## **NERLITE® BACKLIGHT**



## **Backlight: At a Glance**

- Multiple lights may be combined to create larger illuminated areas
- Variety of colors and wavelegths for both continuous and strobed power sources
- · High level of uniformity for repeatable results
- M12 connectors for easy connections to power supplies, drivers or advanced controllers
- · Low-profile, compact shape for flexible integration

## Illumination Example:

Object



## Resulting Image



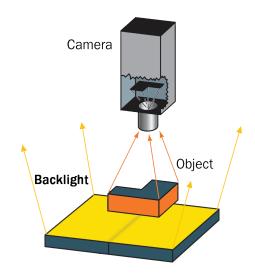
**Light bulb:** Resulting image clearly shows silhouette of filament inside the bulb.

For more information on this product, visit www.microscan.com.

# Edge-to-Edge Backlighting

Omron Microscan's wide range of NERLITE products can illuminate any part or mark for successful machine vision and auto ID applications.

The Edge-to-Edge series of backlight illuminators provide sharp contrast to outline a part's shape, find edges and view openings such as drilled holes. Edge-to-Edge technology allows combining multiple lights to address large field of view applications. High intensity and uniformity are packed into a low-profile industrial package for optimal thermal management.



#### **Application Examples**

- · Locate or measure outside dimensions
- · View openings (e.g., drilled holes)
- Diminish clear glass or plastic housings
- · Measure thickness of materials
- Locate mounting holes
- Measure translucency
- · Diffuse incident (front) lighting

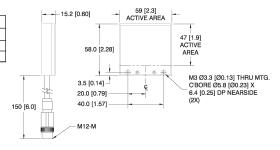


## NERLITE® Edge-to-Edge Backlight Specifications and Options

#### **BACKLIGHT 47x59**

DESCRIPTION	nm/K	CONT. CURRENT	STROBE CURRENT	mcd/cm <sup>2</sup>
BL, 47x59, Red Continuous	640 nm	93 mA		77
BL, 47x59, Red Strobe	640 nm		2.67 A	1100
BL. 47x59. White Continuous	6500 K	201 mA		880

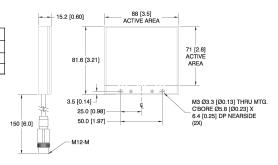
**Active Area:** 1.9" x 2.3" (47 mm x 59 mm) **Weight:** 3 oz. (80 g) **Dimensions:** H 2.28" (58 mm) x W 2.3" (59 mm) x D 0.6" (15.2 mm)



#### **BACKLIGHT 71x88**

DESCRIPTION	nm/K	CONT. CURRENT	STROBE CURRENT	mcd/cm <sup>2</sup>
BL, 71x88, Red Continuous	640 nm	170 mA		77
BL, 71x88, Red Strobe	640 nm		5.01 A	1135
BL, 71x88, White Continuous	6500 K	330 mA		810

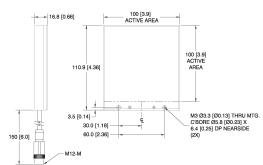
**Active Area:** 2.8" x 3.5" (71 mm x 88 mm) **Weight:** 5 oz. (140 g) **Dimensions:** H 3.21" (81.6 mm) x W 3.5" (88 mm) x D 0.6" (15.2 mm)



#### BACKLIGHT 100x100

DESCRIPTION	nm/K	CONT. CURRENT	STROBE CURRENT	mcd/cm <sup>2</sup>
BL, 100x100, Red Continuous	640 nm	155 mA		95
BL, 100x100, Red Strobe	640 nm		4.99 A	700
BL, 100x100, White Continuous	6500 K	350 mA		625

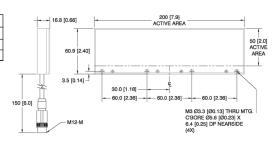
Active Area:  $3.9" \times 3.9" (100 \text{ mm x } 100 \text{ mm})$  Weight: 7 oz. (200 g) Dimensions: H  $4.36" (110.9 \text{ mm}) \times \text{W } 3.9" (100 \text{ mm}) \times \text{D } 0.66" (16.8 \text{ mm})$ 



#### **BACKLIGHT 50x200**

DESCRIPTION	nm/K	CONT. CURRENT	STROBE CURRENT	mcd/cm <sup>2</sup>
BL, 50x200, Red Continuous	640 nm	155 mA		95
BL, 50x200, Red Strobe	640 nm		4.99 A	700
BL, 50x200, White Continuous	6500 K	350 mA		625

**Active Area:** 2.0" x 7.9" (50 mm x 200 mm) **Weight:** 8 oz. (230 g) **Dimensions:** H 2.4" (60.9 mm) x W 7.9" (200 mm) x D 0.66" (16.8 mm)



#### **ENVIRONMENTAL**

Operating Temperature: 0° to 40° C (32° to 104° F) Storage Temperature: 0° to 50° C (32° to 122° F)

**Humidity:** up to 95% (non-condensing)

#### LIGHTING PARAMETERS

Active Area Defined: Area of light output from the illuminator

#### LIGHT SOURCE

Type: High output LEDs

Light Output: Millicandelas per square centimeter (mcd/cm²) Radiant Output: Milliwatts per square centimeter (mw/cm²)

Expected Life: 50,000 hours

Eye Safety: EN 60825-1: Class 1 (Red, White LEDs)

#### CONNECTOR

Type: 6 in. (150 mm) cable terminated with 4-pin M12 male connector

#### **ELECTRICAL**

Power (Continuous Models): 24 VDC +/- 1%

Power (Strobe Models): 1 ms max. pulse width, 6% max duty cycle, use of NERLITE

NL-200 Series Lighting Controller is required.

### QMS CERTIFICATION

www.microscan.com/quality

e2018 Omron Microscan Systems, Inc. SP055E-EN-0518
Read Range and other performance data is determined using high quality Grade
A symbols per ISO/IEC 15415 and ISO/IEC 15416 in a 25° C environment.
For application-specific Read Range results, testing should be performed with
symbols used in the actual application. Omron Microscan Applications Engineering
is available to assist with evaluations. Results may vary depending on symbol
quality. Warranty-For current warranty information on this product, please visit
www.microscan.com/warranty.

