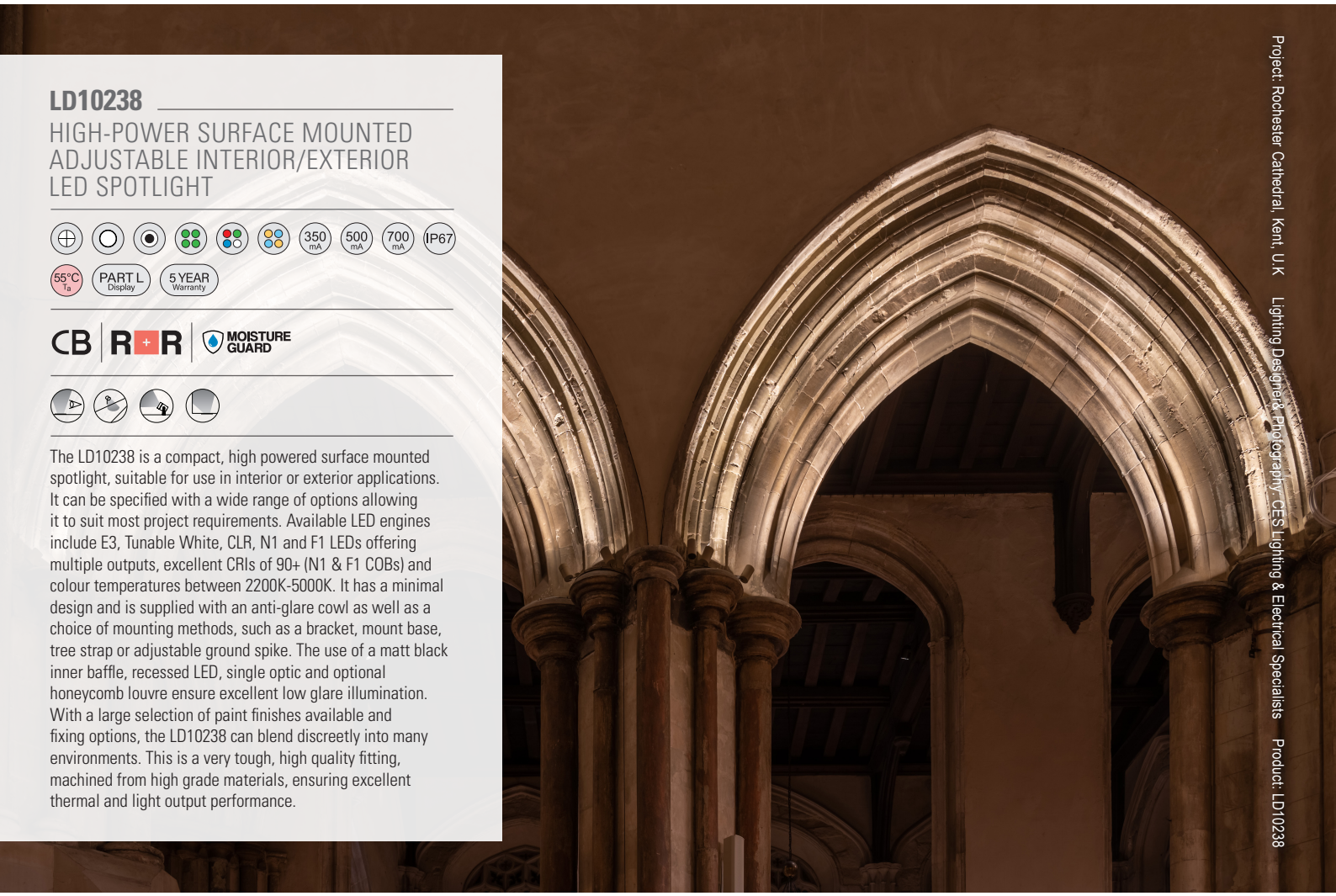


LD10238

HIGH-POWER SURFACE MOUNTED ADJUSTABLE INTERIOR/EXTERIOR LED SPOTLIGHT

350 mA | 500 mA | 700 mA | IP67 | 55°C Ta | PART L Display | 5 YEAR Warranty

CB | R+R | MOISTURE GUARD

The LD10238 is a compact, high powered surface mounted spotlight, suitable for use in interior or exterior applications. It can be specified with a wide range of options allowing it to suit most project requirements. Available LED engines include E3, Tunable White, CLR, N1 and F1 LEDs offering multiple outputs, excellent CRIs of 90+ (N1 & F1 COBs) and colour temperatures between 2200K-5000K. It has a minimal design and is supplied with an anti-glare cowl as well as a choice of mounting methods, such as a bracket, mount base, tree strap or adjustable ground spike. The use of a matt black inner baffle, recessed LED, single optic and optional honeycomb louvre ensure excellent low glare illumination. With a large selection of paint finishes available and fixing options, the LD10238 can blend discreetly into many environments. This is a very tough, high quality fitting, machined from high grade materials, ensuring excellent thermal and light output performance.

KEY FEATURES

- Compact but powerful fitting, delivering up to 891 lumens at 700mA in 3000K
- E3 engine featuring NICHIA LED, with 2-step binning and built-in reverse polarity protection
- Multiple engine options include N1 & F1 COB LEDs with 90+ CRI and 2200K colour option - Tunable White, CLR and RGBW engine also available
- Machined aluminium fitting, paint finishes include: White (RAL 9016), Silver, Anthracite Grey (RAL 7016), Black (RAL 9005), Antique Bronze, Satin Antique Brass, Satin Brass or any RAL finish
- 90° head tilt adjustment
- Beam angles include, narrow 12° spot for lighting columns and arches, or a 15°x49° spreader lens, ideal for wall washing applications
- Single light source and optic produces a consistent beam removing multiple shadows and includes black trim glass with peak intensity up to 7851
- 47mm recessed LED lens assembly within the body for reduced glare
- Anti-glare cowl included and optional honeycomb louvre for low-glare
- Fixing options include adjustable and non adjustable surface mount, surface mounting base and ground spike
- Contains our integral moisture guard (anti-wicking barrier), stopping water ingress from going up the cable into the product from incorrect IP-rated connections
- Switched, 0-10V, Casambi, DMX, DALI, or Mains dimmable drivers available

DIMENSIONS

Dimensions in mm

For fitting and accessory dimensions please go to page 5.



WHITE LED ENGINE SPECIFICATION

Engine	E3			N1			F1		
Beam angles	12°, 19°, 34°, 54°, 15°x 49°			25°, 35°, 46°, 65°, 22°x 43°			25°, 46°, 65°, 18°x 45°		
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 [3.5W]	500mA [5W]	700mA [7W]
Typical LED Circuit wattage	4.4W	6.4W	9.2W	6.4W	9.3W	13.3W	3.3W	5W	7.2W
Delivered lumens (L_{100})*	379	493	653	494	677	891	247	323	413
Delivered lm/Circuit W**	85	77	71	77	73	67	74	65	57
Typical LED Source wattage	4W	5.8W	8.3W	5.8W	8.4W	12.0W	3W	4.5W	6.5W
Source LED lm	574	740	949	694	937	1264	377	497	654
Source lm/W	144	128	114	120	112	105	126	110	101
Forward voltage (V_{100})	11.3V	11.6V	11.8V	16.6V	16.8V	17.1V	8.7V	9V	9.3V
CRI	85	90***		93			90		
Colour consistency	2 SDCM			2 SDCM			3 SDCM		
Peak intensity	6,104 cd			2,922 cd			1,641 cd		
LOR	0.69			0.70			0.63		
TM30	RF85 | RG99			RF91 | RF91			RF90 | RG103		
UGR rating	UGR unavailable for asymmetric light distribution								
BUG rating ('downlight' mounted)	B1-U0-G0								
LED lifetime	L90B5 at 90,000hrs								
Applications									

These values are based on LD10238-E3-700/830/NB, LD10238-N1-700/930/MSB & LD10238-F1-700/922/MSB
*See lumen variance table to the right for N1 engine. E3 lumens apply across all colour temperatures
**LED wattage includes losses assocaited 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	
2700K	+/- 0%
4000K	+7%
5000K	+16%

MECHANICAL

		350mA	500mA	700mA
Ambient temperature ○ 55°C	E3	-20°C to 55°C	-20°C to 55°C	-20°C to 50°C
	N1	-20°C to 55°C	-20°C to 55°C	-20°C to 35°C
	F1	-20°C to 55°C	-20°C to 55°C	-20°C to 50°C
Glass	Low iron glass 3mm thick			
Materials	Anodised aluminium body, with stainless steel fixing brackets			
Weight of product	0.72kg			
IP rating	IP67			
Wiring	In-series constant current wiring (pre-wired with 2 core cable at a length of 1m)			

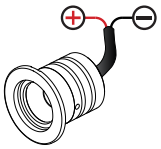
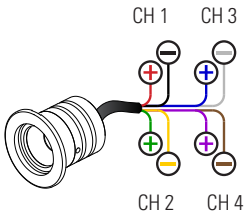
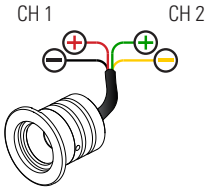
ENVIRONMENTAL

TM65	Available on request
TM66	2.6
Repair + Refurbish	R+R 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.

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	7W 3.5W per channel	
Applications					

MECHANICAL

Glass	Low iron glass 3mm thick		
Materials	Anodised aluminium body, with stainless steel fixing brackets		
Weight of product	0.72kg		
IP rating	IP67		
Wiring	**CLR** - 2 core cables at 1m in length 	**RGBW** - 8 core cables at 1m in length 	**TW** - 4 core cables at 1m in length 

AVAILABLE FINISHES

Please refer to our finishes guide for full details

POWDER COAT PAINT FINISHES

Our paint finishes are suitable for interior, exterior, and high-saline environments. All our painted finishes are applied in-house, allowing us to maintain complete control over quality and consistency. This also means we can easily accommodate any RAL colour specification in addition to our standard colour range, offering you full flexibility for custom projects.



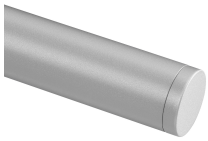
MATT BLACK
/PCBLK



MATT WHITE
/PCWHT



ANTIQUE WHITE
/PCAWHT



MATT SILVER
/PCMS



ANTHRACITE GREY
/PCANTGREY



GUNMETAL GREY
/PCGMG



ANTIQUE BRONZE
/PCANTBRZ



EARTH BRONZE
/PCEBRZ



DESERT BRONZE
/PCDBRZ



TEXTURED MARS BRONZE
/PCMARS



TEXTURED FIR GREEN
/PCTFG



WHITE STONE
/PCTWS

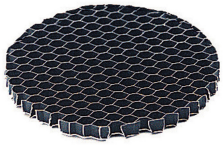


CUSTOM RAL
/CUSTFINISH

GLARE SHIELD & ACCESSORY OPTIONS

/HL Honeycomb louvre
the honeycomb louvre can be used for further reducing glare. Please note this is not suitable for use with the 15° x 49° oval beam or RGBW optic due to the quality of the beam.





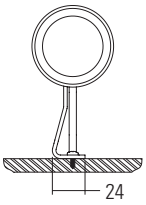


MOUNTING OPTIONS AND DIMENSIONS

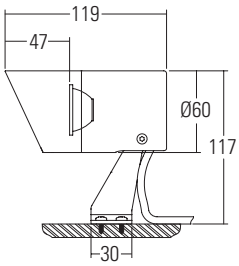
Dimensions in mm

/SAM Surface adjustable mount

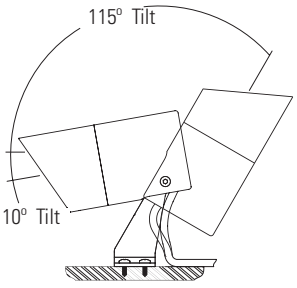
Surface adjustable mounting is screwed to the surface via a strong mounting stand which allows for minor rotational adjustment. The fitting tilt adjustment is not lockable, but is factory set to a robust friction to allow focussing. Weight: 0.05kg









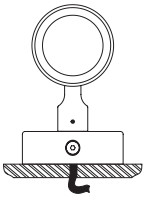




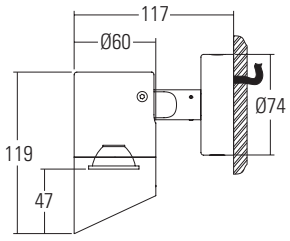


/SMB Surface mount base

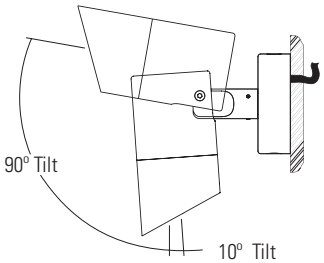
Surface mount base offers hidden wiring and a machined pivot arm. Rotation is lockable via a grub screw. Tilt adjustment is not lockable, but is factory set to a robust friction to allow focussing. Weight: 0.14kg



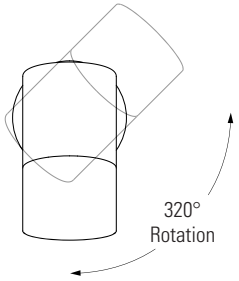










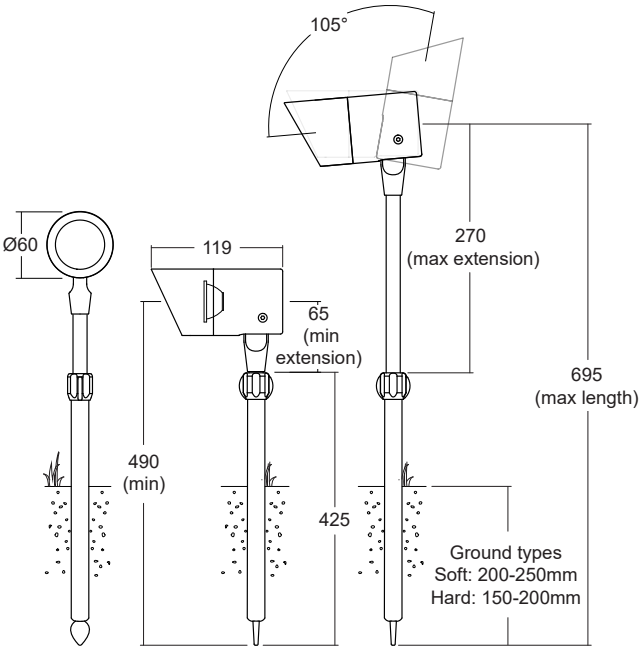




/GSA Adjustable ground spike

Adjustable ground spike for in-ground applications. Ground spike adjustment allows spotlight to be raised above the growing plants around it. Tilt adjustment is not lockable, but is factory set to a robust friction to allow focussing. Height adjustment of 490mm to 695mm to the centre of the fitting. Weight: 0.18kg

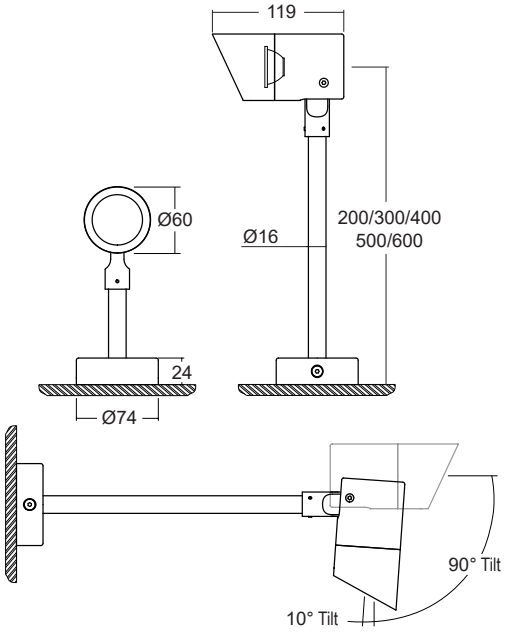




/SMBEX Extended surface adjustable mount

Surface mount base with customisable arm length between 200mm and 600mm to the centre of the fitting. Suitable for vertical and horizontal mounting. Tilt adjustment is not lockable, but is factory set to a robust friction to allow focussing. Weight: 0.14kg

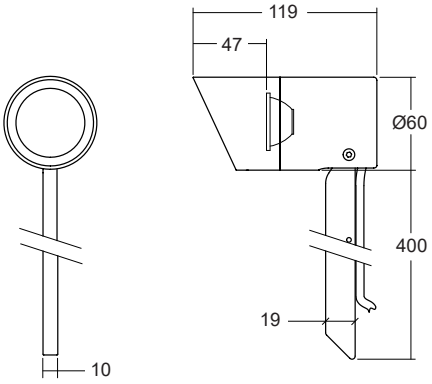


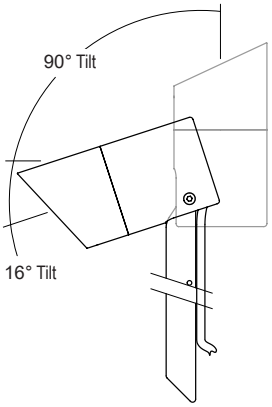


/GS Ground spike

Fixed height 400mm ground spike for in-ground applications. Tilt adjustment is not lockable, but is factory set to a robust friction to allow focussing. Weight: 0.21kg



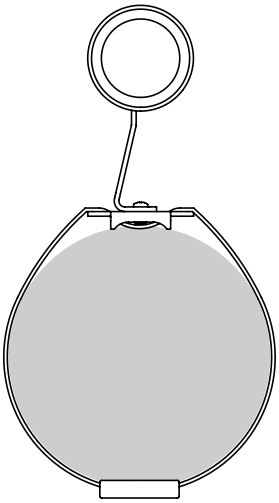




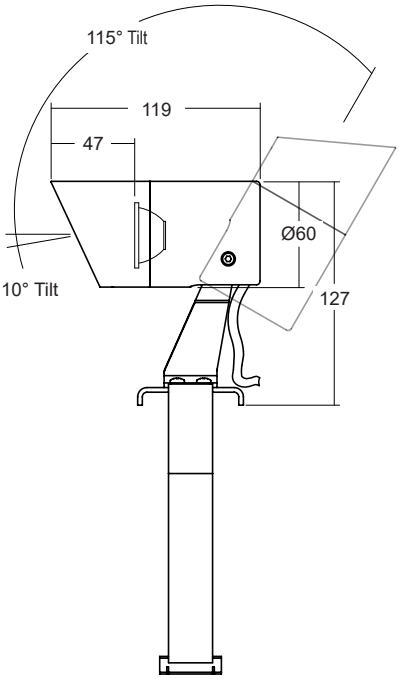
/TS Tree strap

The tree strap material grips and is tightened around the trunk. A tilt adjustment of 10° can be achieved towards the tree to provide a vertical beam. It is not lockable, but is factory set to a robust friction to allow focussing. Weight: 0.21kg





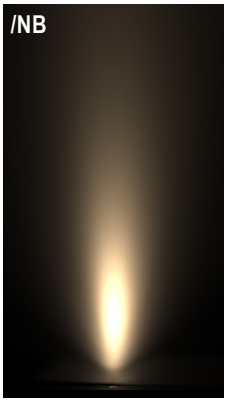
Trunk measurements:
1400mm circumference
Ø450 maximum diameter



CONE DIAGRAMS

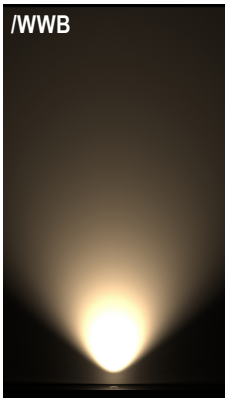
E3 LED Engine

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 LD10238 product page on the website.

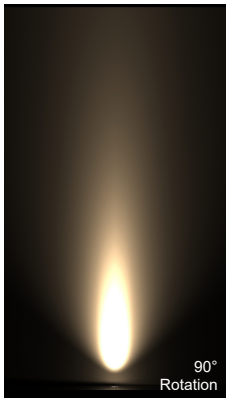












Narrow Beam
700mA using a 12° optic

Distance (m)		Illuminance (lx)
3.0	0.76	869
2.5	0.63	1252
2.0	0.51	1516
1.5	0.38	2694
1.0	0.25	6062
0.5	0.13	24248

Cone Width (m)

Medium Beam
700mA using a 19° optic

Distance (m)		Illuminance (lx)
3.0	0.95	434
2.5	0.79	625
2.0	0.63	977
1.5	0.48	1737
1.0	0.32	3909
0.5	0.16	15637

Cone Width (m)

Wide Beam
700mA using a 34° optic

Distance (m)		Illuminance (lx)
3.0	1.77	121
2.5	1.47	174
2.0	1.18	271
1.5	0.88	483
1.0	0.59	1086
0.5	0.29	4344

Cone Width (m)

Extra Wide Beam
700mA using a 54° optic

Distance (m)		Illuminance (lx)
3.0	3.26	74
2.5	2.71	107
2.0	2.17	167
1.5	1.63	296
1.0	1.09	667
0.5	0.54	2667

Cone Width (m)

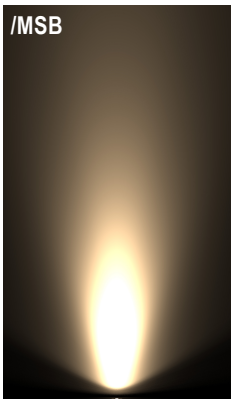
Oval Beam
700mA using a 15° X 49° optic

Distance (m)		Illuminance (lx)
3.0	2.45 / 0.75	264
2.5	2.04 / 0.62	380
2.0	1.63 / 0.50	593
1.5	1.23 / 0.37	1054
1.0	0.82 / 0.25	2372
0.5	0.41 / 0.12	9489

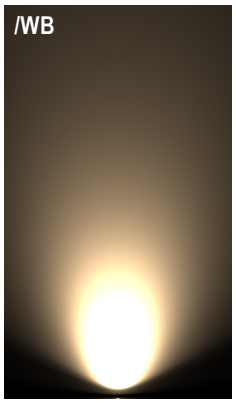
Cone Width (m)

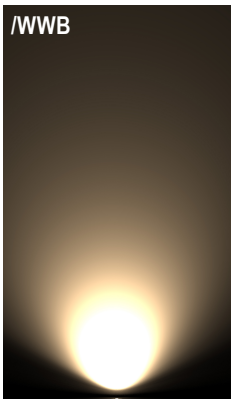
N1 LED Engine

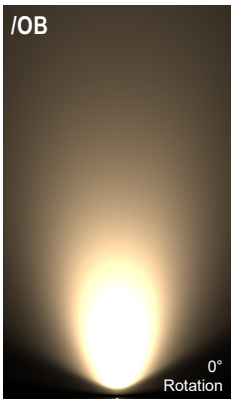
Cone diagrams below are based on a 3000K N1 LED engine run at maximum output 700mA, 14W. Images below represent beam outputs when wall washing a 3m wall, spaced 125mm away from the lit surface. Photometric files (LDT) are included in the design pack which can be downloaded from the LD10238 product page on the website.

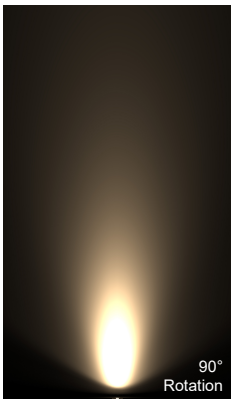












Medium Spot Beam
700mA using a 25° optic

Distance (m)		Illuminance (lx)
3.0	1.42	331
2.5	1.18	477
2.0	0.95	745
1.5	0.71	1325
1.0	0.47	2981
0.5	0.24	11925

Cone Width (m)

Medium Beam
700mA using 35° optic

Distance (m)		Illuminance (lx)
3.0	1.90	230
2.5	1.59	331
2.0	1.27	517
1.5	0.95	919
1.0	0.63	2067
0.5	0.32	8267

Cone Width (m)

Wide Beam
700mA using a 46° optic

Distance (m)		Illuminance (lx)
3.0	2.57	149
2.5	2.14	215
2.0	1.71	336
1.5	1.29	598
1.0	0.86	1344
0.5	0.43	5378

Cone Width (m)

Extra Wide Beam
700mA using a 65° optic

Distance (m)		Illuminance (lx)
3.0	3.85	88
2.5	3.21	127
2.0	2.57	198
1.5	1.93	352
1.0	1.28	792
0.5	0.64	3167

Cone Width (m)

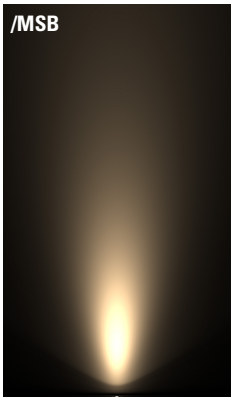
Oval Beam
700mA using a 22° x 43° optic

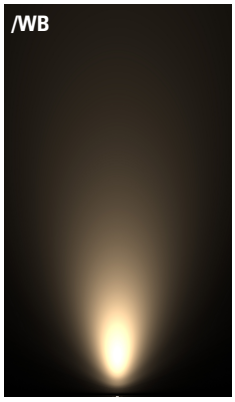
Distance (m)		Illuminance (lx)
3.0	2.14 / 1.20	281
2.5	1.78 / 1.00	404
2.0	1.42 / 0.80	631
1.5	1.07 / 0.60	1122
1.0	0.71 / 0.40	2525
0.5	0.36 / 0.20	10100

Cone Width (m)

F1 LED Engine

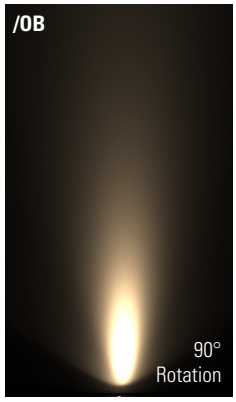
Cone diagrams below are based on a 2200K F1 LED engine run at maximum output 700mA, 7W. Images below represent beam outputs when wall washing a 3m wall, spaced 125mm away from the lit surface. Photometric files (LDT) are included in the design pack which can be downloaded from the LD10238 product page on the website.











Medium Spot Beam

700mA using a 25° optic

Distance (m)	Illuminance (lx)	
3.0	1.17	202
2.5	0.97	290
2.0	0.78	454
1.5	0.58	806
1.0	0.39	1814
0.5	0.19	7256

Cone Width (m)

Wide Beam

700mA using a 46° optic

Distance (m)	Illuminance (lx)	
3.0	2.02	82
2.5	1.68	119
2.0	1.35	185
1.5	1.01	330
1.0	0.67	742
0.5	0.34	2968

Cone Width (m)

Extra Wide Beam

700mA using a 65° optic

Distance (m)	Illuminance (lx)	
3.0	3.85	39
2.5	3.21	56
2.0	2.57	88
1.5	1.93	156
1.0	1.28	351
0.5	0.64	1402

Cone Width (m)

Oval Beam

700mA using a 18° X 45° optic

Distance (m)	Illuminance (lx)	
3.0	2.47 / 0.91	149
2.5	2.06 / 0.76	214
2.0	1.65 / 0.60	335
1.5	1.24 / 0.45	595
1.0	0.82 / 0.30	1339
0.5	0.41 / 0.15	5357

Cone Width (m)



Design: Lighting Design International
Project: Four Seasons Astir Palace Hotel. Athens
Product: LD10238
Photography: Gavrilux (www.gavrilux.com)

ORDER CODES & OPTIONS

Example: LD10238-E3-700/930/NB/Black/SMB/HL

Light engine & drive current		LED colour		Beam angle		Finish		Accessories
LD10238 -	/		/		/		/	

Ambient temperature key: 55°C

WHITE LED ENGINES

E3

55°C Ta	5W LED at 350mA	LD10238-E3-350
55°C Ta	7W LED at 500mA	LD10238-E3-500
	10W LED at 700mA	LD10238-E3-700

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

12° Narrow spot	/NB
19° Medium	/MB
34° Wide	/WB
54° Extra wide	/WWB
15° x 49° Oval	/OB

N1

55°C Ta	7W LED at 350mA	LD10238-N1-350
55°C Ta	10W LED at 500mA	LD10238-N1-500
	14W LED at 700mA	LD10238-N1-700

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

25° Medium spot	/MSB
35° Medium	/MB
46° Wide	/WB
65° Extra wide	/WWB
22° x 43° Oval	/OB

F1

55°C Ta	3.5W LED at 350mA	LD10238-F1-350
55°C Ta	5W LED at 500mA	LD10238-F1-500
	7W LED at 700mA	LD10238-F1-700

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

25° Medium spot	/MSB
46° Wide	/WB
65° Extra wide	/WWB
18° x 45° Oval	/OB

Matt Black	
Matt White	
Antique White	
Matt Silver	
Anthracite Grey	
Gun Metal Grey	
Antique Bronze	
Earth Bronze	
Desert Bronze	
Textured Mars Bronze	
Textured Fir Green	
White Stone	
Any RAL	


/SAM

/SMB

/GSA

/GS

/SMBEX (DIM)

/TS

/HL (Not suitable for use with /OB or RGBW LED)

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.

ORDER CODES & OPTIONS

Example: LD10238-RGBW-350/38° Colour mix lens/Black/SMB/HL

Light engine & drive current		LED colour		Beam angle		Finish		Accessories
LD10238 -	/		/		/		/	

COLOUR & DYNAMIC LED ENGINES

CLR

7W LED at 500mA	LD10238-CLR-500

Red	/LR
Green	/LG
Blue	/LB
Amber	/LA

24° Medium	/MB
38° Wide	/WB
54° Extra wide	/WWB
20° x 46° Oval	/OB

RGBW

5W LED at 350mA	LD10238-RGBW-350
7W LED at 500mA	LD10238-RGBW-500

38° Colour mix lens

TW

3.5W LED at 350mA	LD10238-TW-350

Tunable White 2700K & 4000K*	/827 + 840
Tunable White 2700K & 5000K	/827 + 850
Custom	/8** + 8**

*Standard option

24° Medium	/MB
38° Wide	/WB
54° Extra wide	/WWB
20° x 46° Oval	/OB

Matt Black
Matt White
Antique White
Matt Silver
Anthracite Grey
Gun Metal Grey
Antique Bronze
Earth Bronze
Desert Bronze
Textured Mars Bronze
Textured Fir Green
White Stone
Any RAL



/SAM



/SMB



/GSA



/GS



/SMBEX (DIM)



/TS



/HL
(Not suitable for use with /OB or RGBW LED)

Drivers
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