

L I A V e r i f i e d S c h e d u l e o f C e r t i f i c a t i o n



Schedule No. : TSD004-0064
Certificate No. : 004-0064
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This Schedule is to be read in conjunction with the accompanying certificate. The data shown relates only to the unit(s) tested. This schedule and any subsequent schedule(s) may not be reproduced except in full without the written approval of the Testing Laboratory.

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1. INTRODUCTION

This Schedule of certification accompanies the certificate identified on page one as part of the LIA Verified scheme for LED products. Assessment is carried out in line with the requirements set out in LIA Laboratories Technical Scheme Document TSD-004.

2. CERTIFICATION STATUS

Final - The products have passed the safety assessment and have achieved 2000 hours of operation as required by the scheme.

3. SCOPE

The products listed in Table 1, supplied by the certificate holder identified on page one have been assessed and are covered under certificate no. 004-0064.

Table 1. Products covered under scope

Model No.	Product Name
SDL-918-840-R01	Cut-out 220mm/Dia. 240mm Slim base, White, Round, Side Lit
SDL-815-840-R01	Cut-out 200mm/Dia. 225mm Slim base, White, Round, Side Lit
SDL-712-840-R01	Slim Base 7" Downlighter 12W Cool White
SDL-609-840-R01	Slim Base 6" Downlighter 9W
SDL-405-810-R01	Cut-out 105mm/Dia. 120mm Slim Base Downlighter
SDL-303-840-R01	Cut-out 90mm/Dia. 110mm Slim base downlighter



4. DOCUMENTATION

As part of the assessment process the following documents have been evaluated and form part of the Technical File held by the certificate holder and LIA Laboratories Ltd. It should be noted that in order to maintain certification the certificate holder is required to maintain up to date technical documentation related to all the products identified in section three of this schedule.

All client documentation held by LIA Laboratories Ltd is maintained as strictly confidential.

Table 2. Critical Documents

Document reference	Title/Description
FI-9533	CB Test Certificate
FI-34346	CB Test Certificate
SDL01Manual	Installation Guide
SDL-R01	Marking

5. OBSERVATIONS AND LIMITATIONS

When installed in accordance with the manufacturer's instructions, this product is deemed to comply with the specified end use.



APPENDIX A

PRODUCT TECHNICAL SPECIFICATIONS

A.1. SDL-915-840-R01

A.1.1. PRODUCT DETAILS

Table A.1 Product Specifications

Product Name	Cut-out 220mm/Dia. 240mm Slim base, White, Round, Side Lit
Model No.	SDL-915-840-R01
Product Description	Cut-out 220mm/Dia. 240mm Slim base, White, Round, Side Lit
Nominal Dimensions	∅ – 240mm; H – 12mm
Product Supply Requirement	220-240V AC, 50/60Hz
Lamp Type and Power	LED, 12W



Figure 1. Product Images

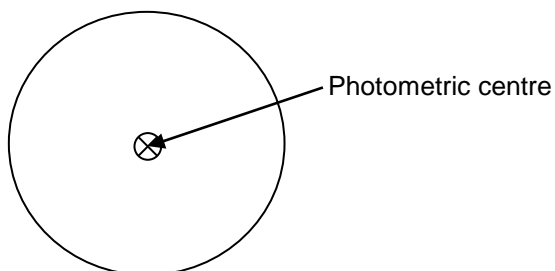


Figure 2. Product diagram

A.1.2. SAFETY EVALUATION

Safety assessment was carried out in accordance with the requirements set in LIA Laboratories' technical scheme document TSD-004, the clauses verified are shown in Table 2 and have been evaluated against IEC 60598-1:2008 and IEC 60598-2-2:2011.

The product has been found to conform to the requirements laid out in the identified clauses.

Table A.2 Safety Test Results

Clause No.	Title
2.6	Marking
2.7	Construction
2.8	Creepage distances and clearances
2.12	Protection against electric shock
2.13	Thermal test only
2.14	Resistance to dust and moisture (IP65)
2.15	Insulation Resistance and Electric Strength, Touch Current and Protective Conductor Current

A.1.3. CENTRE BEAM INTENSITY AND BEAM ANGLE

Table A.3 *Beam Angle value for SDL-915-840-R01*

Centre Beam Intensity (cd)	Beam Angle (<i>Lamp orientation</i>)	Beam Angle Result (°)
507.034	0° - 180°	109.9
	90° - 270°	109.5

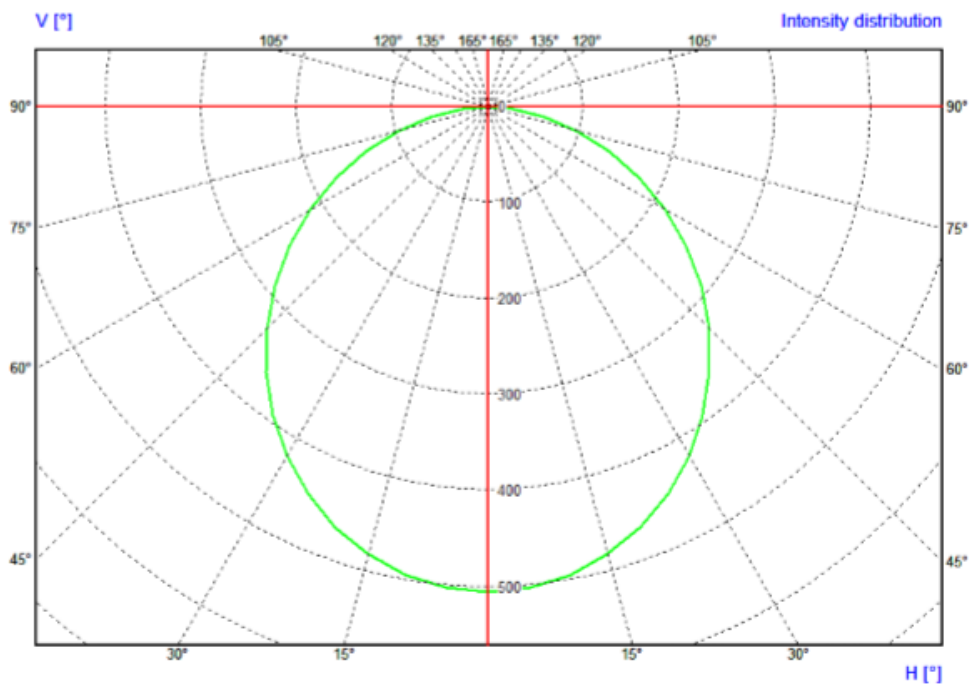


Figure 3. *Polar Diagram for SDL-915-840-R01*

A.1.4. COLORIMETRY

Table A.4 Colorimetry values for SDL-915-840-R01

COLORIMETRY & LUMINOUS FLUX	x coordinate	0.3908
	y coordinate	0.3874
	u' coordinate	0.2277
	v' coordinate	0.5077
	Correlated Colour Temperature (K)	3811
	Ra (%)	81
	R1 (%)	79
	R2 (%)	89
	R3 (%)	96
	R4 (%)	78
	R5 (%)	78
	R6 (%)	84
	R7 (%)	84
	R8 (%)	60
	R9 (%)	0
	R10 (%)	73
	R11 (%)	75
	R12 (%)	56
R13 (%)	82	
R14 (%)	98	
Lumen Output (lm)	1422	

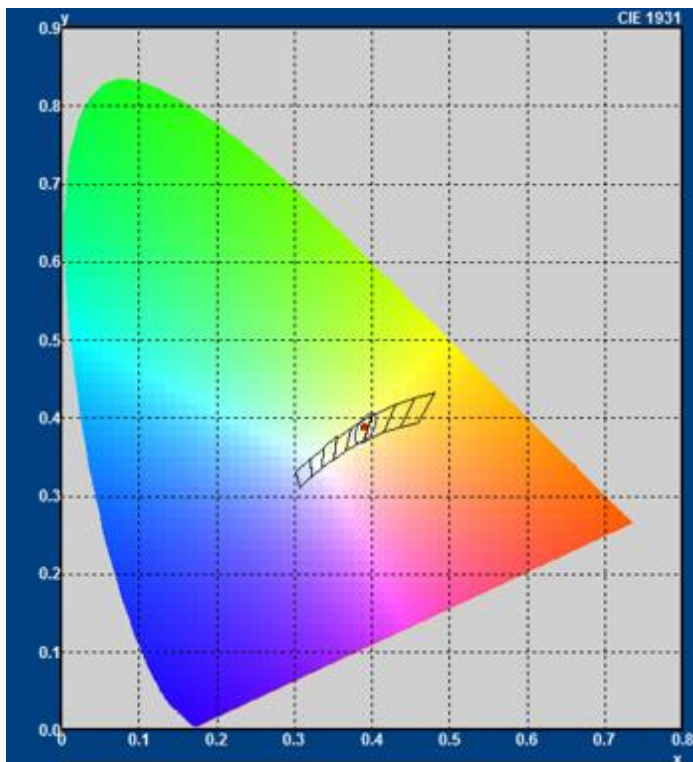


Figure 4. CIE 1931 diagram for SDL-915-840-R01

A.1.5. LIFE TEST

Table A.5 Colorimetry depreciation of SDL-915-840-R01

Measured Value	0 hours	100 hours	% Maintained (0-100hrs)	2000 hours	% Maintained (0-2000hrs)
Correlated Colour Temperature (K)	3811	3847	100.9	3794	99.6
Ra (%)	81	81	100.0	81	100.0
Luminous Flux (lm)	1422	1449	101.8	1568	110.3
Luminous Efficacy (lm/W)	96.9	99.4	102.6	107.2	107.3

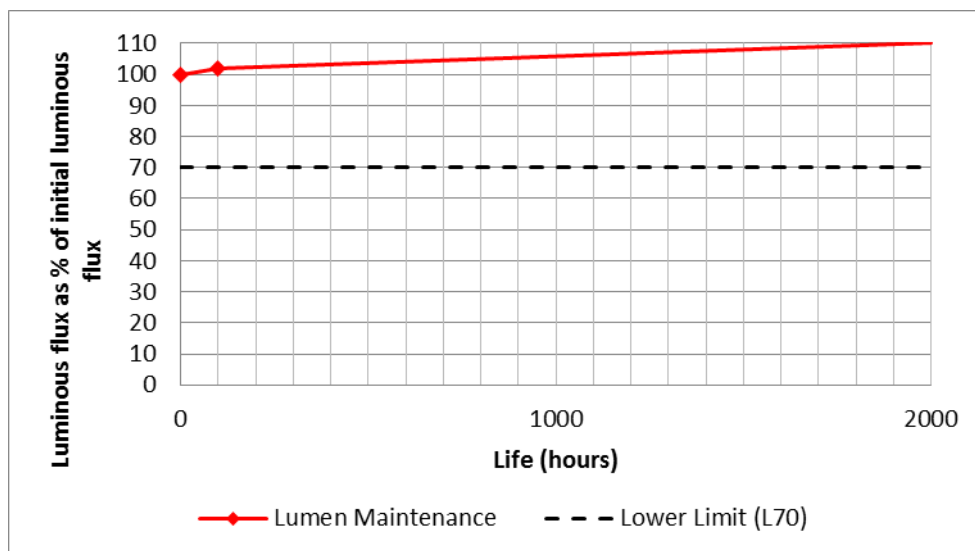


Figure 5. Luminous flux depreciation curve for SDL-915-840-R01

End