

Reflected Image Quality (RIQ)

Reflected Image Quality is a new measurement developed by Rhopoint Instruments to provide greater sensitivity when evaluating highly reflective coatings and the specular / diffuse element of lower gloss materials.

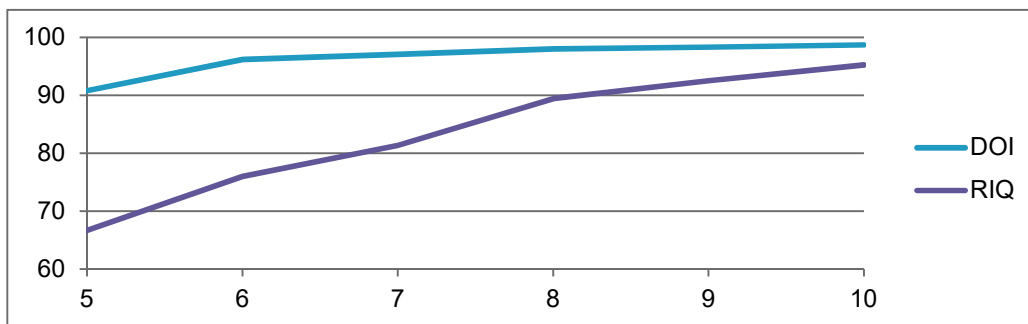
Two highly reflective surfaces that have very small changes in orange peel or texture will show very little or no change in DOI due to the way that it is calculated, but will appear quite different visually.

By reducing the sensing distance around the specular angle and measuring the reflected light and distortion around it, a much higher resolution response is achieved with greater linearity, more in line with the visual experience.



Two highly reflective panels with the same gloss values show little change in DOI but appear different.

Similarly for lower gloss materials, due to the smaller sensing distance, this measurement allows improved differentiation of the specular and diffuse elements of reflectance from the surface. As this sensing distance only allows the measurement of the amount of truly reflected light in the specular direction it is far more directionally selective.



Average measurements of ACT Panels 5 – 10 show little variation when using DOI.

However when using RIQ a greater differentiation is achieved.

The RIQ value of a surface is also a number between zero and one hundred; a surface that exhibits a perfect undistorted image returns a value of 100, as the values decrease higher surface texture is present and the image sharpness reduced.