

## Ketra D2 Adjustable

### PRODUCT DESCRIPTION

Ketra full spectrum D2 recessed LED downlights are available in fixed, adjustable, and wall-wash options to complete any lighting design project.

### FEATURES

**High Def Palette**—covers a wide range of 16.7 million colors, including pastels, saturated colors and high CRI whites spanning from 1,400 K to 10,000 K.

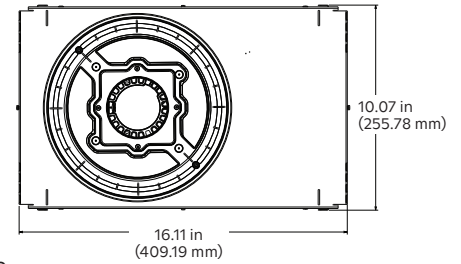
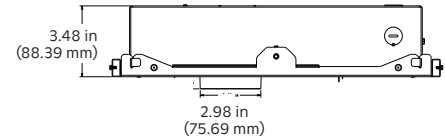
**Dynamic Spectrum**—precisely tunes the amount of energy across the visible spectrum to produce Natural Light, Natural Dimming, and Vibrancy.

**TruBeam**—produces uniform color across any available beam angle.

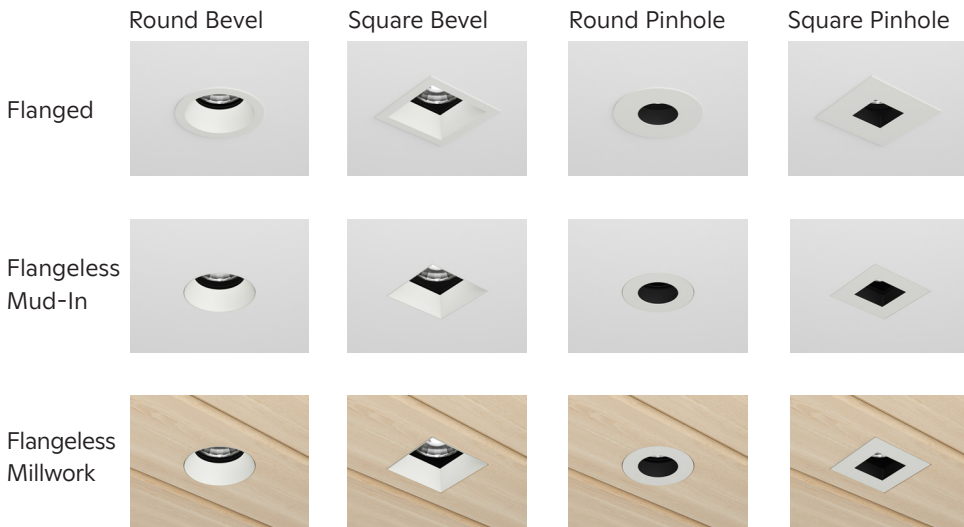
**Color Lock**—maintains your desired color point at a one-step MacAdam Ellipse across all Ketra product families and over each product's lifetime.



Adjustable, IC Fixture



### OPTIONS



### Trim Finish



<sup>1</sup> Flangeless trims only.

<sup>2</sup> White flange standard with flanged trims.

**SPECIFICATIONS<sup>1</sup>**

**Optical Performance**

Delivered Lumens <sup>2</sup>	
Beam Angle	<b>18 W</b>
15° beam, high output	<b>1230 lm</b>
25° beam, high output	<b>1240 lm</b>
40° beam, high output	<b>1301 lm</b>
60° beam, high output	<b>1231 lm</b>
15° beam, low glare	<b>1140 lm</b>
25° beam, low glare	<b>1160 lm</b>
40° beam, low glare	<b>1118 lm</b>
60° beam, low glare	<b>1096 lm</b>
CRI (Ra)	<b>&gt;90 from 2,700 K to 5,000 K</b>
R9	<b>&gt;90</b>
Lumen Maintenance <sup>3</sup>	<b>50,000 hours to L70 @ 25 °C T<sub>A</sub></b>
Color Point Range	<b>1400 K – 10,000 K, Fully Saturated &amp; Pastel</b>
Dimming Protocol	<b>Wireless RF/CCX (Lutron Clear Connect-Type X)</b>
Dimming Range	<b>0.1-100%</b>
Delivered Efficacy	
Beam Angle	<b>18 W</b>
15° beam, high output	<b>69 lm/W</b>
25° beam, high output	<b>70 lm/W</b>
40° beam, high output	<b>75 lm/W</b>
60° beam, high output	<b>71 lm/W</b>
15° beam, low glare	<b>64 lm/W</b>
25° beam, low glare	<b>65 lm/W</b>
40° beam, low glare	<b>64 lm/W</b>
60° beam, low glare	<b>63 lm/W</b>

**Environmental**

Ambient Temperature <sup>5</sup>	<b>32 – 104 °F (0 – 40 °C)</b>
Extended Ambient Temperature	<b>-32 – 32 °F (-35 – 0 °C)<sup>4</sup></b>
Humidity	<b>0 – 95%, Non-condensing</b>
Certification	<b>UL, cUL, 120 V~: FCC Class B, IC Rated; T24(JA8)<sup>6</sup></b>
Location	<b>UL Damp Location, UL Wet Location (shower) available with Trim Lens Installation not compatible with Metal Ceilings UL2043 and CAN/ULC-S142 rated for use in air handling spaces (plenums)</b>
Outdoor/Indoor	<b>Outdoor use available for fixed and adjustable option only in residential enclosed/covered patio applications. Trim lens required. Wall Wash option not available for outdoor applications.</b>
Warranty	<b>5 year fixture, LED and dimming warranty</b>

**Mechanical**

Mounting Options	<b>Supplied with standard 14 in to 24 in (356 mm to 610 mm) adjustable hanger bars and optional butterfly brackets</b>
Field Replaceable Optics	<b>Yes</b>
Field Replaceable Light Engine	<b>Yes</b>
Field Replaceable Power Supply	<b>Yes</b>
Field Fixture Type Convertibility	<b>Adjustable fixture can be used to achieve same features of an adjustable and fixed fixture only</b>
Fixture Weight	<b>6.2 lb (2.81 kg)</b>
Housing Material	<b>Pre-painted Steel, Polymer</b>
Lens Material	<b>Plastic</b>

<sup>1</sup> All measurements are considered typical performance and were taken with 1 in (25.4 mm) white trim, with light engine at nadir, at 3000 K, 25 °C ambient, 100% power input, no accessory, unless otherwise stated.  
<sup>2</sup> Lumen measurement complies with IES LM-79-08 testing procedures.  
<sup>3</sup> Lumen maintenance values calculated in accordance to TM-21 procedures based on LM-80 compliant measurement data.  
<sup>4</sup> Color accuracy not guaranteed in Extended Ambient Temperature range.  
<sup>5</sup> Rated for direct application of spray foam compatible with low and medium density spray foam building insulation with a maximum of R6.8 per inch.  
<sup>6</sup> All products in the D2 family are Title 24 JA8 compliant when installed with a Trim Accessory lens on the trim. For more information, please contact Lighting Technical Support at lightingsupport@lutron.com or 1.844.LUTRON1 (1.844.588.7661).

**SPECIFICATIONS<sup>1</sup> (continued)**

**Dimensions**

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Ceiling Hole Diameter/Width	3.25 in (82.55 mm) flanged; 4.25 in (108.0 mm) flangeless round mud-in; 4.00 in (101.6 mm) flangeless square mud-in; 2.83 in (71.88 mm) flangeless millwork
Ceiling Thickness (min-max)	0.625 – 2 in (15.8 – 50.8 mm)
Joist Width (min-max)	<b>Standard Hanger Bar Install:</b> 18.25 × 14 - 24.875 in (463.6 × 355.6 - 631.83 mm) <b>Butterfly Bracket Install:</b> 16 in x 16.25 - 24.875 in (406.4 × 412.75 - 631.83 mm)
Modular Emitter/LED Module Diameter	2.15 in (54.61 mm)
Housing Vertical Adjustment via Butterfly Bracket	1.75 in (44.5 mm)
Trim Thickness	0.050 in (12.7 mm)
Adjustability	<b>Emitter tilt to 40 degree</b> <b>Emitter full 365 degree rotation</b> <b>Collar 95 degree rotation</b>
Housing Height	3.48 in (88.39 mm)
Housing Length	16.36 in (415.54 mm)
Housing Width	10.07 in (255.78 mm)

**Electrical**

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Power Consumption	18 W
Power Factor	>0.9
Inrush Current	800 mA, 0.2 mS duration
Surge Protection	2.5 KV
Voltage	120 V~ 60 Hz
Emergency Lighting	Evaluated by UL <sup>®</sup> for use in emergency lighting systems in accordance with standard UL <sup>®</sup> 924 and CSA C22.2 No. 141 when paired with the LVS <sup>™</sup> model LUT-SHUNT-A-TD (UL <sup>®</sup> file E206507) <sup>2</sup> .

<sup>1</sup> All measurements are considered typical performance and were taken with 1 in (25.4 mm) white trim, with light engine at nadir, at 3000 K, 25 °C ambient, 100% power input, no accessory, unless otherwise stated.

<sup>2</sup> See Lutron Application Note 106 (P/N 048106) at [www.lutron.com](http://www.lutron.com) for wiring details of emergency lighting in commercial systems.

### HOUSING ORDERING GUIDE

Please download this PDF to use the interactive drop down features of the ordering guide.

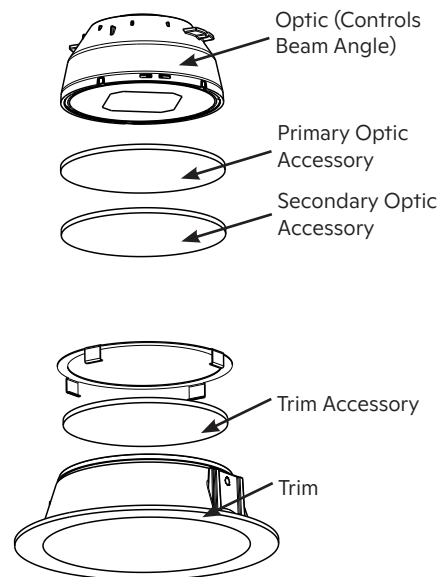
#### Housing

	<b>D2</b>	<b>FS</b>	<b>AD</b>				<b>18</b>
Product Line	Series	LED Type	Fixture Type	Shape	Ceiling Interface	Ceiling Thickness	Power Consumption
<b>GT</b>			<b>11</b>				
Control System	Beam Angle	Optic Style	Region/Voltage	Location	Primary Optic Accessory	Secondary Optic Accessory	

Order code: \_\_\_\_\_

Product Line	Code	Control System	Code
Residential (HomeWorks compatible)	<b>HW-</b>	CCX (Clear Connect-Type X)	<b>GT</b>
Commercial (Athena compatible)	<b>CM-</b>		
<b>Series</b>		<b>Beam Angle</b>	
D2 Fixture	<b>D2</b>	Spot (15°)	<b>15</b>
		Narrow Flood (25°)	<b>25</b>
		Flood (40°)	<b>40</b>
		Wide Flood (60°)	<b>60</b>
<b>LED Type</b>		<b>Optic Style</b>	
Ketra	<b>FS</b>	Low Glare	<b>L</b>
<b>Fixture Type</b>		High Output	<b>H</b>
Adjustable	<b>AD</b>		
<b>Shape</b>		<b>Region/Voltage</b>	
Square	<b>SQ</b>	120 V~ 60 Hz, North America	<b>11</b>
Round	<b>RD</b>	<b>Location</b>	
No Collar (to be specified later)	<b>XX</b>	Indoor	<b>I</b>
<b>Ceiling Interface</b>		Outdoor (HomeWorks Resi Products only) <sup>1</sup>	<b>O</b>
Flanged	<b>F</b>	<b>Primary Optic Accessory</b> <sup>2,4</sup>	
Flangeless Mud-In	<b>X</b>	None	<b>XX</b>
Flangeless Millwork	<b>M</b>	Soft Focus Lens <sup>2,4</sup>	<b>S1</b>
<b>Ceiling Thickness</b> <sup>5</sup>		Frosted Lens <sup>2,4</sup>	<b>F1</b>
Thin Ceiling	<b>N</b>	Linear Lens (10×20) <sup>2,4</sup>	<b>L1</b>
Standard Ceiling	<b>S</b>	Hex Louver <sup>3,4</sup>	<b>H1</b>
Thick Ceiling	<b>T</b>	<b>Secondary Optic Accessory</b> <sup>2,4</sup>	
Deep Ceiling	<b>D</b>	None	<b>XX</b>
<b>Power Consumption</b>		Soft Focus Lens <sup>2,4</sup>	<b>S1</b>
18 W	<b>18</b>	Frosted Lens <sup>2,4</sup>	<b>F1</b>
		Linear Lens (10×20) <sup>2,4</sup>	<b>L1</b>
		Hex Louver <sup>3,4</sup>	<b>H1</b>

Trim Exploded View<sup>2</sup>



1 D2s are available for residential exterior applications only and must have a trim installed with a lens.  
 2 Maximum of 2 accessories available at once across the optic and trim accessories.  
 3 When specifying a Hex Louver no additional optic or trim accessory is allowed.  
 4 The addition of accessory lens will reduce lumen output. See Trim/Lens Option Efficiency table on the next page.  
 5 The ceiling thickness option required varies by ceiling interface. See Ceiling Thickness Options table on page 7 for details.

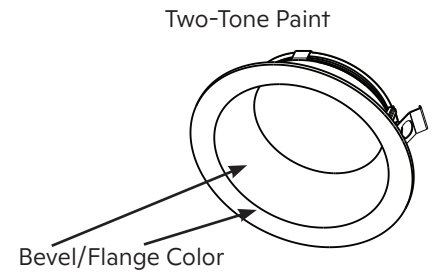
**TRIM ORDERING GUIDE**

**Trim**

<b>UN-</b>	<b>D2</b>
Product Line	Series

Shape	Ceiling Interface	Aperture Profile	Trim Finish	Trim Accessory
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Order code: \_\_\_\_\_



Product Line	Code	Trim Finish	Trim Accessory <sup>2,3</sup>	Code	
Universal	<b>UN-</b>	White <sup>1</sup>	<b>WH</b>	Soft Focus Lens <sup>2,3</sup>	<b>S1</b>
<b>Series</b>		Black	<b>BK</b>	Frosted Lens <sup>2,3</sup>	<b>F1</b>
D2 Fixture	<b>D2</b>	Gloss Black	<b>GB</b>	Linear Lens (10x20) <sup>2,3</sup>	<b>L1</b>
<b>Shape</b>		Bronze	<b>RB</b>	Clear Lens <sup>2,3</sup>	<b>C1</b>
Round	<b>RD</b>	Silver	<b>SR</b>	None	<b>XX</b>
Square	<b>SQ</b>	Silver/White	<b>SW</b>		
<b>Ceiling Interface</b>		Black/White	<b>BW</b>		
Flanged	<b>F</b>	Gloss Black/White	<b>GW</b>		
Flangeless Mud-In	<b>X</b>	None	<b>XX</b>		
Flangeless Millwork	<b>M</b>				
<b>Aperture Profile</b>					
Bevel	<b>B</b>				
Pinhole	<b>P</b>				

**TRIM/LENS OPTION EFFICIENCY TABLE**

	15 HO	15 LG	25 HO	25 LG	40 HO	40 LG	60 HO	60 LG
<b>Clear</b>	100%	100%	100%	100%	100%	100%	100%	100%
<b>Soft Focus</b>	95%	93%	96%	93%	96%	93%	96%	93%
<b>Frosted</b>	95%	93%	96%	93%	96%	92%	95%	93%
<b>Linear (10x20)</b>	94%	92%	94%	92%	94%	92%	94%	91%
<b>Hex Louver</b>	61%	67%	58%	62%	51%	56%	45%	50%

<sup>1</sup> White finish can be used as a primer for customer selected and applied paint.  
<sup>2</sup> Maximum of 2 accessories available at once across the optic and trim accessories.  
<sup>3</sup> The addition of accessory lens will reduce lumen output. See Trim/Lens Option Efficiency table.

**COMPONENT ORDERING GUIDE**

**Replacement Optics**

UN-D2	OP	
Product Line	Accessory Type	Beam Angle
Order code: _____		

Product Line	Code
Universal Part - Recessed Downlight	<b>UN-D2</b>
Accessory Type	
Optic	<b>OP</b>
Beam Angle	
Spot (15°) Low Glare <sup>4</sup>	<b>LG15</b>
Flood (25°) Low Glare	<b>LG25</b>
Wide Flood (40°) Low Glare	<b>LG40</b>
Very Wide Flood (60°) Low Glare	<b>LG60</b>
Spot (15°) High Output <sup>4</sup>	<b>HO15</b>
Flood (25°) High Output	<b>HO25</b>
Wide Flood (40°) High Output	<b>HO40</b>
Very Wide Flood (60°) High Output	<b>HO60</b>

**Optics Accessories**

UN-D2	OA	
Product Line	Accessory Type	Accessory
Order code: _____		

Product Line	Code
Universal Part - Recessed Downlight	<b>UN-D2</b>
Accessory Type	
Optic	<b>OA</b>
Accessory <sup>1,2,3</sup>	
Soft Focus Lens <sup>2,3</sup>	<b>S1</b>
Frosted Lens <sup>2,3</sup>	<b>F1</b>
Linear Lens (10x20) <sup>2,3</sup>	<b>L1</b>
Clear Lens <sup>2,3</sup>	<b>C1</b>
None	<b>XX</b>

**Trim Lens Accessories**

UN-D2	TL	
Product Line	Accessory Type	Accessory
Order code: _____		

Product Line	Code
Universal Part - Recessed Downlight	<b>UN-D2</b>
Accessory Type	
Trim	<b>TL</b>
Accessory <sup>1,2,3</sup>	
Soft Focus Lens <sup>2,3</sup>	<b>S1</b>
Frosted Lens <sup>2,3</sup>	<b>F1</b>
Linear Lens (10x20) <sup>2,3</sup>	<b>L1</b>
Clear Lens <sup>2,3</sup>	<b>C1</b>
None	<b>XX</b>

1 Downlight is wet location rated when trim is installed with lens.  
 2 Only one optional optical or trim accessory can be used at a time.  
 3 Downlights with outdoor housings require a trim installed with lens.  
 4 15° optics must be used with 15° emitters. 15° emitters can be confirmed in the housing ordering code. 25°, 40° and 60° optics share the same base emitter.

**COMPONENT ORDERING GUIDE (cont.)**

**Mounting & Installation Kits**

**UN-D2**

Product Line	Accessory
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Order code: \_\_\_\_\_

**Collar Adapters**

**UN-D2**

Product Line	Collar Adapters	Ceiling Thickness
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Order code: \_\_\_\_\_

Product Line	Code
Universal Part - Recessed Downlight	<b>UN-D2</b>

**Accessory<sup>2,3</sup>**

Millwork Template, Round	<b>MTRD</b>
Millwork Template, Square	<b>MTSQ</b>
Butterfly Brackets & Hanger Bars	<b>MAX</b>
Trim Retainer, Round Mud-In	<b>TRRD</b>
Trim Retainer, Round Millwork	<b>TRRD</b>
Trim Retainer, Square Mud-In	<b>TRSQ</b>
Trim Retainer, Square Millwork	<b>TRSQ</b>

Product Line	Code
Universal Part - Recessed Downlight	<b>UN-D2</b>

**Collar Adapters<sup>1</sup>**

Millwork Round	<b>MCARD</b>
Millwork Square	<b>MCASQ</b>
Mud-In Round	<b>XCARD</b>
Mud-In Square	<b>XCASQ</b>
Flanged Round	<b>FCARD</b>
Flanged Square	<b>FCASQ</b>
Millwork Extender Round	<b>MCERD</b>
Millwork Extender Square	<b>MCESQ</b>
Mud-in Extender Round	<b>XCERD</b>
Mud-in Extender Square	<b>XCESQ</b>

**Ceiling Thickness<sup>4</sup>**

Thin	<b>N</b>
Standard	<b>S</b>
Thick	<b>T</b>
Deep	<b>D</b>

**Ceiling Thickness Options Table**

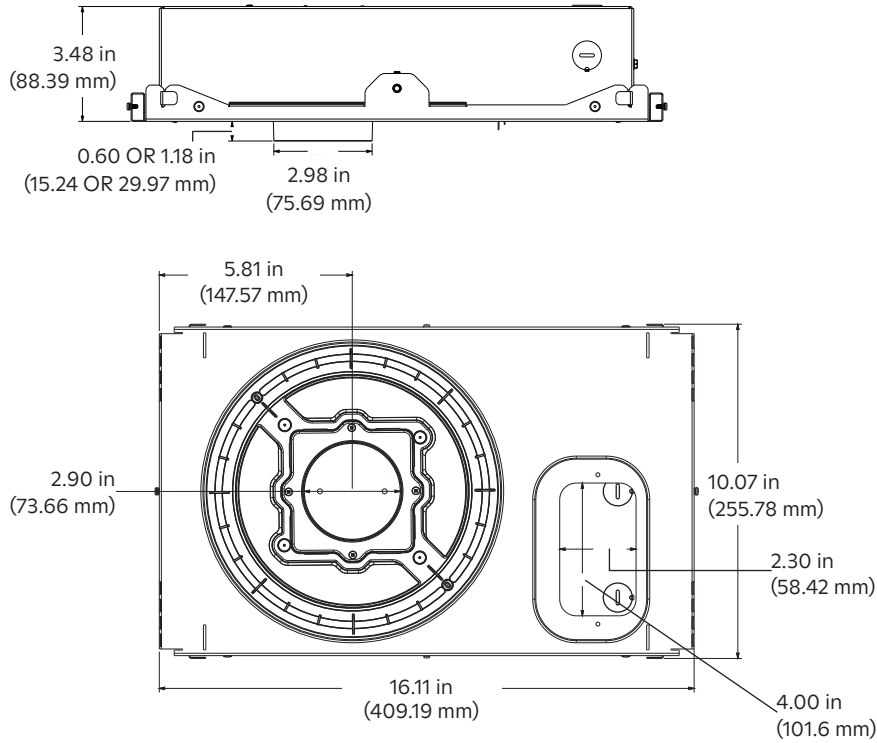
Ceiling Type	Dimensions: in (mm)	Ceiling Thickness (collar type)
Flanged	0.625-1.25 (15.875-31.75)	Standard (S)
	1.3-2.0 (33.02-50.8)	Thick (T)
Flangeless Mud In	0.625-1.0 (15.875-25.4)	Thin (N)
	1.0625-1.375 (27.0-34.9)	Standard (S)
	1.4375-2.0 (36.51-50.8)	Thick (T)
Flangeless Millwork	0.625-0.9375 (15.875-23.8125)	Thin (N)
	1.0-1.3125 (25.4-33.34)	Standard (S)
	1.375-1.6875 (34.9-42.8625)	Thick (T)
	1.75-2.0 (44.45-50.8)	Deep (D)

**NOTE:** See the Trim Ordering Guide for trim options and the Replacement Optic Section for optic options.

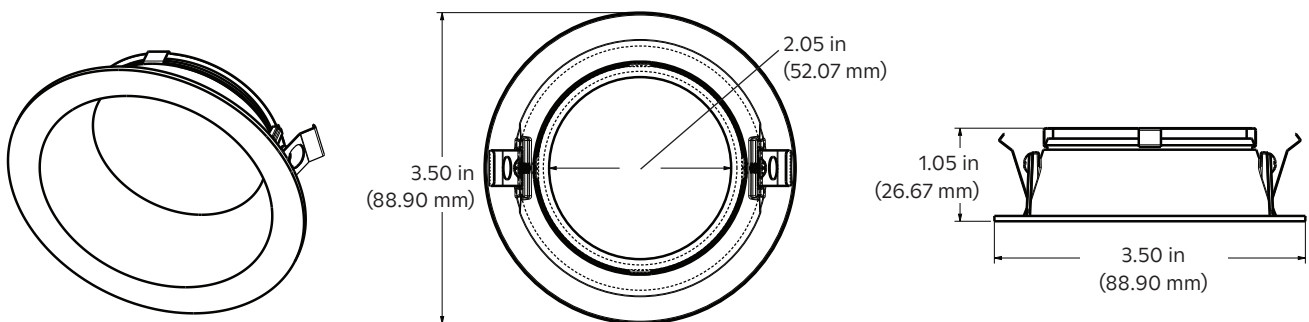
- 1 Ceiling installation cannot begin until collar adapter is installed.
- 2 Mud-in trim retainer supplied with mud-in collar adapter.
- 3 Millwork trim retainer supplied with millwork trim to ensure color match.
- 4 The ceiling thickness option required varies by ceiling interface. See Ceiling Thickness Options table above for details.

**PRODUCT DIMENSIONS**

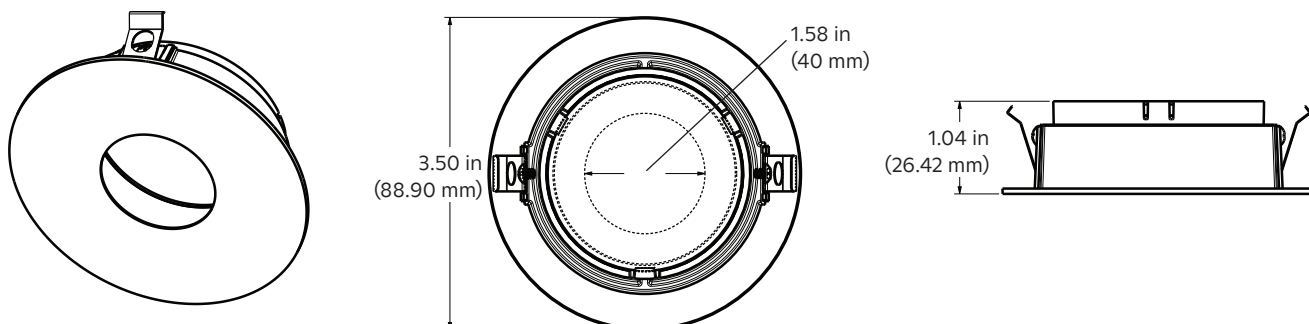
**Flanged Housing, Round**



**Flanged Bevel Trim, Round**



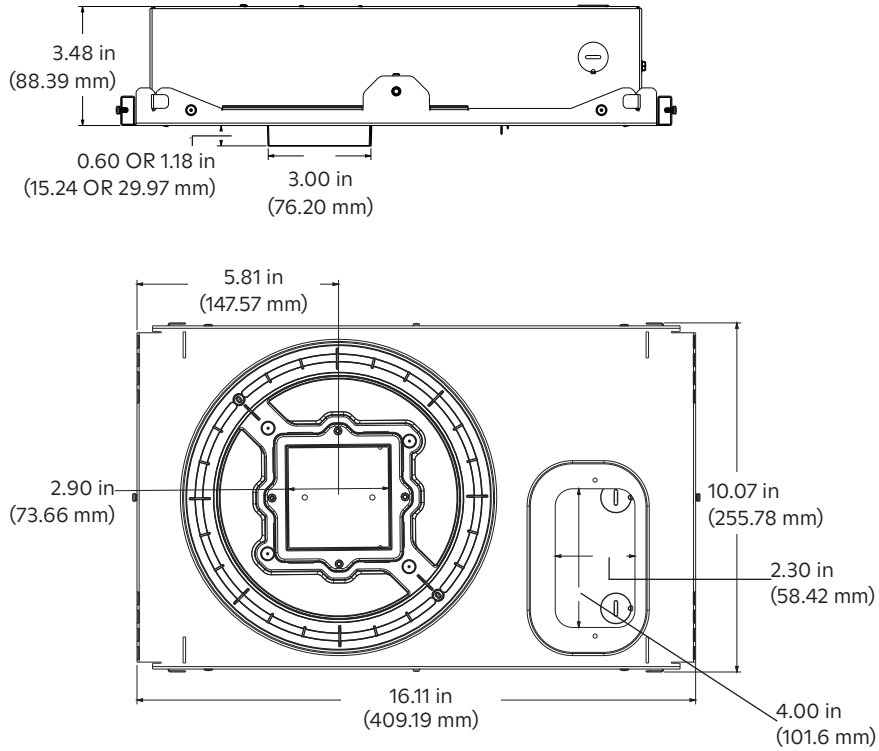
**Flanged Pinhole Trim, Round**



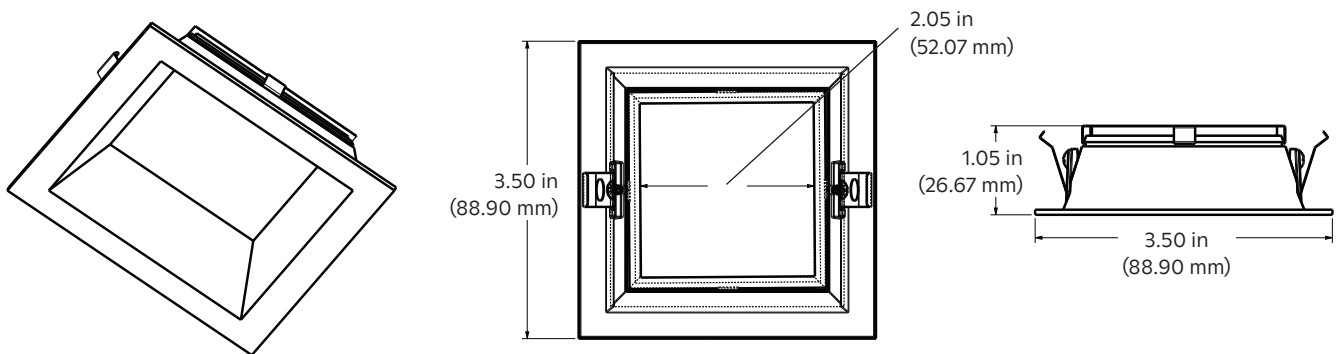


**PRODUCT DIMENSIONS (cont.)**

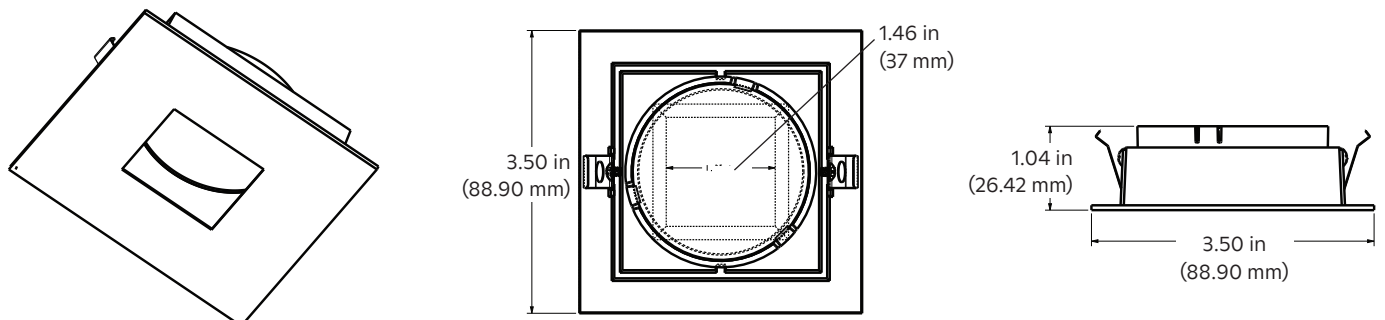
**Flanged Housing, Square**



**Flanged Bevel Trim, Square**

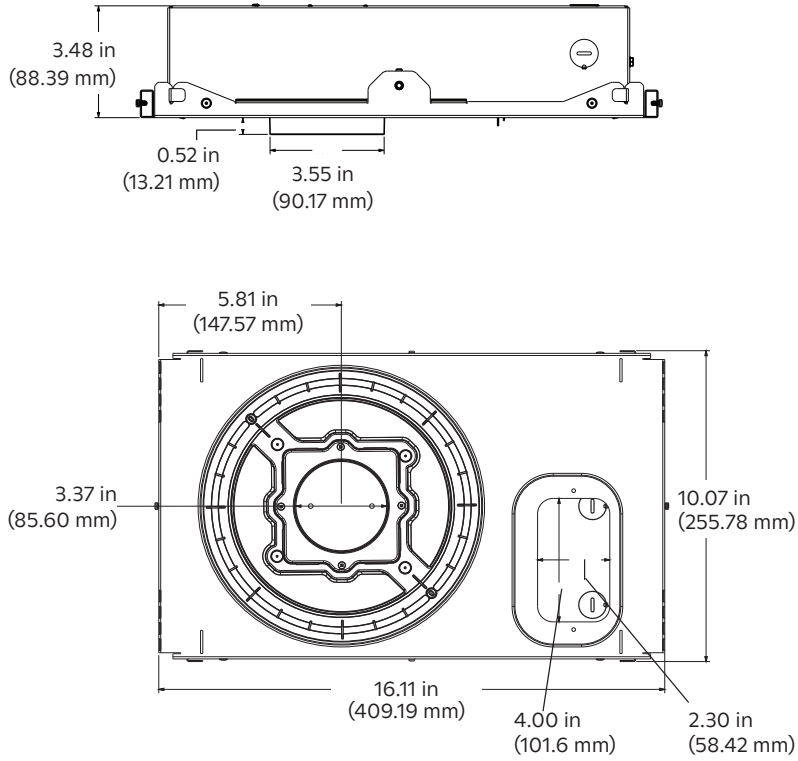


**Flanged Pinhole Trim, Square**

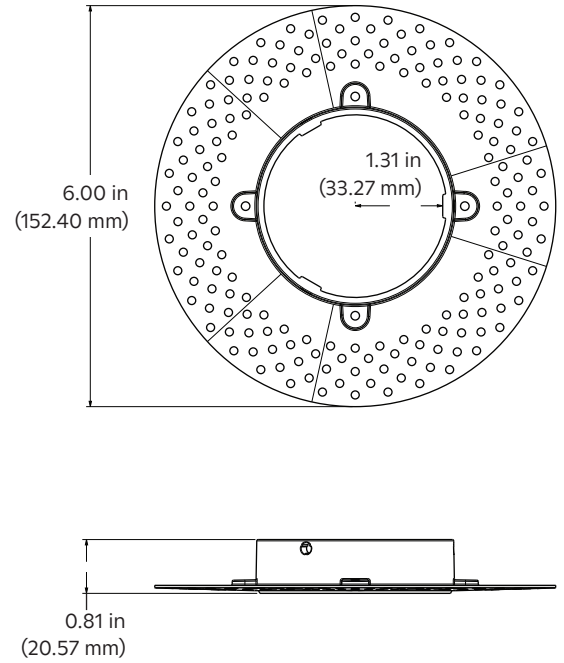


**PRODUCT DIMENSIONS (cont.)**

**Flangeless Mud-In Housing, Round**

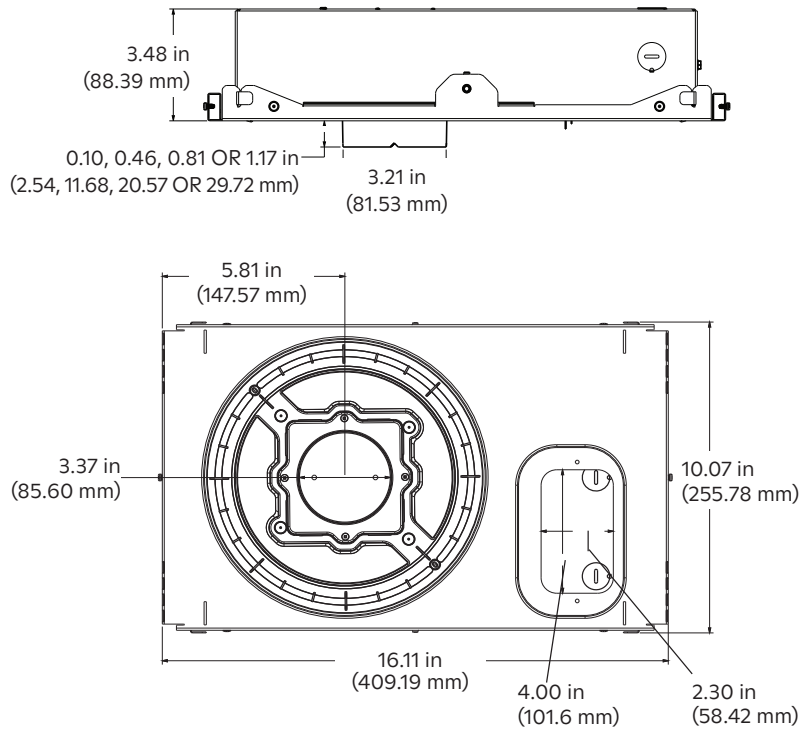


**Flangeless Mud-In Trim Retainer, Round**

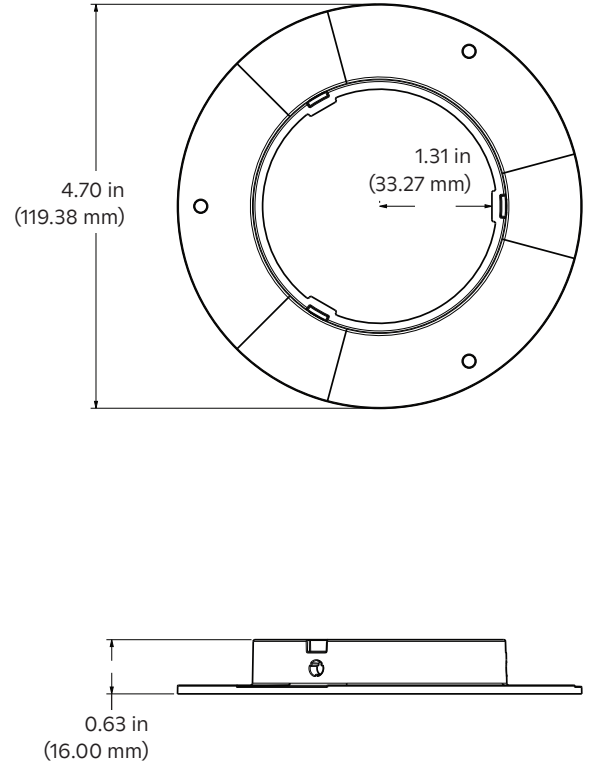


**PRODUCT DIMENSIONS (cont.)**

**Flangeless Millwork Housing, Round**

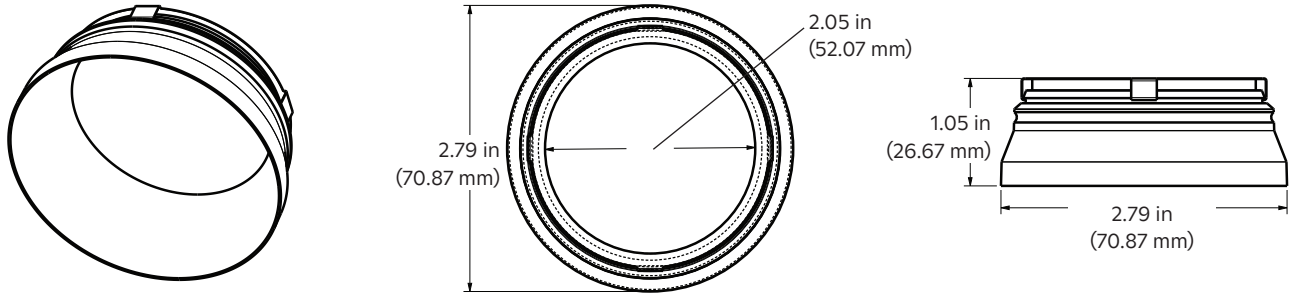


**Flangeless Millwork Trim Retainer, Round**

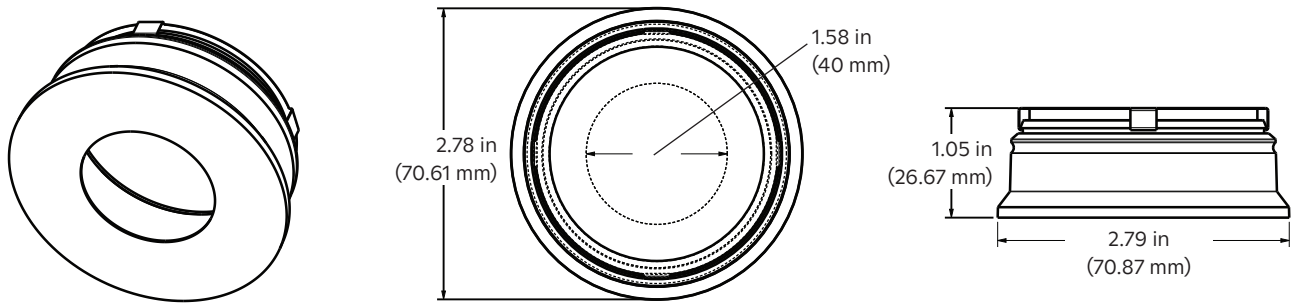


**PRODUCT DIMENSIONS (cont.)**

**Flangeless Bevel Trim, Round**

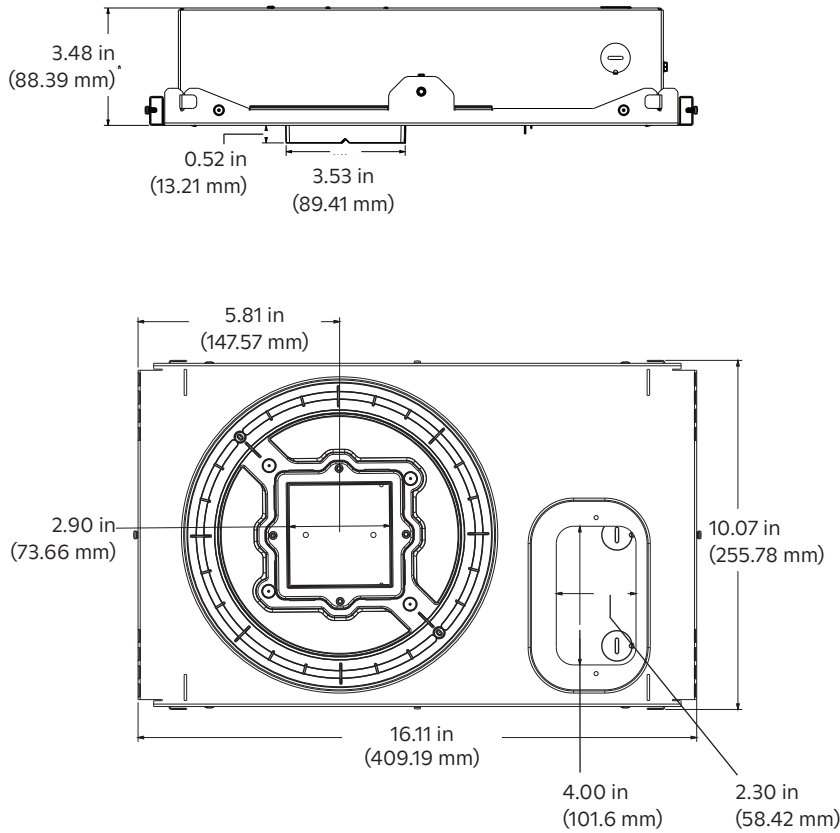


**Flangeless Pinhole Trim, Round**

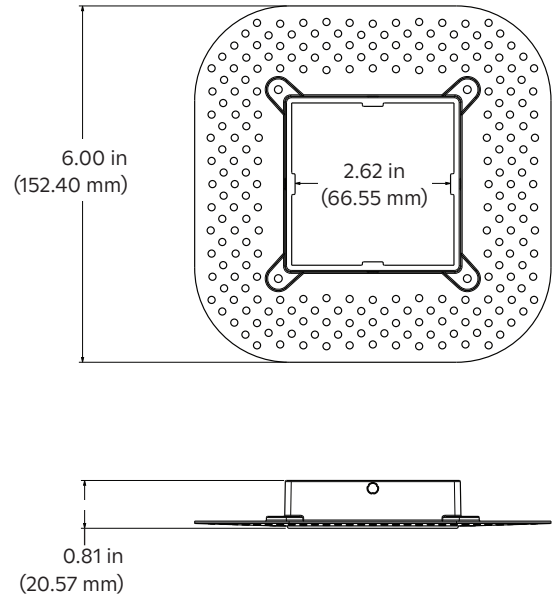


**PRODUCT DIMENSIONS (cont.)**

**Flangeless Mud-In Housing, Square**

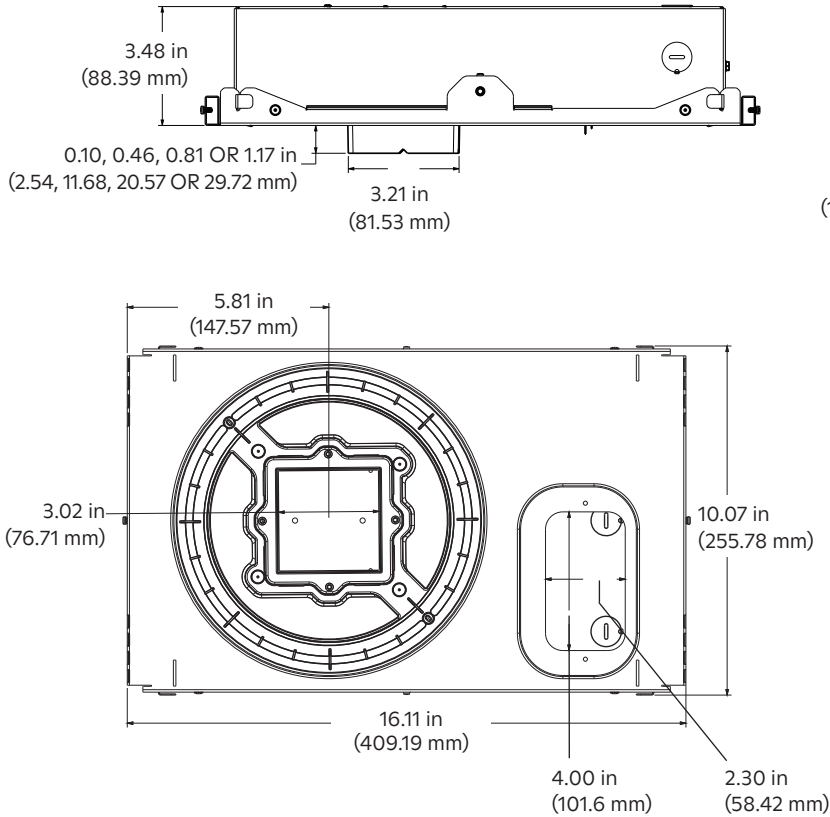


**Flangeless Mud-In Trim Retainer, Square**

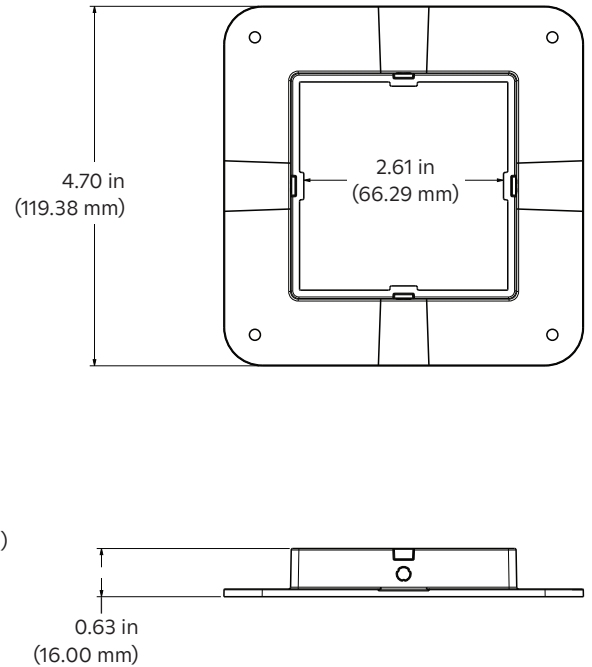


**PRODUCT DIMENSIONS (cont.)**

**Flangeless Millwork Housing, Square**

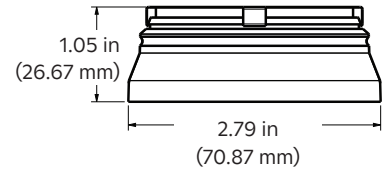
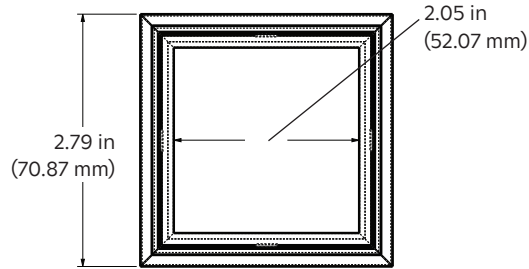
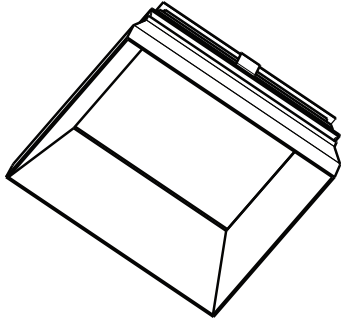


**Flangeless Millwork Trim Retainer, Square**

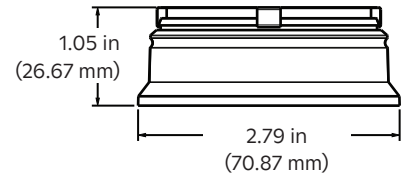
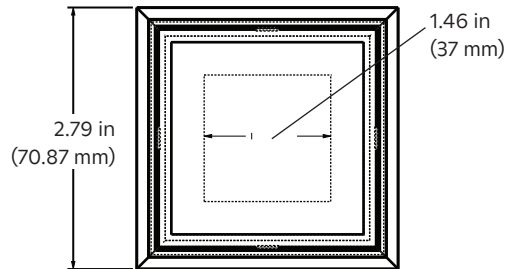
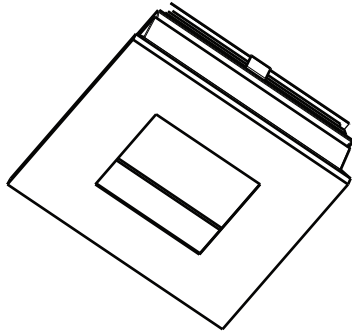


**PRODUCT DIMENSIONS (cont.)**

**Flangeless Bevel Trim, Square**



**Flangeless Pinhole Trim, Square**

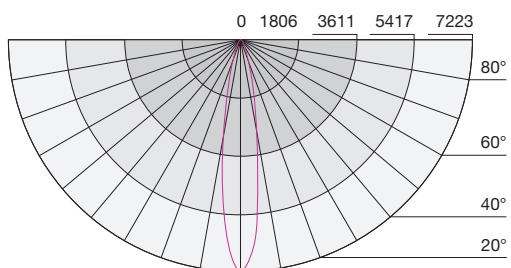


**PHOTOMETRIC DATA<sup>1</sup>**

**Beam Angle: 15° Spot, Low Glare**

Model Number	Wattage	Delivered Lumens	CBCP
XX_D2-FSFXRDFS18GT15L-XXXX	18 W	1140	7223

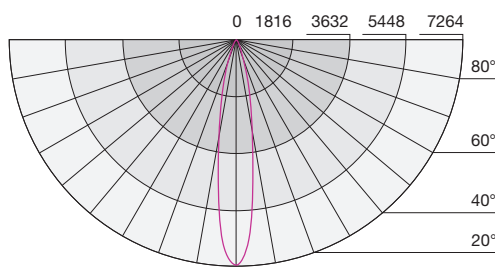
Foot-candles	Distance From Light	Beam Dia.
200.6	6 ft (1.8 m)	1.58 ft (0.48 m)
112.9	8 ft (2.4 m)	2.11 ft (0.64 m)
72.2	10 ft (3 m)	2.63 ft (0.80 m)
50.2	12 ft (3.7 m)	3.16 ft (0.96 m)
36.8	14 ft (4.3 m)	3.69 ft (1.12 m)



**Beam Angle: 15° Spot, High Output**

Model Number	Wattage	Delivered Lumens	CBCP
XX-D2-FSFXRDFS18GT15H-XXXX	18 W	1230	7264

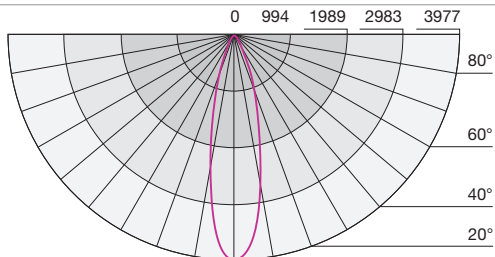
Foot-candles	Distance From Light	Beam Dia.
201.8	6 ft (1.8 m)	1.58 ft (0.48 m)
113.5	8 ft (2.4 m)	2.11 ft (0.64 m)
72.6	10 ft (3 m)	2.63 ft (0.80 m)
50.4	12 ft (3.7 m)	3.16 ft (0.96 m)
37.1	14 ft (4.3 m)	3.69 ft (1.12 m)



**Beam Angle: 25° Spot, Low Glare**

Model Number	Wattage	Delivered Lumens	CBCP
XX-D2-FSFXRDFS18GT25L-XXXX	18 W	1160	3977

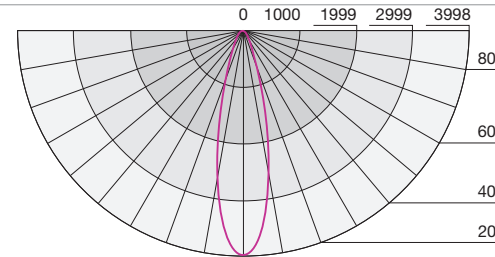
Foot-candles	Distance From Light	Beam Dia.
108.1	6 ft (1.8 m)	2.66 ft (0.81 m)
60.8	8 ft (2.4 m)	3.55 ft (1.08 m)
38.9	10 ft (3 m)	4.43 ft (1.35 m)
27.0	12 ft (3.7 m)	5.32 ft (1.62 m)
19.9	14 ft (4.3 m)	6.21 ft (1.89 m)



**Beam Angle: 25° Spot, High Output**

Model Number	Wattage	Delivered Lumens	CBCP
XX-D2-FSFXRDFS18GT25H-XXX	18 W	1240	3998

Foot-candles	Distance From Light	Beam Dia.
108.9	6 ft (1.8 m)	2.66 ft (0.81 m)
61.3	8 ft (2.4 m)	3.55 ft (1.08 m)
39.2	10 ft (3 m)	4.43 ft (1.35 m)
27.2	12 ft (3.7 m)	5.32 ft (1.62 m)
20.0	14 ft (4.3 m)	6.21 ft (1.89 m)



<sup>1</sup> All data is simulated to represent the typical performance expected with the following parameters: 1 in (25.4 mm) white trim, with light engine at nadir, at 3000 K, 25 °C ambient, 100% power input, default vibrancy, unless otherwise stated.



**KETRA D2 ADJUSTABLE DOWNLIGHT**

Specifications are subject to change without notice

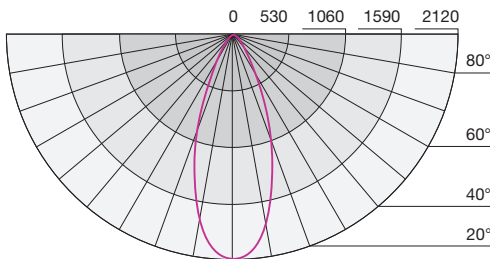
**PHOTOMETRIC DATA<sup>1</sup> (cont.)**

**Beam Angle: 40° Wide Flood, Low Glare**

Model Number	Wattage	Delivered Lumens	CBCP
XX-D2-FSFXRDFS18GT40L-XXXX	18 W	1118	2120

Foot-candles	Beam Dia.
58.9	6 ft (1.8 m)
33.1	8 ft (2.4 m)
21.2	10 ft (3 m)
14.7	12 ft (3.7 m)
10.8	14 ft (4.3 m)

Distance From Light

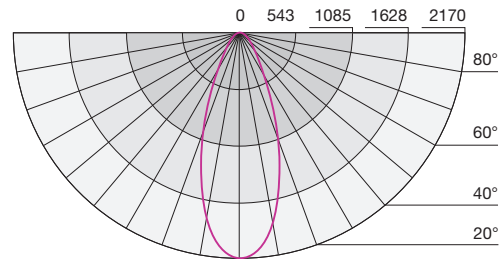


**Beam Angle: 40° Wide Flood, High Output**

Model Number	Wattage	Delivered Lumens	CBCP
XX-D2-FSFXRDFS18GT40H-XXXX	18 W	1301	2170

Foot-candles	Beam Dia.
60.2	6 ft (1.8 m)
33.9	8 ft (2.4 m)
21.7	10 ft (3 m)
15.1	12 ft (3.7 m)
11.1	14 ft (4.3 m)

Distance From Light

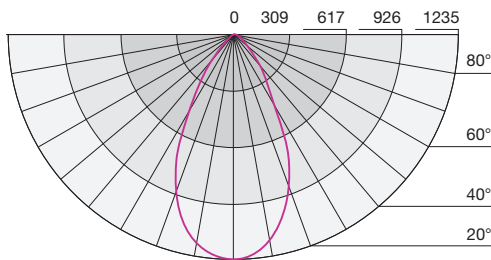


**Beam Angle: 60° Very Wide Flood, Low Glare**

Model Number	Wattage	Delivered Lumens	CBCP
XX-D2-FSFXRDFS18GT60L-XXXX	18 W	1096	1124.7

Foot-candles	Beam Dia.
31.2	6 ft (1.8 m)
17.5	8 ft (2.4 m)
11.2	10 ft (3 m)
7.8	12 ft (3.7 m)
5.7	14 ft (4.3 m)

Distance From Light

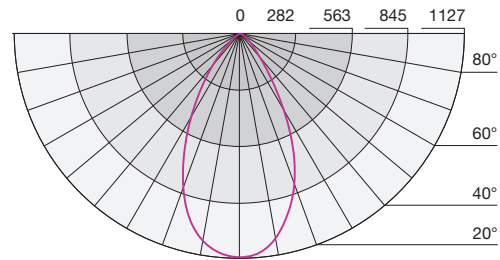


**Beam Angle: 60° Very Wide Flood, High Output**

Model Number	Wattage	Delivered Lumens	CBCP
XX-D2-FSFXRDFS18GT60H-XXXX	18 W	1231	1127

Foot-candles	Beam Dia.
32.1	6 ft (1.8 m)
18.1	8 ft (2.4 m)
11.5	10 ft (3 m)
8.0	12 ft (3.7 m)
5.9	14 ft (4.3 m)

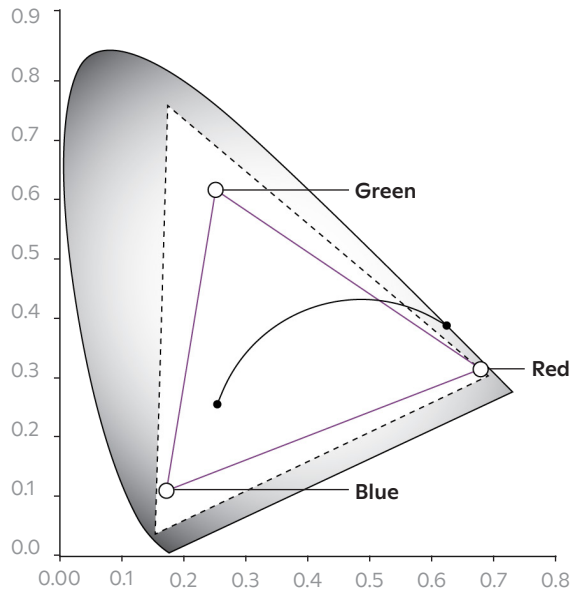
Distance From Light



<sup>1</sup> All data is simulated to represent the typical performance expected with the following parameters: 1 in (25.4 mm) white trim, with light engine at nadir, at 3000 K, 25 °C ambient, 100% power input, default vibrancy, unless otherwise stated.

**WIDE GAMUT**

**CIE 1931 Color Chart**



Ketra's D2 LED Downlight can easily be commissioned into Lutron HomeWorks or Athena systems. The product can reproduce any color point with the triangle shaped gamut indicated in the chart to the left. With Ketra's Color Lock tool, the color point is maintained to an accuracy of one-step MacAdam Ellipse over the lifetime of the product and across operating temperature ranges.

- **Color Lock**—Color point is maintained to an accuracy of one-step MacAdam Ellipse over the lifetime of the product and across operating temperature range.
- - - - **Expanded Gamut**—Color lock not guaranteed such that each product produces the most saturated color of which it is capable.

**D2 General Specifications**

**Color Point Maintenance:** Employ closed loop optical and thermal feedback capable of maintaining color point accuracy at a one-step MacAdam ellipse over product lifetime.<sup>1</sup>

**Wireless Capability:** LED light source shall have an integrated wireless control on board.

**Color Rendering Index (CRI):** Capable of CRI greater than 90 at any point along the Black Body Curve from 2,700 K to 5,000 K.

**Single Source Multi-Die Modular Emitter/LED Module Design:** Employ a single source multi-die modular emitter/LED module consisting of both monochromatic and phosphor converted blue LED die.

**LED Estimated Useful Life:** Minimum of 50,000 hours at 70 percent lumen maintenance, calculated based on IES LM-80 test data.

**Diagnostic reporting capability<sup>2</sup>:** Clear Connect-Type X (CCX) light sources provide diagnostics and built-in technology to check input voltage and wireless connectivity.

**Warranty:** Ketra's light source is warrantied to be free from defects in material and workmanship for five ( 5 ) years or 25,000 hours from date of shipment, whichever is less.

**Lighting System Capable of the Following Dimming Functionality:**

1. Automatically mimicking natural daylight by shifting Correlated Color Temperature (CCT) and intensity based on time-of-day.
2. Shifting from high CCT at high intensity to low CCT at low intensity, mimicking dimming curve of an incandescent lamp.
3. Changing intensity while maintaining full color spectrum or CCT.
4. Changing full color spectrum or CCT while maintaining intensity.

**Spectral Power Distribution Manipulation:** Light system capable of manipulating the Spectral Power Distribution (SPD) by automatically adjusting distributions of color intensity while maintaining the same Correlated Color Temperature (CCT).

**Dimming Range:** Dimmable from 100 to 0.1 percent measured luminous flux.

**Color Point Range:** Single light source capable of producing 16.7 million colors and white from 1,400 K to 10,000 K Correlated Color Temperature (CCT).

<sup>1</sup> Color point maintenance not guaranteed in the expanded gamut or while operating at ambient temperatures between -13 to 32 °F (-25 to 0 °C).

<sup>2</sup> For diagnostics support or more information, please contact Lighting Technical Support at [lightingsupport@lutron.com](mailto:lightingsupport@lutron.com) or 1.844.LUTRON1 (1.844.588.7661).