

Test Report issued under the responsibility of:



**TEST REPORT**  
**IEC 62471**  
**Photobiological safety of lamps and lamp systems**

**Report Reference No.** ..... : 17-12-04

Date of issue ..... : 2017-12-08

Total number of pages ..... :

**Testing Laboratory** ..... : SAMSUNG ELECTRONICS Co., Ltd.

Address ..... : 1, Samsung-ro, Giheung-gu, Yongin-si, Gyeonggi-do, 17113, Korea

**Applicant's name** ..... : SAMSUNG ELECTRONICS Co., Ltd.

Address ..... : 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea

**Test specification:**

Standard ..... : IEC 62471:2006 (First Edition)

Test procedure ..... : N/A

Non-standard test method ..... : N/A

**Test Report Form No.** ..... : IEC62471A

TRF Originator ..... : VDE Testing and Certification Institute

Master TRF ..... : Dated 2009-05

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**This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.**

**Test item description** ..... : LED PKG (LM281Bplus)

Trade Mark ..... : SAMSUNG

Manufacturer ..... : Same as Testing Laboratory

Model/Type reference ..... : SPMWH\*228FD\*\*\*\*\* (Tested sample SPMWH1228FD5WAPMSG)

Ratings ..... : DC 160 mA / 2,9 V

Testing procedure and testing location:	
<input type="checkbox"/> <b>Testing Laboratory:</b> Testing location/ address ..... :	SAMSUNG ELECTRONICS Co., Ltd. (LED Biz.) 1, Samsung-ro, Giheung-gu, Yongin-si, Gyeonggi-do, 17113, Korea
<input type="checkbox"/> <b>Associated Laboratory:</b> Testing location/ address ..... : Tested by (name + signature)..... : Approved by (+ signature) ..... :	
<input type="checkbox"/> Testing procedure: TMP Tested by (name + signature)..... : Approved by (+ signature) ..... : Testing location/ address ..... :	
<input type="checkbox"/> Testing procedure: WMT Tested by (name + signature)..... : Witnessed by (+ signature) ..... : Approved by (+ signature) ..... : Testing location/ address ..... :	
<input type="checkbox"/> Testing procedure: SMT Tested by (name + signature)..... : Approved by (+ signature) ..... : Supervised by (+ signature)..... : Testing location/ address ..... :	
<input type="checkbox"/> Testing procedure: RMT Tested by (name + signature)..... : Approved by (+ signature) ..... : Supervised by (+ signature)..... : Testing location/ address ..... :	

**Summary of testing:****Tests performed (name of test and test clause):**

- The sample was applied DC 160 mA following by applicant request.
- The sample was measured at 25°C.


**Testing location:**

SAMSUNG ELECTRONICS Co., Ltd  
1, Samsung-ro, Giheung-gu, Yongin-si,  
Gyeonggi-do, 17113, Korea

**Summary of compliance with National Differences:**

The sample(s) tested complies with the requirements of IEC 62471:2006 and EN 62471:2008.  
See Attachment at the end of this report for compliance with European Group Difference and National Differences.

**Copy of marking plate:**

<b>Test item particulars</b> .....	
Tested lamp .....	<input checked="" type="checkbox"/> continuous wave lamps <input type="checkbox"/> pulsed lamps
Tested lamp system .....	
Lamp classification group (IEC) .....	<input checked="" type="checkbox"/> exempt <input type="checkbox"/> risk 1 <input type="checkbox"/> risk 2 <input type="checkbox"/> risk 3
Lamp classification group (EN) .....	<input type="checkbox"/> exempt <input checked="" type="checkbox"/> risk 1 <input type="checkbox"/> risk 2 <input type="checkbox"/> risk 3
Lamp cap .....	
Bulb .....	
Rated of the lamp .....	See Page 1
Furthermore marking on the lamp .....	
Seasoning of lamps according IEC standard .....	
Used measurement instrument.....	
Temperature by measurement .....	24.0 - 25.0 °C
Information for safety use.....	Not required
<b>Possible test case verdicts:</b>	
– test case does not apply to the test object.....: N/A	
– test object does meet the requirement.....: P (Pass)	
– test object does not meet the requirement.....: F (Fail)	
<b>Testing:</b>	
Date of receipt of test item .....	2017-12-04
Date (s) of performance of tests .....	2017-12-06~2017-12-08
<b>General remarks:</b>	
The test results presented in this report relate only to the object tested.	
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.	
"(See Enclosure #)" refers to additional information appended to the report.	
"(See appended table)" refers to a table appended to the report.	
Throughout this report a comma (point) is used as the decimal separator.	
List of test equipment must be kept on file and available for review.	
<b>General product information:</b>	
<ul style="list-style-type: none"> <li>- PKG : LM281Bplus</li> <li>- CCT : 6500K</li> <li>- CRI : 80</li> <li>- Flux rank : SG</li> <li>- Tested current : DC 160 mA</li> <li>- A photo of test sample.</li> </ul>	
	
Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.	