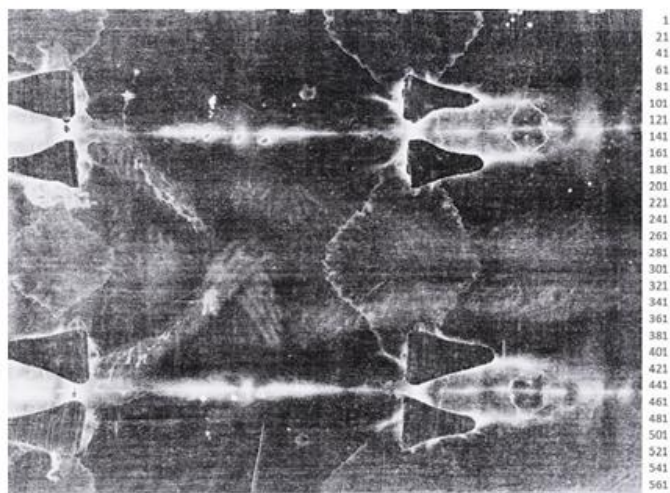
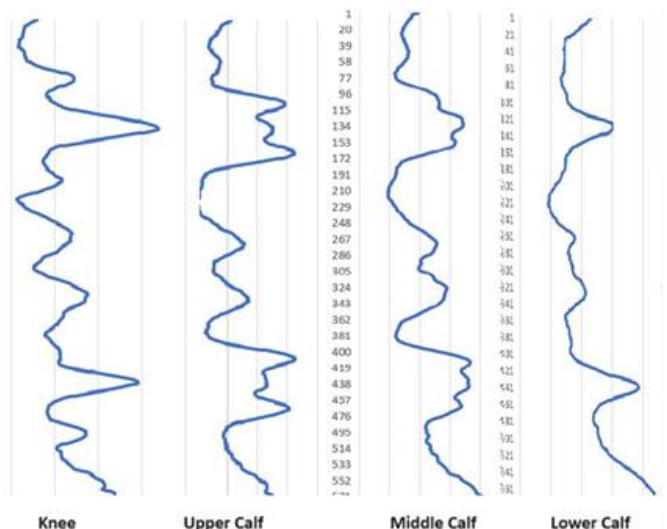


Brightness Cross Sections of the Legs of Christ

By Craig Paardekooper



The right leg was raised higher than the left, because the right foot was nailed on top of the left foot. This is evident from cross sections taken through the legs.



Lower Calf:

A vertical cross-section taken at the lower calf shows that the right lower calf is elevated above the left. This was because the right foot (in this picture) was nailed on top of the left foot during crucifixion.

Middle Calf:

A vertical section taken through the middle calf, still shows the right middle calf is elevated above the left, but the difference in elevation, based on brightness, is slightly less.

Upper Calf:

vertical section taken through the upper calf, shows that the right upper calf is now only very slightly elevated compared to the left.

Knees:

A vertical section through the knees, shows that the right knee is elevated above the left.

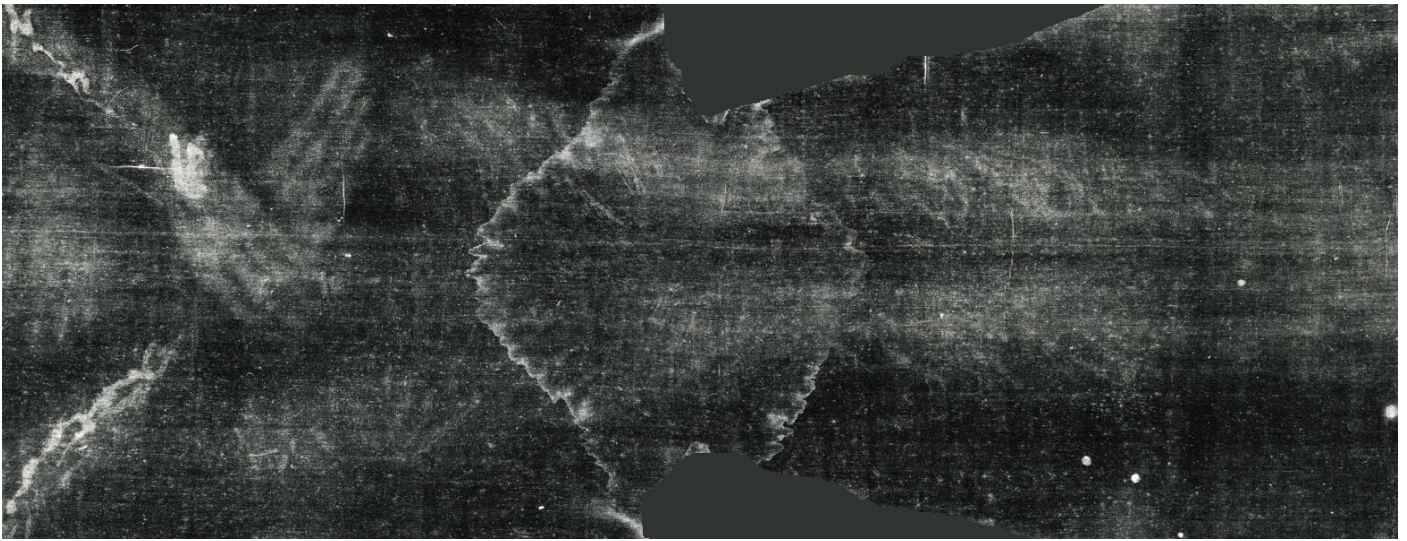
General Elevation:

The right leg is consistently brighter than the left, showing that it is elevated compared to the left.

Cross section:

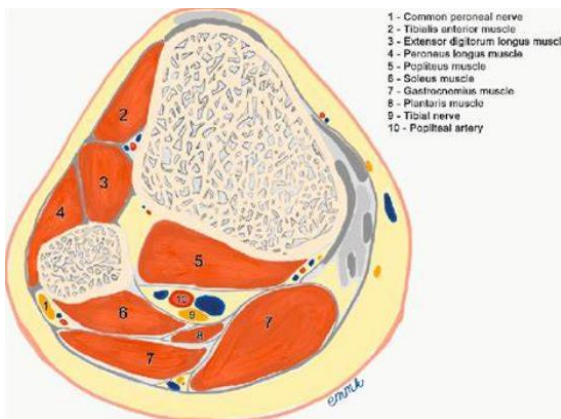
Both legs have a curved cross section, so their edges are more distant than their centres. Therefore, the images of the limbs become dimmer as we move from centre to edge. The gradation from bright to dim is constant, as can be seen from the brightness profiles to the right of the picture above. Since this gradation is caused by a progressively lower density of discoloured fibres, it would be impossible to paint. It is a radiation effect that would be totally impossible to even see in Medieval times. The density of discoloured fibres decreases in direct proportion to the distance from the centre!

I took different left to right cross sections across the knees and recorded the bright-ness profiles. The photo is image 060 found here - [Gallery – Page 3 – Shroud Photos](#).



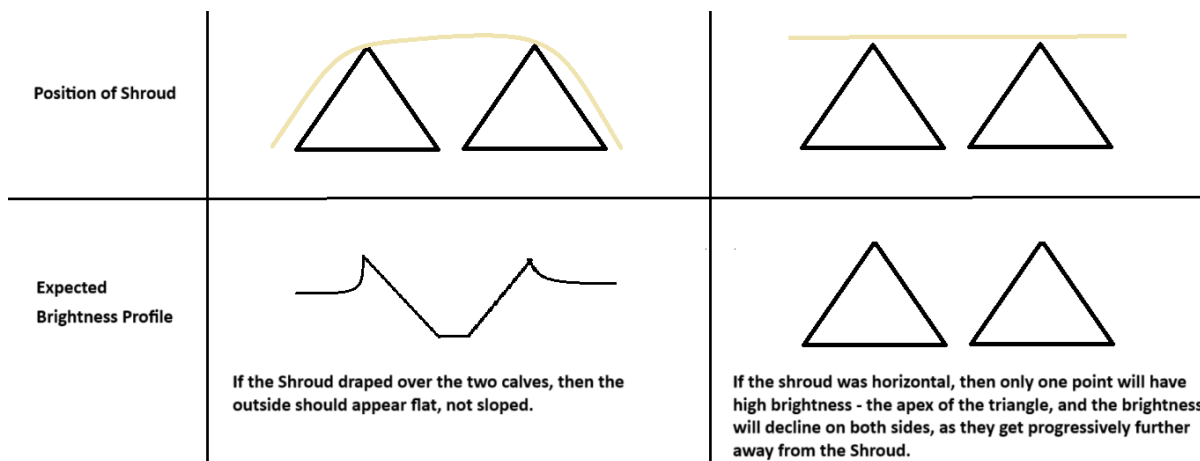
The Calves

Viewed from above, the calf has a triangular contour. From below, the calf has a circular contour.



If the Shroud was draped over the outside of the calves, then each point on the outer sides should be the same distance from the Shroud and so have the same brightness. Consequently, the bright-ness profile should be horizontal for both outer sides.

Alternatively, if the Shroud was horizontal, then each point on the outer side is further away from the Shroud and therefore produces a dimmer image. Consequently, the bright-ness profile should be sloped for both outer sides.

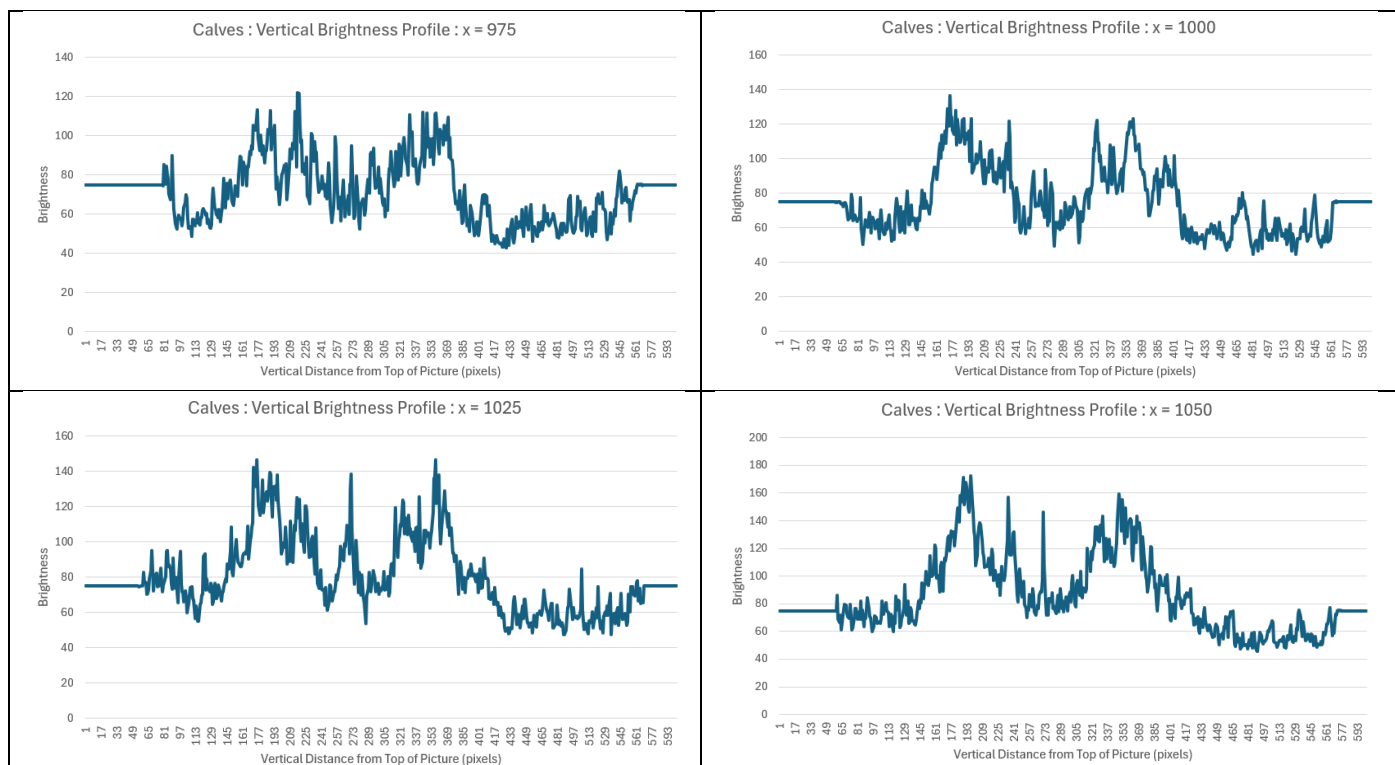


Below are the results as we move down the calves from the knees towards the ankles. A cross-section brightness profile was taken every 25 pixels.

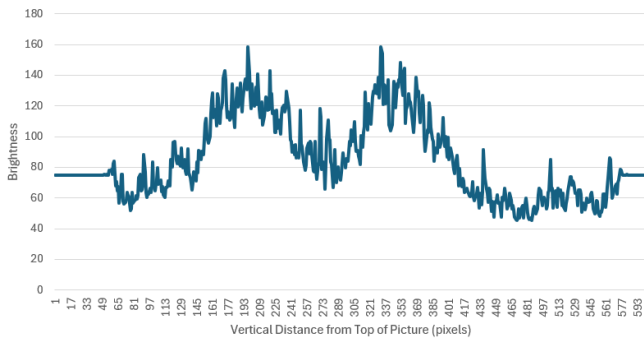
As you can see, the bright-ness profiles of the calves have triangular sloping contours at all points along the calves. This is only possible if each point is further from the Shroud as we move away from the central ridge of each leg. This shows that the Shroud was not in contact with the legs, or only in contact at the apex or ridge of each leg, and that there was an increasing distance of the leg from the Shroud the further from the ridge.

A sloping brightness profile is what we would expect if the Shroud was flat and horizontal in the right-to-left direction relative to the body.

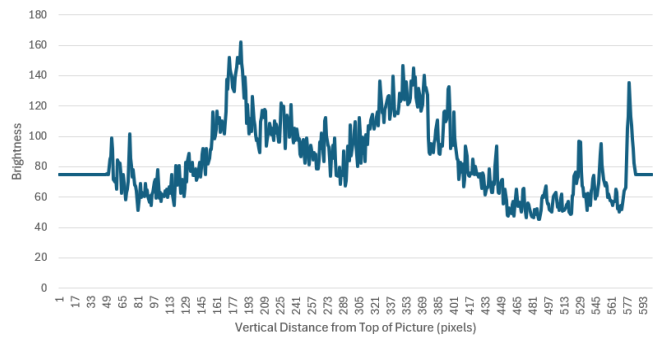
We might wonder, if the Shroud was not touching the calves, or only touching them at the apex, then what was suspending the Shroud in the air?



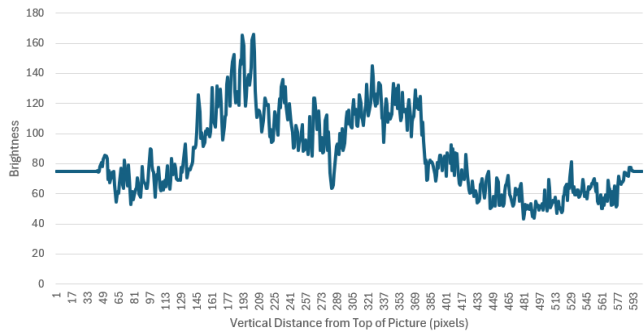
Calves : Vertical Brightness Profile : x = 1075



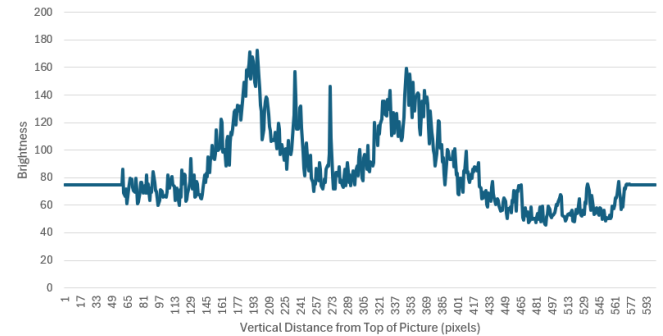
Calves : Vertical Brightness Profile : x = 1100



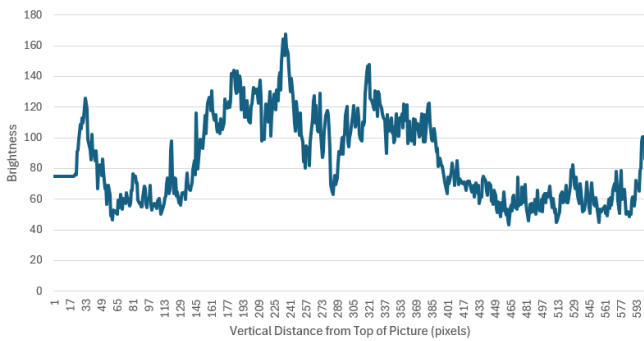
Calves : Vertical Brightness Profile : x = 1125



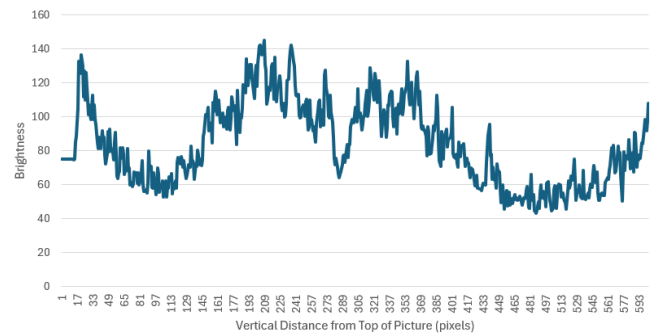
Calves : Vertical Brightness Profile : x = 1150



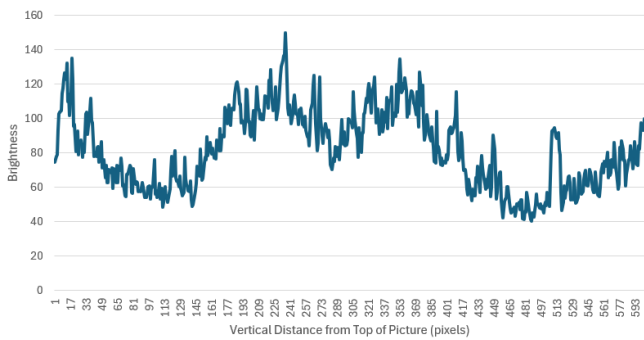
Calves : Vertical Brightness Profile : x = 1175



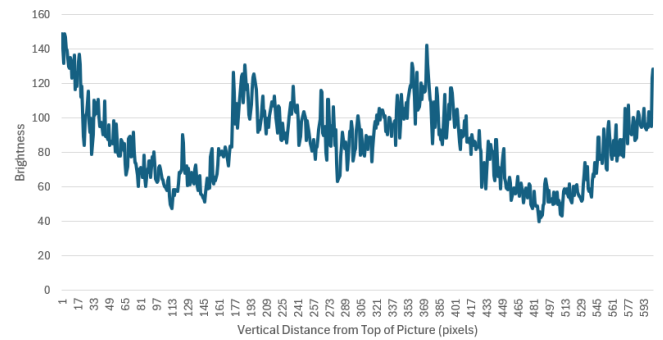
Calves : Vertical Brightness Profile : x = 1200



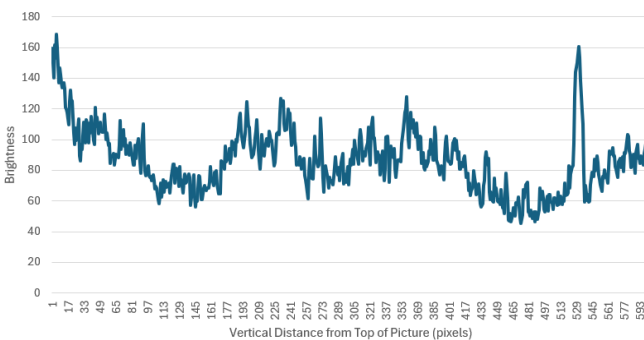
Calves : Vertical Brightness Profile : x = 1225



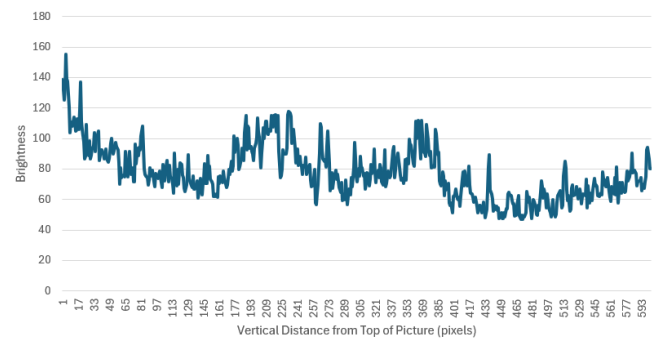
Calves : Vertical Brightness Profile : x = 1250



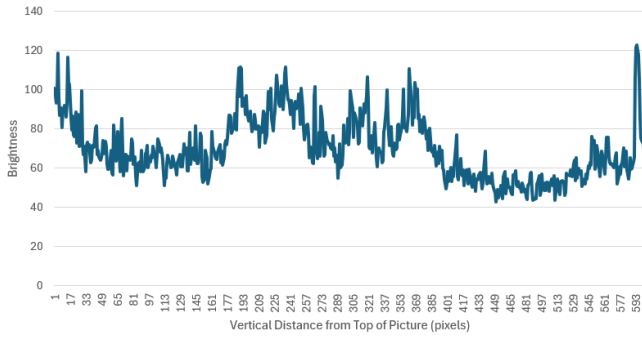
Calves : Vertical Brightness Profile : x = 1275



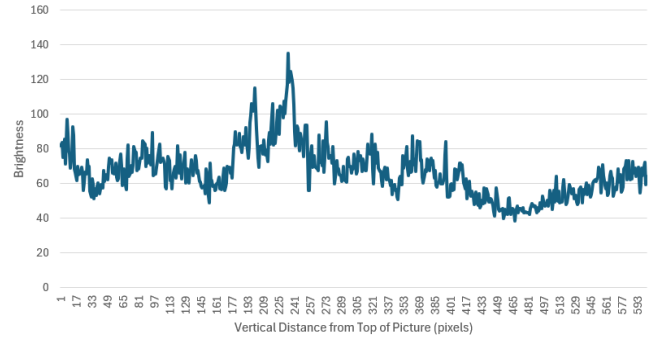
Calves : Vertical Brightness Profile : x = 1300



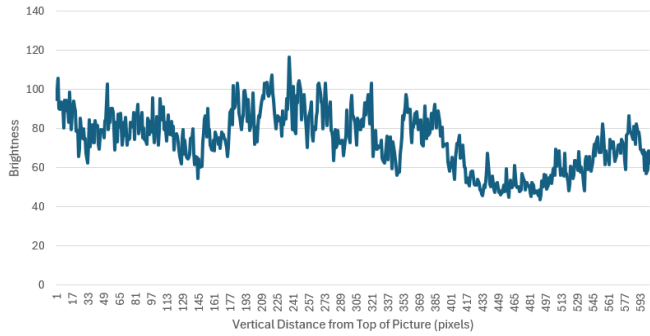
Calves : Vertical Brightness Profile : x = 1325



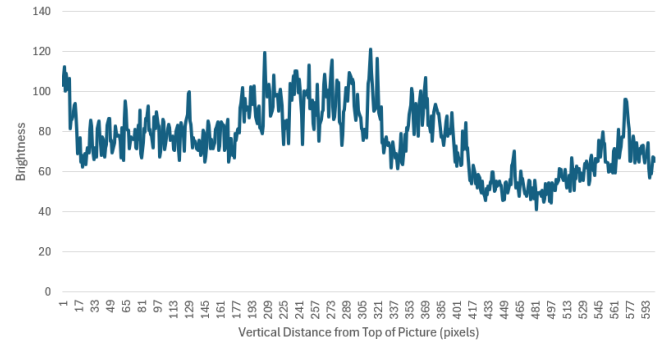
Calves : Vertical Brightness Profile : x = 1350



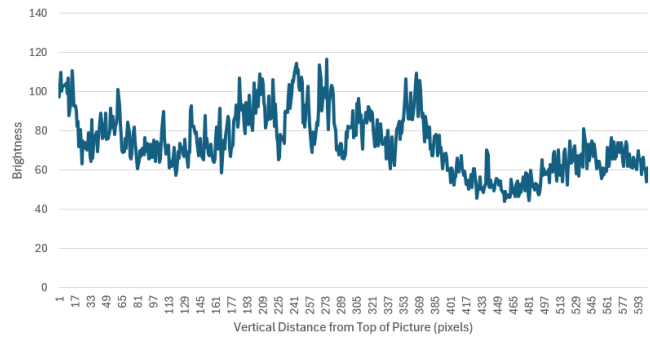
Calves : Vertical Brightness Profile : x = 1375



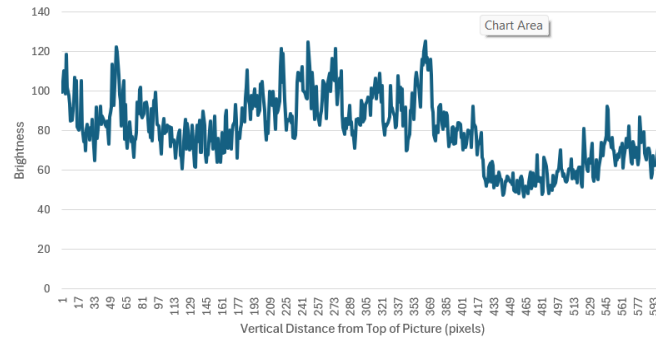
Calves : Vertical Brightness Profile : x = 1400



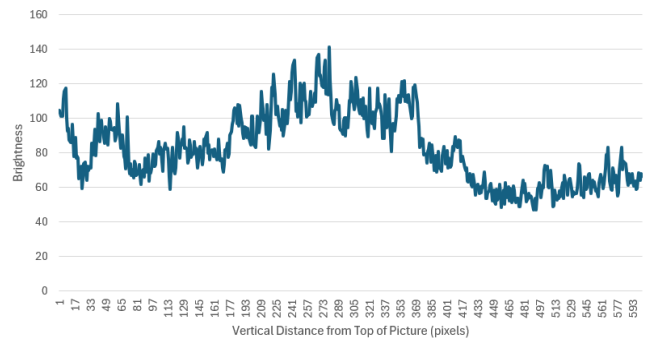
Calves : Vertical Brightness Profile : x = 1425



Calves : Vertical Brightness Profile : x = 1450



Calves : Vertical Brightness Profile : x = 1475



Calves : Vertical Brightness Profile : x = 1500

