

## LD154DRG

### DEEP RECESSED TRIMLESS HIGH-POWER EXTERIOR LED UPLIGHT



The LD154DRG is part of our Ultra range, delivering up to 1285lm. With optics that are deep recessed 39mm into the body beneath the seamless glass top, we achieve extremely low glare. The use of large 50mm optics further aid in glare control whilst providing ultra-high efficiency and superior beam quality.

There are 3 LED engine options available. Our P1 engine delivers the highest output, whilst the E3 offers an exceptional extra narrow beam of 9° and the N1, a 13° beam. Reaching heights of up to 14 metres and designed with our robust glass bezel, the LD154DRG demonstrates an excellent size-to-output ratio, offering a discreet yet powerful exterior solution.



## KEY FEATURES







- > Extremely low glare, high-output uplight solution with optics deep recessed 39mm
- > High-power P1 engine with CREE COB delivering upto 1285lm at 500mA in 3000K
- > E3 engine with NICHIA LED delivering up to 684lm in 3000K offering an exceptional 9° extra narrow beam with peak intensity reaching 15,096cd
- > N1 engine with CREE COB delivering up to 853lm 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
- > 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
- > 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°, 56°, 10° x 39°			13°, 24°, 31°, 41°, 55°, 14° x 39°			20°, 27°, 31°, 42°, 55°, 19° x 41°	
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 <sub>100</sub> )	389	516	684	457	626	853	903	1285
Lumens per circuit watt	93	86	81	79	75	74	75	71
CRI (Typ)	85			93			93	
Forward voltage (V <sub>100</sub> )	14V			18.5V			38.5V	
Colour consistency	2 SCDM			2 SCDM			2 SCDM	
Peak intensity	15096 cd			11052 cd			8459 cd	
LED Lumens	840			1393			2303	
LOR	0.81			0.61			0.56	
TM30	RF86	RG98		RF91	RG99		RF90	RG97
UGR***	7.3			7.6			10.2	
LED lifetime	L90B5 @ 90,000hrs							
Applications	  							

These values are based around a LD154DRG-E3-700-LW30-ENB, LD154DR-N1-700-LW30-NB and LD154DR-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 hard anodised aluminium body, Glass bezel
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

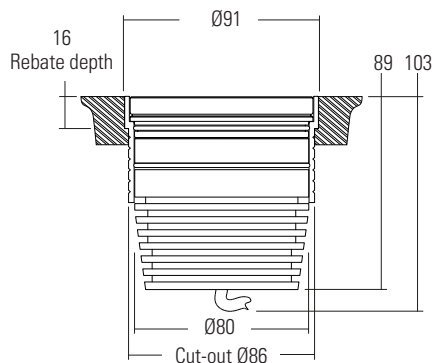
TM65	Available on request
TM66	2.5

## DIMENSIONS AND FIXING OPTIONS

Dimensions in mm

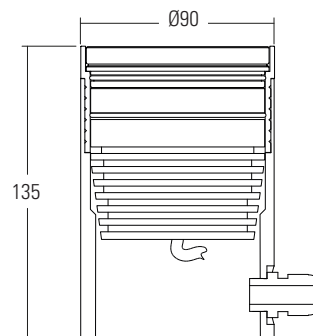
### /485SG Rebated trimless fixing sleeve

Acetal sleeve is bonded into the mounting surface first and the fitting is held in with O-rings. We recommend this method for mounting in exterior in-ground applications. Mounting surface will require an 16mm rebate to allow for flush installation



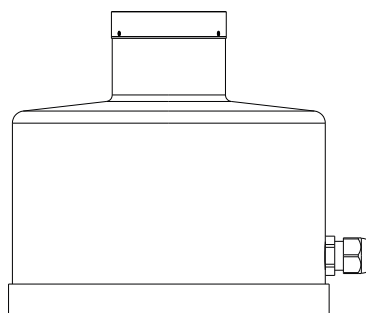
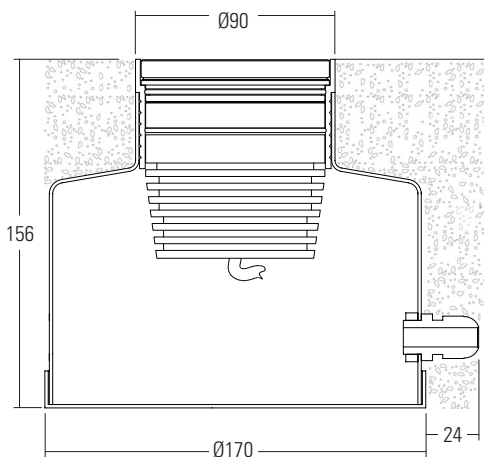
### /485GTG Trimmless Ground tube fixing

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.

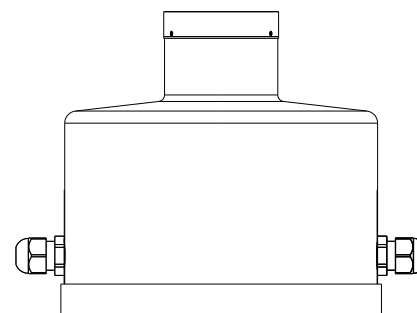


### /486NG or /486NG-2 Trimless concrete housing

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 and a second gland is available for cabling onto the next luminaire.



**/486NG**  
Trimless concrete housing with  
1x PG9 IP67 gland

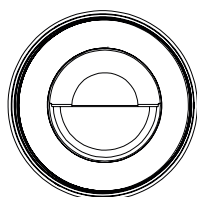


**/486NG-2**  
Trimless concrete housing with  
2x PG9 IP67 gland

## GLARE CONTROL OPTIONS

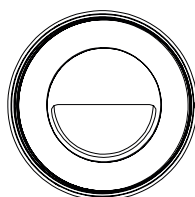
### /GS154 Glare shield

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



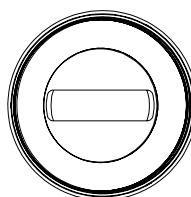
### /GSHM154 Half-moon glare shield

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



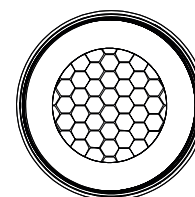
### /GSOB154 Oval beam glare shield

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 LD154DRG product page on the website.

Extra Narrow Beam  
700mA using a 9° optic

Distance (m)	Luminance (lx)
3.0	0.51 / 1636
2.5	0.43 / 2355
2.0	0.34 / 3680
1.5	0.26 / 6542
1.0	0.17 / 14720
0.5	0.09 / 58878

Cone Width (m)

Narrow Beam  
700mA using a 11° optic

Distance (m)	Luminance (lx)
3.0	0.63 / 976
2.5	0.53 / 1405
2.0	0.42 / 2196
1.5	0.32 / 3904
1.0	0.21 / 8784
0.5	0.11 / 35136

Cone Width (m)

Medium Spot Beam  
700mA using a 22° optic

Distance (m)	Luminance (lx)
3.0	1.22 / 338
2.5	1.02 / 487
2.0	0.81 / 761
1.5	0.61 / 1353
1.0	0.41 / 3044
0.5	0.20 / 12175

Cone Width (m)

Medium Beam  
700mA using a 29° optic

Distance (m)	Luminance (lx)
3.0	1.56 / 211
2.5	1.30 / 304
2.0	1.04 / 475
1.5	0.78 / 844
1.0	0.52 / 1899
0.5	0.26 / 7594

Cone Width (m)

Wide Beam  
700mA using a 42° optic

Distance (m)	Luminance (lx)
3.0	2.26 / 102
2.5	1.88 / 147
2.0	1.50 / 229
1.5	1.13 / 407
1.0	0.75 / 916
0.5	0.38 / 3665

Cone Width (m)

Extra Wide Beam  
700mA using a 56° optic

Distance (m)	Luminance (lx)
3.0	3.26 / 62
2.5	2.71 / 90
2.0	2.17 / 140
1.5	1.63 / 250
1.0	1.09 / 562
0.5	0.54 / 2247

Cone Width (m)

Oval Beam  
700mA using a 10° x 39° optic

Distance (m)	Luminance (lx)
3.0	0.55 / 2.16 / 372
2.5	0.46 / 1.80 / 536
2.0	0.36 / 1.44 / 837
1.5	0.27 / 1.08 / 1488
1.0	0.18 / 0.72 / 3347
0.5	0.09 / 0.36 / 13390

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 LD154DRG product page on the website.

Narrow Beam  
700mA using a 13° optic

Distance (m)	Luminance (lx)
3.0	0.73 / 1216
2.5	0.61 / 1751
2.0	0.48 / 2736
1.5	0.36 / 4863
1.0	0.24 / 10942
0.5	0.12 / 43768

Cone Width (m)

Medium Spot Beam  
700mA using a 24° optic

Distance (m)	Luminance (lx)
3.0	1.26 / 393
2.5	1.05 / 567
2.0	0.84 / 885
1.5	0.63 / 1574
1.0	0.42 / 3541
0.5	0.21 / 14164

Cone Width (m)

Medium Beam  
700mA using a 31° optic

Distance (m)	Luminance (lx)
3.0	1.60 / 257
2.5	1.33 / 371
2.0	1.06 / 579
1.5	0.80 / 1029
1.0	0.53 / 2316
0.5	0.27 / 9263

Cone Width (m)

Wide Beam  
700mA using a 41° optic

Distance (m)	Luminance (lx)
3.0	2.27 / 127
2.5	1.89 / 182
2.0	1.51 / 285
1.5	1.13 / 507
1.0	0.76 / 1140
0.5	0.38 / 4561

Cone Width (m)

Extra Wide Beam  
700mA using a 55° optic

Distance (m)	Luminance (lx)
3.0	3.18 / 78
2.5	2.65 / 112
2.0	2.12 / 176
1.5	1.59 / 312
1.0	1.06 / 703
0.5	0.53 / 2811

Cone Width (m)

Oval Beam  
700mA using a 14° x 39° optic

Distance (m)	Luminance (lx)
3.0	0.74 / 2.16 / 362
2.5	0.61 / 1.80 / 521
2.0	0.49 / 1.44 / 814
1.5	0.37 / 1.08 / 1446
1.0	0.25 / 0.72 / 3254
0.5	0.12 / 0.36 / 13017

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 LD154DRG product page on the website.

Narrow Beam  
500mA using a 20° optic

Distance (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

Cone Width (m)

Medium Spot Beam  
500mA using a 27° optic

Distance (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

Cone Width (m)

Medium Beam  
500mA using a 33° optic

Distance (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

Cone Width (m)

Wide Beam  
500mA using a 47° optic

Distance (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

Cone Width (m)

Extra Wide Beam  
500mA using a 58° optic

Distance (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

Cone Width (m)

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

Distance (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

Cone Width (m)

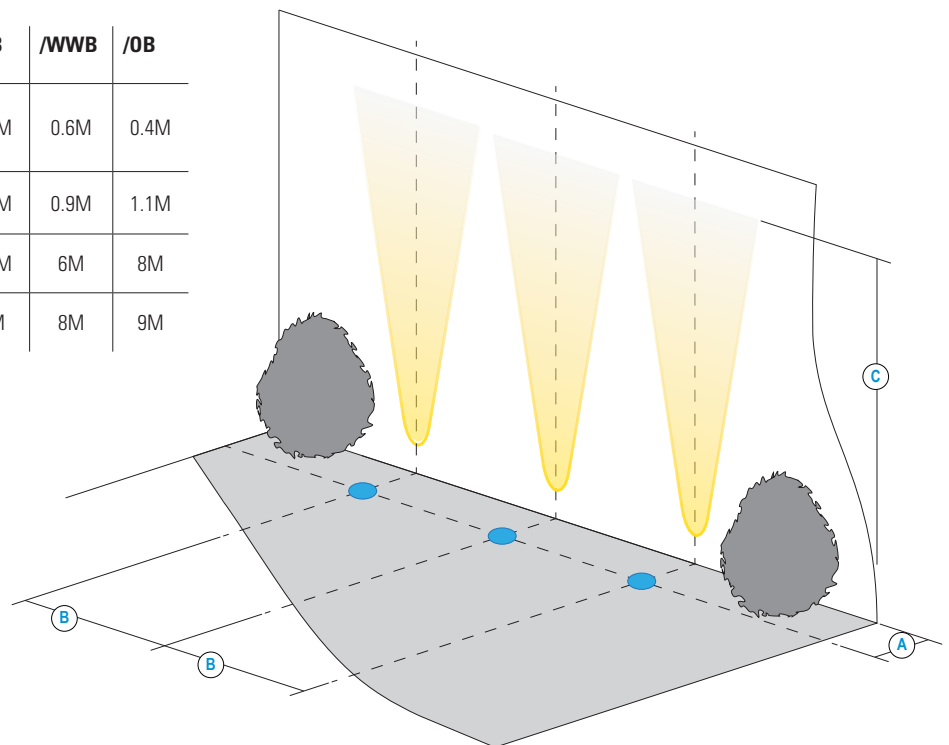
## INSTALLATION GUIDE

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 LD154DRG product page on our website.

LD154DRG-E3		/ENB*	/NB*	/MSB	/MB	/WB	/WWB	/OB
<b>A</b>	Distance from the centre of the fitting to the lit surface	0.25M	0.3M	0.35M	0.4M	0.5M	0.55M	0.4M
<b>B</b>	Spacing for an even wash	0.4M	0.45M	0.5M	0.7M	0.8M	0.85M	1M
<b>C</b>	500mA lit distance**	10M	7M	6.5M	5.5M	4.5M	4M	6M
<b>C</b>	700mA lit distance**	11M	8M	7M	6M	5M	4.5M	7M

LD154DRG-N1		/NB*	/MSB	/MB	/WB	/WWB	/OB
<b>A</b>	Distance from the centre of the fitting to the lit surface	0.3M	0.35M	0.4M	0.5M	0.6M	0.3M
<b>B</b>	Spacing for an even wash	0.45M	0.5M	0.7M	0.8M	0.9M	0.8M
<b>C</b>	500mA lit distance**	10M	8M	6.5M	5.5M	5M	7M
<b>C</b>	700mA lit distance**	11.5M	9M	7.5M	6.5M	6M	7.5M

LD154DRG-P1		/NB*	/MSB	/MB	/WB	/WWB	/OB
<b>A</b>	Distance from the centre of the fitting to the lit surface	0.35M	0.4M	0.45M	0.5M	0.6M	0.4M
<b>B</b>	Spacing for an even wash	0.5M	0.7M	0.75M	0.8M	0.9M	1.1M
<b>C</b>	350mA lit distance**	11M	9M	9M	7.5M	6M	8M
<b>C</b>	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 - LD154DRG










Example: LD154DRG-E3-700 / LW30 / OB / GS0B154 / 485SG / Black

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










### E3

5W LED at 350mA	LD154DRG-E3-350	Extra Warm White (2700K) /LW27	9° Extra Narrow /ENB			316 Stainless Steel
7W LED at 500mA	LD154DRG-E3-500	Warm White (3000K) /LW30	11° Narrow /NB			Black
10W LED at 700mA	LD154DRG-E3-700	White (4000K) - on request /LW40	22° Medium spot /MSB			
		Cool White (5000K) /LW50	29° Medium /MB			
			42° Wide /WB			
			56° Extra Wide /WWB			
			10° x 39° Oval /OB			

### N1

7W LED at 350mA	LD154DRG-N1-350	Super Warm White(2200K) /LW22	13° Narrow /NB			316 Stainless Steel
10W LED at 500mA	LD154DRG-N1-500	Extra Warm White (2700K) /LW27	24° Medium spot /MSB			Black
14W LED at 700mA	LD154DRG-N1-700	Warm White (3000K) /LW30	31° Medium /MB			
		White (4000K) - on request /LW40	41° Wide /WB			
		Cool White (5000K) /LW50	55° Extra Wide /WWB			
			14° x 39° Oval /OB			

### P1

14W LED at 350mA	LD154DRG-P1-350	Super Warm White(2200K) /LW22	20° Narrow /NB			316 Stainless Steel
20W LED at 500mA	LD154DRG-P1-500	Extra Warm White (2700K) /LW27	27° Medium spot /MSB			Black
		Warm White (3000K) /LW30	31° Medium /MB			
		White (4000K) - on request /LW40	42° Wide /WB			
		Cool White (5000K) /LW50	55° Extra Wide /WWB			
			19° x 41° 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.