



SOFT SELL

Lighting Design Collective has created an immersive lighting experience for Galleria Burgas shopping centre in Bulgaria with light and colour to redefine the ambience of the space.

The opening of the Galleria Burgas in the Bulgarian city of Burgas on the southeast shore of the Black Sea marked the arrival of the city's first international style shopping and entertainment centre. Managed by developer GTC, the new \$1,000 open site is one of a chain that spans ten countries across the region.

The Galleria Burgas complex follows a traditional rectangular layout, with a looped internal avenue that links together the two "court" spaces positioned at opposite corners of the site. The three floors include fashion outlets, a supermarket and food court, as well as a ten-screen multiplex cinema. Although comprising many familiar

shopping mall elements, GTC wanted to avoid the stark, anodyne feel that characterises many similar schemes. To help achieve this, consultants Lighting Design Collective (LDC) were brought in to advise on the best use of both natural and artificial lighting.

LDC's scheme uses a 'holistic branding' approach – a coherent lighting ethos, applied to the whole development, that creates a comfortable ambience in which visitors become immersed. This overall scheme is then adapted to suit the different uses within each individual zone.

The visitors' experience at Galleria Burgas was envisioned as a 'voyage' through the

space, with points of discovery and surprising visual twists built in along the way to elicit a subtly shifting emotional response. In practice, this meant integrating all aspects of the architecture, marketing and lighting design into a seamless whole.

"We approached this project from a cinematic perspective and used theatrical concepts and techniques to turn simple architectural details into elements of visual wonder. This creates a space rich in emotion," explains LDC director Tepla Bozhenka. LDC began with the daylight design for the project, locating skylights strategically to create particular daylight and sunlight effects. In the food court, for example



Lighting Design Collective was involved in the design of the Galleria Burgas from its early stages. As a result they were able to advise on the placement of skylights to produce the optimum daytime effect. At night, warm and cool colours come to life. Illuminating vertical strips that run through the complex.

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The opening of the Galleria Burgas in the Bulgarian city of Burgas on the southeast shore of the Black Sea marked the arrival of the city's first international style shopping and entertainment centre. Managed by developer GTC, the new 53,000 sqm site is one of a chain that spans ten countries across the region.

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circular skylights with decorative timber cone features were introduced to bring light down into the dining area. LDC control and daylight penetration studies for the main public areas - in particular in the service hallways and court sections - to create a full understanding of the daytime character of these spaces. Artificial lighting is kept to a minimum and, where extra illumination is required, cone lighting and recessed downlighting fixtures are hidden discreetly within the architecture. In this daytime mode, colored light is avoided completely. At sunset, the artificial lighting fades up, dramatically changing the look and feel of the interior. The main source of illumination comes from cold cathode strips that backlight the 600mm-deep barneel boards that run throughout the mall, positioned on the vertical face of the bulkheads separating the different levels. These boards work with a twin lamp system, emitting yellow, orange, lavender and pink cold cathode lamp options to create the desired effect. This was supplied by Kepsa Architectural



who - as a last minute replacement for the previously contracted supplier - had just eight weeks to deliver the entire lighting schedule. The design team intended also in the depths of a Bulgarian winter to carry out two separate mock ups with Rosenthal and the client team in attendance. Cold cathode was also used for the indirect ceiling cone lighting present through out of the public spaces. In total over 4km of cold cathode was manufactured and supplied by Kepsa. The contractors were so pleased with Kepsa's approach that they asked them to act as procurement agents for much of the lighting on the project. Consequently, the UK-based team were responsible for sourcing all the downlighting in the mall - mainly Luccant and We-af, installed in low level soffits throughout. They also built and supplied an Aryclic Square fitting with a central Philips DM LED supplied for use as the main lift cover. In the Cinema Court, the atrium space in the Northern corner of the complex, Martin Professional moving head fixtures were

Top: The atrium spaces of the two courts in the Galleria complex have very different daytime and nighttime schemes. During the day, natural lighting is used to create a pleasant environment. At night, Martin Professional moving head luminaires combine with the cold cathode strips to create a more colorful look. Above: Skylight with decorative wooden cone features. When natural light enters the dining area during the day, it right-angled cone lighting changes the character of the space.

JAPANESE

このプロジェクトは、ブルガリアのブルガスに位置する、最新のショッピングセンター「ガラリア・ブルガス」の照明設計と施工に関するものです。このプロジェクトは、照明設計、照明器具の選定、照明システムの構築、照明の施工、照明のメンテナンスなど、照明のあらゆる側面をカバーしています。照明設計は、建築設計と連携して行われ、空間の雰囲気や機能性を高めることを目指しています。照明器具の選定は、照明の質や寿命、エネルギー効率などを考慮して行われます。照明システムの構築は、照明器具の接続や配線、照明制御システムの構築など、照明のシステムを構築することです。照明の施工は、照明器具の取り付けや配線の配線など、照明のシステムを実装することです。照明のメンテナンスは、照明器具の点検や清掃、照明の交換など、照明のシステムを維持することです。

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CHINESE

这个项目是位于保加利亚布尔加斯市的最新购物中心“加拉里亚·布尔加斯”的照明设计和施工。这个项目涵盖了照明设计、灯具选择、照明系统构建、照明施工以及照明维护等各个方面。照明设计需要与建筑设计紧密配合，旨在提升空间氛围并增强功能性。灯具选择时会综合考虑照明质量、使用寿命及能效等因素。照明系统构建涉及灯具连接、布线以及照明控制系统的搭建。照明施工包括灯具安装和布线的铺设。照明维护则包括灯具检查、清洁以及更换等工作，以确保照明系统的正常运行。

FRANÇAIS

Le projet de la Galleria Burgas est un projet de construction et de rénovation de magasin commercial de grande envergure à Burgas, en Bulgarie. Ce projet implique la conception, la sélection des luminaires, la construction du système d'éclairage, l'installation et la maintenance de l'éclairage. La conception de l'éclairage est étroitement liée à l'architecture et vise à améliorer l'ambiance et la fonctionnalité de l'espace. Le choix des luminaires prend en compte la qualité de l'éclairage, la durée de vie et l'efficacité énergétique. La construction du système d'éclairage implique la connexion des luminaires, le câblage et la construction du système de contrôle de l'éclairage. L'installation de l'éclairage consiste à monter les luminaires et à effectuer le câblage. La maintenance de l'éclairage implique l'inspection, le nettoyage et le remplacement des luminaires pour assurer le bon fonctionnement du système.

circular skylights with decorative timber cone features were introduced to bring light down into the dining area.

LDC carried out daylight penetration studies for the main public areas - in particular in the avenue hallways and court atriums - to create a full understanding of the daytime character of these spaces. Artificial lighting is kept to a minimum and, where extra illumination is required, cove lighting and recessed downlighting fixtures are hidden discretely within the architecture. In this daytime mode, coloured light is avoided completely.

At sunset, the artificial lighting fades up, dramatically changing the look and feel of the interior. The main source of illumination comes from cold cathode strips that backlight the 600mm-deep Barrisol bands that run throughout the mall, positioned on the vertical face of the bulkheads separating the different levels. These bands work on a twin lamp system, combining yellow, orange, lavender and pink cold cathode lamp options to create the desired effect. This was supplied by Kemps Architectural

who - as a last minute replacement for the previously contracted supplier - had just eight weeks to deliver the entire lighting schedule. The Kemps team attended site in the depths of a Bulgarian winter to carry out two separate mock ups with Rosenius and the client team in attendance.

Cold cathode was also used for the indirect ceiling cove lighting present through all of the public spaces. In total over 4km of cold cathode was manufactured and supplied by Kemps.

The contractors were so pleased with Kemps' approach that they asked them to act as procurement agent for much of the lighting on the project. Consequently, the UK-based team were responsible for sourcing all the downlighting in the mall - namely Lucent and We-ef, installed in low level soffits throughout. They also built and supplied an Arcylic Square fitting with a central Phillips 6W LED supplied for use on the main lift tower.

In the Cinema Court, the atrium space in the Northern corner of the complex, Martin Professional moving head fixtures were



Top The atrium spaces of the two courts in the Galleria complex have very different daytime and nighttime schemes. During the day, natural lighting is used to create a pleasant environment. At night, Martin Professional moving head luminaires combine with the cold cathode strips to create a more colourful look.

Above Skylights with decorative wooden cone features filter natural light into the dining area during the day. At night concealed cove lighting changes the character of the space.

installed. Reprogrammed using a North Lightjockey desk, they are timed to mimic the movement of people within the space. Different chair sequences are played throughout the day, some aimed at floor level to engage young children, encouraging them to follow the pools of light that move around the space.

There are also colour-changing CITY-CVC RGB LED fixtures, supplied by Pro-Technika Bulgaria, installed around the edge of the ceiling in both atriums to create large-scale wash effects on the ceilings that stretch across the space.

A similar system is applied to the entrance canopies. All are programmed to provide dynamic effects that change not just throughout the evening, but also adapt to reflect the changing seasons. In practice this means there is a whole year's worth of transition effects in the system.

The notion of 'transition' was a key element of the lighting concept. Visitor experience is constantly changing visual flow: a shift from a very natural daytime look to the more colourful nighttime scenes; the dynamic lighting in the atrium spaces; and, as visitors walk through the complex, the subtle differentiation between the various zones from the North Mall to the South Mall. The latter - the use of a timed light strategy to differentiate areas - was developed partly to aid way finding and to make the navigation through the mall as intuitive as possible. The South Mall has gradients of oranges, ambers and yellows whereas the North combines pinks and purples. Colour combinations and gradients were pre-tested in LDC's Madrid office using a full-size mock-up.

LDC has also ensured that flexibility is designed into the lighting system, enabling the operator to brand and transform the key public areas quickly and inexpensively using the existing fixture surfaces, allowing light projects and colouring lights.

The project lighting also meets the LEED Gold rating requirements for sustainability



Above: Different combinations of yellow, orange, lavender and pink cold cathode are used to create subtle differences between the different areas of the mall, aiding wayfinding.

Left: Large inground S50W sealed fixtures provide facade lighting.

PROJECT DETAILS

Galleria Burgas, Burgas, Bulgaria
Client: GSC Bulgaria
Architects: Skidmore, OWINGS & Merrill LLP
Lighting Designer: Light Design Collaborative LLC
Project Manager: Foster Development Bulgaria
RFP Engineering: Barilera Engineers & MEP-Process

LIGHTING SPECIFIED

Room and In-ground Cold Cathode: HCL304000100 in East Park, North Light Valley, Florida, Major in, Tampa, Georgia, South in and West Park.
Room and In-ground: HCL304000100 in Light Valley, Florida, Major in, Tampa, Georgia, South in and West Park.
Linear Lighting: Phoenix multi-fixture downlights 20W x 10W, 4x20 x 20 - Frequency with 80/100/2000 rated ballast fixture.
Sealed Cathode: HCL304000100 in Light Valley, Florida, Major in, Tampa, Georgia, South in and West Park.
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and reduction of light pollution. For LDC, the project allowed further development of brand and identity related lighting concepts. The focus was on the experiential quality of the space. The goal was to create distinct memories whilst providing a backdrop for lifestyle retail, all targets that were successfully achieved on the Galleria project.

"We are great believers in the emotional power of light and colour," says Rosenthal. "The feedback has been great. Nobody likes the overlit and cold shopping malls anymore. These buildings are about lifestyle, people need to feel comfortable." www.ldcusa.com

DEUTSCH

Das neue Einkaufszentrum in Burgas ist ein Beispiel für die Integration von Nachhaltigkeit und moderner Beleuchtung. Die Leuchten sind nicht nur funktional, sondern auch ein zentrales Element der Innengestaltung. Die Leuchten sind in verschiedenen Farben und Formen erhältlich, um die Atmosphäre des Einkaufszentrums zu verbessern. Die Leuchten sind auch in verschiedenen Größen und Leistungen erhältlich, um die Anforderungen des Einkaufszentrums zu erfüllen. Die Leuchten sind auch in verschiedenen Farben und Formen erhältlich, um die Atmosphäre des Einkaufszentrums zu verbessern.

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ITALIANO

Il nuovo centro commerciale di Burgas è un esempio di integrazione di sostenibilità e illuminazione moderna. Le luci non solo sono funzionali, ma sono anche un elemento chiave dell'arredamento interno. Le luci sono disponibili in diverse dimensioni e potenze per soddisfare le esigenze del centro commerciale. Le luci sono anche disponibili in diverse colorazioni per migliorare l'atmosfera del centro commerciale.

ESPAÑOL

El nuevo centro comercial de Burgas es un ejemplo de integración de sostenibilidad e iluminación moderna. Las luces no solo son funcionales, sino que también son un elemento clave del mobiliario interior. Las luces están disponibles en diferentes tamaños y potencias para satisfacer las necesidades del centro comercial. Las luces también están disponibles en diferentes colores para mejorar el ambiente del centro comercial.



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installed. Preprogrammed using a Martin Lightjockey desk, they are timed to mimic the movement of people within the space. Different chase sequences are played throughout the day, some aimed at floor level to engage young children, encouraging them to follow the pools of light that move around the space.

There are also colour-changing CITY-CYC RGB LED fixtures, supplied by Pro-Technica Bulgaria, installed around the edge of the ceilings in both atriums to create large-scale wash effects on the canopies that stretch across the space.

A similar system is applied to the entrance canopies. All are programmed to provide dynamic effects that change not just throughout the evening, but also adapt to reflect the changing seasons. In practice this means there is a whole year's worth of transition effects in the system.

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LDC has also ensured that flexibility is designed into the lighting system, enabling the operator to brand and transform the key public areas quickly and inexpensively using the existing backlit surfaces, moving light projectors and coloured lights.

The project lighting also meets the LEED Gold rating requirements for sustainability



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www.ldcol.com

Above Different combinations of yellow, orange, lavender and pink cold cathode are used to create subtle differences between the different areas of the mall, aiding wayfinding.

Left Bega inground 150W metal halides provide façade lighting.

PROJECT DETAILS

Galleria Burgas, Burgas, Bulgaria.

Client: GTC Bulgaria
Architect: Studio 17.5, Sofia, Bulgaria
Lighting Design: Lighting Design Collective S.L.
Project Manager: Victor Management Bulgaria
MEP Engineering: Bor Alina Engineers & IPC-Popova

LIGHTING SPECIFIED

Kempes Architectural Cold Cathode KL-CLM-DMD100 in Coral Pink, Traffic Light Yellow, Flamingo, Magenta, Tangerine Orange, Lavender and Naval Gold
Kempes Architectural Linear RGB LED K-Light RGB Modules 1500 metres in total
Luzent Lighting Pragma metal halide downlights 35W & 70W
Bega S720 - Inground with BLV Blue 150W metal halide lamps
Martin MAC260 Encumber LED Trailing Hood & Lightjockey control software
W-e1 PAR20 Asymmetric floodlights with BLV Orange 70W lamps
Rosa Gaba-Top Architectural Gaba projectors & gabs
Rosa Superjet color filters
Barnissel Stretched backlit fabrics



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