

Start-up ArchilumO® completes first major project!



BildungsCampus Bibliothek - Heilbronn

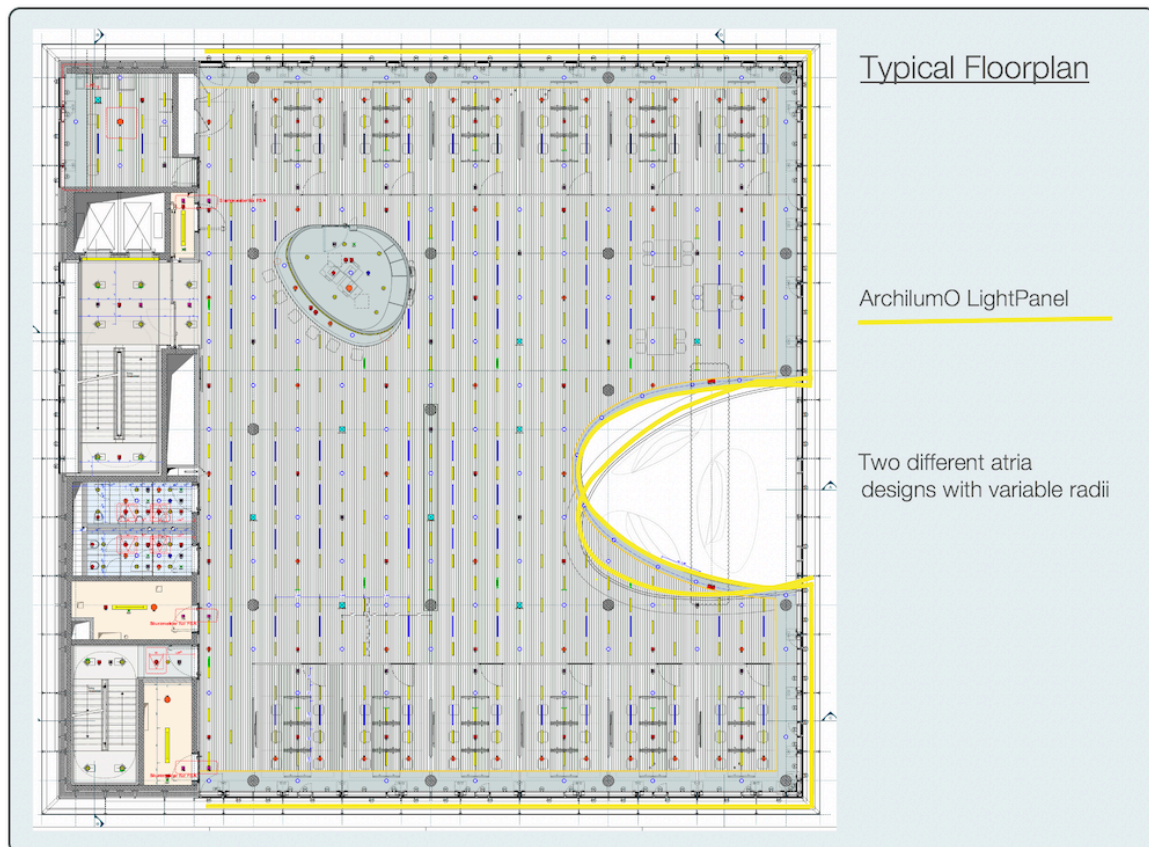
Based in the Netherlands, ArchilumO® is a start-up brand with a portfolio of custom architectural panel lighting solutions.

In close collaboration with architects Auer Weber, investor Dieter Schwarz Stiftung and distribution partner Trieschmann GmbH, ArchilumO has developed a custom engineered lighting solution that is mounted vertically on the floor slab edge of each of the 6 different floors of the University Library on the BildungsCampus in Heilbronn. An architectural signature detail that lends identity to the building, designed by Achim Söding - Managing Partner Auer Weber.

The Development Challenge

The library design concept is based on six 'floating floors' encapsulated by a glass cube. To enhance the expression of the individual floors, the architect Achim Söding designed an architectural lighting detail at the floor slab edge of each floor. A 470mm high LightPanel with a minimal depth and an a-symmetrical light distribution. So far, so good.

The complicating factor was introduced by the architectural detail that lifts the building design from good to superb. A large Atrium stretching five floors with variable radii openings welcoming visitors into the building.



Key Project Requirements:

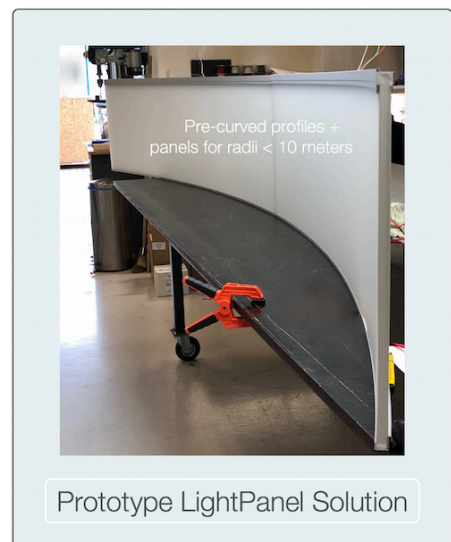
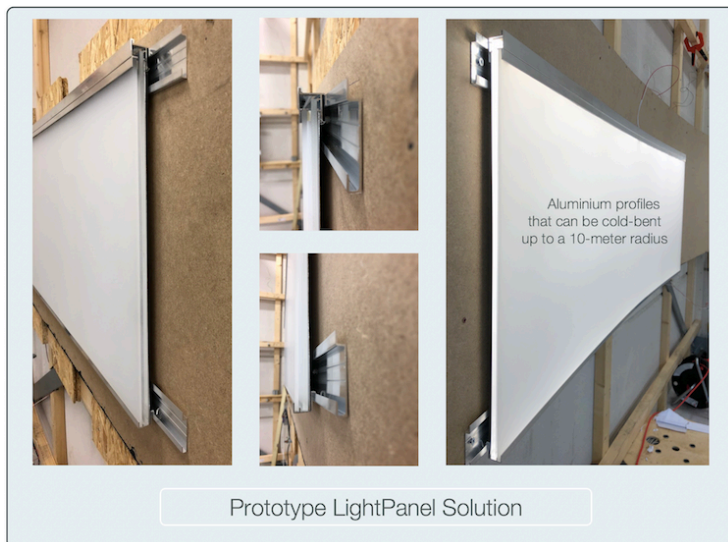
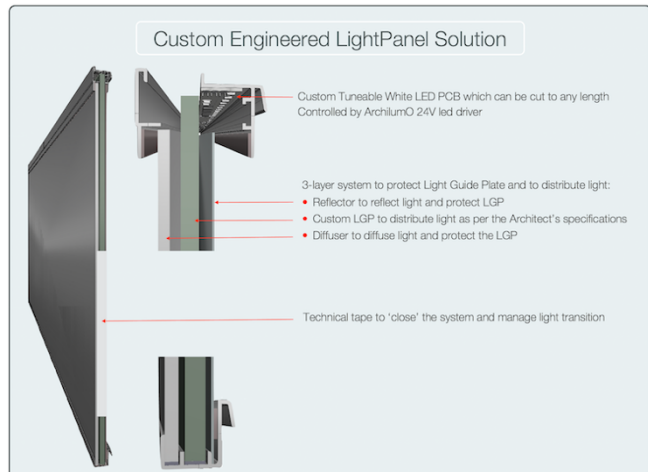
- A flat custom-size LightPanel | approx. 470-480mm high | minimal panel thickness
- Ability to curve LightPanels along a variable radius
- An asymmetrical light distribution - reduction of light intensity over the panel height
- Tuneable White LED - DALI controlled
- Easy to install and de-mount on plasterboard backing
- 6 Floors | 5 Atria - 2 atria designs | 600 linear metres of LightPanel of which 130 metres are curved

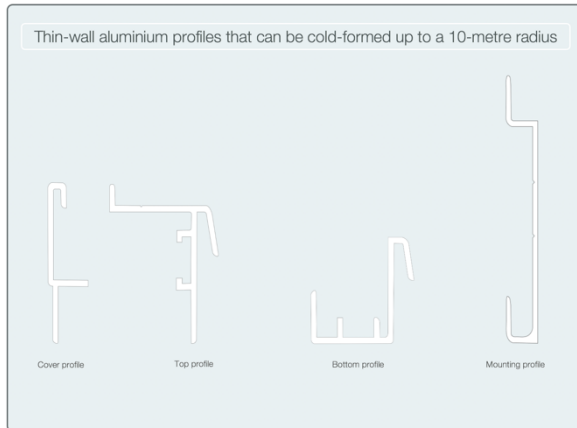
A Custom, Project Engineered Solution

As the lighting installation has such a significant impact on the overall design of the library and time was running out, a short and intense product engineering project was started involving Lead Architect Herr Söding (Auer Weber), Fa. Trieschmann (ArchilumO partner Baden Württemberg) and the product engineering team of ArchilumO. In close collaboration and over a period of 10 weeks, technical system concepts were drawn, a series of mock-ups produced & installed and fine-tuned to a point that all felt confident that the final product design would deliver on all required aspects. Upon receiving the order, detail engineering of the aluminium profiles, the Led PCB and the Led Driver started.

Some of the Key Product Features:

- Four custom engineered thin-wall aluminium profiles that can be cold-bent up to a 10-metre radius
- Pre-formed panels for radii < 10-metre. Six different radii with varying panel lengths
- A 3-layer LightPanel with a custom algorithm, a-symmetrical light distribution
- Custom project engineered 24V Tuneable White LED PCB that can be trimmed to any custom length to fit the many different panel sizes
- Custom project engineered ArchilumO 24V LED Driver to control individual LightPanels contained in custom Control Boxes
- Custom engineered technical tape to seal panel ends and to optimize the panel-to-panel light transition
- Simple hook-on mounting system





Project Scope

The BildungsCampus Library project is the first large custom engineered project ArchilumO has been involved with. The scope can be illustrated by the following data:

- Building geometry - L x W x H = 34,20m x 34,20m x 27,70m
- 6 Floors | 5 Atria - 2 atria designs | approx. 600 linear metres of LightPanel of which about 130 metres are curved
- In total 265 LightPanels have been delivered with 91 different panel lengths
 - I. 210 pcs 'straight' LightPanels
 - II. 55 'curved' LightPanels of which 30pcs were pre-formed and 25 cold-bent
- 147 DALI Control Boxes have been supplied - in most cases connecting 2 LightPanels to the DALI-bus
- Products were shipped in 12 crates, in 8 shipments with a total weight of 7,200KG



BildungsCampus – Supply Chain

Architect's Comments:

Herr Achim Söding, Managing Partner Auer Weber:

"The starting point for finding a supplier for the lighting solution for the library, was a render that we had created for the BildungsCampus of the Dieter Schwarz Foundation to visualise our design concept. This render served as a 'briefing' for various suppliers to propose solutions that could deliver the design intent that was reflected in this image. Through a local specialist architectural lighting supplier, Trieschmann GmbH, we were introduced to ArchilumO. A larger number of concepts from multiple lighting manufacturers were discussed, and various solutions were mocked-up but the ArchilumO mock-up proved the most promising. A major concern, however, was that ArchilumO happened to be a very young company with no experience in projects of this scale. Additional mock-ups, with a desired asymmetrical lighting distribution, convinced all stakeholders involved and the decision was taken to run with ArchilumO as it was simply the best option available."

Asked the questions: "how does the end-result compare to your original design intent?", and "Now the installation is complete, is there anything you would have done differently given the option?", Herr Söding answered: "The actual installation is very close to the original concept I had in mind. In most projects I would like to start all-over again when looking at the final result but, in this case, it is just right - es passt!"

BildungsCampus Bibliothek



Original Architect Render



Realisation

Project background: BildungsCampus Heilbronn by Dieter Schwarz Stiftung

Dieter Schwarz, Chairman and CEO of the supermarket chain Lidl and the hypermarket chain Kaufland, founded the Dieter Schwarz Stiftung in November 1999 with the goal to initiate and promote future-oriented projects involving education, science and innovation based around the concept of Lifelong Learning. The BildungsCampus Heilbronn is an educational campus that combines educational institutions that cover learning needs of various target groups in all age categories.



From preschool children to working adults. With offers for young people who are quenching their thirst for knowledge about science and technology topics in the Experimenta Science Centre. For high school graduates who earn their first professional qualification at DHBW Heilbronn and Heilbronn University. And finally, for graduates who can obtain their master's degree from the German Graduate School of Management and Law as well as the DHBW's Centre for Advanced Studies.

"Education, science and innovation are crucial to the development and sustainability of our country. The Dieter Schwarz Foundation has therefore set itself the goal of building on these pillars by initiating and promoting future-oriented projects. It is one of the major foundations in Germany and operates there, where the economy and society make demands that state bodies cannot or cannot sufficiently fulfil. The Dieter Schwarz Foundation promotes a broad spectrum of educational programs that are geared to the individual phases of human life."

Dieter Schwarz - Chairman and CEO of the supermarket chain Lidl and the hypermarket chain Kaufland

University Library

The unique building - a glass cube - offers much more than just a collection of books on a total of six floors. The new library is a centre for media and information literacy, a location for e-learning and e-science services, an attractive place to learn and work for students and teachers, and Business Information Centres for business and the public. In addition to quiet individual workplaces, group workplaces, closed rooms and a spacious learning world with sofas and seating groups are available, which allows users to create their own work scenarios thanks to flexible furniture. In addition to the total of 600 individual and collaborative learning and workplaces, relaxation zones and lounges should invite you to linger and try things out.

Seven days a week, 24 hours a day.



Project Credits: BildungsCampus Biliothek Heilbronn - Germany

- Client: Dieter Schwarz Stiftung GmbH
- Architect: Auer Weber Ass. GmbH
- Lead Architect: Achim Söding - Managing Partner Auer Weber
- Project Architect: Andreas Lehr - Auer Weber
- Lighting Designer: FAKTORLicht GmbH
- Electrical Contractor: Prinzing Elektrotechnik GmbH
- Distribution Partner: Trieschmann GmbH

To find out more about ArchilumO, visit www.archilumo.com

For more images and information, please contact:

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BildungsCampus Bibliothek Photography

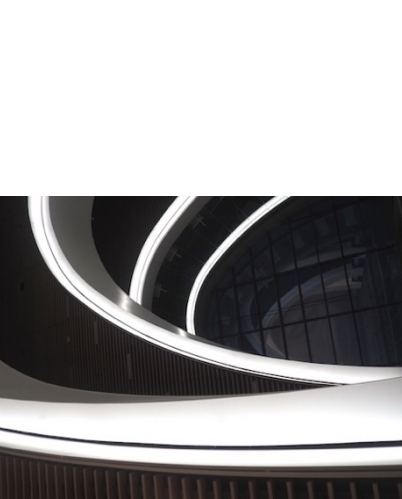
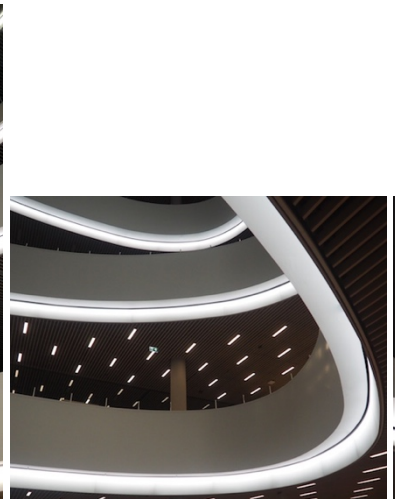
Building Exterior



Building Interior



Atrium



Other ArchilumO Products



