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Report No.: GZEM150900460701  
Page: 1 of 16

## TEST REPORT

The following sample(s) was/were submitted and identified on behalf of the client as:

<b>Application No.:</b>	GZEM1509004607LM
<b>Applicant:</b>	RisingSun Photoelectric Holdings Limited
<b>Manufacturer:</b>	RisingSun Photoelectric Holdings Limited
<b>Factory:</b>	RisingSun Photoelectric Holdings Limited
<b>Product Description:</b>	Led strip light
<b>Model No:</b>	24V SMD2835/60, 24V SMD2835/70, 24V SMD2835/120, 24V SMD2835/140, 24V SMD2835/180, 24V SMD2835/210, 24V SMD2835/240, 24V SMD5630/60, 24V SMD5630/70 ♣
♣	Please refer to section 3 of this report for further details.
<b>Standards:</b>	EN 55015:2013, EN 61547:2009, EN 61000-3-2:2014, EN 61000-3-3:2013.
<b>Date of Receipt:</b>	2015-09-06
<b>Date of Test:</b>	2015-09-07
<b>Date of Issue:</b>	2015-09-16
<b>Test Result:</b>	<b>Pass*</b>

\* In the configuration tested, the EUT complied with the standards specified above.

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.



The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

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## 2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
00		2015-09-16		Original

Authorized for issue by:				
Tested By		 <hr/> <b>(Michael Huang) / Project Engineer</b>		2015-09-07 <hr/> <b>Date</b>
Prepared By		 <hr/> <b>(Karon Yang) / Clerk</b>		2015-09-10 <hr/> <b>Date</b>
Checked By		 <hr/> <b>(Crystal Wang) / Reviewer</b>		2015-09-16 <hr/> <b>Date</b>



### 3 Test Summary

Electromagnetic Interference (EMI)				
Test	Test Requirement	Test Method	Class / Severity	Result
Emissions	EN 55015:2013	EN 55015:2013	Clauses 5.1 & 5.2.2 & 5.11	PASS**
Harmonic Emission on AC	EN 61000-3-2:2014	EN 61000-3-2:2014	Class C	PASS**
Flicker Emission on AC	EN 61000-3-3:2013	EN 61000-3-3:2013	Clause 5 of EN 61000-3-3	PASS
Electromagnetic Susceptibility(EMS)				
Test	Test Requirement	Test Method	Class / Severity	Result
Immunity	EN 61547:2009	EN 61547:2009	Clause 6.2 of EN 61547	PASS**
EUT In this whole report EUT means Equipment Under Test.				
<b>Remark :</b>				
**Please refer to Section 7.1 & 7.2 & 8 of this report for details.				
♣ Model No.: 24V SMD2835/60, 24V SMD2835/70, 24V SMD2835/120, 24V SMD2835/140, 24V SMD2835/180, 24V SMD2835/210, 24V SMD2835/240, 24V SMD5630/60, 24V SMD5630/70				
According to the declaration from the applicant, the electrical circuit design, layout, components used and internal wiring were identical for all models, with only difference being the quantity of LED & resistor, rated power.				
Model No.		Rated power		
24V SMD2835/60		12W		
24V SMD2835/70		13W		
24V SMD2835/120		14W		
24V SMD2835/140		16W		
24V SMD2835/180		18W		
24V SMD2835/210		20W		
24V SMD2835/240		16W		
24V SMD5630/60		14W		
24V SMD5630/70		14.4W		
Therefore only one model <b>24V SMD2835/210</b> was tested in this report.				



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## 5 General Information

### 5.1 Client Information

Applicant: RisingSun Photoelectric Holdings Limited  
Address of Applicant: Huafenggaoxin Industrial Park, No.3 Technolgy Road, Pingshan new District, Shenzhen  
Manufacturer: RisingSun Photoelectric Holdings Limited  
Address of Manufacturer: Huafenggaoxin Industrial Park, No.3 Technolgy Road, Pingshan new District, Shenzhen  
Factory: RisingSun Photoelectric Holdings Limited  
Address of Factory: Huafenggaoxin Industrial Park, No.3 Technolgy Road, Pingshan new District, Shenzhen

### 5.2 General Description of E.U.T.

Product Description: Led strip light  
Model No: 24V SMD2835/210

### 5.3 Details of E.U.T.

Rated Supply (Voltage): DC 24V  
Power Port: 1.6m unscreened DC inlet cable

### 5.4 Description of Support Units

The EUT has been tested with AC/DC adapter supplied by SGS.

Model: PS-3030  
Input: AC 230V 50Hz  
Output: DC 24V

### 5.5 Deviation from Standards

None.

### 5.6 General Test Climate During Testing

Temperature: 15-25 °C Humidity: 30-70 %RH Atmospheric Pressure: 860-1060 mbar

### 5.7 Abnormalities from Standard Conditions

None.

### 5.8 Monitoring of EUT for All Immunity Test

Audio: N/A  
Visual: N/A

### 5.9 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,  
198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technology Development District,  
Guangzhou, China 510663  
Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.

## 5.10 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **NVLAP (Lab Code: 200611-0)**

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

- **ACMA**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.

- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

- **CNAS (Lab Code: L0167)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of Testing Laboratories.

- **FCC (Registration No.: 282399)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 282399, May 31, 2002.

- **Industry Canada (Registration No.: 4620B-1)**

The 3m/10m Alternate Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Certification and Engineering of Industry Canada for radio equipment testing with Registration No. 4620B-1.

- **VCCI (Registration No.: R-2460, C-2584, G-449 and T-1179)**

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co. Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2460, C-2584, G-449 and T-1179 respectively.

- **CBTL (Lab Code: TL129)**

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2005, the Basic Rules, IEC 60384-1:2006-10 and Rules of procedure IEC 60384-2:2006-10, and the relevant IEC 60384-2 Scheme Operational documents.



## 6 Equipment List

Harmonics / Flicker test						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. date	Cal. Due date
					(YYYY-MM-DD)	(YYYY-MM-DD)
EMC0608	AC Power Source	California	50001iX	56627	2015-04-07	2016-04-07
EMC0607	Power Analyzer	California	PACS	72400	2015-04-07	2016-04-07

General used equipment						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. date	Cal. Due date
					(YYYY-MM-DD)	(YYYY-MM-DD)
EMC0006	DMM	Fluke	73	70681569	2014-09-15	2015-09-15
EMC0007	DMM	Fluke	73	70671122	2014-09-15	2015-09-15

## 7 Emission Test Results

### 7.1 Emission Test Results

Test Requirement: EN 55015

Test Method: N/A: See Remark Below

There is no need for emission tests to be performed on this product in accordance with EN 55015.

For further details, please refer to clause 5.1:

“No emission requirements apply to lamps other than self-ballasted lamps nor to auxiliaries incorporated in luminaires, in self-ballasted lamps or in semi-luminaires.

NOTE – Where in this standard the term ‘incandescent lamp’ is use, all types of incandescent lamps including halogen lamps are meant”

Or

Clause 5.2.2:

“Incandescent lamp luminaries, where the lamps are a.c. mains or d.c. operated or which do not incorporate a light regulating device or electronic switch, are not expected to produce electro-magnetic disturbance. Therefore they are deemed to fulfil all relevant requirements of this standard without further testing.

NOTE – Where in this standard the term ‘incandescent lamp’ is use, all types of incandescent lamps including halogen lamps are meant”

Or

Clause 5.11:

LED light sources and associated luminaires that do not contain any active electronic switching components are deemed to comply with the requirements of this standard without further testing.



## 7.2 Harmonic Emission on AC Test Results

Test Requirement:	EN 61000-3-2
Test Method:	See Remark Below
Frequency range:	100Hz to 2kHz

There is no need for harmonics tests to be performed on this product in accordance with EN 61000-3-2. For further details, please refer to Annex C.5.3 of EN 61000-3-2 which states:

“Incandescent lamp luminaires which do not incorporate an electronic transformer or a dimming device are deemed to fulfil the harmonic current requirements and need not be tested.”

Remark :

Since the EUT was belong to exception of clause 7 and Annex C, according to EN 61000-3-2 figure 1, it was deemed to conform to the requirements of this standard without further testing.

“7 Harmonic current limits

The procedure for applying the limits and assessing the results is shown in Figure 1.

For the following categories of equipment, limits are not specified in this standard:

NOTE 1 Limits may be defined in a future amendment or revision of the standard.

– equipment with a rated power of 75 W or less, other than lighting equipment.

NOTE 2 This value may be reduced from 75 W to 50 W in the future, subject to approval by National Committees at that time.

– professional equipment with a total rated power greater than 1 kW;

– symmetrically controlled heating elements with a rated power less than or equal to 200 W.

– independent dimmers for incandescent lamps with a rated power less than or equal to 1 kW.

NOTE 3 See also C.5.3.”

and

No limit applies for LED lighting equipments with active input power  $\leq 25$  W except Discharge lighting equipment (refer to 7.3 b).

Kitchen machines as listed in the scope of IEC 60335-2-14 are deemed to conform to the harmonic current limits of this standard without further testing.

Please read clause 7 & Annex C of this standard for reference.



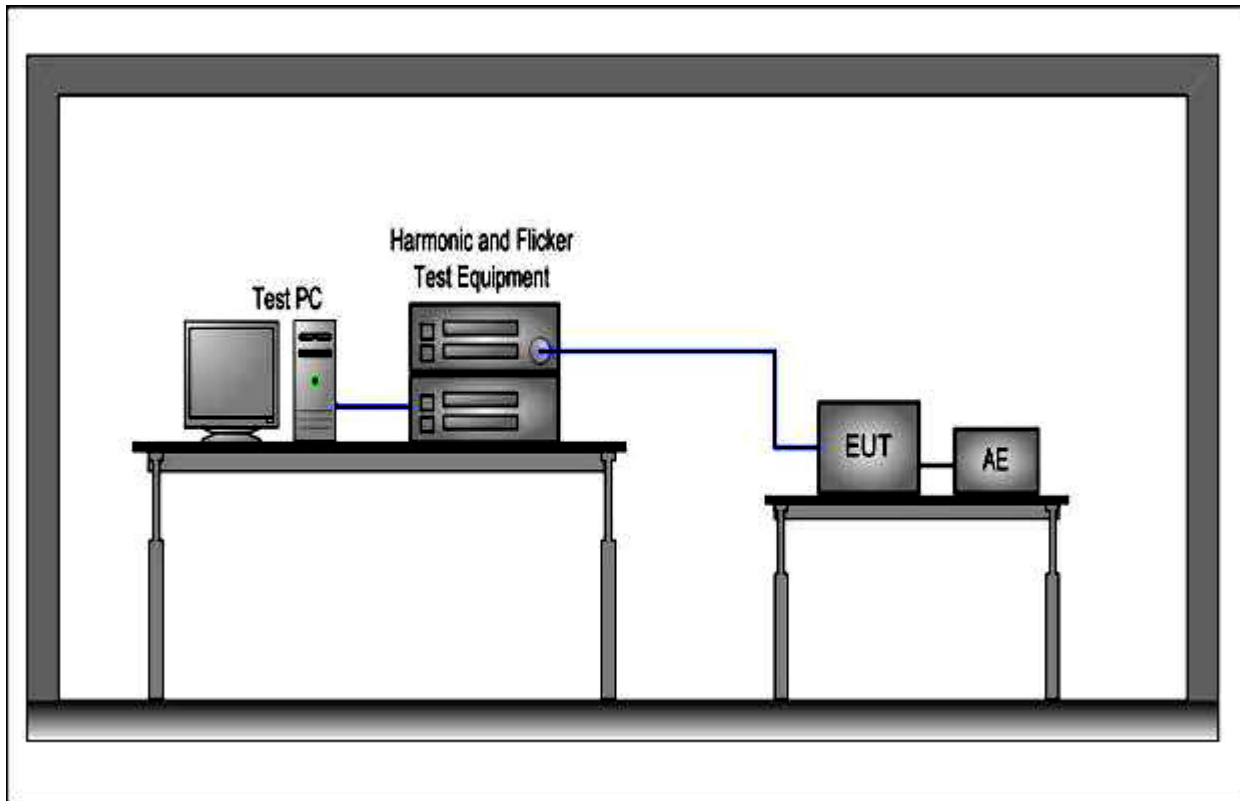
### 7.3 Flicker Test Results

Test Requirement:	EN 61000-3-3
Test Method:	EN 61000-3-3
Test Date:	2015-09-07
Test voltage:	AC 230V 50Hz
Class/Severity:	Clause 5 of EN 61000-3-3
Measurement Time:	10 mins
Detector:	As per EN 61000-3-3

#### 7.3.1 E.U.T. Operation

Test the EUT in LED lighting mode.

### 7.3.2 Test Setup and Procedure



1. The test supply voltage (open-circuit voltage) was the rated voltage of the EUT. The test voltage was maintained within  $\pm 2\%$  of the nominal value. The frequency was  $50\text{ Hz} \pm 0.5\%$ .
2. The EUT was tested with a lamp of that power for which the equipment was rated. If lighting equipment includes more than one lamp, all lamps shall be in use. Pst and Plt evaluations are required only for lighting equipment which is likely to produce flicker.
3. The voltage fluctuations and flicker were measured at the supply terminals of the EUT.
4. The observation period,  $T_p$ , for the assessment of flicker values by flicker measurement, flicker simulation, or analytical method was:
  - for Pst,  $T_p = 10\text{ min}$ .
  - for Plt,  $T_p = 2\text{ h}$ .

The observation period included that part of the whole operation cycle in which the EUT produces the most unfavourable sequence of voltage changes.

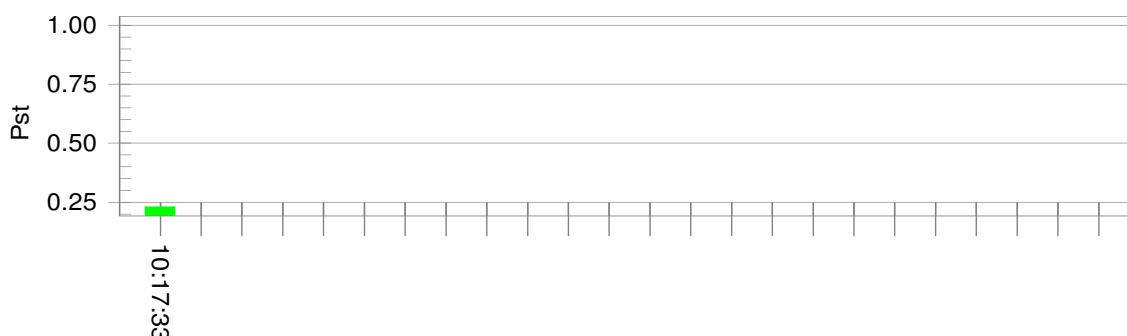


### 7.3.3 Measurement Data

#### Flicker Test Summary per EN61000-3-3 (Run time)

Test Result: Pass Status: Test Completed

#### Pst<sub>i</sub> and limit line European Limits



#### Parameter values recorded during the test:

Vrms at the end of test (Volt): 229.85

Highest dt (%)	0.00	Test limit (%)	N/A	N/A
T-max (mS)	0	Test limit (mS)	500.0	Pass
Highest dc (%)	0.00	Test limit (%)	3.30	Pass
Highest dmax (%)	-0.05	Test limit (%)	4.00	Pass
Highest Pst (10 min. period)	0.230	Test limit:	1.000	Pass



## 8 Immunity Test Results

Test Requirement: EN 61547  
Test Method: N/A: See Remark Below

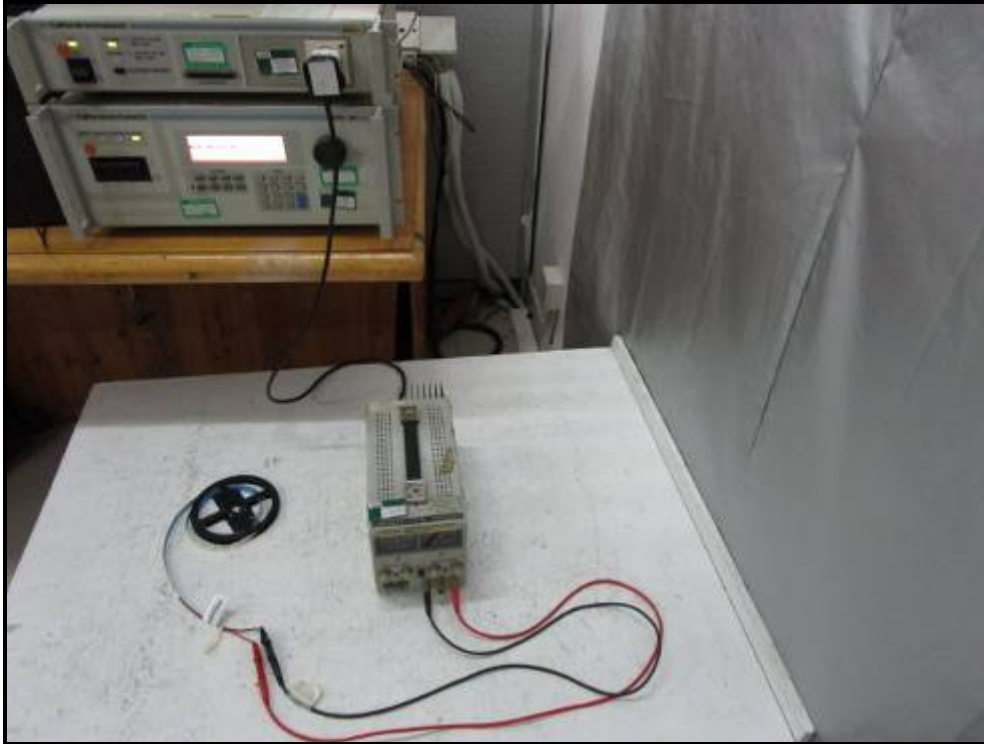
There is no need for immunity tests to be performed on this product in accordance with EN 61547.

For further details, please refer to clause 6.2 of EN 61547 which states:

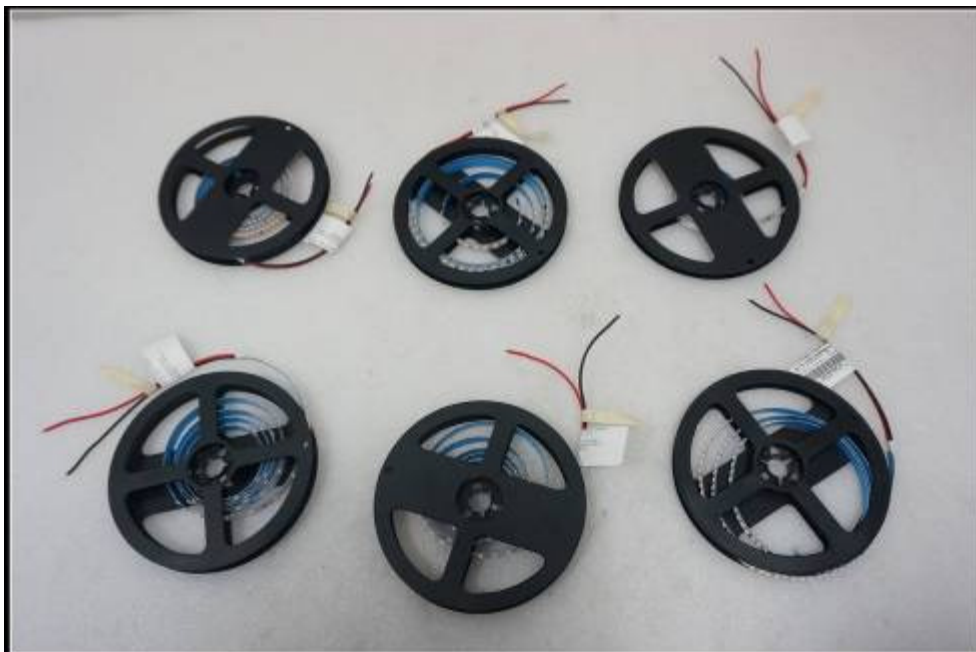
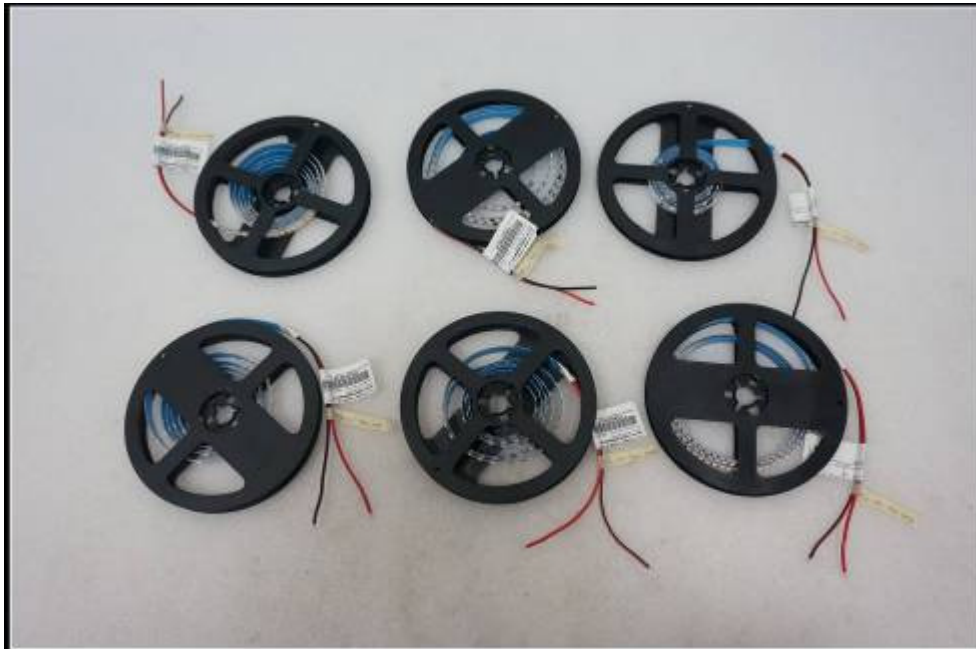
“Lighting equipment, with the exception of emergency lighting luminaires, in which the light source is mains frequency or battery operated and which does not contain any active electronic component is deemed to fulfil the immunity requirements without testing.”

## 9 Photographs

### 9.1 Flicker Test Setup



## 9.2 EUT Constructional Details





--End of Report--