



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 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 Opulent Americas' starboards

**Rapid Innovation** - Work with Opulent Americas on your custom solution

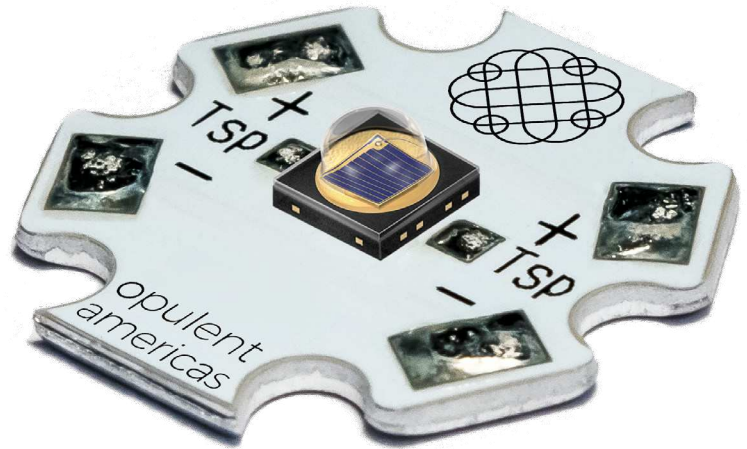
## Primary Applications



Surveillance Systems  
License Plate Scanning  
Automotive Sensing

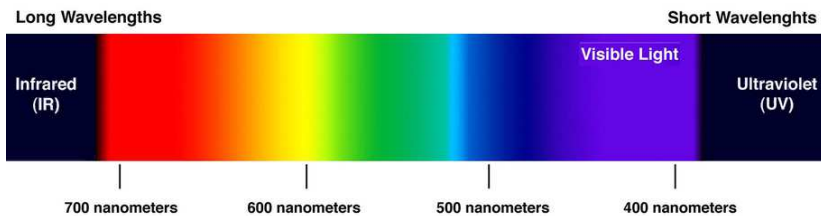


Machine Vision  
Night Vision  
Eye Tracking Systems



## Superior Performance with Flexible Options

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



## Custom Solutions

Opulent Americas 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 Opulent Americas

Opulent Americas 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, Opulent offers leading solid state lighting components, modules and custom solutions. Opulent customers get to market faster, with less resources, at lower costs. Visit [opulent-americas.com](http://opulent-americas.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 850nm to 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 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. Please reference the marking on the back of the starboard for actual values.

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

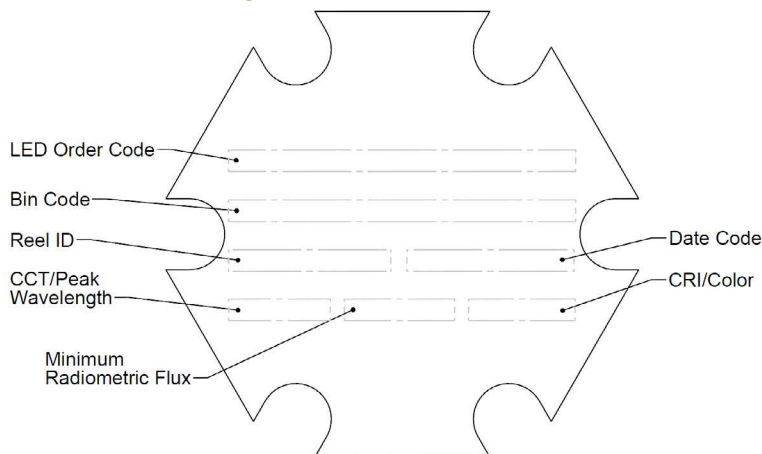
Eye injury may result. Use skin and eye protection as necessary.

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

## Detailed Labeling (back of the starboard)



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.