

## Telecentric Lens

DTTL Series Telecentric Lens

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**Model No:**

1/1.8 Chip Support



DTTL Series

# 1/1.8 Chip Support

Target camera



■ Professional customization of multiples and depth of field

■ Dual telecentric design High definition Standard C interface

■ Can be equipped with a dedicated parallel light

■ For high-precision detection and measurement

| Lens Model       | Mag     | WD  | DOF  | Telecen  | Optical    | Aperture | Mtf>0.3 | Mount | 1/2.5"      | 1/1.8"IMX          | 1/1.8"IMX       |
|------------------|---------|-----|------|----------|------------|----------|---------|-------|-------------|--------------------|-----------------|
|                  |         |     | mm   | -tricity | distortion | F/#      | (lp/mm) |       | (5.7*4.8)mm | 252/265(7.1*5.3)mm | 178(7.43*4.9)mm |
| DTTL40-042X18    | 0.42X   | 40  | 1.2  | <0.1     | <0.1       | 5        | 200     | C     | 13.6*10.2   | 16.9*12.6          | 17.7*11.7       |
| DTTL60-035X18    | 0.35X   | 60  | 2.2  | <0.1     | <0.1       | 5        | 160     | C     | 16.3*12.2   | 20.3*15.1          | 21.2*14         |
| DTTL65-03X18     | 0.3X    | 65  | 2.8  | <0.1     | <0.1       | 6        | 150     | C     | 19*14.3     | 23.7*17.7          | 24.8*16.3       |
| DTTL108-026X18   | 0.26X   | 108 | 3.2  | <0.1     | <0.1       | 5        | 200     | C     | 21.9*16.5   | 27.3*20.4          | 28.6*18.8       |
| DTTL120-022X18   | 0.22X   | 120 | 3.8  | <0.1     | <0.1       | 4        | 220     | C     | 25.9*19.5   | 32.3*24.1          | 33.8*22.3       |
| DTTL125-019X18   | 0.19X   | 125 | 4.1  | <0.1     | <0.1       | 5        | 200     | C     | 30*22.5     | 37.4*27.9          | 39.1*25.8       |
| DTTL140-0163X18  | 0.163X  | 140 | 4.3  | <0.1     | <0.1       | 5        | 200     | C     | 35*26.3     | 43.6*32.5          | 45.6*30.1       |
| DTTL170-0153X18  | 0.153X  | 170 | 4.5  | <0.1     | <0.1       | 5        | 200     | C     | 37.3*28     | 46.4*34.6          | 48.6*32         |
| DTTL190-0141X18  | 0.141X  | 190 | 4.6  | <0.1     | <0.1       | 6        | 200     | C     | 40.4*30.4   | 50.4*37.6          | 52.7*34.8       |
| DTTL200-0125X18  | 0.125X  | 200 | 5.5  | <0.1     | <0.1       | 5        | 180     | C     | 45.6*34.2   | 56.8*42.4          | 59.4*39.2       |
| DTTL225-011X18   | 0.11X   | 225 | 5.8  | <0.1     | <0.1       | 5        | 135     | C     | 51.8*38.9   | 64.5*48.2          | 67.5*44.5       |
| DTTL180-0095X18  | 0.095X  | 180 | 12   | <0.1     | <0.1       | 5        | 220     | C     | 60*45.1     | 74.7*55.8          | 78.2*51.6       |
| DTTL250-0082X18  | 0.082X  | 250 | 15   | <0.1     | <0.1       | 6        | 170     | C     | 69.5*52.2   | 86.6*64.6          | 90.6*59.8       |
| DTTL300-0075X18  | 0.075X  | 300 | 19.2 | <0.1     | <0.1       | 5        | 220     | C     | 76*57.1     | 94.7*70.7          | 99.1*65.3       |
| DTTL320-006X18   | 0.06X   | 320 | 21.1 | <0.1     | <0.1       | 5        | 200     | C     | 95*71.3     | 118.3*88.3         | 123.8*81.7      |
| DTTL370-0046X18  | 0.046X  | 370 | 23.2 | <0.1     | <0.1       | 5        | 200     | C     | 123.9*93    | 154.3*115.2        | 161.5*106.5     |
| DTTL435-00395X18 | 0.0395X | 435 | 28   | <0.1     | <0.1       | 5        | 200     | C     | 144.3*108.4 | 179.7*134.2        | 188.1*124.1     |
| DTTL505-003X18   | 0.03X   | 505 | 32.5 | <0.1     | <0.1       | 4        | 220     | C     | 190*142.7   | 236.7*176.7        | 247.7*163.3     |

|                    |       |
|--------------------|-------|
| Mag                | 0.42X |
| WD                 | 40    |
| DOF(mm)            | 1.2   |
| Telecentricity     | <0.1  |
| Optical distortion | 0.1   |
| Aperture(F/#)      | 5     |
| MTF>0.3(lp/mm)     | 200   |
| Mount              | C     |

|                             |           |
|-----------------------------|-----------|
| 1/2.5"(5.7*4.28)mm          | 13.6*10.2 |
| 1/1.8"IMX252/265(7.1*5.3)mm | 16.9*12.6 |
| 1/1.8"IMX178(7.43*4.9)mm    | 17.7*11.7 |

|                    |       |
|--------------------|-------|
| Mag                | 0.35X |
| WD                 | 60    |
| DOF(mm)            | 2.2   |
| Telecentricity     | <0.1  |
| Optical distortion | <0.1  |
| Aperture(F/#)      | 5     |
| MTF>0.3(lp/mm)     | 160   |
| Mount              | C     |

|                             |           |
|-----------------------------|-----------|
| 1/2.5"(5.7*4.28)mm          | 16.3*12.2 |
| 1/1.8"IMX252/265(7.1*5.3)mm | 20.3*15.1 |
| 1/1.8"IMX178(7.43*4.9)mm    | 21.2*14   |

Technical drawing of the 1000 Series LED Floodlight (model 1000-1). The drawing includes a side view and a front view. The side view shows a total height of 1012.7 mm, with a mounting arm length of 390 mm and a mounting bracket height of 18 mm. The front view shows a total height of 306.2 mm, with a mounting bracket height of 18 mm and a base height of 20 mm. The diameter of the mounting arm is  $\varnothing 45$  mm, and the diameter of the base is  $\varnothing 34$  mm. The base features a circular logo with the letter 'E' and a series of vertical fins.

|                    |      |
|--------------------|------|
| Mag                | 0.3X |
| WD                 | 65   |
| DOF(mm)            | 2.8  |
| Telecentricity     | <0.1 |
| Optical distortion | <0.1 |
| Aperture(F/#)      | 6    |
| MTF>0.3(lp/mm)     | 150  |
| Mount              | C    |

|                             |           |
|-----------------------------|-----------|
| 1/2.5"(5.7*4.28)mm          | 19*14.3   |
| 1/1.8"IMX252/265(7.1*5.3)mm | 23.7*17.7 |
| 1/1.8"IMX178(7.43*4.9)mm    | 24.8*16.3 |

|                    |       |
|--------------------|-------|
| Mag                | 0.26X |
| WD                 | 108   |
| DOF(mm)            | 3.2   |
| Telecentricity     | <0.1  |
| Optical distortion | <0.1  |
| Aperture(F/#)      | 5     |
| MTF>0.3(lp/mm)     | 200   |
| Mount              | C     |

|                             |           |
|-----------------------------|-----------|
| 1/2.5"(5.7*4.28)mm          | 21.9*16.5 |
| 1/1.8"IMX252/265(7.1*5.3)mm | 27.3*20.4 |
| 1/1.8"IMX178(7.43*4.9)mm    | 28.6*18.8 |

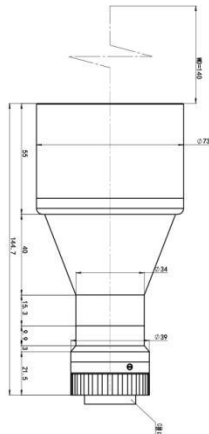
|                    |       |
|--------------------|-------|
| Mag                | 0.22X |
| WD                 | 120   |
| DOF(mm)            | 3.8   |
| Telecentricity     | <0.1  |
| Optical distortion | <0.1  |
| Aperture(F/#)      | 4     |
| MTF>0.3(lp/mm)     | 220   |
| Mount              | C     |

|                             |           |
|-----------------------------|-----------|
| 1/2.5"(5.7*4.28)mm          | 25.9*19.5 |
| 1/1.8"IMX252/265(7.1*5.3)mm | 32.3*24.1 |
| 1/1.8"IMX178(7.43*4.9)mm    | 33.8*22.3 |

|                    |       |
|--------------------|-------|
| Mag                | 0.19X |
| WD                 | 125   |
| DOF(mm)            | 4.1   |
| Telecentricity     | <0.1  |
| Optical distortion | <0.1  |
| Aperture(F/#)      | 5     |
| MTF>0.3(lp/mm)     | 200   |
| Mount              | C     |

|                             |           |
|-----------------------------|-----------|
| 1/2.5"(5.7*4.28)mm          | 30*22.5   |
| 1/1.8"IMX252/265(7.1*5.3)mm | 37.4*27.9 |
| 1/1.8"IMX178(7.43*4.9)mm    | 39.1*25.8 |

### DTTL140-0163X18



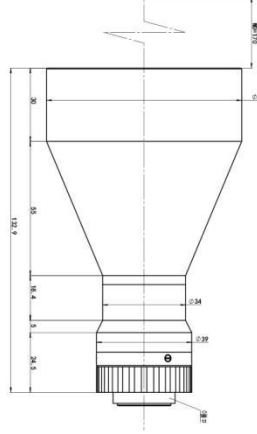
#### Main parameters

|                    |        |
|--------------------|--------|
| Mag                | 0.163X |
| WD                 | 140    |
| DOF(mm)            | 4.3    |
| Telecentricity     | <0.1   |
| Optical distortion | <0.1   |
| Aperture(F/#)      | 5      |
| MTF>0.3(lp/mm)     | 200    |
| Mount              | C      |

#### Field of view

|                             |           |
|-----------------------------|-----------|
| 1/2.5"(5.7*4.28)mm          | 35°26.3   |
| 1/1.8"IMX252/265(7.1*5.3)mm | 43.6°32.5 |
| 1/1.8"IMX178(7.43*4.9)mm    | 45.6°30.1 |

### DTTL170-0153X18



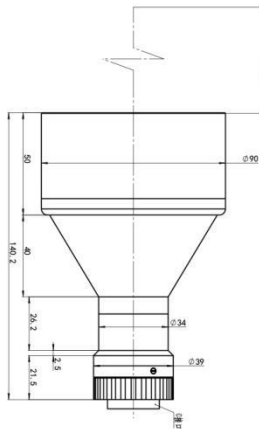
#### Main parameters

|                    |        |
|--------------------|--------|
| Mag                | 0.153X |
| WD                 | 170    |
| DOF(mm)            | 4.5    |
| Telecentricity     | <0.1   |
| Optical distortion | <0.1   |
| Aperture(F/#)      | 5      |
| MTF>0.3(lp/mm)     | 200    |
| Mount              | C      |

#### Field of view

|                             |           |
|-----------------------------|-----------|
| 1/2.5"(5.7*4.28)mm          | 37.3°28   |
| 1/1.8"IMX252/265(7.1*5.3)mm | 46.4°34.6 |
| 1/1.8"IMX178(7.43*4.9)mm    | 48.6°32   |

### DTTL190-0141X18



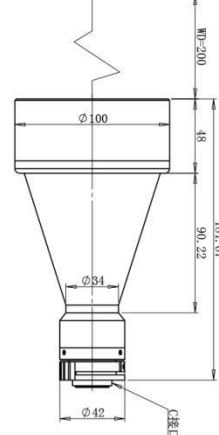
#### Main parameters

|                    |        |
|--------------------|--------|
| Mag                | 0.141X |
| WD                 | 190    |
| DOF(mm)            | 4.6    |
| Telecentricity     | <0.1   |
| Optical distortion | <0.1   |
| Aperture(F/#)      | 6      |
| MTF>0.3(lp/mm)     | 200    |
| Mount              | C      |

#### Field of view

|                             |           |
|-----------------------------|-----------|
| 1/2.5"(5.7*4.28)mm          | 40.4°30.4 |
| 1/1.8"IMX252/265(7.1*5.3)mm | 50.4°37.6 |
| 1/1.8"IMX178(7.43*4.9)mm    | 52.7°34.8 |

### DTTL200-0125X18



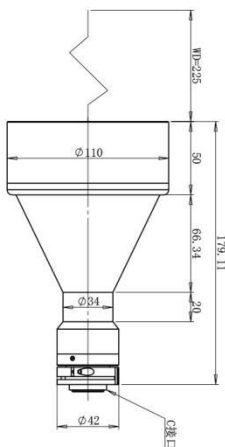
#### Main parameters

|                    |        |
|--------------------|--------|
| Mag                | 0.125X |
| WD                 | 200    |
| DOF(mm)            | 5.5    |
| Telecentricity     | <0.1   |
| Optical distortion | <0.1   |
| Aperture(F/#)      | 5      |
| MTF>0.3(lp/mm)     | 180    |
| Mount              | C      |

#### Field of view

|                             |           |
|-----------------------------|-----------|
| 1/2.5"(5.7*4.28)mm          | 45.6°34.2 |
| 1/1.8"IMX252/265(7.1*5.3)mm | 56.8°42.4 |
| 1/1.8"IMX178(7.43*4.9)mm    | 59.4°39.2 |

### DTTL225-011X18



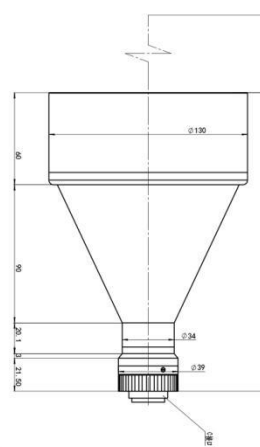
#### Main parameters

|                    |       |
|--------------------|-------|
| Mag                | 0.11X |
| WD                 | 225   |
| DOF(mm)            | 5.8   |
| Telecentricity     | <0.1  |
| Optical distortion | <0.1  |
| Aperture(F/#)      | 5     |
| MTF>0.3(lp/mm)     | 135   |
| Mount              | C     |

#### Field of view

|                             |           |
|-----------------------------|-----------|
| 1/2.5"(5.7*4.28)mm          | 51.8°38.9 |
| 1/1.8"IMX252/265(7.1*5.3)mm | 64.5°48.2 |
| 1/1.8"IMX178(7.43*4.9)mm    | 67.5°44.5 |

### DTTL180-0095X18



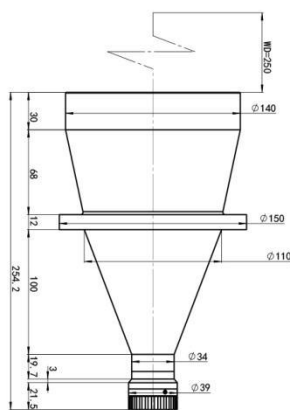
#### Main parameters

|                    |        |
|--------------------|--------|
| Mag                | 0.095X |
| WD                 | 180    |
| DOF(mm)            | 12     |
| Telecentricity     | <0.1   |
| Optical distortion | <0.1   |
| Aperture(F/#)      | 5      |
| MTF>0.3(lp/mm)     | 220    |
| Mount              | C      |

#### Field of view

|                             |           |
|-----------------------------|-----------|
| 1/2.5"(5.7*4.28)mm          | 60°45.1   |
| 1/1.8"IMX252/265(7.1*5.3)mm | 74.7°55.8 |
| 1/1.8"IMX178(7.43*4.9)mm    | 78.2°51.6 |

## DTTL250-0082X18



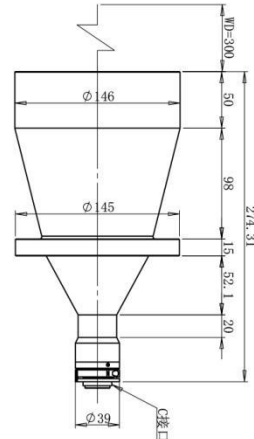
### Main parameters

|                    |        |
|--------------------|--------|
| Mag                | 0.082X |
| WD                 | 250    |
| DOF(mm)            | 15     |
| Telecentricity     | <0.1   |
| Optical distortion | <0.1   |
| Aperture(F/#)      | 6      |
| MTF>0.3(lp/mm)     | 170    |
| Mount              | C      |

### Field of view

|                             |           |
|-----------------------------|-----------|
| 1/2.5"(5.7*4.28)mm          | 69.5*52.2 |
| 1/1.8"IMX252/265(7.1*5.3)mm | 86.6*64.6 |
| 1/1.8"IMX178(7.43*4.9)mm    | 90.6*59.8 |

## DTTL300-0075X18



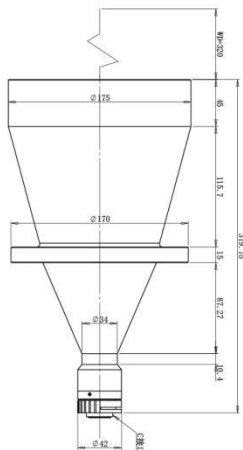
### Main parameters

|                    |        |
|--------------------|--------|
| Mag                | 0.075X |
| WD                 | 300    |
| DOF(mm)            | 19.2   |
| Telecentricity     | <0.1   |
| Optical distortion | <0.1   |
| Aperture(F/#)      | 5      |
| MTF>0.3(lp/mm)     | 220    |
| Mount              | C      |

### Field of view

|                             |           |
|-----------------------------|-----------|
| 1/2.5"(5.7*4.28)mm          | 76*57.1   |
| 1/1.8"IMX252/265(7.1*5.3)mm | 94.7*70.7 |
| 1/1.8"IMX178(7.43*4.9)mm    | 99.1*65.3 |

## DTTL320-006X18



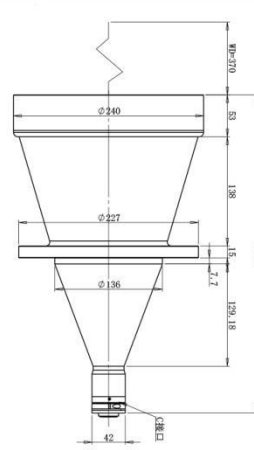
### Main parameters

|                    |       |
|--------------------|-------|
| Mag                | 0.06X |
| WD                 | 320   |
| DOF(mm)            | 21.1  |
| Telecentricity     | <0.1  |
| Optical distortion | <0.1  |
| Aperture(F/#)      | 5     |
| MTF>0.3(lp/mm)     | 200   |
| Mount              | C     |

### Field of view

|                             |            |
|-----------------------------|------------|
| 1/2.5"(5.7*4.28)mm          | 95*71.3    |
| 1/1.8"IMX252/265(7.1*5.3)mm | 118.3*88.3 |
| 1/1.8"IMX178(7.43*4.9)mm    | 123.8*81.7 |

## DTTL370-0046X18



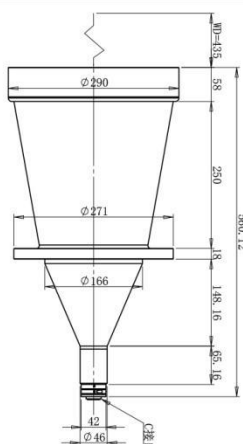
### Main parameters

|                    |        |
|--------------------|--------|
| Mag                | 0.046X |
| WD                 | 370    |
| DOF(mm)            | 23.2   |
| Telecentricity     | <0.1   |
| Optical distortion | <0.1   |
| Aperture(F/#)      | 5      |
| MTF>0.3(lp/mm)     | 200    |
| Mount              | C      |

### Field of view

|                             |             |
|-----------------------------|-------------|
| 1/2.5"(5.7*4.28)mm          | 123.9*93    |
| 1/1.8"IMX252/265(7.1*5.3)mm | 154.3*115.2 |
| 1/1.8"IMX178(7.43*4.9)mm    | 161.5*106.5 |

## DTTL435-00395X18



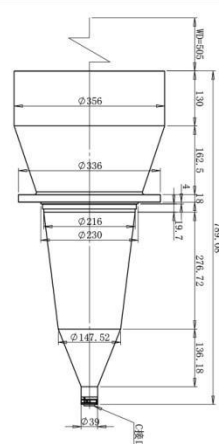
### Main parameters

|                    |         |
|--------------------|---------|
| Mag                | 0.0395X |
| WD                 | 435     |
| DOF(mm)            | 28      |
| Telecentricity     | <0.1    |
| Optical distortion | <0.1    |
| Aperture(F/#)      | 5       |
| MTF>0.3(lp/mm)     | 200     |
| Mount              | C       |

### Field of view

|                             |             |
|-----------------------------|-------------|
| 1/2.5"(5.7*4.28)mm          | 144.3*108.4 |
| 1/1.8"IMX252/265(7.1*5.3)mm | 179.7*134.2 |
| 1/1.8"IMX178(7.43*4.9)mm    | 188.1*124.1 |

## DTTL505-003X18



### Main parameters

|                    |       |
|--------------------|-------|
| Mag                | 0.03X |
| WD                 | 505   |
| DOF(mm)            | 32.5  |
| Telecentricity     | <0.1  |
| Optical distortion | <0.1  |
| Aperture(F/#)      | 4     |
| MTF>0.3(lp/mm)     | 220   |
| Mount              | C     |

### Field of view

|                             |             |
|-----------------------------|-------------|
| 1/2.5"(5.7*4.28)mm          | 190*142.7   |
| 1/1.8"IMX252/265(7.1*5.3)mm | 236.7*176.7 |
| 1/1.8"IMX178(7.43*4.9)mm    | 247.7*163.3 |