

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-AABBCCCCDDDDDD, L2C5-AABBCCCCDEECx, L2C5-AABBCCCCDEEFF, L2C5-AABBCCCCDEEEx and L2C6-AABBCCDEEFGGHH

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

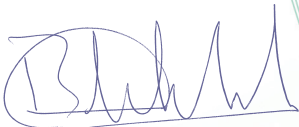
DEKRA hereby grants the right to use the ENEC certification mark.

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 13 November 2024 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 31-149541

DEKRA Certification B.V.



B.T.M. Holtus
Managing Director



Kate Xu
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 : 110 Vdc

Product data – type L2C6-AABCDEEFGGHH

Maximum input voltage : 40 Vdc

TESTS**Test requirements**

EN IEC 62031:2020
EN IEC 62031:2020/A11:2021

Test result

The test results are documented in DEKRA test file 620529700.

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 6205297.50.

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, 1817, 1321, 1825, 2520, 3618)</p> <p>D – can be any alphanumeric characters, designates options for product specification (eg: E, F, X, H, G, I, J)</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, 1817, 1321, 1825, 2520, 3618)</p> <p>D – can be any alphanumeric characters, designates options for product specification</p>

Model Name	Series / Group	Model Name Explanation
		<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/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, 1817,1321, 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, 1817,1321, 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</p>

Model Name	Series / Group	Model Name Explanation
		(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– AABBBCCCDEEFF L2C5– AABBBCCCDEE _{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, 1817 , 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– AABBBCCCDEEFF L2C5– AABBBCCCDEE _{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, 1817 , 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,

Model Name	Series / Group	Model Name Explanation
		32=32mm) FF/xx – can be any alphanumeric characters, designates options for product specification
L2C5– AABBCCCCDEEFF	LUXEON CoB Core Range PW	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, 1817 ,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– can be any alphanumeric characters, designates options for product specification
L2C5– AABBCCCCDEEFF	LUXEON CoB Core Pro	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, 1817 ,1321, 1825, 2520, 3618) D – can be any alphanumeric characters, designates options for product specification EE – can be any alphanumeric characters,

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– can be any alphanumeric characters, designates options for product specification</p>
L2C2- AABBCCCCDDDDD	LUXEON CoB Core Range - Custom*	<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, PE=Pesto)</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)</p> <p>DDDDD – can be any alphanumeric characters, designates options for product specification</p>
L2C5- AABBCCCCDEEFF	LUXEON CoB Core Range - Custom*	<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: H6&06=6mm, 09=9mm, 13=13mm, 15=15mm, 19=19mm, 23=23mm, 29=29mm, 32=32mm)</p>

Model Name	Series / Group	Model Name Explanation
L2C6- AABBCDEEFGGHH	LUXEON CS COB LUXEON CS Pro CoB	FF – can be any alphanumeric characters, designates options for product specification AA: designates nominal CCT (27=2700K,30=3000K,35=3500K,40=4000K, 50=5000K) BB: designates minimum CRI (90=90 CRI) C: designates color target of SDCM (2=2 SDCM,3=3 SDCM) D: designates product configuration of series (L=12 series, R=18 series) 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) F: designates options for product generation (A=Gen1 , C= Gen2) GG: designates light emitting surface(LES) diameter (06=6.3mm, 09=9.8mm, 13=13mm,15=14.5mm, 22=22mm) HH: designates options for product specification
L2C6- AABBCDEEFGGHH	LUXEON CS CoB with CrispColor Technology	AA – Designate nominal ANSI CCT (eg: 27=2700K, 30=3000K,35=3500K, 40=4000K, 50=5000K) BB – Designates with Product options (eg: HG) C – Designates color target of SDCM (eg: 3=3 SDCM) D – Designates product configuration of series (eg: L=12 series, R=18 series) EE – Designates product configuration of parallel (eg: 02= 2 parallel, 03= 3 parallel, 04= 4 parallel, 05= 5 parallel, 06= 6 parallel ,08= 8 parallel ,10= 10 parallel,11= 11 parallel,12= 12 parallel, 13= 13 parallel, 16= 16 parallel) F – Designates options for product generation (eg: A= Gen1) GG – Designates light emitting surface(LES)size (eg: 06=6.3mm, 09=9.8mm, 13=13mm, 15=14.5mm, 22=22mm) HH – Designates options for product specification.

Model Name	Series / Group	Model Name Explanation														
<p>Note:</p> <p>The product configuration also denotes the maximum input voltage of these products:</p> <table data-bbox="215 488 1117 750"> <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> <tr> <td>CCCC (when the first two CC = 25)</td> <td>84.7 Vdc</td> </tr> <tr> <td>CCCC (when the first two CC = 36)</td> <td>110.0 Vdc</td> </tr> </tbody> </table> <p>Product configuration for all models of L2C6 series, Max. Input Voltage = 40 Vdc *LUXEON CoB Core Range - Custom series including two different model types: L2C2-AABBCCCCDDDDD, and L2C5-AABBCCCCDEEFF</p>			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	CCCC (when the first two CC = 25)	84.7 Vdc	CCCC (when the first two CC = 36)	110.0 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															
CCCC (when the first two CC = 25)	84.7 Vdc															
CCCC (when the first two CC = 36)	110.0 Vdc															

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 Core Range - 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-AABB1817DEEFF	1530	3825
L2C5-AABB1321DEEFF	2100	4200
L2C5-AABB2520DEEFF	1600	3200
L2C5-AABB1825DEEFF	2250	4500
L2C5-AABB0406DEEFF	600	1200
L2C5-AABB3618DEEFF	1620	3240
L2C2-AABB1205DDDDD	600	1200
L2C2-AABB1208DDDDD	900	1800
L2C2-AABB1211DDDDD	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 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

LUXEON CS CoB with CrispColor Technology

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