Street lighting

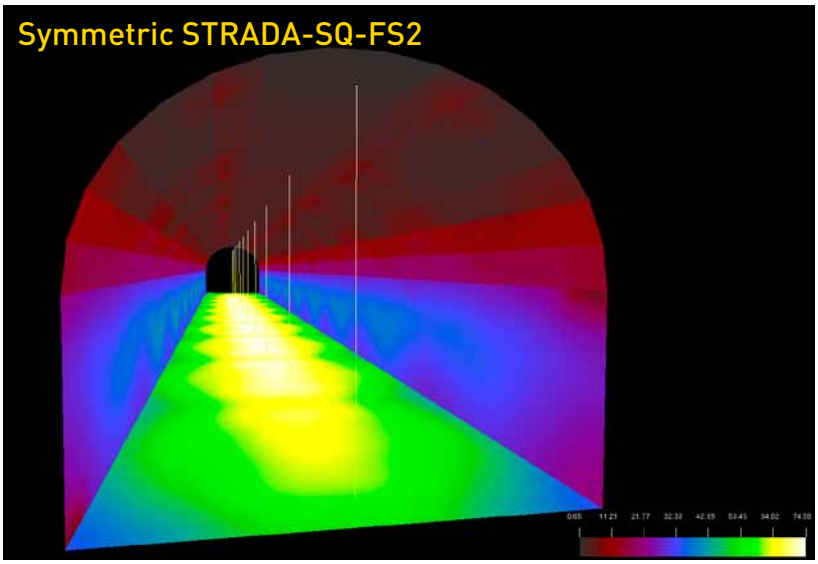
STRADA-SQ-FS and -FS2 for tunnel lighting

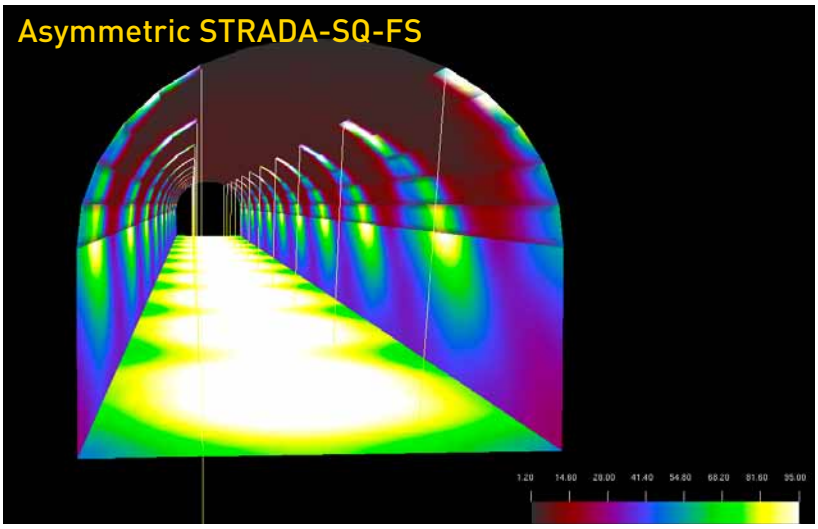
In high-performance tunnel lighting the aim is to provide good illuminance levels inside the tunnels and guarantee that the visual perceptions of drivers will be maintained. This must be achieved day and night around the year and is achieved by avoiding sudden variations in lighting levels when entering and exiting a tunnel.
There are as many different ways to manage tunnel lighting as there are different types of tunnels. Here is presented two examples of tunnel lighting with LEDiL's asymmetric STRADA-SQ-FS and symmetric STRADA-SQ-FS2 optics.
STRADA-SQ-FS optics are designed especially for lighting up tunnels, naturally these optics are suitable for other tunnel lighting set-ups than those in the examples given.


STRADA-SQ-FS


STRADA-SQ-FS2

Application simulation





Simulated results:

Tunnel type: Very long tunnel, heavy
Tunnel height: 6 m

Symmetric STRADA-SQ-FS2

Installation height: 5.55m
Distance between luminaires: 7m
Power output: 4418 lumens (32.7W)
Emax: 6.9 cd/m^2
Eav: 4.5 cd/m^2
Emin/av: 63%
Longitudinal uniformity 93.46%
Percentage wall luminance / road luminance: 88%

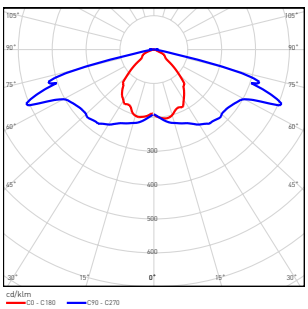
Asymmetric STRADA-SQ-FS

Installation height: 5.55m
Distance between luminaires: 6.5m
Tilt angle: -11°
Power output: 4500 lumens (33W)
Emax: 6.3 cd/m^2
Eav: 4.6 cd/m^2
Emin/av: 67%
Longitudinal uniformity 73%
Percentage wall luminance / road luminance:100%

Optics used

CA14120_STRADA-SQ-FS2

- Dimensions 25 x 25 mm
- Height 8 mm
- Precision-molded from optical grade PMMA – UL94 HB rated material with operating rating -40°C to +100°C
- Typical efficiency 92%
- Mounts with glue, pins, screws or adhesive tape



CA13897_STRADA-SQ-FS

- Dimensions 25 x 25 mm
- Height 12.4 mm
- Precision-molded from optical grade PMMA – UL94 HB rated material with operating rating -40°C to +100°C
- Typical efficiency 93%
- Mounts with glue, pins or adhesive tape