

MATRIX R is a stand-alone linear LED fixture designed for recessed installation. It offers high luminous efficiency, optimal visual comfort, and advanced glare control. Its design makes it ideal for professional and commercial environments such as offices, showrooms, supermarkets, open spaces, and exhibition areas.

#### **Construction Features**

- Shaped body in 0.6 mm thick steel sheet, with epoxy powder coating.
- Internal heat-dissipating structure in high thermal conductivity aluminum, 1 mm thick, for optimal thermal management.
- Recessed mounting system with springs for easy and secure installation.
- Full polyester powder coating with matte finish, standard color RAL 9003 embossed (RAL 9005 available on request).
- Innovative design with no visible external screws for a clean, modern aesthetic.
- Protection rating: IP43 for visible part, IP20 for recessed upper part.
- Passive thermal dissipation ensures durability and efficiency without active cooling systems.
- Dark Light optical system with PMMA grid available in three finishes: White, Black, and Translucent.

#### **Lighting Performance**

- High-efficiency LED sources (186 lm/W @150mA Tj=85°C) with color temperature options: 3000K, 4000K, and 5000K.
- Color Rendering Index CRI90 with guaranteed 3-step MacAdam selection; CRI80 available on request.
- Power options from 3.8W to 14.3W with luminous flux from 625 lm to 2135 lm, standard operating current from 350mA to 700mA.
- 90° PMMA anti-UV optics, compliant with UL94 and glow wire resistance at 850°C.
- Lighting solution with ELA (Extended Light Area) and CLC (Constant Light Colour) systems for uniform light distribution; standard beam 90TL (60° available on request).
- Compliant with EN 62471:2008 for photobiological safety, classified as Risk Group "Exempt" (RG0).

#### **Durability & Certifications**

- CE, RoHS, Reach certified.
- Compliant with EN/IEC 60598-1:2015 and EN/IEC 60598-2-2 standards.
- Lifespan: 80,000h L80 B10 @ta25°C, 50,000h L70 B50 @ta40°C, tested according to LM80, LM79, TM21.
- Operating temperature range: -35°C to +40°C.

#### **Electronics & Safety**

- Electronic power supply with input 220-240V 50/60Hz.
- Surge protection: 2kV (common mode), 1kV (differential mode).
- Advanced protection systems:
  - Automatic shutdown >285V.
  - Overload and short-circuit protection.
  - Protection against neutral disconnection and overheating with NTC threshold and electrical disconnection per EN 61000-4-5.
  - Optional SPD 12kV available on request.
- Power factor  $\geq 0.95$ , harmonic distortion <4%.

#### **Options & Sustainability**

- LED energy efficiency class = C/D.
- Eco-friendly product with over 80% recyclable materials.
- Available with DALI driver, emergency module 1h and 3h (EN 60598-2-22).
- Compatible with Bluetooth CAS CBU ASD control.
- Ready for variable power supply.
- Standard 3-year warranty.