

T e s t R e p o r t

Report No : L16474

Client: : Penhale Quantock Ltd
Units 13 - 15 Roughmoor Enterprise Centre
Roughmoor Trading Estate
Williton
Somerset
TA4 4AT

Description : Handrail LED Luminaire

Manufacturer : Not Disclosed

Type/Model : FL-C42-L

Test Specification : BS 4533: SECTION 102.1:1990 / EN 60598-2-1:1989 with BS EN 60598-1:2015 - "UK Deviations Only"

Date Testing Started : 31/05/2017

Conclusion : On the basis of the tests undertaken, the submitted sample is considered to comply with the requirements of the above specification.

Date of Issue : 22/08/2017

Date of Expiry : 21/08/2022

Tested by: A.BOROVY
Position: Laboratory Engineer



Approved: A.SANGI
Position: Technical Lead –
Product Safety



1286

INTRODUCTION

Penhale Quantock Ltd have supplied the product identified in Table 1. for evaluation to the specification detailed on page one of this report.

PRODUCT DETAILS

Table 1. Test Sample Details

Product Description	Handrail LED Luminaire
Model No.	FL-C42-L
Number of Samples	One
Condition on Receipt	Good
Nominal Dimensions	L700mm x W430mm
Classification	Class II IP67 Suitable for mounting on normally flammable surfaces – Normal Use
Product Supply Requirement	24V DC 200mA
Lamp Type and Power	4.8W LED
Sampling Method: Test samples selected and supplied by client, no sampling method specified by client.	

Continued on following page

RESULTS

Table 2. Test Results

CLAUSE	CLAUSE TITLE	RESULTS
1.5	MARKING	Complies
1.6	CONSTRUCTION	Complies
1.7	CREEPAGE DISTANCES AND CLEARANCE	Complies
1.8	PROVISION FOR EARTHING	Not Applicable
1.9	TERMINALS	Complies
1.10	EXTERNAL AND INTERNAL WIRING	Complies
1.11	PROTECTION AGAINST ELECTRIC SHOCK	Complies
1.12	ENDURANCE AND THERMAL TESTS	Complies (see table 3)
1.13	RESISTANCE TO DUST AND MOISTURE	Complies
1.14	INSULATION RESISTANCE AND ELECTRIC STRENGTH TOUCH CURRENT AND PROTECTIVE CONDUCTOR CURRENT	Complies
1.15	RESISTANCE TO HEAT FIRE AND TRACKING	Complies

Continued on following page

Table 3. Thermal results

Measurement Point:	Measure Value	Standard Limit
Ambient (Actual)	25.0°C	Ref
Controlgear Tc	32.7°C	≤85°C
Supply cord	26.2°C	≤90°C
Connector	25.3°C	≤80°C
Output cable from controlgear	34.5°C	≤90°C
LED connector	53.2°C	Ref
Side of LED	61.1°C	Ref
Wiring 10mm from LED module	51.8°C	≤90°C
LED module	48.9°C	Ref
Plastic cover	36.0°C	≤90°C
Metal cover	34.6°C	Ref
Mounting surface	30.8°C	≤90°C

THERMAL TEST

All temperatures are referenced to 25°C ambient. There may be temperatures recorded that are above the standard limit. If, when taking into account the Laboratory's errors and uncertainties, they are within the 5°C allowance on standard limits which is made to take into account the inevitable variability of temperature measurements in luminaires, they are deemed to comply.

Continued on following page

COMPONENTS USED WITHIN THE CONSTRUCTION OF THE LUMINAIRE

Table 4. Critical Components

COMPONENT	MANUFACTURER	MODEL No.	TECHNICAL DATA	APPROVAL BODY
Control gear	Mean Well	PWM-40-24	100-240V~ 0.6A Tc 85°C	NEMKO NO83571
LED module	Footfall Lighting	Continulux 300 V1	24VDC Class III	LIA Tested together with appliance
Wiring	RS Pro	803-4130	0.75mm ² 600/1000V 90°C	Tested with appliance
Wiring	RS Pro	803-4149	0.75mm ² 600/1000V 90°C	Tested with appliance
Sleeves	HAIDA	FT2	600V 125°C HD-1 VW-1	Tested with appliance
Connector	Tyco Electronics Corp.	293545-2	450V 5A 0.75mm ² IP67	DEKRA 2173263.01

Continued on following page

DEVIATION(S) FROM TEST STANDARD

No reported deviations from test standard.

ILLUSTRATION



Figure 1. *Product image*

End