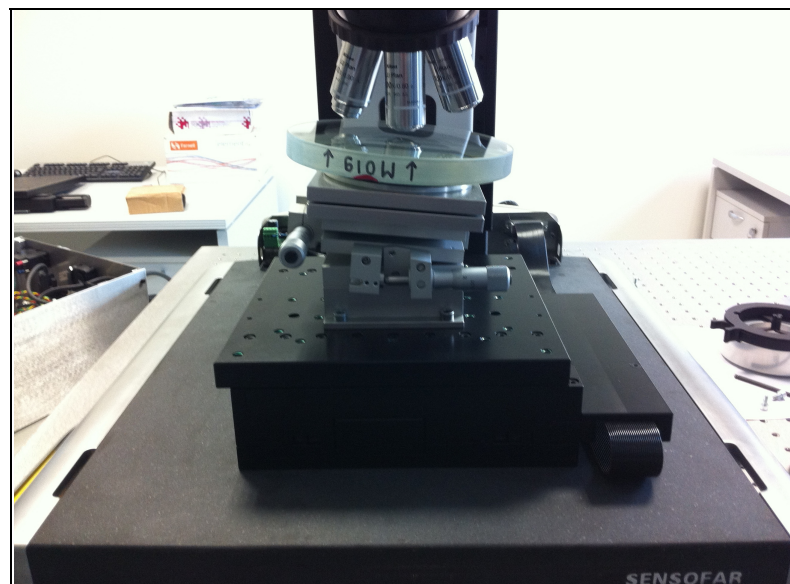


**Measurement report of Hyperbolic mirror**

**This report contains the measurement report of a surface profile from an hyperbolic mirror. The mirror was manufactured by Huygens Optics and delivered to Roger Artigas before coating for surface shape characterization.**

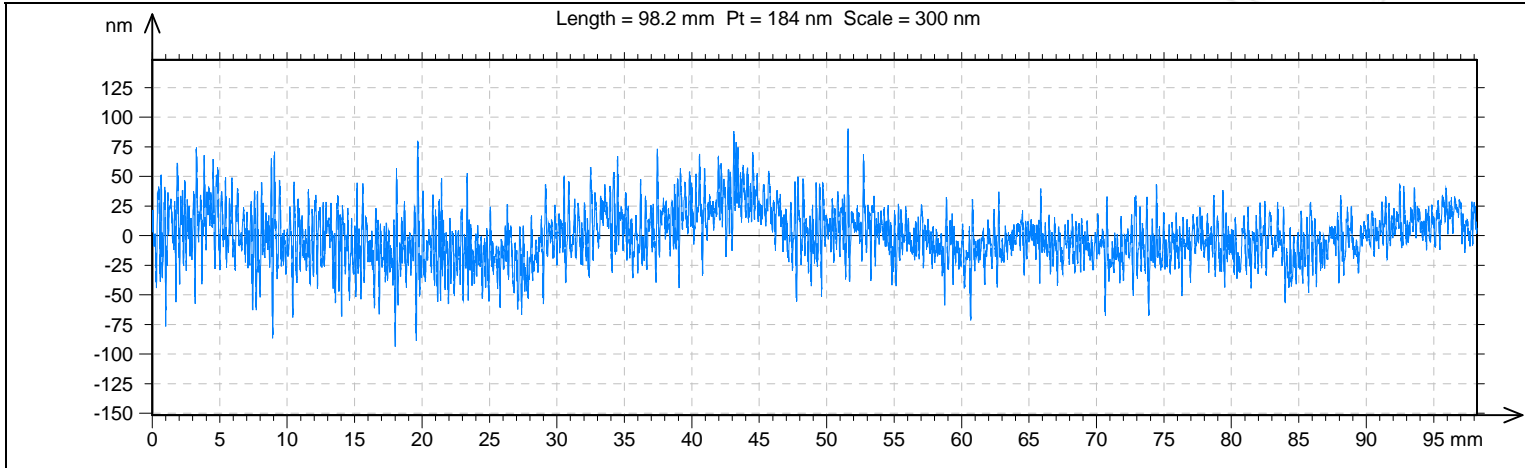
**The mirror was profiled with the Plu-apex from Sensofar along two profiles at 90 degree . The profile starts at the edge of the mirror and has a total length of 100 mm. The mirror diameter is 165 mm, although mirror surface is only 162 mm. This ensures crossing the apex of the hyperbolic surface along, having a total profile of 80 mm on one side and 20 on the other side.**

**Surface roughness was also evaluated with Plu-neox and Phase Shifting Interferometry with a 50XDi magnification.**



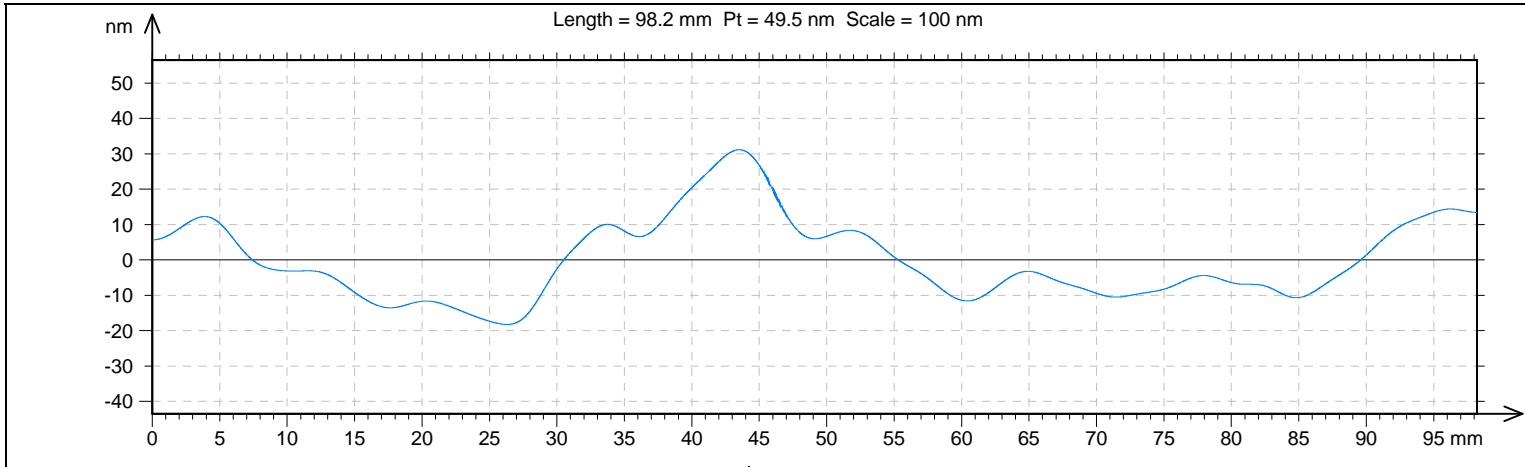
**For demonstration purposes only!**

**Profile at 0 degree**



**Residual after subtracting the best aspheric curve**

**Radius: 2002.284 mm  
Conic Constant: -5.962**



Waviness, Gaussian Filter, 8 mm

ISO 4287		
Amplitude parameters - Prima		
<b>Pp</b>	31.2	nm
<b>Pv</b>	18.2	nm
<b>Pz</b>	49.5	nm
<b>Pc</b>	49.5	nm
<b>Pt</b>	49.5	nm
<b>Pa</b>	9.57	nm
<b>Pq</b>	11.4	nm
<b>Psk</b>	0.721	
<b>Pku</b>	2.93	

**Error form:**

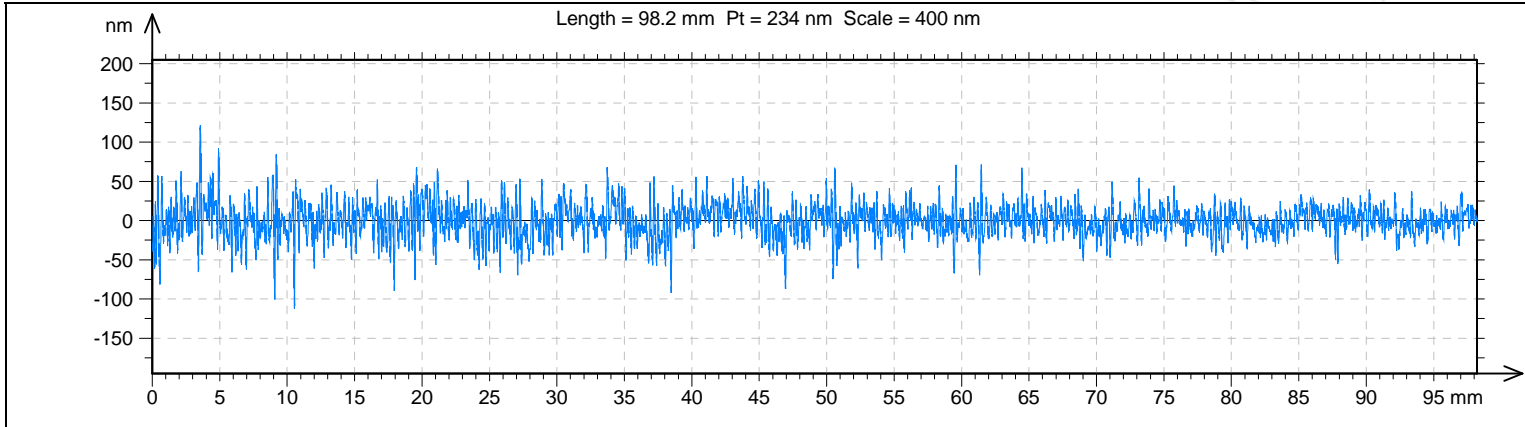
**Shape PV: 49.5 nm  
Shape rms: 11.4 nm**

**for wavelength 632 nm**

**Wave error PV: 1/6.4  
Wave error rms: 1/28**

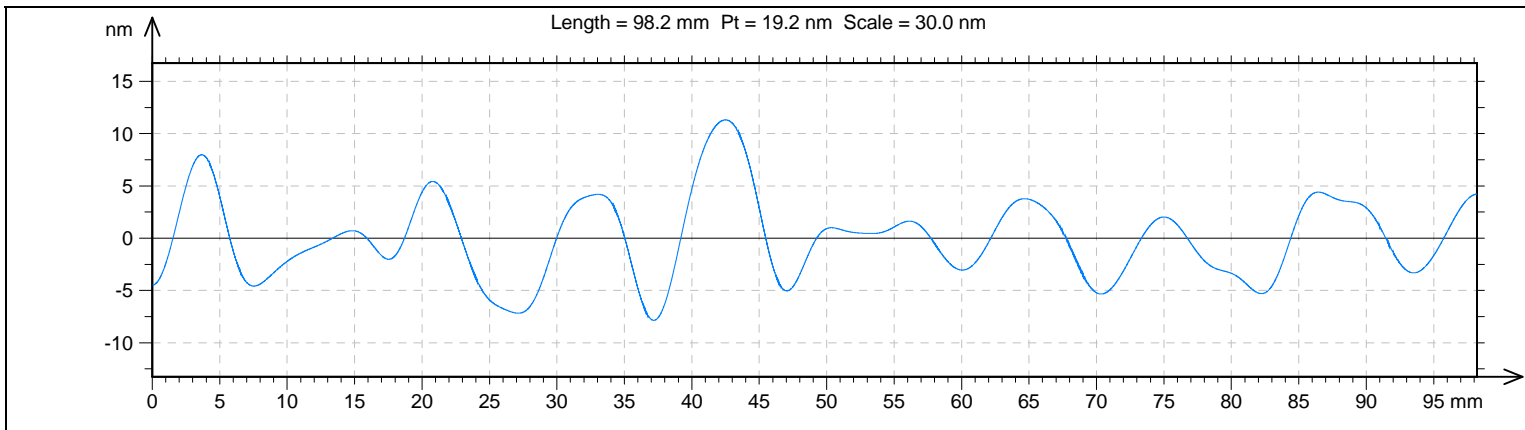
**For demonstration purposes only!**

**Profile at 90 degree**



**Residual after subtracting the best aspheric curve**

**Radius: 2001.999 mm  
Conic Constant: -6.05**



Waviness, Gaussian Filter, 8 mm

ISO 4287		
Amplitude parameters - Prima		
<b>Pp</b>	11.3	nm
<b>Pv</b>	7.85	nm
<b>Pz</b>	19.2	nm
<b>Pc</b>	9.47	nm
<b>Pt</b>	19.2	nm
<b>Pa</b>	3.10	nm
<b>Pq</b>	3.88	nm
<b>Psk</b>	0.445	
<b>Pku</b>	3.16	

**Error form:**

**Shape PV: 19.2 nm  
Shape rms: 3.88 nm**

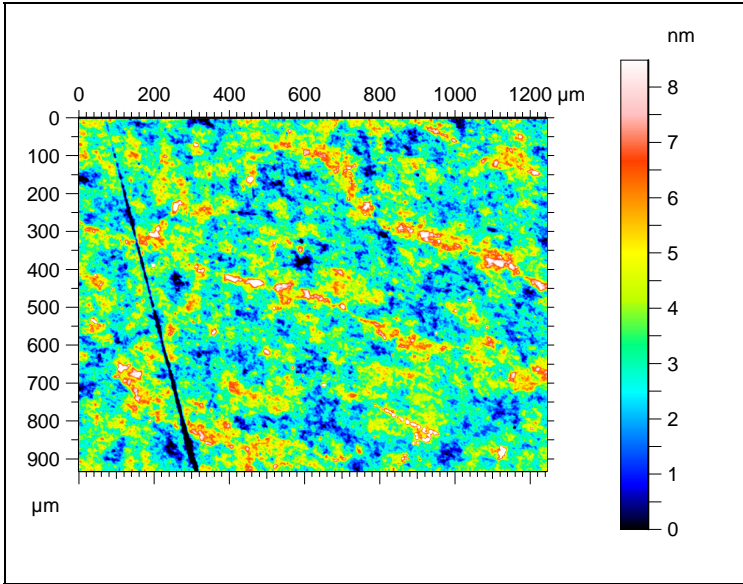
**for wavelength 632 nm**

**Wave error PV: 1/16.5  
Wave error rms: 1/80**

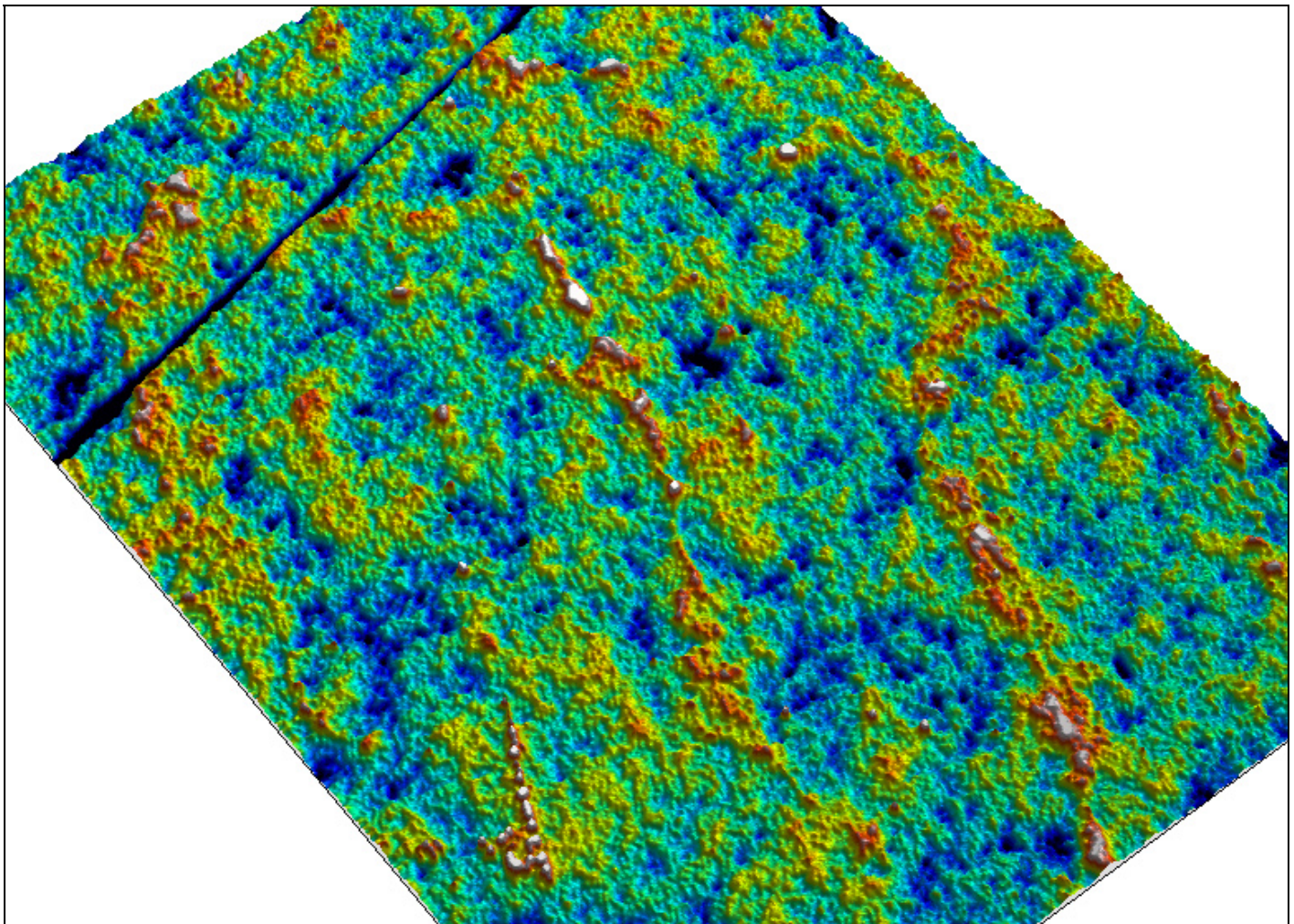
**For demonstration purposes only!**



**Surface roughness**



ISO 25178		
Height Parameters		
<b>Sa</b>	1.04	nm
<b>Sq</b>	1.35	nm
<b>Sz</b>	8.49	nm
<b>Sp</b>	5.19	nm
<b>Sv</b>	3.30	nm
<b>Ssk</b>	0.551	
<b>Sku</b>	4.02	



**For demonstration purposes only!**