

LD10236 with new E1 LED Light Engine

2 x LED Up And Down Wall Washer

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Design: Stan Baxter Lighting Design
Project: Private Residence
Product: LD10236

The new LD10236 features the all new E1 LED engine and a new range of optics. Tunable White and RGBW options are also available. A compact, high quality wall washer with excellent output. The LD10236 has a very minimal design ensuring it will blend into most interior and exterior project styles. Low glare has been achieved by setting the LED back into the fitting which is then held in place by a matt black anti glare ring. It has been used for general illumination and creating effects around buildings, as well as an extensive list of interior projects. LD10236 is available in a range of finishes.

Key Features

- New E1 engine, featuring the CREE XHP35 LED with 2-step binning
- New optional 2nd channel LEDs for secondary lighting applications
- New optics, featuring an impressively narrow 10° spot for lighting columns and arches, or a 15°x 49° spreader lens, ideal for wall washing
- Single optic produces a very consistent beam with no multiple shadows
- LED and lens recessed in a matt black anodised body for reduced glare
- Interior or exterior use
- High quality machined components
- Discreet fixing with two grub screws behind the body
- Minimal aesthetic enabling it to fit into most project styles
- Range of finish options
- Built-in reverse polarity protection
- LD10236 is available with RGBW and Tunable White LED engines
- Available with Switch, 0-10V, DMX, Dali or Mains dimmable drivers

**Specification**

Applications					
Beam Angles		10°, 19°, 34°, 54°, 15°x 49°			
LED type		2 x E1 LED Engine with 2-step binning			
		Please note, data below is for 2 x E1 LEDs			
Colour temperature		2700K** / 3000K / 4000K		5000K	
Current		350mA	500mA	350mA	500mA
LED power (Max)		10W (8.8W)*	14W (12.6W)*	10W (8.8W)*	14W (12.6W)*
CRI (Min)		85	85	80	80
Forward voltage (V) ₁₀₀		28V	28V	28V	28V
Delivered lumens (L ₁₀₀)		715	951	772	1022
Lumens per circuit watt		71	67	77	73
LED lifetime (to 70% lumen maintenance)		50,000hrs at a max ambient temperature of 35°C (if higher ambient then run at 350mA up to 45°C)			
Glass		3mm thick low iron glass			
Materials		Anodised aluminium body, with stainless steel fixing bracket			
Wiring		Comes pre-wired with 1m lead. Single colour equipped with 2 core cable, 2 Channel or TW engine with 4 core cable & RGBW with 8 core cable. Can be specified with up to 10m at extra cost.			
IP rating		IP67			

*indicates the nominal power for the LED run at that particular current and includes losses associated with using an 85% efficient driver

**2700K lumen output is 8% lower than the 3000K figure listed

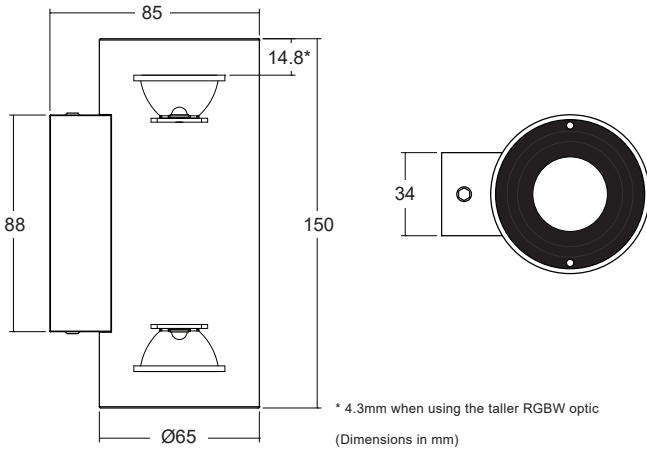
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Dimensions



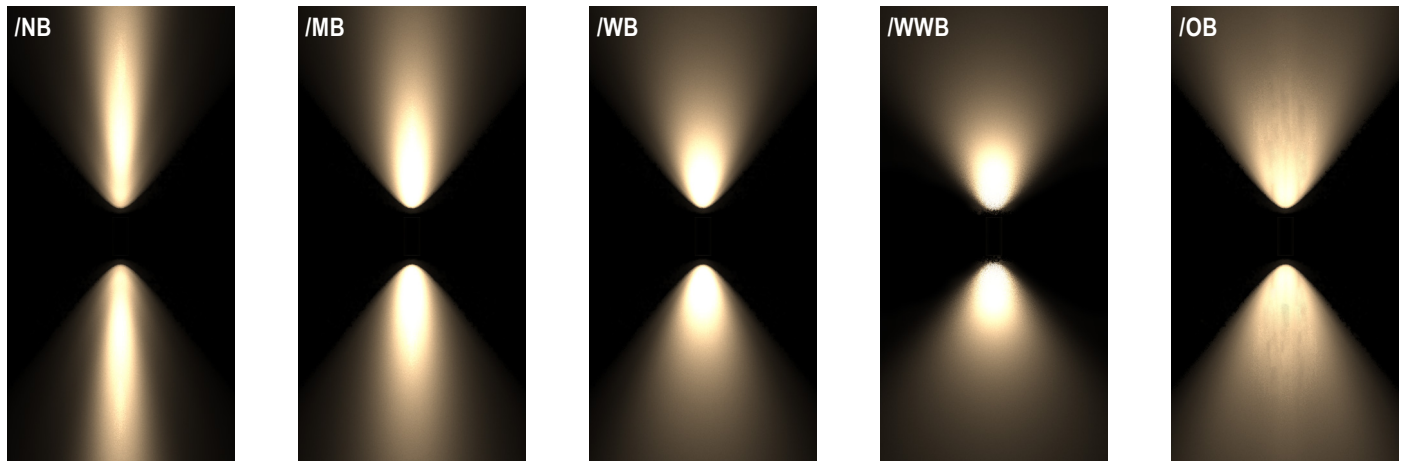
Finish Options

A range of finishes are available. Painted and anodised finishes are both suitable for exterior applications. However for harsh environments anodised is more hard wearing. Other RAL colour finishes available.



Cone Diagrams

Cone diagrams below are based on a 3000K E1 LED engine run at maximum output 500mA in one direction.



Narrow Beam
500mA using a 10° optic

Distance (m)	Luminance (lx)	
3.0	0.62	641
2.5	0.52	922
2.0	0.41	1441
1.5	0.31	2562
1.0	0.21	5765
0.5	0.10	23061

Cone Width (m)

Medium Beam
500mA using a 19° optic

Distance (m)	Luminance (lx)	
3.0	1.06	302
2.5	0.88	435
2.0	0.71	680
1.5	0.53	1210
1.0	0.35	2722
0.5	0.18	10887

Cone Width (m)

Wide Beam
500mA using a 34° optic

Distance (m)	Luminance (lx)	
3.0	1.97	107
2.5	1.64	154
2.0	1.32	241
1.5	0.99	429
1.0	0.66	965
0.5	0.33	3860

Cone Width (m)

Extra Wide Beam
500mA using a 54° optic

Distance (m)	Luminance (lx)	
3.0	3.06	52
2.5	2.55	75
2.0	2.04	117
1.5	1.53	208
1.0	1.02	467
0.5	0.51	1869

Cone Width (m)

Oval Beam
500mA using a 15° X 49° optic

Distance (m)	Luminance (lx)	
3.0	2.72 / 0.75	189
2.5	2.27 / 0.62	272
2.0	1.81 / 0.50	425
1.5	1.36 / 0.37	756
1.0	0.91 / 0.25	1701
0.5	0.45 / 0.12	6806

Cone Width (m)

Photometric files (LDT) are included in the design pack which can be downloaded from the LD10236 product page on the website.

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Product Features**OPTIC**

Revised high efficiency optics with a new range of beam angles to create the ideal lit effect.

LED

- E1 LED engine.
- E1 LED engine, with the optional 2nd channel.
- TW Tunable White LED engine.
- RGBW LED engine with colour mix lens.
- CLR Colour LED engine.

BODY

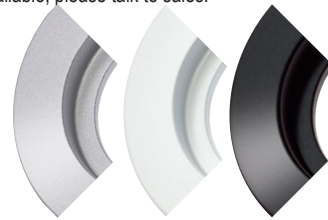
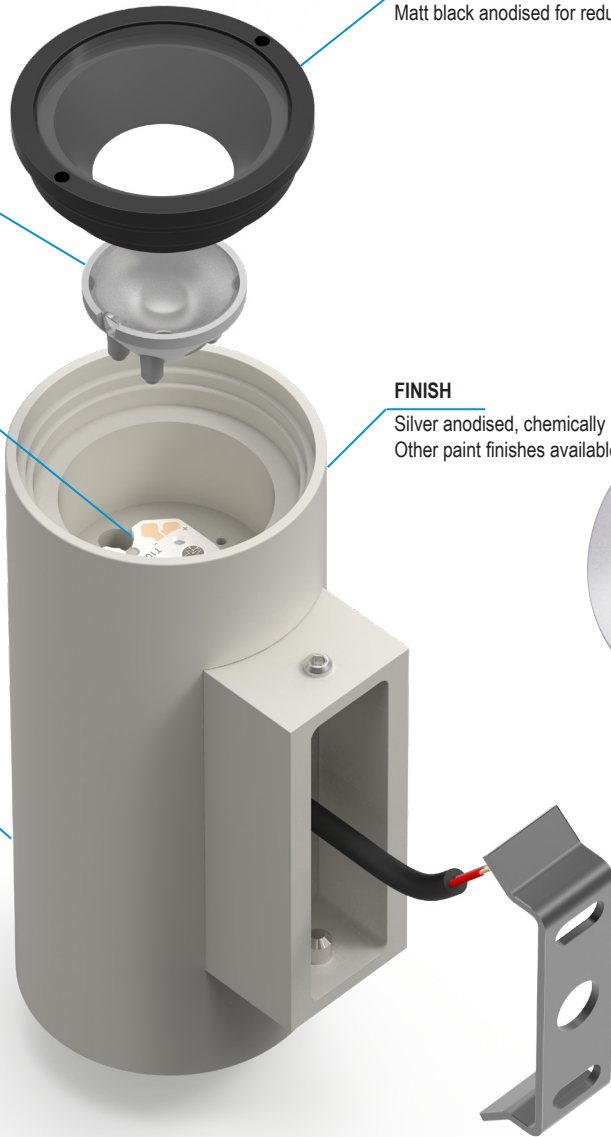
Machined and anodised body. 6000 series aluminium chosen for its thermal characteristics and resistance to corrosion.

BEZEL

Matt black anodised for reduced glare.

FINISH

Silver anodised, chemically brightened, paint finish white (RAL 9016) / black / RAL. Other paint finishes available, please talk to sales.



LD10236 with new E1 LED Light Engine













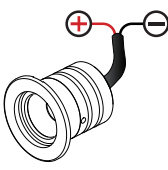
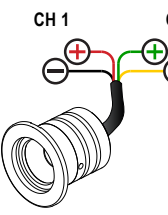
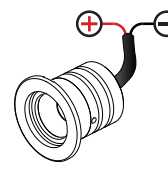
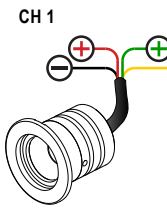
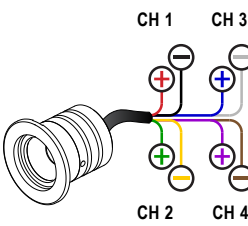
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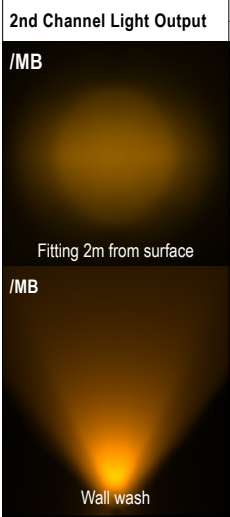
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LED Options and Technology

New LED Options

LD10236 is now available with a choice of light engines which feature a new all copper board for increased thermal transfer. The new E1 light engine for white light applications uses the new Cree XHP35 LED and features on board polarity protection.. This smaller LED chip has enabled a wider range of beam angles to be offered, coupled with increased efficiencies. This engine is also available with two extra LEDs on a second channel, for night lighting and marine navigation applications. The new tunable white engine offers a choice of dynamic colour options.


	E1 Light Engine (White light) 	E1-2CH 2nd channel board 	CLR - Colour 	TW - Tunable White 	RGBW 
LED Board					
LED type	Cree XHP35	Cree XHP35 + XQE's	Cree XQE's	Cree XQE's	Cree XML
Key Features	<ul style="list-style-type: none"> - Available in 2700K, 3000K, 4000K and 5000K - Very small chip size - Tighter narrow beams - Wider range of beam angles - 2 step binning - Brighter more efficient LED - On board polarity protection - All copper LED board for increased thermal transfer 	<ul style="list-style-type: none"> - Main white LED with optional 2nd channel for night lighting or marine navigation applications - 2nd channel comprises of 2 XQE LEDs mounted next to the XHP35 - Beam shape from the XQE's is different from the main LED as they are mounted to the sides of the optic - 2 driver circuits required - All copper LED board 	<ul style="list-style-type: none"> - 4 colour XQE LEDs mounted under a single optic - All copper LED board - Red, Blue, Green and Amber colour LED options - Single LED circuit 	<ul style="list-style-type: none"> - 4 XQE LEDs mounted under a single optic - 2 LEDs per colour - Excellent dynamic white mixing from a range of optics - All copper LED board - 2 driver circuits required 	<ul style="list-style-type: none"> - RGBW LEDs mounted under a single 26deg optic for superb colour mixing - White LED is 4000K - All copper LED board - 4 LED circuits required
Cables					
Lumen output	See front page	See front page		See table below	



Colour temperature	Warm White 2700K or 3000K	Cool White 4000K or 5000K
Current	500mA	500mA
LED power (Max) All channels in use	7W (6.3W) 3.5W per channel	
CRI (Min)	85	
Delivered lumens (L ₁₀₀)	148lm	188lm
Lumens per circuit watt	42	54

Industry Leading LED Thermal Management

High quality, embedded copper PCB, with direct contact cooling for the LEDs providing industry leading thermal management of the LED. Guaranteeing long life and minimal colour shift.



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Order Codes and Options

White LED Options - E1 Light Engine

Product code	LED colour	Beam angle(s)	Finish
LD10236-E1 - 350 - 500			

Example: LD10236-E1-500 / LW30 / NB / NB / Silver Anodised

Product codes with output options

10W LED at 350mA	LD10236-E1-350
14W LED at 500mA	LD10236-E1-500

LED colour options

LED colour options	Suffix
Extra Warm White (2700K)	/LW27
Warm White (3000K)	/LW30
White (4000K) - on request	/LW40
Cool White (5000K)	/LW50
With 2nd channel (red for navigation or amber night lighting) LD10236-E1-2CH	/LW**+L*

*For other single colour options, please discuss with the sales team

Beam / lens angle options

10° narrow spot	/NB
19° medium	/MB
34° wide	/WB
54° extra wide	/WWB
15° x 49° oval	/OB

Finish options

Silver anodised
Polished and chemically brightened (stainless steel effect)
Paint finish black / white (RAL 9016) / antique bronze / satin antique brass / satin brass / RAL finish

Use with 350mA & 500mA constant current LED drivers

We have a wide range of dimmable LED drivers, 0-10V, DMX, DALI and Mains dimmable. Please see the downloads section on our website:
To run 1-2 LD10236-E1-350 in series use a TXDEL350D (0-10V dimmable)
To run 1-2 LD10236-E1-500 in series use a TXDEL500D (0-10V dimmable)

Colour LED Options - CLR Light Engine

Example: LD10236-CLR-500 / LR / MB / MB / Silver Anodised

LED colour options (max 500mA)

LED colour options (max 500mA)	Suffix
Red	/LR
Green	/LB
Blue	/LG
Amber	/LA

Driver requirements identical to E1 engine, beam angles identical to TW engine

Tunable White Options - TW Light Engine

Product code	LED colour	Beam angle(s)	Finish
LD10236-TW - 350 - 500			

Example: LD10236-TW-500 / LW27 + LW40 / MB / MB / Silver Anodised

Product codes with output options

10W LED at 350mA - 2 channels of 4 x 1.2W	LD10236-TW-350
14W LED at 500mA - 2 channels of 4 x 1.7W	LD10236-TW-500

LED colour options

LED colour options	Suffix
Tunable White 2700K & 4000K (standard option)	/LW27 + LW40
Tunable White 2700K & 5000K	/LW27 + LW50
Custom	/LW** + LW**

Fitting comprised of 2x LEDs in one colour temperature & 2x LEDs in another. Other white colour options available on request, please discuss with our sales team.

Beam / lens angle options

Narrow spot not available due to poor colour mixing	
24° medium	/MB
38° wide	/WB
54° extra wide	/WWB
20° x 46° oval	/OB

Finish options

Same as White LED options using the E1 Light Engine

Use with 350mA & 500mA constant current LED drivers

We have a wide range of dimmable LED drivers, 0-10V, DMX, DALI and Mains dimmable. Please see the downloads section on our website:
To run 1-3 LD10236-TW-350 in series use a 2x TXDEL350D (0-10V dimmable)
To run 1-3 LD10236-TW-500 in series use a 2x TXDEL500D (0-10V dimmable)

Colour Change RGBW Options - RGBW Light Engine

Product code	Finish
LD10236-RGBW - 350 - 500	

Example: LD10236-RGBW-500 / Silver Anodised

Product codes with output options

10W LED at 350mA (8x 1.2W LEDs)	LD10236-RGBW-350
14W LED at 500mA (8x 1.7W LEDs)	LD10236-RGBW-500

RGBW features a 4000K white LED for creating hues

Beam / lens angle options

38° colour mix lens

Finish options

Same as White LED options using the E1 Light Engine

Use with 350mA & 500mA constant current LED drivers

We have a range of dimmable LED drivers DMX and DALI compatible. Please see the downloads section on our website:
To run 1-6 LD10236-RGBW-350 in series use a TXDEL4A350DMX or TXDEL4A350DALI
To run 1-6 LD10236-RGBW-500 in series use a TXDEL4A500DMX or TXDEL4A500DALI