

D3 Wall Wash, Square

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.

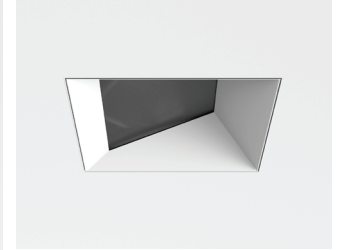
TruBeam—produces uniform color across any available beam angle.

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

Flanged



Mud-in



ORDERING GUIDE

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

Housing

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

Order code: _____

Trim

UN-		
Product Line		
		W
Model	Trim Color	Trim Accessory

Order code: _____

Product Line	Code	Beam Angle	Code
Commercial (Athena compatible)	CM-	Wall Wash	WW
Residential (HomeWorks compatible)	HW-	Region/Voltage	
		120 V~ 60 Hz, North America	11
		277 V~ 60 Hz, North America	12
Fixture / Trim		Housing Type	
D3 Wall Wash, Square	D3WWSQ	New Construction, IC/Airtight	NCIC
D3 Wall Wash, Square Mud-in	D3WWSM	Shipping Option	
Wattage		Single Pack	SP
9 W	09	(Default, ships with Butterfly Brackets & 24 in Nailer Bars to be installed in field)	
13 W	13		
18 W	18		
System			
KetraNet	BT		
CCX ³	GT		

Product Line	Code
Universal	UN-
Model	
D3 Square Wall Wash	D3TFSW1
*Not compatible with D3WWSM housing	
D3 Square Flangeless Wall Wash ²	D3TXSW1
**Not compatible with D3WWSQ housing	
Trim Color	
White	WH
Black	BK
Trim Accessory²	
Wall Wash	W

¹ Downlight is wet location rated.

² Flangeless trim not compatible with wood or stone ceilings.

³ CCX stands for Clear Connect Type X.



D3 WALL WASH SQUARE

P/N 3662373 Rev D

Specifications are subject to change without notice

SPECIFICATIONS¹

Optical & Electrical Performance

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

Environmental

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

Mechanical

Mounting Options	Hanger Bars/ Butterfly Brackets
Field Replaceable Optics	Yes
Field Replaceable Light Engine	Yes
Field Replaceable Power Supply	Yes
Housing Material	Powder Coated Steel, Polymer
Lens Material	Glass

Dimensions

Ceiling Square Cut-out	4 in (10.2 cm) flanged; 5.5 in (12.7 cm) mud-in
Trim Outside Dimension	4.63 in (11.7 cm) flanged; 3.75 in (9.4 cm) mud-in
Trim Thickness	1/16 in (1.5875 mm)
Optics Outside Dimension	2.5 in (6.35 cm)
Trim Depth	1 in (2.54 cm)
Ceiling Thickness	0.625 - 1.5 in (1.58 - 3.81 cm)
Aiming	Tilt Fixed at 20° 364° Rotation
Service Position	Tilt to 40° Full 364° Rotation
Emitter Vertical Adjustment (tool-free)	0.75 in (1.9 cm)
Housing Vertical Adjustment via Butterfly Bracket	1.75 in (4.45 cm)
Housing Height	3.50 in (8.89 cm)
Housing Length	18.38 in (46.68 cm)
Housing Width	10 in (25.4 cm)
Unit Weight	7.75 lb (3.51 kg)

¹ 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.

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.

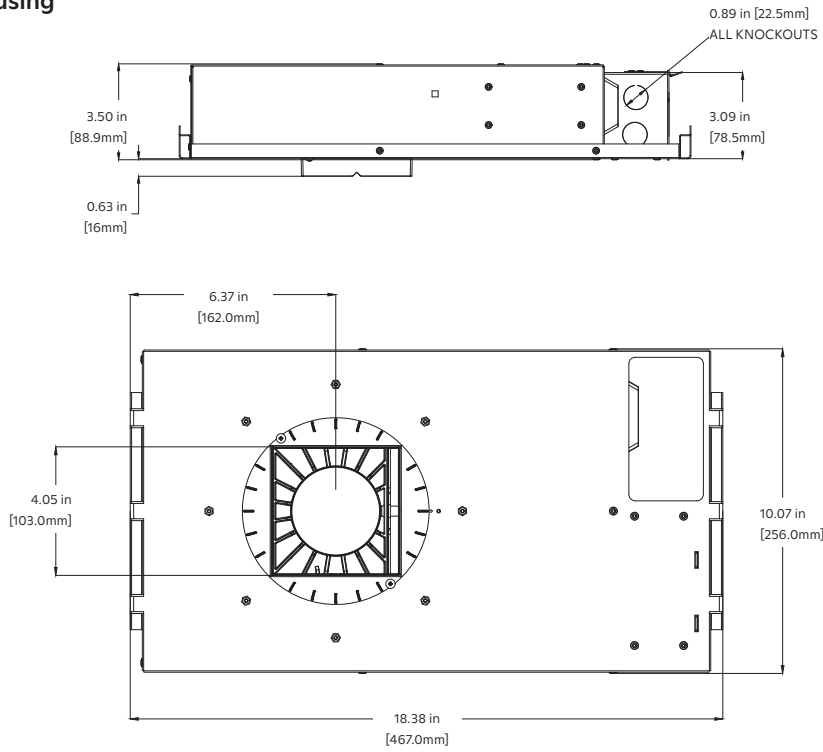
⁴ Intensity and color point control requires compatible system.

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

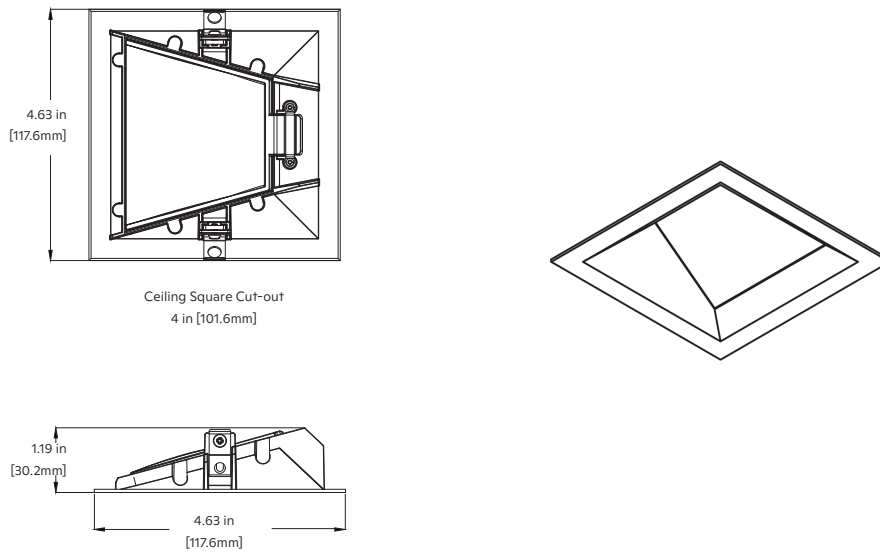


PRODUCT DIMENSIONS

Flanged Housing



Flanged Trim





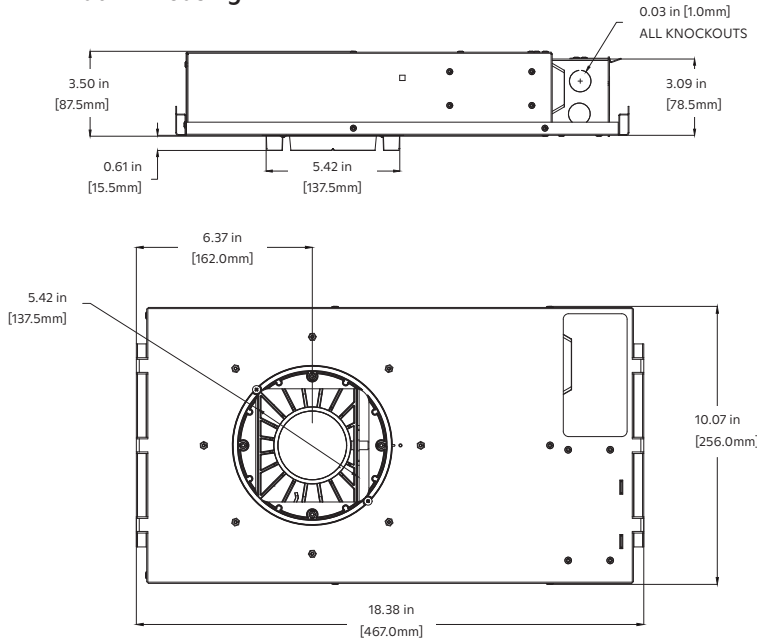
D3 WALL WASH SQUARE

P/N 3662373 Rev D

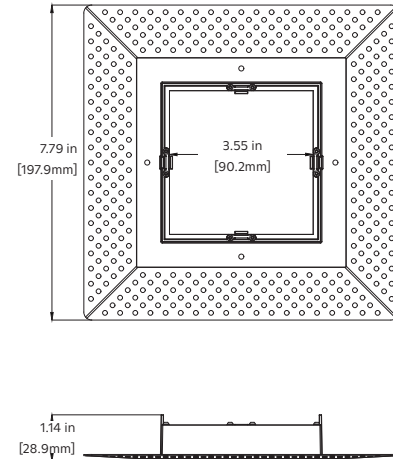
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PRODUCT DIMENSIONS

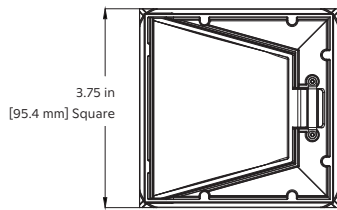
Mud-in Housing



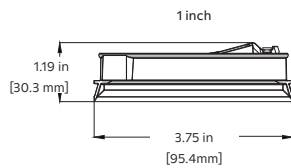
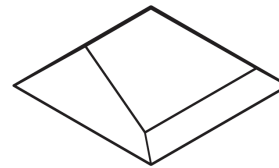
Mud-in Trim Retainer



Mud-in Trim



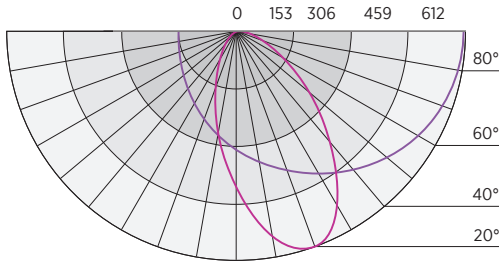
Ceiling Square Cut-Out
5.5 in [139.7 mm]



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

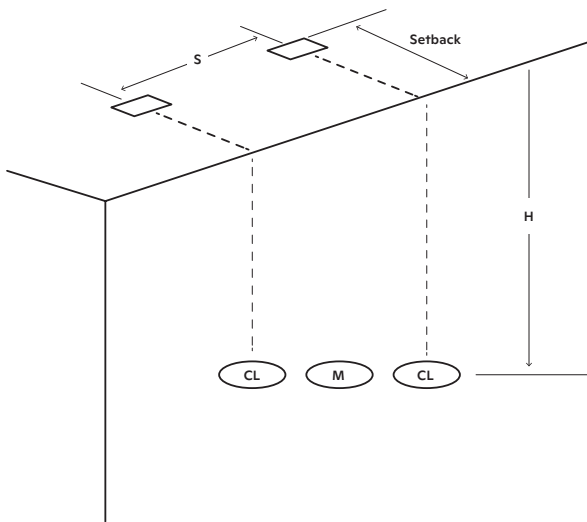
Beam Angle: Wall Wash

Product Code	Wattage	Lumens
D3WWSQ18BTWW	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



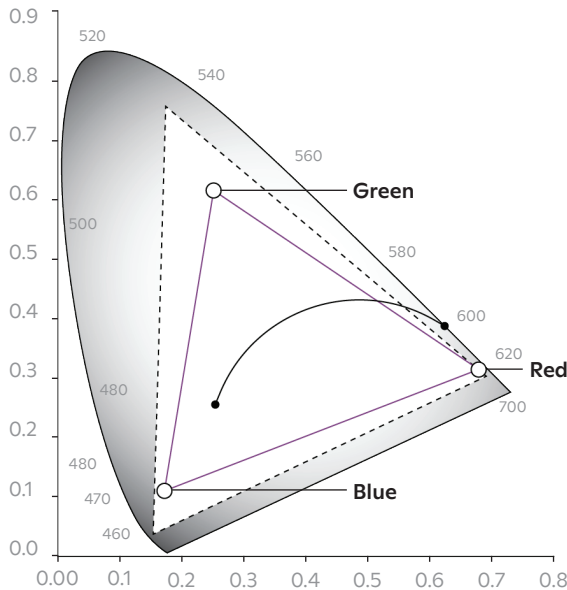
2 ft from wall ("Setback") 2 ft on Center (S) 3 ft on Center (S) 4 ft on Center (S)

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			

1 Calculated with five luminaires. Reflectances: 80, 50, 20.
 2 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.

Product Code	Wattage	Lumens
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. Note: 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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