

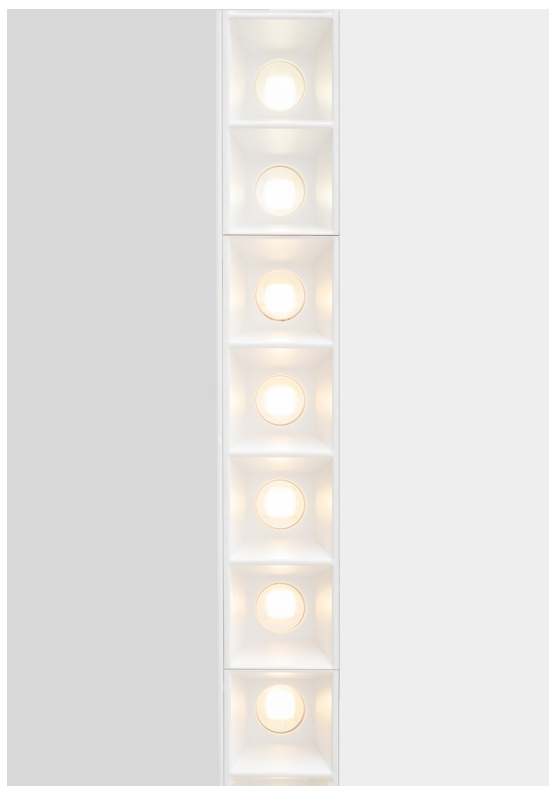


Refractive Emission Technology

Refractive emission's patented optical technology was developed to achieve **maximum efficiency on a small scale**, in compliance with the regulation for the lighting of workspaces. The lens is especially designed to **intercept 100% of the flux emitted** by the LED and control it with minimum dispersion so as to ensure **more than 90% efficiency and an efficacy of up to 154 lm/W**.

The lens is the primary optical system that collects and redirects the flux without intercepting the geometry of the cell in which it is inserted, thus avoiding a deterioration in performance in terms of quantity and quality of light emission. The small cells, in which the LED and lens are inserted, act only as screens to avoid direct viewing of the source from certain angles but do not affect the flux emitted, leaving a clean, pure light, whose characteristics are defined solely by the primary optics.

The refractive technology therefore guarantees **perfect glare-free perception with UGR up to <16**, with a level of lighting that is compliant with the regulations for office spaces.



A.39 Sharp Refractive Emission - Carlotta de Bevilacqua

REFRACTIVE TECHNOLOGY
High power & performance

Extreme Efficiency
more than 90%

High Efficacy
up to 154 lm/W

Extreme glare control
up to UGR < 16

CRI 90

Good Uniformity

Ideal for double height spaces

A.39 Sharp refractive emission - black louvres
1184 mm - direct only
Installation h 3200 mm - Desk h 750 mm
Isolines (lx) on a desk 1600x800 mm
UGR < 16

A.39 Sharp refractive emission - white louvres
1184 mm - direct only
Installation h 3200 mm - Desk h 750 mm
Isolines (lx) on a desk 1600x800 mm
UGR < 16

Microrefractive

A cell of Refractive houses four cells of Microrefractive. This reduction in scale has led to **an improvement in efficacy to 164 lm/W** and **an enhancement in uniformity by totally eliminating the multi-shadow effect.**



A.39 Sharp Microrefractive Emission - Carlotta de Bevilacqua

MICROREFRACTIVE TECHNOLOGY
High performance

Extreme Efficiency
more than 90%

Extreme Efficacy
up to 168 lm/W

High Glare Control
up to UGR < 16

CRI 90

High uniformity
no multi-shadows

Ideal for light perception

The diagrams show two circular light distribution patterns. The left diagram is for black louvres, with dimensions 630, 720, 810, and 900. The right diagram is for white louvres, with dimensions 630, 720, 810, and 900. Both diagrams show a central horizontal line and concentric circles representing light distribution.

A.39 Sharp microrefractive emission - black louvres
1194 mm - direct only
Installation h 2400 mm - Desk h 750 mm
Isolines (lx) on a desk 1500x800 mm
UGR < 16

A.39 Sharp microrefractive emission - white louvres
1194 mm - direct only
Installation h 2400 mm - Desk h 750 mm
Isolines (lx) on a desk 1500x800 mm
UGR < 16

Refractive technology is particularly suitable for environments where light perception is crucial and ideal for applications requiring a high level of visual accuracy and a high ability (CRI > 90) to correctly represent the colours of the objects it illuminates.

Refractive Technology products



Sharp Refractive Emission - Carlotta de Bevilacqua