

PRODUCT SPECIFICATIONS

LED Light Engine Fixture to fixture color consistency within a 2-step MacAdam ellipse • 2700K, 3000K, 3500K, or 4000K color temperatures are available with 80 CRI minimum • 2700K and 3000K also available with 90 CRI minimum.

Modular Optics 45° cutoff to source and source image • Available with field interchangeable optics in 15°, 24°, 35°, and 45° distributions • Additional distributions of 20°, 30°, 40°, 50°, 55°, 60° and 60° x 20° FWHM can be achieved with the use of the diffusing films and spot primary optic.

Reflector .040" aluminum, Patented Hyperbolic Reflector (U.S. Patent No. 10,670,227 B2) in painted white, clear specular, black specular, clear diffuse, or wheat diffuse finish provides a quiet ceiling and broad distribution.

Trim Style Self Flanged and Flangeless styles are available • Flangeless is compatible with gypsum or solid ceiling materials such as wood, stone, or tile.

LED Driver Choice of two drivers to accommodate voltages from 120-277 volts AC at 50/60Hz • Dims as low as 1% with most incandescent and electronic low voltage dimmers or 0-10V dimmers • For a list of compatible dimmers, refer to [ACLXLED2-DIM](#) • Power Factor > 0.9 • Field replaceable from above or below ceiling.

Life Rated for 50,000 hrs at 70% lumen maintenance.

Codes/Labels UL and cUL listed for damp locations • ICAT new construction fixture meets energy code Air Leakage requirements per ASTM E283 • ENERGY STAR® certified with select trims and housings • Can be used to comply with Title 24, Part 6 with select trims and housings • ICAT new construction luminaire is Chicago Plenum (CCEA) approved standard • ICAT housings are rated for direct contact with insulation, including spray foam insulation with R-Value of 3.7 per inch or less • Union made.

New Construction Mounting Features patented (US Patent 8,038,113) Pro-VIT™ bar hanger system, permitting quick placement of housing with 24" on-center joists or suspended ceilings • ICAT new construction luminaire also features vertically adjustable mounting brackets (butterfly brackets) • Centerline indicators on plaster frame and patented (US Patent 8,277,090) Tru-Line™ Platform featuring +/- 1/2" translation aids fixture alignment after installation, prior to drywall.

Wiring ICAT housing includes (2) 1/2" knockouts in access plate, and is compatible with rigid conduit and flexible supply • Non-IC housings include (2) 1/2" knockouts with pryout slots in junction box and are compatible with flexible electrical supply only • All housings supplied with quick connect electrical connectors.

Ceiling Thickness 1/2" – 1 1/2" ceiling



2" LED RECESSED DOWNLIGHT

800/1200/1500 LUMEN

ROUND HYPERBOLIC DOWNLIGHT TRIM
 NEW CONSTRUCTION

AX2 D/AX2 A with 2DH Trim



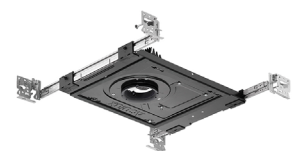
Self-Flanged



Flangeless



AX2 ICAT



AX2

Buy American Act This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.

Warranty 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

ORDERING INFORMATION

Example: AX2 D G2 08LM 30K 80CRI 24D FPC 120 2DH CD SF

HOUSING OPTIONS	Series / Housing Style	Lumens	CCT	CRI	Beam	Driver	Voltage ²	Options
	AX2 D G2 New Construction Downlight	08LM 800 Lumens 12LM 1200 Lumens	27K 2700K 30K 3000K	80CRI 90CRI ¹	15D 15° beam 24D 24° beam	FPC Phase cut dimming, 1% dim ZT 0-10V Dimming, 1% dim	120 MVOLT (120-277)	CP ICAT IC, Air-Tight, Chicago Plenum NLIGHT ³ nLight dimming pack controls (Must mount remotely)
AX2 A G2 New Construction Universal ADJ/DL/WW	15LM 1500 Lumens	35K 3500K 40K 4000K		35D 35° beam 45D 45° beam				

TRIM OPTIONS	Trim Style	Reflector Finish	Flange Style/Finish	Ceiling Installation							
	2DH Hyperbolic Downlight	BS Black Specular CD Clear Diffuse CS Clear Specular W White Paint WTD Wheat Diffuse	SF Self-flange - same finish as reflector WHSF White painted self-flange FM ⁴ Flangeless	<table border="1"> <tr> <th>Self-Flanged & Flangeless Wood/Stone/Tile</th> <th>Flangeless Gypsum</th> </tr> <tr> <td>---- Ceiling < .75"</td> <td>FMA2/075 Ceiling < .75"</td> </tr> <tr> <td>CTA2/120 Ceiling 0.75" - 1.20"</td> <td>FMA2/120 Ceiling 0.75" - 1.20"</td> </tr> <tr> <td>CTA2/150 Ceiling 1.20" - 1.5"</td> <td>FMA2/150 Ceiling 1.20" - 1.50"</td> </tr> </table>	Self-Flanged & Flangeless Wood/Stone/Tile	Flangeless Gypsum	---- Ceiling < .75"	FMA2/075 Ceiling < .75"	CTA2/120 Ceiling 0.75" - 1.20"	FMA2/120 Ceiling 0.75" - 1.20"	CTA2/150 Ceiling 1.20" - 1.5"
Self-Flanged & Flangeless Wood/Stone/Tile	Flangeless Gypsum										
---- Ceiling < .75"	FMA2/075 Ceiling < .75"										
CTA2/120 Ceiling 0.75" - 1.20"	FMA2/120 Ceiling 0.75" - 1.20"										
CTA2/150 Ceiling 1.20" - 1.5"	FMA2/150 Ceiling 1.20" - 1.50"										

NOTES	Ordering Notes
	1. 90CRI available on 27K and 30K only 2. MVOLT standard on ZT. 120 standard on FPC 3. nLight compatible with ZT only 4. Flangeless trims in drywall ceilings must specify ceiling installation (FMA2)

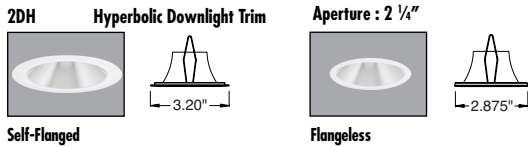
2" LED RECESSED DOWNLIGHT

800/1200/1500 LUMEN

ROUND HYPERBOLIC DOWNLIGHT TRIM NEW CONSTRUCTION

AX2 D/AX2 A with 2DH Trim

TRIM SELECTION

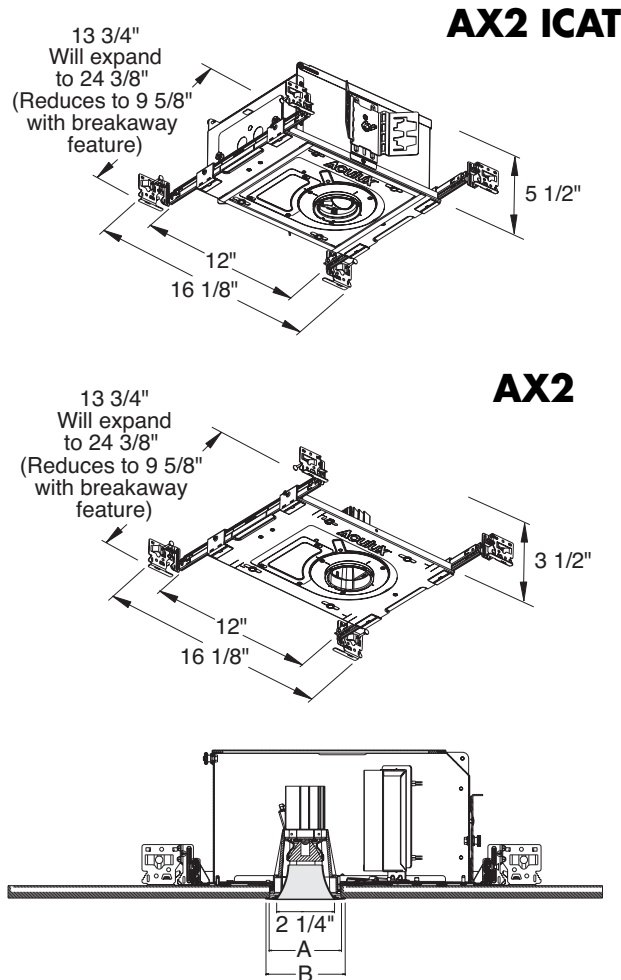


	CCT/CRI:	80CRI 27K, 30K, 35K, 40K 90CRI 27K, 30K
	Optic:	15D, 24D, 35D, 45D
	Trim Finish:	CS, CD, WTD, W

	Construction:	ICAT
	CCT/CRI:	90CRI 27K, 30K
	Optic:	15D, 24D, 35D, 45D
	Trim Finish:	CS, CD, WTD, W

DIMENSIONS

NEW CONSTRUCTION



Trim Style	Cutout Size (A)	Trim O.D. (B)
Self Flanged Trims	2-7/8"	3.20"
Flangeless Trims (Solid Ceiling)	2-7/8"	2.875"
Flangeless Trims (Drywall Ceiling)	3"	2.875"

Note: An accurate hole saw is recommended for best results

ACCESSORIES

Cat. #	Description
2AXG2OPT/15D	15° Spot Optic
2AXG2OPT/24D	24° Narrow Flood Optic
2AXG2OPT/35D	35° Flood Optic
2AXG2OPT/45D	45° Wide Flood Optic
AF2/10	10° Film (Use with 15D Optic)
AF2/20	20° Film (Use with 15D Optic)
AF2/30	30° Film (Use with 15D optic)
AF2/40	40° Film (Use with 15D Optic)
AF2/50	50° Film (Use with 15D Optic)
AF2/60	60° Film (Use with 15D optic)
AF2/90x1	90°x1° Film (Use with 15D Optic)
HB1	(2) Real Nail 3 Bar Hangers
HB26	(2) 26" C-Channel Bar Hangers
HB50	(2) 50" C-Channel Bar Hangers
LB27	(2) 27" Linear Bar Hangers
IIS 35 HE	Up to 35W Remote Mount Micro Inverter (AX2SQ 2A G2 15LM and AX2SQ 3A G2 12LM Excluded)

To order, specify catalog number.

DIFFUSING FILMS

To achieve the desired beam angle (FWHM), specify the following primary LED optic on the luminaire and order the diffusing film accessory from the table below

Desired FWHM	Primary Optic	Film	Desired FWHM	Primary Optic	Film
15°	15D	-	45°	45D	-
20°	15D	AF2/10	50°	15D	AF2/40
24°	24D	-	55°	15D	AF2/50
30°	15D	AF2/20	60°	15D	AF2/60
35°	35D	-	60°x20°	15D	AF2/90x1
40°	15D	AF2/30			

ELECTRICAL DATA

Lumen Package	08LM			12LM			15LM		
	Driver Option	FPC	ZT	FPC	ZT	FPC	ZT	FPC	ZT
Voltage	120	120	277	120	120	277	120	120	277
Input Power	10.0	9.9	10.1	14.7	14.3	14.3	17.3	16.5	16.4
Input Current	0.08	0.08	0.04	0.12	0.12	0.06	0.14	0.14	0.06
Frequency	50/60Hz			50/60Hz			50/60Hz		
Power Factor	0.99	0.99	0.9	0.99	0.99	0.92	0.99	0.99	0.92

2" LED RECESSED

DOWNLIGHT

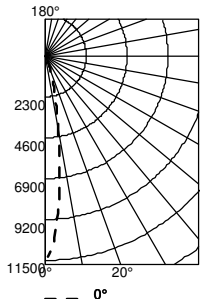
800/1200/1500 LUMEN

ROUND HYPERBOLIC DOWNLIGHT NEW CONSTRUCTION

AX2 D/AX2 A with 2DH Trim

PHOTOMETRICS

AX2 D G2 15LM 30K 80CRI 15D FPC 120 2DH CD, 3000K LEDs, input watts: 17.3, delivered lumens: 1503, LM/W = 87, test no. PT07172501, tested in accordance to IESNA LM-79



CP Summary

Beam Angle	0°
0°	11500
5°	8441
15°	1957
25°	383
35°	57
45°	17
55°	11
65°	5
75°	2
85°	0
90°	0

Coefficients of Utilization

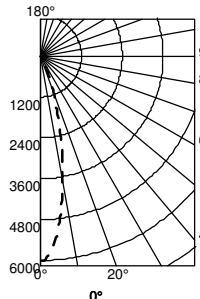
pc	20%			50%					
	80%	70%	50%	80%	70%	50%			
pw	70%	50%	30%	50%	30%	10%	50%	30%	10%
0	119	119	119	116	116	116	111	111	111
1	115	113	111	111	109	108	107	106	105
2	112	108	105	106	104	102	103	101	99
3	108	104	100	102	99	97	100	97	95
4	105	100	96	99	96	93	97	94	92
5	102	97	93	96	92	90	94	91	89
6	100	94	90	93	89	87	92	89	86
7	97	91	87	91	87	84	89	86	84
8	95	89	85	88	85	82	87	84	82
9	93	86	83	86	82	80	85	82	80
10	91	84	81	84	80	78	83	80	78

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1413	95.1	95.1
0° - 40°	1456	97.9	97.9
0° - 60°	1479	99.5	99.5
0° - 90°	1486	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	1486	100.0	100.0

CONE OF LIGHT - Beam : 16.1°			LUMINANCE (cd/sq.m)	
Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter	Degrees	Average Luminance
4	718.8	1.1	45	9333
6	319.4	1.7	55	7208
8	179.7	2.3	65	4308
10	115.0	2.8	75	2198
12	79.9	3.4	85	870

AX2 D G2 15LM 30K 80CRI 24D FPC 120 2DH CD, 3000K LEDs, input watts: 17.3, delivered lumens: 1372, LM/W = 79, test no. PT07172509, tested in accordance to IESNA LM-79



CP Summary

Beam Angle	0°
0°	6033
5°	5341
15°	2152
25°	471
35°	64
45°	18
55°	11
65°	5
75°	2
85°	0
90°	0

Coefficients of Utilization

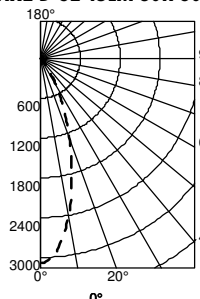
pc	20%			50%					
	80%	70%	50%	80%	70%	50%			
pw	70%	50%	30%	50%	30%	10%	50%	30%	10%
0	119	119	119	116	116	116	111	111	111
1	115	113	111	111	109	107	107	105	104
2	111	107	104	106	103	100	102	100	98
3	107	102	99	101	98	95	99	96	94
4	104	98	94	97	93	91	95	92	90
5	101	94	90	94	90	87	92	89	86
6	97	91	87	90	86	83	89	86	83
7	95	88	84	87	83	80	86	83	80
8	92	85	81	85	81	78	84	80	78
9	89	83	78	82	78	75	81	78	75
10	87	80	76	80	76	73	79	76	73

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1282	94.1	94.1
0° - 40°	1332	97.7	97.7
0° - 60°	1356	99.5	99.5
0° - 90°	1364	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	1364	100.0	100.0

CONE OF LIGHT - Beam : 24.5°			LUMINANCE (cd/sq.m)	
Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter	Degrees	Average Luminance
4	377.1	1.7	45	9655
6	167.6	2.6	55	7076
8	94.3	3.5	65	4487
10	60.3	4.3	75	2345
12	41.9	5.2	85	1306

AX2 D G2 15LM 30K 80CRI 35D FPC 120 2DH CD, 3000K LEDs, input watts: 17.3, delivered lumens: 1355, LM/W = 78, test no. PT07172617, tested in accordance to IESNA LM-79



CP Summary

Beam Angle	0°
0°	3096
5°	2893
15°	1824
25°	821
35°	227
45°	36
55°	20
65°	10
75°	3
85°	1
90°	0

Coefficients of Utilization

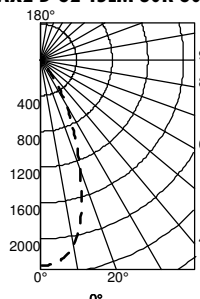
pc	20%			50%					
	80%	70%	50%	80%	70%	50%			
pw	70%	50%	30%	50%	30%	10%	50%	30%	10%
0	119	119	119	116	116	116	111	111	111
1	114	112	109	109	107	106	105	104	102
2	109	105	101	103	100	97	100	97	95
3	105	99	94	98	93	90	95	92	89
4	100	94	89	92	88	84	90	86	83
5	96	89	84	88	83	79	86	82	79
6	92	84	79	84	79	75	82	78	75
7	88	80	75	80	75	71	79	74	71
8	85	77	72	76	71	68	75	71	68
9	82	73	68	73	68	65	72	68	65
10	79	70	65	70	65	62	69	65	62

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1138	84.2	84.2
0° - 40°	1288	95.3	95.3
0° - 60°	1337	98.9	98.9
0° - 90°	1351	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	1351	100.0	100.0

CONE OF LIGHT - Beam : 34.7°			LUMINANCE (cd/sq.m)	
Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter	Degrees	Average Luminance
4	193.5	2.5	45	19471
6	86.0	3.7	55	12895
8	48.4	5.0	65	8975
10	31.0	6.2	75	4983
12	21.5	7.5	85	2176

AX2 D G2 15LM 30K 80CRI 45D FPC 120 2DH CD, 3000K LEDs, input watts: 17.3, delivered lumens: 1349, LM/W = 78, test no. PT07172625, tested in accordance to IESNA LM-79



CP Summary

Beam Angle	0°
0°	2296
5°	2265
15°	1761
25°	880
35°	288
45°	38
55°	20
65°	11
75°	4
85°	1
90°	0

Coefficients of Utilization

pc	20%			50%					
	80%	70%	50%	80%	70%	50%			
pw	70%	50%	30%	50%	30%	10%	50%	30%	10%
0	119	119	119	116	116	116	111	111	111
1	114	111	109	109	107	105	105	103	102
2	109	104	100	103	99	96	99	97	94
3	104	98	93	97	92	89	94	90	88
4	99	92	87	91	87	83	89	85	82
5	95	87	82	86	81	78	85	80	77
6	91	83	77	82	77	73	80	76	73
7	87	78	73	78	73	69	77	72	69
8	83	75	69	74	69	65	73	68	65
9	80	71	66	71	66	62	70	65	62
10	77	68	63	68	62	59	67	62	59

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1092	81.1	81.1
0° - 40°	1277	94.9	94.9
0° - 60°	1330	98.9	98.9
0° - 90°	1346	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	1346	100.0	100.0

CONE OF LIGHT - Beam : 43.1°			LUMINANCE (cd/sq.m)	
Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter	Degrees	Average Luminance
4	143.5	3.2	45	20490
6	63.8	4.7	55	13093
8	35.9	6.3	65	9423
10	23.0	7.9	75	5422
12	15.9	9.5	85	2176

LUMEN OUTPUT MULTIPLIERS

Color Temperature	CRI	Multiplier
2700K	80	0.95
3000K	80	1.00
3500K	80	1.05
4000K	80	1.10

Color Temperature	CRI	Multiplier
2700K	90	0.83
3000K	90	0.87

Lumen Package	Multiplier
800	0.58
1200	0.86
1500	1.00