

## NERLITE® RING LIGHT



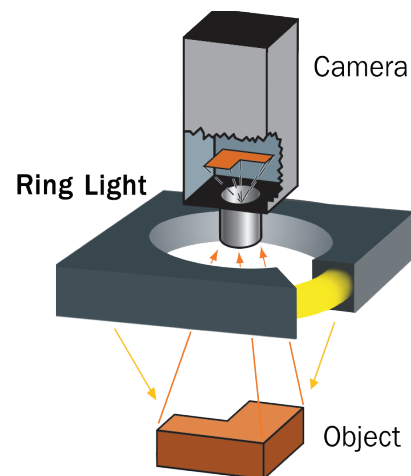
## Diffused Surface Lighting Solution

Omron Microscan's NERLITE Smart Series products feature built-in controllers for a complete and easily integrated solution.

Ring lights are a cost-effective, easily integrated solution for illuminating surfaces. As with other incident lighting choices, subtle adjustments to working distance and angle of light delivery can deliver good image contrast for minimal investment. Ring light packaging and mounting advancements emphasize durability and versatility for any diffused surface lighting application.

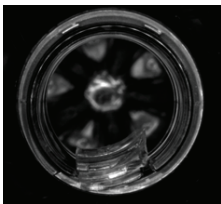
### Ring Light: At a Glance

- *Smart Series: Built-in controller with adjustable intensity continuous mode and high output strobe mode*
- *Integrated Pulse Width Modulation (PWM) feature for dimming and on-off control*
- *Economical and widely-used general purpose designs*
- *Diffuser accessory included*
- *Optional polarizer accessories available for the R 70 and R 100 ring lights. (Must be combined with complimentary user-supplied polarizer on the lens).*

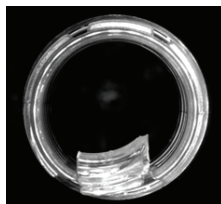


### Illumination Example:

Object



Resulting Image



**Plastic bottle:** Defect on top of a plastic bottle is clearly identified.

### Application Examples

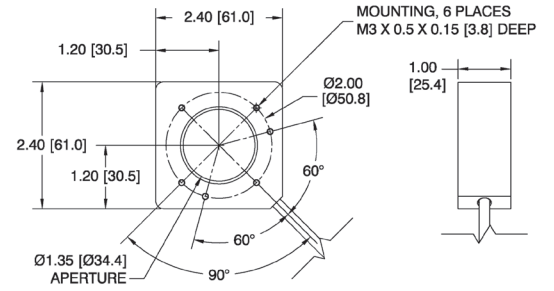
- Illuminate flat, diffused surfaces
- Inspection of circular objects (gaskets, washers)
- Label inspection
- Lab use where interchangeable optics such as diffusers or fresnel (focusing) lenses are desired
- When direct attachment to lens is required

# NERLITE® RING LIGHT SPECIFICATIONS AND OPTIONS

## R 60

PART NUMBER	DESCRIPTION	nm/K	CONT. CURRENT	STROBE CURRENT	mcd (mw for UV)	
					CONT.	STROBE
NER-011660800G	Smart Series Ring Light, 60 mm, Red	623 nm	140 mA	1.2 A	283759	2958239
NER-011660820G	Smart Series Ring Light, 60 mm, Blue	470 nm	140 mA	700 mA	124671	536355
NER-011660810G	Smart Series Ring Light, 60 mm, White	6700 K	140 mA	700 mA	305710	1512455
NER-011660840G	Smart Series Ring Light, 60 mm, UV	375 nm	60 mA	200 mA	58	424

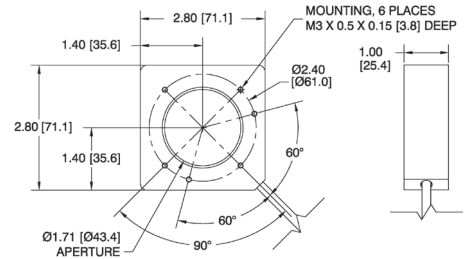
**Aperture Diameter:** 1.35" (34.4 mm) **Weight:** 4 oz. (113 g)  
**Dimensions:** H 2.40" (61 mm) x W 2.40" (61 mm) x D 1.00" (25.4 mm)



## R 70

PART NUMBER	DESCRIPTION	nm/K	CONT. CURRENT	STROBE CURRENT	mcd	
					CONT.	STROBE
NER-011660900G	Smart Series Ring Light, 70 mm, Red	623 nm	172 mA	1.2 A	349281	3062913
NER-011660920G	Smart Series Ring Light, 70 mm, Blue	470 nm	160 mA	850 mA	143217	618814
NER-011660910G	Smart Series Ring Light, 70 mm, White	6700 K	160 mA	850 mA	352205	1739631

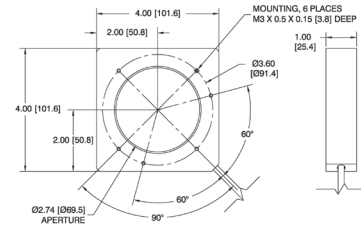
**Aperture Diameter:** 1.71" (43.4 mm) **Weight:** 5 oz. (136 g)  
**Dimensions:** H 2.80" (71.1 mm) x W 2.80" (71.1 mm) x D 1.00" (25.4 mm)



## R 100

PART NUMBER	DESCRIPTION	nm/K	CONT. CURRENT	STROBE CURRENT	mcd	
					CONT.	STROBE
NER-011661100G	Smart Series Ring Light, 100 mm, Red	623 nm	255 mA	1.7 A	516015	4370388
NER-011661120G	Smart Series Ring Light, 100 mm, Blue	470 nm	235 mA	1.1 A	201005	848215
NER-011661110G	Smart Series Ring Light, 100 mm, White	6700 K	235 mA	1.1 A	495814	2338577

**Aperture Diameter:** 2.74" (69.5 mm) **Weight:** 8 oz. (227 g)  
**Dimensions:** H 4.00" (101.6 mm) x W 4.00" (101.6 mm) x D 1.00" (25.4 mm)



## POWER SUPPLIES

PART NUMBER	R 60, R 70, and R 100 Power Supplies
NER-011504100*	DSP60 24VDC 2.5A DIN Mount Power Supply
97-000006-01*	DSP100, 24VDC 4.2A DIN Mount Power Supply
PART NUMBER	Power Supply Cordsets
NER-030028300	AC Power Cord for DSPxx Power Supply, US
NER-030028400	AC Power Cord for DSPxx Power Supply, EU
NER-030028500	AC Power Cord for DSPxx Power Supply, UK
61-000186-01	Cable 5 Pin M12 Female To Flying Leads, 3M
61-000187-01	Cable 5 Pin M12 Female to Flying Leads, 5M

\*Not available for sale in EMEA.

## POLARIZER KITS

PART NUMBER	DESCRIPTION
98-9000301-01	Kit, Polarizer, R 70
98-9000302-01	Kit, Polarizer, R 100



## ENVIRONMENTAL

**Enclosure:** Black anodized aluminum, IP40 rated; **Operating Temperature:** 0° to 50° C (32° to 122° F)  
**Storage Temperature:** 0° to 50° C (32° to 122° F); **Humidity:** up to 95% (non-condensing)

## LIGHTING PARAMETERS

**Aperture Diameter Defined:** Diameter of opening through the illuminator

## LIGHT SOURCE

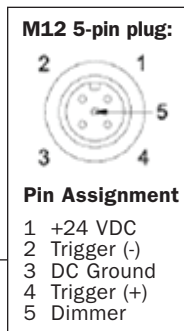
**Type:** High output LEDs  
**Light Output:** Millicandelas  
**Radiant Output:** Milliwatts  
**Expected Life:** 40,000 hours (Red LEDs)  
**Expected Life:** 10,000 hours (Blue LEDs)  
**Expected Life:** 36,000 hours (White LEDs)  
**Eye Safety:** EN 62471:2008: Red and UV – Exempt Risk Group (RG0);  
 White and Blue - Low Risk Group (RG1)

## CONNECTOR

**Type:** M12 5-pin plug, A-code, 6 in. (150 mm) integrated cable

## ELECTRICAL

**Power:** 20.2–28.8 VDC  
**Continuous Operation:** No additional signals required  
**Continuous Operation with Dimming:** 0 VDC (LEDs off) to 3.1–3.5 VDC (LEDs on) PWM signal. < 1 mA, modulation frequency 2 KHz +/- 100 Hz. Note: LED duty cycle will equal duty cycle of dimming signal when using this mode.  
**Continuous Operation with On/Off Control:** 0 VDC (LEDs off) to 3.1–3.5 VDC (LEDs on), < 1 mA  
**High Output Strobe Operation:** Optoisolated. 0 VDC (LEDs off) to 3.1–28.8 VDC (LEDs on). 10 mA max, 5 µs min to 10 ms max pulse width. Note: High Output Strobe internally limits LED frequency and pulse width to maximum of 90 Hz and 1 ms respectively.



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