

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

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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