

## Press information

# Setting new standards: Freiburg Town Hall is Germany`s first net plus-energy administration building

**Natural shapes. Solar panels on a protective cover crafted from glass and wooden slats. Bright interiors that ooze discreet elegance. A human scale. All of these aspects are perfectly reflected in the new Freiburg Town Hall. In addition, LED lighting solutions specially developed by Zumtobel in collaboration with ingenhoven architects, Tropp Lighting Design and the City of Freiburg authorities help the building generate more energy than it actually uses. A very positive outcome – in every sense.**

*Dornbirn, 16. January 2019* – A six-storey building. Nestled behind large sycamore trees. And yet it is neither the size nor the situation of the new town hall that first catch the eye. It is the shape: a natural oval form that cannot help but inspire curiosity. Move a little closer and an intriguing glass façade comes slowly into view. A façade with slender storey-high slats that stretch around the building. A façade with slats that are light larch wood on one side and full-scale photovoltaic panel on the other, simultaneously shaping and showing the core characteristics of the new town hall in the German city of Freiburg: stylish and functional design with pioneering energy efficiency based on a concept devised by general planning consultants [DS Plan](#). In close cooperation with [ingenhoven architects](#), [Tropp Lighting Design](#) and the [City of Freiburg](#) authorities, [Zumtobel](#) set about developing customised energy-efficient LED lighting solutions for the offices, the Public Service Centre and the canteen. The results are now an essential part of the clearly structured and ergonomic work and service areas for the 840 employees who were previously spread across various different locations. And that is not all: These solutions have also played a major role in enabling Freiburg Town Hall to become Germany's first net plus-energy administration building.

Around 1000 visitors a day make their way across the square in front of the town hall and head through the porch into the Public Service Centre. This is where people can apply for official documents and take advantage of the range of services offered by the city authorities. And this is where windowless corridors with individual offices have now given way to a spacious hall in elegant white – flooded with light – that takes up the whole of the oval inner quadrangle. And then the eyes are drawn upwards. First to the large round glass skylights and then on to the wooden façade of the five office floors and finally the sky above Freiburg. Only then do visitors notice the four round service islands.

With a diameter of around 10 metres, these “rotundas” feature a central cylinder that houses a discreet private area flanked by circular consultation zones. Above each of these stations hangs a delicate lighting ring, suspended from the ceiling, which emphasises the rotundas as islands of light

in the hall. At the same time, this ring illuminates the workspaces without the need for any additional fittings. Working alongside the planners and [Fries Innenausbau](#), the manufacturer that developed the rotundas as integrated furniture systems, Zumtobel was asked to come up with a lighting solution that hits strict targets in terms of atmosphere and simultaneously fulfils various other requirements.

Creative-constructive aspects were just as important as the specifications defined by the City of Freiburg authorities for workplace lighting exposure and sustainability. Glare-free light without the unwelcome sight of discernible LED points has been achieved thanks to a multilayer luminaire structure incorporating a diffuser and micro-prismatic optics. The crucial increased colour rendering index (CRI) > 90 guarantees maximum light quality and colour authenticity. Interchangeable gear trays were also required to support the conservation of resources, enabling the lighting technology to be replaced without having to renew the custom-made luminaire housing and its sophisticated optical unit.

Two routes lead from the Public Service Centre to the internal offices on the upper floors. Elegant subdued colours, large-scale glazed facades and office partitions, as well as an open-plan layout, create a pleasantly bright working environment. An environment where easy orientation and open communication are actively supported. When it comes to light quality, colour authenticity and future-proofing, the linear luminaires suspended from the ceiling in the offices meet the same stringent requirements as the solution designed for the rotundas on the ground floor.

To help provide optimal support for visual tasks in the biaxial offices with just one luminaire, it was also necessary to be able to install the solutions in the middle of the axes of the office raster. Stepping up to this challenge, Zumtobel developed a 3-metre-long fitting based on the [LINCOR](#) product, combining a very slim cross-section of just 63 x 64 mm with an extremely high light output of 11,000 lumens. A perfectly defined colour temperature of 4000 Kelvin and outstanding glare reduction – thanks to the mini-cell structure – ensure excellent light quality, while the 70-30 ratio of direct light onto the workspace and indirect illumination of the ceiling also has a noticeably positive effect. Brightness and motion sensors are integrated into the luminaires for added comfort and, importantly, added efficiency. Speaking of efficiency, the light level is permanently adjusted to provide the required illuminance of 500 lux on the desks – but only when it is really needed. If all the employees have left the office, the luminaires are simply switched off. No users, no light, no waste.

Workers in the town hall have access to the staff restaurant on the ground floor at lunchtime – a large, completely white open space that echoes the look and feel of the Public Service Centre. The clear design creates a structured space in which features like vertical stripes of colour on the walls and wooden chairs generate a pleasant feeling. A warm feeling. And a welcome feeling. Recessed completely into the ceiling, special prismatic luminaires from Zumtobel meet the same exacting standards of design, quality and energy efficiency as the solutions in the work areas. High colour rendering of CRI > 90 also plays a key role in the restaurant, presenting the meals in just the right tones, with just the right light, for just the right effect.

Achieving this perfect blend of architecture, design and light to deliver the highest standards of well-being, design and energy efficiency have helped Freiburg Town Hall become Germany's first net plus-energy administration building. Yet the awards and attention are in no way limited by national borders. Honours like the Balthasar Neumann Prize show just how this building has really shot to prominence on the international architecture scene. The Balthasar Neumann jury recognised the new Freiburg Town Hall as one of three projects that have been "realised in a very special way through interdisciplinary cooperation". In addition, the building has won the German Sustainability Award 2019 from the German Sustainable Building Council (*Deutsche Gesellschaft für Nachhaltiges Bauen* or *DGNB*) in the '[Sustainable Building](#)' category.

### Photo captions:

(Photo credits: HG Esch Photography)



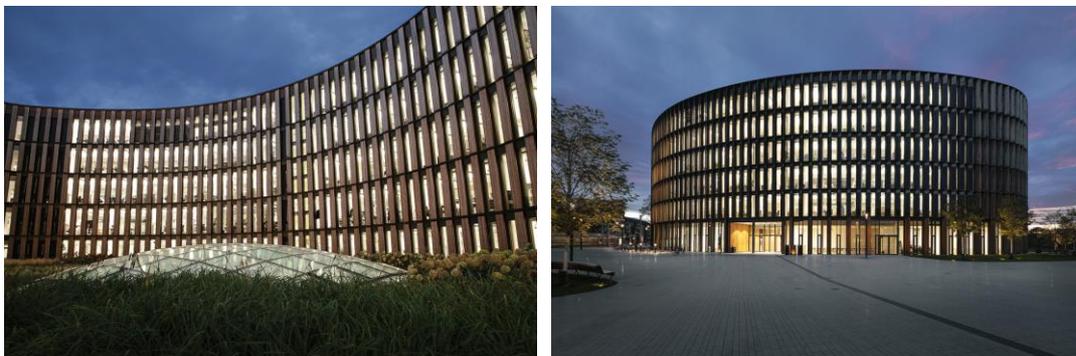
**Fig. 1:** With a diameter of around 10 metres, certain "rotundas" feature a central cylinder that houses a discreet private area flanked by circular consultation zones. Above each of these stations hangs a delicate lighting ring, suspended from the ceiling, which emphasises the rotundas as islands of light in the hall.



**Fig. 2:** To help provide optimal support for visual tasks in the biaxial offices with just one luminaire, it was also necessary to be able to install the solutions in the middle of the axes of the office raster. Stepping up to this challenge, Zumtobel developed a 3-metre-long fitting based on the LINCOR light product.



**Fig. 3:** Workers in the town hall have access to the staff restaurant on the ground floor at lunchtime – a large, completely white open space that echoes the look and feel of the Public Service Centre. The clear design creates a structured space in which features like vertical stripes of colour on the walls and wooden chairs generate a pleasant feeling.



**Fig. 4:** Achieving this perfect blend of architecture, design and light to deliver the highest standards of well-being, design and energy efficiency have helped Freiburg Town Hall become Germany's first net plus-energy administration building and has really shot to prominence on the international architecture scene – for example at the Balthasar Neumann Prize and the German Sustainability Award 2019.

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**About Zumtobel**

We are passionate about designing and producing the highest quality of light. Our work is driven by the knowledge that the right light can create the right environment for people to thrive when tailored to their individual needs. Guided by a unique design approach, we continuously push our boundaries in search for perfection through unique and timeless design. As we develop the next generation of lighting, we build on our family heritage to refine the aesthetics of light and shape the lighting of tomorrow. With a special blend of passion, grace and avant-garde ideas, we turn light in to an experience and remain committed to the goal of improving the quality of life through light. Zumtobel is a brand of the Zumtobel Group AG with its headquarters in Dornbirn, Vorarlberg (Austria).

**Zumtobel. The Light.**