FIRE CLASSIFICATION TEST REPORT

EN 13501-1:2007 +A1:2010

For

LED FLANEL CURTAIN LIGHTING

Model: STAR01, STAR03, STAR04, STAR05, STAR06, STAR07, STAR08, STAR08A, STAR15, STAR16, STAR17, STAR18

Brand Name: LEDJ

Report No.: ENC140513GZ53E1

Date of Issue: May 26, 2014

Prepared For

Prolight Concepts Ltd

Perseverance Mill, Olive Lane, Darwen, Lancashire BB3 3DQ (UK)

TEL: +44 (0) 1254 704111

FAX: +44 (0) 1254 704333

Prepared By

East Notice Certification Service Co., Ltd.

1/F, Haohui Commercial Building, Zhuji Street, Dongpu Town, Tianhe District, Guangzhou City, China

TEL: 86-020-2331 4234

FAX: 86-020-8256 8534

GENERAL INFORMATION:

Product Description:	LED FLANEL CURTAIN LIGHTING
Model Number:	STAR01, STAR03, STAR04, STAR05, STAR06, STAR07, STAR08, STAR08A, STAR15, STAR16, STAR17, STAR18
Model Difference:	All models use the same materials as STAR03
Brand Name:	LEDJ
Applicant:	Prolight Concepts Ltd
	Perseverance Mill, Olive Lane, Darwen, Lancashire BB3 3DQ (UK)
Manufacturer:	Prolight Concepts Ltd
	Perseverance Mill, Olive Lane, Darwen, Lancashire BB3 3DQ (UK)
Report No.:	ENC140513GZ53E1
Test Requested:	EN 13501-1:2007+A1:2010 Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests, Class B
Test Results:	See attached sheet
Sample Receiving Date:	May 13, 2014
Test Performing Date:	May 13, 2014 – May 26, 2014

Checked By Yemig

Yemig May 26, 2014

Authorized By Ray Zhou

Ray Zhou May 26, 2014

I. Test conducted

This test is conducted as per EN 13501-1:2007+A1:2010 Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests. And the test methods as following:

1. EN 13823:2010 Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item.

2. EN ISO 11925-2:2010+A1:2011 Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 2: Single-flame source test.

II. Details of classified product

a) Nature and end use application

The product “LED FLANEL CURTAIN LIGHTING” is defined as a stage Lighting. Its classification is valid for the following end use application:

a) “Stage Lighting”

b) Description

The product “LED FLANEL CURTAIN LIGHTING” is consists of LED lamp and fire rated FLANEL CURTAIN. The details of the tested specimen given below have been prepared from information provided by the sponsor of the test. All values quoted are nominal, unless tolerances are given.

General description	LED FLANEL CURTAIN LIGHTING
Trade name / product reference	LEDJ
Name of manufacturer	Prolight Concepts Ltd
Color	Black/White
End use	Stage background

III. Test results

Test method	Parameter	Number of tests	Results
EN 13823	FIGRA (W/s)	3	19.1
	LFS < edge of specimen		Yes
	THR_{600s} (MJ)		5.2
	SMOGRA (m^2/s^2)		18.7
	TSP_{600s} (m^2)		16.9
	Flaming particles or droplets		No

Test method	Parameter	Number of tests	Results
EN ISO 11925-2 Exposure = 30 s	FIGRA (W/s)	3	11.5
	LFS < edge of specimen		No

IV. Classification and direct field of application

This classification has been carried out in accordance with EN 13501-1:2007+A1:2010.

a) Classification

The product, “LED FLANEL CURTAIN LIGHTING”, classification is as following:

Fire behaviour	Smoke production		Flaming droplets	
B	**S**	**1**	**d**	**0**

CLASSIFICATION: B; S1; d0

Remark: The classes with their corresponding fire performance are given in annex A.

This classification is valid for the following product parameters:

---Characteristics are described in Annex A of this test report

Statement: The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

Warning: This classification report does not represent type approval or certification of the product.

The test laboratory has, therefore, play no part in sampling the product for the test, although it holds appropriate references to the manufacturer's factory production control that is aimed to be relevant to the samples tested and that will provide for their traceability.

Annex A

Classes of reaction to fire performance for construction products excluding floorings and linear pipe thermal insulation products

Class	Test method(s)	Classification criteria	Additional classification
A1	EN ISO 1182 [a] and	ΔT≤30℃, and Δm≤50%, and t_f=0(i.e. no sustained flaming)	--
	EN ISO 1716	PCS≤2.0MJ/kg [a] and PCS≤2.0MJ/kg [b c] and PCS≤1.4MJ/m^2 [d] and PCS≤2.0MJ/kg [e]	--
A2	EN ISO 1182 [a] or and EN ISO 1716	ΔT≤50℃, and Δm≤50%, and t_f≤20 s	--
		PCS≤3.0MJ/kg [a] and PCS≤4.0MJ/m^2 [b] and PCS≤4.0MJ/m^2 [d] and PCS≤3.0MJ/kg [e]	--
	EN 13823	*FIGRA*≤120W/s and *LFS* < edge of specimen and *THR*600s≤7.5MJ	Smoke production [f] and Flaming droplets/particles [g]
B	EN 13823 and	*FIGRA*≤120W/s and *LFS* < edge of specimen and *THR*600sB ≤7.5MJ	Smoke production [f] and Flaming droplets/particles [g]
	EN ISO 11925-2 [i] Exposure =30s	60s *F*s≤150mm	
C	EN 13823 and	*FIGRA*≤250W/s and *LFS* < edge of specimen and *THR*600sC ≤15MJ	Smoke production [f] and Flaming droplets/particles [g]
	EN ISO 11925-2 [i] Exposure=30s	*F*s≤150mm within 60 s	
D	EN 13823 and	*FIGRA*≤750W/s	Smoke production [f] and Flaming droplets/particles [g]
	EN ISO 11925-2 [i] Exposure=30s	*F*s≤150mm within 60 s	

E	EN ISO 11925-2[i] Exposure =15s	*F*s≤150mm within 20 s	flaming droplets/particles[h]
F	No performance determined		

[a] For homogeneous products and substantial components of non-homogeneous products.

[b] For any external non-substantial component of non-homogeneous products.

[c] Alternatively, any external non-substantial component having a PCS ≤ 2,0 MJ/m^2, provided that the product satisfies the following criteria of EN 13823: FIGRA ≤ 20 W/s, and LFS < edge of specimen, and THR_{600s} ≤ 4,0 MJ, and s1, and d0.

[d] For any internal non-substantial component of non-homogeneous products.

[e] For the product as a whole.

[f] In the last phase of the development of the test procedure, modifications of the smoke measurement system have been introduced, the effect of which needs further investigation. This may result in a modification of the limit values and/or parameters for the evaluation of the smoke production.
s1 = SMOGRA ≤ 30m^2/s^2 and TSP_{600s} ≤ 50m^2; s2 = SMOGRA ≤ 180m^2/s^2 and TSP_{600s} ≤ 200m^2;
s3 = not s1 or s2

[g] d0 = No flaming droplets/ particles in EN 13823 within 600 s;
d1 = no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s;
d2 = not d0 or d1.
Ignition of the paper in EN ISO 11925-2 results in a d2 classification.

[h] Pass = no ignition of the paper (no classification);
Fail = ignition of the paper (d2 classification).

[i] Under conditions of surface flame attack and, if appropriate to the end–use application of the product, edge flame attack.

Photo(s) Appendix

Overall View of Sample

---- END OF REPORT ----