

# LIGHTING DESIGN FOR THE UNDERGROUND

IN THE NEW METRO IN DOHA TRADITIONAL SYMBOLIC DESIGN WILL MEET MODERN LIGHTING TECHNOLOGY FROM REGENT



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**CLIENT**

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QATAR RAILWAYS

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With impressive speed Qatar is recently developing its infrastructure. Doha Metro is one of the world's largest construction projects and an important part of the so-called 'National Vision' of the Gulf area. In close collaboration with Qatar Rail's architects and engineers the Regent Lighting team developed specific lighting solutions for the demanding construction sites. The result is an overwhelming symbiosis of light and architecture that underlines the uniqueness of the project.

Doha Metro will serve both the capital and the suburbs with all major locations within easy and convenient reach. A first construction phase includes the building of three out of the four lines (Red, Gold, and Green) and 38 stations. Architecturally, the stations will reflect the heritage of the country, with a 'Vault Space' design inspired by traditional Bedouin tents.

"It's not only about design, it's about a National Vision. The architecture and interior design of the Doha Metro stations are inspired by the 'Vault Space', a design concept based on traditional Islamic architecture, an embodiment of the culture and history of the area: therefore, bringing together modern high-tech of Qatar's future, yet also celebrating its ancient tradition" says Mohamed Timbely, Senior Director Architecture and Design Department of Qatar Rail.

A creative combination of endless homogenous light lines, triangular-star-shaped and square-shaped luminaires brings light to Doha underground, accentuates and accomplishes the architecture's symbolic design. Until end of the year 2019 around 20'000 meters of light lines and over 25'000 luminaires will be installed in the simultaneously growing buildings with the demand to be completed at an unimagined speed.

"DOHA METRO lighting fixtures recompense 2 years of a close collaboration with REGENT team, where Qatar Rail tried to appropriate the lighting design to the concept of 'Vault Space', in order to be part of the heritage, culture and to the Qatar National vision 2030. It's not only about designing light fixtures, it's about a common understanding of National vision and make explicit what was thus far implicit." says Mohamed Timbely. The Regent Customer

Specific Project team has accepted the challenge of realizing specific lighting solutions for the Doha Metro Project in 2016. Three special luminaires have been developed to perfectly fit the requirements of the architect and the technical engineers.

All of the used luminaires are made of robust and well-resisting materials, offer IP54 protection against dust and humidity and guarantee high resistance and a long lifetime. An impact protection up to IK08 makes the luminaires even suitable for use in reachable areas of public spaces. The luminaires are equipped with DALI-dimmable drivers and high quality LEDs offering a high colour rendering of CRI  $\geq$  90.

Doha Metro 01 is the name of the three-dimensional flexible linear luminaire system for recessed installation that was specially developed for the 'Vault Space Design' of Doha Metro. Thanks to its opal foil diffuser it provides homogenous light for highly aesthetic lines without interruption. This light line is not only decorative but also highly functional supplying up to 1000 lumens per meter. A specially designed profile made of aluminium assures robustness and allows the unique flexibility.

Mounted side-by-side, the luminaire Doha Metro 02 with the specific triangular-star-shaped geometry is used for the 'Flower Pattern Design' of all single height ceilings such as concourse and platform levels. It can be recessed without any visible frame and the opal cover made of robust Polycarbonate provides perfect uniformity of light. The square-shaped Doha Metro 03 is used for highlighting specific areas and the creation of a daylight feeling at the lower levels of the stations. Both luminaires were especially designed for easy and toolless installation and maintenance from below.

The construction work will continue and the first lines are expected to be open to the public by 2019. At this time a piece of Swiss lighting technology will make everyday life in Doha even more beautiful.

