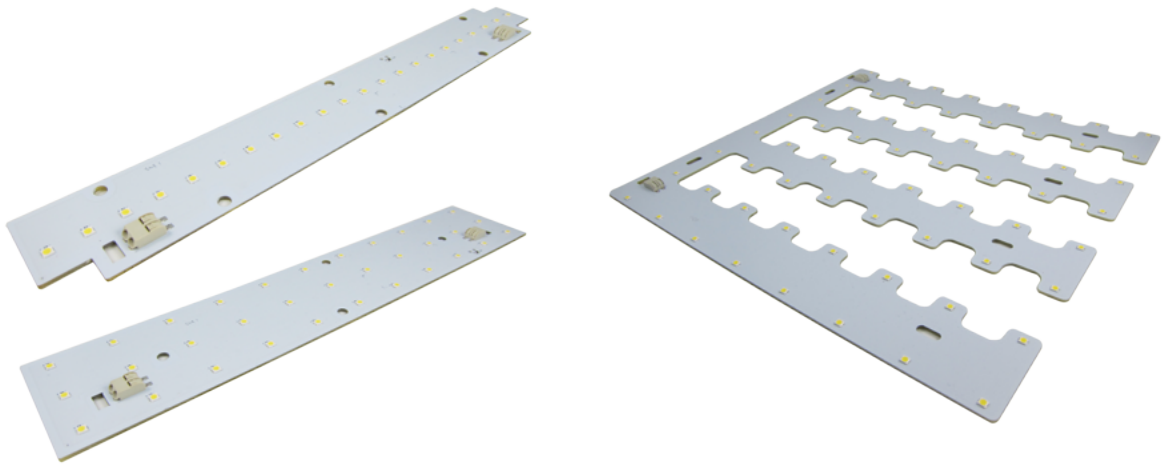


EdiLex Linear Series Datasheet



Specification :

■ Color : ○ ● ●

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General Information

Introduction

EdiLex strip lighting module are linear light LED Strips. They are intended for luminaire manufacturers who want to replace linear fluorescent luminaires with LED solutions. The LED Strip can be designed into existing fluorescent luminaires or used to create totally new shapes and concepts. Its “notched” mechanical design gives a three-dimensional scalability for light-lines.

Product Nomenclature

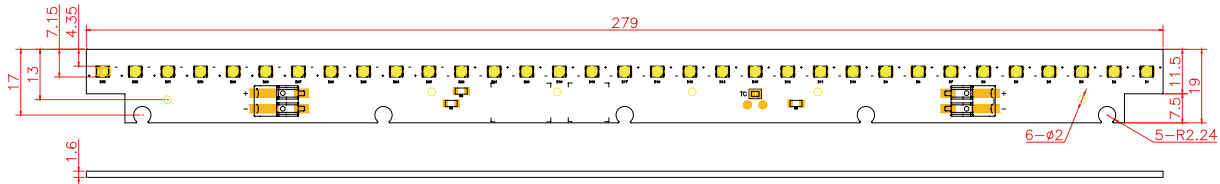
$\frac{5}{X1}$ $\frac{T}{X2}$ $\frac{0x}{X3-X4}$ $\frac{xx}{X5-X6}$ $\frac{xW}{X7-X8}$ $\frac{L}{X9}$ $\frac{xxx}{X10-X12}$ $\frac{xxxx}{X13-X16}$

| X1 | | X2 | | X3-X4 | | X5-X6 | | X7-X8 | |
|------|--------|----------|------|--------|--------|---------------|---------------|----------------|----------------|
| Item | Module | LED Item | PLCC | Series | Series | Emitter Power | Emitter Power | Emitting Color | Emitting Color |
| 5 | Module | T | PLCC | 03 | 3528 | X1 | 0.1W | CW | Cool White |
| | | | | | | X2 | 0.2W | NW | Neutral White |
| | | | | | | 01 | 1W | WW | Warm White |

| X9 | | X10-X12 | | X13-X16 | |
|------------|------------------------|----------------|----------------|---------------|---------------|
| Dimensions | Dimensions | Total Quantity | Total Quantity | Serial Number | Serial Number |
| L | Single row type | 022 | 22 in 1 | -- | -- |
| P | Double row type/ Panel | 033 | 33 in 1 | | |
| | | 044 | 44 in 1 | | |
| | | 064 | 64 in 1 | | |
| | | 072 | 72 in 1 | | |

5T0301xWL033000x (3528) Series

Package Dimensions



Note: All dimensions are in millimeters.

Features

- High Brightness SMD LED
- Low Power Requirement & Energy Efficient
- Light Weight Easy Assembly
- Design-in Quick Expansion
- Suitable for Restricted Space

Product image



Typical Applications

- Commercial Lighting
- Stairway Accent Lighting
- Cabinet Lighting
- General Lighting

Wiring type and cross section

The wiring can be solid cable with a cross section of 0.4 to 0.75mm². For the push-wire connection you have to strip the insulation (6–7mm)

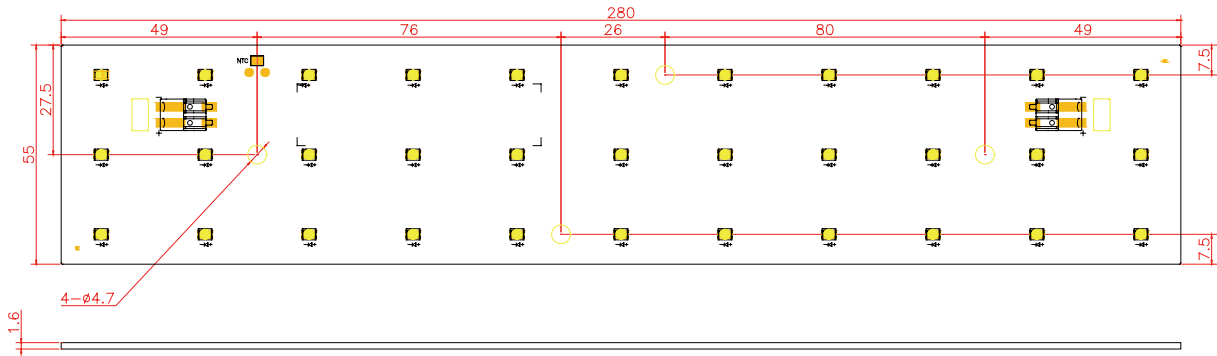
Electro-Optical Characteristics

| Part Number | Color | Typ. Input Voltage (V) | Typ. Power (W) | Current (mA) | Radiance Angle | CCT (K) | Typ. Lumen Flux (lm) |
|------------------|---------------|------------------------|----------------|--------------|----------------|---------|----------------------|
| 5T0301CWL0330001 | Cool White | 31.5 | 5.5 | 175 | 120° | 6000K | 690 |
| 5T0301NWL0330001 | Neutral White | 31.5 | 5.5 | 175 | 120° | 4100K | 680 |
| 5T0301WWL0330001 | Warm White | 31.5 | 5.5 | 175 | 120° | 3050K | 640 |

Note : Flux is measured with an accuracy of ± 10%.

5T0301xWP033000x (3528) Series

Package Dimensions



Note: All dimensions are in millimeters.

Features

- High Brightness SMD LED
- Low Power Requirement & Energy Efficient
- Light Weight Easy Assembly
- Design-in Quick Expansion
- Suitable for Restricted Space

Product image



Typical Applications

- Commercial Lighting
- Stairway Accent Lighting
- Cabinet Lighting
- General Lighting

Wiring type and cross section

The wiring can be solid cable with a cross section of 0.4 to 0.75mm². For the push-wire connection you have to strip the insulation (6–7mm)

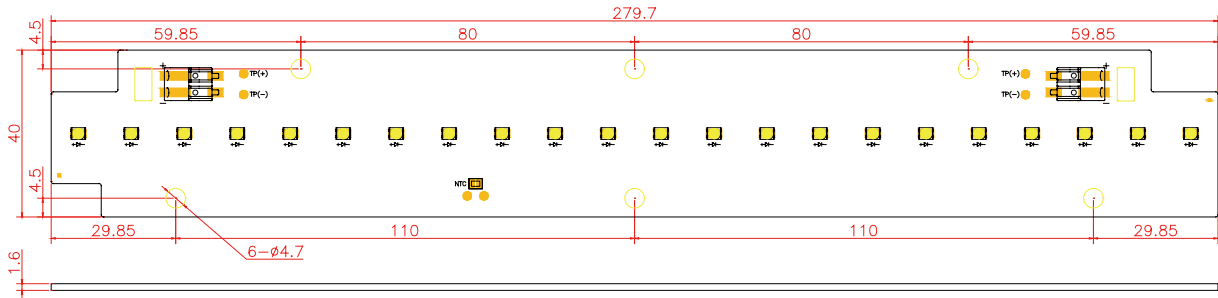
Electro-Optical Characteristics

| Part Number | Color | Typ. Input Voltage (V) | Typ. Power (W) | Current (mA) | Radiance Angle | CCT (K) | Typ. Lumen Flux (lm) |
|------------------|---------------|------------------------|----------------|--------------|----------------|---------|----------------------|
| 5T0301CWP0330001 | Cool White | 31.5 | 11 | 350 | 120° | 6000K | 1380 |
| 5T0301NWP0330001 | Neutral White | 31.5 | 11 | 350 | 120° | 4100K | 1340 |
| 5T0301WWP0330001 | Warm White | 31.5 | 11 | 350 | 120° | 3050K | 1300 |

Note : Flux is measured with an accuracy of ± 10%.

5T0301xWL022000x (3528) Series

Package Dimensions



Note: All dimensions are in millimeters.

Features

- High Brightness SMD LED
- Low Power Requirement & Energy Efficient
- Light Weight Easy Assembly
- Design-in Quick Expansion
- Suitable for Restricted Space

Product image



Typical Applications

- Commercial Lighting
- Stairway Accent Lighting
- Cabinet Lighting
- General Lighting

Wiring type and cross section

The wiring can be solid cable with a cross section of 0.4 to 0.75mm². For the push-wire connection you have to strip the insulation (6–7mm)

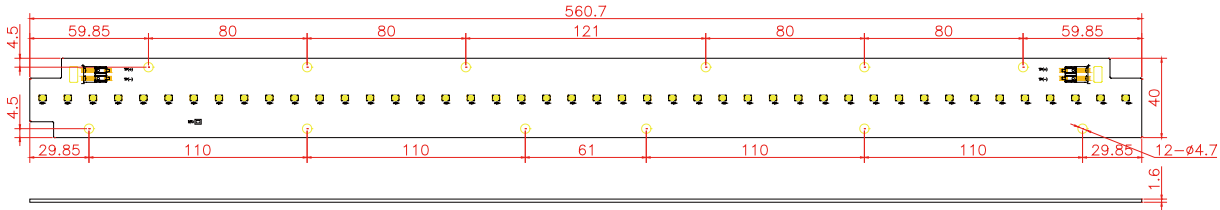
Electro-Optical Characteristics

| Part Number | Color | Typ. Input Voltage (V) | Typ. Power (W) | Current (mA) | Radiance Angle | CCT (K) | Typ. Lumen Flux (lm) |
|------------------|---------------|------------------------|----------------|--------------|----------------|---------|----------------------|
| 5T0301CWL0220001 | Cool White | 33 | 11.5 | 350 | 120° | 6000K | 1390 |
| 5T0301NWL0220001 | Neutral White | 33 | 11.5 | 350 | 120° | 4100K | 1360 |
| 5T0301WWL0220001 | Warm White | 33 | 11.5 | 350 | 120° | 3050K | 1320 |

Note : Flux is measured with an accuracy of ± 10%.

5T0301xWL044000x (3528) Series

Package Dimensions



Note: All dimensions are in millimeters.

Features

- High Brightness SMD LED
- Low Power Requirement & Energy Efficient
- Light Weight Easy Assembly
- Design-in Quick Expansion
- Suitable for Restricted Space

Product image



Typical Applications

- Commercial Lighting
- Stairway Accent Lighting
- Cabinet Lighting
- General Lighting

Wiring type and cross section

The wiring can be solid cable with a cross section of 0.4 to 0.75mm². For the push-wire connection you have to strip the insulation (6–7mm)

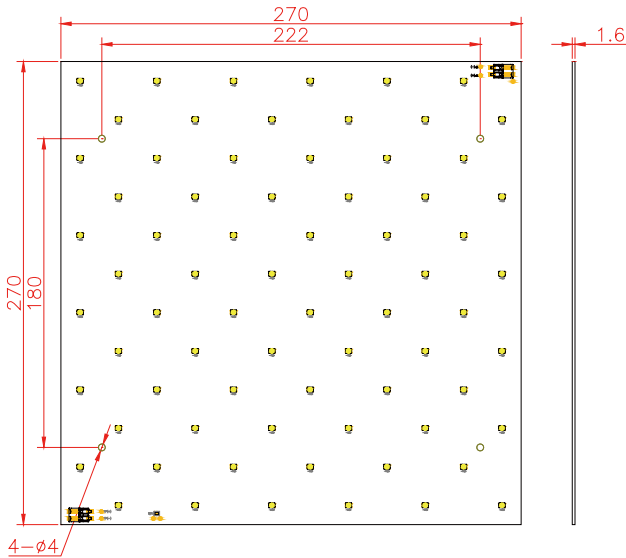
Electro-Optical Characteristics

| Part Number | Color | Typ. Input Voltage (V) | Typ. Power (W) | Current (mA) | Radiance Angle | CCT (K) | Typ. Lumen Flux (lm) |
|------------------|---------------|------------------------|----------------|--------------|----------------|---------|----------------------|
| 5T0301CWL0440001 | Cool White | 33.5 | 23.5 | 700 | 120° | 6000K | 2770 |
| 5T0301NWL0440001 | Neutral White | 33.5 | 23.5 | 700 | 120° | 4100K | 2720 |
| 5T0301WWL0440001 | Warm White | 33.5 | 23.5 | 700 | 120° | 3050K | 2630 |

Note : Flux is measured with an accuracy of ± 10%.

5T0301xWP072000x (3528) Series

Package Dimensions



Product image



Note: All dimensions are in millimeters.

Features

- High Brightness SMD LED
- Low Power Requirement & Energy Efficient
- Light Weight Easy Assembly
- Design-in Quick Expansion

Typical Applications

- Commercial Lighting
- Cabinet Lighting
- General Lighting

Wiring type and cross section

The wiring can be solid cable with a cross section of 0.4 to 0.75mm². For the push-wire connection you have to strip the insulation (6–7mm)

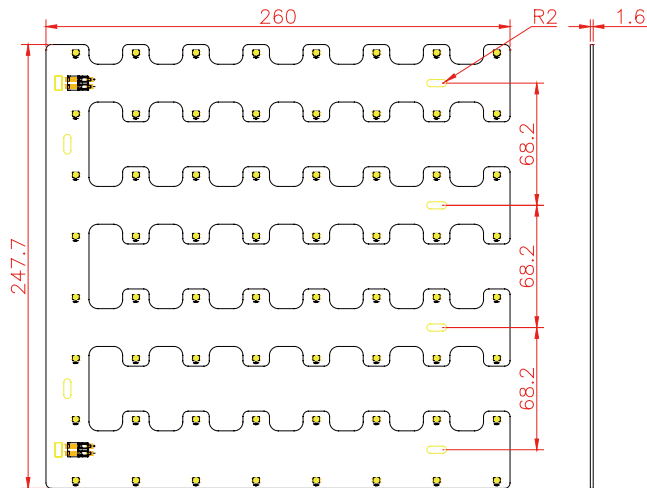
Electro-Optical Characteristics

| Part Number | Color | Typ. Input Voltage (V) | Typ. Power (W) | Current (mA) | Radiance Angle | CCT (K) | Typ. Lumen Flux (lm) |
|------------------|---------------|------------------------|----------------|--------------|----------------|---------|----------------------|
| 5T0301CWP0720001 | Cool White | 34.5 | 12 | 350 | 120° | 6000K | 1690 |
| 5T0301NWP0720001 | Neutral White | 34.5 | 12 | 350 | 120° | 4100K | 1690 |
| 5T0301WWP0720001 | Warm White | 34.5 | 12 | 350 | 120° | 3050K | 1540 |

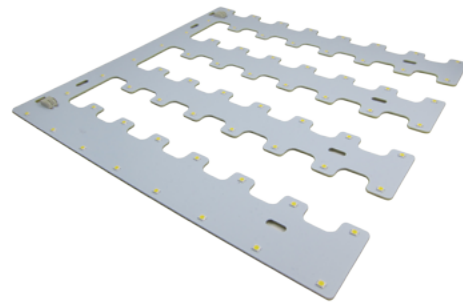
Note : Flux is measured with an accuracy of ± 10%.

5T0301xWP064000x (3528) Series

Package Dimensions



Product image



Note: All dimensions are in millimeters.

Features

- High Brightness SMD LED
- Low Power Requirement & Energy Efficient
- Light Weight Easy Assembly
- Design-in Quick Expansion

Typical Applications

- Commercial Lighting
- Cabinet Lighting
- General Lighting

Wiring type and cross section

The wiring can be solid cable with a cross section of 0.4 to 0.75mm². For the push-wire connection you have to strip the insulation (6–7mm)

Electro-Optical Characteristics

| Part Number | Color | Typ. Input Voltage (V) | Typ. Power (W) | Current (mA) | Radiance Angle | CCT (K) | Typ. Lumen Flux (lm) |
|------------------|---------------|------------------------|----------------|--------------|----------------|---------|----------------------|
| 5T0301CWP0640001 | Cool White | 23 | 8 | 350 | 120° | 6000K | 1168 |
| 5T0301NWP0640001 | Neutral White | 23 | 8 | 350 | 120° | 4100K | 1168 |
| 5T0301WWP0640001 | Warm White | 23 | 8 | 350 | 120° | 3050K | 1128 |

Note : Flux is measured with an accuracy of ± 10%.

Reliability Test Items

The following table describes operating life, mechanical, and environmental tests performed on EdiLex series.

Operating life, mechanical and environmental tests performed on EdiLex series.

| No. | Item | Test Condition | Stress Duration | Failure Criteria |
|-----|---------------------------------|---------------------|-----------------|------------------|
| 1 | Room Temperature Operation life | 25°C, $I_f=DC$ max | 1000 Hours | Note 2 |
| 2 | High Temperature Operation life | 50°C, $I_f=DC$ max | 1000 Hours | Note 2 |
| 3 | Low Temperature Operation life | -40°C, $I_f=DC$ max | 1000 Hours | Note 2 |

Notes:

1. DC max is defined to be 160mA for EDILED series.

2. Failure Criteria :

- Light Output Degradation : Percentage level shift $\geq 5\%$ at 1000hrs

-Electrical failures : V_f shifts $\geq 10\%$

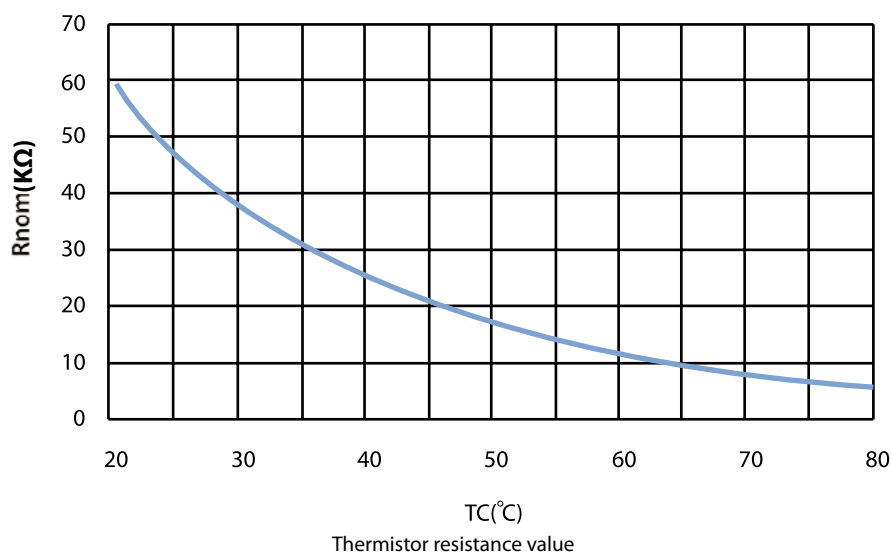
Thermal management should be well designed when using EdiLex. The module can guarantee the best reliability and life when the temperature at TC point is kept under 60 °C.

How to measure the temperature of the Strip?

At the Tc point there is a thermistor, which can be used for temperature measurements. For all measurements the temperature must be stable before any reliable data can be obtained (between 0.5 and 3 hours). There are two methods for carrying out measurements:

1. via thermocouples that are firmly glued to the upper surface of the LED Strip; or
2. via the NTC thermistor which is mounted at the LED Strip's Tc point.

Here, two small lead wires need to be soldered and connected to a multimeter to read the resistance value of the NTC (see drawing below).



Absolute Maximum Ratings

| Parameter | Symbol | Rating | Units |
|-----------------------|-----------|-----------|-------|
| Operating Temperature | T_{opr} | -20 ~ +50 | °C |
| Storage Temperature | T_{stg} | -20 ~ +50 | °C |

Notes:

1. Proper current derating must be observed to maintain junction temperature below the maximum at all time.
2. LEDs are not designed to be driven in reverse bias.

Environmental Compliance

EdiLex strip lighting module are compliant to the Restriction of Hazardous Substances Directive or RoHS. The restricted materials including lead, mercury cadmium hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ether (PBDE) are not used in PLCC lightbar FPC series to provide an environmentally friendly product to the customers.

Application Notes

EdiLex strip lighting module are available in white, neutral white and warm white for application such as under-cabinet lighting, cove lighting and wall washing.

Moreover, additional fine-tuned high color rendering index (CRI) version of white, neutral white and warm white all make EdiLex strip lighting module the ideal lighting choice for vividly displaying fruit and vegetables and/or refrigeration products, presenting the true color of the products and reflecting the freshness of goods.

Caution

1. DO NOT add or change wires while the circuit of Module is active.
2. Long time exposure to sunlight or UV should be avoided; otherwise, it may cause the discoloration of lens.
3. DO NOT use adhesives to attach the LED that outgas organic vapor.
4. DO NOT use the products with materials containing Sulfur.
5. DO NOT assemble in humid environment or the conditions of containing oxidizing gas such as Cl, H₂S, NH₃, SO₂, NO_X, etc.
6. DO NOT make any modifications on the products.
7. DO NOT press the product; even a slight pressure may damage the product. The environments such as high temperatures, high humidity or direct expose to sunlight should be avoided since the product is sensitive to these conditions.
8. DO NOT wear any conductive accessories (such as jewelry) which could accidentally get an electric shock.
9. The failure of internal component may cause excessive voltages.
10. DO NOT directly make the HI-POT test on the module.
11. Thermal management depends on the material, condition of the installation, and the circumstances of the application.
To maintain a certain T_c temperature, thermal gap filler or thermal grease is suggested to be utilized.
12. Do not connect or remove module when the driver is operating since hot-plugging would cause transient voltage and damage LED.

Revision History

| Versions | Modification | Date |
|----------|---|------------|
| 1 | Establish a Datasheet. | 2013/03/14 |
| 2 | 1. Revise the Product Nomenclature 2. Update the value of Lumen flux(lm) 3. Add new series-5T05X5xWL011000x | 2013/05/13 |
| 3 | Correct the part number of 5T05X5xWL011000x (5630) Series | 2013/08/15 |
| 4 | Revise package dimension of 5T05X5xWL011000x (5630) Series | 2013/12/13 |
| 5 | 1. Revise Unit of Input Voltage 2. Add 3528 Series information | 2014/02/17 |
| 6 | Add 3528 Series information | 2014/03/28 |
| 7 | Delete 5630 series information | 2014/08/01 |
| 8 | Delete 3014 series information | 2017/02/06 |
| 9 | Revise Title Page Picture Add Cautions information | 2017/05/16 |

About Edison Opto

Edison Opto is a leading manufacturer of high power LED and a solution provider experienced in LDMS. LDMS is an integrated program derived from the four essential technologies in LED lighting applications- Thermal Management, Electrical Scheme, Mechanical Refinement, Optical Optimization, to provide customer with various LED components and modules. More Information about the company and our products can be found at www.edison-opto.com

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