

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

CB TEST CERTIFICATE

Product

Built-in LED Module

Name and address of the applicant

Signify Netherlands B.V.
High Tech Campus 48 EINDHOVEN 5656 AE
Netherlands

Name and address of the manufacturer

Signify Netherlands B.V.
High Tech Campus 48 EINDHOVEN 5656 AE
Netherlands

Name and address of the factory

 Additional Information on page 2

Ratings and principal characteristics

SELV input, Imax 4140 mA Vmax 55 V
 Additional Information on page 3-4

Trademark / Brand (if any)

PHILIPS or SIGNIFY

Customer's Testing Facility (CTF) Stage used

Model / Type Ref.

Main series: Fortimo SLM C (z)(cc) (d) (m) L(ee) (s) G(i)(a)
 Additional Information on page 2

Additional information (if necessary may also be reported on page 2)

The report was revised to include technical modifications.
National Differences: EU Group Differences
 Additional Information on page 5

A sample of the product was tested and found to be in conformity with

IEC 62031:2018

As shown in the Test Report Ref. No. which forms part of this Certificate

4791109019-2 issued on 2025-11-20

This CB Test Certificate is issued by the National Certification Body



- UL Solutions (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
- UL Solutions (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
- UL Solutions (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
- UL Solutions (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2025-11-24

Original Issue Date: 2024-01-31

Signature:

Thomas Wilson



Ref. Certif. No.

DK-149987-M3-UL

Factory(ies):

Additional Model Detail(s):

Product Key:

Main series: Fortimo SLM C (z)(cc) (d) (m) L(ee) (s) G(i)(a)

Where:

(z) = CRI divided by 10 (may be blank when d = "CED", or one digit, may be "7", "8", or "9");

(cc) = CCT divided by 100 (two digits or six characters (or blank when d = "CED"), may be a value between 22 and 57 (or "27-865" or "27-965" (when d = "TW")));

(d) = Flavour of light (two or three characters, may be "Px (x could be W, C, S, A or any character)" or "CW" or "FPR" or "FWW" or "FLS" or "FVF" or "FFS" or "FIS" or "CED" or "TW" or blank);

(m) = Die matrix (four digits, example 1216; chip configuration = 12 chips in series per string & 16 strings in parallels, (or blank when d = "CED"));

(ee) = Diameter of the Light Emitting Surface (LES) in millimeter (one or two digits, example 23; LES dimensions = 23mm);

(s) = PCB size in mm (four digits, example 2828: CoB dimension = 28mm x 28mm);

(i) = Number of generation of CoB (one digit, may be "8");

(a) = Suffix for commercial purposes, may contain a blank (optional).

*each of the brackets in product key are optional

Additional information (if necessary)



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Additional Ratings:
Maximum ratings of the series:

| CoB Type (Die matrix) | Diameter of LES of CoB [mm] | CCT [K] | DC Current [mA] | Power [W] | Power Density/LES of CoB [W/mm ²] | t _c [°C] |
|--------------------------|--------------------------------|------------|-------------------------------|--------------|--|------------------------|
| 1304 | 9,8 | ≤ 4000 | 480 (V _{f tot} 40V) | 19,2 | 0,25 | 105 |
| 1313 | 18,5 | ≤ 4000 | 1560 (V _{f tot} 40V) | 62,4 | 0,23 | 105 |
| 1309 | 15 | ≤ 4000 | 1080 (V _{f tot} 40V) | 43,2 | 0,24 | 105 |
| 1319 | 23 | ≤ 4000 | 2280 (V _{f tot} 40V) | 91,2 | 0,22 | 105 |
| 1201 | 6,5 | ≤ 5000 | 230 (V _{f tot} 41V) | 9,4 | 0,28 | 105 |
| 1202 | 6,5 | ≤ 5000 | 460 (V _{f tot} 41V) | 18,9 | 0,57 | 105 |
| 1202 | 6,5 | ≤ 5000 | 460 (V _{f tot} 41V) | 18,9 | 0,57 | 105 |
| 1203 | 9,8 | ≤ 5000 | 690 (V _{f tot} 41V) | 28,3 | 0,38 | 105 |
| 1203 | 9 | ≤ 5000 | 690 (V _{f tot} 41V) | 28,3 | 0,44 | 105 |
| 1204 | 9,8 | ≤ 5000 | 920 (V _{f tot} 41V) | 37,7 | 0,50 | 105 |
| 1204 | 9 | ≤ 5000 | 920 (V _{f tot} 41V) | 37,7 | 0,59 | 105 |
| 1205 | 14,5 | ≤ 5000 | 1150 (V _{f tot} 41V) | 47,2 | 0,29 | 105 |
| 1205 | 13 | ≤ 5000 | 1150 (V _{f tot} 41V) | 47,2 | 0,36 | 105 |
| 1206 | 14,5 | ≤ 5000 | 1380 (V _{f tot} 41V) | 56,6 | 0,34 | 105 |
| 1206 | 13 | ≤ 5000 | 1380 (V _{f tot} 41V) | 56,6 | 0,43 | 105 |
| 1208 | 14,5 | ≤ 5000 | 1840 (V _{f tot} 41V) | 75,4 | 0,46 | 105 |
| 1208 | 15 | ≤ 5000 | 1840 (V _{f tot} 41V) | 75,4 | 0,43 | 105 |
| 1210 | 14,5 | ≤ 5000 | 2300 (V _{f tot} 41V) | 94,3 | 0,57 | 105 |
| 1211 | 22 | ≤ 5000 | 2530 (V _{f tot} 41V) | 103,7 | 0,27 | 105 |
| 1211 | 18,5 | ≤ 5000 | 2530 (V _{f tot} 41V) | 103,7 | 0,39 | 105 |
| 1212 | 22 | ≤ 5000 | 2760 (V _{f tot} 41V) | 113,2 | 0,30 | 105 |
| 1216 | 22 | ≤ 5000 | 3680 (V _{f tot} 41V) | 150,9 | 0,40 | 105 |
| 1216 | 23 | ≤ 5000 | 3680 (V _{f tot} 41V) | 150,9 | 0,36 | 105 |
| 1812 | 22 | ≤ 5700 | 2760 (V _{f tot} 55V) | 151,8 | 0,39 | 105 |
| 1818 | 22 | ≤ 5700 | 4140 (V _{f tot} 55V) | 227,7 | 0,588 | 105 |

Additional information (if necessary)


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Additional Ratings:

Additional information:

These modules have been evaluated according to IEC/TR 62778 and the Lamp classification Group for Blue Light Hazard is Risk Group 1 Unlimited for modules having generation Gen8 UHE at maximum rated current, and is Risk Group 2 for modules having generation Gen8 and Gen8 HE at maximum rated currents. Gen8 and Gen8 HE are classified as of Risk Group 1 Unlimited if they are used according to the maximum currents listed below:

| CoB Type (Gen8 UHE) | | | | | |
|-------------------------------|--|--------------|------|------|------|
| CoB Type (Die matrix) | | | 1319 | 1309 | 1304 |
| Maximum currents for RG1 [mA] | | CCT ≤ 4000 K | 2280 | 1080 | 480 |
| | | | 1560 | | |

| CoB Type (Gen8 HE) | | | | | | | | | | | | |
|-------------------------------|---------|------|------|------|------|------|------|------|------|------|------|------|
| CoB Type (Die matrix) | | 1201 | 1202 | 1203 | 1204 | 1205 | 1206 | 1208 | 1210 | 1211 | 1212 | 1216 |
| Maximum currents for RG1 [mA] | zcc=840 | 163 | 325 | 488 | 650 | 813 | 975 | 1300 | 1625 | 1788 | 1950 | 2600 |
| | zcc=940 | 168 | 335 | 503 | 670 | 838 | 1005 | 1340 | 1675 | 1843 | 2010 | 2680 |
| | zcc=850 | 120 | 240 | 360 | 480 | 600 | 720 | 960 | 1200 | 1320 | 1440 | 1920 |
| | zcc=950 | 120 | 240 | 360 | 480 | 600 | 720 | 960 | 1200 | 1320 | 1440 | 1920 |

| CoB Type (Gen8) | | | | | | | | | | | | |
|-------------------------------|---------|------|------|------|------|------|------|------|------|------|------|------|
| CoB Type (Die matrix) | | 1201 | 1202 | 1203 | 1204 | 1205 | 1206 | 1208 | 1210 | 1211 | 1212 | 1216 |
| Maximum currents for RG1 [mA] | zcc=757 | 125 | 250 | 375 | 500 | 625 | 750 | 1000 | 1250 | 1375 | 1500 | 2000 |
| | zcc=857 | 125 | 250 | 375 | 500 | 625 | 750 | 1000 | 1250 | 1375 | 1500 | 2000 |
| | zcc=940 | 125 | 250 | 375 | 500 | 625 | 750 | 1000 | 1250 | 1375 | 1500 | 2000 |
| | | | | | | | | | | | | |

| CoB Type (Gen8) con't | | | |
|-------------------------------|---------|------|------|
| CoB Type (Die matrix) | | 1812 | 1818 |
| Maximum currents for RG1 [mA] | zcc=757 | 1500 | 2250 |
| | zcc=857 | 1500 | 2250 |
| | zcc=940 | 1500 | 2250 |
| | | | |

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Additionally evaluated to:

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

Summary of Modifications:

- Add G8 UHE (Die matrix 1304, 1313) models.
- Update Annex 2.
- Update marking plate.
- Update ratings table in GPI.
- Update photobiological test report number.

See test report for details

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