

Save Time, Money and the Environment with RoadVision High Performance LED Head Lamp Systems

Making performance and productivity count



> Energy Efficient > Environmentally Friendly > Durable & Long Lasting > No Maintenance Costs > No Downtime Costs

Original equipment quality head lamp systems combined with state-of-the-art LED technology

RoadVision's new high performance head lamps are manufactured with LED's (Light Emitting Diodes) rather than regular halogen light bulbs. These high performance lamps are designed to be more efficient with a robust construction offering environmental sustainability with no maintenance required. RoadVision's LED head lamps are ideal for original equipment manufacturers and aftermarket retrofitting to modern styled trucks, buses and specialist vehicles.

RoadVision's LED head lamps provide:

- > Reduced vehicle downtime and running costs.
- > Reduced engine, alternator and battery wear.
- > Zero maintenance costs for the life of the vehicle*.
- > Reduced fuel consumption, engine load and CO² emissions.
- > Greater visibility and reduced road glare
- > Greater durability and endurance.
- > A five-year limited warranty*.



Making Performance and Productivity Count

Energy Efficiency

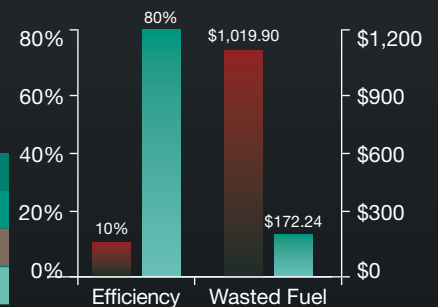
Growth in vehicle electronics, power hungry on-board systems and the increasing cost of fuel have created the need for more efficient components to reduce the load on the alternator and battery charging systems.

That's why RoadVision's new high performance head lamp systems have been developed with LED Lights. LED Lights are more than 80% energy efficient and have higher lumens per watt than standard halogen light bulbs. LED's are a proven solution to keep a vehicles' current draw low and ultimately provide an increase in fuel economy.

Efficiency: Raw Lumen Efficiency versus Wasted Fuel

● Halogen ● RV90 LED

	Efficiency	
	Lumens/Watt	Wasted Fuel
Halogen (24V 70W)	10%	\$1,019.90
RV90 LED	80%	\$172.24

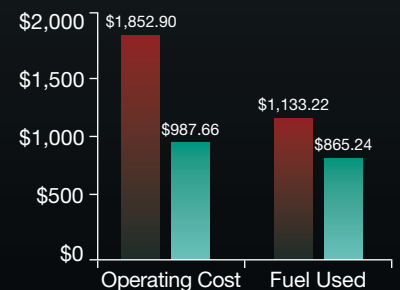


LED technology is far more efficient than conventional halogen systems achieving greater than 80% raw lumen efficiency. 90% of the energy consumed by halogen lamps is lost as heat compared to less than 20% in LED lamps. This wasted energy is conveyed as wasted fuel to create the same light output. Ultimately, LED technology provides equivalent light output from less energy consumption.

Annual Operating Costs: Operating cost versus Fuel Used

● Halogen ● RV90 LED

	Operating Cost	Fuel Used
Halogen (24V 70W)	\$1,852.90	\$1,133.22
RV90 LED	\$987.66	\$865.24



Reduced operating costs and fuel consumed due to the efficiency, longevity and durability of LED's means more money in your pocket. Combine this with zero maintenance, reduced engine BHP (Brake Horse Power), CO² emissions and extended alternator and battery life and the savings are greater. Annual savings of \$865.24 can be achieved when using RV90 LED over conventional halogen lamps*.

*Annual Cost Savings based on diesel bus operation of 18hrs/day, 365 days/year, average ground speed 36km/h and average fuel costs of \$1.35/L.

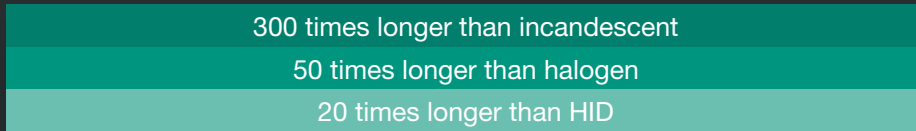
The Facts and Figures

	Consumption			Annual Savings Using RV90 LED over halogen
	Amps	Watts	BHP	
Halogen (24V 70W)	9.85 Amps	280 Watts	0.375 BHP	\$865.24
RV90 LED	2.82 Amps	80 Watts	0.107 BHP	
Saving	7.03 Amps	200 Watts	0.268 BHP	
LED % savings	71.4%	71.4%	71.5%	

Endurance and Durability

Whether you need a high quality OEM lighting solution or the perfect aftermarket replacement, LED technology is second to none.

LED's last up to:

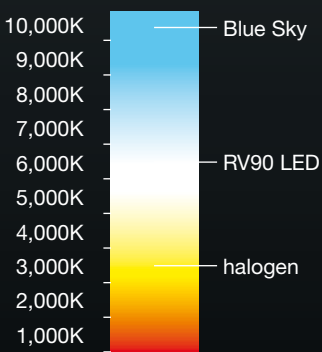


LED head lamps take advantage of solid state construction – meaning there are no delicate bulbs, fragile filaments, or sensitive electrodes similar to those found in incandescent, halogen or HID lighting systems. As a result, LED head lamps are the ideal choice for vehicle applications where every day road conditions like pot holes, bumps, and uneven surfaces would cause traditional head lamps to fail prematurely.

RoadVision LED head lamps meet ADR, ECE, IP69K and Military standards.

Reduced Glare

Kelvin Colour Temperature: 5200K-6000K

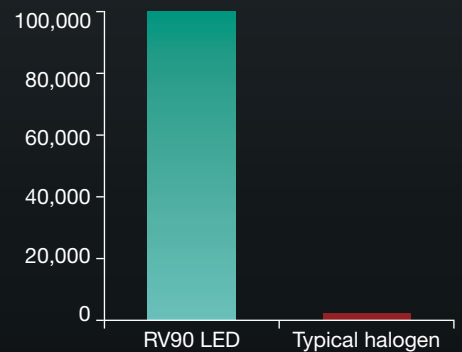


On-coming vehicle head lamps can have a blinding effect on other drivers so it's important to minimise any glare. LED head lamps generate clear, high contrast light which offers exceptional visibility in almost any condition. LED head lamps are designed to emit the right amount of light and colour to see and be seen by other road users. LED lamps produce a safer whiter light that is close to daylight – unlike halogen that produces an artificial yellow light output.

Reduced Maintenance and Downtime Costs

LED head lamps contain no filaments, no bulbs and no moving parts. As a result, LED head lamps have the lowest maintenance costs of any alternative lighting technology. Reduced maintenance cost is a major factor for implementing LED technology. The superior operating life of LED head lamps means that you will not only save money on replacement parts and labour, but also create significant reductions in vehicle down time.

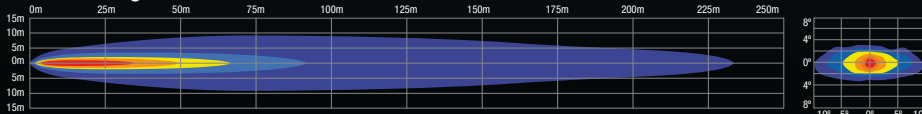
Typical Life Span (hrs)



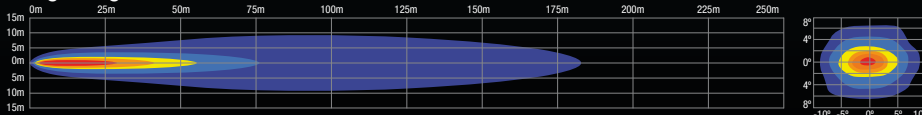
100,000 Hours = No maintenance for the life of the vehicle* based on lamp operation of 10 hours/day over 27 years.

RV90 LED Performance is Clear

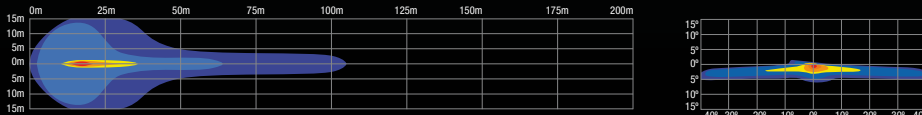
RV90 LED High Beam Pattern



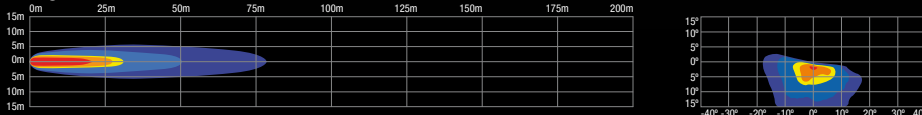
halogen High Beam Pattern



RV90 LED Low Beam Pattern



halogen Low Beam Pattern



Environmentally Friendly

Typically, HID, halogen and incandescent lamps are manufactured with some degree of hazardous materials – including mercury, lead, sodium or other harmful materials. Discarded lighting products account for over 22 tonnes of mercury waste globally each year – more than enough mercury to poison every litre of water in Australia and New Zealand.

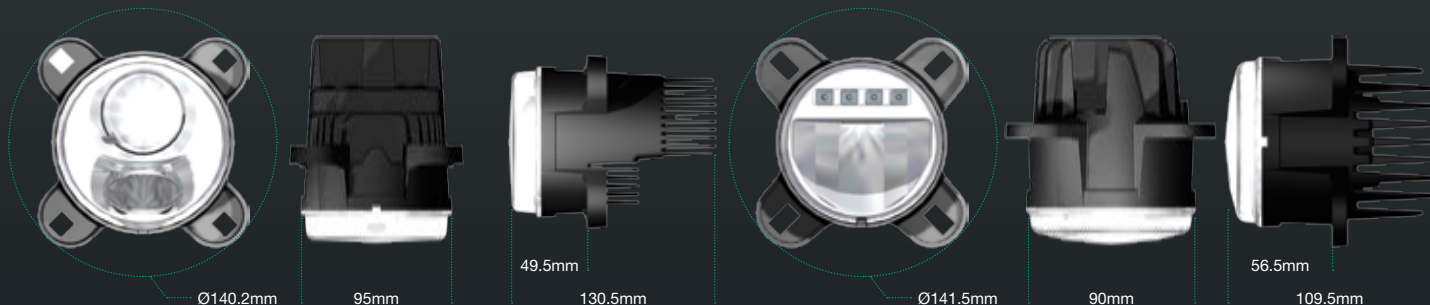
By contrast, LED lamps are completely recyclable and contain no hazardous materials – eliminating pollution and the environmental and health risks associated with mercury absorption.

RV90LB

90mm Low Beam Assembly

RV90HB

90mm High Beam Assembly with Park Lamp



RV90 Features

- > Instant light output surpassing 24 Volt 70 Watt halogen.
- > Produces a super white light temperature similar to daylight.
- > Super low power consumption of less than 0.8 Amps.
- > 100,000 hour LED life span with solid state technology.
- > Zero maintenance for the life of the vehicle*.
- > Light weight die cast aluminium housing.
- > Unbreakable Polycarbonate lens.
- > IP69K ingress protection (submersible to 3m).
- > Completely sealed from dust and water.
- > Supplied pre-wired with external driver box included.
- > Direct replacement for existing halogen lamps.
- > ADR / ECE Approved.

Specifications	RV90LB	RV90HB
Beam Type	Low Beam	High Beam with Park
Light Source	High Powered LED Modules 15W 4-chip plus 7.4W 2-chip	High Powered LED Module 15W 4-chip
Lumens Light Output (Effective)	1000 Lumens	700 Lumens
Watts	23W	17W
Input Voltage	12V or 24V	12V or 24V
Current Draw Amps @ 28.5V DC	0.8A	0.6A
Housing Construction	Die Cast Aluminium	Die Cast Aluminium
Lens Construction	Polycarbonate	Polycarbonate
Ingress Protection Rating	IP69K	IP69K
Dimensions	140.2mm x 130.5mm	141.5mm x 109.5mm

* Based on lamp operation of 10 hours/day over 27 years

Suitable for the following applications



Custom Lighting Solutions

RoadVision specialises in custom lighting solutions. We will partner with you to understand your needs and create a solution that meets your exact specifications. Our team of experienced engineers can design state-of-the-art lighting solutions for a wide variety of applications – from forward lighting, combination lamps, LED and HID to emergency and auxiliary lighting for military, mass transit, marine, transport, mining and more.

Partner with RoadVision today...

Please contact your nearest RoadVision distributor for the full product range or visit www.roadvision.com.au

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