BOSCH

Invented for life

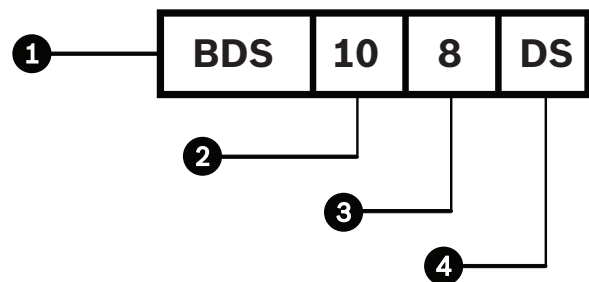# Black Diamond SuperLED Illuminator

- ▸ **Even Illumination balances foreground and background for outstanding image quality**
- ▸ **Micro-refraction lens technology dramatically increases both the range and horizontal beam of illumination**
- ▸ **Provides up to 300 m (982 ft) of infrared illumination for increased range of surveillance**
- ▸ **Delivers up to 135° horizontal beam widths for complete area coverage**
- ▸ **Superior ight management increases operational efficiency, reducing wasted light to zero and minimising power consumption**

SuperLED powered by Black Diamond technology is the industry's first LED infrared illuminator designed to deliver High-Fidelity performance in today's digital world.

Black Diamond optimises the function of integrated digital security systems in low-light and no-light conditions. Surpassing the capabilities of conventional IR illuminators, Black Diamond SuperLED's Even Illumination lights the foreground and background of an entire scene eliminating hotspots and underexposure on scene for an unrivalled night time image.

- Enables wide beam patterns: 60°, 95°, 135° for broad area coverage
- Reduces number of units required to effectively illuminate a scene
- Reduces customer equipment costs
- Minimises installation and wiring costs
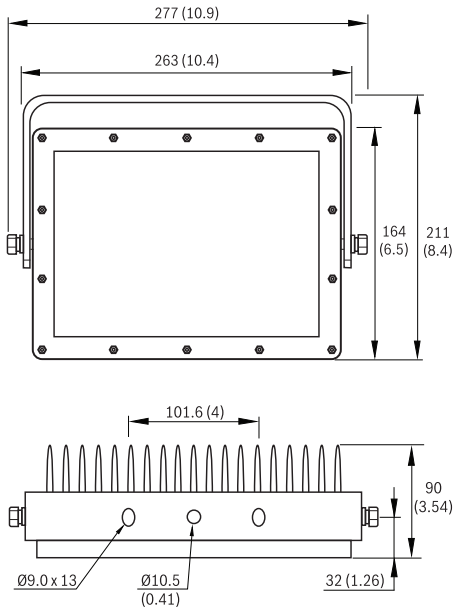
Superior Light Management
- Increases achievable illumination range
- Delivers high-efficiency operation by reducing wasted light to zero
- Reduces power consumption
- Reduces number of units required to effectively illuminate a scene

Functions

High-Fidelity Light
- Delivers superior night vision image quality
- Enables proper function of video analytics at night
- Reduces signal noise and other image distortions
- Reduces network bandwidth requirements
- Reduces image lag and dropped frames

Asymmetric Optics
- Increases infrared illumination range
- Produces Cosec2 Even Illumination for photonically balanced quality
- Eliminates hotspots and foreground overexposure
- Eliminates background underexposure

Micro-refraction Lens
- Optimises performance of PTZ and speed domes

Installation/Configuration Notes

① BDS 10 8 DS
② ③ ④

1	Model	BDS	Black Diamond SuperLED
2	Beam Pattern	10	10°
		20	20°
		30	30°
		60	60°
		95	95°
		135	135°
3	Wavelength	850	850 nm
4		DS	

Dimensions

mm (in)

Technical Specifications

LEDs	560 LED current limited array with Black Diamond technology
Beam Patterns	10°, 20°, 30°, 60°, 95°, 135°
Wavelength	850 nm
Life	Greater than 5 years
Power consumption	120 W nominal on full power (external) 80 W nominal on low power (internal applications)
Temperature Range	-50 °C to +50 °C (-58 °F to +122 °F) max on full power
Environmental	IP67
Construction	Robust, aluminum construction with acrylic front fascia
Weight	4.2 kg (9.3 lb)
Dimensions	277 x 212 x 90 mm (10.9 x 8.3 x 3.5 in)
Colour	Black anodised heat sink with black front fascia

Power Cable	Supplied with 4 m (13 ft) of connecting lead
Bracket	Wall mount U-bracket supplied

Performance Ranges

Model	Beam Pattern	Achievable Distance*	HOV
BDS10-8DS	10°	300 m (985 ft)	42 m (138 ft)
BDS20-8DS	20°	200 m (660 ft)	70 m (230 ft)
BDS30-8DS	30°	160 m (525 ft)	85 m (280 ft)
BDS60-8DS	60°	110 m (360 ft)	130 m (425 ft)
BDS95-8DS	95°	90 m (295 ft)	200 m (655 ft)
BDS135-8DS	135°	56 m (185 ft)	270 m (885 ft)

Actual illumination distance achieved is dependent on camera and lens characteristics.

Power Supply (included)

Input	85 to 265 VAC (switch mode PSU)
Output	16.2 V at 5.6 A nominal, 12 V at 0.3 A auxiliary
Photocell	Automatic On/Off photocell included, remote photocell option available, part code RP15
Construction	Cast, aluminium IP66 rated
Color	Gray (RAL 7035)
Environmental	IP66
Dimensions	280 x 180 x 100 mm (11.0 x 7.1 x 3.9 in)
Weight	3.8 kg (8.4 lb)

Ordering Information

BDS10-8DS SuperLED High-Fidelity illumination, 10°, 850 nm, includes enhanced features PSU	**BDS10-8DS**
BDS20-8DS SuperLED High-Fidelity illumination, 20°, 850 nm, includes enhanced features PSU	**BDS20-8DS**
BDS30-8DS SuperLED High-Fidelity illumination, 30°, 850 nm, includes enhanced features PSU	**BDS30-8DS**
BDS60-8DS SuperLED High-Fidelity illumination, 60°, 850 nm, includes enhanced features PSU	**BDS60-8DS**
BDS95-8DS SuperLED High-Fidelity illumination, 95°, 850 nm, includes enhanced features PSU	**BDS95-8DS**
BDS135-8DS SuperLED High-Fidelity illumination, 135°, 850 nm, includes enhanced features PSU	**BDS135-8DS**

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