

# LTCLCR080-R

Telecentric CORE illuminator, beam diameter 100 mm, red

## SPECIFICATIONS

### Optical specifications

|                                  |      |             |
|----------------------------------|------|-------------|
| Beam diameter                    | (mm) | 100         |
| Working distance range           | (mm) | 150 - 300   |
| Light color, peak wavelength (5) |      | red, 630 nm |

### Electrical specifications

#### Device power ratings

|                             |      |       |
|-----------------------------|------|-------|
| DC voltage minimum(1)       | (V)  | 12    |
| DC voltage maximum(1)       | (V)  | 24    |
| Power consumption           | (W)  | < 2.5 |
| Max LED forward current (2) | (mA) | 350   |

#### LED power ratings

|                               |      |      |
|-------------------------------|------|------|
| Forward voltage (typical) (3) | (V)  | 2.4  |
| Forward voltage (max) (3)     | (V)  | 3.00 |
| Max pulse current (4)         | (mA) | 2000 |

### Mechanical specifications

|       |      |      |
|-------|------|------|
| A     | (mm) | 119  |
| B     | (mm) | 145  |
| C (6) | (mm) | 198  |
| Mass  | (g)  | 2919 |

### Compatible telecentric lenses

|               |   |
|---------------|---|
| Compatibility | TCCRxx080, CMHOCR080, CMPTCR080, TCCR2M080-x, TCCR4M080-x, TCxx080, TCxMHR080x, TC16M080, TC16M080-Q, TC12K080, TCZR072 |
|---------------|---|

## NOTES

1. Tolerance  $\pm 10\%$
2. Used in continuous (not pulsed) mode.
3. At max forward current. Tolerance is  $\pm 0.06V$  on forward voltage measurements.
4. At pulse width  $\leq 10$  ms, duty cycle  $\leq 10\%$  condition. Built-in electronics board must be bypassed (see tech info).
5. Opto Engineering recommends green light for high precision measurement applications.
6. Nominal value, with no spacers in place.

## COMPATIBLE PRODUCTS



TC series  
Bi-telecentric lenses for matrix detectors up to 2/3"

|         |  |
|---------|--|
| TC13080 | Bi-telecentric lens for 1/3" detectors, magnification 0.059 x, C-mount |
| TC12080 | Bi-telecentric lens for 1/2" detectors, magnification 0.080 x, C-mount |
| TC23080 | Bi-telecentric lens for 2/3" detectors, magnification 0.110 x, C-mount |



TC2MHR and TC4MHR series  
High resolution telecentric lenses for large detectors up to 1.2"



|             |  |
|-------------|--|
| TC2MHR080-C | High resolution telecentric lens for 1" detectors, magnification 0.160x, C-mount             |
| TC2MHR080-F | High resolution telecentric lens for 1" detectors, magnification 0.160x, F-mount             |
| TC2MHR080-E | High resolution telecentric lens for 1" detectors, magnification 0.160x, mount M42X1 FD=16   |
| TC4MHR080-C | High resolution telecentric lens for 1.2" detectors, magnification 0.221x, C-mount           |
| TC4MHR080-F | High resolution telecentric lens for 1.2" detectors, magnification 0.221x, F-mount           |
| TC4MHR080-E | High resolution telecentric lens for 1.2" detectors, magnification 0.221x, mount M42X1 FD=16 |



TC16M series  
Telecentric lenses for 35 mm and 4k/8k linescan cameras

|            |   |
|------------|---|
| TC16M080   | Telecentric lens for 35 mm detectors, magnification 0.463 x, F-mount                  |
| TC16M080-Q | Telecentric lens for 35 mm detectors, magnification 0.463 x, mount M58x0.75 FD = 6.56 |



TC CORE series  
Space saving bi-telecentric lenses

|           |   |
|-----------|---|
| TCCR12080 | Bi-telecentric CORE lens for 1/2" detectors, magnification 0.080 x, C-mount |
| TCCR23080 | Bi-telecentric CORE lens for 2/3" detectors, magnification 0.110 x, C-mount |



TC2MHR-TC4MHR CORE series  
Space-saving high-resolution telecentric lenses

|             |  |
|-------------|--|
| TCCR2M080-C | Telecentric CORE lens for 1" detectors, magnification 0.160 x, C-mount       |
| TCCR2M080-E | Telecentric CORE lens for 1" detectors, magnification 0.160 x, M42x1 FD=16   |
| TCCR4M080-C | Telecentric CORE lens for 4/3" detectors, magnification 0.221 x, C-mount     |
| TCCR4M080-F | Telecentric CORE lens for 4/3" detectors, magnification 0.221 x, F-mount     |
| TCCR4M080-E | Telecentric CORE lens for 4/3" detectors, magnification 0.221 x, M42x1 FD=16 |



TCSM series  
3D bi-telecentric lenses with Scheimpflug adjustment

|         |  |
|---------|--|
| TCSM080 | 3D bi-telecentric lens with Scheimpflug adjustment |
|---------|--|



CMHOCR series  
Clamping mechanics CORE series

|           |  |
|-----------|--|
| CMHOCR080 | Clamping mechanics for CORE telecentric lenses and illuminators Ø 80mm |
|-----------|--|



CMPTCR series  
Mounting plates CORE series

|           |  |
|-----------|--|
| CMPTCR080 | Mechanical components designed for CORE telecentric lenses and illuminators Ø 80mm |
|-----------|--|