

# NERLITE® HI-BRITE SERIES

## Integrated Large Area LED Lighting

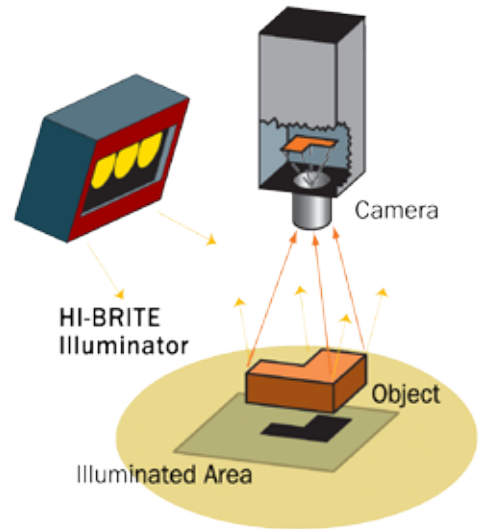


Microscan's wide range of NERLITE products can illuminate any part or mark for successful machine vision and auto ID applications.

HI-BRITE illuminators provide a high intensity output over a large area. Featuring IP67 industrial sealing and the brightest LEDs in their class, the compact lights include a built-in controller for a complete and easily integrated solution for rugged automation environments. Versatile 10° spot and 50° flood lens options allow them to be used at both near and far distances to accommodate a variety of applications.

### HI-BRITE: At a Glance

- High intensity output with state of the art LED technology
- Built-in controller with continuous and high output strobe modes
- Integrated Pulse Width Modulation (PWM) feature for dimming and on-off control
- Select models can be easily daisy chained together (HB 300)
- IP67 enclosure with M12 connectors

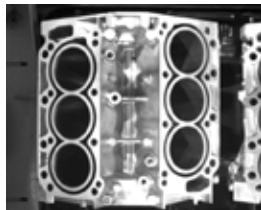


### Illumination Example:

Object



Resulting Image



**Large engine block:** Provides good contrast over large areas to perform product inspection.

### Application Examples

- Large surface inspection
- Package sorting inspection
- Traffic monitoring
- Food processing and packaging
- Automotive/aerospace assembly

# NERLITE® HI-BRITE SERIES SPECIFICATIONS AND OPTIONS

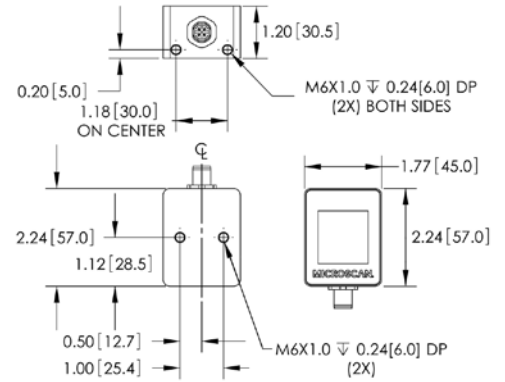
## HB 45

DESCRIPTION	LENS	nm/K	CONT. OUTPUT (lumens)	STROBE OUTPUT (lumens)
HB-45, Red	10°	625 nm	49	165
HB-45, Red	50°	625 nm	49	165
HB-45, White	10°	5000 K – 8300 K	151	412
HB-45, White	50°	5000 K – 8300 K	151	412

**Active Area:** 0.8" (20 mm) x 0.8" (20 mm) **Current Draw at 24 VDC (typ.):** 75 mA

**Weight:** 5 oz. (144 g)

**Dimensions:** H 2.24" (57 mm) x W 1.77" (45 mm) x D 1.20" (30.5 mm)



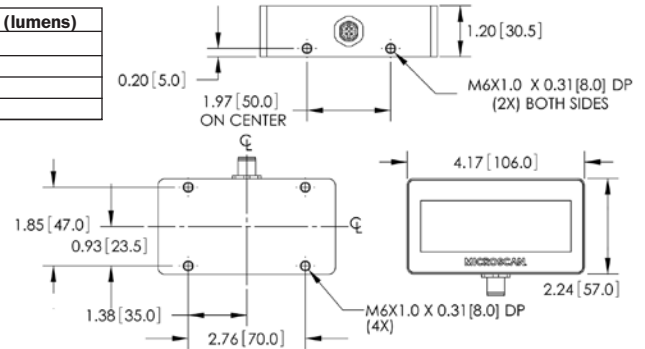
## HB 100

DESCRIPTION	LENS	nm/K	CONT. OUTPUT (lumens)	STROBE OUTPUT (lumens)
HB-100, Red	10°	625 nm	195	661
HB-100, Red	50°	625 nm	195	661
HB-100, White	10°	5000 K – 8300 K	604	1648
HB-100, White	50°	5000 K – 8300 K	604	1648

**Active Area:** 0.8" (20 mm) x 3.6" (92 mm) **Current Draw at 24 VDC (typ.):** 275 mA

**Weight:** 12 oz. (353 g)

**Dimensions:** H 2.24" (57 mm) x W 4.17" (106 mm) x D 1.20" (30.5 mm)



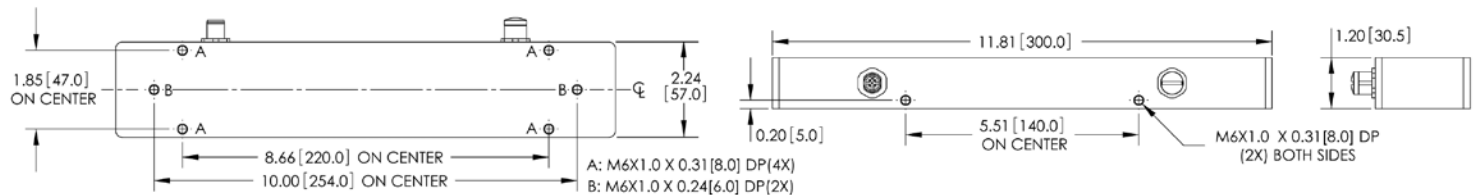
## HB 300

DESCRIPTION	LENS	nm/K	CONT. OUTPUT (lumens)	STROBE OUTPUT (lumens)
HB-300, Red	10°	625 nm	584	1982
HB-300, Red	50°	625 nm	584	1982
HB-300, White	10°	5000 K – 8300 K	1813	4944
HB-300, White	50°	5000 K – 8300 K	1813	4944

**Active Area:** 0.8" (20 mm) x 11.2" (284 mm) **Current Draw at 24 VDC (typ.):** 750 mA

**Weight:** 36 oz. (1007 g)

**Dimensions:** H 2.24" (57 mm) x W 11.81" (300 mm) x D 1.20" (30.5 mm)



## ENVIRONMENTAL

**Enclosure:** Black anodized aluminum, IP67 rated; **Humidity:** up to 95% (non-condensing)

**Operating Temperature:** 0° to 50° C (32° to 122° F); **Storage Temperature:** 0° to 50° C (32° to 122° F)

## LIGHTING PARAMETERS

**Active Area Defined:** Area of light output from the illuminator

## LIGHT SOURCE

**Type:** High output LEDs

**Light Output:** Lumens

**Expected Life:** 50,000 hours

**Eye Safety:** EN 60825-1: Class 2

## CONNECTOR

**Input (all models):** M12 5-pin plug, A-code

**Output (HB-300 models only):** M12 5-pin socket, A-code

## ELECTRICAL

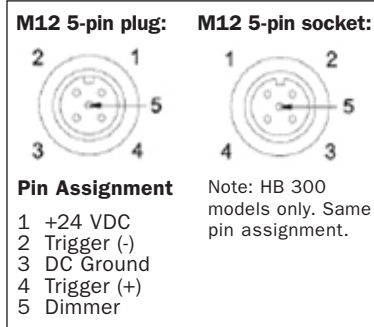
**Power:** 20.2–28.8 VDC

**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.



## CE COMPLIANT

## ISO CERTIFICATION

Certified ISO 9001:2008 Quality Management System

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 Microscan Applications Engineering is available to assist with evaluations. Results may vary depending on symbol quality. **Warranty**—One year limited warranty on parts and labor. Free extended 3 year warranty upon online product registration.

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