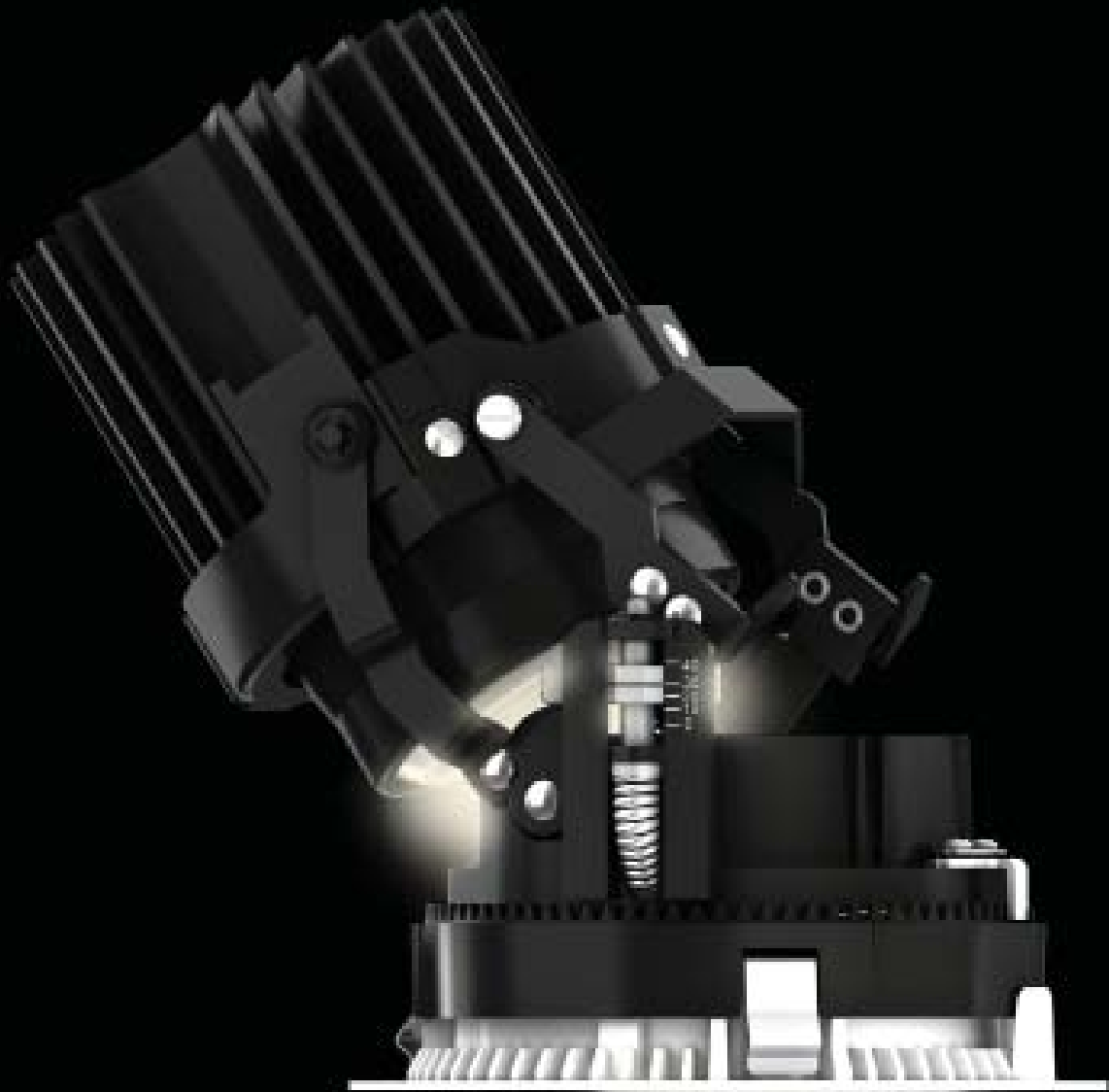


USAI[®]
Lighting

NANOLED[®]_{NXT}



10° Beam

LESS IS MORE



1000 Delivered Lumens

High CRI 90+

10° Pin Spot

Point Source Flexibility with LED Benefits in a Small Aperture.

NANOLED[®] NXT

**NanoLED NXT – It's a downlight, adjustable and wall wash.
The first true LED substitute for the MR-16 point source.**

Packing punch and sparkle while meeting strict energy criteria. Packing the power of up to 1000 delivered lumens combined with 90+ High CRI and a 10 degree beam with 6500 center Beam Candle Power - All from a tiny 2.5" aperture. NanoLED NXT provides maximum delivered lumens and optical performance through the optimization of thermal, optical and LED science in the smallest possible aperture.

Through combining 2 step MacAdam Ellipse binning and color consistency, 80+ and 90+ high CRI and high R9 values, the punch of high CBCP and a full spectrum of beam control options from 10 – 50 degrees, USAI has achieved the ultimate performance goal for LED lighting technology - An indistinguishable and first true substitute for the traditional MR-16 point source – while consuming significantly less energy.





USAI Optimized LED Lighting System

Optimized for Maximum Performance

NANOLED^{NXT}

System Optimization

USAI Lighting's advanced and integrated approach utilizes discrete LEDs allowing for the ultimate control of beam spreads, uniformity, maximizing center beam candle power (CBCP), Quality of Light and efficiency - all through a 2.5" aperture.

Why Discrete LEDs?

Discrete LED technology allows USAI Lighting to optimize the narrow beam distribution LED products, not possible with large emitters such as remote phosphor.

The discrete LED is a point source. When focused and culminated USAI's advanced optical design, simulates traditional light sources. Our LED products offer the designers options to meet stringent energy codes when traditional light sources exceed energy allowances.

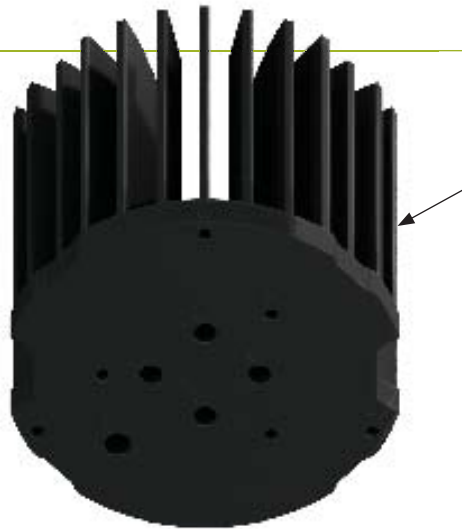
The USAI LED Lighting System

Our Light engine, optical train and heat sink are all designed and integrated to optimize and maximize the performance from the discrete LEDs meeting our strict standards for output, efficiency and color performance.

Beam Control 10°– 50°

The discrete LED, combined with USAI's leading technical expertise, makes USAI the only recessed fixture innovator to achieve and offer designers beam spreads from 10°–50° - without compromising delivered lumens, efficiency, color, aperture size or even illumination.

Each individual high powered discrete LED point source, combined with advanced optical design, creates ultimate beam control and options, and delivers a single shadow.



USAI designed heat sink for maximum thermal efficiency

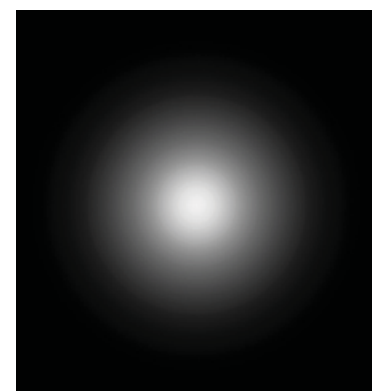
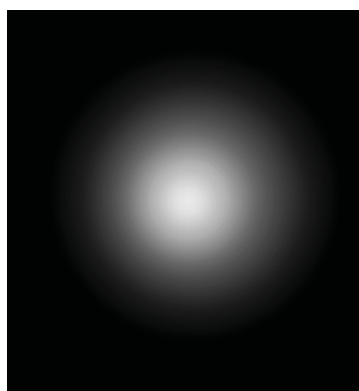


USAI designed 2-Step MacAdam Ellipse LED light engine



USAI designed Interchangeable reflector system

USAI 10° LED Pin Spot VS. 10° MR16 Beam



USAI, for the first time, replicates the features of the MR16 source while delivering the benefits of LEDs - maximizing performance, optical control and color - all from a 2.5" aperture.

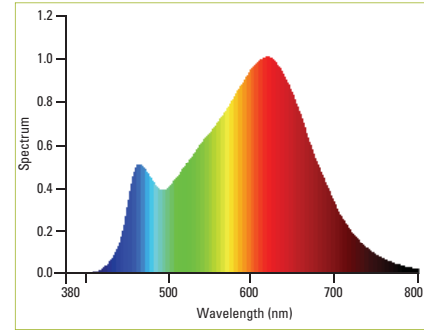
Color Stabilized Technology Replicating Traditional Sources 80+ and 90+ CRI



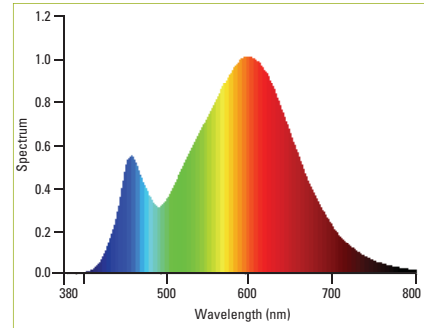
2-Step MacAdam Ellipse

USAI's multi-faceted approach to color consistency ensures fixture-to-fixture color consistency within a 2-Step MacAdam Ellipse. Our mixed binning technology, utilizing Cree LEDs, based on the science and optimization of critical LED factors.

Spectral Power Distribution

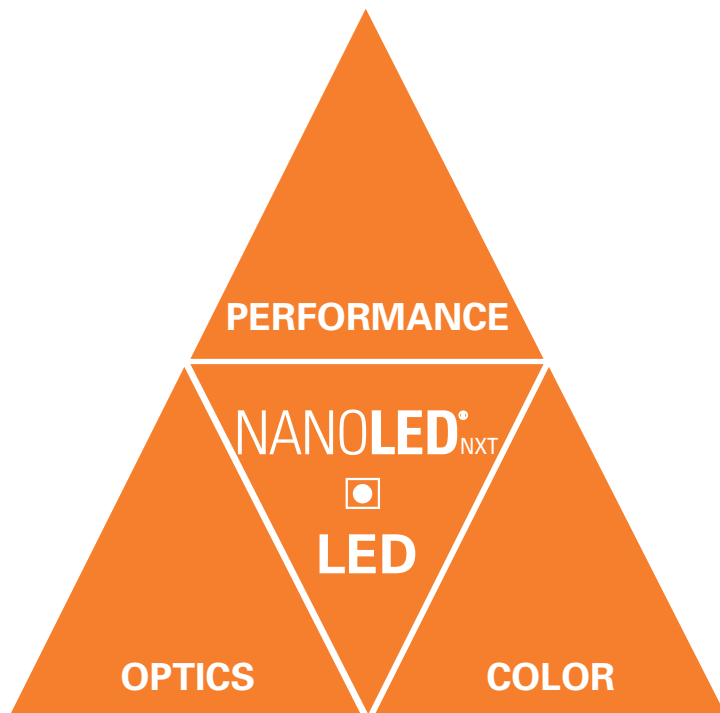


NanoLED^{NXT} 90+ High CRI - 3000K



NanoLED^{NXT} 80+ Standard CRI - 3000K

OPTIMAL LED PERFORMANCE POINT



USAI Lighting LED products strike the perfect balance between color, performance and optical control and sit at the center of the **USAI LED Performance Triangle**. From our critically and carefully arrived at centroid, USAI achieves optimal performance using a top-down design approach methodology – delivering LED products with maximum delivered performance and efficacy, ideal color rendering and full range optical control from 10-50 degrees. It is the correct balance of three key components; **(1)** Optical control, **(2)** Color (Stability, Chromaticity and CRI) and **(3)** Efficiency in fixture delivered lumens per watt and power factor – which has allowed USAI to replicate and exceed the features of traditional sources – with all of the benefits of LEDs.

The advent of LED lighting gives designers more flexible choices than ever before in specifying high-performance lighting solutions.

NanoLED_{NXT} Lighting System.

Ultimate Beam Control.

NANOLED_{NXT}

INTERCHANGEABLE REFLECTORS

NanoLED NXT

It's a downlight, adjustable and wall wash – all in one. Packing the power, sparkle and punch of up to 1000 delivered lumens. For the first time designers have tools for all functions and all applications - from point to ambient beam control.

Features

- Ultimate controllability of 10°- 50° beam spreads
- Rotating accessory holder
- Field replaceable light engine
- Full range of color options:
 - 2700K, 3000K, 3500K
 - 80+ CRI
 - 90+ CRI



PROPRIETARY OPTICS



NanoLED_{NXT} Lighting System.

Downlight . Adjustable . Wall Wash

NANOLED_{NXT}

FIELD REPLACEABLE LIGHT ENGINE



SNAP-IN ACCESSORY HOLDER

Allows for addition or removal of any of the optional lenses or accessories. Two optical accessories maximum.



Rotates 360° – self locking accessory holder.




5° increments



- 80+ and 90+ High CRI Option
- ± 50K 2 Step MacAdam Ellipse
- 25° and 50° Reflector System

Downlight Performance

	20 Watts	
	80+ CRI	90+ HIGH CRI
Lumens per Watt	49	40
Source Lumens	1250	1025
Delivered Lumens	1000	825

Color (Standard) - 2 Step MacAdam Ellipse ± 50K

2700K	●	●
3000K	●	●
3500K	●	

Beam Options

25°	●	●
50°	●	●

HOUSING OPTIONS

New Construction	●	●
Shallow Plenum	●	●
IC/Airtight	●	●



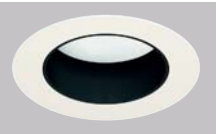
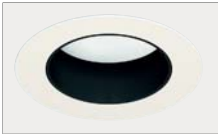
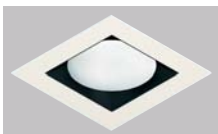
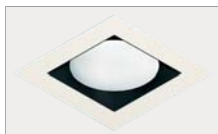
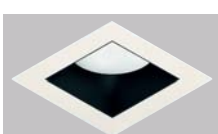





FEATURES

Multiple Dimming Options	●	●
Field Replaceable Light Engine	●	●

BAFFLE OPTIONS

1. **BM** Black Matte Baffle
2. **WM** White Matte Baffle
3. **BV** Black Vertical Groove Baffle
4. **WV** White Vertical Groove Baffle
5. **MA** Matte Alzak
6. **BA** Black Alzak

Trim Options

	Downlight Trim	Downlight Flangeless
Round 1/4" Regress	 LN25RDT (1, 2)	 LN25RDL (1, 2)
Round 1" Regress	 LN10RDT (1, 2, 3, 4, 5, 6)	 LN10RDL (1, 2, 3, 4, 5, 6)
Square/Round 1/4" Regress	 LN25SRDT (1, 2)	 LN25SRDL (1, 2)
Square/Round 1" Regress	 LN10SRDT (1, 2)	 LN10SRDL (1, 2)
Square/Square 1/4" Regress	 LN25SSDT (1, 2)	 LN25SSDL (1, 2)
Square/Square 1" Regress	 LN10SSDT (1, 2, 5, 6)	 LN10SSDL (1, 2, 5, 6)



- 80+ and 90+ High CRI Option
- Field Replaceable Light Engine
- ± 50K 2 Step MacAdam Ellipse
- 10° and 25° Interchangeable Reflector System
- Hot Aiming Horizontal and Vertical
- 360° horizontal rotation, 40° tilt

Adjustable Performance



	20 Watts	
	80+ CRI	90+ HIGH CRI
Lumens per Watt	46	38
Source Lumens	1250	1025
Delivered Lumens	952	780
10° Center Beam Candle Power	8725	7000

BAFFLE OPTIONS

1. **BM** Black Matte Baffle
2. **WM** White Matte Baffle
3. **BV** Black Vertical Groove Baffle
4. **WV** White Vertical Groove Baffle
5. **MA** Matte Alzak
6. **BA** Black Alzak

Color (Standard) - 2 Step MacAdam Ellipse ± 50K

2700K	●	●
3000K	●	●
3500K	●	●

Beam Options

10° (patent pending)	●	●
25°	●	●

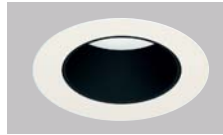
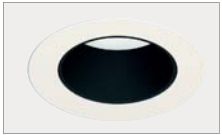

HOUSING OPTIONS

New Construction	●	●
Shallow Plenum	●	●
IC/Airtight	●	●

FEATURES

Multiple Dimming Options	●	●
Field Replaceable Light Engine	●	●

Trim Options


	Adjustable Trim	Adjustable Flangeless
Round 1-7/8" Regress		
	LN10RAT (1, 2, 3, 4, 5, 6)	
Square/Round 1-7/8" Regress		
	LN25SRDT (1, 2)	LN25SRDL (1, 2)

10° NanoLED NXT is Patent Pending



- 80+ and 90+ High CRI Option
- Field Replaceable Light Engine
- ± 50K 2 Step MacAdam Ellipse
- Unparalleled Uniformity Reflector System
- 1.27 Spacing Criteria

Wall Wash Performance

	20 Watts	
	80+ CRI	90+ HIGH CRI
 Lumens per Watt	35	29
Source Lumens	1250	1025
Delivered Lumens	725	600

Color (Standard) - 2 Step MacAdam Ellipse ± 50K

2700K	●	●
3000K	●	●
3500K	●	●

HOUSING OPTIONS

New Construction	●	●
Shallow Plenum	●	●
IC/Airtight	●	●

FEATURES

Multiple Dimming Options	●	●
Field Replaceable Light Engine	●	●

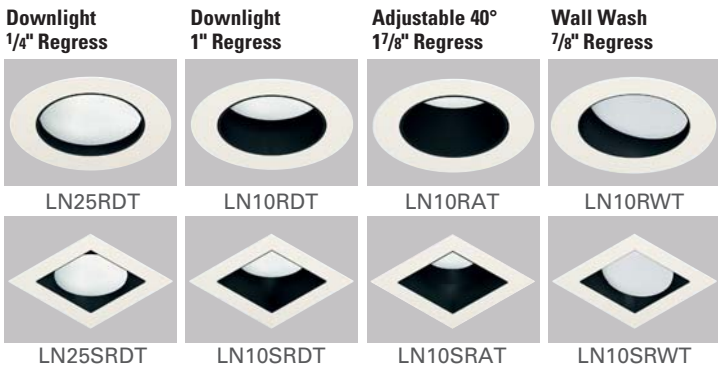
BAFFLE OPTIONS

1. **BM** Black Matte Baffle
2. **WM** White Matte Baffle
3. **BV** Black Vertical Groove Baffle
4. **WV** White Vertical Groove Baffle
5. **MA** Matte Alzak
6. **BA** Black Alzak

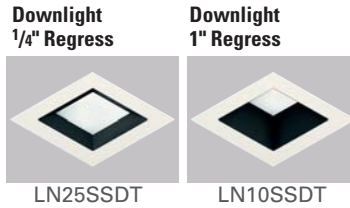
Trim Options







Timmed shown.
Note that all trims are available as flush mount.



HOW TO SPECIFY

Round Trim LN25RD <input type="checkbox"/> LN10RD <input type="checkbox"/> LN10RA <input type="checkbox"/> LN10RW <input type="checkbox"/> Square / Round Trim LN25SRD <input type="checkbox"/> LN10SRD <input type="checkbox"/> LN10SRA <input type="checkbox"/> LN10SRW <input type="checkbox"/> Square / Square Trim LN25SSD <input type="checkbox"/> LN10SSD <input type="checkbox"/> Choose <input type="checkbox"/> Trimmed <input type="checkbox"/> Trimless	BAFFLE OPTIONS For All Trims BM Black Matte Baffle WM White Matte Baffle Below for use with the following: LN10RDT/L LN10RAT/L LN10RWT/L BV Black Vertical Groove Baffle WW White Vertical Groove Baffle Below for use with the following: LN10RDT/L LN10RAT/L LN10RWT/L LN10SSDT/L MA Matte Alzak BA Black Alzak	Light Engine MTG114 (14W LED) MTG120 (20W LED)	Color Temp Standard CRI 80+ 27KS 2700K 30KS 3020K 35KS 3450K High CRI 90+ 27KH 2700K 30KH 3020K	Downlight Reflector LRNT425 25° Distribution LRNT450 50° Distribution Adjustable Reflector LRNT410 10° Distribution LRNT425 25° Distribution	Finish 10 White 21 Black 28 Metalized Grey RAL Special Color	Housing New Construction DL only LSP55 New Construction Shallow DL and WW Only LSH43 New Construction Universal LNC61 LNC63 LNC65 IC / Airtight LIC1 LIC3 LIC5	Voltage 120V 277V	Accessories CB27 27" C-Channel Bars CB52 52" C-Channel Bars DIML2 0-10V Low Voltage 15% Dimming Driver DIML3 Lutron Hi-Lume LED ECO System Series "A" 2 Wire Control-1% Dimming Driver DIML4 Lutron Hi-Lume LED ECO System Series "A" 3 Wire Control-1% Dimming Driver Emergency EML Emergency lighting battery pack with remote test switch. Above ceiling access required for service EML not for use with IC/Airtight and LSH43 Housing Lenses and Louver (not for WW) BOFC Borocilate Frosted LSFC Linear Spread Frosted SOFC Solite Frosted PRFC Prismatic Frosted HEXC 1/8" Hex Cell Louver
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STANDARD SPECIFICATIONS

Materials
Trim: Precision die cast body with durable UV-stabilized powder coating.

Reflector: Interchangeable reflector system allows for flexibility while maintaining design consistency. Reflector options not available in wall wash.
Downlight: 25° and 50° distribution.
Adjustable: 10° and 25° distribution.

Trim Lens: **Downlight / Adjustable:** Solite. Optional lenses available for adjustable trims.

Optics: Wall Wash: Proprietary molded low iron wall wash lens.

Light Engine: (Field replaceable) 20W Cree MT-G 2-Step.
High power white LED's tightly binned for fixture to fixture color consistency within a 2-Step MacAdam Ellipse.

Rated Life: Based on IESNA LM80-2008. 50,000 hours at 70% lumen maintenance (L70).

Color Temperature: Standard CRI	High CRI
2700K - 82+ CRI +/- 50K	2700K - 90+ CRI +/- 50K
3020K - 82+ CRI +/- 50K	3020K - 90+ CRI +/- 50K
3450K - 80+ CRI +/- 60K	

CRI Options: Standard: 80+ CRI. High: 90+ CRI.

Heat Sink: Proprietary high performance aluminum die cast heatsink for maximum LED life.

Adjustment: Adjustable: 362° horizontal locking horizontal and 0°- 40° locking vertical tilt.
Wall Wash: 90° increments horizontal locking (square trim).
362° increments horizontal locking (round trim).

Driver: (Field Replaceable) Solid state electronic. Constant current. High power factor. Specify 120V or 277V.
Driver complies with IEEE C62.41 surge protection.

Dimming: (optional)
Multiple dimming drivers available.

Accessory Holder:
Max. 2. Size varies. Consult factory. Not available for wall wash.

Listing:
Dry/Damp listed. IBEW Union made.

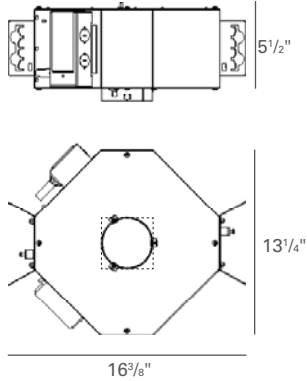
Ceiling Cut Out:
Square: 3-1/2" x 3-1/2" / Round: 3-1/2" Ø

Notes:

- Maximum ceiling thickness up to 1 1/2".
- Housing included with trim.
- Trimless for drywall installation only.
- Trimless not available for use in acoustical ceilings.
- Fixture should be installed in applications where ambient temperatures do not exceed 40°C during normal operation.
- 5 year warranty
- Interior use only.

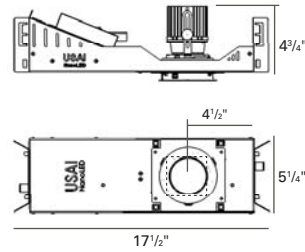
New Construction

LSP55 - Downlight only
(Max. Ceiling Thickness - 1 1/2")



New Construction

LSH43 - Downlight / Wall Wash
(Max. Ceiling Thickness - 1 1/4")

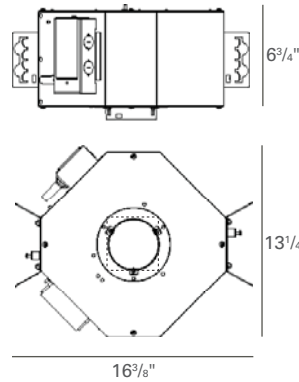


New Construction

LNC61 - Downlight / Adj / Wall Wash
(Max. Ceiling Thickness - 7/8")

LNC63 - Downlight / Adj 30° / Wall Wash
(Max. Ceiling Thickness - 1 1/4")

LNC65 - Downlight / Adj 20°
(Max. Ceiling Thickness - 1 1/2")

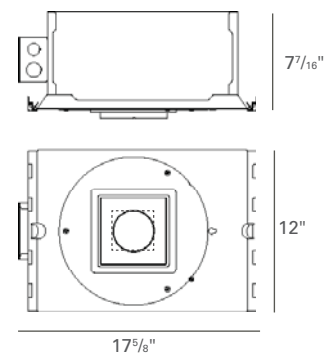


IC / Airtight

LIC1 - Downlight / Adj / Wall Wash
(Max. Ceiling Thickness - 7/8")

LIC3 - Downlight / Adj 30° / Wall Wash
(Max. Ceiling Thickness - 1 1/4")

LIC5 - Downlight / Adj 20°
(Max. Ceiling Thickness - 1 1/2")



HOUSING FEATURES

- Easy adjustment aperture plate that allows ceiling thickness adjustment from 7/8" to 1 1/2".
- Patent pending "Slide & Replace" easy driver replacement.
- Quick connectors on all wire connections.
- Universal housing style allows the ability to swap trim styles between downlight, wall wash and adjustable. See Plug-and-Play limitations below.
- Fabricated of 20 ga. black powder coated steel with thru wire J-box, 2 in 2 out at min. 90°C, #12 AWG thru branch circuit wiring.
- All-Ways Square® housing allows alignment of square aperture (up to 20° rotation) after housing installation and prior to finish ceiling installation. (For square trims)
All-Ways Square® covered by US Pat. No: US 7,832,889.

DRIVER: (Field Replaceable)

Solid-state electronic. Constant current. High power factor. Specify 120V or 277V.
Driver complies with IEEE C62.41 surge protection.

DIMMING: (optional)

Multiple dimming drivers available.

MOUNTING:

Butterfly brackets and adjustable nailer bars with integral nails provided.
Nailer bars are extendible from 14" to 24" centers.

CEILING CUT OUT:

Round: 3 1/2" Ø
Square: 3 1/2" x 3 1/2"

LISTINGS:

Dry/Damp. IBEW union made.



NOTES:

- Maximum ceiling thickness 1 1/2".
See matrix for ceiling thickness options.
- Housing included with trim.
- Trimless for drywall installation only
- Trimless not available in acoustical ceilings.
- Fixture should be installed in applications where ambient temperatures do not exceed 40°C during normal operation.
- **5 year warranty**
- Interior use only.

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