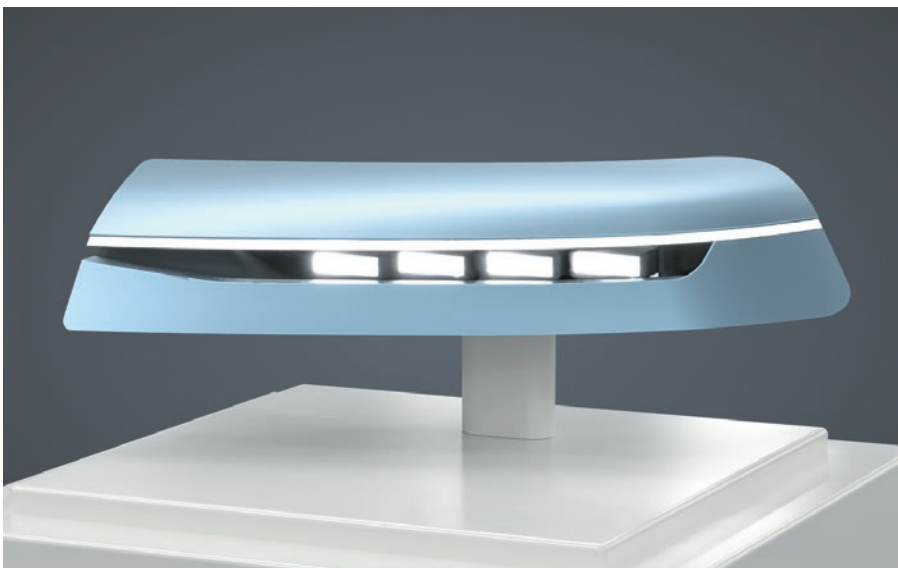


LUXEON Altilon Intense

High luminance pushing the boundaries for highly efficient, ultra-slim ADB headlamps



LUXEON Altilon Intense is the ideal light source for ultra-slim headlight designs. The superior luminance of 220 Mcd/m² in hot operating conditions and small light-emitting area guarantee enhanced optical efficiency. Overall optical system efficiency is further boosted by combining LUXEON Altilon Intense with LUXEON FX2. Pairing the most efficient LEDs with those offering the best brightness helps to resolve the design dilemma of compactness versus performance.

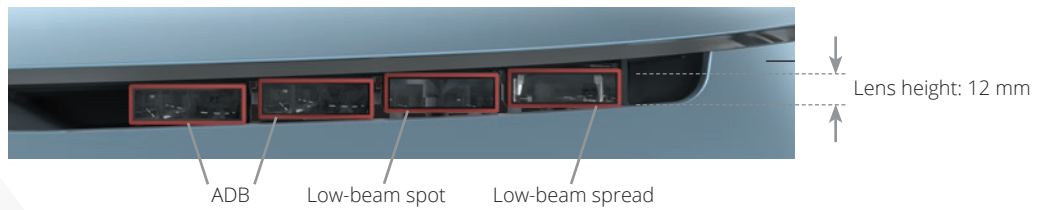
FEATURES AND BENEFITS

- Highest luminance (220 cd/mm² in hot applications) with superior contrast
- Small light-emitting area with tight mechanical tolerances enables miniaturized, efficient optics
- Single- to triple-chip portfolio offers a flux of 395 lm/chip at 1.5 A and 85 °C
- Dedicated thermal pad allows for efficient thermal management
- Available as SMD version for standard SMT assembly processes and TopContact version for thermally optimized solutions
- PnP or LUXEON Go module proliferations are available on request

PRIMARY APPLICATIONS

- Low beam and high beam
- Adaptive front-lighting system (AFS)
- Adaptive driving beam (ADB)

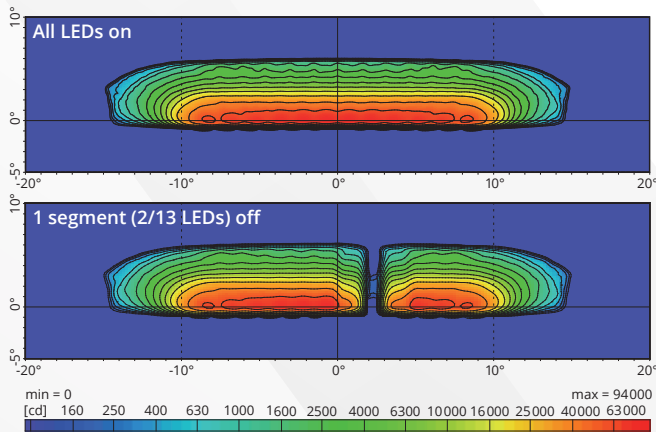
Minimizing lens height while maximizing optical efficiency for a full ADB headlamp design



Adaptive driving beam

Two modules with reflector optics and projection lens

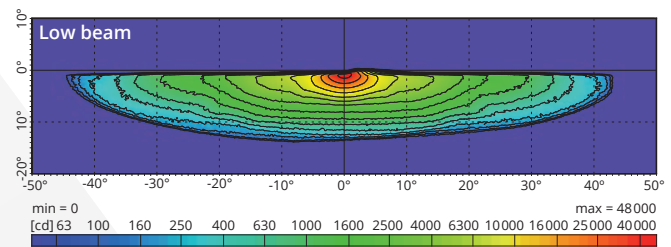
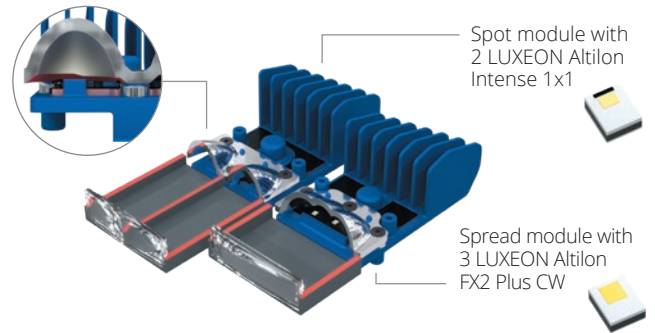
6 + 7 LUXEON Altilon Intense 1x1



- Total installed flux: 3640 lm from 13 segments
- Flux in beam*: 1122 lm (all LEDs on)
- $I_{max}^* = 96900$ cd
- Optical efficiency*: 31%
- Width: +/- 15° @ 250 cd
- Pixel size of 1° (center)

Low beam

Two modules with reflector optics and projection lens, cutoff line implemented in the reflectors (no shutter)



- Total installed flux: 1610 lm
- Flux in beam*: 584 lm
- $I_{max}^* = 48500$ cd
- Optical efficiency*: 36%
- Width: +/- 41° @ 250 cd

* including 15% losses at the cover glass

High-luminance LED portfolio and integrated modular-solution options

	LUXEON Altilon Intense			LUXEON Altilon TopContact Intense		LUXEON Altilon TopContact Intense PnP
	1x1	1x2	1x3	1x2	1x3	
Light-emitting area (mm × mm)	0.68 × 0.88	0.68 × 1.70	0.68 × 2.72	0.68 × 1.70	0.68 × 2.72	Standard and customized options
Luminous flux at 1.5 A, 85 °C (lm)**	395	790	1185	790	1185	
Luminance (cd/mm²)**	220	225	215	225	215	Standardized modules including heatsink
$T_{c,max}$ (°C) / $T_{j,max}$ (°C)	135 / 150	135 / 150	135 / 150	145 / 150	145 / 150	
$R_{th,j-cel}$ (K/W)	7.0	3.8	2.4	3.8	2.4	

** for car SOP 2025

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