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Press Release
Dornbirn, July 2011

Light extravaganza at Galleria Centercity

Zumtobel stages one of the biggest media façades in the world

B1 I Fascinating interplay between façade and architecture in Galleria Centercity shopping mall in Korea. This is made possible by a special Zumtobel LED lighting solution that is fully integrated into the façade and therefore invisible.

Korea can boast a new superlative: the Galleria Centercity shopping mall in Cheonan. This huge building is visible from afar as one reaches the end of the journey to Cheonan, located 80 km from Seoul. It is not just the grand scale of this "consumer temple" that is breathtaking – the vast 12,600 m2 media façade is also huge. Dynamic light shows produced by more than 22,000 LED lighting points wrap the structure in a shimmering skin that stands out impressively against its urban setting. The high-power LED spotlights specially developed by luminaire manufacturer Zumtobel are designed to merge almost imperceptibly into the façade. Thanks to them, the coloured lighting sequences that ripple across the surface of the building – sometimes slowly, sometimes quickly – exert an even greater fascination on visitors to the mall. Zumtobel created this unique lighting installation in cooperation with renowned Bonn lighting design firm ag Licht and the prestigious Amsterdam architecture firm UNStudio.

In the words of Wilfried Kramb, ag Licht's project manager: "Our objective in setting the façade centre-stage was to illuminate this huge surface area in a manner that ensures that the overall impression of the building at night is in keeping with the impression it makes during the day. We wanted our lighting design to reflect the multi-layered nature of the façade and the interplay with overlapping sections. Ultimately, this is how the basic idea of projecting light from the façade sections onto the inner skin of the building came about. For us, the project posed the exciting challenge of developing an innovative idea capable of inspiring all those involved, bearing in mind the existing constraints."

B2 I More than 22,000 LED spotlights are individually controlled by a DMX controller which coordinates them to produce unique façade lighting. Zumtobel realised the lighting solution project specifically in accordance with ag Licht's lighting design.

This project marks another stage in Zumtobel's successful entry into façade lighting. Of all the façade lighting solutions that Zumtobel has completed, Galleria Centercity is the biggest project so far. It represents a real milestone on the road to integrated media façade lighting.

"In Asia, people don't just visit shopping malls in order to consume. In the Far East, shopping malls like Galleria Centercity are also a place for social interaction" says Ben van Berkel, the architect in charge of the shopping mall and UNStudio's director. This is why, when designing the building, the Amsterdam architecture firm took pains to ensure it was very user friendly. The shopping mall offers much more than merely opportunities to shop; it even provides various cultural meeting places.

"Shaping the shopping mall as a living space required, externally as well as internally, a unique, creative design force capable of attracting visitors, inviting them to linger and motivating them to return", adds Ben van Berkel. The media façade turns this idea into reality perfectly: gently-washing soft colour transitions and light sequences moving like waves bring a fascinating sense of movement to sweeping areas of the building. Computer-based animations developed by UN-Studio were also integrated into the lighting design. The installed DMX control system ensures individual programming of individual LED spots and paints animations on the surface of the building accurately in every detail. All the LED spotlights interact to produce dynamic images and messages that come alive on the façade. Smooth-flowing transitions between individual sequences of images and colours provide magical, eye-catching features. Despite the fact that these sequences are preset and specially adapted to suit the architecture, no two images seem alike, onlookers are beguiled as a lighting composition with a seemingly unending score is played before their eyes. During the day the cube-like building's presents its reflective, ambiguous architecture with a dash of mysticism but at night it transforms into a shimmering, infinitely mutable urban beacon.

B3 I Gentle lighting sequences, bold dynamic colours and even messages and images set centre-stage by light make the façade of the shopping mall truly one of a kind.

The architects developed a special structure for the façade consisting of double asymmetrically overlaid and vertically arranged aluminium sections that create a moiré effect. The inner layer of lamellas consists of an aluminium panel. For the outer layer, the architects designed custom-built triangular sections fitted with toughened glass. This detail is particularly important when it comes to lighting effects because the RGB LED spotlights specially developed by Zumtobel are fully integrated into these sections on the outer façade. From there, light is ultimately projected onto the inner façade layer and reflected onto the surface of the building. This indirect, absolutely glare-free light makes it possible to convert the tightly focused LED lighting points into large-area picture elements or pixels. Zumtobel used a total of three different types of pixels that differ in terms of their various optics and resulting lighting effects: High-resolution 400 x 400 mm pixels are used in the corners of the building, in places where straight surfaces blend into a corner, medium-resolution pixels are used. Low-resolution 800 x 800 mm pixels are perfect for the expansive dimensions of the building's straight surfaces. 12,399 of the 22,000 luminaires used are 3.6 W RGB luminaires, while the remaining units (approximately 10,000) are 1.2 W white luminaires. This wide-area indirect pixel concept guarantees extremely high efficiency in relation to the surface area to be illuminated as well as harmonious luminance levels.

Galleria Centercity is a striking example of how façades can become interactive elements of the urban landscape and the way in which urban spaces can be shaped by light – without this indirect, glare-free light causing any nuisance in adjacent areas of the town.

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Projektinformation Galleria Centercity, Cheonan/KR

Building owner:	Hanwha Galleria, Cheonan/KR
Architecture:	UNStudio Amsterdam/NL
Executing architects:	GANSAM Architects & Partners, Seoul/KR
Façade lighting design:	ag Licht, Bonn/D
Façade electrical installation:	B2, Seoul/KR
Façade animation (content):	UNStudio, Amsterdam/NL
Façade lighting prime contractor:	Hwangduck, Korea
Façade lighting solution:	Zumtobel Custom solution: RGB LED spotlight with IP65 and white LED spots
DMX control:	Lightlife, Berlin/D

More information:

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