

# OSRAM Oslon Black Infrared (IR) Starboards Data Sheet

Industry Leading High Powered LED Starboards

Version 1.0

## Lean & Fast. Made Smarter.

**Superior Performance** - Stay current with the highest intensity LEDs

**Design Faster** - Use industry standard starboards to shorten development time

**Maximum Flexibility** - Design to your exact specifications using the full spectrum of NewEnergy starboards

**Rapid Innovation** - Work with NewEnergy on your custom solution

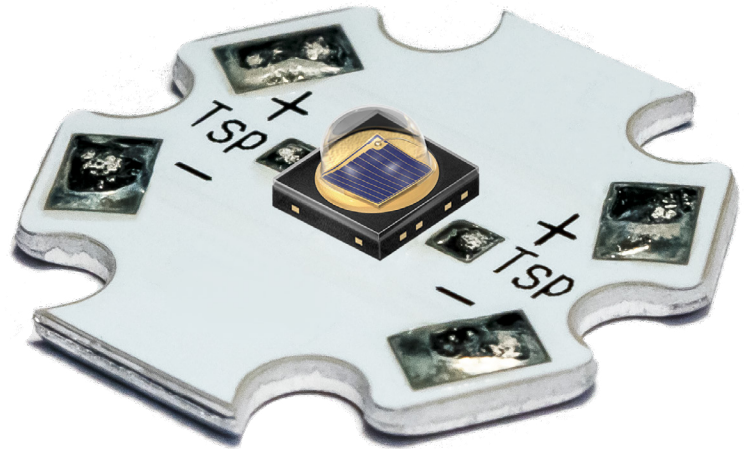
## Primary Applications



Surveillance Systems  
License Plate Scanning  
Automotive Sensing

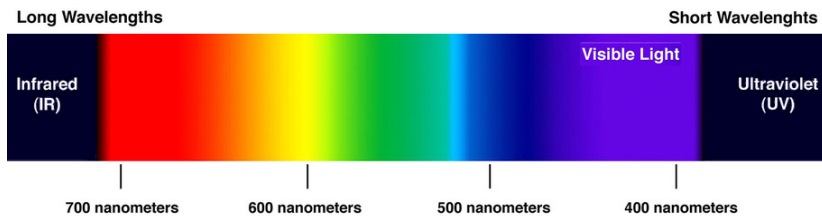


Machine Vision  
Night Vision  
Eye Tracking Systems



## Superior Performance with Flexible Options

- Multiple infrared wavelength options
- Choose the proper beam angle for your application
- Prototype faster, test multiple options

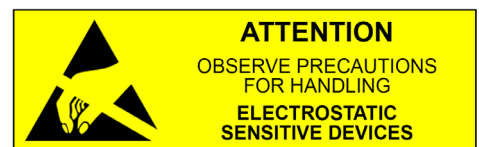


## Custom Solutions

NewEnergy operates facilities globally with ISO certifications for the LED lighting, automotive and medical industries. Our North Carolina based office provides quick engineering & sales support with an R&D lab for prototype development and custom solutions. Our in-house global manufacturing capabilities allow for both building in the United States as well as overseas at scale.

## About NewEnergy

NewEnergy accelerates the adoption of LED technology through simple, modular products and custom designs. Through 30 years of experience, state of the art manufacturing, full traceability and advanced quality controls, NewEnergy offers leading solid state lighting components, modules and custom solutions. NewEnergy customers get to market faster, with less resources, at lower costs. Visit [new-energyllc.com](http://new-energyllc.com) for more information.



# OSRAM Oslon Black Infrared (IR) Starboards

## Product Selection Guide

| Color                         | Part Number        | Description                                    | Beam Angle | Centroid Wavelength | Vf                  | Flux (mW)           |
|-------------------------------|--------------------|--|------------|---------------------|---------------------|---------------------|
| Infrared<br>850nm to<br>940nm | LST1-01F09-IR01-00 | Starboard, Osram OSOLON Black, 850nm Infrared  | 150°       | 850nm               | 3.2 <sup>(1)</sup>  | 1270 <sup>(1)</sup> |
|                               | LST1-01F09-IR02-00 | Starboard, Osram OSOLON Black, 850nm Infrared  | 90°        | 850nm               | 3.2 <sup>(1)</sup>  | 1340 <sup>(1)</sup> |
|                               | LST1-01F09-IR03-00 | Starboard, Osram OSOLON Black, 940nm Infrared  | 150°       | 940nm               | 2.75 <sup>(1)</sup> | 970 <sup>(1)</sup>  |
|                               | LST1-01F09-IR04-00 | Starboard, Osram OSOLON Black, 940nm Infrared  | 90°        | 940nm               | 2.75 <sup>(1)</sup> | 970 <sup>(1)</sup>  |
| Far Red<br>735nm              | LST1-01F06-FRD1-00 | Starboard, Osram OSOLON SSL 120, 735nm Far Red | 120°       | 735nm               | 1.85 <sup>(2)</sup> | 282 <sup>(2)</sup>  |

<sup>(1)</sup>Vf and flux values @ 1.0A, tp 10ms, T<sub>A</sub> 25C

<sup>(2)</sup>Vf and flux values @ 350mA, T<sub>j</sub> 25C

All values shown above are typical.

Do not look into the light that is emitting from these LEDs as it is harmful to the human eye.

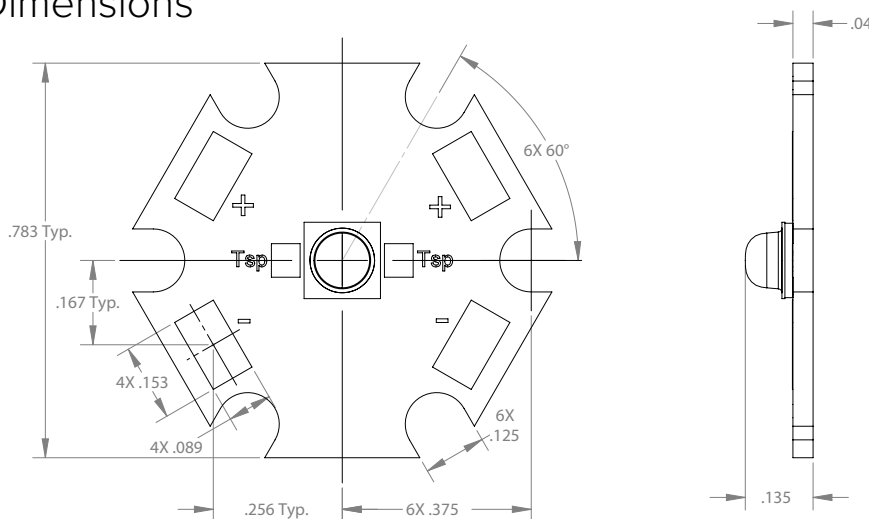
Eye injury may result. Use skin and eye protection as necessary.

Other beam angles and colors available upon request.

## Maximum Ratings

| Part Number                      | DC Current (A) | Tsp Temp (°C) | Power (W) |
|----------------------------------|----------------|---------------|-----------|
| LST1-01F09-IR01, LST1-01F09-IR02 | 1.5            | 105           | 5.8       |
| LST1-01F09-IR03, LST1-01F09-IR04 | 1.0            | 105           | 3.4       |
| LST1-01F06-FRD1                  | 1.0            | 105           | 2.3       |

## Dimensions



These devices emit highly concentrated non-visible infrared light which can be hazardous to the human eye in certain circumstances. When incorporating these devices into a product be sure to follow the safety precautions given in IEC 60825-1 and IEC 62471.