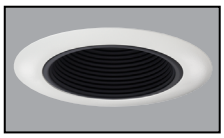
ACULUX®

ACULUX LUMINAIRE
Luminaire Type:
Catalog Number (autopopulated):

AX3 G4 3DBAF

3" LED RECESSED DOWNLIGHT
NEW CONSTRUCTION
BAFFLE
AX3/3DBAF
800 - 3000 LUMEN

Buy American



PRODUCT SPECIFICATIONS

LED Light Engine 2 step MacAdam ellipse binning • 2700K, 3000K, 3500K, or 4000K CCTs available with 80 CRI minimum • 2700K and 3000K also available with 90 CRI and 95 CRI minimum (R9>90).

Quiet, Glare-free Ceiling 45° visual cutoff to source and source image.

Modular Optics Available with 12°, 24°, 35° and 50° field interchangeable optics • 20°, 30°, 40°, 45° and 60° FWHM can be achieved with diffusing films and 12° optic • Patented (US Patent 8,950,911) auto-adjusting optic holder maximizes efficiency by maintaining optimal LED optic position • AX3 A/AX3 D accommodates three (3) beam control lenses and/or filters • AX3 LPA/AX3 LPD accepts two (2) beam control lenses and/or filters.

Baffle Grooved deep aluminum baffle available in white or black.

Trims Style Utilizes torsion spring retention for tight, secure fit to ceiling • Trim ring features beveled knife edge for clean ceiling interface.

LED Driver Accommodates 120-277V input and multiple control protocols • For a list of compatible dimmers, refer to ACLXLED3-DIM • Power Factor > 0.9 • Field replaceable from below ceiling.

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

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

Warranty - 5YR 5-year limited warranty. Complete warranty terms located at: http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Codes/Labels UL and cUL listed for through branch wiring, damp locations • 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 housings are rated for direct contact with insulation • AX3 08LM/12LM/15LM (ICAT option) are compatible with spray foam insulation with an R-Value of 3.7 per inch or less • Union made.

New Construction Mounting Features patented (US Patent 8,038,113) Pro-VI™ bar hanger system • All fixtures except for 25LM ICAT also feature vertically adjustable mounting brackets (butterfly brackets) • Centerline indicators on plaster frame and patented (US Patent 8,277,090) Tru-Line™ Platform featuring +/- ½" translation aids fixture alignment after installation, prior to drywall.

Housing Styles Fixed Downlight and Universal New Construction housings are available • Fixed downlight housings are compatible with downlight trims • Universal housings are compatible with downlight, adjustable, and wall wash trims.

Junction Box Rated for 4 No. 12 AWG 90° C through branch circuit conductors and includes (6) ½", (1) ¾", and (4) Non-metallic sheathed cable knock-outs • Push-in electrical connectors for field connections.

Ceiling Thickness 1/2" – 1 5/8" ceiling

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: AX3 LPD G4 12LM 30K 80CRI 24D FPC 120 ICAT 3DBAF W WHR

HOUSING OPTIONS

Housing Style		Lumens		CCT		CRI	Beam		Driver		Voltage[3]	Options	
Downlight Housings		**08LM**	800 Lumens	**27K**	2700K	**80CRI**	**12D**	12° beam	**GZ1**	0-10V, 1% dim	**120**	**CP**[4]	Chicago Plenum
AX3 D G4	New Construction Fixed Downlight	**12LM**	1200 Lumens	**30K**	3000K	**90CRI**[2]	**24D**	24° beam	**EZ1**	eldoLED 0-10V, 1% dim	**277**	**ICAT**[5]	IC, Air-Tight
AX3 LPD G4	Low Profile Fixed Downlight	**15LM**	1500 Lumens	**35K**	3500K	**95CRI**[2]	**35D**	35° beam	**EZB**	eldoLED 0-10V, <1% dim	**MVOLT** (120-277)	**NLIGHT**[6]	nLight dimming pack controls
		20LM	2000 Lumens	**40K**	4000K		**50D**	50° beam	**FPC**	Phase cut dimming, 5% dim			
		25LM	2500 Lumens						**ECOS2**	Lutron Hi-Lume 2-wire forward phase, 1% dim			
Universal ADJ/DL/WW Housings		**30LM**[1]	3000 Lumens						**ECOD**	Lutron Hi-Lume EcoSystem, 1% dim			
AX3 A G4	New Construction Universal ADJ/DL/WW								**EDXB**	eldoLED DMX, <1% min			
AX3 LPA G4	Low Profile Universal ADJ/DL/WW								**EDAB**	eldoLED DALI, 1% min			

TRIM OPTIONS

Trim Style		Reflector Finish		Flange Style / Finish		Ceiling Installation	
3DBAF	Baffle	**B**	Black Paint	**WHR**	White Trim Ring	———	Ceiling ≤ .875"
		W	White Paint			**CTA3/125**	Ceiling 0.875" - 1.25"
						CTA3/163	Ceiling 1.25" - 1.625"

NOTES

Ordering Notes

[1] 30LM not available with LPD or LPA
[2] 90CRI and 95CRI available on 27K and 30K only.
[3] MVOLT standard on GZ1, EZ1, EZB, ECOD, EDXB, EDAB unless NLIGHT specified. Must be 120 for FPC or ECOS2.
[4] CP available up to 20LM for LPD and LPA; available up to 25LM for D and A.
[5] ICAT not available with LPD or LPA at 25LM; not available with D or A at 30LM.
[6] Must specify 120 or 277 volts. NLIGHT only available with EZ1 or EZB. Not available with CP.

A+ Capable options indicated by this color background .

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ACCESSORIES

Accessories			
3AXOPT/12D	12˚ Optic	**CGF 200 MPINK**	Med. Pink Color Filter
3AXOPT/24D	24˚ Optic	**CGF 200 WRED**	Warm Red Color Filter
3AXOPT/35D	35˚ Optic	**CGF 200 DLTBLUE**	Daylight Blue Color Filter
3AXOPT/50D	50˚ Optic	**CGF 200 MBLU**	Med. Blue Color Filter
AF3/10	10˚ Diffusing Film	**CGF 200 MAMB**	Med. Amber Color Filter
AF3/20	20˚ Diffusing Film	**CGF 200 MGRN**	Med. Green Color Filter
AF3/30	30˚ Diffusing Film	**DGF 200 DRED**	Red Dichroic Lens
AF3/40	40˚ Diffusing Film	**DGF 200 MGRN**	Med. Green Dichroic Lens
AF3/50	50˚ Diffusing Film	**DGF 200 MBLU**	Med. Blue Dichroic Lens
AF3/60x1	60˚x1˚ Diffusing Film	**DGF 200 DYEL**	Yellow Dichroic Lens
		DGF 200 MAGEN	Magenta Dichroic Lens
HB1	Real Nail 3 Bar Hangers	**DGF 200 CYAN**	Blue Green Dichroic Lens
HB26	26" C-Channel Bar Hangers	**DCCF 200 HAL4250**	Daylight Blue Correction Lens
HB50	50" C-Channel Bar Hangers	**DIFF 200**	Diffuse Spread Lens
LB27	27" Linear Bar Hangers	**SOLITE 200**	Uniformity Lens
		UVF 200	UV Filter Lens
EMI20	20W Remote Mount Emergency	**PRISM 200**	Prismatic Lens
	Inverter (Compatible with 20LM max)	**LSPREAD 200**	Linear Spread Lens
		HCLBL 200	Hexcell Louver

DIFFUSING FILMS

Desired FWHM	Primary Optic	Film
12˚	12D	-
20˚	12D	**AF3/10**
24˚	24D	-
30˚	12D	**AF3/20**
35˚	35D	-
40˚	12D	**AF3/30**
45˚	12D	**AF3/40**
50˚	50D	-
60˚	12D	**AF3/50**
20˚x60˚	12D	**AF3/60x1**

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

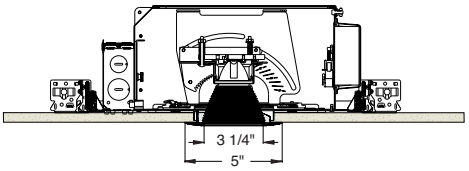
ELECTRICAL DATA

Lumen Package	08LM		12LM		15LM		20LM		25LM		30LM	
Voltage	120	277	120	277	120	277	120	277	120	277	120	277
Input Power	7.0	7.6	11.0	12.0	13.8	14.6	19.7	20.2	25.8	26.3	32.9	33.3
Input Current	0.03	0.06	0.09	0.05	0.12	0.06	0.17	0.08	0.22	0.1	0.28	0.13
Frequency	50/60Hz		50/60Hz		50/60Hz		50/60Hz		50/60Hz		50/60Hz	
Power Factor	>0.9	>0.9	>0.9	>0.9	>0.9	>0.9	>0.9	>0.9	>0.9	>0.9	>0.9	>0.9

ENERGY STAR	**CCT/CRI:**	80CRI 27K, 30K, 35K, 40K	90CRI 27K, 30K
	Optic:	12D, 24D, 35D, 50D	
	Reflector Finish:	B, W	

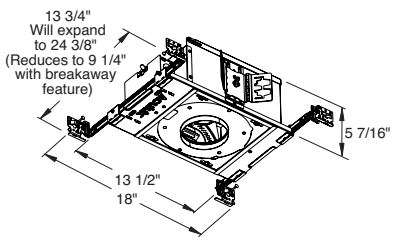
TITLE 24 PART 6	**Construction:**	ICAT
	CCT/CRI:	90CRI 27K, 30K
	Optic:	12D, 24D, 35D, 50D
	Reflector Finish:	B, W

DIMENSIONS

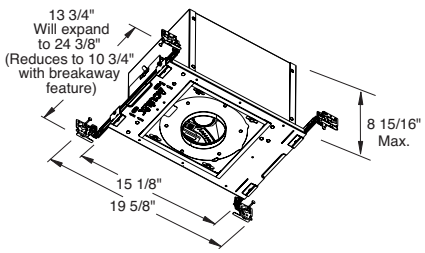


4 1/4" CEILING CUTOUT

NEW CONSTRUCTION (AX3 D/AX3 A)

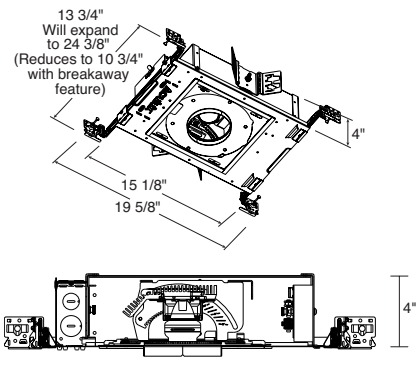


ICAT: 20LM & Less
Non-ICAT: 25LM & 30LM



ICAT: 25LM

LOW PROFILE (AX3 LPD/AX3 LPA)



ICAT: 20LM & Less
Non-ICAT: 25LM

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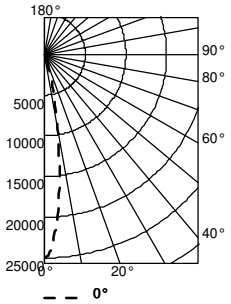
800 - 3000 LUMEN

PHOTOMETRICS

AX3 G4 30LM 30K 80CRI 12D EZ1 MVOLT + 3DBAF W, 3000K LEDs, input watts: 32.7, delivered lumens: 2773, LM/W = 85, test no. PT02182603, tested in accordance to IESNA LM-79



CP Summary

	0°
0°	25135
5°	19175
15°	3276
25°	357
35°	67
45°	20
55°	15
65°	10
75°	6
85°	2
90	0

Coefficients of Utilization

pf	20%								
pc	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	114	112	111	110	108	107	106	105
2	112	109	106	107	105	103	104	102	101
3	109	105	102	104	101	99	101	99	97
RCR 4	107	102	98	101	98	95	99	96	94
5	104	99	95	98	95	92	97	94	92
6	102	97	93	96	93	90	95	92	90
7	100	94	91	94	90	88	93	90	88
8	98	92	89	92	88	86	91	88	86
9	96	90	87	90	87	85	89	86	84
10	94	89	85	88	85	83	88	85	83

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	2680	96.6	96.6
0° - 40°	2726	98.3	98.3
0° - 60°	2755	99.3	99.3
0° - 90°	2773	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	2773	100.0	100.0

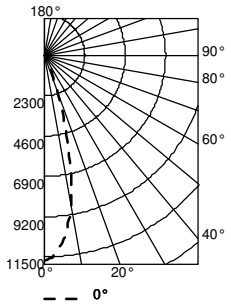
Cone of Light - Beam : 16.6°

Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter
4	1570.9	1.2
6	698.2	1.8
8	392.7	2.3
10	251.4	2.9
12	174.6	3.5

Luminance (cd/sq.m)

Degrees	Average Luminance
45	6047
55	5696
65	5396
75	4829
85	3774

AX3 G4 30LM 30K 80CRI 24D EZ1 MVOLT + 3DBAF W, 3000K LEDs, input watts: 32.7, delivered lumens: 2853, LM/W = 87, test no. PT02182611, tested in accordance to IESNA LM-79



CP Summary

	0°
0°	11675
5°	10871
15°	5106
25°	796
35°	83
45°	25
55°	20
65°	15
75°	9
85°	2
90	0

Coefficients of Utilization

pf	20%								
pc	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	101	103	100	98
3	107	103	99	101	98	95	99	96	94
RCR 4	104	99	95	98	94	91	96	93	90
5	101	95	91	94	90	87	93	89	87
6	98	92	88	91	87	84	90	86	84
7	95	89	85	88	84	81	87	84	81
8	93	86	82	86	82	79	85	81	79
9	90	84	80	83	79	77	82	79	76
10	88	81	77	81	77	75	80	77	74

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	2721	95.4	95.4
0° - 40°	2788	97.7	97.7
0° - 60°	2827	99.1	99.1
0° - 90°	2853	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	2853	100.0	100.0

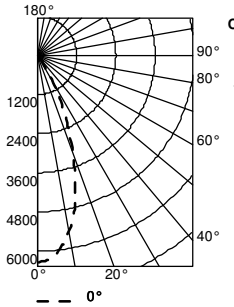
Cone of Light - Beam : 28.1°

Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter
4	729.7	2.0
6	324.3	3.0
8	182.4	4.0
10	116.8	5.0
12	81.1	6.0

Luminance (cd/sq.m)

Degrees	Average Luminance
45	7784
55	7570
65	7575
75	7201
85	6038

AX3 G4 30LM 30K 80CRI 35D EZ1 MVOLT + 3DBAF W, 3000K LEDs, input watts: 32.7, delivered lumens: 2889, LM/W = 88, test no. PT02182719, tested in accordance to IESNA LM-79



CP Summary

	0°
0°	6344
5°	6130
15°	4499
25°	1905
35°	245
45°	18
55°	14
65°	11
75°	7
85°	2
90	0

Coefficients of Utilization

pf	20%								
pc	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	110	110	108	106	106	104	103
2	110	106	102	104	101	98	101	98	96
3	105	100	96	99	95	92	96	93	90
RCR 4	101	95	91	94	90	86	92	88	86
5	98	91	86	90	85	82	88	84	81
6	94	87	82	86	81	78	84	80	77
7	90	83	78	82	77	74	81	77	74
8	87	79	74	79	74	71	78	74	71
9	84	76	71	76	71	68	75	71	68
10	81	73	68	73	68	65	72	68	65

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	2642	91.5	91.5
0° - 40°	2836	98.2	98.2
0° - 60°	2869	99.3	99.3
0° - 90°	2889	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	2889	100.0	100.0

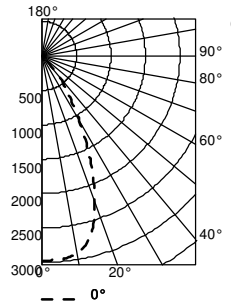
Cone of Light - Beam : 39.7°

Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter
4	396.5	2.9
6	176.2	4.3
8	99.1	5.8
10	63.4	7.2
12	44.1	8.7

Luminance (cd/sq.m)

Degrees	Average Luminance
45	5675
55	5314
65	5500
75	5592
85	5032

AX3 G4 30LM 30K 80CRI 50D EZ1 MVOLT + 3DBAF W, 3000K LEDs, input watts: 32.7, delivered lumens: 2401, LM/W = 73, test no. PT02182727, tested in accordance to IESNA LM-79



CP Summary

	0°
0°	2971
5°	2968
15°	2709
25°	1653
35°	647
45°	60
55°	47
65°	37
75°	24
85°	7
90	0

Coefficients of Utilization

pf	20%								
pc	80%			70%			50%		
pw	70%	50%	30%	50%	30%	10%	50%	30%	10%
0	119	119	119	116	116	116	111	111	111
1	113	110	108	108	106	104	104	102	101
2	108	103	98	101	97	94	98	95	92
3	102	96	91	94	90	86	92	88	85
RCR 4	97	90	84	88	83	79	86	82	78
5	92	84	78	83	78	74	81	77	73
6	88	79	73	78	73	69	77	72	68
7	84	75	69	74	68	64	73	68	64
8	80	71	65	70	64	61	69	64	60
9	76	67	61	66	61	57	65	60	57
10	73	63	58	63	58	54	62	57	54

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1777	74.0	74.0
0° - 40°	2198	91.5	91.5
0° - 60°	2332	97.1	97.1
0° - 90°	2401	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	2401	100.0	100.0

Cone of Light - Beam : 52.8°

Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter
4	185.7	4.0
6	82.5	6.0
8	46.4	7.9
10	29.7	9.9
12	20.6	11.9

Luminance (cd/sq.m)

Degrees	Average Luminance
45	18452
55	18121
65	19250
75	19995
85	18115

LUMEN OUTPUT MULTIPLIERS

	Multiplier		
CCT/CRI	80CRI	90CRI	95CRI
2700K	100%	86%	65%
3000K	100%	88%	69%
3500K	105%		
4000K	107%		

Lumens	Multiplier
30LM	100%
25LM	87%
20LM	70%
15LM	50%
12LM	40%
08LM	27%

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