



Suria KLCC Shopping Mall Delights Six-Story Atrium with **Dynamic Double-Sided Display**

At the foot of the magnificent Petronas Twin Towers in the city center of Kuala Lumpur, Malaysia is one of the most spectacular shopping malls in the world. Encompassing 1.17 million square feet of retail floor area inhabited by 350 stores and services, the Suria KLCC Shopping Mall was created to complement the Petronas Towers project. Opened in 1998 alongside the towers, which reigned as the world's tallest until 2004, Suria KLCC features a concert hall, an oceanarium, an art gallery, and a children's science discovery center alongside its hundreds of storefronts. Beyond the extravagant tenants and experiences offered within its L-shaped concourse however, what the marvelous mall also includes is a massive central court area. Six-stories high and encircled at each tier by terraces connecting the wings of the building, the court area was cavernous –and clear. It felt empty and unfinished. Unable to fill this space with a traditional art feature lest they run afoul retail line-of-site restrictions, the massive mall faced a problem: it contained too much space and it couldn't figure out how to fill it.

The Challenges

The geometry of the central court area generated a diverse set of challenges. First and foremost, the six-story cylinder of empty space was enormous. An unfortunate consequence of this was that anything filling that space would also have to be huge and thus likely to interfere with retail line-of-site restrictions. Retailers pay for premium locations along the circular terraces enveloping and overlooking the central court because their facades are visible to customers across the court and on different floors. They would never allow an installation compromising that exposure. Other challenges stemmed from the difficulty the mall would encounter in mounting or suspending any sizable installation. The mall needed to find a solution lightweight enough to suspend safely above the 100,000 people who pass through the court area each day while also being robust enough to entertain these audiences. Viewability range was another concern since audiences would be spread across the court floor as well as up and down the many floors of the building. The most onerous challenge the team faced however was likely the time limit imposed upon them: with brand demonstrations and events booked almost 365 days a year in Suria KLCC, the installation needed to be completed in just 10 days.

“But along with quality, the other major key here was safety, as this display would be located in the mall’s Centre Court area, with over 100,000 people passing under it daily.”

Dave Merlino, Vice President of Sales, Nanolumens

The Solutions

Navigating around the line-of-sight restrictions was the first challenge the team faced and it was conquered through compromise. The court would have its center filled with an enormous double-sided digital display but this display would rotate so as to only temporarily impede lines of sight as it turned. Retailers allowed for this with the knowledge that they could subsequently use the display to show their own digital advertising content. This conclusion only complicated things however as now the team needed to find not only a rotator but also a display solution that was both lightweight enough to suspend and able to meet high color gamut standards for retailers unwilling to compromise on the display of their signature colors. To find the manufacturer that could bring them this solution, the decision makers from the mall took inspiration from an installation in the neighboring city-state of Singapore. “Once the people from Suria KLCC saw our work at Changi Airport [in Singapore], they were really impressed and things began to quickly move forward,” said Nanolumens Vice President of Sales Dave Merlino. With local Kuala Lumpur integrator EWSB on board to install the technology, the Suria KLCC and NanoLumens tandem created a double-sided Performance Series display measuring 19 feet by 33.5 feet with a 4.7mm pixel pitch. Capable of rotating 359-degrees from a Dynapac rotator device, the display can be raised and lowered by a sophisticated hoist system that allows the mall to use it for floor-level product demonstrations and branding events.



The Results

The towering Nanolumens installation, their first in Malaysia, measures in as the world's largest double-sided display. Reactions to the display from EWSB, mall administrators, and mall tenants have been almost universally positive. Frequently used to showcase several of the mall's upscale consumer brands like Apple, Chanel, and Gucci, the mall was deemed "a showstopper in every respect," by NanoLumens Vice President of Global Marketing and Business Development Joe' Lloyd, who judged the display was "helping the mall really present its most iconic brands in the most completely compelling and engaging way possible." The experts from EWSB agreed, as their own Andy Lee noted, "the quality of the Nanolumens LED tech was very important to this install as well, as these brands weren't going to tolerate their signature colors being even slightly off." Completing its 359-degree rotating over the course of about 9 minutes, the transformative display delights audiences with full views of its content from any location within the six-story atrium space. Crowds particularly engage with the live product demos and branding events that take place when the hoist device, comprised of two units that could each support the display

alone, lowers the display to floor level. In the unlikely event of any performance issues, Nanolumens designed to protect the installation with an industry-leading six-year Nixel to Pixel warranty.

The Technology

The double-sided Performance Series™ display measures 19 feet wide by 33.5 feet tall and it has a 4.7mm pixel pitch. The Dynapac rotator that controls the rotation of the display can turn it 359 degrees over the course of nine minutes. The rotator has redundant features built in to prevent the rotator from ever over-rotating and twisting up the power and data cables that pass through its center. The hoist mechanism that lowers and raises the screen also has redundant features to prevent it from ever falling, including a "park" feature that allows the sign to dead hang itself at its raised position without putting pressure on the dual hoist units.



About Nanolumens

Nanolumens is a US-Based LED design and manufacturer headquartered in Atlanta, Georgia. Nanolumens offers world-class displays across multiple market segments adding wonder to physical spaces. Nanolumens is a pioneer of the true curve technology and are committed to being better. With a bold and visionary team of experts Nanolumens will take your project, in all shapes and sizes, from concept to reality. Nanolumens brings your creative visions to life, leaving a first and lasting impression. We are LED! For more information, visit www.nanolumens.com

About Suria KLCC

Located in the heart of Kuala Lumpur, Suria KLCC is the most iconic premier shopping destination in Malaysia. A world-class complex of over 1.17 million square feet, it is the place to go for the best shopping, dining and entertainment experience. With more than 300 specialty stores, Suria KLCC offers an exclusive blend of renowned international fashion brands, flagship stores, unique concept stores, and more. Take a breather after shopping to relax at the cafes fronting a 50-acre park and a symphonic water fountain, or tantalize your taste buds at a myriad of restaurants and 2 food courts offering local and international delights. Learn about science at Petrosains, inspire your creativity at the Petronas Art Gallery, visit the state-of-the-art Aquaria KLCC oceanarium or check out the latest conventions and expos at the Kuala Lumpur Convention Center.