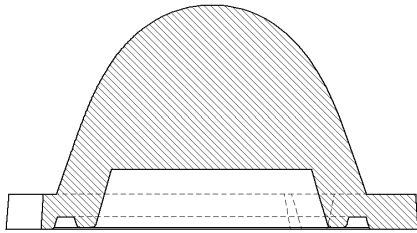
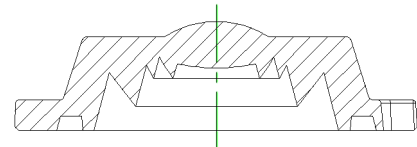


EcoGlass is well known in the market as the producer of high quality glass aspheric lenses. We have finished several new projects of development of the lenses for super bright LEDs. Below is noted one of our recent projects where the plastic lens was successfully replaced by the glass one. More details about this application are at the web site of the LED and other lighting solutions producer, the company Osvětlení Černocho, s.r.o. (www.cernoch.cz).

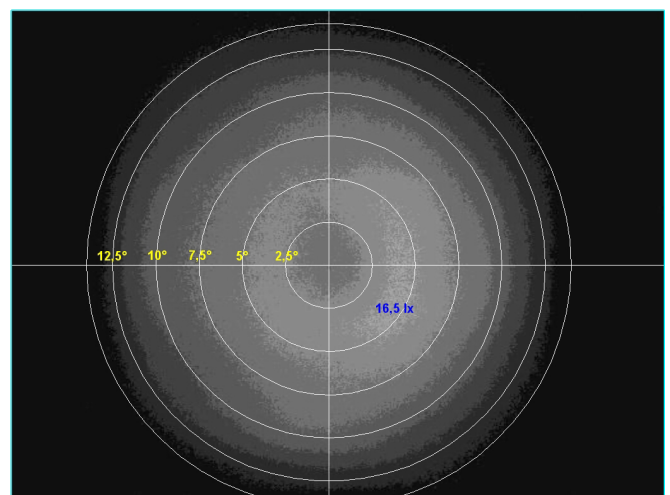
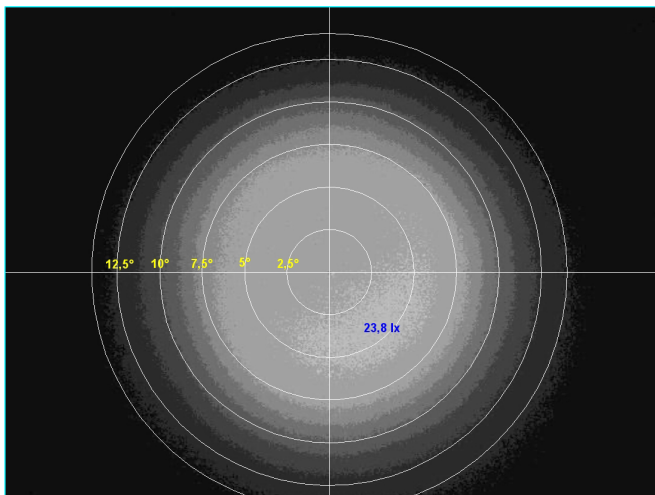
Glass Lens



Acrylic Lens



Isolux Map – distance 10m



Optical Design

- lens design is more free including the optimization of the lens thickness
- smooth surface without “dead zones” is available
- optical design must respect small lens thickness limited by the injection moulding process
- Frennel shape design is necessary for short focus lenses

Tooling, Prototyping

- easy shape, easy and cheap tooling, easy prototyping
- for each application can be used optimized lens with acceptable costs
- very complex shape brings expensive tooling and prototyping
- it results to need of sharing of one lens for more applications

Function

- at shown application about 50% higher optical efficiency comparing to the plastic lens
- better performance allows decrease number of the LEDs
- heat, humidity, UV and scratch resistant material
- long term outdoor using is problematic (UV rays, surface scratches, heat problem, static charge attracts dust, ...)