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## Maximising the use of natural daylight in store can have a positive effect on shoppers, staff and their surroundings, finds Retail Focus.

Lighting can have a profound effect on people's moods and emotions, and regulates many biological responses in us. So, surely introducing natural daylight into a store will give shoppers the feel good factor and, of course, reduce a retailer's energy bills?

Designed specifically for retail. Philips Lighting's StoreWise system allows adjustments to be made to the environment in real time. Sensors are able to balance daylight with artificial light. adjusting it accordingly.

'Light impacts us both physically and emotionally.' says Gonneke Gros, retail professional systems, Philips Lighting, 'Natural light releases greater levels of the "good mood hormone" serotonin in the body and people generally enjoy daylight; both the intensity as well as the complete light spectrum that it offers. Davlight harvesting helps to create a pleasant shopping environment and if shoppers enjoy their surroundings they stay longer inside the store."

Retailers can save energy with daylight harvesting by adjusting artificial light to reflect the daylight that is already present in the store through skylights or glass facades.

Gros believes it's also important to connect the outside with the inside, ensuring visual comfort for shoppers. 'Altering light levels according to the amount of daylight that is coming into the store. especially in the entrance areas, means that shoppers don't have to adjust their eyes when they enter. This is important in the evening when there is no daylight. Entering a very bright store at night is not easy on the eyes. Dimming the lights in the evening, especially in the entrance, provides more visual comfort.

At Albert Heihn XL in Eindhoven, daylight harvesting was a key factor for Philips when designing the lighting scheme. The lighting in the marketplace area at the entrance adjusts intuitively throughout the day in three stages: in the daytime the intensity of

the lighting is 100 per cent, at dusk this dims to 60 per cent and in the evening dims again to 30 per cent. The outdoor feel is also maintained at the checkout area so that the transition outdoors is as comfortable as possible.

At the Annual International Association of Lighting Designers (IALD) International Lighting Design Awards this year, the Fulton Center and Sky Reflector-Net in New York was awarded the IALD Award of Merit. The lighting design was created by Arup, with architecture by Grimshaw working alongside collaborating artist James Carpenter Design Associates. Light and daylight played a critical role in re-envisioning the downtown transit hub, which features a number of retail units

A 15m-diameter skylight occulus tilts gently towards the south. allowing more direct sunlight to enter and reflect into the space below. Under overcast conditions, diffused daylight is filtered inward, illuminating the space year-round and allowing electric lighting to be dimmed or turned off. During summer months. direct sunlight penetrates two levels below ground.

Designed by Timothy Hutton Architects, Deirdre Dyson's carpet gallery in Chelsea greatly maximises the use of daylight. With a deep foot plate, a glass block wall was designed to allow natural light to filter in. 'To enhance this effect at night, the glass blocks were softly washed with light from a ceiling slot bordering the space, silhouetting the desk and creating a backdrop to the gallery, says Gavriil Papadiotis, senior designer at Lighting Design International.

Above: With a deep floor plate. Deirdre Dyson's showroom features a unique glass block wall designed to allow natural light to filter into the main client consultation area.

The office and creative studio in the basement are illuminated by a skylight that brings in natural light. 'As it gets darker, a linear LED solution cleverly concealed at the side of the skylight provides ambient lighting while offering a magical floating effect to the glass wall located above on the ground floor,' says Papadiotis.

The showroom spaces on all floors are lit during the day by a series of windows on all three sides. 'The amount of daylight can be controlled via the automated blinds that are fitted to each window.' explains Papadiotis. 'These can be adjusted so the carpets and sensitive fabrics are not exposed to extensive amounts of direct sunlight. When the gallery closes, the upper floor blinds are automatically lowered and uplit by linear LEDs recessed into the window sills.'

During the build of Selfridges' Designer Studio in London, seven out of the 10 windows facing onto Duke Street and Oxford Street were opened, reinstating the original architectural window piers and framework. Campaign Design introduced frameless glass balustrades to meet regulations with the intent for these not to distract from the original detailing of the piers.

'As the only floor on the eastern block of the department store with open views out, it creates a memorably contrasting experience to the rest of the store with the outlook onto bustling Oxford Street. All fixtures and follies were designed and planned around the openings with the challenge of planning in perimeter wall capacities elsewhere within the department,' says Jenny Tait, designer at Campaign Design.

Within multistorey department stores. Tait feels daylighting should be more of a consideration as most street level flagship stores make this such an asset when considering the design. whereas department stores typically compromise this component. Daylight creates a more inviting experience as well as providing optimal light for product, she says.

'The aim for the Designer Studio was to create a new shopping experience using a contemporary gallery space as its backdrop. With the décor being predominantly white, the introduction of natural light helped open up the retail area and emulate the feeling of being in a serene and spacious environment,' explains Anna Clara Sandgren, senior lighting designer at Nulty\*, the firm behind the lighting scheme for the Designer Studio. 'The light and tonal changes that occur throughout the day allowed us to reinforce the link between the retail space and the urban environment, reminding the shopper that they are in the midst of a city.'

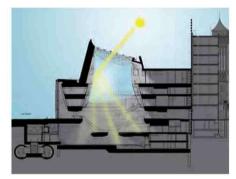
Nulty+ also created the lighting design for the Selfridges Body Studio. The space benefits from an adjacent courtyard and two large skylights that allow large levels of natural light to flow into the space. By balancing t\he natural light with artificial light, the team was able to create a casual and calm shopping experience.

'Natural daylight is invigorating and fresh: it can draw out colour and add depth to a space. It is also a natural aid to create visual interest as it is constantly changing through the seasons, as well as throughout the day,' continues Sandgren.

'Natural daylight has a profound impact on the consumer as it creates a connection with the outside world. It makes people less likely to feel claustrophobic and more inclined to stay longer in a space,' she concludes. **RF** 







Tap: In Selfridges' Designer Studio. seven out of the 10 windows facing onto Duke Street and Oxford Street were opened. reinstating the original architectural window piers and framework.

Above: The Fulton Center and Sky Reflector-Net in New York features a I5m-diameter skylight occulus to bring daylight into the space, and was awarded the IALD Award of Merit this year.

Below: At Albert Heihn XL in Eindhoven, daylight harvesting was a key factor for Philips when designing the lighting scheme.

