

Magna @ Renault 2023

Lighting

PureSight™ Projector Portfolio

PureSight Bi-LED projector headlamps allows for direct fit replacement for halogen bi-function projectors enabling increased performance and cost reduced cost compared to HID projectors.



Smarter



Safer



Cleaner



Electrification



Patented



Design

Competitive advantage/differentiators

- Next Gen Bi-LED projector with HID light output level
- High lumen output achieving Good (Best) IIHS Rating
- Optical design allows for uniform transition between LB and HB

Applications

- Bi-LED module
- Low Beam module
- High Beam module

SOP

Ideation

Discovery

Concept

Development

Serial Preparation

Production

Invision™ Adaptive Driving Beam

Adaptive Driving Beam projectors change the forward lighting beam pattern to help create a safer driving environment for both the driver as well as oncoming traffic. Features include glare free high beam, speed dependent lighting, virtual dynamic bending, hazard/pedestrian illumination and tourist conversion.



Smarter



Safer



Cleaner



Electrification



Driving Dynamics



Patented



Design



Co-Development
Opportunity

Competitive advantage/differentiators

- Invision™ Portfolio of ADB projectors:
 - 11 segment GFHB and 13 segment Bi-Matrix projectors for entry level
 - 24 and 60 segment ADB projectors for high performance and added features
 - FMVSS ADB
 - High Definition MicroLED
- LED array creates segmented beam pattern
- High lumen output achieves 0 demerits for IIHS
- Up to 1000 lumen of additional High Beam light
- Slim profiles in development
- Supports SAE, ECE and CCC markets
- Night drive vehicles available

SOP

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in Production

FlecsForm™

Advanced lighting technology that utilizes high speed direct transfer technology of mini LEDs onto rigid or flexible circuits to enable thinner, more efficient lighting solutions to enhance styling and communication features.



Smarter



Safer



Cleaner



Lighter



Electrification



First to Market



Patented



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Design

Co-Development
Opportunity

Competitive advantage/differentiators

- Uniform lighting in an extremely thin and flexible package
- Enables complex shapes and endless design possibilities
- Provides styling freedom for brand/series signature lighting
- High resolution communication display capabilities
- Supports intricate animation function
- Lightweight, thermally efficient and low power consumption
- Robust and cost-efficient alternative to OLED
- Functions – Tail, Stop, Turn, Backup
- RGB color (SOP ready 2025)
- White LED for high lumen output development ongoing (SOP ready 2025)

SOP

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Lighting with Integrated Radar

High Resolution radar integrated in vehicle lamps to improve driving safety and visibility



Smarter



Safer



Cleaner



Lighter



Electrification



First to Market



Patented



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Design



Co-Development Opportunity

Competitive advantage/differentiators

- Combination between Lighting and Sensor integration covers 360 degrees around the car, allowing for ADAS application around entire vehicle
- Radar designed and integrated at the beginning of the project to avoid aesthetic impact and fulfill lamp characteristics, performance and customer requirements
- Lighting communication available when obstacle is detected
- Compact boards and packaging versus traditional solution:
 - 77 GHz radar solution for LRR, MRR, SRR could be reduced by more than 50% respect traditional packaged solution
- Improved protection from accidental damage or interferences such as mud, dust, ice or snow
- Lower radar signal attenuation through lamp lenses and plastics vs. painted parts in rear of vehicle (e.g. bumper)

SOP

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in Production



Forward. For all.