

SCHOTT® Automotive LuminaLine

High-brightness side-emitting glass fiber



LuminaLine

Enhance your illumination. Choose proven reliability.

SCHOTT LuminaLine is a patented technology using glass fiber optics to answer the high demand for automotive interior and exterior lighting applications. LuminaLine offers robustness and brightness. In combination with low power LEDs high brightness lighting effects can be created that are visible even under daylight conditions.

Key Features and Benefits

Design

- Customizable outer diameter, e.g.
 - Flexible fiber for LASER application
 - Rigid rod for LED based light-source
- High color stability over a length of several meters
- High luminance – visible under daylight conditions
- Scalable inner fiber to different homogeneity requirements

Integration & Maintenance

- Easy plug and play installation
- High mechanical strength and resistance of glass foster durability and lower maintenance costs
- No additional tooling cost required

Safety

- Ultra high UV- and chemical resistance
- Climate resistance up to 400°C

Typical Applications

- Center Console
- Instrument Panel
- Headliner
- Exterior Running Board
- Exterior Door Sill
- Exterior Roof-Rack
- Glazing, Panoramic-Roof



Enlarged

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Light guide parameter

Parameter	Typical Value	Further Information
Light guide material	Toughened Glass Composite	Customizable
Light guide length	50mm ... 1.500mm	Customizable
Dimensions and Flexibility	100µm fiber (flexible) 1mm ... 3mm rod (rigid)	Rod can be hot-formed with small radii
Luminance	300 ... 10.000 cd/m ²	Customizable for LED and Laser
Numerical aperture	0,48 (57°)	50° intensity value

Qualification and Tests

Test Description	Condition	Results
Temperature Range	-40°C / +400°C	☑
Chemical Load	ISO 16750-5 : 2010 (E)	☑
VOC-, FOG, Emission-Test	According to OEM specification	☑
Xenon-Test	According to OEM specification	☑
Flammability	According to OEM specification	☑

- Full qualification report available upon request -

High Luminance – Typical Values



800 cd/m² with
200mW LED

4.000 cd/m² with
1W LED

10.000 cd/m² with
200mW Laser

Advantages of glass fibers

Different to plastic fibers, SCHOTT glass fibers offer

- Better homogeneity even in small bending radii
- Better color stability
- Significantly higher chemical and temperature resistance
- Unique accent line from contour lighting to functional lighting
- Unique aesthetic glass look (even when not illuminated)



SCHOTT - Your reliable and experienced partner

SCHOTT is a German technology company with more than 125-years of experience in glass and lighting technology. As a reliable partner for automotive applications for over 20 years, we are experienced with existing OEM standards and regulations in all automotive tier levels and design phases.

LuminaLine is an award winning technology:



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