

Rania D2 Wall Wash

PRODUCT DESCRIPTION

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

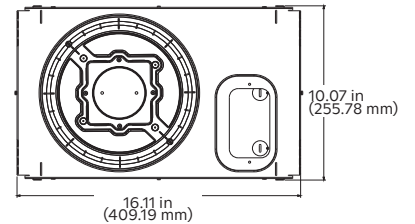
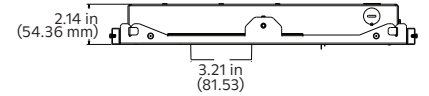
FEATURES

Exceptional White Light—Rania leverages a breakthrough three-channel solution, paired with proprietary optics and state of the art color mixing technology to deliver a wide CCT range and replicates natural white light more faithfully than any light source other than Ketra.

Natural Show—The Rania fixtures’ wide color temperature range and native control enables it to participate in Lutron’s Natural Show. Natural show automatically adjusts the intensity and color temperature of the light over the course of the day. It can be used to bring the outside in by matching outdoor light - from the cool bright light at noon to the warm lower light in the evening.



Wall Wash, IC Fixture



OPTIONS

Round Wall Wash Square Wall Wash

Flanged



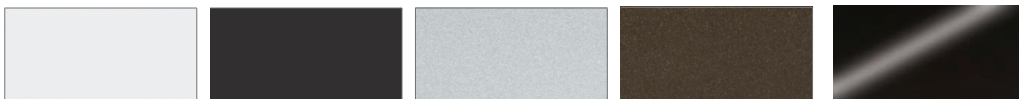
Flangeless
Mud-In



Flangeless
Millwork



Trim Finish



White

Black

Silver

Bronze

Gloss Black¹



Silver / White²

Black / White²

Gloss Black / White²

¹ Flangeless trims only.

² White flange standard with flanged trims.

SPECIFICATIONS¹

Optical Performance

Delivered Lumens ²	1018 lm
CRI (Ra)	>90 from 2,700K to 5,000K
R9	>90
Lumen Maintenance ³	50,000 hours to L70 @ 25 °C T_A
Color Point Range	1800 K - 5500 K
Dimming Protocol	Wireless RF/CCX (Lutron Clear Connect-Type X)
Dimming Range	0.1-100%
Delivered Efficacy ²	57 lm/w

Environmental

Ambient Temperature ⁵	32 – 104 °F (0 – 40 °C)
Extended Ambient Temperature	-32 – 32 °F (-35 – 0 °C)⁴
Humidity	0 – 95%, Non-condensing
Certification	UL, cUL, 120 V~: FCC Class B, IC Rated; T24(JA8)⁶
Location	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)
Outdoor/Indoor	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.
Warranty	5 year fixture, LED and dimming warranty

Mechanical

Mounting Options	Supplied with standard 14 in to 24 in (356 mm to 610 mm) adjustable hanger bars and optional butterfly brackets
Field Replaceable Optics	Yes
Field Replaceable Light Engine	Yes
Field Replaceable Power Supply	Yes
Field Fixture Type Convertibility	Wall Wash Fixture can only be used as a Wall Wash Fixture.
Fixture Weight	5.7 lb (2.59 kg)
Housing Material	Pre-painted Steel, Polymer
Lens Material	Plastic

¹ 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.
² Lumen measurement is the 60° beam, high output option and complies with IES LM-79-08 testing procedures. Wall wash measurements coming soon. Wall wash IES files are available on www.lutron.com
³ Lumen maintenance values calculated in accordance to TM-21 procedures based on LM-80 compliant measurement data.
⁴ Color accuracy not guaranteed in Extended Ambient Temperature range.
⁵ 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.
⁶ 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).

SPECIFICATIONS¹ (continued)

Dimensions

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)	Standard Hanger Bar Install: 18.25 × 14 - 24.875 in (463.6 × 355.6 - 631.83 mm) Butterfly Bracket Install: 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	Emitter full 365 degree rotation Collar 95 degree rotation
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

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 [®] for use in emergency lighting systems in accordance with standard UL [®] 924 and CSA C22.2 No. 141 when paired with the LVS™ model LUT-SHUNT-A-TD (UL [®] file E206507) ² .

¹ 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.
² See Lutron Application Note 106 (P/N 048106) at 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

D2	TW	WW			18		
Product Line	Series	LED Type	Fixture Type	Shape	Ceiling Interface	Ceiling Thickness	Power Consumption
GT	WW	W	11	I	XX	XX	
Control System	Beam Angle	Optic Style	Region/Voltage	Location	Primary Optic Accessory	Secondary Optic Accessory	

Order code: _____

Product Line	Code	Control System	Code
Commercial (Athena compatible)	CM-	CCX (Clear Connect-Type X)	GT
Residential (HomeWorks compatible)	HW-	Beam Angle	
		Wall Wash ¹	WW
Series		Optic Style	
D2 Fixture	D2	Wall Wash ¹	W
LED Type		Region/Voltage	
Rania	TW	120 V~ 60 Hz, North America	11
Fixture Type		Location	
Wall Wash ¹	WW	Indoor	I
Shape		Primary Optic Accessory	
Square	SQ	None	XX
Round	RD	Secondary Optic Accessory	
No Collar (to be specified later)	XX	None	XX
Ceiling Interface			
Flanged	F		
Flangeless Mud-In	X		
Flangeless Millwork	M		
Ceiling Thickness²			
Thin Ceiling	N		
Standard Ceiling	S		
Thick Ceiling	T		
Deep Ceiling	D		
Power Consumption			
18 W	18		

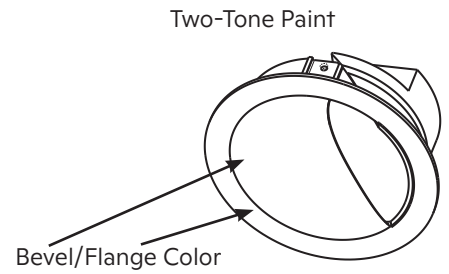
¹ Wall Wash fixture is unique and cannot be converted to other fixture types and vice versa.

² The ceiling thickness option required varies by ceiling interface. Contact Lighting Technical Support at lightingsupport@lutron.com or 1.844.LUTRON1 (1.844.588.7661).

TRIM ORDERING GUIDE

Trim

UN-	D2			
Product Line	Series			
		W		WW
Shape	Ceiling Interface	Aperture Profile	Trim Finish	Trim Accessory



Order code: _____

Product Line	Code	Trim Finish	Trim Accessory	Code
Universal	UN-	White	Wall Wash Lens ¹	WH
Series		Black ²		BK
D2 Fixture	D2	Gloss Black ²		GB
Shape		Bronze		RB
Round	RD	Silver		SR
Square	SQ	Silver/White		SW
Ceiling Interface		Black/White ²		BW
Flanged	F	Gloss Black/White ²		GW
Flangeless Mud-In	X			
Flangeless Millwork	M			
Aperture Profile				
Wall Wash ¹	W			

¹ Wall Wash fixture is unique and cannot be converted to other fixture types and vice versa.
² Recommended finish for best performance.



D2 WALL WASH DOWNLIGHT

P/N 3663026 Rev A

Specifications are subject to change without notice

COMPONENT ORDERING GUIDE

Replacement Optics

<u>UN-D2</u>	<u>OP</u>	<u>WWXX</u>
Product Line	Accessory Type	Beam Angle

Order code: UN-D2OPWWXX

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

<u>Accessory Type</u>	<u>Code</u>
Optic	OP

<u>Beam Angle</u>	<u>Code</u>
Wall Wash	WWXX

COMPONENT ORDERING GUIDE (cont.)

Mounting & Installation Kits

UN-D2

Product Line	Accessory
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Order code: _____

Product Line	Code
Universal Part - Recessed Downlight	UN-D2

Accessory

Millwork Template, Round	MTRD
Millwork Template, Square	MTSQ
Butterfly Brackets & Hanger Bars	MAX
Trim Retainer, Round Mud-In	TRRDY
Trim Retainer, Round Millwork	TRRDM
Trim Retainer, Square Mud-In	TRSQY
Trim Retainer, Square Millwork	TRSQM

Collar Adapters

UN-D2

Product Line	Collar Adapter	Ceiling Thickness
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Order code: _____

Product Line	Code
Universal Part - Recessed Downlight	UN-D2

Collar Adapters^{1,2}

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

Ceiling Thickness³

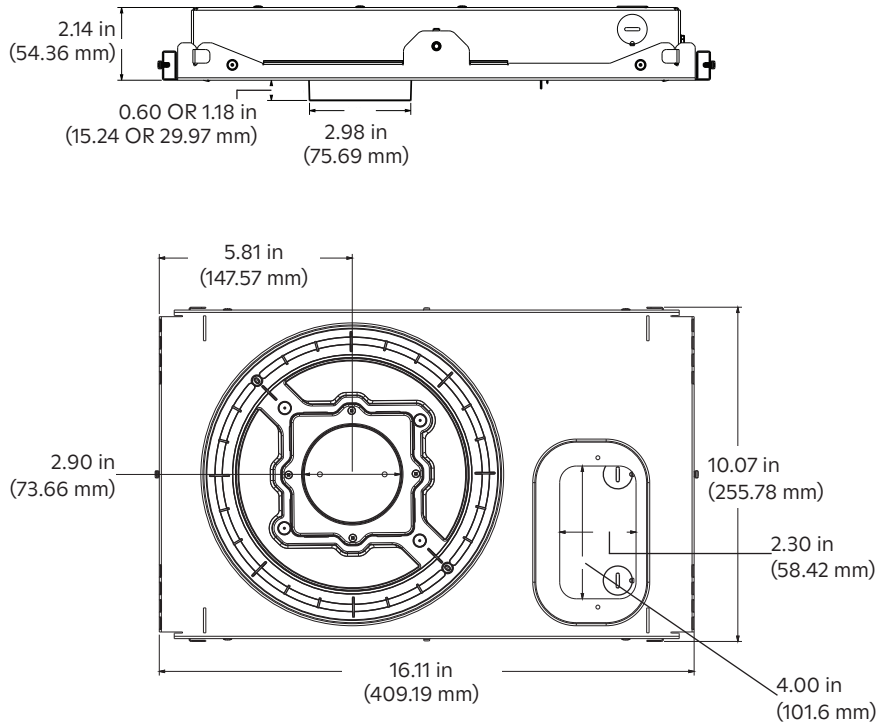
Thin	N
Standard	S
Thick	T
Deep	D

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

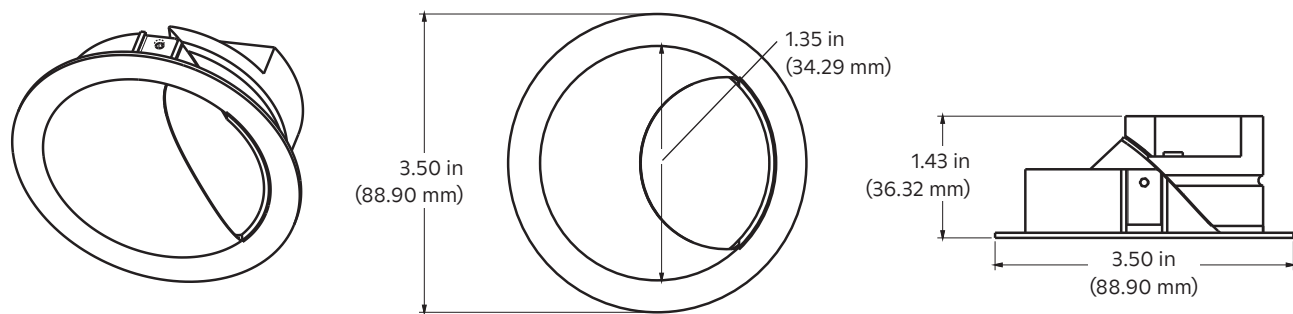
1 Ceiling installation cannot begin until collar adapter is installed.
 2 Mud-in trim retainer supplied with mud-in collar adapter.
 3 The ceiling thickness option required varies by ceiling interface. Contact Lighting Technical Support at lightingsupport@lutron.com or 1.844.LUTRON1 (1.844.588.7661).

PRODUCT DIMENSIONS

Flanged Housing, Round

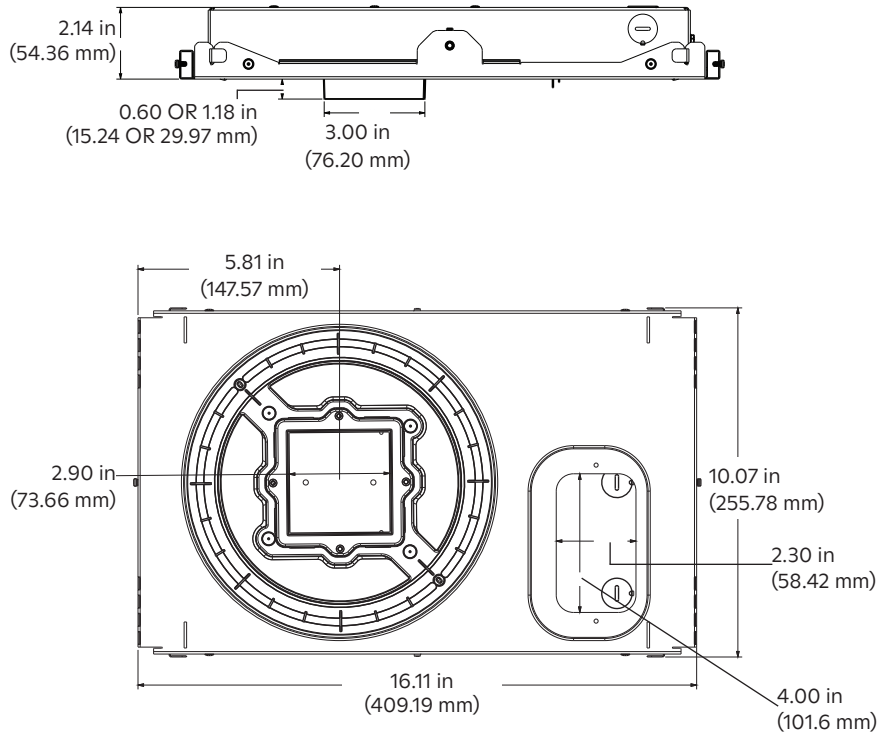


Trim

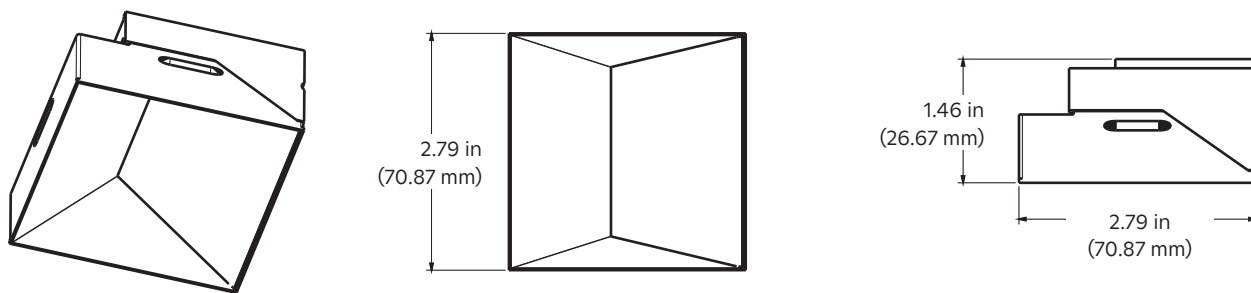


PRODUCT DIMENSIONS (cont.)

Flanged Housing, Square

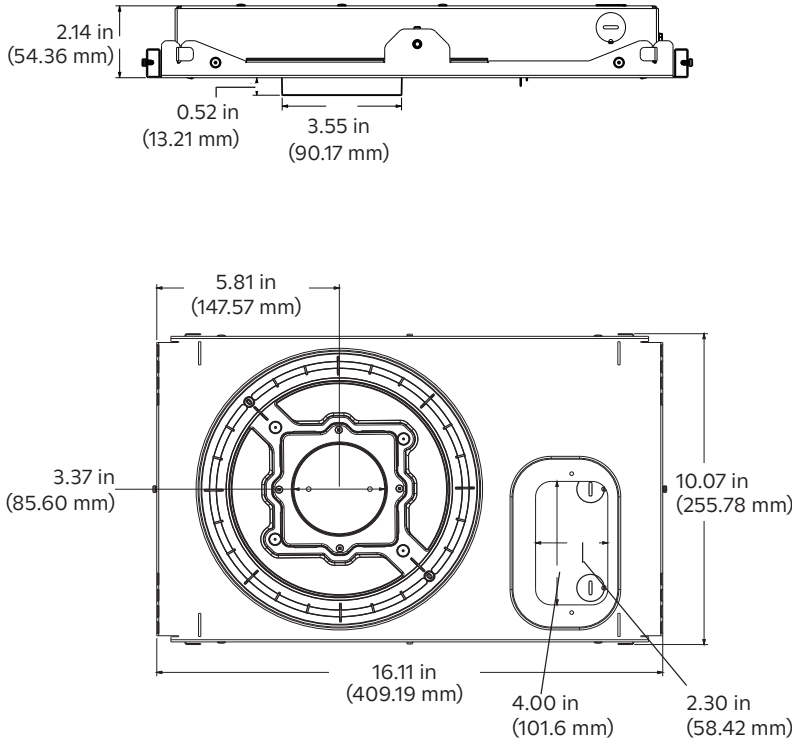


Trim

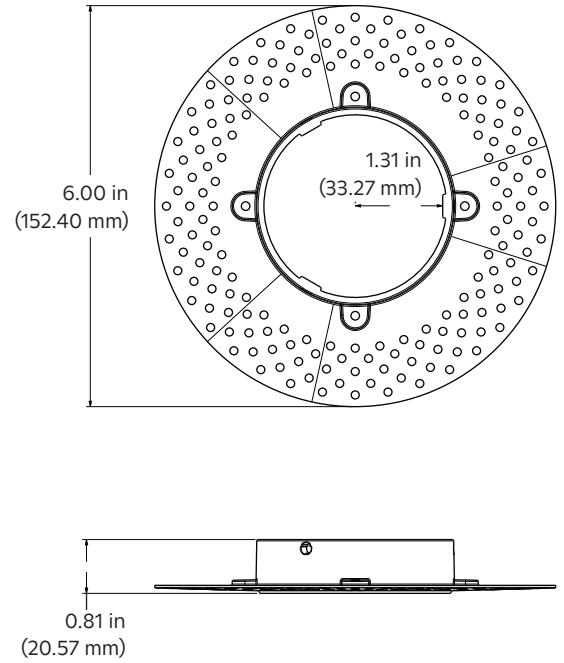


PRODUCT DIMENSIONS (cont.)

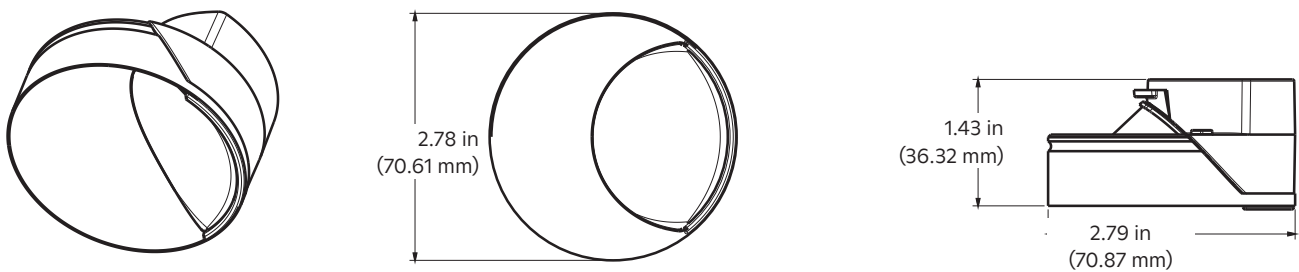
Flangeless Mud-In Housing, Round



Flangeless Mud-In Trim Retainer, Round

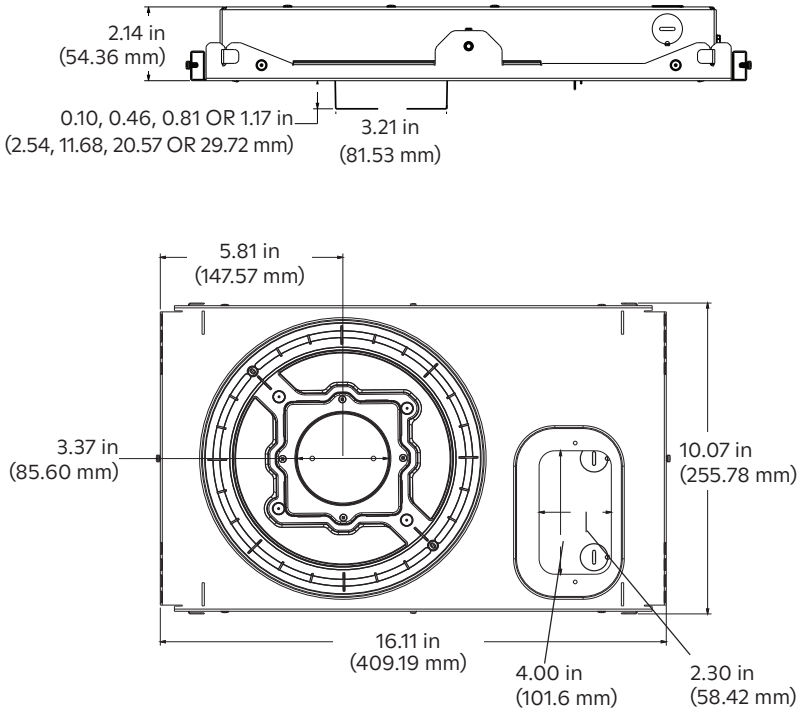


Trim

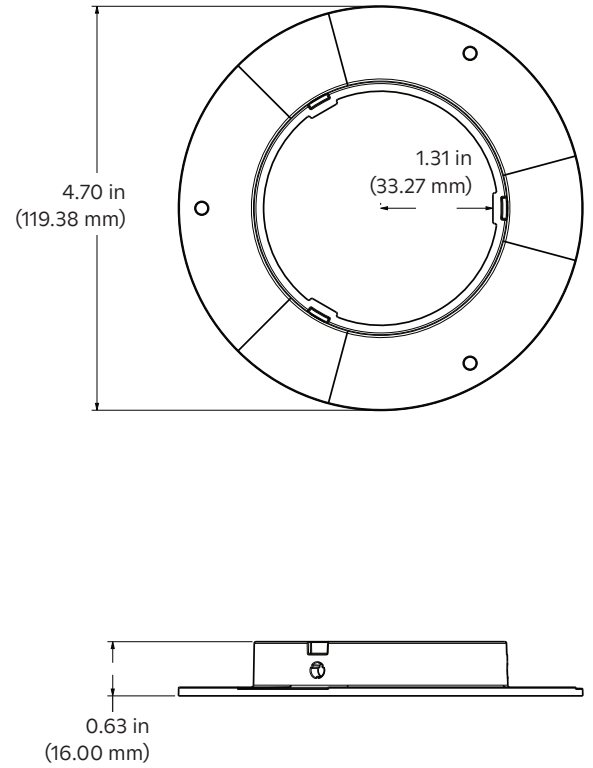


PRODUCT DIMENSIONS (cont.)

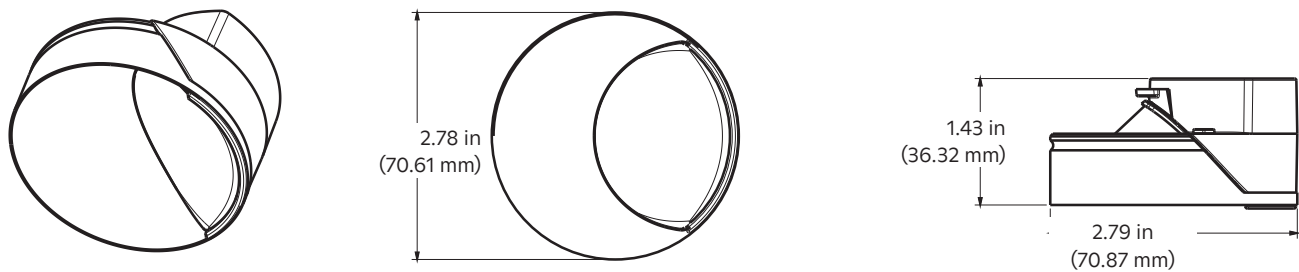
Flangeless Millwork Housing, Round



Flangeless Millwork Trim Retainer, Round

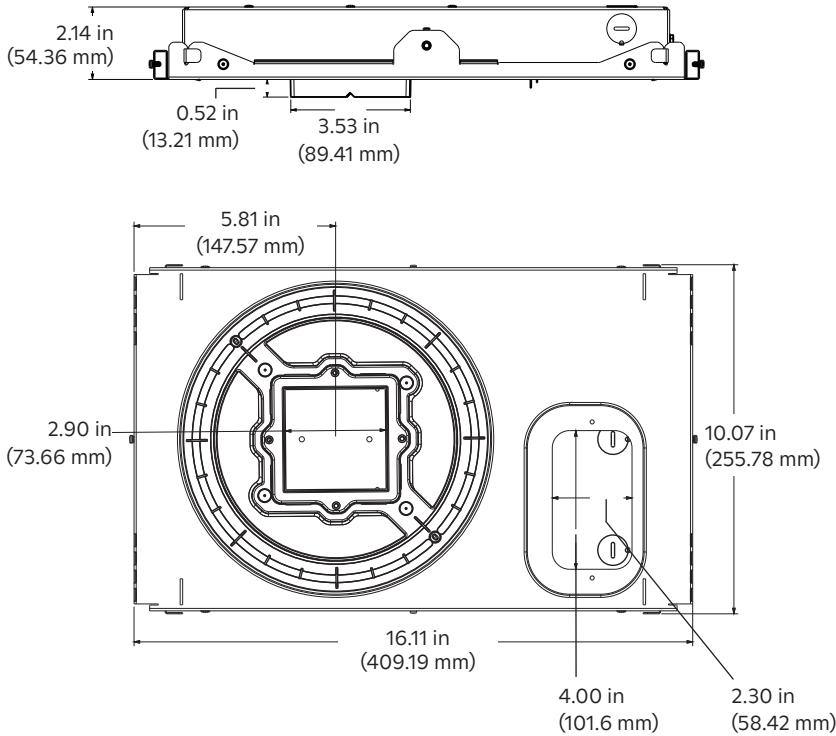


Trim

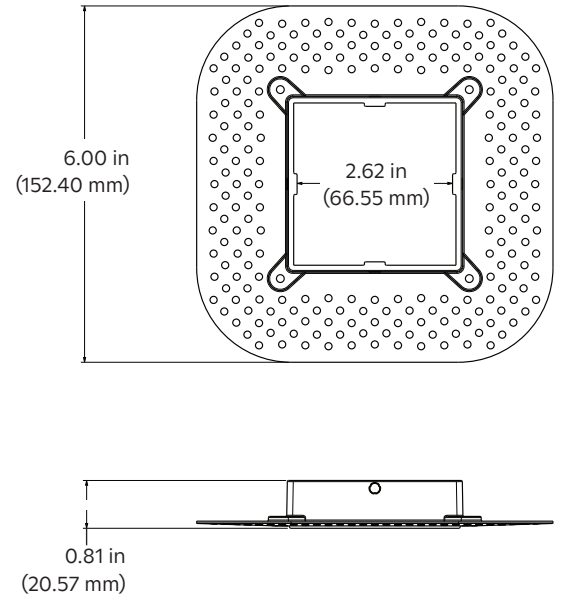


PRODUCT DIMENSIONS (cont.)

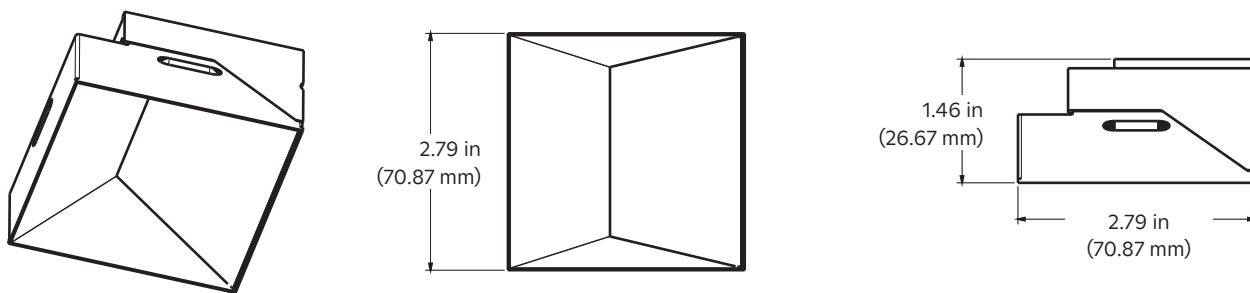
Flangeless Mud-In Housing, Square



Flangeless Mud-In Trim Retainer, Square

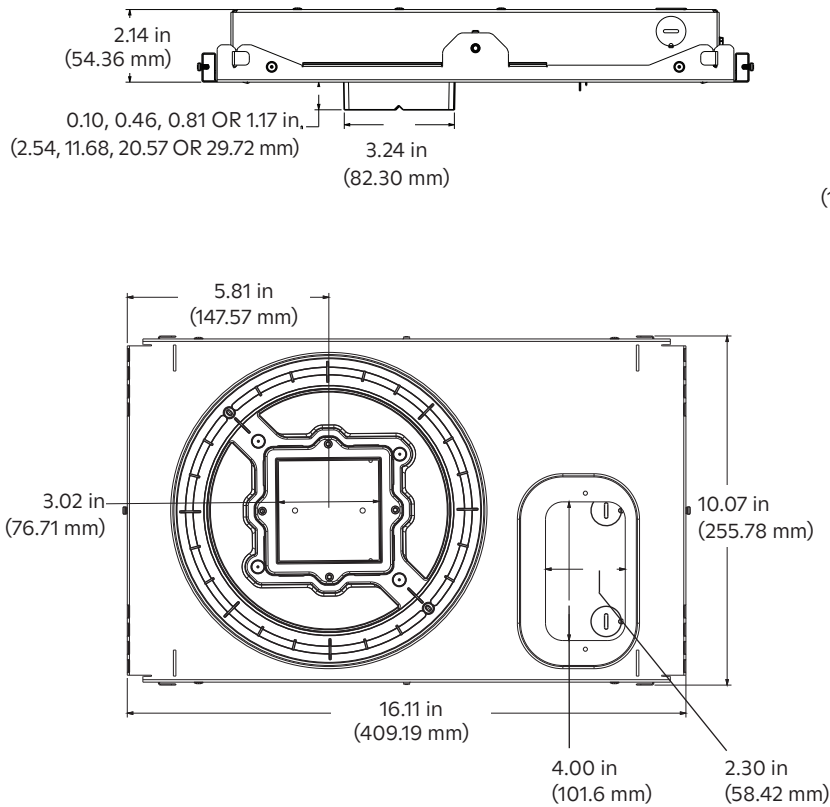


Trim

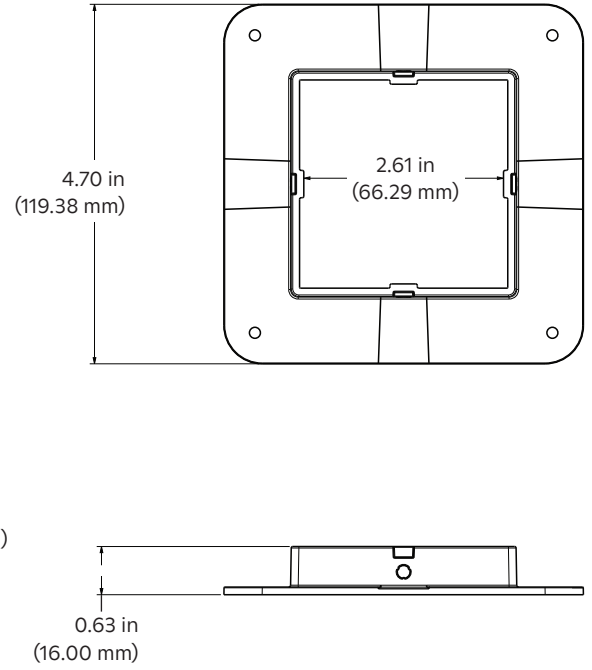


PRODUCT DIMENSIONS (cont.)

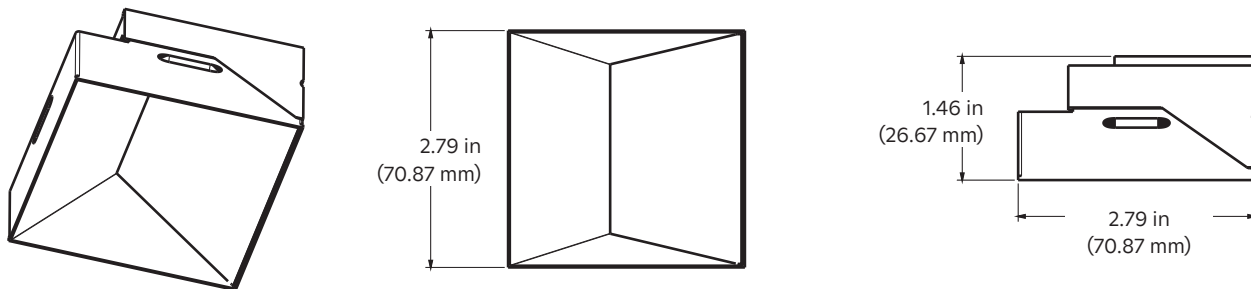
Flangeless Millwork Housing, Square



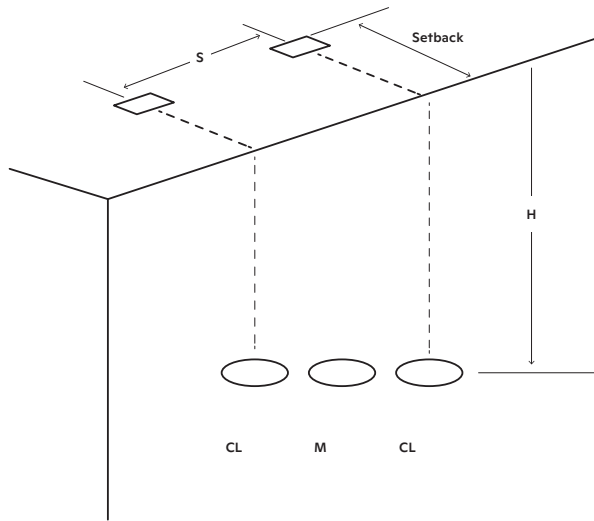
Flangeless Millwork Trim Retainer, Square



Trim



PLACEMENT GUIDE FOR MULTIPLE WALL WASH UNITS



Typical Footcandles Measured on the Wall

Distance from Ceiling (H)	2 ft (0.6 m) from wall ("Setback")			2 ft (0.6 m) on Center (S)			3 ft (0.9 m) on Center (S)			4 ft (1.2 m) on Center (S)		
	CL	M	CL	CL	M	CL	CL	M	CL	CL	M	CL
1 ft (0.305 m)	34	32	34	26	18	26	24	10	24			
2 ft (0.609 m)	36	37	36	27	23	27	23	13	23			
3 ft (0.914 m)	30	30	30	21	19	21	18	13	18			
4 ft (1.219 m)	23	23	23	16	15	16	14	11	14			
5 ft (1.524 m)	17	18	17	12	12	12	10	8	10			
6 ft (1.828 m)	14	14	14	10	10	10	8	7	8			
7 ft (2.133 m)	11	11	11	7	7	7	6	6	6			
8 ft (2.438 m)	8	8	8	6	6	6	5	5	5			
9 ft (2.743 m)	6	6	6	5	5	5	4	4	4			
10 ft (3.048 m)	6	6	6	4	4	4	3	3	3			

Distance from Ceiling (H)	3 ft (0.9 m) from wall ("Setback")			2 ft (0.6 m) on Center (S)			3 ft (0.9 m) on Center (S)			4 ft (1.2 m) on Center (S)		
	CL	M	CL	CL	M	CL	CL	M	CL	CL	M	CL
1 ft (0.305 m)	15	15	15	10	10	10	8	6	8			
2 ft (0.609 m)	23	23	23	16	15	16	13	11	13			
3 ft (0.914 m)	23	23	23	16	16	16	13	11	13			
4 ft (1.219 m)	20	20	20	15	15	15	11	11	11			
5 ft (1.524 m)	17	17	17	12	12	12	10	9	10			
6 ft (1.828 m)	15	15	15	11	11	11	8	8	8			
7 ft (2.133 m)	12	11	12	9	9	9	6	6	6			
8 ft (2.438 m)	10	10	10	7	7	7	6	6	6			
9 ft (2.743 m)	8	8	8	6	6	6	5	5	5			
10 ft (3.048 m)	7	6	7	6	6	6	4	4	4			



D2 WALL WASH DOWNLIGHT

P/N 3663026 Rev A

Specifications are subject to change without notice

PHOTOMETRIC DATA

Coming Soon, ies. files available at lutron.com

D2 General Specifications

Rania's D2 LED Downlight can easily be commissioned into Lutron HomeWorks or Athena systems.

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 2,700K to 5,000K.

Single Source Multi-Die Modular Emitter/LED Module Design: Employ a single source multi-die modular emitter/LED module consisting of LEDs binned to 3-step MacAdam ellipses.

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

Diagnostic reporting capability¹: Clear Connect-Type X (CCX) light sources provide diagnostics and built-in technology to check input voltage and wireless connectivity.

Warranty: Lutron'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.

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

Color Point Range: Single light source capable of producing white light from 1,800K to 5,500K Correlated Color Temperature (CCT).

¹ For diagnostics support or more information, please contact Lighting Technical Support at lightingsupport@lutron.com or 1.844.LUTRON1 (1.844.588.7661).