

LD1083

FIXED HIGH-POWER SHALLOW RECESSED EXTERIOR LED DOWNLIGHT



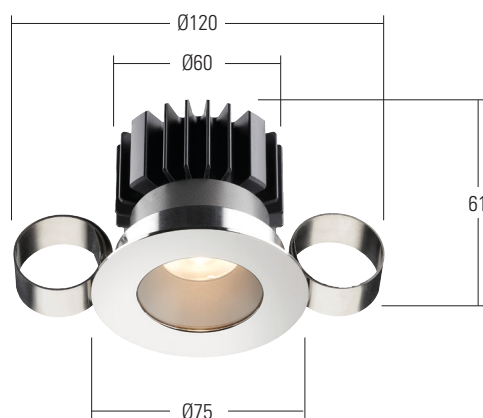
The LD1083 is an IP67 rated, ultra shallow, high-power downlight designed for external applications including marine projects. With two LED engine options, this compact fitting can deliver over 900lm, making it ideal for general downlighting, as well as for wall washing and architectural applications. An inner baffle helps to reduce glare and can be custom painted to suit the design scheme. With a minimalistic design it complements most interior or exterior project styles that require a high-power light output, from a very compact, shallow fitting that is built to last in the harshest environments.

KEY FEATURES

- > High-power N1 engine with CREE COB delivering 905lm in 3000K at 700mA
- > E3 engine featuring NICHIA LED delivering over 697lm in 3000K at 700mA
- > Rated IP67, designed for shallow exterior or marine applications with a minimal recess depth of 70mm
- > Gunmetal grey inner baffle and deep recessed LED for low glare with optional honeycomb louvre available
- > High quality, machined bezel available in 316 Stainless Steel, Polished & Passivated 316 Stainless Steel and a wide range of paint finishes including: White (RAL 9016), Black (RAL 9005), Silver Anodised, Antique Bronze, Satin Brass, Satin Antique Brass, Anthracite Grey (RAL 7016) or any RAL finish
- > Single optic produces a very consistent beam with no multiple shadows
- > 9 beam angle choices, including 12° narrow and 12° x 49° oval beam (E3 engine)
- > Simple spring clip fixing method, suitable for surfaces 1mm-23mm thick
- > Switched, 0-10V, Casambi, DMX, Dali or Mains dimmable drivers available

DIMENSIONS

For full dimensions please go to page 3



WHITE LED ENGINE SPECIFICATION

Engine	⊕ E3			⊙ N1		
Beam angles	12°, 20°, 34°, 55°, 12° x 49°			25°, 35°, 46°, 22° x 43°		
LED manufacturer	NICHIA			CREE		
Colour temperature*	2700K / 3000K / 4000K / 5000K			2200K / 2700K / 3000K / 4000K / 5000K		
Current	350mA	500mA	700mA	350mA	500mA	700mA
LED power (Max)	4.2W (5W**)	6W (7W**)	8.4W (10W**)	6.6W (7W**)	9.4W (10W**)	13.3W (14W**)
Delivered lumens (L ₁₀₀)	407	517	697	488	669	905
Lumens per circuit watt	81	74	70	69	66	64
CRI (Typ)	85			93		
Forward voltage (V ₁₀₀)	14V			18V		
Colour consistency	2 SCDM			2 SCDM		
Peak intensity	6749 cd			3622 cd		
LED Lumens	840lm			1393lm		
LOR	0.83			0.73		
TM30	RF85.5	RG98.1		RF92.1	RF100.1	
UGR	11.1			13.9		
LED lifetime	L90B5 at 90,000hrs					
Applications						

These values are based around a LD1083-E3-700-LW30-NB & LD1083-N1-700-LW30-MSB

*see lumen variance table to the right for N1 engine. E3 lumens apply across all colour temperatures

**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° to 35° (700mA) or -20° to 40° (500mA) or -20° to 55° (350mA)
Glass	1mm thick low iron glass
Materials	Anodised aluminium body, stainless steel bezel and constant force spring clips
Weight of product	0.394kg
IP rating	IP67
Wiring	In-series constant current wiring (Pre-wired with 2 core cable at a length of 350mm - can be specified up to 10 metres)

AVAILABLE FINISHES

Please refer to our finishes guide for full details



316 STAINLESS STEEL

- > Marine grade 316 Stainless Steel
- > Standard machined finish
- > Extremely durable
- > Passivation recommended for marine environments to prevent corrosion and build up of brown stains caused by oxidation
- > Interior & exterior use



POLISHED & PASSIVATED 316 STAINLESS STEEL

- > Marine Grade 316 Stainless Steel
- > Pristine mirror like finish
- > Recommended for pools and marine applications
- > Extremely durable with very high corrosion resistance
- > Passivated to extensively prolong resistance to corrosion and brown stains caused by oxidation in marine environments
- > Interior & exterior use

PAINT FINISH - POWDER COAT

- > The powder coated finish is very matt
- > Not recommended for high traffic in-ground applications, unless placed to one side where the bezel will not be walked on
- > Powder coat paint is generally used on stainless steel or anodised aluminium components
- > Interior and exterior use



WHITE (RAL 9016)



BLACK (RAL 9005)



CLASSIC BRONZE (YM262E)



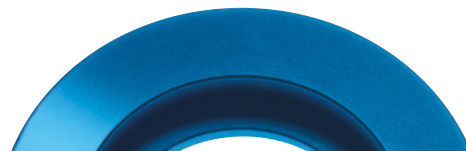
TEXTURED MARS BRONZE



TEXTURED FIR GREEN (RAL 6009)



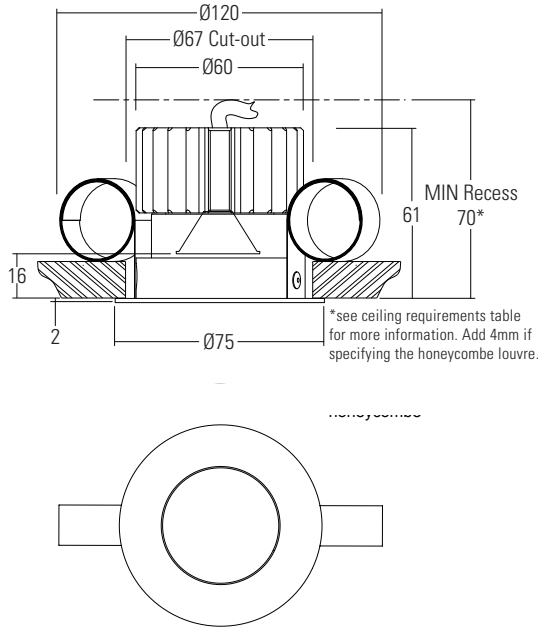
GUNMETAL GREY (RAL 7021)



RAL

DIMENSIONS

Supplied as standard with spring clips, which are suitable for use in surfaces with a thickness of 1mm – 23mm. Spring clips provide a simple, single fix mounting method.



ACCESSORIES

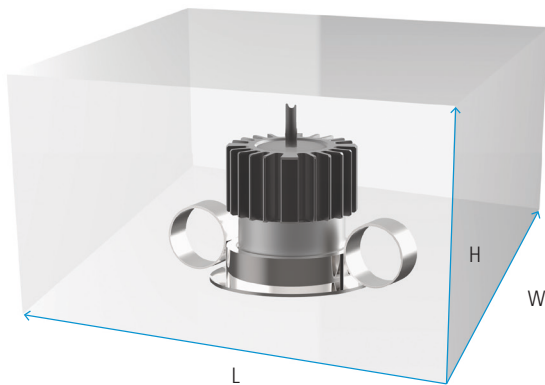
/HL Honeycomb Louvre

Honeycomb louvre for reduced glare from all angles. Please note this will increase the height of the fitting by 4mm.



CEILING VOID REQUIREMENTS

Installation requirements can vary but the minimum installation volume requirements must be adhered to. The volume of air within the void ensures that the thermal performance of the product is not compromised and that proper cooling of the LED can take place. The minimum void height is 70mm.



E3 LED			
Output current	Minimum void dimension requirements (Lmm x Wmm x Hmm)	Minimum void volume	
		cm ³	Litre(s)
350mA / 500mA	120 x 120 x 70 (74 with /HL)	1008cm ³	1
700mA	150 x 150 x 70 (74 with /HL)	1575cm ³	1.5

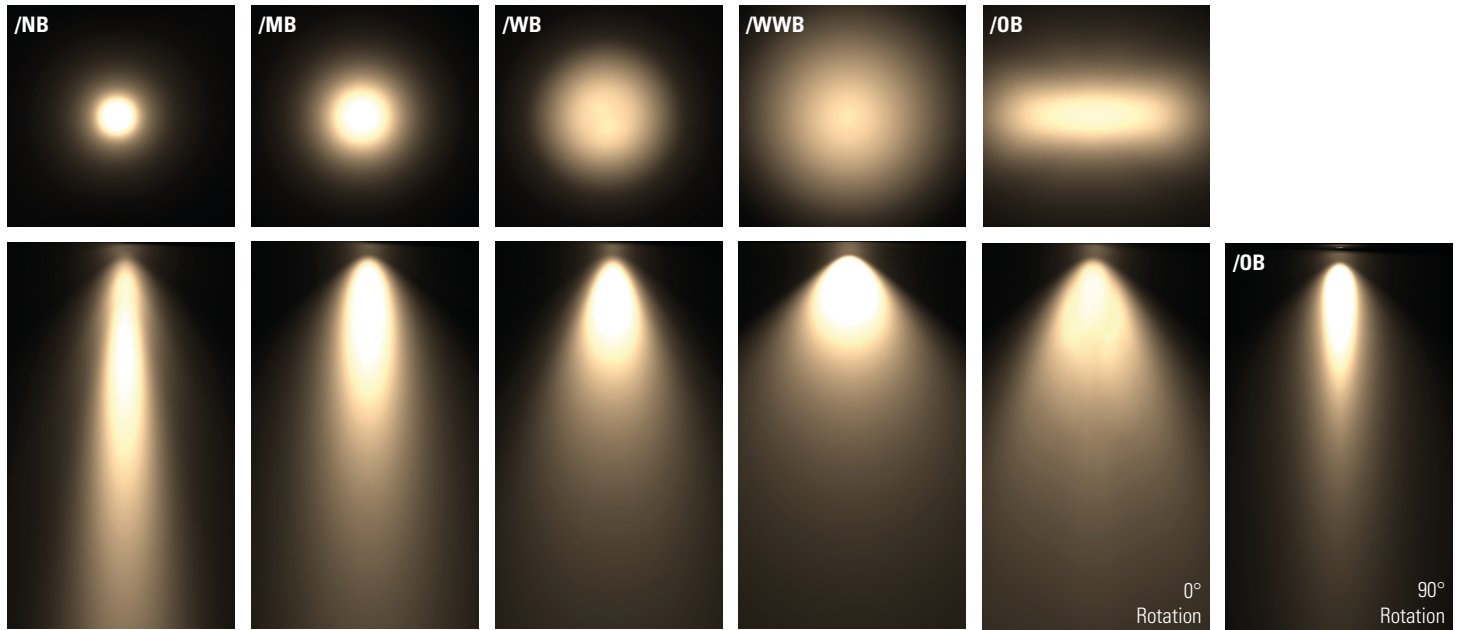
N1 LED			
Output current	Minimum void dimension requirements (Lmm x Wmm x Hmm)	Minimum void volume	
		cm ³	Litre(s)
350mA	120 x 120 x 70 (74 with /HL)	1008cm ³	1
500mA	140 x 140 x 70 (74 with /HL)	1372cm ³	1.3
700mA	200 x 200 x 70 (74 with /HL)	2800cm ³	2.8

Note: At 700mA the minimum dimension between a wall, within the ceiling void and the edge of the fitting must be 70mm.

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 LD1083 product page on the website.



Narrow Beam
700mA using a 12° optic

Distance (m)	Luminance (lx)	
0.5	0.13	27161
1.0	0.26	6790
1.5	0.39	3018
2.0	0.53	1698
2.5	0.66	1086
3.0	0.79	754

Cone Width (m)

Medium Beam
700mA using a 19° optic

Distance (m)	Luminance (lx)	
0.5	0.19	14174
1.0	0.38	3543
1.5	0.57	1575
2.0	0.76	886
2.5	0.94	567
3.0	1.13	394

Cone Width (m)

Wide Beam
700mA using a 34° optic

Distance (m)	Luminance (lx)	
0.5	0.28	6856
1.0	0.55	1714
1.5	0.83	762
2.0	1.10	428
2.5	1.38	274
3.0	1.65	190

Cone Width (m)

Extra Wide Beam
700mA using a 54° optic

Distance (m)	Luminance (lx)	
0.5	0.56	2781
1.0	1.11	695
1.5	1.67	309
2.0	2.23	174
2.5	2.78	111
3.0	3.34	77

Cone Width (m)

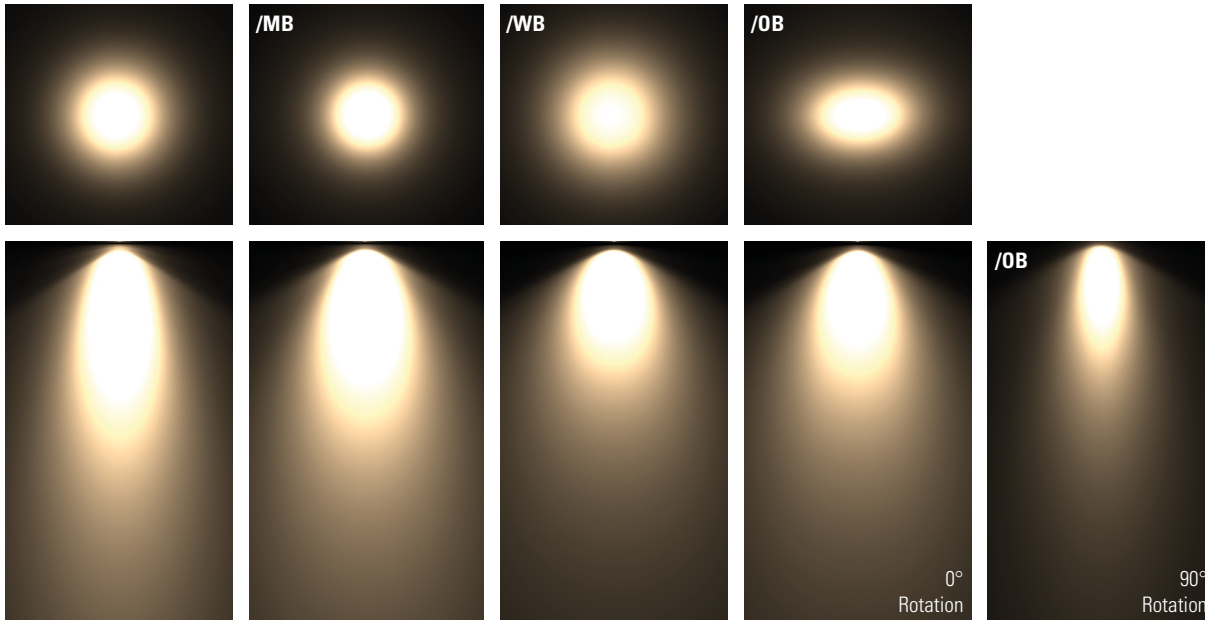
Oval Beam
700mA using a 12° X 49° optic

Distance (m)	Luminance (lx)	
0.5	0.14 / 0.41	9159
1.0	0.28 / 0.82	2290
1.5	0.43 / 1.24	1018
2.0	0.57 / 1.65	572
2.5	0.71 / 2.06	366
3.0	0.85 / 2.47	254

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 LD1083 product page on the website.



Medium Spot Beam
700mA using a 25° optic

Distance (m)	Luminance (lx)	
0.5	0.23	13095
1.0	0.46	3274
1.5	0.69	1455
2.0	0.92	818
2.5	1.15	524
3.0	1.39	363

Cone Width (m)

Medium Beam
700mA using a 35° optic

Distance (m)	Luminance (lx)	
0.5	0.32	8111
1.0	0.64	2028
1.5	0.96	901
2.0	1.28	507
2.5	1.61	324
3.0	1.93	225

Cone Width (m)

Wide Beam
700mA using a 46° optic

Distance (m)	Luminance (lx)	
0.5	0.43	5346
1.0	0.85	1336
1.5	1.28	594
2.0	1.71	334
2.5	2.13	214
3.0	2.56	148

Cone Width (m)

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

Distance (m)	Luminance (lx)	
0.5	0.19 / 0.39	9119
1.0	0.39 / 0.77	2280
1.5	0.58 / 1.16	1013
2.0	0.78 / 1.54	570
2.5	0.97 / 1.93	365
3.0	1.17 / 2.32	253

Cone Width (m)

ORDER CODES & OPTIONS

Example: LD1083-E3-350 / LW27 / NB / IP67 / 316 Stainless Steel / HL

Light Engine & Drive Current / LED Colour / Beam Angle / Finish / Accessories

LD1083- / / / / /

E3

5W LED at 350mA	LD1083-E3-350
7W LED at 500mA	LD1083-E3-500
10W LED at 700mA	LD1083-E3-700

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
12° x 49° Oval Beam	/OB



N1

7W LED at 350mA	LD1083-N1-350
10W LED at 500mA	LD1083-N1-500
14W LED at 700mA	LD1083-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

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.