

# LD10235 with E1 LED Light Engine



## High Power Floor or Ceiling Mounted Spotlight

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LD10235 is a high power floor or ceiling mounted spotlight. It has been designed for applications where a recessed fitting cannot be installed, and a surface mounted solution is required. The LD10235 features a deep recessed E1 LED engine, optional glare shields and a range of optics. The LD10235 has been designed specifically to produce low glare illumination to walls and columns. This is a very tough, high quality fitting, machined from high grade materials ensuring excellent thermal and light output performance. Ideal for interior and exterior applications, incorporating an integral anti-wicking barrier for added protection. The LD10235 is available with a choice of switched; 0-10V, DMX, Dali or Mains dimmable remote drivers.



### Key Features

- E1 engine, featuring the CREE XHP35 LED with 2-step binning
- Surface mounted version of the LD151/LD150
- Optional 2nd channel LEDs for secondary lighting applications
- Range of beam angles, featuring an impressively narrow 10° spot for lighting columns and arches, or a 15°x 49° spreader lens, which is ideal for wall washing applications
- Single optic produces a very consistent beam with no multiple shadows
- LED and lens recessed in a matt black anodised body for reduced glare
- Optional glare shield accessories available
- Minimal aesthetic enabling it to fit into most project styles
- Body machined from a solid billet of aluminium
- Range of finishes available
- Built-in reverse polarity protection

### 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	2700K** / 3000K / 4000K			5000K		
	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 (Typical)	85	85	85	80	80	80
Forward voltage (V) <sub>100</sub>	14V	14V	14V	14V	14V	14V
Delivered lumens (L <sub>100</sub> )***	347	437	555	374	472	599
Lumens per circuit watt	69	62	55	75	67	59

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 Machined and anodized aluminium body, with a black anodised bezel

Wiring Comes pre-wired with a 1m lead, can be specified with up to 10m at extra cost

IP rating IP67

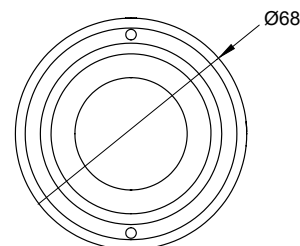
\*indicates the nominal power for the LED run at that particular current and includes losses associated with using an 85% efficient driver

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

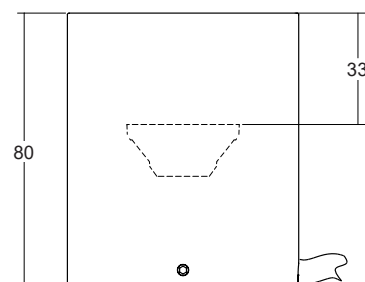
\*\*\*lumen output indicated is without the glare shield. Allow 30% less with the /GS glare shield.

### Dimensions

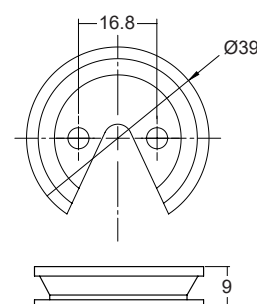
#### Top View



#### Side View



#### Mounting plate



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## Glare Shields

LD10235 comes with a choice of glare control options to further reduce glare from the LED and optic. This does not reduce the light on the lit surface (wall) but will cut out some light onto the ceiling or floor.



**/NGS**  
No glare shield. Deep recessed optic and matt black anodised optic holder aids in glare reduction.



**/GS**  
Standard glare shield provides an excellent balance between glare control and light output. This accessory works well in most applications.

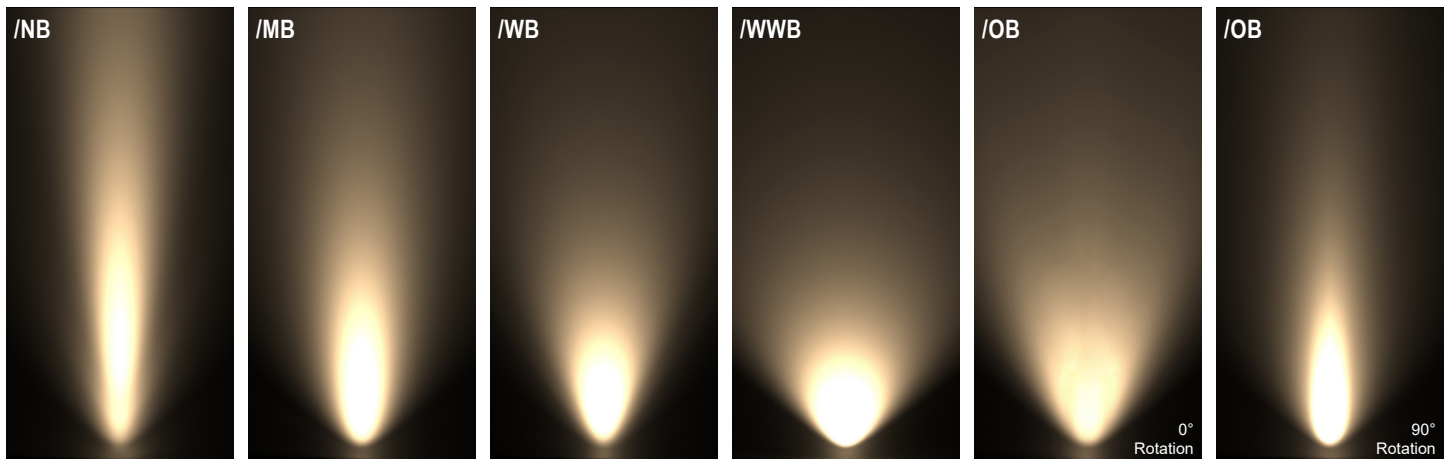


**/GSHM**  
Half-moon glare shield for applications that require very low glare. Minimal loss of light on lit surface (wall) but overall lumen output typically reduced by 50-60%.

Please refer to our photometric files for lumen data. These are available to download from the website.

## Cone Diagrams

Cone diagrams below are based on a 3000K E1 LED engine run at maximum output 700mA, 10W. Images below represents beam outputs when wall washing a 3m wall, spaced 125mm away from the lit surface.



**Narrow Beam**  
700mA using a 10° optic

Distance (m)	Luminance (lx)	
3.0	0.62	750
2.5	0.52	1080
2.0	0.41	1688
1.5	0.31	3000
1.0	0.21	6751
0.5	0.10	27002

Cone Width (m)

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

Distance (m)	Luminance (lx)	
3.0	1.06	346
2.5	0.88	498
2.0	0.71	779
1.5	0.53	1384
1.0	0.35	3114
0.5	0.18	12456

Cone Width (m)

**Wide Beam**  
700mA using a 34° optic

Distance (m)	Luminance (lx)	
3.0	1.97	114
2.5	1.64	164
2.0	1.32	256
1.5	0.99	455
1.0	0.66	1024
0.5	0.33	4095

Cone Width (m)

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

Distance (m)	Luminance (lx)	
3.0	3.06	55
2.5	2.55	79
2.0	2.04	124
1.5	1.53	220
1.0	1.02	496
0.5	0.51	1984

Cone Width (m)

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

Distance (m)	Luminance (lx)	
3.0	2.70 / 0.74	190
2.5	2.25 / 0.61	274
2.0	1.80 / 0.49	428
1.5	1.35 / 0.37	761
1.0	0.90 / 0.25	1712
0.5	0.45 / 0.12	6846

Cone Width (m)

Photometric files (LDT) are included in the design pack which can be downloaded from the LD10235 product page on the website.

# LD10235 with E1 LED Light Engine

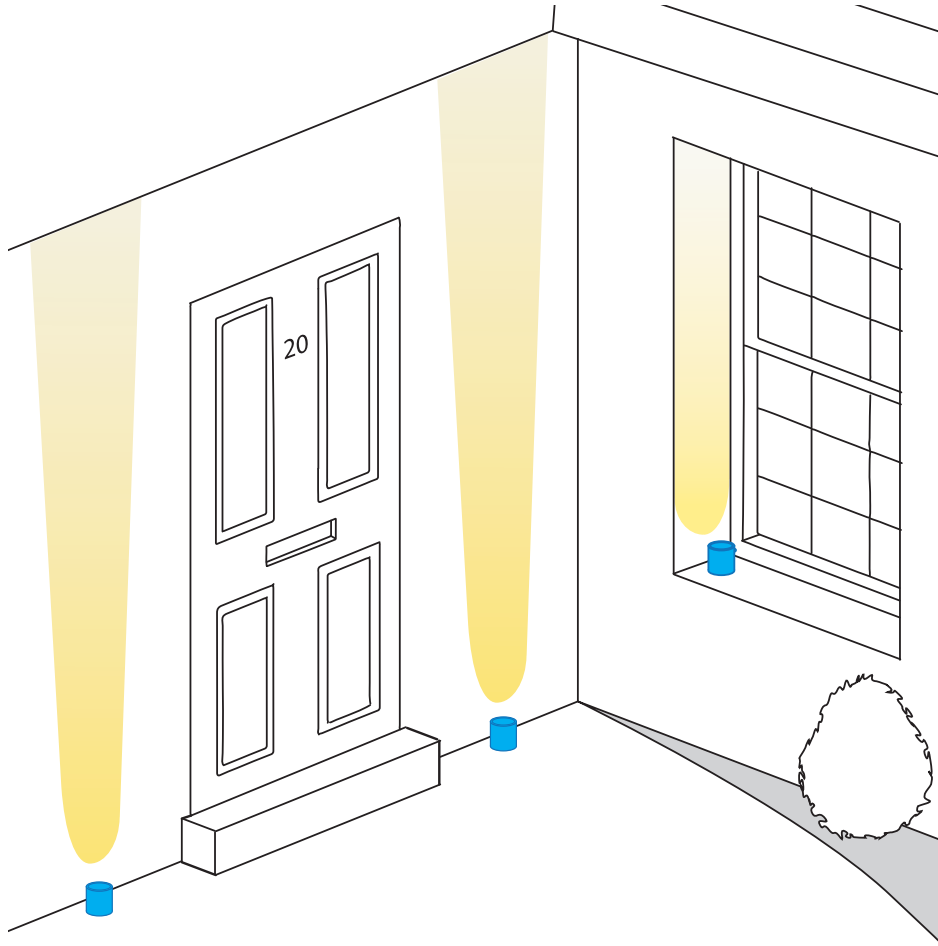


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## Applications

LD10235 is incredibly versatile, allowing it to be used in a variety of applications from lighting window reveals to wall and floor washing.



## Finish Options

A range of finishes are available, as shown below. Silver anodized and painted finishes are suitable for both interior and exterior applications. However for harsh environments, anodizing is harder wearing. Please refer to our finishes guide for more information.

Silver Anodized

Paint Finish  
Black

Paint Finish  
White

Paint Finish  
Antique Bronze

Paint Finish  
Satin Antique  
Brass

Paint Finish  
Satin Brass



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**Product Parts**



# LD10235 with E1 LED Light Engine



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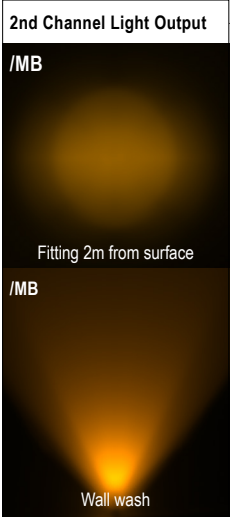
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## LED Options and Technology

### LED Options

LD10235 is now available with a choice of light engines which feature an all copper board for increased thermal transfer. The E1 light engine for white light applications uses the 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.

	<b>E1 Light Engine (White light)</b>	<b>E1-2CH 2nd channel board</b>	<b>CLR - Colour</b>	<b>TW - Tunable White</b>	<b>RGBW</b>
LED Board					
LED type	Cree XHP35	Cree XHP35 + XQEs	Cree XQEs	Cree XQEs	Cree XML
Key Features	<ul style="list-style-type: none"> <li>- Available in 2700K, 3000K, 4000K and 5000K</li> <li>- Very small chip size</li> <li>- Tighter narrow beams</li> <li>- Wider range of beam angles</li> <li>- 2 step binning</li> <li>- Brighter more efficient LED</li> <li>- On board polarity protection</li> <li>- All copper LED board for increased thermal transfer</li> </ul>	<ul style="list-style-type: none"> <li>- Main white LED with optional 2nd channel for night lighting or marine navigation applications</li> <li>- 2nd channel comprises of 2 XQE LEDs mounted next to the XHP35</li> <li>- Beam shape from the XQE's is different from the main LED as they are mounted to the sides of the optic</li> <li>- 2 driver circuits required</li> <li>- All copper LED board</li> </ul>	<ul style="list-style-type: none"> <li>- 4 colour XQE LEDs mounted under a single optic</li> <li>- All copper LED board</li> <li>- Red, Blue, Green and Amber colour LED options</li> <li>- Single LED circuit</li> </ul>	<ul style="list-style-type: none"> <li>- 4 XQE LEDs mounted under a single optic</li> <li>- 2 LEDs per colour</li> <li>- Excellent dynamic white mixing from a range of optics</li> <li>- All copper LED board</li> <li>- 2 driver circuits required</li> </ul>	<ul style="list-style-type: none"> <li>- RGBW LEDs mounted under a single 26deg optic for superb colour mixing</li> <li>- White LED is 4000K</li> <li>- All copper LED board</li> <li>- 4 LED circuits required</li> </ul>
Cables					
Lumen output	See page 1	See page 1		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 <sub>100</sub> )	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	Glare shield	Finish
LD10235-E1 - 350 - 500 - 700				

Example: LD10235-E1-350 / LW30 / NB / NGS / White

#### Product codes with output options

5W LED at 350mA	LD10235-E1-350
7W LED at 500mA	LD10235-E1-500
10W LED at 700mA	LD10235-E1-700

#### 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) LD10235-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

#### Glare shield

No glare shield	/NGS
Standard glare shield	/GS
Half-moon glare shield	/GSHM

#### Body finish options

Silver anodised
Paint finish 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 LD10235-E1-350 in series use a TXDEL350D (0-10V dimmable)  
 To run 1-4 LD10235-E1-500 in series use a TXDEL500D (0-10V dimmable)  
 To run 1-3 LD10235-E1-700 in series use a TXDEL700D (0-10V dimmable)

### Colour LED Options - CLR Light Engine



Example: LD10235-CLR-500 / LR / MB / NGS / White / 484N

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	Glare shield	Finish
LD10235-TW - 350 - 500				

Example: LD10235-TW-350 / LW27 + LW40 / NB / NGS / White

#### Product codes with output options

5W LED at 350mA - 2 channels of 2 x 1.2W	LD10235-TW-350
7W LED at 500mA - 2 channels of 2 x 1.7W	LD10235-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

#### Beam, and Glare shield options

Same as White LED options using the E1 Light Engine

#### 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 LD10235-TW-350 in series use 2x TXDEL350D (0-10V dimmable)  
 To run 1-7 LD10235-TW-500 in series use 2x TXDEL500D (0-10V dimmable)

### Colour Change RGBW Options - RGBW Light Engine



Product code	Glare shield	Finish	Accessories
LD10235-RGBW - 350 - 500			

Example: LD10235-RGBW-500 / White / NGS / 484N

#### Product codes with output options

5W LED at 350mA (4x 1.2W LEDs)	LD10235-RGBW-350
7W LED at 500mA (4x 1.7W LEDs)	LD10235-RGBW-500

RGBW features a 4000K white LED for creating hues

#### Beam / lens angle options

38° colour mix lens

#### Glare shield and 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 LD10235-RGBW-350 in series use a TXDEL4A350DMX or TXDEL4A350DALI  
 To run 2-13 LD10235-RGBW-500 in series use a TXDEL4A500DMX or TXDEL4A500DALI