



SuperLED™ Infrared Illuminator

powered by **BLACKDIAMOND™** Technology

SuperLED™ powered by Black Diamond™ (patent pending) is the world's first infrared illuminator designed for High-Fidelity™ performance in today's digital world.

Black Diamond™ optimizes the function of integrated digital security systems – particularly in low light and zero light conditions. Surpassing the capabilities of conventional infrared illuminators, Black Diamond™ Even Illumination lights the foreground and background of an entire scene, eliminating hot spots and underexposure for an outstanding night-time image.

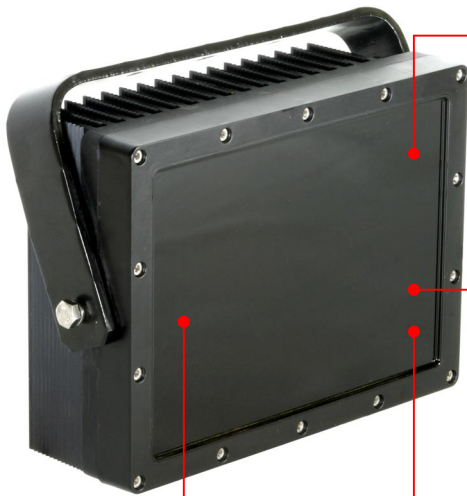
Winner of the Security Industry Association's Best New Video Device.



Performance Benefits

- Even Illumination balances scene foreground and background for outstanding image quality
- Micro-Refracton Lens technology dramatically increases both the range and horizontal beam of illumination, reducing the required number of illuminators
- Provides up to 982ft (300m) of infrared illumination for increased range of surveillance
- Delivers up to 135° horizontal beam widths for some of the most complete area coverage of any illuminator
- Superior Light Management increases operational efficiency, reducing wasted light to zero and minimizing power consumption

Key Attributes



High Fidelity™ Lighting

- Provides superior night vision image quality
- Enables proper function of video analytics at night
- Reduces 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 over-exposure
- Eliminates background under-exposure

Superior Light Management

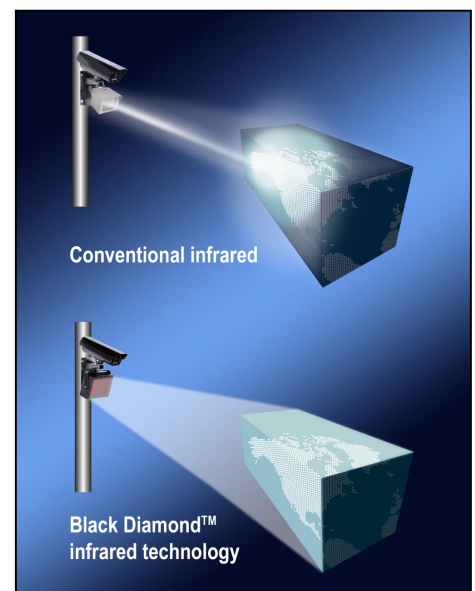
- Increases achievable illumination range
- Delivers high-efficiency operation by reducing wasted light to zero
- Reduces power consumption
- Reduces number of units required to effectively illuminate a scene

Micro-Refraction™ Lens

- Optimizes performance of PTZ and speed domes
- Enables wide beam patterns: 60°, 95°, 135° for broader coverage areas
- Reduces number of units required to effectively illuminate a scene
- Reduces customer equipment costs
- Minimises installation and wiring costs

Performance images

Black Diamond™ technology is precision engineered for High-Fidelity™ Even-Illumination, delivering outstanding night-time image quality and ensuring 24/7 effectiveness of video analytics, megapixel surveillance and other critical CCTV applications.



SuperLED™ Black Diamond™ Integration

SuperLED™ Black Diamond™ provides important imaging capabilities for integrated security systems.



< SuperLED™ Black Diamond™ with Fixed Camera Systems

Combine SuperLED™ Black Diamond™ with EX18 housing, FMX800 Day/Night camera and wall mount bracketry. Integrate with video analytics for automated video-based intrusion detection.



< SuperLED™ Black Diamond™ with PT Motors

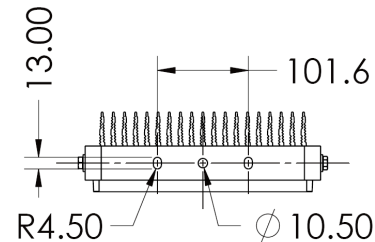
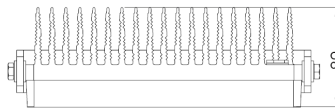
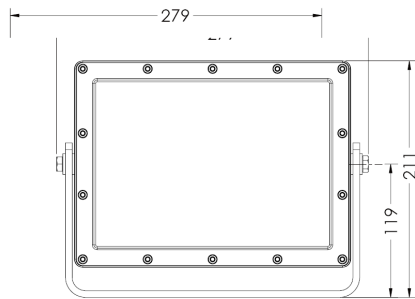
Combine twin SuperLED™ Black Diamond™ with EX28 housing, FMX800 Day/Night camera, zoom lens and pan-tilt motor for a powerful, versatile pan-tilt-zoom system that delivers over 1,000ft High-Fidelity™ night vision.



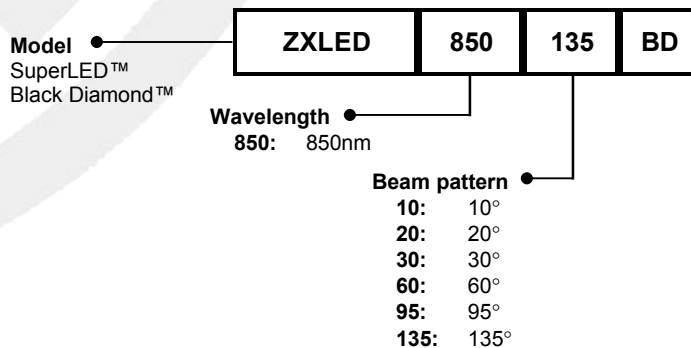
< SuperLED™ Black Diamond™ with Speed Domes

Combine SuperLED™ Black Diamond™ with Moondance® or PX100 speed domes for uncompromised night-time pan-tilt zoom surveillance.

Technical Drawings



Part Numbers



Specifications

SuperLED™ Black Diamond™ High-Fidelity™ Infrared Illuminator			
Illuminator			
LEDs	560 LED array, 850nm with Black Diamond technology		
Average Life	Greater than five years		
Temperature Range	+50°C (122°F) to -50°C (-58°F) max on full power		
Construction	Robust, aluminium extrusion with acrylic front window		
Colour	Black		
Dimensions	240 x 208 x 89mm (9.4" x 8.2" x 3.5")		
Weight	4.7Kg		
Cable Length	Supplied with 4m (13ft) connecting lead		
Bracket	Wall mount bracket included		
Power Supply (included as standard)			
Input	85VAC - 265VAC (switch mode PSU)		
Photocell	Automatic ON/OFF photocell included		
Construction	Cast aluminium		
Colour	Grey (RAL 7035)		
Dimensions	280 x 180 x 100mm (11" x 7" x 3.9")		
Approximate Performance Ranges (as tested by Derwent Night Vision Laboratories, UK)			
Model	Beam Pattern	Tested Distance*	Horizontal FOV
ZXLED850.10BD	10°	~1000ft / 300m	138ft / 42m
ZXLED850.20BD	20°	656ft / 200m	230ft / 70m
ZXLED850.30BD	30°	524ft / 160m	280ft / 85m
ZXLED850.60BD	60°	360ft / 110m	425ft / 130m
ZXLED850.95BD	95°	295ft / 90m	655ft / 200m
ZXLED850.135BD	135°	185ft / 56m	885ft / 270m
Optional Accessories (order separately)			
EXMB.015	Pole mount adaptor		
EXMB.017	Wall mount adaptor		
EXMB.020	Heavy duty L-bracket		
ZXPS.100R	Replacement power supply		

* Actual illumination distances achieved in-field are dependent on camera and lens characteristics. Derwent Night Vision Laboratories use an FSX800 camera and IR-corrected lens at F1.4, achieving a minimum SN ratio of 20dB.