

## Why 100 degrees Field-of-View is the best choice

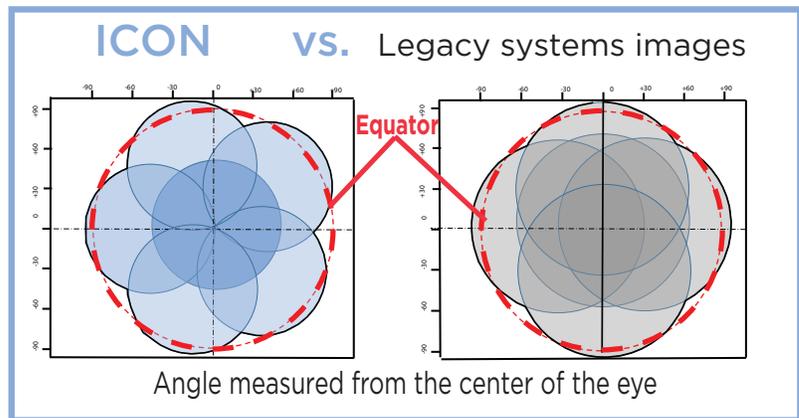
Multiple objective lenses were developed for the Legacy systems with field of views of 30, 80, 120 and 130 degrees in an effort to address different imaging requirements. This unfortunately increased the cost of a full system by about 30% and added the inconvenience of changing lenses during time sensitive imaging sessions.

Unfortunately, the clinical performance of the wider FOV lenses can be low when imaging darkly pigmented retinas. Here, the scatter from the eye lens can overwhelm the return from the retina, and in many instances, the images are of little or no value.

ICON embraces an entirely new illumination and imaging approach and achieves high contrast images of even darkly pigmented retinas. In the process, the ICON delivers extraordinary resolution with the convenience and lower cost of a single objective lens.

The optical scientists at Phoenix decided to think anew about retinal imaging and to set these objectives as sacrosanct: *First*, develop a system with a single high resolution objective lens with a wide field-of-view; *Second*, demand high contrast in even darkly pigmented retinas; *Third*, modernize the system with new sensors, light weight, lower cost and improved utility.

### Multiple Image Overlap



### ICON Image Montage



**The result of this freedom to re-think imaging is the ICON, a revolutionary retinal imaging system.**

The designers found 100 degrees to be the perfect choice. This maintains the intense concentration on image quality without sacrificing convenience for retinal surveys.

Note that a multiple image retinal survey with 130 degree images leads to data that is simply overlapping at the posterior pole. The 100 degree lens supports thorough retinal surveys with the addition of only one image, resulting in an ideal montage.