# LD10237 with new E1 LED Light Engine

LED Up or Down Wall Washer

350mA · 500mA · 700mA · IP67 · F · III

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

The new LD10237 features an all new E1 LED engine, along with a new range of optics. Tunable White and RGBW options are also available. A compact, high quality wall washer with excellent output. The LD10237 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. It 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 is 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 bezel for reduced glare
- High quality machined components
- Interior or exterior use
- Minimal aesthetic enabling it to fit into most project styles
- Discreet fixing with two grub screws behind the body
- Built-in reverse polarity protection
- LD10237 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: 1 x E1 LED Engine with 2-step binning (LED data below)

| Colour temperature | 2700K** / 3000K / 4000K | | | 5000K | | |
|---|---|---|---|---|---|---|
| Current | 350mA | 500mA | 700mA | 350mA | 500mA | 700mA |
| LED power (Max) | 5W (4.4W)* | 7W (6.3W)* | 10W (9W)* | 5W (4.4W)* | 7W (6.4W)* | 10W (9W)* |
| CRI (Min) | 85 | 85 | 85 | 80 | 80 | 80 |
| Forward voltage (V)$_{100}$ | 14V | 14V | 14V | 14V | 14V | 14V |
| Delivered lumens (L$_{100}$) | 358 | 474 | 566 | 386 | 511 | 611 |
| Lumens per circuit watt | 71 | 67 | 56 | 77 | 73 | 61 |

| | |
|---|---|
| LED lifetime (to 70% lumen maintenance) | 50,000hrs at a max ambient temperature of 35°C (if higher ambient then run at 500mA 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

# LD10237 with new E1 LED Light Engine

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## Dimensions

34

85

88

115

14.8*

Ø65
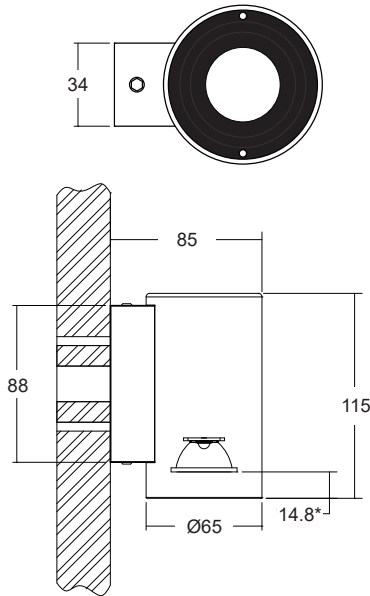
* 4.3mm when using the taller RGBW optic
(Dimensions in mm)

## 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 finishes available.

**Paint Finish Silver Anodised**

**Paint Finish White**

**Paint Finish Black**

**Polished and Chemically Brightened**

*Fitting shown is a modified LD10236

## Cone Diagrams

Cone diagrams below are based on a 3000K E1 LED engine run at maximum output 700mA, 10W. Example images shown is a fitting wall washing a 3m wall.

**/NB**

**/MB**

**/WB**

**/WWB**

**/OB**
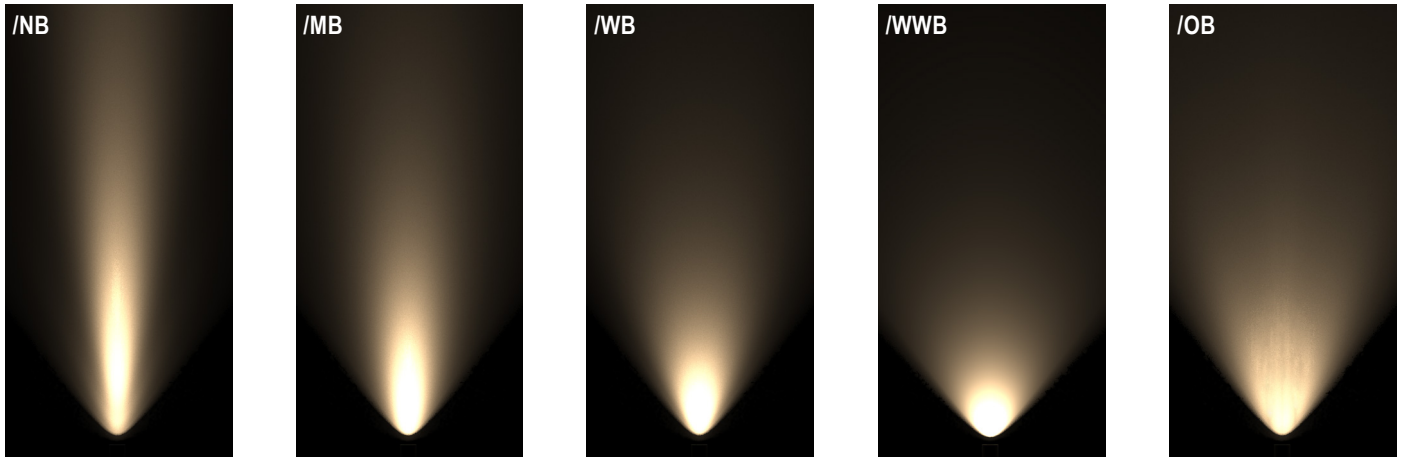
### Narrow Beam
700mA using a 10° optic

| Distance (m) | | Luminance (lx) |
|---|---|---|
| 3.0 | 0.62 | 765 |
| 2.5 | 0.52 | 1102 |
| 2.0 | 0.41 | 1721 |
| 1.5 | 0.31 | 3060 |
| 1.0 | 0.21 | 6884 |
| 0.5 | 0.10 | 27538 |

Cone Width (m)

### Medium Beam
700mA using a 19° optic

| Distance (m) | | Luminance (lx) |
|---|---|---|
| 3.0 | 1.06 | 369 |
| 2.5 | 0.88 | 531 |
| 2.0 | 0.71 | 830 |
| 1.5 | 0.53 | 1475 |
| 1.0 | 0.35 | 3319 |
| 0.5 | 0.18 | 13278 |

Cone Width (m)

### Wide Beam
700mA using a 34° optic

| Distance (m) | | Luminance (lx) |
|---|---|---|
| 3.0 | 1.97 | 131 |
| 2.5 | 1.64 | 188 |
| 2.0 | 1.32 | 294 |
| 1.5 | 0.99 | 523 |
| 1.0 | 0.66 | 1176 |
| 0.5 | 0.33 | 4706 |

Cone Width (m)

### Extra Wide Beam
700mA using a 54° optic

| Distance (m) | | Luminance (lx) |
|---|---|---|
| 3.0 | 3.06 | 63 |
| 2.5 | 2.55 | 91 |
| 2.0 | 2.04 | 142 |
| 1.5 | 1.53 | 253 |
| 1.0 | 1.02 | 570 |
| 0.5 | 0.51 | 2279 |

Cone Width (m)

### Oval Beam
700mA using a 15° X 49° optic

| Distance (m) | | Luminance (lx) |
|---|---|---|
| 3.0 | 2.72 / 0.75 | 217 |
| 2.5 | 2.27 / 0.62 | 312 |
| 2.0 | 1.81 / 0.50 | 488 |
| 1.5 | 1.36 / 0.37 | 868 |
| 1.0 | 0.91 / 0.25 | 1952 |
| 0.5 | 0.45 / 0.12 | 7809 |

Cone Width (m)

Photometric files (LDT) are included in the design pack which can be downloaded from the LD10237 product page on the website.

## LD10237 with new E1 LED Light Engine

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### Product Features

**BEZEL**
Matt black anodised for reduced glare.

**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.
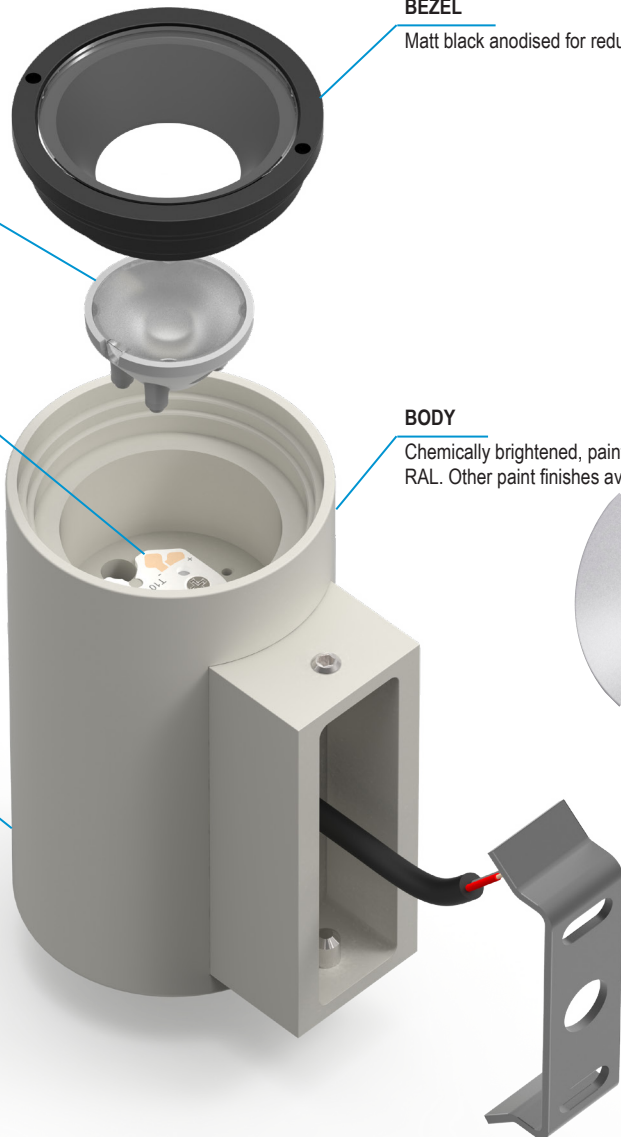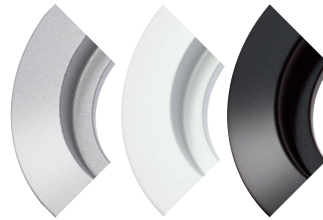- RGBW LED engine with colour mix lens.
- CLR Colour LED engine.

**BODY**
Chemically brightened, paint finish silver anodised / white (RAL 9016) / black / RAL. Other paint finishes available, please talk to sales..

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

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## LD10237 with new E1 LED Light Engine

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### LED Options and Technology

#### New LED Options

LD10237 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 | - Available in 2700K, 3000K, 4000K and 5000K<br>- Very small chip size<br>- Tighter narrow beams<br>- Wider range of beam angles<br>- 2 step binning<br>- Brighter more efficient LED<br>- On board polarity protection<br>- All copper LED board for increased thermal transfer | - Main white LED with optional 2nd channel for night lighting or marine navigation applications<br>- 2nd channel comprises of 2 XQE LEDs mounted next to the XHP35<br>- Beam shape from the XQE's is different from the main LED as they are mounted to the sides of the optic<br>- 2 driver circuits required<br>- All copper LED board | - 4 colour XQE LEDs mounted under a single optic<br>- All copper LED board<br>- Red, Blue, Green and Amber colour LED options<br>- Single LED circuit | - 4 XQE LEDs mounted under a single optic<br>- 2 LEDs per colour<br>- Excellent dynamic white mixing from a range of optics<br>- All copper LED board<br>- 2 driver circuits required | - RGBW LEDs mounted under a single 26deg optic for superb colour mixing<br>- White LED is 4000K<br>- All copper LED board<br>- 4 LED circuits required |
| Cables | | CH 1   CH 2 | | CH 1   CH 2 | CH 1  CH 3<br>CH 2  CH 4 |
| Lumen output | See front page | See front page | | See table below | |

**2nd Channel Light Output**

**/MB**

Fitting 2m from surface

**/MB**

Wall wash

| Tunable white lumen output data | | |
|---|---|---|
| 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 managment of the LED. Guaranteeing long life and minimal colour shift.

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# LD10237 with new E1 LED Light Engine

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## Order Codes and Options

### White LED Options - E1 Light Engine

| Product code | LED colour | Beam angle | Finish |
|---|---|---|---|
| LD10237-E1 - 350<br>- 500<br>- 700 | | | |

Example: LD10237-E1-500 / LW30 / NB / Silver Anodised

#### Product codes with output options

| | |
|---|---|
| 5W LED at 350mA | **LD10237-E1-350** |
| 7W LED at 500mA | **LD10237-E1-500** |
| 10W LED at 700mA | **LD10237-E1-700** |

#### 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) LD10237-E1-2CH | /LW**+L* |

*Other LED colour temperatures are available. Please speak to a member of our 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

Polished and chemically brightened (stainless steel effect)

Paint finish silver anodised / black / white (RAL 9016) / antique bronze / satin antique brass / satin brass / RAL finish

#### Use with 350mA, 500mA & 700mA 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 1-4 LD10237-E1-350 in series use a TXDEL350D (0-10V dimmable)
To run 1-4 LD10237-E1-500 in series use a TXDEL500D (0-10V dimmable)
To run 1-3 LD10237-E1-700 in series use a TXDEL700D (0-10V dimmable)

### Colour LED Options - CLR Light Engine

Example: LD10237-CLR-500 / LR / MB / Black / SMB

#### 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 | Finish |
|---|---|---|---|
| LD10237-TW- 350<br>- 500 | | | |

Example: LD10237-TW-500 / LW27 + LW40 / MB / Silver Anodised

#### Product codes with output options

| | |
|---|---|
| 5W LED at 350mA - 2 channels of 2 x 1.2W | **LD10237-TW-350** |
| 7W LED at 500mA - 2 channels of 2 x 1.7W | **LD10237-TW-500** |

#### 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 1-7 LD10237-TW-350 in series use 2x TXDEL350D (0-10V dimmable)
To run 1-7 LD10237-TW-500 in series use 2x TXDEL500D (0-10V dimmable)

### Colour Change RGBW Options - RGBW Light Engine

| Product code | Finish |
|---|---|
| LD10237-RGBW - 350<br>- 500 | |

Example: LD10237-RGBW-500 / Silver Anodised

#### Product codes with output options

| | |
|---|---|
| 5W LED at 350mA (4x 1.2W LEDs) | **LD10237-RGBW-350** |
| 7W LED at 500mA (4x 1.7W LEDs) | **LD10237-RGBW-500** |
| RGBW features a 4000K white LED for creating hues | |

#### Beam / lens angle

| | |
|---|---|
| 38° colour mix lens | /MB |

#### 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 2-13 LD10237-RGBW-350 in series use a TXDEL4A350DMX or TXDEL4A350DALI
To run 2-13 LD10237-RGBW-500 in series use a TXDEL4A500DMX or TXDEL4A500DALI

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