

**Associated  
Consulting  
Engineers HQ**





#### **Enhancing the sense of wellbeing**

A successful lighting solution creates visual conditions that make people feel at ease. It should motivate them and help them concentrate on what they need to do. Parameters such as uniform illumination of task areas, bright walls and ceilings plus a pleasant atmosphere can have a direct impact on the physical and mental wellbeing of individuals.



#### **Creating identity**

Lighting scenes that can be adjusted to meet user preferences by means of variable colour temperature and light intensity help increase employee satisfaction and create identity. High-quality product design and architectural lighting design also play a significant role.



#### **Reducing costs**

Energy efficiency, long service life and lighting management systems enable lighting solutions to play a key role in reducing overall operating costs. The reputation and importance of a company or building will also benefit from a sustainable approach.



### **Commendable efficiency in the heart of Lebanon**

Associated Consulting Engineers (ACE) is a global consulting and engineering firm established over 50 years ago. It offers a combination of “multidisciplinary” architectural and engineering consulting and quality services to clients across the world. The headquarters are in Beirut, Lebanon, where Zumtobel created a lighting solution with a strong focus on energy efficiency. The ACE office is a full LED solution – right throughout the building. The whole project needed to achieve a total efficiency of  $< 9 \text{ W/m}^2$ . Only Zumtobel was able to meet these challenging requirements whilst simultaneously delivering the high levels of lighting quality specified by the client.

#### **Associated Consulting Engineers (ACE) Headquarter, Beirut | LB**

Architect: Elie Safi – ACE Consulting (in house), Beirut | LB

Lighting design: Zumtobel Group (Jöji George), Dubai | UAE

Lighting solutions: PANOS infinity downlight, SLOTLIGHT recessed luminaire and DIAMO downlight

## Light for offices and communication

Users at the heart of contemporary office environments

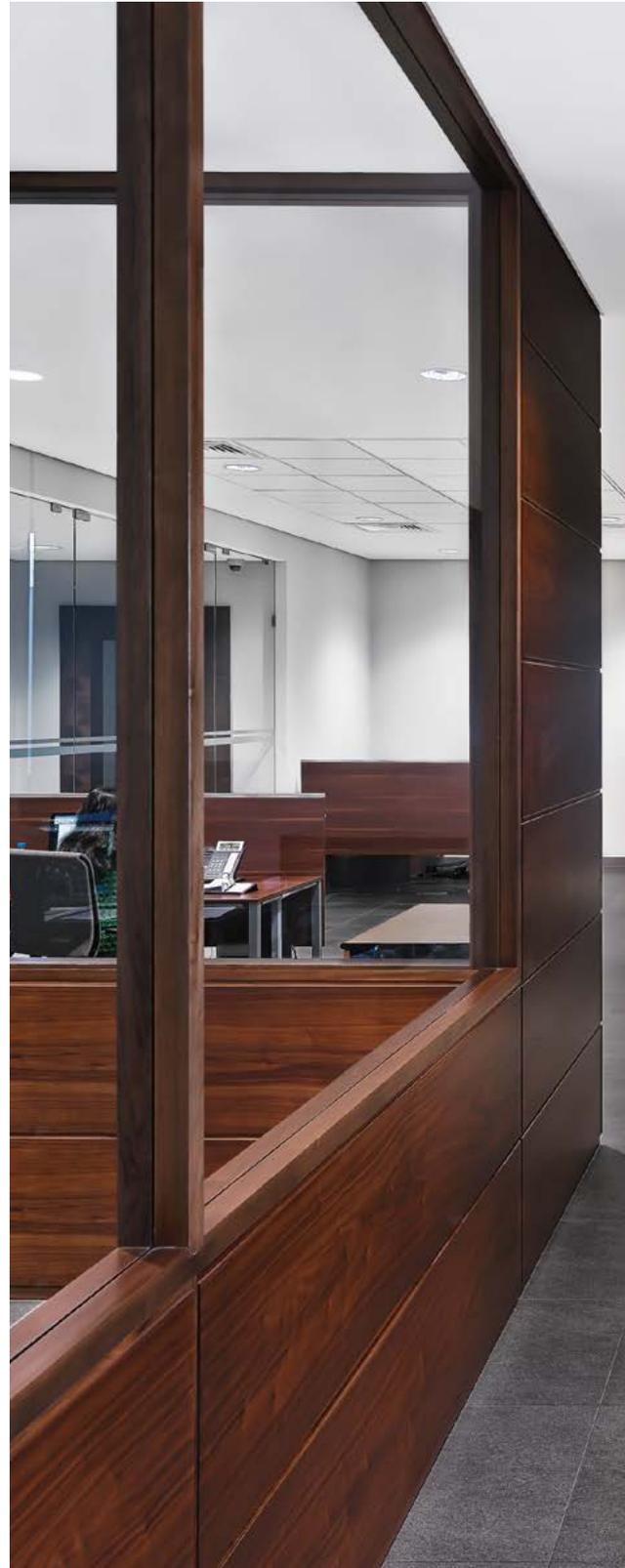


### Enhancing the sense of wellbeing

The office space is illuminated with the PANOS infinity downlight, winner of an iF Design product design award. PANOS helps create comfortable lighting conditions throughout the building – from the task areas to communication zones, as well as in the corridors. The excellent colour rendering is achieved with innovative red/white LED technology, which can reproduce almost the entire light spectrum. Maintaining a colour temperature of 4000 K throughout the entire life of the product guarantees good lighting quality and helps support employee wellbeing – today and every day. The glare free office environment helps to reduce distractions and supports concentration and alertness. Using the right lighting solution in office applications is the foundation for creative and collaborative working. Despite wide spacings of 2.4 meters between each downlight, PANOS infinity ensures excellent wall and desk illumination, in line with the European standard EN12464.



SLOTLIGHT LED as a design feature



PANOS infinity sets new standards for lighting quality and efficiency. The linear luminaire is SLOTLIGHT LED.



The elegant lines of SLOTLIGHT LED



### Creating identity

Attractive interior design with integrated lighting solutions can help create and reinforce a particular identity. The executive floor of ACE Headquarters was designed with this philosophy very much in mind. Whilst the general office areas are dominated by PANOS infinity, the executive office takes on a more linear design. Pure and soothing light in uniformly illuminated lines make SLOTLIGHT LED a perfect fit for this area. In the general areas of the building, SLOTLIGHT LED provides effective lighting and guidance. Integrating nicely with the architecture and adding a special design feature, ACE consulting decided on the surface mounted version of PANOS infinity in the staircase areas of the building.

The wide PANOS infinity portfolio offered maximum design freedom, with a choice of round, square and surface mounted options. A powerful design statement is made in the lobby areas with DIAMO, the jewel in LED downlight crown. The DIAMO downlight features an impressively compact housing for ceiling cut-outs with a diameter of just 68 mm. This feature guarantees ample design freedom for a wide variety of indoor applications. DIAMO is at home in both functional and prestigious areas of office applications.



### Reducing costs

The lighting solution can make a significant contribution towards the energy efficiency of a building. LED solutions demonstrate the new age of innovation and are a smart alternative to conventional lighting solutions. Thanks to the specification of a full LED lighting solution, ACE Headquarters was able to reduce their overall energy consumption by 30%, using PANOS infinity, SLOTLIGHT LED and DIAMO. Compared with conventional continuous light lines, SLOTLIGHT LED boasts a notable improvement in efficiency. An excellent system light output makes PANOS infinity around twice as efficient as conventional downlights. Lighting design also plays a significant role in the overall efficiency. The lighting design from Zumtobel delivers excellent efficiency without compromising the human needs and economic aspects. This helped the project gather valuable points and ultimately achieve LEED silver certification. ACE Headquarters was financed by an environmental loan from BDL (Banque Du Liban). The BDL supports green building initiatives in Lebanon through an Environmental Loans initiative.



PANOS infinity surface-mounted in the staircase areas



The full LED solution was a key factor in helping ACE headquarters achieve LEED certification

“In the green building certification process, one of our main challenges was to minimize our energy consumption. The LED lighting solution from Zumtobel helped us to reduce the consumption of the overall building by 30%. Had these solutions not been available to us, the project would not have qualified as a green building.”

Hani N. Hakim, Chairman, Associated Consulting Engineers International



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