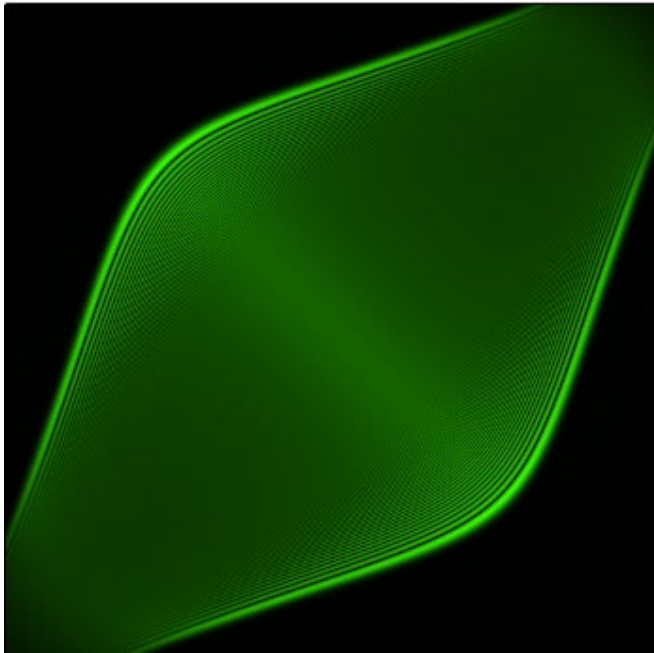


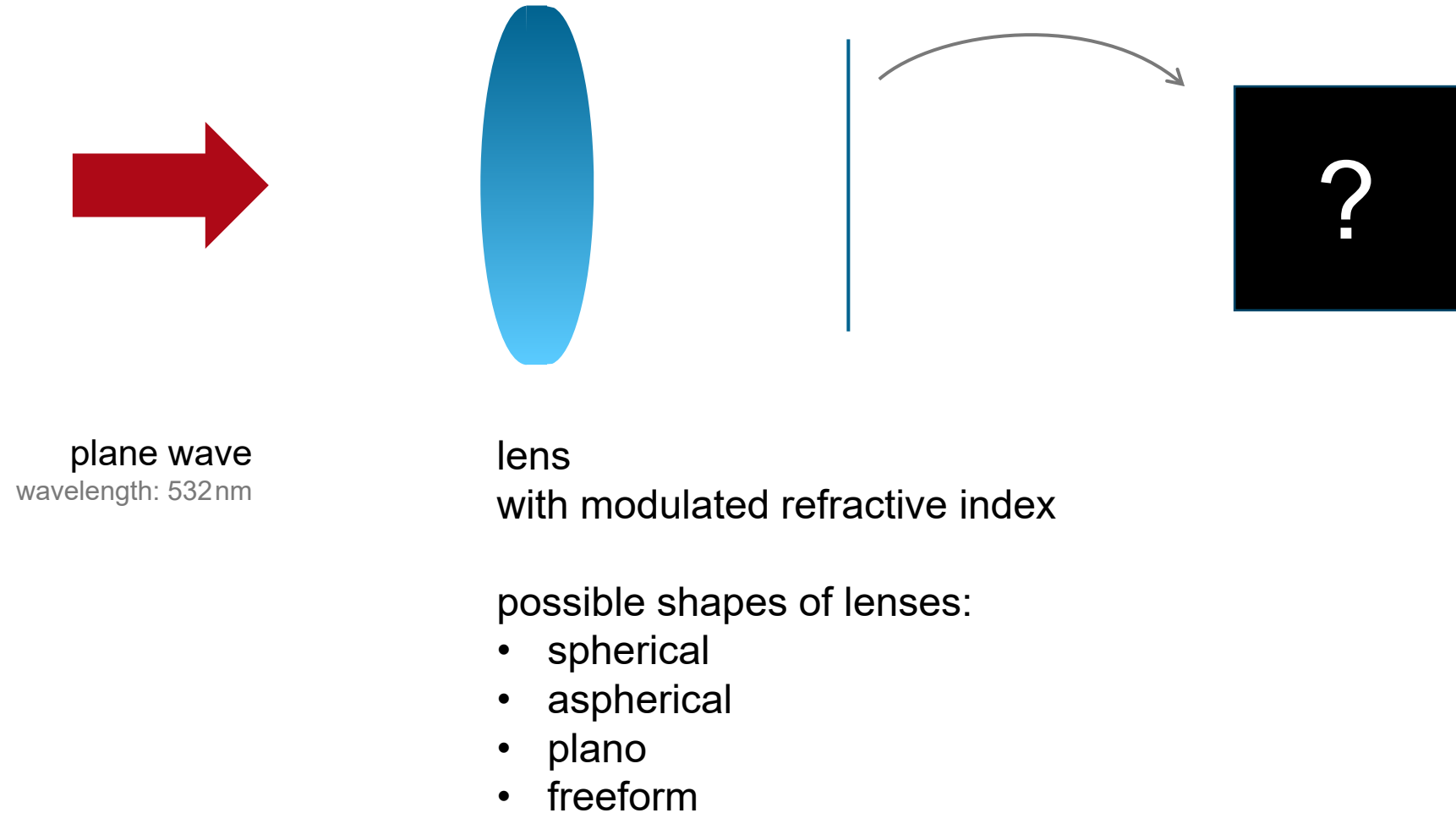
Lens with Modulated Refractive Index

Abstract



In this Demo we modeled the light propagation through lenses with a modulated refractive index. The desired distributions of the refractive index can be either imported from measurement data or configured manually. Physical optics enables the access to any kind of light information in the desired image plane.

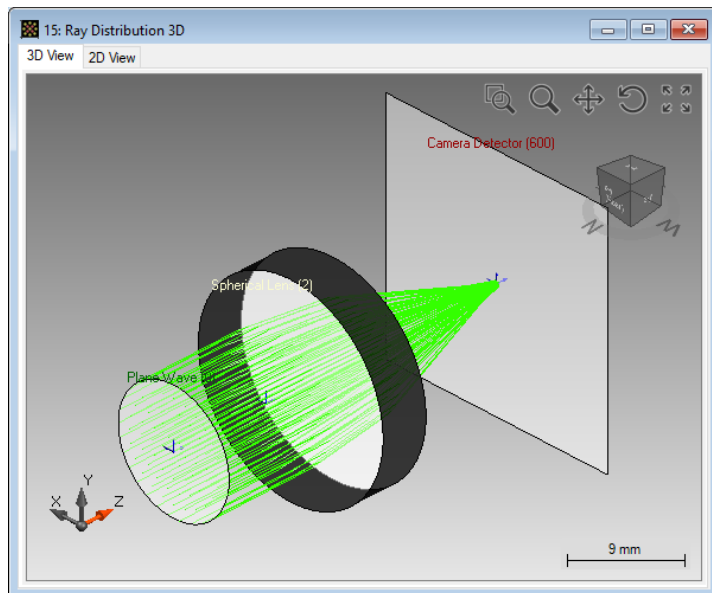
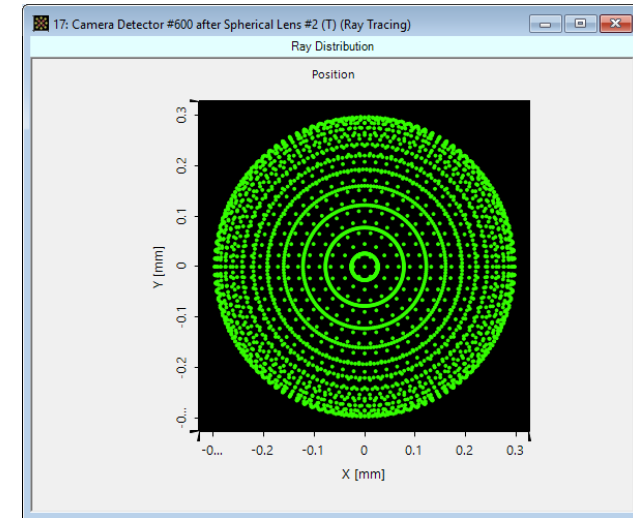
Task: Simulation of Light Propagation through a modulated Lens



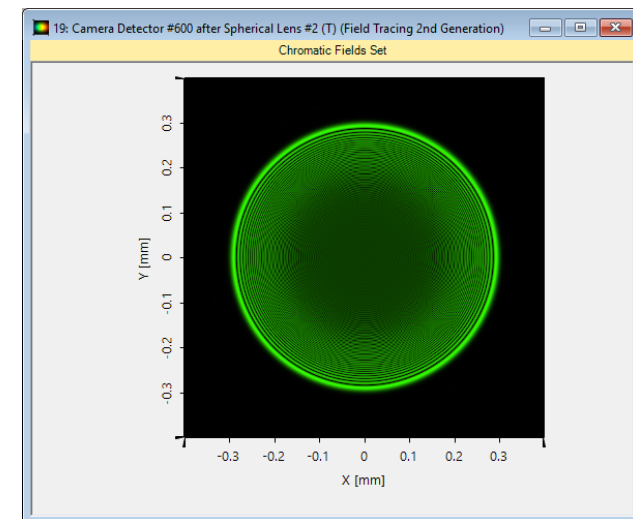
Results: Homogeneous Lens



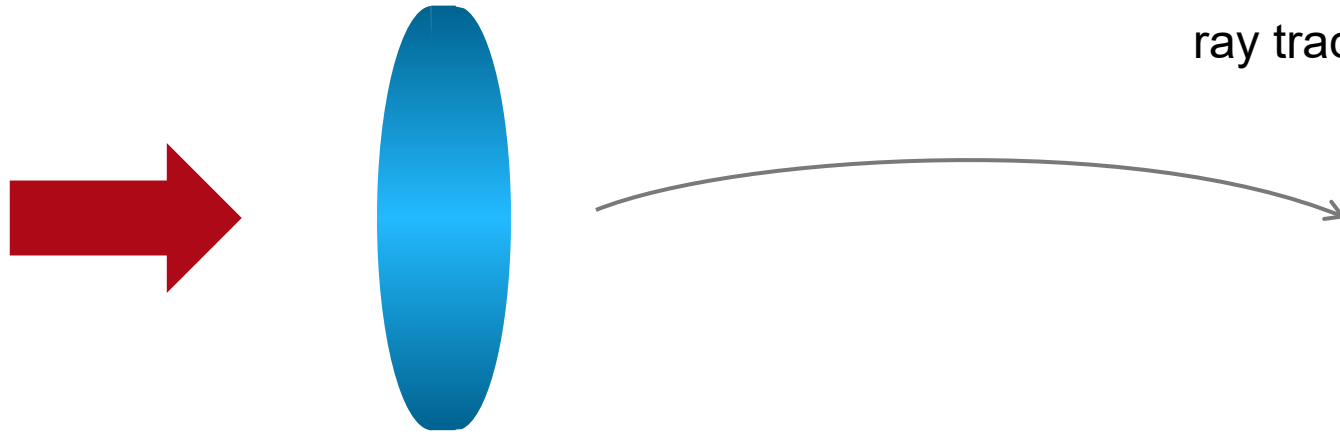
ray tracing:



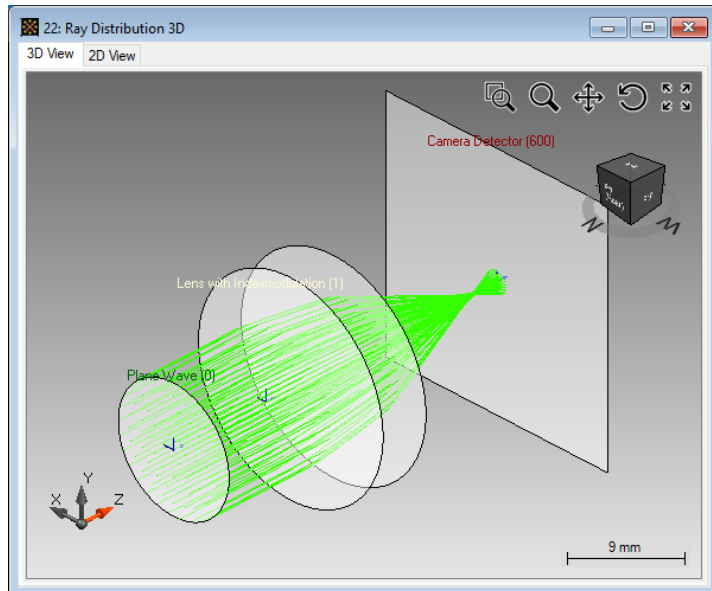
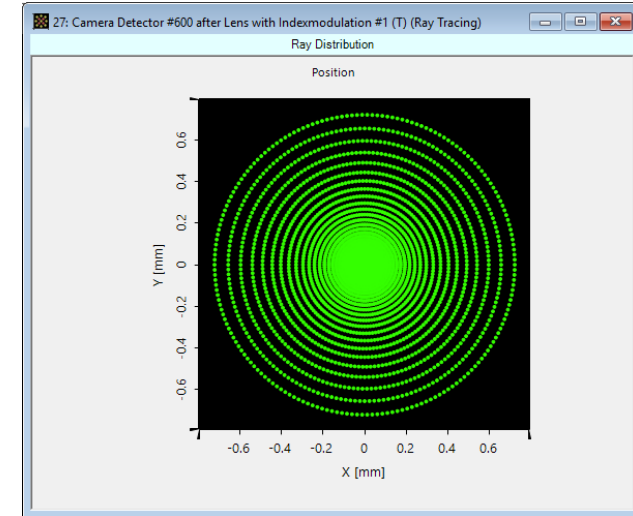
field tracing:



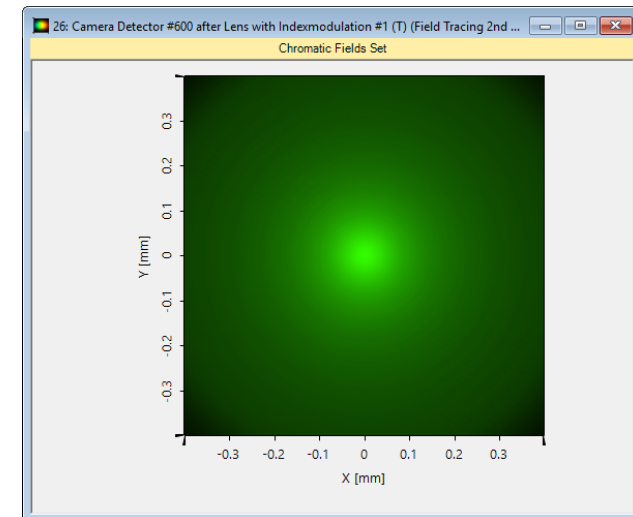
Results: Modulated Lens (Rotation Symmetric Modulation)



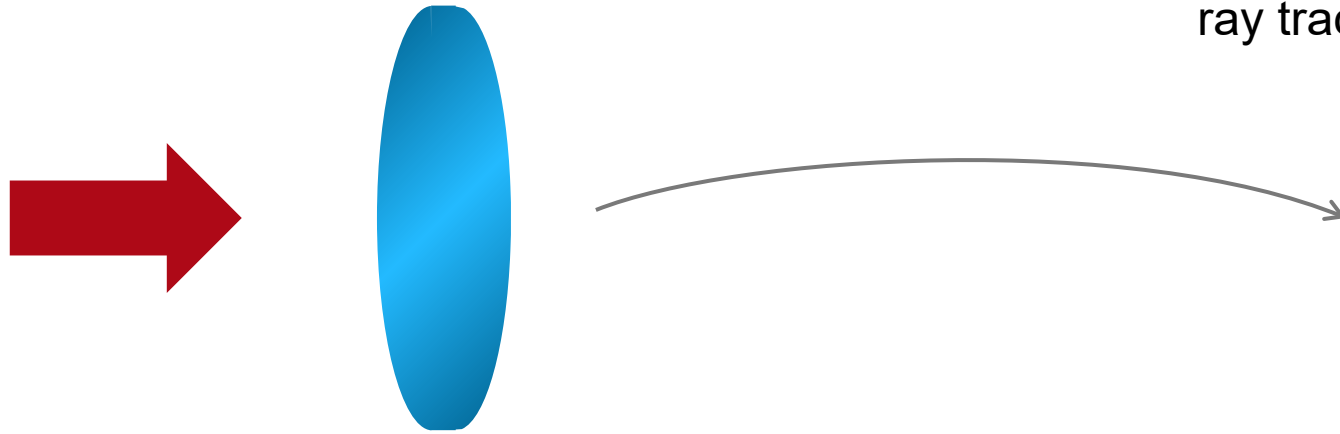
ray tracing:



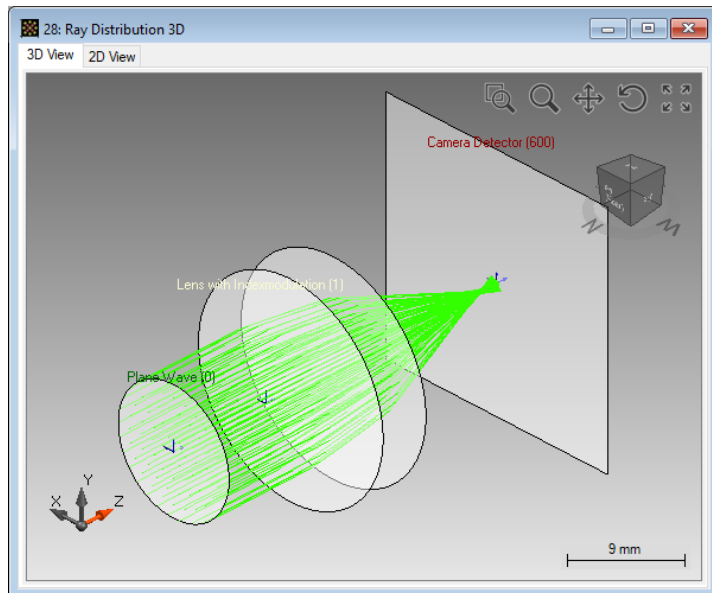
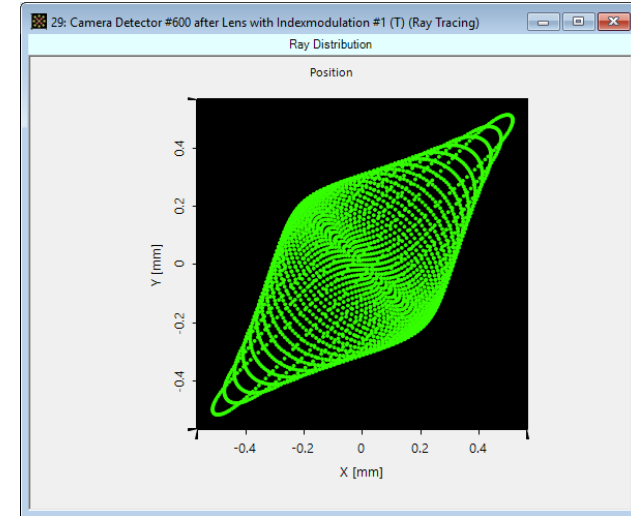
field tracing:



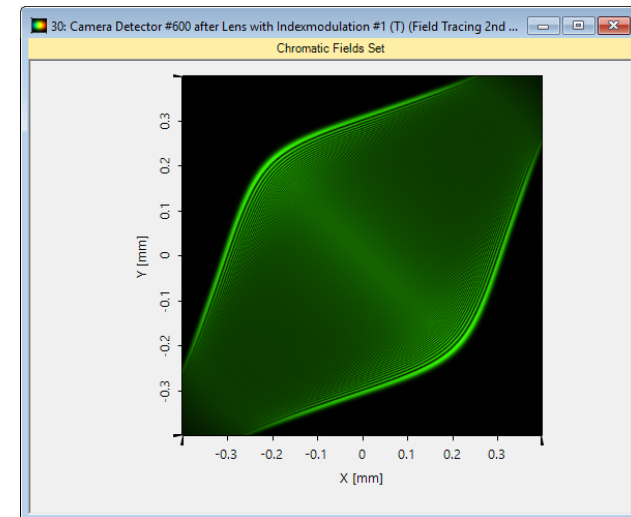
Results: Modulated Lens (Cylindrical Modulation)



ray tracing:



field tracing:



Summary

- Modeling of light propagation through lenses with modulated refractive index
 - Desired distributions of the refractive index can be either imported from measurement data or configured manually
 - Physical optics and ray propagation techniques available for detailed investigations
 - Physical optics enables the access to any kind of light information in the desired image plane
-

Document Information

title	Lens with Modulated Refractive Index
document code	Demo.0003
version	1.0
VL version used for simulations	VirtualLab Fusion Summer Release 2019 (7.6.1.18)
category	Demo
further reading	- <u>How to Work with the Programmable Medium and Example (Thermal Lens)</u>
