

**TEST REPORT****IEC 62471****Photobiological safety of lamps and lamp systems**

Report reference No.....: LCS1702080203S

Tested by.....: Mage Li

*Mage Li*

Approved by.....: Hart Qiu

*Hart Qiu*

Date of issue .....: February 15, 2017

Contents.....: 14 pages

**Testing laboratory**

Name .....: Shenzhen Southern LCS Compliance Testing Laboratory Ltd .

Address .....: B Area, 1-2F, Building B, Zhongyu Green High-tech Industrial Park,  
Wenge Road, Heshuikou, Gongming Street, Guangming New  
District, Shenzhen, China

Testing location.....: As above

**Client**

Name .....: MLS CO.,LTD

Address.....: 1st AVENUE, XIAOLAN TOWN, ZHONGSHAN, GUANGDONG  
PROVINCE, CHINA PRC**Manufacturer**

Name .....: MLS CO.,LTD

Address.....: 1st AVENUE, XIAOLAN TOWN, ZHONGSHAN, GUANGDONG  
PROVINCE, CHINA PRC**Test specification**

Standard.....: IEC 62471: 2008

Test procedure .....: Compliance with IEC 62471: 2008

Non-standard test method .....: N/A

Test item Description .....: E2835LED

Trademark .....: N/A

Model and/or type reference .....: See model list

Rating(s).....: 3VDC, 150mA , 0.5W

**Test item particulars**

Lamp used.....: LED Lamps

**Test case verdicts**

Test case does not apply to the test object : N (N/A)

Test item does meet the requirement .....: P(Pass)

Test item does not meet the requirement ...: F(Fail)

**Testing**

Date of receipt of test item .....: February 01, 2017

Date(s) of performance of test .....: February 01, 2017 – February 15, 2017

Lamp classification group.....: ☒ Exempt ☐ Risk 1 ☐ Risk 2 ☐ Risk 3**General remarks**

This report shall not be reproduced except in full without the written approval of the testing laboratory.

The test results presented in this report relate only to the item tested.

"(see remark #)" refers to a remark appended to the report.

"(see Annex #)" refers to an annex appended to the report.

Throughout this report a comma is used as the decimal separator.

**Modified Information**

Version	Report No.	Revision Data	Summary
V1.0	LCS1702080203S	/	Original Version

**Remark**

1. Measurement was conducted at voltage 3VDC and a stable ambient temperature  $25 \pm 1^\circ\text{C}$ .
2. All models are used the same LED lamps bead, Measurement was conducted at model E2835UW 150mA.
3. The report includes: Attachment 1: 1 pages of product photos.

**Model list**

<b>Model</b>	<b>Rating</b>	<b>CCT</b>	<b>Model</b>	<b>Rating</b>	<b>CCT</b>
E2835UW 150mA	3V/150mA	6500K	E2835UN70	3V/150mA	4000K
E2835UZ 150mA	3V/150mA	5700K	E2835UN80	3V/150mA	4000K
E2835UN 150mA	3V/150mA	4000K	E2835UN21	3V/150mA	4000K
E2835US 150mA	3V/150mA	3000K	E2835UN23	3V/150mA	4000K
E2835UD 150mA	3V/150mA	2700K	E2835UN25	3V/150mA	4000K
E2835UW50	3V/150mA	6500K	E2835UN27	3V/150mA	4000K
E2835UW60	3V/150mA	6500K	E2835UN29	3V/150mA	4000K
E2835UW70	3V/150mA	6500K	E2835US50	3V/150mA	3000K
E2835UW80	3V/150mA	6500K	E2835US60	3V/150mA	3000K
E2835UW21	3V/150mA	6500K	E2835US70	3V/150mA	3000K
E2835UW23	3V/150mA	6500K	E2835US80	3V/150mA	3000K
E2835UW25	3V/150mA	6500K	E2835US21	3V/150mA	3000K
E2835UW27	3V/150mA	6500K	E2835US23	3V/150mA	3000K
E2835UW29	3V/150mA	6500K	E2835US25	3V/150mA	3000K
E2835UZ50	3V/150mA	5700K	E2835US27	3V/150mA	3000K
E2835UZ60	3V/150mA	5700K	E2835US29	3V/150mA	3000K
E2835UZ70	3V/150mA	5700K	E2835UD50	3V/150mA	2700K
E2835UZ80	3V/150mA	5700K	E2835UD60	3V/150mA	2700K
E2835UZ21	3V/150mA	5700K	E2835UD70	3V/150mA	2700K
E2835UZ23	3V/150mA	5700K	E2835UD80	3V/150mA	2700K
E2835UZ25	3V/150mA	5700K	E2835UD21	3V/150mA	2700K
E2835UZ27	3V/150mA	5700K	E2835UD23	3V/150mA	2700K
E2835UZ29	3V/150mA	5700K	E2835UD25	3V/150mA	2700K
E2835UN50	3V/150mA	4000K	E2835UD27	3V/150mA	2700K
E2835UN60	3V/150mA	4000K	E2835UD29	3V/150mA	2700K

EN 62471			
Clause	Requirement - Test	Result - Remark	Verdict
<b>4</b>	<b>EXPOSURE LIMITS</b>		<b>P</b>
4.1	General		P
	The exposure limits in this standard apply to continuous sources where the exposure duration is not less than 0,01 ms and not more than any 8-hour period, and should be used as guides in the control of exposure. The values should not be regarded as precisely defined lines between safe and unsafe levels.		P
	Detailed spectral data of a light source are generally required only if the luminance of the source exceeds $10^4 \text{ cd}\cdot\text{m}^{-2}$ .		P
4.2	Specific factors involved in the determination and application of retinal exposure limits		P
4.2.1	Pupil diameter		P
4.2.2	Angular subtense of source and measurement field-of-view		P
4.3	Hazard exposure limits		P
4.3.1	Actinic UV hazard exposure limit for the skin and eye		P
	The limits for exposure to ultraviolet radiation incident upon the unprotected skin or eye apply to exposure within any 8-hour period.		P
	To protect against injury of the eye or skin from ultraviolet radiation exposure produced by a broadband source, the effective integrated spectral irradiance, $E_s$ , of the light source shall not exceed the levels defined by:		P
	$E_s \cdot t = \sum_{200}^{400} E_{\lambda}(\lambda, t) \cdot S_{UV}(\lambda) \Delta t \cdot \Delta \lambda$ $\text{J}\cdot\text{m}^{-2}$		P
	The permissible time for exposure to ultraviolet radiation incident upon the unprotected eye or skin shall be computed by:		P
	$t_{\max} = \frac{30}{E_s}$		P
4.3.2	Near-UV hazard exposure limit for the eye		P

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Clause	Requirement - Test	Result - Remark	Verdict
	For the spectral region 315 nm to 400 nm (UV-A) the total radiant exposure to the eye shall not exceed $10000 \text{ J m}^{-2}$ for exposure times less than 1000 s. For exposure times greater than 1000 s (approximately 16 minutes) the UV-A irradiance for the unprotected eye, EUVA, shall not exceed $10 \text{ W m}^{-2}$ .		P
	$E_{SUV} \bullet t = \sum_{315}^{400} \sum_t E_{\lambda}(\lambda, t) \bullet \Delta t \bullet \Delta \lambda \leq 1000 \text{ J} \cdot \text{m}^{-2} (t < 1000 \text{ s})$		P
	The permissible time for exposure to ultraviolet radiation incident upon the unprotected eye fortimes less than 1000 s, shall be computed by:		P
	$t_{\max} \leq \frac{1000}{E_{UVA}} \quad (\text{S})$		P
4.3.3	Retinal blue light hazard exposure limit		P
	To protect against retinal photochemical injury from chronic blue-light exposure, the integrated spectral radiance of the light source weighted against the blue-light hazard function, $B(\lambda)$ , i.e., the blue light weighted radiance, LB, shall not exceed the levels defined by:		P
	$L_B \bullet t = \sum_{300}^{700} \sum_t L_{\lambda}(\lambda, t) \bullet B_{(\lambda)} \bullet \Delta t \bullet \Delta \lambda \leq 10^6 \text{ J} \cdot \text{m}^{-2} \cdot \text{sr}^{-1}$	(for $t \leq 10^4 \text{ s}$ )	P
	$L_B = \sum_{300}^{700} L_{\lambda} \bullet B_{(\lambda)} \bullet \Delta \lambda \leq 100 \text{ W} \cdot \text{m}^{-2} \cdot \text{sr}^{-1}$	For $t > 10^4 \text{ S}$	P
4.3.4	Retinal blue light hazard exposure limit - small source		P
	Thus the spectral irradiance at the eye $E_{\lambda}$ , weighted against the blue-light hazard function $B(\lambda)$ (see Table 4.2) shall not exceed the levels defined by:		P
	$E_B \bullet t = \sum_{300}^{700} \sum_t E_{\lambda}(\lambda, t) \bullet B(\lambda) \bullet \Delta t \bullet \Delta \lambda \leq 100$	(for $t \geq 100 \text{ s}$ )	P
	$E_B = \sum_{300}^{700} E_{\lambda} \bullet B(\lambda) \bullet \Delta \lambda \leq 1$	For $t \leq 100 \text{ s}$	P
4.3.5	Retinal thermal hazard exposure limit		P



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Clause	Requirement - Test	Result - Remark	Verdict
	To protect against retinal thermal injury, the integrated spectral radiance of the light source, $L_{\lambda}$ , weighted by the burn hazard weighting function $B(\lambda)$ (from Figure 4.2 and Table 4.2), i.e., the burn hazard weighted radiance, shall not exceed the levels defined by:		P
	$L_R = \sum_{380}^{1400} L_{\lambda} \cdot B(\lambda) \cdot \Delta\lambda \leq \frac{50000}{\alpha \cdot t^{0.25}} \text{ J}\cdot\text{m}^{-2}\cdot\text{sr}^{-1}$	10us≤t≤10s	P
4.3.6	Retinal thermal hazard exposure limit – weak visual stimulus		P
	For an infrared heat lamp or any near-infrared source where a weak visual stimulus is inadequate to activate the aversion response, the near infrared (780 nm to 1400 nm) radiance, $L_{IR}$ , as viewed by the eye for exposure times greater than 10 s shall be limited to:		P
	$L_{IR} = \sum_{780}^{1400} L_{\lambda} \cdot B(\lambda) \cdot \Delta\lambda \leq \frac{6000}{\alpha} \text{ J}\cdot\text{m}^{-2}\cdot\text{sr}^{-1}$	t>10s	P
4.3.7	Infrared radiation hazard exposure limits for the eye		P
	To avoid thermal injury of the cornea and possible delayed effects upon the lens of the eye (cataractogenesis), ocular exposure to infrared radiation, $E_{IR}$ , over the wavelength range 780 nm to 3000 nm, for times less than 1000 s, shall not exceed:		P
	$E_{IR} = \sum_{780}^{3000} E_{\lambda} \cdot \Delta\lambda \leq 1800 \cdot t^{-0.75} \text{ W}\cdot\text{m}^{-2}$	T≤1000s	P
	For times greater than 1000 s the limit becomes:		P
	$E_{IR} = \sum_{780}^{3000} E_{\lambda} \cdot \Delta\lambda \leq 100 \text{ W}\cdot\text{m}^{-2}$	T>1000s	P
4.3.8	Thermal hazard exposure limit for the skin		P
	Visible and infrared radiant exposure (380 nm to 3000 nm) of the skin shall be limited to:		P
	$E_H \cdot t = \sum_{380}^{3000} \sum_t E_{\lambda}(\lambda, t) \cdot \Delta\lambda \leq 20000 \cdot t^{0.25}$		P
5	MEASUREMENT OF LAMPS AND LAMP SYSTEMS		P

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Clause	Requirement - Test	Result - Remark	Verdict
5.1	Measurement conditions		P
	Measurement conditions shall be reported as part of the evaluation against the exposure limits and the assignment of risk classification.		P
5.1.1	Lamp ageing (seasoning).....:		P
	Seasoning of lamps shall be done as stated in the appropriate IEC lamp standard.		P
5.1.2	Test environment.....:		P
	For specific test conditions, see the appropriate IEC lamp standard or in the absence of such standards, the appropriate national standards or manufacturer's recommendations.		P
5.1.3	Extraneous radiation.....:		P
	Careful checks should be made to ensure that extraneous sources of radiation and reflections do not add significantly to the measurement results.		P
5.1.4	Lamp operation.....:		P
	Operation of the test lamp shall be provided in accordance with:		P
	--the appropriate IEC lamp standard.		P
	--the lamp manufacturer's recommendation		P
5.1.5	Lamp system operation.....:		P
	The power source for operation of the test lamp shall be provided in accordance with		P
	--the appropriate IEC standard.		P
	-- the lamp manufacturer's recommendation		P
5.2	Measurement procedure		P
5.2.1	Irradiance measurements.....:		P
	minimum input aperture diameter of 7 mm		P
	maximum input aperture diameter of 50 mm		P
	The measurement shall be made in that position of the beam giving the maximum reading.		P
	The measurement instrument is adequate calibrated		P
5.2.2	Radiance measurements..... :		P
5.2.2.1	Standard method.....:		P
	The measurement made with an optical system		P

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	The instrument shall be calibrated to read in absolute incident radiant power per unit receiving area and per unit solid angle of acceptance averaged over the field of view (FOV) of the instrument.		P
5.2.2.2	Alternative method.....:		P
	Alternative to an imaging radiance set-up, an irradiance measurement set-up with a circular field stop placed at the source can be used to perform radiance measurements		P
5.2.3	Measurement of source size.....:		P
	The determination of $\alpha$ , the angle subtended by a source, requires the determination of the 50% emission point of the source		P
5.2.4	Pulse width measurement for pulsed sources.....:		N
	The determination of $\Delta t$ , the nominal pulse duration of a source, requires the determination of the time during which the emission is > 50% of its peak value.		N
5.3	Analysis methods		P
5.3.1	Weighting curve interpolations.....:		P
	The standardize interpolated values, use linear interpolation on the log of given values to obtain intermediate point at the wavelength intervals desired.		P
5.3.2	Calculations.....:		P
	The calculation of source hazard values shall be performed by weighting the spectral scan by the appropriate function and calculating the total weighted energy.		P
5.3.3	Measurement uncertainty.....:		P
	The quality of all measurement results must be quantified by an analysis of the uncertainty.		P
6	LAMP CLASSIFICATION		P
	For the purposes of this standard it was decided that the values shall be reported as follows:		P
	for lamps intended for general lighting service (GLS), the hazard values shall be reported as either irradiance or radiance values at a distance which produces an illuminance of 500 lux, but not at a distance less than 200 mm;		P



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Clause	Requirement - Test	Result - Remark	Verdict
	for all other light sources, including pulsed lamp sources, the hazard values shall be reported at a distance of 200 mm.		N
6.1	Continuous wave lamps		P
6.1.1	Exempt group	See table 6.1	P
	The exempt group are lamps, which does not pose any photobiological. This requirement is met by any lamp that does not pose		P
	--an actinic ultraviolet hazard ( $E_s$ ) within 8-hours exposure (30000 s), nor		P
	--a near-UV hazard (EUVA) within 1000 s, (about 16 min) nor		P
	--a retinal blue-light hazard (LB) within 10000 s (about 2,8 h), nor		P
	--a retinal thermal hazard (LR) within 10 s, nor		P
	--an infrared radiation hazard for the eye (EIR) within 1000 s.		P
6.1.2	Risk Group 1 (Low-Risk)		N
	In this group are lamps, which exceeds the limited for the except group but that does not pose:		N
	--an actinic ultraviolet hazard ( $E_s$ ) within 10000 s, nor		N
	--a near ultraviolet hazard (EUVA) within 300 s, nor		N
	--a retinal blue-light hazard (LB) within 100 s, nor		N
	--a retinal thermal hazard (LR) within 10 s, nor		N
	--an infrared radiation hazard for the eye (EIR) within 100 s.		N
	lamps that emit infrared radiation without a strong visual stimulus (i.e., less than $10 \text{ cd}\cdot\text{m}^{-2}$ ) and do not pose a near-infrared retinal hazard (LIR), within 100 s are in Risk Group 1 (Low-Risk).		N
6.1.3	Risk Group 2 (Moderate-Risk)		N
	This requirement is met by any lamp that exceeds the limits for risk Group 1, but that does not pose:		N
	--an actinic ultraviolet hazard ( $E_s$ ) within 1000 s exposure, nor		N
	--a near ultraviolet hazard (EUVA) within 100 s, nor		N
	--a retinal blue-light hazard (LB) within 0,25 s (aversion response), nor		N

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Clause	Requirement - Test	Result - Remark	Verdict
	--a retinal thermal hazard (LR) within 0,25 s (aversion response), nor		N
	--an infrared radiation hazard for the eye (EIR) within 10 s.		N
	lamps that emit infrared radiation without a strong visual stimulus (i.e., less than 10 cd·m <sup>-2</sup> ) and do not pose a near infrared retinal hazard (LIR) within 10 s are in Risk Group 2 (Moderate-Risk).		N
6.1.4	Risk Group 3 (High-Risk)		N
	Lamps which exceed the limits for Risk Group 2 (Moderate-Risk) are in Risk Group3 (High-Risk).		N
6.2	Pulsed lamps		N
	Pulsed lamp criteria shall apply to a single pulse and to any group of pulses within 0.25 second.		N
	A pulsed lamp shall be evaluated at the highest nominal energy loading as specified by the manufacturer		N
	The risk group determination of the lamp being tested shall be made as follows:		N
	-- A lamp that exceeds the exposure limit shall be classified as belonging to Risk Group 3 (High-Risk).		N
	-- For single pulsed lamps, a lamp whose weighted radiant exposure or weighted radiance dose is below the EL shall be classified as belonging to the Exempt Group.		N
	-- For repetitively pulsed lamps, a lamp whose weighted radiant exposure or weighted radiance dose is below the EL, shall be evaluated using the Continuous wave risk criteria discussed in clause 6.1, using time averaged values of the pulsed emission.		N

<b>Annex A</b>	<b>SUMMARY OF BIOLOGICAL EFFECTS</b>	--
<b>Annex B</b>	<b>MEASUREMENT METHOD</b>	--
<b>Annex C</b>	<b>UNCERTAINTY ANALYSIS</b>	--
<b>Annex D</b>	<b>GENERAL REFERENCES</b>	--

## Tables

Table 4.1	Spectral weighting function for assessing ultraviolet hazards for skin and eye.		P
Wavelength <sup>1</sup> λ, nm	UV hazard function SUV(λ)	Wavelength λ, nm	UV hazard function SUV(λ)
200	0,030	313*	0,006
205	0,051	315	0,003
210	0,075	316	0,0024
215	0,095	317	0,0020
220	0,120	318	0,0016
225	0,150	319	0,0012
230	0,190	320	0,0010
235	0,240	322	0,00067
240	0,300	323	0,00054
245	0,360	325	0,00050
250	0,430	328	0,00044
254*	0,500	330	0,00041
255	0,520	333*	0,00037
260	0,650	335	0,00034
265	0,810	340	0,00028
270	1,000	345	0,00024
275	0,960	350	0,00020
280	0,960	350	0,00020
285	0,880	355	0,00016
290	0,770	360	0,00013
295	0,540	370	0,00009
297*	0,460	375	0,000077
300	0,300	380	0,000064
303*	0,120	385	0,000053
305	0,060	390	0,000044
308	0,026	395	0,000036
310	0,015	400	0,000030
1 Wavelengths chosen are representative: other values should be obtained by logarithmic interpolation at intermediate wavelengths.			
* Emission lines of a mercury discharge spectrum.			

## Tables

Table 4.2	Spectral weighting functions for assessing retinal hazards from broadband optical sources.	P
Wavelength nm	Blue-light hazard function $B(\lambda)$	Burn hazard function $R(\lambda)$
300	0,01	--
305	0,01	--
310	0,01	--
315	0,01	--
320	0,01	--
325	0,01	--
330	0,01	--
335	0,01	--
340	0,01	--
345	0,01	--
350	0,01	--
355	0,01	--
360	0,01	--
365	0,01	--
370	0,01	--
375	0,01	--
380	0,01	0,1
385	0,013	0,13
390	0,025	0,25
395	0,05	0,5
400	0,10	1,0
405	0,20	2,0
410	0,40	4,0
415	0,80	8,0
420	0,90	9,0
425	0,95	9,5
430	0,98	9,8
435	1,00	10,0
440	1,00	10,0
445	0,97	9,7
450	0,94	9,4
455	0,90	9,0
460	0,80	8,0
465	0,70	7,0
470	0,62	6,2
475	0,55	5,5
480	0,45	4,5
485	0,40	4,0
490	0,22	2,2
495	0,16	1,6
500-600	$10^{[(450-\lambda)/50]}$	1,0
600-700	0,001	1,0
700-1050	--	$10^{[(700-\lambda)/500]}$
1050-1150	--	0,2
1150-1200	--	$0,2 \cdot 10^{0,02(1150-\lambda)}$
1200-1400	--	0,02

## Tables

Table 5.4	Summary of the ELs for the surface of the skin or cornea (irradiance based values)				P
Hazard Name	Relevant equation	Wavelength range nm	Exposure duration sec	Limiting aperture rad (deg)	EL in terms of constant irradiance $W \cdot m^{-2}$
Actinic UV skin & eye	$E_s = \sum E_\lambda \cdot S(\lambda) \cdot \Delta\lambda$	200 – 400	< 30000	1,4 (80)	30/t
Eye UV-A	$E_{UVA} = \sum E_\lambda \cdot \Delta\lambda$	315 – 400	$\leq 1000$ >1000	1,4 (80)	10000/t 10
Blue-light small source	$E_B = \sum E_\lambda \cdot B(\lambda) \cdot \Delta\lambda$	300 – 700	$\leq 100$ >100	< 0,011	100/t 1,0
Eye IR	$E_{IR} = \sum E_\lambda \cdot \Delta\lambda$	780 – 3000	$\leq 1000$ >1000	1,4 (80)	18000/t <sup>0,75</sup> 100
Skin thermal	$E_H = \sum E_\lambda \cdot \Delta\lambda$	380 – 3000	< 10	2 sr	20000/t <sup>0,75</sup>

Table 5.5	Summary of the ELs for the retina (radiance based values)				P
Hazard Name	Relevant equation	Wavelength range nm	Exposure duration sec	Field of view radians	EL in terms of constant irradiance $W \cdot m^{-2} \cdot sr^{-1}$
Blue light	$L_B = \sum L_\lambda \cdot B(\lambda) \cdot \Delta\lambda$	300 – 700	0,25 – 10 10-100 100-10000 $\geq 10000$	$0,011 \cdot \sqrt{(t/10)}$ 0,011 $0,0011 \cdot \sqrt{t}$ 0,1	106/t 106/t 106/t 100
Retinal thermal	$L_R = \sum L_\lambda \cdot R(\lambda) \cdot \Delta\lambda$	380 – 1400	< 0,25 0,25 – 10	0,0017 $0,011 \cdot \sqrt{(t/10)}$	$50000/(\alpha \cdot t^{0,25})$ $50000/(\alpha \cdot t^{0,25})$
Retinal thermal (weak visual stimulus)	$L_{IR} = \sum L_\lambda \cdot R(\lambda) \cdot \Delta\lambda$	780 – 1400	> 10	0,011	6000/α



Tables

Table 6.1		Emission limits for risk groups of continuous wave lamps(based on EU directive 2006/25/EC)							P
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	SUV(λ)	Es	W•m <sup>-2</sup>	0,001	1.58 × 10 <sup>-4</sup>	-	-	-	-
Near UV		E <sub>UVA</sub>	W•m <sup>-2</sup>	0.33	1.76 × 10 <sup>-4</sup>	-	-	-	-
Blue light	B(λ)	L <sub>B</sub>	W•m <sup>-2</sup> •sr <sup>-1</sup>	100	0.75 × 10 <sup>1</sup>	10000	-	4000000	-
Blue light, small source	B(λ)	E <sub>B</sub>	W•m <sup>-2</sup>	0.01*	-	1,0	-	400	-
Retinal thermal	R(λ)	L <sub>R</sub>	W•m <sup>-2</sup> •sr <sup>-1</sup>	28000/α	6.57 × 10 <sup>3</sup>	28000/α	-	71000/α	-
Retinal thermal, weak visual stimulus**	R(λ)	L <sub>IR</sub>	W•m <sup>-2</sup> •sr <sup>-1</sup>	545000 0.0017 ≧ α ≧ 0.011	-	-	-	-	-
				6000/α 0.011 ≧ α ≧ 0.1	-	-	-	-	-
IR radiation, eye		E <sub>IR</sub>	W•m <sup>-2</sup>	100	0.0048	570	-	3200	-
<div><div>*</div><div>Small source defined as one with α &lt; 0,011 radian. Averaging field of view at 10000 s is 0,1 radian.</div></div> <div><div>**</div><div>Involves evaluation of non-GLS source</div></div>									

## ATTACHMENT 1

## Photo Documentation

View:  
Model:  
E2835UW  
150mA

☒General  
☐Front  
☐Rear  
☐Internal  
☐Top  
☐Bottom  
☐PWB

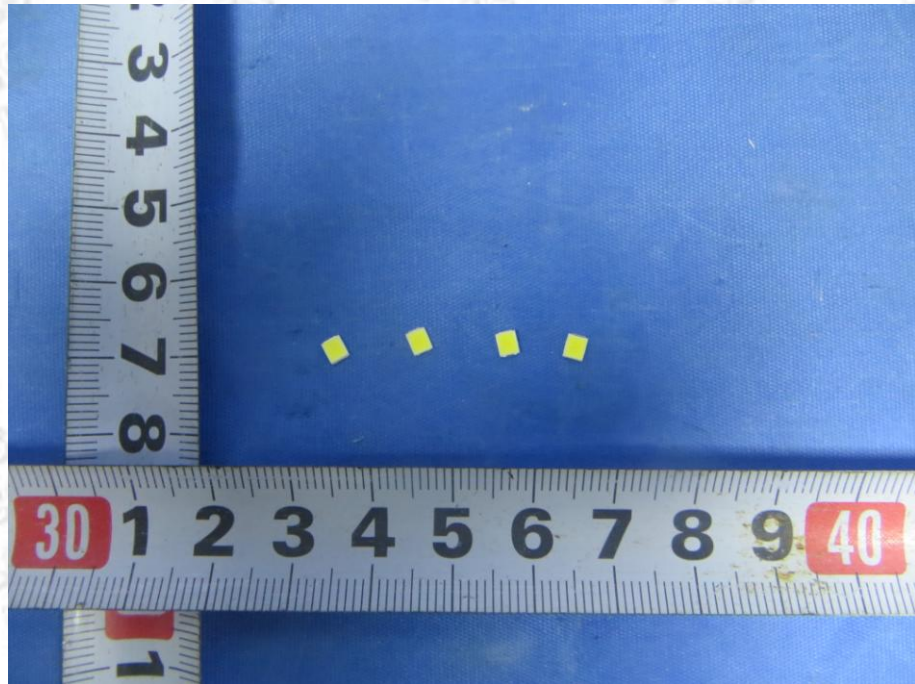


Figure 1

View:

☒General  
☐Front  
☐Rear  
☐Internal  
☐Top  
☐Bottom  
☐PWB

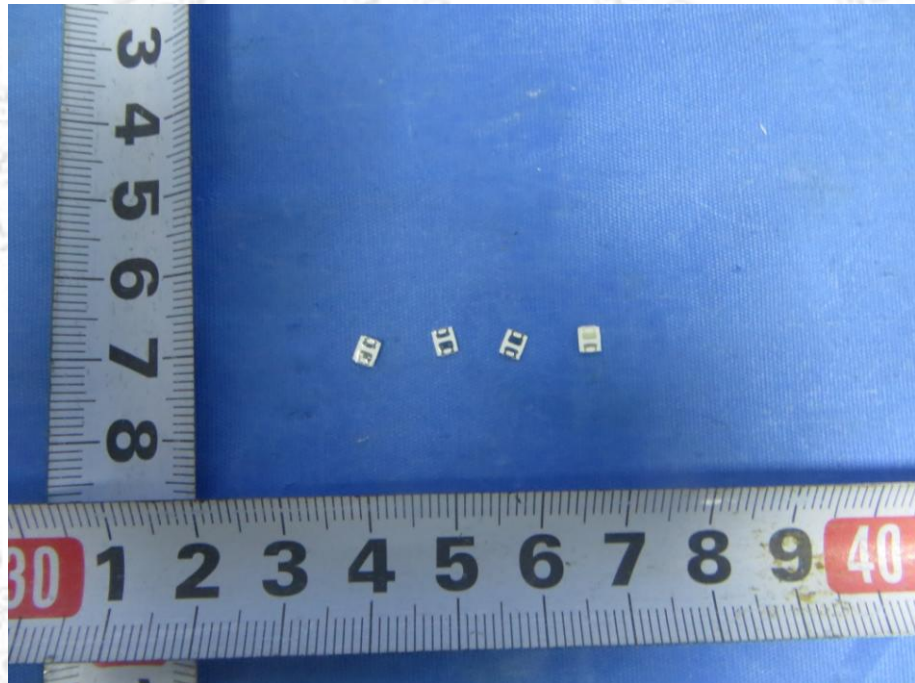


Figure 2