

## NERLITE® RING LIGHT



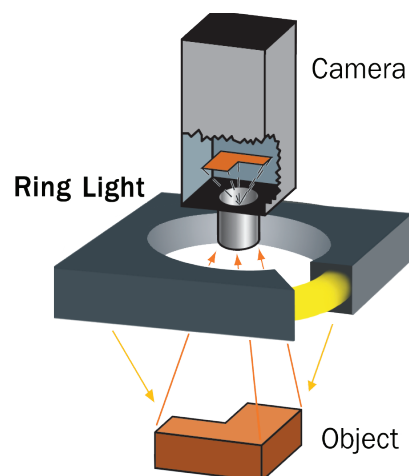
### Diffused Surface Lighting Solution

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.

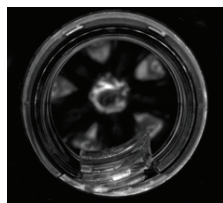
#### Ring Light: At a Glance

- 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).

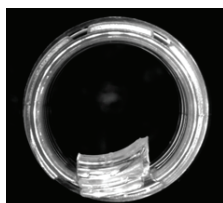


#### Illumination Example:

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

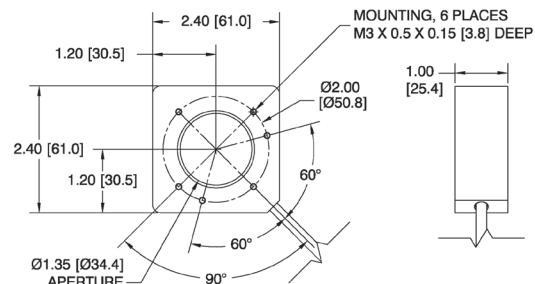
# NERLITE® RING LIGHT SPECIFICATIONS AND OPTIONS

## 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)

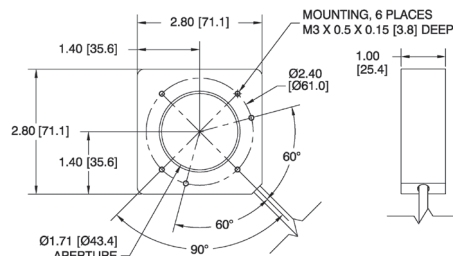


## R 70

| 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)

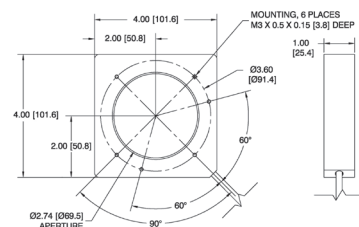


## R 100

| 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.

## M12 5-pin plug:



## Pin Assignment

- +24 VDC
- Trigger (-)
- DC Ground
- Trigger (+)
- Dimmer

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SP048LEN-1021

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