

World's
Most Powerful
Illuminator

ALS-20™ Infrared Illuminator

Covert Illuminator for Large Areas



Turn Night Into Day for Near-Infrared CCTV Cameras

The ALS infrared illuminators by Electrophysics are designed for large areas (up to 15 acres) and long-range covert lighting applications. Incorporating a high power laser diode and patented internal optical assembly, the ALS illuminators deliver the highest near infrared light output available while achieving a Class 1 eye safety rating (IEC-60825-1).

A range of fixed beam widths are available to meet specific applications. Laser diode-based illuminators deliver exceptional low life cycle costs, even illumination, and are the perfect complement to many near-infrared sensitive CCTV surveillance systems. ALS is a cost-effective alternative to thermal imaging cameras.

Experience
the difference.

Light up over 15 acres!

Without ALS-20



With ALS-20



BOTH SHOTS OF THE PIER WERE TAKEN AT 200 METERS:
Left Shot: No active illumination; Right Shot: 20 watt illumination

Features

- > 800 meter range
- Illuminate up to 15 acres
- Class 1 Eye Safety
- 810 nm wavelength
- > 20,000 Hour MTBF
- 30% efficient
- Rugged enclosure
- Daytime operation

Benefits

- Image targets at greater range than other technologies
- Cost effective solution for large area monitoring
- Install anywhere
- Invisible – eliminates light pollution, eliminates chromatic aberration
- Low life cycle costs
- Low power requirements
- Install and forget
- Eliminate shadows

ALS-20™ Laser Illuminator

Got a tough surveillance application?
ALS has the power to solve it!



Day/Night Imaging.

ALS has the power to overcome intense sunlight in challenging applications. Simply add a sunlight rejection filter and create even, consistent illumination under all ambient conditions.



Night Vision Aid.

Enhance your night vision when wearing night vision goggles by mounting ALS to your vehicle. Applications include military night driving, helicopter landing aid and vehicle-based border patrol.



Sunlight IR Illumination

Facial Recognition.

Eliminate shadows and lighting level variations that limit the effectiveness of facial identification systems.



Large Area Surveillance.

Only ALS has the power to light up large areas like public works. A single ALS-20 is proven to illuminate up to 15 acres, and reduces the need for multiple light sources and their associated installation and support costs.

Specifications	
Light Source	Laser Diode
Eye Safety	Class 1 IEC 60825-1
Infrared Wavelength	Standard: 810 nm Optional: 850 nm, 950 nm
Beam Angle	Standard: 20° x 20° HxV Custom: Choose H and V 10°, 15°, 20°, ..., 70°, 75°, 80°
Light Distribution	Gaussian Distribution
Output Power	20 Watts
Illumination Range ¹	Call
Voltage	12 VDC
Current	5 to 7 amps
Operating Temperature Range	-30°C to 60°C
Dimensions (HxWxD)	16" x 10" x 12"
Weight	18 lbs.
Enclosure	IP-65

¹ Range performance is subject to the sensitivity of the camera, the lens *f* number, atmospheric conditions and the position of the illuminator. Contact Electrophysics to review your specific requirements and estimate range performance.

Infrared Illuminator Comparison			
	IR Incandescent 500 Watt	IRLED	ALS-20
IR Light Power	~ 10 watts	~ 5 watts	20 watts
Efficiency	2%	5%	30%
Input Power	500 watts	140 watts	60 watts
Wavelength	730 nm	850 nm	810 nm
Bandwidth	730 nm to 1000 nm	830 to 870 nm	810 ±2 nm (@30°C)
Cost	\$\$	\$	\$\$\$
MTBF	☉	☾	☾
Range – Wide Angle (~ 60°)	70 meters	55 meters	150 meters
Range – Medium Angle (~ 30°)	100 meters	115 meters	400 meters
Range – Narrow Angle (~ 10°)	140 meters	175 (20° only) meters	800 meters
Covert	No	Slight red glow	Yes (950 nm option)

