LD150
HIGH-POWER INTERIOR UPLIGHT

350 mA · 500 mA · 700 mA · IP54

The LD150 is a powerful uplight with a compact size and depth, designed specifically to produce low glare illumination to interior 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 with a chamfered edge, 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 when specified at 700mA with concrete housing in 3000K

> F1 COB, Tunable White, CLR, RGBW, 2nd channel LEDs also available

> Chamfered edged bezel available in 316 Stainless Steel, Polished & Passivated 316 Stainless Steel, Machined Brass, Flamed Solid Bronze and RAL paint finishes

> Multiple optic options for lighting columns, arches or wall washing

> Single light source and optic produces a very consistent beam with no multiple shadows and 2-step binning

> Choice of glare shields to minimise the view of the intense light source without affecting the wash of light on the wall/column

> LED and lens are recessed in a matt black anodised body for reduced glare

> Toughened glass with black ceramic trim

> Fitting rated IK08

> Hidden fixing options include first fix sleeve or 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.

Ø81
83
Ø63

LIAQA ASSURED COMPANY · MADE IN BRITAIN · Lloyd's Register

WHITE LED ENGINE SPECIFICATION

Engine	⊕ E3			⊙ F1		
Beam angles	12°, 19°, 34°, 54°, 15° x 49°			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	60	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 LD150-E3-700-LW30-NB & LD150-F1-700-LW22-MSB
*Lumen output data applies to all colour temperatures
**can only be specified with /482N 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.
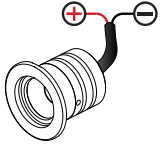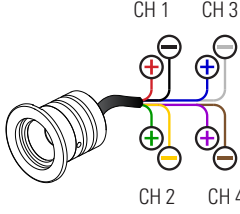***** UGR values based on room parameters of 4H 8H, C70 W50 F20

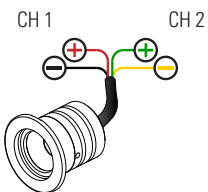### MECHANICAL

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	IP54
IK rating	IK08
Wiring	In-series constant current wiring (pre-wired with 2 core cable at a length of 250mm)

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	5W	7W	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	IP54
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

> Passivation recommended for marine environments to further prevent corrosion and build up of brown stains caused by oxidation

> Interior & exterior use

POLISHED & PASSIVATED 316 STAINLESS STEEL

> Marine grade 316 Steel

> Pristine mirror like finish

> Extremely durable

> 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.
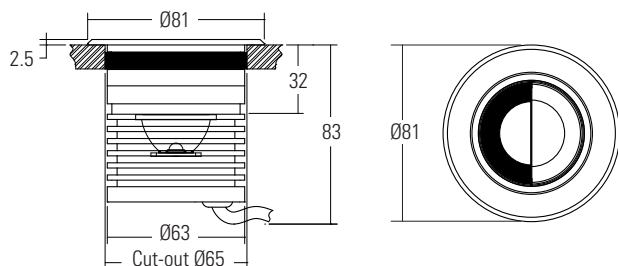
> Interior & exterior use

PAINT FINISH

> Matt Black, Matt White, and other RAL colours available

> Not recommended for footlights in high traffic areas
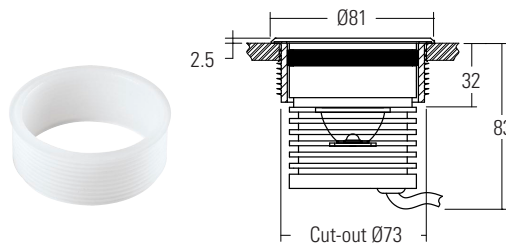
> Interior & exterior use

LightGraphix
Creative Lighting Solutions

DIMENSIONS AND FIXING ACCESSORIES

Dimensions in mm

Soft silicon seal holds the fitting into the cut-out.

Ø81
2.5
32
83
Ø81
Ø63
Cut-out Ø65

/482S First fix sleeve
First fix sleeve is polypropylene. Fins on the side lock it into a range of mounting surfaces.

Ø81
2.5
32
83
Cut-out Ø73

/482N or /482N-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.

2.5
PG9 Gland
91.5
Ø170
23
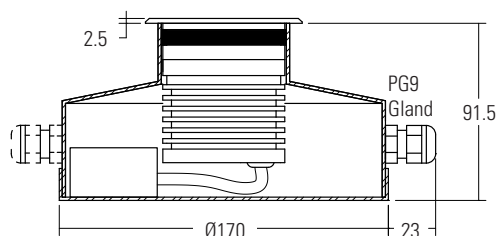
/482N
Concrete housing with 1x PG9 IP67 gland

/482N-2
Concrete housing with 2x PG9 IP67 gland

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

GLARE SHIELD OPTIONS

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

/GS Glare shield
Standard glare shield 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%.

LIAQA ASSURED COMPANY
MADE IN BRITAIN
Lloyd's Register

CONE DIAGRAMS

E3 LED engine

Cone diagrams below are based on a 3000K E3 LED engine run at maximum output 700mA, 10W. Images below represent 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 LD150 product page on the website.

/NB /MB /WB /WWB /OB /OB 90° Rotation
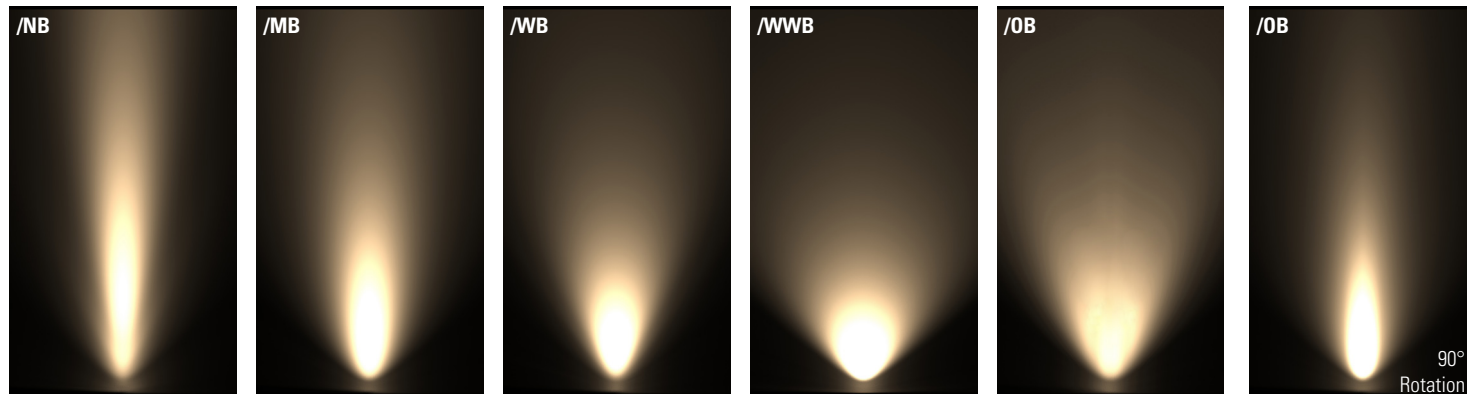
Narrow Beam
700mA using a 12° optic

Distance (m)	Cone Width (m)	Luminance (lx)
3.0	0.75	765
2.5	0.62	1102
2.0	0.50	1722
1.5	0.37	3061
1.0	0.25	6886
0.5	0.12	27546

Medium Beam
700mA using a 19° optic

Distance (m)	Cone Width (m)	Luminance (lx)
3.0	0.99	402
2.5	0.83	579
2.0	0.66	905
1.5	0.50	1608
1.0	0.33	3618
0.5	0.17	14472

Wide Beam
700mA using a 34° optic

Distance (m)	Cone Width (m)	Luminance (lx)
3.0	1.74	170
2.5	1.45	245
2.0	1.16	382
1.5	0.87	680
1.0	0.58	1529
0.5	0.29	6117

Extra Wide Beam
700mA using a 54° optic

Distance (m)	Cone Width (m)	Luminance (lx)
3.0	3.31	62
2.5	2.76	90
2.0	2.21	140
1.5	1.66	249
1.0	1.10	561
0.5	0.55	2243

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

Distance (m)	Cone Width (m)	Luminance (lx)
3.0	2.46 / 0.69	260
2.5	2.05 / 0.58	374
2.0	1.64 / 0.46	584
1.5	1.23 / 0.35	1038
1.0	0.82 / 0.23	2336
0.5	0.41 / 0.12	9345

F1 LED engine

Cone diagrams below are based on a 3000K F1 LED engine run at maximum output 700mA, 10W. Images below represent 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 LD150 product page on the website.

/MSB /WB /WWB /OB 0° Rotation /OB 90° Rotation
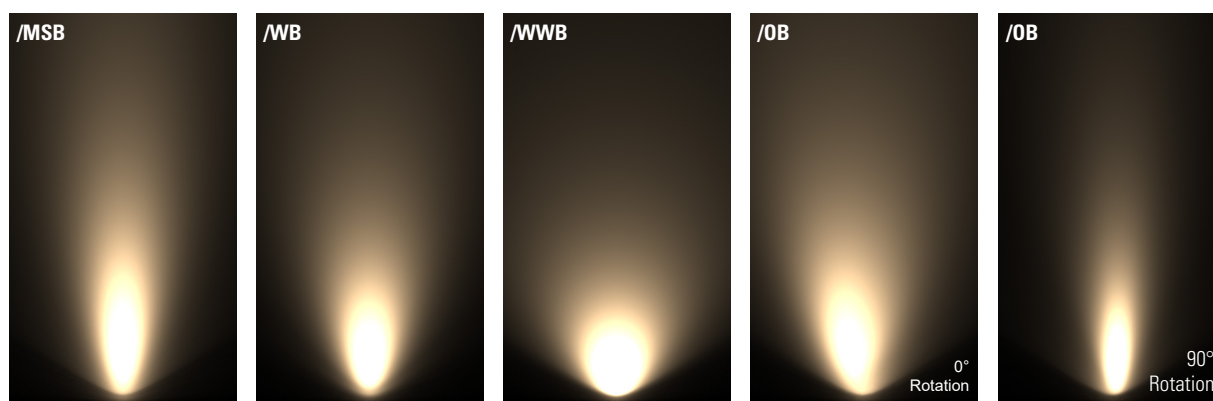
Medium Spot Beam
700mA using a 25° optic

Distance (m)	Cone Width (m)	Luminance (lx)
3.0	1.20	187
2.5	1.00	269
2.0	0.80	474
1.5	0.60	748
1.0	0.40	1682
0.5	0.20	6729

Wide Beam
700mA using a 46° optic

Distance (m)	Cone Width (m)	Luminance (lx)
3.0	2.02	82
2.5	1.68	118
2.0	1.35	185
1.5	1.01	328
1.0	0.67	738
0.5	0.34	2954

Extra Wide Beam
700mA using a 65° optic

Distance (m)	Cone Width (m)	Luminance (lx)
3.0	3.22	36
2.5	2.68	53
2.0	2.14	82
1.5	1.61	146
1.0	1.07	328
0.5	0.54	1314

Oval Beam
700mA using a 43° X 25° optic

Distance (m)	Cone Width (m)	Luminance (lx)
3.0	2.29 / 0.90	147
2.5	1.91 / 0.75	211
2.0	1.52 / 0.60	330
1.5	1.15 / 0.45	587
1.0	0.76 / 0.30	1321
0.5	0.38 / 0.15	5282

LIAQA ASSURED COMPANY MADE IN BRITAIN Lloyd's Register

INSTALLATION GUIDE

Below is a luminaire positioning guide. 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 LD150 product page on our website.
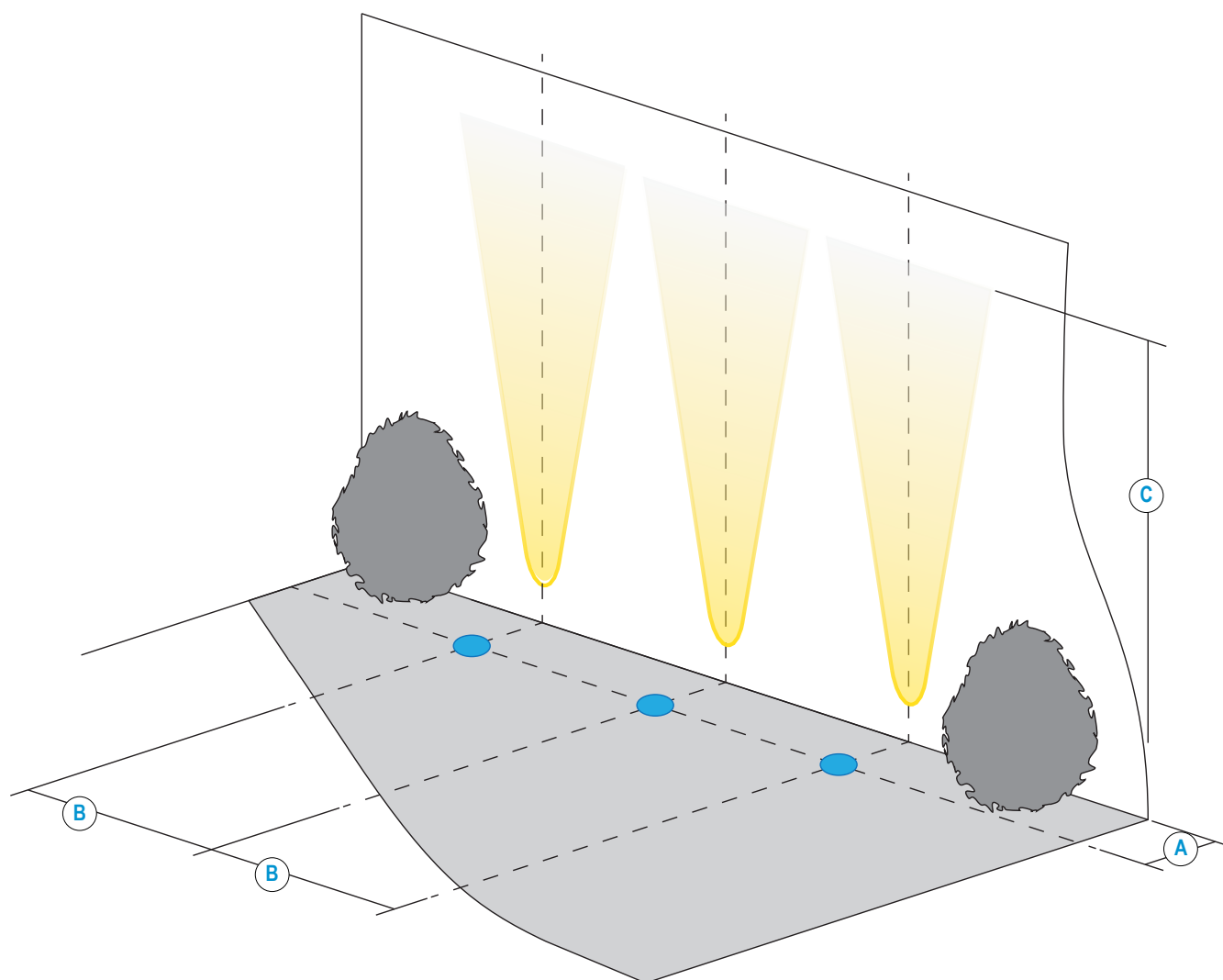
LD150-E3		/NB	/MB	/WB	/WWB	/OB
A	Distance from the centre of the fitting to the lit surface	125mm				
B	Spacing for an even wash	250mm*	350mm	400mm	500mm	500mm
C	500mA Lit distance	6m	4.5m	2m	2m	4m
C	700mA Lit distance	9m	5.5m	4m	3m	5m

LD150-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

Light engine & drive current	LED colour	Beam angle	Glare shields	Bezel finish	Fixing accessories
LD150 -	/	/	/	/	/

WHITE LED ENGINES

E3					
5W LED at 350mA	LD150-E3-350	Extra Warm White (2700K)	/LW27	12° Narrow spot	/NB
7W LED at 500mA	LD150-E3-500	Warm White (3000K)	/LW30	19° Medium	/MB
10W LED at 700mA	LD150-E3-700	White (4000K) - on request	/LW40	34° Wide	/WB
		Cool White (5000K)	/LW50	54° Extra wide	/WWB
				15° x 49° Oval	/OB

F1					
3.5W LED at 350mA	LD150-F1-350	Super Warm White (2200K)	/LW22	25° Medium spot	/MSB
5W LED at 500mA	LD150-F1-500			46° Wide	/WB
7W LED at 700mA	LD150-F1-700			65° Extra wide	/WWB
				43° x 25° Oval	/OB

COLOUR & DYNAMIC LED ENGINES

CLR					
7W LED at 500mA	LD150-CLR-500	Red	/LR	24° Medium	/MB
		Green	/LG	38° Wide	/WB
		Blue	/LB	54° Extra wide	/WWB
		Amber	/LA	20° x 46° Oval	/OB

RGBW		
5W LED at 350mA	LD150-RGBW-350	38° Colour mix lens
7W LED at 500mA	LD150-RGBW-500	

TW					
3.5W LED at 350mA	LD150-TW-350	Tunable White 2700K & 4000K (standard option)	/LW27 + LW40	24° Medium	/MB
		Tunable White 2700K & 5000K	/LW27 + LW50	38° Wide	/WB
		Custom	/LW** + L**	54° Extra wide	/WWB
				20° x 46° Oval	/OB

Glare shields

/NGS

/GS

/GSHM

Bezel finish

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

Fixing accessories

/482S

/482N

/482N-2

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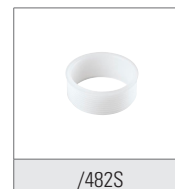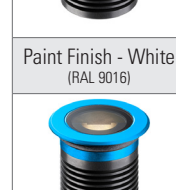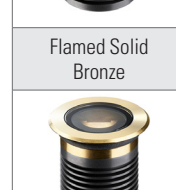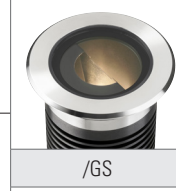
Drivers
Use with 350mA, 500mA & 700mA constant current LED drivers
We have a range of dimmable LED drivers DMX and DALI compatible. Please see the downloads section on our website.