

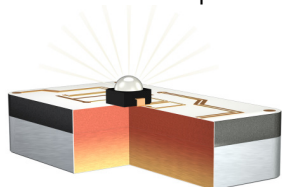
Standby AB

Rotating Light Replacement

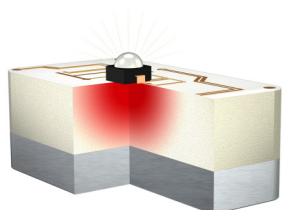
Standby AB develop and manufacture alarm- and warning equipment for emergency-, commercial- and special vehicles and are a complete system supplier of light-, audio- and control equipment. Anyone who has seen a Swedish police car has also seen Standby's products.

After looking at the rotating halogen light in the light bars for emergency vehicles it was found that it could be replaced with a LED solution. The benefits were that the power consumption went from 55 W, always on, to 25 W, 18% on. Still the light output increased five times and all moving parts were removed. The strict requirements on colour stability required the use of Alunat™.

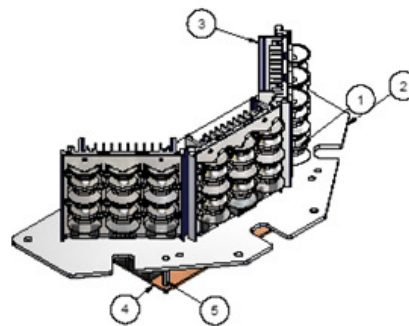
Alunat™ is developed by Aluwave to solve the heat problems of modern LEDs. It is a printed circuit board material based on a ceramic, instead of polymer, insulating layer with excellent thermal properties. It governs for low and stable chip temperatures. The principle is described in the pictures below.



Alunat™, with an even heat distribution



Conventional Aluminium based carrier with a heat concentration in the polymer under the LED



A first concept sketch of the solution

The result, as shown below, apart from fulfilling the requirements said earlier also allowed a more slimmed design of the light bar helping to reduce fuel consumption with up to 5%. Anders Wiquist, Managing Director of Standby AB, says "We are very happy with the result of our joint development efforts – the new solution is so much brighter and still we are reducing power consumption with more than 50%."



The solution in place in the light bar

Aluwave AB is an innovative Swedish company that specialises in electronics cooling technology and provides, as a complement to Alunat™, also expertise in electrical, thermal and optical design. Our customers are mainly in automotive, architectural, sport and work lighting applications.

For more information on Standby:
<http://www.standby.eu/>