

## D3 Wall Wash Round

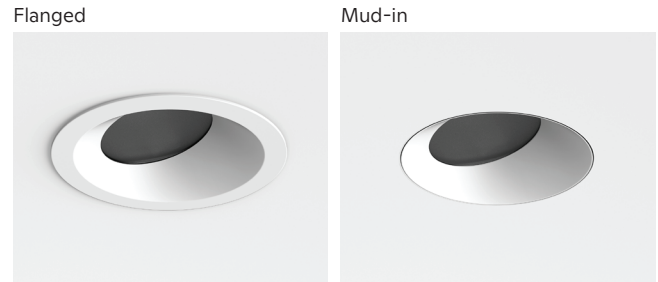
### The Ketra Difference:

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

**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.



## ORDERING GUIDE

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

### Housing

Product Line	Fixture / Trim	Wattage	System
<b>WW</b>		<b>NCIC</b>	<b>SP</b>
Beam Angle	Region / Voltage	Housing Type	Shipping Option

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

### Trim

<b>UN-</b>		
Product Line		
		<b>W</b>
Model	Trim Color	Trim Accessory

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

Product Line	Code	Beam Angle	Code
Commercial (Athena compatible)	<b>CM-</b>	Wall Wash	<b>WW</b>
Residential (HomeWorks compatible)	<b>HW-</b>	<b>Region/Voltage</b>	
		120 V~ 60 Hz, North America	<b>11</b>
		277 V~ 60 Hz, North America	<b>12</b>
<b>Fixture / Trim</b>		<b>Housing Type</b>	
D3 Wall Wash, Round	<b>D3WWRD</b>	New Construction, IC/Airtight	<b>NCIC</b>
D3 Wall Wash, Round Mud-in	<b>D3WWRM</b>	<b>Shipping Option</b>	
<b>Wattage</b>		Single Pack	<b>SP</b>
9 W	<b>09</b>	(Default, ships with Butterfly Brackets & 24 in Nailer Bars to be installed in field)	
13 W	<b>13</b>		
18 W	<b>18</b>		
<b>System</b>			
KetraNet	<b>BT</b>		
CCX <sup>3</sup>	<b>GT</b>		

Product Line	Code
Universal	<b>UN-</b>
<b>Model</b>	
D3 Round Wall Wash	<b>D3TFRW1</b>
*Not compatible with D3WWRM housing	
D3 Round Flangeless Wall Wash <sup>2</sup>	<b>D3TXRW1</b>
**Not compatible with D3WWRD housing	
<b>Trim Color</b>	
White	<b>WH</b>
Black	<b>BK</b>
<b>Trim Accessory<sup>2</sup></b>	
Wall Wash	<b>W</b>

<sup>1</sup> Downlight is wet location rated.

<sup>2</sup> Flangeless trim not compatible with wood or stone ceilings.

<sup>3</sup> CCX stands for Clear Connect Type X.



## D3 WALL WASH ROUND

P/N 3662372 Rev D

Specifications are subject to change without notice

### SPECIFICATIONS<sup>1</sup>

#### Optical & Electrical Performance

Delivered Lumen Output <sup>2</sup>			
Beam Angle (1 in recess)	<b>9 W</b>	<b>13 W</b>	<b>18 W</b>
Wall Wash	<b>414 lm</b>	<b>573 lm</b>	<b>705 lm</b>
CRI (Ra)	<b>&gt;90 (R9&gt;90) 2400 K - 5000 K TYP</b>		
Lumen Maintenance <sup>4</sup>	<b>50,000 hours to L70 @ 25 °C T<sub>A</sub></b>		
Color Point Range <sup>4</sup>	<b>1400 °K – 10,000 °K, Fully Saturated, &amp; Pastel</b>		
Equivalent Traditional Lamp	<b>75 W halogen</b>		
Dimming Range <sup>4</sup>	<b>0.1-100%</b>		
Power consumption	<b>D3.09 9 W D3.13 13 W D3.18 18 W</b>		
Voltage	<b>120 V~ 60 Hz 277 V~ 60 Hz</b>		
Power Factor	<b>&gt;0.9</b>		
Inrush Current <sup>5</sup>	<b>800 mA, 0.2 mS duration</b>		
Delivered Efficacy			
Beam Angle (1 in recess)	<b>9 W</b>	<b>13 W</b>	<b>18 W</b>
Wall Wash	<b>46 lm/W</b>	<b>44 lm/W</b>	<b>39 lm/W</b>
Surge Protection	<b>2.5 KV</b>		

#### Environmental

Operating Temperature (T <sub>A</sub> )	<b>0 - 40 °C</b>
Storage Temperature	<b>-20 - 80 °C</b>
Humidity	<b>0 - 95%, Non-condensing</b>
Certification	<b>UL, cUL, 120 V~: FCC Class B, 277 V~: FCC Class A</b>
Location	<b>UL Wet Location</b>
Outdoor Use	<b>Not for use in outdoor applications</b>

#### Mechanical

Mounting Options	<b>Hanger Bars/ Butterfly Brackets</b>
Field Replaceable Optics	<b>Yes</b>
Field Replaceable Light Engine	<b>Yes</b>
Field Replaceable Power Supply	<b>Yes</b>
Housing Material	<b>Powder Coated Steel, Polymer</b>
Lens Material	<b>Glass</b>
<b>Dimensions</b>	
Ceiling Hole Diameter	<b>4 in (10.2 cm) flanged; 5.5 in (12.7 cm) mud-in</b>
Trim Outside Diameter	<b>4.63 in (11.7 cm) flanged; 3.75 in (9.4 cm) mud-in</b>
Trim Inside Diameter	<b>3.75 in (9.52 cm)</b>
Trim Thickness	<b>1/16 in (1.5875 mm) (Flanged trims only)</b>
Optics Outside Diameter	<b>2.5 in (6.35 cm)</b>
Trim Depth	<b>1 in (2.54 cm)</b>
Ceiling Thickness	<b>0.625 – 1.5 in (1.58 - 3.81 cm)</b>
Aiming	<b>Tilt Fixed at 20° 364° Rotation</b>
Service Position	<b>Tilt to 40° Full 364° Rotation</b>
Emitter Vertical Adjustment (tool-free)	<b>0.75 in (1.9 cm)</b>
Housing Vertical Adjustment via Butterfly Bracket	<b>1.75 in (4.45 cm)</b>
Housing Height	<b>3.50 in (8.89 cm)</b>
Housing Length	<b>18.38 in (46.68 cm)</b>
Housing Width	<b>10 in (25.4 cm)</b>
Unit Weight	<b>7.75 lb (3.51 kg)</b>

<sup>1</sup> All performance measurements taken with 1 in trim, with light engine at nadir at the low regress position, at 3000 K, 25 °C ambient, 100% power input, 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> Intensity and color point control requires compatible system.

<sup>5</sup> For more information on inrush current, refer to Ketra's Inrush App Note in the Support section of our website.

\* For Title 24 and Title 20 compliant model numbers or for more information, please contact Customer Service at ketrasales@lutron.com or 844.588.6445.

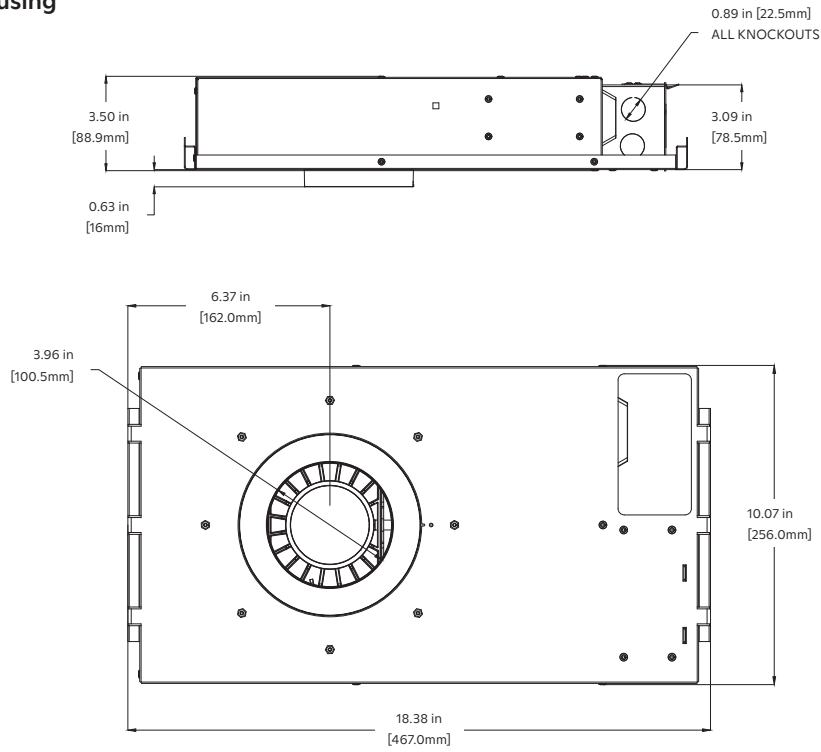


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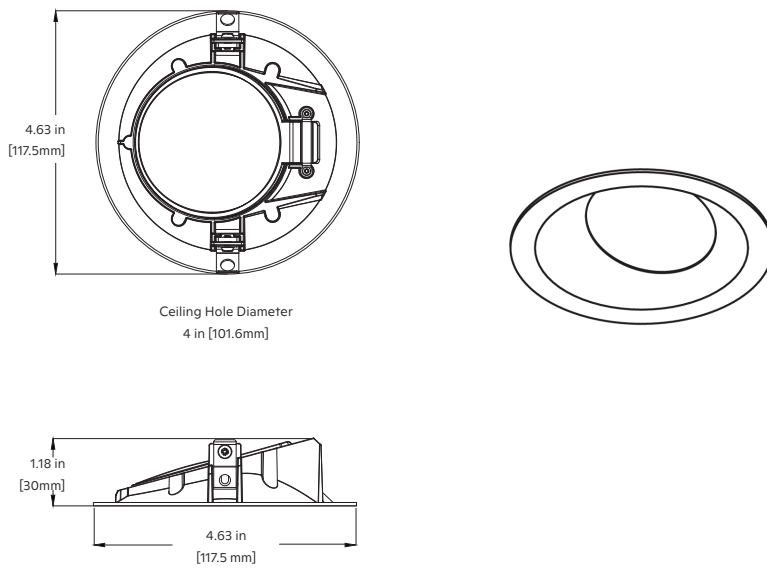
P/N 3662372 Rev D  
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## PRODUCT DIMENSIONS

### Flanged Housing



### Flanged Trim





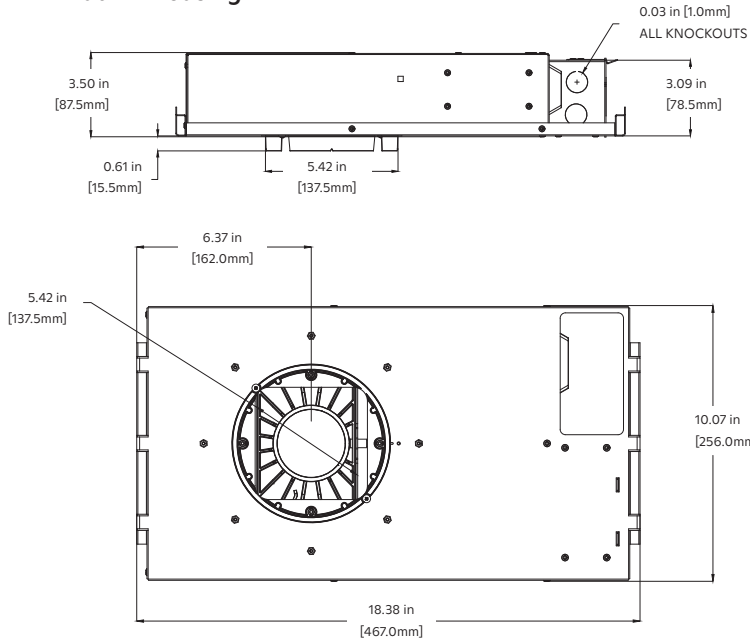
# D3 WALL WASH ROUND

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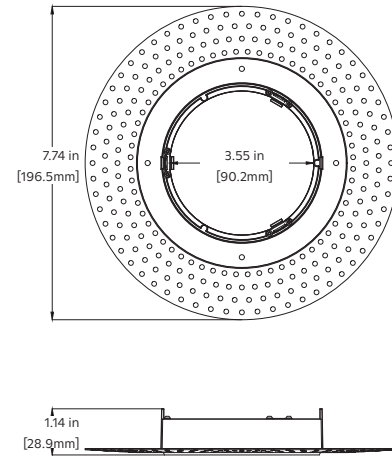
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## PRODUCT DIMENSIONS

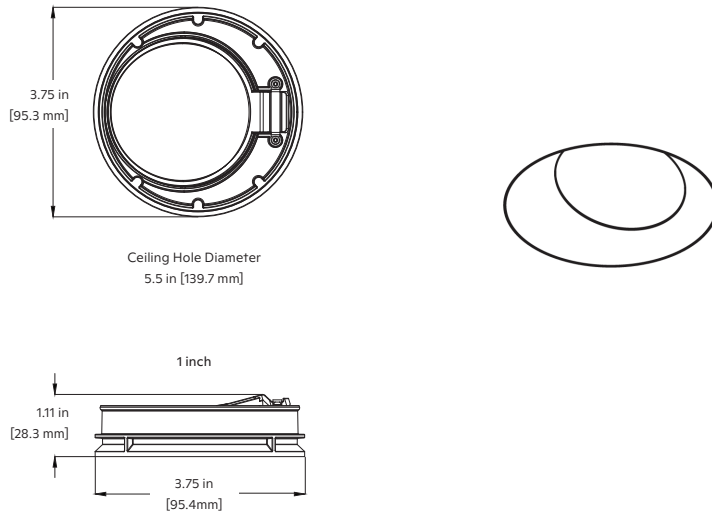
### Mud-in Housing



### Mud-in Trim Retainer



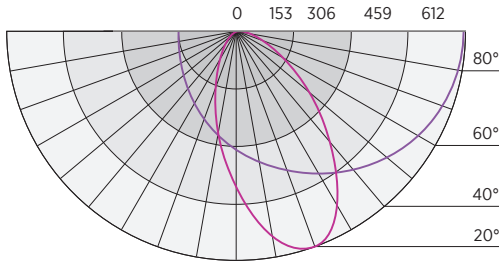
### Mud-in Trim



**ISO FOOTCANDLE CHARTS: 2700 - 5000 K VALUES ONLY, DELIVERED LUMENS**

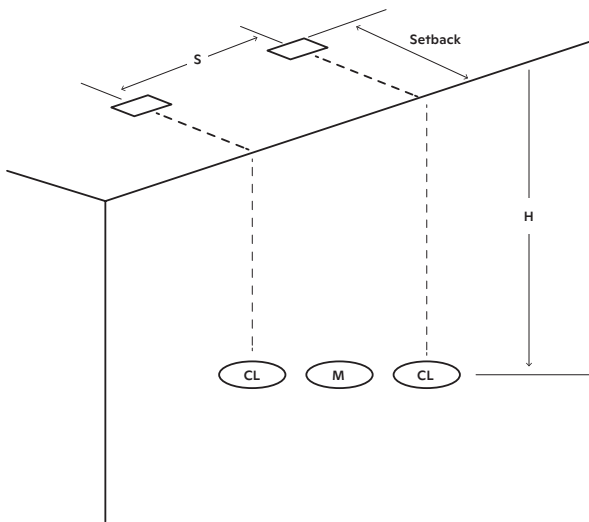
**Beam Angle: Wall Wash**

Product Code	Wattage	Lumens
D3WWRD18BTWW	18 W	705



- 1 Vertical plane through horizontal angles (0-180) (through max. cd.)
- 2 Horizontal cone through vertical angle (20) (through max. cd.)

**MULTIPLE UNITS DIAGRAM**



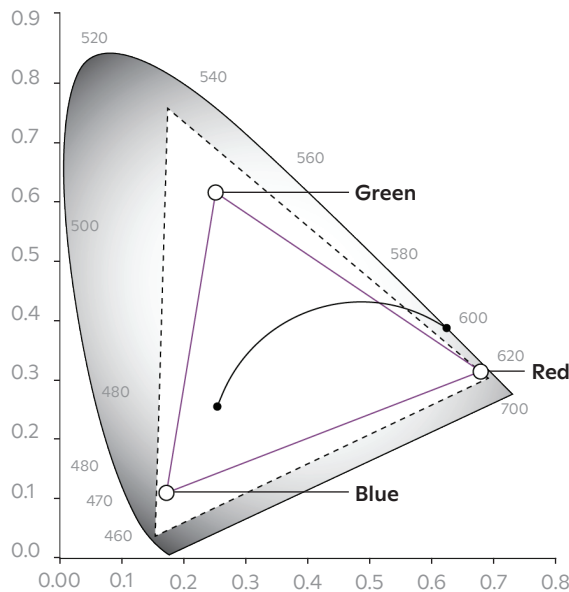
**2 ft from wall ("Setback")**    **2 ft on Center (S)**    **3 ft on Center (S)**    **4 ft on Center (S)**

Distance from Ceiling (H)	2 ft from wall ("Setback")			2 ft on Center (S)			3 ft on Center (S)			4 ft on Center (S)		
	CL	M	CL	CL	M	CL	CL	M	CL	CL	M	CL
1 ft (0.305 m)	30	29	30	21	20	21	17	14	17			
2 ft (0.609 m)	42	43	43	30	30	30	24	21	24			
3 ft (0.914 m)	43	45	43	32	31	31	25	23	25			
4 ft (1.219 m)	35	36	36	26	26	25	20	20	20			
5 ft (1.524 m)	25	26	27	20	19	19	15	15	15			
6 ft (1.828 m)	18	19	20	15	15	14	12	12	11			
7 ft (2.133 m)	14	14	15	11	11	11	9	9	9			
8 ft (2.438 m)	10	11	11	9	9	9	7	7	7			
9 ft (2.743 m)	8	9	9	7	7	7	6	6	6			
10 ft (3.048 m)	7	7	7	6	6	6	5	5	5			

**3 ft from wall ("Setback")**    **2 ft on Center (S)**    **3 ft on Center (S)**    **4 ft on Center (S)**

Distance from Ceiling (H)	3 ft from wall ("Setback")			2 ft on Center (S)			3 ft on Center (S)			4 ft on Center (S)		
	CL	M	CL	CL	M	CL	CL	M	CL	CL	M	CL
1 ft (0.305 m)	14	15	15	11	11	11	9	8	9			
2 ft (0.609 m)	24	25	25	18	18	18	14	13	14			
3 ft (0.914 m)	30	31	31	22	23	23	18	16	18			
4 ft (1.219 m)	29	30	31	22	23	23	18	16	18			
5 ft (1.524 m)	25	26	26	19	20	20	16	14	16			
6 ft (1.828 m)	20	21	21	16	16	17	13	12	13			
7 ft (2.133 m)	16	17	17	13	14	14	11	10	11			
8 ft (2.438 m)	13	14	14	11	11	11	9	8	9			
9 ft (2.743 m)	11	11	11	9	10	10	8	7	8			
10 ft (3.048 m)	9	9	9	8	8	8	7	6	7			

<sup>1</sup> Calculated with five luminaires. Reflectances: 80, 50, 20.  
<sup>2</sup> Values are rounded to the nearest footcandle.

**WIDE GAMUT**
**CIE 1931 Color Chart**


Ketra's D3 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 calibration is relaxed such that each product produces the most saturated color it is capable of.

**D3 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.

**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-Dye Emitter Design:** Employ a single source multi-dye emitter consisting of both monochromatic and phosphor converted blue LED dye.

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

**Warranty:** Ketra's light source is warranted to be free from material 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 1,400K to 10,000K Correlated Color Temperature (CCT).



### **TROUBLESHOOTING**

The D3 uses built-in tests to check wiring and wireless connectivity. These tests run each time the D3 turns on, and may take several minutes.

**Note:** The D3 will NOT run these tests while provisioned to a Design Studio installation.

If the D3 finds a problem, it will let you know by emitting a corresponding color or, if no emitter is connected, by flashing the indicator lights on its power supply.

### **DIAGNOSTIC COLORS (REQUIRES EMITTER)**

The D3 will emit a color to tell you the type of problem.

<b>Product Code</b>	<b>Wattage</b>	<b>Lumens</b>
Red	Invalid input voltage on the power line	Ensure the input voltage matches the expected voltage for the D3’s model.
Magenta	Poor wireless connectivity	Ensure that the D3 is not in a metal enclosure and that there are no significant obstructions between the D3 and other Ketra devices.  <b>Note:</b> In some circumstances, magenta is expected.
Yellow	Fair wireless connectivity	Ensure that the D3 is not in a metal enclosure and that there are no significant obstructions between the D3 and other Ketra devices.

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