

HIGH-POWER SURFACE MOUNTED ADJUSTABLE INTERIOR/EXTERIOR LED SPOTLIGHT




Canterbury Cathedral, Kent, UK
 Lighting Designed, Photography: CES Lighting & Electrical Specialists
 Product: LD10238

Project: Rochester Cathedral, Kent, U.K
Lighting Designer & Photography: CES Lighting & Electrical Specialists
Product: LD10238

DIMENSIONS






Dimensions in mm

- > 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

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			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-LW30-NB, LD10238-N1-700-LW30-MSB & LD10238-F1-700-LW22-MSB

*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	
2700K	+/- 0%
4000K	+7%
5000K	+16%

MECHANICAL

Ambient temperature	E3 F1	-20° to 50° (350mA-500mA) or -20° to 35° (700mA)
	N1	-20° to 50° (350mA-500mA) or -20° to 25° (700mA)
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)	

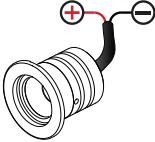
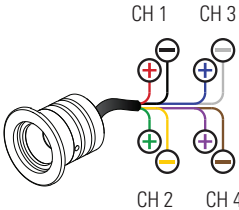
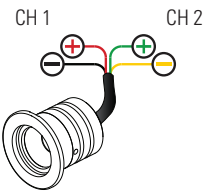
ENVIRONMENTAL

TM65	Available on request	
TM66	2.6	
Repair + Refurbish	 <p>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.</p>	

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

The LD10238 body is machined from aluminium and painted in-house at LightGraphix. Paint finishes are suitable for interior and exterior use on surface mounted products. Our standard colours are below but we can accommodate any RAL request.

WET SPRAY



SILVER ANODISED



ANTIQUE BRONZE



SATIN ANTIQUE BRASS



SATIN BRASS



BLACK
(RAL 9005)



ANTHRACITE GREY
(RAL 7016)



WHITE
(RAL 9016)

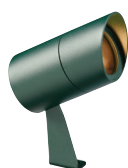


RAL COLOURS

POWDER COAT



TEXTURED MARS BRONZE

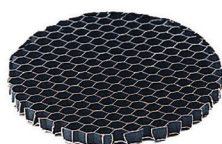


TEXTURED FIR GREEN
(RAL 6009)

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.

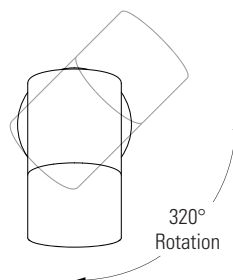
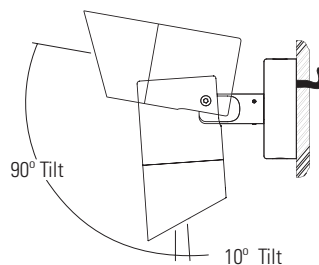
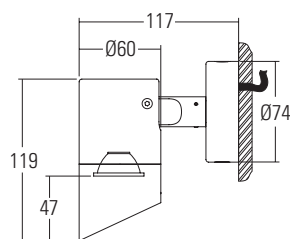
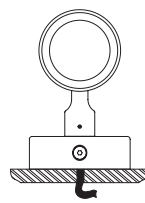
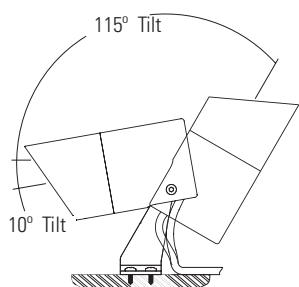
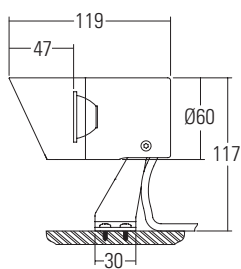
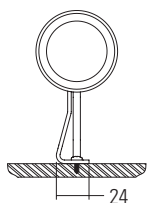


MOUNTING OPTIONS AND DIMENSIONS

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



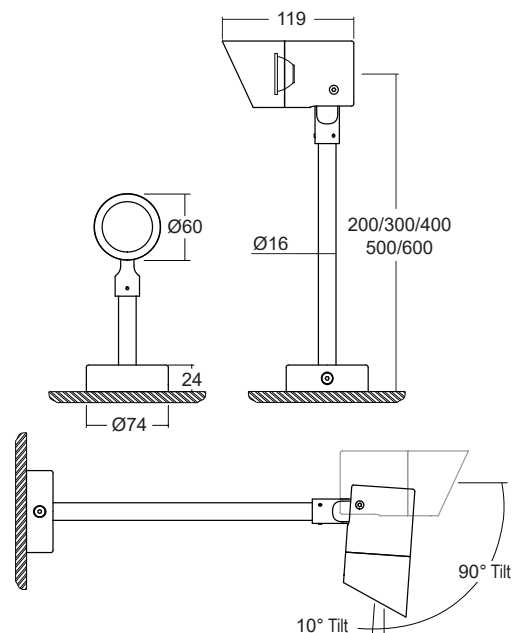
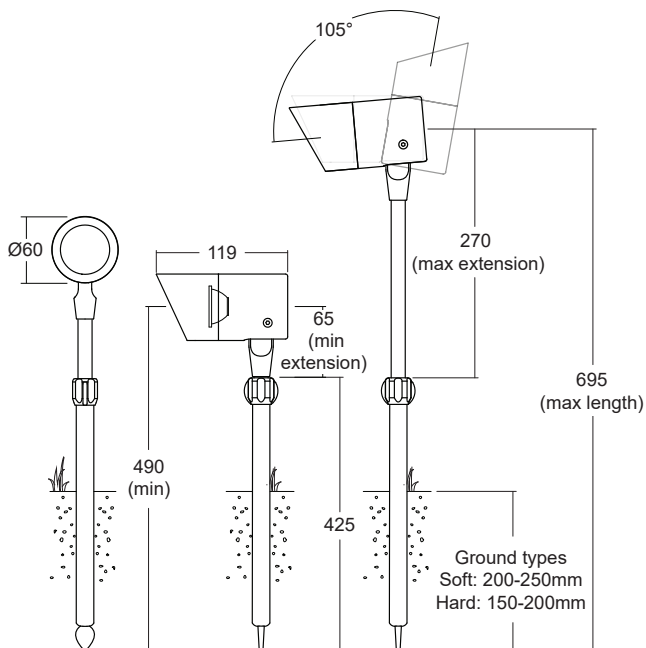
/GSA Adjustable ground spike

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



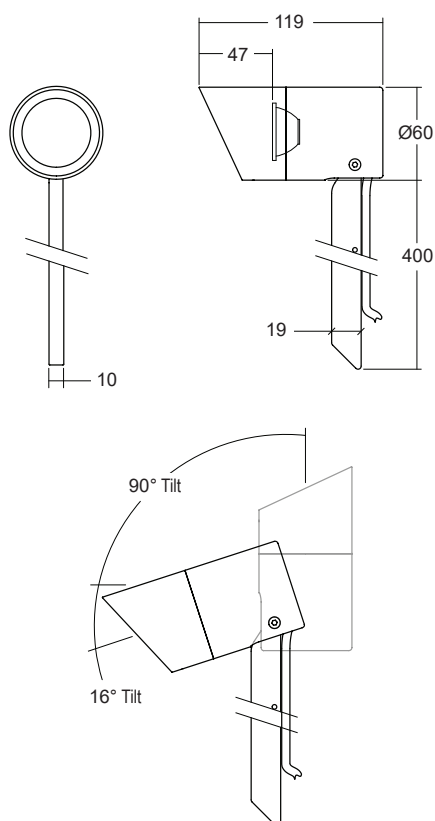
/SMBEX Extended surface adjustable mount

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



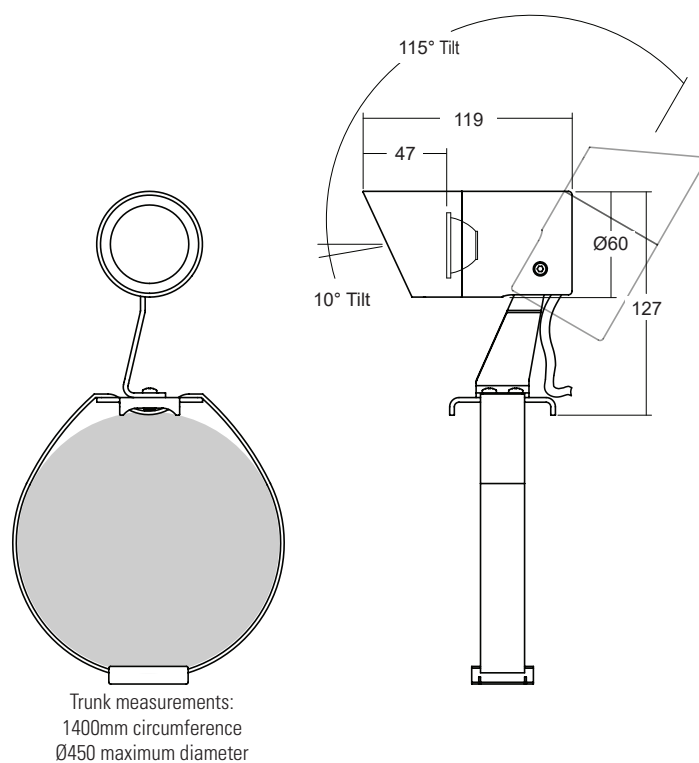
/GS Ground spike

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

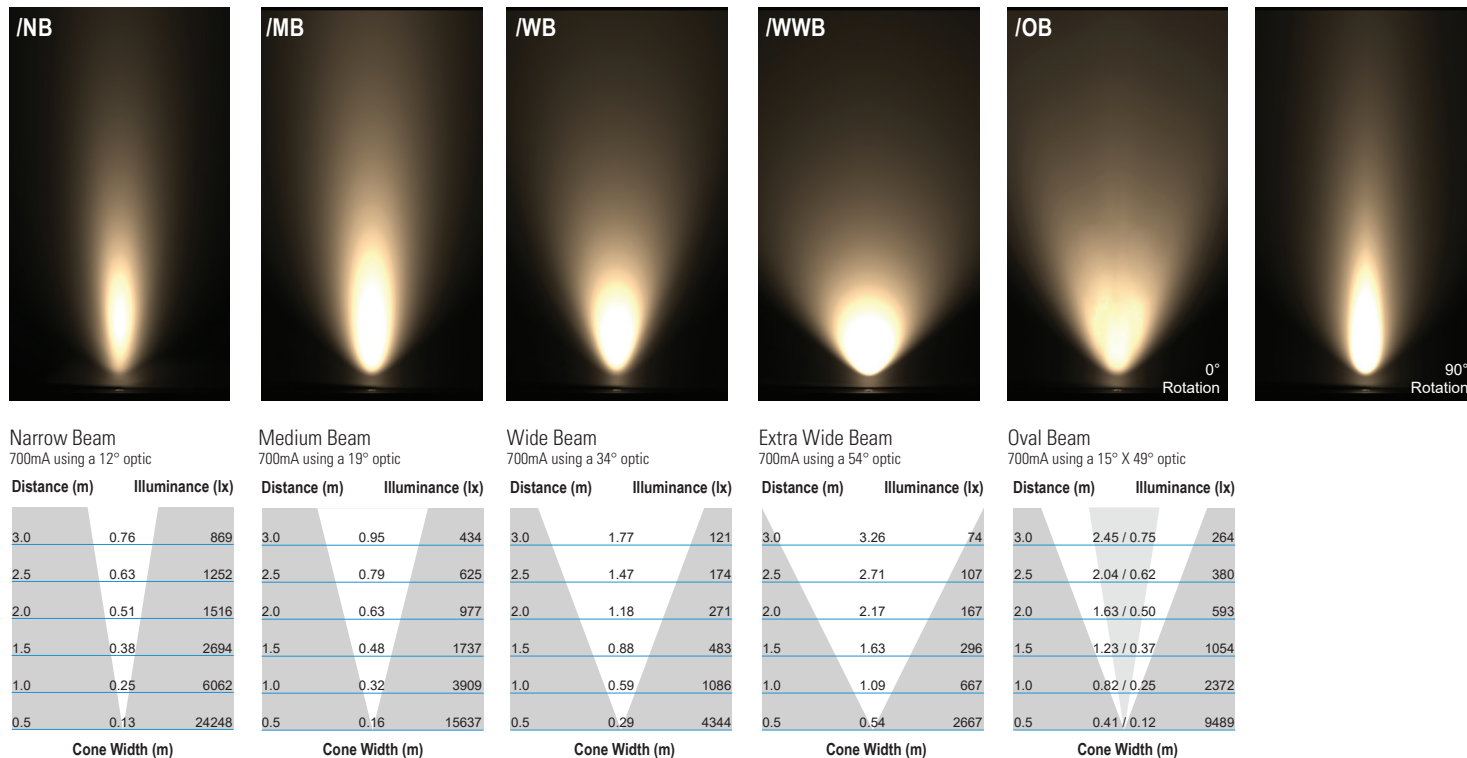
The tree strap material grips and is tightened around the trunk. A tilt adjustment of 10° can be achieved towards the tree to provide a vertical beam. It is not lockable, but is factory set to a robust friction to allow focussing. Weight: 0.21kg



CONE DIAGRAMS

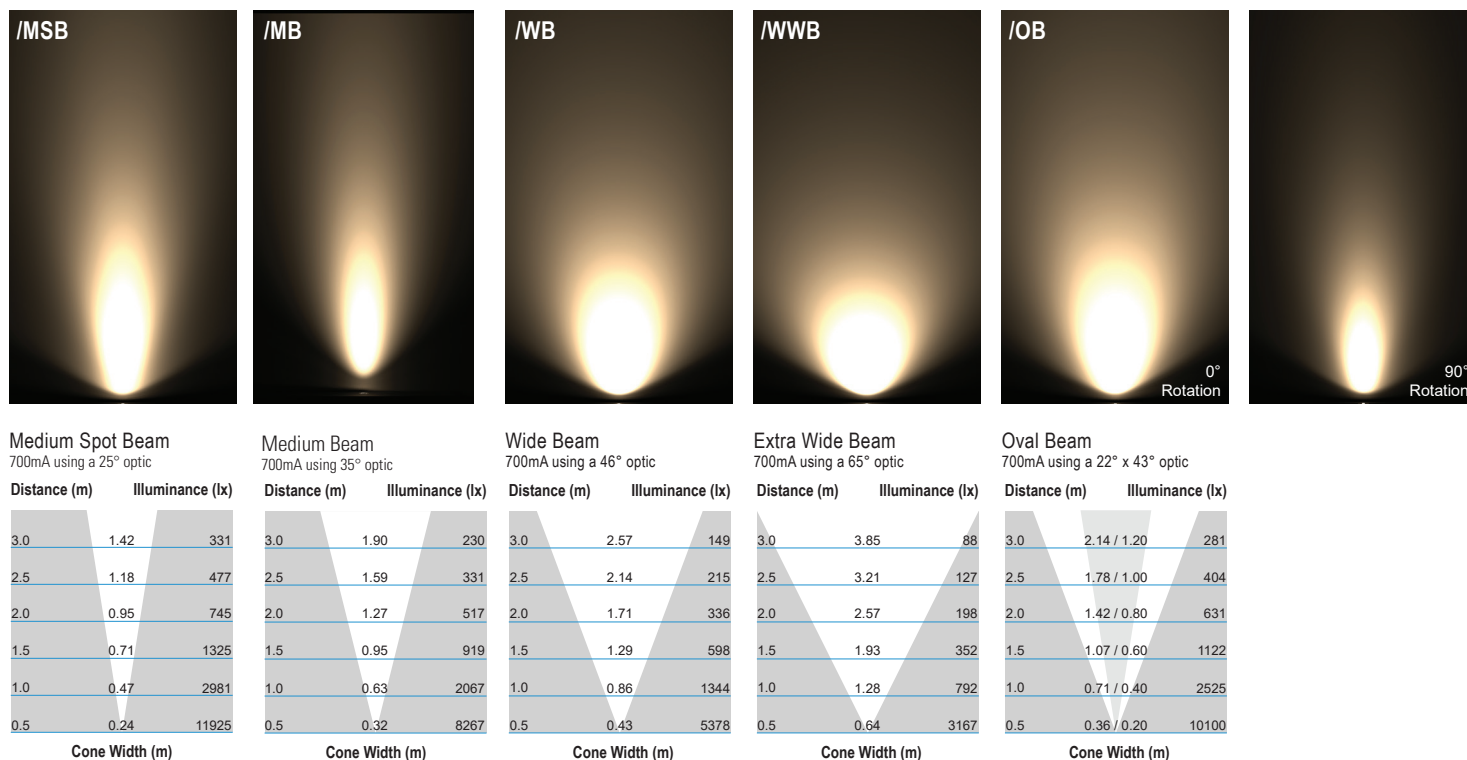
E3 LED Engine

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.



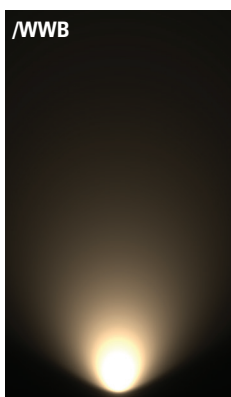
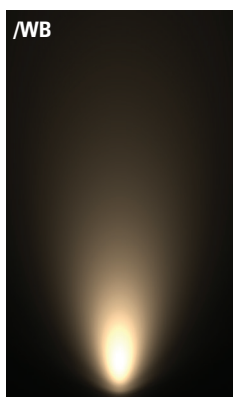
N1 LED Engine

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.



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)	Cone Width (m)
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

Wide Beam
700mA using a 46° optic

Distance (m)	Illuminance (lx)	Cone Width (m)
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

Extra Wide Beam
700mA using a 65° optic

Distance (m)	Illuminance (lx)	Cone Width (m)
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

Oval Beam
700mA using a 18° X 45° optic

Distance (m)	Illuminance (lx)	Cone Width (m)
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



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

ORDER CODES & OPTIONS

Example: LD10238-E3-700 / LW30 / NB / Black / SMB / HL

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

WHITE LED ENGINES

E3

5W LED at 350mA	LD10238-E3-350
7W LED at 500mA	LD10238-E3-500
10W LED at 700mA	LD10238-E3-700

Super Warm White (2200K)	/LW22
Extra Warm White (2700K)	/LW27
Warm White (3000K)	/LW30
White (4000K) - on request	/LW40
Cool White (5000K)	/LW50

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

N1

7W LED at 350mA	LD10238-N1-350
10W LED at 500mA	LD10238-N1-500
14W LED at 700mA	LD10238-N1-700

Super Warm White (2200K)	/LW22
Extra Warm White (2700K)	/LW27
Warm White (3000K)	/LW30
White (4000K) - on request	/LW40
Cool White (5000K)	/LW50

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

F1

3.5W LED at 350mA	LD10238-F1-350
5W LED at 500mA	LD10238-F1-500
7W LED at 700mA	LD10238-F1-700

Super Warm White (2200K)	/LW22
Extra Warm White (2700K)	/LW27
Warm White (3000K)	/LW30
White (4000K) - on request	/LW40
Cool White (5000K)	/LW50

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

COLOUR & DYNAMIC LED ENGINES

CLR

7W LED at 500mA	LD10238-CLR-500
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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	
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TW

3.5W LED at 350mA	LD10238-TW-350
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Tunable White 2700K & 4000K (standard option)	/LW27 + LW40
Tunable White 2700K & 5000K	/LW27 + LW50
Custom	/LW** + L**

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

	
WET SPRAY Silver anodised	/SAM
	
WET SPRAY Antique Bronze	/SMB
	
WET SPRAY Satin Antique Brass	/GSA
	
WET SPRAY Satin Brass	/GS
	
WET SPRAY Anthracite Grey (RAL 7016)	/SMBEX (DIM)
	
WET SPRAY Black (RAL 9005)	/TS
	
WET SPRAY White (RAL 9016)	/HL (Not suitable for use with /OB or RGBW LED)
	
WET SPRAY RAL Colours	
	
POWDER COAT Textured Mars Bronze	
	
POWDER COAT Textured Fir Green (RAL 6009)	