

SALT-3120AS0011 version 1.0 (19 Feb 2003)

Specification for the Slit Viewer Optics for the Prime Focus Imaging Spectrograph for the Southern African Large Telescope

Mirror	Radius of Curvature	Dimensions* (HxWxCenterThickness)	Clear Aperture
SV1	Flat	158x88x15	144x80
SV2	674.797CC	(D220)x170x15	200x156
SV3	340.677CX	D95x10	D90
SV4	674.797CC	D200x15	D186

all dimensions mm

*see Drawings (attached)

Substrate material: Pyrex

Radius tolerance: 0.1% (test-plates negotiable)

Dimension tolerances: +/- 0.5 mm

Front/Back Parallelism: better than 0.1 degree

Surface Figure @633nm: 1/4 wave RMS

Surface Finish: better than 20 Angstrom RMS

Scratch/Dig: 60-40 (MIL-0-13830A)

Bevel Edges: 1-2 mm

Ground surfaces: #400 grit equivalent or finer.

Coating: "enhanced aluminum"

reflectivity: >92% 400-700nm

>85% 300-900nm

Coatings may be optimized for reflection angle:

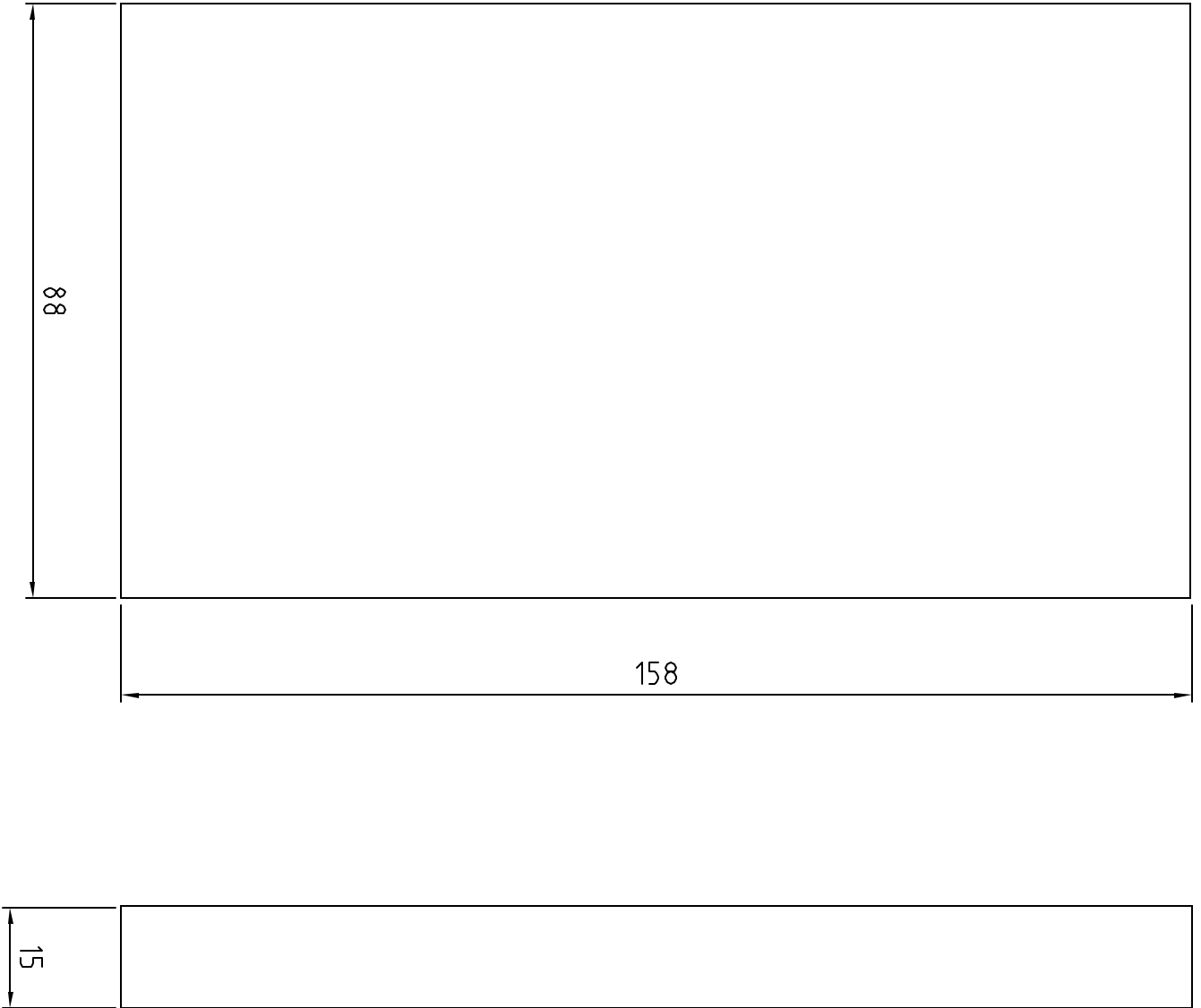
Mirror Angle of Incidence at center of field

SV1 31 degrees

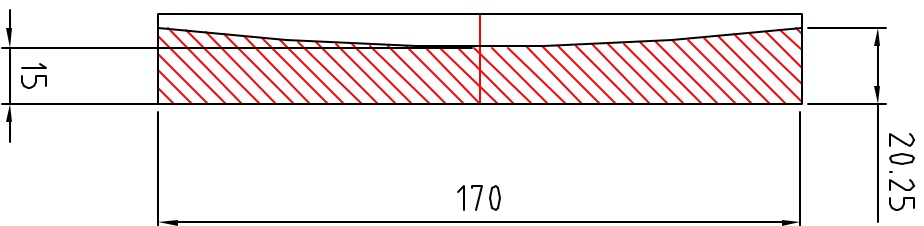
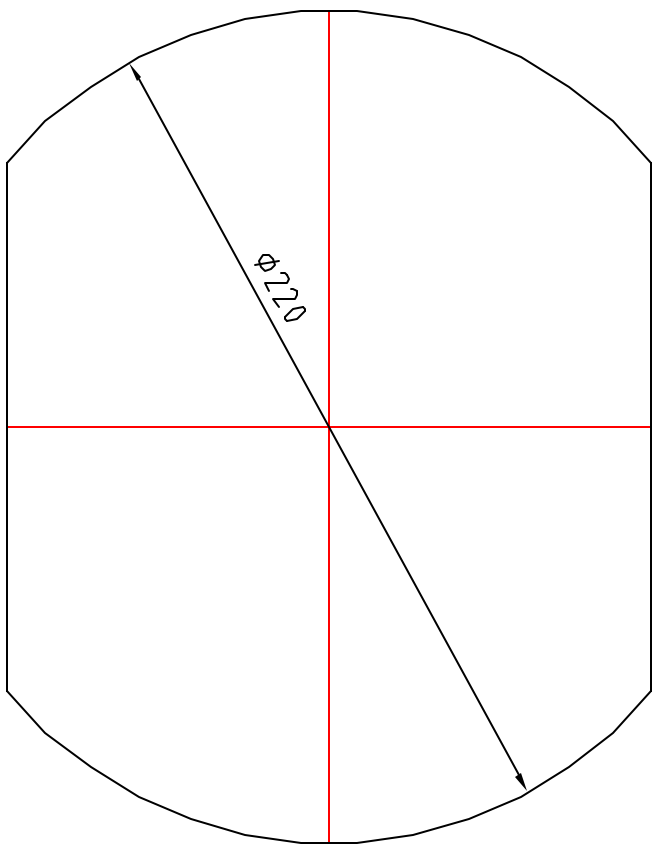
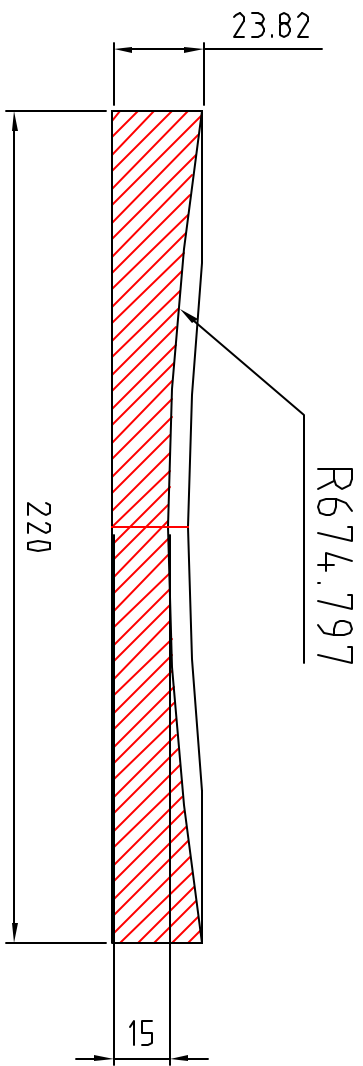
SV2 12 degrees

SV3 24 degrees

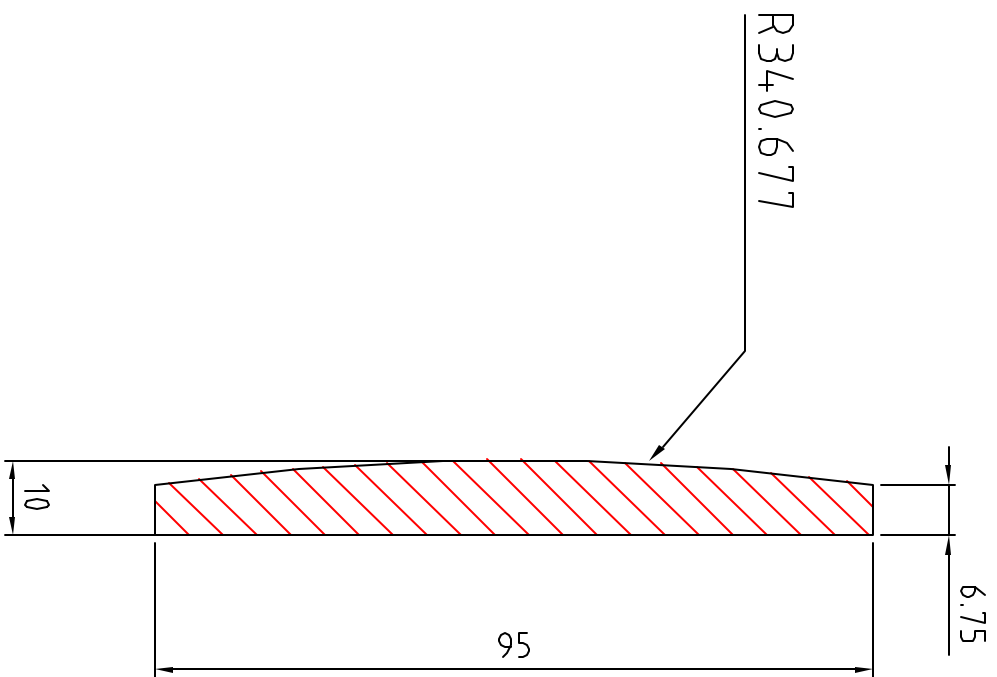
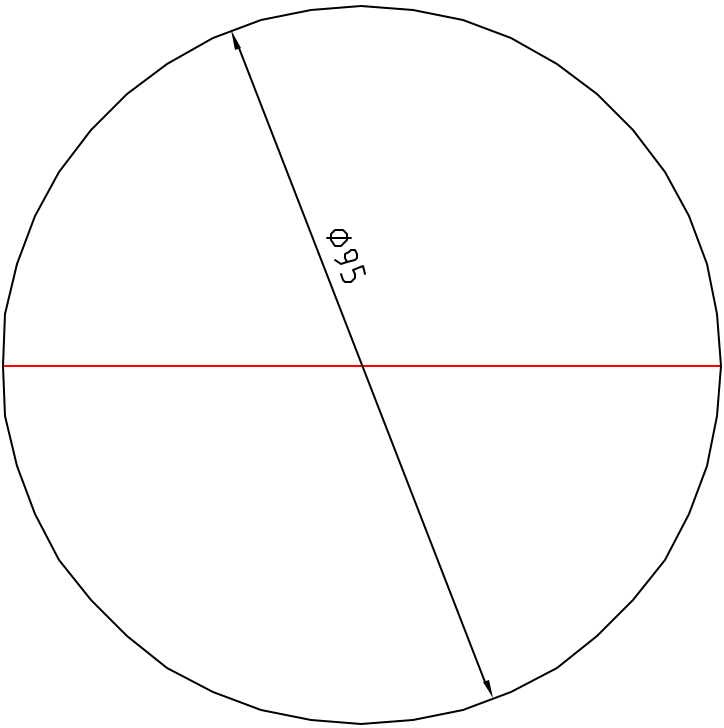
SV4 13 degrees



SV1
all dimensions mm

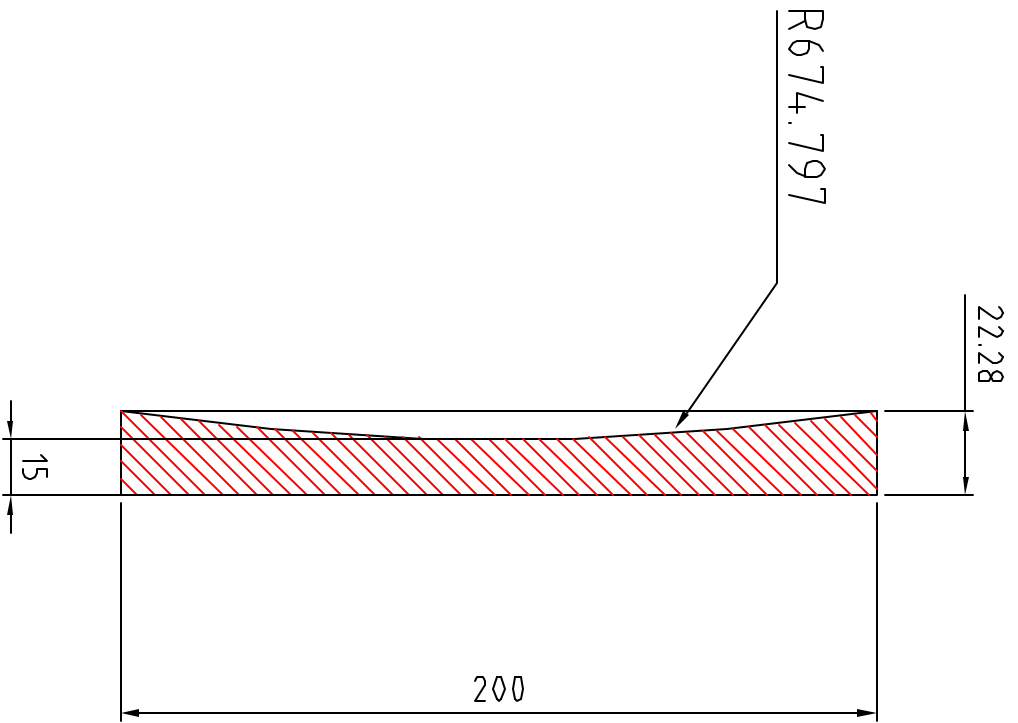
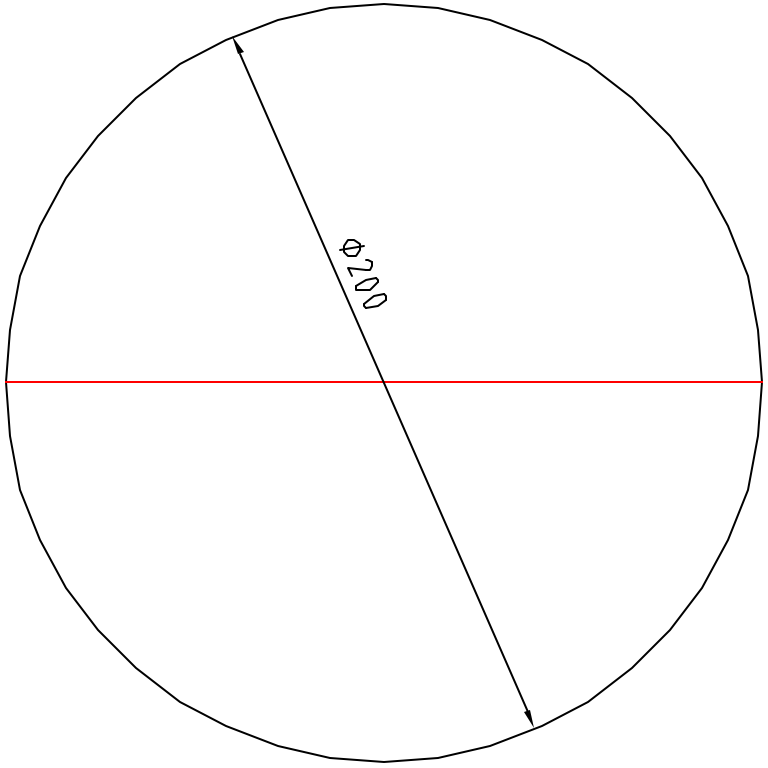


SV2
all dimensions mm



SV3

all dimensions mm



SV4
all dimensions mm