LD151

HIGH-POWER INTERIOR/EXTERIOR LED UPLIGHT

350 mA | 500 mA | 700 mA | IP67

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. Available LED engines include E3, Tunable White, RGBW and F1 which offer a range of colour temperatures between 2200K-5000K and beam angles, with multiple accessories and bezel finishes to choose from. 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.

KEY FEATURES

- E3 engine option with NICHIA LED, delivering up to 647 lumens and built-in reverse polarity protection
- F1 COB, Tunable White, CLR, RGBW, 2nd channel LEDs also available
- 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
- 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			F1		
Beam angles	12°, 19°, 34°, 54°, 49° x 15°			25°, 46°, 65°, 43° x 25°		
LED manufacturer	NICHIA			CREE		
Colour temperature*	2700K / 3000K / 4000K / 5000K			2200K		
Current	350mA	500mA	700mA**	350mA	500mA	700mA**
LED power (Max)	4.2W (5W***)	6W (7W***)	8.4W (10W***)	3.2W (3.5W***)	4.5W (5W***)	6.3W (7W***)
Delivered lumens (L_{100})****	363	477	647	211	272	348
Lumens per circuit watt	73	68	65	61	55	50
CRI (Typ)	85			90		
Forward voltage (V_{100})	14V			9V		
Colour consistency	2 SCDM			3 SCDM		
Peak intensity	6890 cd			1664 cd		
LED lumens	840			623		
LOR	0.77			0.63		
TM30	RF85	RG98		RF90	RG103	
UGR*****	7.0			9.1		
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
**can only be specified with /484N concrete housing
***indicates the nominal power for the LED run at that particular current and includes losses associated with using an 85% efficient driver
****lumen output indicated is without the glare shield. Allow 30% less with the /GS glare shield.
***** UGR values based on room parameters of 4H 8H, C70 W50 F20

MECHANICAL

Ambient temperature	-20° to 45° (500mA) or -20° to 35° (700mA)
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 cable at a length of 250mm)

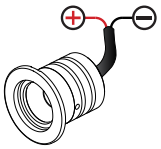
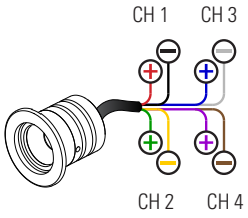
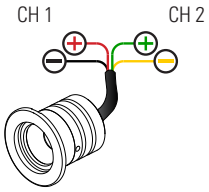
ENVIRONMENTAL

TM65	Available on request
TM66	2.7

COLOUR & DYNAMIC LED ENGINE SPECIFICATION

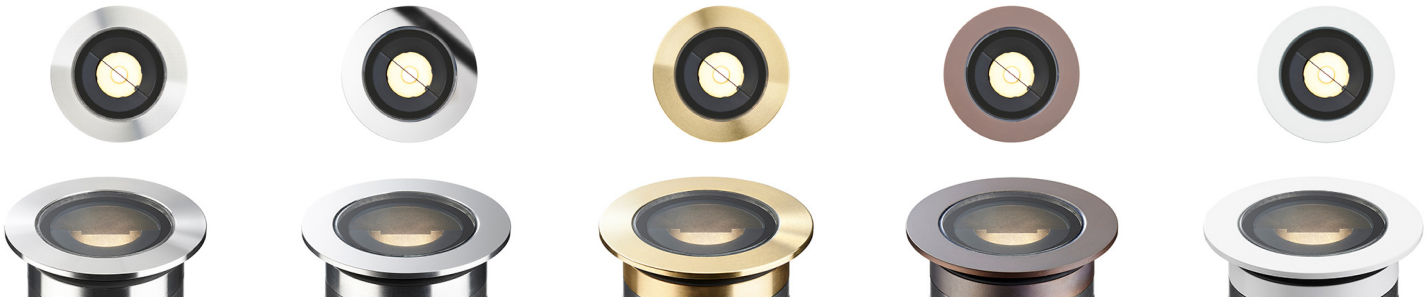
Engine	CLR - Colour	RGBW		TW - Tunable White	
Beam Angles	24°, 38°, 54°, 20° x 46°	38° colour mix lens		24°, 38°, 54°, 20° x 46°	
LED manufacturer	CREE	CREE		CREE	
Colour temperature	Red, Green, Blue, Amber	Red, Green, Blue, 4000K White		Warm White 2700K or 3000K	Cool White 4000K or 5000K
Current	500mA	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

- 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

- 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

- 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

- 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

- Matt Black, Matt White, and other RAL colours available
- Not recommended for footlights in high traffic areas
- Interior & exterior use

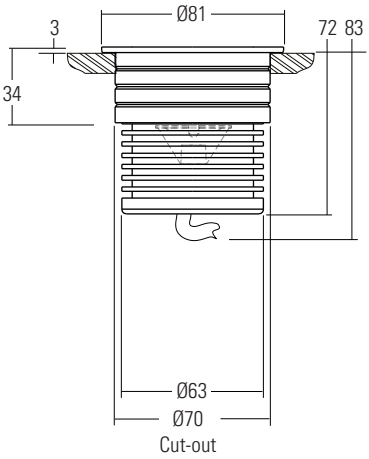
DIMENSIONS AND FIXING ACCESSORIES

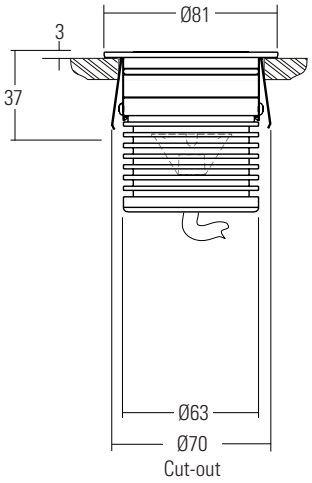
Dimensions in mm

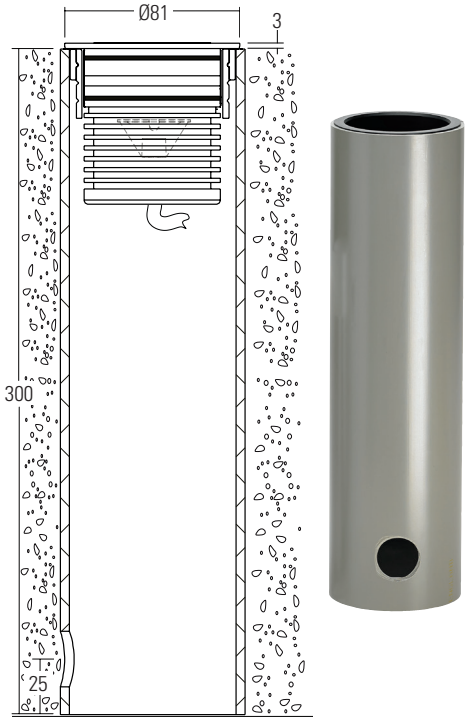
/484S First Fix Sleeve
The fitting is supplied as standard with a fixing sleeve; this is bonded into the mounting surface first. The LD151 is secured into the sleeve by 2 'O' rings on the body. When pushed into the sleeve it creates a watertight seal.

/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.

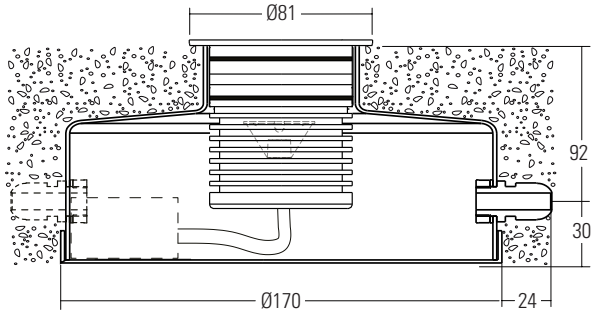
/484GT Ground tube
The in-ground tube has been designed for applications here a recessed uplight is required in soil or gravel surfaces. The tube can be buried with the necessary wiring, and then the fitting installed after the landscaping work has been completed. It is supplied with the fixing sleeve 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.



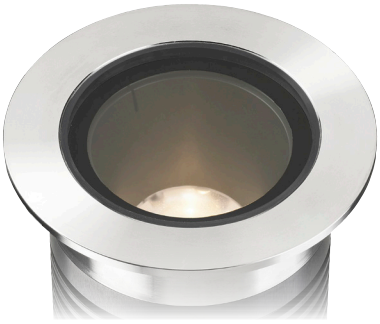
/484N
Concrete housing with 1x PG9 IP67 gland

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

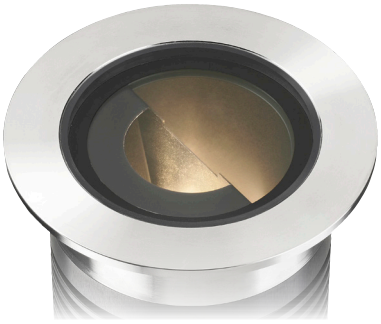
/ID Optional integral non dimming driver
(single colour only at 350mA or 500mA)

GLARE SHIELD OPTIONS

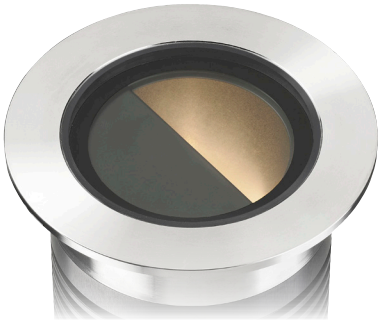
LD151 comes with a choice of glare control options. Please refer to our photometric files for lumen data. These are available to download from the website.



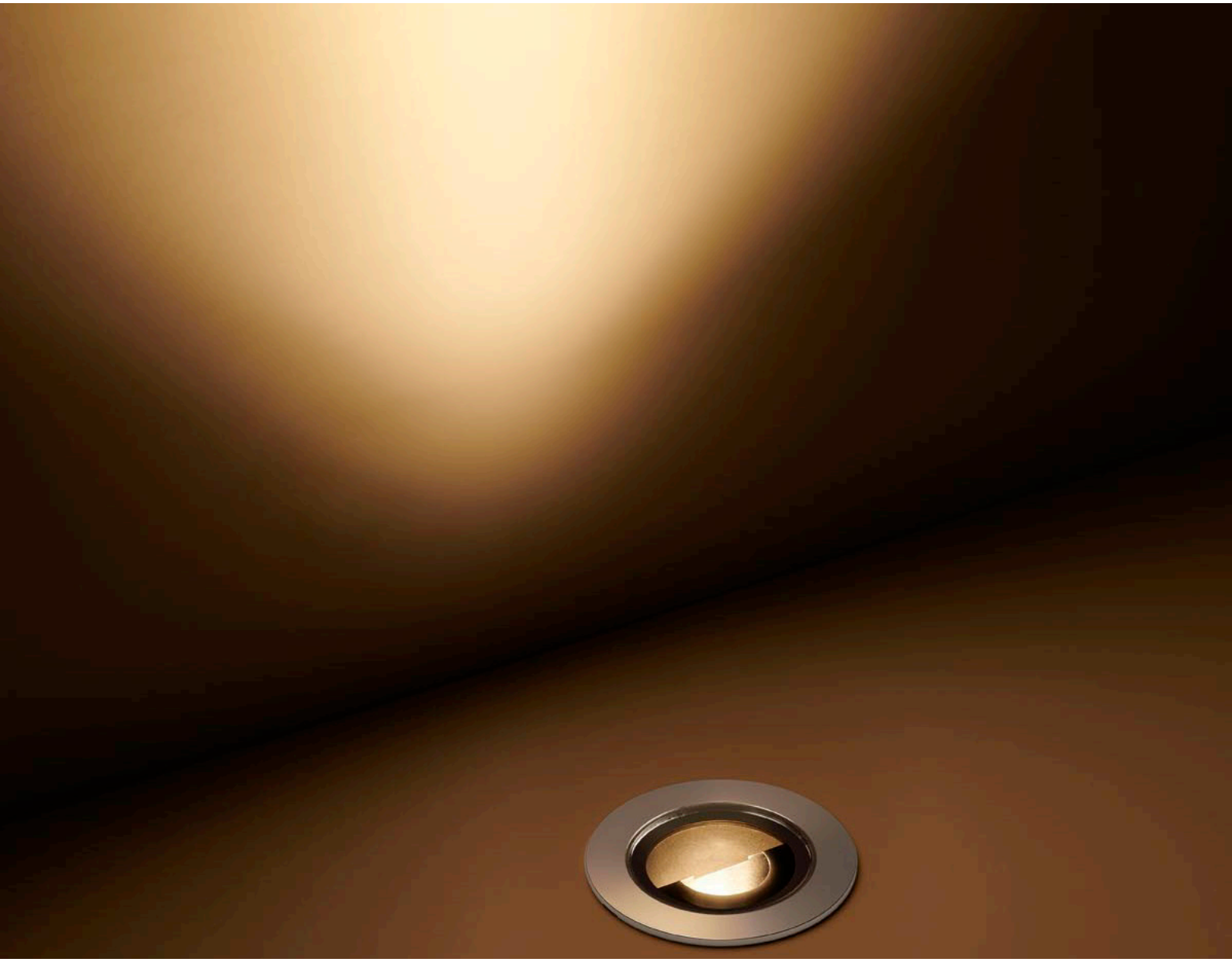
/NGS No glare shield
No glare shield. Deep recessed optic and matt black anodised optic holder aids in glare reduction.



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



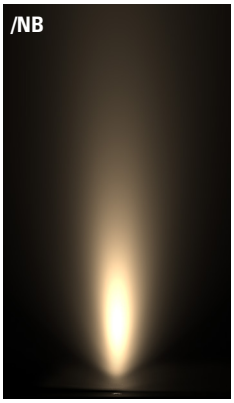
/GSHM Half moon glare shield
Half-moon glare shield for applications that require very low glare. Lumen output typically reduced by 60%.

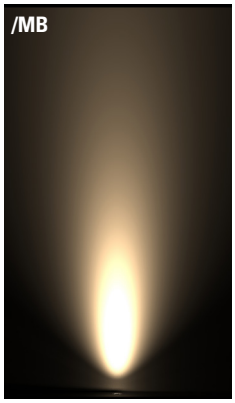


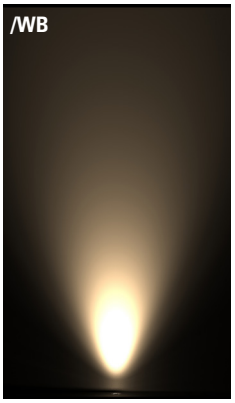
CONE DIAGRAMS

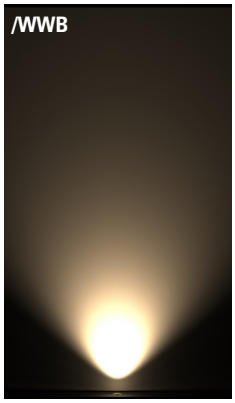
E3 LED Engine

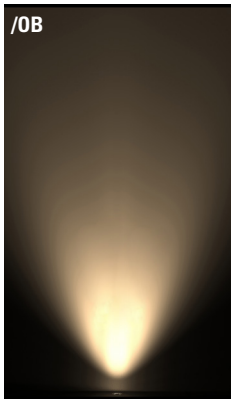
Cone diagrams below are based on a 3000K E3 LED engine run at maximum output 700mA, 10W. Images below represents beam outputs when wall washing a 3m wall, spaced 125mm away from the lit surface. Photometric files (LDT) are included in the design pack which can be downloaded from the LD151 product page on the website.

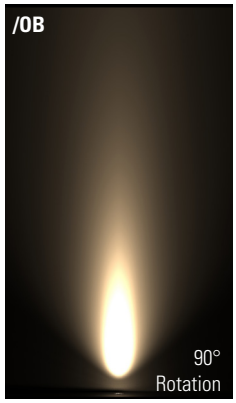












Narrow Beam
700mA using a 12° optic

Distance (m)	Luminance (lx)
3.0	765
2.5	1102
2.0	1722
1.5	3061
1.0	6886
0.5	27546

Cone Width (m): 0.75, 0.62, 0.50, 0.37, 0.25, 0.12

Medium Beam
700mA using a 19° optic

Distance (m)	Luminance (lx)
3.0	402
2.5	579
2.0	905
1.5	1608
1.0	3618
0.5	14472

Cone Width (m): 0.99, 0.83, 0.66, 0.50, 0.33, 0.17

Wide Beam
700mA using a 34° optic

Distance (m)	Luminance (lx)
3.0	170
2.5	245
2.0	382
1.5	680
1.0	1529
0.5	6117

Cone Width (m): 1.74, 1.45, 1.16, 0.87, 0.58, 0.29

Extra Wide Beam
700mA using a 54° optic

Distance (m)	Luminance (lx)
3.0	62
2.5	90
2.0	140
1.5	249
1.0	561
0.5	2243

Cone Width (m): 3.31, 2.76, 2.21, 1.66, 1.10, 0.55

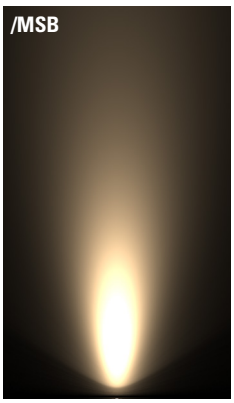
Oval Beam
700mA using a 15° X 49° optic

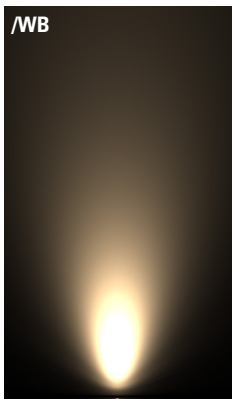
Distance (m)	Luminance (lx)
3.0	260
2.5	374
2.0	584
1.5	1038
1.0	2336
0.5	9345

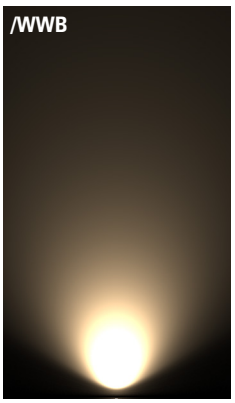
Cone Width (m): 2.46 / 0.69, 2.05 / 0.58, 1.64 / 0.46, 1.23 / 0.35, 0.82 / 0.23, 0.41 / 0.12

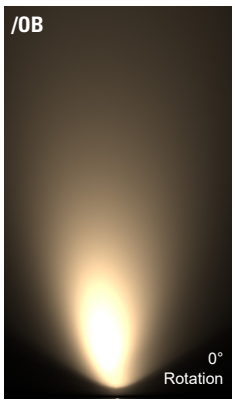
F1 LED Engine

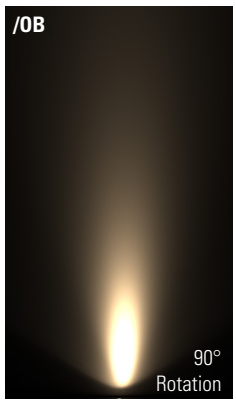
Cone diagrams below are based on a 3000K F1 LED engine run at maximum output 700mA, 10W. Images below represents beam outputs when wall washing a 3m wall, spaced 125mm away from the lit surface. Photometric files (LDT) are included in the design pack which can be downloaded from the LD151 product page on the website.











Medium Spot Beam
700mA using a 25° optic

Distance (m)	Luminance (lx)
3.0	187
2.5	269
2.0	421
1.5	748
1.0	1682
0.5	6729

Cone Width (m): 1.20, 1.00, 0.80, 0.60, 0.40, 0.20

Wide Beam
700mA using a 46° optic

Distance (m)	Luminance (lx)
3.0	82
2.5	118
2.0	185
1.5	328
1.0	738
0.5	2954

Cone Width (m): 2.02, 1.68, 1.35, 1.01, 0.67, 0.34

Extra Wide Beam
700mA using a 54° optic

Distance (m)	Luminance (lx)
3.0	36
2.5	53
2.0	82
1.5	146
1.0	328
0.5	1314

Cone Width (m): 3.22, 2.68, 2.14, 1.61, 1.07, 0.54

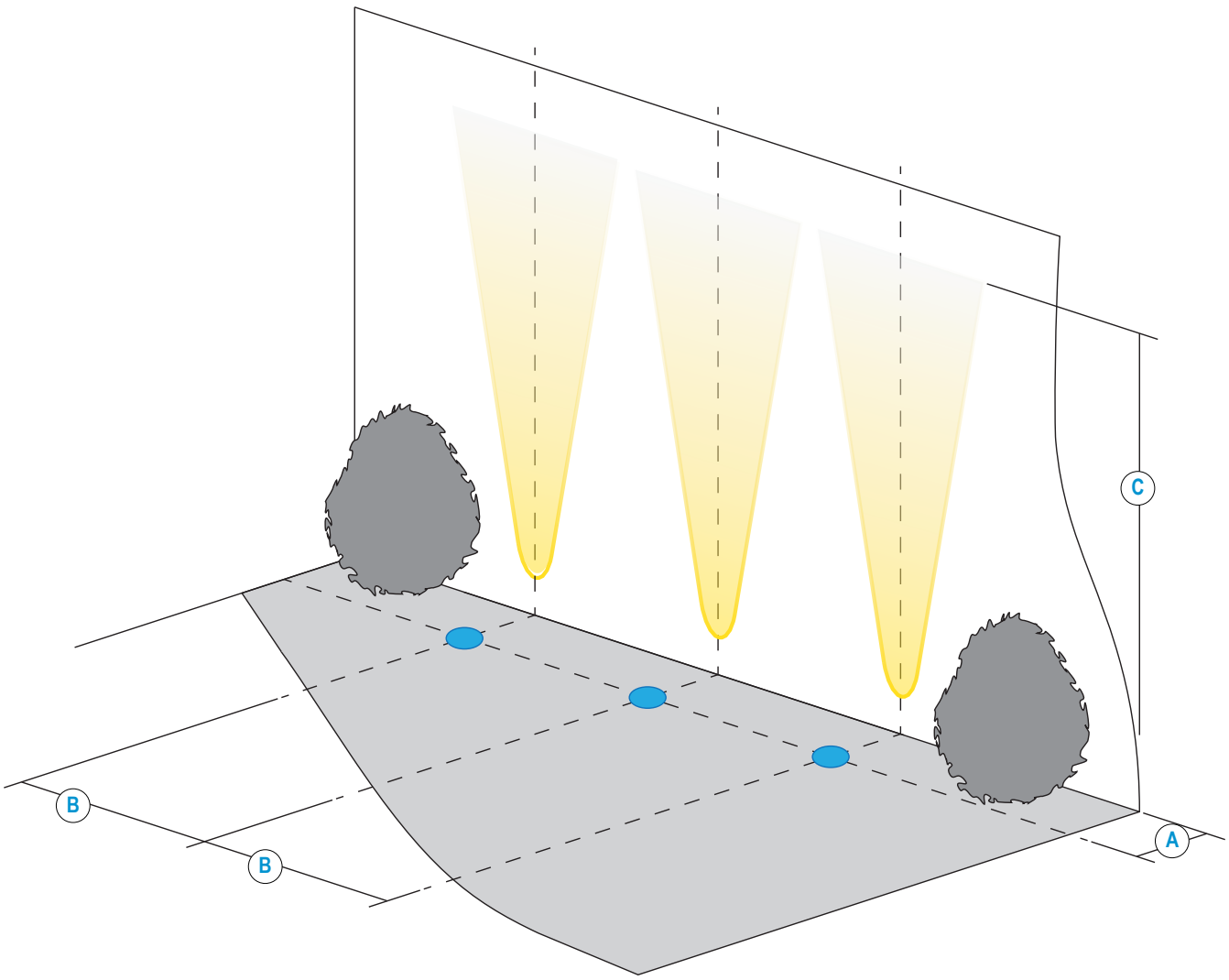
Oval Beam
700mA using a 15° X 49° optic

Distance (m)	Luminance (lx)
3.0	147
2.5	211
2.0	330
1.5	587
1.0	1321
0.5	5282

Cone Width (m): 2.29 / 0.90, 1.91 / 0.75, 1.53 / 0.60, 1.15 / 0.45, 0.76 / 0.30, 0.38 / 0.15

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 / Stainless Steel / 484N

Light Engine & Drive Current / LED Colour / Beam Angle / Glare shield / Finish / Fixing Accessories

WHITE LED ENGINES

E3

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

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

F1

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

Super Warm White (2200K)	/LW22

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

COLOUR & DYNAMIC LED ENGINES

CLR

3.5W LED at 350mA	LD151-CLR-500

Red	/LR
Green	/LG
Blue	/LB
Amber	/LA

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

RGBW

3.5W LED at 350mA	LD151-RGBW-350
5W LED at 500mA	LD151-RGBW-500

38° Colour mix lens

TW

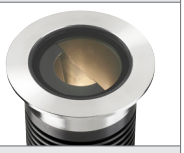
3.5W LED at 350mA	LD151-TW-350

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


/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


/SC


484GT


/484N


/484N-2


/ID

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.

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