TEST REPORT

IEC TR 62778

Application of IEC TR 62778 for the assessment of blue light hazard to light sources and luminaires

Report reference No .....:	SZ2211027-55191E-SF
Compiled by (+ signature) .....:	Test Engineer: Zero Gao
Approved by (+ signature) .....:	Team Leader: Harrison Huang
Date of issue .....:	2021-11-01
Testing laboratory .....:	Bay Area Compliance Laboratories Corp.(Dongguan)
Address .....:	No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China
Testing location .....:	Same as above
Applicant .....:	Hongli Zhihui Group Co., Ltd. Guangzhou Branch
Address .....:	Room 316, Building 2, No.1, Xianke Yi Road, Huadong Town, Huadu District, Guangzhou, China.
Standard .....:	IEC TR 62778:2014
Test sample(s) received.....:	2021-10-28
Test in period.....:	2021-10-30
Procedure deviation .....:	N.A.
Non-standard test method .....:	N.A.
Type of test object .....:	LED package
Trademark .....:	N.A.
Model/type reference .....:	HL-ES-3032S23V405-B2-S1
Manufacturer..... .....:	Hongli Zhihui Group Co., Ltd. Guangzhou Branch Room 316, Building 2, No.1, Xianke Yi Road, Huadong Town, Huadu District, Guangzhou, China.
Rating .....:	Input: 3Vdc, 150mA.

Copy of marking plate:
None

Test item particulars ..... :	
Product evaluated ..... :	☒ **LED package** ☐ **LED module** ☐ **Lamp** ☐ **Luminaire**
Rated voltage (V) ..... :	See rating
Rated current (mA) ..... :	See rating
Rated Luminance (Mcd/m^2) ..... :	Not specified
Component report data used ..... :	☒ **Not applicable** ☐ **LED package** ☐ **LED module** ☐ **Lamp**

Possible test case verdicts:

-test case does not apply to the test object.....: N(.A.)

-test object does meet the requirement.....: P(ass)

-test object does not meet the requirement.....: F(ail)

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.
Throughout this report a point is used as the decimal separator.
List of test equipment must be kept on file and available for review.

Remark:
Appendix A - EUT Photos

General product information:

"EUT" as referred in this report is a LED package. And the input rating is 3Vdc, 150mA.

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Clause	Requirement + Test	Result - Remark	Verdict

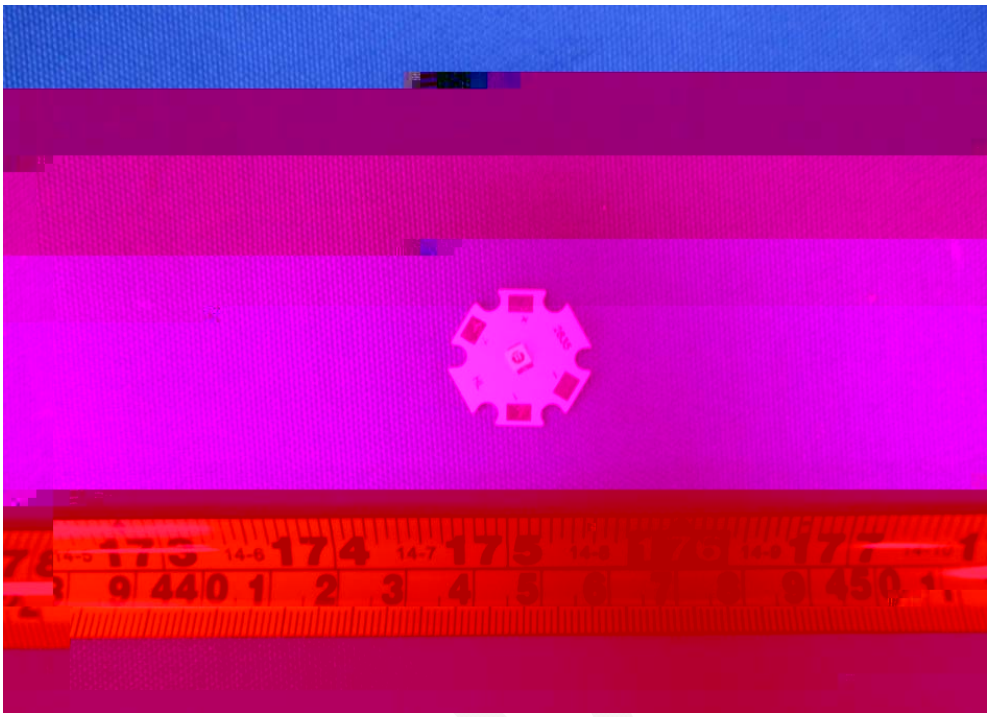
	TABLE: Spectroradiometric measurement		**P**
	Measurement performed on:	☒ **LED package** ☐ **LED module** ☐ **Lamp** ☐ **Luminaire**	—
	Model number.....	HL-ES-3032S23V405-B2-S1	—
	Test voltage (V).....	3Vdc	—
	Test current (mA)	150mA	—
	Test frequency (Hz).....	--	—
	Ambient, t (°C).....	24.5	—
	Measurement distance	☒ 20 cm ☐ ... cm	—
	Source size	☐ Non-small: mm ☒ Small: 0.85 mm	—
	Field of view	☐ 100 mrad ☐ 11 mrad ☒ 4.2 mrad (for small sources)	—

Item	Symbol	Units	Result	Remark
Correlated colour temperature	CCT	K	--	--
x/y colour coordinates	x/y		0.1735/0.0142	--
Blue light hazard radiance	L_B	$W/(m^2 \cdot sr^1)$	9.978×10^3	--
Blue light hazard irradiance	E_B	W/m^2	2.831×10^{-1}	--
Luminance	L	cd/m^2	8.006×10^4	--
Illuminance	E	lx	2	--
Supplementary information: NA				

	TABLE: Angular light distribution	

Appendix A - EUT Photos

The overall view of EUT



Directions:

1.The information marked # is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report.

2.Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

3.Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

4.The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

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*****End of report*****