

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 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 16,000cd
- > 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
- > Repairable light engine with integral anti-wicking barrier to increase protection against moisture ingress
- > 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



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*	2700K, 3000K, 4000K, 5000K			2200K, 2700K, 3000K, 4000K, 5000K			2200K, 2700K, 3000K, 4000K, 5000K	
Current	350mA	500mA	700mA	350mA	500mA	700mA	350mA	500mA
LED power (Max)	4.2 (5W**)	6.0 (7W**)	8.4 (10W**)	5.8 (7W**)	8.3 (10W**)	11.6 (14W**)	12.0 (14W**)	18.0 (20W**)
Delivered lumens (L ₁₀₀)	418	557	699	577	776	1028	1050	1443
Lumens per circuit watt	100	93	83	100	93	89	88	80
CRI (Typ)	85			93			93	
Forward voltage (V ₁₀₀)	14V			18.5V			38.5V	
Colour consistency	2 SCDM			2 SCDM			2 SCDM	
Peak intensity	15922 cd			13809 cd			10624 cd	
LED Lumens	840			1393			2303	
LOR	0.83			0.74			0.63	
TM30	RF86	RG98		RF91	RG99		RF90	RG97
UGR***	8.8			10.1			11.9	
LED lifetime	L90B5 @ 90,000hrs							
Applications	  							

These values are based around a LD154G-E3-700-LW30-ENB, LD154-N1-700-LW30-NB and LD154-P1-700-LW30-NB

*Lumen output data applies to all E3 colour temperatures. For N1 and P1 engines, please see lumen variance table to the right.

**Indicates the nominal power for the LED run at that particular current and includes losses associated with using an 85% efficient driver

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

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

MECHANICAL

Ambient temperature	-20°C to 45°C (350mA/500mA/700mA)
Glass	8mm thick, low iron glass with ceramic screen print
Materials	Black anodised aluminium body with black anodised bezel and glass front
Weight of product	0.68kg
IP rating	IP67
IK rating	IK09
Wiring	In-series constant current wiring (pre-wired with 2 core cable at 350mm)

ENVIRONMENTAL

TM65	Available on request
TM66	2.5

DIMENSIONS AND FIXING OPTIONS

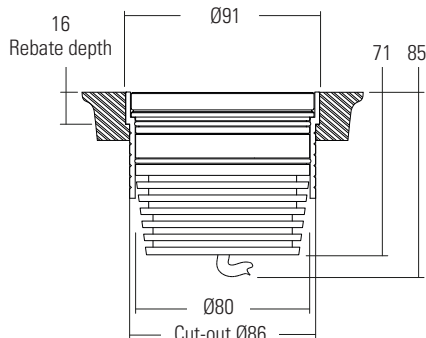
Dimensions in mm

/485SG

Rebated trimless fixing sleeve

Acetal 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.*

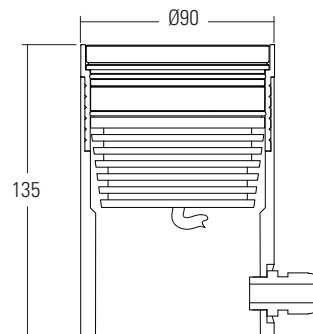


/485GTG

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.

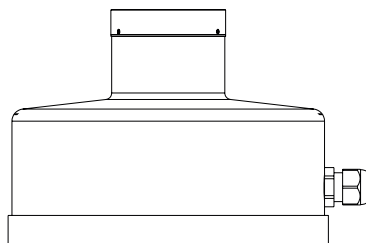
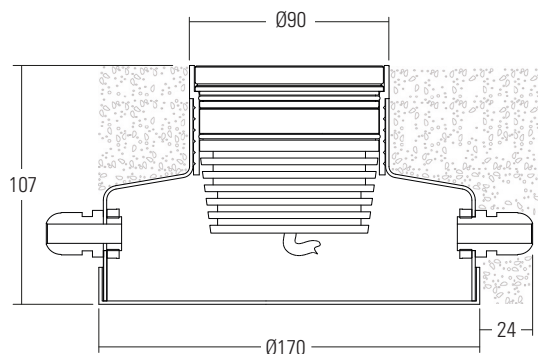
Fixing ring available with a passivated stainless steel or powder coat black finish.*



/485NG or /485NG-2

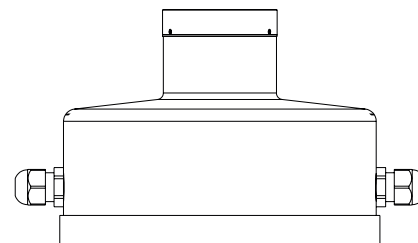
Trimless concrete housing

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



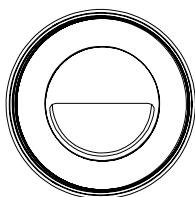
/485NG-2

Trimless concrete housing with
2x PG9 IP67 gland

GLARE CONTROL OPTIONS

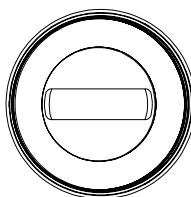
/GSHM154 Half-moon glare shield

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



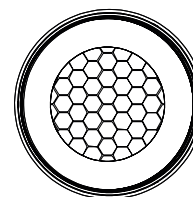
/GSOB154 Oval beam glare shield

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.



*NOTE: Powder coat black paint finish is not suitable for high-traffic areas.

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)	Cone Width (m)	Luminance (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

Narrow Beam
700mA using a 11° optic

Distance (m)	Cone Width (m)	Luminance (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

Medium Spot Beam
700mA using a 22° optic

Distance (m)	Cone Width (m)	Luminance (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

Medium Beam
700mA using a 29° optic

Distance (m)	Cone Width (m)	Luminance (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

Wide Beam
700mA using a 42° optic

Distance (m)	Cone Width (m)	Luminance (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

Extra Wide Beam
700mA using a 53° optic

Distance (m)	Cone Width (m)	Luminance (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

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

Distance (m)	Cone Width (m)	Luminance (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

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)	Cone Width (m)	Luminance (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

Medium Spot Beam
700mA using a 24° optic

Distance (m)	Cone Width (m)	Luminance (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

Medium Beam
700mA using a 31° optic

Distance (m)	Cone Width (m)	Luminance (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

Wide Beam
700mA using a 45° optic

Distance (m)	Cone Width (m)	Luminance (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

Extra Wide Beam
700mA using a 54° optic

Distance (m)	Cone Width (m)	Luminance (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

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

Distance (m)	Cone Width (m)	Luminance (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

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)	Cone Width (m)	Luminance (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

Medium Spot Beam
500mA using a 27° optic

Distance (m)	Cone Width (m)	Luminance (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

Medium Beam
500mA using a 33° optic

Distance (m)	Cone Width (m)	Luminance (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

Wide Beam
500mA using a 47° optic

Distance (m)	Cone Width (m)	Luminance (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

Extra Wide Beam
500mA using a 58° optic

Distance (m)	Cone Width (m)	Luminance (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

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

Distance (m)	Cone Width (m)	Luminance (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

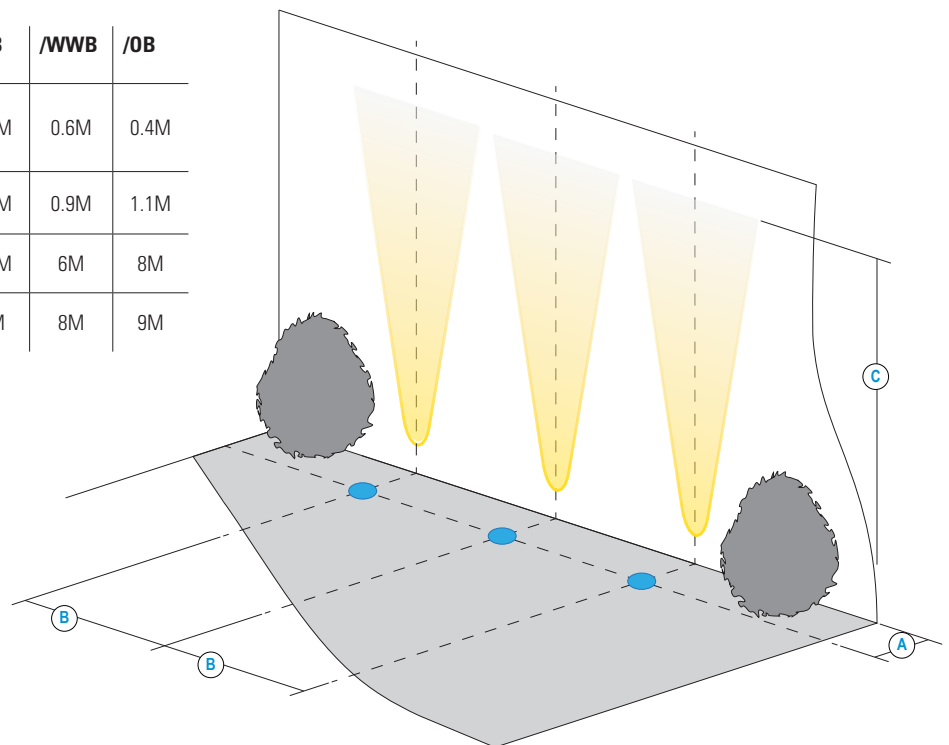
INSTALLATION GUIDE

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.

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

Fixing Finish

	/		/		/		/		/	
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E3

9° Extra Narrow	/ENB
11° Narrow	/NB
22° Medium spot	/MSB
29° Medium	/MB
42° Wide	/WB
53° Extra Wide	/WWB
10° x 56° Oval	/OB



/NGS154



/GSHM154



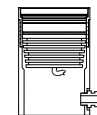
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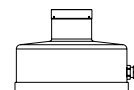
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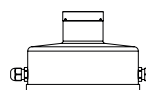
/485SG



/485GTG



/485NG



/485NG-2

Paint finish
Black
(Powder Coat)

N1

13° Narrow	/NB
24° Medium spot	/MSB
31° Medium	/MB
45° Wide	/WB
54° Extra Wide	/WWB
13° x 58° Oval	/OB



/HL

P1

20° Narrow	/NB
27° Medium spot	/MSB
33° Medium	/MB
47° Wide	/WB
58° Extra Wide	/WWB
19° x 60° Oval	/OB

We have a range of dimmable LED drivers DMX and DALI compatible. Please see the downloads section on our website.