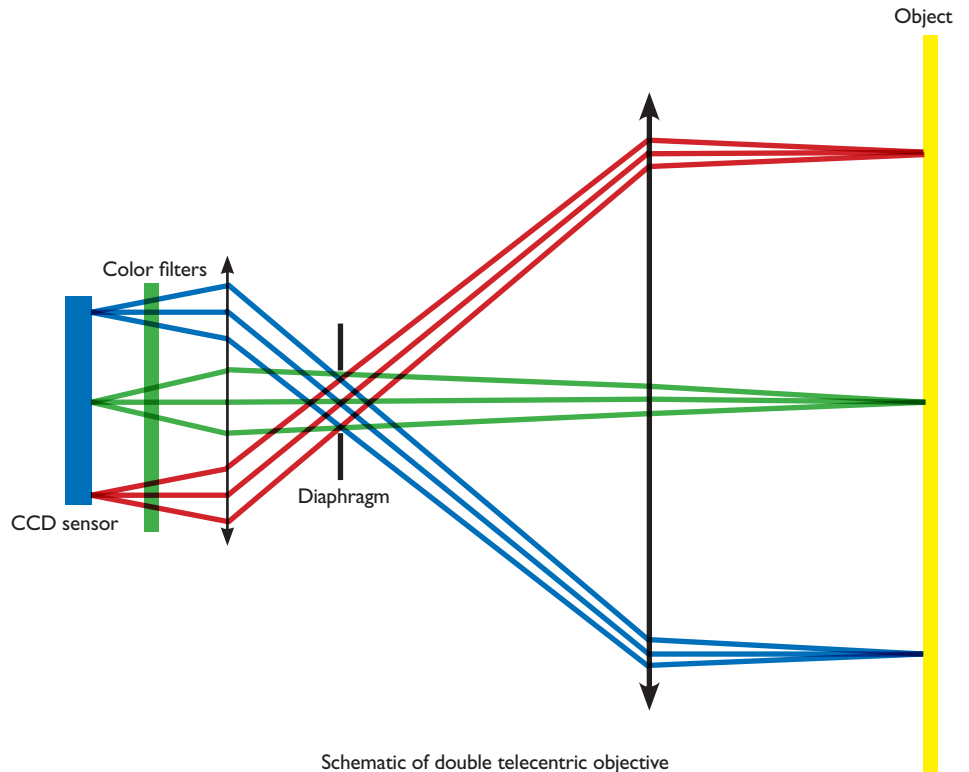
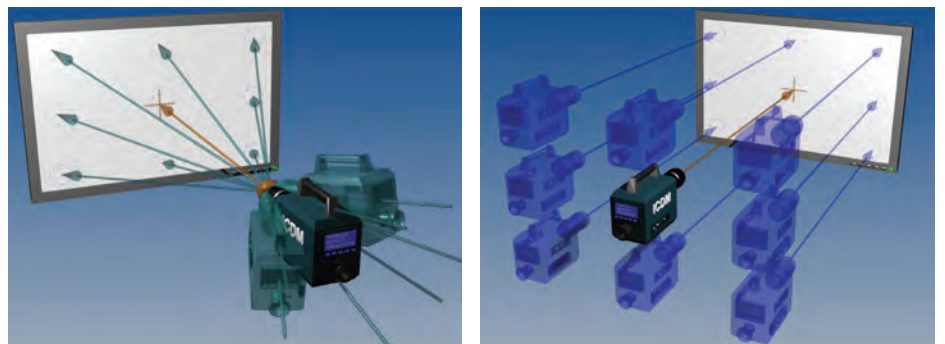


ELDIM proposes different double telecentric optics for imaging colorimeter. The interest of such optics is twofold: the measurement is taken near normal incidence on the entire display surface; the stray light is minimized allowing measurements on complex color patterns with a high spatial resolution and very small distortion.



TTO Lenses applications

- Full screen Normal measurements.
- VESA / ICDM-IDMS standards compliance tests
- Sampled Uniformity tests (all measurements taken normal to the screen)

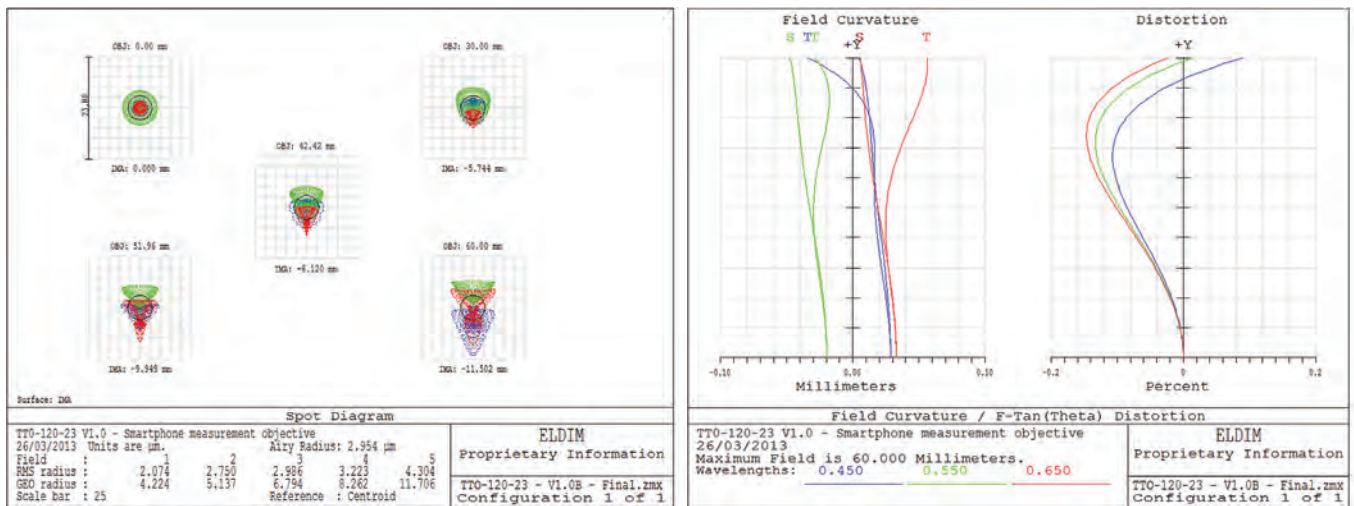


Normal incidence and variable incidence measurements

TTO Lenses benefits

- Full map in one measurement (no need of moving benches)
- Excellent optical resolution
- Low stray light / Easy setup
- Fast measurements
- High color & luminance accuracy
- Ideal for the mobiles & tablets quality control





spot radius at five positions in the field of view (left) and curvature and distortion radius versus field of view at 3 wavelengths (right)(wave-lengths 450, 550 and 650nm)

Imaging objective	Working distance (mm)	Magnification	Resolution (µm)	Horizontal size (mm)	Vertical size (mm)	Diagonal (mm)
TTO-120	117	1/5.2	28	94	70	120
TTO-280	193	1/12.2	65	219	165	274

Main characteristics of the double telecentric imaging objectives using 8M pixels CCD sensor

Outer dimension UMaster + TTO 120(unit mm)

Dimensions of UMaster videocolorimeter with TTO-120 objective

