

CERTIFICATE

Issued to:
Applicant:
Lumileds (Shanghai) Management Co., Ltd.
Building 1-A, No. 19 & 20, Lane 299, Wenshui
Road, Jingan District
200072 Shanghai, China

Licensee:
Lumileds (Shanghai) Management Co., Ltd.
Building 1-A, No. 19 & 20, Lane 299, Wenshui
Road, Jingan District
200072 Shanghai, China

Product : Integral LED module
Trade name(s) : LUMILEDS
Type(s)/model(s) : L2C2-AABBCCCCDDDDD, L2C5-AABBCCCCDEECx, L2C5-AABBCCCCDEEFF, L2C5-AABBCCCCDEExx and L2C6-AABBCDEEFGGHH

The product and any acceptable variation thereof as specified in the Annex to this certificate and the documents referred to therein.

DEKRA hereby declares that the above-mentioned product has been certified based on:

- a type test according to EN IEC 62031:2020 and EN IEC 62031:2020/A11:2021
- an inspection of the factory location according to CENELEC Operational Document CIG 021
- a DEKRA certification agreement with the number 6057396

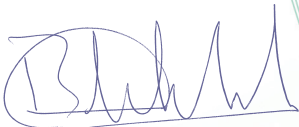
DEKRA hereby grants the right to use the ENEC certification mark.

The ENEC certification mark may be applied to the product as specified in this certificate for the duration and under the conditions of the ENEC certification agreement.

This certificate is issued on 9 July 2024 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 31-143449

DEKRA Certification B.V.



B.T.M. Holtus
Managing Director



K. Lin
Certification Manager

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SPECIFICATION OF THE CERTIFIED PRODUCT**Product data**

Product	: Integral LED module
Trade name(s)	: LUMILEDS
Type(s)/model(s)	: L2C2-AABBCCCCDDDDD, L2C5-AABBCCCCDEECx, L2C5-AABBCCCCDEEFF, L2C5-AABBCCCCDEEEx and L2C6-AABCDEEFGGHH
Max. case temperature (tc)	: 105°C
Description	: Integral type

Product data – type L2C2-AABBCCCCDDDDD, L2C5-AABBCCCCDEECx, L2C5-AABBCCCCDEEFF and L2C5-AABBCCCCDEEEx

Maximum input voltage : 110Vdc

Product data – type L2C6-AABCDEEFGGHH

Maximum input voltage : 40Vdc

TESTS**Test requirements**

EN IEC 62031:2020

EN IEC 62031:2020/A11:2021

Test result

The test results are documented in DEKRA test file 618123700.

Additional information

The product also complies with EN 62493:2015+A1:2022 in ENEC certificate

The list of components is laid down in test report 6172851.51.

Conclusion

The examination has confirmed that all requirements were met.

Factory location

The factory location is registered with the number 62195.

1. Model name, explanation and series/group:

Model Name	Series / Group	Model Name Explanation
L2C5– AABBCCCCDEEFF	LUXEON CoB Core Range	<p>AA – can be any alphanumeric characters, designate nominal ANSI CCT (eg: 22=2200K, 27=2700K, 30=3000K, 35=3500K, 40=4000K, 50=5000K, 56=5600K, 57=5700K, 65=6500K)</p> <p>BB – can be any alphanumeric characters, designates minimum CRI(eg: 60=60CRI, 70=70CRI, 80=80CRI, 90=90CRI, 95=95CRI)</p> <p>CCCC – can be any alphanumeric characters, designates product configuration (eg: 0406, 1202, 1203, 1204, 1205, 1208, 1210, 1211, 1213, 1216, 1812, 1816, 1321, 1825, 2520, 3618)</p> <p>D – can be any alphanumeric characters, designates options for product specification</p> <p>EE – can be any alphanumeric characters, designates light emitting surface(LES)size (eg: 06=6mm, 09=9mm, 13=13mm, 15=15mm, 19=19mm, 23=23mm, 29=29mm, 32=32mm)</p> <p>FF– can be any alphanumeric characters, designates options for product specification</p>
L2C5– AABBCCCCDEEFF L2C5– AABBCCCCDEECx	LUXEON CoB with CrispWhite Technology	<p>AA – can be any alphanumeric characters, designate nominal ANSI CCT (eg: 22=2200K, 27=2700K, 30=3000K, 35=3500K, 40=4000K, 50=5000K, 56=5600K, 57=5700K, 65=6500K)</p> <p>BB – can be any alphanumeric characters, designates minimum CRI(eg: 60=60CRI, 70=70CRI, 80=80CRI, 90=90CRI, 95=95CRI)</p> <p>CCCC – can be any alphanumeric characters, designates product configuration (eg: 0406, 1202, 1203, 1204, 1205, 1208, 1210, 1211, 1213, 1216, 1812, 1816, 1321, 1825, 2520, 3618)</p> <p>D – can be any alphanumeric characters, designates options for product specification</p> <p>EE – can be any alphanumeric characters,</p>

Model Name	Series / Group	Model Name Explanation
		<p>designates light emitting surface(LES)size (eg: 06=6mm, 09=9mm, 13=13mm, 15=15mm, 19=19mm, 23=23mm, 29=29mm, 32=32mm)</p> <p>FF/Cx – can be any alphanumeric characters, designates options for product specification</p>
<p>L2C5– AABBCCCCDEEFF L2C5– AABBCCCCDEE_{xx}</p>	<p>LUXEON CoB with CrispColor Technology</p>	<p>AA – can be any alphanumeric characters, designates nominal CCT (eg: 22=2200K, 27=2700K, 30=3000K, 35=3500K, 40=4000K, 50=5000K, 56=5600K, 57=5700K, 65=6500K)</p> <p>BB – can be any alphanumeric characters, designates with Product options (eg: HG)</p> <p>CCCC – can be any alphanumeric characters, designates product configuration (eg: 0406, 1202, 1203, 1204, 1205, 1208, 1210, 1211, 1213, 1216, 1812, 1816, 1321, 1825, 2520, 3618)</p> <p>D – can be any alphanumeric characters, designates options for product specification</p> <p>EE – can be any alphanumeric characters, designates light emitting surface(LES)size (eg: 06=6mm, 09=9mm, 13=13mm, 15=15mm, 19=19mm, 23=23mm, 29=29mm, 32=32mm)</p> <p>FF/xx – can be any alphanumeric characters, designates options for product specification</p>
<p>L2C5– AABBCCCCDEEFF L2C5– AABBCCCCDEE_{xx}</p>	<p>LUXEON CoB With FreshFocus Technology</p>	<p>AA – can be any alphanumeric characters, designates product type (eg: BD=Bread & Pastries, PR=Produce, RM=Red Meat, MM=Marbled Meat, FS=Fish)</p> <p>BB – can be any alphanumeric characters, designates with product options (eg: 01 or 02)</p> <p>CCCC – can be any alphanumeric characters, designates product configuration (eg: 0406, 1202, 1203, 1204, 1205, 1208, 1210, 1211, 1213, 1216, 1812, 1816, 1321, 1825, 2520, 3618)</p> <p>D – can be any alphanumeric characters, designates options for product specification</p> <p>EE – can be any alphanumeric characters, designates light emitting surface (LES)size(eg: 06=6mm, 09=9mm, 13=13mm,</p>

Model Name	Series / Group	Model Name Explanation
		15=15mm, 19=19mm, 23=23mm, 29=29mm, 32=32mm) FF/xx – can be any alphanumeric characters, designates options for product specification
L2C5– AABBCCCCDEEFF L2C5– AABBCCCCDEE _{xx}	LUXEON CoB SunPlus	AA – can be any alphanumeric characters, designates product type (eg: SPP=SunPlus) BB – can be any alphanumeric characters, designates color (eg: P1=Purple, R1=Rose) CCCC – can be any alphanumeric characters, designates product configuration (eg: 0406, 1202, 1203, 1204, 1205, 1208, 1210, 1211, 1213, 1216, 1812, 1816, 1321, 1825, 2520, 3618) D – can be any alphanumeric characters, designates options for product specification EE – can be any alphanumeric characters, designates light emitting surface (LES) size (eg: 06=6mm, 09=9mm, 13=13mm, 15=15mm, 19=19mm, 23=23mm, 29=29mm, 32=32mm) FF/xx – can be any alphanumeric characters, designates options for product specification
L2C5– AABBCCCCDEEFF L2C5– AABBCCCCDEE _{xx}	LUXEON CoB Core Range - High Density	AA – can be any alphanumeric characters, designate nominal ANSI CCT (eg: 22=2200K, 27=2700K, 30=3000K, 35=3500K, 40=4000K, 50=5000K, 56=5600K, 57=5700K, 65=6500K) BB – can be any alphanumeric characters, designates minimum CRI (eg: 60=60CRI, 70=70CRI, 80=80CRI, 90=90CRI, 95=95CRI) CCCC – can be any alphanumeric characters, designates product configuration (eg: 0406, 1202, 1203, 1204, 1205, 1208, 1210, 1211, 1213, 1216, 1812, 1816, 1321, 1825, 2520, 3618) D – can be any alphanumeric characters, designates options for product specification EE – can be any alphanumeric characters, designates light emitting surface (LES) size (eg: H6=6mm, 09=9mm, 13=13mm, 15=15mm, 19=19mm, 23=23mm, 29=29mm, 32=32mm)

Model Name	Series / Group	Model Name Explanation
L2C5– AABBCCCCDEEFF	LUXEON CoB Core Range PW	<p>FF/xx – can be any alphanumeric characters, designates options for product specification</p> <p>AA – can be any alphanumeric characters, designate nominal ANSI CCT (eg: 22=2200K, 27=2700K, 30=3000K, 35=3500K, 40=4000K, 50=5000K, 56=5600K, 57=5700K, 65=6500K)</p> <p>BB – can be any alphanumeric characters, designates minimum CRI(eg: 60=60CRI, 70=70CRI, 80=80CRI, 90=90CRI, 95=95CRI)</p> <p>CCCC – can be any alphanumeric characters, designates product configuration (eg: 0406, 1202, 1203, 1204, 1205, 1208, 1210, 1211, 1213, 1216, 1812, 1816, 1321, 1825, 2520, 3618)</p> <p>D – can be any alphanumeric characters, designates options for product specification</p> <p>EE – can be any alphanumeric characters, designates light emitting surface(LES)size (eg: 06=6mm, 09=9mm, 13=13mm, 15=15mm, 19=19mm, 23=23mm, 29=29mm, 32=32mm)</p> <p>FF– can be any alphanumeric characters, designates options for product specification</p>
L2C5– AABBCCCCDEEFF	LUXEON CoB Core Pro	<p>AA – can be any alphanumeric characters, designate nominal ANSI CCT (eg: 22=2200K, 27=2700K, 30=3000K, 35=3500K, 40=4000K, 50=5000K, 56=5600K, 57=5700K, 65=6500K)</p> <p>BB – can be any alphanumeric characters, designates minimum CRI(eg: 60=60CRI, 70=70CRI, 80=80CRI, 90=90CRI, 95=95CRI)</p> <p>CCCC – can be any alphanumeric characters, designates product configuration (eg: 0406, 1202, 1203, 1204, 1205, 1208, 1210, 1211, 1213, 1216, 1812, 1816, 1321, 1825, 2520, 3618)</p> <p>D – can be any alphanumeric characters, designates options for product specification</p> <p>EE – can be any alphanumeric characters, designates light emitting surface(LES)size</p>

Model Name	Series / Group	Model Name Explanation
		(eg: 06=6mm, 09=9mm, 13=13mm, 15=15mm, 19=19mm, 23=23mm, 29=29mm, 32=32mm) FF– can be any alphanumeric characters, designates options for product specification
L2C2- AABBCCCDDDDDD	LUXEON CoB - Custom*	AA – can be any alphanumeric characters, designates nominal CCT (eg: 22=2200K, 27=2700K, 30=3000K, 35=3500K, 40=4000K, 50=5000K, 56=5600K, 57=5700K, 65=6500K, PE=Pesto) BB – can be any alphanumeric characters, designates minimum CRI (eg: 60=60CRI, 70=70CRI, 80=80CRI, 90=90CRI, 95=95CRI) CCCC – can be any alphanumeric characters, designates product configuration (eg: 0406, 1202, 1203, 1204, 1205, 1208, 1210, 1211, 1213, 1216) DDDDD – can be any alphanumeric characters, designates options for product specification
L2C5- AABBCCCDDDDDD	LUXEON CoB - Custom*	AA – can be any alphanumeric characters, designates nominal CCT (eg: 22=2200K, 27=2700K, 30=3000K, 35=3500K, 40=4000K, 50=5000K, 56=5600K, 57=5700K, 65=6500K, PE=Pesto) BB – can be any alphanumeric characters, designates minimum CRI (eg: 60=60CRI, 70=70CRI, 80=80CRI, 90=90CRI, 95=95CRI) CCCC – can be any alphanumeric characters, designates product configuration (eg: 0406, 1202, 1203, 1204, 1205, 1208, 1210, 1211, 1213, 1216) DDDDD – can be any alphanumeric characters, designates options for product specification
L2C5- AABBCCCDEEFF	LUXEON CoB - Custom*	AA – can be any alphanumeric characters, designate nominal ANSI CCT (eg: 22=2200K, 27=2700K, 30=3000K, 35=3500K, 40=4000K, 50=5000K, 56=5600K, 57=5700K, 65=6500K) BB – can be any alphanumeric characters, designates minimum CRI(eg:

Model Name	Series / Group	Model Name Explanation										
		<p>60=60CRI,70=70CRI, 80=80CRI, 90=90CRI, 95=95CRI)</p> <p>CCCC – can be any alphanumeric characters, designates product configuration (eg: 0406, 1202, 1203, 1204, 1205, 1208, 1210, 1211, 1213, 1216, 1812, 1816, 1321, 1825, 2520, 3618)</p> <p>D – can be any alphanumeric characters, designates options for product specification</p> <p>EE – can be any alphanumeric characters, designates light emitting surface(LES)size (eg: H6&06=6mm, 09=9mm, 13=13mm, 15=15mm, 19=19mm, 23=23mm, 29=29mm, 32=32mm)</p> <p>FF – can be any alphanumeric characters, designates options for product specification</p>										
L2C6- AABBCDEEFGGHH	LUXEON CS COB LUXEON CS Pro CoB	<p>AA: designates nominal CCT (27=2700K,30=3000K,35=3500K,40=4000K, 50=5000K)</p> <p>BB: designates minimum CRI (90=90 CRI)</p> <p>C: designates color target of SDCM (2=2 SDCM)</p> <p>D: designates product configuration of series (L=12 series)</p> <p>EE: designates product configuration of parallel(02= 2 parallel, 04= 4 parallel, 06= 6 parallel ,08=8 parallel ,10= 10 parallel,11= 11 parallel, 12= 12 parallel, 13= 13 parallel, 16= 16 parallel)</p> <p>F: designates options for product generation (A=Gen1 , C= Gen2)</p> <p>GG: designates light emitting surface(LES) diameter (06=6.3mm, 09=9.8mm, 13=13mm,15=14.5mm, 22=22mm)</p> <p>HH: designates options for product specification</p>										
<p>Note:</p> <p>The product configuration also denotes the maximum input voltage of these products:</p> <table data-bbox="199 1809 1104 1995"> <thead> <tr> <th>Product configuration</th> <th>Max. Input Voltage</th> </tr> </thead> <tbody> <tr> <td>CCCC (when the first two CC = 04)</td> <td>13.5 Vdc</td> </tr> <tr> <td>CCCC (when the first two CC = 12)</td> <td>41.5 Vdc</td> </tr> <tr> <td>CCCC (when the first two CC = 13)</td> <td>44.5 Vdc</td> </tr> <tr> <td>CCCC (when the first two CC = 18)</td> <td>62.3 Vdc</td> </tr> </tbody> </table>			Product configuration	Max. Input Voltage	CCCC (when the first two CC = 04)	13.5 Vdc	CCCC (when the first two CC = 12)	41.5 Vdc	CCCC (when the first two CC = 13)	44.5 Vdc	CCCC (when the first two CC = 18)	62.3 Vdc
Product configuration	Max. Input Voltage											
CCCC (when the first two CC = 04)	13.5 Vdc											
CCCC (when the first two CC = 12)	41.5 Vdc											
CCCC (when the first two CC = 13)	44.5 Vdc											
CCCC (when the first two CC = 18)	62.3 Vdc											

Model Name	Series / Group	Model Name Explanation
CCCC (when the first two CC = 25)		84.7 Vdc
CCCC (when the first two CC = 36)		110.0 Vdc
Product configuration for all models of L2C6 series, Max. Input Voltage = 40 Vdc *LUXEON CoB - Custom series including three different model types: L2C2-AABBCCCCDDDDDD, L2C5-AABBCCCCDDDDDD and L2C5-AABBCCCCDEEFF		

LUXEON CoB Core Range
LUXEON CoB with CrispWhite Technology
LUXEON CoB with CrispColor Technology
LUXEON CoB With FreshFocus Technology
LUXEON CoB SunPlus
LUXEON CoB Core Range PW
LUXEON CoB Core Pro
LUXEON CoB - Custom*

Nomenclature	Typ Current	Max Current
L2C5-AABB1202DEEFF	200	400
L2C5-AABB1203DEEFF	300	600
L2C5-AABB1204DEEFF	450	900
L2C5-AABB1205DEEFF	600	1200
L2C5-AABB1208DEEFF	900	1800
L2C5-AABB1210DEEFF	900	1800
L2C5-AABB1211DEEFF	1200	2400
L2C5-AABB1213DEEFF	1300	2600
L2C5-AABB1216DEEFF	1600	3200
L2C5-AABB1812DEEFF	1200	2100
L2C5-AABB1816DEEFF	1440	2880
L2C5-AABB1321DEEFF	2100	4200
L2C5-AABB2520DEEFF	1600	3200
L2C5-AABB1825DEEFF	2250	4500
L2C5-AABB0406DEEFF	600	1200
L2C5-AABB3618DEEFF	1620	3240
L2C2-AABB1205DDDDDD	600	1200
L2C2-AABB1208DDDDDD	900	1800
L2C2-AABB1211DDDDDD	1200	2400

LUXEON CoB Core Range - High Density

Nomenclature	Typ Current	Max Current
L2C5-AABB1202DEEFF	350	700
L2C5-AABB1204DEEFF	700	1350
L2C5-AABB1205DEEFF	900	1650

**LUXEON CS COB
LUXEON CS Pro CoB**

Nomenclature	Typ Current	Max Current
L2C6-AABBCL02FGGHH	180	450
L2C6-AABBCL03FGGHH	270	675
L2C6-AABBCL04FGGHH	360	900
L2C6-AABBCL05FGGHH	450	1125
L2C6-AABBCL06FGGHH	540	1350
L2C6-AABBCL08FGGHH	720	1800
L2C6-AABBCL10FGGHH	900	2250
L2C6-AABBCL11FGGHH	990	2475
L2C6-AABBCL13FGGHH	1170	2925
L2C6-AABBCL16FGGHH	1440	3600