



# Electro Optical Components, Inc.

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## ULO Optics

### TECHNICAL DATA SECTION

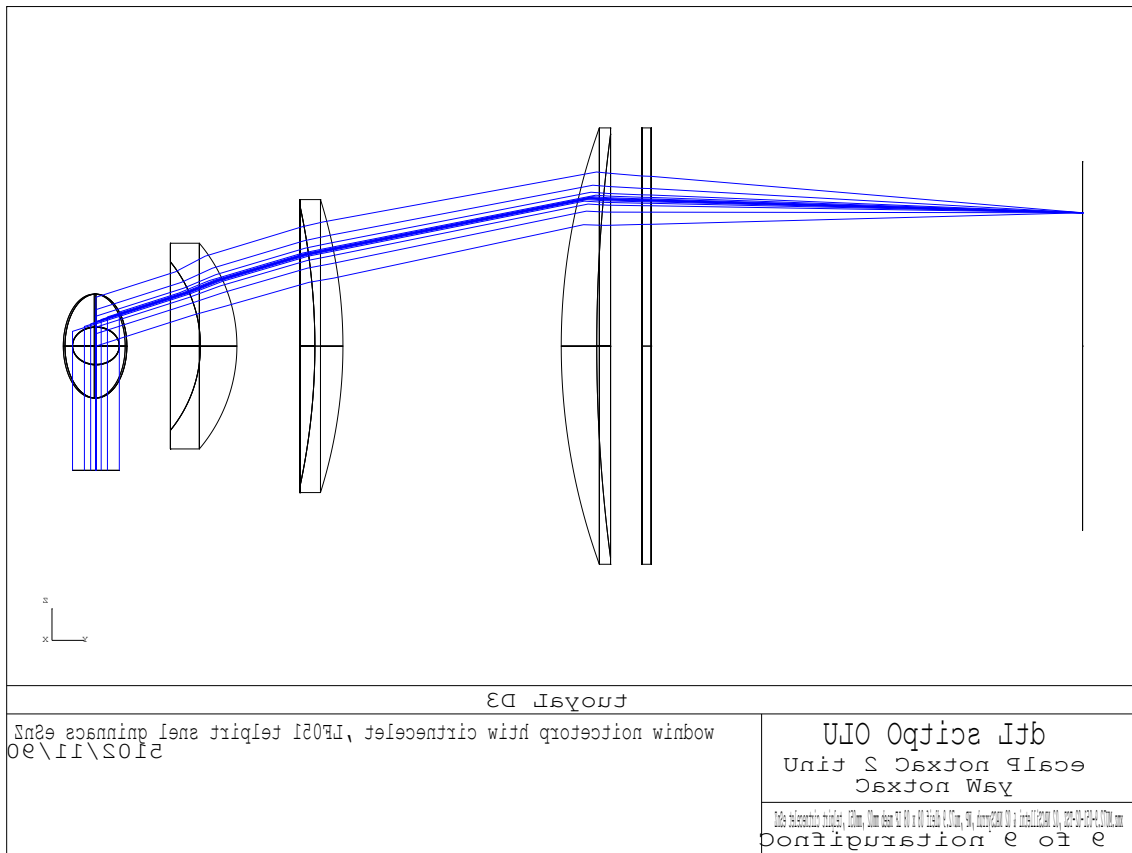
### ZST-20-150 TELECENTRIC SCANNING LENS (intelliSCAN 20 & hurrySCAN 20)



### SPECIFICATIONS

<b>Optics</b>	Triplet ZnSe lens plus ZnSe protection window
<b>Coatings</b>	AR/AR @ 9.3 or 10.6µm for CO <sub>2</sub> laser, R < 0.2%
<b>Focal length</b>	150mm
<b>Working distance from window</b>	138.2mm @ 9.3µm, 138.5mm @ 9.6µm, 139.4mm @ 10.6µm
<b>Field size</b>	80 x 80mm
<b>Optical field</b>	+/-16.5 deg

<b>Spot size</b>	With $M^2 = 1$ beam: $90\mu\text{m}$ with $20\text{mm } 1/e^2$ beam. $119\mu\text{m}$ with $15\text{mm } 1/e^2$ beam. No variation across the field in either case. Diffraction limited. For $M^2 > 1$ , multiply the above values by $M^2$ .
<b>Maximum telecentric error</b>	2.5deg
<b>Protection window diameter and thickness</b>	140mm diameter, 3.0mm thick.
<b>Lens cell</b>	Black anodised Aluminium with M85 x 1.0 thread.
<b>Protection window mount</b>	Black anodised Aluminium. Window is held in mount by clamp ring. Fits to lens cell by inserting over six screws and twisting to lock in place with one screw.
<b>Overall optical length</b>	154.2mm from edge of first lens to second window surface.
<b>Weight</b>	



**Note:**

- 1) Distance from Y mirror to edge of first lens is 23.9mm.
- 2) Distance from Y mirror to input end of lens cell is equal to 21.9mm.
- 3) Scanning mirror spacing 25.6mm as per IntelliSCAN 20 & HurrySCAN 20.
- 4) Scan heads require the Scanlab 141 adaptor to give M85 thread and optimised mirror locations relative to lens.