

RF Exposure

Applicant : Spring Lighting Group, INC.
Address : 11325 Cash Rd., Suite 100 Stafford, TX 77477 USA
Product Name : Commercial Downlight
Brand Mark : SLG Lighting
Model : DRSB 10R LS40 G1 FSK MS
FCC ID : 2BADZ-DRSB
Series model : DRSB 4R LS11 G1 FSK; DRSB 4R LS11 G1 FSK MS;
DRSB 6R LS22 G1 FSK; DRSB 6R LS22 G1 FSK MS;
DRSB 8R LS33 G1 FSK; DRSB 8R LS33 G1 FSK MS;
DRSB 10R LS40 G1 FSK;
Report Number : BLA-EMC-202504-A9303
Date of Receipt : Apr. 24, 2025
Date of Test : Apr. 24, 2025 to May 23, 2025
47 CFR Part 15, Part1.1307
Test Standard : 47 CFR Part 15, Part2.1093
KDB447498D04 General RF Exposure Guidance v01
Test Result : Pass

Compiled by: *Hugh*Review by: *Xavier*Approved by: *Blue Zheng*

Issued Date: June 25, 2025

BlueAsia of Technical Services(Shenzhen) Co., Ltd.Address: Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District,
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Revise Record

| Version No. | Date | Description |
|-------------|---------------|-------------|
| 01 | June 25, 2025 | Original |
| | | |
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1 General information

1.1 General information

| | |
|--------------|---|
| Applicant | Spring Lighting Group, INC. |
| Address | 11325 Cash Rd., Suite 100 Stafford, TX 77477 USA |
| Manufacturer | Spring Lighting Group, INC. |
| Address | 11325 Cash Rd., Suite 100 Stafford, TX 77477 USA |
| Factory | Wuxi Seastar Lighting Co.,Ltd |
| Address | West of the 11th Road, north of the 13th Road, south of the planned river, Hongshan Street, Xinwu District, Wuxi City, Jiangsu, China |
| Factory | Sea Star Smart Tech Sdn Bhd |
| Address | No. 2, Jalan Mega 1/10 Taman Perindustrian Nusa Cemerlang Iskandar Puteri Johor 79200 MALAYSIA |

1.2 General description of EUT

| | |
|----------------------|---|
| Product name | Commercial Downlight |
| Model no. | DRSB 10R LS40 G1 FSK MS |
| Series model | DRSB 4R LS11 G1 FSK; DRSB 4R LS11 G1 FSK MS; DRSB 6R LS22 G1 FSK; DRSB 6R LS22 G1 FSK MS; DRSB 8R LS33 G1 FSK; DRSB 8R LS33 G1 FSK MS; DRSB 10R LS40 G1 FSK; |
| Desc of series model | The above models are identical in PCB layout, internal structure and components, only model No. and color is different. |
| Operation Frequency: | 2402MHz-2480MHz |
| Modulation Type: | GFSK |
| Rate data: | 1Mbps; 2Mbps |
| Channel Spacing: | 2MHz |
| Number of Channels: | 40 |
| Antenna Type: | FPC antenna |
| Antenna Gain: | DRSB 10R LS40 G1 FSK MS: 2.22dBi (Provided by customer) DRSB 4R LS11 G1 FSK: 2.68dBi (Provided by customer) |

| | |
|---|------------|
| Power supply or adapter information | AC120-277V |
| Hardware Version | N/A |
| Software Version | N/A |
| <i>Note: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.</i> | |

BlueAsia

2 Laboratory and accreditations

The test facility is recognized, certified, or accredited by the following organizations:

| | |
|--------------------------|---|
| Company name: | BlueAsia of Technical Services(Shenzhen) Co., Ltd. |
| Address: | Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China |
| CNAS accredited No.: | L9788 |
| A2LA Cert. No.: | 5071.01 |
| FCC Designation No.: | CN1252 |
| ISED CAB identifier No.: | CN0028 |
| Telephone: | +86-755-28682673 |
| FAX: | +86-755-28682673 |

3 RF Exposure Compliance Requirement

3.1 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.

3.2 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 |

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

3.3 Result

Calculated Result and Limit (WORSE CASE IS AS BELOW)

Ant gain = 2.68dBi

For BLE(Worst):

Max Output power = 4.795dBm @ 2402MHz

EIRP = 4.795 + 2.68 = 7.475dBm = 5.591 mW < 3060mW

ERP = 7.475 - 2.15 = 5.325dBm = 3.408mW < 3060mW

Comply with RF exposure exemption limit.

----END OF REPORT----

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