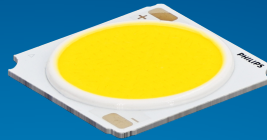


PHILIPS

Fortimo

LED

Fortimo SLM C 8xx 1208
L15 1919 G8N



Datasheet

Best offer of performance and value

Fortimo LED SLM CRI80 G8N Standard

The Fortimo SLM family is Signify's core portfolio, now in its latest generation - Gen 8. This new generation boasts improved efficacy compared to the previous one and an expanded portfolio that includes specific spectrums such as Premium White, Premium Color, and standard color for all applications. It maintains the same two footprints as the previous generation, enabling easy upgrades. Together with other Fortimo SLM G8 product lines, our Fortimo SLM G8 will continuously unlock the extraordinary potential of light, facilitate innovation, and inspire the next generation of luminaire design for our OEM customers. Please also visit the online Easy Design-in Tool for your perfect system combination at www.easydesignintool.com.

Key features and benefits

- +5% efficacy further improvement Vs G7
- Best quality of light available for all applications
- More complete portfolio for easy choice
- Same footprint for easy upgrade
- System proposition

March 2025



Ordering data

| Commercial product name | EOC | 12NC | EPREL registration # | Box quantity |
|-------------------------------------|-------------------|----------------|----------------------|--------------|
| Fortimo SLM C 827 1208 L15 1919 G8N | 8721103 081803 00 | 9290 039 64601 | 2270117 | 20 |
| Fortimo SLM C 830 1208 L15 1919 G8N | 8721103 081834 00 | 9290 039 64701 | 2270381 | 20 |
| Fortimo SLM C 835 1208 L15 1919 G8N | 8721103 081865 00 | 9290 039 64801 | 2270379 | 20 |
| Fortimo SLM C 840 1208 L15 1919 G8N | 8721103 081896 00 | 9290 039 64901 | 2270370 | 20 |
| Fortimo SLM C 850 1208 L15 1919 G8N | 8721103 081926 00 | 9290 048 16101 | 2270430 | 20 |
| Fortimo SLM C 857 1208 L15 1919 G8N | 8721103 081957 00 | 9290 048 16201 | 2270456 | 20 |

Drive currents

| Parameter | Nominal* | Life** | Max*** | Unit |
|-------------------------------------|----------|------------------------|--------|------|
| Fortimo SLM C 8xx 1208 L15 1919 G8N | 720 | see performance window | 1840 | mA |

Module temperatures

| Parameter | Nominal* | Life** | Max*** | Unit |
|---|----------|------------------------|--------|------|
| T _c (case temperature at T _c point) | 65 | see performance window | 95 | °C |


* Nominal value at which typical performance is specified

** Value at which life time is specified

*** Maximum value for safe operation, do not operate above this value

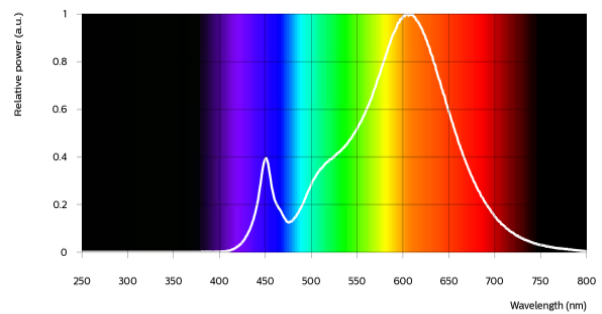
Optical characteristics - table per color (CCT)

Fortimo SLM C 827 1208 L15 1919 G8N


| Parameter | Min | Typ | Max | Unit |
|------------------------------------|---|----------------|------|------|
| Luminous flux | 3534 | 3720 | 4092 | lm |
| Efficacy | | 150 | | lm/W |
| Correlated color temperature (CCT) | | 2700 | | K |
| Color coordinates (CIEx, CIEy) | | (0.458, 0.410) | | - |
| Color consistency | | | 3 | SDCM |
| CRI | 80 | | | |
| R9 | >0 | | | |
| Photometric code |  | 827/359 | | |
| Photobiological safety | | RG1 unlimited | | |

Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 .

| Operation point | 827 | lm | lm/W |
|-----------------|--------------|------|------|
| 80% I-nom 576mA | Tc 25 °C | 3172 | 161 |
| | Tc-nom 65 °C | 3024 | 155 |
| | Tc-max 95 °C | 2893 | 150 |
| I-nom 720mA | Tc 25 °C | 3903 | 156 |
| | Tc-nom 65 °C | 3720 | 150 |
| | Tc-max 95 °C | 3558 | 145 |
| I-max 1840mA | Tc 25 °C | 9001 | 123 |
| | Tc-nom 65 °C | 8555 | 118 |
| | Tc-max 95 °C | 8161 | 114 |

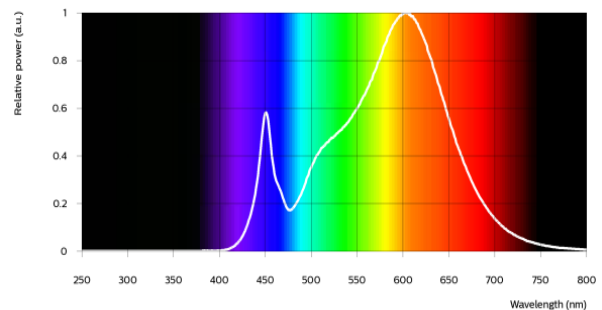


Fortimo SLM C 830 1208 L15 1919 G8N


| Parameter | Min | Typ | Max | Unit |
|------------------------------------|---|----------------|------|------|
| Luminous flux | 3762 | 3960 | 4356 | lm |
| Efficacy | | 160 | | lm/W |
| Correlated color temperature (CCT) | | 3000 | | K |
| Color coordinates (CIEx, CIEy) | | (0.434, 0.403) | | - |
| Color consistency | | | 3 | SDCM |
| CRI | 80 | | | |
| R9 | >0 | | | |
| Photometric code |  | 830/359 | | |
| Photobiological safety | | RG1 unlimited | | |

Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 .

| Operation point | 830 | lm | lm/W |
|-----------------|--------------|------|------|
| 80% I-nom 576mA | Tc 25 °C | 3376 | 171 |
| | Tc-nom 65 °C | 3219 | 165 |
| | Tc-max 95 °C | 3080 | 160 |
| I-nom 720mA | Tc 25 °C | 4155 | 166 |
| | Tc-nom 65 °C | 3960 | 160 |
| | Tc-max 95 °C | 3788 | 154 |
| I-max 1840mA | Tc 25 °C | 9584 | 131 |
| | Tc-nom 65 °C | 9110 | 126 |
| | Tc-max 95 °C | 8691 | 121 |

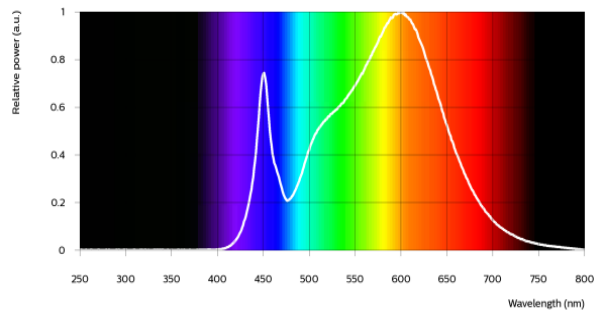


Fortimo SLM C 835 1208 L15 1919 G8N


| Parameter | Min | Typ | Max | Unit |
|------------------------------------|---|----------------|------|------|
| Luminous flux | 3852 | 4055 | 4460 | lm |
| Efficacy | | 164 | | lm/W |
| Correlated color temperature (CCT) | | 3500 | | K |
| Color coordinates (CIEx, CIEy) | | (0.408, 0.393) | | - |
| Color consistency | | | 3 | SDCM |
| CRI | 80 | | | |
| R9 | >0 | | | |
| Photometric code |  | 835/359 | | |
| Photobiological safety | | RG1 unlimited | | |

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

| Operation point | 835 | lm | lm/W |
|-----------------|--------------|------|------|
| 80% I-nom 576mA | Tc 25 °C | 3457 | 175 |
| | Tc-nom 65 °C | 3296 | 169 |
| | Tc-max 95 °C | 3154 | 163 |
| I-nom 720mA | Tc 25 °C | 4254 | 170 |
| | Tc-nom 65 °C | 4055 | 164 |
| | Tc-max 95 °C | 3879 | 158 |
| I-max 1840mA | Tc 25 °C | 9814 | 134 |
| | Tc-nom 65 °C | 9329 | 129 |
| | Tc-max 95 °C | 8900 | 124 |

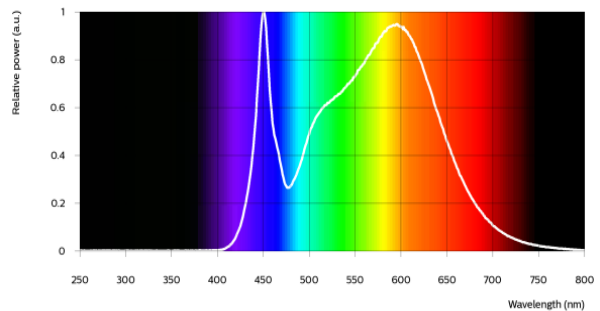


Fortimo SLM C 840 1208 L15 1919 G8N


| Parameter | Min | Typ | Max | Unit |
|------------------------------------|---|----------------|------|------|
| Luminous flux | 3909 | 4115 | 4526 | lm |
| Efficacy | | 166 | | lm/W |
| Correlated color temperature (CCT) | | 4000 | | K |
| Color coordinates (CIEx, CIEy) | | (0.382, 0.380) | | - |
| Color consistency | | | 3 | SDCM |
| CRI | 80 | | | |
| R9 | >0 | | | |
| Photometric code |  | 840/359 | | |
| Photobiological safety | | RG1 unlimited | | |

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

| Operation point | 840 | lm | lm/W |
|-----------------|--------------|------|------|
| 80% I-nom 576mA | Tc 25 °C | 3508 | 178 |
| | Tc-nom 65 °C | 3345 | 172 |
| | Tc-max 95 °C | 3200 | 166 |
| I-nom 720mA | Tc 25 °C | 4317 | 172 |
| | Tc-nom 65 °C | 4115 | 166 |
| | Tc-max 95 °C | 3936 | 160 |
| I-max 1840mA | Tc 25 °C | 9961 | 136 |
| | Tc-nom 65 °C | 9468 | 131 |
| | Tc-max 95 °C | 9033 | 126 |

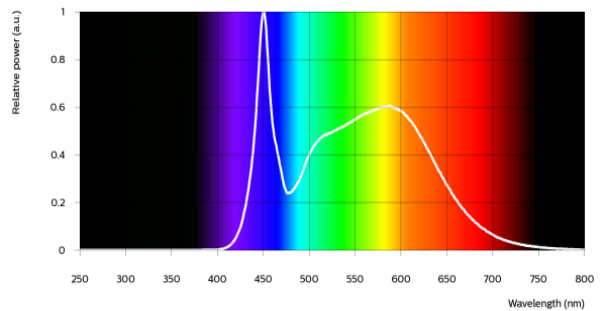


Fortimo SLM C 850 1208 L15 1919 G8N


| Parameter | Min | Typ | Max | Unit |
|------------------------------------|---|----------------|------|------|
| Luminous flux | 3914 | 4120 | 4532 | lm |
| Efficacy | | 166 | | lm/W |
| Correlated color temperature (CCT) | | 5000 | | K |
| Color coordinates (CIEx, CIEy) | | (0.345, 0.355) | | - |
| Color consistency | | | 3 | SDCM |
| CRI | 80 | | | |
| R9 | >0 | | | |
| Photometric code |  | 850/359 | | |
| Photobiological safety | | RG1 unlimited | | |

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

| Operation point | 850 | lm | lm/W |
|-----------------|--------------|------|------|
| 80% I-nom 576mA | Tc 25 °C | 3512 | 178 |
| | Tc-nom 65 °C | 3349 | 172 |
| | Tc-max 95 °C | 3204 | 166 |
| I-nom 720mA | Tc 25 °C | 4322 | 172 |
| | Tc-nom 65 °C | 4120 | 166 |
| | Tc-max 95 °C | 3941 | 160 |
| I-max 1840mA | Tc 25 °C | 9975 | 137 |
| | Tc-nom 65 °C | 9483 | 131 |
| | Tc-max 95 °C | 9048 | 126 |

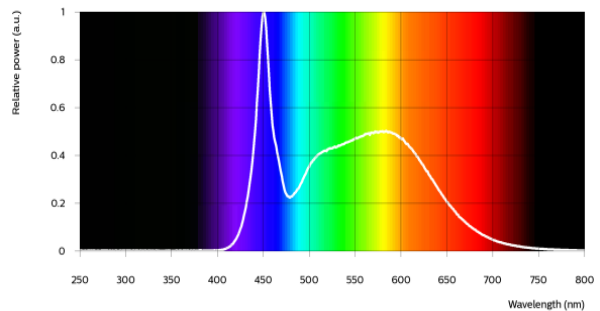


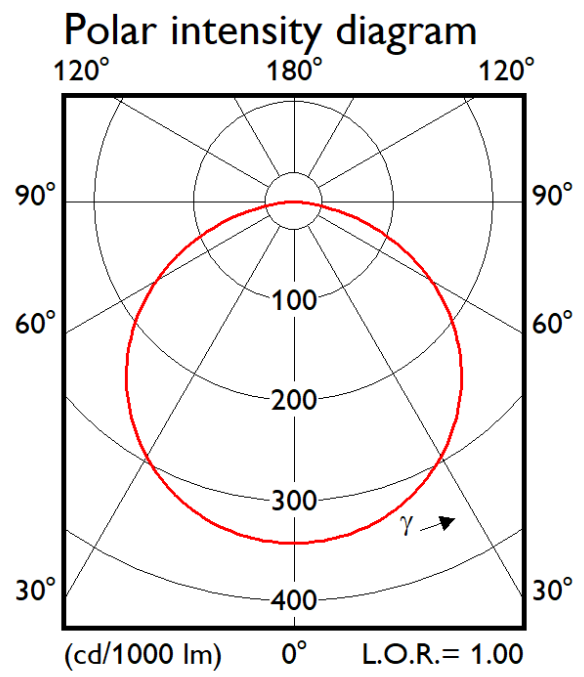
Fortimo SLM C 857 1208 L15 1919 G8N

| Parameter | Min | Typ | Max | Unit |
|------------------------------------|---|----------------|------|------|
| Luminous flux | 3914 | 4120 | 4532 | lm |
| Efficacy | | 166 | | lm/W |
| Correlated color temperature (CCT) | | 5700 | | K |
| Color coordinates (CIEx, CIEy) | | (0.329, 0.343) | | - |
| Color consistency | | | 3 | SDCM |
| CRI | 80 | | | |
| R9 | >0 | | | |
| Photometric code |  | 857/359 | | |
| Photobiological safety | | RG1 unlimited | | |

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

| Operation point | 857 | lm | lm/W |
|-----------------|--------------|------|------|
| 80% I-nom 576mA | Tc 25 °C | 3512 | 178 |
| | Tc-nom 65 °C | 3349 | 172 |
| | Tc-max 95 °C | 3204 | 166 |
| I-nom 720mA | Tc 25 °C | 4322 | 172 |
| | Tc-nom 65 °C | 4120 | 166 |
| | Tc-max 95 °C | 3941 | 160 |
| I-max 1840mA | Tc 25 °C | 9975 | 137 |
| | Tc-nom 65 °C | 9483 | 131 |
| | Tc-max 95 °C | 9048 | 126 |





Electrical characteristics

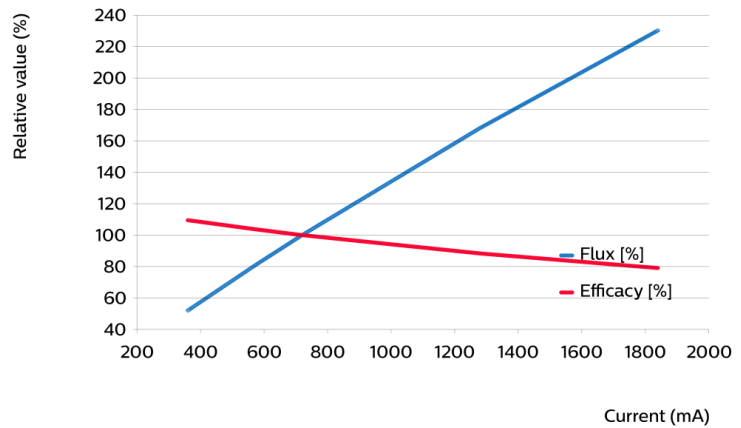
| Parameter | Min | Typ | Max | Unit |
|---------------------------------------|------|------|------|---------------|
| Forward voltage | 32.5 | 34.5 | 37.0 | V |
| Power consumption | 23.4 | 24.8 | 26.6 | W = kWh/1000h |
| Number of modules in series per chain | | | 1 | |
| Number of modules per chain | | | 1 | |
| Number of modules in parallel | | | 1 | |

Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%

Tuning information

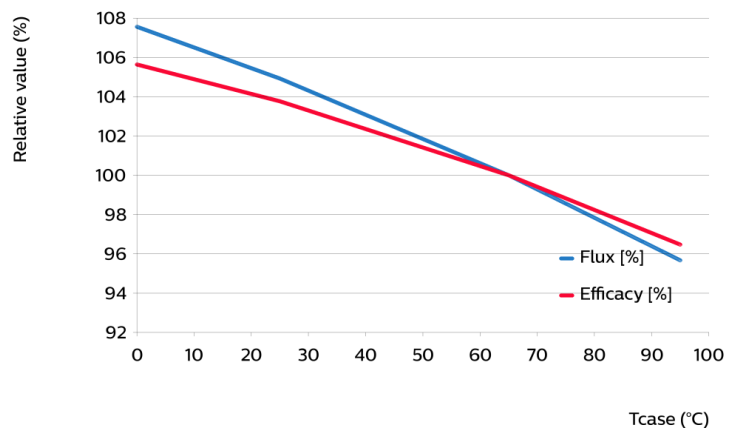
Flux and efficacy versus current (at Tc nominal)

| I [mA] | Flux [%] | Efficacy [%] |
|--------|----------|--------------|
| 1840 | 230 | 79 |
| 1280 | 168 | 88 |
| 720 | 100 | 100 |
| 576 | 81 | 104 |
| 360 | 52 | 109 |



Flux and efficacy versus temperature at Tc (at I nominal)

| Tc [°C] | Flux [%] | Efficacy [%] |
|---------|----------|--------------|
| 95 | 96 | 96 |
| 65 | 100 | 100 |
| 25 | 105 | 104 |
| 0 | 108 | 106 |



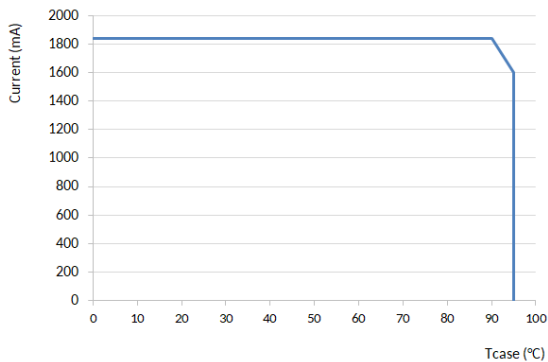
Lumen maintenance

| Operation point | Lumen maintenance x 1000 hours | L70 | | | L80 | | | L90 | | |
|-----------------|-----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | B50 | B20 | B10 | B50 | B20 | B10 | B50 | B20 | B10 |
| 80% I-nom 576mA | Tc 50°C | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 |
| | Tc 65°C | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 |
| | Tc 95°C | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 |
| I-nom 720mA | Tc 50°C | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 |
| | Tc 65°C | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 |
| | Tc 95°C | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 | 62 |
| I-max 1840mA | Tc 50°C | >66 | >66 | >66 | >66 | 58 | 53 | 32 | 27 | 25 |
| | Tc 65°C | >66 | >66 | 64 | 51 | 43 | 40 | 24 | 20 | 18 |
| | Tc 95°C | 50 | 42 | 39 | 31 | 26 | 24 | 14 | 12 | 11 |

Lifetime

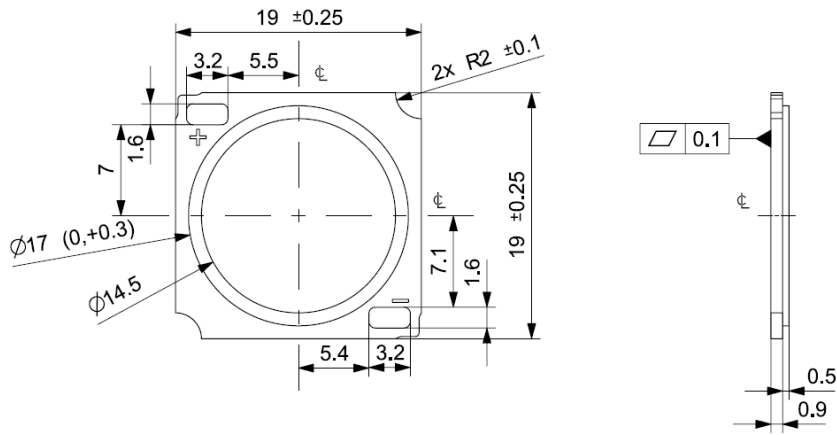
| Parameter | Value | Unit |
|----------------|--------|-------|
| M70F50 nominal | >66000 | hours |

Performance Window



Mechanical characteristics

| Parameter | Min | Typ | Max | Unit |
|----------------------|-------|------|-------|------|
| Length | 18.75 | 19 | 19.25 | mm |
| Width | 18.75 | 19 | 19.25 | mm |
| Height PCB | 0.8 | 0.9 | 1 | mm |
| Height including dam | 1.1 | 1.4 | 1.7 | mm |
| Product mass | | 0.98 | | gram |



Absolute ratings

| Parameter | Min | Max | Unit |
|--|-----|------|-----------------|
| Current through the LED module (I-max) | | 1840 | mA |
| Case temperature (Tc-max) | | 95 | °C |
| ESD (direct contact) | 8 | | kV |
| Working voltage | | 60 | V _{dc} |
| Ambient temperature | -20 | 40 | °C |
| Storage temperature | -40 | 80 | °C |

At illumination levels exceeding 1372 lux risk group classification may be RG2.

Application information

Certificates and Standards

CB
 CE
 ENEC
 IEC/EN 62031
 UKCA
 UL
 UL 8750

Environmental

RoHS/REACH

Application

| | |
|------------------------|--------------------------|
| IP rating | No IP-rating |
| Overheating protection | No |
| Luminaire class | IEC Class I and Class II |
| Dimming | Yes |



© 2025 Signify Holding, IBRS 10461, 5600VB, NL. All rights reserved. The information provided herein is subject to change, without notice. Signify does not give any representation or warranty as to the accuracy or completeness of the information included herein and shall not be liable for any action in reliance thereon. The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Signify.

www.philips.com/oem

Philips and the Philips Shield Emblem are registered trademarks of Koninklijke Philips N.V. All other trademarks are owned by Signify Holding or their respective owners.
UK importer address: Signify Commercial UK Limited, 3 Guildford Business Park, GU2 8XG

10/03/2025