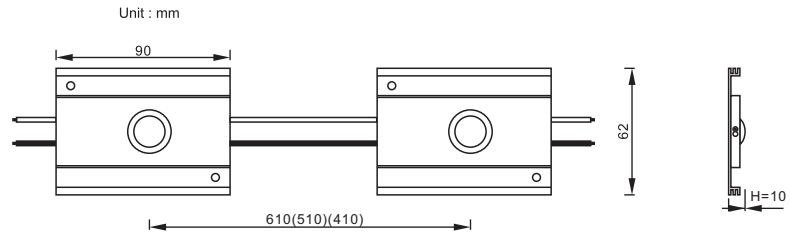
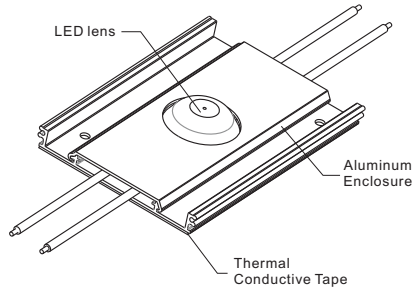


■ Features & Dimensions

- Using innovative, patent pending CooChip® technology, the LED chip is attached and bonded directly to the aluminum PCB and heat-sink, resulting in ultra low heat resistance. **CooChip® RUNS COOL!**
- Extended operating life at high ambient temperature, 75,000+ hrs@25°C / 50,000+ hrs @40°C for white LED modules.
- Use a precision len to evenly distribute light beams to the lighted surface, eliminating hot spots.
- Optimized for easy light box application; Significantly more cost effective comparing to the use of regular fluorescent lamps.

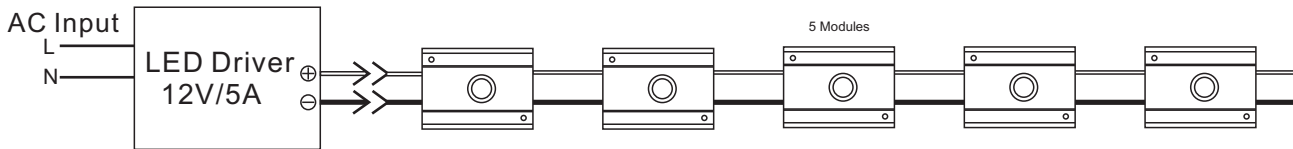
LEDMD-W110C



■ Specifications

Color	Model No.	LEDs /Unit	Voltage	Unit Watts (Max.)	Viewing Angle	W. L. (nm)	Luminance (lm)	Life Time (hrs, Ta=25°C)	Modules /Chain	Chains /Pack
Cool White	LEDMD-W110C	1	12VDC	9W	180°	10000K	550	75,000	10	1
White	LEDMD-W110	1	12VDC	9W	180°	6500k	550	75,000	10	1

■ Wiring Diagram

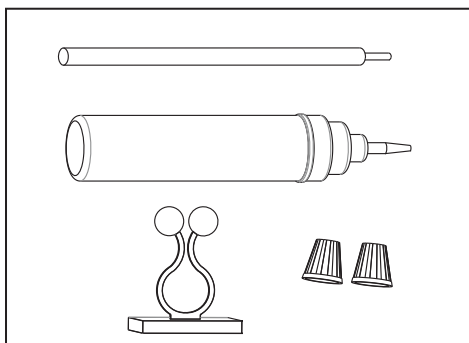


Total watts=Unit watts × Total number of LED modules
 Recommended LED Driver wattage=Total watts × 1.2

Note: In order to comply with UL class 2 requirements, connect no more than 5 modules in a row.

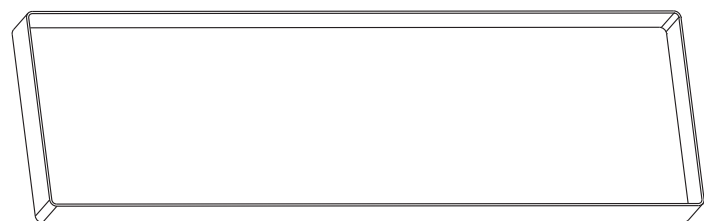
■ CooChip® LEDMD-W110C Installation Guide for Light Boxes

A. Supplies required:



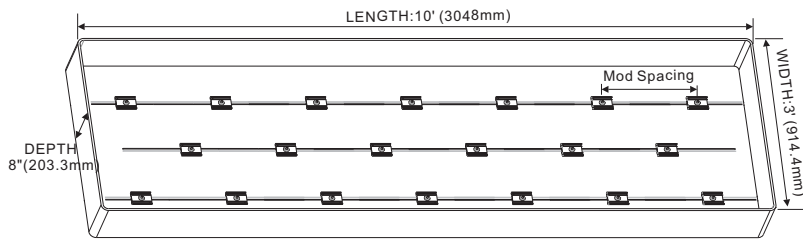
UL listed PLTC cable, electrical wire connectors and silicone adhesive.

B. Clean



Clean inside the light box with rubbing alcohol and allow to dry

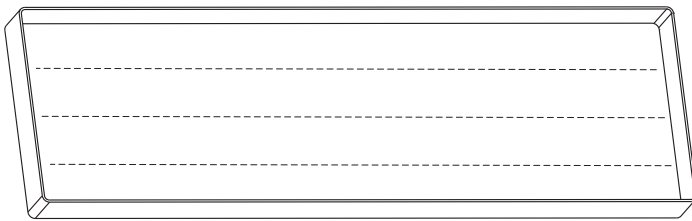
C. Layout:



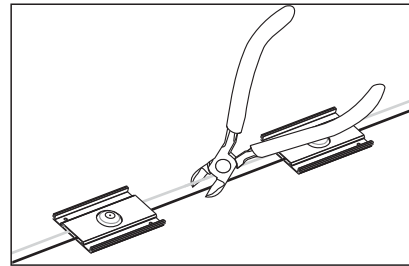
Choose a proper layout for LED modules based on measured depth, width, length of the letter, surface material and the luminance requirement.

Depth	4" (100mm)	5" (120mm)	6" (150mm)	7" (180mm)	8" (200mm)	9" (230mm)	10" (250mm)	11" (280mm)	12" (300mm)
Mod Spacing	9" (230mm)	11" (280mm)	13" (330mm)	15" (380mm)	17" (430mm)	19" (480mm)	22" (550mm)	24" (600mm)	27" (680mm)

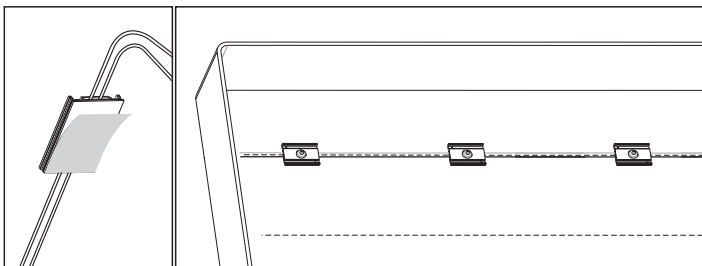
D. Installation Guide:



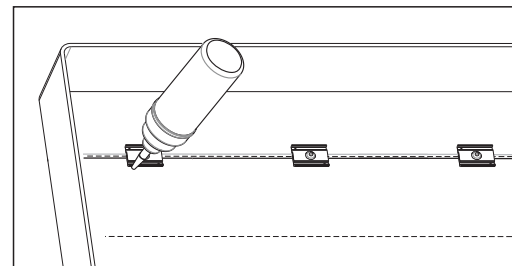
1. Mark row spacing guidelines so that modules are spaced evenly inside and from edges of sign.



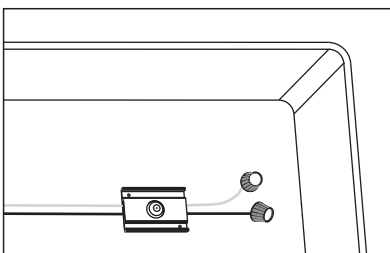
2. Determine proper numbers of LED module needed in one circuit, cut off the excess ones.



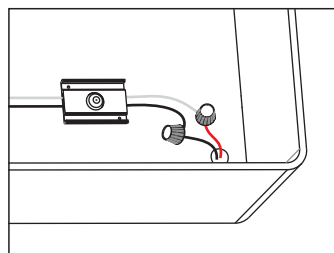
3. Using predetermined layout and LED placement from step C, remove the backing of the thermal conductive tape and stick modules into place. Ensure modules are firmly attached to the metal surface.



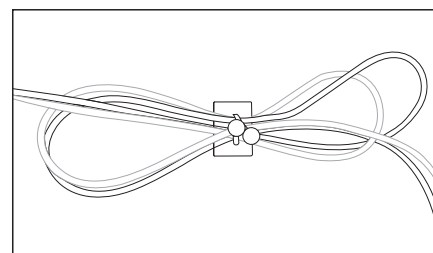
4. Secure both sides of the module with screws or silicone adhesive to ensure a close and permanent contact with the metal surface.



5. Cap the unused wires.



6. Connect the wires to the LED power supply. See the installation guide for LED power supply for details.



7. Use wire clips to secure the wire if necessary.

CAUTION

1. CooChip® LED module use thermal conductive tape to assist heat dissipation. It's VERY IMPORTANT that the tape backing is removed and modules are attached firmly to the metal surface. Module's life may be significantly reduced if not done properly. Use the LED module alone without being firmly attached to proper heat sink or metal sheet will void all warranty.
2. Matching the color codes. Use no more than three consecutive colors codes for the same project to ensure consistent color. The color code can be found on the product label.
3. Always connect wires with the same polarity. Reverse polarity connections may damage the LEDs and will void product warranty.
4. Power should always remain off until the installation is complete.