

## LD141DR

### DEEP RECESSED COMPACT EXTERIOR RECESSED LED UPLIGHT



The LD141DR has been designed for exterior applications that require super low glare, with the lens assembly recessed 51mm into the body. Compact in size, it offers a powerful output with a large range of features. There are 2 LED engine options available. The E3 engine delivers a high output of 626lm, 12° narrow beam, and both engines are available in a wide range of colour temperatures from 2200K to 5000K. Designed with a repairable light engine, the LD141DR offers a circular, low glare, solution for a wide range of exterior rated applications.



## KEY FEATURES

- > Deep recessed uplight with optics set back 53mm into the body for super low glare
- > High-power E3 engine with NICHIA LED delivering up to 440lm at 500mA
- > Available in a wide range of colour temperatures from 2200K to 5000K.
- > Range of beam angles including 12°, 19°, 25°
- > Wide range of high-quality machined metal and painted bezel finishes available, including: 316 Stainless Steel, Polished & Passivated 316 Stainless Steel, Brass, White (RAL 9016), Black (RAL 9005), Classic Bronze (YM262E), Gunmetal Grey (RAL 7021), Textured Mars Bronze (SX350F), Textured Fir Green (RAL 6009) or any RAL colour
- > Optional half-moon glare shield is available
- > Fixing options include spring clips or first fix sleeve with O-rings
- >  Contains our integral moisture guard (anti-wicking barrier), stopping water ingress from going up the cable into the product from incorrect IP-rated connections
- > Switched, 0-10V, Casambi, DMX, DALI or Mains dimmable drivers available

## DIMENSIONS

Dimensions in mm

For fixing dimensions please go to page 4.



## WHITE LED ENGINE SPECIFICATION

|                                       |   |            |
|---------------------------------------|---|------------|
| Engine                                |  E3  |            |
| Beam angles                           | 12°, 19°  |            |
| LED manufacturer                      | NICHIA  |            |
| Colour temperature*                   | 2200K, 2700K, 3000K, 4000K, 5000K   |            |
| Current [Rated Output]                | 350mA [5W]  | 500mA [7W] |
| Typical LED Circuit wattage           | 4.4W  | 6.4W       |
| Delivered lumens (L <sub>100</sub> )* | 336   | 440        |
| Delivered lm/Circuit W**              | 76  | 68         |
| Typical LED Source wattage            | 4W  | 5.8W       |
| Source LED lm                         | 574   | 740        |
| Source lm/W                           | 144   | 128        |
| Forward voltage (V <sub>100</sub> )   | 11.3V   | 11.6V      |
| CRI                                   | 85  |            |
| Colour consistency                    | 2SDCM   |            |
| Peak intensity**                      | 4,513 cd  |            |
| LOR                                   | 0.59  |            |
| TM30                                  | RF88   RG99   |            |
| UGR rating ('downlight' mounted) ***  | 3.2   | 4.1        |
| BUG rating ('uplight' mounted)        | B0-U3-G0  |            |
| LED lifetime                          | L90B5 at 90,000hrs  |            |
| Applications                          |    |            |

This data is based on LD141DRX-E3-500-NB and LD141DRX-F1-500/MSB/LW30

\*Lumen output data applies to all E3 colour temperatures, for F1, please see lumen variance table to the right

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

\*\*\*UGR values based on room parameter of 4H 8C, C70 W50 F20

| Lumen variance by CCT |        |
|-----------------------|--------|
| 2200K                 | -7%    |
| 2700K                 | +/- 0% |
| 4000K                 | +7%    |
| 5000K                 | +16%   |

## MECHANICAL

|                     |   |          |   |
|---------------------|---|----------|---|
| Ambient temperature | E3  | Soil     | -20°C to 50°C (350mA-500mA) in soil     |
|                     |   | Concrete | -20°C to 50°C (350mA-500mA) in concrete |
|                     | F1  | Soil     | -20°C to 50°C (350mA-500mA) in soil     |
|                     |   | Concrete | -20°C to 50°C (350mA-500mA) in concrete |
| Glass               | 6mm toughened glass with ceramic screen print   |          |   |
| Materials           | Black Anodised aluminium, stainless steel bezel   |          |   |
| Weight of product   | 0.32kg  |          |   |
| IP rating           | IP67  |          |   |
| IK rating           | IK08  |          |   |
| Wiring              | In-series constant current wiring (pre-wired with 2-core exterior cable at a length of 250mm) |          |   |

## ENVIRONMENTAL

|                    |   |
|--------------------|---|
| TM65               | Available on request  |
| TM66               | 2.7   |
| Repair + Refurbish |  This product is included in our Repair and Refurbish scheme. This offers customers the ability to send back products to us for repair or refurbishment to extend their life without having to buy new fittings. |

## AVAILABLE FINISHES

*Please refer to our finishes guide for full details*



### 316 STAINLESS STEEL

- > Marine grade 316 Stainless Steel
- > Standard machined finish
- > Extremely durable with high corrosion resistance
- > Passivation recommended for marine environments to prevent corrosion and build up of brown stains caused by oxidation
- > Interior & exterior use



### POLISHED & PASSIVATED 316 STAINLESS STEEL

- > Marine Grade 316 Stainless Steel
- > Pristine mirror like finish
- > Recommended for pools and marine applications
- > Extremely durable with very high corrosion resistance
- > Passivated to extensively prolong resistance to corrosion and brown stains caused by oxidation in marine environments
- > Interior & exterior use



### FLAMED SOLID BRONZE

- > Solid Bronze
- > Hand finished Flamed Bronze unique to LightGraphix
- > Extremely durable with very high corrosion resistance.
- > Please note a natural dark patination layer will form after long term exposure to the elements, the extent of this discolouration will be dependant on its location.
- > Interior & exterior use

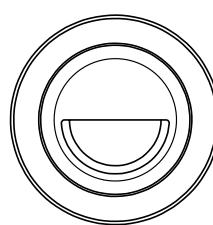
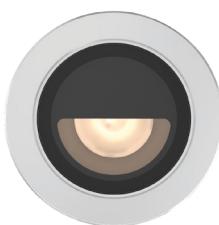


### PAINT FINISH - POWDER COAT

- > The powder coated finish is very matt
- > Powder coat finishes: White (RAL 9016), Black (RAL 9005), Classic Bronze (YM262E), Gunmetal Grey (RAL 7021) Textured Mars Bronze (SX350F), Textured Fir Green (RAL 6009) or any RAL colour
- > Not recommended for high traffic in-ground applications, unless placed to one side where the bezel will not be walked on
- > Powder coat paint is generally used on stainless steel or anodised aluminium components
- > Interior and exterior use

## GLARE CONTROL OPTIONS

**/GSHM** For applications that require super low glare. Lumen output is typically reduced by 60% with no light lost on the lit surface.

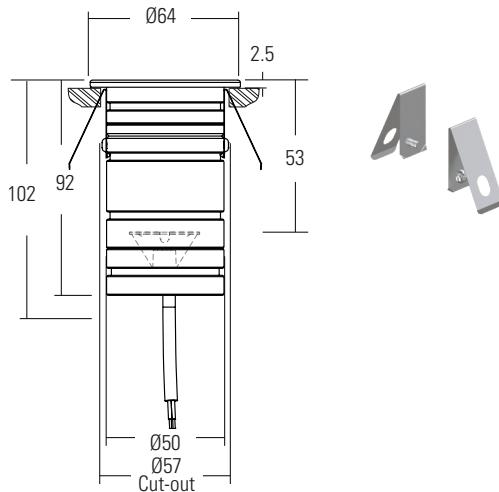


## DIMENSIONS AND FIXING ACCESSORIES

Dimensions in mm

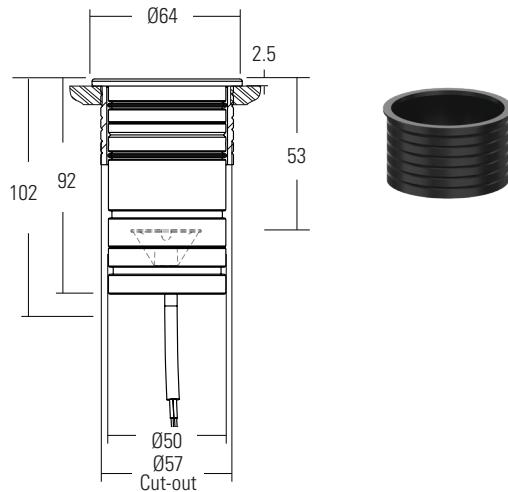
### /SC Spring clips

Suitable for use in surfaces with a thickness of 1mm – 25mm. Spring clips provide a simple, single fix mounting method. We recommend that spring clips are only used in interior applications. Weight: 0.05kg



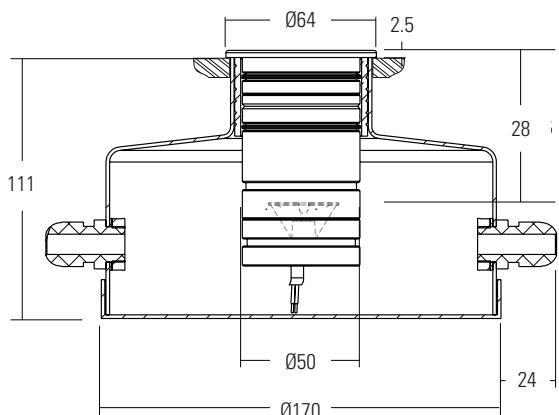
### /441S First fix Sleeve

The fitting is supplied as standard with a fixing sleeve; this is bonded into the mounting surface first. The LD151 is secured into the sleeve by 2 'O' rings on the body. When pushed into the sleeve it creates a watertight seal. Weight: 0.18kg



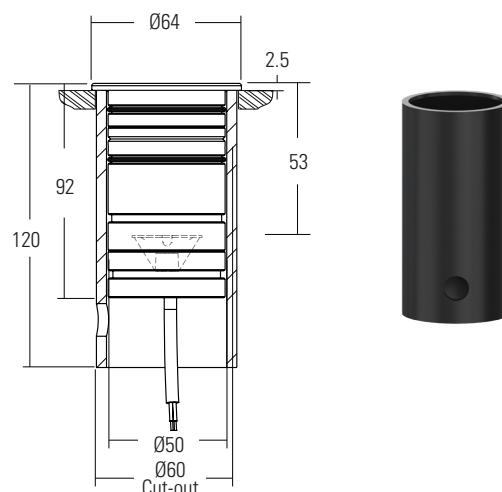
### /441N or /441N-2 Concrete housing

The aluminium housing is used as a heat sink which keeps the LED fitting cool through the thermal transfer of the heat within the housing to the surrounding concrete. The housings are big enough for IP rated connections to be made inside the housing and a second gland is available for cabling onto the next luminaire. Weight: 2.90kg



### /441GT Ground tube

The in-ground tube has been designed for applications where a recessed uplight is required in soil or gravel surfaces. The tube can be buried with the necessary wiring, and then the fitting installed after the landscaping work has been completed. It is supplied with the fixing sleeve bonded into the tube and can be cut down on site. Weight: 1.26kg



**/441N**

Concrete housing with 1x PG9 IP67 gland



**/441N-2**

Concrete housing with 2x PG9 IP67 gland

## CONE DIAGRAMS

### E3 LED Engine

Cone diagrams below are based on a 3000K E3 LED engine run at maximum output 500mA, 7W. Images below represents beam outputs when wall washing a 3m wall, spaced 125mm away from the lit surface. Photometric files (LDT) are included in the design pack which can be downloaded from the LD141DR product page on the website.

Narrow Beam  
500mA using a 12° optic

| Distance (m) | Illuminance (lx) | Cone Width (m) |
|--------------|------------------|----------------|
| 3.0          | 0.80             | 505            |
| 2.5          | 0.67             | 727            |
| 2.0          | 0.53             | 1136           |
| 1.5          | 0.40             | 2020           |
| 1.0          | 0.27             | 4544           |
| 0.5          | 0.13             | 18176          |

Medium Beam  
500mA using a 19° optic

| Distance (m) | Illuminance (lx) | Cone Width (m) |
|--------------|------------------|----------------|
| 3.0          | 0.98             | 370            |
| 2.5          | 0.82             | 532            |
| 2.0          | 0.66             | 832            |
| 1.5          | 0.49             | 1479           |
| 1.0          | 0.33             | 3327           |
| 0.5          | 0.16             | 13309          |

### F1 LED Engine

Cone diagrams below are based on a 3000K F1 LED engine run at maximum output 500mA, 5W. Images below represents beam outputs when wall washing a 3m wall, spaced 125mm away from the lit surface. Photometric files (LDT) are included in the design pack which can be downloaded from the LD141DR product page on the website.

Medium Spot Beam  
500mA using a 25° optic

| Distance (m) | Illuminance (lx) | Cone Width (m) |
|--------------|------------------|----------------|
| 3.0          | 1.09             | 201            |
| 2.5          | 0.91             | 289            |
| 2.0          | 0.73             | 451            |
| 1.5          | 0.55             | 802            |
| 1.0          | 0.36             | 1806           |
| 0.5          | 0.18             | 7222           |

**ORDER CODES & OPTIONS**

Example: LD141DRX-E3-500 / LW30 / OB / L / GS / 316 STAINLESS STEEL / 441S

Light Engine & Drive Current

LED Colour

Beam Angle

Glare shield

Finish

Fixing

|  |   |  |   |  |   |  |   |  |
|--|---|--|---|--|---|--|---|--|
|  | / |  | / |  | / |  | / |  |
|--|---|--|---|--|---|--|---|--|



**E3**

|                      |                 |
|----------------------|-----------------|
| 3.5W LED<br>at 350mA | LD141DRX-E3-350 |
| 7W LED<br>at 500mA   | LD141DRX-E3-500 |

|                                |       |
|--------------------------------|-------|
| Super<br>Warm White<br>(2200K) | /LW22 |
| Extra<br>Warm White<br>(2700K) | /LW27 |
| Warm White<br>(3000K)          | /LW30 |
| White<br>(4000K)<br>on request | /LW40 |
| Cool White<br>(5000K)          | /LW50 |

|               |     |
|---------------|-----|
| 12°<br>Narrow | /NB |
| 19°<br>Medium | /MB |

|  |       |
|--|-------|
|  | /NGS  |
|  | /GSHM |

|  |   |
|--|---|
|  | 316 Stainless Steel   |
|  | Polished & Passivated<br>316 Stainless Steel<br>(for marine environments) |
|  | Flamed<br>Solid Bronze  |
|  | Paint Finish<br>White<br>(RAL 9016)                                       |
|  | Paint Finish<br>Black<br>(RAL 9005)                                       |
|  | Paint Finish<br>Classic Bronze<br>(YM262E)                                |
|  | Paint Finish<br>Textured<br>Mars Bronze                                   |
|  | Paint Finish<br>Textured Fir Green<br>(RAL 6009)                          |
|  | Paint Finish<br>Gunmetal Grey<br>(RAL 7021)                               |
|  | Paint Finish<br>RAL   |

|  |         |
|--|---------|
|  | /SC     |
|  | /441S   |
|  | /441GT  |
|  | 441N    |
|  | /441N-2 |



**F1**

|                      |                 |
|----------------------|-----------------|
| 3.5W LED<br>at 350mA | LD141DRX-F1-350 |
| 5W LED<br>at 500mA   | LD141DRX-F1-500 |

|                                |       |
|--------------------------------|-------|
| Super<br>Warm White<br>(2200K) | /LW22 |
| Extra<br>Warm White<br>(2700K) | /LW27 |
| Warm White<br>(3000K)          | /LW30 |
| White<br>(4000K)<br>on request | /LW40 |
| Cool White<br>(5000K)          | /LW50 |

|                       |      |
|-----------------------|------|
| 25°<br>Medium<br>spot | /MSB |
|-----------------------|------|

Drivers

Use with 350mA and 500mA constant current LED drivers

We have a range of dimmable LED drivers including DMX and DALI compatible. Please see the downloads section on our website.