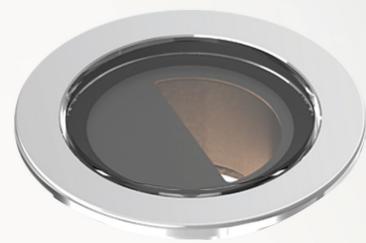


LD141X
COMPACT EXTERIOR RECESSED
LED UPLIGHT



The LD141 has been designed for exterior applications and can be specified as an uplight (LD141X) or wall light (LD141Y). Compact in size, the fittings offer a powerful output with a large range of features. Available LED engines include E3, and F1 which offer a range of colour temperatures between 2200K-5000K. Both configurations offer the ability to specify a 20° tilt film to angle the light down onto the lit surface for a more concentrated effect. Designed with a repairable light engine, glare and fixing accessories, the LD141 offers a circular, low glare, solution for a range of exterior rated applications.



KEY FEATURES

- > High-power E3 engine with NICHIA LED delivering up to 567lm at 700mA
- > For exterior uplight (LD141X) or wall light (LD141Y) applications
- > Range of beam angles including 12°, 19°, 34°, 54°, 15° x 49°
- > Optional 20° tilt film angles the light onto the lit surface for a concentrated effect
- > Wide range of high-quality machined metal, painted wet spray and powder coated 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, Textured Fir Green (RAL 6009) or any RAL colour
- > Optional glare shield and honeycomb louvre for further glare reduction
- > Fixing options include spring clips or /480 first fix sleeve with O-rings, concrete housing and ground tube
- >  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°, 34°, 54°, 15° x 49°		
LED manufacturer	NICHIA		
Colour temperature*	2200K, 2700K, 3000K, 4000K, 5000K		
Current [Rated Output]	350mA [5W]	500mA [7W]	700mA [10W]****
Typical LED Circuit wattage	4.4W	6.4W	9.2W
Delivered lumens (L ₁₀₀)*	379	462	567
Delivered lm/Circuit W**	85	72	62
Typical LED Source wattage	4W	5.8W	8.3W
Source LED lm	574	740	949
Source lm/W	144	128	114
Forward voltage (V ₁₀₀)	11.3V	11.6V	11.8V
CRI	85		
Colour consistency	2SDCM		
Peak intensity**	3,626 cd		
LOR	0.60		
TM30	RF88 RG99		
UGR rating ('downlight' mounted)***	10.7	11.4	12.2
BUG rating ('sideways' mounted)	B0-U3-G2		
BUG rating ('uplight' mounted)	B0-U3-G0		
LED lifetime	L90B5 at 90,000hrs		
Applications	   		

These values are based around a LD141X-E3-500-NB and LD141X-F1-500/MSB/LW30

*See lumen variance table to the right for F1 engine. E3 lumens apply across all colour temperatures

**LED wattage includes losses associated with using a 90% efficient driver

***UGR values based on room parameters of 4H 8H, C70 W50 F20

****Can only be specified with /441N(-2) concrete housing and used in concrete

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

MECHANICAL

Ambient temperature	E3	Soil	-20°C to 50°C (350mA-500mA)
		Concrete	-20°C to 50°C (350mA-700mA) in concrete
	F1	Soil	-20°C to 50°C (350mA-500mA)
		Concrete	-20°C to 50°C (350mA-700mA) in concrete
Glass	6mm toughened glass with ceramic screen print		
Materials	Black Anodised aluminium body, stainless steel bezel		
Weight of product	0.25kg		
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

LD141X/Y APPLICATION

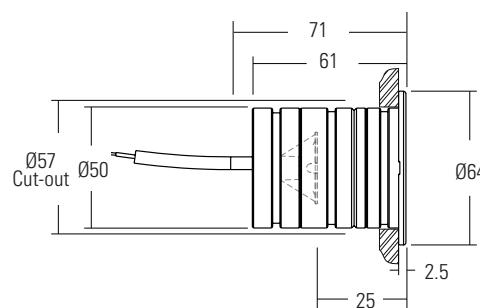
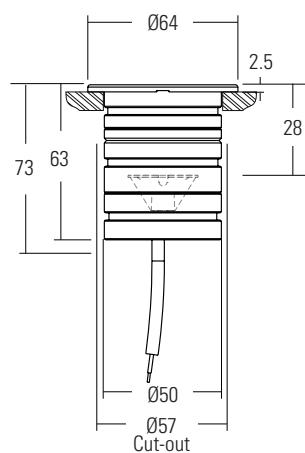
In an effort to bring a modular approach to our new products, we now offer a further level of configuration to allow the same products for multiple applications. This includes bezel options and optical tilt lenses. These products will feature the suffix of LD141X for in-ground applications and LD141Y for wall/downlight applications referring to the axis of the mounting surface of the luminaire.

LD141X (Uplight)

The LD141X bezel is designed for in-ground applications. The glass is glued from the front to provide the bezel with a flush glass to help prevent the build-up of dirt and dust in the aperture.

LD141Y (Wall light)

The LD141Y bezel is designed for recessed wall applications. The glass is secured from behind with no glue line, allowing for a slightly smaller aperture and a more aesthetically pleasing luminaire. Pair the LD141Y bezel with our asymmetric tilt-lens for a great wall mounted floor washer.

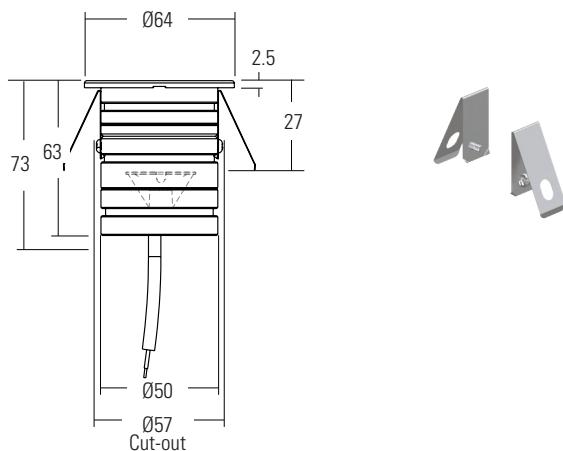


DIMENSIONS AND FIXING ACCESSORIES

Dimensions in mm

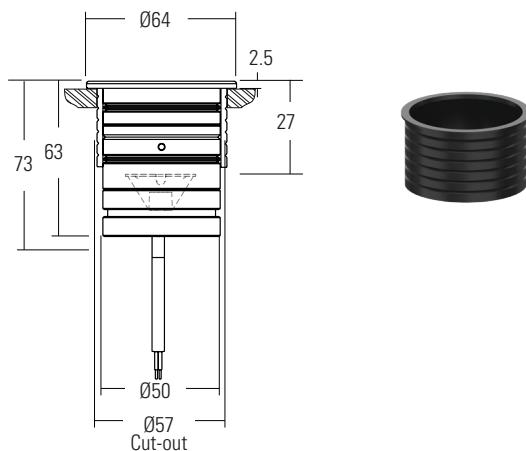
/SC Spring clips

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



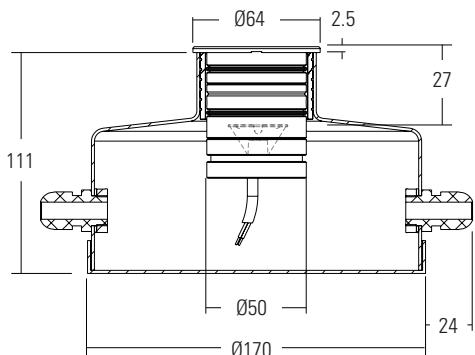
/441S First Fix Sleeve

The fitting is supplied as standard with a fixing sleeve; this is bonded into the mounting surface first. The LD141 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



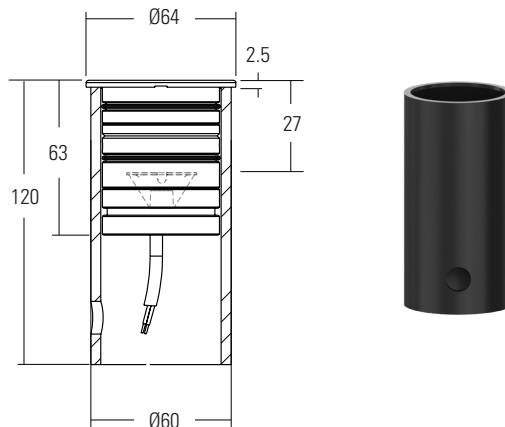
/441N or /441N-2 Concrete housing

Must be when specifying the 700mA fitting and installed in concrete. 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

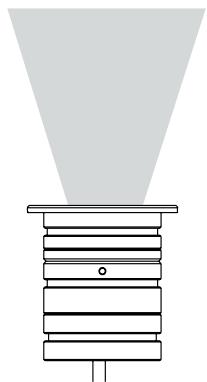
Concrete housing with 2x PG9 IP67 gland

LIGHT OUTPUT OPTIONS

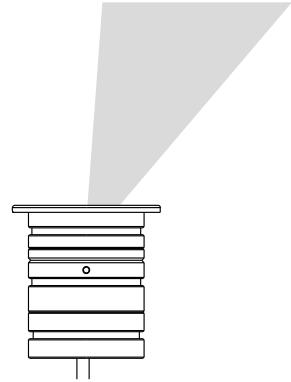
LD141X tilt lens

The addition of a 20° tilt film focuses the light towards the lit surface for a more concentrated effect. Ideal for discreet lighting applications where a throw of light is not required.

Without tilt lens



With tilt lens



GLARE CONTROL OPTIONS

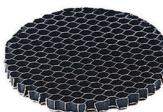
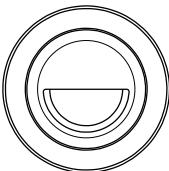
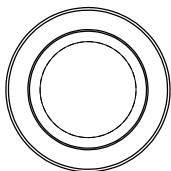
/NGS No glare shield. Deep recessed optic and matt black anodised optic holder aids in glare reduction.



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



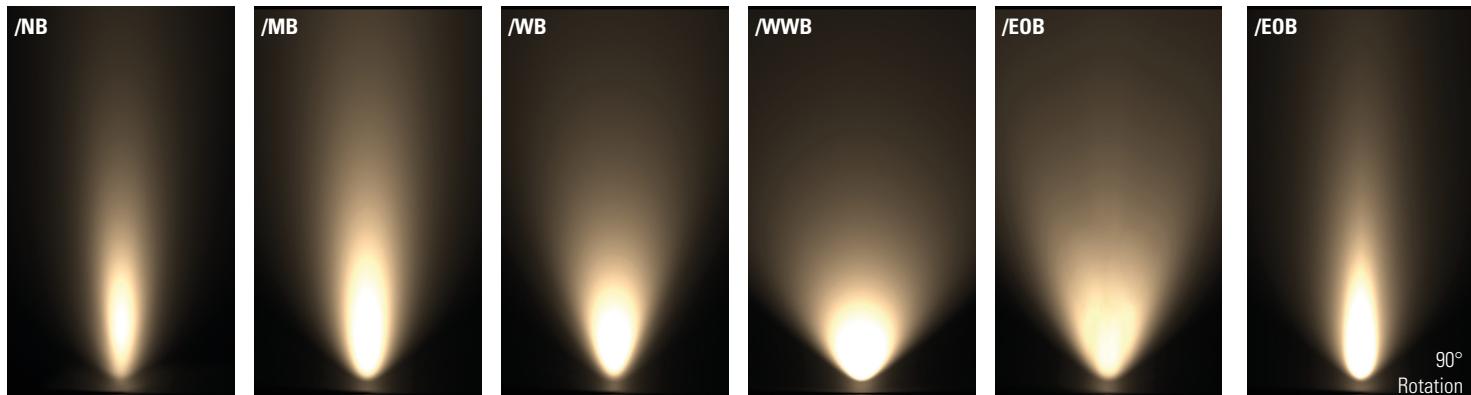
/HL Helps reduce glare from all angles and can be used with glare shields. The honeycomb louvre cannot be specified with the tilt lens option.



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 LD141 product page on the website.



Narrow Beam
500mA using a 12° optic

Distance (m)	Illuminance (lx)	Cone Width (m)
3.0	0.82	406
2.5	0.68	585
2.0	0.55	914
1.5	0.41	1625
1.0	0.27	3656
0.5	0.14	14624

Medium Beam
500mA using a 19° optic

Distance (m)	Illuminance (lx)	Cone Width (m)
3.0	0.96	387
2.5	0.80	557
2.0	0.64	871
1.5	0.48	1548
1.0	0.32	3483
0.5	0.16	13933

Wide Beam
500mA using a 34° optic

Distance (m)	Illuminance (lx)	Cone Width (m)
3.0	1.64	139
2.5	1.37	200
2.0	1.09	312
1.5	0.82	555
1.0	0.55	1249
0.5	0.27	4495

Extra Wide Beam
500mA using a 54° optic

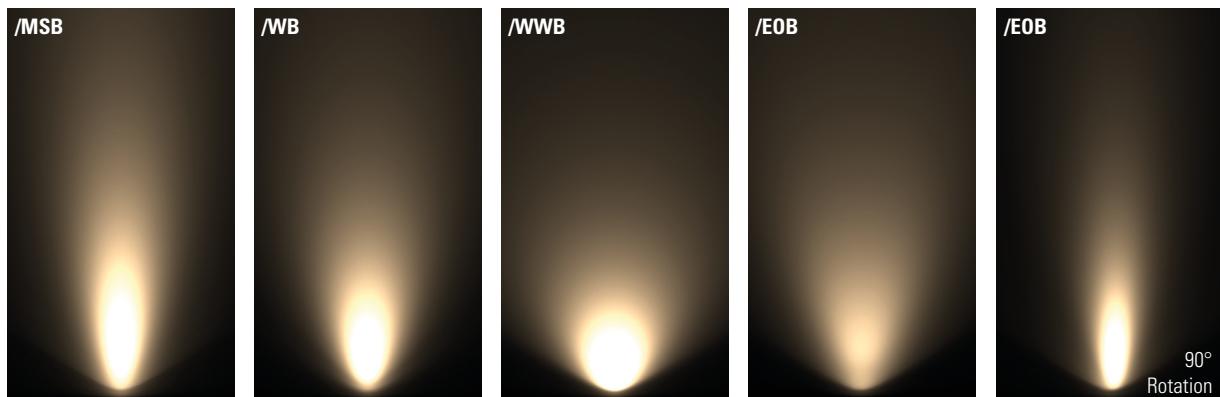
Distance (m)	Illuminance (lx)	Cone Width (m)
3.0	3.02	50
2.5	2.51	72
2.0	2.01	112
1.5	1.51	199
1.0	1.01	448
0.5	0.50	1791

Extra Oval Beam
500mA using a 15° X 49° optic

Distance (m)	Illuminance (lx)	Cone Width (m)
3.0	1.77 / 0.90	181
2.5	1.47 / 0.75	260
2.0	1.18 / 0.60	407
1.5	0.88 / 0.45	723
1.0	0.59 / 0.30	1627
0.5	0.29 / 0.15	6510

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 LD141 product page on the website.



Medium Spot Beam
500mA using a 25° optic

Distance (m)	Illuminance (lx)	Cone Width (m)
3.0	1.10	212
2.5	0.92	305
2.0	0.73	476
1.5	0.55	847
1.0	0.37	1905
0.5	0.18	7621

Wide Beam
500mA using a 46° optic

Distance (m)	Illuminance (lx)	Cone Width (m)
3.0	1.82	79
2.5	1.52	113
2.0	1.22	177
1.5	0.91	315
1.0	0.61	709
0.5	0.30	2835

Extra Wide Beam
500mA using a 65° optic

Distance (m)	Illuminance (lx)	Cone Width (m)
3.0	2.87	40
2.5	2.40	57
2.0	1.92	90
1.5	1.44	159
1.0	0.96	358
0.5	0.48	1432

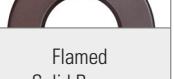
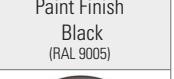
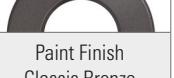
Extra Oval Beam
500mA using a 25° X 43° optic

Distance (m)	Illuminance (lx)	Cone Width (m)
3.0	0.93 / 2.58	112
2.5	0.77 / 2.15	161
2.0	0.62 / 1.72	251
1.5	0.46 / 1.29	447
1.0	0.31 / 0.86	1005
0.5	0.15 / 0.43	4020

ORDER CODES & OPTIONS

Example: LD141X-E3-500 / LW30 / EOB / L / GSHM / 316 STAINLESS STEEL / 441S

Light Engine & Drive Current	LED Colour	Beam Angle	Optical option	Glare shield	Finish	Fixing

E3											
5W LED at 350mA	LD141X-E3-350	Super Warm White (2200K)	/LW22	12° Narrow	/NB	20° tilt	A		316 Stainless Steel		
7W LED at 500mA	LD141X-E3-500	Extra Warm White (2700K)	/LW27	19° Medium	/MB	No tilt	L		/NGS	Polished & Passivated 316 Stainless Steel (for marine environments)	
10W LED at 700mA	LD141X-E3-700 (for use with /441N(-2) only)	Warm White (3000K)	/LW30	34° Wide	/WB				/GSHM	Flamed Solid Bronze	
		White (4000K) on request	/LW40	54° Extra Wide	/WWB				/HL	Paint Finish White (RAL 9016)	
		Cool White (5000K)	/LW50	15° x 49° Extra Oval Beam	/EOB					Paint Finish Black (RAL 9005)	
F1											
3.5W LED at 350mA	LD141X-F1-350	Super Warm White (2200K)	/LW22	25° Medium spot	/MSB				Paint Finish Classic Bronze (YM262E)	Paint Finish Textured Mars Bronze	
5W LED at 500mA	LD141X-F1-500	Extra Warm White (2700K)	/LW27	46° Wide	/WB				Paint Finish Textured Fir Green (RAL 6009)	Paint Finish Gunmetal Grey (RAL 7021)	
7W LED at 700mA	LD141X-F1-700 (for use with /441N(-2) only)	Warm White (3000K)	/LW30	65° Extra wide	/WWB				Paint Finish RAL	Paint Finish RAL	
		White (4000K) on request	/LW40	25° x 43° Oval	/EOB						
		Cool White (5000K)	/LW50								

Drivers

Use with 350mA, 500mA and 700mA 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.