

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.

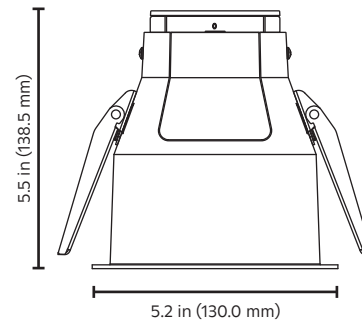
Finish



White



Black





D4R DOWNLIGHT



P/N 3662374 Rev G

Specifications are subject to change without notice

SPECIFICATIONS¹

Optical Performance

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

Environmental

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

Mechanical

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

Electrical

Power Consumption	D4R.13PLEN 13 W D4R.08ICAT 08.5 W
Power Factor	>0.9
Current	142 mA Max
Emergency Lighting	Evaluated by UL⁵ for use in emergency lighting systems in accordance with standard UL⁵ 924 and CSA C22.2 No. 141 when paired with the LVS™ model LUT-SHUNT-A-TD (UL⁵ file E206507)⁵.

¹ All performance measurements taken at 1 in regress depth, 3000K, 25 °C ambient, 100% power input, with a white baffle, unless otherwise stated.

² Lumen measurement complies with IES LM-79-08 testing procedures.

³ Lumen maintenance values calculated in accordance to TM-21 procedures based on LM-80 compliant measurement data.

⁴ Intensity and color point control requires compatible system.

⁵ See Lutron Application Note 106 (P/N 048106) at 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 or 844.588.6445.



D4R DOWNLIGHT



ORDERING GUIDE

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

Product Line	D4R	FXRD	Regress Depth	Baffle	Control System / Beam Angle	11	Trim Finish
Model	Fixture Style					Region / Voltage	
Power Consumption / Housing Rating	SP	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		
Power Consumption / Housing Rating					
				13 W, Plenum, Air Tight	13PLEN
				8.5 W, ICAT	08ICAT
Packaging					
				Single Pack	SP
Model		Control System / Beam Angle			
4 in (101.6 mm) Retrofit Downlight	D4R	CCX Spot (15°) ¹	GT15		
		CCX Flood (25°) ¹	GT25		
		CCX Wide Flood (40°) ¹	GT40		
		CCX Very Wide Flood (60°) ¹	GT60		
		CCX Extra Wide Flood (90°) ¹	GT90		
Fixture Style		Region / Voltage			
Fixed Round	FXRD	North America, 120 V~ 60 Hz	11		
Regress Depth					
No Baffle (0 in [0 mm])	00				
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				

¹ CCX stands for Clear Connect-Type X.



D4R DOWNLIGHT

COMPONENT ORDERING GUIDES

Replacement Light Engine

Product Line	D4R Model	LE Component	Beam Angle	11 Region / Voltage	Finish	Power Consumption/ Housing Rating
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Order code: _____

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

Replacement Baffle

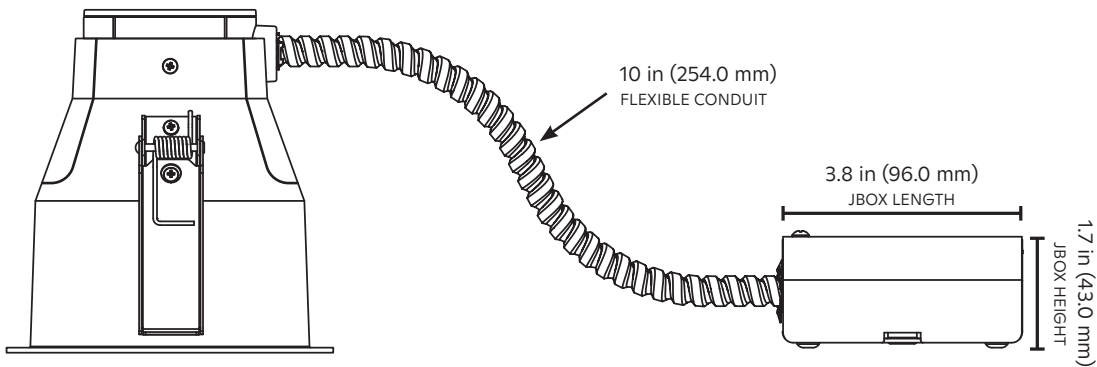
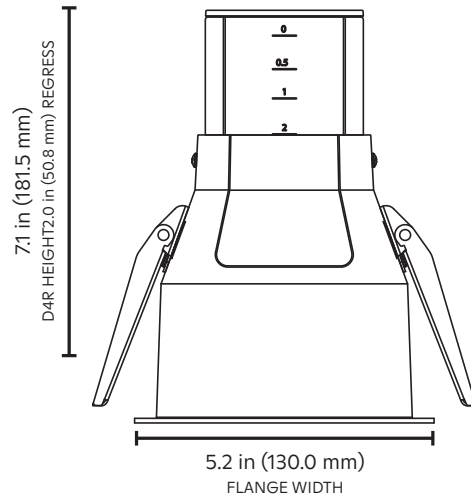
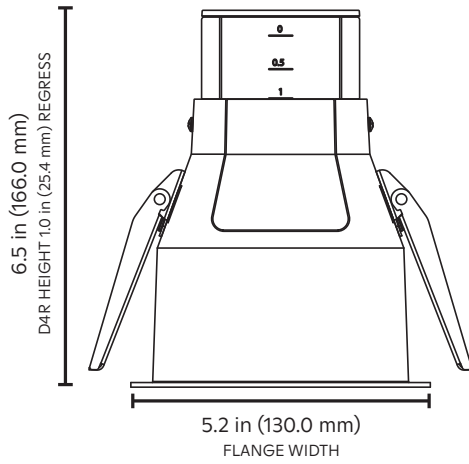
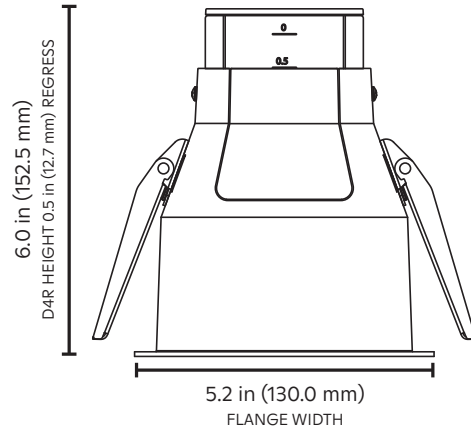
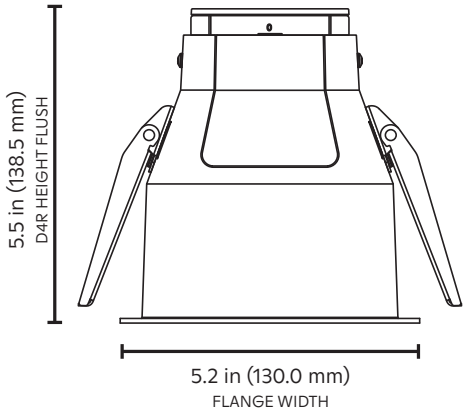
UN- Product Line	D4R Model	BF Component	RD Baffle Shape	Regress Depth	Finish
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Order code: _____

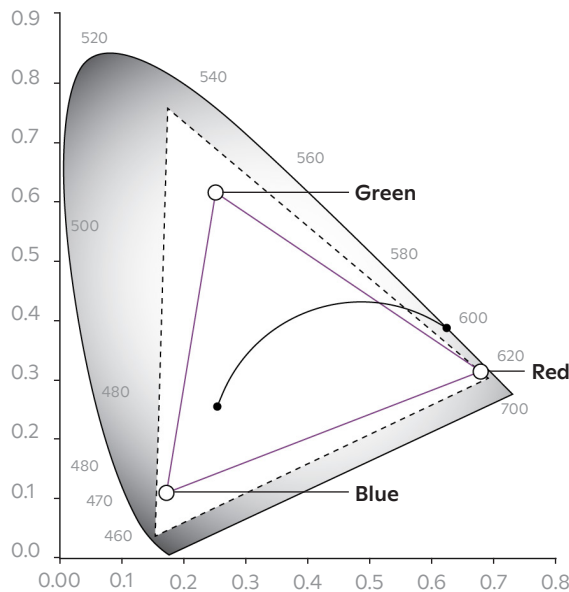
Product Line	Code	Baffle Shape	Code
Universal	UN-	Round	RD
Model	D4R	Regress Depth	
		Half Inch (0.5 in [12.7 mm])	05
		One inch (1 in [25.4 mm])	10
Component	BF	Two Inch (2 in [50.8mm])	20
		Finish	
Baffle		Black	BK
		White	WH

D4R DOWNLIGHT

PRODUCT DIMENSIONS



CAD files available upon request

D4R DOWNLIGHT
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 lifetime¹.

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 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).

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