

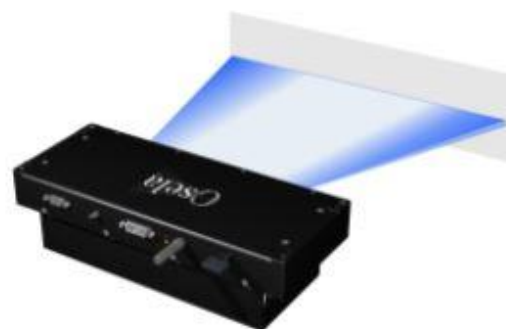


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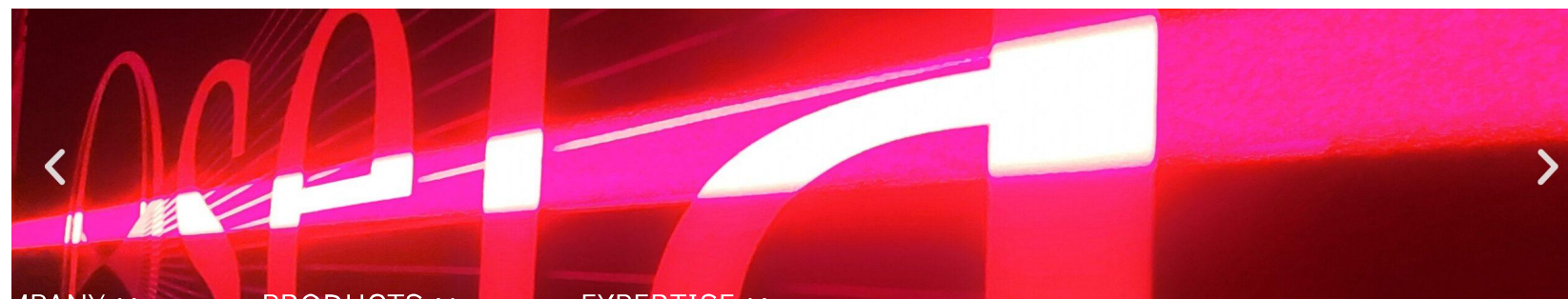
Extreme high power density long range Line Scan Illumination

Related Products



(<https://www.osela.com/long-range-illuminator-lri>)

Osela's Long Range Illuminator (LRI) is designed to project a high intensity uniform illumination for long range Line Scan imaging applications. Unlike LED based systems, our unique technology's spatial coherence maintains high power over long distances while still providing high clarity images with reduced image specularities. The unique laser based solution has the added advantage of having high electrical efficiency, reducing the need of costly active cooling.



Key Features

- Up to 5 meters working range
- Up to 20W of direct optical power
- 450, 520, 640, 808nm wavelength
- Compact form factor
- Electrically efficient

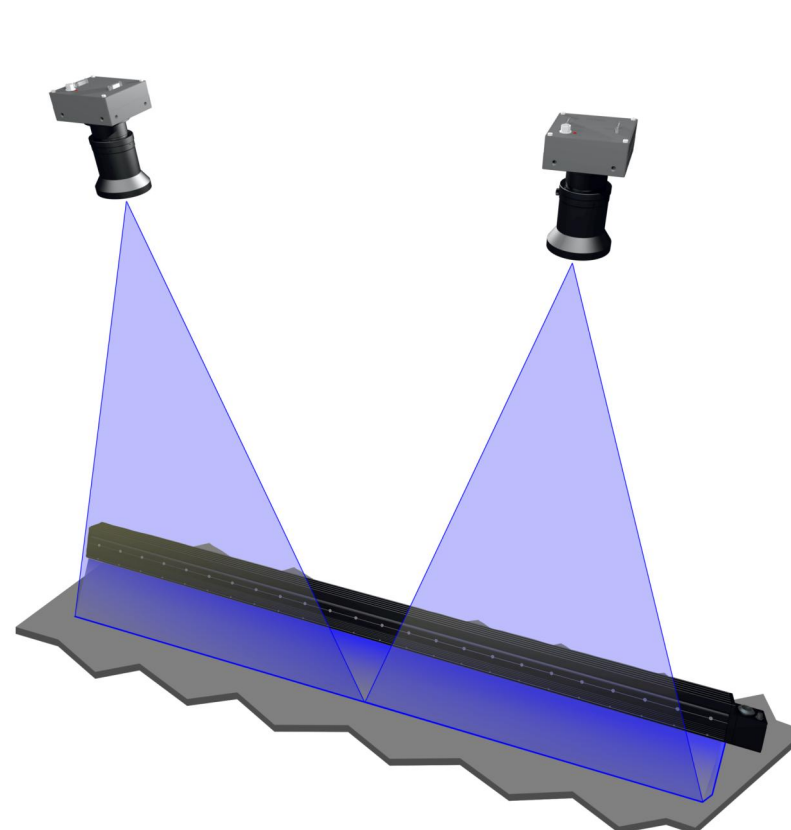
Key Applications

- Line scan camera illumination
- 2D machine vision
- Outdoor industrial inspection
- Road, rail, train inspection
- Hot steel inspection

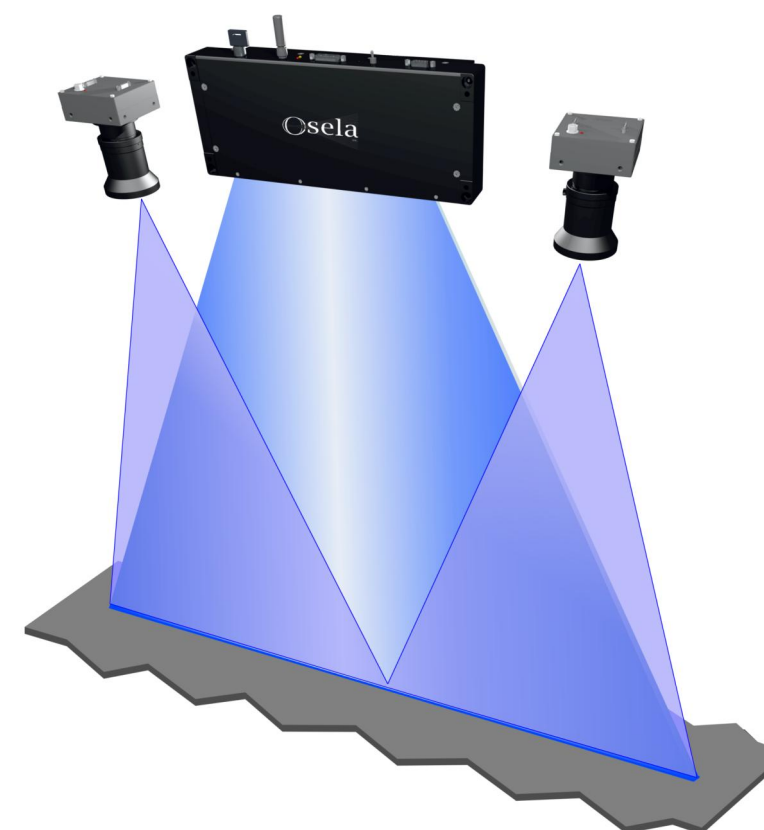
Irrespective of distance

Due to its spatial coherence, the Long Range Illuminator provides high on target optical power irrespective of projection distance. As shown below, traditional LED light bars are restricted to < 100 mm working distance to conserve optimal power density.

With the LRI, you can easily go up to 5 meters without losing optical power density.



Traditional LED bar



Osela LRI



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Superior image quality

The Long Range Illuminator image quality shows very low speckling, enabling the user to resolve the fine features required in the most demanding machine vision applications.



Laser Image



LRI image

Flexible illumination projections

The LRI can be used with different projection setups. The illumination can be superimposed to double the energy, or stitched side-by-side to increase field of view. The long range illuminator can also be easily projected at different angles of incidence.

Furthermore, the illumination intensity profile can be modified to ensure an even illumination on the camera image plane.





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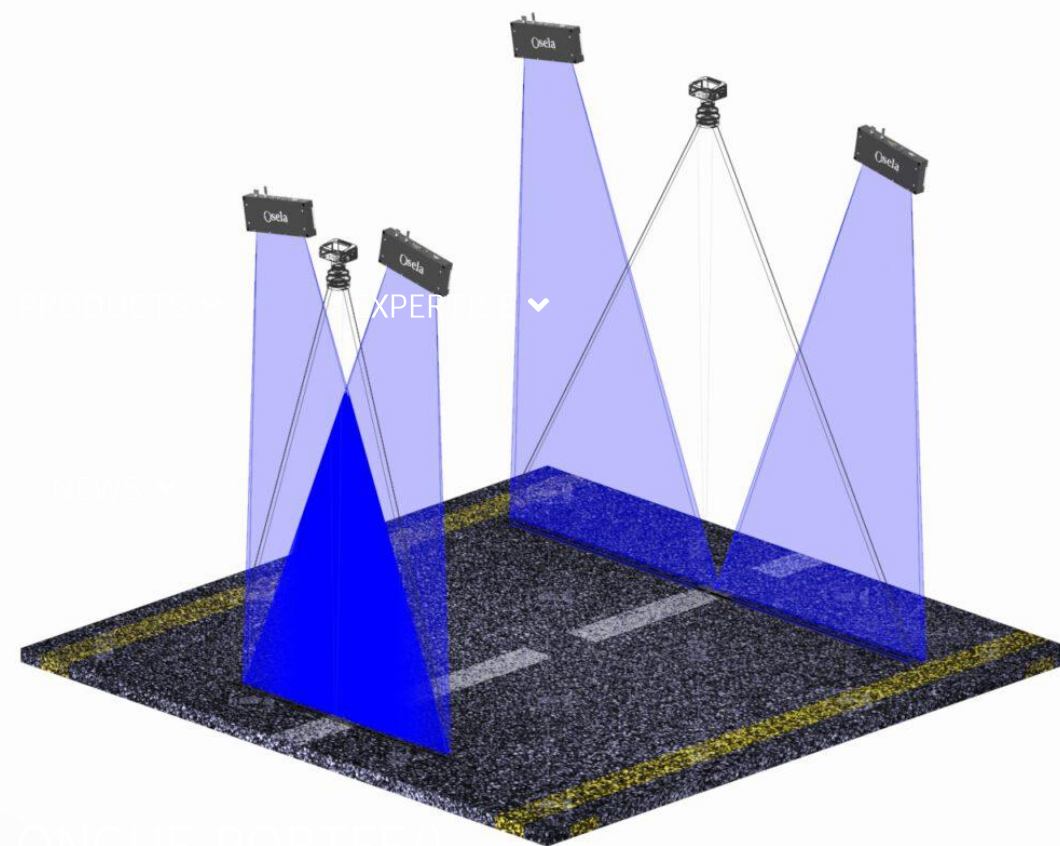


PROJETS DE LONGUE PORTÉE

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