

ARB Intensity LED V2 Driving Lights

# ***HYPERSPOT UPGRADE***

**ARB Intensity LED V2 driving lights are  
brighter than ever thanks to the introduction  
of new Hyperspot™ optics and next-  
generation LED technology.**

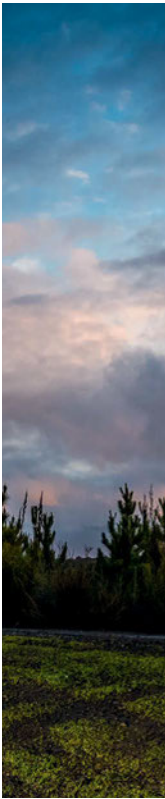
After six years on the market, ARB has significantly upgraded its popular Intensity LED driving lights with the launch of a new V2 model. The distinctive appearance and super-tough housing of Intensity LEDs has been retained but several internal upgrades have resulted in vastly improved light output for both AR21 and AR32 models, in both spread and spot beam patterns.



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## NEW TECHNOLOGY

While the original Intensity LED driving lights used top-shelf LEDs with a 50,000-hour lifespan, the new Intensity V2 lights feature the latest in OSRAM™ LED technology, which comes in the form of OSRAM™ Giants. These new-generation LEDs harness greater power input and transform it into greatly improved light output, while retaining the exceptional 50,000-hour lifespan.

“The OSRAM™ Giants is essentially doubling the light output of our current Intensity LEDs while condensing it in the same package size,” explains ARB Product Manager, Ben Rieson. “The big upgrade that we went for is light output, hence the name Intensity. We wanted to get as much effective light as possible out the front of the vehicle and right down the other end of the road.”

This has been achieved by combining the increased light output of the new OSRAM™ Giant LEDs with improved optics.

“Many light manufacturers just pump a lot of power into their lights but the light

produced is not well focused and it just goes everywhere,” says Ben. “Our team of engineers changed the whole optic on the inside of the Intensity LED lights so we’ve been able to produce an accurately focused beam. The light that usually comes out of an LED just gets thrown against the back end of the lens and doesn’t do anything, but we’ve been able to harness that light and project it right up the road... it’s called Hyperspot™ LED technology.

Another upgrade is the light temperature. ARB engineers toned down the light temperature of the lights to help reduce eye strain and long distance fatigue when driving at night.

“Another change we’ve made to the light is to beef up the connector,” continues Ben. “We’ve upgraded the original Deutsch connector to a much more substantial over-moulded, oversized Deutsch DTP style to handle the amount of power that we’re punching through it.”

Providing a further refined look on the Intensity LEDs, ARB has also blacked out the circuit boards to give the front of the optics a real stealth look.

## POWER IN, LIGHT OUT

The use of OSRAM™ Giant LEDs in Intensity LED V2 driving lights means more power can be pumped in to produce more raw light output.

“Power consumption has gone up and is used more effectively,” explains Ben. “For the AR32 it used to be around 90W per light but now it’s up to 165W per light. The beauty of the new OSRAM™ Giant LEDs is you can throw a lot more power at them and rather than just getting hot and de-rating themselves, they suck up that power and then force a lot more light up the road.”

When Ben says a lot more light output, he isn’t kidding. Raw light output, measured at the light source in lumens (see *Lumens & Lux* on p35), has more than doubled; the original AR32 spot produced an impressive 8,200 raw lumens while the new AR32 spot produces an astonishing 20,000 raw lumens. And the smaller AR21 lights now produce a brilliant 13,170 raw lumens.







## THROWING LIGHT

Of course, lots of raw light output is not much use unless it can be effectively harnessed and focused where needed, which is where the Hyperspot™ technology comes into play, and the Intensity LED V2 driving lights certainly throw a lot of light up the road.

The vastly improved throw of light is measured in lux and the V2's improved performance in this regard is simply outstanding. Where the original AR32 spot measured one lux at 568m, the new AR32 spot measures one lux at 795m, which is a whopping 35 per cent improvement. And the smaller AR21 spot is up from one lux at 474m to one lux at 693m, which is over 35 per cent improvement.

The flood versions of both the AR32 and AR21 Intensity LED V2 lights also project light output much further up the road than before; the original AR32 flood measured one lux at 278m and the new model measures one lux at 677m, while the AR21 flood is up from one lux at 241m to one lux at 555m.

## WHEN YOU'RE ONTO A GOOD THING

Despite their vastly improved performance, the new Intensity LED V2 driving lights retain the tough body, virtually indestructible lens and secure mounting bracket that has proven so resilient and effective over the past six years.

"We're sticking with the current look and feel of the Intensity LED driving lights because they're extremely well engineered and built, and we really like the design," says Ben. "ARB was one of the first companies to launch an LED array in a round driving light and the original design has proven so good that we've decided to stick with it. The Intensity LED has an iconic look so we're sticking to our roots."

ARB Intensity driving lights feature a high pressure cast aluminium body with optimally sized and spaced heat-sink fins to keep the LED circuits cool and therefore optimise light output and maximise longevity. The incredibly tough lens is manufactured from a polycarbonate material and is further protected by an additional polycarbonate cover.





Regular driving lights



ARB Intensity V2 LED driving lights

## APPLES AND ORANGES

Previously, while many competitors listed driving light output in pairs, ARB has always listed it for each single light. ARB has now updated its information for spot beam driving lights to list light output in pairs for a more direct comparison with competitor lights.

“At the end of the day, it’s a bit of a ‘mine’s bigger than yours’ contest because light manufacturers are just trying to state the highest possible figure for light output down the road,” says Ben Rieson. “With the original AR32 spot, we used to list a single light at one lux at 576m, while other manufacturers listed at 860m, but they were actually measuring in pairs.

“When we measured the original Intensity LED in pairs, they were one lux at 962m, so we were actually very competitive. Now our new Intensity LED V2 lights measure one lux at up to 1,300m down the road in pairs, all done with only 32 LEDs” exclaims Ben.







## LUMENS AND LUX

**Lumen:** The total amount of light that radiates from a source is measured in lumen. In the case of a light globe or LED, this is measured in all directions (i.e. 360°) from the source. It does not represent the usable light that falls on a particular surface (e.g. a kangaroo 800m down the road).

**Lux:** The amount of light falling on a surface is measured in lux (lumen/m<sup>2</sup>). In the case of a driving light or light bar, this can be the amount of light focused towards a surface in the distance (e.g. a kangaroo 800m down the road). For a given distance, a well-focused light source will provide a higher lux reading than one with poor focus because the light has been "tamed" to point in the correct position.



V2 AR21 spot driving light shown