

WARNING: DO NOT USE NORMAL LOW VOLTAGE TRANSFORMERS WITH LEDS.

All LED fittings are tested multiple times before dispatch. It is not necessary to check them on site. Do not power up until fittings are wired correctly.

INSTRUCTION LEAFLET




LD1094-N1

Exterior Low Glare Adjustable Downlight

This product should be installed by a qualified electrician in accordance with all current, local legislation. For the UK, the current edition of the IEE Wiring Regulations and European Standard IEC 60364.

SPECIFICATION

LED recessed luminaires are class III  for Safety Extra Low Voltage supply  **350mA, 500mA or 700mA** constant current supply.

Suitable for mounting on normally flammable surfaces. 

Light source: **N1 LED Light Engine.**

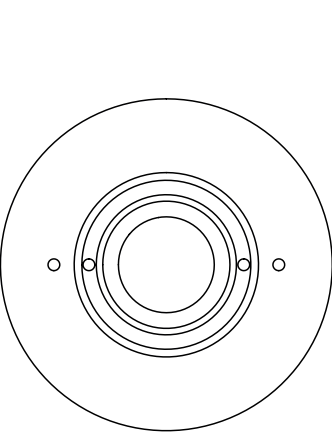
This fitting is **IP67** rated.

Lumen Maintenance: L90B5 at 90,000hrs at Max Ambient of 25°C.

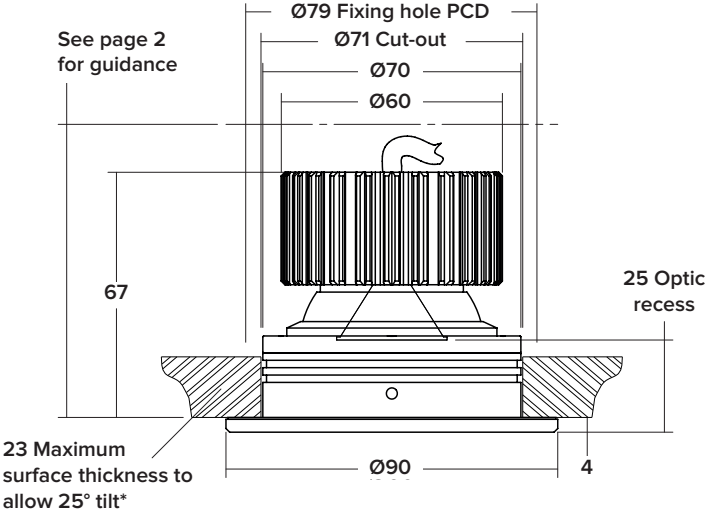
LD1094-N1 is available in various power outputs options	
Product & LED output code	Power Output
LD1094-N1-350	350mA 7W
LD1094-N1-500	500mA 10W
LD1094-N1-700	700mA 14W

DIMENSIONS

Front view

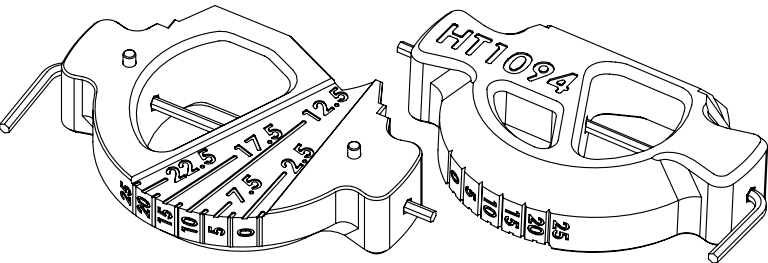


Side view



*Installations with surfaces greater than 23mm are allowable, but will have an impact on the maximum achievable tilt for the product.

/HT1094 Adjustment hand tool for the LD1094.
Included: 3D printed bezel and angle tool, with 2.5mm allen key.



WARNING
Do not power up LED or driver until all work is completed!
See 'important' section on page 3.

**INSTALLATION INSTRUCTIONS
ON NEXT PAGE**

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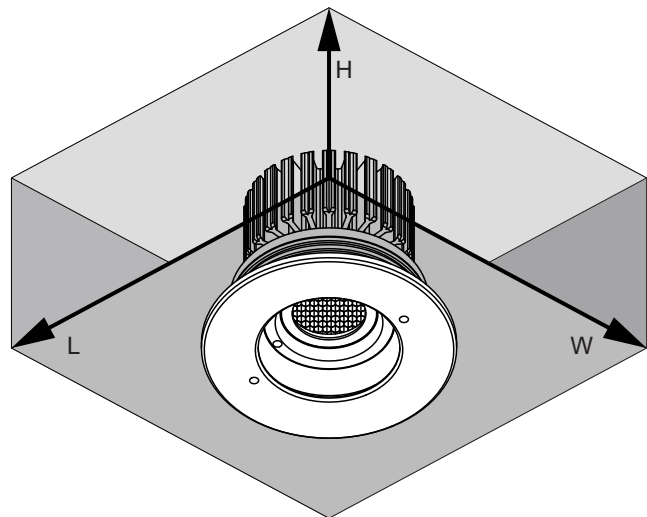
LD1094-N1

Installation Requirements

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Ceiling void requirements

If installing into a surface where there will be air around the fitting, these are the minimum space requirements around the fixture to allow for proper cooling of the LED fitting.



Output current	Minimum void dimension requirements (Lmm x Wmm x Hmm)	Minimum void volume	
		cm ³	Litre(s)
LD1094-N1-350	150 x 150 x 80	1,800cm ³	1.8
LD1094-N1-500	150 x 150 x 80	1,800cm ³	1.8
LD1094-N1-700	250 x 250 x 150	9,375cm ³	9.4

These are the recommended minimum void/solid surface requirements. Going beyond the minimum specified dimensions will allow the LED fitting to cool itself more efficiently, extending the life of the product.



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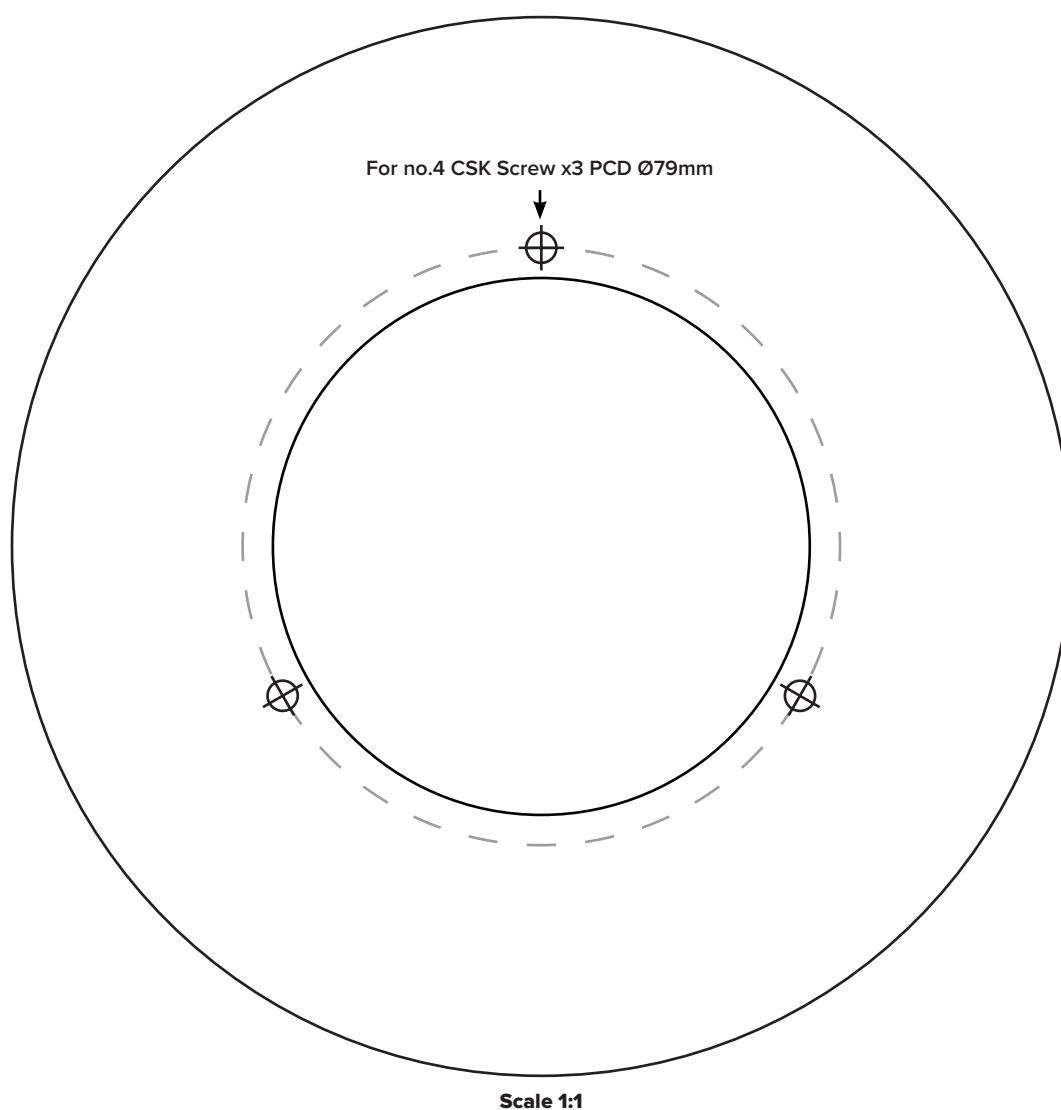
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Printable Mounting Template

Scale 1:1 Template. Use for installation if required.



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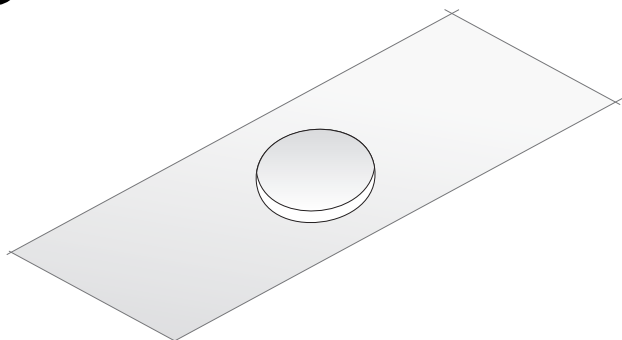


LD1094-N1

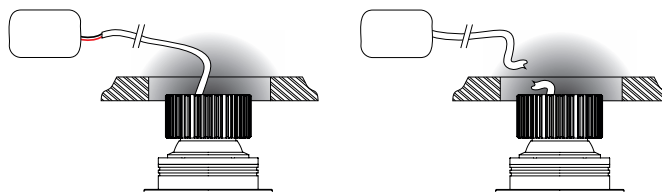
Installation

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- 1** Prepare cut out: Ø71mm



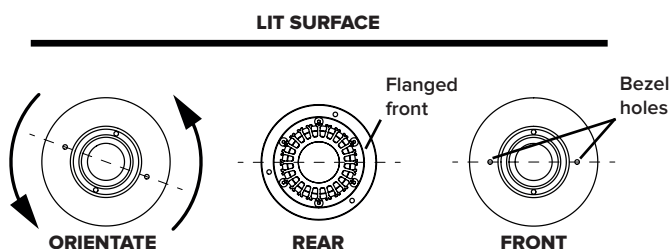
- 2** Feed cable through to the driver's location. Connect luminaire to the specified driver, ensuring it is disconnected from the mains side.



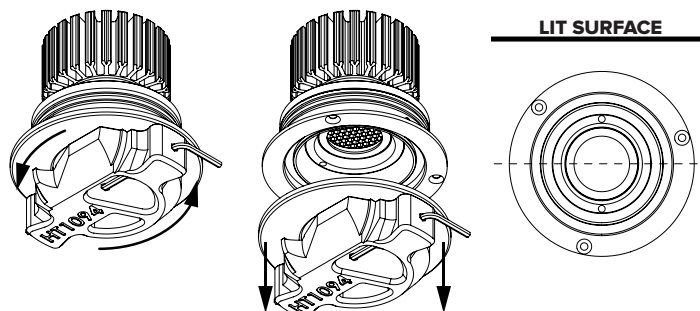
NOTE: Connections in wet environments. Make IP68 connection to stop water travelling along the cables, causing water and electrical damage!



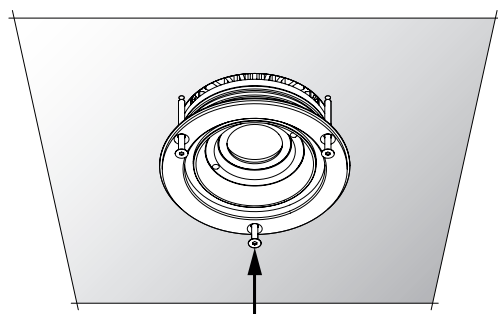
- 3** Orientation of the fitting will ensure a consistent look across all fittings installed. Using a pencil, mark out the position of the bezel holes on the rear face of the flanged front.



- 4** Either by hand or using the **HT1094**, unscrew the bezel from the fitting. Then continue the bezel hole position pencil marking from the rear of the flanged front, on to the front face.

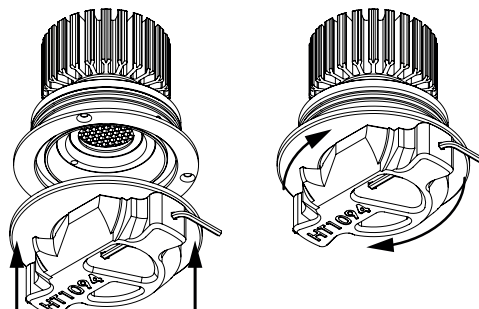


- 5** With the fitting correctly orientated. Fix the fitting to the mounting surface using either 3 x **M3** or **No.4 (3mm)** countersunk screws.



NOTE: Ensure the mounting gasket is fitted!

- 6** Replace the bezel using the **HT1094**. Confirm installation was successful by powering up the fitting. If there is no light output, switch off power immediately and verify wiring.



NOTE: Ensure the bezel O-ring is fitted!



WIRING

Do not power up until fitting is wired correctly! Constant current LEDs must be wired in series, polarity is critical! Please refer to specified driver sheet for details on the minimum and maximum number of LEDs per circuit.

SEE CONSTANT CURRENT WIRING SHEET FOR IN SERIES WIRING DIAGRAM

Single Colour LED

Colour of Cable	Red	Black
Polarity	+	-

IMPORTANT

Make sure that all cables and connections are securely connected before switching on the power. Do not switch on the power source prior to making these connections as this will result in the LEDs being overvolted, which can lead to failure of the LEDs and/or the driver. If the LEDs do not work upon power up, turn off the power source immediately and check the polarity of the wiring.

MAINTENANCE

CABLE: The external flexible cable of this luminaire can not be replaced; if the cord is damaged, the luminaire shall be destroyed.

LAMPS: The light source contained in this luminaire shall only be replaced by the manufacturer.

Please clean with soft cloth and avoid harsh cleaning chemicals.

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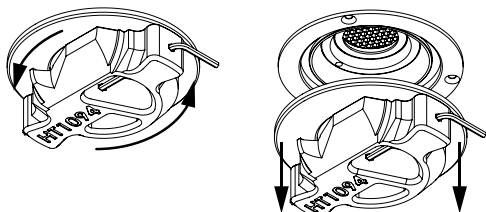


HT1094 for LD1094

Making Adjustments

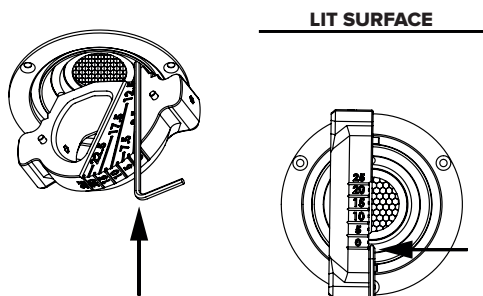
This product should be installed by a qualified electrician in accordance with all current, local legislation. For the UK, the current edition of the IEE Wiring Regulations and European Standard IEC 60364.

- 1 Fit the pins on the HT1094 into the corresponding holes on the front bezel of the fitting and begin to unscrew the bezel.

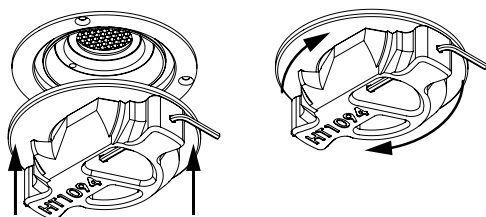


NOTE: Keep bezel clean.

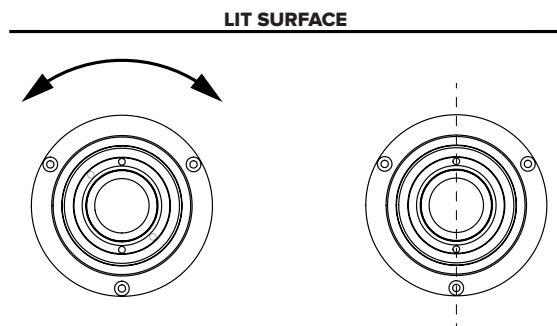
- 3 Place HT1094 into the LD1094 as shown. Using the provided Allen key or a 3mm screwdriver, push into module hole furthest away from the lit surface.



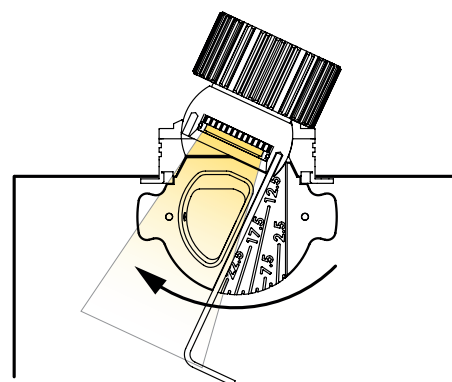
- 5 Make sure bezel is clean before refitting.



- 2 The holes on the LED module need to be perpendicular to the lit surface. Orientate the module either using the provided Allen key or a 3mm screwdriver.



- 4 Always start in the level & upright position. Push towards the desired lit surface. If you overshoot, bring the LED back to the starting position before tilting again.



IMPORTANT ADVISORIES

- Avoid staring into the light source when powered on.
- Fitting and surrounding area must be dry before opening the fitting. If the fitting has been wet, allow to dry thoroughly. Powered operation will help dry the fitting quicker.
- Do not exert excessive force on bezel when opening or risk breaking the hand tool. If faced with a stubborn bezel, gently heat the fitting. Either through powered operation or with the use of a heat gun on a low heat setting.
- Do not open fitting in moisture condensing, humid conditions.
- If the provided allen key is lost, a Ø3.00mm screw driver can be used in its place for adjustments.

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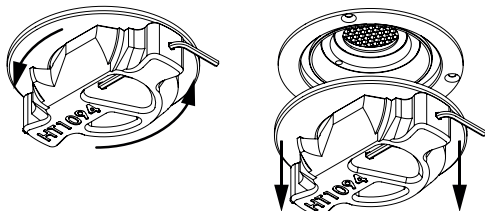


CHANGING OPTICS for LD1094

Optical changes to adjust the beam angle of the fitting

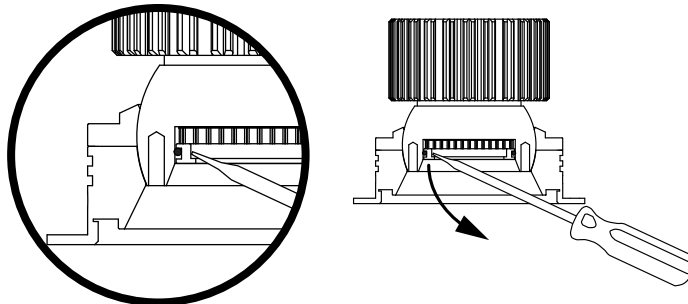
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- 1** Fit the pins on the HT1094 into the corresponding holes on the front bezel of the fitting and begin to unscrew the bezel.



NOTE: Keep bezel clean.

- 2** Using a wide slotted screwdriver, position the tool under the lip of the accessory ring, and pry the accessory ring out. Avoid using excessive force.

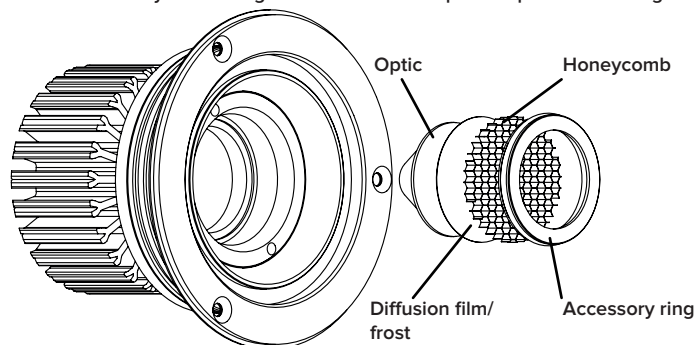


NOTE: Use a 5.5mm wide or larger slotted screwdriver.

- 3** Below is the bill of materials for each beam angle option. Please contact LightGraphix if additional parts are required.

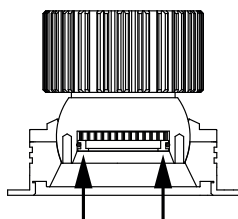
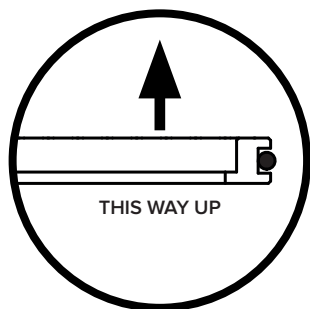
SUFFIX	PARTS NO.	DESCRIPTION
/NB	23.2070 optic & T10264 frost	20° narrow beam
/MSB	23.2060 optic	26° medium spot beam
/MB	23.2070 optic & T110019 film	35° medium beam
/WB	23.2070 optic & T110020 film	46° wide beam
/WWB	23.2070 optic & T10283 film	64° extra wide beam
/OB	23.2063 optic & T10264 frost	43° x 23° oval beam
/HL	T10561	Honeycomb louvre

- 4** Shown below is the order in which the components need to be arranged in. Make sure that the film is installed **matt side down**, with the shiny side facing outwards. Hold the parts in place with a finger.

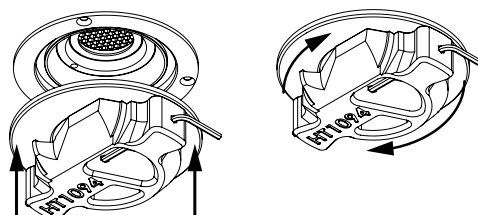


- 5** Once the optic/film has been replaced, the accessory ring will need to be pushed back into the LED module. Push until the ring is flat and level inside.

Make sure the accessory ring is installed the correct way round.



- 6** Make sure bezel is clean before refitting.



IMPORTANT ADVISORIES

- Fitting and surrounding area must be dry before opening the fitting. If the fitting has been wet, allow to dry thoroughly. Powered operation will help dry the fitting quicker.
- LED fitting must be powered off, allowed to cool down, and to be kept off until all work is done.
- Do not open fitting in moisture condensing, humid conditions.
- Do not exert excessive force on the bezel when opening or risk breaking the hand tool. If faced with a stubborn bezel, gently heat

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