

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. : TSD004-0055 (Issue 1)
Certificate No. : 004-0055
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**Date of Initial
Registration** : 23/01/2018
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Nmac

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. 004-0055.

Table 1. Products covered under scope

Model No.	Product Name
NE.AN48.IND.1200	1200mm Andromeda Cove



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 of 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
D001	NMAC-Label
D002	Product Labels LIA
D003	Andromeda Wall Cove Bill of Materials
D004	NMAC-Installation-sheet
D005	NDRV-CSB technical specifications
HLG-240H-SPEC	HLG 240W Data Sheet
R 50202561	TUV LED driver safety test certificate
PV159 Final Report	LIA test report

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. 1200mm Andromeda Cove

A.1.1. PRODUCT DETAILS

Table A.1 *Product Specifications*

Product Name	1200mm Andromeda Cove
Model No.	NE.AN48.IND.1200
Product Description	1200mm Andromeda Cove
Nominal Dimensions	L – 1235mm; H – 60mm; W – 60mm
Product Supply Requirement	220-240V AC, 50/60Hz
Lamp Type and Power	LED, 25W



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 60598-1:2014 and IEC 60598-2-1:1979.

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
1.3	Marking
1.4	Construction
1.8	Protection against Electric Shock
1.10.2	Insulation Resistance and Electric Strength, Touch Current and Protective Conductor Current
1.11	Creepage Distances and Clearances
1.12.4	Thermal test only

A.1.3. CENTRE BEAM INTENSITY AND BEAM ANGLE

Table A.3 *Beam Angle value for model NE.AN48.IND.1200*

Centre Beam Intensity (cd)	Beam Angle (Lamp orientation)	Beam Angle Result (°)
998	0° - 180°	108.6
	90° - 270°	109.0

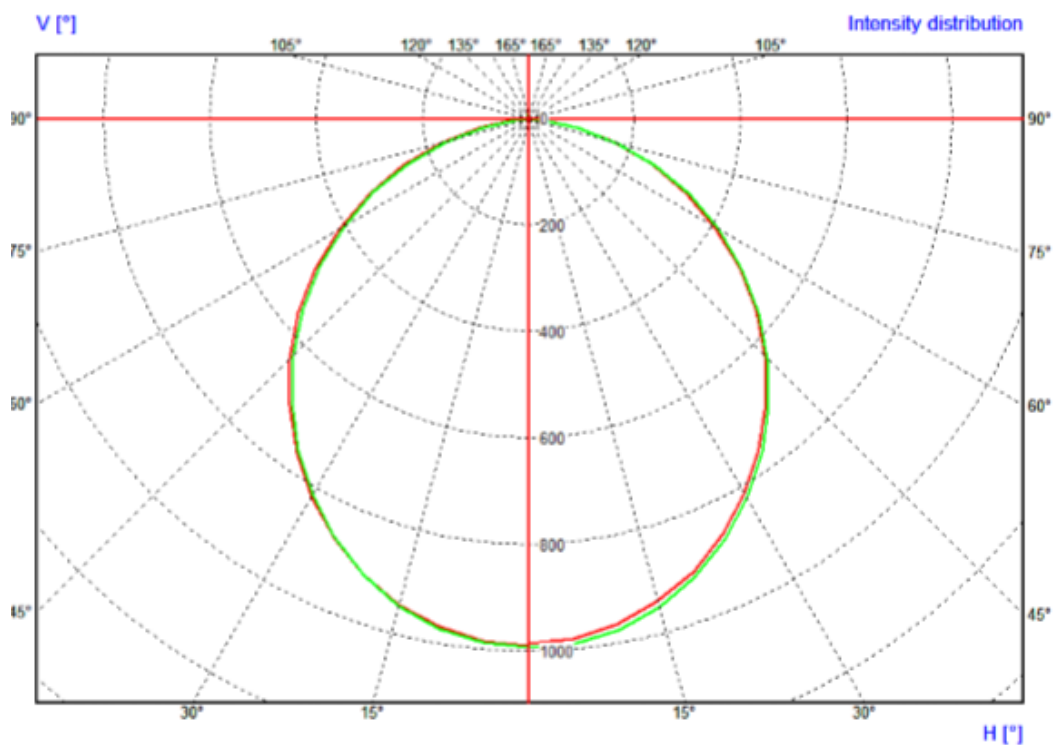


Figure 3. *Polar Diagram for model NE.AN48.IND.1200*

A.1.4. COLORIMETRY

Table A.4 *Colorimetry values for model NE.AN48.IND.1200*

COLORIMETRY & LUMINOUS FLUX	x coordinate	0.4005
	y coordinate	0.3863
	u coordinate	0.2344
	v coordinate	0.3391
	u' coordinate	0.2344
	v' coordinate	0.5087
	Dominant Wavelength (nm)	583.0
	Purity (%)	40.0
	Correlated Colour Temperature (K)	3571
	Ra (%)	85.4
	R1 (%)	84.4
	R2 (%)	92.9
	R3 (%)	96.4
	R4 (%)	84.1
	R5 (%)	85.0
	R6 (%)	90.7
	R7 (%)	85.1
	R8 (%)	65.0
	R9 (%)	16.7
	R10 (%)	83.4
R11 (%)	84.0	
R12 (%)	72.9	
R13 (%)	86.6	
R14 (%)	98.7	
Lumen Output (lm)*	2731	

* The value for absolute lumen output was obtained from the LMT Goniophotometer

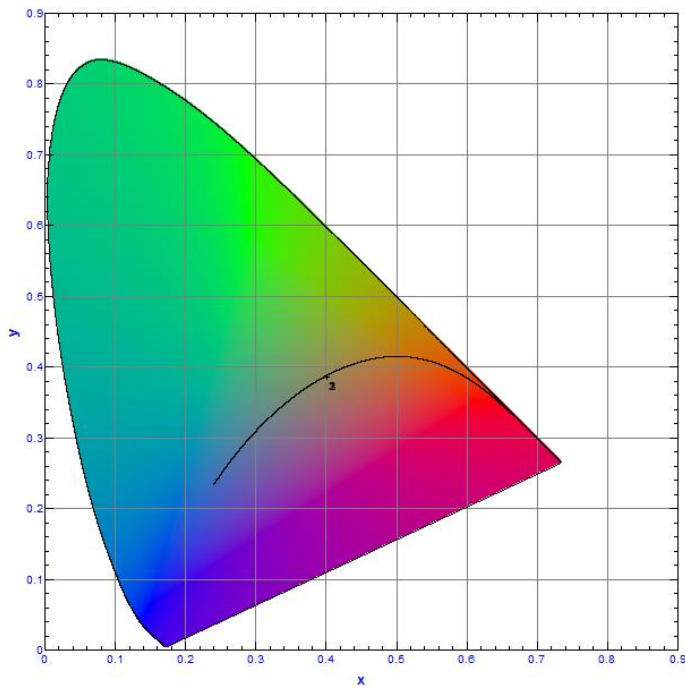


Figure 4. CIE 1931 diagram for model NE.AN48.IND.1200

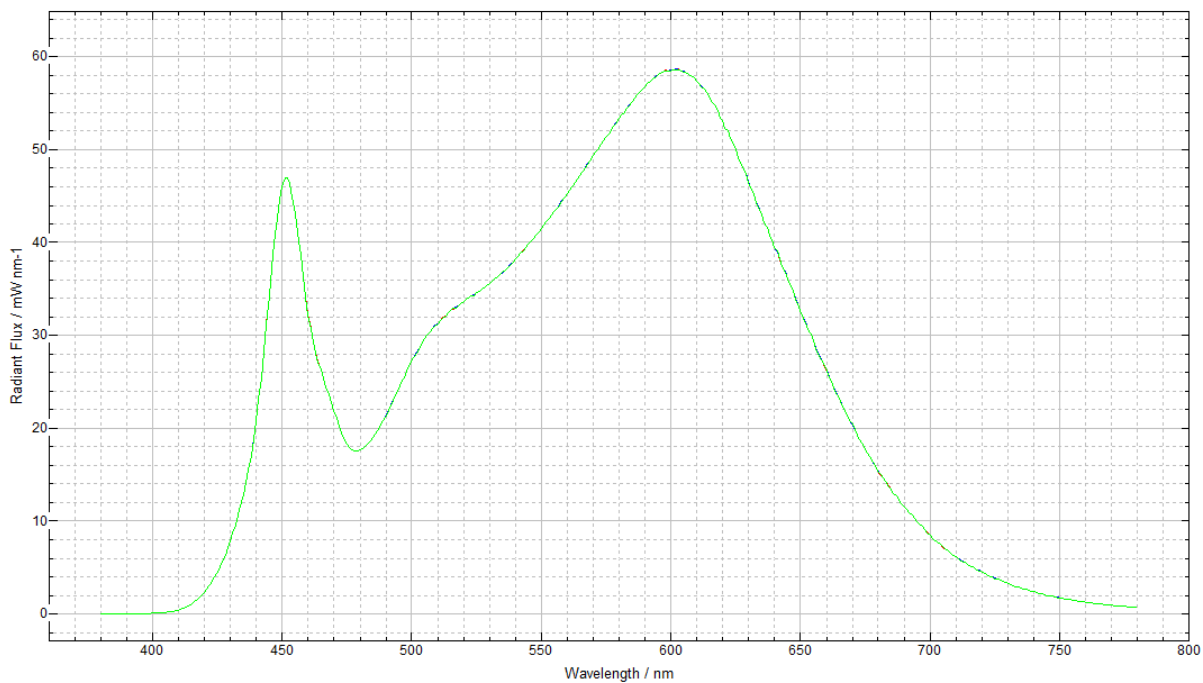


Figure 5. Spectral Flux for model NE.AN48.IND.1200

A.1.5. LIFE TEST

Table A.5 *Colorimetry depreciation of model NE.AN48.IND.1200*

Measured Value	0 hours	100 hours	% Maintained (0-100hrs)	2000 hours	% Maintained (0-2000hrs)
Correlated Colour Temperature (K)	3571	3560	99.7	3554	99.5
Ra (%)	85.4	85	99.5	84.0	98.4
Luminous Flux (lm)	2731	2754	100.8	2880	105.5
Luminous Efficacy (lm/W)	82.8	82.0	99.0	86.0	103.9

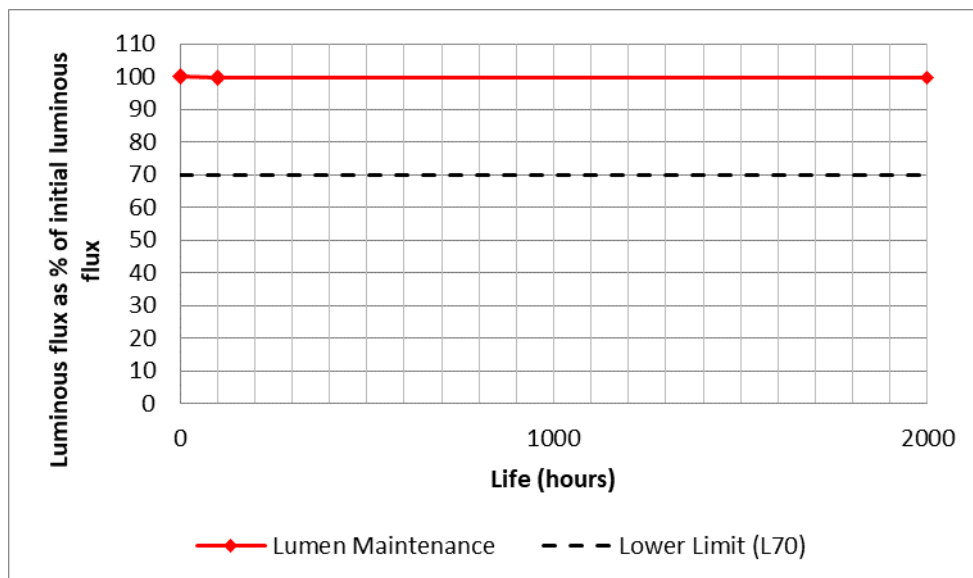


Figure 6. *Luminous flux depreciation curve for model NE.AN48.IND.1200*

END