

## Linear LED modules 2000lm 42V per 1ft 2C

### Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE, ENEC
- 2C - two connectors for series system, also recognized as a high voltage system - non-SELV
- Other CCT and CRI on request



### LinLED CRI 80 CJ G4

| Product name                            | Ordering code  | Colour temperature [K] | Current nominal If nom [mA] | Luminous flux <sup>1</sup> φ [lm] | Useful luminous flux <sup>2</sup> [lm] | Voltage <sup>1</sup> Vf [V] | Power <sup>1</sup> P [W] | Efficacy <sup>1</sup> [lm/W] | Current minimum If min <sup>3</sup> [mA] | Current maximum If max [mA] | Energy Efficiency Class |
|---|----------------|------------------------|-----------------------------|-----------------------------------|--|-----------------------------|--------------------------|------------------------------|--|-----------------------------|-------------------------|
| LinLED 280x24mm 2000lm 830 2C 42V CJ G4 | 1010 127 97346 | 3000                   | 280                         | 2004                              | 2055                                   | 38                          | 10.6                     | 190                          | 40                                       | 1200                        | C                       |
| LinLED 560x24mm 4000lm 830 2C 84V CJ G4 | 1010 127 97446 |                        | 280                         | 4008                              | 4110                                   | 76                          | 21.1                     | 190                          | 40                                       | 1200                        | C                       |
| LinLED 280x24mm 2000lm 840 2C 42V CJ G4 | 1010 127 97546 | 4000                   | 280                         | 2084                              | 2137                                   | 38                          | 10.6                     | 197                          | 40                                       | 1200                        | B                       |
| LinLED 560x24mm 4000lm 840 2C 84V CJ G4 | 1010 127 97646 |                        | 280                         | 4168                              | 4274                                   | 76                          | 21.1                     | 197                          | 40                                       | 1200                        | B                       |

### LinLED CRI 80 CN G3

| Product name                            | Ordering code  | Colour temperature [K] | Current nominal If nom [mA] | Luminous flux <sup>1</sup> φ [lm] | Useful luminous flux <sup>2</sup> [lm] | Voltage <sup>1</sup> Vf [V] | Power <sup>1</sup> P [W] | Efficacy <sup>1</sup> [lm/W] | Current minimum If min <sup>3</sup> [mA] | Current maximum If max [mA] | Energy Efficiency Class |
|---|----------------|------------------------|-----------------------------|-----------------------------------|--|-----------------------------|--------------------------|------------------------------|--|-----------------------------|-------------------------|
| LinLED 280x24mm 2000lm 830 2C 42V CN G3 | 1010 147 15146 | 3000                   | 280                         | 1918                              | 1985                                   | 38                          | 10.6                     | 180                          | 40                                       | 600                         | C                       |
| LinLED 560x24mm 4000lm 830 2C 84V CN G3 | 1010 147 15246 |                        | 280                         | 3837                              | 3971                                   | 76                          | 21.3                     | 180                          | 40                                       | 600                         | C                       |
| LinLED 280x24mm 2000lm 840 2C 42V CN G3 | 1010 147 15346 | 4000                   | 280                         | 2024                              | 2094                                   | 38                          | 10.6                     | 190                          | 40                                       | 600                         | C                       |
| LinLED 560x24mm 4000lm 840 2C 84V CN G3 | 1010 147 15446 |                        | 280                         | 4048                              | 4189                                   | 76                          | 21.3                     | 190                          | 40                                       | 600                         | C                       |

### LinLED CRI 80 LG G2

| Product name                            | Ordering code  | Colour temperature [K] | Current nominal If nom [mA] | Luminous flux <sup>1</sup> φ [lm] | Useful luminous flux <sup>2</sup> [lm] | Voltage <sup>1</sup> Vf [V] | Power <sup>1</sup> P [W] | Efficacy <sup>1</sup> [lm/W] | Current minimum If min <sup>3</sup> [mA] | Current maximum If max [mA] | Energy Efficiency Class |
|---|----------------|------------------------|-----------------------------|-----------------------------------|--|-----------------------------|--------------------------|------------------------------|--|-----------------------------|-------------------------|
| LinLED 280x24mm 2000lm 830 2C 42V LG G2 | 1010 147 32946 | 3000                   | 300                         | 1956                              | 2018                                   | 39                          | 11.7                     | 168                          | 40                                       | 600                         | D                       |
| LinLED 560x24mm 4000lm 830 2C 84V LG G2 | 1010 147 33046 |                        | 300                         | 3913                              | 4036                                   | 78                          | 23.3                     | 168                          | 40                                       | 600                         | D                       |
| LinLED 280x24mm 2000lm 840 2C 42V LG G2 | 1010 147 33146 | 4000                   | 300                         | 2079                              | 2144                                   | 39                          | 11.7                     | 178                          | 40                                       | 600                         | C                       |
| LinLED 560x24mm 4000lm 840 2C 84V LG G2 | 1010 147 33246 |                        | 300                         | 4158                              | 4288                                   | 78                          | 23.3                     | 178                          | 40                                       | 600                         | C                       |

### LinLED CRI 90 S8 K G7

| Product name                              | Ordering code  | Colour temperature [K] | Current nominal If nom [mA] | Luminous flux <sup>1</sup> φ [lm] | Useful luminous flux <sup>2</sup> [lm] | Voltage <sup>1</sup> Vf [V] | Power <sup>1</sup> P [W] | Efficacy <sup>1</sup> [lm/W] | Current minimum If min <sup>3</sup> [mA] | Current maximum If max [mA] | Energy Efficiency Class |
|---|----------------|------------------------|-----------------------------|-----------------------------------|--|-----------------------------|--------------------------|------------------------------|--|-----------------------------|-------------------------|
| LinLED 280x24mm 2000lm 930 2C 42V S8 K G7 | 1010 147 34746 | 3000                   | 270                         | 1962                              | 1998                                   | 38                          | 10.1                     | 194                          | 40                                       | 600                         | C                       |
| LinLED 560x24mm 4000lm 930 2C 84V S8 K G7 | 1010 147 34846 |                        | 270                         | 3923                              | 3997                                   | 76                          | 20.3                     | 194                          | 40                                       | 600                         | C                       |
| LinLED 280x24mm 2000lm 940 2C 42V S8 K G7 | 1010 147 34946 | 4000                   | 270                         | 2074                              | 2112                                   | 38                          | 10.1                     | 205                          | 40                                       | 600                         | B                       |
| LinLED 560x24mm 4000lm 940 2C 84V S8 K G7 | 1010 147 35046 |                        | 270                         | 4147                              | 4225                                   | 76                          | 20.3                     | 205                          | 40                                       | 600                         | B                       |

### LinLED CRI 90 S5 K G6

| Product name                              | Ordering code  | Colour temperature [K] | Current nominal If nom [mA] | Luminous flux <sup>1</sup> φ [lm] | Useful luminous flux <sup>2</sup> [lm] | Voltage <sup>1</sup> Vf [V] | Power <sup>1</sup> P [W] | Efficacy <sup>1</sup> [lm/W] | Current minimum If min <sup>3</sup> [mA] | Current maximum If max [mA] | Energy Efficiency Class |
|---|----------------|------------------------|-----------------------------|-----------------------------------|--|-----------------------------|--------------------------|------------------------------|--|-----------------------------|-------------------------|
| LinLED 280x24mm 2000lm 930 2C 42V S5 K G6 | 1010 147 47646 | 3000                   | 280                         | 1967                              | 2004                                   | 38                          | 10.6                     | 185                          | 40                                       | 600                         | C                       |
| LinLED 560x24mm 4000lm 930 2C 84V S5 K G6 | 1010 147 47746 |                        | 280                         | 3935                              | 4008                                   | 76                          | 21.2                     | 185                          | 40                                       | 600                         | C                       |
| LinLED 280x24mm 2000lm 940 2C 42V S5 K G6 | 1010 147 47846 | 4000                   | 280                         | 2067                              | 2105                                   | 38                          | 10.6                     | 195                          | 40                                       | 600                         | C                       |
| LinLED 560x24mm 4000lm 940 2C 84V S5 K G6 | 1010 147 47946 |                        | 280                         | 4133                              | 4210                                   | 76                          | 21.2                     | 195                          | 40                                       | 600                         | C                       |

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### LinLED CRI 90 EH1.1 G3

| Product name                               | Ordering code  | Colour temperature [K] | Current nominal If nom [mA] | Luminous flux <sup>1</sup> φ [lm] | Useful luminous flux <sup>2</sup> [lm] | Voltage <sup>1</sup> Vf [V] | Power <sup>1</sup> P [W] | Efficacy <sup>1</sup> [lm/W] | Current minimum If min <sup>3</sup> [mA] | Current maximum If max [mA] | Energy Efficiency Class |
|--|----------------|------------------------|-----------------------------|-----------------------------------|--|-----------------------------|--------------------------|------------------------------|--|-----------------------------|-------------------------|
| LinLED 280x24mm 2000lm 930 2C 42V EH1.1 G3 | 1010 117 39746 | 3000                   | 310                         | 1979                              | 2039                                   | 41                          | 13                       | 157                          | 40                                       | 600                         | D                       |
| LinLED 560x24mm 4000lm 930 2C 84V EH1.1 G3 | 1010 117 39946 |                        | 310                         | 3958                              | 4077                                   | 81                          | 25                       | 157                          | 40                                       | 600                         | D                       |
| LinLED 280x24mm 2000lm 940 2C 42V EH1.1 G3 | 1010 117 39846 | 4000                   | 310                         | 2103                              | 2166                                   | 41                          | 13                       | 167                          | 40                                       | 600                         | D                       |
| LinLED 560x24mm 4000lm 940 2C 84V EH1.1 G3 | 1010 117 40046 |                        | 310                         | 4206                              | 4332                                   | 81                          | 25                       | 167                          | 40                                       | 600                         | D                       |

<sup>1</sup>At nominal current and T<sub>p</sub>

<sup>2</sup>At nominal current and 25°C

<sup>3</sup>It is recommended not to operate below minimum current in order to avoid un-even brightness

Tolerance range for optical and electrical ±10%

### Temperature & humidity

| Specification item                         | Unit | Value       |
|--|------|-------------|
| T <sub>p</sub>                             | [°C] | 45          |
| T <sub>p</sub> rated                       | [°C] | 65          |
| T <sub>c</sub>                             | [°C] | 85          |
| Relative humidity (non-condensing)         | [%]  | 5 ... 85    |
| Storage ambient temperature                | [°C] | -25 ... +85 |
| Storage relative humidity (non-condensing) | [%]  | 5 ... 85    |

T<sub>p</sub> - Temperature related to the performance parameters of the LED modules

T<sub>p</sub> rated - Maximum operating temperature to which the rated performance characteristics are declared

T<sub>c</sub> - Highest permissible value for safe operation

### Technical data

| Specification item               | Unit   | Value         |
|----------------------------------|--------|---------------|
| Classification acc. to IEC 62031 |        | built-in      |
| Working voltage                  | [Vdc]  | 350           |
| Beam angle                       | [deg]  | 120           |
| Initial color consistency        | [SDCM] | 3             |
| Photobiological safety           |        | RG1 unlimited |

### Color coordinates

According to CIE 1931

| Specification item | CIE <sub>x</sub> | CIE <sub>y</sub> |
|--------------------|------------------|------------------|
| 2700K              | 0.4578           | 0.4101           |
| 3000K              | 0.4338           | 0.4030           |
| 4000K              | 0.3818           | 0.3797           |
| 6500K              | 0.3123           | 0.3282           |

### Certificates & standards

| Specification item | Compliant    |
|--------------------|--------------|
| ENEC               | Yes          |
| CE                 | Yes          |
| RoHS               | Yes          |
| REACH              | Yes          |
| IP rating          | No IP rating |

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### Lumen maintenance

for LE G5, LG G2, LA G3

| Forward current | Tp temp. | L70 [h]  |          | L80 [h]  |          | L90 [h]  |          |
|-----------------|----------|----------|----------|----------|----------|----------|----------|
|                 |          | B50      | B10      | B50      | B10      | B50      | B10      |
| If nom          | 45°C     | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 |
|                 | 55°C     | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 |
|                 | 65°C     | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 |
|                 | 75°C     | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 | 98 000   |
|                 | 85°C     | >100 000 | >100 000 | >100 000 | >100 000 | 81 000   | 73 000   |
| If max          | 45°C     | >100 000 | >100 000 | 92 000   | 87 000   | 45 000   | 42 000   |
|                 | 55°C     | >100 000 | >100 000 | 92 000   | 87 000   | 45 000   | 42 000   |
|                 | 65°C     | >100 000 | >100 000 | 92 000   | 87 000   | 45 000   | 42 000   |
|                 | 75°C     | >100 000 | >100 000 | 92 000   | 87 000   | 45 000   | 42 000   |

Calculated data based on LM80 LED data (12 000h)

for S8 K G7, S7 K G7, S5 K G6

| Forward current | Tp temp. | L70 [h]  |          | L80 [h] |         | L90 [h] |        |
|-----------------|----------|----------|----------|---------|---------|---------|--------|
|                 |          | B50      | B10      | B50     | B10     | B50     | B10    |
| If nom          | 45°C     | >120 000 | >120 000 | 117 000 | 114 000 | 62 000  | 61 000 |
|                 | 55°C     | >120 000 | >120 000 | 96 000  | 94 000  | 50 000  | 49 000 |
|                 | 65°C     | >120 000 | >120 000 | 80 000  | 78 000  | 41 000  | 40 000 |
|                 | 75°C     | 104 000  | 102 000  | 67 000  | 65 000  | 34 000  | 33 000 |
|                 | 85°C     | 89 000   | 87 000   | 56 000  | 55 000  | 28 000  | 27 000 |
| If max          | 45°C     | >120 000 | >120 000 | 85 000  | 82 000  | 45 000  | 44 000 |
|                 | 55°C     | 108 000  | 104 000  | 69 000  | 68 000  | 36 000  | 35 000 |
|                 | 65°C     | 90 000   | 87 000   | 57 000  | 56 000  | 29 000  | 29 000 |
|                 | 75°C     | 75 000   | 74 000   | 48 000  | 47 000  | 24 000  | 24 000 |

Calculated data based on LM80 LED data (20 000h)

for CJ G4, CN G3

| Forward current | Tp temp. | L70 [h]  |          | L80 [h]  |          | L90 [h]  |          |
|-----------------|----------|----------|----------|----------|----------|----------|----------|
|                 |          | B50      | B10      | B50      | B10      | B50      | B10      |
| If nom          | 45°C     | >102 000 | >102 000 | >102 000 | >102 000 | >102 000 | >102 000 |
|                 | 55°C     | >102 000 | >102 000 | >102 000 | >102 000 | >102 000 | >102 000 |
|                 | 65°C     | >102 000 | >102 000 | >102 000 | >102 000 | 87 000   | 86 000   |
|                 | 75°C     | >102 000 | >102 000 | >102 000 | >102 000 | 74 000   | 73 000   |
|                 | 85°C     | >102 000 | >102 000 | >102 000 | >102 000 | 63 000   | 62 000   |
| If max          | 45°C     | >102 000 | >102 000 | >102 000 | >102 000 | >102 000 | >102 000 |
|                 | 55°C     | >102 000 | >102 000 | >102 000 | >102 000 | 90 000   | 89 000   |
|                 | 65°C     | >102 000 | >102 000 | >102 000 | >102 000 | 77 000   | 76 000   |
|                 | 75°C     | >102 000 | >102 000 | >102 000 | >102 000 | 65 000   | 64 000   |

Reported data based on LM80 LED data (17 000h)

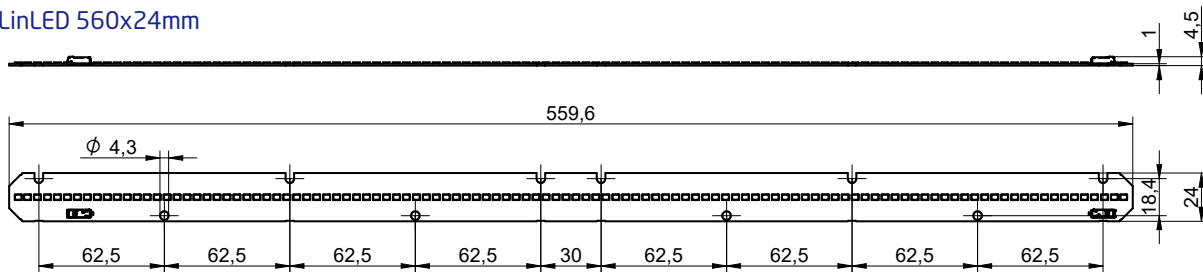
for EH1.1 G3

| Forward current | Tp temp. | L70 [h] |         | L80 [h] |         | L90 [h] |        |
|-----------------|----------|---------|---------|---------|---------|---------|--------|
|                 |          | B50     | B10     | B50     | B10     | B50     | B10    |
| If nom          | 45°C     | >72 000 | >72 000 | >72 000 | >72 000 | 64 000  | 60 000 |
|                 | 55°C     | >72 000 | >72 000 | >72 000 | >72 000 | 63 000  | 59 000 |
|                 | 65°C     | >72 000 | >72 000 | >72 000 | >72 000 | 62 000  | 57 000 |
|                 | 75°C     | >72 000 | >72 000 | >72 000 | >72 000 | 60 000  | 56 000 |
|                 | 85°C     | >72 000 | >72 000 | >72 000 | >72 000 | 59 000  | 55 000 |
| If max          | 45°C     | >72 000 | >72 000 | 67 000  | 62 000  | 30 000  | 29 000 |
|                 | 55°C     | >72 000 | >72 000 | 66 000  | 61 000  | 30 000  | 28 000 |
|                 | 65°C     | >72 000 | >72 000 | 65 000  | 60 000  | 29 000  | 27 000 |
|                 | 75°C     | >72 000 | >72 000 | 65 000  | 59 000  | 29 000  | 26 000 |

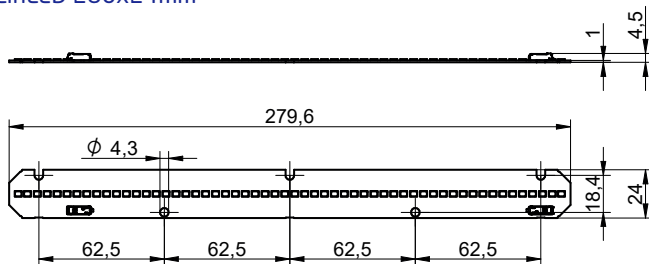
Calculated data based on LM80 LED data (12 000h)

### Dimensions

#### LinLED 560x24mm



#### LinLED 280x24mm



## Linear LED modules 2000lm 42V per 1ft 2C

### Mounting

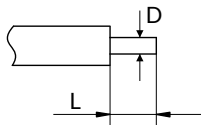
LED Modules cannot be exposed to tensile or compressive stresses. For this purpose it is necessary that the modules are assembled to a flat surface by only rounded head screws. Additionally plastic flat washer should be used to ensure creepeage distance between screw's head and surface of the pcb. Max. torque for fixing: 0,5Nm.

LED modules are sensitive to electrostatic discharge (ESD). Follow safety regulations according to IEC 61340-5-1.

Protection against electric shock must be provided by the luminaire's enclosure.

### Wiring

Wire cross section and strip length:



| D - wire cross section<br>(solid and flexible wires) | Min                | Max                 |
|--|--------------------|---------------------|
|  | 0.2mm <sup>2</sup> | 0.75mm <sup>2</sup> |
|  | AWG 24             | AWG 18              |

| L - strip length | Min | Max |
|------------------|-----|-----|
|                  | 8mm | 9mm |

Opening for the release of wires from the top with release pin Electroterminal art. 881 167 884:

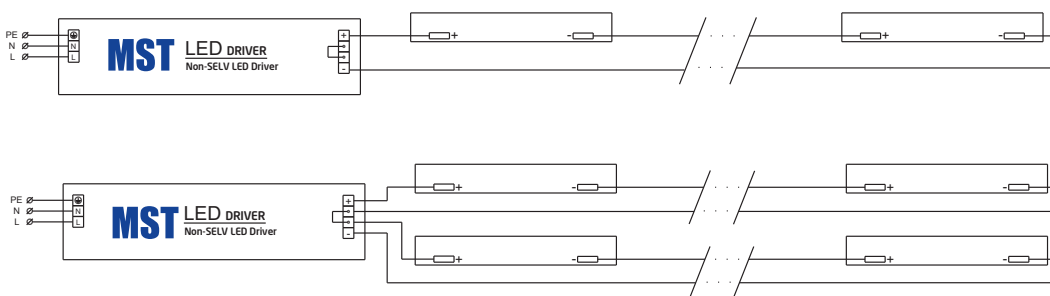


### Connections

| Max number of modules | Unit  | Series | Parallel |
|-----------------------|-------|--------|----------|
| LinLED 280x24mm       | [pcs] | 8      | -        |
| LinLED 560x24mm       | [pcs] | 4      | -        |

You can combine different lengths of LED modules so that the maximum length does not exceed 2240mm

### Wiring for series connection system (2C)



### Energy Label / EPREL database

To obtain Energy Label for this product visit <https://eprel.ec.europa.eu/> and enter model identifier

Model identifier consists of 10 digits XXXX XXX XXX. It is printed directly on the LED module or on product label. This is the number you can see in EPREL database.

Ordering code consist of 12 digits XXXX XXX XXX46. Additional last two digits means packaging of the product.

## Linear LED modules 2000lm 42V per 1ft 2C

### Ordering codes

| Product name                               | Ordering code  | Pieces per box | Pieces per pallet | Box dimensions [mm] |
|--|----------------|----------------|-------------------|---------------------|
| LinLED 280x24mm 2000lm 830 2C 42V CJ G4    | 1010 127 97346 | 180            | 21600             | 300 x 266 x 83      |
| LinLED 560x24mm 4000lm 830 2C 84V CJ G4    | 1010 127 97446 | 180            | 10800             | 603 x 266 x 83      |
| LinLED 280x24mm 2000lm 840 2C 42V CJ G4    | 1010 127 97546 | 180            | 21600             | 300 x 266 x 83      |
| LinLED 560x24mm 4000lm 840 2C 84V CJ G4    | 1010 127 97646 | 180            | 10800             | 603 x 266 x 83      |
| LinLED 280x24mm 2000lm 830 2C 42V CN G3    | 1010 147 15146 | 180            | 21600             | 300 x 266 x 83      |
| LinLED 560x24mm 4000lm 830 2C 84V CN G3    | 1010 147 15246 | 180            | 10800             | 603 x 266 x 83      |
| LinLED 280x24mm 2000lm 840 2C 42V CN G3    | 1010 147 15346 | 180            | 21600             | 300 x 266 x 83      |
| LinLED 560x24mm 4000lm 840 2C 84V CN G3    | 1010 147 15446 | 180            | 10800             | 603 x 266 x 83      |
| LinLED 280x24mm 2000lm 830 2C 42V LG G2    | 1010 147 32946 | 180            | 21600             | 300 x 266 x 83      |
| LinLED 560x24mm 4000lm 830 2C 84V LG G2    | 1010 147 33046 | 180            | 10800             | 603 x 266 x 83      |
| LinLED 280x24mm 2000lm 840 2C 42V LG G2    | 1010 147 33146 | 180            | 21600             | 300 x 266 x 83      |
| LinLED 560x24mm 4000lm 840 2C 84V LG G2    | 1010 147 33246 | 180            | 10800             | 603 x 266 x 83      |
| LinLED 280x24mm 2000lm 930 2C 42V EH1.1 G3 | 1010 117 39746 | 180            | 21600             | 300 x 266 x 83      |
| LinLED 560x24mm 4000lm 930 2C 84V EH1.1 G3 | 1010 117 39946 | 180            | 10800             | 603 x 266 x 83      |
| LinLED 280x24mm 2000lm 940 2C 42V EH1.1 G3 | 1010 117 39846 | 180            | 21600             | 300 x 266 x 83      |
| LinLED 560x24mm 4000lm 940 2C 84V EH1.1 G3 | 1010 117 40046 | 180            | 10800             | 603 x 266 x 83      |
| LinLED 280x24mm 2000lm 930 2C 42V S7 K G7  | 1010 147 34746 | 180            | 21600             | 300 x 266 x 83      |
| LinLED 560x24mm 4000lm 930 2C 84V S7 K G7  | 1010 147 34846 | 180            | 10800             | 603 x 266 x 83      |
| LinLED 280x24mm 2000lm 940 2C 42V S7 K G7  | 1010 147 34946 | 180            | 21600             | 300 x 266 x 83      |
| LinLED 560x24mm 4000lm 940 2C 84V S7 K G7  | 1010 147 35046 | 180            | 10800             | 603 x 266 x 83      |
| LinLED 280x24mm 2000lm 930 2C 42V S5 K G6  | 1010 147 47646 | 180            | 21600             | 300 x 266 x 83      |
| LinLED 560x24mm 4000lm 930 2C 84V S5 K G6  | 1010 147 47746 | 180            | 10800             | 603 x 266 x 83      |
| LinLED 280x24mm 2000lm 940 2C 42V S5 K G6  | 1010 147 47846 | 180            | 21600             | 300 x 266 x 83      |
| LinLED 560x24mm 4000lm 940 2C 84V S5 K G6  | 1010 147 47946 | 180            | 10800             | 603 x 266 x 83      |