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

Report Reference No.....:	DER2102720737944
Compiled by (+ signature).....:	Young
Reviewed by (+ signature).....:	Simon Yao
Approved by (+ signature).....:	Baron He
Date of issue.....:	October 27, 2021
Testing Laboratory.....:	Shenzhen De-Testing Detection Co., Ltd
Address.....:	1-5 Floor, 4 Building, Tangtou 3rd Industrial Zone, Shiyan own, Bao'an District ,Shenzhen Guangdong. China
Testing location.....:	Same as above
Applicant's name.....:	Shenzhen Goldenlux Co., Ltd
Address.....:	3/F Building 1, Bei Fang Yong Fa Industrial Area, Shajing Town, Bao'an District, Shenzhen, China
Test specification:	
Standard.....:	IEC TR 62778:2014 (Second Edition)
Test procedure.....:	Test report
Non-standard test method.....:	N/A
Test Report Form No.....:	IEC62778A
Test Report Form(s) Originator.....:	DE
Master TRF.....:	Dated 2016-02
Test item description.....:	LED High Bay
Trade Mark.....:	GOLDENLUX®
Manufacturer.....:	Shenzhen Goldenlux Co., Ltd
Address.....:	3/F Building 1, Bei Fang Yong Fa Industrial Area, Shajing Town, Bao'an District, Shenzhen, China
Model/Type reference.....:	See model list
Ratings.....:	See model list

Model List

No.	Model	Power(W)	LED driver model	LED module		Weight (kg)	Size (mm) (ΦxH)	Classification
				LED chip Num.	Serial/ Parallel			
01	GL-UFO80-P	Max. 80	SS-120CNL-130	240	20S12P	1.7	Ø278x100	Class I, IP65
			Xi 100W 0.7-1.0A 1-10V 220-240V RI132S	240	20S12P			
02	GL-UFO100-P	Max. 100	SS-120CNL-130	240	20S12P	1.7	Ø278x100	Class I, IP65
			Xi 100W 0.7-1.0A 1-10V 220-240V RI132S	240	20S12P			
03	GL-UFO120-P	Max. 120	SS-150CNL-260	360	40S9P	2.0	Ø320x100	Class I, IP65
			Xi_150W_1.0-1.5A_1-10V_220-240V_RI132S	360	20S18P			
04	GL-UFO150-P	Max. 150	SS-150CNL-260	360	40S9P	2.0	Ø320x100	Class I, IP65
			Xi_150W_1.0-1.5A_1-10V_220-240V_RI132S	360	20S18P			
05	GL-UFO180-P	Max. 180	SS-200CNL-260	480	40S12P	2.6	Ø360x107	Class I, IP65
			Xi_200W_1.4-2.0A_1-10V_220-240V_RI132S	480	20S24P			
06	GL-UFO200-P	Max. 200	SS-200CNL-260	480	40S12P	2.6	Ø360x107	Class I, IP65
			Xi_200W_1.4-2.0A_1-10V_220-240V_RI132S	480	20S24P			

All models have the same parameters and materials, only GL-UFO200-P models are used as the main inspection.

Summary of testing:
Tests performed (name of test and test clause): The submitted samples were found to comply with requirements of standards: -- IEC TR 62778:2014
Summary of compliance with National Differences (List of countries addressed): N/A
Copy of marking plate: **N/A**

Test item particulars.....:	
Product evaluated.....:	☐ **LED package** ☐ **LED module** ☐ **Lamp** ☒ **Luminaire**
Rated voltage (V).....:	220-240V~ 50/60Hz
Rated power (W).....:	200
Rated CCT (K).....:	N/A
Rated Luminance (Mcd/m²).....:	N/A
Component report data used .....:	☒ **Not applicable** ☐ **LED package** ☐ **LED module** ☐ **Lamp** Report number: N/A
Possible test case verdicts:	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement.....:	F (Fail)
Testing.....:	Shenzhen De-Testing Detection Co., Ltd
Date of receipt of test item.....:	October 26, 2021
Date (s) of performance of tests.....:	October 27, 2021

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.

The tested sample(s) and the sample information are provided by the client.

"(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 ☒ comma / ☐ point is used as the decimal separator.

The test report only allows to be revised only within the report defined retention period unless standard or regulation was withdrawn or invalid.

When determining for test conclusion, measurement uncertainty of tests has been considered.

Name and address of factory (ies).....: The same as manufacturer

IEC TR 62778			
Clause	Requirement + Test	Result - Remark	Verdict

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

	TABLE A: Spectroradiometric measurement		**P**
	Measurement performed on:	☐ **LED package** ☐ **LED module** ☐ **Lamp** ☒ **Luminaire**	
	Model number.....	GL-UFO200-P	
	Test voltage (V).....	230~ 50Hz	—
	Test current (mA).....	/	—
	Test frequency (Hz).....	--	—
	Ambient, t (°C).....	25.8	—
	Measurement distance.....	☒ 20 cm ☐ ... cm	—
	Source size	☒ Non-small ☐ Small : .... mm	—
	Field of view	☐ 100 mrad ☒ 11 mrad ☐ 1,7 mrad (for small sources)	—

Item	Symbol	Units	Result
Correlated colour temperature	CCT	K	6378
Blue light hazard radiance	L_B	$W/(m^2 \cdot sr^1)$	5,204E+02
Blue light hazard irradiance	E_B	/	/
Luminance	L	cd/m^2	4,801E+06
Illuminance	E	lx	

	TABLE: Spectral distribution	P

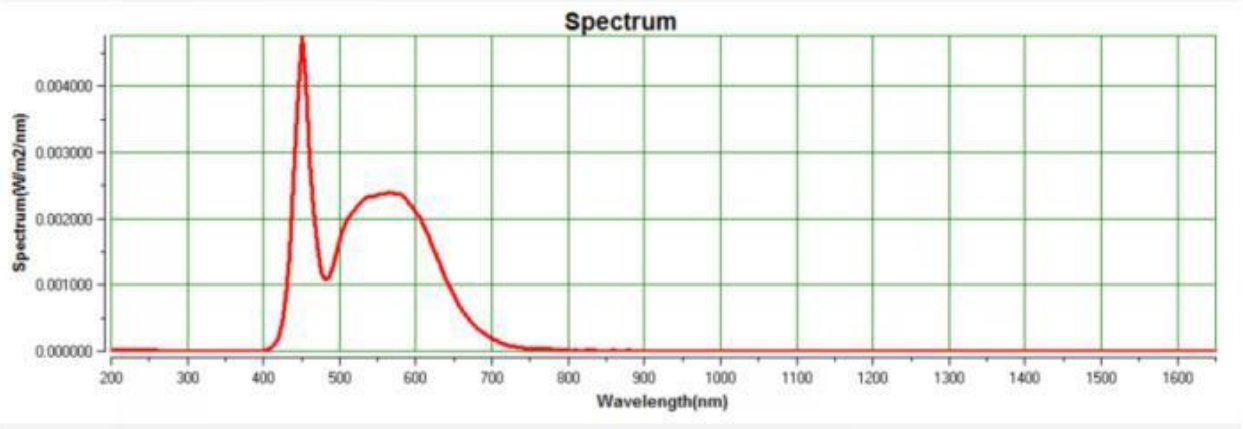

Photo documentation

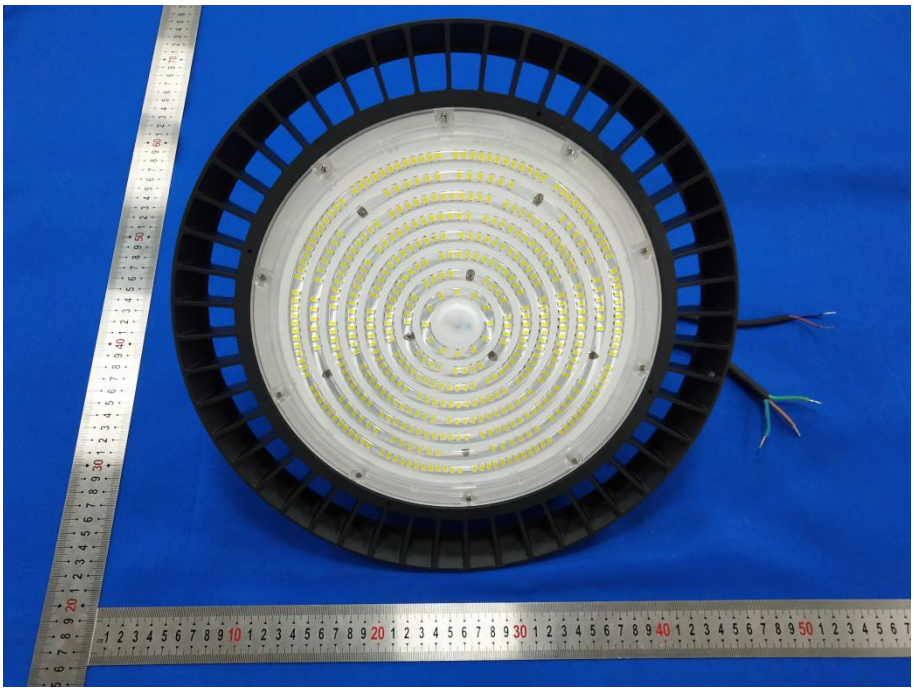

Fig. 1 -Front view

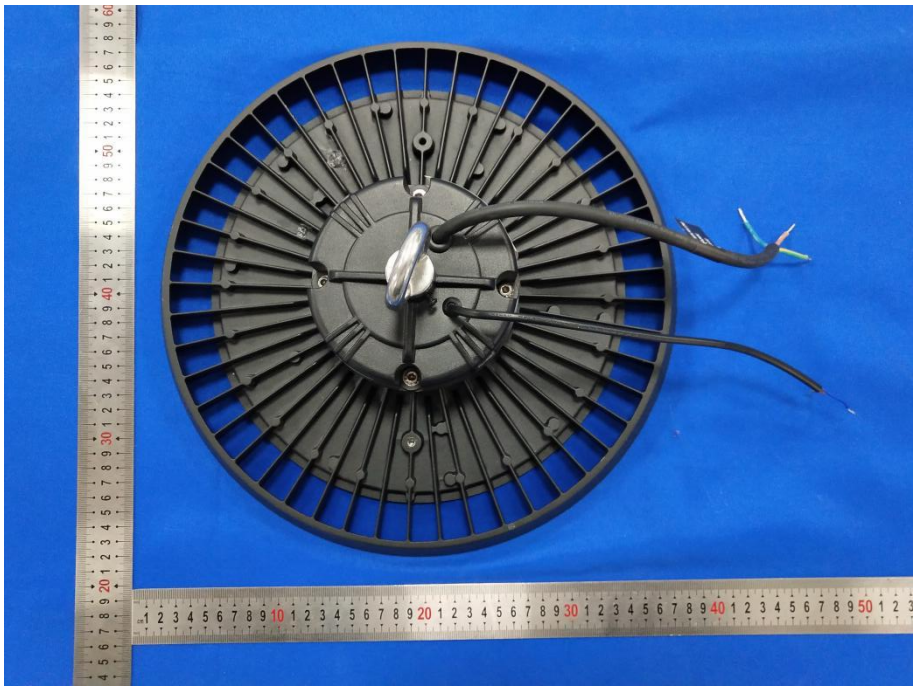

Fig. 2 -Rear view

Fig. 3 - Lamp bead photo

***** End of Report *****