

### FCC RF EXPOSURE REPORT

For

### LED DOWMLIGHT

#### MODEL NUMBER: RL56069B4WHVA, RL56069B4WHVA-CA, RL56069B4WHVA-C, RL56HVAHIWAC, RL56HVAHWB1

### FCC ID: 2AKCY-RL56BLEHVA

### **REPORT NUMBER: 4788973569-7**

#### ISSUE DATE: July 05, 2019

Prepared for

Cooper Lighting LLC 1121 Hwy 74 S Peachtree City Georgia 30269 United States

Prepared by

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The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products. This report does not imply that the product(s) has met the criteria for certification.



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## **1. ATTESTATION OF TEST RESULTS**

#### Applicant Information

Company Name: Address:	Cooper Lighting LLC
Address.	1121 Hwy 74 S Peachtree City Georgia 30269 United States
Manufacturer Information	
Company Name:	Leedarson Light Co., Ltd.
Address:	Xingtai Industrial Zone,Economic Development Zone, Changtai County ,Zhangzhou City, Fujian Province,P.R.China
EUT Information	
EUT Name:	LED DOWMLIGHT
Model:	RL56069B4WHVA
Series Model:	RL56069B4WHVA-CA, RL56069B4WHVA-C, RL56HVAHIWAC, RL56HVAHWB1
Model difference:	All the same except for the model name.
Brand Name:	Halo
Sample Received Date:	July 1, 2019
Date of Tested:	July 2~5, 2019

#### APPLICABLE STANDARDS

STANDARD

TEST RESULTS

FCC 47CFR§2.1091 KDB-447498 D01 V06

Complies

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# 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 447498 D01 General RF Exposure Guidance v06.

# 3. FACILITIES AND ACCREDITATION

	A2LA (Certificate No.: 4102.01)				
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.				
	has been assessed and proved to be in compliance with A2LA.				
	FCC (FCC Designation No.: CN1187)				
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.				
	Has been recognized to perform compliance testing on equipment subject				
	to the Commission's Delcaration of Conformity (DoC) and Certification				
	rules				
	ISED(Company No.: 21320)				
Accreditation	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.				
Certificate	has been registered and fully described in a report filed with				
	Industry Canada. The Company Number is 21320.				
	VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)				
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.				
	has been assessed and proved to be in compliance with VCCI, the				
	Membership No. is 3793.				
	Facility Name:				
	Chamber D, the VCCI registration No. is G-20019 and R-20004				
	Shielding Room B, the VCCI registration No. is C-20012 and T-20011				

Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30MHz had been correlated to measurements performed on an OFS.



# 4. REQUIREMENT

## <u>LIMIT</u>

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure					
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)	
0.3-1.34	614	1.63	(100)*	30	
1.34-30	824/f	2.19/f	(180/f2)*	30	
30-300 27.5 0.073 0.2				30	
300-1500			f/150	30	
1500-100,000			1.0	30	
Note 1: f = frequency in MHz, * means Plane-wave equivalent power density					

Note 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Note 3: The limit value 1.0mW/cm<sup>2</sup> is available for this EUT.

### MPE CALCULATION METHOD

 $S = PG/(4\pi R^2)$ 

where: S = power density (in appropriate units, e.g. mW/ cm2)

- P = power input to the antenna (in appropriate units, e.g., mW)
- G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)



#### Radio Frequency Radiation Exposure Evaluation

BLE (Worst case)						
Operating	Max. Tune up Power	Antenna Gain		Power density	Limit	
Mode	(dBm)	(dBi)	(num)	(mW/ cm <sup>2</sup> )	Linit	
BLE	7	4.73	2.97	0.0030	1	

BT (Worst case)					
Operating	Max. Tune up Power	Antenna Gain Power density		Power density	Limit
Mode	(dBm)	(dBi)	(num)	(mW/ cm <sup>2</sup> )	
ВТ	11	5.88	3.87	0.0100	1

WIFI 2.4G (Worst case)					
Operating	Max. Tune up Power	wer Directional Gain Power de		Power density	Limit
Mode	(dBm)	(dBi)	(num)	(mW/ cm <sup>2</sup> )	
802.11b	17	5.88	3.87	0.0386	1

### **COLLOCATED POWER DENSITY CACULATIONS**

Worst Mode				
(WIFI 2.4G)	(BLE)	∑(Power Density/Limit)		
Density/Limit(mW/cm <sup>2</sup> )	Density/Limit(mW/cm <sup>2</sup> )			
0.0386	0.003	0.0416		

Worst Mode				
(BT) (BLE) $\sum$ (Power Density/Limit)				
Density/Limit(mW/cm <sup>2</sup> )	Density/Limit(mW/cm <sup>2</sup> )			
0.01	0.003	0.013		

Note: The calculated distance is 20cm.

# **END OF REPORT**