

RYO LENSES



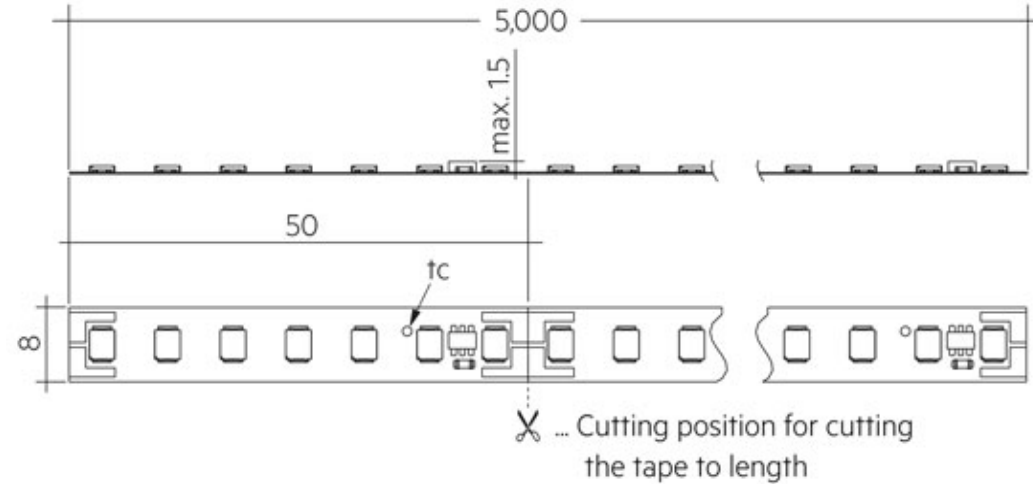
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RYO SYSTEM DETAILS

LIGHT SOURCES

- Ideal for **2835** and **3030 LEDs**.
- Arrangement can be longitudinal or transverse.
- LED Strip up to 10 mm in width for 24V and 48V track lights.
- LEDs can be either white or monochromatic.



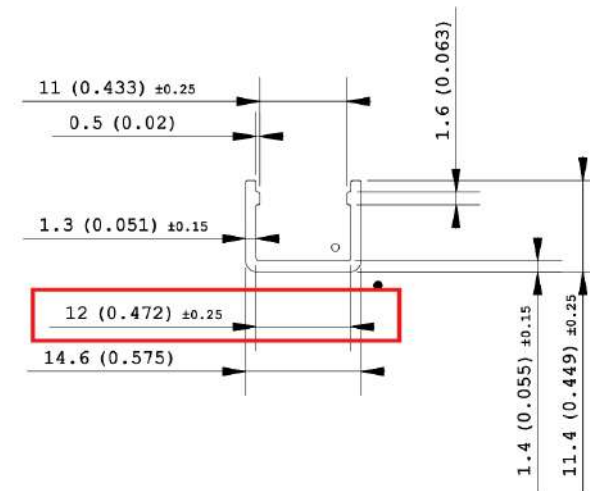
ALUMINIUM CHANNELS

- KERYO, Surface-type Aluminum Channel and can be available in 625mm.
- Hooks for RYO are fix to have a correct assembly between optic and aluminum.
- Width 12 mm.

Also usable in combination with:

- Surface
- Recess
- Corner
- Round

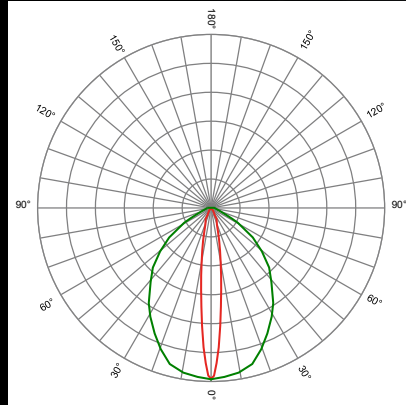
Aluminum Channels types, according to application.



RYO OPTICS

- RYO Optics have a huge beam variety, which is meant to cover a wide range of applications.
- Beam angles available: **Narrow, Medium, Wide, Extra Wide, Ultra Wide, Wall Grazer** and **Wall Washer**.

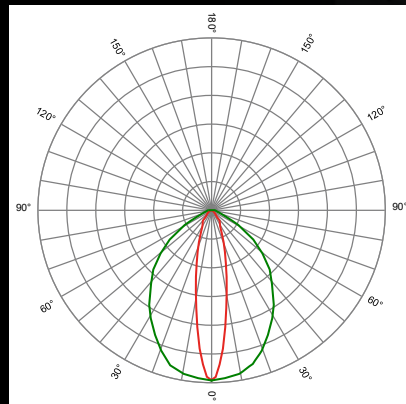
RYO/NA



- Full angle at 50% from maximum: $\sim 20^\circ$
- Full angle at 10% from maximum: $\sim 80^\circ$
- Mostly used in furniture (e.g., in shelf lighting to enhance the dark/light contrast, or in POS lighting for special products like jewelry (mostly combined with Corner type aluminum channels).
- Ideal for hallway light, where architectural effects of contrast between dark and light areas are needed.



RYO/ME

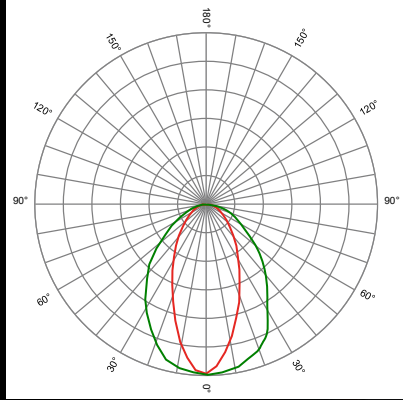


- Full angle at 50% from maximum: $\sim 30^\circ$
- Full angle at 10% from maximum: $\sim 95^\circ$
- Used for furniture lighting, e.g., shelf light.
- Display lighting in supermarkets and shops.
- Cove lighting, in combination with Corner type aluminum channels.



RYO OPTICS

RYO/WI

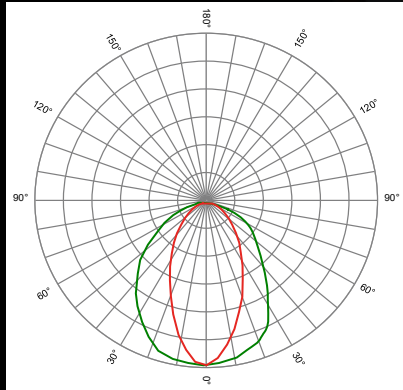


- Full angle at 50% from maximum: $\sim 45^\circ$
- Full angle at 10% from maximum: $\sim 110^\circ$

- Shop and retail applications.
- Hallway light, or ceiling mounted linear lights, in combination with Recess type aluminum channels.
- Community tables with integrated light.



RYO/EW



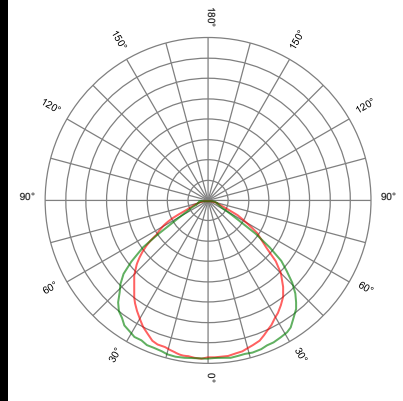
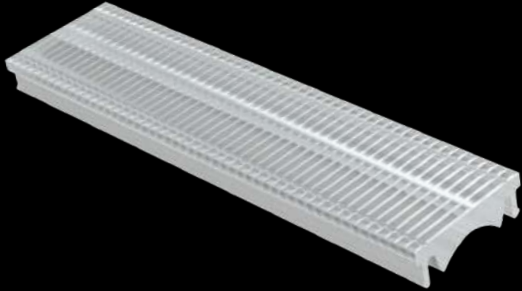
- Full angle at 50% from maximum: $\sim 55^\circ$
- Full angle at 10% from maximum: $\sim 120^\circ$

- 55° beam.
- Benefit of covering larger areas.
- Larger community tables, or hallway lights that need more uniformity.
- Glare-free lights.



RYO OPTICS

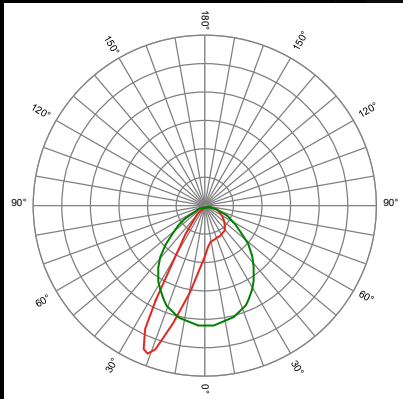
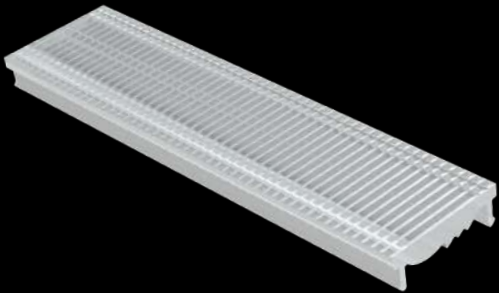
RYO/UW



- Full angle at 50% from maximum: $\sim 90^\circ$
- Full angle at 10% from maximum: $\sim 150^\circ$
- Luminaire up-light.
- Ceiling are at a huge distance.
- POS Light, where the distances between object and light source are close.
- Furniture lights: e.g., in modern cupboards, kitchens, drawers, etc.
- The UW is an alternative to common diffusive profiles, since it has a better efficiency and light quality.



RYO/WW

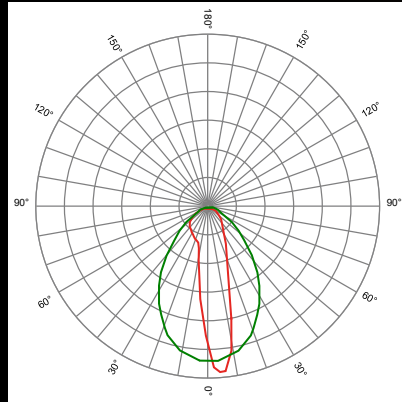
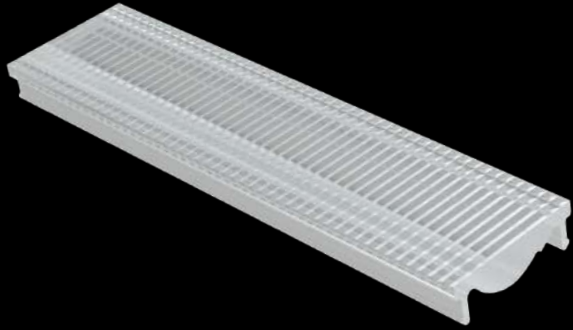


- Peak at 15°
- Precise and efficient cove lighting, as well as wall washing with distances to the target around 1 meter.
- Invisible hallway lights.
- Creating a dark/light contrast between walls and floor.
- Light source is mounted on tracks, illuminating pictures on the walls.
- Kitchen lights, shelf lights.



RYO OPTICS

RYO/WG



- RYO/WG is a 5° Wall grazer.
- The 5° tilt allows for mounting below 1 meter and ideally under 50 cm from the target (even shallower like 10-20 cm), depending on the desired effect.
- POS and cabinet lights.

PRODUCTION, MATERIAL AND CERTIFICATIONS

- RYO is made by multilayer technology.
- Made of PMMA.
- Specific production process to be more flexible and impact resistant.
- Diffusive grade.
- PMMA is perfectly allowed in all indoor environments and can be used without any restriction.
- RYO's materials are certified for: UL94 HB class and UL94 746C (f1) class.

OPTICAL & MECHANIC DESIGN & CUSTOM PROJECTS



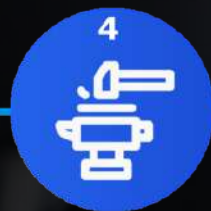
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SEND YOUR IDEA



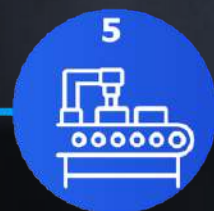
2
OPTICAL &
MECHANICAL
ANALYSIS



3
OPTICAL
DEVELOPMENT



4
MOLD
CONSTRUCTION



5
SAMPLING
& SERIAL
PRODUCTION



6
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