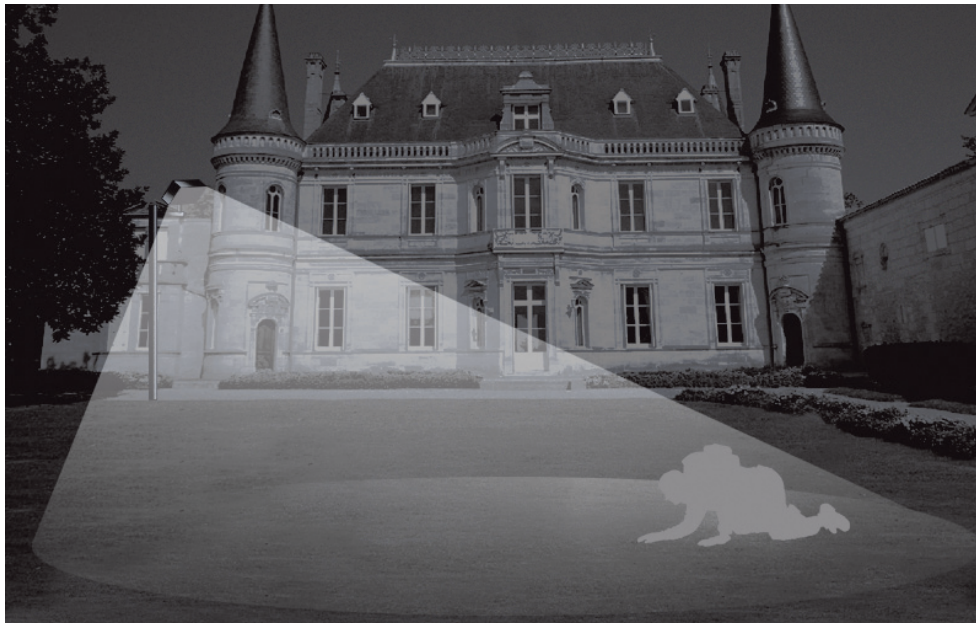


# StarLED 200

## Outdoor Infrared LED Illuminator



StarLED™ 200 is a solid-state infrared LED (Light Emitting Diode) illuminator that creates light which, while invisible to the naked eye, illuminates targets for surveillance by standard infrared sensitive CCTV cameras.

StarLED 200 provides long range infrared LED illumination and has the most uniform coverage. The light it creates is eye-safe at all distances, even for technicians working up close. With a ten year life expectancy on the diodes, it also has the lowest life-cycle costs in the industry. Operation and maintenance costs are minimal because the unit consumes very little power, generates little heat and has no bulbs to replace.

StarLED 200 is available in both Spot and Flood illumination patterns at a wavelength of 875 nm. When looking directly at the front plate on a dark night with no other lighting present, a faint red glow can be seen. For those sites requiring totally covert illumination, the Invisible model has a wavelength of 950 nm. All models have a built-in twilight switch.

The cameras used with StarLED 200 are low-light black and white cameras with the IR-cut filter removed or disabled. Their relative response at a wavelength of 875 nm should be no less than one third of the peak value for visible light. The imager illumination requirement for usable video should not be greater than 0.02 lux, and preferably should be 0.01 lux. The lens should be f/1.4 or lower to maximize light transmission and should be IR coated. An IR corrected lens can be used to avoid chromatic distortion.

StarLED 200 is the low power answer for supplemental lighting for those sites suffering from inadequate levels or non-uniformity in their conventional lighting system. StarLED 200 can be strategically placed to provide fill-in illumination without the need for expensive wiring upgrades. It is also ideal for those sites where local codes limit the intensity of visible illumination.

These features make StarLED 200 the ideal tool for security professionals seeking covert illumination from a reliable, high performance illuminator.

Invisible infrared light for use with CCTV cameras

Covert

Uniform coverage over an extended range

Uses a unique lensing system

A large array of LEDs with more than a 10-year life expectancy

Eye-Safe at all distances

Spot or flood or invisible models

Lowest life-cycle costs

Minimal maintenance

Universal voltage input

## SPECIFICATIONS

### Dimensions

- 250 x 160 x 100 mm (9.8 x 6.3 x 4 in.)

### Power Source

- 100 - 240 VAC, 50/60Hz, 60 W

### Weight

- 3.4 kg (7.5 lbs.)

### Enclosure

- Aluminum housing w/IR transparent cover

### Operational Data

- Built-in twilight switch activates the illuminator at light levels between 300 and 500 lux. Switch can be deactivated to ensure that unit is always on when powered.

### Optical Configuration

- Reliability from 20 LED groups. Only a minor change in the illumination profile as a result of a failed LED group. The LED groups are aligned asymmetrically with unique lensing to create uniform illumination.

### Temperature Range

- -40° to + 50°C (-40° to +122°F) operation.
- Integrated over temperature protection will switch off illuminator at +70°C (+158°F) internally.

### Weatherproof

- protection type IP 54/NEMA 3; protection against dust and splashing water from all directions, with internal vent to avoid condensation.

### Covert, Invisible

- No obvious surveillance or distracting visible light

### Long Range

- Fewer illuminators required
- Long-term cost savings
- Uniformly covers entire illumination area evenly
- No "hot spots"

### Eye Safe

- Complies with EN60825

### Plug-in Connectors

- Provides for easy installation
- Unnecessary to open unit

### Built-in Twilight Switch

- Automatic on/off switch for added power savings

### Solid-state Components

- Provides long-life and low operating & maintenance costs

### Illumination data

#### StarLED 200 (Spot)

##### Wavelength

- 875 nm ± 40 nm (very faint glow visible when looking directly into illuminator)

##### Illumination profile

- 25° horizontal, 7.5° asymmetric vertical

##### Illumination level

- 0.5μW/cm<sup>2</sup> at 85 m typical

##### Illumination range

- to 85 m when mounted 4 m (13ft.) high, with high IR-sensitive camera (0.01 lux faceplate illumination, minimum 30% relative response at 875 nm) and high speed lens (f/0.95)

##### Illumination quality

- homogeneous illumination with less than 60% variation (no hot spot at close range)

#### StarLED 200 (Flood)

##### Wavelength

- 875 nm ± 40 nm (very faint glow visible when looking directly into illuminator)

##### Illumination profile

- 50° horizontal, 7.5° asymmetric vertical

##### Illumination level

- 0.5μW/cm<sup>2</sup> at 75 m typical

##### Illumination range

- to 75 m when mounted 4 m (13ft.) high, with high IR-sensitive camera (0.01 lux faceplate illumination, minimum 30% relative response at 875 nm) and high speed lens (f/0.95)

##### Illumination quality

- homogeneous illumination with less than 60% variation (no hot spot at close range)

#### StarLED 200 (Invisible)

##### Wavelength

- 950 nm ± 40 nm (not visible to human eyes)

##### Illumination profile

- 40° horizontal, 9° asymmetric vertical

##### Illumination level

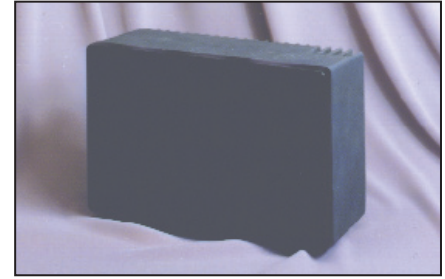
- 0.5μW/cm<sup>2</sup> at 60 m typical

##### Illumination range

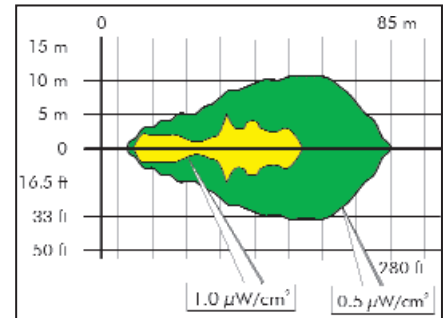
- to 60 m when mounted 4 m (13ft.) high, with high IR-sensitive camera (0.01 lux faceplate illumination, minimum 30% relative response at 950 nm) and high speed lens (f/0.95)

##### Illumination quality

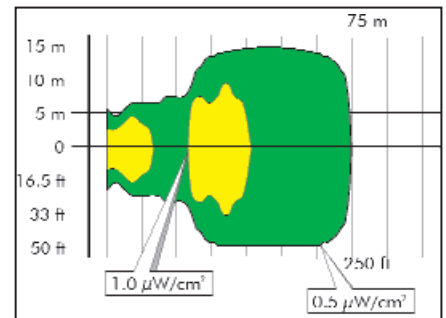
- homogeneous illumination with less than 60% variation (no hot spot at close range)



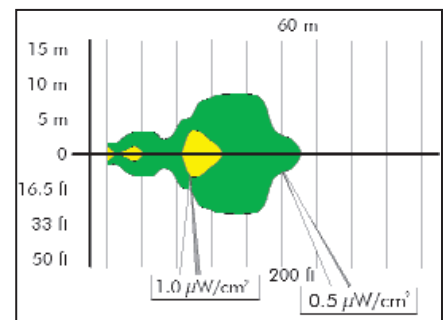
## Sample StarLED 200 Illumination/Range Levels for a Mounting Height of 4m (13 ft)



Spot - aiming point at 85 m from illuminator



Flood - aiming point at 75 m from illuminator



Invisible - aiming point at 60 m from illuminator

\* Specifications subject to change without prior notice.



ISO 9001:2000  
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