

APPLICATION FOR CERTIFICATION

On Behalf of

Philips Lighting(China) Investment Co., Ltd.

LED Lamps

Model No. : 9290011998A

Brand : Philips

FCC ID : 2AGBW9290011998AX

Prepared for

Philips Lighting(China) Investment Co., Ltd.

Building 9, Lane 888, Tian Lin Road, Minhang district, Shanghai, China

Prepared by

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Report Number : ACWE-F1608007A

Date of Test : Jul.30~Aug.02, 2016

Date of Report : Sep.05, 2016

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TEST REPORT CERTIFICATION

Applicant : Philips Lighting(China) Investment Co., Ltd.
 Manufacturer : Philips Lighting(China) Investment Co., Ltd.
 EUT Description : LED Lamp
 FCC ID : 2AGBW9290011998AX
 (A) Model No. : 9290011998A
 (B) Brand : Philips
 (C) Power Supply : AC 110-130V, 60Hz
 (D) Test Voltage : AC 120V, 60Hz

Applicable Standards:

KDB 447498 D01

The device described above was tested by Audix Technology (Wujiang) Co., Ltd. EMC Dept. to determine the maximum emission levels emanating from the device.

The measurement results are contained in this test report and Audix Technology (Wujiang) Co., Ltd. EMC Dept. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this test report shows that the EUT to be technically compliant with the FCC limits.

This test report applies to above tested sample only. This test report shall not be reproduced in part without written approval of Audix Technology (Wujiang) Co., Ltd. EMC Dept.

Date of Test: Jul.30~Aug.02, 2016

Date of Report: Sep.05, 2016

Prepared by

:



(Emma Hu/Assistant Administrator)

Reviewer


:



(Danny Sun/ Section Manager)

Approved & Authorized Signer

:



(Ken Lu/Assistant General Manager)

1. DESCRIPTION OF VERSION

Edition No.	Date of Rev.	Summary	Report No.
0	Aug.11, 2016	Original Report.	ACWE-F1608007
Rev. A	Sep.05, 2016	Add a new LED board.	ACWE-F1608007A

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Description	:	LED Lamp
Model No.	:	9290011998A
FCC ID	:	2AGBW9290011998AX
Brand	:	Philips
Applicant	:	Philips Lighting(China) Investment Co., Ltd. Building 9, Lane 888, Tian Lin Road, Minhang district, Shanghai, China
Manufacturer	:	Philips Lighting(China) Investment Co., Ltd. Building 9, Lane 888, Tian Lin Road, Minhang district, Shanghai, China
Radio Technology	:	IEEE 802.15.4 (ZigBee®)
Antenna Gain	:	1.65dBi
Fundamental Range	:	2405 MHz -2480MHz
Tested Frequency	:	2405MHz (CH11) 2450MHz (CH20) 2480MHz (CH26)
Channel Setting Method	:	Channel is changed according to EUT's power on or power off.
Highest Working Frequency	:	2.4GHz
Modulation type	:	O-QPSK
Date of Receipt of Sample	:	Jul.26, 2016
Date of Test	:	Jul.30~Aug.02, 2016

Remarks for Rev.A:

1. This report is based on the original report ACWE-F1608007.
2. This report changes the lamp's LED board. It has effect on the test result, so we retest it. The test result was recorded in this report ACWE-F1608007A.

2.2. Description of Test Facility

Name of Firm : **Audix Technology (Wujiang) Co., Ltd. EMC Dept.**

Site Location : No. 1289 Jiangxing East Road, the Eastern Part of Wujiang Economic Development Zone
Jiangsu China 215200

Test Facilities : **RF Fully Chamber**

NVLAP Lab Code : 200786-0
Valid until on Sep.30, 2016
(NVLAP is a signatory member of ILAC MRA)
Remark: This report shall not be imply endorsement, certification or approval by NVLAP, NIST, or any agency of the U.S. Federal Government.

2.3. Measurement Uncertainty

Test Item	Uncertainty
Maximum Peak Output Power	± 0.12dB

Remark: Uncertainty = $ku_c(y)$

3. RADIO FRREQUENCY EXPOSURE COMPLIANCE RESULT

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f_{(\text{GHz})}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step b below

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

According to the actual measurement,

max. power of channel, including tune-up tolerance = 1.76mW

min. test separation distance = 5mm

$\sqrt{f_{(\text{GHz})}} = 1.57$

The test result is $0.53 \leq 3.0$ for 1-g SAR ≤ 7.5 for 10-g SAR, hence the EUT is excluded from SAR evaluation according to FCC KDB Publication 447498 D01:General RF Exposure Guidance V06.