

LED Cove Lighting System

How to Buy

Overview

When a customer is deciding how much GE LED Cove Lighting System is required for a given space, he should consider a number of questions:

1. How many fixtures will I need for this job?
2. How many leader cables will I need?
3. How many jumper cables will I need?
4. Which mounting track should I order and how much?

Fixtures

LED Cove should be a minimum of 13mm from the inside wall of the cove. Each fixture is 328mm in length, measured from connector to connector. As the fixture cannot be cut to length, the designer will have to round up or down to the required number of fixtures, and either use end spacing or the jumper cable (product code 73617 or 73618) to achieve the desired results.

If the perimeter length of the cove was 300m, in a rectangular layout of 100m by 50m, it would require a minimum of 915 cove fixtures.

Perimeter: $300\text{m} \times 1000 = 300,000\text{mm} \div 328\text{mm} = 914.6 \rightarrow 915 \text{ fixtures} \div 10 = 91.5 \rightarrow 92 \text{ cases}$

Leader Cables

330 units of GE LED Cove can be run off a single 220-240V power outlet. If the customer has several hundred fixtures of Cove to illuminate, she must ensure that at least one power outlet is available for each run of 330 units. Refer to the "Installation Instructions". If a number of different areas are to be illuminated with GE LED Cove, each will likely require an independent power outlet. A leader cable with a connector to the first Cove fixture is required. Leader cables are available in 3 metre or 12 metre lengths (product codes 73618 and 73617 respectively).

The heavy usage 16-gauge wire can either be hardwired into the power outlet or fitted with a suitable mains plug. Please note that one leader cable will be necessary for every 330 units of GE LED Cove product in a single space with a single power source.

$330 \times 0.328 \text{ (metres per fixture)} = 108.24\text{m}$ (Total length per cable)

For a 300m installation:

$300\text{m} \div 108.24 = 2.77 \rightarrow 3 \text{ leader cables is the minimum requirement}$

The layout might necessitate more depending on the location of the power.



Led Cove Lighting System

How to buy

Jumper Cables

The GE LED Cove connects end-to-end in a chain. A fixture can be turned on a 90° angle to the fixture that came before it, assuming it is not locked in the mounting track. This flexibility may not work perfectly with the length and shape of some architectural features. In that case a 1m jumper cable n (product code 73616) is available to connect two fixtures together and allow for more flexible spacing around corners. For instance, a cove that has 4 corners of varying degrees may require 4 jumper cables to ensure consistent illumination throughout the space. This would be a good rule of thumb when estimating system requirements.

**300m = 100m (Wall A1) + 100m (Wall A2) + 50m (Wall B1) + 50m (Wall B2) = totaling 4 corners.
1 jumper cable per corner is recommended.**

Mounting Tracks

A recommended accessory of the GE LED Cove Lighting System is the linear mounting tracks (Product codes 73105, 73106 and 73107). This ensures the product locks in place and is aligned correctly to provide an accurate distribution of light. The track is available in three angles (0°, 15°, and 30°) which change the angle of the fixture and how it directs light within the cove. If a customer wants to direct more light towards the middle of the ceiling, they might consider using the 30° mounting track and face the fixture in that direction. As the GE LED Cove is a 120° beam angle, it will provide a wide distribution of light. IES files are available at www.gelighting.com. The length of track required should correspond with the linear footage of LED Cove being ordered. Each track is 1.2m long, and is packed 25 pieces per carton. It can be cut easily with a hacksaw or chop saw. Refer to the "Installation Guide" for more details.

**300m ÷ 1.2m (per piece) = 250 pieces (packed 25 per case)
Consider ordering additional mounting track to accommodate waste and damage during installation.**

Summary

Fixtures

Round up or down depending on length of Cove and plan to use end spacing or jumper cables to overlap fixtures.

Leader Cables

Order a minimum of 1 per 330 uninterrupted Cove units, or for every individual group of fixtures being installed if less than 330 in total. The layout might necessitate more depending on the location of the power.

Jumper Cables

1 for every corner and/or the number needed for proper linear spacing.

Mounting Track

Same as total length of installation, plus consideration for desired fixture angle, waste and damage during installation.