





Test Report issued under the responsibility of:



TEST REPORT IEC TR 62778 Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires	
Report Number :	6156363.50P
Date of issue	2023-05-04
Total number of pages	68
Name of Testing Laboratory preparing the Report	DEKRA Testing and Certification (Shanghai) Ltd. 3/F, #250, Jiangchangsan Road building 16 Headquarter Economy Park Shibei Hi-Tech Park, Jing'an District, Shanghai, P.R.C 200436
Applicant's name	Lumileds (Shanghai) Management Co., Ltd.
Address	Building 1-A, No. 19 & 20, Lane 299, Wenshui Road, Jing'an District, Shanghai, 200072, China
Test specification:	
Standard	IEC TR 62778:2014 (Second Edition)
Test procedure	CB Scheme
Non-standard test method	N/A
Test Report Form No.	IEC62778A
Test Report Form(s) Originator	TÜV SÜD Product Service GmbH
Master TRF	Dated 2016-02
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Test item description :	Integral LED module	
Trade Mark :	LUMILEDS	
Manufacturer	Lumileds (Shanghai) Management Co., Ltd. Building 1-A, No. 19 & 20, Lane 299, Wenshui Road, Jing'an District, Shanghai, 200072, China	
Model/Type reference	L2C5-AABBCCCCDEEFF Refer to annex model list for details	
Ratings	Maximum voltage: 62,3 Vdc; Maximum current: 4500 mA Refer to annex model list for details.	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	DEKRA Testing and Certification (Shanghai) Ltd.
Testing location/ address		3/F, #250, Jiangchangsan Road building 16 Headquater Economy Park Shibe Hi-Tech Park, Jing'an District, Shanghai, P.R.C 200436
<input type="checkbox"/>	Associated CB Testing Laboratory:	
Testing location/ address		
Tested by (name, function, signature)		Nancy Wang 
Approved by (name, function, signature) ..		Hanson Zhang 
<input type="checkbox"/>	Testing procedure: CTF Stage 1:	
Testing location/ address		
Tested by (name, function, signature)		
Approved by (name, function, signature)		
<input type="checkbox"/>	Testing procedure: CTF Stage 2:	
Testing location/ address		
Tested by (name + signature)		
Witnessed by (name, function, signature)		
Approved by (name, function, signature)		
<input type="checkbox"/>	Testing procedure: CTF Stage 3:	
<input type="checkbox"/>	Testing procedure: CTF Stage 4:	
Testing location/ address		

Tested by (name, function, signature)		
Witnessed by (name, function, signature)		
Approved by (name, function, signature)		
Supervised by (name, function, signature)		

List of Attachments (including a total number of pages in each attachment):

- Appendix 1: Photo Documentation
- Appendix 2: Model List
- Appendix 3: Relative Spectrum Of Tested Sample(s)
- Appendix 4: Table 6.1 Based On IEC 62471:2006
- Appendix 5: Table 6.1 Based On EN62471:2008, Attachment To IEC 62471 European Group Differences And National Differences
- Appendix 6: Blue Light Hazard-Forward Current Relationship (Non-mandatory Information)

Summary of testing:**Tests performed (name of test and test clause):**

These tests fulfil the requirements of standard ISO/IEC 17025.

When determining the test conclusion, the Measurement Uncertainty of test has been considered.

The tested sample of
L2C5-65701208F1500

Has been tested according to the IEC 62471(first edition, 2006-07) **at 200mm** and been classified as **RG 2**

Have been tested according to the EN 62471:2008 **at 200mm** and been classified as **RG 2**

Have been tested according to the IEC/TR 62778:2014 and been classified as **RG 2 for blue light hazard**.

The tested sample of
L2C5-50701208F1500

Has been tested according to the IEC 62471(first edition, 2006-07) **at 200mm** and been classified as **RG 2 at 1800mA and RG1 at 763mA**

Have been tested according to the EN 62471:2008 **at 200mm** and been classified as **RG 2 at 1800mA and RG1 at 763mA**

Have been tested according to the IEC/TR 62778:2014 and been classified as **RG 2 at 1800mA and RG1 Unlimited at 763mA for blue light hazard**.

Testing location:

DEKRA Testing and Certification (Shanghai) Ltd.
3/F, #250, Jiangchangsan Road building 16
Headquater Economy Park Shibe Hi-Tech Park,
Jing'an District, Shanghai, P.R.C 200436

The tested sample of
L2C5-40701208F1500
Has been tested according to the IEC 62471(first
edition, 2006-07) **at 200mm** and been classified
as **RG 2 at 1800mA and RG1 at 1053mA**
Have been tested according to the EN
62471:2008 **at 200mm** and been classified as
RG 2 at 1800mA and RG1 at 1053mA
Have been tested according to the IEC/TR
62778:2014 and been classified as **RG 2 at**
1800mA and RG1 Unlimited at 1053mA for blue
light hazard.

The tested sample of
L2C5-30701208F1500
Has been tested according to the IEC 62471(first
edition, 2006-07) **at 200mm** and been classified
as **RG 1.**
Have been tested according to the EN
62471:2008 **at 200mm** and been classified as
RG 1.
Have been tested according to the IEC/TR
62778:2014 and been classified as **RG 1**
Unlimited for blue light hazard.

Summary of compliance with National Differences (List of countries addressed): EN Standards

EN 62471:2008

The product fulfills the requirements

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

N/A

Test item particulars: See below	
Product evaluated:	<input checked="" type="checkbox"/> LED package <input type="checkbox"/> LED module <input type="checkbox"/> Lamp <input type="checkbox"/> Luminaire
Rated voltage (V)	Maximum voltage: 62,3 Vdc
Rated current (mA)	Maximum current: 4500 mA
Rated CCT (K):	--
Rated Luminance (Mcd/m²)	--
Component report data used	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> LED package <input type="checkbox"/> LED module <input type="checkbox"/> Lamp Report number: --
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: --	
Date of receipt of test item	
: 2023-05	
Date (s) of performance of tests	
: 2023-05	
General remarks:	
"(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 <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator. The product complied with the following standards: <input checked="" type="checkbox"/> IEC 62471:2006 <input checked="" type="checkbox"/> EN 62471:2008 <input type="checkbox"/> IEC/TR 62471-2:2009 <input checked="" type="checkbox"/> IEC/TR 62778:2014 Decision rules applied Procedure 2 "Accuracy Method" as stated in the IEC Guide 115:2007.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 62471-2:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided :	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) : Lumileds (Shanghai) Management Co., Ltd
Building 1-A, No. 19 & 20, Lane 299, Wenshui
Road, Jing'an District, Shanghai, 200072, China

General product information:

Full tests were performed on model L2C5-65701208F1500, L2C5-50701208F1500, L2C5-40701208F1500 and L2C5-30701208F1500.

The products were considered as worst case which should be evaluated at 200mm.

The sample of L2C5-65701208F1500 was tested at 200mm from the light source. The CCT of spectral irradiance was found at 6144 K.

The sample of L2C5-50701208F1500 was tested at 200mm from the light source. The CCT of spectral irradiance was found at 4573 K.

The sample of L2C5-40701208F1500 was tested at 200mm from the light source. The CCT of spectral irradiance was found at 3816 K.

The sample of L2C5-30701208F1500 was tested at 200mm from the light source. The CCT of spectral irradiance was found at 2976 K.

Base on the Model list which listed on the appendix 2, The tested sample can be considered as
 typical product worst product

Which the results can be reference used for the other models.

Type test was performed according to IEC 62471:2006 procedure.

Amendment 1 report:

This report is issued to suspend the original test report 6039987.50P, dated on 2018-09-28, to include following changed and/or additions:

- Add new model: See New Model list

After review, no test was considered necessary.

Amendment 2 report:

This report is issued to suspend the original test report 6051921.50P, dated on 2019-06-18, to include following changed and/or additions:

- Add new model: L2C5-30701208F1500

Full tests were performed on model L2C5-30701208F1500.

Amendment 3 report:

This report is issued to suspend the original test report 6064591.50P, dated on 2019-10-29, to include following changed and/or additions:

- Add new model: See New Model list

After review, no test was considered necessary.

Amendment 4 report:

This report is issued to suspend the original test report 6130389.50P, dated on 2022-05-30, to include following changed and/or additions:

- The new models for LUXEON CoB Core Range series and LUXEON CoB Core Range PW series was added. The new models were same as the original ones except for flux density.

After review, no test was considered necessary.

Amendment 5 report:

This report is issued to suspend the original test report 6146694.50P, dated on 2022-12-02, to include following changed and/or additions:

- New models were added in Model list with bold letters.

After review, no additional tests were considered necessary.

Amendment 6 report:

This report is issued to suspend the original test report 6153393.50P, dated on 2023-03-14, to include following changed and/or additions:

- New models were added in Model list with bold letters.

After review, no additional tests were considered necessary.

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		N/A
	LED package is evaluated as : <input type="checkbox"/> RG0 unlimited <input type="checkbox"/> RG1 unlimited		N/A
	E_{thr} of LED package applies to array		N/A
8	RISK GROUP CLASSIFICATION		P
	Risk group achieved:		P
	- .. Risk Group 0 unlimited		N/A
	- .. Risk Group 1 unlimited		P
	- E_{thr} (lx) : Distance to reach RG1 (m) :	Refer to the Supplementary information of TABLE: Spectroradiometric measurement as following	P

IEC TR 62778			
Clause	Requirement + Test	Result - Remark	Verdict

TABLE:Spectroradiometric measurement				
Measurement performed on:		<input checked="" type="checkbox"/> LED package <input type="checkbox"/> LED module <input type="checkbox"/> Lamp <input type="checkbox"/> Luminaire		
Model number.....		L2C5-65701208F1500		
Test voltage (V)		--		—
Test current (mA)		1800 mA		—
Test frequency (Hz).....		--		—
Ambient, t(°C)		25°C		—
Measurement distance.....		<input checked="" type="checkbox"/> 20 cm <input type="checkbox"/> ... cm		—
Source size		<input checked="" type="checkbox"/> Non-small <input type="checkbox"/> Small :		—
Field of view		<input type="checkbox"/> 100 mrad <input checked="" type="checkbox"/> 11 mrad <input type="checkbox"/> 1,7 mrad (for small sources)		—
Item	Symb ol	Units	Result	Remark
Correlated colour temperature	CCT	K	6144	
x/y colour coordinates			0,3178 / 0,3485	
Blue light hazard radiance	L _B	W/(m ² •sr ¹)	2,02E+04	@11mrad
Blue light hazard irradiance	E _B	W/m ²	--	
Luminance	L	cd/m ²	2,32E+07	@11mrad
Illuminance	E	lx	7,05E+04	
Supplementary information: Per IEC/TR 62778:2014 E _{thr} = 1149 lx D _{min} = 1567 mm				

IEC TR 62778				
Clause	Requirement + Test		Result - Remark	Verdict
	TABLE:Spectroradiometric measurement			
	Measurement performed on:	<input checked="" type="checkbox"/> LED package <input type="checkbox"/> LED module <input type="checkbox"/> Lamp <input type="checkbox"/> Luminaire		
	Model number	L2C5-50701208F1500		
	Test voltage (V)	--		—
	Test current (mA)	1800 mA		—
	Test frequency (Hz)	--		—
	Ambient, t(°C)	25°C		—
	Measurement distance	<input checked="" type="checkbox"/> 20 cm <input type="checkbox"/> ... cm		—
	Source size	<input checked="" type="checkbox"/> Non-small <input type="checkbox"/> Small :		—
	Field of view	<input type="checkbox"/> 100 mrad <input checked="" type="checkbox"/> 11 mrad <input type="checkbox"/> 1,7 mrad (for small sources)		—
Item	Symb ol	Units	Result	Remark
Correlated colour temperature	CCT	K	4573	
x/y colour coordinates			0,3599 / 0,3720	
Blue light hazard radiance	L _B	W/(m ² •sr ¹)	2,20E+04	@11mrad
Blue light hazard irradiance	E _B	W/m ²	--	
Luminance	L	cd/m ²	2,51E+07	@11mrad
Illuminance	E	lx	8,58E+04	
Supplementary information: Per IEC/TR 62778:2014 E _{thr} = 1141 lx D _{min} = 1734 mm				

IEC TR 62778				
Clause	Requirement + Test		Result - Remark	Verdict
	TABLE:Spectroradiometric measurement			
	Measurement performed on:	<input checked="" type="checkbox"/> LED package <input type="checkbox"/> LED module <input type="checkbox"/> Lamp <input type="checkbox"/> Luminaire		
	Model number	L2C5-50701208F1500		
	Test voltage (V)	--		—
	Test current (mA)	1350 mA		—
	Test frequency (Hz)	--		—
	Ambient, t(°C)	25°C		—
	Measurement distance	<input checked="" type="checkbox"/> 20 cm <input type="checkbox"/> ... cm		—
	Source size	<input checked="" type="checkbox"/> Non-small <input type="checkbox"/> Small :		—
	Field of view	<input type="checkbox"/> 100 mrad <input checked="" type="checkbox"/> 11 mrad <input type="checkbox"/> 1,7 mrad (for small sources)		—
Item	Symb ol	Units	Result	Remark
Correlated colour temperature	CCT	K	4509	
x/y colour coordinates			0,3626 / 0,3756	
Blue light hazard radiance	L _B	W/(m ² •sr ¹)	1,66E+04	@11mrad
Blue light hazard irradiance	E _B	W/m ²	--	
Luminance	L	cd/m ²	1,95E+07	@11mrad
Illuminance	E	lx	6,50E+04	
Supplementary information: Per IEC/TR 62778:2014 E _{thr} = 1175 lx D _{min} = 1488 mm				

IEC TR 62778				
Clause	Requirement + Test		Result - Remark	Verdict
	TABLE:Spectroradiometric measurement			
	Measurement performed on:	<input checked="" type="checkbox"/> LED package <input type="checkbox"/> LED module <input type="checkbox"/> Lamp <input type="checkbox"/> Luminaire		
	Model number	L2C5-50701208F1500		
	Test voltage (V)	--		—
	Test current (mA)	900 mA		—
	Test frequency (Hz)	--		—
	Ambient, t(°C)	25°C		—
	Measurement distance	<input checked="" type="checkbox"/> 20 cm <input type="checkbox"/> ... cm		—
	Source size	<input checked="" type="checkbox"/> Non-small <input type="checkbox"/> Small :		—
	Field of view	<input type="checkbox"/> 100 mrad <input checked="" type="checkbox"/> 11 mrad <input type="checkbox"/> 1,7 mrad (for small sources)		—
Item	Symb ol	Units	Result	Remark
Correlated colour temperature	CCT	K	4677	
x/y colour coordinates			0,3560 / 0,3672	
Blue light hazard radiance	L _B	W/(m ² •sr ¹)	1,16E+04	@11mrad
Blue light hazard irradiance	E _B	W/m ²	--	
Luminance	L	cd/m ²	1,42E+07	@11mrad
Illuminance	E	lx	4,54E+04	
Supplementary information: Per IEC/TR 62778:2014 E _{thr} = 1224 lx D _{min} = 1218 mm				

IEC TR 62778				
Clause	Requirement + Test		Result - Remark	Verdict
	TABLE:Spectroradiometric measurement			
	Measurement performed on:	<input checked="" type="checkbox"/> LED package <input type="checkbox"/> LED module <input type="checkbox"/> Lamp <input type="checkbox"/> Luminaire		
	Model number	L2C5-50701208F1500		
	Test voltage (V)	--		—
	Test current (mA)	450 mA		—
	Test frequency (Hz)	--		—
	Ambient, t(°C)	25°C		—
	Measurement distance	<input checked="" type="checkbox"/> 20 cm <input type="checkbox"/> ... cm		—
	Source size	<input checked="" type="checkbox"/> Non-small <input type="checkbox"/> Small :		—
	Field of view	<input type="checkbox"/> 100 mrad <input checked="" type="checkbox"/> 11 mrad <input type="checkbox"/> 1,7 mrad (for small sources)		—
Item	Symb ol	Units	Result	Remark
Correlated colour temperature	CCT	K	4561	
x/y colour coordinates			0,3609 / 0,3754	
Blue light hazard radiance	L _B	W/(m ² •sr ¹)	5,91E+03	@11mrad
Blue light hazard irradiance	E _B	W/m ²	--	
Luminance	L	cd/m ²	7,69E+06	@11mrad
Illuminance	E	lx	2,31E+04	
Supplementary information: N/A				

IEC TR 62778				
Clause	Requirement + Test		Result - Remark	Verdict
	TABLE:Spectroradiometric measurement			
	Measurement performed on:	<input checked="" type="checkbox"/> LED package <input type="checkbox"/> LED module <input type="checkbox"/> Lamp <input type="checkbox"/> Luminaire		
	Model number	L2C5-40701208F1500		
	Test voltage (V)	--		—
	Test current (mA)	1800 mA		—
	Test frequency (Hz)	--		—
	Ambient, t(°C)	25°C		—
	Measurement distance	<input checked="" type="checkbox"/> 20 cm <input type="checkbox"/> ... cm		—
	Source size	<input checked="" type="checkbox"/> Non-small <input type="checkbox"/> Small :		—
	Field of view	<input type="checkbox"/> 100 mrad <input checked="" type="checkbox"/> 11 mrad <input type="checkbox"/> 1,7 mrad (for small sources)		—
Item	Symb ol	Units	Result	Remark
Correlated colour temperature	CCT	K	3816	
x/y colour coordinates			0,3904 / 0,3869	
Blue light hazard radiance	L _B	W/(m ² •sr ¹)	1,55E+04	@11mrad
Blue light hazard irradiance	E _B	W/m ²	--	
Luminance	L	cd/m ²	2,67E+07	@11mrad
Illuminance	E	lx	9,17E+04	
Supplementary information: Per IEC/TR 62778:2014 E _{thr} = 1726 lx D _{min} = 1457 mm				

IEC TR 62778				
Clause	Requirement + Test		Result - Remark	Verdict
	TABLE:Spectroradiometric measurement			
	Measurement performed on:	<input checked="" type="checkbox"/> LED package <input type="checkbox"/> LED module <input type="checkbox"/> Lamp <input type="checkbox"/> Luminaire		
	Model number	L2C5-40701208F1500		
	Test voltage (V)	--		—
	Test current (mA)	1350 mA		—
	Test frequency (Hz)	--		—
	Ambient, t(°C)	25°C		—
	Measurement distance	<input checked="" type="checkbox"/> 20 cm <input type="checkbox"/> ... cm		—
	Source size	<input checked="" type="checkbox"/> Non-small <input type="checkbox"/> Small :		—
	Field of view	<input type="checkbox"/> 100 mrad <input checked="" type="checkbox"/> 11 mrad <input type="checkbox"/> 1,7 mrad (for small sources)		—
Item	Symb ol	Units	Result	Remark
Correlated colour temperature	CCT	K	3799	
x/y colour coordinates			0,3920 / 0,3897	
Blue light hazard radiance	L _B	W/(m ² •sr ¹)	1,26E+04	@11mrad
Blue light hazard irradiance	E _B	W/m ²	--	
Luminance	L	cd/m ²	2,11E+07	@11mrad
Illuminance	E	lx	7,45E+04	
Supplementary information: Per IEC/TR 62778:2014 E _{thr} = 1675 lx D _{min} = 1334 mm				

IEC TR 62778				
Clause	Requirement + Test		Result - Remark	Verdict
	TABLE:Spectroradiometric measurement			
	Measurement performed on:	<input checked="" type="checkbox"/> LED package <input type="checkbox"/> LED module <input type="checkbox"/> Lamp <input type="checkbox"/> Luminaire		
	Model number	L2C5-40701208F1500		
	Test voltage (V)	--		—
	Test current (mA)	900 mA		—
	Test frequency (Hz)	--		—
	Ambient, t(°C)	25°C		—
	Measurement distance	<input checked="" type="checkbox"/> 20 cm <input type="checkbox"/> ... cm		—
	Source size	<input checked="" type="checkbox"/> Non-small <input type="checkbox"/> Small :		—
	Field of view	<input type="checkbox"/> 100 mrad <input checked="" type="checkbox"/> 11 mrad <input type="checkbox"/> 1,7 mrad (for small sources)		—
Item	Symb ol	Units	Result	Remark
Correlated colour temperature	CCT	K	3705	
x/y colour coordinates			0,3980 / 0,3959	
Blue light hazard radiance	L _B	W/(m ² •sr ¹)	8,52E+03	@11mrad
Blue light hazard irradiance	E _B	W/m ²	--	
Luminance	L	cd/m ²	1,46E+07	@11mrad
Illuminance	E	lx	5,04E+04	
Supplementary information: N/A				

IEC TR 62778				
Clause	Requirement + Test		Result - Remark	Verdict
	TABLE:Spectroradiometric measurement			
	Measurement performed on:	<input checked="" type="checkbox"/> LED package <input type="checkbox"/> LED module <input type="checkbox"/> Lamp <input type="checkbox"/> Luminaire		
	Model number	L2C5-40701208F1500		
	Test voltage (V)	--		—
	Test current (mA)	450 mA		—
	Test frequency (Hz)	--		—
	Ambient, t(°C)	25°C		—
	Measurement distance	<input checked="" type="checkbox"/> 20 cm <input type="checkbox"/> ... cm		—
	Source size	<input checked="" type="checkbox"/> Non-small <input type="checkbox"/> Small :		—
	Field of view	<input type="checkbox"/> 100 mrad <input checked="" type="checkbox"/> 11 mrad <input type="checkbox"/> 1,7 mrad (for small sources)		—
Item	Symb ol	Units	Result	Remark
Correlated colour temperature	CCT	K	3668	
x/y colour coordinates			0,4016 / 0,4019	
Blue light hazard radiance	L _B	W/(m ² •sr ¹)	4,27E+03	@11mrad
Blue light hazard irradiance	E _B	W/m ²	--	
Luminance	L	cd/m ²	7,41E+06	@11mrad
Illuminance	E	lx	2,48E+04	
Supplementary information: N/A				

IEC TR 62778				
Clause	Requirement + Test		Result - Remark	Verdict
	TABLE:Spectroradiometric measurement			
	Measurement performed on:	<input checked="" type="checkbox"/> LED package <input type="checkbox"/> LED module <input type="checkbox"/> Lamp <input type="checkbox"/> Luminaire		
	Model number	L2C5-30701208F1500		
	Test voltage (V)	--		—
	Test current (mA)	1800 mA		—
	Test frequency (Hz)	--		—
	Ambient, t(°C)	25°C		—
	Measurement distance	<input checked="" type="checkbox"/> 20 cm <input type="checkbox"/> ... cm		—
	Source size	<input checked="" type="checkbox"/> Non-small <input type="checkbox"/> Small :		—
	Field of view	<input type="checkbox"/> 100 mrad <input checked="" type="checkbox"/> 11 mrad <input type="checkbox"/> 1,7 mrad (for small sources)		—
Item	Symb ol	Units	Result	Remark
Correlated colour temperature	CCT	K	2976	
x/y colour coordinates			0,4428 / 0,4131	
Blue light hazard radiance	L _B	W/(m ² •sr ¹)	5,87E+03	@11mrad
Blue light hazard irradiance	E _B	W/m ²	--	
Luminance	L	cd/m ²	2,20E+07	@11mrad
Illuminance	E	lx	6,70E+04	
Supplementary information: N/A				

IEC TR 62778			
Clause	Requirement + Test	Result - Remark	Verdict

	TABLE: Angular light distribution	N/A

List of test equipment used:

A completed list of used test equipment shall be provided in the Test Reports when a Manufacturer Testing Laboratory according to CTF stage 1 or CTF stage 2 procedure has been used.

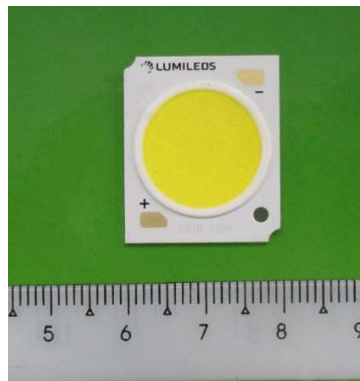
Note: This page may be removed when CTF stage 1 CTF stage 2 are not used. See also clause 4.8 in OD 2020 for more details.

Clause	Measurement / testing	Testing / measuring equipment / material used, (Equipment ID)	Range used	Last Calibration date	Calibration due date
7	Irradiance measurements Radiance measurements	IDR 300 Monochromator (SH 344)	200-3000nm	/	/
7	Radiance measurements	S009 Telescope (SH 345)	300-1400nm	/	/
7	Radiance measurements	SRS 12 Radiance Standard (SH 348)	300-1400nm	2023/2/27	2024/2/26
7	Irradiance measurements	CL6 Spectral irradiance standard (SH 350)	300-3000nm	2023/2/27	2024/2/26
7	Irradiance measurements	CL7 Spectral irradiance standard (SH 351)	200-400nm	2023/2/27	2024/2/26
7	Irradiance measurements	Photometric detector head (SH 359)	380nm-800nm	2023/2/26	2024/2/25
7	Irradiance measurements Radiance measurements	Wattmeter (SH030)	500V,40A	2022/10/10	2023/10/10

Appendix 1: Photo Documentation



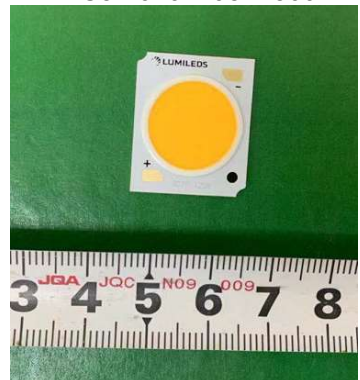
L2C5-65701208F1500



L2C5-50701208F1500



L2C5-40701208F1500



L2C5-30701208F1500
Overview

Appendix 2: Model List

L2C5-65701208F1500, L2C5-50701208F1500, L2C5-40701208F1500 and L2C5-30701208F1500 are part of Lumileds LUXEON CoB Core Range Gen 4 product line. The samples are with 6500K, 5000K, 4000K and 3000K CCT separately, and we got different hazard classifications for them at different driven current. The tested sample of L2C5-65701208F1500 is with the highest CCT in that product line, and the tested samples L2C5-50701208F1500, L2C5-40701208F1500 and L2C5-30701208F1500 are with 5000K, 4000K and 3000K CCT in the product line. The classifications are thus valid (worst case) within the LUXEON CoB Core Range Gen 4 product line with part number L2C5-AABBCCCCDEEFF, where AA represents nominal ANSI CCT bins can be equal to or lower than the tested CCT values (see TR IEC62778), and BB represents CRI ranging from 70 and above, and CCCC represents product configuration, and D represents options for product specification, and EE represents for light emitting surface (LES) size, and FF represents for options for product specification. See the appendix below for an explanation of the type designation.

L2C5-AABBCCCCDEEFF

Where:

AA - designate nominal CCT (example: 22=2200K, 27=2700K, 30=3000K, 35=3500K, 40=4000K, 50=5000K, 56=5600K, 57=5700K, 65=6500K)

BB - designates minimum CRI (example: 60=60CRI,70=70CRI, 80=80CRI, 90=90CRI, 95=95CRI)

CCCC - designates product configuration (example: 0406, 1202, 1203, 1204, 1205, 1208, 1210, 1211, 1213, 1216, 1812, 1321, 1825, 2520, 3618)

D – designates options for product specification(example: F ,X, H,**G**)

EE – designates light emitting surface(LES)size(example: 06=6mm, 09=9mm, 13=13mm, 15=15mm, 19=19mm, 23=23mm, 29=29mm, 32=32mm)

FF - designates options for product specification

Model No	Drive Current (mA)	2200K/2700K	3000K	3200K/3500K	4000K	5000K	5600K	5700K	6500K
L2C5-AABB1202DEEFF	400	RG1	RG1	RG2	RG2	RG2	RG2	RG2	RG2
	234	RG1	RG1	RG1	RG1	RG2	RG2	RG2	RG2
	170	RG1	RG1	RG1	RG1	RG1	RG2	RG2	RG2
L2C5-AABB1203DEEFF	600	RG1	RG1	RG2	RG2	RG2	RG2	RG2	RG2
	351	RG1	RG1	RG1	RG1	RG2	RG2	RG2	RG2
	254	RG1	RG1	RG1	RG1	RG1	RG2	RG2	RG2

L2C5-AABB1204DEEFF	900	RG1	RG1	RG2	RG2	RG2	RG2	RG2	RG2
	527	RG1	RG1	RG1	RG1	RG2	RG2	RG2	RG2
	382	RG1	RG1	RG1	RG1	RG1	RG2	RG2	RG2
L2C5-AABB1205DEEFF	1200	RG1	RG1	RG2	RG2	RG2	RG2	RG2	RG2
	702	RG1	RG1	RG1	RG1	RG2	RG2	RG2	RG2
	509	RG1	RG1	RG1	RG1	RG1	RG2	RG2	RG2
L2C5-AABB1208DEEFF	1800	RG1	RG1	RG2	RG2	RG2	RG2	RG2	RG2
	1053	RG1	RG1	RG1	RG1	RG2	RG2	RG2	RG2
	763	RG1	RG1	RG1	RG1	RG1	RG2	RG2	RG2
L2C5-AABB1210DEEFF	1800	RG1	RG1	RG2	RG2	RG2	RG2	RG2	RG2
	900	RG1	RG1	RG1	RG1	RG2	RG2	RG2	RG2
	450	RG1	RG1	RG1	RG1	RG1	RG2	RG2	RG2
L2C5-AABB1211DEEFF	2400	RG1	RG1	RG2	RG2	RG2	RG2	RG2	RG2
	1404	RG1	RG1	RG1	RG1	RG2	RG2	RG2	RG2
	1017	RG1	RG1	RG1	RG1	RG1	RG2	RG2	RG2
L2C5-AABB1213DEEFF	2600	RG1	RG1	RG2	RG2	RG2	RG2	RG2	RG2
	1300	RG1	RG1	RG1	RG1	RG2	RG2	RG2	RG2
	650	RG1	RG1	RG1	RG1	RG1	RG2	RG2	RG2
L2C5-AABB1216DEEFF	3200	RG1	RG1	RG2	RG2	RG2	RG2	RG2	RG2
	1872	RG1	RG1	RG1	RG1	RG2	RG2	RG2	RG2
	1356	RG1	RG1	RG1	RG1	RG1	RG2	RG2	RG2
L2C5-AABB1812DEEFF	2400	RG1	RG1	RG2	RG2	RG2	RG2	RG2	RG2
	1404	RG1	RG1	RG1	RG1	RG2	RG2	RG2	RG2
	1017	RG1	RG1	RG1	RG1	RG1	RG2	RG2	RG2
L2C5-AABB1321DEEFF	4200	RG1	RG1	RG2	RG2	RG2	RG2	RG2	RG2
	2457	RG1	RG1	RG1	RG1	RG2	RG2	RG2	RG2
	1780	RG1	RG1	RG1	RG1	RG1	RG2	RG2	RG2

Model No	Drive Current (mA)	2200K/2700K	3000K	3200K/3500K	4000K	5000K	5600K	5700K	6500K
L2C5-AABB1825DEEFF	4500	RG1	RG1	RG2	RG2	RG2	RG2	RG2	RG2
	2633	RG1	RG1	RG1	RG1	RG2	RG2	RG2	RG2
	1908	RG1	RG1	RG1	RG1	RG1	RG2	RG2	RG2
L2C5-AAB2520DEEFF	3200	RG1	RG1	RG2	RG2	RG2	RG2	RG2	RG2
	1600	RG1	RG1	RG1	RG1	RG2	RG2	RG2	RG2
	800	RG1	RG1	RG1	RG1	RG1	RG2	RG2	RG2
L2C5-AABB3618DEEFF	3240	RG1	RG1	RG2	RG2	RG2	RG2	RG2	RG2
	1620	RG1	RG1	RG1	RG1	RG2	RG2	RG2	RG2
	810	RG1	RG1	RG1	RG1	RG1	RG2	RG2	RG2

LUXEON CoB Core Range Gen 4 series (L2C5-AABBCCCCDEEFF):

PART NUMBER	NOMINAL CCT (K)	MINIMUM CRI	TYPICAL FLUX (lm)	LES (mm)	TYPICAL FLUX DENSITY (lm/mm ²)	TEST CURRENT (mA)	MAXIMUM CURRENT (mA)	MAXIMUM VOLTAGE (V)
L2C5-30701203F0900	3000	70	1639	9	25.8	300	600	41.5
L2C5-40701203F0900	4000	70	1743	9	27.4	300	600	41.5
L2C5-27801203F0900	2700	80	1510	9	23.7	300	600	41.5
L2C5-30801203F0900	3000	80	1547	9	24.3	300	600	41.5
L2C5-35801203F0900	3500	80	1578	9	24.8	300	600	41.5
L2C5-40801203F0900	4000	80	1635	9	25.7	300	600	41.5
L2C5-50801203F0900	5000	80	1635	9	25.7	300	600	41.5
L2C5-27901203F0900	2700	90	1300	9	20.4	300	600	41.5
L2C5-30901203F0900	3000	90	1344	9	21.1	300	600	41.5
L2C5-35901203F0900	3500	90	1398	9	22.0	300	600	41.5
L2C5-40901203F0900	4000	90	1390	9	21.8	300	600	41.5
L2C5-27951203F0900	2700	95	1110	9	17.4	300	600	41.5
L2C5-30951203F0900	3000	95	1170	9	18.4	300	600	41.5
L2C5-40951203F0900	4000	95	1327	9	20.9	300	600	41.5
L2C5-27801204F1300	2700	80	2324	13	17.5	450	900	41.5
L2C5-30801204F1300	3000	80	2376	13	17.9	450	900	41.5
L2C5-40801204F1300	4000	80	2511	13	18.9	450	900	41.5
L2C5-27901204F1300	2700	90	2003	13	15.1	450	900	41.5
L2C5-30901204F1300	3000	90	2061	13	15.5	450	900	41.5
L2C5-35901204F1300	3500	90	2143	13	16.1	450	900	41.5
L2C5-30701205F1300	3000	70	3287	13	24.8	600	1200	41.5
L2C5-40701205F1300	4000	70	3486	13	26.3	600	1200	41.5
L2C5-27801205F1300	2700	80	3019	13	22.7	600	1200	41.5
L2C5-30801205F1300	3000	80	3137	13	23.6	600	1200	41.5

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L2C5-35801205F1300	3500	80	3200	13	24.1	600	1200	41.5
L2C5-40801205F1300	4000	80	3270	13	24.6	600	1200	41.5
L2C5-50801205F1300	5000	80	3270	13	24.6	600	1200	41.5
L2C5-57801205F1300	5700	80	3261	13	24.6	600	1200	41.5
L2C5-65801205F1300	6500	80	3179	13	24.0	600	1200	41.5
L2C5-27901205F1300	2700	90	2600	13	19.6	600	1200	41.5
L2C5-30901205F1300	3000	90	2708	13	20.4	600	1200	41.5
L2C5-35901205F1300	3500	90	2816	13	21.2	600	1200	41.5
L2C5-40901205F1300	4000	90	2913	13	21.9	600	1200	41.5
L2C5-50901205F1300	5000	90	2914	13	22.0	600	1200	41.5
L2C5-27951205F1300	2700	95	2230	13	16.8	600	1200	41.5
L2C5-30951205F1300	3000	95	2400	13	18.1	600	1200	41.5
L2C5-40951205F1300	4000	95	2704	13	20.4	600	1200	41.5
L2C5-30701208F1500	3000	70	4933	15	27.9	900	1800	41.5
L2C5-40701208F1500	4000	70	5243	15	29.7	900	1800	41.5
L2C5-50701208F1500	5000	70	5243	15	29.7	900	1800	41.5
L2C5-57701208F1500	5700	70	5093	15	28.8	900	1800	41.5
L2C5-65701208F1500	6500	70	4962	15	28.1	900	1800	41.5
L2C5-27801208F1500	2700	80	4528	15	25.6	900	1800	41.5
L2C5-30801208F1500	3000	80	4717	15	26.7	900	1800	41.5
L2C5-35801208F1500	3500	80	4811	15	27.2	900	1800	41.5
L2C5-40801208F1500	4000	80	4905	15	27.8	900	1800	41.5
L2C5-50801208F1500	5000	80	4905	15	27.8	900	1800	41.5
L2C5-57801208F1500	5700	80	4891	15	27.7	900	1800	41.5
L2C5-65801208F1500	6500	80	4769	15	27.0	900	1800	41.5
L2C5-27901208F1500	2700	90	3904	15	22.1	900	1800	41.5
L2C5-30901208F1500	3000	90	4043	15	22.9	900	1800	41.5
L2C5-35901208F1500	3500	90	4205	15	23.8	900	1800	41.5
L2C5-40901208F1500	4000	90	4370	15	24.7	900	1800	41.5

L2C5-27951208F1500	2700	95	3350	15	19.0	900	1800	41.5
L2C5-30951208F1500	3000	95	3600	15	20.4	900	1800	41.5
L2C5-40951208F1500	4000	95	3969	15	22.5	900	1800	41.5
L2C5-27801210F1500	2700	80	4573	15	25.9	900	1800	41.5
L2C5-30801210F1500	3000	80	4764	15	27.0	900	1800	41.5
L2C5-35801210F1500	3500	80	4859	15	27.5	900	1800	41.5
L2C5-40801210F1500	4000	80	5037	15	28.5	900	1800	41.5
L2C5-27901210F1500	2700	90	4000	15	22.6	900	1800	41.5
L2C5-30901210F1500	3000	90	4134	15	23.4	900	1800	41.5
L2C5-35901210F1500	3500	90	4247	15	24.0	900	1800	41.5
L2C5-40901210F1500	4000	90	4414	15	25.0	900	1800	41.5
L2C5-27951210F1500	2700	95	3384	15	19.1	900	1800	41.5
L2C5-30701211F1900	3000	70	6739	18.5	25.1	1200	2400	41.5
L2C5-40701211F1900	4000	70	7163	18.5	26.6	1200	2400	41.5
L2C5-50701211F1900	5000	70	7163	18.5	26.6	1200	2400	41.5
L2C5-57701211F1900	5700	70	6961	18.5	25.9	1200	2400	41.5
L2C5-65701211F1900	6500	70	6782	18.5	25.2	1200	2400	41.5
L2C5-27801211F1900	2700	80	6132	18.5	22.8	1200	2400	41.5
L2C5-30801211F1900	3000	80	6305	18.5	23.5	1200	2400	41.5
L2C5-35801211F1900	3500	80	6430	18.5	23.9	1200	2400	41.5
L2C5-40801211F1900	4000	80	6643	18.5	24.7	1200	2400	41.5
L2C5-50801211F1900	5000	80	6643	18.5	24.7	1200	2400	41.5
L2C5-57801211F1900	5700	80	6624	18.5	24.6	1200	2400	41.5
L2C5-65801211F1900	6500	80	6290	18.5	23.4	1200	2400	41.5
L2C5-27901211F1900	2700	90	5213	18.5	19.4	1200	2400	41.5
L2C5-30901211F1900	3000	90	5455	18.5	20.3	1200	2400	41.5
L2C5-35901211F1900	3500	90	5688	18.5	21.2	1200	2400	41.5
L2C5-40901211F1900	4000	90	5840	18.5	21.7	1200	2400	41.5
L2C5-50901211F1900	5000	90	5840	18.5	21.7	1200	2400	41.5

L2C5-27951211F1910	2700	95	4480	18.5	16.7	1200	2400	41.5
L2C5-30951211F1910	3000	95	4690	18.5	17.4	1200	2400	41.5
L2C5-40701211F1910	4000	70	6519	18.5	24.3	1200	2400	41.5
L2C5-50701211F1910	5000	70	6519	18.5	24.3	1200	2400	41.5
L2C5-40801211F1910	4000	80	6046	18.5	22.5	1200	2400	41.5
L2C5-50701213F2300	5000	70	7858	22.5	19.8	1300	2600	41.5
L2C5-30801213F2300	3000	80	6875	22.5	17.3	1300	2600	41.5
L2C5-40801213F2300	4000	80	7359	22.5	18.5	1300	2600	41.5
L2C5-30701216F2300	3000	70	8875	22.5	22.3	1600	3200	41.5
L2C5-40701216F2300	4000	70	9364	22.5	23.6	1600	3200	41.5
L2C5-50701216F2300	5000	70	9364	22.5	23.6	1600	3200	41.5
L2C5-57701216F2300	5700	70	9167	22.5	23.1	1600	3200	41.5
L2C5-65701216F2300	6500	70	8931	22.5	22.5	1600	3200	41.5
L2C5-27801216F2300	2700	80	8150	22.5	20.5	1600	3200	41.5
L2C5-30801216F2300	3000	80	8342	22.5	21.0	1600	3200	41.5
L2C5-35801216F2300	3500	80	8508	22.5	21.4	1600	3200	41.5
L2C5-40801216F2300	4000	80	8830	22.5	22.2	1600	3200	41.5
L2C5-50801216F2300	5000	80	8830	22.5	22.2	1600	3200	41.5
L2C5-57801216F2300	5700	80	8803	22.5	22.1	1600	3200	41.5
L2C5-27901216F2300	2700	90	7021	22.5	17.7	1600	3200	41.5
L2C5-30901216F2300	3000	90	7300	22.5	18.4	1600	3200	41.5
L2C5-35901216F2300	3500	90	7659	22.5	19.3	1600	3200	41.5
L2C5-40901216F2300	4000	90	7659	22.5	19.3	1600	3200	41.5
L2C5-50901216F2300	5000	90	7727	22.5	19.4	1600	3200	41.5
L2C5-40701812F2300	4000	70	10395	22.5	26.1	1200	2100	62.3
L2C5-50701812F2300	5000	70	10500	22.5	26.4	1200	2100	62.3
L2C5-30801812F2300	3000	80	9134	22.5	23.0	1200	2100	62.3
L2C5-40801812F2300	4000	80	9657	22.5	24.3	1200	2100	62.3
L2C5-50801812F2300	5000	80	9793	22.5	24.6	1200	2100	62.3

L2C5-30801816F2300	3000	80	11715	22.5	29.5	1200	2100	62.3
L2C5-40801816F2300	4000	80	12360	22.5	31.1	1200	2100	62.3
L2C5-22601321F2900	2200	60	12179	29.2	18.2	2100	4200	44.5
L2C5-40701321F2900	4000	70	13185	29.2	19.7	2100	4200	44.5
L2C5-50701321F2900	5000	70	13318	29.2	19.9	2100	4200	44.5
L2C5-27801321F2900	2700	80	11430	29.2	17.1	2100	4200	44.5
L2C5-30801321F2900	3000	80	11930	29.2	17.8	2100	4200	44.5
L2C5-40801321F2900	4000	80	12613	29.2	18.8	2100	4200	44.5
L2C5-22601825F3200	2200	60	17640	32.8	20.9	2250	4500	62.3
L2C5-40701825F3200	4000	70	19291	32.8	22.8	2250	4500	62.3
L2C5-50701825F3200	5000	70	20350	32.8	24.1	2250	4500	62.3
L2C5-30801825F3200	3000	80	17281	32.8	20.5	2250	4500	62.3
L2C5-35801825F3200	3500	80	17700	32.8	20.9	2250	4500	62.3
L2C5-40801825F3200	4000	80	18270	32.8	21.6	2250	4500	62.3
L2C5-50801825F3200	5000	80	18666	32.8	22.1	2250	4500	62.3
L2C5-56801825F3200	5600	80	18395	32.8	21.8	2250	4500	62.3
L2C5-30901825F3200	3000	90	15250	32.8	18.0	2250	4500	62.3
L2C5-35901825F3200	3500	90	16220	32.8	19.2	2250	4500	62.3
L2C5-40901825F3200	4000	90	16490	32.8	19.5	2250	4500	62.3
L2C5-56901825F3200	5600	90	15300	32.8	18.1	2250	4500	62.3
L2C5-50702520F2900	5000	70	23800	29.2	35.5	1600	3200	84.7
L2C5-50802520F2900	5000	80	21762	29.2	32.5	1600	3200	84.7
L2C5-50703618F32DT	5000	70	27639	32.8	32.7	1620	3240	110
L2C5-27801203F09DZ	2700	80	1421	9	22.3	300	600	41.5
L2C5-27801203F09AT	2700	80	1510	9	23.7	300	600	41.5
L2C5-30801203F09DJ	3000	80	1547	9	24.3	300	600	41.5
L2C5-30801203F09DZ	3000	80	1486	9	23.4	300	600	41.5
L2C5-30801203F09AT	3000	80	1547	9	24.3	300	600	41.5
L2C5-35801203F09DJ	3500	80	1578	9	24.8	300	600	41.5

L2C5-35801203F09DZ	3500	80	1516	9	23.8	300	600	41.5
L2C5-35801203F09AT	3500	80	1578	9	24.8	300	600	41.5
L2C5-40801203F09DZ	4000	80	1578	9	24.8	300	600	41.5
L2C5-40801203F09AT	4000	80	1635	9	25.7	300	600	41.5
L2C5-27901203F09DJ	2700	90	1300	9	20.4	300	600	41.5
L2C5-27901203F09AT	2700	90	1300	9	20.4	300	600	41.5
L2C5-30901203F09DJ	3000	90	1344	9	21.1	300	600	41.5
L2C5-30901203F09AT	3000	90	1344	9	21.1	300	600	41.5
L2C5-35901203F09DJ	3500	90	1398	9	22	300	600	41.5
L2C5-35901203F09AT	3500	90	1398	9	22	300	600	41.5
L2C5-40901203F09DJ	4000	90	1390	9	21.8	300	600	41.5
L2C5-40901203F09AT	4000	90	1390	9	21.8	300	600	41.5
L2C5-27801205F13DZ	2700	80	2842	13	21.4	600	1200	41.5
L2C5-30801205F13DZ	3000	80	2983	13	22.5	600	1200	41.5
L2C5-35801205F13DZ	3500	80	3013	13	22.7	600	1200	41.5
L2C5-40801205F13DZ	4000	80	3205	13	24.1	600	1200	41.5
L2C5-27901205F13DD	2700	90	2601	13	19.6	600	1200	41.5
L2C5-27901205F13DZ	2700	90	2448	13	18.4	600	1200	41.5
L2C5-30901205F13DD	3000	90	2708	13	20.4	600	1200	41.5
L2C5-30901205F13DZ	3000	90	2548	13	19.2	600	1200	41.5
L2C5-35901205F13DD	3500	90	2816	13	21.2	600	1200	41.5
L2C5-35901205F13DZ	3500	90	2650	13	20	600	1200	41.5
L2C5-40901205F13DD	4000	90	2913	13	21.9	600	1200	41.5
L2C5-40901205F13DZ	4000	90	2777	13	20.9	600	1200	41.5
L2C5-27801208F15DG	2700	80	4528	15	25.6	900	1800	41.5
L2C5-27801208F15DR	2700	80	4393	15	24.9	900	1800	41.5
L2C5-30801208F15DG	3000	80	4717	15	26.7	900	1800	41.5
L2C5-30801208F15DR	3000	80	4577	15	25.9	900	1800	41.5
L2C5-35801208F15DG	3500	80	4811	15	27.2	900	1800	41.5

L2C5-35801208F15DR	3500	80	4668	15	26.4	900	1800	41.5
L2C5-40801208F15DG	4000	80	4905	15	27.8	900	1800	41.5
L2C5-40801208F15DR	4000	80	4759	15	26.9	900	1800	41.5
L2C5-50801208F15DG	5000	80	4905	15	27.8	900	1800	41.5
L2C5-50801208F15DR	5000	80	4759	15	26.9	900	1800	41.5
L2C5-27901208F15DS	2700	90	3787	15	21.4	900	1800	41.5
L2C5-30901208F15DN	3000	90	3922	15	22.2	900	1800	41.5
L2C5-30901208F15DS	3000	90	3804	15	21.5	900	1800	41.5
L2C5-35901208F15DN	3500	90	4079	15	23.1	900	1800	41.5
L2C5-35901208F15DS	3500	90	3997	15	22.6	900	1800	41.5
L2C5-40901208F15DN	4000	90	4239	15	24	900	1800	41.5
L2C5-40901208F15DS	4000	90	4154	15	23.5	900	1800	41.5
L2C5-27801211F19DG	2700	80	6132	18.5	22.8	1200	2400	41.5
L2C5-30801211F19DG	3000	80	6305	18.5	23.5	1200	2400	41.5
L2C5-35801211F19DG	3500	80	6430	18.5	23.9	1200	2400	41.5
L2C5-40801211F19DG	4000	80	6643	18.5	24.7	1200	2400	41.5
L2C5-50801211F19DG	5000	80	6643	18.5	24.7	1200	2400	41.5
L2C5-27901211F19DD	2700	90	5213	18.5	19.4	1200	2400	41.5
L2C5-27901211F19DZ	2700	90	4905	18.5	18.2	1200	2400	41.5
L2C5-30901211F19DD	3000	90	5455	18.5	20.3	1200	2400	41.5
L2C5-30901211F19DZ	3000	90	5133	18.5	19.1	1200	2400	41.5
L2C5-35901211F19DD	3500	90	5688	18.5	21.2	1200	2400	41.5
L2C5-35901211F19DZ	3500	90	5352	18.5	19.9	1200	2400	41.5
L2C5-40901211F19DD	4000	90	5840	18.5	21.7	1200	2400	41.5
L2C5-40901211F19DZ	4000	90	6556	18.5	24.4	1200	2400	41.5
L2C5-50701211F19DQ	5000	70	7100	18.5	26.4	1200	2400	41.5
L2C5-27801211F19DY	2700	80	5900	18.5	21.9	1200	2400	41.5
L2C5-40801211F19EA	4000	80	6643	18.5	24.7	1200	2400	41.5
L2C5-27801216F23DG	2700	80	8150	22.5	20.5	1600	3200	41.5

L2C5-30801216F23DG	3000	80	8342	22.5	21	1600	3200	41.5
L2C5-35801216F23DG	3500	80	8508	22.5	21.4	1600	3200	41.5
L2C5-40801216F23DG	4000	80	8830	22.5	22.2	1600	3200	41.5
L2C5-50801216F23DG	5000	80	8830	22.5	22.2	1600	3200	41.5
L2C5-30801825F32DE	3000	80	17281	32.8	20.5	2250	4500	62.3
L2C5-35801825F32DE	3500	80	17624	32.8	20.9	2250	4500	62.3
L2C5-40801825F32DE	4000	80	18270	32.8	21.6	2250	4500	62.3
L2C5-50801825F32DE	5000	80	18270	32.8	21.6	2250	4500	62.3
L2C5-27901825F32DZ	2700	90	13264	32.8	15.7	2250	4500	62.3
L2C5-30901825F32DE	3000	90	14951	32.8	17.7	2250	4500	62.3
L2C5-30901825F32DZ	3000	90	14612	32.8	17.3	2250	4500	62.3
L2C5-35901825F32DE	3500	90	15590	32.8	18.5	2250	4500	62.3
L2C5-35901825F32DZ	3500	90	15322	32.8	18.1	2250	4500	62.3
L2C5-40901825F32DE	4000	90	16007	32.8	18.9	2250	4500	62.3
L2C5-40901825F32DZ	4000	90	15401	32.8	18.2	2250	4500	62.3
L2C5-56901825F32DV	5600	90	15000	32.8	17.8	2250	4500	62.3
L2C5-30901203F09B0	3000	90	1304	9	20.5	300	600	41.5
L2C5-30901205F13B0	3000	90	2627	13	19.8	600	1200	41.5
L2C5-27901208F15B0	2700	90	3787	15	21.4	900	1800	41.5
L2C5-30901208F15B0	3000	90	3922	15	22.2	900	1800	41.5
L2C5-35901208F15B0	3500	90	4079	15	23.1	900	1800	41.5
L2C5-27901211F19B0	2700	90	5057	18.5	18.8	1200	2400	41.5
L2C5-30901211F19B0	3000	90	5291	18.5	19.7	1200	2400	41.5
L2C5-35901211F19B0	3500	90	5517	18.5	20.5	1200	2400	41.5
L2C5-30900406X09B0	3000	90	885	9	13.9	600	1200	13.5
L2C5-30901202X09B0	3000	90	810	9	12.7	200	400	41.5
L2C5-30901203X09B0	3000	90	1344	9	21.1	300	600	41.5
L2C5-30901205X13B0	3000	90	2735	13	20.6	600	1200	41.5
L2C5-30901208X15B0	3000	90	4084	15	23.1	900	1800	41.5

L2C5-30901208X15B1	3000	90	4200	15	23.8	900	1800	41.5
L2C5-30901210X15B0	3000	90	4977	15	28.2	900	1800	41.5
L2C5-30901211X19B0	3000	90	5510	18.5	20.5	1200	2400	41.5
L2C5-30901203F09N0	3000	90	1060	9	16.7	300	600	41.5
L2C5-30901208F15N0	3000	90	3372	15	19.1	900	1800	41.5
L2C5-30901210F15N0	3000	90	4130	15	23.4	900	1800	41.5
L2C5-30901211F19N0	3000	90	4589	18.5	17.1	1200	2400	41.5
L2C5-30801203F09P0	3000	80	1501	9	23.6	300	600	41.5
L2C5-30901203F09P0	3000	90	1324	9	20.8	300	600	41.5
L2C5-35901203F09P0	3500	90	1384	9	21.8	300	600	41.5
L2C5-40901203F09P0	4000	90	1389	9	21.8	300	600	41.5
L2C5-30801205F13P0	3000	80	3043	13	22.9	600	1200	41.5
L2C5-30901205F13P0	3000	90	2681	13	20.2	600	1200	41.5
L2C5-35901205F13P0	3500	90	2788	13	21.0	600	1200	41.5
L2C5-40901205F13P0	4000	90	2884	13	21.7	600	1200	41.5
L2C5-30801208F15P0	3000	80	4621	15	26.1	900	1800	41.5
L2C5-30901208F15P0	3000	90	3962	15	22.4	900	1800	41.5
L2C5-35901208F15P0	3500	90	4163	15	23.6	900	1800	41.5
L2C5-40901208F15P0	4000	90	4283	15	24.2	900	1800	41.5
L2C5-30801210F15P0	3000	80	4700	15	26.6	900	1800	41.5
L2C5-30901210F15P0	3000	90	4002	15	22.6	900	1800	41.5
L2C5-35901210F15P0	3500	90	4205	15	23.8	900	1800	41.5
L2C5-40901210F15P0	4000	90	4350	15	24.6	900	1800	41.5
L2C5-30801211F19P0	3000	80	6177	18.5	23	1200	2400	41.5
L2C5-30901211F19P0	3000	90	5373	18.5	20	1200	2400	41.5
L2C5-35901211F19P0	3500	90	5631	18.5	20.9	1200	2400	41.5
L2C5-40901211F19P0	4000	90	5782	18.5	21.5	1200	2400	41.5

LUXEON CoB Core Range Gen 5 (K) series (L2C5–AABBCCCCDEEFF):

COMMERCIAL PART NUMBER	NOMINAL CCT (K)	MINIMUM CRI	TYPICAL FLUX (lm)	LES (mm)	TYPICAL FLUX DENSITY (lm/mm ²)	TYP CURRENT (mA)	MAXIMUM CURRENT (mA)	MAXIMUM VOLTAGE (V)
L2C5-30901205H13P0	3000	90	3003	13	22.6	600	1200	41.5
L2C5-35901205H13P0	3500	90	3123	13	23.5	600	1200	41.5
L2C5-40901205H13P0	4000	90	3230	13	24.3	600	1200	41.5
L2C5-30901208H15P0	3000	90	4679	15	26.5	900	1800	41.5
L2C5-35901208H15P0	3500	90	4663	15	26.4	900	1800	41.5
L2C5-40901208H15P0	4000	90	4797	15	27.1	900	1800	41.5
L2C5-30901210H15P0	3000	90	4682	15	26.5	900	1800	41.5
L2C5-35901210H15P0	3500	90	4710	15	26.7	900	1800	41.5
L2C5-40901210H15P0	4000	90	4872	15	27.6	900	1800	41.5
L2C5-30901211H19P0	3000	90	6018	18.5	22.4	1200	2400	41.5
L2C5-35901211H19P0	3500	90	6307	18.5	23.5	1200	2400	41.5
L2C5-40901211H19P0	4000	90	6476	18.5	24.1	1200	2400	41.5
L2C5-27901205H1300	2700	90	2912	13	21.9	600	1200	41.5
L2C5-30901205H1300	3000	90	3033	13	22.9	600	1200	41.5
L2C5-35901205H1300	3500	90	3154	13	23.8	600	1200	41.5
L2C5-40901205H1300	4000	90	3263	13	24.6	600	1200	41.5
L2C5-50901205H1300	5000	90	3264	13	24.6	600	1200	41.5
L2C5-27901208H1500	2700	90	4372	15	24.7	900	1800	41.5
L2C5-30901208H1500	3000	90	4528	15	25.6	900	1800	41.5
L2C5-35901208H1500	3500	90	4710	15	26.7	900	1800	41.5
L2C5-40901208H1500	4000	90	4894	15	27.7	900	1800	41.5
L2C5-50901208H1500	5000	90	4910	15	27.8	900	1800	41.5
L2C5-27901210H1500	2700	90	4480	15	25.4	900	1800	41.5
L2C5-30901210H1500	3000	90	4630	15	26.2	900	1800	41.5

L2C5-35901210H1500	3500	90	4757	15	26.9	900	1800	41.5
L2C5-40901210H1500	4000	90	4944	15	28.0	900	1800	41.5
L2C5-50901210H1500	5000	90	5016	15	28.4	900	1800	41.5
L2C5-27901211H1900	2700	90	5839	18.5	21.7	1200	2400	41.5
L2C5-30901211H1900	3000	90	6110	18.5	22.7	1200	2400	41.5
L2C5-35901211H1900	3500	90	6371	18.5	23.7	1200	2400	41.5
L2C5-40901211H1900	4000	90	6541	18.5	24.3	1200	2400	41.5
L2C5-50901211H1900	5000	90	6541	18.5	24.3	1200	2400	41.5
L2C5-27901216H2300	2700	90	7864	22.5	19.8	1600	3200	41.5
L2C5-30901216H2300	3000	90	8176	22.5	20.6	1600	3200	41.5
L2C5-35901216H2300	3500	90	8578	22.5	21.6	1600	3200	41.5
L2C5-40901216H2300	4000	90	8578	22.5	21.6	1600	3200	41.5
L2C5-50901216H2300	5000	90	8654	22.5	21.8	1600	3200	41.5
L2C5-30901208H15BA	3000	90	4647	15	26.3	900	1800	41.5
L2C5-30901210H15BA	3000	90	4656	15	26.3	900	1800	41.5

COMMERCIAL PART NUMBER	NOMINAL CCT (K)	MINIMUM CRI	TYPICAL FLUX (lm)	LES (mm)	TYPICAL FLUX DENSITY (lm/mm ²)	TYP CURRENT (mA)	MAXIMUM CURRENT (mA)	MAXIMUM VOLTAGE (V)
L2C5-30901205H13P2	3000	90	3003	13	22.6	600	1200	41.5
L2C5-35901205H13P2	3500	90	3123	13	23.5	600	1200	41.5
L2C5-40901205H13P2	4000	90	3230	13	24.3	600	1200	41.5
L2C5-30901208H15P2	3000	90	4679	15	26.5	900	1800	41.5
L2C5-35901208H15P2	3500	90	4663	15	26.4	900	1800	41.5
L2C5-40901208H15P2	4000	90	4797	15	27.1	900	1800	41.5
L2C5-30901210H15P2	3000	90	4682	15	26.5	900	1800	41.5
L2C5-35901210H15P2	3500	90	4710	15	26.7	900	1800	41.5
L2C5-40901210H15P2	4000	90	4872	15	27.6	900	1800	41.5
L2C5-30901211H19P2	3000	90	6018	18.5	22.4	1200	2400	41.5
L2C5-35901211H19P2	3500	90	6307	18.5	23.5	1200	2400	41.5
L2C5-40901211H19P2	4000	90	6476	18.5	24.1	1200	2400	41.5
L2C5-27901205H1302	2700	90	2912	13	21.9	600	1200	41.5
L2C5-30901205H1302	3000	90	3033	13	22.9	600	1200	41.5
L2C5-35901205H1302	3500	90	3154	13	23.8	600	1200	41.5
L2C5-40901205H1302	4000	90	3263	13	24.6	600	1200	41.5
L2C5-50901205H1302	5000	90	3264	13	24.6	600	1200	41.5
L2C5-27901208H1502	2700	90	4372	15	24.7	900	1800	41.5
L2C5-30901208H1502	3000	90	4528	15	25.6	900	1800	41.5
L2C5-35901208H1502	3500	90	4710	15	26.7	900	1800	41.5
L2C5-40901208H1502	4000	90	4894	15	27.7	900	1800	41.5
L2C5-50901208H1502	5000	90	4910	15	27.8	900	1800	41.5
L2C5-27901210H1502	2700	90	4480	15	25.4	900	1800	41.5
L2C5-30901210H1502	3000	90	4630	15	26.2	900	1800	41.5
L2C5-35901210H1502	3500	90	4757	15	26.9	900	1800	41.5
L2C5-40901210H1502	4000	90	4944	15	28.0	900	1800	41.5

L2C5-50901210H1502	5000	90	5016	15	28.4	900	1800	41.5
L2C5-27901211H1902	2700	90	5839	18.5	21.7	1200	2400	41.5
L2C5-30901211H1902	3000	90	6110	18.5	22.7	1200	2400	41.5
L2C5-35901211H1902	3500	90	6371	18.5	23.7	1200	2400	41.5
L2C5-40901211H1902	4000	90	6541	18.5	24.3	1200	2400	41.5
L2C5-50901211H1902	5000	90	6541	18.5	24.3	1200	2400	41.5
L2C5-27901216H2302	2700	90	7864	22.5	19.8	1600	3200	41.5
L2C5-30901216H2302	3000	90	8176	22.5	20.6	1600	3200	41.5
L2C5-35901216H2302	3500	90	8578	22.5	21.6	1600	3200	41.5
L2C5-40901216H2302	4000	90	8578	22.5	21.6	1600	3200	41.5
L2C5-50901216H2302	5000	90	8654	22.5	21.8	1600	3200	41.5
L2C5-30901208H15B2	3000	90	4647	15	26.3	900	1800	41.5
L2C5-30901210H15B2	3000	90	4656	15	26.3	900	1800	41.5

LUXEON CoB Core Range Gen 5 series (L2C5--AABBCCCCDEEFF):

PART NUMBER	MINIMUM CRI	NOMINAL CCT (K)	TYPICAL FLUX (lm)	LES (mm)	TYPICAL FLUX DENSITY (lm/mm ²)	TEST CURRENT (mA)	MAXIMUM CURRENT (mA)	MAXIMUM VOLTAGE (V)
L2C5-30701211H1900	70	3000	6739	18.5	25.1	1200	2400	41.5
L2C5-40701211H1900	70	4000	7163	18.5	26.6	1200	2400	41.5
L2C5-50701211H1900	70	5000	7163	18.5	26.6	1200	2400	41.5
L2C5-30701812H2300	70	3000	10800	22.5	27.2	1200	2100	62.3
L2C5-40701812H2300	70	4000	11200	22.5	28.2	1200	2100	62.3
L2C5-50701812H2300	70	5000	11100	22.5	27.9	1200	2100	62.3
L2C5-30701816H2300	70	3000	12000	22.5	30.2	1200	2100	62.3
L2C5-40701816H2300	70	4000	13100	22.5	32.9	1200	2100	62.3
L2C5-50701816H2300	70	5000	13000	22.5	32.7	1200	2100	62.3
L2C5-30801205H13P0	80	3000	3134	13	23.6	600	1200	41.5
L2C5-30801208H15P0	80	3000	4800	15	27.2	900	1800	41.5
L2C5-30801210H15P0	80	3000	4841	15	27.4	900	1800	41.5
L2C5-30801211H19P0	80	3000	6420	18.5	23.9	1200	2400	41.5
L2C5-27801205H1300	80	2700	3065	13	23.1	600	1200	41.5
L2C5-30801205H1300	80	3000	3185	13	24.0	600	1200	41.5
L2C5-35801205H1300	80	3500	3249	13	24.5	600	1200	41.5
L2C5-40801205H1300	80	4000	3400	13	25.6	600	1200	41.5
L2C5-50801205H1300	80	5000	3352	13	25.3	600	1200	41.5
L2C5-27801208H1500	80	2700	4665	15	26.4	900	1800	41.5
L2C5-30801208H1500	80	3000	4860	15	27.5	900	1800	41.5
L2C5-35801208H1500	80	3500	5005	15	28.3	900	1800	41.5
L2C5-40801208H1500	80	4000	5100	15	28.9	900	1800	41.5
L2C5-50801208H1500	80	5000	5075	15	28.7	900	1800	41.5
L2C5-27801210H1500	80	2700	4575	15	25.9	900	1800	41.5

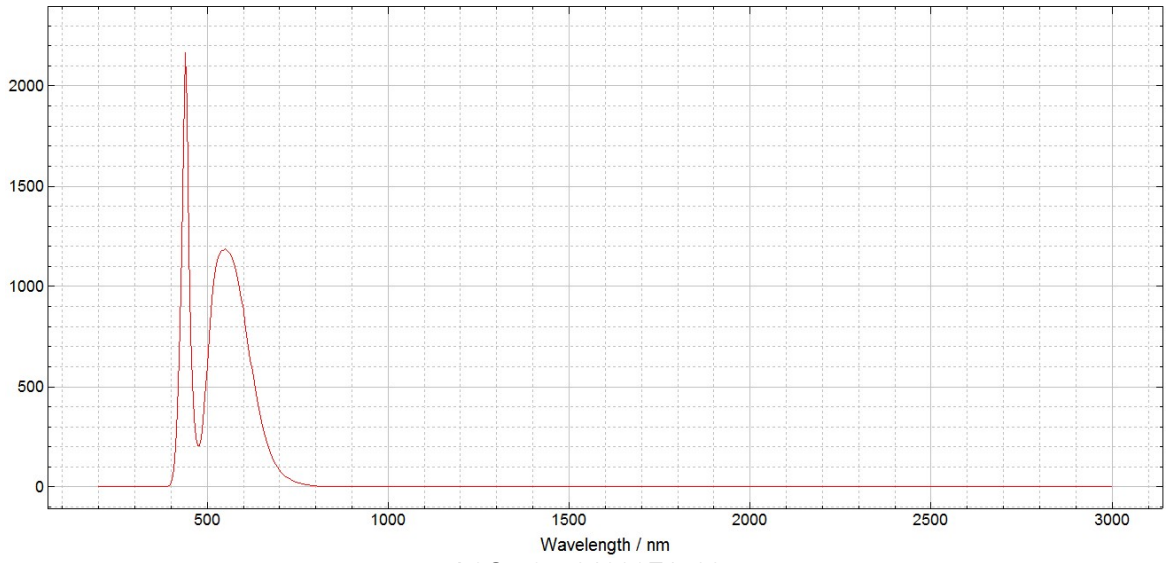
L2C5-30801210H1500	80	3000	4765	15	27.0	900	1800	41.5
L2C5-35801210H1500	80	3500	4930	15	27.9	900	1800	41.5
L2C5-40801210H1500	80	4000	5040	15	28.5	900	1800	41.5
L2C5-50801210H1500	80	5000	4985	15	28.2	900	1800	41.5
L2C5-27801211H1900	80	2700	6275	18.5	23.3	1200	2400	41.5
L2C5-30801211H1900	80	3000	6452	18.5	24.0	1200	2400	41.5
L2C5-35801211H1900	80	3500	6580	18.5	24.5	1200	2400	41.5
L2C5-40801211H1900	80	4000	6953	18.5	25.9	1200	2400	41.5
L2C5-50801211H1900	80	5000	6872	18.5	25.6	1200	2400	41.5
L2C5-27801216H2300	80	2700	8515	22.5	21.4	1600	3200	41.5
L2C5-30801216H2300	80	3000	8715	22.5	21.9	1600	3200	41.5
L2C5-35801216H2300	80	3500	8890	22.5	22.4	1600	3200	41.5
L2C5-40801216H2300	80	4000	9315	22.5	23.4	1600	3200	41.5
L2C5-50801216H2300	80	5000	9225	22.5	23.2	1600	3200	41.5
L2C5-27801812H2300	80	2700	9600	22.5	24.1	1200	2100	62.3
L2C5-30801812H2300	80	3000	10200	22.5	25.7	1200	2100	62.3
L2C5-35801812H2300	80	3500	10400	22.5	26.2	1200	2100	62.3
L2C5-40801812H2300	80	4000	10600	22.5	26.7	1200	2100	62.3
L2C5-50801812H2300	80	5000	10700	22.5	26.9	1200	2100	62.3
L2C5-57801812H2300	80	5700	10400	22.5	26.2	1200	2100	62.3
L2C5-65801812H2300	80	6500	10300	22.5	25.9	1200	2100	62.3
L2C5-27801816H2300	80	2700	11200	22.5	28.2	1200	2100	62.3
L2C5-30801816H2300	80	3000	11715	22.5	29.5	1200	2100	62.3
L2C5-35801816H2300	80	3500	12000	22.5	30.2	1200	2100	62.3
L2C5-40801816H2300	80	4000	12360	22.5	31.1	1200	2100	62.3
L2C5-50801816H2300	80	5000	12300	22.5	30.9	1200	2100	62.3
L2C5-57801816H2300	80	5700	12300	22.5	30.9	1200	2100	62.3
L2C5-65801816H2300	80	6500	12200	22.5	30.7	1200	2100	62.3
L2C5-30901211G1900	90	3000	5730	18.5	21.3	1200	2400	41.5

L2C5-35901211G1900	90	3500	5970	18.5	22.2	1200	2400	41.5
L2C5-40901211G1900	90	4000	6130	18.5	22.8	1200	2400	41.5
L2C5-50901211G1900	90	5000	6130	18.5	22.8	1200	2400	41.5
L2C5-57901211G1900	90	5700	6260	18.5	23.3	1200	2400	41.5
L2C5-30901812G2300	90	3000	8700	22.5	21.9	1200	2100	62.3
L2C5-35901812G2300	90	3500	9000	22.5	22.6	1200	2100	62.3
L2C5-40901812G2300	90	4000	9100	22.5	22.9	1200	2100	62.3
L2C5-50901812G2300	90	5000	9200	22.5	23.1	1200	2100	62.3
L2C5-57901812G2300	90	5700	9300	22.5	23.4	1200	2100	62.3
L2C5-30901816G2300	90	3000	10400	22.5	26.2	1200	2100	62.3
L2C5-35901816G2300	90	3500	10800	22.5	27.2	1200	2100	62.3
L2C5-40901816G2300	90	4000	10900	22.5	27.4	1200	2100	62.3
L2C5-50901816G2300	90	5000	11200	22.5	28.2	1200	2100	62.3
L2C5-57901816G2300	90	5700	11300	22.5	28.4	1200	2100	62.3

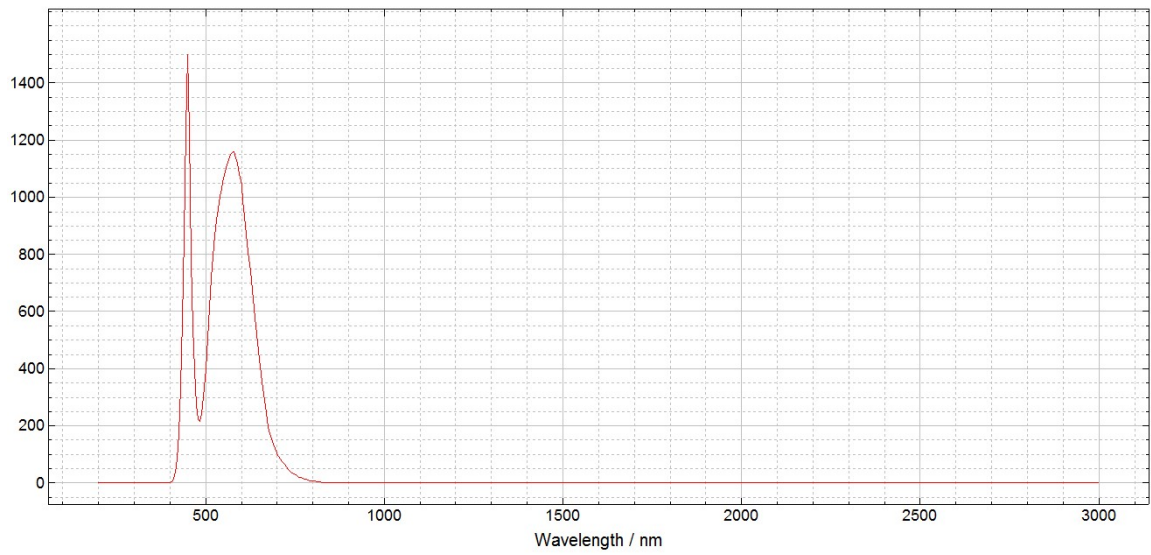
PART NUMBER	MINIMUM CRI	NOMINAL CCT (K)	TYPICAL FLUX (lm)	LES (mm)	TYPICAL FLUX DENSITY (lm/mm ²)	TEST CURRENT (mA)	MAXIMUM CURRENT (mA)	MAXIMUM VOLTAGE (V)
L2C5-30801205H13P2	80	3000	3134	13	23.6	600	1200	41.5
L2C5-30801208H15P2	80	3000	4800	15	27.2	900	1800	41.5
L2C5-30801210H15P2	80	3000	4841	15	27.4	900	1800	41.5
L2C5-30801211H19P2	80	3000	6420	18.5	23.9	1200	2400	41.5
L2C5-27801205H1302	80	2700	3065	13	23.1	600	1200	41.5
L2C5-30801205H1302	80	3000	3185	13	24.0	600	1200	41.5
L2C5-35801205H1302	80	3500	3249	13	24.5	600	1200	41.5
L2C5-40801205H1302	80	4000	3400	13	25.6	600	1200	41.5
L2C5-50801205H1302	80	5000	3352	13	25.3	600	1200	41.5
L2C5-27801208H1502	80	2700	4665	15	26.4	900	1800	41.5
L2C5-30801208H1502	80	3000	4860	15	27.5	900	1800	41.5
L2C5-35801208H1502	80	3500	5005	15	28.3	900	1800	41.5
L2C5-40801208H1502	80	4000	5100	15	28.9	900	1800	41.5
L2C5-50801208H1502	80	5000	5075	15	28.7	900	1800	41.5
L2C5-27801210H1502	80	2700	4575	15	25.9	900	1800	41.5
L2C5-30801210H1502	80	3000	4765	15	27.0	900	1800	41.5
L2C5-35801210H1502	80	3500	4930	15	27.9	900	1800	41.5
L2C5-40801210H1502	80	4000	5040	15	28.5	900	1800	41.5
L2C5-50801210H1502	80	5000	4985	15	28.2	900	1800	41.5
L2C5-27801211H1902	80	2700	6275	18.5	23.3	1200	2400	41.5
L2C5-30801211H1902	80	3000	6452	18.5	24.0	1200	2400	41.5
L2C5-35801211H1902	80	3500	6580	18.5	24.5	1200	2400	41.5
L2C5-40801211H1902	80	4000	6953	18.5	25.9	1200	2400	41.5
L2C5-50801211H1902	80	5000	6872	18.5	25.6	1200	2400	41.5
L2C5-27801216H2302	80	2700	8515	22.5	21.4	1600	3200	41.5

L2C5-30801216H2302	80	3000	8715	22.5	21.9	1600	3200	41.5
L2C5-35801216H2302	80	3500	8890	22.5	22.4	1600	3200	41.5
L2C5-40801216H2302	80	4000	9315	22.5	23.4	1600	3200	41.5
L2C5-50801216H2302	80	5000	9225	22.5	23.2	1600	3200	41.5
L2C5-27801812H2302	80	2700	9600	22.5	24.1	1200	2100	62.3
L2C5-30801812H2302	80	3000	10200	22.5	25.7	1200	2100	62.3
L2C5-35801812H2302	80	3500	10400	22.5	26.2	1200	2100	62.3
L2C5-40801812H2302	80	4000	10600	22.5	26.7	1200	2100	62.3
L2C5-50801812H2302	80	5000	10700	22.5	26.9	1200	2100	62.3
L2C5-57801812H2302	80	5700	10400	22.5	26.2	1200	2100	62.3
L2C5-65801812H2302	80	6500	10300	22.5	25.9	1200	2100	62.3
L2C5-27801816H2302	80	2700	11200	22.5	28.2	1200	2100	62.3
L2C5-30801816H2302	80	3000	11715	22.5	29.5	1200	2100	62.3
L2C5-35801816H2302	80	3500	12000	22.5	30.2	1200	2100	62.3
L2C5-40801816H2302	80	4000	12360	22.5	31.1	1200	2100	62.3
L2C5-50801816H2302	80	5000	12300	22.5	30.9	1200	2100	62.3
L2C5-57801816H2302	80	5700	12300	22.5	30.9	1200	2100	62.3
L2C5-65801816H2302	80	6500	12200	22.5	30.7	1200	2100	62.3

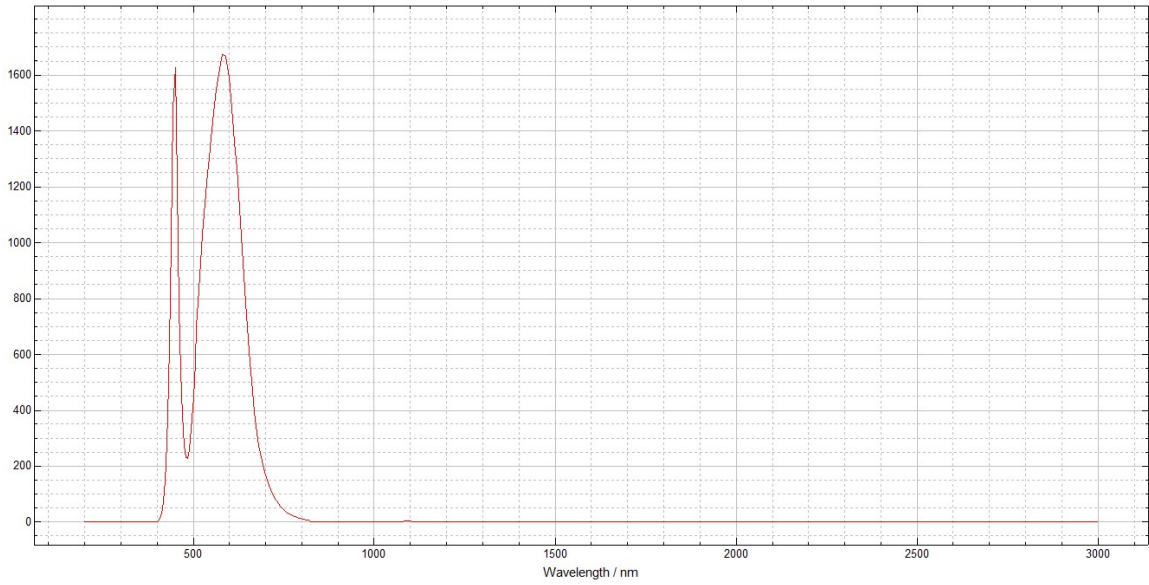
Appendix 3: Relative Spectrum Of Tested Sample(s)



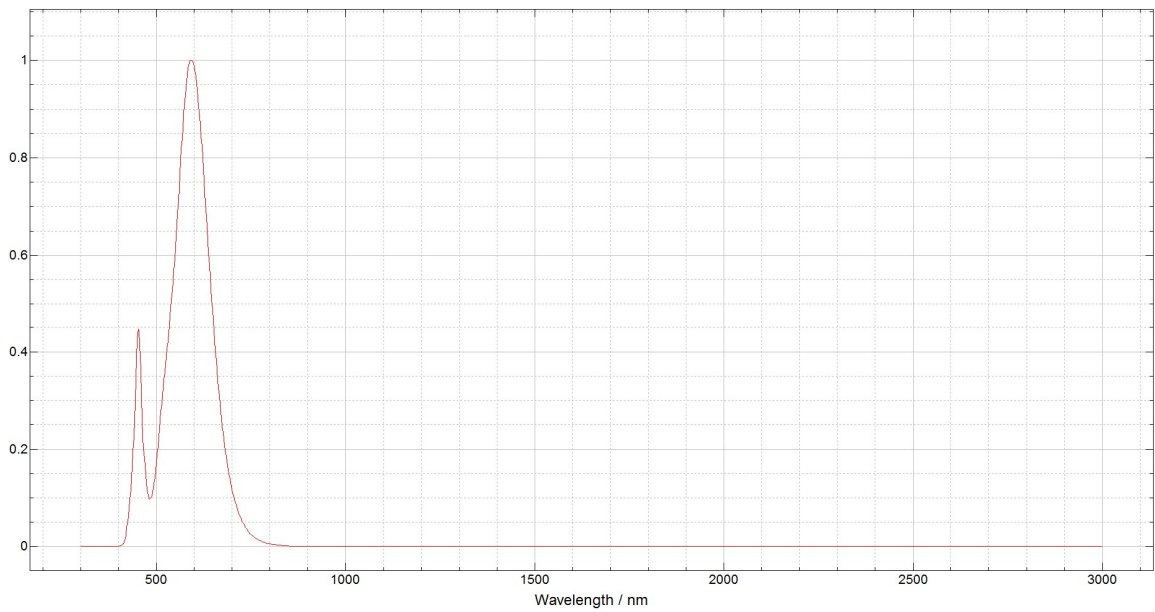
L2C5-65701208F1500



L2C5-50701208F1500



L2C5-40701208F1500



L2C5-30701208F1500

Appendix 4: Table 6.1 Based On IEC 62471:2006

DUT: L2C5-65701208F1500, Evaluation Distance: 200mm, Angular subtense of the apparent source α : 75 mrad

IEC 62471									
Clause	Requirement + Test			Result – Remark				Verdict	
Table 6.1	Emission limits for risk groups of continuous wave lamps								
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	0,003		0,03	
Near UV		E_{UVA}	$W \cdot m^{-2}$	10	0,0000	33		100	
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	7,72E+03	10000	2,02E+04	4000000	3,63E+04
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	1,0*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	2,43E+05	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	6000/ α	--	6000/ α		6000/ α	
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,29	570		3200	
* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.									
** Involves evaluation of non-GLS source									

DUT: L2C5-50701208F1500, Evaluation Distance: 200mm, Test current: 1800mA, Angular subtense of the apparent source α : 75 mrad

IEC 62471									
Clause	Requirement + Test				Result – Remark				Verdict
Table 6.1	Emission limits for risk groups of continuous wave lamps								
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	0,003		0,03	
Near UV		E_{UVA}	$W \cdot m^{-2}$	10	0,0000	33		100	
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	5,86E+03	10000	2,20E+04	4000000	3,17E+04
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	1,0*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	$28000/\alpha$	2,52E+05	$28000/\alpha$		$71000/\alpha$	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	$6000/\alpha$	--	$6000/\alpha$		$6000/\alpha$	
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,51	570		3200	
* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.									
** Involves evaluation of non-GLS source									

DUT: L2C5-50701208F1500, Evaluation Distance: 200mm, Test current: 1350mA, Angular subtense of the apparent source α : 75 mrad

IEC 62471									
Clause	Requirement + Test				Result – Remark				Verdict
Table 6.1	Emission limits for risk groups of continuous wave lamps								
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	0,003		0,03	
Near UV		E_{UVA}	$W \cdot m^{-2}$	10	0,0000	33		100	
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	4,76E+03	10000	1,66E+04	4000000	3,04E+04
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	1,0*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	2,03E+05	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	6000/ α	--	6000/ α		6000/ α	
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,45	570		3200	
* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.									
** Involves evaluation of non-GLS source									

DUT: L2C5-50701208F1500, Evaluation Distance: 200mm, Test current: 900mA, Angular subtense of the apparent source α : 75 mrad

IEC 62471			
Clause	Requirement + Test	Result – Remark	Verdict

Table 6.1 Emission limits for risk groups of continuous wave lamps									
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	0,003		0,03	
Near UV		E_{UVA}	$W \cdot m^{-2}$	10	0,0000	33		100	
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	3,32E+03	10000	1,16E+04	4000000	2,13E+04
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	1,0*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	1,42E+05	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	6000/ α	--	6000/ α		6000/ α	
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,32	570		3200	
* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.									
** Involves evaluation of non-GLS source									

DUT: L2C5-50701208F1500, Evaluation Distance: 200mm, Test current: 450mA, Angular subtense of the apparent source α : 75 mrad

IEC 62471			
Clause	Requirement + Test	Result – Remark	Verdict

Table 6.1 Emission limits for risk groups of continuous wave lamps									
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	0,003		0,03	
Near UV		E_{UVA}	$W \cdot m^{-2}$	10	0,0000	33		100	
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	1,69E+03	10000	5,91E+03	4000000	
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	1,0*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	7,24E+04	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	6000/ α	--	6000/ α		6000/ α	
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,16	570		3200	
* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.									
** Involves evaluation of non-GLS source									

DUT: L2C5-40701208F1500, Evaluation Distance: 200mm, Test current: 1800mA, Angular subtense of the apparent source α : 75 mrad

IEC 62471									
Clause	Requirement + Test			Result – Remark				Verdict	
Table 6.1	Emission limits for risk groups of continuous wave lamps								
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	0,003		0,03	
Near UV		E_{UVA}	$W \cdot m^{-2}$	10	0,0000	33		100	
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	5,41E+03	10000	1,55E+04	4000000	1,92E+04
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	1,0*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	2,05E+05	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	6000/ α	--	6000/ α		6000/ α	
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,83	570		3200	
* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.									
** Involves evaluation of non-GLS source									

DUT: L2C5-40701208F1500, Evaluation Distance: 200mm, Test current: 1350mA, Angular subtense of the apparent source α : 75 mrad

IEC 62471									
Clause	Requirement + Test			Result – Remark				Verdict	
Table 6.1	Emission limits for risk groups of continuous wave lamps								
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	0,003		0,03	
Near UV		E_{UVA}	$W \cdot m^{-2}$	10	0,0000	33		100	
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	4,39E+03	10000	1,26E+04	4000000	1,71E+04
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	1,0*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	1,64E+05	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	6000/ α	--	6000/ α		6000/ α	
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,61	570		3200	
* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.									
** Involves evaluation of non-GLS source									

DUT: L2C5-40701208F1500, Evaluation Distance: 200mm, Test current: 900mA, Angular subtense of the apparent source α : 75 mrad

IEC 62471			
Clause	Requirement + Test	Result – Remark	Verdict

Table 6.1 Emission limits for risk groups of continuous wave lamps									
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	0,003		0,03	
Near UV		E_{UVA}	$W \cdot m^{-2}$	10	0,0000	33		100	
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	2,97E+03	10000	8,52E+03	4000000	
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	1,0*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	1,12E+05	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	6000/ α	--	6000/ α		6000/ α	
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,44	570		3200	
* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.									
** Involves evaluation of non-GLS source									

DUT: L2C5-40701208F1500, Evaluation Distance: 200mm, Test current: 450mA, Angular subtense of the apparent source α : 75 mrad

IEC 62471			
Clause	Requirement + Test	Result – Remark	Verdict

Table 6.1 Emission limits for risk groups of continuous wave lamps									
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	0,003		0,03	
Near UV		E_{UVA}	$W \cdot m^{-2}$	10	0,0000	33		100	
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	1,48E+03	10000	4,27E+03	4000000	
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	1,0*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	$28000/\alpha$	5,51E+04	$28000/\alpha$		$71000/\alpha$	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	$6000/\alpha$	--	$6000/\alpha$		$6000/\alpha$	
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,22	570		3200	
* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.									
** Involves evaluation of non-GLS source									

DUT: L2C5-30701208F1500, Evaluation Distance: 200mm, Test current: 1800mA, Angular subtense of the apparent source α : 75 mrad

IEC 62471			
Clause	Requirement + Test	Result – Remark	Verdict

Table 6.1 Emission limits for risk groups of continuous wave lamps									
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	0,003		0,03	
Near UV		E_{UVA}	$W \cdot m^{-2}$	10	0,0000	33		100	
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	2,09E+03	10000	5,87E+03	4000000	
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	1,0*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	$28000/\alpha$	1,10E+05	$28000/\alpha$		$71000/\alpha$	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	$6000/\alpha$	--	$6000/\alpha$		$6000/\alpha$	
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,55	570		3200	
* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.									
** Involves evaluation of non-GLS source									

Appendix 5: Table 6.1 Based On EN62471:2008, Attachment To IEC 62471 European Group Differences And National Differences
 DUT: L2C5-65701208F1500, Evaluation Distance: 200mm, Angular subtense of the apparent source α : 75 mrad

EN 62471									
Clause	Requirement + Test			Result – Remark				Verdict	
Table 6.1	Emission limits for risk groups of continuous wave lamps (based on EU Directive 2006/25/EC)								
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	--	--	--	--
Near UV		E_{UVA}	$W \cdot m^{-2}$	0,33	0,0000	--	--	--	--
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	7,72E+03	10000	2,02E+04	4000000	3,63E+04
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	0,01*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	2,43E+05	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	545000 0,0017 ≤ α ≤ 0,011	--				
				6000/ α 0,011 ≤ α ≤ 0,1	--				
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,29	570		3200	
<p>* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian. ** Involves evaluation of non-GLS source NOTE The action functions: see Table 4.1 and Table 4.2 The applicable aperture diameters: see 4.2.1 The limitations for the angular subtenses: see 4.2.2 The related measurement condition 5.2.3 and the range of acceptance angles: see Table 5.5.</p>									

DUT: L2C5-50701208F1500, Evaluation Distance: 200mm, Test current: 1800mA, Angular subtense of the apparent source α : 75 mrad

EN 62471									
Clause	Requirement + Test			Result – Remark				Verdict	
Table 6.1	Emission limits for risk groups of continuous wave lamps (based on EU Directive 2006/25/EC)								
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	--	--	--	--
Near UV		E_{UVA}	$W \cdot m^{-2}$	0,33	0,0000	--	--	--	--
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	5,86E+03	10000	2,20E+04	4000000	3,17E+04
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	0,01*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	2,52E+05	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	545000 0,0017 ≤ α ≤ 0,011	--				
				6000/ α 0,011 ≤ α ≤ 0,1	--				
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,51	570		3200	
<p>* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.</p> <p>** Involves evaluation of non-GLS source</p> <p>NOTE The action functions: see Table 4.1 and Table 4.2 The applicable aperture diameters: see 4.2.1 The limitations for the angular subtenses: see 4.2.2 The related measurement condition 5.2.3 and the range of acceptance angles: see Table 5.5.</p>									

DUT: L2C5-50701208F1500, Evaluation Distance: 200mm, Test current: 1350mA, Angular subtense of the apparent source α : 75 mrad

EN 62471									
Clause	Requirement + Test			Result – Remark				Verdict	
Table 6.1	Emission limits for risk groups of continuous wave lamps (based on EU Directive 2006/25/EC)								
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	--	--	--	--
Near UV		E_{UVA}	$W \cdot m^{-2}$	0,33	0,0000	--	--	--	--
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	4,76E+03	10000	1,66E+04	4000000	3,04E+04
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	0,01*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	2,03E+05	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	545000 0,0017 ≤ α ≤ 0,011	--				
				6000/ α 0,011 ≤ α ≤ 0,1	--				
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,45	570		3200	
<p>* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.</p> <p>** Involves evaluation of non-GLS source</p> <p>NOTE The action functions: see Table 4.1 and Table 4.2 The applicable aperture diameters: see 4.2.1 The limitations for the angular subtenses: see 4.2.2 The related measurement condition 5.2.3 and the range of acceptance angles: see Table 5.5.</p>									

DUT: L2C5-50701208F1500, Evaluation Distance: 200mm, Test current: 900mA, Angular subtense of the apparent source α : 75 mrad

EN 62471									
Clause	Requirement + Test			Result – Remark				Verdict	
Table 6.1	Emission limits for risk groups of continuous wave lamps (based on EU Directive 2006/25/EC)								
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	--	--	--	--
Near UV		E_{UVA}	$W \cdot m^{-2}$	0,33	0,0000	--	--	--	--
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	3,32E+03	10000	1,16E+04	4000000	2,13E+04
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	0,01*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	1,42E+05	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	545000 0,0017 ≤ α ≤ 0,011	--				
				6000/ α 0,011 ≤ α ≤ 0,1	--				
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,32	570		3200	
<p>* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.</p> <p>** Involves evaluation of non-GLS source</p> <p>NOTE The action functions: see Table 4.1 and Table 4.2 The applicable aperture diameters: see 4.2.1 The limitations for the angular subtenses: see 4.2.2 The related measurement condition 5.2.3 and the range of acceptance angles: see Table 5.5.</p>									

DUT: L2C5-50701208F1500, Evaluation Distance: 200mm, Test current: 450mA, Angular subtense of the apparent source α : 75 mrad

EN 62471									
Clause	Requirement + Test			Result – Remark				Verdict	
Table 6.1	Emission limits for risk groups of continuous wave lamps (based on EU Directive 2006/25/EC)								
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	--	--	--	--
Near UV		E_{UVA}	$W \cdot m^{-2}$	0,33	0,0000	--	--	--	--
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	1,69E+03	10000	5,91E+03	4000000	
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	0,01*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	7,24E+04	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	545000 0,0017 $\leq \alpha \leq$ 0,011	--				
				6000/ α 0,011 $\leq \alpha \leq$ 0,1	--				
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,16	570		3200	
<p>* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.</p> <p>** Involves evaluation of non-GLS source</p> <p>NOTE The action functions: see Table 4.1 and Table 4.2 The applicable aperture diameters: see 4.2.1 The limitations for the angular subtenses: see 4.2.2 The related measurement condition 5.2.3 and the range of acceptance angles: see Table 5.5.</p>									

DUT: L2C5-40701208F1500, Evaluation Distance: 200mm, Test current: 1800mA, Angular subtense of the apparent source α : 75 mrad

EN 62471									
Clause	Requirement + Test			Result – Remark				Verdict	
Table 6.1	Emission limits for risk groups of continuous wave lamps (based on EU Directive 2006/25/EC)								
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	--	--	--	--
Near UV		E_{UVA}	$W \cdot m^{-2}$	0,33	0,0000	--	--	--	--
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	5,41E+03	10000	1,55E+04	4000000	1,92E+04
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	0,01*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	2,05E+05	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	545000 0,0017 ≤ α ≤ 0,011	--				
				6000/ α 0,011 ≤ α ≤ 0,1	--				
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,83	570		3200	
<p>* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.</p> <p>** Involves evaluation of non-GLS source</p> <p>NOTE The action functions: see Table 4.1 and Table 4.2 The applicable aperture diameters: see 4.2.1 The limitations for the angular subtenses: see 4.2.2 The related measurement condition 5.2.3 and the range of acceptance angles: see Table 5.5.</p>									

DUT: L2C5-40701208F1500, Evaluation Distance: 200mm, Test current: 1350mA, Angular subtense of the apparent source α : 75 mrad

EN 62471									
Clause	Requirement + Test			Result – Remark				Verdict	
Table 6.1	Emission limits for risk groups of continuous wave lamps (based on EU Directive 2006/25/EC)								
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	--	--	--	--
Near UV		E_{UVA}	$W \cdot m^{-2}$	0,33	0,0000	--	--	--	--
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	4,39E+03	10000	1,26E+04	4000000	1,71E+04
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	0,01*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	1,64E+05	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	545000 0,0017 ≤ α ≤ 0,011	--				
				6000/ α 0,011 ≤ α ≤ 0,1	--				
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,61	570		3200	
<p>* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.</p> <p>** Involves evaluation of non-GLS source</p> <p>NOTE The action functions: see Table 4.1 and Table 4.2 The applicable aperture diameters: see 4.2.1 The limitations for the angular subtenses: see 4.2.2 The related measurement condition 5.2.3 and the range of acceptance angles: see Table 5.5.</p>									

DUT: L2C5-40701208F1500, Evaluation Distance: 200mm, Test current: 900mA, Angular subtense of the apparent source α : 75 mrad

EN 62471									
Clause	Requirement + Test			Result – Remark				Verdict	
Table 6.1	Emission limits for risk groups of continuous wave lamps (based on EU Directive 2006/25/EC)								
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	--	--	--	--
Near UV		E_{UVA}	$W \cdot m^{-2}$	0,33	0,0000	--	--	--	--
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	2,97E+03	10000	8,52E+03	4000000	
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	0,01*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	1,12E+05	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	545000 0,0017 $\leq \alpha \leq$ 0,011	--				
				6000/ α 0,011 $\leq \alpha \leq$ 0,1	--				
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,44	570		3200	
<p>* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.</p> <p>** Involves evaluation of non-GLS source</p> <p>NOTE The action functions: see Table 4.1 and Table 4.2 The applicable aperture diameters: see 4.2.1 The limitations for the angular subtenses: see 4.2.2 The related measurement condition 5.2.3 and the range of acceptance angles: see Table 5.5.</p>									

DUT: L2C5-40701208F1500, Evaluation Distance: 200mm, Test current: 450mA, Angular subtense of the apparent source α : 75 mrad

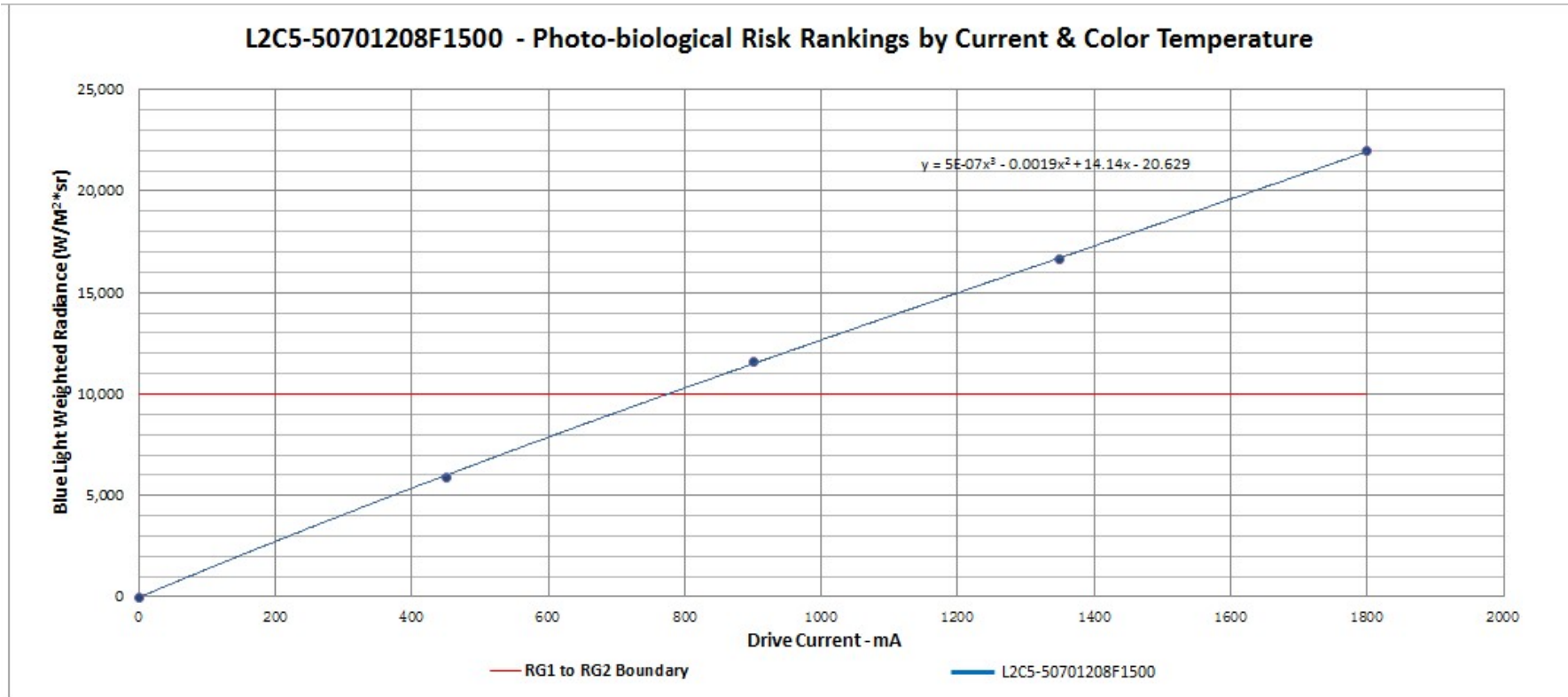
EN 62471									
Clause	Requirement + Test			Result – Remark				Verdict	
Table 6.1	Emission limits for risk groups of continuous wave lamps (based on EU Directive 2006/25/EC)								
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	--	--	--	--
Near UV		E_{UVA}	$W \cdot m^{-2}$	0,33	0,0000	--	--	--	--
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	1,48E+03	10000	4,27E+03	4000000	
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	0,01*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	5,51E+04	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	545000 0,0017 $\leq \alpha \leq$ 0,011	--				
				6000/ α 0,011 $\leq \alpha \leq$ 0,1	--				
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,22	570		3200	
<p>* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.</p> <p>** Involves evaluation of non-GLS source</p> <p>NOTE The action functions: see Table 4.1 and Table 4.2 The applicable aperture diameters: see 4.2.1 The limitations for the angular subtenses: see 4.2.2 The related measurement condition 5.2.3 and the range of acceptance angles: see Table 5.5.</p>									

DUT: L2C5-30701208F1500, Evaluation Distance: 200mm, Test current: 1800mA, Angular subtense of the apparent source α : 75 mrad

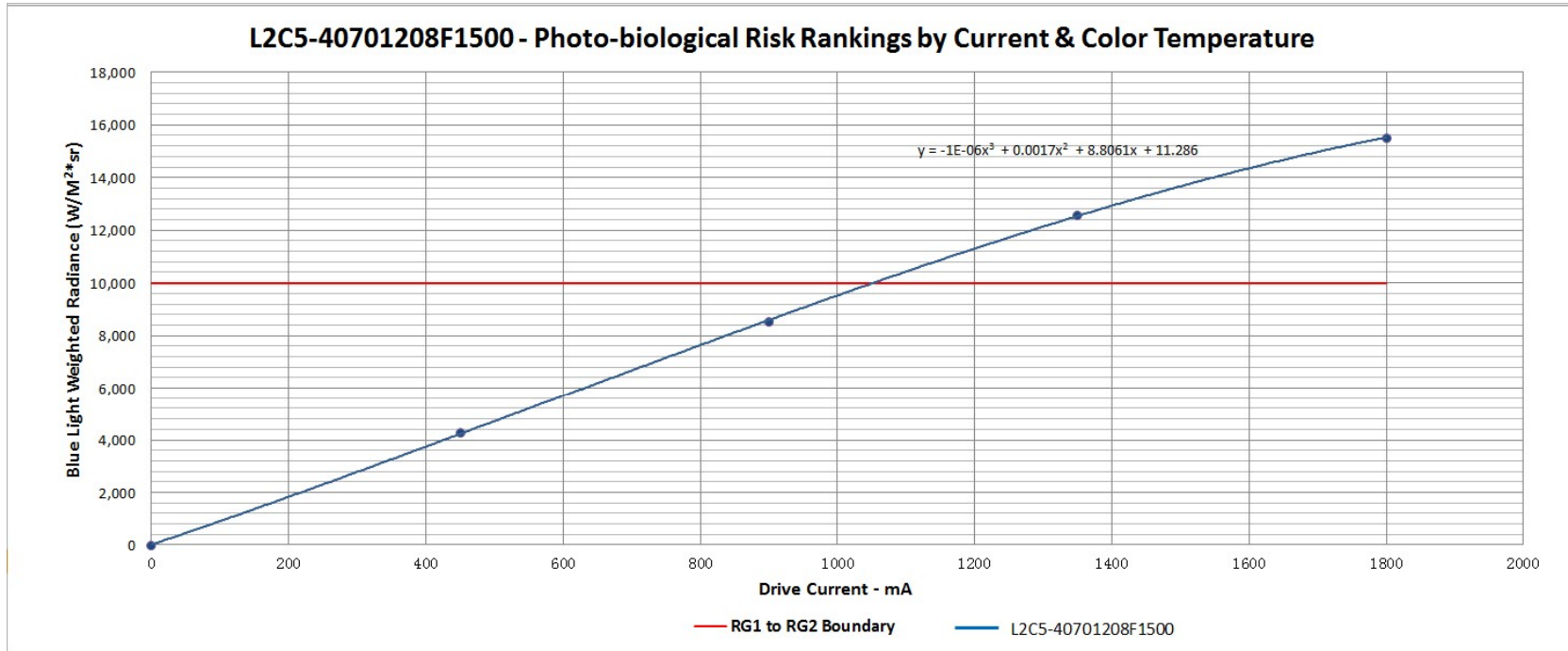
EN 62471									
Clause	Requirement + Test			Result – Remark				Verdict	
Table 6.1	Emission limits for risk groups of continuous wave lamps (based on EU Directive 2006/25/EC)								
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	0,0000	--	--	--	--
Near UV		E_{UVA}	$W \cdot m^{-2}$	0,33	0,0000	--	--	--	--
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	2,09E+03	10000	5,87E+03	4000000	
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	0,01*	--	1,0		400	
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	28000/ α	1,10E+05	28000/ α		71000/ α	
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	545000 0,0017 ≤ α ≤ 0,011	--				
				6000/ α 0,011 ≤ α ≤ 0,1	--				
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	0,55	570		3200	
<p>* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.</p> <p>** Involves evaluation of non-GLS source</p> <p>NOTE The action functions: see Table 4.1 and Table 4.2 The applicable aperture diameters: see 4.2.1 The limitations for the angular subtenses: see 4.2.2 The related measurement condition 5.2.3 and the range of acceptance angles: see Table 5.5.</p>									

Appendix 6: Blue Light Hazard-Forward Current Relationship (Non-mandatory Information)

The diagram below shows the different blue light hazards against different forward currents. It is additional information for reference only.



Product ID:	Measured CCT:	Drive Currents (mA)					Regression Formula:	Fit to RG2 Line:	Current @ RG-1 to RG-2 Boundary, mA:
		0	450	900	1350	1800			
L2C5-50701208F1500	4573 K	0	5910	11606	16630	21968	$y=5E-07x^3-0.0019x^2+14.14x-20.629$	10000	763



Product ID:	Measured CCT:	Drive Currents (mA)					Regression Formula:	Fit to RG2 Line:	Current @ RG-1 to RG-2 Boundary, mA:
		0	450	900	1350	1800			
L2C5-40701208F1500	4731 K	0	4275	8523	12585	15512	$y = -1E-06x^3 + 0.0017x^2 + 8.8061x + 11.286$	10000	1053

-----End-----