



LUXEON Altilon Intense Gen2

High Luminance for Miniaturized Optics and Distinctive Styling



LUXEON Altilon Intense Gen2 is a family of single- and multi-chip LEDs offering high luminance above 200 cd/mm² hot DC, superior contrast, and small light-emitting areas. Three flux configurations allow for extensive design flexibility. LUXEON Altilon Intense Gen2 creates distinct styling options by using compact and optically efficient modules in a slim headlamp design.

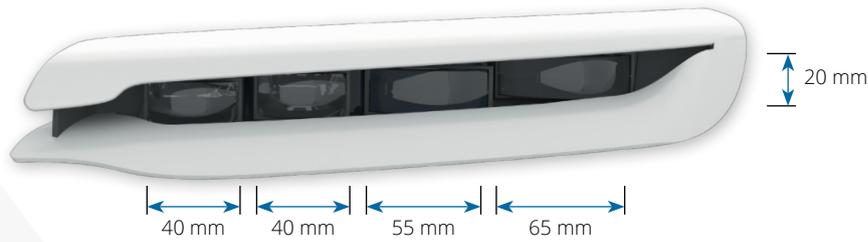
FEATURES AND BENEFITS

- Full range of products with one to three chips providing a minimum flux of 350 lm/chip at 1.5 A and $T_c = 85\text{ }^\circ\text{C}$
- High luminance (200 cd/mm² hot) and superior contrast
- Small light-emitting area of 0.5 mm² per chip with tight mechanical tolerances enabling miniaturized optics
- LUXEON Altilon family footprint for easy integration

PRIMARY APPLICATIONS

- Low beam and high beam
- Adaptive front-lighting system (AFS)
- Adaptive driving beam (ADB)
- Glare-free high beam
- Matrix headlighting

High-Performance Low Beam and Adaptive Driving Beam in a Slim Design with LUXEON Altilon Intense Gen2

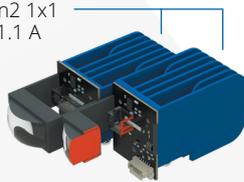


Adaptive Driving Beam

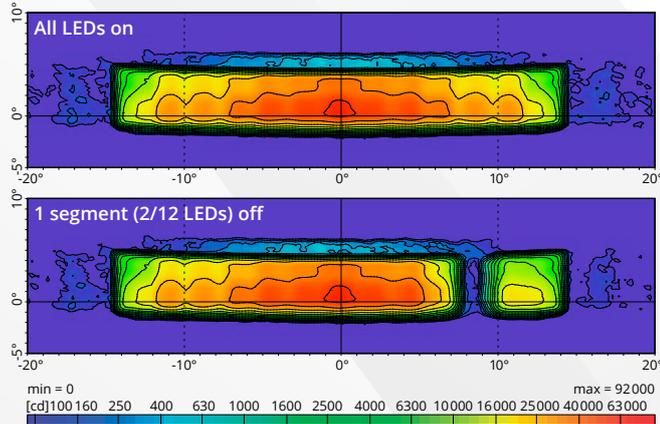
Two modules with TIR optics and projection lens

2 × 6 LUXEON Altilon Intense Gen2 1x1 (peak performance of 300 lm at 1.1 A and $T_j = 85^\circ\text{C}$)

20 mm lens height



Optical performance



- Total installed flux: 2460 lm from 13 segments (dimming profile taken into account)
- Flux in beam*: 1430 lm (all LEDs on)
- Width: +/-15° @ 250 cd
- $I_{\text{max}}^* = 71\,000\text{ cd}$
- Optical efficiency*: 56%
- Pixel size of 3° (interlaced)

Low Beam

Two modules with reflector-based projection optics using specular shutters

Spot module: 1 LUXEON Altilon Intense Gen2 1x2 (500 lm at 0.85 A and $T_j = 85^\circ\text{C}$)

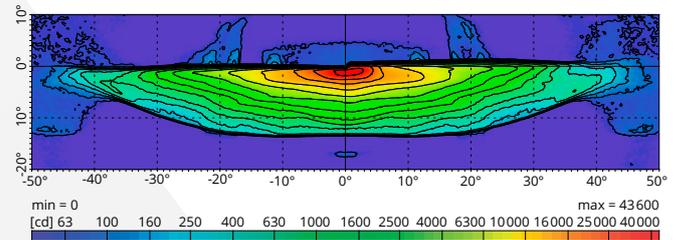
20 mm lens height



Spread module: 2 LUXEON Altilon Intense Gen2 1x3 (750 lm at 0.85 A and $T_j = 85^\circ\text{C}$)

AFS basic, motorway and city beams can be created by switching the light output of the individual modules.

Optical performance



- Total installed flux: 2000 lm
- Flux in beam*: 1050 lm
- Width: -42°/+43° @ 250 cd
- Optical efficiency*: 53%

* including losses at the cover glass

Product Portfolio

LUXEON Altilon Intense Gen2	1x1	1x2	1x3
Light-emitting area (mm × mm)	0.68 × 0.88	0.68 × 1.70	0.68 × 2.72
Luminous flux at 1.5 A, $T_c = 85^\circ\text{C}$ (lm)**	375	750	1125
Luminance (cd/mm ²)**	200	205	195
$T_{\text{c,max}}$ (°C) / $T_{\text{j,max}}$ (°C)	135 / 150	135 / 150	135 / 150
$R_{\text{thj-c,el}}$ (K/W)	7.0	3.8	2.4

** flux and luminance values valid for H5 color bin, HC bin 3% lower

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