

Technical drawing of a 1/2 inch diameter hole in a 1/2 inch thick plate. The drawing shows a side view of the hole with a depth of 5 inches. The hole is 2-11/16 inches wide at the bottom. The plate is 12-1/2 inches long. The hole is 1/2 inch in diameter. The drawing includes dimension lines and arrows indicating the measurements.

CATALOG #: _____

TYPE: _____

PROJECT: _____



ORDERING EXAMPLE: 2DS - P20/835 - OPTIONS - POE PR - LW - OF - WH - TRIM OPTIONS - N - F1

HOUSING

SERIES	LUMENS ^[1]	CRI	CCT	OPTIONS	CONTROL ^[2]
2DS	P5 500lm	8 80 ^[3]	27 2700K	ATH Airtight construction	POE PR Power over Ethernet-ready
	P7 700lm	9 90	30 3000K	CP Chicago plenum	
	P9 900lm		35 3500K	(CCEA) ^[5]	
	P12 1,200lm		40 4000K		
	P15 1,500lm		50 5000K		
	P20 2,000lm		TW Tunable		
	P23 2,300lm		white (90 CRI, 2700K-5000K) ^[4]		

TRIM [6]

TRIM TYPE	DISTRIBUTION ^[7]	FLANGE TYPE	REFLECTOR FINISH	TRIM OPTIONS
L Flush lens	W 50° Wide	OF 1/2" standard flange	Open trim types	MWT Smooth matte white trim flange ^[13]
O Open reflector	M 30° Medium		CS Clear semi-specular anodize	AD Diffuse acrylic lens ^[14]
R Regressed lens	N 20° Narrow ^[9]	ZF Zero-flange mud-in ^[12]	SG Satin-glow anodize	PD Diffuse 1/8" polycarbonate lens ^[15]
A Angled lens ^[8]	S 14° Narrow spot ^[10]		GD Gold anodize	WET/CC Wet location, covered ceiling listed ^[16]
	WW Wall wash ^[11]		CG Champagne gold anodize	AM Anti-microbial ^[17]
			PW Pewter anodize	
			SPC Clear specular anodize	
			RG Rose gold anodize	
			Lens trim types	
			CS Clear semi-specular powder coat	
			WH White texture powder coat	
			BL Black texture powder coat	
			MB Black texture splay with white flange ^[18]	

MOUNTING

MOUNTING TYPE ^[19]	MOUNTING HARDWARE ^[20]
N Open pan for new construction	F1 Integral 2-position fixed pan bracket, universal bar hanger included ^[23]
I IC-rated enclosure for new construction ^[21]	BA1 Adjustable butterfly pan bracket, bar hanger not included ^[24]
R Remodel kit ^[22]	CA1 Adjustable caterpillar pan bracket, universal bar hanger included ^[25]

NOTES

- | | | |
|---|--|--|
| <p>1 Lumen output based on O Trim Type, W Distribution, and WH Reflector Finish, 80 CRI/3500K CCT for single CCT and 90 CRI/4000K CCT for TW. Actual performance may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.</p> <p>2 For additional PoE connection details, consult factory.</p> <p>3 Not available with tunable white.</p> <p>4 P15 lumen package max with W, M, and WW Distributions. P12 lumen package max with N Distribution. Not available with S Distribution.</p> <p>5 I Mounting Type required.</p> <p>6 Trim ships separately.</p> <p>7 Beam angle based on static white, L Trim Type and WH Reflector Finish. Trim Type affects beam angle. See page 2 for FIXTURE PERFORMANCE DATA.</p> <p>8 Available with WW Distribution only.</p> | <p>9 P20 static white and P12 tunable white lumen packages max for N and R Mounting and P12 static white and P7 tunable white lumen packages max for I Mounting.</p> <p>10 Static white only. P15 lumen package max for N and R Mounting. P12 lumen package max for I Mounting. Not available with 950 CRI/CCT.</p> <p>11 A Trim Type only.</p> <p>12 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.</p> <p>13 Not available with L Trim Type, ZF Flange Type or WH Reflector Finish.</p> <p>14 W distribution only. Not available with O Trim Type.</p> <p>15 W and WW Distributions only. Not available with O Trim Type.</p> | <p>16 Not available with O Trim Type.</p> <p>17 WH and BL Reflector Finishes only.</p> <p>18 R Trim Type only. Not available with ZF Flange Type or MWLT.</p> <p>19 Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 5 for MOUNTING TYPE DETAILS.</p> <p>20 Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.</p> <p>21 P15 static white and P9 tunable white lumen packages max.</p> <p>22 Also used in new construction sheetrock ceilings. Pan-less installation.</p> <p>23 N and I Mounting Types only. I Mounting requires external brackets.</p> <p>24 N Mounting Type only.</p> <p>25 N Mounting Type only.</p> |
|---|--|--|

- 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.

FIXTURE PERFORMANCE DATA

STATIC WHITE (See page 3 for tunable white 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)
P5	W	4.2	526	125	381	91	530	126	–	–
	M	4.2	528	126	361	86	520	124	–	–
	N	4.2	511	122	372	89	511	122	–	–
	S	5.4	607	112	435	80	609	113	–	–
	WW	4.2	–	–	–	–	–	–	407	97
P7	W	5.9	720	122	521	88	725	123	–	–
	M	5.9	722	122	494	84	711	121	–	–
	N	5.9	699	118	509	86	699	119	–	–
	S	7.6	789	104	565	74	792	104	–	–
	WW	5.9	–	–	–	–	–	–	557	94
P9	W	7.9	928	117	672	85	935	118	–	–
	M	7.9	931	118	637	81	917	116	–	–
	N	7.9	901	114	656	83	901	114	–	–
	S	11.1	1085	98	777	70	1089	98	–	–
	WW	7.9	–	–	–	–	–	–	718	91
P12	W	11.5	1292	112	936	81	1302	113	–	–
	M	11.5	1296	113	886	77	1277	111	–	–
	N	11.5	1254	109	914	79	1255	109	–	–
	S	15.3	1345	88	963	63	1349	88	–	–
	WW	11.5	–	–	–	–	–	–	1000	87
P15	W	14.7	1602	109	1160	79	1614	110	–	–
	M	14.7	1607	109	1099	75	1583	108	–	–
	N	14.7	1555	106	1133	77	1556	106	–	–
	S	22.7	1783	79	1276	56	1789	79	–	–
	WW	14.7	–	–	–	–	–	–	1240	84
P20	W	20.6	2104	102	1523	74	2119	103	–	–
	M	20.6	2110	102	1443	70	2079	101	–	–
	N	20.6	2042	99	1488	72	2043	99	–	–
	S	–	–	–	–	–	–	–	–	–
	WW	20.6	–	–	–	–	–	–	1628	79
P23	W	23.7	2326	98	1983	84	2343	99	–	–
	M	23.7	2333	98	1596	67	2298	97	–	–
	N	–	–	–	–	–	–	–	–	–
	S	–	–	–	–	–	–	–	–	–
	WW	23.7	–	–	–	–	–	–	1800	76

MULTIPLIER TABLES

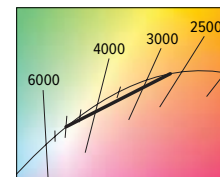
	COLOR TEMPERATURE		
	CCT	LUMENS	
		STANDARD	TUNABLE WHITE
80 CRI	2700K	0.92	–
	3000K	0.98	–
	3500K	1.00	–
	4000K	1.01	–
	5000K	1.02	–
90 CRI	2700K	0.76	0.87
	3000K	0.79	0.96
	3500K	0.82	1.02
	4000K	0.84	1.00
	5000K	0.88	1.02

	REFLECTOR FINISH	
	CATALOG NUMBER	CONVERSION FACTOR
O TRIM	CS	1.00
	SG ¹	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°
S	14°	43°	14°



- ¹ Distribution will also be affected, consult factory.
- Photometrics tested in accordance with IESNA LM-79. Results based on CS (O Trim Type) or WH (L, R and A Trim Types) reflector finish, W distribution and 25°C ambient temperature. Static white results based on 80 CRI/3500K CCT. Tunable white results based on 90 CRI/4000K CCT. Actual performance may vary +/-5%
 - Wattage and efficacy data shown do not account for node losses.
 - Beam angle based on static white, L Trim Type and WH Reflector Finish.
 - Use multiplier tables to calculate additional options.

FIXTURE PERFORMANCE DATA CONTINUED ON NEXT PAGE.

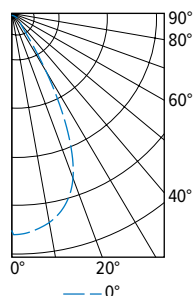


TUNABLE WHITE (See page 2 for static white data)

	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)
P5	W	7.3	581	80	421	58	586	80	–	–
	M	7.3	609	83	416	57	600	82	–	–
	N	7.3	552	76	402	55	553	76	–	–
	S	–	–	–	–	–	–	–	–	–
	WW	7.3	–	–	–	–	–	–	450	62
P7	W	10.1	776	77	562	56	782	77	–	–
	M	10.1	813	80	556	55	801	79	–	–
	N	10.1	737	73	537	53	738	73	–	–
	S	–	–	–	–	–	–	–	–	–
	WW	10.1	–	–	–	–	–	–	601	59
P9	W	14.6	1083	74	784	54	1091	75	–	–
	M	14.6	1134	78	776	53	1117	77	–	–
	N	14.6	1029	70	750	51	1030	71	–	–
	S	–	–	–	–	–	–	–	–	–
	WW	14.6	–	–	–	–	–	–	838	57
P12	W	19.3	1332	69	964	50	1342	70	–	–
	M	19.3	1395	72	954	49	1374	71	–	–
	N	19.3	1265	66	922	48	1266	66	–	–
	S	–	–	–	–	–	–	–	–	–
	WW	19.3	–	–	–	–	–	–	1031	53
P15	W	23.7	1491	63	1080	46	1502	63	–	–
	M	23.7	1562	66	1068	45	1538	65	–	–
	N	–	–	–	–	–	–	–	–	–
	S	–	–	–	–	–	–	–	–	–
	WW	23.7	–	–	–	–	–	–	1154	49
P20	W	–	–	–	–	–	–	–	–	–
	M	–	–	–	–	–	–	–	–	–
	N	–	–	–	–	–	–	–	–	–
	S	–	–	–	–	–	–	–	–	–
	WW	–	–	–	–	–	–	–	–	–
P23	W	–	–	–	–	–	–	–	–	–
	M	–	–	–	–	–	–	–	–	–
	N	–	–	–	–	–	–	–	–	–
	S	–	–	–	–	–	–	–	–	–
	WW	–	–	–	–	–	–	–	–	–

PHOTOMETRY

2DS-P15/835-POE PR-LW-OF-WH Total Luminaire Output: 1602 lumens; 14.7 Watts | Efficacy: 109 lm/W | 80 CRI; 3500K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE	ZONAL LUMENS
		0°	
	0	1852	
	5	1869	173
	15	1690	464
	25	1065	496
	35	269	227
	45	109	97
	55	72	68
	65	46	47
	75	22	24
	85	5	5
	90	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 40	1360	85
	0 - 60	1526	95
	0 - 90	1602	100
	0-180	1602	100

PHOTOMETRY CONTINUED ON NEXT PAGE

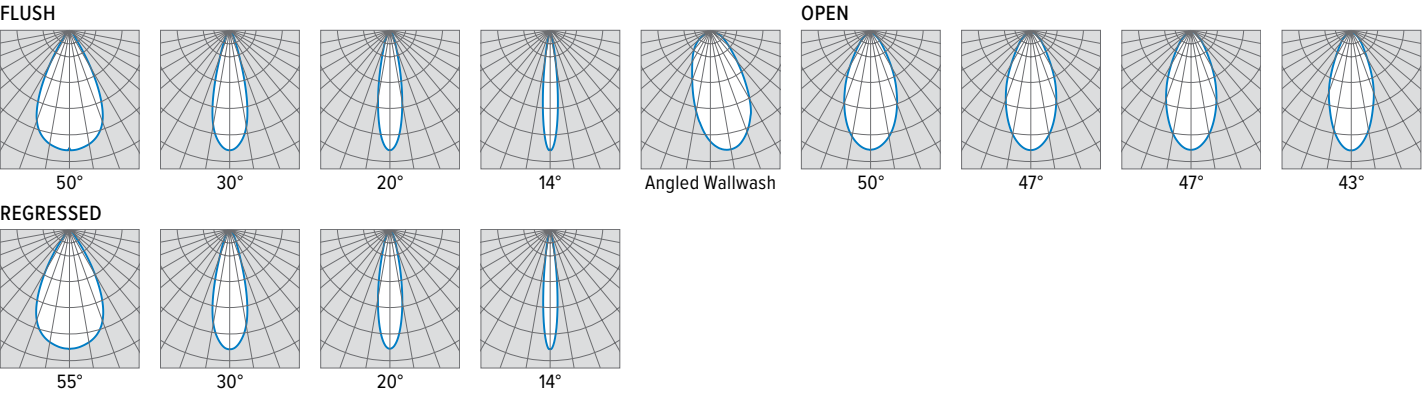


2DS

PoE | tunable

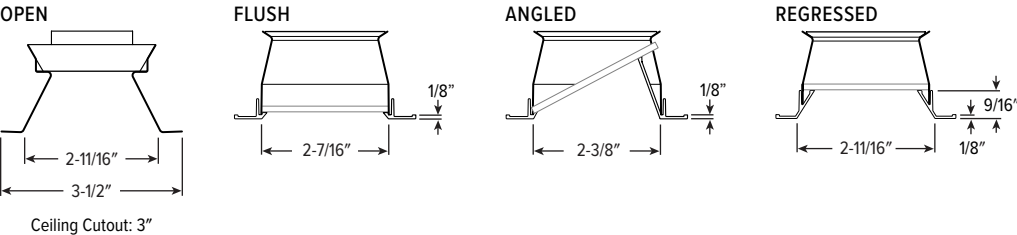
WHITE

2" Downlight – Square

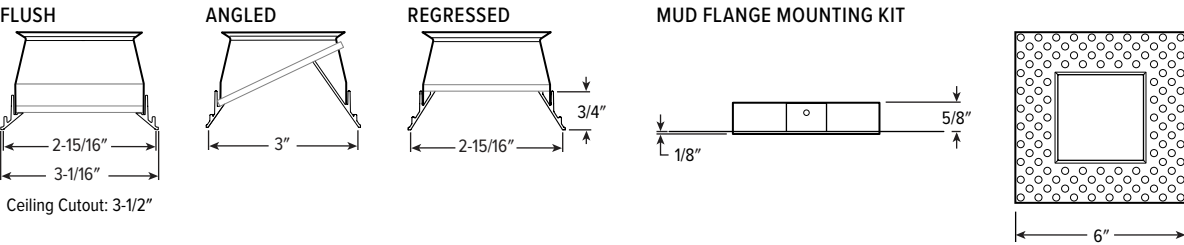


TRIM TYPE DETAILS

1/2" STANDARD FLANGE TYPE



ZERO-FLANGE MUD-IN



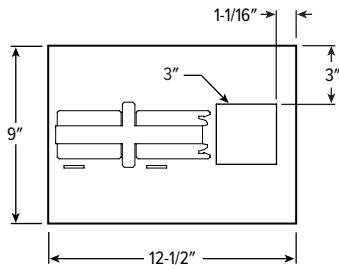
REFLECTOR FINISH DETAILS

SPC	SG	PW	GD	CG	RG	CS	WH	BL
Clear specular	Satin glow	Pewter	Gold	Champagne gold	Rose gold	Clear semi-specular	White	Black

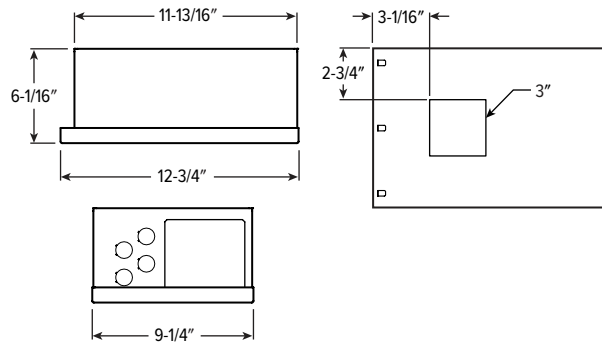
SEE NEXT PAGE FOR MOUNTING DETAILS

MOUNTING TYPE DETAILS

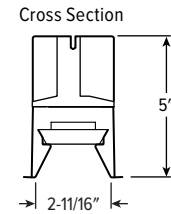
NEW CONSTRUCTION



IC-RATED

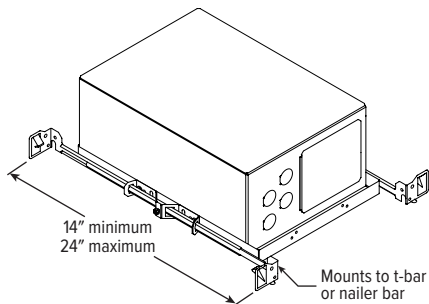
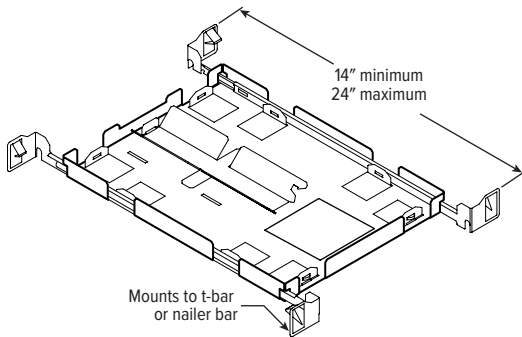


REMODEL



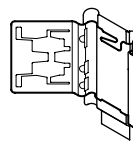
MOUNTING HARDWARE DETAILS

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

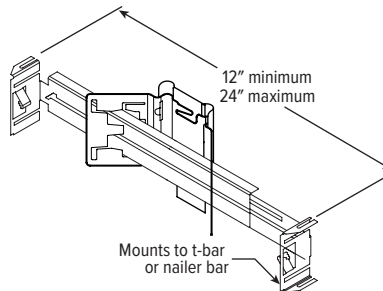


F1 with I Mounting Type

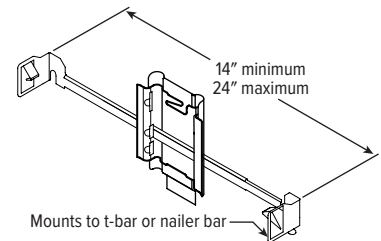
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included (N Mounting Type only)



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



CA2 Adjustable caterpillar pan bracket, t-bar hanger included (N Mounting Type only)

