

## 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.

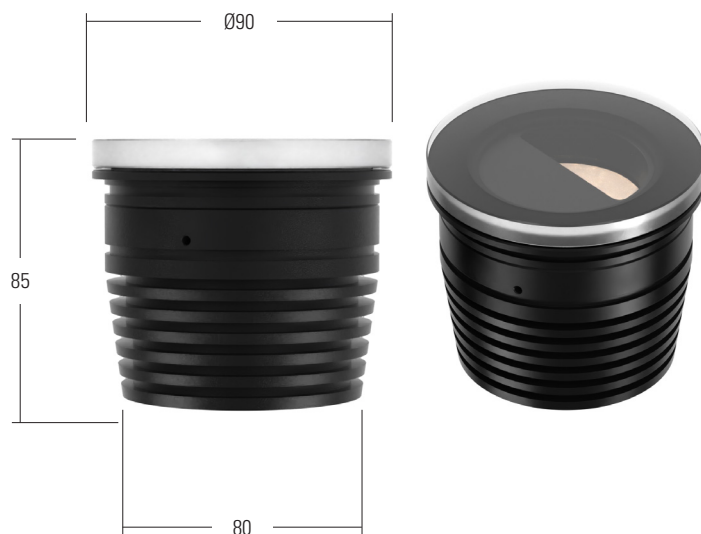
## KEY FEATURES

- > 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 <sub>100</sub> )*	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 <sub>100</sub> )	11.3V	11.6V	11.8V	16.6V	16.8V	17.1V	34.3V	35.2V
CRI	85		90***	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-E3-700/830/ENB, LD154G-N1-700/930/NB and LD154G-P1-700/930/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

\*\*\*90 CRI available in 2700K/3000K only. Approx. 10% lumen drop will occur compared to 85 CRI variants

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

## MECHANICAL

			350mA	500mA	700mA
Ambient temperature 55°C	⊕ E3	Soil/Sleeve	-20°C to 55°C	-20°C to 55°C	-20°C to 40°C
		Concrete	-20°C to 55°C	-20°C to 55°C	-20°C to 50°C
	⊙ N1	Soil/Sleeve	-20°C to 55°C	-20°C to 50°C	-20°C to 25°C
		Concrete	-20°C to 55°C	-20°C to 55°C	-20°C to 50°C
	⦿ P1	Soil/Sleeve	-20°C to 25°C	N/A	-
		Concrete	-20°C to 45°C	-20°C to 25°C	-
	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)				

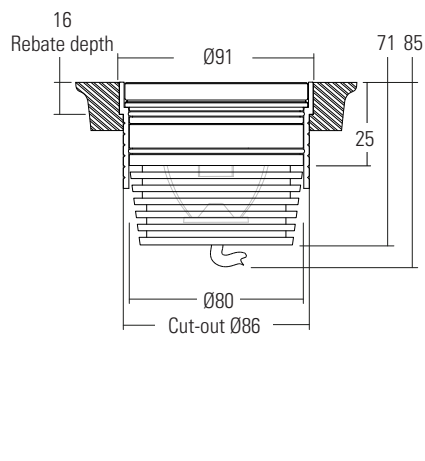
## DIMENSIONS AND FIXING OPTIONS

Dimensions in mm

### /485SG

#### Rebated trimless fixing sleeve

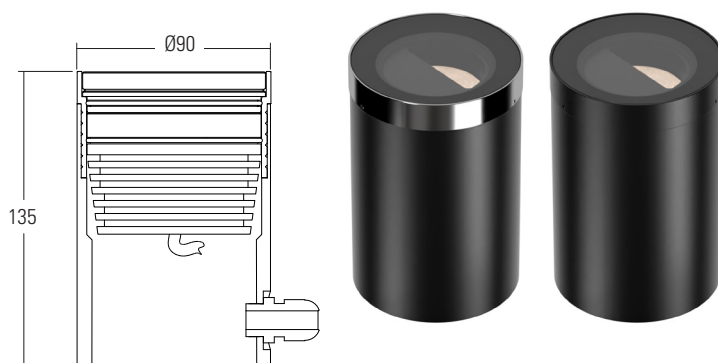
The sleeve is bonded into the mounting surface first and the fitting is held in with an O-ring. We recommend this method for mounting in exterior in-ground applications. Mounting surface will require an 16mm rebate to allow for flush installation. Fixing ring available with a passivated stainless steel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



### /485GTG

#### Trimless Ground tube fixing

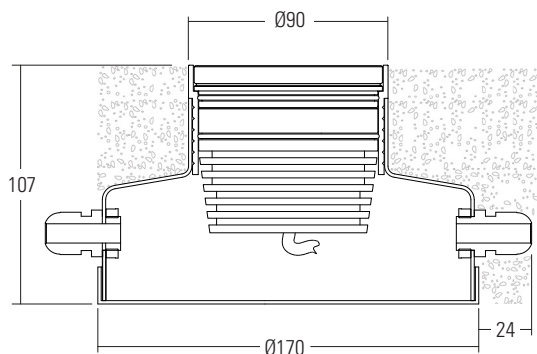
Designed for soil or gravel surfaces. It is supplied with the fixing sleeve bonded into the tube and can be cut down on site. The tube can be buried with the necessary wiring via the PG9 IP67 gland and then the fitting installed after the landscaping work has been completed. Fixing ring available with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



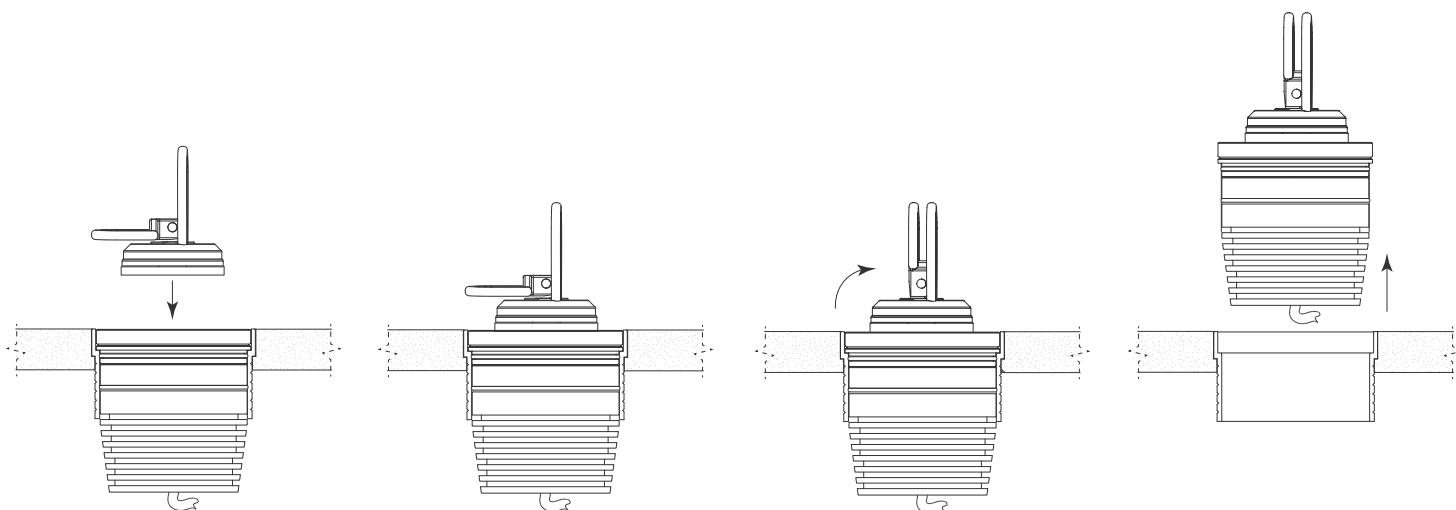
#### /HT-154-G Trimless Family Hand tool

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.

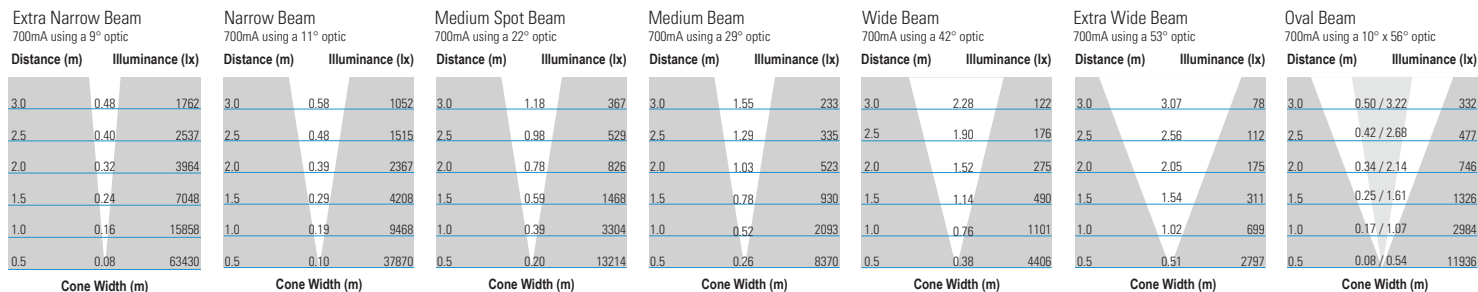




## CONE DIAGRAMS

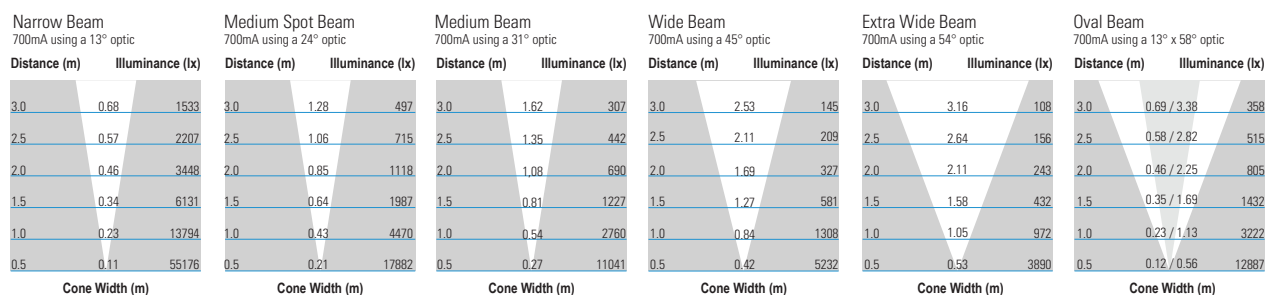
### E3 LED Engine

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.



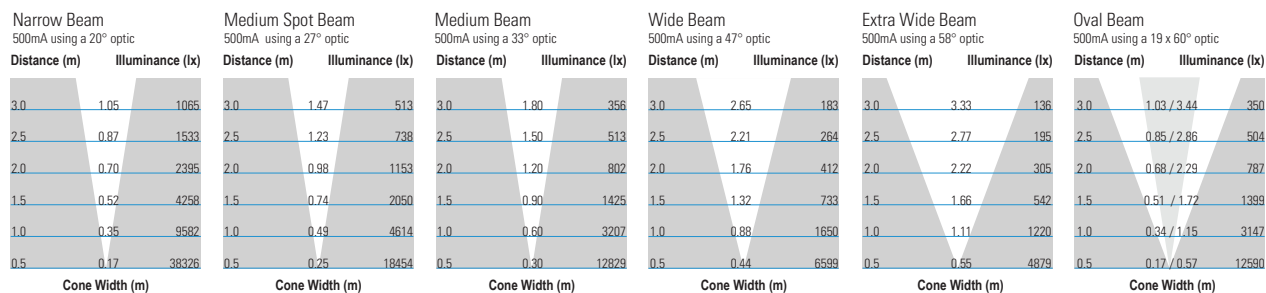
### N1 LED Engine

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.



### 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.



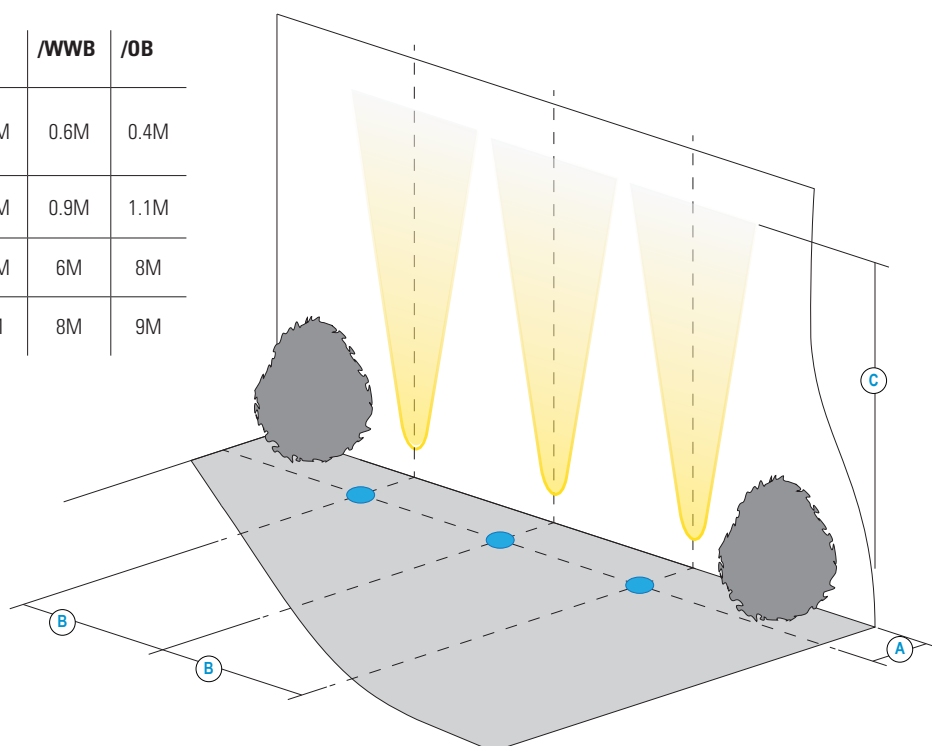
## INSTALLATION GUIDE

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
<b>A</b>	Distance from the centre of the fitting to the lit surface	0.25M	0.3M	0.35M	0.4M	0.5M	0.6M	0.3M
<b>B</b>	Spacing for an even wash	0.4M	0.45M	0.5M	0.7M	0.8M	0.9M	1.1M
<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

LD154G-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	1.1M
<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

LD154G-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 - LD154G

Example: LD154G-E3-500/830/NB/GSHM154/485SG/Paint finish black

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

Ambient temperature key: ● 55°C

### E3

<span style="color: red;">●</span> 55°C Ta	5W LED at 350mA	LD154G-E3-350
<span style="color: red;">●</span> 55°C Ta	10W LED at 500mA*	LD154G-E3-500
	10W LED at 700mA**	LD154G-E3-700

\*55°C ambient when placed in a 485N / 485N-2 concrete can in concrete.

\*\*50°C ambient when placed in a 485N / 485N-2 concrete can in concrete.

2200K 85+ CRI	/822
2700K 85+ CRI	/827
3000K 85+ CRI	/830
4000K 85+ CRI on request	/840
5000K 85+ CRI	/850
2700K 90+ CRI	/927
3000K 90+ CRI	/930

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



/NGS



/485SG



Passivated Stainless Steel



/GSHM154



/485GTG



Paint finish Black (Powder Coat)

### N1

<span style="color: red;">●</span> 55°C Ta	7W LED at 350mA	LD154G-N1-350
<span style="color: red;">●</span> 55°C Ta	10W LED at 500mA*	LD154G-N1-500
	14W LED at 700mA**	LD154G-N1-700

\*55°C ambient when placed in a 485N / 485N-2 concrete can in concrete.

\*\*50°C ambient when placed in a 485N / 485N-2 concrete can in concrete.

2200K 93+ CRI	/922
2700K 93+ CRI	/927
3000K 93+ CRI	/930
4000K 93+ CRI on request	/940
5000K 93+ CRI	/950

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



/GSOB154



/485NG



/HL



/485NG-2

### P1

14W LED at 350mA	LD154G-P1-350
20W LED at 500mA	LD154G-P1-500

2200K 90+ CRI	/922
2700K 90+ CRI	/927
3000K 90+ CRI	/930
4000K 90+ CRI on request	/940
5000K 90+ CRI	/950

20° Narrow	/NB
27° Medium Spot	/MSB
33° Medium	/MB
47° Wide	/WB
58° Extra Wide	/WWB
19° x 60° 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.