

Fresnel lenses offer outstanding possibilities for the design of lighting applications. Structured as linear focussing, dispersing or even as an imaging optic, the individual refractive surfaces allow for the implementation in a great variety of optical systems. Particularly advantageous is the small form factor in combination with minimal absorption losses. Our tooling manufacturing capabilities offer different variations of this product: linear, circular or also as crossed grid in single or double-sided variation.

**Product data**

standard material	PMMA clear (acrylic) PC upon request
available size	rectangle up to 1500 mm x 400 mm square up to 600 mm x 600 mm customer specific cuts and optional profile edge treatment (milling)
thickness	customer specific
prism pitch	customer specific
refractive index	1.491 (PMMA)
transmittance <sub>D65</sub>	92% (acrylic clear)
temperature range	-40 °C up to +80 °C (acrylic) / 120 °C (PC)



### LFL

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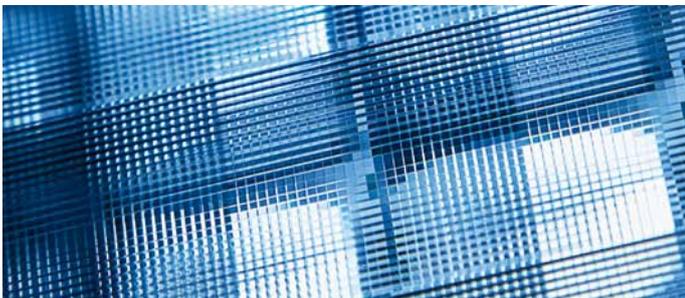
Linear Fresnel Lenses can be designed as linear focussing or dispersing, in single or double-sided variation.



### CFL

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Circular Fresnel Lenses are typically used as imaging optics, for magnification, concentration or as a dispersing element. Every property of a regular spherical lens can be incorporated into a Fresnel design.



### LFG

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Linear Fresnel Grids are a combination of two layers of highly transparent Linear Fresnel Lenses using a crossed orientation in order to form an optical cell. Such an optical cell guides the light of a punctual light source or lamp positioned underneath, e.g. an LED, according to the structure of the Fresnel Lenses. Depending on the application, an optical cell will provide parallel light rays or pre-defined cones of light.

### Possible applications

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Solar concentrators	Floodlight
Daylight guiding	Lighting signals
Special luminaires	Offshore lighting
Wallwasher	

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