

## RF Exposure Evaluation Declaration

Product Name : LED LAMP  
Model No. : LED9DR30/CLFE  
FCC ID : PUU-R30-CLFE

Applicant : GE Lighting Co. Ltd  
Address : No. 88, lane 1517, Hu yi Road, Jiading District,  
Shanghai,

Date of Receipt : Sep. 08, 2016  
Test Date : Aug. 29, 2016~ Aug. 31, 2016  
Issued Date : Dec. 07, 2016  
Report No. : 1692030R-RF- US- P20V01  
Report Version : V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by CNAS, TAF or any agency of the government.

The test report shall not be reproduced without the written approval of Quietek Corporation.

## Test Report Certification

Issued Date : Dec. 07, 2016

Report No. : 1692030R-RF-US-P20V01



Product Name : LED LAMP  
Applicant : GE Lighting Co. Ltd  
Address : No. 88, lane 1517, Hu yi Road, Jiading District, Shanghai,  
Manufacturer : LEEDARSON LIGHTING CO., LTD.  
Address : Xingtai Industrial Zone, Changtai County, Zhangzhou, Fujian, China  
Model No. : LED9DR30/CLFE  
FCC ID : PUU-R30-CLFE  
EUT Voltage : 120V, 60Hz, 9W  
Brand Name : GE  
Applicable Standard : KDB 447498D01V06  
FCC Part 1.1310(b)  
Test Result : Complied  
Performed Location : Quietek Corporation - Suzhou EMC Laboratory  
No. 99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006,  
Jiangsu, China  
TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098  
FCC Registration Number: 800392

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## Laboratory Information

We, **Quietek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted(audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scope:

<b>Taiwan R.O.C.</b>	<b>:</b>	<b>BSMI, NCC, TAF</b>
<b>USA</b>	<b>:</b>	<b>FCC</b>
<b>Japan</b>	<b>:</b>	<b>VCCI</b>
<b>China</b>	<b>:</b>	<b>CNAS</b>

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site : <http://www.quietek.com/english/about/certificates.aspx?bval=5>  
The address and introduction of Quietek Corporation's laboratories can be founded in our Web site : [http://www.quietek.com/index\\_en.aspx](http://www.quietek.com/index_en.aspx)

If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

### **HsinChu Testing Laboratory :**

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## History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
1692030R-RF-US-P20V01	V1.0	Initial Issued Report	Dec. 07, 2016

## 1. RF Exposure Evaluation

### 1.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

#### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula:  $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

G = gain of antenna in linear scale

$\pi$  = 3.1416

R = distance between observation point and center of the radiator in cm

$P_d$  is the limit of MPE, 1 mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

## 1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 18°C and 78% RH.

## 1.3. Test Result of RF Exposure Evaluation

Product	:	LED LAMP
Test Item	:	RF Exposure Evaluation
Test Site	:	AC-6

### ● Antenna Gain:

Antenna manufacturer	N/A				
Antenna Delivery	<input checked="" type="checkbox"/>	1*TX+1*RX	<input type="checkbox"/>	2*TX+2*RX	<input type="checkbox"/> 3*TX+3*RX
Antenna technology	<input checked="" type="checkbox"/>	SISO			
	<input type="checkbox"/>	MIMO	<input type="checkbox"/>	Basic	
			<input type="checkbox"/>	CDD	
			<input type="checkbox"/>	Beam-forming	
Antenna Type	<input type="checkbox"/>	External	<input type="checkbox"/>	Dipole	
	<input checked="" type="checkbox"/>	Internal	<input type="checkbox"/>	PIFA	
			<input type="checkbox"/>	PCB	
			<input type="checkbox"/>	Ceramic Chip Antenna	
			<input checked="" type="checkbox"/>	IFA Antenna	
			<input type="checkbox"/>	Dipole	
Antenna Gain	1.02dBi				

- Output Power into Antenna & RF Exposure Evaluation Distance:

Test Mode	Frequency Band (MHz)	Maximum Output Power to Antenna (dBm)	Directional Gain (dBi)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )	Limit of Power Density S(mW/cm <sup>2</sup> )
BLE	2402~2480	10.25	1.02	0.0027	1.0

Note: The power density is 0.0027mW/cm<sup>2</sup> for LED LAMP without any other radio equipment.

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