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## **76% Energy Saving with Stunning New Anolis LED Lyon Riverbank Installation**

Lyon in France, a city famous for its annual Festival of Light, has also successfully reclaimed its two rivers, a project that started in 2002.

A major element of this is the "glacier blue" illumination of a 2.5-kilometre stretch of the Rhône riverbanks linking the Parc de la Tête d'Or and the Parc de Gerland in greater Lyon, which is now permanently – and beautifully – lit with 244 new Anolis ArcSource 24 LED fixtures.

This Anolis lighting scheme has replaced all the original metal halide lighting fixtures that were installed in 2008 when the riverbank scheme was inaugurated and transformed the area from moody car parking to a bustling urban thoroughfare.

The switch to LED was driven by the city's Urban Lighting Department (DEU) and the new lighting is 76% more energy efficient!

The banks of the Rhône pass through a succession of natural, mineral, and urban developments and are limited to alternative modes of transport, providing a safe, inspirational, and landscaped environment for bicycles, skateboards, e-scooters, pedestrians etc, punctuated by play areas for kids, a skate park, tiered seating for chilling and contemplating in the sun, as well as a grass-covered open-air theatre.

The original concept was to create an atmosphere that sparked the imagination through the reflection and movement of the water onto the stone quay walls whilst also bringing light to the riverbanks.

The very specific blue colour was chosen to represent the river's glacial origins – high in the Alps of south-central Switzerland – and to suit the hue and texture of the stonework of the re-designed quays along its banks between these two points.

The original lighting scheme was designed by Yves Adrien of Coup d'éclat, and Charles Vicarini of Studio Vicarini. They worked closely with architect Françoise-Hélène Jourda, of Jourda Architects and landscape designers Emmanuel Jalbert and Annie Tardivon of In Situ.

The installation comprised a mixture of metal halide lamps and projected lightsources.

Yves Adrien proposed that also utilising projectors would create a 3D effect, so 244 of these were installed, cantilevered off the street light masts along the upper quay using long arms, with two fixtures per mast extending out by 5 meters, and positioned directly above the stone walls.

After testing and a proposal from interior designer and urban lighting specialist Jérôme Donna, the projectors, complete with adjustable elliptical optics, were aligned so they would softly illuminate the stone surfaces with stunning results.

Fast-forward 14 years, and it was time to increase the sustainability, optimise the energy consumption and enable this fantastic environment to continue flourishing and encouraging people to stroll along and enjoy the ambience. Just using more contemporary and now appropriate technology!

After a lot of testing and comparisons between different products and brands, Anolis was chosen for its power – the light sources are about 25-35 metres apart – quality of light, robust build, streamlined engineering, superior colour mixing, and for Anolis' willingness and flexibility to customise the solution so the city of Lyon got exactly what it wanted.

"We needed a compact projector powerful enough to bring some light to the lower sections of the banks," explained the DEU's Frédéric Durand. "The colour mixing also had to be properly homogeneous with no streaked edges to the glass or rainbow effects!"

LEDs brought many advantages like additive colour mixing and increased light efficiency when creating the precise signature blue required, but the challenges included transitioning from a solid blue tinted metal halide filter to achieving the same chromatic result and density of light with additive colour mixing ... without having the same spectrum!

"As a manufacturer, our goal was to address questions of whether this particular blue was within our colour triangle, and if we had enough luminous flux in it to emulate the previous colour effect perfectly," explained Bruno François, Anolis' architectural specialist.

Spectrometer measurement established the exact match for the 'Rhône River blue'.

The Anolis ArcSource 24s had a navy blue with a colour point that shifts with added green, but the City of Lyon wanted a light blue with some red, so for the exact colour match, the cyan created with blue and green ... is supported with red.

Anolis works exclusively with Osram's Ostar LEDs, and the values for the colour were calculated using Osram Sylvania's LED ColorCalculator software. This standalone program allows designers to estimate the photometric performance of colour mixing schemes.

The colour of the ArcSource 24s was set to a factory-adjusted light blue, two devices were configured in France to show the city that it was correct, and the DEU then conducted continuity tests and validated the colour with a spectrometer.

Then they placed the order!

This same lighting upgrade also saw gobo projectors on all the bridge anchoring walls over the Rhône. They project the names of famous women onto the pathways and banks and occasionally create white and turquoise wave effects.

The 244 projectors were painstakingly adjusted by hand over several nights by DEU apprentice Maxime Robillard. When the refurbishment project started, he was studying lighting for his bachelor's degree at IAE Lyon. By the end of it, his work and passion had impressed everyone so much that he was hired to work full-time as part of the DEU team.

Frédéric and his colleagues are delighted with the results, especially with how the new Anolis fixtures have preserved the look, aesthetics, and vibe of the original installation, maintaining the wonderful moonlight ambience and ephemeral nature of the Rhone in Lyon after dark.

Photo Credit: Vincent Laganier















