

HOW TO USE WIRE FOR EFFECTIVE RETAIL LIGHTING

WHITE PAPER

This white paper looks at the issues involved in specifying wire for lighting and provides a useful guide for those planning specification and installation.

Location and level

The first thing that you must do when specifying wire for lighting is to work with the architect and establish the ceiling height of the existing space or new build. You then need to discuss the lighting levels that need to be achieved. With these parameters established, you can then define the optimum height at which to suspend the fittings so they are not too close to the ceiling and not so low as to provide an obstruction to the shopper.

The lighting level in a store can vary dramatically. For example, Primark opts for a very bright, clear illumination while Hollister is dark and moody, so the specification can vary from one extreme to the other depending upon the atmosphere that you want to create. Environmental concerns increasingly play a part, too; lighting levels are generally coming down as a result of environmental considerations so this will also affect the specification of fittings and suspension wire.

Weight

Weight is the number one issue when it comes to hanging lights. To maximise safety it is typical for the strength of the wire to be specified at four times its capability to suspend the fitting.

Environment

In some locations, the environment of the commercial enterprise itself



may dictate the way that lighting is suspended. For example, if suspending fittings in a swimming pool there are particular standards that you need to adhere to in terms of the stainless steel wire in environments that are high in chlorine. Under the specific temperature conditions near the ceiling, chlorine containing chemical species in vapours from the pool water can condense onto the stainless steel components and dry out, leading to SCC (Stress Corrosion Cracking).

'...wire and any metal components that are load-bearing need to be checked at regular intervals.'

SCC is a type of localised corrosion characterised by fine cracks that can propagate quite rapidly leading to failure of the component and potentially the associated

structure. This may dictate a specific maintenance regime that needs to be adhered to, for example, it may be that the wire and any metal components that are load-bearing need to be checked at regular intervals.

Clean and clear fittings

Tool-free clamps offer discreet ways of attaching fittings to suspension wire, so you don't necessarily need to have a huge eye-bolt on top of a fitting with some cable looped through.

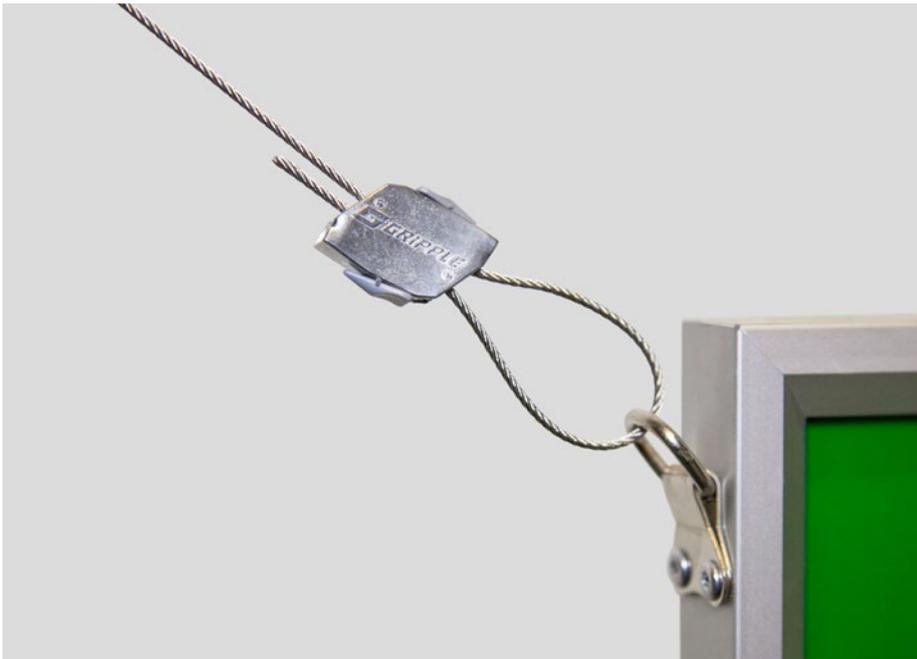
If light fittings are decorative and sleek you will want to avoid any wire or clamp that is too noticeable and choose components that will complement the fitting and 'disappear' into the space.

Adjustability

The adjustment control of the clamp can be on the fitting or on the ceiling. By locating the clamp on

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the ceiling at the top of the wire you can keep the light fitting as small as possible, or by having the clamp on the fitting you can keep it adjustable, depending on whether you would like staff to be able to make their own adjustments.

'A gripper offers the ability to both terminate wires and tension them.'

Either way, the potential for adjustability when hanging lighting with wire is always useful. For example, if something hasn't been picked up during the initial site survey, such as a slight pitch in the ceiling, you will need to make a small adjustment so that the fitting can hang flat if it has multiple fixing points. If during snagging, when the client takes a last look around before the building is handed over at the end of the project, it is

noted that the fittings are not at the correct height it is important to have the ability to tweak the height slightly.

Similarly, if the Health & Safety officer concerned says the fittings are too low, or someone suddenly realises there is a three-metre high trolley that needs to go through the space and the lights are hanging two-and-a-half metres from the floor it saves a lot of time to have that flexibility.

A gripper offers the ability to both terminate wires and tension them. Key to the efficiency of the gripper is the fact that it has been designed to allow for easy adjustment. No tools are required for adjustment, so there is no need to deliver training for staff or provide additional equipment; a side button allows easy and rapid adjustment, saving time during installation and also in the future if the position of hung objects needs to be changed.

Match the style

Wire can be supplied that not only suits load-carrying capacity but is also finished to a style that suits the store. A bespoke wire provider can supply a high-end retailer with chrome-finished fittings that complement the environment or, at the other end of the scale, a rugged solution for a warehouse-style store where it doesn't matter what the wire looks like as long as it does the job.

Ask the experts

Ormiston Wire has centuries of history in wire manufacture and a wealth of experience in providing wire for lighting and can provide you with advice and assistance in specifying the right wire for your application.

