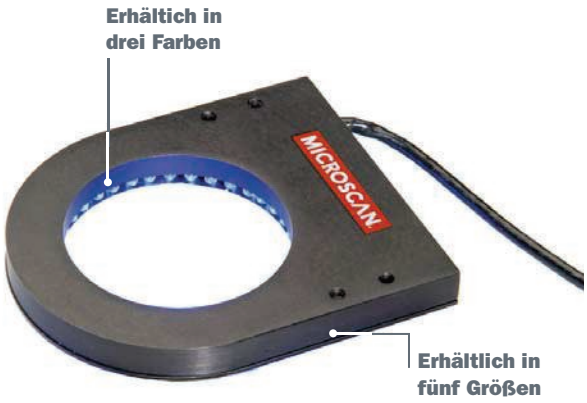
NERLITE® DUNKELFELD-BELEUCHTUNG



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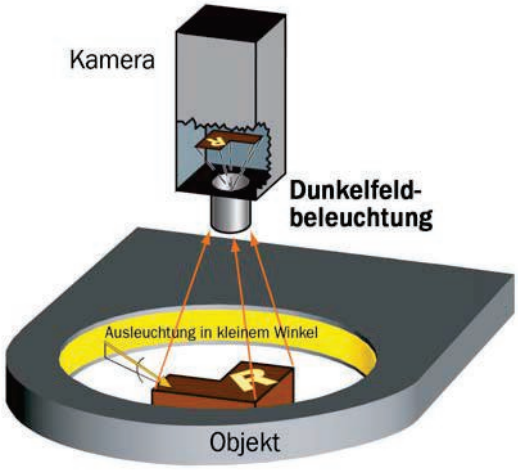
Seitliche Beleuchtung im kleinen Winkel

Microscan's umfangreiche Serie von NERLITE Produkten beleuchten jedes Teil oder jede Markierung in erfolgreichen Machine Vision und Auto ID Applikationen.

Dunkelfeld-Beleuchtungen bieten eine effektive Ausleuchtung der Zielgebiete in einem kleinen Winkel, und erhöhen den Kontrast von Oberflächenstrukturen wie z. B. von Lasergravuren, Prägungen oder Oberflächenfehlern. Dunkelfeld-Beleuchtungen sind besonders gut geeignet für Applikationen wie das Lesen von lasergeätzten Symbolen und zu prüfenden Flächen mit geometrischen Konturen.



Dunkelfeld-Beleuchtung: Im Überblick

- *Liefert effektive Beleuchtung im kleinen Winkel*
- *Erhöht den Kontrast von Oberflächenstrukturen wie Lasergravuren oder Prägungen*
- *Modelle mit Blitzfähigkeit (Strobe) sind für Hochgeschwindigkeits-Applikationen erhältlich*

Beleuchtungs-Beispiele:

Objekt

Ergebnisbild

Geprägtes Logo auf einer Metallfläche: Beleuchtung im kleinen Winkel liefert ein hohes Kontrastbild

Anwendungsbeispiele

- Helldarstellung strukturierter Oberflächen
- Hervorhebung von Höhenunterschieden
- Lesen von lasergravierten Symbolen
- Kontrolle von Flächen mit geometrischen Konturen
- Etikettenüberprüfung
- Platzierung der BGA-Lotperlen

Für weitere Informationen zu dem Produkt besuchen Sie ***www.microscan.com.***

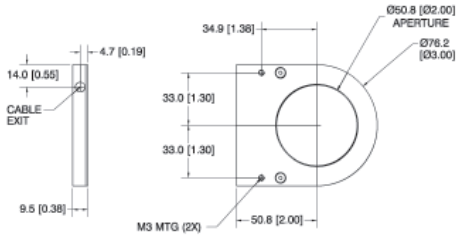
MICROSCAN®

NERLITE® Dark Field Specifications and Options

DF 50

DESCRIPTION	TYPE	nm/K	CONT. CURRENT	STROBE CURRENT	mcd/cm²
DF-50, Red Continuous	NON-DIFFUSE	660 nm	69 mA		6250
DF-50, Red Strobe	NON-DIFFUSE	660 nm		1.2 A	54300
DF-50, White Continuous	NON-DIFFUSE	6500 K	120 mA		7000
DF-50, White Strobe	NON-DIFFUSE	6500 K		2.4 A	70000
DF-50, Blue Continuous	NON-DIFFUSE	470 nm	120 mA		5600
DF-50, Blue Strobe	NON-DIFFUSE	470 nm		2.4 A	56000

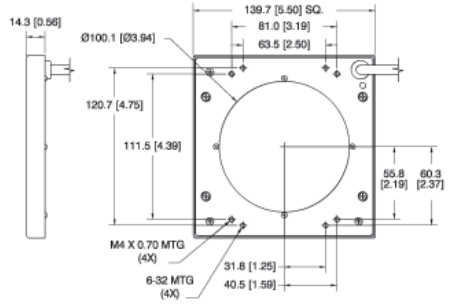
Aperture Diameter: 2" (51 mm) **Field of View:** 0.70" (18 mm)
Stand Off: 0.30" (8 mm) **Weight:** 5 oz. (136 g)
Dimensions: H 0.38" (9.5 mm) x W 3" (76.2 mm) x D 3.5" (88.9 mm)



DF 100

DESCRIPTION	TYPE	nm/K	CONT. CURRENT	STROBE CURRENT	mcd/cm²
DF-100, Red Continuous	NON-DIFFUSE	636 nm	100 mA		760
DF-100, Red Continuous	DIFFUSE	636 nm	100 mA		400
DF-100, Red Strobe	DIFFUSE	636 nm		2.0 A	4000

Aperture Diameter: 3.9" (100 mm) **Field of View:** 2" (51 mm)
Stand Off: 0.50" (13 mm) **Weight:** 9 oz. (256 g)
Dimensions: H 0.56" (14.2 mm) x W 5.5" (139.7 mm) x D 5.5" (139.7 mm)

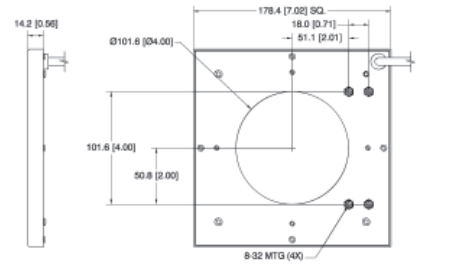


DF 150

LEDs = 1 ROW

DESCRIPTION	TYPE	nm/K	CONT. CURRENT	STROBE CURRENT	mcd/cm²
DF-150-1, Red Continuous	NON-DIFFUSE	636 nm	100 mA		340
DF-150-1, Red Strobe	NON-DIFFUSE	636 nm		2.0 A	3400
DF-150-1, White Continuous	NON-DIFFUSE	6500 K	196 mA		700
DF-150-1, White Strobe	NON-DIFFUSE	6500 K		4.0 A	7000
DF-150-1, Blue Continuous	NON-DIFFUSE	470 nm	196 mA		600
DF-150-1, Blue Strobe	NON-DIFFUSE	470 nm		4.0 A	6000
DF-150-1, Red Continuous	DIFFUSE	636 nm	100 mA		410
DF-150-1, Red Strobe	DIFFUSE	636 nm		2.0 A	1800
DF-150-1, White Continuous	DIFFUSE	6500 K	196 mA		380
DF-150-1, White Strobe	DIFFUSE	6500 K		4.0 A	3800

Aperture Diameter: 4" (102 mm) **Field of View:** 3" (76 mm)
Stand Off: 0.50" (13 mm) **Weight:** 18 oz. (504 g)
Dimensions: H 0.56" (14.2 mm) x W 7.02" (178.4 mm) x D 7.02" (178.4 mm)

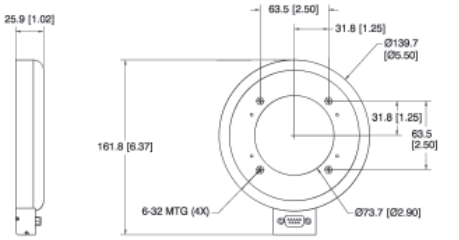


LEDs = 3 ROWS

DESCRIPTION	TYPE	nm/K	CONT. CURRENT	STROBE CURRENT		mcd/cm²
				ROW 1, 2	ROW 3	
DF-150-3, Red Continuous	NON-DIFFUSE	636 nm	300 mA			2290
DF-150-3, Red Strobe	NON-DIFFUSE	636 nm		7.14 A		22900
DF-150-3, White Continuous	NON-DIFFUSE	6500 K	450 mA			3540
DF-150-3, White Strobe*	NON-DIFFUSE	6500 K		8.0 A	4.0A	47200

* This product has two separate circuits.

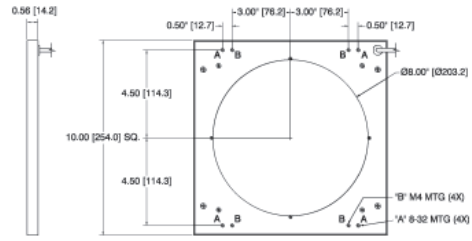
Aperture Diameter: 2.9" (74 mm) **Field of View:** 1.5" (38 mm)
Stand Off: 0.50" (13 mm) **Weight:** 7 oz. (193 g)
Dimensions: H 1.02" (25.9 mm) x W 5.5" (139.7 mm) x D 6.37" (161.8 mm)



DF 200

DESCRIPTION	TYPE	nm/K	CONT. CURRENT	STROBE CURRENT	mcd/cm²
DF-200, Red Continuous	DIFFUSE	636 nm	200 mA		170
DF-200, Red Strobe	DIFFUSE	636 nm		4.0 A	1700

Aperture Diameter: 8" (203 mm) **Field of View:** 3.9" (100 mm)
Stand Off: 0.50" (13 mm) **Weight:** 20 oz. (567 g)
Dimensions: H 0.56" (14.2 mm) x W 10" (254 mm) x D 10" (254 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
Aperture Diameter Defined: Diameter of opening through the illuminator.
Field of View Defined: Largest recommended evenly illuminated area as seen from the camera (also know as Area of Interest [AOI]).
Stand Off Defined: Recommended distance between the bottom of the light and the surface of the object being illuminated.

LIGHT SOURCE
Type: High output LEDs
Light Output: Millicandelas per square centimeter (mcd/cm²)
Expected Life: 50,000 hours (Red LEDs)
Expected Life: 10,000 hours (Blue, White LEDs)
Eye Safety: EN 60825-1: Class 1 (Red, White LEDs); Class 2 (Blue LEDs)

CONNECTOR
Type: 15 ft. (4.5 m) integrated cable with flying leads
Type (DF-150-3 Models Only): DB9 male panel mount, 15 ft. (4.5 m) DB9 female to flying leads cable included

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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