NERLITE® Area Array

Economical Lighting Solution

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

An Area Array’s general purpose, unidirectional design (adjustable via mounting position) may be used for dark field (creating shadows and specular reflection) or bright field lighting for diffused 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.

Area Array: At a Glance

- Features an economical, general purpose design
- Address a broad range of applications via light positioning in bright field or dark field
- Sturdy housings combined with LEDs rated at up to 50,000 hours
- Multiple arrays may be combined to address large field of view applications

Illumination Example:

Object

Resulting Image

Labeled bottle: Inspect for label presence or absence, correct label and proper orientation.

Application Examples

- Locate or measure outside dimensions
- Illuminate flat, diffused surfaces
- Control costs
- Non-diffuse incident (front) lighting
- Dark field or bright field lighting
- Label placement inspection

For more information on this product, visit www.microscan.com.
### NERLITE® Area Array Specifications and Options

#### AR 50x50

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>nm/K</th>
<th>CONT. CURRENT</th>
<th>mcd/cm²</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR-50x50, Red Continuous</td>
<td>636 nm</td>
<td>160 mA</td>
<td>2560</td>
</tr>
<tr>
<td>AR-50x50, White Continuous</td>
<td>6500 K</td>
<td>204 mA</td>
<td>3430</td>
</tr>
</tbody>
</table>

**Active Area:** 1.9” x 1.8” (49 mm x 47 mm)  
**Weight:** 14 oz. (397 g)  
**Dimensions:** H 3.5” (88.9 mm) x W 2.5” (63.5 mm) x D 0.87” (22.2 mm)

#### AR 75x75

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>nm/K</th>
<th>CONT. CURRENT</th>
<th>mcd/cm²</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR-75x75, Red Continuous</td>
<td>636 nm</td>
<td>420 mA</td>
<td>3100</td>
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<tr>
<td>AR-75x75, White Continuous</td>
<td>6500 K</td>
<td>369 mA</td>
<td>4220</td>
</tr>
</tbody>
</table>

**Active Area:** 2.9” x 2.9” (73 mm x 73 mm)  
**Weight:** 16 oz. (454 g)  
**Dimensions:** H 4.5” (114.3 mm) x W 3.5” (88.9 mm) x D 0.87” (22.2 mm)

#### AR 100x100

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>nm/K</th>
<th>CONT. CURRENT</th>
<th>mcd/cm²</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR-100x100, Red Continuous</td>
<td>636 nm</td>
<td>233 mA</td>
<td>1260</td>
</tr>
<tr>
<td>AR-100x100, White Continuous</td>
<td>6500 K</td>
<td>420 mA</td>
<td>3115</td>
</tr>
</tbody>
</table>

**Active Area:** 3.8” x 3.8” (97 mm x 97 mm)  
**Weight:** 20 oz. (567 g)  
**Dimensions:** H 5.5” (139.7 mm) x W 4.5” (114.3 mm) x D 0.87” (22.2 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:** Milliandelas per square centimeter (mcd/cm²)  
**Radiant Output:** Milliwatts per square centimeter (mw/cm²)  
**Expected Life:** 50,000 hours (Red LEDs)  
**Expected Life:** 10,000 hours (White LEDs)  
**Eye Safety:** EN 60825-1: Class 1 (Red LEDs, White LEDs)

### CONNECTOR

**Type:** 15 ft. (4.5 m) integrated cable with flying leads

### 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.

### CE COMPLIANT

ISO CERTIFICATION  
Certified ISO 9001:2008 Quality Management System

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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.

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