

LD1083



Exterior Rated Shallow Recessed Low Glare Fixed LED Downlight

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The LD1083 is an IP67 rated, ultra-shallow, high power downlight designed for external use including boats and marine environments. The compact fitting delivers in excess of 900lm light output, making it ideal for general downlighting, as well as for wall washing and column lighting applications. Careful LED selection and extensive thermal testing and development time has resulted in a product that offers a huge light output, from a very compact, shallow fitting. The use of high quality machined components and LightGraphix experience in designing products for this type of environment has resulted in a very robust downlight that is built to last. A minimalistic design ensures it complements most interior and exterior project styles.

Key Features

- Designed for external applications including boats/marine environments
- High quality machined stainless steel 316 and anodised aluminium components
- Designed for ceilings with a minimal recess depth - only 70mm recess
- Inner baffle is supplied as gun metal grey as standard
- High power 900lm output
- 93 CRI Cree LED
- Recessed LED and optic for reduced glare
- Single optic produces a very consistent beam, no multiple shadows
- Compact design ensures it fits into most project styles
- IP67 as standard
- Constant force springs make this fitting suitable for delicate mounting surfaces
- Available with Switch, 0-10V, DMX, Dali or Mains dimmable drivers

Specification

Applications



Beam Angles

19°, 28°, 41°, 22° x 43°

LED type

1 x Cree CXB 1310 COB LED Engine

Colour temperature

2700K** / 3000K

5000K

Current	350mA	500mA	700mA	350mA	500mA	700mA
LED power (Max)	7W	10W	14W	7W	10W	14W
(Typical)	(6.6W)*	(9.4W)*	(13.3W)*	(6.6W)*	(9.4W)*	(13.3W)*
CRI (Min)	93	93	93	80	80	80
Forward voltage (V) ₁₀₀	18V	18V	18V	18V	18V	18V
Delivered lumens (L ₁₀₀)**	464	633	840	572	780	1035
Lumens per circuit watt***	70	67	63	87	83	78

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 1mm thick low iron glass

Materials Stainless steel, anodised aluminium, stainless steel constant force springs

Wiring Comes pre-wired with 2 core 350mm lead, can be specified with up to 10m at extra cost

IP rating IP67

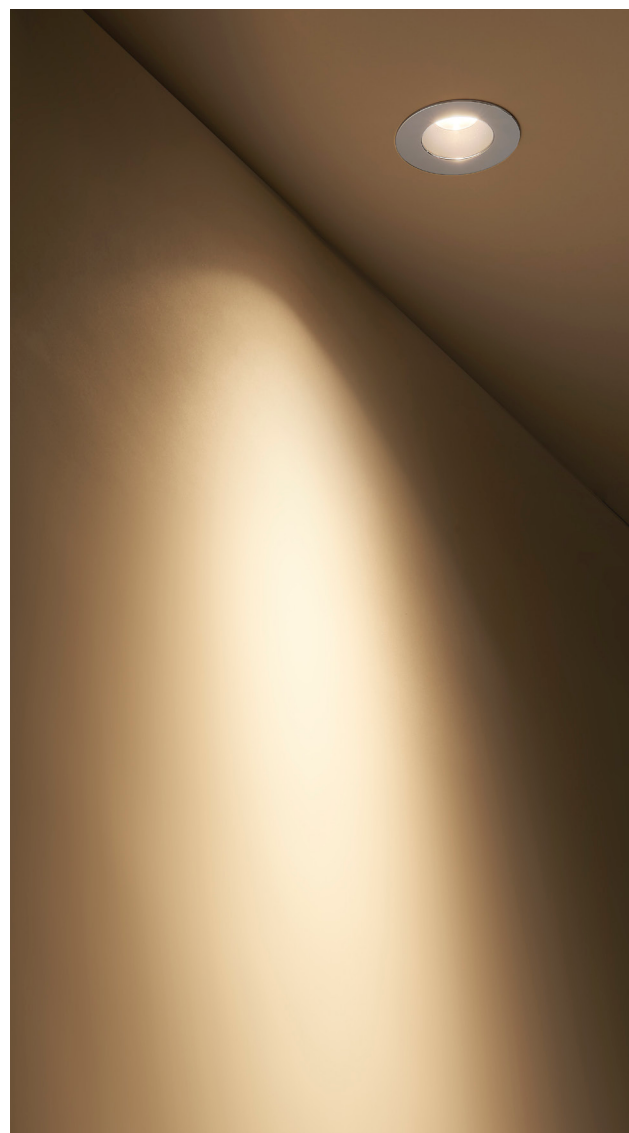
*indicates the nominal power for the LED run at that particular current and includes losses associated with using an 85% efficient driver

** lumen data is based on a medium beam

2700K lumen output is 12% lower than the 3000K figure listed

4000K lumen output is 14% higher than the 3000K figure listed (80 CRI)

***data shown is based on typical wattage



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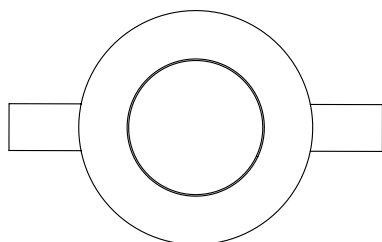
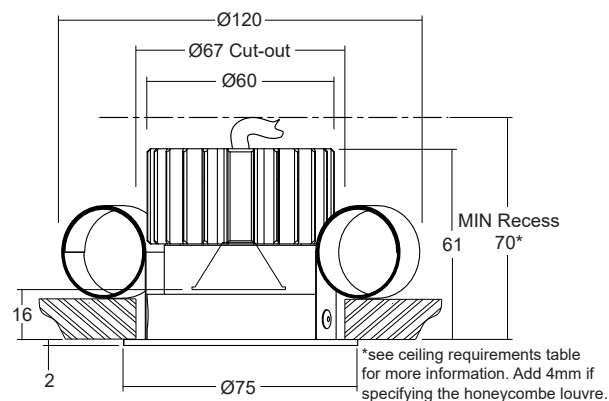


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Dimensions and Fixing Options

Supplied as standard with constant force springs which are suitable for the majority of installations. They are particularly well suited to delicate surfaces.



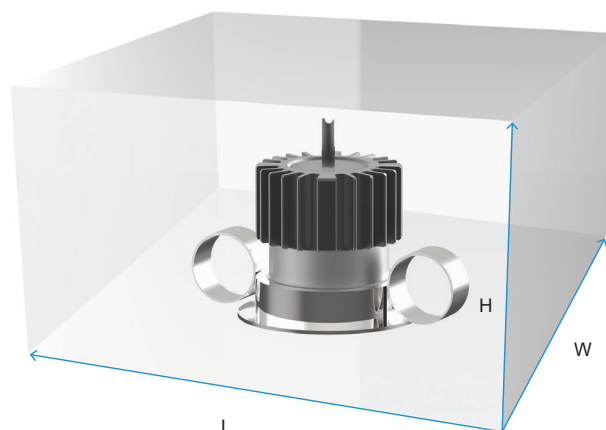
Accessories

/HL - Honeycombe louvre for reduced glare. Please note this will increase the height of the fitting by 4mm.



Ceiling Requirements

Ceiling requirements can vary but the minimum ceiling void volume must be adhered to. The minimum possible ceiling depth is 70mm. The volumes below are presented as L x W x H.



Output current	Minimum ceiling void dimension requirements (Lmm x Wmm x Hmm)	Minimum Ceiling void volume	
		cm ³	Litre(s)
LD1083-350	120 x 120 x 70 (74 with /HL)	1008cm ³	1
LD1083-500	140 x 140 x 70 (74 with /HL)	1372cm ³	1.3
LD1083-700	200 x 200 x 70 (74 with /HL)	2800cm ³	2.8

Note: At 700mA the minimum dimension between a wall, within the ceiling void and the edge of the fitting must be 70mm.

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Cone Diagrams

Cone diagrams below are based on a 3000K LED run at maximum output 700mA, 14W.

Narrow Beam

700mA using a 19° optic

Distance (m)	Luminance (lx)
0.5	0.20 22020
1.0	0.40 5499
1.5	0.55 2447
2.0	0.70 1376
2.5	0.90 881
3.0	1.10 611

Cone Width (m)

Medium Beam

700mA using a 28° optic

Distance (m)	Luminance (lx)
0.5	0.25 11416
1.0	0.50 2854
1.5	0.75 1268
2.0	1.00 713
2.5	1.25 457
3.0	1.50 317

Cone Width (m)

Wide Beam

700mA using a 41° optic

Distance (m)	Luminance (lx)
0.5	0.45 5704
1.0	0.70 1426
1.5	1.10 634
2.0	1.50 357
2.5	1.85 228
3.0	2.20 158

Cone Width (m)

Oval Beam

700mA using a 22° x 43° optic

Distance (m)	Luminance (lx)
0.5	0.19 / 0.38 10083
1.0	0.39 / 0.77 2521
1.5	0.58 / 1.15 1120
2.0	0.77 / 1.54 630
2.5	0.96 / 1.92 403
3.0	1.16 / 2.30 280

Cone Width (m)

Photometric files (LDT) are included in the design pack which can be downloaded from the LD1083 product page on the website.

Order Codes and Options

Product code	LED colour	Beam angle	Accessory	Finish
LD1083 - 350 - 500 - 700				

Example: LD1083-500 / LW30 / WB / HL / White

Product codes with output options

7W LED at 350mA	LD1083-350
9W LED at 500mA	LD1083-500
14W LED at 700mA	LD1083-700

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

Beam / lens angle options

19° narrow spot	/NB
28° medium	/MB
41° wide	/WB
22° x 43° Oval	/OB

Accessory

Honeycombe louvre	/HL
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Finish options

Bezel - Polished and passivated stainless steel (marine grade polishing) as standard.
 Paint finish black / white (RAL 9016) / RAL
 Baffle - Anodised gun metal grey (standard). Paint finish black / white (RAL 9016) / RAL

Use with 350mA, 500mA and 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 1-2 LD1083-350 in series use a TXDEL350D (0-10V dimmable)
 To run 1-2 LD1083-500 in series use a TXDEL500D (0-10V dimmable)
 To run 1-2 LD1083-700 in series use a TXDEL700D (0-10V dimmable)

LED

CREE CXB 1310
 (serviceable by
 LightGraphix)

OPTIC

/NB - Narrow beam
 /MB - Medium beam
 /WB - Wide beam
 (interchangeable)

ACCESSORY

/HL - Honeycombe louvre

BAFFLE

Gun metal grey as
 standard with other
 finishes available upon
 request

BEZEL

Polished and passivated
 stainless steel (marine
 grade polishing) as
 standard