

## D4 Retrofit Downlight

### PRODUCT DESCRIPTION

Ketra 4 in (101.6 mm) retrofit LED downlight solution integrating the Ketra S30 lamp (included).

### FEATURES

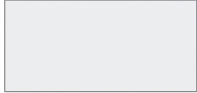
**High Def Palette**—covers a wide range of 16.7 million colors, including pastels, saturated colors and high CRI whites spanning from 1,400K to 10,000K.

**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.

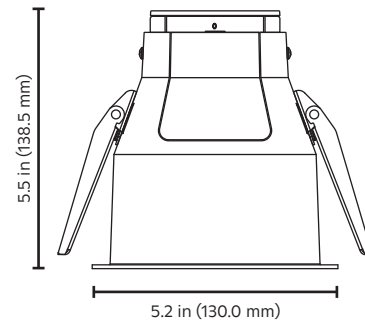
### Finish



White



Black



## SPECIFICATIONS<sup>1</sup>

### Optical Performance

Delivered Lumens <sup>2</sup>	<b>D4R.13PLEN 800 lm</b> <b>D4R.08ICAT 600 lm</b>
CRI (Ra) <sup>3</sup>	<b>&gt;90 (R9 &gt;90)</b>
Lumen Maintenance <sup>3</sup>	<b>50,000 hours to L70 @ 25 °C T<sub>A</sub></b>
Color Point Maintenance <sup>3</sup>	<b>One-step MacAdam Ellipse over product lifetime</b>
Dimming Range <sup>4</sup>	<b>0.1-100%</b>
Efficacy <sup>1</sup>	<b>D4R.08 75 lm/W</b> <b>D4R.13 62 lm/W</b>

### Environmental

Ambient Temperature	<b>0 to 50 °C</b>
Storage Temperature	<b>-20 - 80 °C</b>
Humidity	<b>0 - 95%, Non-condensing</b>
Certification	<b>UL, cUL, RoHS, FCC Class B</b>
Location	<b>UL Damp Location, IP20, Plenum &amp; IC-rated versions are airtight, &amp; Plenum-rated must be used only in non-insulation contact locations. Not for use in outdoor applications.</b>

### Mechanical

Fixture Weight	<b>2.65 lbs (1200 g)</b>
Housing Material	<b>Powder Coated Aluminum, ABS Plastic, Corrosion Protected Steel</b>
Lens Material	<b>UL F1 outdoor rating for UV and water contact PMMA</b>

### Electrical

Power Consumption	<b>D4R.13PLEN 13 W</b> <b>D4R.08ICAT 08.5 W</b>
Power Factor	<b>&gt;0.9</b>
Current	<b>142 mA Max</b>
Emergency Lighting	<b>Evaluated by UL<sup>5</sup> for use in emergency lighting systems in accordance with standard UL<sup>5</sup> 924 and CSA C22.2 No. 141 when paired with the LVS<sup>TM</sup> model LUT-SHUNT-A-TD (UL<sup>5</sup> file E206507)<sup>5</sup>.</b>

<sup>1</sup> All performance measurements taken at 1 in regresss depth, 3000K, 25 °C ambient, 100% power input, with a white baffle, 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> See Lutron Application Note 106 (P/N 048106) at [www.lutron.com](http://www.lutron.com) for wiring details. This is only applicable to CCX fixtures used in an Athena system.

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

## ORDERING GUIDE

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

	D4R	FXRD				11					
Product Line	Model	Fixture Style	Regress Depth	Baffle	Control System / Beam Angle	Region / Voltage	Trim Finish				
	SP										
Power Consumption / Housing Rating	Packaging										
Order code: _____											
Product Line	Code	Baffle	Code	Trim Finish	Code						
Commercial (Athena compatible)	CM-	No Baffle (for flush 0 in regress)	NA	White	WH						
Residential (HomeWorks compatible)	HW-	White Baffle	WH	Black	BK						
		Black Baffle	BK								
Model		Control System / Beam Angle		Power Consumption / Housing Rating							
4 in (101.6 mm) Retrofit Downlight	D4R	CCX Spot (15°) <sup>1</sup>	GT15	13 W, Plenum, Air Tight	13PLEN						
		CCX Flood (25°) <sup>1</sup>	GT25	8.5 W, ICAT	08ICAT						
Fixture Style		CCX Wide Flood (40°) <sup>1</sup>	GT40	Packaging							
Fixed Round	FXRD	CCX Very Wide Flood (60°) <sup>1</sup>	GT60	Single Pack	SP						
		CCX Extra Wide Flood (90°) <sup>1</sup>	GT90								
Regress Depth		Region / Voltage									
No Baffle (0 in [0 mm])	00	North America, 120 V~ 60 Hz	11								
Half Inch (0.5 in [12.7 mm])	05										
One Inch (1 in [25.4 mm])	10										
Two Inch (2 in [50.8 mm])	20										

<sup>1</sup> CCX stands for Clear Connect-Type X.

## COMPONENT ORDERING GUIDES

### Replacement Light Engine

	<b>D4R</b>	<b>LE</b>		<b>11</b>		
Product Line	Model	Component	Beam Angle	Region / Voltage	Finish	Power Consumption / Housing Rating

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

Product Line	Code	Beam Angle	Finish	Code
Commercial	<b>CM-</b>	Spot (15°)	White	<b>WH</b>
Residential (HomeWorks compatible)	<b>HW-</b>	Flood (25°)	Black	<b>BK</b>
		Wide Flood (40°)		
		Very Wide Flood (60°)		
<b>Model</b>		Extra Wide Flood (90°)	<b>Power Consumption / Housing Rating</b>	
4 in (101.6 mm) Retrofit Downlight	<b>D4R</b>		13 W, Plenum	<b>13</b>
			8 W, ICAT	<b>08</b>
<b>Component</b>		<b>Region / Voltage</b>		
Light Engine	<b>LE</b>	North America, 120 V~ 60 Hz	<b>11</b>	

### Replacement Baffle

<b>UN-</b>	<b>D4R</b>	<b>BF</b>	<b>RD</b>		
Product Line	Model	Component	Baffle Shape	Regress Depth	Finish

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

Product Line	Code	Baffle Shape	Code
Universal	<b>UN-</b>	Round	<b>RD</b>
<b>Model</b>		<b>Regress Depth</b>	
4 in (101.6 mm) Retrofit Downlight	<b>D4R</b>	Half Inch (0.5 in [12.7 mm])	<b>05</b>
		One inch (1 in [25.4 mm])	<b>10</b>
		Two Inch (2 in [50.8mm])	<b>20</b>
<b>Component</b>		<b>Finish</b>	
Baffle	<b>BF</b>	Black	<b>BK</b>
		White	<b>WH</b>

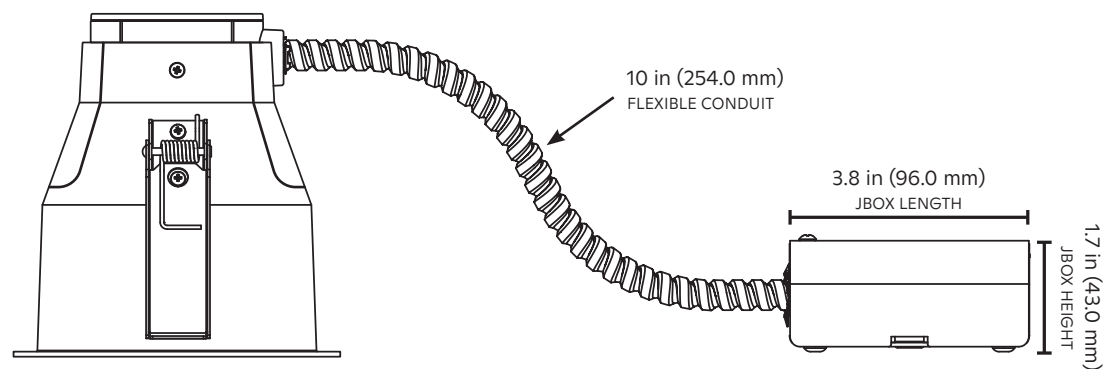
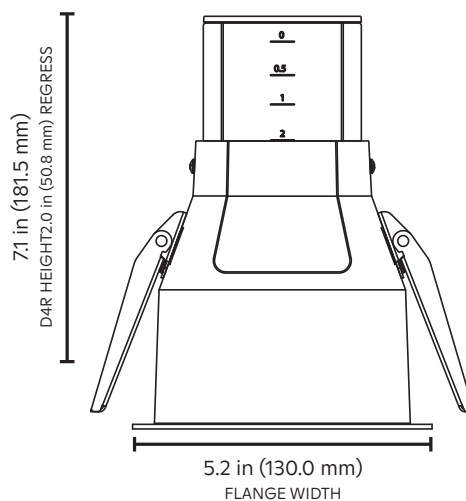
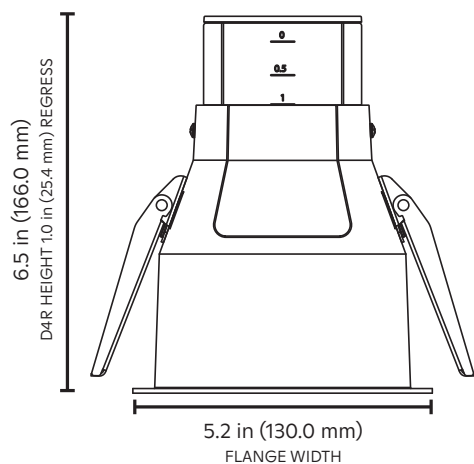
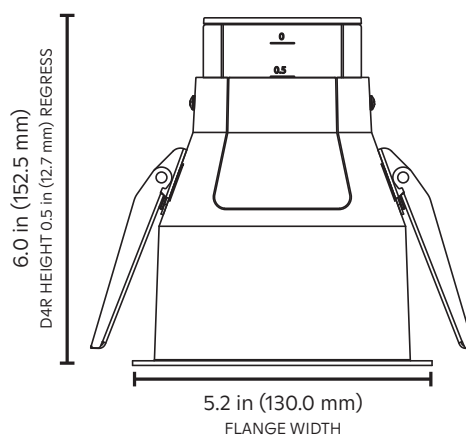
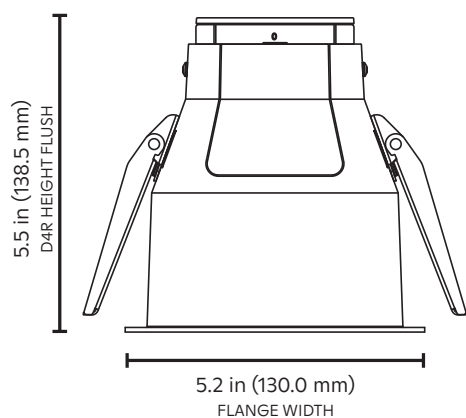


## D4R DOWNLIGHT

P/N 3662374 Rev G

Specifications are subject to change without notice

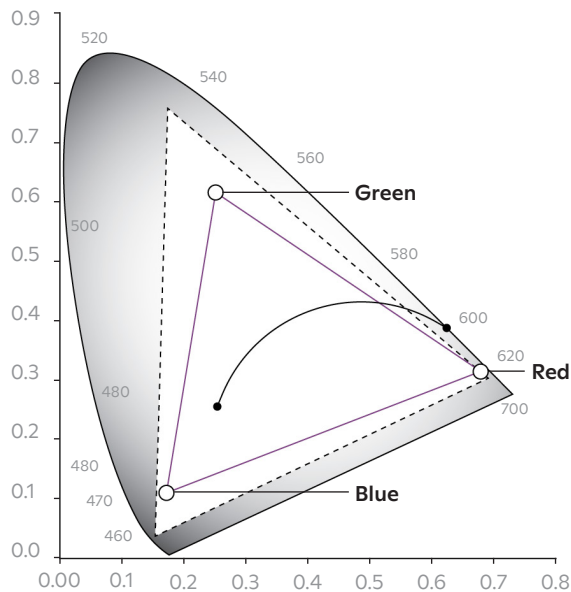
### PRODUCT DIMENSIONS



CAD files available upon request

## WIDE GAMUT

### CIE 1931 Color Chart



Ketra's D4R LED Downlight can easily be commissioned into Lutron HomeWorks or Athena systems. The product can reproduce any color point within the triangle shaped gamut indicated in the chart to the left. With Ketra's innovative optical and thermal feedback system, the color point is maintained to an accuracy of one-step MacAdam Ellipse over the lifetime of the product and across operating temperature range.

- **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.

## D4R 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 2,700K to 5,000K.

**Single Source Multi-Dye Modular Emitter/LED Module Design:** Employ a single source multi-dye modular emitter/LED module 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 warrantied 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).

<sup>1</sup> Color point maintenance not guaranteed while operating at ambient temperatures between -35 °C and 0 °C.