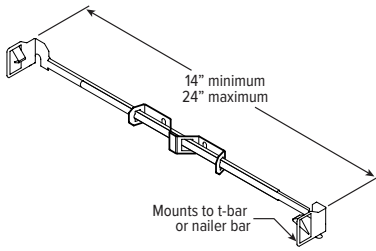
LUMENS	LENGTH			
	A	B	C	D
P10 - P22	15-3/16"	16"	6-3/8"	12-1/8"

# 4AR PoE | tunable WHITE

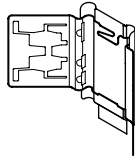
## 4.5" Adjustable Downlight – Round

### MOUNTING HARDWARE DETAILS

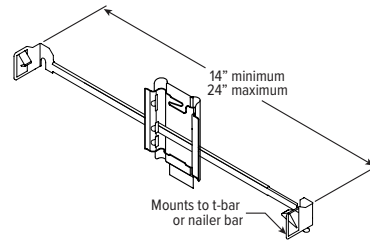
**F1** 2-Position fixed pan bracket, universal bar hanger included



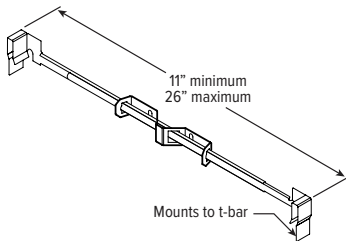
**BA1** Adjustable butterfly pan bracket, bar hanger not included



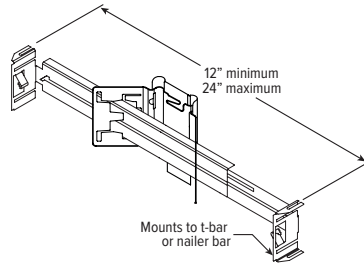
**CA1** Adjustable caterpillar pan bracket, universal bar hanger included



**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

