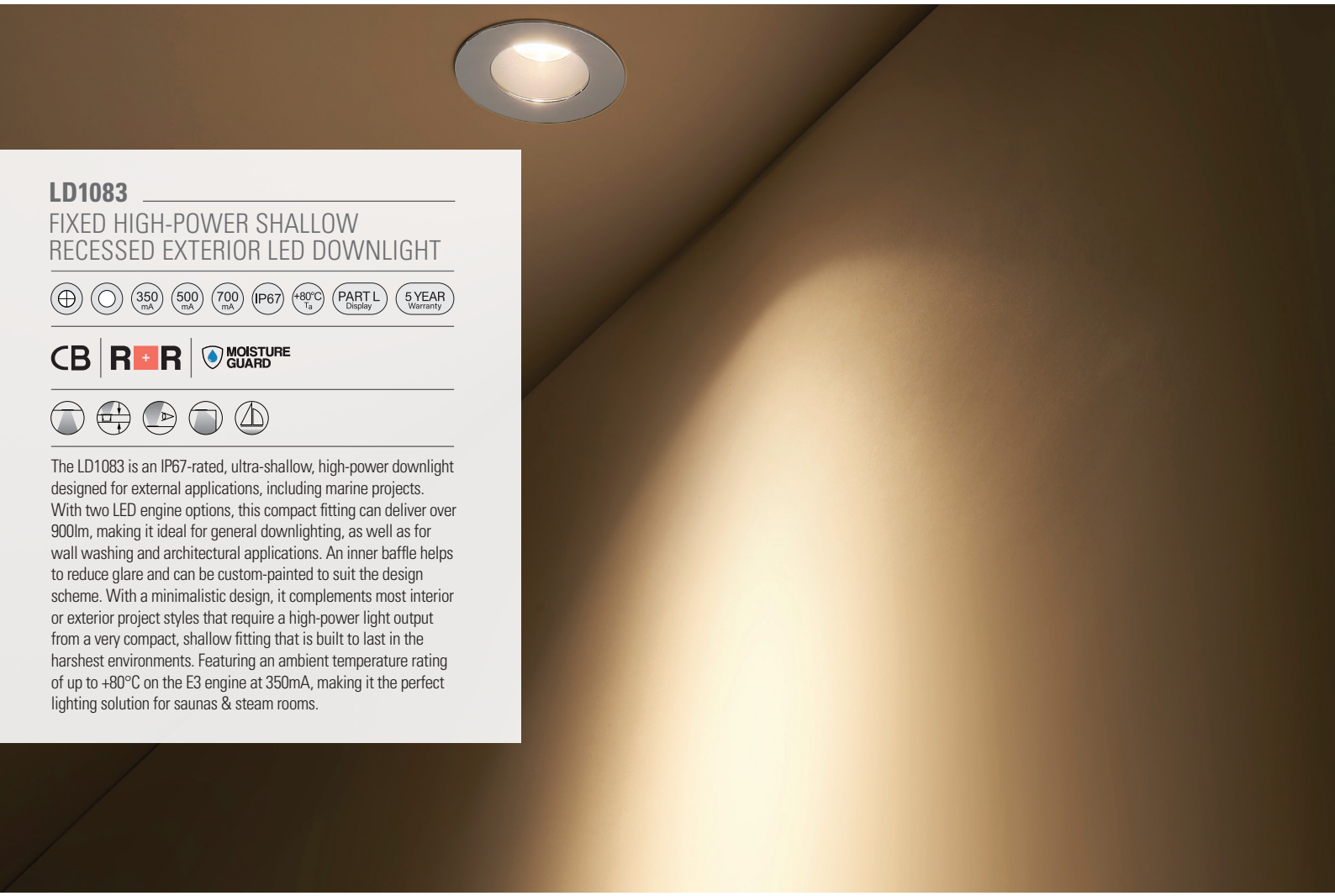


LD1083

FIXED HIGH-POWER SHALLOW RECESSED EXTERIOR LED DOWNLIGHT

350 mA | 500 mA | 700 mA | IP67 | +80°C Ta | PART L Display | 5 YEAR Warranty

CB | R+R | MOISTURE GUARD

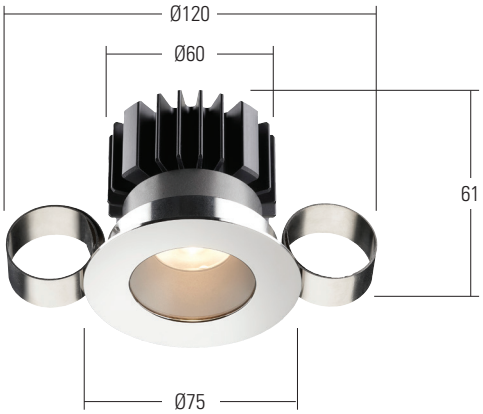
The LD1083 is an IP67-rated, ultra-shallow, high-power downlight designed for external applications, including marine projects. With two LED engine options, this compact fitting can deliver over 900lm, making it ideal for general downlighting, as well as for wall washing and architectural applications. 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. Featuring an ambient temperature rating of up to +80°C on the E3 engine at 350mA, making it the perfect lighting solution for saunas & steam rooms.

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
- Ambient temperature (Ta) up to +80°C on the E3 engine at 350mA ideal for Saunas and Steam Rooms
- 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°, 19°, 34°, 54°, 12° x 49°			25°, 35°, 46°, 22° x 43°		
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	6.4W	9.3W	13.3W
Delivered lumens (L_{100})*	407	517	697	488	669	905
Delivered lm/Circuit W**	92	80	76	76	72	68
Typical LED Source wattage	4W	5.8W	8.3W	5.8W	8.4W	12.0W
Source LED lm	574	740	949	694	937	1264
Source lm/W	144	128	114	120	112	105
Forward voltage (V_{100})	11.3V	11.6V	11.8V	16.6V	16.8V	17.1V
CRI	85			93		
Colour consistency	2SDCM			3SDCM		
Peak intensity	6,749 cd			3,622 cd		
LOR	0.73			0.72		
TM30	RF85.5 | RG98.1			RF92.1 | RG100.1		
UGR rating ('downlight' mounted)***	8.1	8.9	10	11.7	12.8	13.9
BUG rating ('downlight' mounted)	B1- U0 - G0			B1- U0 - G0		
LED lifetime	L90B5 at 90,000hrs			L90B5 at 90,000hrs		
Applications						

These values are based on 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
**LED wattage includes losses assocaited with using a 90% efficient driver
***UGR values based on room parameter of 4H, 8H, C70 W50 F20

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

MECHANICAL

Ambient temperature	E3	-20°C to +80°C (350mA) or -20°C to 40°C (500mA) or -20°C to 35°C (700mA)
	N1	-20°C to 55°C (350mA) or -20°C to 40°C (500mA) or -20°C to 35°C (700mA)
	AUS/NZ	-20°C to 25°C (350mA-500mA)
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)	

ENVIRONMENTAL

TM65	Available on request
TM66	2.7
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.

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

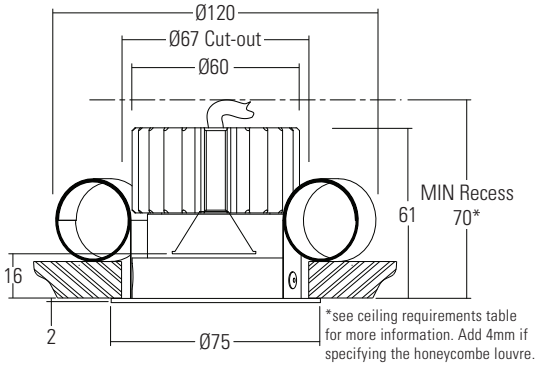
TEXTURED FIR GREEN
(RAL 6009)

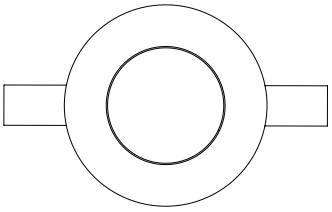
GUNMETAL GREY
(RAL 7021)

RAL COLOURS

DIMENSIONS

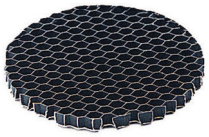
Supplied as standard with spring clips, which are suitable for use in surfaces with a thickness of 1mm – 23mm. Spring clips provide a simple, single fix mounting method.





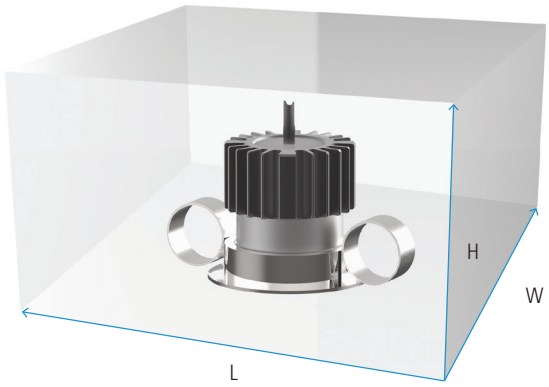
ACCESSORIES

/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

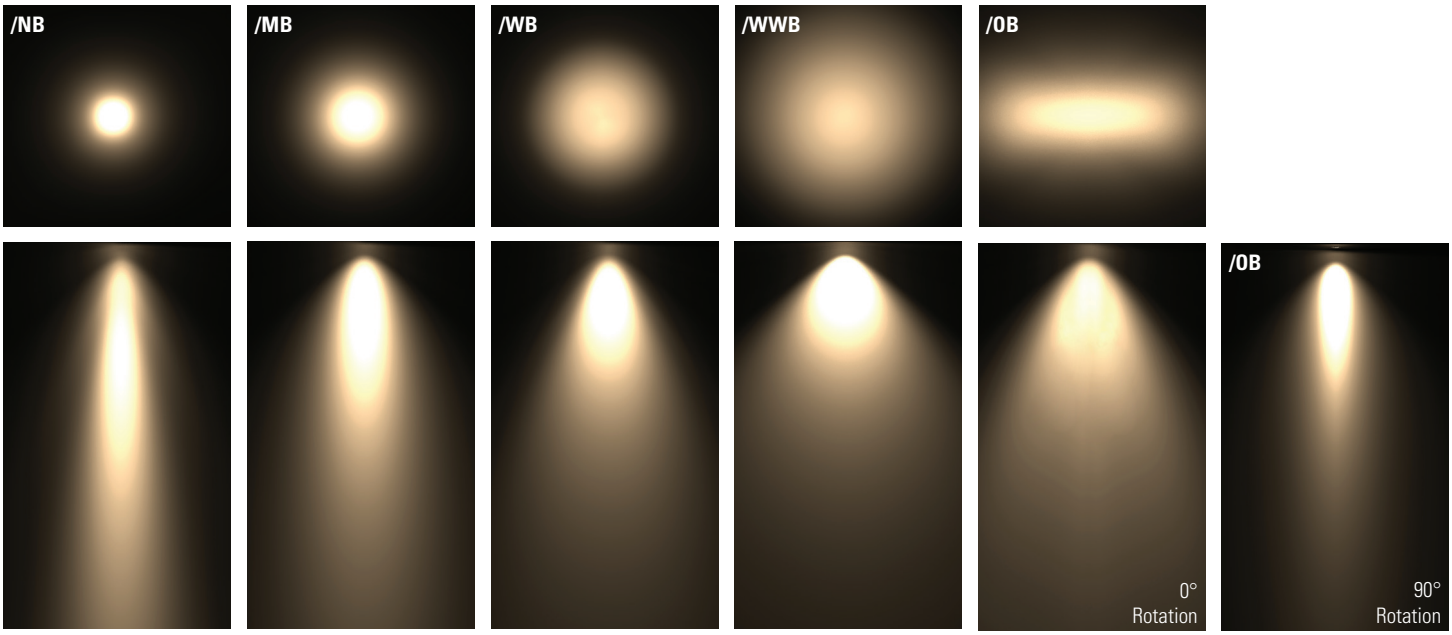
N1 LED			
Output current	Minimum void dimension requirements (Lmm x Wmm x Hmm)	Minimum void volume	
		cm^3	Litre(s)
350mA	120 x 120 x 70 (74 with /HL)	1008cm^3	1
500mA	140 x 140 x 70 (74 with /HL)	1372cm^3	1.3
700mA	200 x 200 x 70 (74 with /HL)	2800cm^3	2.8

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)	Illuminance (lx)
0.5	27161
1.0	6790
1.5	3018
2.0	1698
2.5	1086
3.0	754

Cone Width (m): 0.13 / 0.26 / 0.39 / 0.53 / 0.66 / 0.79

Medium Beam
700mA using a 19° optic

Distance (m)	Illuminance (lx)
0.5	14174
1.0	3543
1.5	1575
2.0	886
2.5	567
3.0	394

Cone Width (m): 0.19 / 0.38 / 0.57 / 0.76 / 0.94 / 1.13

Wide Beam
700mA using a 34° optic

Distance (m)	Illuminance (lx)
0.5	6856
1.0	1714
1.5	762
2.0	428
2.5	274
3.0	190

Cone Width (m): 0.28 / 0.55 / 0.83 / 1.10 / 1.38 / 1.65

Extra Wide Beam
700mA using a 54° optic

Distance (m)	Illuminance (lx)
0.5	2781
1.0	695
1.5	309
2.0	174
2.5	111
3.0	77

Cone Width (m): 0.56 / 1.11 / 1.67 / 2.23 / 2.78 / 3.34

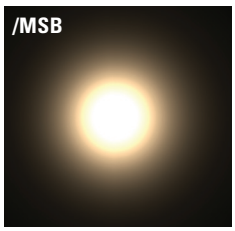
Oval Beam
700mA using a 12° X 49° optic

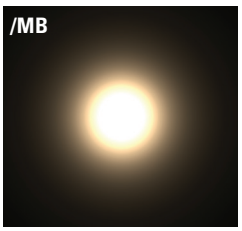
Distance (m)	Illuminance (lx)
0.5	9159
1.0	2290
1.5	1018
2.0	572
2.5	366
3.0	254

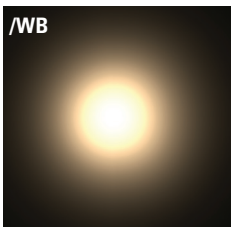
Cone Width (m): 0.14 / 0.41 / 0.28 / 0.82 / 0.43 / 1.24 / 0.57 / 1.65 / 0.71 / 2.06 / 0.85 / 2.47

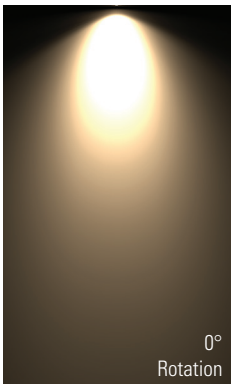
N1 LED Engine

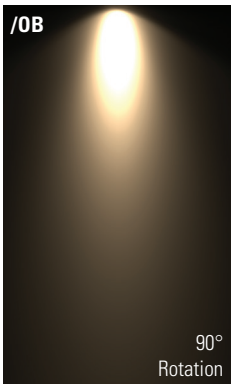
Cone diagrams below are based on a 3000K N1 LED engine run at maximum output 700mA, 14W. Images below represent beam outputs when wall washing a 3m wall, spaced 125mm away from the lit surface. Photometric files (LDT) are included in the design pack which can be downloaded from the LD1083 product page on the website.











Medium Spot Beam
700mA using a 25° optic

Distance (m)		Illuminance (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)		Illuminance (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)		Illuminance (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)		Illuminance (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

E3

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

***AUS/NZ:**
Add - AU - suffix to the product code e.g. LD1083-AU-E3-350

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

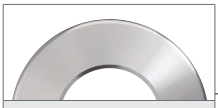
N1

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

***AUS/NZ:**
Add - AU - suffix to the product code e.g. LD1083-AU-N1-350

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
22° x 43° Oval	/OB


316 Stainless Steel


Polished & Passivated 316 Stainless Steel
(for marine environments)


Paint Finish White
(RAL 9016)


Paint Finish Black
(RAL 9005)

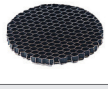

Paint Finish Classic Bronze
(YM262E)


Paint Finish Textured Mars Bronze


Paint Finish Textured Fir Green
(RAL 6009)


Paint Finish Gunmetal Grey
(RAL 7021)


Paint Finish RAL


/HL

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.