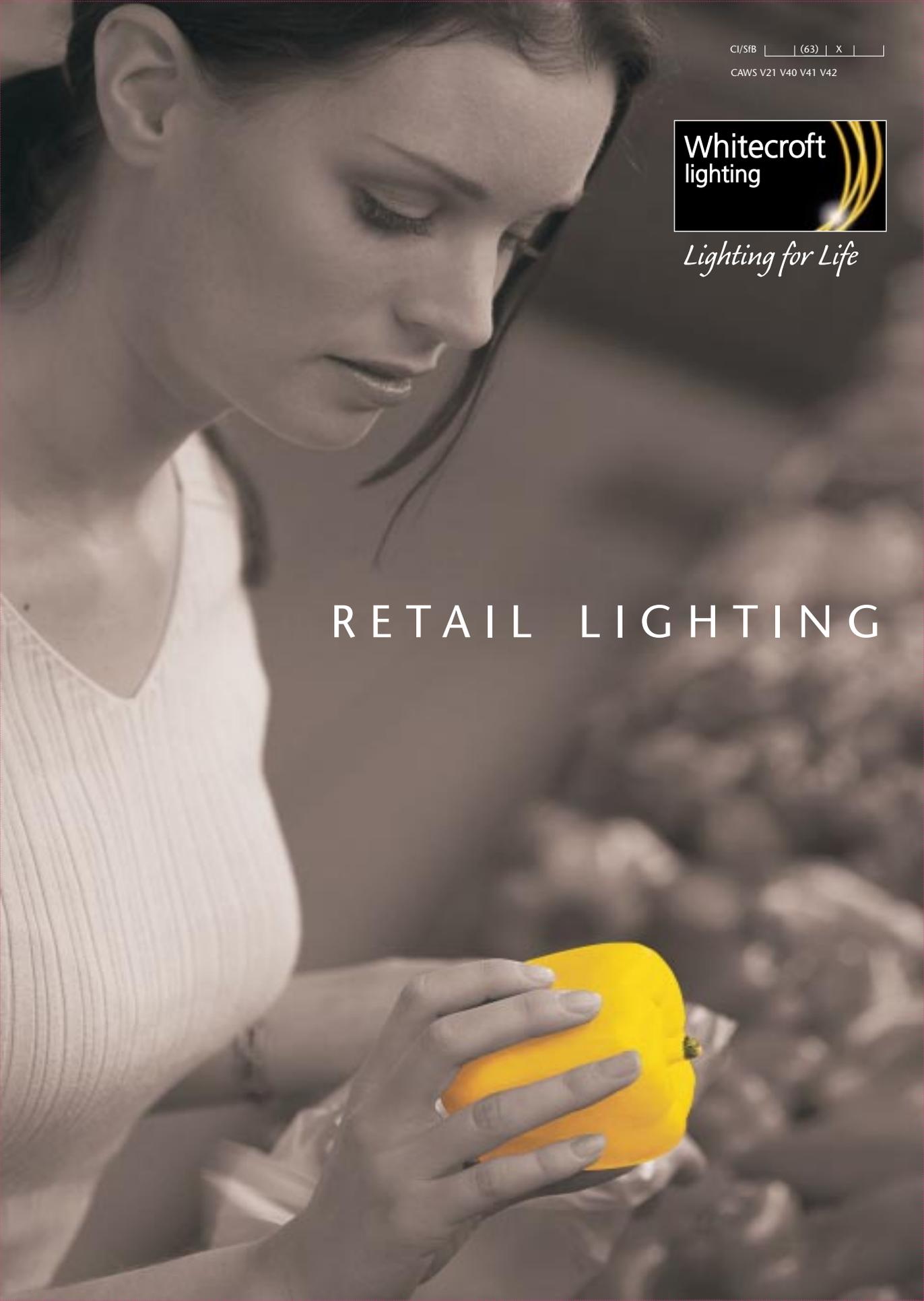




Lighting for Life

RETAIL LIGHTING



THE AIMS OF RETAIL

The aims of the retailer can be met by the lighting designer in ten key areas:

The Shop Open Look to convert window shoppers into in-store browsers with an appearance that promotes your brand and image



Visible Light From The Outside that highlights the interior and the shop window

A Sales Proposition that clearly communicates your brand and product range



Style, Navigation, Safety and Security is a product of the overall lighting design

Appropriate Design that creates a profitable space in harmony with your brand identity



Balance of Function and Aesthetics that maximises light performance and reinforces the brand identity

Best Value For Money design solutions that satisfy both capital and operational budgets



Best Lamps, Control Gear and Optical Efficiency to ensure the least number of lighting points and Enhanced Capital Allowance scheme qualification

LIGHTING

A Welcoming Entrance

an interesting and inviting threshold that provides a seamless transition from outside to inside



2

Triple Illuminance in entrance ways and windows for a dramatic visual focus

A Comforting Interior

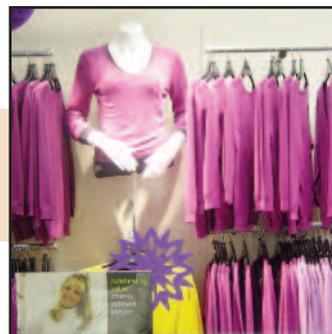
how to make your customer relaxed and willing to dwell



3

Comfortable Ambient Illuminance that is one third of the entrance lighting

Good Merchandising Display that attracts and informs the customer



4

Perimeters and Points of Sale that are two thirds of the entrance illuminance

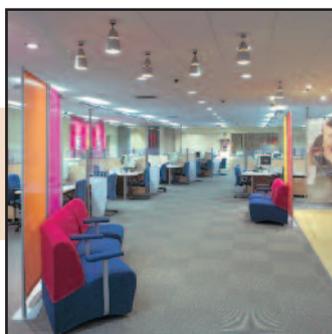
On Time Delivery that efficiently coordinates with the demands of the shopfit schedule



8

A Managed Programme that manufactures, stocks and project manages according to the specific requirements of the shopfit roll-out

Simple Inventory & Energy Efficient with running costs aligned to the planned revenue over the life of the store



9

Life Cycle Costings that can be provided based on proven data and operational experience

Ease Of Maintenance and Lamp Replacement



10

Proven Reliability by selecting fittings and components with the lowest mortality and performance decline

LIGHTING FOR RETAIL ENVIRONMENTS

Good lighting ensures that a clear offer is being made to the customer, who understands what you are selling and finds satisfaction in making a purchase from you.

In order to compete with the growth of e-tailers, a visit to a shop has to be a more enjoyable experience. The former is hugely convenient and accessible, so the latter now has to be altogether more informative, rewarding and stimulating to engage customers and drive sales.

This means that lighting is now at the forefront of a design shift that has to also consider how to create an attractive social space, as much as a place just to make a purchase.

Also, Retailers know that their energy bills have doubled over the past two years and with lighting often representing 30-40% of a store's electricity cost, there is now greater focus on the operational and not just capital costs of a project.

Whitecroft Retail Lighting is exclusively concerned with delivering innovative solutions to their customers that are both efficient and economic.



WHAT IS RETAIL LIGHTING?

Lighting a shop is totally different from lighting an office but because of the coincidence of suspended ceilings, it has not been uncommon to find an office lighting fitting used incorrectly in a shop, merely because it fits the module of the ceiling.

Retail lighting is almost exclusively concerned with avoiding the dark and low brightness solutions that in the past have been associated with offices and designing schemes that promote stimulating visual brightness, with the focus much more on the vertical rather than the horizontal illuminance.

Vertical illuminance is what brings merchandise alive by revealing shape, texture and colour.

HOW TO ATTRACT CUSTOMERS

It is a physiological fact that our eyes will automatically be drawn to look at an area in our field of vision that has more illuminance than the surrounding area, so Retail lighting design can be used to exploit what is essentially a natural process. It is also fair to say that if we can go into a shop and can intuitively locate and discover merchandise, that the shopping experience is more relaxing and enjoyable.

However, maximising the attractiveness factor to make the customer stop and look is less to do with the quantity of light but is more influenced by the quality and overall balance of lighting in the shop.

This is good news because it means by selecting the most efficient lamps and fittings, that we can reduce not only the quantity of fittings required, but also save on the capital cost and overall energy consumption.





Modern banking. Personalized service.
Talk to us about your

everyday banking needs.

You first Lloyds TSB
Classic & Classic Plus
The current accounts that work for you

Multi-branch request (return to branch) Lloyds TSB
CLASSIC & CLASSIC PLUS
CLASSIC & CLASSIC PLUS
CLASSIC & CLASSIC PLUS

CLASSIC & CLASSIC PLUS
CLASSIC & CLASSIC PLUS
CLASSIC & CLASSIC PLUS

HOW MUCH LIGHT DOES A SHOP NEED?

Too little light and your brand does not look attractive and will be lacking in definition.

Conversely, too much light is often counter productive because it can be discomforting and confusing as well as wasteful to purchase and operate.

The right amount of light achieves a natural balanced design that attracts, excites, informs and is economic. It is an integral part of productive space planning and the biggest aid to intuitive store navigation.

This is why we understand the needs of Retailers and have the design experience to unlock potential and draw customers in.

A normal design approach would be to provide a general background level of illumination in a store to create an overall uniform ambient level of light.

Ambient lighting levels can vary greatly depending on the application, but here are a few well known examples that are easy to relate to:

- Restaurant – 80 Lux
- Offices – 350-500 Lux
- High Street – 800-1000 Lux
- Supermarkets – 1000 Lux
- Sunlight – 30,000 Lux

The Accent or Display lighting to be successful has to be increased in direct proportion to the Ambient level so that its effect is noticeable and it achieves the necessary impact on the point of sale. For most retailing situations it is not advisable to have the extremes of light and dark that we would find perfectly acceptable in a theatre situation for example, so achieving the correct balance is fundamental to a successful design.

In a typical store the relationship between the Ambient lighting level and the other lighting elements, is best designed in the following ratio:

- Ambient (=1) = Comfortable
- Displays x2 = Noticeable
- Entrance x3 = Dramatic
- Windows x5 = Outstanding

Of course if the Ambient lighting level is too high it is more expensive to provide the corresponding Display lighting enhancement, so careful design becomes paramount.

Alternatively, in some cases a high level of Ambient lighting can be used to dispense with the need for additional Accent lighting, as long as the vertical illuminance on the merchandise is satisfactory.

UNDERSTANDING COLOUR

COLOUR ACCURACY

Any discussion on illumination levels is incomplete without an explanation on the colour characteristics of artificial lighting.

Good and accurate revealing of colour is fundamental to Retail lighting and the colour rendering properties for lamps is formalised in an index system, CRI = Colour Rendering Index or Ra.

All lamp sources are referenced in the Ra range from 20-100 by comparison with balanced daylight that is given a value of 100. The following table shows the properties of the main ranges of Ra values:

Ra = 90-100
Excellent colour rendering

Ra = 80-90
Good colour rendering

Ra = 60-80
Moderate colour rendering

Ra ≤ 60
Poor colour rendering

Nearly all lamps currently that can be used for merchandise lighting have excellent to good colour rendering properties, but for other applications such as storage or car park lighting colour quality can often be relaxed without detriment to the actual visual task.

COLOUR APPEARANCE

Quite separate to colour rendering is the important aspect of the colour temperature of a white light source which of course is made up of a mixture of colours.

White light that has a higher proportion of red will appear warmer and white with a correspondingly higher blue content will appear cool.

These characteristics can be important for both our natural well being as well as being individually suitable for lighting different products. For example white goods look better under cool light and home furnishings better under warm light. Where a lamp is available in a choice of colours in the same wattage a consistent approach to colour appearance and effect is very important.

Colour temperature is expressed in Kelvins (K), with temperatures at 3000 and below being warm and 4000 and above being cool. Typical examples are:

- Tungsten = 2700-3200K
- Fluorescent = 2700-6500K
- High Pressure Sodium = 2000-5000K
- Metal Halide = 3000-5600K
- Sunlight = 5000-5800K





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...d arrest the coffee. Which is why all the coffee
...comes from Fairtrade sources. By paying
...sourcing the Fairtrade price for their coffee,
...better standard of living and help deve

11
We believe in
sustainable fishing.
Hook, line & sinker.

Greenpeace and the Marine Conservation Society ranked us the top UK retailer for responsible fishing in 2005.

GETTING THE SOURCE RIGHT

The colour characteristics of a lamp and not least its operational life and cost will play a large part in the selection process, but what is in fact also important is the actual efficiency of a lamp in terms of how much light (lumens) is obtained from the electrical power consumed (watts). This is expressed in Lumens per Watt (Lm/W) and is defined as the efficacy of a lamp. Typical efficacies for the most commonly used lamps in retail, with a standard domestic tungsten lamp as a comparison and the life expectancy are as

Lamp Type	Efficacy	Life Expectancy
Tungsten	10 Lm/W	1,000 hours
Tungsten Halogen	14-20 Lm/W	2,000-5,000 hours
Fluorescent	75-95 Lm/W	10,000-30,000 hours
Ceramic Metal Halide	80-95 Lm/W	6,000-15,000 hours
White Son	40-52 Lm/W	10,000 hours
LED	25-50 Lm/W	100,000 hours

Note: Life expectancy is based on a market average of different lamp types and wattages

THE MAIN LAMPS FOR RETAIL

Fluorescent Lamps

These lamps are often the first choice for Ambient lighting, a lamp with a colour rendering index of greater than Ra80 should always be used.

Careful selection of a warm or cool colour temperature lamp can change the appearance of the space.

The key lamp types to consider are:

- T5 Linear lamps
- TC-L Compact lamps
- TC-D & T Compact lamps

Ceramic Metal Halide Lamps

These have revolutionised Accent and Display lighting over the last 20 years. They are extremely compact and very efficient lamps with excellent colour rendering. More recently these lamps have become available in different colour temperatures.

The smaller wattages (20-150W) for downlights and spotlights are very much the first choice for Accent and Display lighting, with the higher wattages from 150-400W ideal for area lighting in ceiling heights typically found in large retail outlets.

White Son Lamps

Dimensionally similar to Metal Halide lamps they may not seem as efficient but they are ideal for certain display lighting where the enhancement of warm colours is essential such as food and furnishing lighting.

Tungsten Halogen (Low Voltage)

There is still place for this lamp because of its compactness and ease of dimming. When used with the appropriate electronic transformer and the latest generation of Infra Red coated lamps, an operational life of 5,000 hours can be achieved.

LED (Light Emitting Diodes)

The most recent evolution in lighting based on solid state technology. Individually they have very modest light outputs but given their extreme compactness and durability, they have a very interesting future, not least because of their long life characteristics (100,000 hours) and low maintenance. LED's can ideally be used for display cases or features that incorporate colour change, so they can be very powerful customer attractor (See Page 45).

THE TRUE COST OF OWNERSHIP

The best contribution we can make towards an ecologically sustainable society is to manufacture energy efficient light fittings. To run an efficient business we have the same challenges as our Retail customers to reduce our energy usage and operate within a framework that examines the life and environmental impact of the materials we use day to day to manufacture our products.

Retailers can take full advantage of the investments we have made to design and develop highly efficient fittings that deliver more light and are more durable through their operational life.

ENERGY SAVING

Energy efficient solutions create better environments for both customers and staff, with less cooling loads for the air conditioning.

The Enhanced Capital Allowance scheme (www.eca.gov.uk) promotes good practice for lighting by specifying the choice of the most efficient lamp sources and control gear and giving it an approved coding of efficiency if it is used in a light fitting of specified efficiency. Achieving compliance by choosing the most efficient lamp and fitting entitles the Retailer to obtain 100% capital relief in the first year of the purchase of the equipment.

Whitecroft are a registered company on the Energy Technology List produced under the ECA scheme and have a wide range of compliant light fittings that can be used throughout a Retail project.

LOWER MAINTENANCE COSTS

As well as selecting the most efficient light fitting, it also important to try and minimise the number and different types of lamps used for a scheme to simplify the maintenance inventory. Of course, using fittings with high optical efficiencies that deliver more light, will reduce the number of fittings and individual lamps required, which directly saves on maintenance costs.

LIFE CYCLE COSTS

The capital cost of lighting represents only a small proportion of the overall cost of running and maintaining it through its working life. With operational hours in retail varying from 2,500-8,600 hours each year, the lowest purchase cost is not always the most economic solution. Typically, the investment cost for a Retail lighting scheme is made up as follows:

- 20% to purchase
- 65% energy costs
- 15% to service and maintain

Whitecroft has an established Life Cycle Costs programme that can examine all design options on behalf of the client to determine the best investment strategy – particularly relevant to multi-site retailers with a large inventory of stores to fit-out and maintain.



Making business sense of climate change

NETWORKING

PC WORLD

The Computer Superstore



Networking with easy

Digital TV

Enjoy fast video multimedia streaming

Digital Entertainment

Pre order Wii at PC World today

Pre order Wii at PC World today

Pre order Wii at PC World today

Nintendo DS

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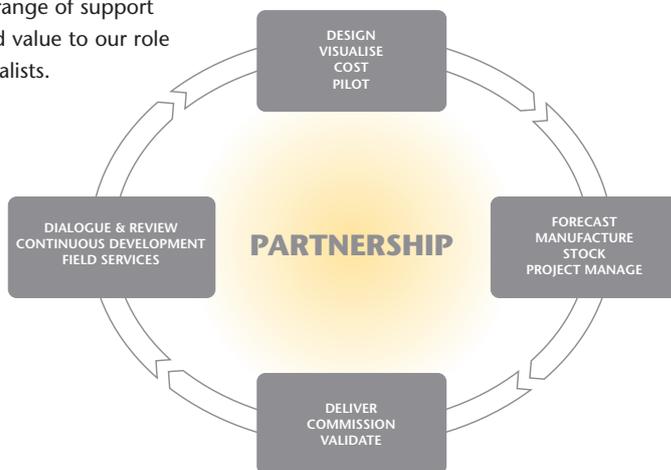
PS2 Chart



SUPPORTING THE SUPPLY CHAIN

We understand Retail and incidentally we supply light fittings. We know that the design solution has to match the brand as well as the budget.

The speed of change and performance required when working in the retail market is a continuous challenge for any supplier but we have been fortunate to develop long term partnerships with many major Retailers. As a consequence we have a very experienced and dedicated Retail team who provide a wide range of support services that add value to our role as lighting specialists.



Partnership ensures that resources are dedicated to your interests throughout a store's operational life.

LIGHTING IS OUR BUSINESS

Whitecroft is part of the Fagerhult group of companies, one of the largest lighting companies in Europe. We have factories in Sweden and China as well as our own UK production facility in Manchester.

The group is divided into four business divisions namely, Professional, Retail, Outdoor and Home Lighting that are dedicated to delivering innovative solutions within their specialist fields.

In Retail Lighting we have developed long term partnerships with some of the largest European retailers and have dedicated application centres in both Manchester and Bollebygd in Sweden, for our customers to see at first hand the very latest in lamp and lighting technology.



Potatoes

Milk

Bananas

Organic

Oranges

Lemons

78p

78p

98p

98p

£4.99

3.99



THE BESPOKE SOLUTION

Over 30% of our business is designing and developing bespoke products for Retail clients in response to their specific brand needs. Some of these solutions remain exclusive, but more often become part of our standard product range, but the common theme is that we are always ready and able to discuss original design requirements.

RETROFIT

All store shopfits whether totally new or on existing outlets, require minimum site time solutions that may utilise existing lighting locations or even upgrade fittings to current control gear and optical efficiency. We have the resources and flexibility to design and deliver the options that are best value for the client.

LIGHTING JUST WHERE YOU NEED IT

With Point Of Sale systems in particular we have developed very innovative integrated lighting for proprietary gondola units that previously were often too complicated or expensive to shopfit on any large scale. This has been as a result of working closely with the client and the shopfit manufacturer to achieve a solution that not only attractively illuminates the displayed products but is simple and safe to install as well as economic to buy and operate. This initiative has generated significant sales growth for the client and has directly lead to the lighting being extended to other product groups.

COLOUR CHANGE

How to make a shopping centre a unique destination or an individual shop stand out from it's rivals. LEDs are increasingly becoming an important lighting design tool, not least because of the wide range of colours they can generate and the infinite combination of light scenes that can be achieved in the same installation.

The long life and size of LEDs make them ideal for architectural lighting but research has shown that coloured light can directly influence shopping behaviour by slowing customer circulation and thereby increasing the exposure time to a particular display. Colour changing displays can direct traffic, helping to increase the number of shoppers in one area of a store and of course be a signpost for the merchandise displays themselves.

Interestingly, it has been found that displays with changing colours not only attract more visual attention to the product but increase the chances of the customer actually handling the product, so the overall browse and purchase factors also increase.

It also was apparent from one study that when colour change is used for visual attention, that the average Accent illuminance can actually be significantly reduced by about 60%, which must make it an even more attractive design proposition from an energy saving perspective.

THE RETAIL ZONE

Lighting is only an abstract medium unless it can be demonstrated, so we have created a unique facility called The Retail Zone within our Manchester head office to allow all parties interested in Retail solutions to see exactly how lighting can add significantly to their sales offer and the important role lighting plays in the shopping experience.

Because lighting a department store is different from lighting the high street branch of a building society, we have created three distinctive areas: a financial space recreating the layout of a bank, a fashion shop and a supermarket area with shelves and displays. This flexible facility show retailers the various solutions that we can offer in terms of design, style, illuminance, aesthetics and colour.

Retailers' needs and expectations can be radically different depending on their market and brand positioning. That's why we encourage our customers to meet us and discover our various standard and bespoke solutions. We believe that lighting can positively influence the shopping experience and improve a brand image.

The Retail Zone is designed for our customers to be able to experiment with different lighting approaches. This allows a precise and accurate replication of the lit environment envisaged for future store "roll outs". We hope to see you there very soon.







Lighting for Life

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