

LD154G

TRIMLESS HIGH-POWER RECESSED EXTERIOR LED UPLIGHT



The LD154G is our most powerful fitting to date, delivering up to 1443lm from a minimal body depth of 85mm beneath the seamless glass bezel. It forms our new Ultra range of high-power uplight solutions for drive over, low glare (LD154DRG) and asymmetric installations (LD154TG).

There are 3 LED engine options available. Our new P1 engine delivers the highest output, whilst the E3 offers an exceptional extra narrow beam of 9°, and the N1, a narrow 13° beam. The lens assembly features large 50mm optics which offer ultra-high efficiency, superior beam quality and low glare. Reaching heights of up to 14 metres and designed with our robust glass bezel, the LD154G demonstrates an excellent size-to-output ratio, offering a discreet yet powerful exterior solution.

KEY FEATURES

- > High-power P1 engine with CREE COB delivering upto 1443lm at 500mA in 3000K
- > E3 engine with NICHIA LED delivering up to 699lm at 700mA in 3000K, offering an exceptional 9° extra narrow beam with peak intensity reaching 15,922cd
- > N1 engine with CREE COB delivering up to 1028lm at 700mA in 3000K offering a 13° narrow beam
- > Durable all glass bezel, suitable for a wide range of applications
- > Utilises large 50mm low glare optics, chosen for efficiency, quality of beam and ability to produce narrow beams at high outputs
- > Low glare product with a choice of accessories to minimise the view of the light source at various angles
- > Fixing options include rebated trimless fixing sleeve, concrete housing and trimless 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
- > For applications requiring super low glare or an asymmetric beam, please view the LD154DRG and LD154TG data sheets
- > Switched, 0-10V, Casambi, DMX, DALI, or Mains dimmable drivers available

DIMENSIONS

Dimensions in mm

For fixings and dimensions please go to page 3.



WHITE LED ENGINE SPECIFICATION

Engine	 E3			 N1			 P1	
Beam angles	9°, 11°, 22°, 29°, 42°, 53°, 10° x 56°			13°, 24°, 31°, 45°, 54°, 13° x 58°			20°, 27°, 33°, 47°, 58°, 19° x 60°	
LED manufacturer	NICHIA			CREE			CREE	
Colour temperature	2200K, 2700K, 3000K, 4000K, 5000K			2200K, 2700K, 3000K, 4000K, 5000K			2200K, 2700K, 3000K, 4000K, 5000K	
Current [Rated Output]	350mA [5W]	500mA [7W]	700mA [10W]	350mA [7W]	500mA [10W]	700mA [14W]	350mA [14W]	500mA [20W]
Typical LED Circuit wattage	4.4W	6.4W	9.2W	6.4W	9.3W	13.3W	13.3W	19.6W
Delivered lumens (L ₁₀₀)*	418	557	899	577	776	1028	1050	1443
Delivered lm/Circuit W**	94	87	76	90	83	77	79	74
Typical LED Source wattage	4W	5.8W	8.3W	5.8W	8.4W	12.0W	12.0W	17.6W
Source LED lm	574	740	949	694	937	1264	1449	1983
Source lm/W	144	128	114	120	112	105	121	113
Forward voltage (V ₁₀₀)	11.3V	11.6V	11.8V	16.6V	16.8V	17.1V	34.3V	35.2V
CRI	85			93			90	
Colour consistency	2 SDCM			2 SDCM			3 SDCM	
Peak intensity	15,922 cd			13,809 cd			10,624 cd	
LOR	0.74			0.81			0.73	
TM30	RF86 RG98			RF91 RF99			RF90 RG97	
UGR rating ('downlight' mounted)	6.4	7.4	8.2	5.8	6.8	7.8	8.6	9.7
BUG rating ('uplight' mounted)	B0-U3-G0		B0-U4-G0	B0-U4-G0		B0-U5-G0	B0-U5-G0	
LED lifetime	L90B5 at 90,000hrs							
Applications	  							

These values are based on LD154G-E3-700-LW30-ENB, LD154G-N1-700-LW30-NB and LD154G-P1-700-LW30-NB

*See lumen variance table to the right for N1 engine. E3 lumens apply across all colour temperatures

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

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

MECHANICAL

Ambient temperature	E3	Soil	-20°C to 50°C (350mA-500mA) or -20°C to 35°C (700mA)
		Concrete	-20°C to 50°C (350mA-700mA) in concrete
	N1	Soil	-20°C to 50°C (350mA-500mA) or -20°C to 35°C (700mA)
		Concrete	-20°C to 50°C (350mA-700mA) in concrete
	P1	Soil	-20°C to 50°C (350mA-500mA) or -20°C to 35°C (700mA)
		Concrete	-20°C to 50°C (350mA-700mA) in concrete
Glass	6mm thick toughened glass with black ceramic screen print		
Materials	Black anodised aluminium body with black anodised bezel and glass front		
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	2.5		
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.		

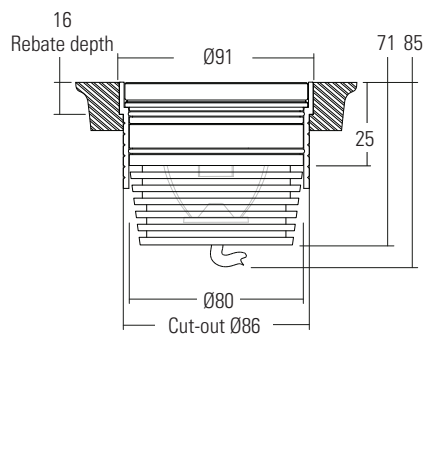
DIMENSIONS AND FIXING OPTIONS

Dimensions in mm

/485SG

Rebated trimless fixing sleeve

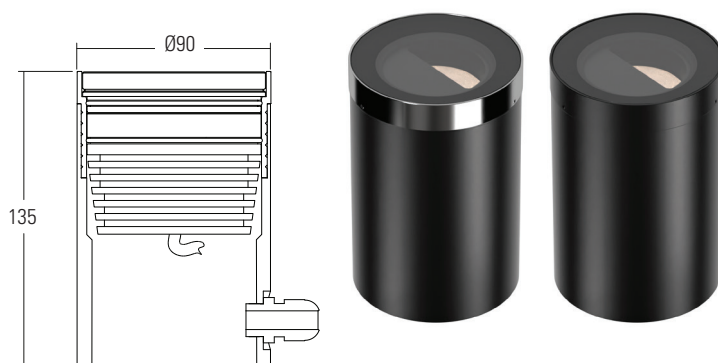
The sleeve is bonded into the mounting surface first and the fitting is held in with an O-ring. We recommend this method for mounting in exterior in-ground applications. Mounting surface will require an 16mm rebate to allow for flush installation. Fixing ring available with a passivated stainless steel or powder coat black finish.*



/485GTG

Trimless Ground tube fixing

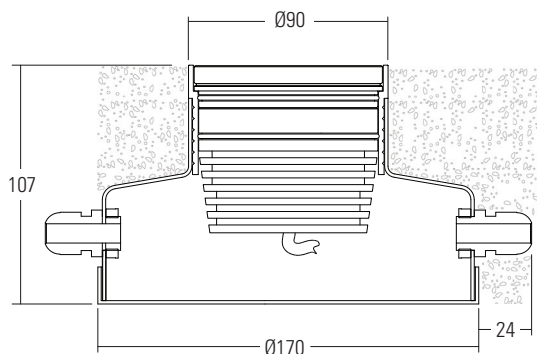
Designed for soil or gravel surfaces. It is supplied with the fixing sleeve bonded into the tube and can be cut down on site. The tube can be buried with the necessary wiring via the PG9 IP67 gland and then the fitting installed after the landscaping work has been completed. Fixing ring available with a passivated stainless steel or powder coat black finish.*



/485NG or /485NG-2

Trimless 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. The housing can be buried with the necessary wiring, and then the fitting installed after the landscaping work has been completed. Weight: 2.90kg. Fixing ring available with a passivated stainless steel or powder coat black finish.*



/485NG

Trimless concrete housing with 1x PG9 IP67 gland

/485NG-2

Trimless concrete housing with 2x PG9 IP67 gland



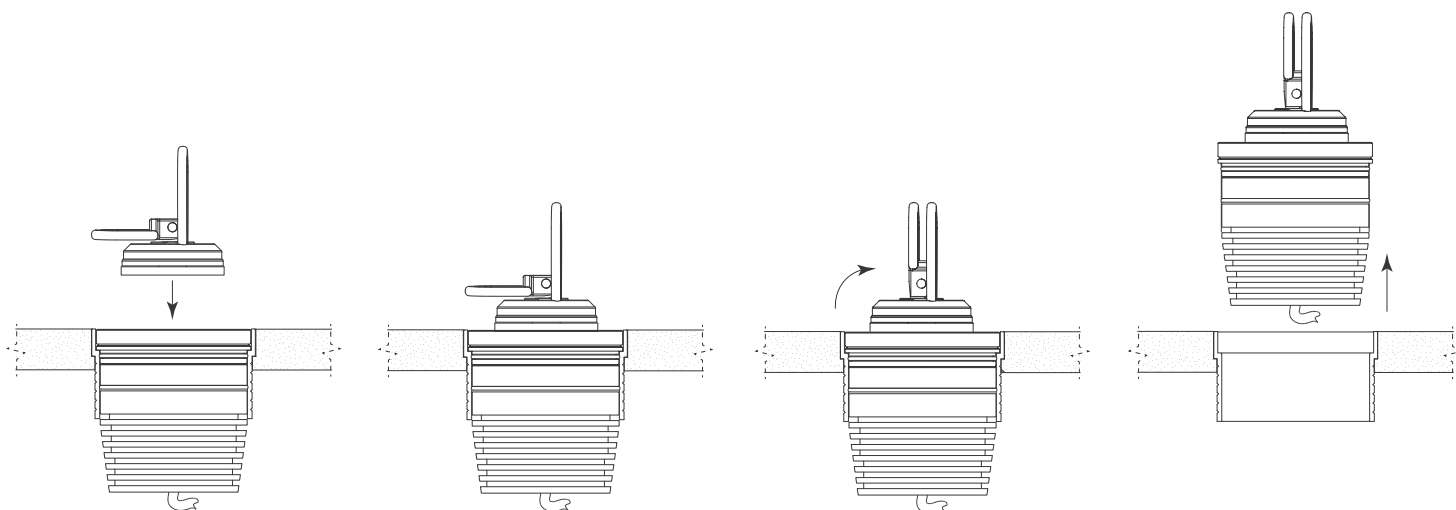
/HT-154-G Trimless Family Hand tool

Our Trimless family fittings use a hand tool for easy installation and removal that can be ordered separately. Use the /HT-154-G suction cup or a similar suction tool for the removal of the fittings from their fixing options. Please contact your LightGraphix sales representative for more information.



How to use the hand tool

- 1 Place suction cup over the glass surface and lock in place by pulling the lever into a vertical position.
- 2 Once secured, pull the fitting from its fixing accessory. Apply force vertically to ensure the suction cup does not detach.



When adjusting or rotating the fitting do not use the HT-154-G hand tool to move in situ. Remove the fitting entirely, realign and then place the fitting back into its fixing option.

Note: Rotating the fitting while still in place may result in a compromised IP seal.

GLARE CONTROL OPTIONS

/NGS No glare shield

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



/GSHM154 Half-moon glare shield

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



/GSOB154 Oval beam glare shield

Reduces the angles at which glare is visible without compromising the oval output of the beam. Useful when used in applications where glare can be seen from two sides, for example archways.



/HL Honeycomb louvre

Helps reduce glare from all angles and can be used with glare shields.



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 LD154G product page on the website.

Extra Narrow Beam
700mA using a 9° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	0.48	1762
2.5	0.40	2537
2.0	0.32	3964
1.5	0.24	7048
1.0	0.16	15858
0.5	0.08	63430

Cone Width (m)

Narrow Beam
700mA using a 11° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	0.58	1052
2.5	0.48	1515
2.0	0.39	2367
1.5	0.29	4208
1.0	0.19	9468
0.5	0.10	37870

Cone Width (m)

Medium Spot Beam
700mA using a 22° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	1.18	367
2.5	0.98	529
2.0	0.78	826
1.5	0.59	1468
1.0	0.39	3304
0.5	0.20	13214

Cone Width (m)

Medium Beam
700mA using a 29° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	1.55	233
2.5	1.29	335
2.0	1.03	523
1.5	0.78	930
1.0	0.52	2093
0.5	0.26	8370

Cone Width (m)

Wide Beam
700mA using a 42° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	2.28	122
2.5	1.90	176
2.0	1.52	275
1.5	1.14	490
1.0	0.76	1101
0.5	0.38	4406

Cone Width (m)

Extra Wide Beam
700mA using a 53° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	3.07	78
2.5	2.56	112
2.0	2.05	175
1.5	1.54	311
1.0	1.02	699
0.5	0.51	2797

Cone Width (m)

Oval Beam
700mA using a 10° x 56° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	0.50 / 3.22	332
2.5	0.42 / 2.68	477
2.0	0.34 / 2.14	746
1.5	0.25 / 1.61	1326
1.0	0.17 / 1.07	2984
0.5	0.08 / 0.54	11936

Cone Width (m)

N1 LED Engine

Cone diagrams below are based on a 3000K N1 LED engine run at maximum output 700mA, 14W. 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 LD154G product page on the website.

Narrow Beam
700mA using a 13° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	0.68	1533
2.5	0.57	2207
2.0	0.46	3448
1.5	0.34	6131
1.0	0.23	13794
0.5	0.11	55176

Cone Width (m)

Medium Spot Beam
700mA using a 24° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	1.28	497
2.5	1.06	715
2.0	0.85	1118
1.5	0.64	1987
1.0	0.43	4470
0.5	0.21	17882

Cone Width (m)

Medium Beam
700mA using a 31° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	1.62	307
2.5	1.35	442
2.0	1.08	690
1.5	0.81	1227
1.0	0.54	2760
0.5	0.27	11041

Cone Width (m)

Wide Beam
700mA using a 45° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	2.53	145
2.5	2.11	209
2.0	1.69	327
1.5	1.27	581
1.0	0.84	1308
0.5	0.42	5232

Cone Width (m)

Extra Wide Beam
700mA using a 54° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	3.16	108
2.5	2.64	156
2.0	2.11	243
1.5	1.58	432
1.0	1.05	972
0.5	0.53	3890

Cone Width (m)

Oval Beam
700mA using a 13° x 58° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	0.69 / 3.38	358
2.5	0.58 / 2.82	515
2.0	0.46 / 2.25	805
1.5	0.35 / 1.69	1432
1.0	0.23 / 1.13	3222
0.5	0.12 / 0.56	12887

Cone Width (m)

P1 LED Engine

Cone diagrams below are based on a 3000K P1 LED engine run at maximum output 500mA, 20W. 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 LD154G product page on the website.

Narrow Beam
500mA using a 20° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	1.05	1065
2.5	0.87	1533
2.0	0.70	2395
1.5	0.52	4258
1.0	0.35	9582
0.5	0.17	38326

Cone Width (m)

Medium Spot Beam
500mA using a 27° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	1.47	513
2.5	1.23	738
2.0	0.98	1153
1.5	0.74	2050
1.0	0.49	4614
0.5	0.25	18454

Cone Width (m)

Medium Beam
500mA using a 33° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	1.80	356
2.5	1.50	513
2.0	1.20	802
1.5	0.90	1425
1.0	0.60	3207
0.5	0.30	12829

Cone Width (m)

Wide Beam
500mA using a 47° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	2.65	183
2.5	2.21	264
2.0	1.76	412
1.5	1.32	733
1.0	0.88	1650
0.5	0.44	6599

Cone Width (m)

Extra Wide Beam
500mA using a 58° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	3.33	136
2.5	2.77	195
2.0	2.22	305
1.5	1.66	542
1.0	1.11	1220
0.5	0.55	4879

Cone Width (m)

Oval Beam
500mA using a 19° x 60° optic

Distance (m)	Beam Width (m)	Illuminance (lx)
3.0	1.03 / 3.44	350
2.5	0.85 / 2.86	504
2.0	0.68 / 2.29	787
1.5	0.51 / 1.72	1399
1.0	0.34 / 1.15	3147
0.5	0.17 / 0.57	12590

Cone Width (m)

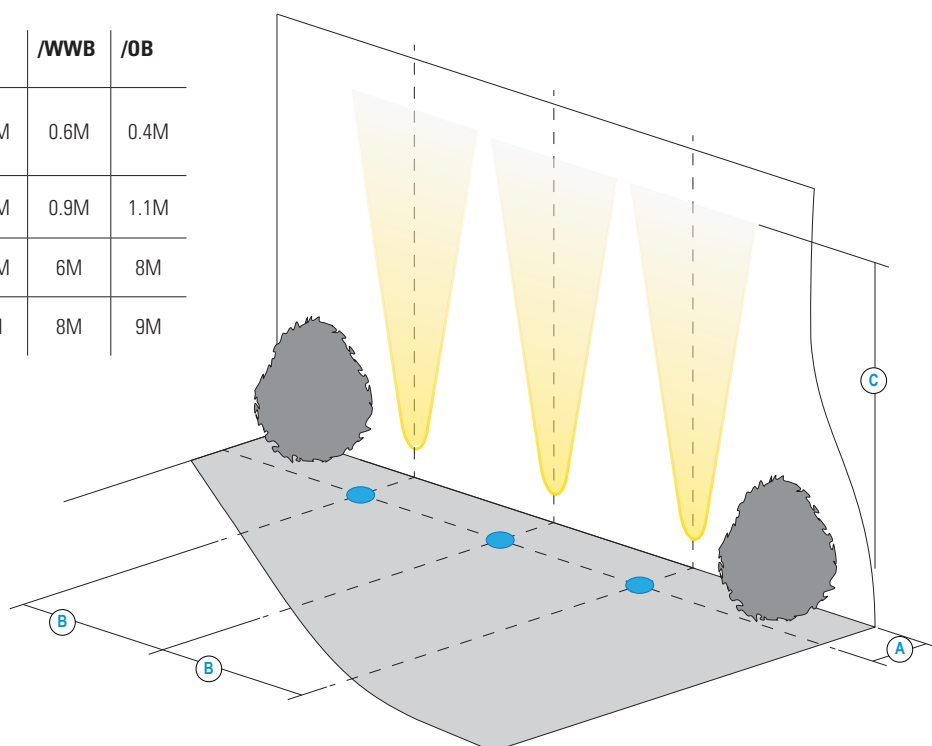
INSTALLATION GUIDE

Below is an uplighting application guide with suggested luminaire mounting positions for an even wall wash. Every project and lighting scenario will be different and the table below is to be used as a starting point. Please use our photometric files to further test the desired effect for your application. Files are available on the LD154G product page on our website.

LD154G-E3		/ENB*	/NB*	/MSB	/MB	/WB	/WWB	/OB
A	Distance from the centre of the fitting to the lit surface	0.25M	0.3M	0.35M	0.4M	0.5M	0.6M	0.3M
B	Spacing for an even wash	0.4M	0.45M	0.5M	0.7M	0.8M	0.9M	1.1M
C	500mA lit distance**	10M	7M	6.5M	5.5M	4.5M	4M	6M
C	700mA lit distance**	11M	8M	7M	6M	5M	4.5M	7M

LD154G-N1		/NB*	/MSB	/MB	/WB	/WWB	/OB
A	Distance from the centre of the fitting to the lit surface	0.3M	0.35M	0.4M	0.5M	0.6M	0.3M
B	Spacing for an even wash	0.45M	0.5M	0.7M	0.8M	0.9M	1.1M
C	500mA lit distance**	10M	8M	6.5M	5.5M	5M	7M
C	700mA lit distance**	11.5M	9M	7.5M	6.5M	6M	7.5M

LD154G-P1		/NB*	/MSB	/MB	/WB	/WWB	/OB
A	Distance from the centre of the fitting to the lit surface	0.35M	0.4M	0.45M	0.5M	0.6M	0.4M
B	Spacing for an even wash	0.5M	0.7M	0.75M	0.8M	0.9M	1.1M
C	350mA lit distance**	11M	9M	9M	7.5M	6M	8M
C	500mA lit distance**	14M	11M	10.5M	9M	8M	9M



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

**Illuminated distance is calculated based on achieving 10% of the initial lux calculated at the start of the beam.

ORDER CODES & OPTIONS - LD154G

Example: LD154G-E3-500 / LW30 / NB / GSHM154 / 485SG / Paint finish black

Light engine & drive current		LED Colour		Beam Angle		Accessory		Finish		Fixing	
LD154G -											

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.