

# Specification

| Prepared | Checked | Approved | Accepted | Confirmed | Approved |
|----------|---------|----------|----------|-----------|----------|
|          |         |          |          |           |          |

|           |           |      |                    |                      |                     |                  |                 |                   |
|-----------|-----------|------|--------------------|----------------------|---------------------|------------------|-----------------|-------------------|
| <b>UL</b> | <b>CE</b> | RoHS | <b>2835</b><br>SMD | <b>120</b><br>LEDS/M | <b>LED</b><br>Strip | DC<br><b>24V</b> | IP<br><b>20</b> | <b>3</b><br>YEARS |
|-----------|-----------|------|--------------------|----------------------|---------------------|------------------|-----------------|-------------------|

**Model:**RD0860TA-B/RD0860TC-B/RD08C0TA-B/RD08C0TC-B/  
RD0030TA-A/RD0030TC-A/RD0060TA-A/RD0060TC-A

- 5000\*8, 300pcs 2835 SMD LEDs, bare board, lighting series, constant voltage, dc12V, LED flex strip
- 5000\*8, 300pcs 2835 SMD LEDs, bare board, lighting series, constant voltage, dc24V, LED flex strip
- 5000\*8, 600pcs 2835 SMD LEDs, bare board, lighting series, constant voltage, dc12V, LED flex strip
- 5000\*8, 600pcs 2835 SMD LEDs, bare board, lighting series, constant voltage, dc24V, LED flex strip
- 5000\*10, 150pcs 2835 SMD LEDs, bare board, lighting series, constant voltage, dc12V, LED flex strip
- 5000\*10, 150pcs 2835 SMD LEDs, bare board, lighting series, constant voltage, dc24V, LED flex strip
- 5000\*10, 300pcs 2835 SMD LEDs, bare board, lighting series, constant voltage, dc12V, LED flex strip
- 5000\*10, 300pcs 2835 SMD LEDs, bare board, lighting series, constant voltage, dc24V, LED flex strip

**Features:**

- ⊙ High-strength 2835 SMD LED, highly reliable;
- ⊙ ERP system, one BIN only, good color uniformity;
- ⊙ Anti-oxidation by silver for bonding pad;
- ⊙ Silver-Tin pad design, easy soldering;
- ⊙ Whole new ID, simple and elegant;
- ⊙ CE, ROHS, UL, etc. compliant.

**Figure:**



**Applications:**

- ⊙ Suitable for hotel, shopping mall, home, cabinet, show frame, etc. as main lighting, indirect lighting, cove lighting, contour lighting, decorative lighting, etc

**Warranty:**

- ⊙ 3 years or 13,000 hours, whichever comes first.

**Optical and Electrical Parameters:**

| P/N        | LED Color | CCT (K) | CRI | SDCM | Beam Angle (°) | Luminous Flux (lm/m) | Luminous Efficacy (lm/W) | Working voltage (VDC) | Working current (mA) |                 | Power (W/piece)     |                     |
|------------|-----------|---------|-----|------|----------------|----------------------|--------------------------|-----------------------|----------------------|-----------------|---------------------|---------------------|
|            |           |         |     |      |                |                      |                          |                       | 1m[3<br>9.37in]      | 5m[1<br>96.8in] | 1m[<br>39.3<br>7in] | 5m[1<br>96.8<br>in] |
| RD0860TA-B | white     | 1800    | ≥80 | ≤5   | ≥115           | 345                  | 58                       | 12                    | 500                  | 1830            | 6                   | 22                  |
| RD0860TA-B | white     | 2200    | ≥80 | ≤5   | ≥115           | 450                  | 75                       | 12                    | 500                  | 1830            | 6                   | 22                  |
| RD0860TA-B | white     | 2400    | ≥80 | ≤5   | ≥115           | 485                  | 81                       | 12                    | 500                  | 1830            | 6                   | 22                  |
| RD0860TA-B | white     | 2700    | ≥80 | ≤5   | ≥115           | 495                  | 83                       | 12                    | 500                  | 1830            | 6                   | 22                  |
| RD0860TA-B | white     | 3000    | ≥80 | ≤5   | ≥115           | 505                  | 84                       | 12                    | 500                  | 1830            | 6                   | 22                  |
| RD0860TA-B | white     | 4000    | ≥80 | ≤5   | ≥115           | 550                  | 92                       | 12                    | 500                  | 1830            | 6                   | 22                  |

|            |       |      |     |    |      |     |    |    |     |      |     |    |
|------------|-------|------|-----|----|------|-----|----|----|-----|------|-----|----|
| RD0860TA-B | white | 5000 | ≥80 | ≤5 | ≥115 | 550 | 92 | 12 | 500 | 1830 | 6   | 22 |
| RD0860TA-B | white | 6500 | ≥80 | ≤5 | ≥115 | 535 | 89 | 12 | 500 | 1830 | 6   | 22 |
| RD0860TC-B | white | 1800 | ≥80 | ≤5 | ≥115 | 345 | 58 | 24 | 250 | 1000 | 6   | 24 |
| RD0860TC-B | white | 2200 | ≥80 | ≤5 | ≥115 | 450 | 75 | 24 | 250 | 1000 | 6   | 24 |
| RD0860TC-B | white | 2400 | ≥80 | ≤5 | ≥115 | 485 | 81 | 24 | 250 | 1000 | 6   | 24 |
| RD0860TC-B | white | 2700 | ≥80 | ≤5 | ≥115 | 495 | 83 | 24 | 250 | 1000 | 6   | 24 |
| RD0860TC-B | white | 3000 | ≥80 | ≤5 | ≥115 | 505 | 84 | 24 | 250 | 1000 | 6   | 24 |
| RD0860TC-B | white | 4000 | ≥80 | ≤5 | ≥115 | 550 | 92 | 24 | 250 | 1000 | 6   | 24 |
| RD0860TC-B | white | 5000 | ≥80 | ≤5 | ≥115 | 550 | 92 | 24 | 250 | 1000 | 6   | 24 |
| RD0860TC-B | white | 6500 | ≥80 | ≤5 | ≥115 | 535 | 89 | 24 | 250 | 1000 | 6   | 24 |
| RD08C0TA-B | white | 1800 | ≥80 | ≤5 | ≥115 | 510 | 59 | 12 | 720 | 2830 | 8.6 | 34 |
| RD08C0TA-B | white | 2200 | ≥80 | ≤5 | ≥115 | 665 | 77 | 12 | 720 | 2830 | 8.6 | 34 |
| RD08C0TA-B | white | 2400 | ≥80 | ≤5 | ≥115 | 710 | 83 | 12 | 720 | 2830 | 8.6 | 34 |
| RD08C0TA-B | white | 2700 | ≥80 | ≤5 | ≥115 | 730 | 85 | 12 | 720 | 2830 | 8.6 | 34 |
| RD08C0TA-B | white | 3000 | ≥80 | ≤5 | ≥115 | 745 | 87 | 12 | 720 | 2830 | 8.6 | 34 |
| RD08C0TA-B | white | 4000 | ≥80 | ≤5 | ≥115 | 810 | 94 | 12 | 720 | 2830 | 8.6 | 34 |
| RD08C0TA-B | white | 5000 | ≥80 | ≤5 | ≥115 | 810 | 94 | 12 | 720 | 2830 | 8.6 | 34 |
| RD08C0TA-B | white | 6500 | ≥80 | ≤5 | ≥115 | 785 | 91 | 12 | 720 | 2830 | 8.6 | 34 |
| RD08C0TC-B | white | 1800 | ≥80 | ≤5 | ≥115 | 510 | 59 | 24 | 360 | 1500 | 8.6 | 36 |
| RD08C0TC-B | white | 2200 | ≥80 | ≤5 | ≥115 | 665 | 77 | 24 | 360 | 1500 | 8.6 | 36 |
| RD08C0TC-B | white | 2400 | ≥80 | ≤5 | ≥115 | 710 | 83 | 24 | 360 | 1500 | 8.6 | 36 |
| RD08C0TC-B | white | 2700 | ≥80 | ≤5 | ≥115 | 730 | 85 | 24 | 360 | 1500 | 8.6 | 36 |
| RD08C0TC-B | white | 3000 | ≥80 | ≤5 | ≥115 | 745 | 87 | 24 | 360 | 1500 | 8.6 | 36 |
| RD08C0TC-B | white | 4000 | ≥80 | ≤5 | ≥115 | 810 | 94 | 24 | 360 | 1500 | 8.6 | 36 |
| RD08C0TC-B | white | 5000 | ≥80 | ≤5 | ≥115 | 810 | 94 | 24 | 360 | 1500 | 8.6 | 36 |
| RD08C0TC-B | white | 6500 | ≥80 | ≤5 | ≥115 | 785 | 91 | 24 | 360 | 1500 | 8.6 | 36 |
| RD0030TA-A | white | 1800 | ≥80 | ≤5 | ≥115 | 315 | 53 | 12 | 500 | 1830 | 6   | 22 |
| RD0030TA-A | white | 2200 | ≥80 | ≤5 | ≥115 | 410 | 68 | 12 | 500 | 1830 | 6   | 22 |
| RD0030TA-A | white | 2400 | ≥80 | ≤5 | ≥115 | 440 | 73 | 12 | 500 | 1830 | 6   | 22 |
| RD0030TA-A | white | 2700 | ≥80 | ≤5 | ≥115 | 450 | 75 | 12 | 500 | 1830 | 6   | 22 |
| RD0030TA-A | white | 3000 | ≥80 | ≤5 | ≥115 | 460 | 77 | 12 | 500 | 1830 | 6   | 22 |

|            |       |      |     |    |      |      |    |    |      |      |     |    |
|------------|-------|------|-----|----|------|------|----|----|------|------|-----|----|
| RD0030TA-A | white | 4000 | ≥80 | ≤5 | ≥115 | 500  | 83 | 12 | 500  | 1830 | 6   | 22 |
| RD0030TA-A | white | 5000 | ≥80 | ≤5 | ≥115 | 500  | 83 | 12 | 500  | 1830 | 6   | 22 |
| RD0030TA-A | white | 6500 | ≥80 | ≤5 | ≥115 | 485  | 81 | 12 | 500  | 1830 | 6   | 22 |
| RD0030TC-A | white | 1800 | ≥80 | ≤5 | ≥115 | 315  | 44 | 24 | 300  | 1250 | 7.2 | 30 |
| RD0030TC-A | white | 2200 | ≥80 | ≤5 | ≥115 | 410  | 57 | 24 | 300  | 1250 | 7.2 | 30 |
| RD0030TC-A | white | 2400 | ≥80 | ≤5 | ≥115 | 440  | 61 | 24 | 300  | 1250 | 7.2 | 30 |
| RD0030TC-A | white | 2700 | ≥80 | ≤5 | ≥115 | 450  | 63 | 24 | 300  | 1250 | 7.2 | 30 |
| RD0030TC-A | white | 3000 | ≥80 | ≤5 | ≥115 | 460  | 64 | 24 | 300  | 1250 | 7.2 | 30 |
| RD0030TC-A | white | 4000 | ≥80 | ≤5 | ≥115 | 500  | 70 | 24 | 300  | 1250 | 7.2 | 30 |
| RD0030TC-A | white | 5000 | ≥80 | ≤5 | ≥115 | 500  | 70 | 24 | 300  | 1250 | 7.2 | 30 |
| RD0030TC-A | white | 6500 | ≥80 | ≤5 | ≥115 | 485  | 67 | 24 | 300  | 1250 | 7.2 | 30 |
| RD0060TA-A | white | 1800 | ≥80 | ≤5 | ≥115 | 630  | 53 | 12 | 1000 | 3830 | 12  | 46 |
| RD0060TA-A | white | 2200 | ≥80 | ≤5 | ≥115 | 820  | 68 | 12 | 1000 | 3830 | 12  | 46 |
| RD0060TA-A | white | 2400 | ≥80 | ≤5 | ≥115 | 880  | 73 | 12 | 1000 | 3830 | 12  | 46 |
| RD0060TA-A | white | 2700 | ≥80 | ≤5 | ≥115 | 900  | 75 | 12 | 1000 | 3830 | 12  | 46 |
| RD0060TA-A | white | 3000 | ≥80 | ≤5 | ≥115 | 920  | 77 | 12 | 1000 | 3830 | 12  | 46 |
| RD0060TA-A | white | 4000 | ≥80 | ≤5 | ≥115 | 1000 | 83 | 12 | 1000 | 3830 | 12  | 46 |
| RD0060TA-A | white | 5000 | ≥80 | ≤5 | ≥115 | 1000 | 83 | 12 | 1000 | 3830 | 12  | 46 |
| RD0060TA-A | white | 6500 | ≥80 | ≤5 | ≥115 | 970  | 81 | 12 | 1000 | 3830 | 12  | 46 |
| RD0060TC-A | white | 1800 | ≥80 | ≤5 | ≥115 | 630  | 53 | 24 | 500  | 2000 | 12  | 48 |
| RD0060TC-A | white | 2200 | ≥80 | ≤5 | ≥115 | 820  | 68 | 24 | 500  | 2000 | 12  | 48 |
| RD0060TC-A | white | 2400 | ≥80 | ≤5 | ≥115 | 880  | 73 | 24 | 500  | 2000 | 12  | 48 |
| RD0060TC-A | white | 2700 | ≥80 | ≤5 | ≥115 | 900  | 75 | 24 | 500  | 2000 | 12  | 48 |
| RD0060TC-A | white | 3000 | ≥80 | ≤5 | ≥115 | 920  | 77 | 24 | 500  | 2000 | 12  | 48 |
| RD0060TC-A | white | 4000 | ≥80 | ≤5 | ≥115 | 1000 | 83 | 24 | 500  | 2000 | 12  | 48 |
| RD0060TC-A | white | 5000 | ≥80 | ≤5 | ≥115 | 1000 | 83 | 24 | 500  | 2000 | 12  | 48 |
| RD0060TC-A | white | 6500 | ≥80 | ≤5 | ≥115 | 970  | 81 | 24 | 500  | 2000 | 12  | 48 |

## Others:

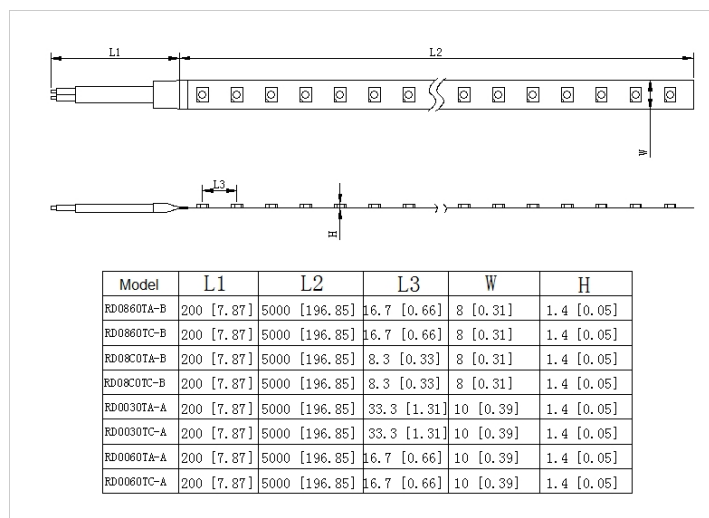
| P/N        | IP Grade | Operating Temp |      | Storage Temp |      | Standard length |        | Max. cascading length |        | LED Qty (pcs) | Weight    |            |
|------------|----------|----------------|------|--------------|------|-----------------|--------|-----------------------|--------|---------------|-----------|------------|
|            |          | (°C)           | (°F) | (°C)         | (°F) | (m)             | (inch) | (m)                   | (inch) |               | (g/piece) | (lb/piece) |
| RD0860TA-B | IP20     | -25~           | -13~ | -25~         | -13~ | 5               | 196.8  | 5                     | 196.8  | 60            | 16        | 0.035      |
|            |          | +60            | +140 | +70          | +158 |                 |        |                       |        |               |           |            |
| RD0860TC-B | IP20     | -25~           | -13~ | -25~         | -13~ | 5               | 196.8  | 5                     | 196.8  | 60            | 16        | 0.035      |
|            |          | +60            | +140 | +70          | +158 |                 |        |                       |        |               |           |            |
| RD08C0TA-B | IP20     | -25~           | -13~ | -25~         | -13~ | 5               | 196.8  | 5                     | 196.8  | 120           | 18        | 0.04       |
|            |          | +60            | +140 | +70          | +158 |                 |        |                       |        |               |           |            |
| RD08C0TC-B | IP20     | -25~           | -13~ | -25~         | -13~ | 5               | 196.8  | 5                     | 196.8  | 120           | 18        | 0.04       |
|            |          | +60            | +140 | +70          | +158 |                 |        |                       |        |               |           |            |
| RD0030TA-A | IP20     | -25~           | -13~ | -25~         | -13~ | 5               | 196.8  | 5                     | 196.8  | 30            | 14        | 0.03       |
|            |          | +60            | +140 | +70          | +158 |                 |        |                       |        |               |           |            |
| RD0030TC-A | IP20     | -25~           | -13~ | -25~         | -13~ | 5               | 196.8  | 5                     | 196.8  | 30            | 14        | 0.03       |
|            |          | +60            | +140 | +70          | +158 |                 |        |                       |        |               |           |            |
| RD0060TA-A | IP20     | -25~           | -13~ | -25~         | -13~ | 5               | 196.8  | 5                     | 196.8  | 60            | 17        | 0.037      |
|            |          | +60            | +140 | +70          | +158 |                 |        |                       |        |               |           |            |
| RD0060TC-A | IP20     | -25~           | -13~ | -25~         | -13~ | 5               | 196.8  | 5                     | 196.8  | 60            | 17        | 0.037      |
|            |          | +60            | +140 | +70          | +158 |                 |        |                       |        |               |           |            |

## Notes:

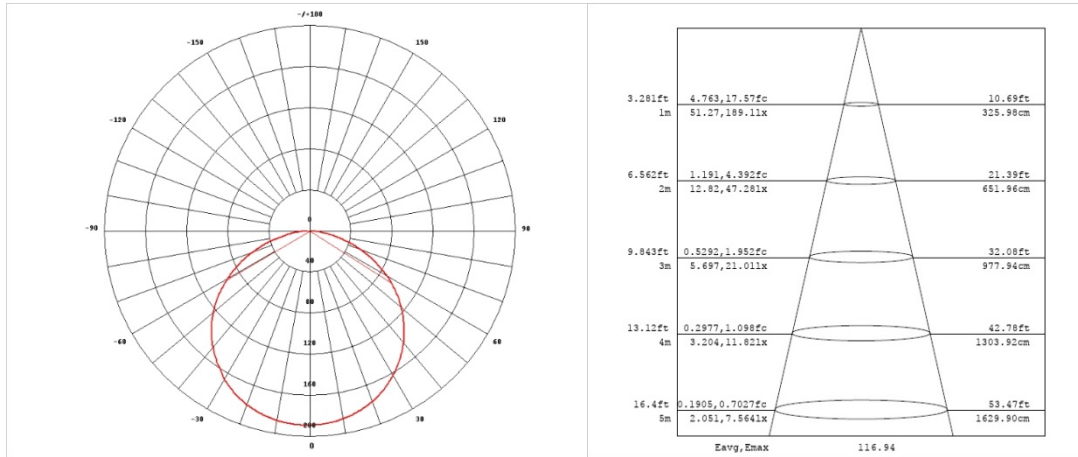
- (1) Testing environment temperature: 25±2°C [77±3.6°F];
- (2) The actual data of each single product may differ from above typical data which are subject to change without prior notice.

## Profile Drawings:

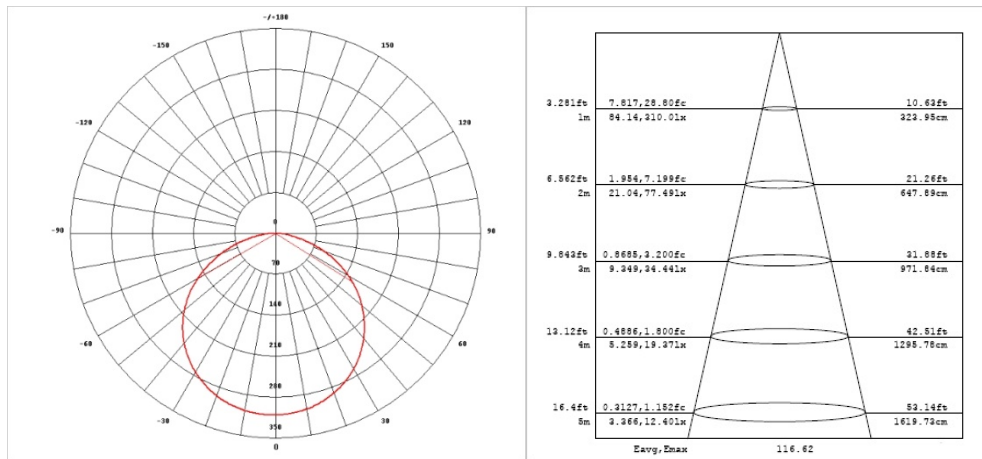
Unit: mm[inch]



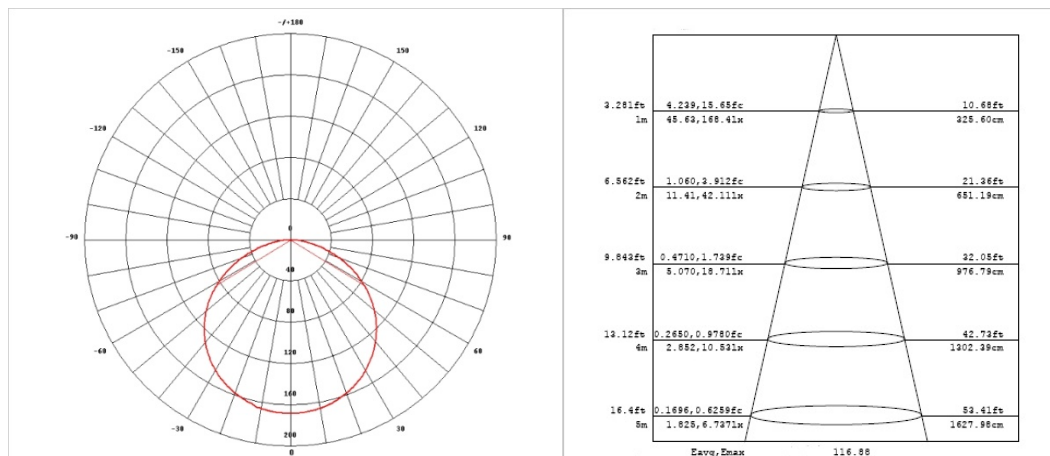
Light Distribution/Iso-illuminance Diagram:



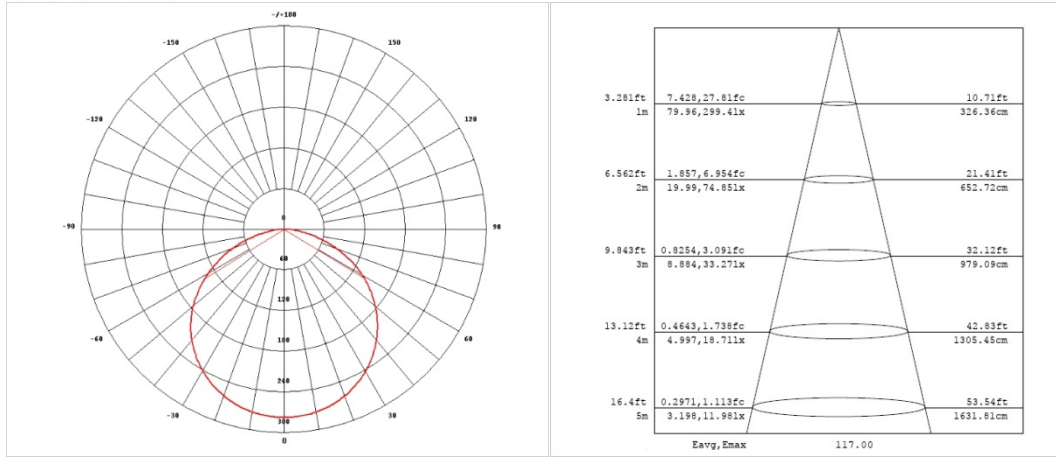
RD0860TA-B/RD0860T



RD08COTA-B/RD08COT



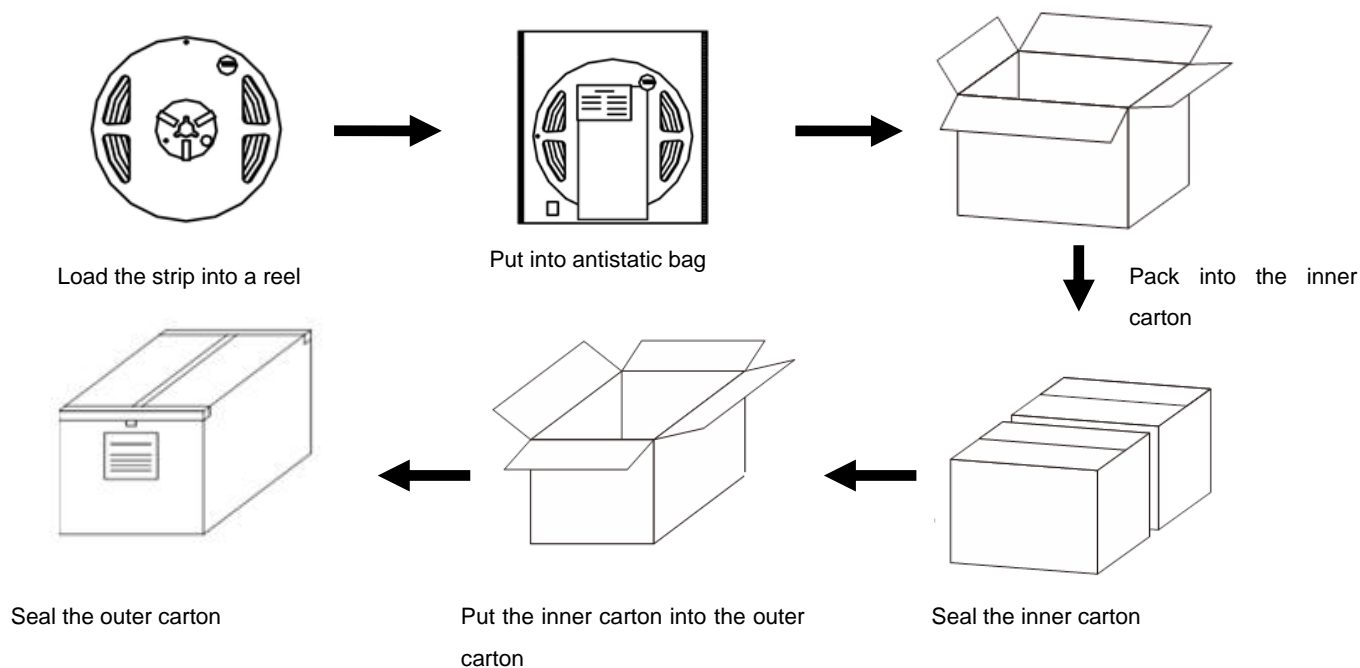
RD0030TA-A/RD0030T



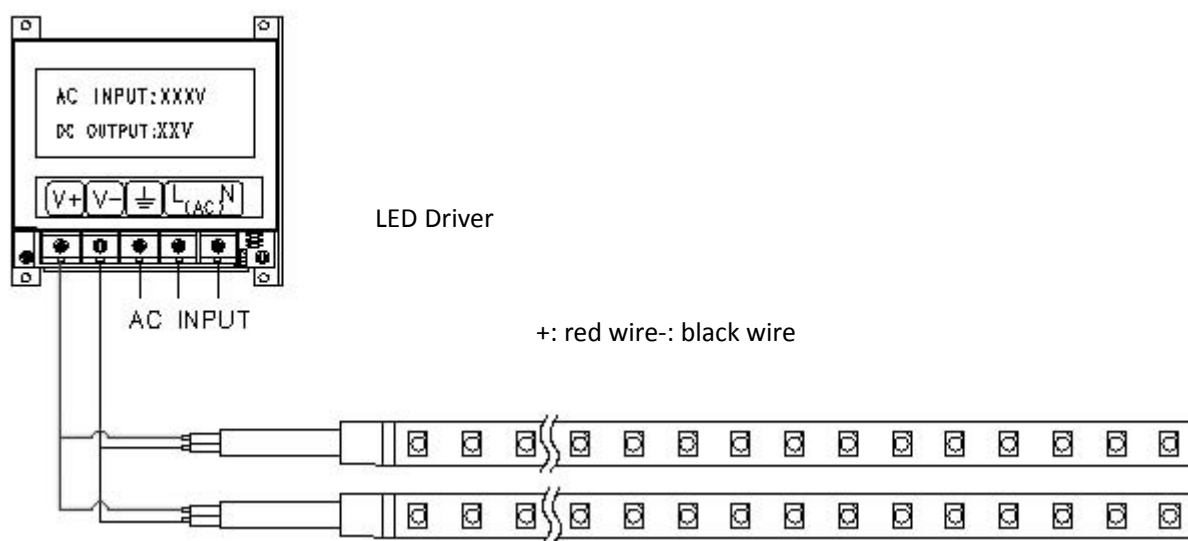
RD0060TA-A/RD0060T

**Packaging Information:**

| P/N        | Qty<br>(m/reel) | Qty<br>(m/carton) | Total<br>Qty<br>(m) | Total weight |      | Outer carton size |        |       |        |        |        |
|------------|-----------------|-------------------|---------------------|--------------|------|-------------------|--------|-------|--------|--------|--------|
|            |                 |                   |                     | (Kg)         | (lb) | length            |        | width |        | height |        |
|            |                 |                   |                     |              |      | (mm)              | (inch) | (mm)  | (inch) | (mm)   | (inch) |
| RD0860TA-B | 5               | 100               | 200                 | 4.0          | 8.8  | 398               | 15.66  | 256   | 10.07  | 238    | 9.37   |
| RD0860TC-B | 5               | 100               | 200                 | 4.0          | 8.8  | 398               | 15.66  | 256   | 10.07  | 238    | 9.37   |
| RD08C0TA-B | 5               | 100               | 200                 | 4.2          | 9.24 | 398               | 15.66  | 256   | 10.07  | 238    | 9.37   |
| RD08C0TC-B | 5               | 100               | 200                 | 4.2          | 9.24 | 398               | 15.66  | 256   | 10.07  | 238    | 9.37   |
| RD0030TA-A | 5               | 75                | 150                 | 3.8          | 8.36 | 398               | 15.66  | 256   | 10.07  | 238    | 9.37   |
| RD0030TC-A | 5               | 75                | 150                 | 3.8          | 8.36 | 398               | 15.66  | 256   | 10.07  | 238    | 9.37   |
| RD0060TA-A | 5               | 75                | 150                 | 4.2          | 9.24 | 398               | 15.66  | 256   | 10.07  | 238    | 9.37   |
| RD0060TC-A | 5               | 75                | 150                 | 4.2          | 9.24 | 398               | 15.66  | 256   | 10.07  | 238    | 9.37   |



**Connection Instruction:**



Note: Please connect the '+' and '-' of strips to those of driver output correctly.

**Parts & Tools:**

◎ **Product Spare Parts**

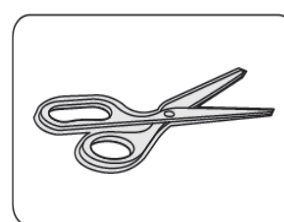
◎ **Self-provided Tools**



LED Strip



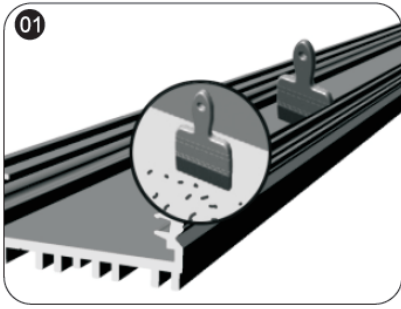
Electrical Drill & Drilling bit



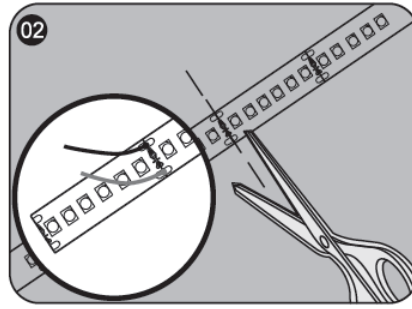
Scissors



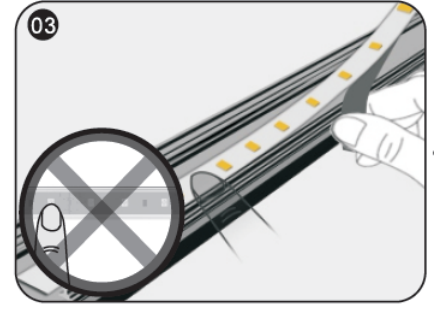
**Installation Steps & Cautions:**



- Make sure the mounting surface is clean before installation;



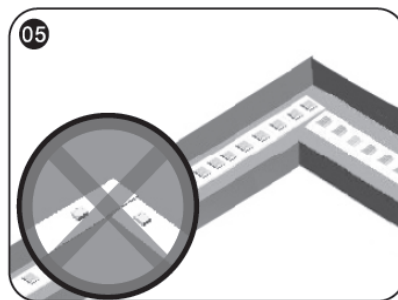
- Calculate the needed length and cut off the extra length along cutting mark if necessary; if need to add wires, please weld them at the next location with printed mark



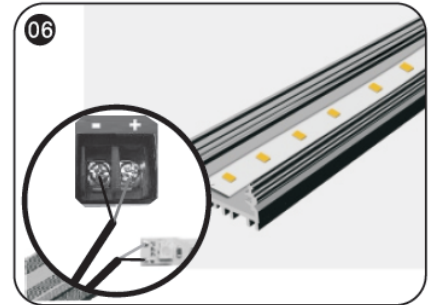
- While sticking strips, peel off the release paper of the tape step by step. Don't peel off all release paper at a time to avoid getting your strip in a mess.  
△Notes: No pressing the bead!



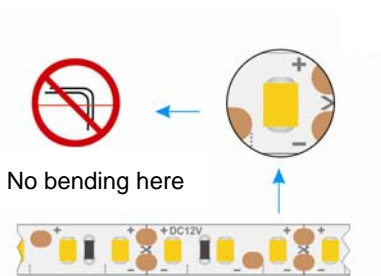
- Stick Mylar tape to isolate the cutting position from the bottom of profile inner slot to avoid short-circuit;



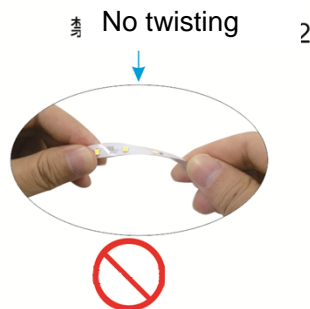
- The installation at the corner is shown as the above figure.  
△Notes: No bending it into right angle; No twisting it to stick on the mounting surface.



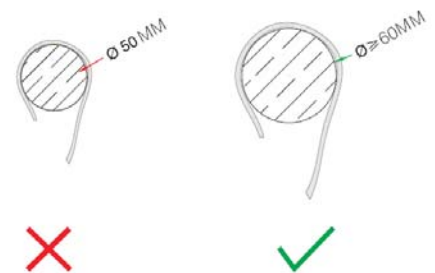
- Connect strip wires to the output terminal of power supply, and dispose with waterproof, insulation, short-circuit and anti-corrosion protection at both the wire joints and the cut section of your strip (if any).



- No bending the strip at the position of LED



- No twisting the strip



- No winding an object with a diameter <5cm.

**Troubleshooting:**

| Malfunctions                         | Possible Causes   | Solutions  |
|--------------------------------------|---|--|
| All LEDs don't work                  | 1. The power supply did not connect to power grid.  | Power on   |
|                                      | 2. No electricity due to short-circuit of external power supply.                                      | Remove the malfunction caused by short-circuit, power on again.  |
|                                      | 3. The wires of strips connect to power supply output reversely.                                      | Check the connecting and ensure the wires are connected correctly.   |
| Part of LEDs don't work              | 1. Part of power supplies do not have output.   | Check the power supply system.   |
|                                      | 2. Part of wires of strips have malfunction.  |  |
|                                      | 3. Particular modules connected reversely.  | Correct connection   |
| Brightness of LEDs is weak or uneven | 1. Overloaded power supply;   | Replace it with higher power supply  |
|                                      | 2. The power loss of power circuit is huge or the power loss of each circuit existing big difference. | Ensure working voltage of strips is within $\pm 5\%$ V of rated voltage.<br>1. Shorten the length of wires between the first strip and power supply or replaced with wires with bigger diameter;<br>2. Ensure the cascading qty of string is less than or equal to the allowed maximum cascading qty, and each strip cascading qty is well-balanced. |
|                                      | 3. Exceed in qty of strips in series  | Lessen the cascading qty for strip and ensure the qty for each electrical circuit is within the maximum cascading qty.   |
| LEDs are blinking                    | 1. Poor contacted in the joints.  | Find out and tackle malfunction immediately.   |
|                                      | 2. Failures in power supply.  | Power on   |

**Declaration:**

- ⊙ If the external flexible cable of light box is damaged, please replace it by its manufacturer or its service agent or qualified person to avoid a hazard.
- ⊙ The specific installation and cautions please refer to the user manual.
- ⊙ The given data in this specification is based on our standard product. There may be existed slight difference compared with actual products.
- ⊙ All Illustrations in this specification are for reference only.
- ⊙ This product is subject to change or modify without prior notice.
- ⊙ RISHANG OPTOELECTRONICS CO., LTD reserves the right of final explanation for this specification.

<End>

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