

OE Headquarter
Opto Engineering srl
Circonvallazione Sud, 15
46100 Mantova - ITALY

www.opto-engineering.com contact@opto-engineering.com phone+39 (0)376 699111 fax +39 (0)376 1581242 VAT (P.IVA) IT02011230204 Cap. Soc. (i.v.) € 60.000,00 REA: MN 216669

## LTCLHP CORE telecentric illuminators

LTCLHP CORE Series telecentric illuminators are up to 60% smaller than other collimated illuminators on the market. The ultra compact design allows to significantly downsize your vision system and to easily integrate true collimated illumination instead of common diffuse backlights, thus improving your system performance.

The compactness of CORE telecentric illuminators is achieved through a unique patent-pending design. While delivering excellent optical performances, just like the OE classic telecentric illuminators, the CORE series illuminators have a distinctive external design and beam shape.

The LTCLHP CORE beam shape is not circular and resembles a circle inscribed into a square. In the product table, the projected beam size is indicated with "x" for length and with  $\emptyset$  for diagonal. The minimum beam shape dimensions for the LTCLCR080-G are  $\emptyset = 98$ ; x = 90, all dimensions are in mm.

LTCLHP CORE series collimated illuminators fit all OE telecentric lenses with matching front lens size (same last 3 digits of the p/n). For example LTCLCR 064-G fits TCCRxx064, CMHOCR064, CMPTCR064, TCCR2M064-x, TCCR4M064-x, TCxx064, TCxMHR0564-x, TC16M064, TC16M064-Q and TC12K064.

If a LTCLHP CORE collimated illuminator is matched to a larger size telecentric lens, the minimum beam shape dimensions in the product table have to be carefully verified in order to avoid unwanted vignetting.



Minimum beam shape dimensions



Light projection

Some models of LTCLHP CORE illuminators generate a crescent-shaped reflection due to the complex opto-mechanical design. However, this extra light does not come into the FOV of the lens. The main beam produced by the illuminator has the same degree of collimation as the classic OE telecentric illuminators.

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