



The cross-section of the IMSE LightLine application shows the single-piece structure.

IMSE® LIGHTLINE TECHNOLOGY FOR A PREMIUM APPEARANCE

Scalable light lines from icons to long runs using one technology platform, reducing design and validation effort.

IMSE LightLine technology enables integrating LEDs, optics, and structure into a ~7 mm thin one-piece design that delivers smooth, uniform light with minimal bleed and LED count, robust light blocking, and integrated fixing features. It enables fully programmable, dynamic RGB illumination in any color for functional and decorative lighting features.

PART OVERVIEW

- **Single-piece**, seamless design
- **Wall thickness:** 7 mm (0.3 inch)
- **Other measurements:**
343 x 38 mm (13.5 x 1.5 inch)
- **Weight:** 210 g (7.41 oz)
- **In-mold electronics:** circuitry, lighting (smart RGB LEDs), connector
- **Light intensity:** 400 +/-40 cd/m² at 1 lm
- **Validated reference design** with proven manufacturing capability



KEY ADVANTAGES

One-piece electronics integration: full integration reduces components, interfaces, and assembly complexity.

Thin and lightweight: enables integration in tight spaces.

Design freedom: flexibility for designing lighting and functionality on shaped surfaces.

High-quality, uniform lighting: Consistent, dynamic RGB illumination with minimal dotting and light bleed.

Low power consumption, high light efficiency.

Robust, production-ready construction: encapsulated structure delivers stable performance and durability in demanding environments.

Sustainable and cost-efficient choice: Reduction in CO₂-e from reduced material use, simplified supply chain, and minimized power consumption, while creating savings in costs.

APPLICATIONS

- Dynamic lightlines in any application from smart home to robotics and mobility
- Automotive interior and exterior lightlines
- Customizable by LED pitch:
 - 15 mm for close-view premium accents
 - 20 mm for balanced accents and icons
 - 30 mm for efficient long ambient runs (e.g. doors/trim)
 - 40 mm for economical guidance or perimeter lines

