

## 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 accommodates three (3) beam control lenses and/or filters • AX3 LPA accepts two (2) beam control lenses and/or filters.

**Adjustability** Acu-Aim™ precision geared hot-aiming achieves 370° rotation, 45° tilt • Optimized center beam optics translates light engine forward as it is aimed off nadir, ensuring maximum light and low brightness.

**Reflector** .040" aluminum 20° angle-cut reflector in white paint, clear specular, black specular, clear diffuse, or wheat diffuse Alzak finish provides 50° cut-off.

**Trims Styles** Trim Ring, Self Flanged and flangeless reflectors are available • Must specify FMA3 (gypsum) or SFM3 (wood/stone/tile) option for flangeless installations.

**LED Driver** Accommodates 120-277V input and multiple control protocols • For a list of compatible dimmers, refer to [ACULUX3-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](http://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](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-V™ 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 +/- 1/2" translation aids fixture alignment after installation, prior to drywall.

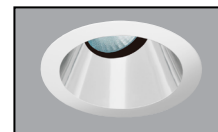
# 3" LED RECESSED ADJUSTABLE NEW CONSTRUCTION 20° ANGLE-CUT REFLECTOR AX3/3AC20 800 - 3000 LUMEN



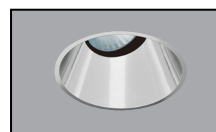
Buy American



Trim Ring



Self Flanged



Flangeless (Gypsum)

Flangeless  
(Wood/Stone/Tile)

**Housing Styles** 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) 1/2", (1) 3/4", 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.



A+ Capable options indicated by this color background.



## Design2Ship Quick Ship Program:

Options in green text qualify for Design2Ship — 5 business days from order entry to ship. Refer to Design2Ship Brochure for complete program details.  
**Maximum Order Quantity: 50 units for housings; 25 units for trims.**

## ORDERING INFORMATION

Example: AX3 A G4 12LM 30K 80CRI 24D FPC 120 ICAT 3AC20 CS WHR

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

| Trim Style                           | Reflector Finish                                                                                                                    | Flange Style / Finish                                                                                                                                                             | Ceiling Installation                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3AC20</b> 20° Angle-Cut Reflector | <b>BS</b> Black Specular<br><b>CD</b> Clear Diffuse<br><b>CS</b> Clear Specular<br><b>WTD</b> Wheat Diffuse<br><b>W</b> White Paint | <b>FLANGED</b><br><b>WHR</b> White Trim Ring<br><b>SF</b> Self-Flanged<br><b>WHSF</b> Self-Flanged, White painted flange<br><b>FLANGELESS<sup>7</sup></b><br><b>FM</b> Flangeless | <b>FLANGED</b><br>Ceiling ≤ .875"<br><b>CTA3/125</b> Ceiling 0.875" - 1.25"<br><b>CTA3/163</b> Ceiling 1.25" - 1.625"<br><b>FLANGELESS, GYPSUM</b><br><b>FMA3/087</b> Ceiling ≤ .875"<br><b>FMA3/125</b> Ceiling 0.875" - 1.25"<br><b>FMA3/163</b> Ceiling 1.25" - 1.625"<br><b>FLANGELESS, WOOD/STONE/TILE<sup>8</sup></b><br><b>SFM3/087 (B,W)</b> Ceiling ≤ 0.875"<br><b>SFM3/125 (B,W)</b> Ceiling 0.875" - 1.25"<br><b>SFM3/163 (B,W)</b> Ceiling 1.25" - 1.625" |

## Ordering Notes

<sup>1</sup> 30LM not available with LPA.

<sup>2</sup> 90CRI and 95CRI available on 27K and 30K only.

<sup>3</sup> MVOLT standard on GZ1, EZ1, EZB, ECOD, EDXB, EDAB unless NLIGHT specified. Must be 120 for FPC or ECOS2.

<sup>4</sup> CP available up to 20LM for LPA; available up to 25LM for A.

<sup>5</sup> ICAT not available with LPA at 25LM; not available with A at 30LM.

<sup>6</sup> Must specify 120 or 277 volts. NLIGHT only available with EZ1 or EZB. Not available with CP.

<sup>7</sup> Must specify FMA3 or SFM3 option.

<sup>8</sup> Specify finish: B = Black, W = White.

# 3" LED RECESSED ADJUSTABLE NEW CONSTRUCTION 20° ANGLE-CUT REFLECTOR AX3/3AC20 800 - 3000 LUMEN

## ACCESSORIES

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

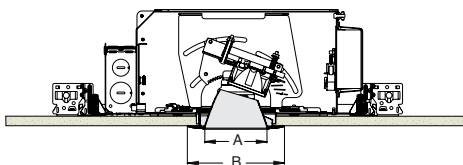
## ELECTRICAL DATA

| 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 |

|  |                          |                                           |
|--|--------------------------|-------------------------------------------|
|  | <b>CCT/CRI:</b>          | 80CRI 27K, 30K, 35K, 40K   90CRI 27K, 30K |
|  | <b>Optic:</b>            | 12D, 24D, 35D, 50D                        |
|  | <b>Reflector Finish:</b> | BS, CS, CD, W, WTD                        |

|  |                          |                    |
|--|--------------------------|--------------------|
|  | <b>Construction:</b>     | ICAT               |
|  | <b>CCT/CRI:</b>          | 90CRI 27K, 30K     |
|  | <b>Optic:</b>            | 12D, 24D, 35D, 50D |
|  | <b>Reflector Finish:</b> | BS, CS, CD, W, WTD |

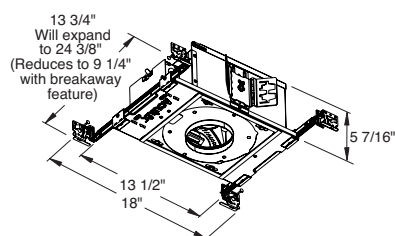
## DIMENSIONS



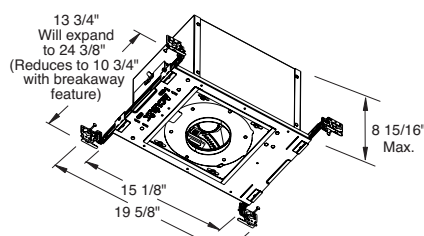
|              | A      | B      |
|--------------|--------|--------|
| Trim Ring    | 3 1/4" | 5"     |
| Self Flanged | 3 3/8" | 4 5/8" |
| Flangeless   | 3 3/8" | 3 7/8" |

4 1/4" CEILING CUTOUT  
(REFER TO INSTRUCTION SHEET FOR  
FLANGELESS CEILING CUTOUT)

## NEW CONSTRUCTION UNIVERSAL (AX3 A)

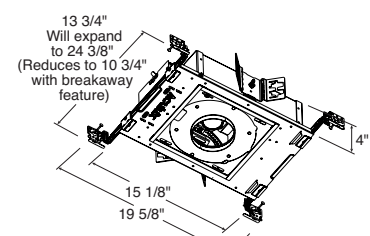


ICAT: 20LM & Less  
Non-ICAT: 25LM & 30LM



ICAT: 25LM

## LOW PROFILE UNIVERSAL (AX3 LPA)



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

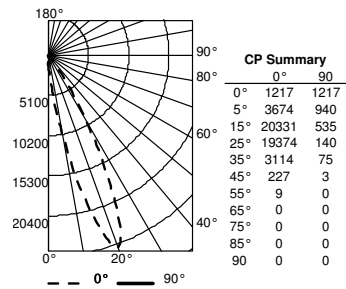
# 3" LED RECESSED ADJUSTABLE NEW CONSTRUCTION 20° ANGLE-CUT REFLECTOR AX3/3AC20 800 - 3000 LUMEN

## PHOTOMETRICS

### AX3 A G4 30LM 30K 80CRI 12D EZ1 MVOLT 3AC20 CS

3000K LEDs, input watts: 32.6,  
delivered lumens: 2825, LM/W = 87,  
test no. PT02182801,  
tested in accordance to IESNA LM-79

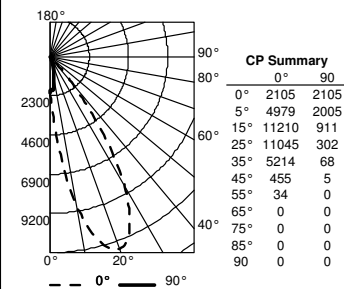
Beam Spread: 12D



### AX3 A G4 30LM 30K 80CRI 24D EZ1 MVOLT 3AC20 CS

3000K LEDs, input watts: 32.6,  
delivered lumens: 2869, LM/W = 88,  
test no. PT02182812,  
tested in accordance to IESNA LM-79

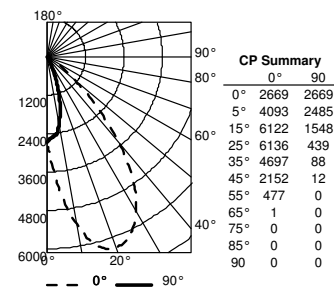
Beam Spread: 24D



### AX3 A G4 30LM 30K 80CRI 35D EZ1 MVOLT 3AC20 CS

3000K LEDs, input watts: 32.6,  
delivered lumens: 2896, LM/W = 89,  
test no. PT03180123,  
tested in accordance to IESNA LM-79

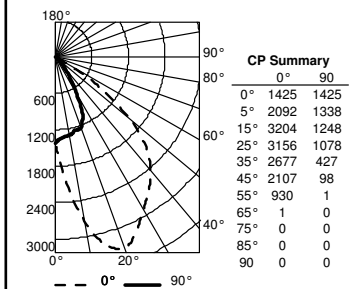
Beam Spread: 35D



### AX3 A G4 30LM 30K 80CRI 50D EZ1 MVOLT 3AC20 CS

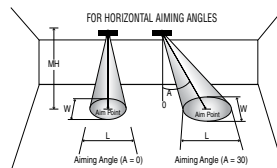
3000K LEDs, input watts: 32.6,  
delivered lumens: 2519, LM/W = 77,  
test no. PT03180134,  
tested in accordance to IESNA LM-79

Beam Spread: 50D

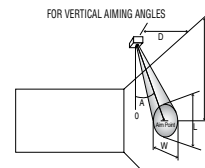


CBCP • Centerbeam candlepower  
FC • Footcandles at beam center (aim point)

In vertical aiming applications, aim point (X) is determined by dividing distance from the wall (D) by the tangent of the desired aim angle (A) (0.5774 for 30°, 1.0 for 45°).



Horizontal Aiming Angles



Vertical Aiming Angles

| Beam Spread | CBCP  | 0° |     |      |      | 20° |      |      |  | 20° |     |      |       |      |
|-------------|-------|----|-----|------|------|-----|------|------|--|-----|-----|------|-------|------|
|             |       | MH | FC  | L    | W    | FC  | L    | W    |  | D   | FC  | X    | L     | W    |
| 12°         | 25922 | 6  | 720 | 1.8  | 1.8  | 597 | 2.0  | 1.9  |  | 2   | 259 | 5.5  | 5.9   | 1.7  |
|             |       | 8  | 405 | 2.3  | 2.3  | 336 | 2.7  | 2.5  |  | 3   | 115 | 8.2  | 8.9   | 2.6  |
|             |       | 10 | 259 | 2.9  | 2.9  | 215 | 3.3  | 3.1  |  | 4   | 65  | 11.0 | 11.9  | 3.4  |
|             |       | 12 | 180 | 3.5  | 3.5  | 149 | 4.0  | 3.7  |  | 5   | 41  | 13.7 | 14.9  | 4.3  |
|             |       | 14 | 132 | 4.1  | 4.1  | 110 | 4.6  | 4.3  |  | 6   | 29  | 16.5 | 17.8  | 5.1  |
| 24°         | 11985 | 4  | 749 | 2.0  | 2.0  | 622 | 2.3  | 2.1  |  | 1   | 480 | 2.7  | 7.8   | 1.4  |
|             |       | 6  | 333 | 3.0  | 3.0  | 276 | 3.4  | 3.1  |  | 2   | 120 | 5.5  | 15.6  | 2.9  |
|             |       | 8  | 187 | 3.9  | 3.9  | 155 | 4.5  | 4.2  |  | 3   | 53  | 8.2  | 23.4  | 4.3  |
|             |       | 10 | 120 | 4.9  | 4.9  | 99  | 5.6  | 5.2  |  | 4   | 30  | 11.0 | 31.2  | 5.8  |
|             |       | 12 | 83  | 5.9  | 5.9  | 69  | 6.8  | 6.3  |  | 5   | 19  | 13.7 | 38.9  | 7.2  |
| 35°         | 6333  | 4  | 396 | 2.9  | 2.9  | 328 | 3.3  | 3.0  |  | 1   | 253 | 2.7  | 189.8 | 2.1  |
|             |       | 6  | 176 | 4.3  | 4.3  | 146 | 4.9  | 4.6  |  | 2   | 63  | 5.5  | 379.6 | 4.2  |
|             |       | 8  | 99  | 5.7  | 5.7  | 82  | 6.6  | 6.1  |  | 3   | 28  | 8.2  | 569.3 | 6.3  |
|             |       | 10 | 63  | 7.2  | 7.2  | 53  | 8.2  | 7.6  |  | 4   | 16  | 11.0 | 759.1 | 8.4  |
|             |       | 12 | 44  | 8.6  | 8.6  | 36  | 9.9  | 9.1  |  | 5   | 10  | 13.7 | 948.9 | 10.5 |
| 50°         | 3337  | 4  | 209 | 3.5  | 3.5  | 173 | 4.1  | 3.8  |  |     |     |      |       |      |
|             |       | 6  | 93  | 5.3  | 5.3  | 77  | 6.2  | 5.6  |  |     |     |      |       |      |
|             |       | 8  | 52  | 7.1  | 7.1  | 43  | 8.2  | 7.5  |  |     |     |      |       |      |
|             |       | 10 | 33  | 8.8  | 8.8  | 28  | 10.3 | 9.4  |  |     |     |      |       |      |
|             |       | 12 | 23  | 10.6 | 10.6 | 19  | 12.3 | 11.3 |  |     |     |      |       |      |

## LUMEN OUTPUT MULTIPLIERS

| CCT/CRI | Multiplier |       |       |
|---------|------------|-------|-------|
|         | 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%        |