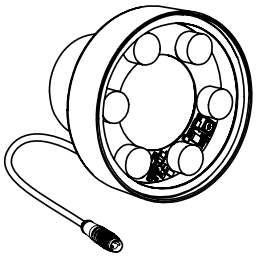
VE Series LED High-Intensity Sealed Ring Light

Datasheet

High-Intensity Sealed LED Ring Light for use with VE Series smart cameras



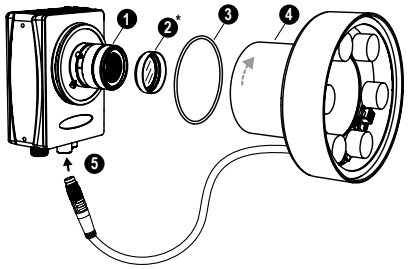
- Rugged, waterproof IEC IP67 housing, for use with VE Series smart cameras in wet or dirty environments
- Six extremely bright LEDs for even illumination of targets
- Continuous or strobed operation
- Maintenance-free, rugged construction
- Power, configure, and mount directly with VE Series smart cameras
- Available with borosilicate glass or polycarbonate window

Models

The following sealed ring lights are compatible with all WVGA, 1.3 MP, and 2 MP models with lenses installed. The sealed ring lights are compatible with some 5 MP models with lenses installed[1].

Model	LED Color	Window Construction	Connection
LEDIRV75BM	Infrared, 850 nm ±5 nm	Borosillicate Glass	350 mm (13.8 in) Pico 3-Pin Quick-Disconnect
LEDRRV75BM	Visible red, 625 nm ±5 nm		
LEDBRV75BM	Visible blue, 475 nm ±5 nm		
LEDGRV75BM	Visible green, 525 nm +10 nm/-5 nm		
LEDWRV75BM	Visible white, 6200K +500K/-550K		
LEDIRV75PM	Infrared, 850 nm ±5 nm	Polycarbonate Plastic	
LEDRRV75PM	Visible red, 625 nm ±5 nm		
LEDBRV75PM	Visible blue, 475 nm ±5 nm		
LEDGRV75PM	Visible green, 525 nm +10 nm/-5 nm		
LEDWRV75PM	Visible white, 6200K +500K/-550K		

Install the Ring Light



1. Remove the black thread protector (not shown) from the camera.
2. Remove the temporary imager cover (not shown).
3. Install and focus the C-mount lens (1).
4. Thread the filter (2), if using, onto the front of the lens.
   Filters are recommended to improve image quality.
5. Fit a single o-ring (3) into the undercut area behind the camera threads.

[1] For 5 MP camera and lens, the sealed ring light is compatible with 12 mm to 50 mm focal length lenses with a filter installed. Without a filter installed, the sealed ring light is compatible with 75 mm focal lengths. The use of the LHWK-1 setscrew accessory kit is required for focus and aperture locking when using a ring light.

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6. Thread the ring light (4) onto the threaded portion of the camera.
7. Connect the cable from the ring light to the camera (5).

Wiring

Pin	Wire Color	Description
1	Brown	+V
2	Blue	-V
3	Black	Off: +5 V dc to +24 V dc
		On: -V or not connected

Maintenance

Regularly remove dust, dirt, or fingerprints from the lens cover. Use anti-static compressed air to blow off dust. If necessary, use a lens cloth and lens cleaner or window cleaner to wipe off remaining debris.

Sensing Shiny Surfaces

To eliminate direct reflections without using polarizing filters, angle the sensor approximately 15° (or more) from perpendicular to a shiny surface.

Specifications

Light Source
Six high-intensity LEDs; see models table for wavelengths

Illumination
400 mm (15.75 in) diameter usable light pattern at 0.5 m (1.64 ft)

Supply Voltage and Current
Operating Voltage: 24 V dc ±10%
Strobe Voltage: 5 V dc to 24 V dc at 5 mA maximum
Current Draw at Full Intensity: 270 mA maximum

Strobe Type
PWM (Pulse Width Modulation)

Connection
350 mm (13.8 in) cable with a threaded 3-pin Pico-style connector

Construction
Housing: Painted black aluminum
Window: Polycarbonate or borosilicate glass, depending on model

Operating Conditions
Temperature: –20 °C to +50 °C (–4 °F to +122 °F)
Humidity: 90% maximum relative humidity (non-condensing)

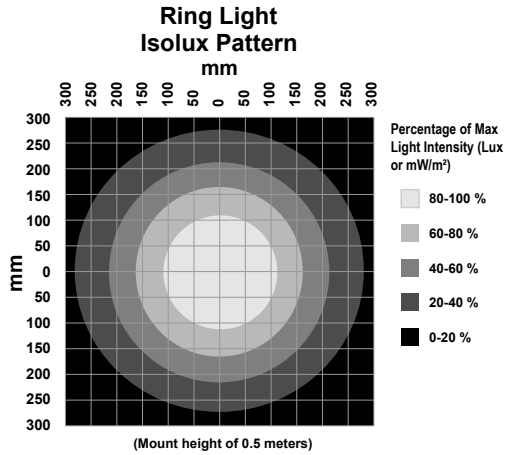
Environmental Rating
IEC IP67 when installed on VE Series smart cameras

Certifications
Information Technology Equipment
E365235

Light Characteristics
Values shown are typical at 25 °C.

	Lumens				mWatts
	Cool White	Green	Red	Blue	IR
LEDxRV75	675	450	300	160	1850

Optical Data

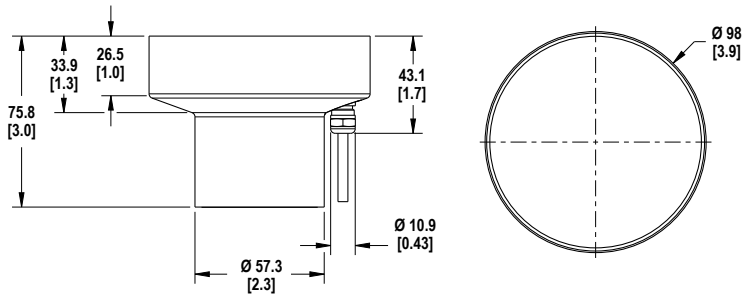


Values shown are typical at 25 °C.

Distance (m)	Max Center Beam Lux (lux)				Max Center Beam Irradiance (mW/m²)	Beam Width (m)	
	Cool White	Green	Red	Blue	IR	Vertical (Spread 45°)	Horizontal (Spread 45°)
0.25	17,850	11,900	7933	4231	29,940	0.21	0.21
0.50	4428	2952	1968	1050	10,000	0.42	0.42
1.00	1150	767	511	273	2810	0.83	0.83

Dimensions

All measurements are listed in millimeters [inches], unless noted otherwise.



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FCC Part 15 and CAN ICES-3 (B)/NMB-3(B)

This device complies with part 15 of the FCC Rules and CAN ICES-3 (B)/NMB-3(B). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules and CAN ICES-3 (B)/NMB-3(B). These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the manufacturer.

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