



LUXEON Altilon Intense

High Luminance LEDs for miniaturized optics and superior styling, study demonstrating use of ultra-small optic modules to realize full set of AFS functions headlamps.



LUXEON Altilon Intense is a family of single- and multi-chip high luminance LEDs. It offers high luminance, superior contrast and small light emitting areas. Four products are available to allow design flexibility by a wide range in flux per package from 230-1020 hot lumens. The styling options enabled by Altilon Intense are demonstrated using a multitude of small lens projectors with 10 mm x 30 mm lenses generating city, country, bad-weather and motorway light pattern of an AFS system.

FEATURES AND BENEFITS

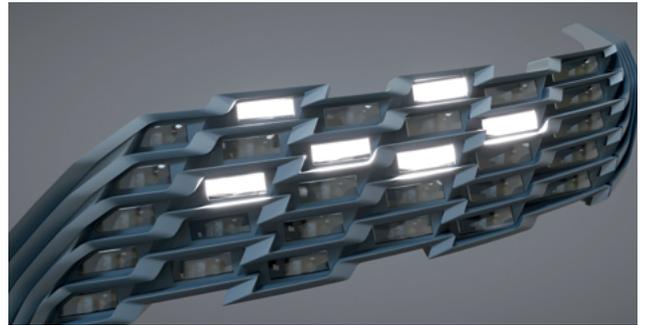
- Range of products with one to four chips providing 230 lm/chip hot
- High luminance and superior contrast
- Small light emitting area per chip to enable miniaturized optics
- Industry established package footprint for easy design in
- Improved mechanical tolerances

PRIMARY APPLICATIONS

- High beam, low beam with reflection and projection optics
- Adaptive Front-lighting Systems (AFS)
- Adaptive Driving Beam (ADB)
- Glare free high beam
- Matrix headlighting

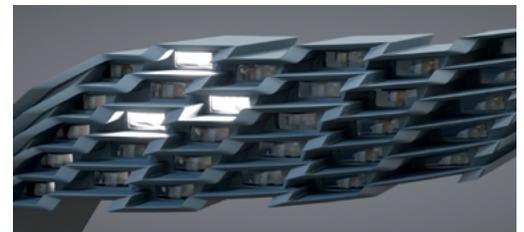
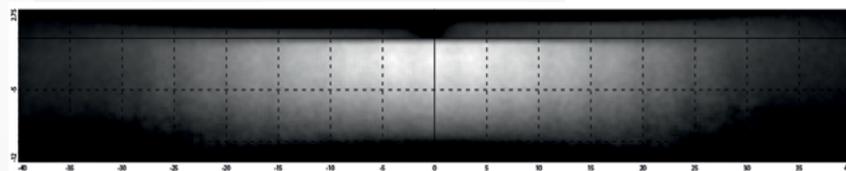
AFS realized with Altilon Intense behind 10mm x 30mm lenses

City, country, bad-weather and motorway light are realized by five cavities in total. Additional cavities are added for styling purposes. Each cavity holds a 10 mm x 30 mm PMMA lens. The Altilon Intense light is directed towards the lens by the use of silicone near die optics. This enables styling with superior efficiency of up to 55 %.



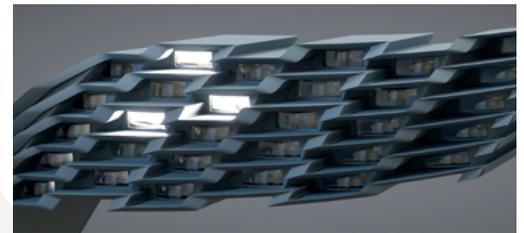
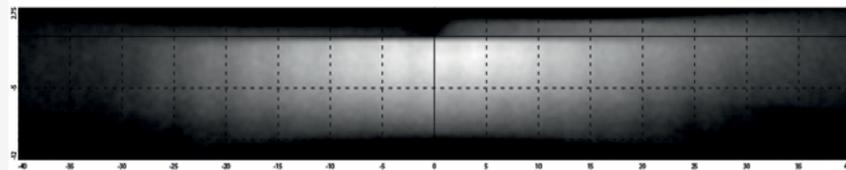
City Light:

3 cavities with 4 LEDs (2 x 1x3 @ 0.7 A, 1x1 @ 0.5 A, 1x2 @ 0.25 A)
1102 lm installed, 607 lm on road, 55 % efficiency*



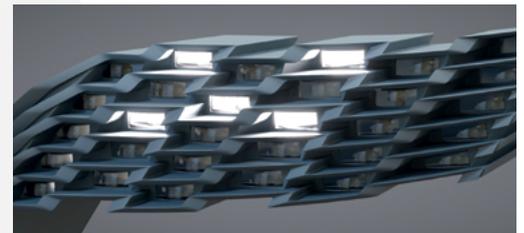
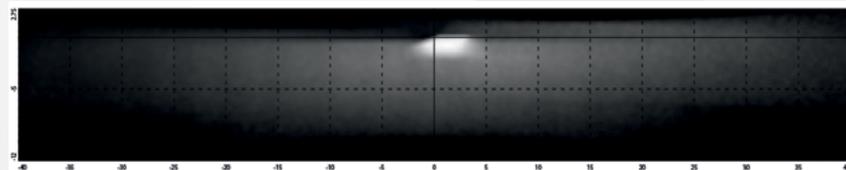
Country Light:

3 cavities, 4 LEDs (2 x 1x3@1 A, 1x1@0.5 A, 1x2@1 A)
802 lm installed, 943 lm on road, 53 % efficiency*



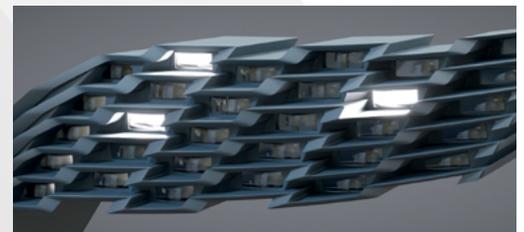
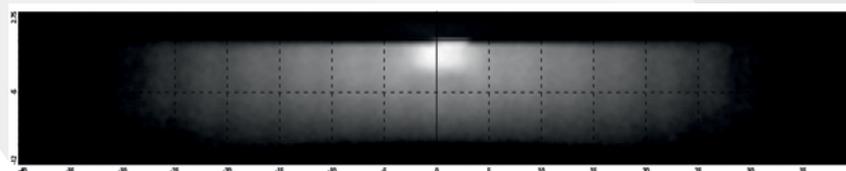
Bad-Weather Light:

5 cavities, 6 LEDs (2 x 1x3@0.5 A, 1x1@0.8 A, 1x2@1.25 A, 2 x 1x1@1 A)
1760 lm installed, 681 lm on road, 38 % efficiency*



Motorway Light:

3 cavities, 3 LEDs (2 x 1x3@0.7 A, 1x1@1 A)
1102 lm installed, 599 lm on road, 54 % efficiency*



*no cover glass considered

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