

Press release
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EPFL Rolex Learning Center in Lausanne **FLOWING SPATIAL LANDSCAPE**



B1 | The rambling building of the EPFL Rolex Learning Center is spectacular from the outside, especially in the early evening hours. The light emerging from inside enhances the sculptural character of the building.

Some architectural critics claim that SANAA actually reinvent architecture with every building they create – and this is not really an exaggeration. This especially applies to the Rolex Learning Center, the new heart of the university campus of the École Polytechnique Fédérale de Lausanne (EPFL). But what is a Learning Center? This micro campus within the campus covers an area of 17,000 m² and contains a large library, student work places, offices for researchers, cafés, a top restaurant, a book shop, a multifunctional auditorium and – typically Swiss – a bank branch. This project however entails far more than the provision of functional space. The new construction is intended to promote interdisciplinary exchange between scientists, but even more so, to strengthen the position of the EPFL in the global research landscape and to attract the best international researchers with an inviting environment. This, and more, is cer-

tainly offered by the SANAA-designed pavilion measuring 166 x 121 m. The building contains 14 round patios with diameters ranging from 7 to 50 m, which look as though they might have been punched out of the structure.

Kazuyo Sejima and Ruye Nishizawa consistently pursued the theme of a completely dematerialised glass envelope in their Glass Pavilion at the Toledo Museum of Art, while studying the concept of round rooms within a rectangular white pavilion in the 21st Century Museum of Contemporary Art at Kanazawa. In their new construction in Lausanne, these two design principles are combined and supplemented by a further significant factor: an undulating floor and ceiling topography. The result is not only a completely new building type, but also an absolutely fascinating flowing spatial landscape composed of alternating narrowness and wide-



B2 | The huge single space with loosely interspersed functional areas, radiates an enormous feeling of openness. Different lighting moods are designed to provide orientation and suitable atmospheres, such as for concentrated work.

ness, high and low areas, places for exchange and communication, but also for retreating, for quiet thought and solitary contemplation. Kazuyo Sejima explains: „When you look at the curved ceiling, you will notice that the surfaces are completely uninterrupted. We have kept clear of any built-in components to retain this continuous impression. Individual functional areas are not differentiated by partitions, but by using differing lighting atmospheres instead. The ceiling not only changes with daylight, but also radiates the artificial light back into the interior space, whether emanated by the façade spotlights, table or floor lamps or pendant luminaires.“ During her first tour of the finished building, Sejima was obviously impressed herself by the consistent realisation of her conception of minimalist architecture, in which no constructive detail pushes itself to the fore and no technical requirement disturbs the overall impression.

Considering the demands on the supporting structure, façade and interior finishing work resulting from the complexity of the geometry, this is anything but an easy feat to accomplish. The rooms call to mind the elegance of an ice dan-

cer rapt in the harmony of the movement during a performance, completely oblivious of the hard training that has gone before. The huge loads of the steel roof construction are distributed on only a few delicate cylindrical support columns, most of it carried by the façade posts of the patios designed as slender T-profile or hollow profile sections depending on the specification. Fixed to the supports and façade posts are specially developed lighting fixtures. While quietly submitting to the architecture, these completely white abstract cylinders make a significant contribution to the elegantly subdued atmosphere. As for the façade and supporting structure, the architects provided very detailed specifications with regard to a uniform and unobtrusive appearance. To be able to cover the different lighting situations in the building with a single design element, the luminaires were fitted as single, double or triple versions. A swivel mounting bracket allows different angles to be adopted to the diffusely reflecting ceiling. The technical performance and the internal fittings are also individually adapted to each particular situation: in addition to the 35 Watt HIT metal halide lamp with a special IOS reflector system,



B3 | Nothing may disrupt the reduced design: to be able to cater for the different lighting situations with only one lighting fixture design, the architects and Zumtobel collaborated in the special development of the technically sophisticated cylindrical luminaires.

many of the 282 special luminaires developed for the EPFL Rolex Learning Center are fitted with a 100 Watt halogen lamp as an emergency light. Recessed LED ceiling lights and elegant light lines in the lobby and reception area ensure additional functional lighting as well as permitting accent lighting design features. In the round cell offices, a pleasant working environment is created by minimalist free-standing luminaires, when the normally ample daylight is insufficient. The architects devoted special attention to an evenly bright, yet glare-free illumination of the reading places in the library. The filigree pendant luminaires do not hinder the

flow of the ceilings above the reading tables like a white sky. Thanks to the micropyramidal optic technology, the light is directed to the table surfaces without influencing the atmosphere of the background illumination.

From outside, the EPFL Rolex Learning Center is at its most impressive just before sunset: for one magical moment, the superimposition of the reflexes of the setting sun, the dark blue of the sky and the pure white interior illumination radiating outwards, transforms this unparalleled building into a unique sculpture of space and light.

Project information: **EPFL Rolex Learning Center, Lausanne/CH**

Client: Losinger Construction SA, Bussigny/CH

Architecture: SANAA, Tokio/J

Electrical design: Scherler SA, Le Mont/Lausanne/CH

Electrical installation: ETF, Bulle/CH

Lighting solution: Zumtobel
Special luminaires,
SLOTLIGHT II recessed luminaires,
CRAYON LED downlights,
MINIUM LITE free-standing luminaire,
FREELINE pendant luminaires



B4 | A glare-free illumination of the reading places was required in the library area, which was however not to disrupt the ceiling surface and the basic illumination of the room. An optimal solution was found in the pendant luminaire Freeline.



B5 | The weight of the roof construction is distributed on a few delicate cylindrical support columns and the facade posts of the patios. Built-in structures were done without as far as possible to retain the freely flowing impression.

More information:



Zumtobel Lighting GmbH
Nadja Frank
PR Manager
Schweizer Straße 30
A - 6850 Dornbirn

Tel. +43 (0)5572 390 - 1303
Fax +43 (0)5572 390 - 91303
nadja.frank@zumtobel.com
www.zumtobel.com