Target Distance: 90cm
Errors of >4.5° (for this target, beyond the yellow circle) are likely to be significant.


Distance from center of the target to a 4.5-degree error depends the distance the patient is from the target. This target is calibrated for a patient who is 90 cm away.

If the patient (center of axis of rotation to the target, thus, the crown of the head) is 90 cm from the target, then a 7 cm error from the center of the target translates to a 4.5 degree error:

\[
\text{Arctan of } \frac{7\text{cm}}{90\text{cm}} = 4.5 \text{ degrees}
\]

On a calculator, arctan is often shown as tan^{-1}.

So, the error in degrees is the arctan (or tan^{-1}) of 7/90, or 4.5°.