



**INSTRUCTIONS PERTAINING TO RISK OF FIRE OR INJURY TO PERSONS. READ ALL INSTRUCTIONS. IMPORTANT SAFETY INSTRUCTIONS. SAVE THESE INSTRUCTIONS.**

**DANGER - RISK OF SHOCK - DISCONNECT POWER BEFORE INSTALLATION! Please read all instructions before installation.**

- Keep these instructions for future reference.
- Must be installed by a qualified electrician in accordance with national and local standards. Designplan is not responsible for fixtures installed without regard to these standards.
- Unauthorized alterations or tampering of product voids warranty.
- The main power connection must be in accordance with local electrical codes.
- Suitable for OUTDOOR applications.



**IP66 IK10**

## Electrical Connections:

- LED lights must be **connected in parallel** respecting polarities.
- **CHOOSE POWER SUPPLY ACCORDINGLY.** Please consider the voltage through which fixtures are fed as well as the max power consumption.
- **Connect power only if all the fixtures are connected.**
- The power supplies **MUST** be installed in aerated rooms, far from heat sources. Overworking or lack of air circulation will not permit natural dissipation.
- Use only Class 2 type electronic power supply.
- Never use switches on secondary circuit.

**ATTENTION: For Wall/Ceiling** - It is the contractor's responsibility to caulk around all the edges between the fixture and the mounting surface to satisfy wet label requirements. Contractor **MUST** use gel-filled wire nuts.

## Maintenance

Scheduled maintenance must be carried out once a year on all lighting devices, regardless of appliance class and type of use. It must include the following operations:

- Periodically clean fixtures to remove dirt from gratings and screw heads.
- Check tightness of screws on various parts of the device.
- Check that all cable glands and cables are intact and tight. Check that the glass or plastic lens is intact, and replace it if broken or damaged.
- The internal components such as the ballast, driver, washers and screws must not show clear signs of oxidation or rust. Clear traces of rust and oxidation will indicate the presence of water inside the device.
- In the case of damage, the components must be replaced by original components or spare parts.

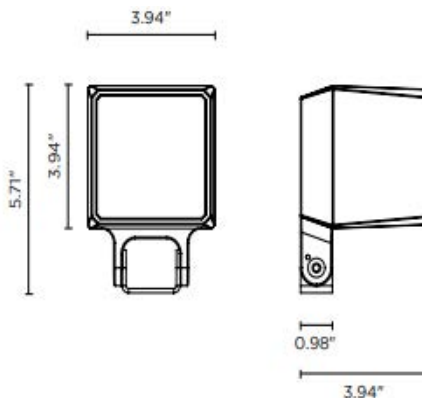
# QUBO MINI MEDIUM MAXI RGBW



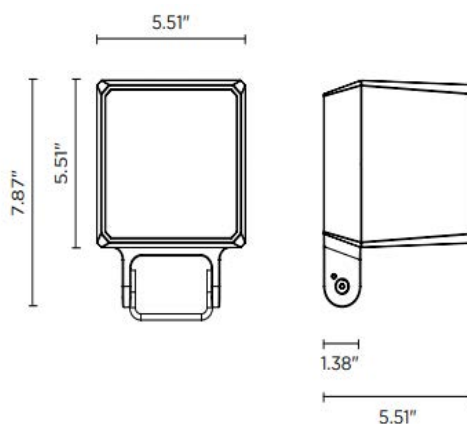
4.5W, 14W, 28W, REMOTE 24VDC

installation instructions

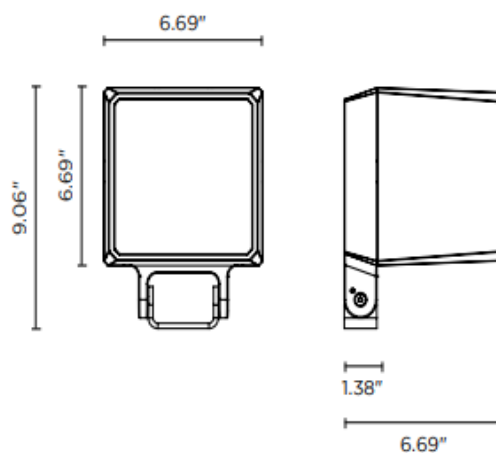
## FIXTURE DIMENSIONS:



**QUBO MINI**



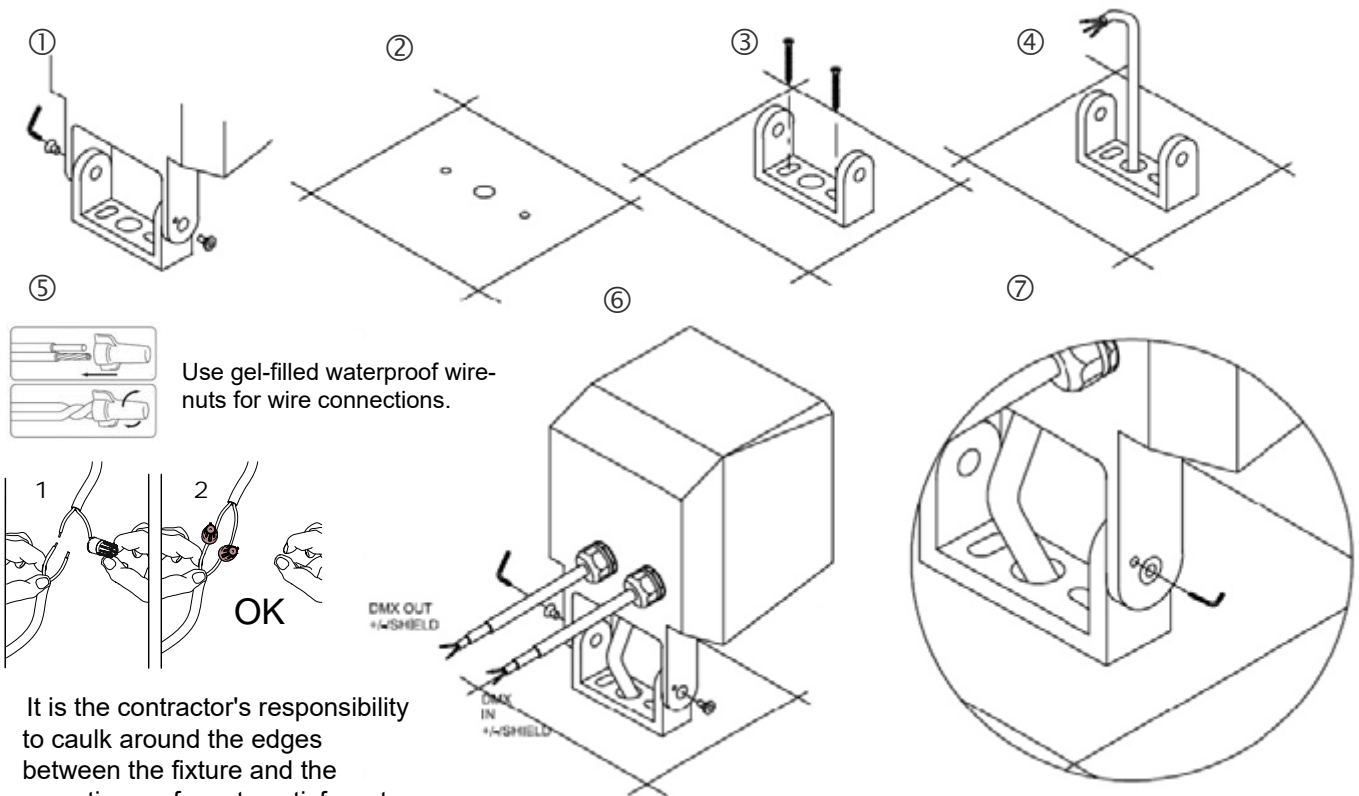
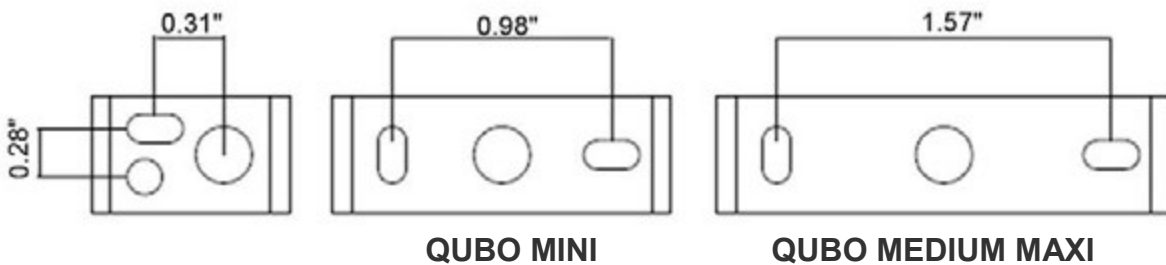
**QUBO MEDIUM**



**QUBO MAXI**

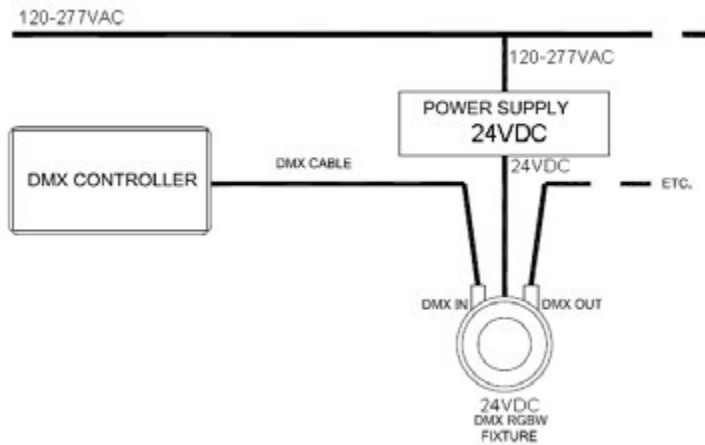
## FIXTURE INSTALLATION

1. Loose the two bracket screws (using the tool included in the package) and remove the fixing bracket (pic.1)
2. Prepare holes in corispondance of the feeding point (pic.2)
3. Fix the bracket to the floor tighten the screws of fischer plugs (not included in the package) (pic.3)
4. Prepare the cable through the feeding point hole (pic.4)
5. Make the adequate electrical connection following the cable diagrams of the next pages
6. Fix the luminaire to the bracket tighten the two hexagonal screws (pic.5)
7. Make the regulation of the luminaire then fix it by tighten the grub screw (using the tool included in the package) (pic.7)

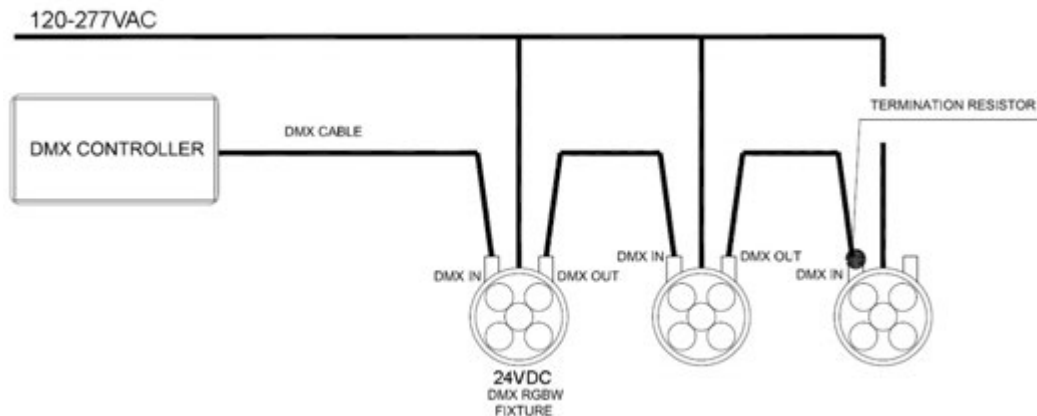


- It is the contractor's responsibility to caulk around the edges between the fixture and the mounting surface, to satisfy wet label requirements.

## Wiring diagram for QUBO MINI DMX RGBW version:



## Wiring diagram for QUBO MEDIUM MAXI DMX RGBW version:



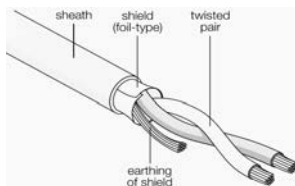
DMX/RDM is a robust and reliable system for lighting control. However, if not implemented correctly, problems can arise such as random flashing of lights, erratic operation and delays in responding to commands. This document explains the best practices in DMX wiring.

The DMX controller sends signals over the DMX cable to the drivers. At the last driver, the cable has to be terminated with a 120Ω resistor to prevent reflections of the signal.

Important things to consider are:

- Always use cable specifically designed for DMX / RS-485. These cables have an impedance of 120Ω and a low capacitance. For instance: Belden 9841 or 3105a.

### Belden 9841 cable



DMX must be terminated with a 120Ω resistor to prevent reflections.

- A daisy chain topology should be used.

- After 32 unit loads a repeater/booster should be used.

- Keep cabling below 984.25 feet between the controller and the last driver.

