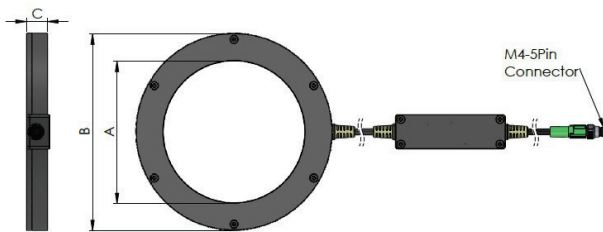


## VL-DFF Low Angle Light for Dark Field Illumination

- High intensity leds for highest illumination
- Compact design
- Heat transfer pads for longer life



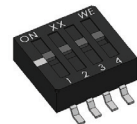
CE

### Features

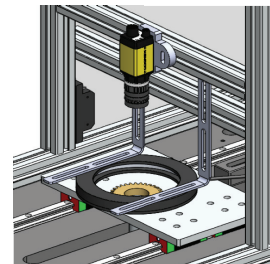
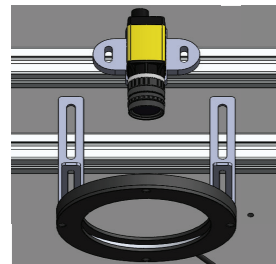
Aluminium  
PCB for  
maximum  
heat transfer



Illumination  
intensity  
modes with  
dip switches



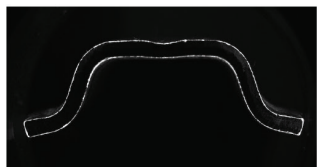
### How to use



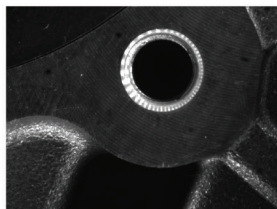
## Product Types

| Model                   | Color | Wavelength/<br>Color<br>Temperature | Power<br>Supply | Power Consumption               | IP<br>Rating | Connection             | A(mm) | B(mm) | C(mm) | D(mm) | E(mm) | Housing Material           | Light<br>Angle (°) |
|-------------------------|-------|-------------------------------------|-----------------|---------------------------------|--------------|------------------------|-------|-------|-------|-------|-------|----------------------------|--------------------|
| VL-DFA-40-80-R-24-C30   | R     | 660nm                               | 24VDC           | continuous: 2W, trigger: 4W     | IP50         | M8 4 pin w 300mm cable | 40    | 80    | 15,5  | *     | *     | Aluminum (Black, Anodized) | 120°               |
| VL-DFA-40-80-W-24-C30   | W     | 6500K                               | 24VDC           | continuous: 2.5W, trigger: 5W   | IP50         | M8 4 pin w 300mm cable | 40    | 80    | 15,5  | *     | *     | Aluminum (Black, Anodized) | 120°               |
| VL-DFF-40-80-R-24-C30   | R     | 660nm                               | 24VDC           | continuous: 2W, trigger: 4W     | IP50         | M8 4 pin w 300mm cable | 40    | 80    | 15,5  | *     | *     | Aluminum (Black, Anodized) | 120°               |
| VL-DFF-40-80-W-24-C30   | W     | 6500K                               | 24VDC           | continuous: 2.5W, trigger: 5W   | IP50         | M8 4 pin w 300mm cable | 40    | 80    | 15,5  | *     | *     | Aluminum (Black, Anodized) | 120°               |
| VL-DFF-103-143-R-24-C30 | R     | 660nm                               | 24VDC           | continuous: 4W, trigger: 8W     | IP50         | M8 4 pin w 300mm cable | 103   | 143   | 15,5  | *     | *     | Aluminum (Black, Anodized) | 120°               |
| VL-DFF-103-143-W-24-C30 | W     | 6500K                               | 24VDC           | continuous: 5W, trigger: 9W     | IP50         | M8 4 pin w 300mm cable | 103   | 143   | 15,5  | *     | *     | Aluminum (Black, Anodized) | 120°               |
| VL-DFF-165-205-R-24-C30 | R     | 660nm                               | 24VDC           | continuous: 6,5W, trigger: 11W  | IP50         | M8 4 pin w 300mm cable | 165   | 205   | 15,5  | *     | *     | Aluminum (Black, Anodized) | 120°               |
| VL-DFF-165-205-W-24-C30 | W     | 6500K                               | 24VDC           | continuous: 7,5W, trigger: 12W  | IP50         | M8 4 pin w 300mm cable | 165   | 205   | 15,5  | *     | *     | Aluminum (Black, Anodized) | 120°               |
| VL-DFF-230-270-R-24-C30 | R     | 660nm                               | 24VDC           | continuous: 8,5W, trigger: 14W  | IP50         | M8 4 pin w 300mm cable | 230   | 270   | 15,5  | *     | *     | Aluminum (Black, Anodized) | 120°               |
| VL-DFF-230-270-W-24-C30 | W     | 6500K                               | 24VDC           | continuous: 10W, trigger: 16W   | IP50         | M8 4 pin w 300mm cable | 230   | 270   | 15,5  | *     | *     | Aluminum (Black, Anodized) | 120°               |
| VL-DFF-290-330-R-24-C30 | R     | 660nm                               | 24VDC           | continuous: 11W, trigger: 17W   | IP50         | M8 4 pin w 300mm cable | 290   | 330   | 15,5  | *     | *     | Aluminum (Black, Anodized) | 120°               |
| VL-DFF-290-330-W-24-C30 | W     | 6500K                               | 24VDC           | continuous: 12,5W, trigger: 20W | IP50         | M8 4 pin w 300mm cable | 290   | 330   | 15,5  | *     | *     | Aluminum (Black, Anodized) | 120°               |
| VL-DFF-355-395-R-24-C30 | R     | 660nm                               | 24VDC           | continuous: 13W, trigger: 20W   | IP50         | M8 4 pin w 300mm cable | 355   | 395   | 15,5  | *     | *     | Aluminum (Black, Anodized) | 120°               |
| VL-DFF-355-395-W-24-C30 | W     | 6500K                               | 24VDC           | continuous: 15W, trigger: 23W   | IP50         | M8 4 pin w 300mm cable | 355   | 395   | 15,5  | *     | *     | Aluminum (Black, Anodized) | 120°               |

## Sample Applications



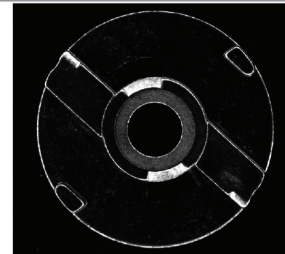
Detecting edges, edge defect detection, positioning of low contrast parts



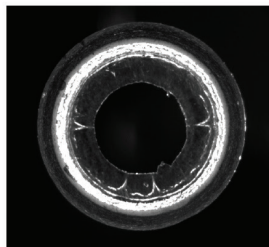
Groove, scratch detection,  
diameter measurement  
based on edges



Ball bearing inspection, round object check



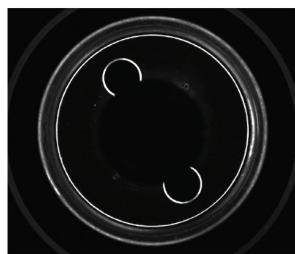
Positionin based on edges,  
low color contrast part  
identification



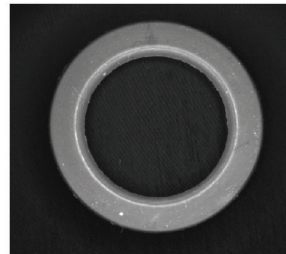
Part edge crack, dent inspection



### Part detection on PCB's, positioning, detecting parts based on height difference



Part position in related to the edges, part identification



Part positioning, detection on parts which has same color with background

|                                                                                     | Light ON Position Percentage                         | Light Intensity                                                                       | Accessories Image                                                                                     |
|-------------------------------------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|  | ON : % 100<br>OFF : % 0 (Standard High Intensity)    |  | Can be used without strobe, continuous illumination mode                                              |
|  | ON : % 85<br>OFF : % 15                              |  | Due to high illumination settings, use this mode only with strobe input with given ON/OFF percentage. |
|  | ON : % 72<br>OFF : % 28                              |  | Due to high illumination settings, use this mode only with strobe input with given ON/OFF percentage. |
|  | ON : % 60<br>OFF : % 40                              |  | Due to high illumination settings, use this mode only with strobe input with given ON/OFF percentage. |
|  | ON : % 50<br>OFF : % 50 (Ultra high light Intensity) |  | Due to high illumination settings, use this mode only with strobe input with given ON/OFF percentage. |

## Electrical Connection

|   | Cable                                            | Ordering Code      | Drawing/Connection                             |
|---|--------------------------------------------------|--------------------|------------------------------------------------|
| 1 | M8 female 0° with cable PVC 4x0.25 bk UL/CSA 3m  | 7000-08061-6110300 | <p>connection without STROBE</p> <p>Female</p> |
| 2 | M8 female 0° with cable PVC 4x0.25 bk UL/CSA 5m  | 7000-08061-6110500 |                                                |
| 3 | M8 female 90° with cable PVC 4x0.25 bk UL/CSA 3m | 7000-08101-6110300 | <p>connection with STROBE</p> <p>Female</p>    |
| 4 | M8 female 90° with cable PVC 4x0.25 bk UL/CSA 5m | 7000-08101-6110500 |                                                |