

FCC RF Exposure

Applicant : Globe Electric Company Inc.
Address : 150 Oneida, Montreal, Quebec, Canada, H9R 1A8
Product Name : Light LED integrated
Brand Mark : globe
Model : 63000231
Series model : N/A
FCC ID : 2AQUQGL63231
Report Number : BLA-EMC-202505-A7002
Date of Receipt : May 22, 2025
Date of Test : May 22, 2025 to Jun. 04, 2025
47 CFR Part 15, Part1.1307
Test Standard : 47 CFR Part 15, Part2.1093
KDB447498D04 General RF Exposure Guidance v01
Test Result : Pass

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Approved by: Blue Zheng

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Revise Record

Version No.	Date	Description
01	Jun. 05, 2025	Original

1 General information

1.1 General information

Applicant	Globe Electric Company Inc.
Address	150 Oneida, Montreal, Quebec, Canada, H9R 1A8
Manufacturer	Globe Electric Company Inc.
Address	150 Oneida, Montreal, Quebec, Canada, H9R 1A8

1.2 General description of EUT

Product name	Light LED integrated
Model no.	63000231
Operation Frequency	5800MHz
Modulation Type	Microwave
Number of Channels	1
Antenna Type	microstrip antenna
Antenna Gain	3dBi(Provided by the customer)
Power supply	AC 120V
Hardware Version	N/A
Software Version	N/A

2 RF Exposure Compliance Requirement

2.1 Standard Requirement

According to 447498 D04 Interim General RF Exposure Guidance v01

Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

2.2 Limits

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B. 2})$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

Example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)										
		5	10	15	20	25	30	35	40	45	50
	300	39	65	88	110	129	148	166	184	201	217
	450	22	44	67	89	112	135	158	180	203	226
	835	9	25	44	66	90	116	145	175	207	240
	1900	3	12	26	44	66	92	122	157	195	236
	2450	3	10	22	38	59	83	111	143	179	219
	3600	2	8	18	32	49	71	96	125	158	195
	5800	1	6	14	25	40	58	80	106	136	169

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B. 1})$$

2.3 Result

$$\text{EIRP} = \text{pt} \times \text{gt} = (\text{E} \times \text{d})^{2/30}$$

Where:

pt = transmitter output power in watts,

gt = numeric gain of the transmitting antenna (unitless),

E = electric field strength in V/m,

d = measurement distance in meters (m)

$$\text{Spot} = (\text{E} \times \text{d})^{2/30} \times \text{gt}$$

Separation distance = 20cm

5.8GHz: Ant gain = 3dBi

For 5.8G:

Max. Field Strength: 88.44dBuV/m@3m

Note:

The maximum Equivalent Isotropic Radiated Power(EIRP) : $88.44\text{dBuV/m} - 95.2 = -6.76\text{dBm}$

(refer to C63.10, section 10.3.9)@5.8GHz

$$\text{ERP} = -6.76\text{dBm} - 2.15 = -8.91\text{dBm} = 0.129\text{mW} < 3060\text{mW}$$

it's deemed to fulfil the RF exposure requirement.

----END OF REPORT----

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