

LD151


HIGH-POWER INTERIOR/EXTERIOR LED UPLIGHT



The LD151 is a powerful uplight with a compact size and depth, designed specifically to produce low glare illumination onto interior and exterior walls and columns. It can be specified with a wide range of options allowing it to suit most project requirements. 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. Tunable White, RGBW. The bezel aesthetic is minimal featuring black trim glass and no visible fixings. This is a very tough, high quality fitting, machined from high-grade materials, ensuring excellent thermal and light output performance.

Design: DPA Lighting
Project: The Langley Hotel, Buckinghamshire, UK
Product: LD151

KEY FEATURES

- > E3 engine option with NICHIA LED, delivering up to 647 lumens and built-in reverse polarity protection
- > Available in a wide range of colour temperatures from 2200K to 5000K
- > Straight edged bezel available in 316 Stainless Steel, Polished & Passivated 316 Stainless Steel, Machined Brass, Flamed Solid Bronze and paint finishes
- > Multiple optic options for lighting columns, arches or wall washing in interior and exterior applications, rated IP67
- > Choice of glare shields to minimise the view of the intense light source without affecting the wash of light on the wall/column
- > Single light source and optic produces a very consistent beam with no multiple shadows and 2-step binning
- > LED and lens are recessed in a matt black anodised body for reduced glare
- > Toughened glass with a ceramic black trim
- > Fitting rated IK08
- > Hidden fixing options include first fix sleeve, ground tube and concrete housing
- >  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 full dimensions please go to page 4.



WHITE LED ENGINE SPECIFICATION

Engine	⊕ E3			⊕ E3-90			⦿ F1		
Beam angles	12°, 19°, 34°, 54°, 15°x 49°			25°, 35°, 46°, 65°, 22°x 43°			25°, 35°, 52°, 17° x 48°		
LED manufacturer	NICHIA			NICHIA			CREE		
Colour temperature	2200K, 2700K, 3000K, 4000K, 5000K			2700K, 3000K			2200K, 2700K, 3000K, 4000K, 5000K		
Current [Rated Output]	350mA [5W]	500mA [7W]	700mA [10W]	350mA [5W]	500mA [7W]	700mA [10W]	350mA [3.5W]	500mA [5W]	700mA [7W]
Typical LED Circuit wattage	4.4W	6.4W	9.2W	4.4W	6.4W	9.2W	3.3W	5W	7.2W
Delivered lumens (L ₁₀₀)*	363	477	647	363	477	647	211	272	348
Delivered lm/Circuit W**	82	74	70	82	74	70	63	54	48
Typical LED Source wattage	4W	5.8W	8.3W	4W	5.8W	8.3W	3W	4.5W	6.5W
Source LED lm	574	740	949	574	740	949	377	497	654
Source lm/W	144	128	114	144	128	114	126	110	101
Forward voltage (V ₁₀₀)	11.3V	11.6V	11.8V	11.3V	11.6V	11.8V	8.7V	9V	9.3V
CRI	85			90			90		
Colour consistency	2 SCDM			2 SCDM			3 SCDM		
Peak intensity	4,346 cd			4,346 cd			1,664 cd		
LOR	0.68			0.68			0.53		
TM30	RF93 RG101			RF93 RG101			RF90 RG103		
UGR rating	5.2	6.3	7.1	5.2	6.3	7.1	7.4	8.3	9.1
UGR rating ('downlight' mounted) ***	B0-U3-G0	B0-U3-G0	B0-U4-G0	B0-U3-G0	B0-U3-G0	B0-U4-G0	B0-U3-G0		
LED lifetime	L90B5 at 90,000hrs								
Applications	  								

These values are based around a LD151-E3-700-LW30-NB & LD151-F1-700-LW22-MSB

*Lumen output data applies to 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

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

MECHANICAL

Ambient temperature 55°C	E3	Soil/Sleeve	350mA	500mA	700mA
		Concrete	-20°C to 55°C	-20°C to 50°C	-20°C to 35°C
	E3-90	Soil/Sleeve	-20°C to 55°C	-20°C to 50°C	-20°C to 35°C
		Concrete	-20°C to 55°C	-20°C to 55°C	-20°C to 55°C
	F1	Soil/Sleeve	-20°C to 55°C	-20°C to 55°C	-20°C to 50°C
		Concrete	-20°C to 55°C	-20°C to 55°C	-20°C to 55°C
Glass	6mm thick toughened glass with black ceramic screen print				
Materials	Stainless steel bezel, anodised aluminium body				
Weight of product	0.52kg				
IP rating	IP67				
IK rating	IK08				
Wiring	In-series constant current wiring (pre-wired with 2-core exterior cable at a length of 250mm)				

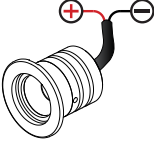
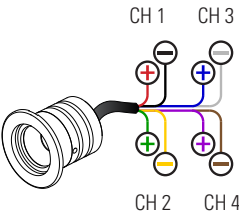
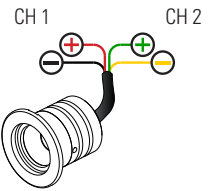
ENVIRONMENTAL

TM65	Available on request	
TM66	2.7	
Repair + Refurbish	 <p>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.</p>	

COLOUR & DYNAMIC LED ENGINE SPECIFICATION

Engine	 CLR - Colour	 RGBW	 TW - Tunable White
Beam Angles	24°, 38°, 54°, 20° x 46°	38° colour mix lens	24°, 38°, 54°, 20° x 46°
LED manufacturer	CREE	CREE	CREE
Colour temperature	Red, Green, Blue, Amber	Red, Green, Blue, 4000K White	Warm White 2700K or 3000K Cool White 4000K or 5000K
Current	500mA	350mA 500mA	500mA
LED power (Max)	7W	3.5W 5W	6.3W (7W) 3.5W per channel
Applications			

MECHANICAL

Glass	6mm thick toughened glass with black ceramic screen print		
Materials	Stainless steel bezel, anodised aluminium body		
Weight of product	0.52kg		
IP rating	IP67		
IK rating	IK08		
Wiring	CLR - 2 core cables at 250mm in length 	RGBW - 8 core cables at 250mm in length 	TW - 4 core cables at 250mm in length 

AVAILABLE FINISHES

Please refer to our finishes guide for full details

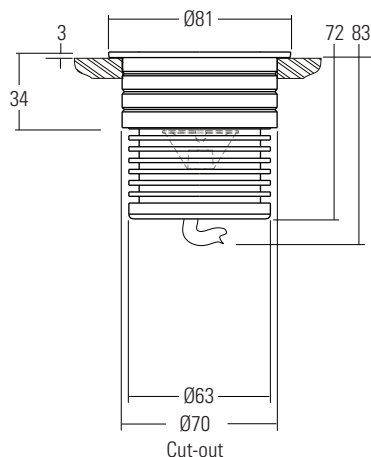
 	 	 	 	 
316 STAINLESS STEEL <ul style="list-style-type: none"> > Marine grade 316 Steel > Standard machined finish > Extremely durable with very high corrosion resistance > Passivation recommended for marine environments to prevent corrosion and build up of brown stains caused by oxidation > Interior & exterior use 	POLISHED & PASSIVATED 316 STAINLESS STEEL <ul style="list-style-type: none"> > Marine Grade 316 Steel > Mirror like finish > 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 	MACHINED BRASS <ul style="list-style-type: none"> > Solid CZ121 Brass > Standard machined finish > Corrosion resistance rated fair to excellent > Please note a natural green/brown 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 	FLAMED SOLID BRONZE <ul style="list-style-type: none"> > 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 <ul style="list-style-type: none"> > Matt Black, Matt White, and other RAL colours available > Not recommended for footlights in high traffic areas > Interior & exterior use

DIMENSIONS AND FIXING ACCESSORIES

Dimensions in mm

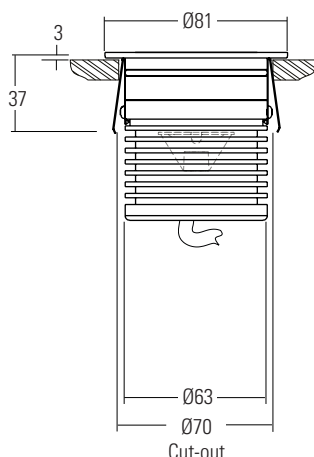
/484S First Fix Sleeve

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.



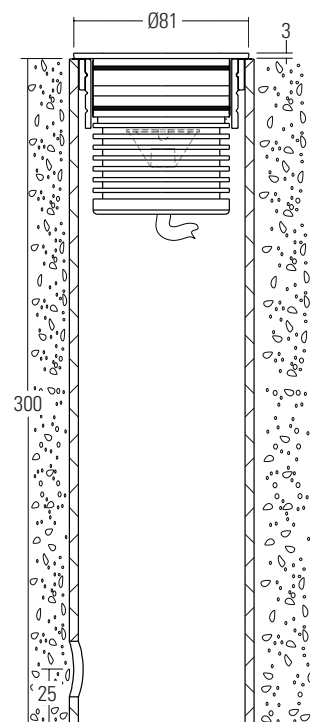
/SC Spring clip fixing

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



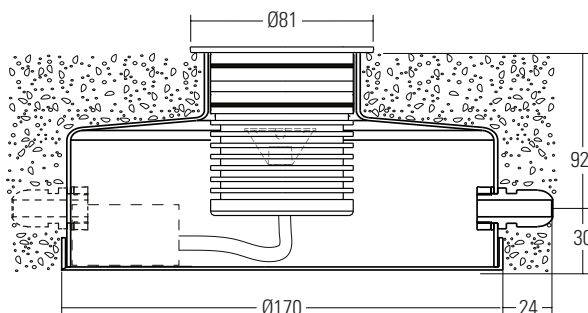
/484GT Ground tube

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.



/484N or /484N-2 Concrete housing

Must be used when specifying the 700mA fitting. 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.



/484N
Concrete housing with 1x PG9 IP67 gland



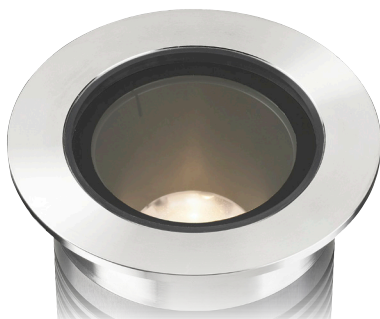
/484N-2
Concrete housing with 2x PG9 IP67 gland

/ID Optional integral non dimming driver (single colour only at 350mA or 500mA)



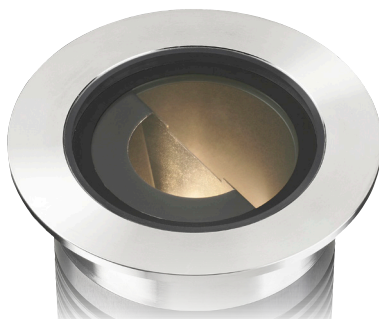
GLARE SHIELD OPTIONS

LD151 comes with a choice of glare control options. Please refer to our photometric files for lumen data. These are available to download from the website.



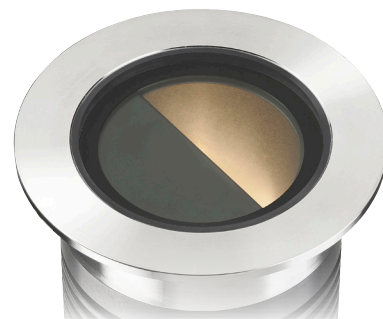
/NGS No glare shield

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



/GS Glare shield

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



/GSHM Half moon glare shield

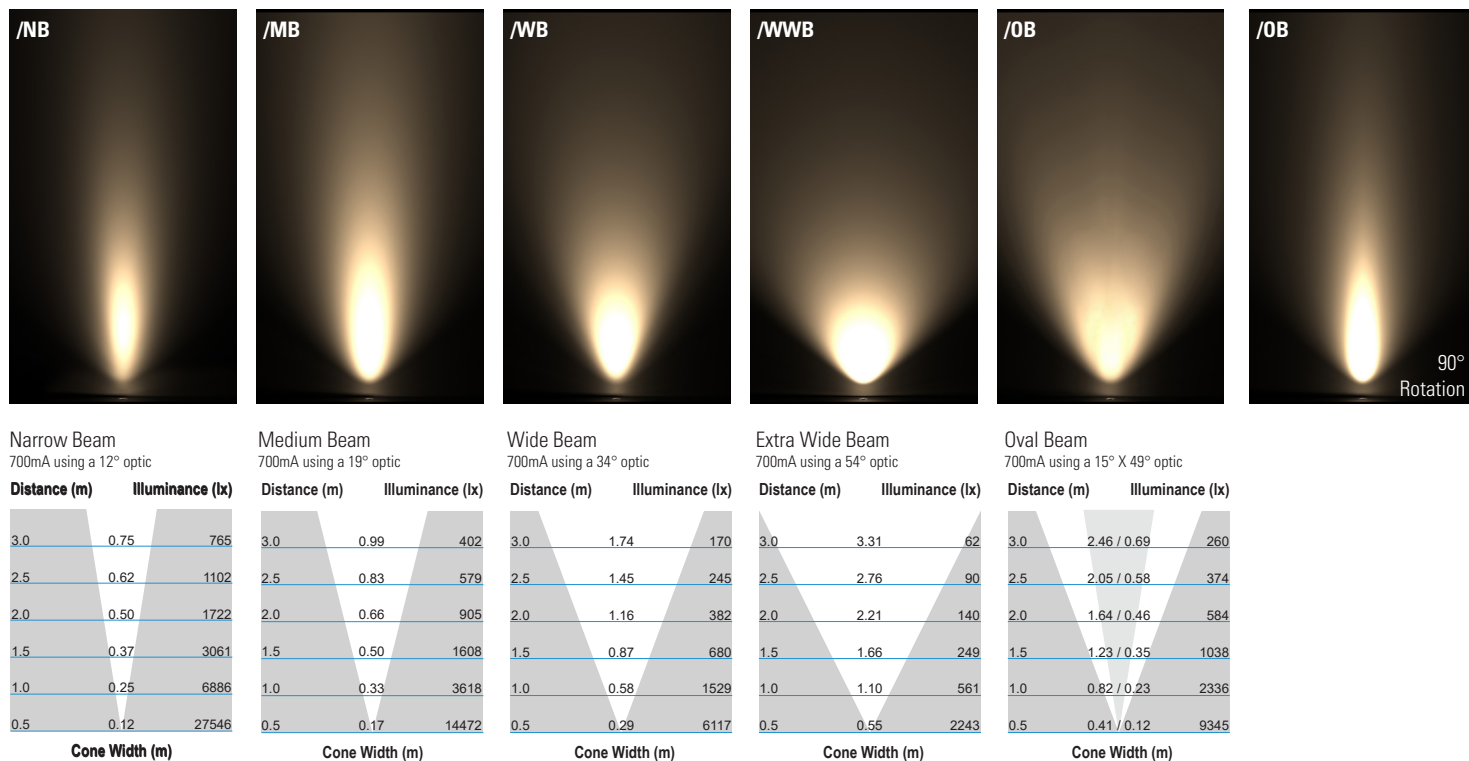
Half-moon glare shield for applications that require very low glare. Lumen output typically reduced by 60%.



CONE DIAGRAMS

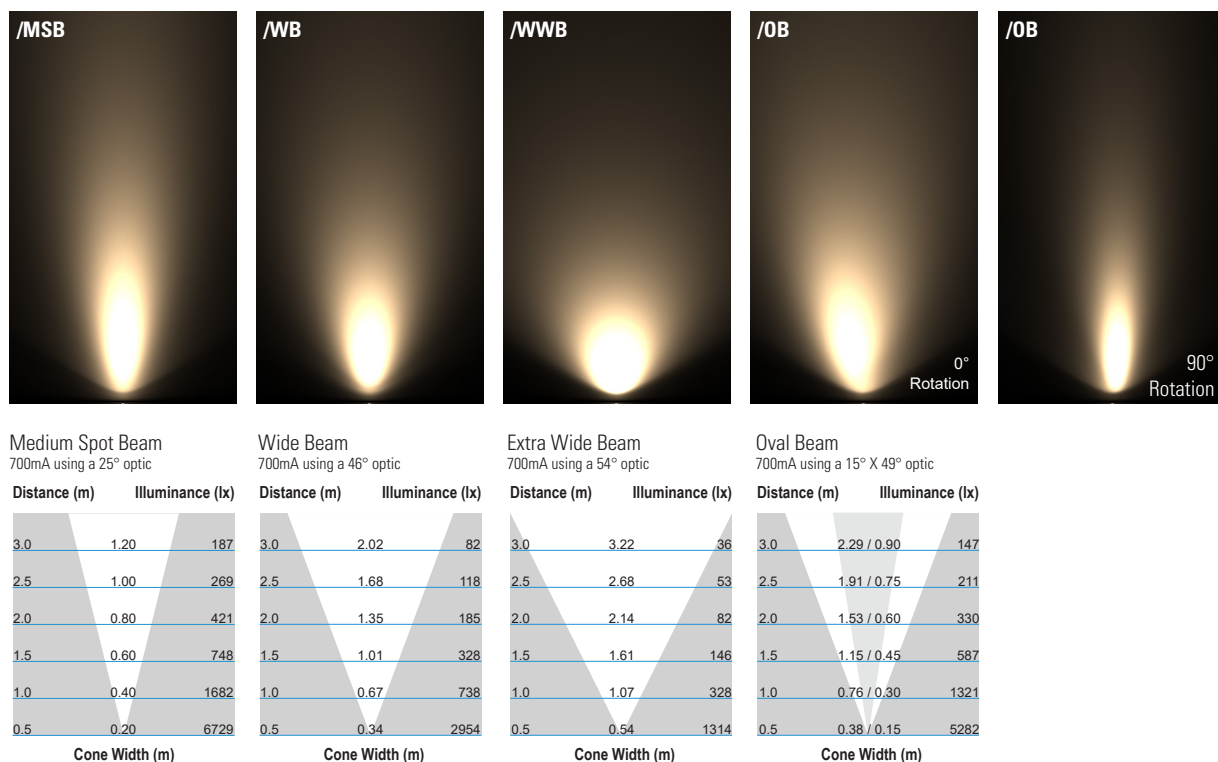
E3 LED Engine

Cone diagrams below are based on a 3000K E3 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. Photometric files (LDT) are included in the design pack which can be downloaded from the LD151 product page on the website.



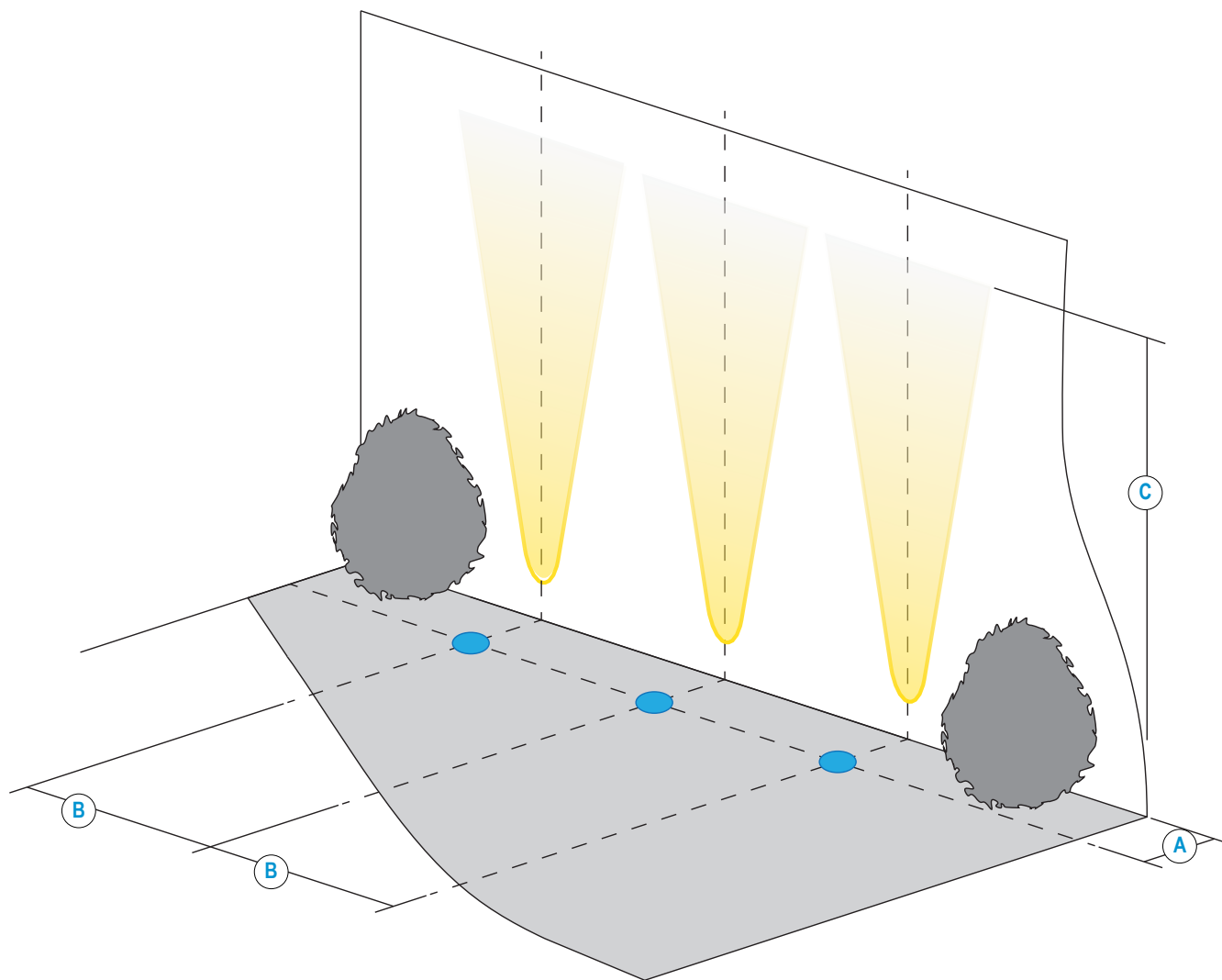
F1 LED Engine

Cone diagrams below are based on a 3000K F1 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. Photometric files (LDT) are included in the design pack which can be downloaded from the LD151 product page on the website.



INSTALLATION GUIDE

Below is a luminaire positioning guide for white LEDs. Every project and lighting scenario will be different; the table below is to be used as a starting point for any wall wash design. Please use our photometric files to further test the desired effect for your application. Files are available on our LD151 product page on our website.



LD151-E3		/NB	/MB	/WB	/WWB	/OB
A	Distance from the centre of the fitting to the lit surface	125mm				
B	Spacing for an even wash	250mm*	350mm	400mm	500mm	500mm
C	500mA Lit distance	6m	4.5m	2m	2m	4m
C	700mA Lit distance	9m	5.5m	4m	3m	5m

LD151-F1		/MSB	/WB	/WWB	/OB
A	Distance from the centre of the fitting to the lit surface	125mm			
B	Spacing for an even wash	350mm	400mm	500mm	500mm
C	500mA Lit distance	2.5m	2m	1.5m	3m
C	700mA Lit distance	5m	4m	2m	4m

*Wall washing using narrow beam optics should only be used if the designer requires long distance lighting up the lit surface.

ORDER CODES & OPTIONS

Example: LD151-E3-700/LW30/NB/NGS/316 stainless steel/484N

Light Engine & Drive Current

LED Colour

Beam Angle

Glare shield

Finish

Fixing Accessories

	/		/		/		/	
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Ambient temperature key:  55°C

WHITE LED ENGINES

E3

55°C
Ta

5W LED at 350mA*	LD151-E3-350
7W LED at 500mA*	LD151-E3-500
10W LED at 700mA*	LD151-E3-700

*55°C ambient when placed in a 484N / 484N-2 concrete can in concrete.

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

12° Narrow spot	/NB
19° Medium	/MB
34° Wide	/WB
54° Extra wide	/WWB
15° x 49° Oval	/OB



E3-90

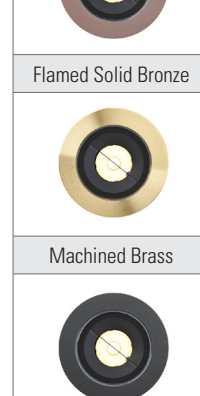
55°C
Ta

5W LED at 350mA*	LD151-E3-90-350
7W LED at 500mA*	LD151-E3-90-500
10W LED at 700mA*	LD151-E3-90-700

*55°C ambient when placed in a 484N / 484N-2 concrete can in concrete.

Extra Warm White (2700K)	/LW27
Warm White (3000K)	/LW30

12° Narrow spot	/NB
19° Medium	/MB
34° Wide	/WB
54° Extra wide	/WWB
15° x 49° Oval	/OB



F1

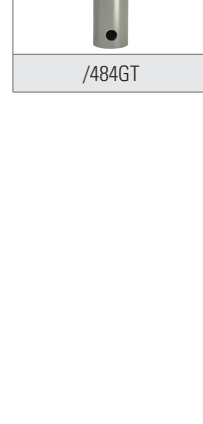
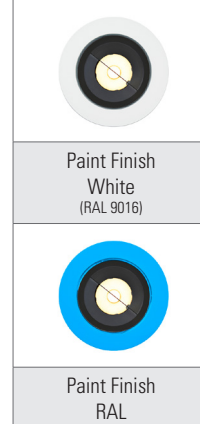
55°C
Ta

3.5W LED at 350mA*	LD151-F1-350
5W LED at 500mA*	LD151-F1-500
7W LED at 700mA*	LD151-F1-700

*55°C ambient when placed in a 484N / 484N-2 concrete can in concrete.

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

25° Medium spot	/MSB
46° Wide	/WB
65° Extra wide	/WWB
43° x 25° Oval	/OB



Drivers

Use with 350mA, 500mA & 700mA constant current LED drivers
We have a range of dimmable LED drivers DMX and DALI compatible. Please see the downloads section on our website.

ORDER CODES & OPTIONS

EXAMPLE: LD151-CLR-500/LW30/MSB/NGS/316 stainless steel/484N

Light Engine & Drive Current

LED Colour

Beam Angle

Glare shield

Finish

Fixing Accessories

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COLOUR & DYNAMIC LED ENGINES

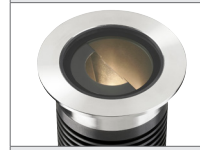
CLR

3.5W LED at 350mA	LD151-CLR-500
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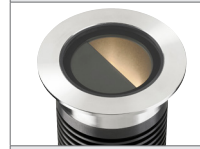
Red	/LR	24° Medium	/MSB
Green	/LG	38° Wide	/WB
Blue	/LB	54° Extra wide	/WWB
Amber	/LA	20° x 46° Oval	/OB



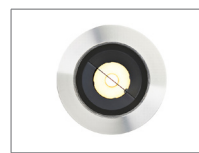
/NGS



/GS



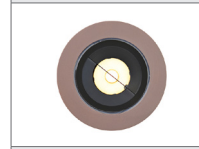
/GSHM



316 Stainless Steel



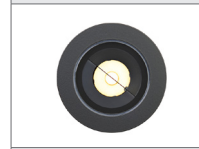
Polished & Passivated
316 Stainless Steel
(for marine environments)



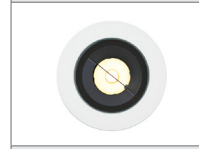
Flamed Solid Bronze



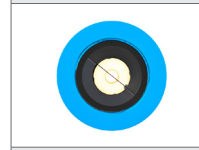
Machined Brass



Paint Finish
Black
(RAL 9005)



Paint Finish
White
(RAL 9016)



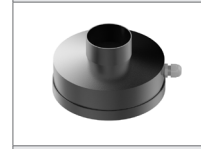
Paint Finish
RAL



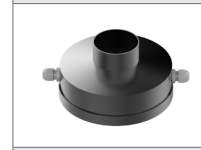
/484S



/484N



/484N-2



/484GT

RGBW

3.5W LED at 350mA	LD151-RGBW-350
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5W LED at 500mA	LD151-RGBW-500
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38° Colour mix lens

TW

3.5W LED at 350mA	LD151-TW-350
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Tunable White 2700K & 4000K (standard option)	/LW27 + LW40
Tunable White 2700K & 5000K	/LW27 + LW50
Custom	/LW** + L**

24° Medium	/MSB
38° Wide	/WB
54° Extra wide	/WWB
20° x 46° Oval	/OB

Drivers

Use with 350mA, 500mA & 700mA constant current LED drivers
We have a range of dimmable LED drivers DMX and DALI compatible. Please see the downloads section on our website.