

Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires

Report reference No	SZ2220908-40764E-SF				
Compiled by (+ signature)	Engineer: Zero Gao				
Approved by (+ signature)	Team Leader: Harrison Huang				
Date of issue	2022-09-15				
Testing laboratory	Bay Area Compliance Laboratories Corp.(Dongguan)				
Address	No.12, Pulong East 1st Road, Tangxia Town, Dongguan, China				
Testing location	Same as above				
Applicant	Hongli Zhihui Group Co., Ltd. Guangzhou Branch				
Address	Room316, Building 2, No.1,Xianke Yi Road, Huadong Town, Huadu				
	District, Guangzhou,China				
Standard	IEC TR 62778:2014				
Test sample(s) received:	2022-09-13				
Test in period	2022-09-15				
Procedure deviation	N.A.				
Non-standard test method	N.A.				
Type of test object	LEDpackage				
Trademark	N.A.				
Model/type reference	HL-AS-2835D3W-2C-S1-08L-PCT-HR3(R9)-XJ				
Multiple model	N.A.				
Manufacturer	Hongli Zhihui Group Co., Ltd. Guangzhou Branch				
	Room316, Building 2, No.1,Xianke Yi Road, Huadong Town, Huadu District, Guangzhou,China				
Rating:	Input: 6Vdc, 80mA				
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 requirementP(ass)							
-test object does not meet the requirement							
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 LEDpackage, and the input	rating is 6Vdc, 80mA.						



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Requirement + Test

Clause

Result - Remark Verdict

7	MEASUREMENT INFORMATION FLOW					
7.1	Basic flow					
	'Law of conservation of luminance' applied					
	Use of only true luminance/radiance values		Р			
	In case of luminaire: The light source is operated in the luminaire under similar conditions as when tested as a component		Р			
	In case E _{thr} value for RG2 was established the peak value was derived from angular light distribution					
7.2	Conditions for the radiance measurement					
	Standard condition applied (200mm distance, 0,011rad field of view)		Р			
	Non-standard condition applied		N			
7.3	Special cases (I): Replacement by a lamp or LED module of another type					
	Light source is a white light source		N			
	Evaluation done based on highest luminance		N			
	Evaluation done based on CCT value		N			
7.4	Special cases (II): Arrays and clusters of primary light sources					
	LED package is evaluated as:	RG0 unlimited	N			
	E _{thr} of LED package applies to array		N			
8	RISK GROUP CLASSIFICATION					
	Risk group achieved:		Р			
	Risk Group 0 unlimited		N			
	Risk Group 1 unlimited		Ν			
	- E _{thr} 1208 (lx) : Distance to reach RG1136(mm) :	RG1	Р			



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IEC TR 62778
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Clause

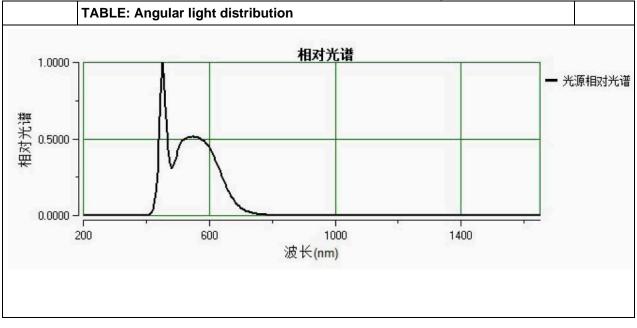
Requirement + Test

Result - Remark Verdict

	TABLE: Spectroradiometric measurement							
	Measurement perf	ormed o	on:	 ☑LED package □ LED module □ Lamp □ Luminaire 				
	Model number			 HL-AS-2835D3W-2C-S1-08L-PCT- HR3(R9)-XJ				
	Test voltage (V)			.6Vdc				
	Test current (mA) Test frequency (Hz)					.80mA		
	Ambient, t(°C)					.26		
	Measurement distance					⊠ 20 cm □ cm		
	Source size							
	Field of view		. ☐ 100 mrad ☐ 11 mrad ⊠4.8 mrad (for small sources)		_			
Item		Symb ol	Units		Result	Remark		
Correlated colour temperature		ССТ	к	660	4			
x/y colour coordinates		x/y		0.31	01/0.3342			
Blue light hazard radiance		L _B	W/(m ² •sr ¹)	8.16	64x10 ³			
Blue light hazard irradiance		E _B	W/m ²	4.61	16 x 10 ⁻¹			
Luminance		L	cd/m ²	9.86	64x10 ⁶			
Illuminance		E	lx	558				
Supplement	ary information: NA							



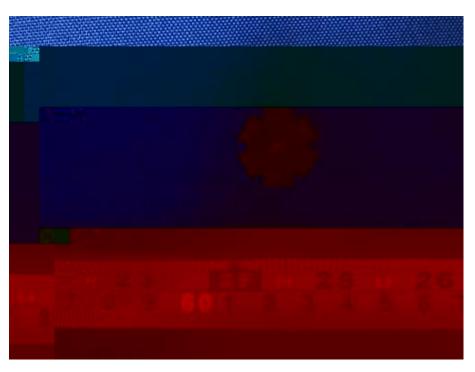
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Appendix A - EUT Photos

Theoverall viewofEUT





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 ***