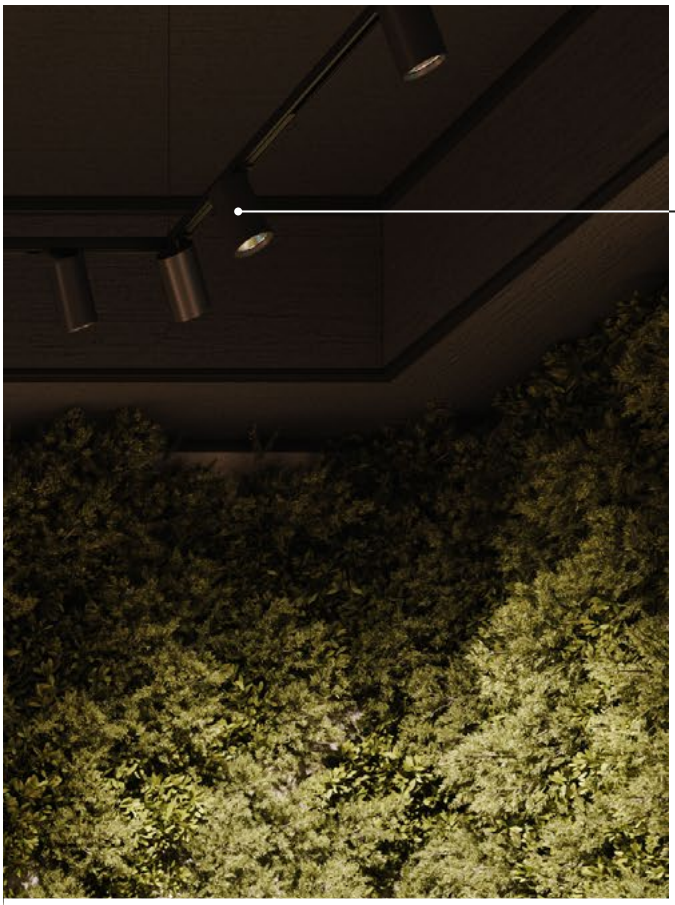

ZUMTOBEL
ELQ
MEETS
HE/HE+
ENERGY TO LIGHT QUALITY
THE NEW BALANCE OF SUSTAINABILITY AND HIGH-CONTRAST
PRODUCT PRESENTATION THANKS TO REDUCED SPILL LIGHT

ENERGY TO LIGHT QUALITY

ELQ – the new benchmark between sustainability and product presentation

Reduce unwanted spill light, focus the light on the merchandise and thus increase energy efficiency – the innovative ELQ reflector technology of the VIVO II high efficiency spotlight creates a new balance between sustainability and product presentation. Because the energy-efficient product presentation of tomorrow is more than just reducing power consumption or increasing luminous efficacy in lumens per watt. Precise light control using optimised reflector technology, contrasts are created that support the perception of the goods. We invite you to reflect on this new approach and provide valuable impulses for practical application – for strong contrasts in favour of the goods and to increase the willingness to buy. For real sustainability.



STANDARD/COMPETITION SPOTLIGHTS

Classic, technical analysis of the light output through isolated assessment of the luminaires:

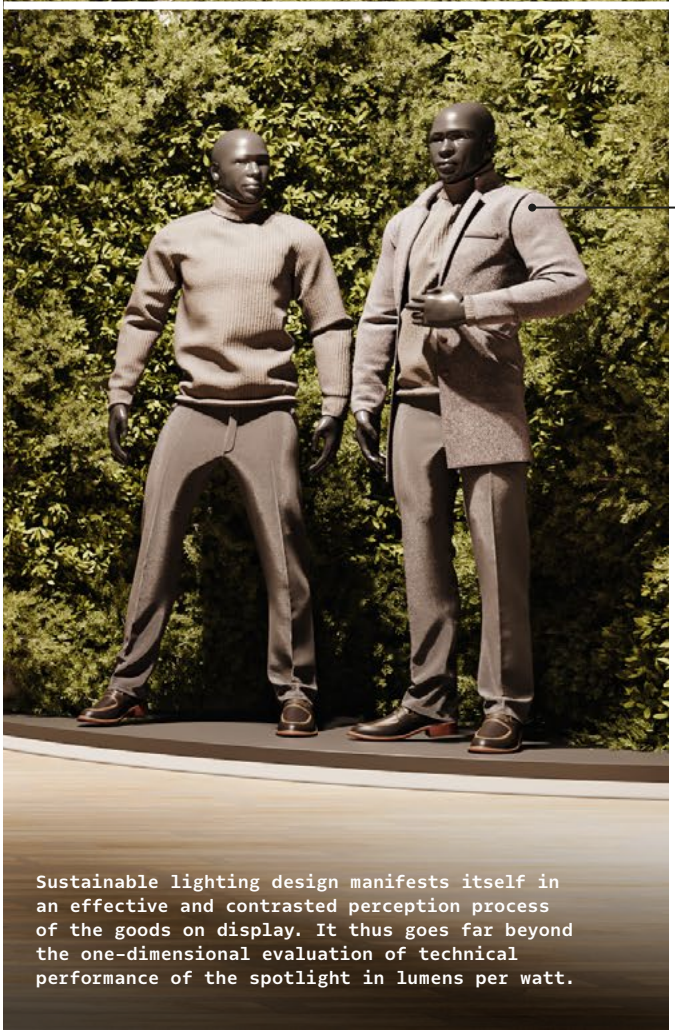
Electrical power (W)

↓

Luminous flux (lm)

↓

Luminous efficacy (lm/W)



Sustainable lighting design manifests itself in an effective and contrasted perception process of the goods on display. It thus goes far beyond the one-dimensional evaluation of technical performance of the spotlight in lumens per watt.

ELQ STAGING EFFICIENCY

New ELQ approach for analysing lighting efficiency by means of brightness and contrast perception of product staging while avoiding spill light:

Electrical power (W)

↓

Luminous flux (lm)

↓

Luminous efficacy (lm/W)

↓

ELQ reflector technology

↓

Focussing perception on goods through contrasts

THE NEW DEFINITION OF EFFICIENCY

From luminous efficacy to staging efficiency

Luminous efficacy, with the unit lumen per watt, is not the same as efficiency. It defines the ratio between the amount of light emitted by a light source and the energy used to generate this light. This reference value for the supposedly sustainable operation of luminaires can be increased through design measures such as the use of larger chip-on-board LEDs or shortened reflectors, but the evaluation scheme for luminous efficacy does not take into account the targeted direction of light onto the lighting object or the minimisation of stray light losses. ELQ therefore defines a new benchmark for efficient lighting quality.

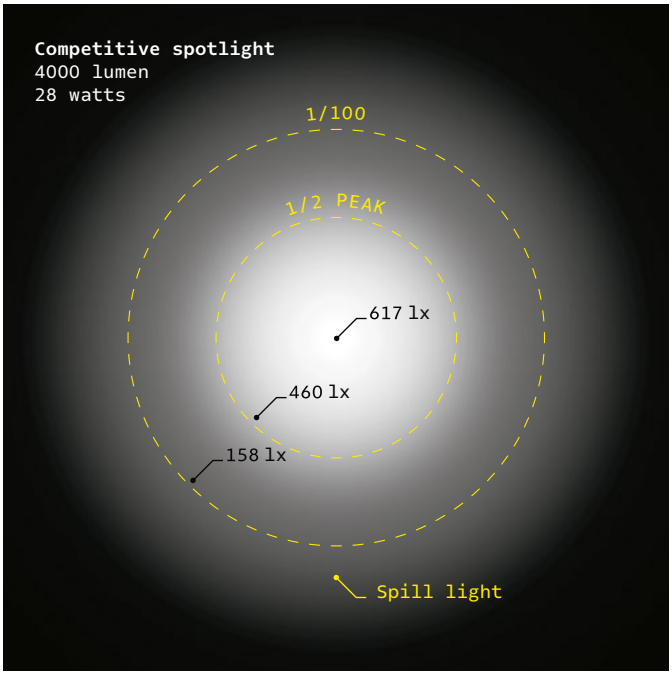
Light in a shop is primarily efficient when it reaches where it is needed – on the goods and then on the customer. Optimised light distribution ensures precise product presentation and prevents spill light. The innovative approach of "staging efficiency" summarises the technical efficiency of spotlights and also takes into account the product surfaces and human perception.

THE THREE ELQ SUCCESS FACTORS

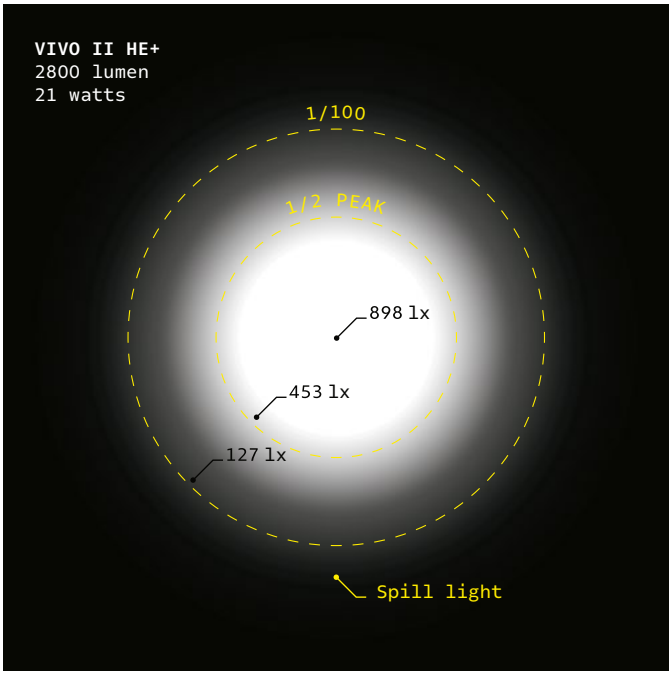
Lower energy costs and emissions thanks to advanced HE | HE+ spotlight technology

Energy saving by minimising spill light

High-contrast product presentation and increased purchase intent



Standard/competition spotlights are optimised for luminous efficacy in lumens per watt to meet efficiency requirements. However, imprecise reflector technology leads to spill light losses. In addition, the quality of the staging suffers due to a lack of focussing on the merchandise.



Zumtobel VIVO II HE+ spotlights achieve very high luminous efficacies. In addition, the ELQ reflector technology of the spotlights minimises spill light losses for high-contrast staging with a focus on the goods. The customer's attention is attracted and desire is aroused.

LIGHT QUALITY AND EFFICIENCY IN BALANCE

Innovative deep-source reflectors and spotlight technology
Made in Germany – for sustainable lighting quality

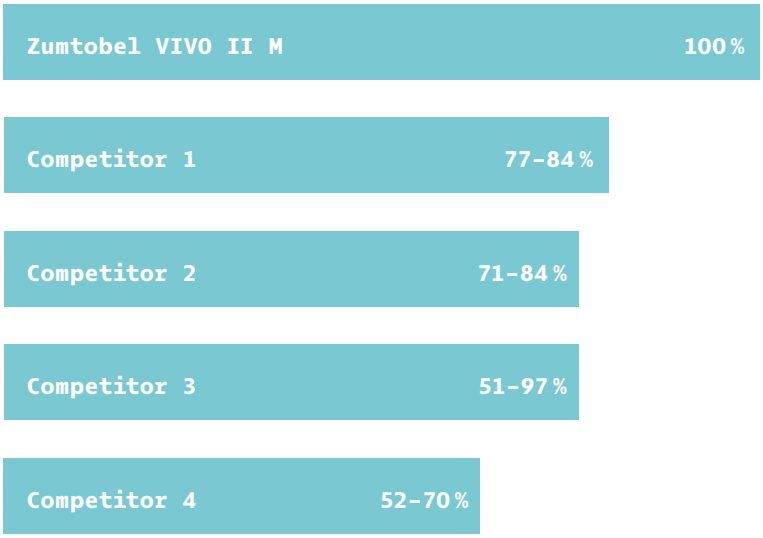
In comparison to standard competitive spotlights on the market, the VIVO II from Zumtobel impresses with its outstanding performance in merchandise presentation.

With savings of up to 65 % compared to outdated lamps and earlier LED generations, the innovative reflectors of the VIVO II HE and HE+ spotlights reduce electricity bills. On an average sales area of 250 square metres, over EUR 15 000 can be saved annually. Simple dimming or light control contributes to even shorter amortisation times and help to reduce CO_2 emissions.

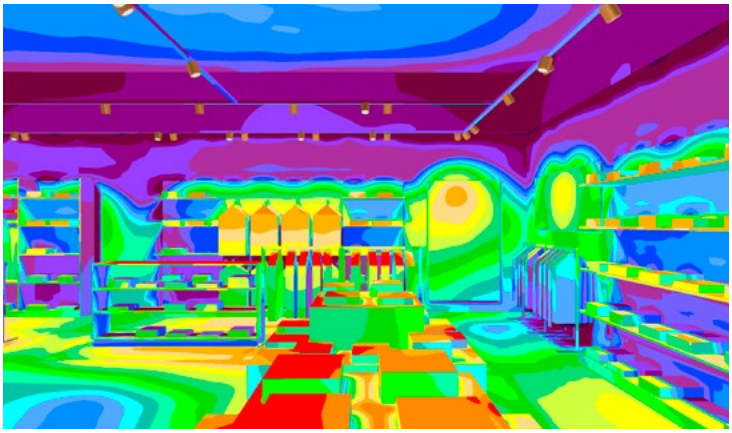
The VIVO II spotlight reduces glare thanks to its height, which means that the light sources are integrated deeper into the spotlight. The reduced spill light and focussing of the light distribution on the product presentation create strong contrasts. The illuminance in the surrounding area is reduced, while product displays and presentation areas are emphasised. This draws the customer's attention to the essentials: the goods.

ELQ PERFORMANCE OF THE VIVO II M IN COMPARISON

Light calculations with different beam characteristics result in the following performance in the analysis:



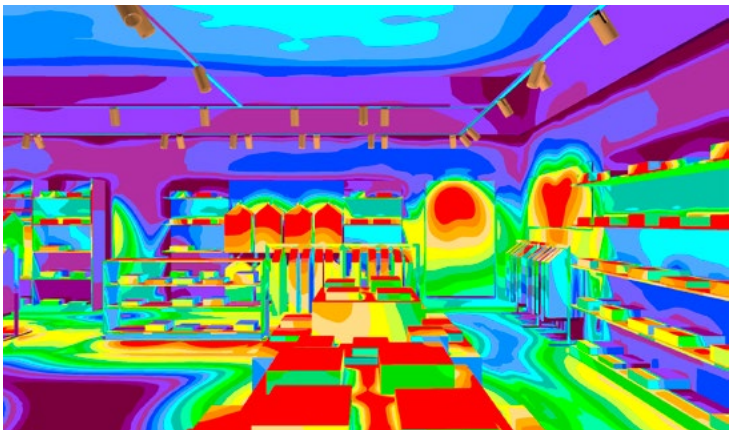
Competition spotlight (reference)



ca. 4000 lm
3250 W
(125 spotlights, 26 W)

V1 = 1116 lx
V2 = 1155 lx
H3 = 1854 lx

ELQ Strategy Improved contrast

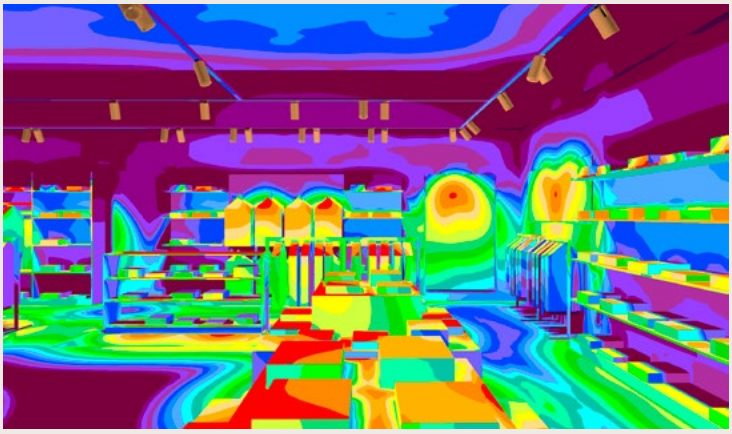


ca. 4000 lm
3250 W
(50 spotlights, 24.5 W/
75 spotlights, 27 W)

V1 = 1513 lx
V2 = 1550 lx
H3 = 2771 lx

ENERGY SAVING: 23 % (TWO TYPES OF SPOTLIGHTS: 19 % RESP. 29 %)

ELQ Strategy Energy saving due to dimming or lower lumen package



ca. 2800 lm
(dimmed from 4000 lm)
2500 W
(50 spotlights, 18.5 W/
75 spotlights, 21 W)

V1 = 1080 lx
V2 = 1106 lx
H3 = 1969 lx

PLANNING EXAMPLE SHOP (FASHION)

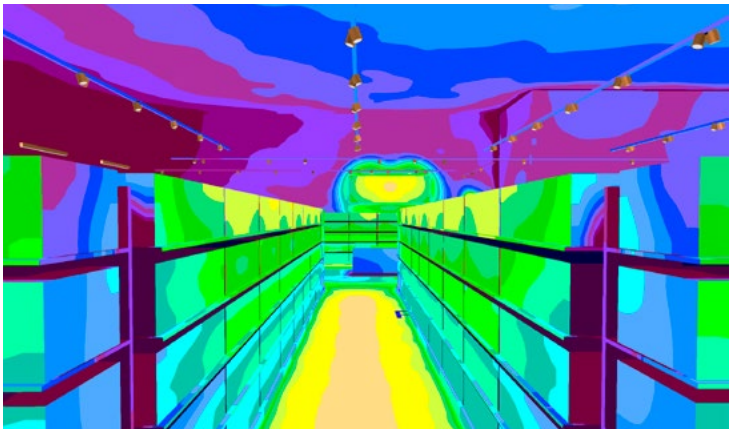
Improved contrasts or
energy savings through dimming

The optimised reflector technology of the VIVO II is characterised by outstanding product presentation compared to conventional spotlights with similar luminous flux levels. The higher luminance levels and improved contrasts by minimising spill light attract the attention of potential buyers.

Alternatively, the high performance of the VIVO II spotlights can be utilised to save energy. The results of the competitive scenario are used as a reference for VIVO spotlight types that deliver reduced luminous flux or are dimmed.

The result: a comparable average illuminance on the three evaluation areas, with energy savings of 19 % and 29 % respectively for the two types of VIVO II spotlights used in the calculation example.

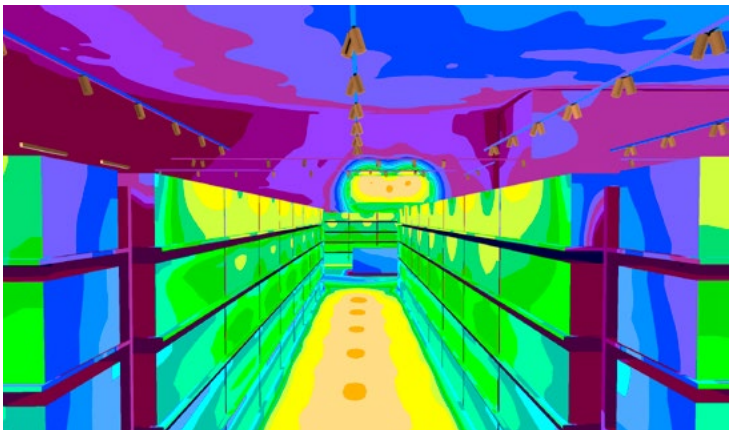
Competition spotlight (reference)



ca. 4000 lm
6500 W
(250 spotlights, 26 W)

V1 = 642 lx

ELQ Strategy
Improved contrast and higher luminance on the shelf

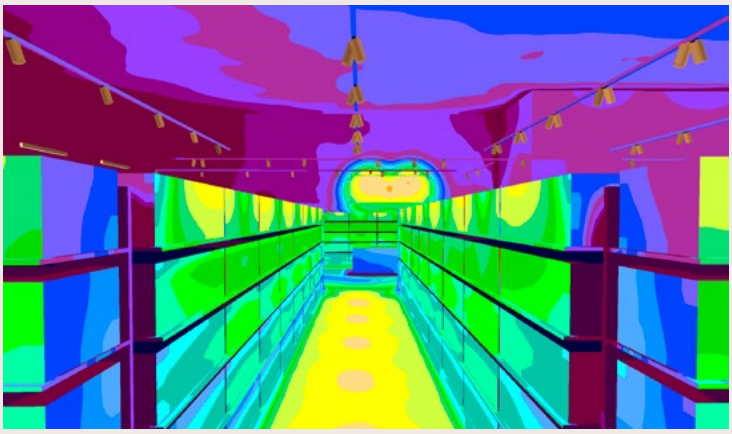


ca. 4000 lm
6125 W
(250 spotlights, 24.5 W)

V1 = 741 lx

ENERGY SAVING: 19 % | LIGHT REDUCTION: 15 %

ELQ Strategy
Energy saving due to reduced number of spotlights



ca. 4000 lm
5268 W
(215 spotlights, 24.5 W)

V1 = 633 lx

PLANNING EXAMPLE SUPERMARKET (FOOD)

More light on the shelf or energy savings
by reducing the number of spotlights

Concentrating the light on the product display on the shelf, i.e. on vertical surfaces, is the first step towards efficient product presentation in supermarkets. The floor is deliberately kept darker so that contrast distribution and customer attention are concentrated on the target objects on the shelf. The improved ELQ reflector technology achieves an average illuminance increase of around 15 % on the defined vertical surface.

Alternatively, the energy-saving strategy can be pursued. More efficient operation is achieved through reducing the number of spotlights by increasing the distance (spacing) between the luminaires to 1.50 m instead of 1.25 m (reference scenario), thereby achieving considerable energy savings and a reduction in greenhouse gas emissions of approx. 15 % while maintaining comparable lighting quality.

“Made in Germany” as a quality and sustainability standard: Zumtobel’s plant in Lemgo has been setting standards in the precision of reflector technology for the spotlight portfolio for 70 years.

In addition to efficient lighting technology, Zumtobel offers holistic solutions with lighting control and services for sustainable operation.

The deep-source reflectors offer improved glare control and, at the same time, targeted redirection of a large proportion of light beams. This minimises spill light losses, and the light reaches the goods with high efficiency and brilliance.

LIGHTING CONTROL AND SERVICES

For efficient retail operations

DIMLITE

With its basic module and diverse connection options for control points, presence detectors or light sensors, DIMLITE offers flexibility and user-friendliness. Electricians and electrical planners can use the associated DIMLITE app to easily create wiring diagrams and integrate the desired functions and products.

CUSTOMISED

Special luminaires with the "Fix Lumen Output" function offer a cost-effective solution for more efficient operation, especially in retail. The luminous flux setting is realised according to the customer's wishes. The factory-set dimming level creates a balance between attractive product presentation and energy savings.

LITECOM

LITECOM is the central lighting control system for the entire building, with presence and daylight sensors, emergency lighting integration or integration into the building management system via BACnet. Clear and self-explanatory. Additional functions can be customised at any time using intuitive apps. This increases the quality of light and offers considerable energy-saving potential for the intensive operating hours of the retail trade.

BASICDIM WIRELESS

The wireless radio control enables uncomplicated commissioning, making it an ideal solution for refurbishment projects without existing DALI wiring. As an intelligent lighting control system, it offers the option of control via an app, a wireless wall switch or sensors. By individually controlling groups or individual luminaires, the presentation of goods can be made even more effective. Convenience and energy savings are optimally combined.

SERVICES

Efficient operation starts with sustainable lighting planning by an expert. With a turnkey contract, the system is commissioned and handed over in an energy-efficient and effective manner for the goods. As a further service package, spotlight installation and alignment can be arranged so that the light is distributed exactly where it is most useful: to the merchandise display.

	VIVO II S	VIVO II M	VIVO II L
			

Dimensions:	S (75 mm); M (95 mm); L (115 mm)
Installation:	3-phase track, TECTON continuous row
Colour rendering:	CRI > 80 (3000 K, 4000 K) CRI > 90 (2700 K, 3000 K, 3500 K, 4000 K) CRI > 97 (FOOD)
Colour temperatures:	2700 K (Size S) 3000 K 3500 K 4000 K tunableWhite 2700–6500 K (Size M)
Luminous flux:	2100 lm to 6500 lm
Lighting angle:	Reflectors: Spot, Medium Spot, Flood, Wideflood, Very wideflood, Vertical optic Lenses: Super Spot, Spot, Medium Spot, Flood, Wideflood, Vertical optic Zoom (Size M): Spot -> Wideflood
Accessories:	Honeycomb louvre, safety glass, soft-outline lens, oval beam lens, vertical lens, bending optic
Control:	Switchable, DALI-dimmable (LDE), basicDIM wireless technology
Housing colour:	white, black, matt silver, dark grey, concrete grey, high-gloss white, high-gloss black, copper, chrome
Front ring colour:	matt white, matt black, copper, chrome, high-gloss white, high-gloss black, concrete grey

Further information on ELQ