Black Body Dimming

Tunable White

AculuX®
Precision Recessed Lighting

Black Body Dimming and Tunable White Responsive Technologies

3-1/4" LED Precision Recessed Luminaires

JUNO LIGHTING GROUP®

Aculux®

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Black Body Dimming

Tunable White

The ultimate expression of precision lighting

Aculux® 3-1/4" LED precision recessed luminaires – now featuring black body dimming and tunable white technologies – respond to your needs like no other light source. They deliver unsurpassed design freedom and the ability to meet every lighting challenge.

With these new technologies, Aculux luminaires have once again elevated the art of precision lighting, augmenting an already powerful set of features that include Acu-Aim™ gear-driven optics, the Tru-Line™ adjustable platform, and the auto-adjusting optic holder. Add to that nearly endless round and square trim possibilities and you have the most advanced luminaire in the industry with the most sophisticated and precise lighting control ever offered.

Aculux®

Introducing the interactive luminaire that responds to your every need

Aculux 3-1/4" LED precision recessed luminaires are renowned for the superb level of control they offer in the design and installation of high-end recessed lighting applications. No other luminaire provides as many tools to express your vision. Now with the introduction of black body dimming and tunable white technologies, Aculux luminaires give you the ability to interact with your environment to achieve the precise lighting effects you desire.

LED Black Body Dimming & Tunable White

Instant response at your fingertips

Black Body Dimming

In black body dimming mode, Aculux 3-1/4" LED luminaires warm as they dim, perfectly mimicking everything you love about halogen dimming … but with only one-quarter of the power consumption.

Tunable White

In tunable white mode you can adjust the color temperature anywhere between 4350K and 2000K while remaining on the black body locus. With this exciting new technology, you can easily create the atmosphere and effects you desire on a post-installation basis. And you can respond to changes in lighting requirements or design without replacing luminaires or components.

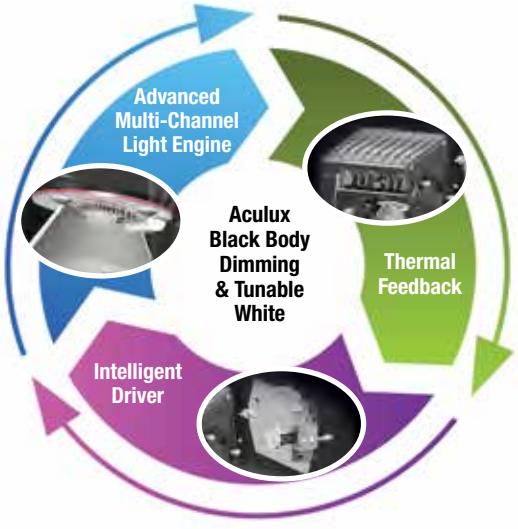
Precise Optical Control

The foundation of Aculux LED's unsurpassed performance rests on an advanced multi-channel light engine coupled with a proprietary optical system. The patent-pending optical system provides excellent in-beam color uniformity and precise beam control. Optimized center beam optics maximizes light output when LED optic is aimed off nadir, maintaining quiet apertures and eliminating glare at any aiming angle. Interchangeable optics are available in 36° flood, 27° narrow flood, or 21° very-narrow flood.

Superior Color Consistency and Rendering

Aculux LED with black body dimming and tunable white technology renders colors supremely well with 90 CRI at 3000K and 85 CRI throughout the CCT range. With an R9 value of 70, these luminaires produce strong, vibrant reds prevalent in skin tones, clothing, and artwork. The intelligent LED driver with closed-loop feedback maintains light intensity and stable color point over temperature, staying within a 2-step MacAdam ellipse of the black body locus across the entire color temperature range.

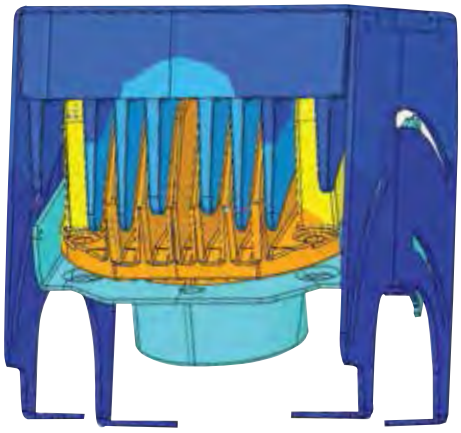
Intelligent LED Driver with Closed-loop Feedback



Black Body Dimming & Tunable White

Taking Control of Thermal Management

Another Aculux innovation – the Dual-Mesh™ heat sink – provides superior thermal management, ensuring long LED life and helping maintain stable color points. This new patent-pending, passive heat sink design is substantially more efficient at transferring heat away from the LED light engine than traditional passively cooled heat sinks.



Leading the way in performance and efficiency

Elegantly discreet 3-1/4" aperture; exceptional luminous flux of 700 or 1000 lumens; energy-saving efficacies up to 50 lm/W … Aculux LED offers industry leading performance. With the addition of black body dimming and tunable white technologies, they provide a level of interactivity, responsiveness, and control never before possible.

The most advanced luminaire in the industry with the most sophisticated and precise lighting control ever offered.

Aculux®

LED Black Body Dimming

LED Black Body Dimming

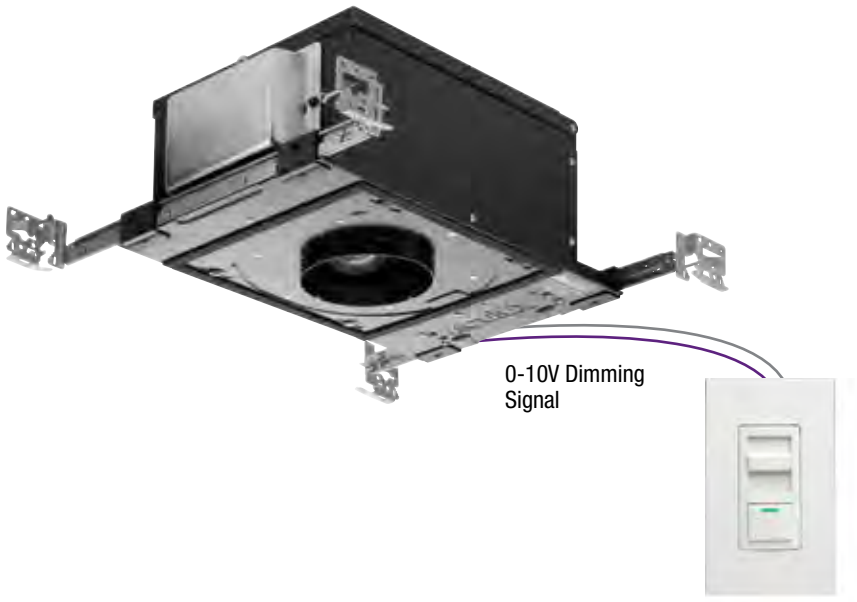
Responding to your mood

Experience the warmth of halogen lighting without having to accept the high energy consumption and short service life of halogen. With black body dimming technology, Aculux LED luminaires can perfectly mimic halogen dimming while consuming just one-fourth the energy and lasting about 15-times longer. Residential, commercial, hospitality … now your lighting can respond to any mood you wish to create. Aculux LED dimming follows the black body locus within a 2-step MacAdam ellipse throughout the entire dimming range. You get the look of halogen dimming with all the benefits of LED lighting, plus superb color consistency from fixture to fixture.

- 3000K to 1800K dimming range mimics the warmth of halogen
- CCT vs. Intensity replicates the halogen dimming profile
- Dimming stays within a 2-step MacAdam ellipse of the black body locus
- Standard 0-10V dimming protocol offers <1% dimming
- 90 CRI at 3000K and 85 CRI/70 R9 throughout the entire dimming range

Black Body Dimming Mode

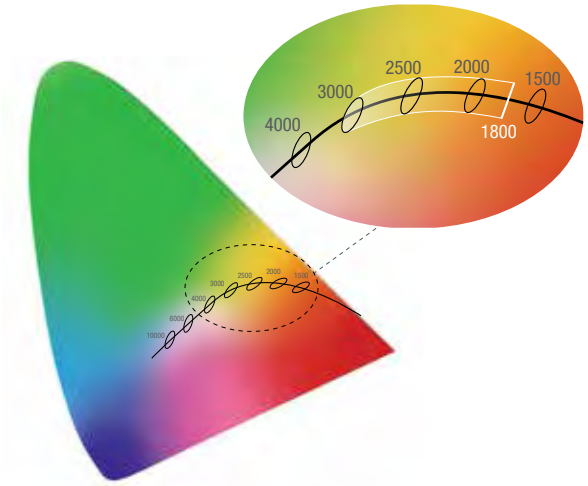
Aculux LED dimming responds to your every mood, creating a warm, halogen-like atmosphere with a simple control. All it takes is a standard 0-10V protocol dimmer or dimming system to interact with this remarkable technology.



LED Black Body Dimming

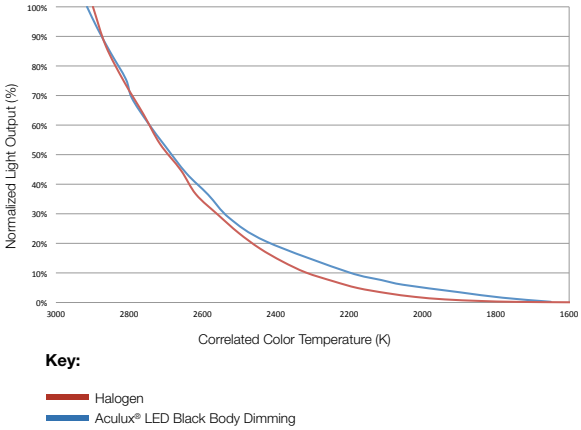
Black Body Dimming

Color temperature warms from 3000K - 1800K when dimmed staying within a 2-step MacAdam ellipse of the Black Body Locus.



Aculux vs. Halogen

Aculux Black Body dimming technology perfectly mimics halogen as the color temperature warms from 3000K to 1800K as it is dimmed.



The Aculux LED Luminaires in the black body dimming mode transforms any room to a warm evening glow.

Aculux®

LED Tunable White

LED Tunable White

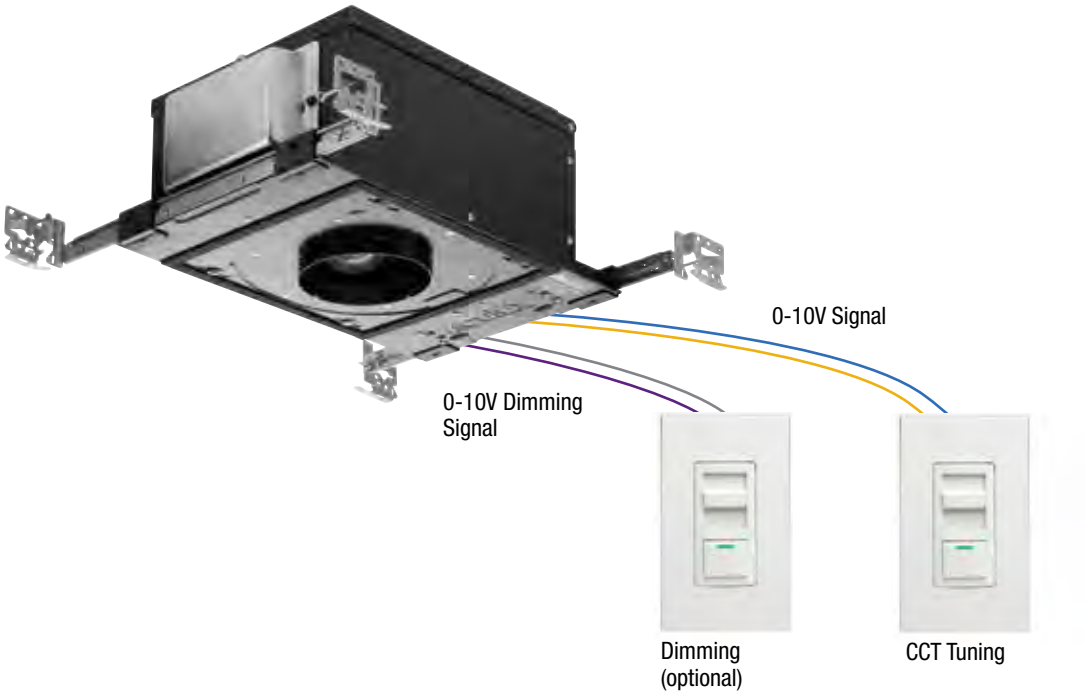
Responding to your changing environment

Aculux LED luminaires with tunable white technology enable you to select any color temperature along the black body locus between 4350K and 2000K. This means you can respond to the lighting requirements of post-installation interior design changes without ever having to replace luminaires, light engines, or components. With a single luminaire, you can select a warmer color temperature to complement wood flooring or a cooler temperature to enhance the colors in artwork or textured surfaces. A standard 0-10V dimming protocol puts total CCT control at your fingertips … you will never be limited by CCT-specific luminaires again. Warm or cool, Aculux LED with Tunable White technology will respond by maintaining the selected CCT as it delivers the superior color consistency and color rendering you desire.

- CCT range of 4350K to 2000K eliminates being locked-in to a specific CCT
- Target CCTs stay within a 2-step MacAdam ellipse of the black body locus
- Standard 0-10V signal for CCT control
- Dimming to <1% with standard 0-10V protocol
- 85 CRI with R9 of 70 throughout the CCT range

Tunable White Mode

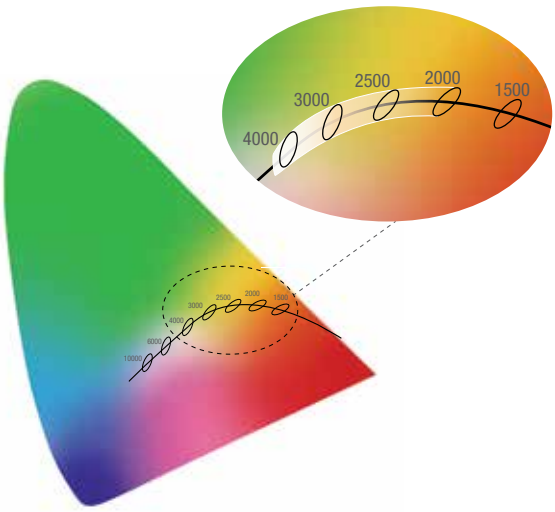
Aculux LED with Tunable White technology provides more design freedom than ever before. A standard 0-10V protocol dimmer or dimming system provides CCT control at a fixed light output. If dimming is desired, connect a second 0-10V protocol dimmer and achieve unprecedented luminaire control.



LED Tunable White

Tunable White Light

Color temperature can be tuned from 4350K to 2000K while staying within a 2-step MacAdam ellipse of the Black Body Locus.



A single luminaire has never before been so responsive and interactive.

Use a dimming system to control and enhance the lighting environment when cool and warm colors are specified. Tune CCT to a warm color temperature to enhance the richness of the wood floors, while layering in luminaires set to a cooler color temperature to accent blues and grays in the artwork and textured walls.

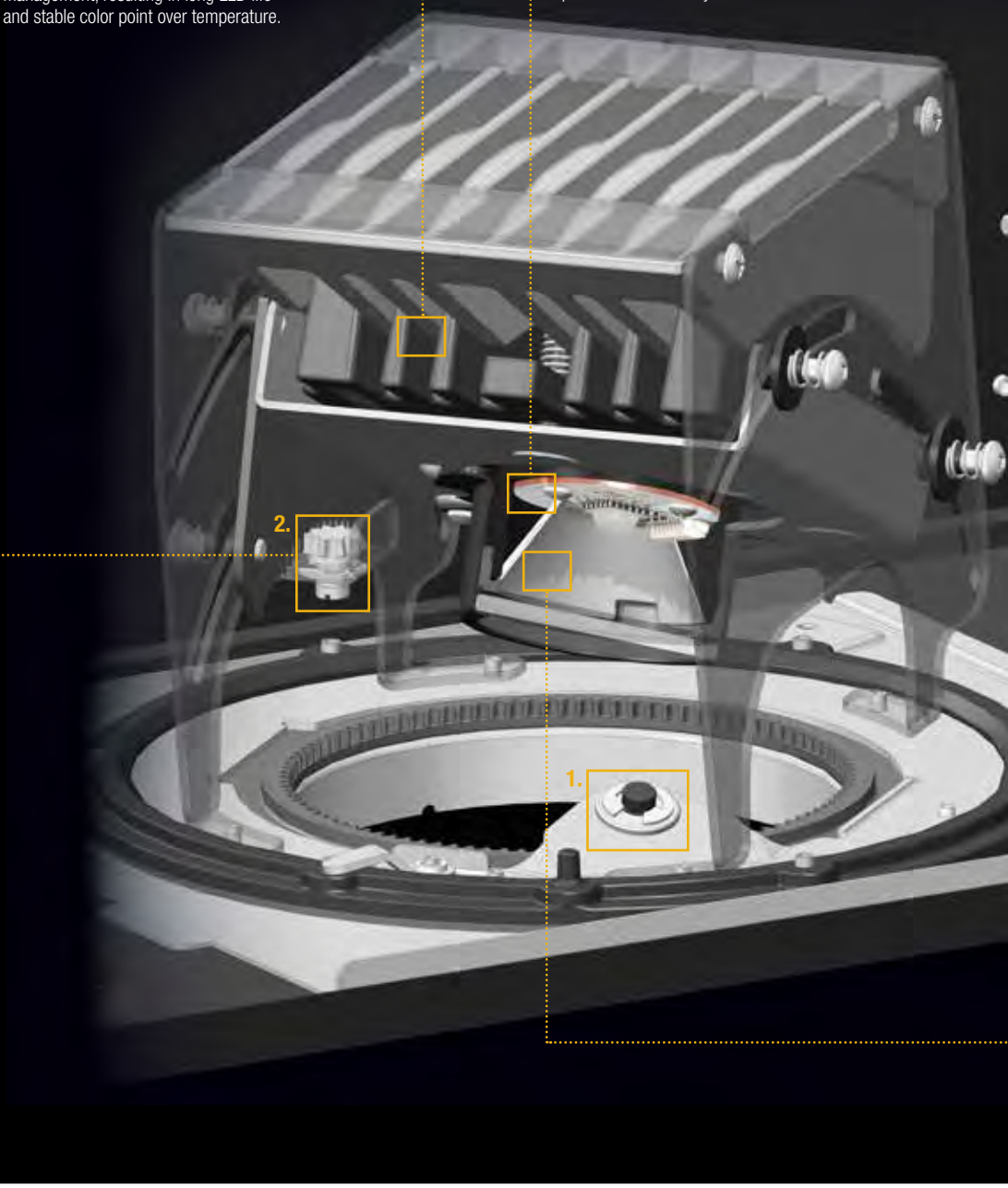
Aculux®

Responding to your needs … before, during, and after installation

Aculux 3-1/4" LED recessed luminaires with black body dimming and tunable white technology puts you in total control of every aspect of a lighting project. In the design phase, you have all the high-precision, high-performance features and options Aculux is renowned for. In addition, Aculux luminaires offer numerous features to aid during installation, ensuring your lighting design intent is realized. And after installation, you are provided with precision optics and powerful control capabilities to respond to changing requirements. It's responsive, it's interactive, and it's all built-in to a single luminaire.

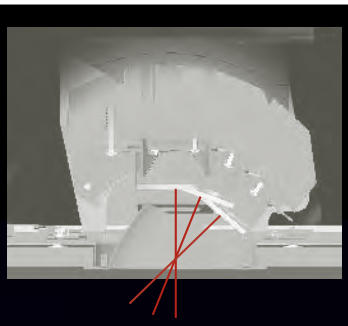
Patent Pending Dual-Mesh™ passive heat sink provides superior thermal management, resulting in long LED life and stable color point over temperature.

Advanced Multi-Channel LED Light Engine renders colors exceptionally and delivers brilliant white light within a 2-step MacAdam ellipse of the black body locus.

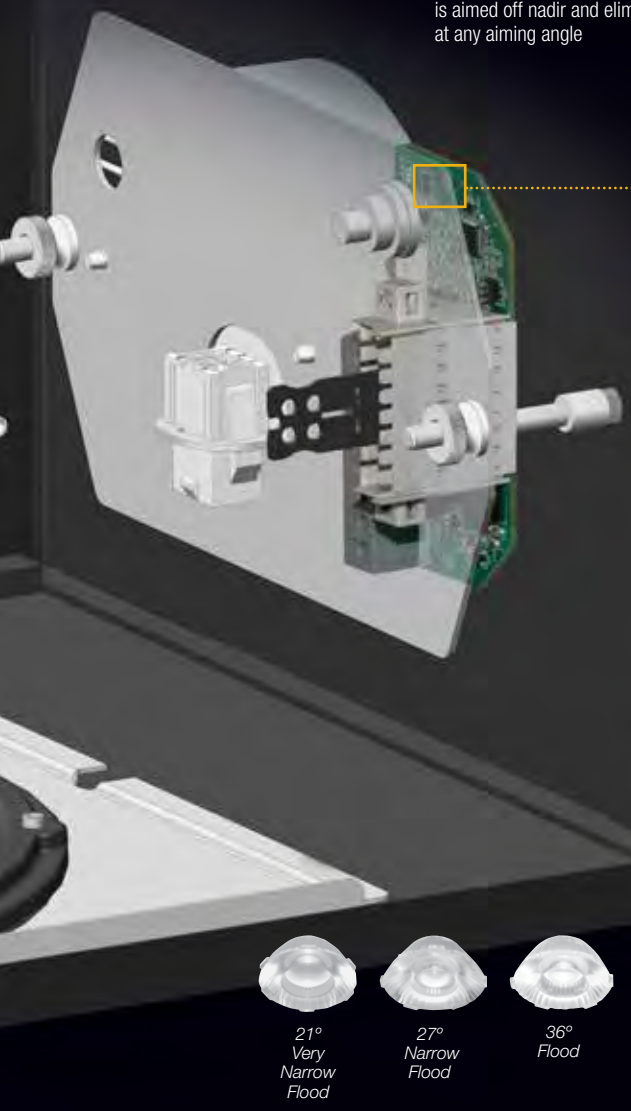


Acu-Aim™ Precision Geared Aiming provides pinpoint accurate aiming and is comprised of two aiming features:

1. Exclusive 370° gear rotation fully eliminates any dead spots in a lighting application
2. Precision, gear-driven 45° vertical adjustment is smooth and effortless with the turn of a screwdriver.

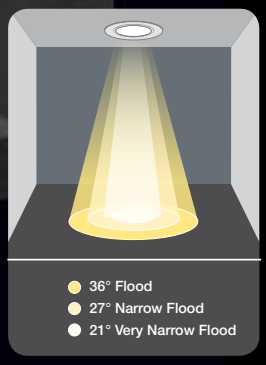


Optimized Center Beam Optics
Maximizes light output when LED optic is aimed off nadir and eliminates glare at any aiming angle



Intelligent LED Driver with closed loop feedback system maintains color consistency and light output over temperature. The driver automatically determines if the luminaire should be in black body dimming mode or tunable white mode based on how the luminaire is wired.

21° Very Narrow Flood *27° Narrow Flood* *36° Flood*

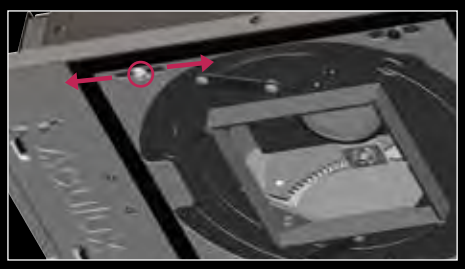


Patent Pending Optical System provides efficient color mixing for superb in-beam color uniformity. The three field interchangeable optics have excellent beam control in 21°, 27° and 36°. And, the spring-loaded optic holder can accept up to three media and maintain the reflector/optic relationship.

Patented Tru-Line™ Platform

V-Notch Sight
Enables the installer to accurately align the fixtures during initial installation. (Applies to both round and square apertures.)

Square-Aperture Rotation
Square apertures can be rotated up to 90° to help align the fixture apertures prior to finishing the ceiling



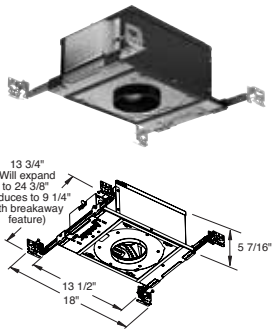
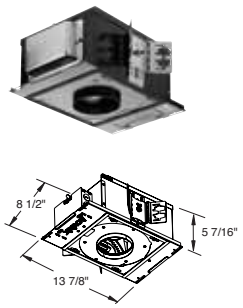
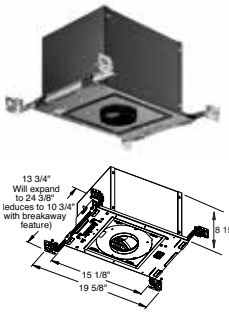
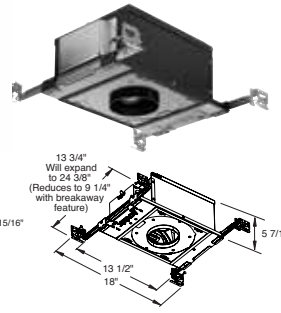
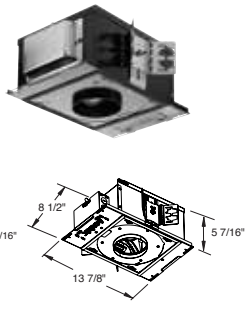
Aperture Translation
Permits +/- 1/2" translation adjustment to ensure fixture-to-fixture alignment prior to finishing the ceiling. (Applies to both round and square apertures.)

3-1/4" LED Adjustable Luminaires, Round

700 and 1000 Lumens

The Aculux® 3-1/4" LED Adjustable Black Body Dimming and Tunable White luminaires feature both technologies. Choose from 700 or 1000 nominal lumens. The ultra-efficient, sealed Air-Loc® luminaires have efficacies up to 50 lm/W and can be installed in IC or Non-IC installations. Luminaires are UL/cUL listed and damp location approved (wet location with selected lensed trims).

Ordering Information: Housing, trim and accessories are ordered separately. **Example:** IC43T-W-V-U

Housing	Beam Optics	Drivers	Options
700 Lumens, 13W			
IC43T-W IC Rated 	**IC943T-W** IC Rated 	**V** – 21º Very Narrow Flood **N** – 27º Narrow Flood **F** – 36º Flood	**U** – 120-277V, with optional 0-10V Dimming	**CP** – Chicago Plenum
1000 Lumens, 20W			
IC49T-W IC Rated 	**TC49T-W** Non-IC Rated 	**TC949T-W** Non-IC Rated 	**V** – 21º Very Narrow Flood **N** – 27º Narrow Flood **F** – 36º Flood	**U** – 120-277V, with optional 0-10V Dimming **U2**[1] – 277V, 0-10V Dimming [1] IC is Universal voltage. Specify voltage for Non-IC products	**CP*** – Chicago Plenum * Not available on IC49T Housing

Mounting Accessories:

Catalog #	Description
CTA4N-125	7/8" – 1-1/4" ceiling adapter
CTA4N-163	1-1/4" – 1-5/8" ceiling adapter
CTA4N-200	1-5/8" – 2" ceiling adapter
FMA4	Flush mount adapter required for drywall flush mount trim installations
FMA4-SC087-WH	Flush mount adapter for wood, stone, tile, 1/2" - 7/8" thick ceiling, White.
FMA4-SC087-BL	Flush mount adapter for wood, stone, tile, 1/2" - 7/8" thick ceiling, Black.
FMA4-SC125-WH	Flush mount adapter for wood, stone, tile, 7/8" - 1-1/4" thick ceiling, White.
FMA4-SC125-BL	Flush mount adapter for wood, stone, tile, 7/8" - 1-1/4" thick ceiling, Black.
FMA4-SC163-WH	Flush mount adapter for wood, stone, tile, 1-1/4" - 1-5/8" thick ceiling, White.
FMA4-SC163-BL	Flush mount adapter for wood, stone, tile, 1-1/4" - 1-5/8" thick ceiling, Black.
EMI-20	20W Emergency lighting inverter

Optical Accessories:

Light Control Lenses/Films

These alter the light distribution of a given lamp, enlarging or elongating it, softening the beam edge or removing striations.

Uniformity Lens	**T7421**
Diffusion Lens	**T7420**
Prismatic Spread Lens	**T7477**
Linear Spread Lens	**T7478**
50º Optical Film	**AF3-50DEG**

Louver

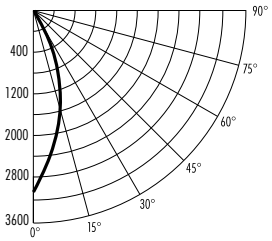
Hexcell louvers reduce perceived fixture brightness.

Hexcell Louver	**T7459BL**

3-1/4" LED Adjustable Luminaires, Round Photometrics

PHOTOMETRIC REPORT

Test Report #: PT10131801R
Catalog No: IC49T-W-F-U
with 437NHZ-WH Trim
Luminaire Spacing Criterion: 0.48
Luminaire LPW: 47



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	3040
5	2593
15	1455
25	499
35	63
45	8
55	0
65	0
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60' x 60' room)
Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	65	59	53
5.0'	42	37	34
6.0'	29	26	24
7.0'	23	21	19
8.0'	18	17	15
9.0'	14	13	12
10.0'	10	9	9

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0 - 30°	862	93.1
0 - 40°	918	99.1
0 - 60°	926	100.0
0 - 90°	927	100.0

INITIAL FOOTCANDLES (One Unit, 19.8W, 30.1° Beam)

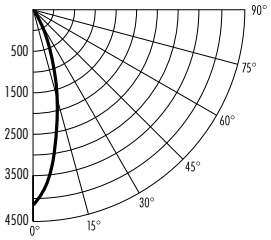
Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	190.0	2.1'
6	84.4	3.1'
8	47.5	4.1'
10	30.4	5.1'

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	2173
55	183
65	83
75	0
85	0

PHOTOMETRIC REPORT

Test Report #: PT10131708R
Catalog No: IC49T-W-N-U
with 437NHZ-WH Trim
Luminaire Spacing Criterion: 0.46
Luminaire LPW: 51



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	4127
5	3738
15	1638
25	388
35	42
45	6
55	0
65	0
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60' x 60' room)
Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	71	65	60
5.0'	46	42	38
6.0'	32	29	27
7.0'	26	23	22
8.0'	20	19	17
9.0'	16	14	13
10.0'	11	10	10

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0 - 30°	970	96.0
0 - 40°	1004	99.4
0 - 60°	1010	100.0
0 - 90°	1010	100.0

INITIAL FOOTCANDLES (One Unit, 19.8W, 26.3° Beam)

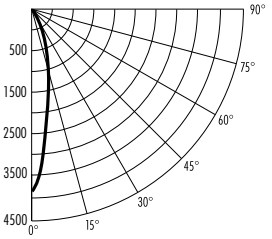
Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	114.6	2.8'
8	64.5	3.7'
10	41.3	4.7'
12	28.7	5.6'

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	1581
55	122
65	41
75	0
85	0

PHOTOMETRIC REPORT

Test Report #: PT101311701R
Catalog No: IC49T-W-V-U
with 437NHZ-WH Trim
Luminaire Spacing Criterion: 0.34
Luminaire LPW: 38



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	3896
5	2941
15	1067
25	540
35	60
45	13
55	0
65	0
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60' x 60' room)
Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	53	48	44
5.0'	34	31	28
6.0'	23	21	20
7.0'	19	17	16
8.0'	15	14	12
9.0'	12	10	10
10.0'	8	8	7

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0 - 30°	686	91.7
0 - 40°	736	98.4
0 - 60°	748	100.0
0 - 90°	748	100.0

INITIAL FOOTCANDLES (One Unit, 19.8W, 19.4° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	108.2	2.1'
8	60.9	2.7'
10	39.0	3.4'
12	27.1	4.1'

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	3236
55	213
65	83
75	0
85	0

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit represents a baseline of performance for the fixture. Results may vary in the field. Photometry is a 3000K CCT.

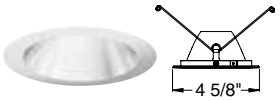
Fc/Lumen Multipliers: IC(9)43T - 0.70
IC49T - 1.00
TC(9)49T - 1.00

Aculux®

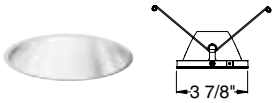
Round Downlight Trims

Parabolic Downlight Cone

Trim Ring [1]
437NB-ABZ
437NB-SC
437NB-WH
437NC-WH
437NG-WH
437NHZ-SC
437NHZ-WH
437NWHZ-ABZ
437NWHZ-WH
Aperture: 3-1/4"



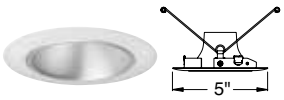
Self-Flanged [2]
-
-
437NB-SF
437NC-SF
437NG-SF
-
437NHZ-SF
-
437NWHZ-SF
Aperture: 3-3/8"



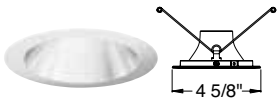
Flush Mount [3]
-
-
437NB-FM
437NC-FM
437NG-FM
-
437NHZ-FM
-
437NWHZ-FM
Aperture: 3-3/8"

Finish
Black Alzak® Cone
Black Alzak® Cone
Black Alzak® Cone
Clear Alzak® Cone
Gold Alzak® Cone
Haze Alzak® Cone
Haze Alzak® Cone
Wheat Haze Alzak® Cone
Wheat Haze Alzak® Cone

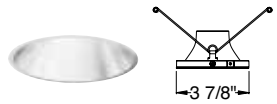
Hyperbolic Downlight Reflector



4017NB-WH
4017NHZ-WH
4017NC-WH
4017NW-WH
4017NWHZ-WH
Aperture: 3-1/4"



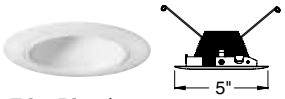
4017NB-SF
4017NHZ-SF
4017NC-SF
4017NW-SF
4017NWHZ-SF
Aperture: 3-3/8"



4017NB-FM
4017NHZ-FM
4017NC-FM
4017NW-FM
4017NWHZ-FM
Aperture: 3-3/8"

Hyperbolic Alzak® Reflector
Hyperbolic Alzak® Reflector
Hyperbolic Alzak® Reflector
Hyperbolic Alzak® Reflector
Hyperbolic Alzak® Reflector

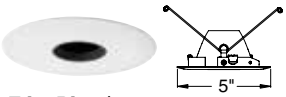
Deep Downlight Baffle



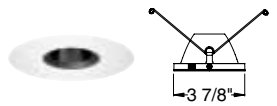
Trim Ring [1]
434NB-ABZ
434NB-SC
434NB-WH
434NW-WH
Aperture: 3-1/4"

Finish
Black Baffle
Black Baffle
Black Baffle
White Baffle

1-1/4" Pinhole Downlight



Trim Ring [1]
4337N-ABZ
4337N-SC
4337N-WH
4337N-BL
Aperture: 1-1/4"



Flush Mount [3]
-
-
4337N-WH-FM
4337-BL-FM
Aperture: 1-1/4"

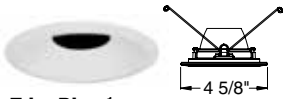
Finish
Aged Bronze Trim, Black Alzak® Reflector
Satin Chrome Trim, Black Alzak® Reflector
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

[1] Trim Ring Finish: ABZ - Classic Aged Bronze, SC - Satin Chrome, WH - White, BL - Black [2] For Self-Flanged reflector with optional white painted flange, replace "-SF" suffix with "-SFWH"
[3] Flush Mount trims must be used with FMA4 Flush Mount Adapters, order separately – see page 12

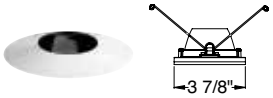
Continued on next page

Round Adjustable Accent Trims continued

Regressed 1-3/4" Pinhole Downlight

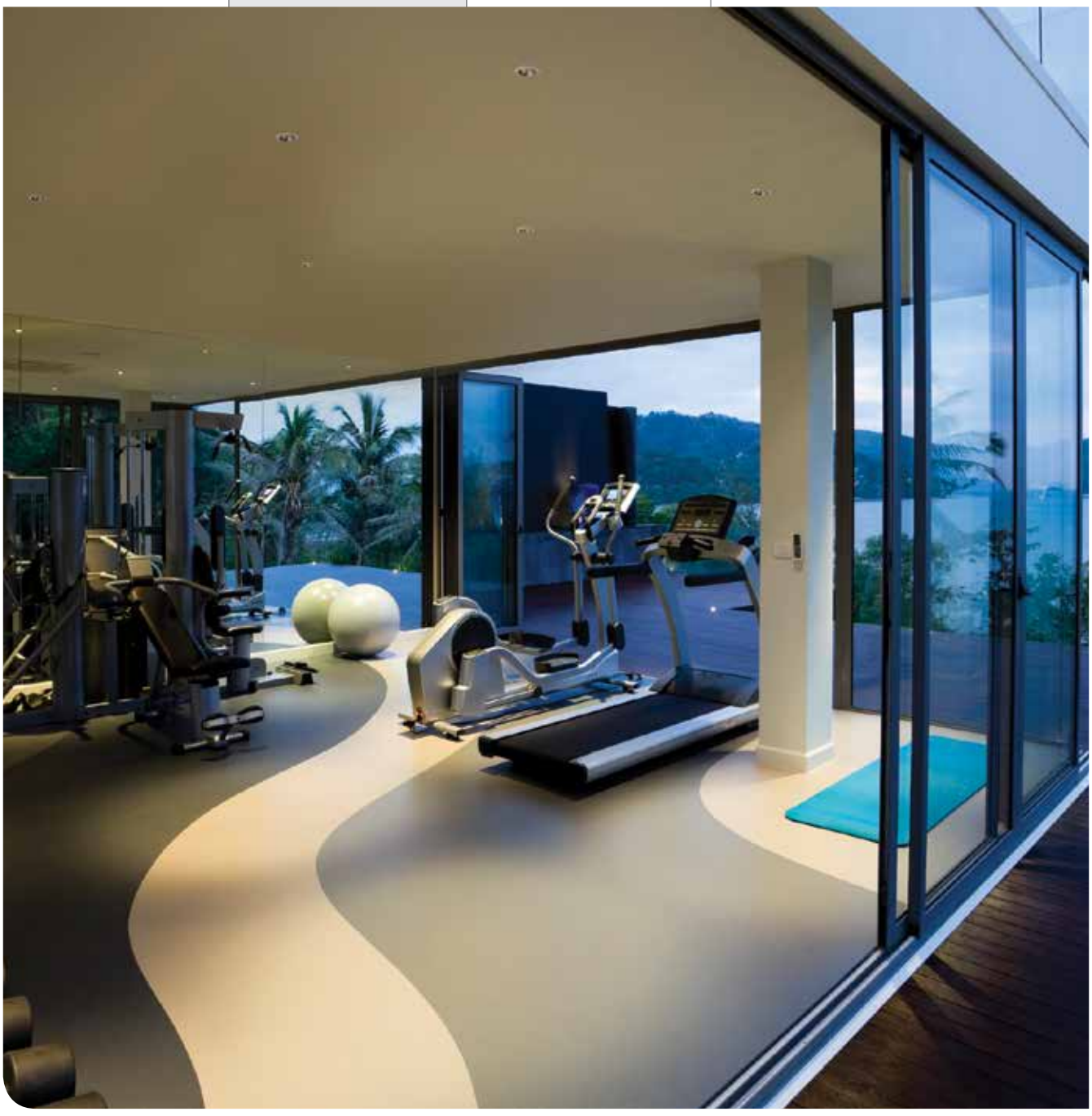


Trim Ring [1]
4307N-WH
4307N-BL
Aperture: 1-3/4"



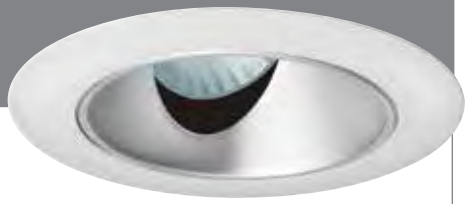
Flush Mount [3]
4307N-WH-FM
4307-BL-FM
Aperture: 1-3/4"

Finish
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

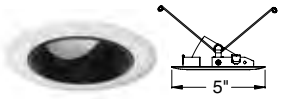


Aculux®

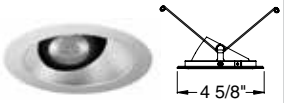
Round Adjustable Accent Trims



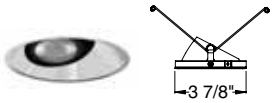
Angle-Cut Cone



Trim Ring [1]
438NB-ABZ
438NB-SC
438NB-WH
438NC-WH
438NG-WH
438NHZ-SC
438NHZ-WH
438NWHZ-ABZ
438NWHZ-WH
Aperture: 3-1/4"



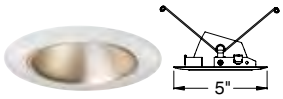
Self-Flanged [2]
-
-
438NB-SF
438NC-SF
438NG-SF
-
438NHZ-SF
-
438NWHZ-SF
Aperture: 3-3/8"



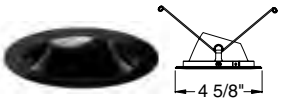
Flush Mount [3]
-
-
438NB-FM
438NC-FM
438NG-FM
-
438NHZ-FM
-
438NWHZ-FM
Aperture: 3-3/8"

Finish
Black Alzak® Cone
Black Alzak® Cone
Black Alzak® Cone
Clear Alzak® Cone
Gold Alzak® Cone
Haze Alzak® Cone
Haze Alzak® Cone
Wheat Haze Alzak® Cone
Wheat Haze Alzak® Cone

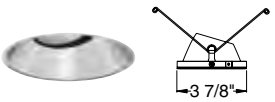
20º Angle-Cut Cone



Trim Ring [1]
430NB-WH
430NC-WH
430NG-WH
430NHZ-SC
430NHZ-WH
430NWHZ-ABZ
430NWHZ-WH
Aperture: 3-1/4"



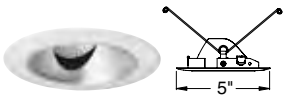
Self-Flanged [2]
430NB-SF
430NC-SF
430NG-SF
-
430NHZ-SF
-
430NWHZ-SF
Aperture: 3-3/8"



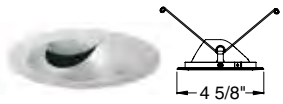
Flush Mount [3]
430NB-FM
430NC-FM
430NG-FM
-
430NHZ-FM
-
430NWHZ-FM
Aperture: 3-3/8"

Finish
Black Alzak® Cone
Clear Alzak® Cone
Gold Alzak® Cone
Haze Alzak® Cone
Haze Alzak® Cone
Wheat Haze Alzak® Cone
Wheat Haze Alzak® Cone

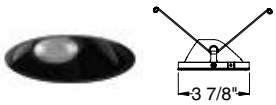
Slot Angle-Cut Cone



Trim Ring [1]
436NB-ABZ
436NB-SC
436NB-WH
436NC-WH
436NG-WH
436NHZ-SC
436NHZ-WH
436NWHZ-ABZ
436NWHZ-WH
Aperture: 3-1/4"



Self-Flanged [2]
-
-
436NB-SF
436NC-SF
436NG-SF
-
436NHZ-SF
-
436NWHZ-SF
Aperture: 3-3/8"



Flush Mount [3]
-
-
436NB-FM
436NC-FM
436NG-FM
-
436NHZ-FM
-
436NWHZ-FM
Aperture: 3-3/8"

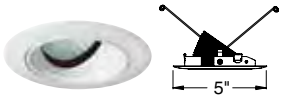
Finish
Black Alzak® Cone
Black Alzak® Cone
Black Alzak® Cone
Clear Alzak® Cone
Gold Alzak® Cone
Haze Alzak® Cone
Haze Alzak® Cone
Wheat Haze Alzak® Cone
Wheat Haze Alzak® Cone

[1] Trim Ring Finish: ABZ - Classic Aged Bronze, SC - Satin Chrome, WH - White, BL - Black
[2] For Self-Flanged reflector with optional white painted flange, replace "-SF" suffix with "-SFWH"
[3] Flush Mount trims must be used with FMA4 Flush Mount Adapters, order separately – see page 12

Continued on next page

Round Adjustable Accent Trims continued

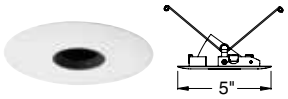
Angle-Cut Baffle



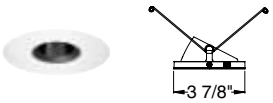
Trim Ring [1]
435NB-ABZ
435NB-SC
435NB-WH
435NW-WH
Aperture: 3-1/4"

Finish
Black Baffle
Black Baffle
Black Baffle
White Baffle

Adjustable 1-1/4" Pinhole



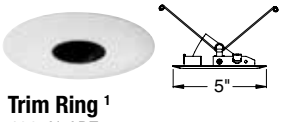
Trim Ring [1]
433N-ABZ
433N-SC
433N-WH
433N-BL
Aperture: 1-1/4"



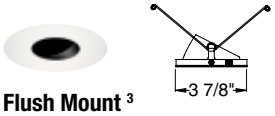
Flush Mount [3]
-
-
433N-WH-FM
433N-BL-FM
Aperture: 1-1/4"

Finish
Aged Bronze Trim, Black Alzak® Reflector
Satin Chrome Trim, Black Alzak® Reflector
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

Adjustable 1-3/4" Pinhole



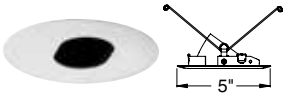
Trim Ring [1]
4335N-ABZ
4335N-SC
4335N-WH
4335N-BL
Aperture: 1-3/4"



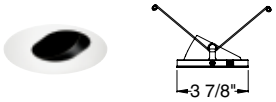
Flush Mount [3]
-
-
4335N-WH-FM
4335N-BL-FM
Aperture: 1-3/4"

Finish
Aged Bronze Trim, Black Alzak® Reflector
Satin Chrome Trim, Black Alzak® Reflector
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

Slot Pinhole



Trim Ring [1]
4345N-WH
4345N-BL
Aperture: 2-1/2"

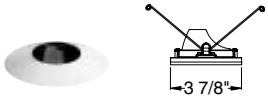


Flush Mount [3]
4345N-WH-FM
4345N-BL-FM
Aperture: 2-1/2"

Finish
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

Adjustable Regressed 1-3/4" Pinhole

Trim Ring [1]
4308N-WH
4308N-BL
Aperture: 1-3/4"



Flush Mount [3]
4308N-WH-FM
4308N-BL-FM
Aperture: 1 3/4"

Finish
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

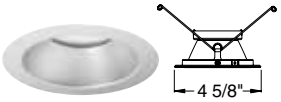
[1] Trim Ring Finish: ABZ - Classic Aged Bronze, SC - Satin Chrome, WH - White, BL- Black
[2] For Self-Flanged reflector with optional white painted flange, replace "-SF" suffix with "-SFWH"
[3] Flush Mount trims must be used with FMA4 Flush Mount Adapters, order separately – see page 12

Aculux®

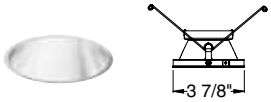
Round Lensed Trims

Downlight Lensed Trim

Trim Ring [1]
432NB-WH
432NC-WH
432NG-WH
432NHZ-SC
432NHZ-WH
432NWHZ-ABZ
432NWHZ-WH
Aperture: 3-1/4"



Self-Flanged [2]
432NB-SF
432NC-SF
432NG-SF
-
432NHZ-SF
-
432NWHZ-SF
Aperture: 3-3/8"



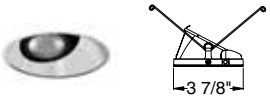
Flush Mount [3]
432NB-FM
432NC-FM
432NG-FM
-
432NHZ-FM
-
432NWHZ-FM
Aperture: 3-3/8"

Finish
Black Alzak® Cone
Clear Alzak® Cone
Gold Alzak® Cone
Haze Alzak® Cone
Haze Alzak® Cone
Wheat Haze Alzak® Cone
Wheat Haze Alzak® Cone

Angle-Cut Lensed Trim

Trim Ring [1]
431NB-WH
431NC-WH
431NG-WH
431NHZ-SC
431NHZ-WH
431NWHZ-ABZ
431NWHZ-WH
Aperture: 3-1/4"

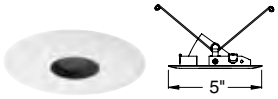
Self-Flanged [2]
431NB-SF
431NC-SF
431NG-SF
-
431NHZ-SF
-
431NWHZ-SF
Aperture: 3-3/8"



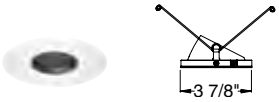
Flush Mount [3]
431NB-FM
431NC-FM
431NG-FM
-
431NHZ-FM
-
431NWHZ-FM
Aperture: 3-3/8"

Finish
Black Alzak® Cone
Clear Alzak® Cone
Gold Alzak® Cone
Haze Alzak® Cone
Haze Alzak® Cone
Wheat Haze Alzak® Cone
Wheat Haze Alzak® Cone

Adjustable 1-1/4" Pinhole - Lensed



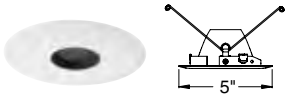
Trim Ring [1]
4331N-WH
4331N-BL
4331N-SC
4331N-ABZ
Aperture: 1-1/4"



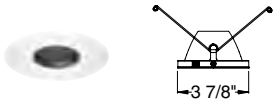
Flush Mount [3]
4331N-WH-FM
4331N-BL-FM
-
Aperture: 1-1/4"

Finish
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector
Satin Chrome Trim, Black Alzak® Reflector
Aged Bronze Trim, Black Alzak® Reflector

Downlight 1-1/4" Pinhole - Lensed



Trim Ring [1]
4332N-WH
4332N-BL
4332N-SC
4332N-ABZ
Aperture: 1-1/4"



Flush Mount [3]
4332N-WH-FM
4332N-BL-FM
-
Aperture: 1-1/4"

Finish
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector
Satin Chrome Trim, Black Alzak® Reflector
Aged Bronze Trim, Black Alzak® Reflector

[1] Trim Ring Finish: ABZ - Classic Aged Bronze, SC - Satin Chrome, WH - White, BL - Black
[2] For Self-Flanged reflector with optional white painted flange, replace "-SF" suffix with "-SFWH"
[3] Flush Mount trims must be used with FMA4 Flush Mount Adapters, order separately – see page 12

Continued on next page

Round Lensed Trims continued

Downlight Regressed 1-3/4" Pinhole - Lensed

Trim Ring [1]
4302N-WH
4302N-BL
Aperture: 1-3/4"

Flush Mount [3]
4302N-WH-FM
4302N-BL-FM
Aperture: 1-3/4"

Finish
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

Adjustable Regressed 1-3/4" Pinhole - Lensed

Trim Ring [1]
4301N-WH
4301N-BL

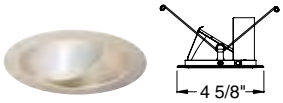
Flush Mount [3]
4301N-WH-FM
4301N-BL-FM
Aperture: 1-3/4"

Finish
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

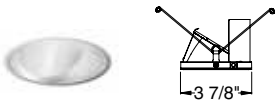
Round Wall Wash Trims

Lensed Wall Wash

Trim Ring [1]
439NB-WH
439NC-WH
439NG-WH
439NW-WH
439NHZ-SC
439NHZ-WH
439NWHZ-ABZ
439NWHZ-WH
Aperture: 3-1/4"



Self-Flanged [2]
439NB-SF
439NC-SF
439NG-SF
439NW-SF
-
439NHZ-SF
-
439NWHZ-SF
Aperture: 3-3/8"



Flush Mount [3]
439NB-FM
439NC-FM
439NG-FM
439NW-FM
-
439NHZ-FM
-
439NWHZ-FM
Aperture: 3-3/8"

Finish
Black Alzak® Cone
Clear Alzak® Cone
Gold Alzak® Cone
White Painted Cone
Haze Alzak® Cone
Haze Alzak® Cone,
Wheat Haze Alzak® Cone
Wheat Haze Alzak® Cone

[1] Trim Ring Finish: ABZ - Classic Aged Bronze, SC - Satin Chrome, WH - White, BL - Black
[2] For Self-Flanged reflector with optional white painted flange, replace "-SF" suffix with "-SFWH"
[3] Flush Mount trims must be used with FMA4 Flush Mount Adapters, order separately – see page 12

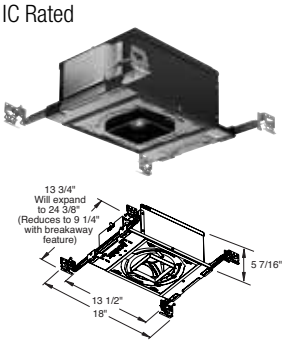
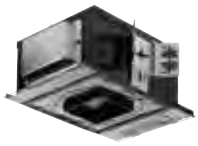
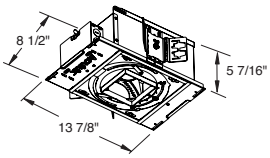
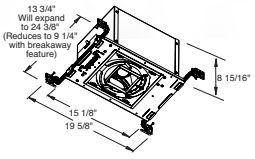
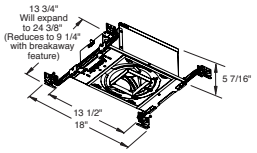
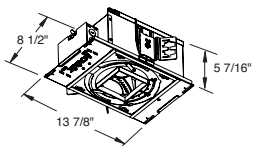
Aculux®

3-1/4" LED Adjustable Luminaires, Square

700 and 1000 Lumens

The Aculux® 3-1/4" LED Adjustable Black Body Dimming and Tunable White luminaires feature both technologies. Choose from 700 or 1000 nominal lumens. The ultra-efficient sealed Air-Loc® luminaires have efficacies up to 50 lm/W and can be installed in IC or Non-IC installations. Luminaires are UL/cUL listed and damp location approved (wet location with selected lensed trims).

Ordering Information: Housing, trim and accessories are ordered separately. **Example:** IC43TSQ-W-V-U

Housing	Beam Optics	Drivers	Options
700 Lumens, 13W			
IC43TSQ-W IC Rated  	**V** – 21º Very Narrow Flood **N** – 27º Narrow Flood **F** – 36º Flood	**U** – 120-277V, with optional 0-10V Dimming	**CP** – Chicago Plenum
IC943TSQ-W IC Rated  			
1000 Lumens, 20W			
IC49TSQ-W IC Rated 	**V** – 21º Very Narrow Flood **N** – 27º Narrow Flood **F** – 36º Flood	**U** – 120-277V, with optional 0-10V Dimming **U1**[1] – 120V, 0-10V Dimming **U2**[1] – 277V, 0-10V Dimming [1] IC is Universal voltage. Specify voltage for Non-IC products	**CP*** – Chicago Plenum * Not available on IC49TSQ Housing
TC49TSQ-W Non-IC Rated 			
TC949TSQ-W Non-IC Rated 			

Mounting Accessories:

Catalog #	Description
CTA4SQ-125	7/8" – 1-1/4" ceiling adapter
CTA4SQ-163	1-1/4" – 1-5/8" ceiling adapter
CTA4SQ-200	1-5/8" – 2" ceiling adapter
FMASQ4	Flush mount adapter required for drywall flush mount trim installations
FMASQ4-SC100-WH	Flush mount adapter for wood, stone, tile, 1/2" - 1" thick ceiling, White.
FMASQ4-SC100-BL	Flush mount adapter for wood, stone, tile, 1/2" - 1" thick ceiling, Black.
FMASQ4-SC138-WH	Flush mount adapter for wood, stone, tile, 1" - 1-3/8" thick ceiling, White.
FMASQ4-SC138-BL	Flush mount adapter for wood, stone, tile, 1" - 1-3/8" thick ceiling, Black.
FMASQ4-SC175-WH	Flush mount adapter for wood, stone, tile, 1-3/8" - 1-3/4" thick ceiling, White.
FMASQ4-SC175-BL	Flush mount adapter for wood, stone, tile, 1-3/8" - 1-3/4" thick ceiling, Black.
EMI-20	20W Emergency lighting inverter

Optical Accessories:

Light Control Lenses/Films

These alter the light distribution of a given lamp, enlarging or elongating it, softening the beam edge or removing striations.

Uniformity Lens	**T7421**
Diffusion Lens	**T7420**
Prismatic Spread Lens	**T7477**
Linear Spread Lens	**T7478**
50º Optical Film	**AF3-50DEG**

Louver

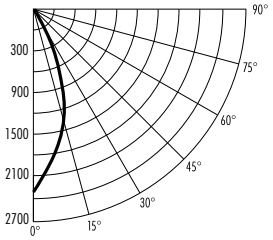
Hexcell louvers reduce perceived fixture brightness.

Hexcell Louver	**T7459BL**

3-1/4" LED Adjustable Luminaires, Square Photometrics

PHOTOMETRIC REPORT

Test Report #: PT10132801R
Catalog No: IC49TSQ-W-F-U with 437SQHZ-SF Trim
Luminaire Spacing Criterion: 0.58
Luminaire LPW: 46



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	2365
5	2239
15	1412
25	498
35	52
45	9
55	3
65	2
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60' x 60' room)
Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	64	57	52
5.0'	41	37	33
6.0'	28	26	25
7.0'	23	21	19
8.0'	18	17	15
9.0'	14	12	11
10.0'	10	9	8

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0 - 30°	825	90.8
0 - 40°	892	98.2
0 - 60°	906	99.7
0 - 90°	909	100.0

INITIAL FOOTCANDLES (One Unit, 19.8W, 34.5° Beam)

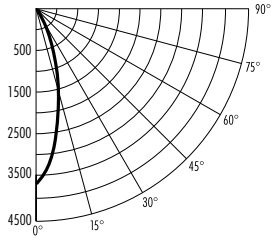
Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	147.8	2.5'
6	65.7	3.7'
8	37.0	5.0'
10	16.4	6.2'

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	1804
55	670
65	519
75	424
85	157

PHOTOMETRIC REPORT

Test Report #: PT10132807R
Catalog No: IC49TSQ-W-N-U with 437SQHZ-SF Trim
Luminaire Spacing Criterion: 0.48
Luminaire LPW: 50



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	3718
5	3424
15	1571
25	387
35	37
45	8
55	3
65	2
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60' x 60' room)
Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	70	63	58
5.0'	45	40	37
6.0'	31	28	26
7.0'	25	23	21
8.0'	20	18	16
9.0'	15	14	13
10.0'	11	10	9

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0 - 30°	931	94.3
0 - 40°	974	98.6
0 - 60°	985	99.8
0 - 90°	987	100.0

INITIAL FOOTCANDLES (One Unit, 19.8W, 27.4° Beam)

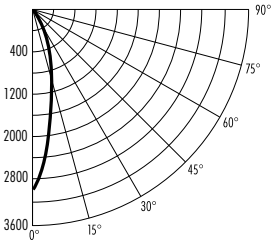
Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	103.3	2.9'
8	58.1	3.9'
10	37.2	4.9'
12	25.8	5.9'

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	1455
55	598
65	454
75	318
85	315

PHOTOMETRIC REPORT

Test Report #: PT10132504R
Catalog No: IC49TSQ-W-V-U with 437SQHZ-SF-WH Trim
Luminaire Spacing Criterion: 0.40
Luminaire LPW: 36



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	3096
5	2699
15	1001
25	244
35	53
45	14
55	4
65	2
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60' x 60' room)
Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	50	46	42
5.0'	32	29	27
6.0'	22	20	19
7.0'	18	17	15
8.0'	14	13	12
9.0'	11	10	9
10.0'	8	7	7

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0 - 30°	640	88.9
0 - 40°	698	97.0
0 - 60°	716	99.6
0 - 90°	719	100.0

INITIAL FOOTCANDLES (One Unit, 19.8W, 23.2° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	86.0	2.5'
8	48.4	3.3'
10	31.0	4.1'
12	21.5	4.9'

LUMINANCE (Average cd/m²)

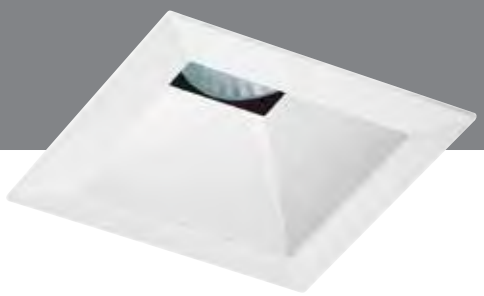
Degrees	Average Luminance
45	2636
55	957
65	649
75	424
85	157

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit represents a baseline of performance for the fixture. Results may vary in the field. Photometry is at 3000K CCT.

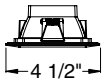
Fc/Lumen Multipliers: IC(9)43TSQ - 0.70
IC49TSQ - 1.00
TC(9)49TSQ - 1.00

Aculux®

Square Downlight Trims



Deep Downlight Reflector

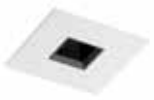


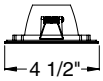
Self-Flanged [1]
437SQBHZ-SF
437SQW-SF
437SQHZ-SF
437SQWHZ-SF
Aperture: 3-1/4"

Flush Mount [2]
437SQBHZ-FM
437SQW-FM
437SQHZ-FM
437SQWHZ-FM
Aperture: 3-1/4"

Finish
Black Haze Reflector
White Reflector
Haze Reflector
Wheat Haze Reflector

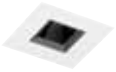
Downlight 1-1/4" Pinhole





Self-Flanged [1]
4337SQ-WH
4337SQ-BL

Aperture: 1-1/4"

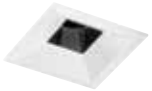


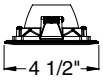
Flush Mount [2]
4337SQ-WH-FM
4337SQ-BL-FM

Aperture: 1-1/4"

Finish
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

Downlight Regressed 1-1/4" Pinhole





Self-Flanged [1]
4307SQ-WH
4307SQ-BL

Aperture: 1-3/4"

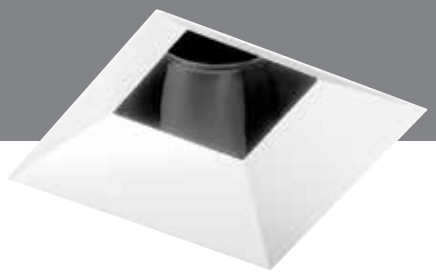
Flush Mount [2]
4307SQ-WH-FM
4307SQ-BL-FM

Aperture: 1-3/4"

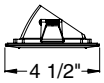
Finish
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

[1] For Self-Flanged reflector with optional white painted flange, replace "-SF" suffix with "-SFWH"
[2] Flush Mount trims must be used with FMASQ4 Flush Mount Adapters, order separately – see page 20.

Square Adjustable Accent Trims



Angle-Cut Reflector

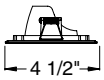


Self-Flanged [1]
438SQBHZ-SF
438SQW-SF
438SQHZ-SF
438SQWHZ-SF
Aperture: 3-1/4"

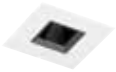
Flush Mount [2]
438SQBHZ-FM
438SQW-FM
438SQHZ-FM
438SQWHZ-FM
Aperture: 3-1/4"

Finish
Black Haze Reflector
White Reflector
Haze Reflector
Wheat Haze Reflector

Adjustable 1-1/4" Pinhole



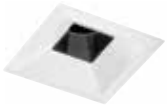
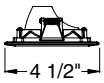
Self-Flanged [1]
433SQ-WH
433SQ-BL
Aperture: 1-1/4"



Flush Mount [2]
433SQ-WH-FM
433SQ-BL-FM
Aperture: 1-1/4"

Finish
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

Adjustable Regressed 1-3/4" Pinhole

Self-Flanged [1]
4308SQ-WH
4308SQ-BL
Aperture: 1-3/4"

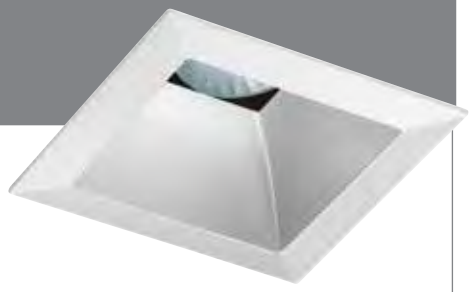
Flush Mount [2]
4308SQ-WH-FM
4308SQ-BL-FM
Aperture: 1-3/4"

Finish
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

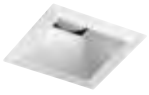
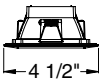
[1] For Self-Flanged reflector with optional white painted flange, replace "-SF" suffix with "-SFWH"
[2] Flush Mount trims must be used with FMASQ4 Flush Mount Adapters, order separately – see page 20.

Aculux®

Square Lensed Accent Trims



Downlight Lensed Trim

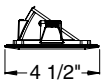



Self-Flanged [1]
432SQBHZ-SF
432SQW-SF
432SQHZ-SF
432SQWHZ-SF
Aperture: 3-1/4"

Flush Mount [2]
432SQBHZ-FM
432SQW-FM
432SQHZ-FM
432SQWHZ-FM
Aperture: 3-1/4"

Finish
Black Haze Reflector
White Reflector
Haze Reflector
Wheat Haze Reflector

Angle-Cut Lensed Trim

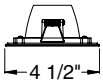


Self-Flanged [1]
431SQBHZ-SF
431SQW-SF
431SQHZ-SF
431SQWHZ-SF
Aperture: 3-1/4"

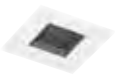
Flush Mount [2]
431SQBHZ-FM
431SQW-FM
431SQHZ-FM
431SQWHZ-FM
Aperture: 3-1/4"

Finish
Black Haze Reflector
White Reflector
Haze Reflector
Wheat Haze Reflector

Downlight 1-1/4" Pinhole-Lensed



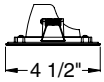
Self-Flanged [1]
4332SQ-WH
4332SQ-BL
Aperture: 1-1/4"



Flush Mount [2]
4332SQ-WH-FM
4332SQ-BL-FM
Aperture: 1-1/4"

Finish
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

Adjustable 1-1/4" Pinhole-Lensed

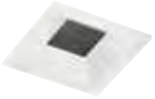
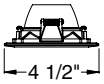


Self-Flanged [1]
4331SQ-WH
4331SQ-BL
Aperture: 1-1/4"

Flush Mount [2]
4331SQ-WH-FM
4331SQ-BL-FM
Aperture: 1-1/4"

Finish
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

Downlight Regressed Pinhole-Lensed

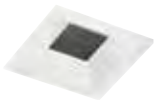
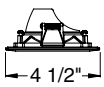



Self-Flanged [1]
4302SQ-WH
4302SQ-BL
Aperture: 1-3/4"

Flush Mount [2]
4302SQ-WH-FM
4302SQ-BL-FM
Aperture: 1-3/4"

Finish
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

Adjustable Regressed Pinhole-Lensed

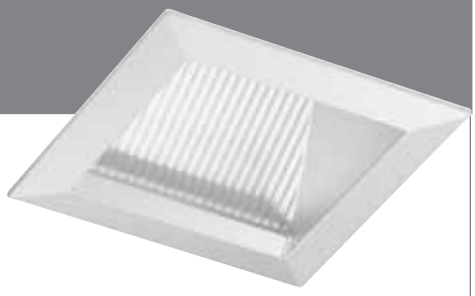
Self-Flanged [1]
4301SQ-WH
4301SQ-BL
Aperture: 1-3/4"

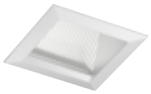
Flush Mount [2]
4301SQ-WH-FM
4301SQ-BL-FM

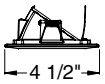
Finish
White Trim, Black Alzak® Reflector
Black Trim, Black Alzak® Reflector

Square Wall Wash Trims

Lensed Wall Wash







Self-Flanged [1]
439SQBHZ-SF
439SQW-SF
439SQHZ-SF
439SQWHZ-SF
Aperture: 3-1/4"

Flush Mount [2]
439SQBHZ-FM
439SQW-FM
439SQHZ-FM
439SQWHZ-FM
Aperture: 3-1/4"

Finish
Black Haze Reflector
White Reflector
Haze Reflector
Wheat Haze Reflector

[1] For Self-Flanged reflector with optional white painted flange, replace "-SF" suffix with "-SFWH"
[2] Flush Mount trims must be used with FMASQ4 Flush Mount Adapters, order separately – see page 20

Aculux®

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