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.	:	TSD004-0030 (Issue 2)
Certificate No.	:	004-0030
Certificate Holder:	:	LED Hero 2-7 Ebor Court Retford Nottinghamshire DN22 7WF
Web:	:	www.ledhero.co.uk
Date of Initial Registration	:	12/02/2016
Date of Issue	:	25/03/2016
Date of Expiry	:	11/02/2019

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.

Registered Office: Stafford Park 7, Telford, Shropshire, TF3 3BQ, United Kingdom
Tel: +44 (0) 1952 290907 **Fax:** +44 (0) 1952 290908 **Email:** lab@thelia.org.uk
Web: www.lialab.org.uk
Web: www.lialabcert.org.uk

Contents

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

Provisional - The products have passed the safety assessment and have achieved 100 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. 004-0030.

Table 1. ***Products covered under scope***

Model No.	Product Name
SM-204CWF	LED Hero Panel

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
70.402.15.623.01-01TRF_GS_CE	IEC 60598-2-2 Test Report
70.402.15.623.01-01CERT_GS_E	TUV Certificate, No. Z1A 16 01 83433 017
70.402.15.623.01-01CERT_CE	TUV Attestation of Conformity, No. N8 16 01 83433 015
70.402.15.623.01-01CDF_GS_CE	TUV Data form for electrical equipment and machinery
70.888.15.623.01CERT_CE	EMC Attestation of Compliance, No. E8N 16 01 83433 018
70.402.14.293.02-02	TUV Test Report – Ecodesign Requirement for LED Module
70.402.14.293.02-02 Attachment 1	TUV Test Report – Energy Labelling for Electrical Lamps and Luminaires
PV132 Interim Report	LIA Laboratories Interim Test Report

5. OBSERVATIONS AND LIMITATIONS

When installed in accordance with the manufacturer's instructions, all products are deemed to comply with the specified end use.

APPENDIX A

PRODUCT TECHNICAL SPECIFICATIONS

A.1. LED PANEL, Model No. SM-204CWF

A.1.1. PRODUCT DETAILS

Table A.1 ***Product Specifications***

Product Name	LED Hero Panel
Model No.	SM-204CWF
Product Description	600x600 LED Panel
Nominal Dimensions	L. 595mm; W. 595mm; H. 18mm
Product Supply Requirement	200-240V AC 50/60Hz
Lamp Type and Power	LED 40W

Figure 1. ***Product Images***

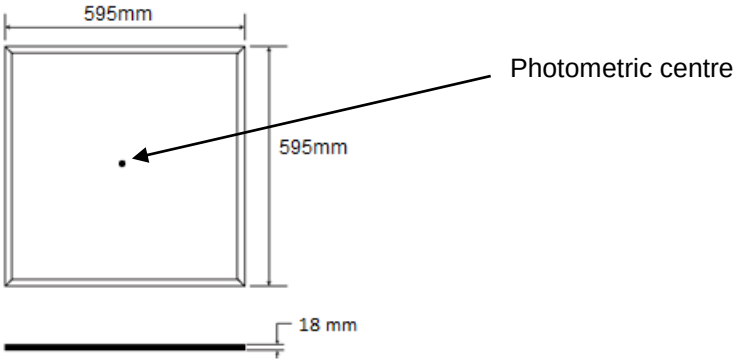

Figure 2. ***Product diagram***

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 60598-2-2:2012.

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
2.12	Protection against Electric Shock
2.15	Insulation Resistance and Electric Strength, Touch Current and Protective Conductor Current
2.8	Creepage Distances and Clearances
2.13	Thermal Test Only (Normal Operation)

A.1.3. COLORIMETRY

Table A.3 ***Colorimetry values for LED Panel, SM-204CWF***

COLORIMETRY & LUMINOUS FLUX	x coordinate	0.3112
	y coordinate	0.3305
	u coordinate	0.1962
	v coordinate	0.3126
	u' coordinate	0.1962
	v' coordinate	0.4689
	Dominant Wavelength (nm)	503.7
	Purity (%)	0.5
	Correlated Colour Temperature (K)	6577
	Ra (%)	82.6
	R1 (%)	80.3
	R2 (%)	87.1
	R3 (%)	91.0
	R4 (%)	82.1
	R5 (%)	81.2
	R6 (%)	81.5
	R7 (%)	88.1
	R8 (%)	69.3
	R9 (%)	4.0
	R10 (%)	68.8
	R11 (%)	81.2
	R12 (%)	58.2
	R13 (%)	82.3
	R14 (%)	95.3
	Lumen Output (lm)	3351

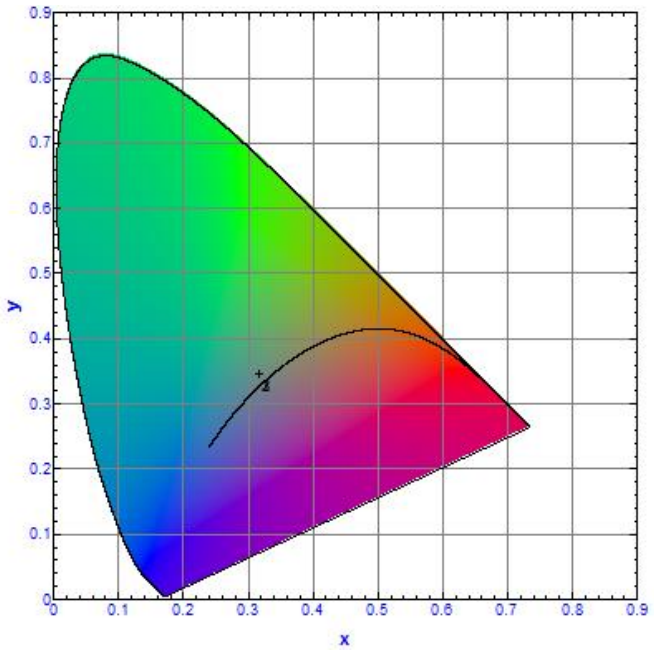

Figure 3. ***CIE 1931 diagram for LED Panel, SM-204CWF***

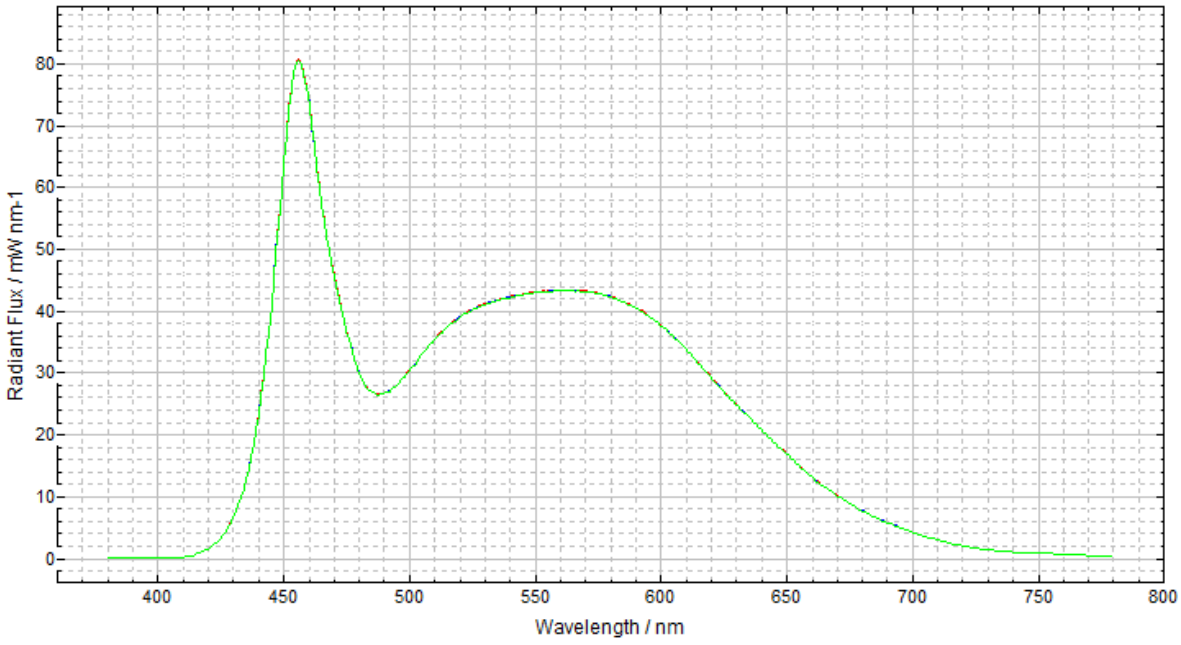

Figure 4. ***Spectral Irradiance for LED Panel, SM-204CWF***

A.1.4. LIFE TEST

Due to identical critical components used in this model, the life assessment was carried out as a family variant. Life testing was conducted on the LED Panel, Model No. DW-204CWF.

Table A.4 ***Colorimetry depreciation of LED Panel, DW-204CWF***

Measured Value	0 hours	1000 hours	% Maintained (0-1000hrs)	2000 hours	% Maintained (0-2000hrs)
Correlated Colour Temperature (K)	6211	6475	104.3	6419	103.3
Ra (%)	81.7	82.0	100.4	82.0	100.4
Luminous Flux (lm)	2816	2871	102.0	2937	104.3
Luminous Efficacy (lm/W)	72.6	73.6	101.4	75.2	103.6

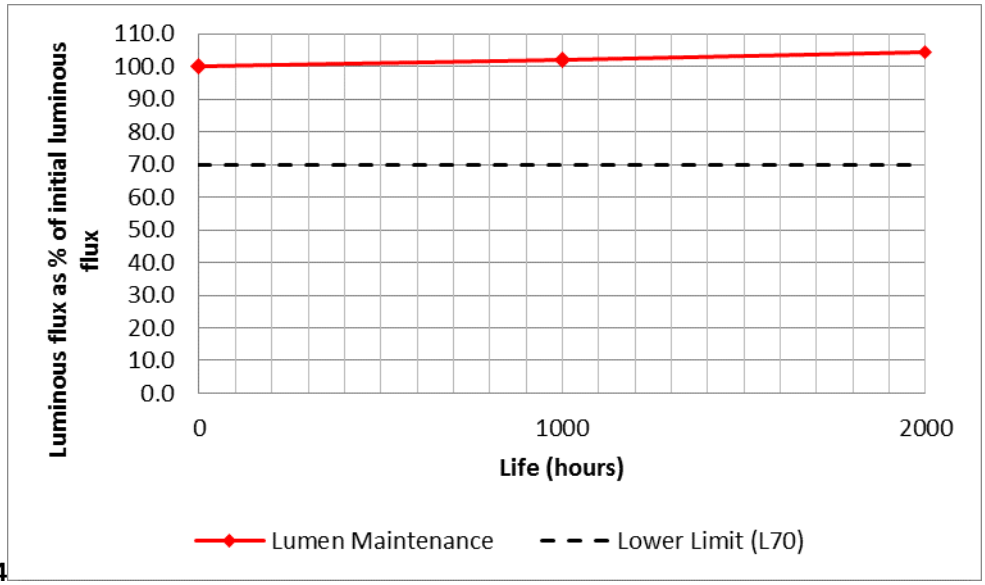

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Figure 5. ***Luminous flux depreciation curve for LED Panel, DW-204CWF***

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