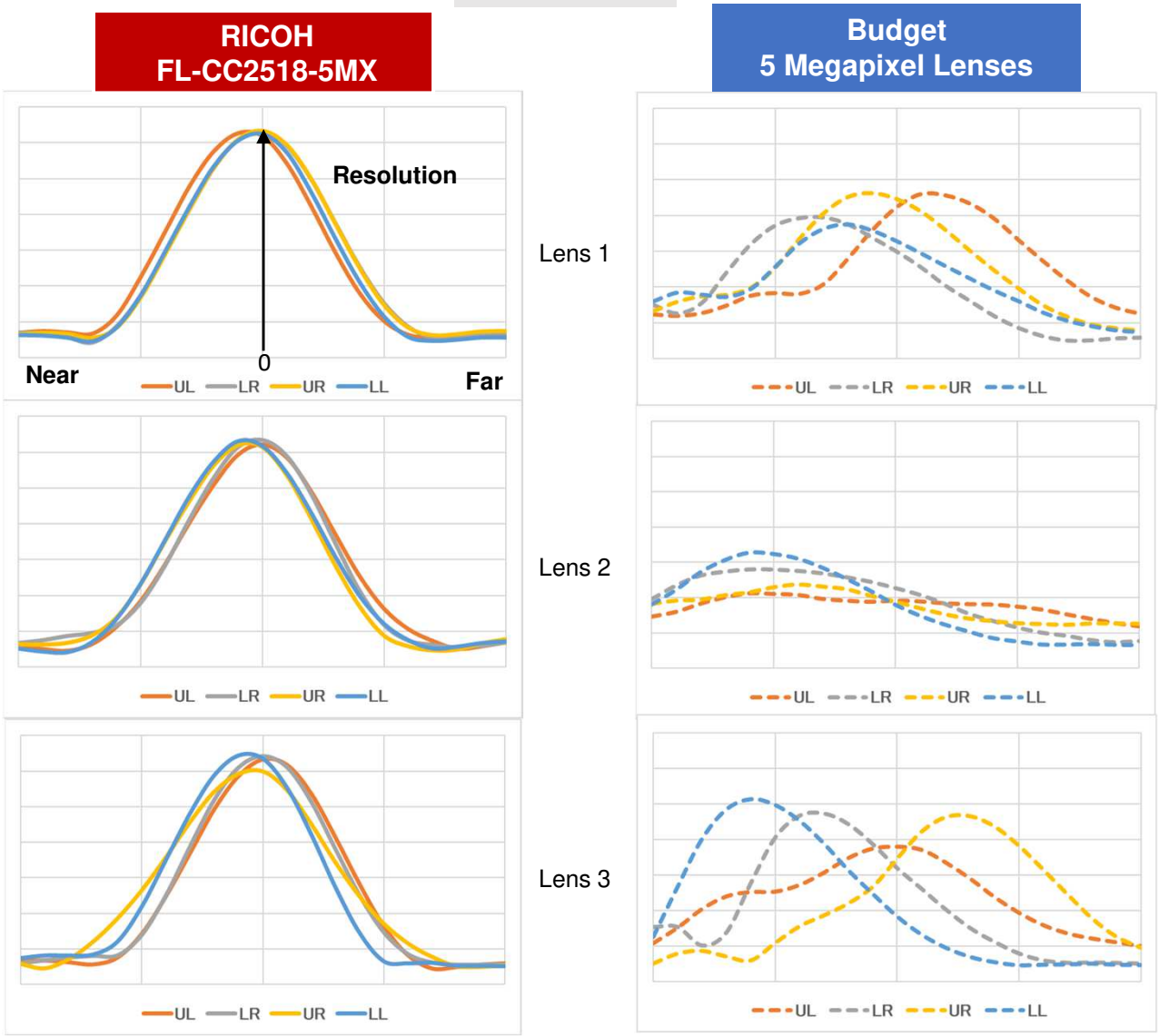
Why Ricoh Lenses are High Quality?

We have established unique inspection standards and introduced lens adjustment technology created by Ricoh, enabling the suppression of variations in individual lens performance.

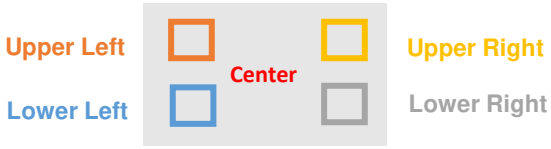
We randomly selected three Ricoh and three of the same budget manufacturer's 5 Megapixel lenses and measured the resolution. The graphs below show how the position of the four region's peak resolution changes when the focus shifts from 'O' (Working Distance 900mm on the central QR Code) towards near or far.

W.D. 900mm f2.8
Investigated by RICOH

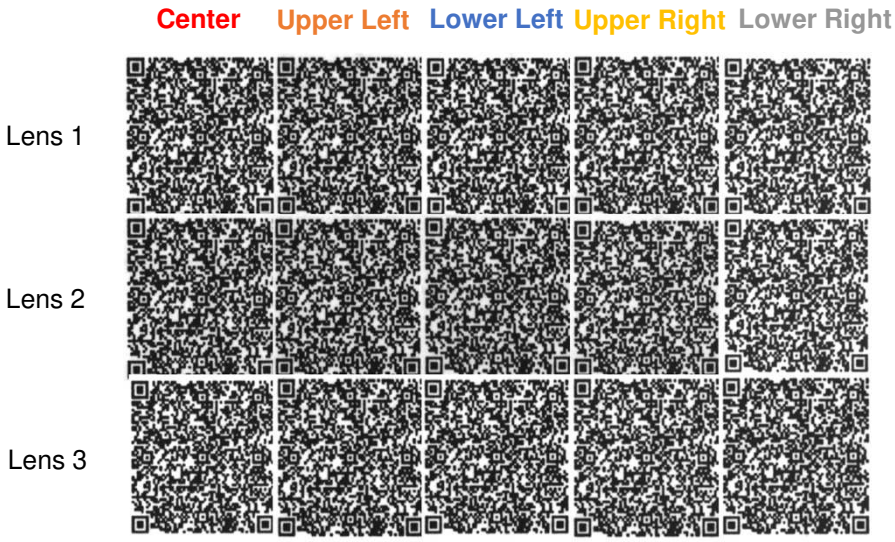


As the graphs show, all the Ricoh lenses provide their peak resolution in the four regions when the central QR code is at the 'O' position, producing a uniform quality with less individual differences. Conversely, the budget manufacturer's 5 Megapixel lens resolutions are lower, with their peak resolutions spread out.

While using these lenses, we also took images of the QR codes. We focused on the QR code in the center, took images and scanned the QR code with software in each region.
Consequently, **All** images of the QR codes taken by the Ricoh lenses are recognised correctly, while only **five** out of the twelve taken by the budget manufacturer's 5 Megapixel lenses are correctly readable.

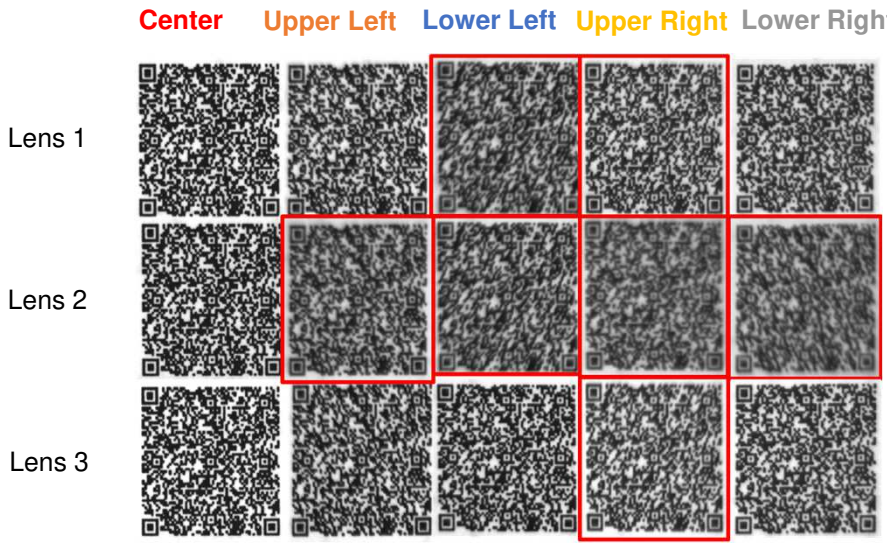


RICOH FL-CC2518-5MX



All QR codes in the center and four regions are recognised

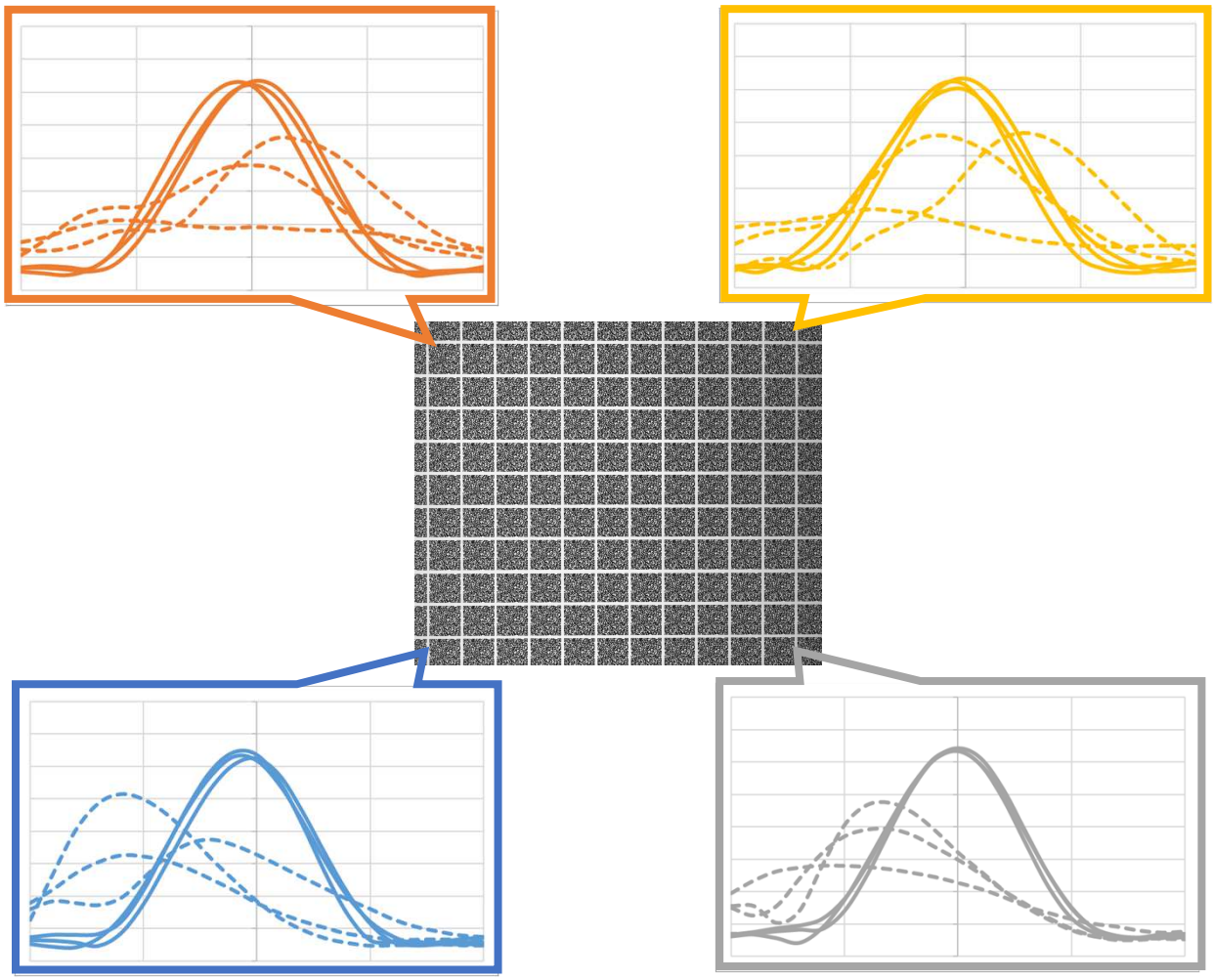
Budget 5 Megapixel Lenses



7 out of 12 QR codes are unreadable

Here we have consolidated Ricoh's and the budget manufacturer's 5 Megapixel lens's resolution graphs for each location to more readily show the differences.

The budget manufacturer's lens performances are spread out in terms of both resolution and peak positions, whilst Ricoh's lens performance are virtually the same.



Solid Line：Ricoh Lenses　Dotted Line：Budget Manufacturer's Lenses

Ricoh lenses assure users of not just high performance but also high repeatability by way of Ricoh's adjustment and simulation technologies.

RICOH
imagine. change
www.ricoh-iosd.eu

RICOH International B. V.
German Branch

Industrial Optical
Systems Division

Oberrather Strasse 6
40472 Düsseldorf, Germany
Tel.: +49 (0)211 6546 4500
Fax: +49 (0)211 6546 4501
Email: iosd@ricoh-europe.com