

LD238

COMPACT SURFACE MOUNTED ADJUSTABLE INTERIOR/EXTERIOR LED SPOTLIGHT



The LD238 is a discreet surface mounted spotlight that is very compact in size but offers a powerful output and large range of features. There are 2 LED engines available. The E3 engine provides the ability to achieve a high output of up to 597lm, whilst the F1 offers a super warm colour temperature of 2200K. Featuring a single optic for superior beam quality, there are a range of beam angles available and a half or full cowl for low glare. With a choice of fixing options, including a ground spike, tree strap and surface mounted base, the versatile LD238 can be used in a range of exterior applications.



KEY FEATURES

- > Compact exterior spotlight with 105° lockable head tilt adjustment
- > High-power E3 engine featuring NICHIA LED delivering up to 597lm at 700mA
- > F1 LED engine featuring CREE COB with 2200K colour temperature option
- > Wide range of powder coated finishes including: White (RAL 9016), Black (RAL 9005), Classic Bronze (YM262E), Gunmetal Grey (RAL 7021), Textured Mars Bronze, Textured Fir Green (RAL 6009) or any RAL colour
- > Range of beam angles including 12°, 18°, 31°, 55°, 14° x 48°
- > Single light source and optic produces a consistent beam removing multiple shadows
- > Deep recessed LED lens assembly with option of no cowl, full, or half anti-glare cowl and honeycomb louvre
- > Wide range of fixing options including surface mounted base, ground spike and tree strap
- >  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 fixing dimensions please go to page 4.



WHITE LED ENGINE SPECIFICATION

Engine	E3			F1		
Beam angles	12°, 18°, 31°, 55°, 14° x 48°			21°, 35°, 52°, 17° x 48°		
LED manufacturer	NICHIA			CREE		
Colour temperature	2200K, 2700K, 3000K, 4000K, 5000K			2200K, 2700K, 3000K, 4000K, 5000K		
Current [Rated Output]	350mA [5W]	500mA [7W]	700mA [10W]	350mA [3.5W]	500mA [5W]	700mA [7W]
Typical LED Circuit wattage	4.4W	6.4W	9.2W	3.3W	5W	7.2W
Delivered lumens (L ₁₀₀)*	359	465	597	254	335	442
Delivered lm/Circuit W**	81	72	65	76	67	61
Typical LED Source wattage	4W	5.8W	8.3W	3W	4.5W	6.5W
Source LED lm	574	740	949	377	497	101
Source lm/W	144	128	114	126	110	6.5W
Forward voltage (V ₁₀₀)	11.3V	11.6V	11.8V	8.7V	9V	9.3V
CRI (Typ)	85 90***			90		
Colour consistency	2 SDCM			3 SDCM		
Peak intensity	6,010 cd			2,198 cd		
LOR	0.63			0.68		
TM30	RF85 RG98			RF90 RG103		
UGR rating ('downlight' mounted)	6.4	7.3	8.1	7.2	8.2	9.1
BUG rating ('downlight' mounted)	B1-U0-G0			B1-U0-G0		
LED lifetime	L90B5 at 90,000hrs			L90B5 at 90,000hrs		
Applications	    					

This data is based on LD238-E3-700/830/NB and LD238-F1-700/930/MSB

*Lumen output data applies to all E3 colour temperatures, for F1, please see lumen variance table to the right

**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

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

MECHANICAL

		350mA	500mA	700mA
Ambient temperature 55°C	E3	-20°C to 55°C	-20°C to 50°C	-20°C to 35°C
	F1	-20°C to 55°C	-20°C to 50°C	-20°C to 35°C
Glass	2mm thick toughened glass with black ceramic screen print			
Materials	Anodised aluminium body			
Weight of product	0.35kg (with /SMB fixing)			
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	2.8		
Repair + Refurbish	 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.		

AVAILABLE FINISHES

Please refer to our finishes guide for full details

The LD238 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. Please view our full finishes guide online for more information.

POWDER COAT

Powder coat paint is offered in special textured finishes, which are suitable for interior, exterior and high-saline environments.



BLACK
(RAL 9005)



WHITE
(RAL 9016)



CLASSIC BRONZE
(YM262E)



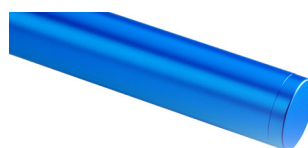
TEXTURED FIR GREEN
(RAL 6009)



TEXTURED MARS BRONZE



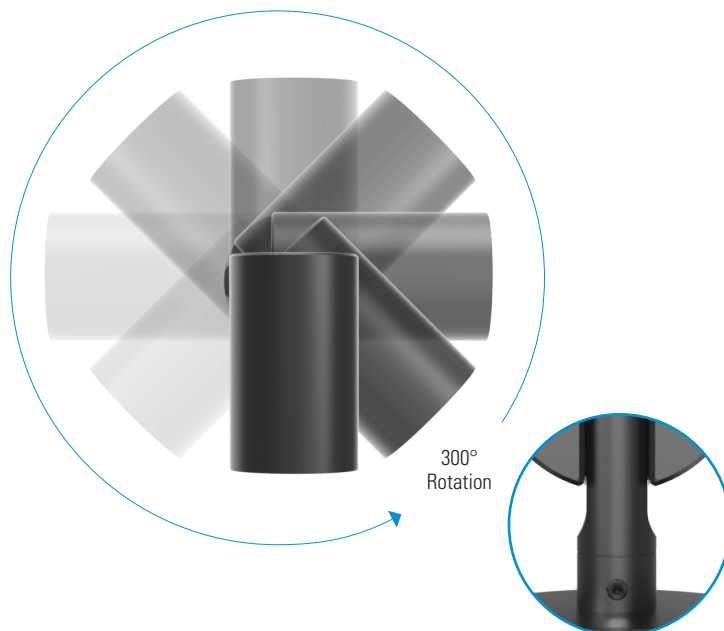
GUNMETAL GREY
(RAL 7021)



RAL COLOURS

ADJUSTABILITY

The LD238 has a lockable upwards tilt of 105° on any fixing option and using the /SMB mounting method can be rotated 300° in any horizontal direction.



DIMENSIONS & FIXING OPTIONS

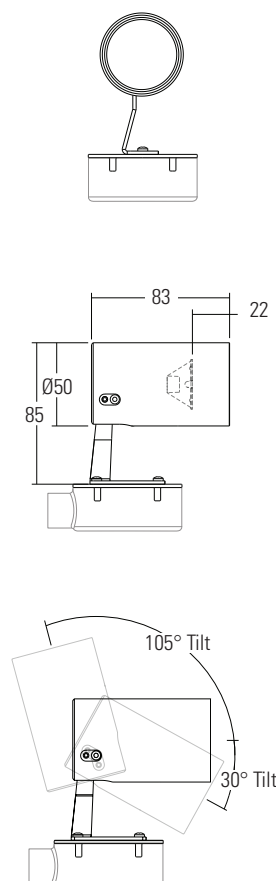
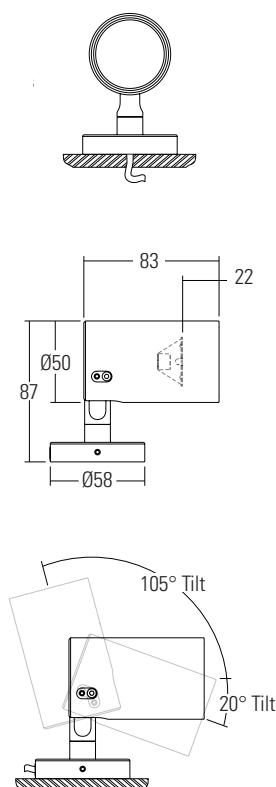
Dimensions in mm

/SMB Surface mount base

Surface mount base offers hidden wiring and a machined pivot arm with lockable tilt and rotation of the fitting. Cable length: 1200mm Weight: 0.68kg

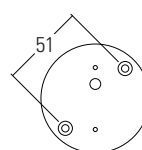
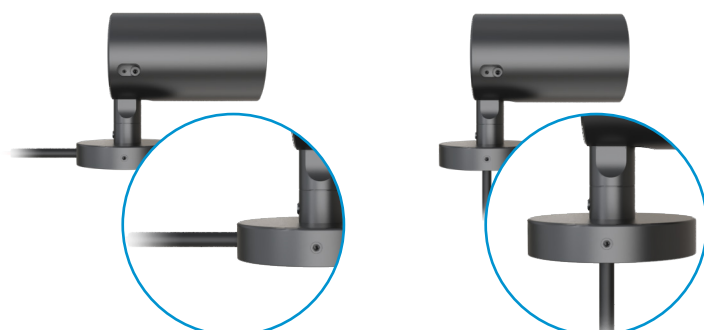
/BB Besa box mount

Supplied with a plate for mounting to the front of a besa conduit box to allow mounting to pre-existing conduit installations or for projects with a more industrial aesthetic. Cable length: 1200mm Weight: 0.27kg

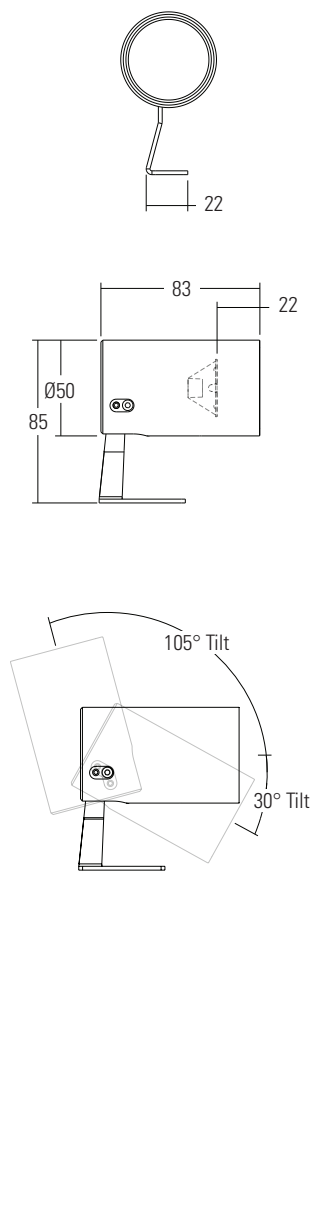


/SMB cable mounting options

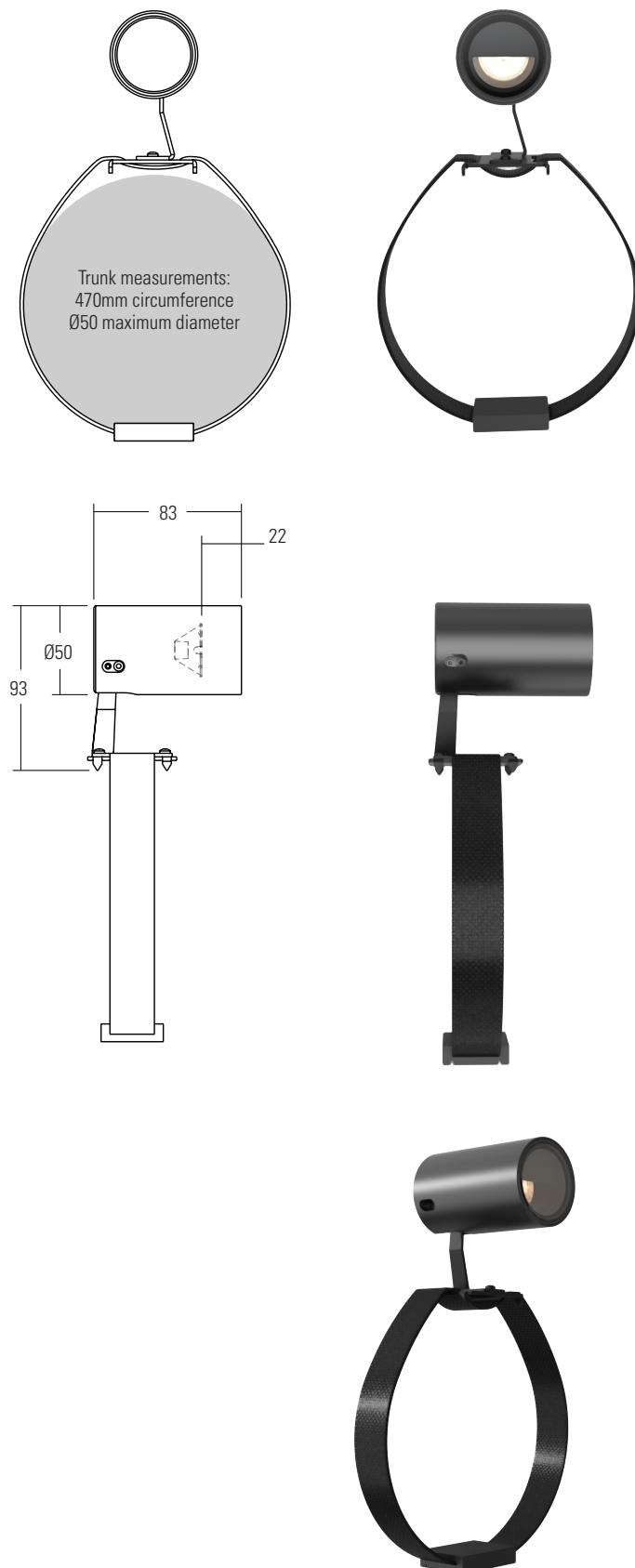
There are two cable exit hole options when specifying a surface mount base. This includes the cable remaining hidden within the base of the fixing and entering through the mounting surface below, or using the horizontal exit hole on the side of the base, if the cable is not able to pass directly through its mounting surface.



Surface adjustable mounting is screwed to the surface via a strong mounting stand which allows for minor rotational adjustment. The fitting tilt adjustment is lockable via the socket head screw located on the side. Cable length: 1200mm Weight: 0.26kg

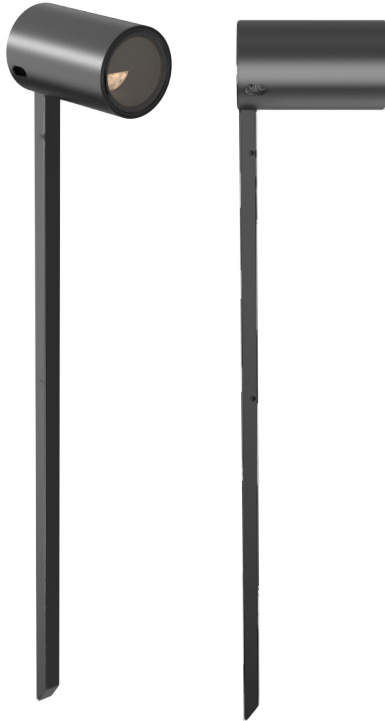


Tree strap with lockable fitting tilt adjustment, has a customisable arm length. It can be specified between 130mm and 600mm to the centre of the fitting. Suitable for vertical and horizontal mounting. Cable length: 1200mm Weight: 1.31kg



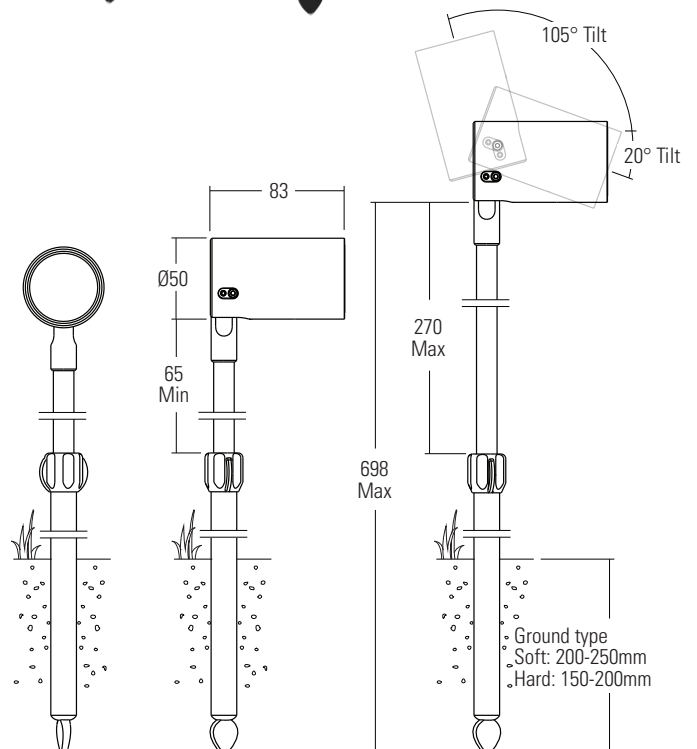
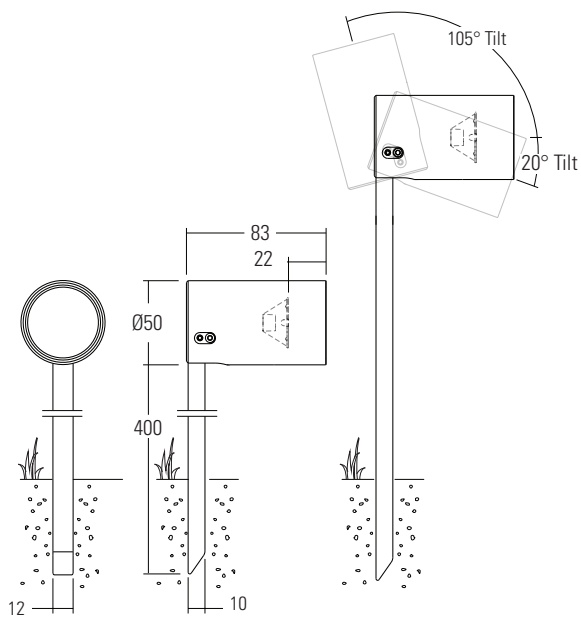
/GSF Ground spike fixed

Fixed height 400mm in-ground spike. The fitting tilt adjustment is lockable via the socket head screw located on the side. Cable length: 1200mm Weight: 1.39kg



/GSA Adjustable ground spike

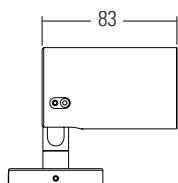
Adjustable ground spike with a lockable fitting tilt adjustment, for in-ground applications. Height adjustment of 490mm to 695mm to the centre of the fitting. Cable length: 2200mm Weight: 1.47kg



GLARE CONTROL OPTIONS

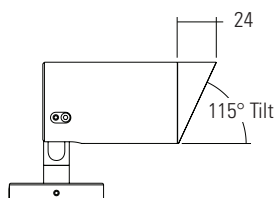
/NC No Cowl

The LD238 has been designed with optics recessed 22mm into the body for low glare and is suitable for use without a cowl.



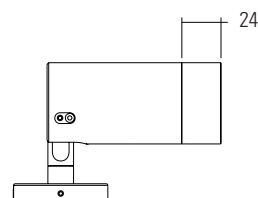
/HC Anti-glare half cowl

The half cowl can be rotated in any direction to further reduce glare.



/FC Anti-glare full cowl

A full cowl will reduce glare from all angles.



/GS238 Glare shield

Standard glare shield, which provides an excellent balance between glare control and light output. This accessory works well in most applications. Not recommended for use with an anti-glare cowl.



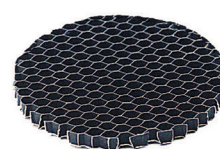
/GSHM Half moon glare shield

Half-moon glare shield for applications that require very low glare. Lumen output is typically reduced by 60% with no light lost on the lit surface. Not recommended for use with an anti-glare cowl.



/HL Honeycomb louvre

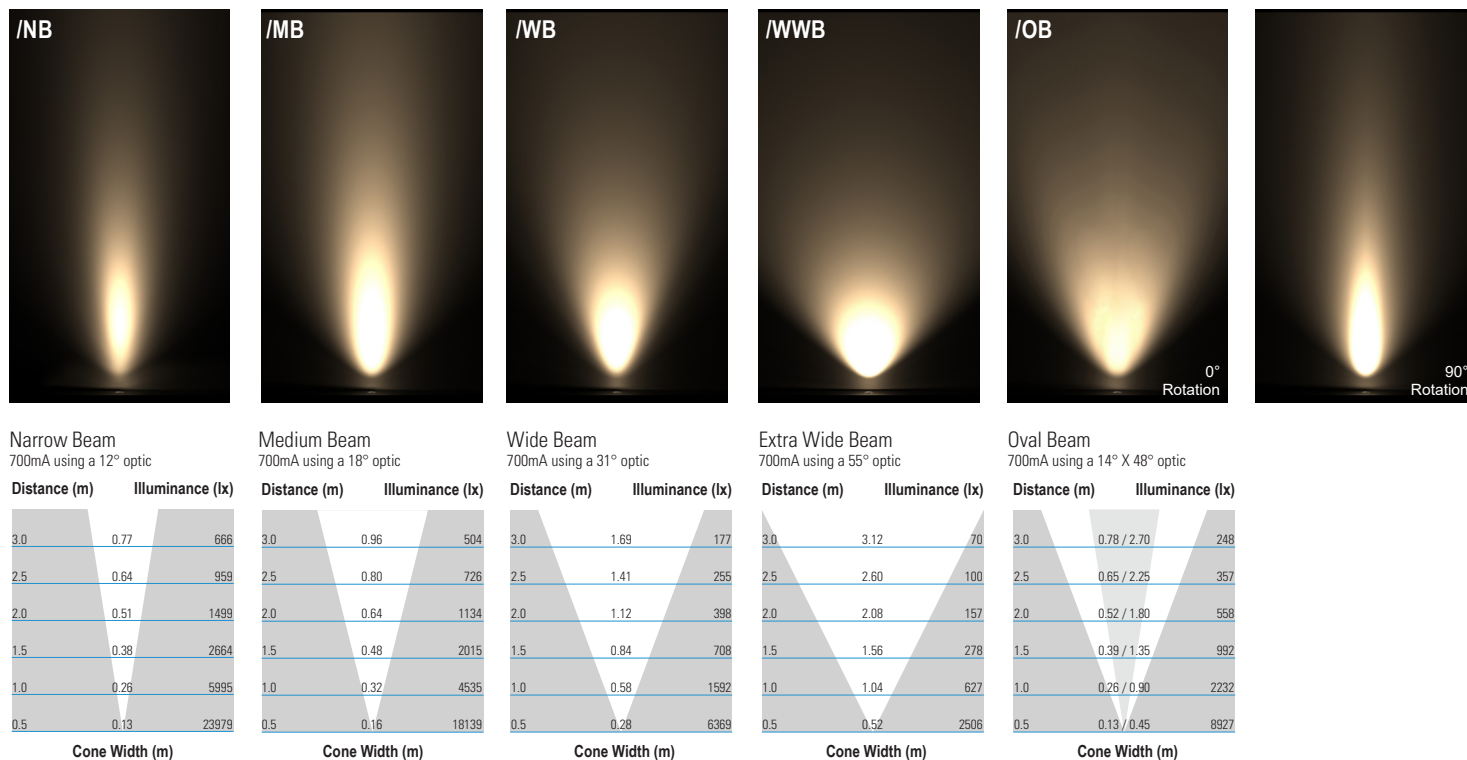
The honeycomb louvre can be used alone or with the /GSHM for further reducing glare from all angles. Please note this is not suitable for use with the 14° x 48° oval beam. Suitable for use with an anti-glare cowl.



CONE DIAGRAMS

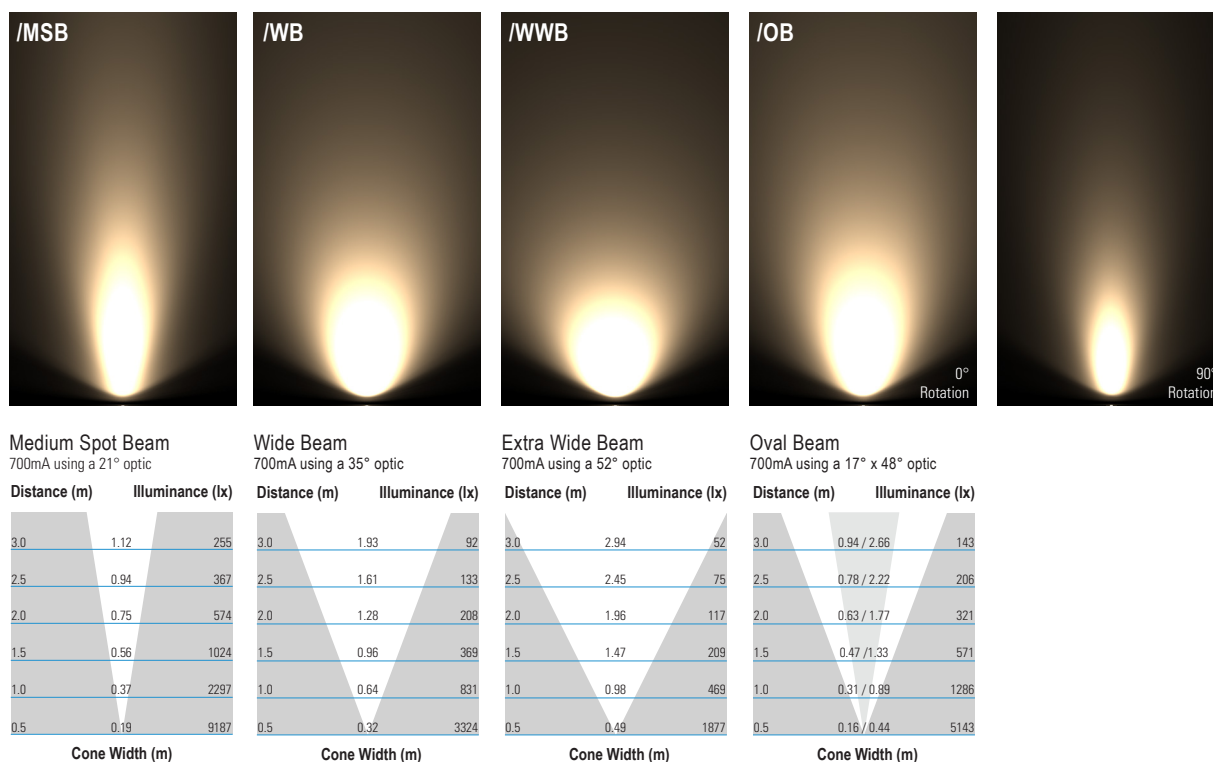
E3 LED Engine

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 LD238 product page on the website.



F1 LED Engine

Cone diagrams below are based on a 3000K 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 LD238 product page on the website.



ORDER CODES & OPTIONS

Example: LD238-E3-700/830/OB/HL/Black/BB

Light engine & drive current	LED colour	Beam angle	Accessory	Finish	Fixing
LD238-	/	/	/	/	/

Ambient temperature key: ● 55°C

E3

● 55°C 5W LED at 350mA	LD238-E3-350	2200K 85+ CRI	/822	12° Narrow spot	/NB			
7W LED at 500mA	LD238-E3-500	2700K 85+ CRI	/827	18° Medium	/MB	/NC	Powder Coat Black (RAL 9005 - Standard)	/SMB
10W LED at 700mA	LD238-E3-700	3000K 85+ CRI	/830	31° Wide	/WB			/BB
		4000K 85+ CRI on request	/840	55° Extra Wide	/WWB	/HC	Powder Coat White (RAL 9016)	
		5000K 85+ CRI	/850	14° x 48° Oval	/OB			/SAM
		2700K 90+ CRI	/927			/FC		
		3000K 90+ CRI	/930				Powder Coat Classic Bronze (YM262E)	/TS

F1

● 55°C 3.5W LED at 350mA	LD238-F1-350	2200K 90+ CRI	/922	21° Medium spot	/MSB			
5W LED at 500mA	LD238-F1-500	2700K 90+ CRI	/927	35° Wide	/WB	/GS238	Powder Coat Textured Fir Green (RAL 6009)	/GSF
7W LED at 700mA	LD238-F1-700	3000K 90+ CRI	/930	52° Extra Wide	/WWB			
		4000K 90+ CRI on request	/940	17° x 48° Oval	/OB	/GSHM	Powder Coat Textured Mars Bronze	
		5000K 90+ CRI	/950					/GSA
						/HL	Powder Coat Gunmetal Grey (RAL 7021)	
								
							Custom RAL Colours	

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.