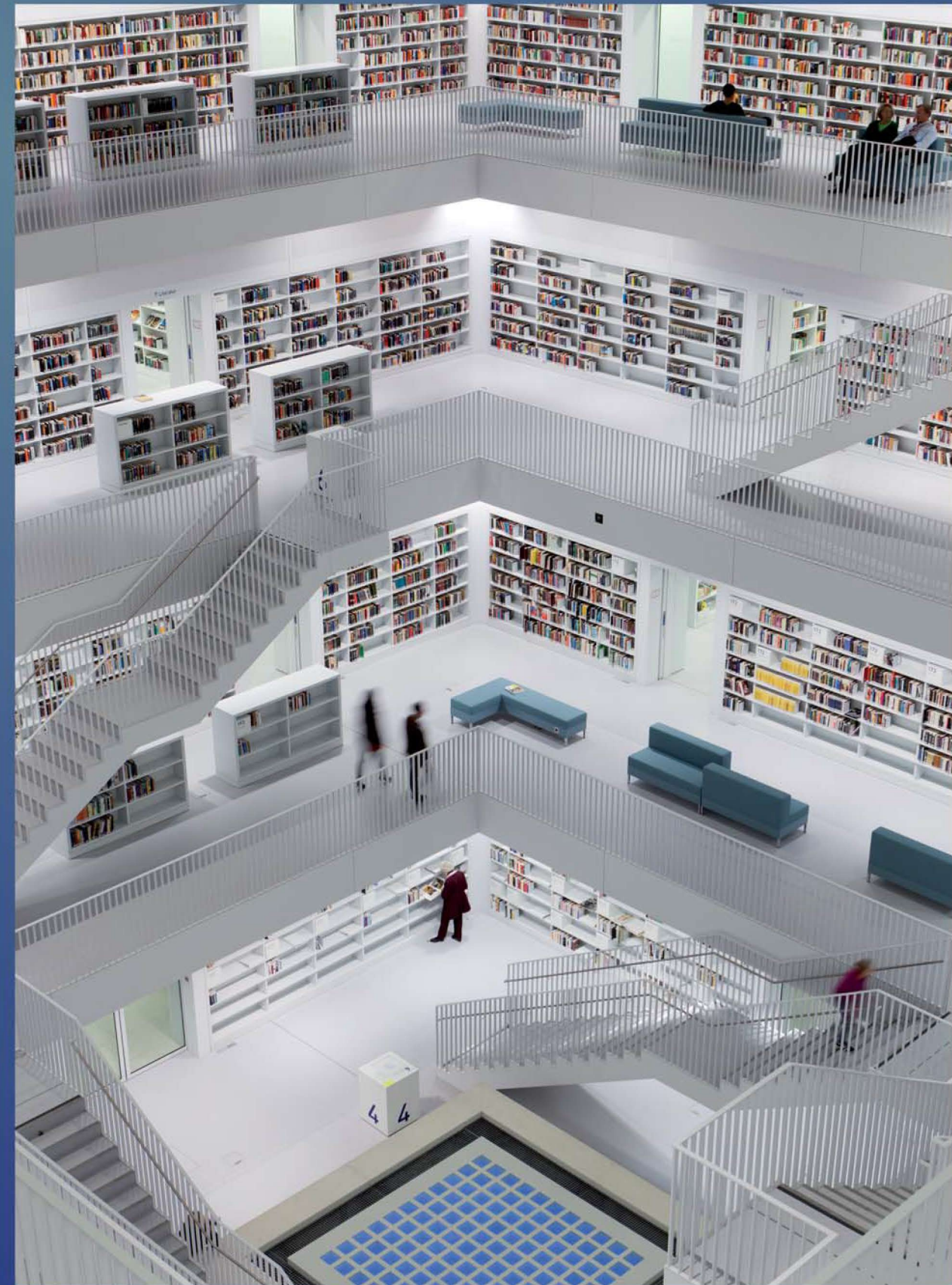


PROFESSIONAL **LIGHTING** DESIGN



Magazine for professional lighting design

MAIN TOPIC
Visions and creative solutions

VISION
Louvre Museum
in Abu Dhabi/UAE

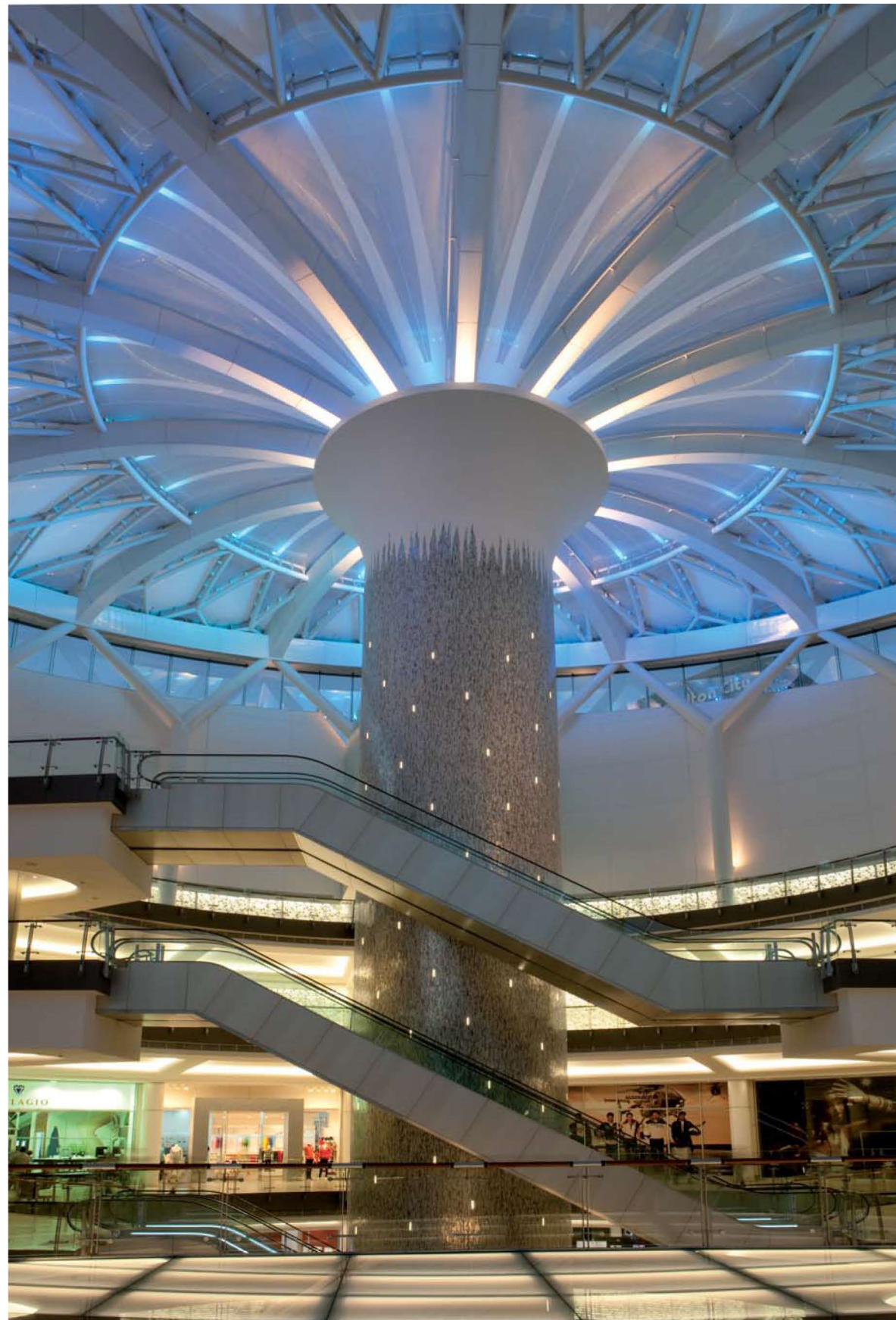
LIGHTING DESIGN
New public library in Stuttgart/D

Mansueto Library in Chicago/USA

Sandton City Protea Court shopping centre in Johannesburg/RSA

BRANDING
Iconic lighting identity for a cinema

PHILOSOPHY
Passion for lighting



The 'green' lighting technology specified for the Protea Court project matches the energy-efficient ethos behind the ETFE roof which, although only two microns thick, supports total daylight transmission whilst providing robust insulation. The designers opted for LED solutions to ensure the system was energy-efficient and cost-efficient in the long-term.

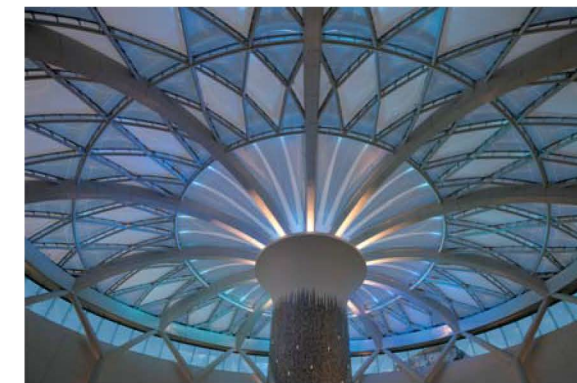
Flower power

Sandton City Protea Court, Johannesburg/RSA.

Text: Anthony Tischhauser

Sandton is a wealthy district in the northern part of the City of Johannesburg and home to the South African Stock Exchange since the late 1990s. The latter is not number one on the city's sightseeing list but rather Sandton City shopping centre, which is one of the largest in the whole of the country.

Protea Court is the new pedestrian entrance to expanding shopping centre Sandton City. South of the Gautrain Station on Rivonia Road, it marks a radical new approach to the shopping precinct in Sandton, which is entirely hidden from the street and only accessible via parking garages. The eight-storey domed foyer, designed by MDS Architecture as a joint venture project, is glazed to the street and covered with a translucent skin, thus naturally lit by day. Architecturally, it marks the completion of Phase I of the shopping mall expansion and features the first ground-breaking architectu-



ral lighting installation of its kind in South Africa.

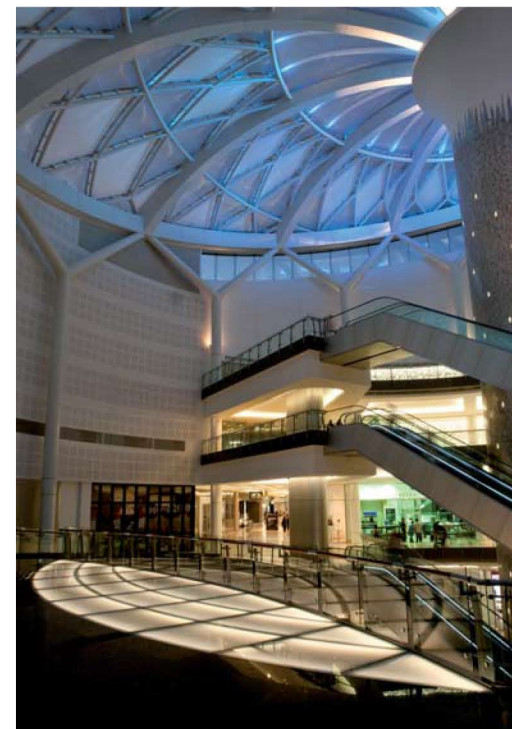
Protea Court – which houses 70 new international and luxury retail outlets, was inspired by the shape of South Africa's national flower, the Protea – was designed by Tia Kanakakis from MDS Architects. The team of lighting designers from Paul Pamboukian Lighting Design have worked with the leading architects on previous projects. For this project they were asked to create an innovative lighting scheme to accentuate the striking shape and aura of Protea Court,

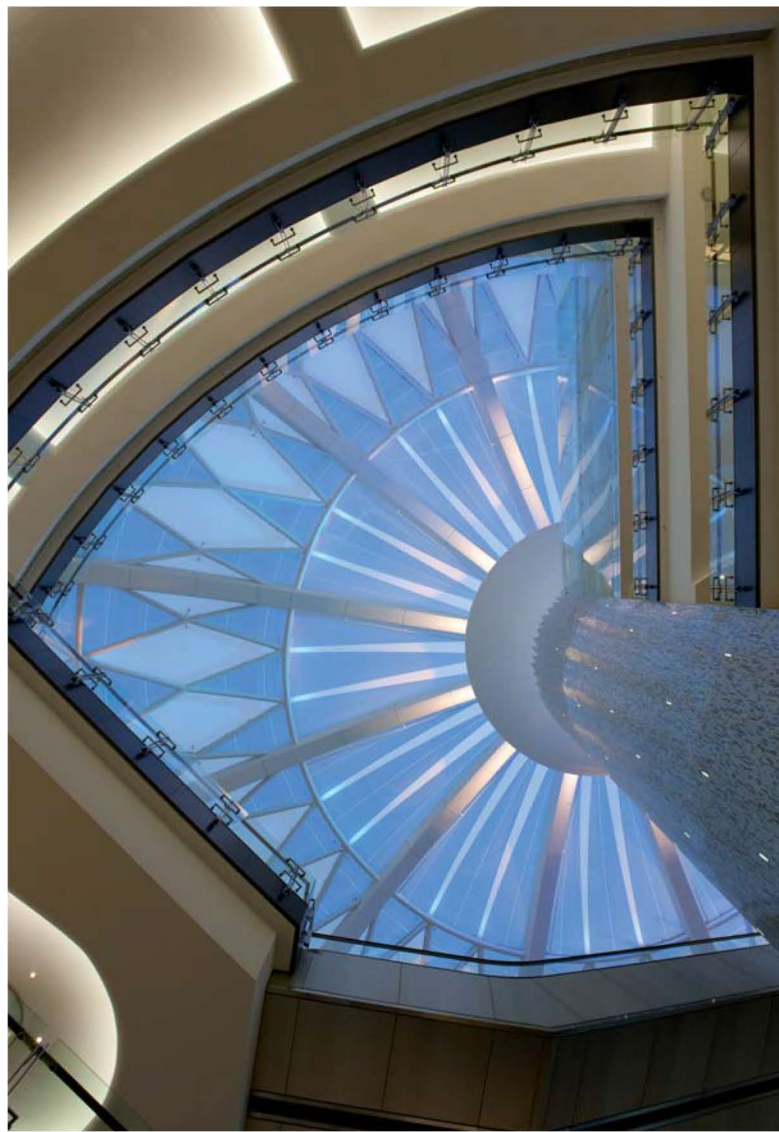
capturing the mood and spirit of the cutting-edge development in the process.

By day, the glass skin façade of the atrium appears solid and hard, by night the lighting dissolves the sheets of glass to reveal the cylindrical volume, drawing views in and across its full depth. The pneumatic pre-stressed cushion roof with high insulation qualities is supported by an off-centre mosaic-clad column. The space is primarily lit from the top of the stem outwards enhancing the 146 double layered transparent segmented, triangulated or rhomboidal cushions through continuous sequences of projected light. Given the absorbing quality of the cushion material the impression is one of soft light. Three rings of programmed exterior LED's also light the cushions adding to the three-dimensional reading of the envelope while making it interestingly visible at a distance.

On entering, the cantilevered bi-convex glass floor is lit by continuous cold cathode tubes that follow the curved lattice beams. They feed through circular cut-outs in the steel structure to give a rich uninterrupted opaque feeling. Reflections from the different materials illustrate the effect of a live and specular environment, caused in this case through the extensive glazing, EFTE (ethylene tetrafluoroethylene) light transmitting sheeting (used for the first time in South Africa) and lift core. To enhance the effect, further layers of light are added to create real sparkle, making a feature of what could have been a problem.

The main 32-metre tall, 4.5-metre wide support connecting floor to roof is fitted with custom made neutral daylight LED mosaics (15 x 15 x 200 millimetres) randomly inserted and flush with the finish to create interest. Not seen during the day, these add sparkle and a touch of drama after dark. A layer of vertical front light from theatrical ETC Source 4 HID



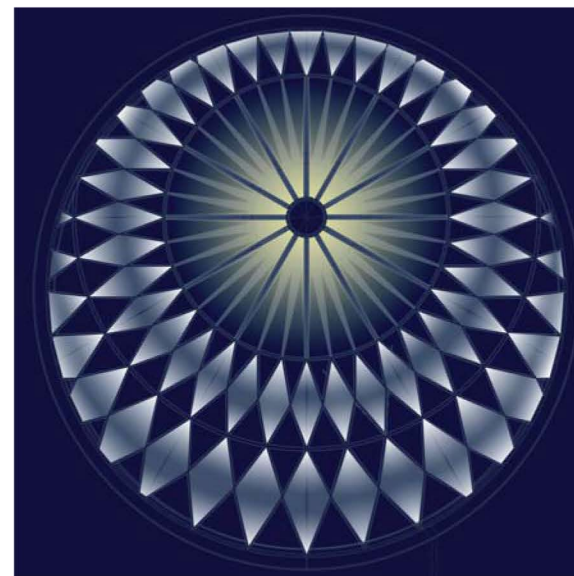


profiles shoots across the space to introduce a golden glow to the shiny curved mosaic surface. The outer bifurcating roof supports are side-lit from in-ground metal halide uplights to mould the steel structure.

Cycloramic, intensely lit double layered vertical wall surfaces on the upper floors illuminate the space, cutting out downlights, and mould the walkways through grades of light. The off-set support columns are also silhouetted to create drama and give dimension to the space. This feature is an answer to the architects' concern that the area between the upper floor surface and cylinder edge may appear grey since there is no ceiling to contain light.

The roof cushions are further given a glowing three-dimensional feel through a continuous slow rhythmic breath of changing monochromatic colour – various combinations of warm and cool pastels – achieved by mixing RGB and White for more flexibility. Static accent illumination of the twelve individual roof beams defines the flower-shaped structure from its springing point. Interrupting sporadic colour bursts on the hour to illuminate the structure and define time. For special events the RGB and White colour system is programmed to open like a flower from the stem outwards.

Aesthetically, the lighting designers wanted the lighting to accentuate the intense verticality of the space and make the strong structural definition of the roof with its beams and girders come alive and 'breathe'. The central lift shaft is based on the idea of the Protea-stem, bursting out at the top into a beautiful petal-like canopy.



The piazza in front of the shopping centre, Protea Court, is a meeting point and future pedestrian node. Its strong night-time presence makes for an unusual and welcome civic gesture. From here there is a pedestrian walkway to the metro station on the Gautrain rapid transit system.

Protea Court has already been a massive success, and is one of the most talked about South African business developments of the year. Everyone is delighted with the lighting scheme. It is hailed as a trend setting, setting new standards and providing inspiration for others to follow.

Project team:

Architects: MDS architecture

Steel construction: Aveng Grinaker-LTA and WBJO

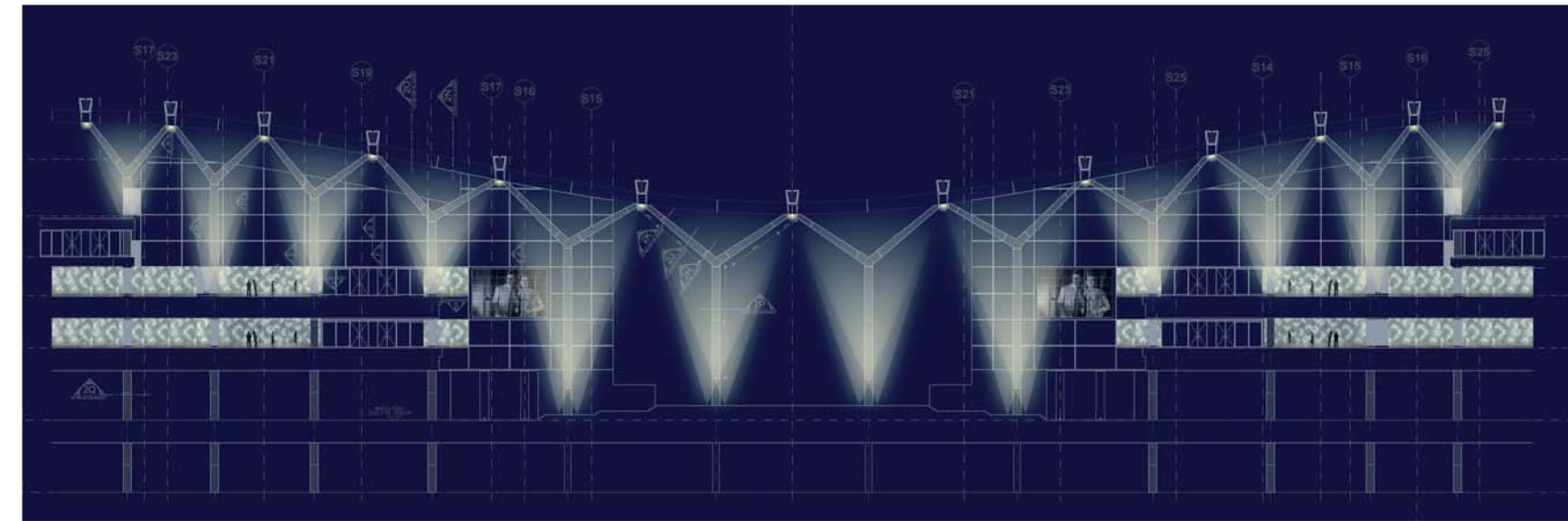
Lighting design: Paul Pamboukian Lighting Design

Products applied:

LED spotlights, Robe Anolis



The formal language of the entrance situation is based on glowing curves and sparkle. The colours are a subtle accompaniment to the experience the shopper has on entering the spacious foyer.



Concept rendering for Protea Court.