

Matrix LED.

The spotlight of superlatives.

Perfect
in design and
technology.





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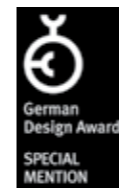
It all starts with our knowledge. What you should know, too.

With LED the role of design is becoming increasingly crucial in developing lighting solutions. This is because form, material and surface structure optimise the values of a luminaire. Only the perfect interplay of design and technology make a product complete. When developing a lighting solution, everything must interact perfectly. Hence discussion is indispensable from the moment the idea is born until it is brought to perfection. The new LED technology with all of its opportunities also opens up a wide range of new design options in handling materials, technologies and shapes.

The challenge for our design specialists is to discover, assess and evaluate new materials, forms of processing and surface treatments for possible use. The sources of this information are universities, colleges and external material experts.

The success of this application- and technology-related design development is evident in the measurable optimisation of specially developed LED luminaires, as well as in the receipt of various prizes awarded by renowned design juries in recent years, such as the German Design Award, iF, reddot and DesignPlus. Innovations like Matrix LED were also able to benefit from such successes.

We design for today. And tomorrow. Regent design.



2013

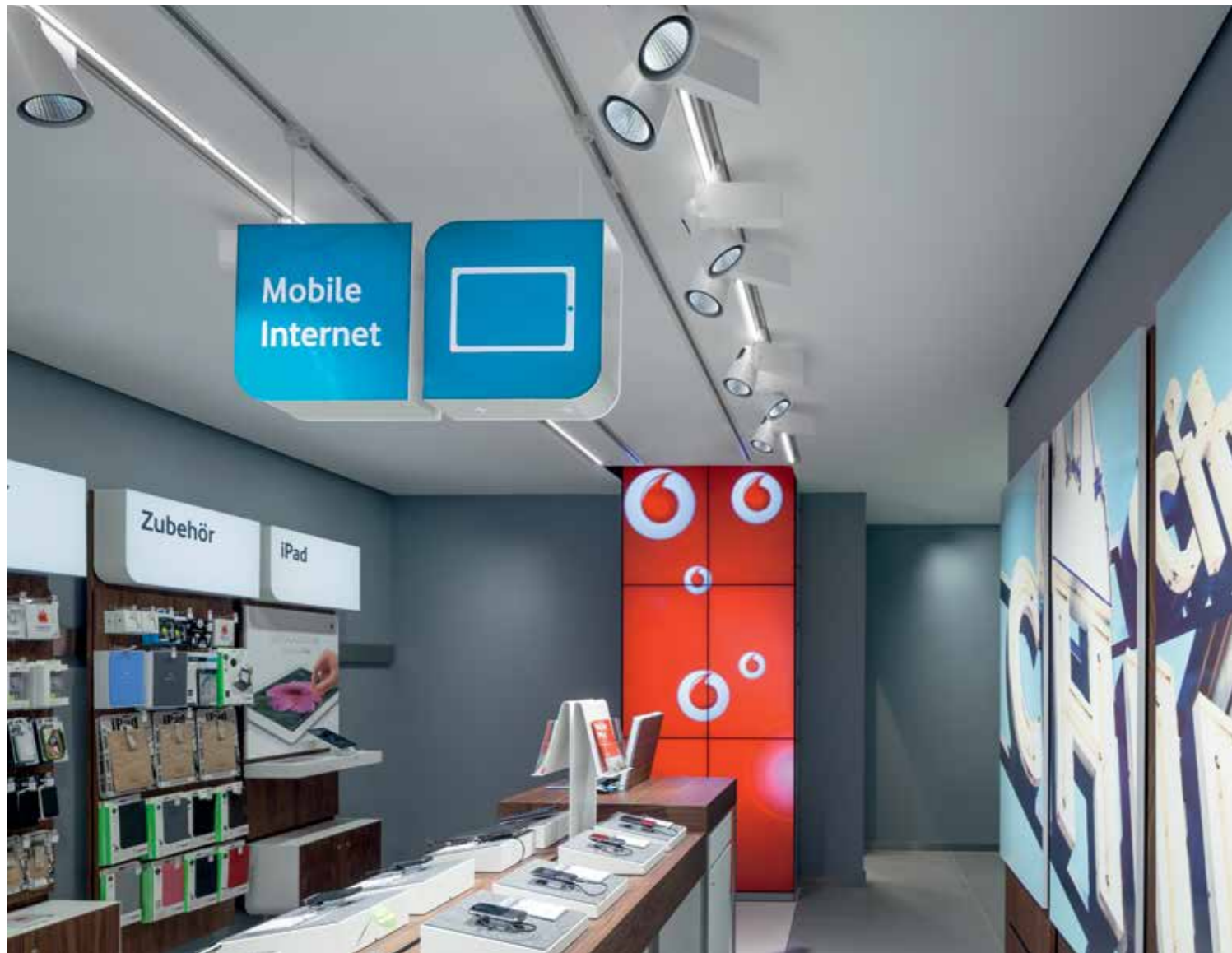


reddot design award
winner 2011



winner 2010





The challenge.

Every product deserves its own light.

No application is like the other. The right lighting solution is determined by the room, the products, the general presentation concept and marketing aspects. In addition, standards and objectively measurable challenges like temperature and damage to the goods are central elements on the way to an ideal lighting solution. A modern spotlight must be flexible in alignment and application and be easy to maintain. It must be characterised by clear aesthetics and maximum efficiency and possess versatile and adaptable lighting technology.



The solution.

Externally strong. Internally stronger.

The promise of its clear design is surpassed by its interior and its performance. The Matrix LED spotlight stands out thanks to its uncluttered geometric forms, defined glare-free light and optimal illumination of goods. Additional advantages are the nearly unlimited alignment options. You will never run out of first-class arguments with the new Matrix LED spotlight, developed and produced by Regent.



High-gloss reflector with ball faceting

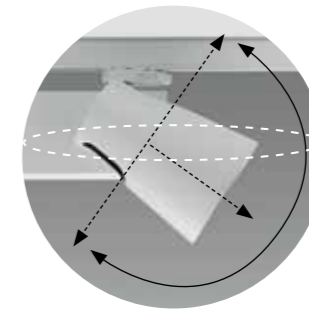


Passive cooling in Matrix LED and Matrix PAL+



- Rotatable: 360°
- LED power with passive cooling
- High efficiency of 80 lm/W

- Reflectors can be exchanged without tools: Spot, Medium, Flood
- Clear geometric design
- High-quality die-cast aluminium housing
- Patented thermal management
- Pivotal: 45° above the horizontal/45° backwards



Rotatable/pivotable



Fast, tool-free change of reflectors

Matrix LED.

A spotlight with many options.

The Matrix LED is designed to fit in ideally with the architecture and vanish discreetly into the background. Its highlights are its light, its performance and its versatile, freely selectable light technologies together with a range of accessories for customised accentuation. The tried-and-tested version with PAL+ technology is available for staging goods in the perfect light.



Discover light in motion.
www.vimeo.com/62097597



At a glance:

- Flexible alignment
- General and accent lighting
- High colour rendition
- Fixed white 3000 K or 4000 K
- PAL+ true-white LED light source
2500 K to 6500 K tunable,
Food, Colour
- Energy efficiency

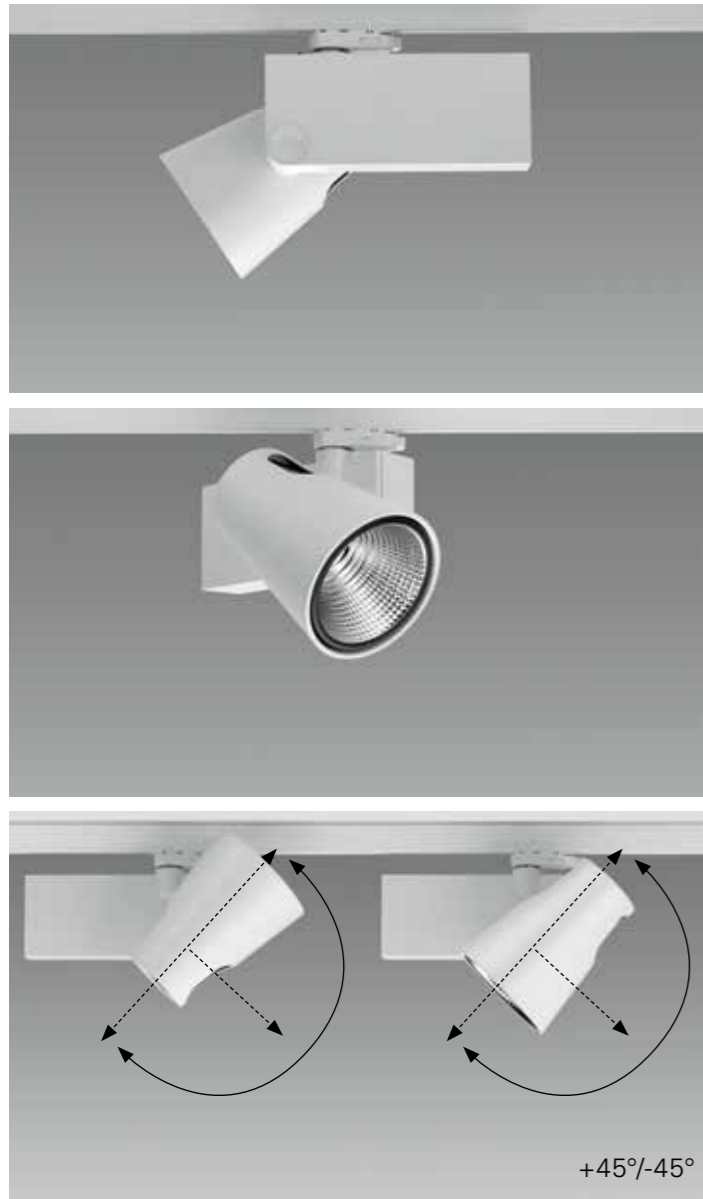
Light is your USP.

Whether in a shop, museum or exhibition – light has a considerable influence on what your customers decide to buy. But the Matrix LED spotlight not only guarantees first-class lighting for the presentation of your display; its pared-down design also fits in harmoniously with your presentation concept. All this with outstanding efficiency values thanks to low maintenance costs.

Matrix LED also with PAL+.

Apart from true-white and saturated colours, the professional light-related presentation of goods requires a high colour rendition index. Matrix with PAL+ technology does justice to both of these requirements and allows you to select colour temperature and location individually and depending on the situation. Quite simply at the press of a button or remotely via a central DMX control.

Almost unlimited possibilities. Cast your product in the best light.



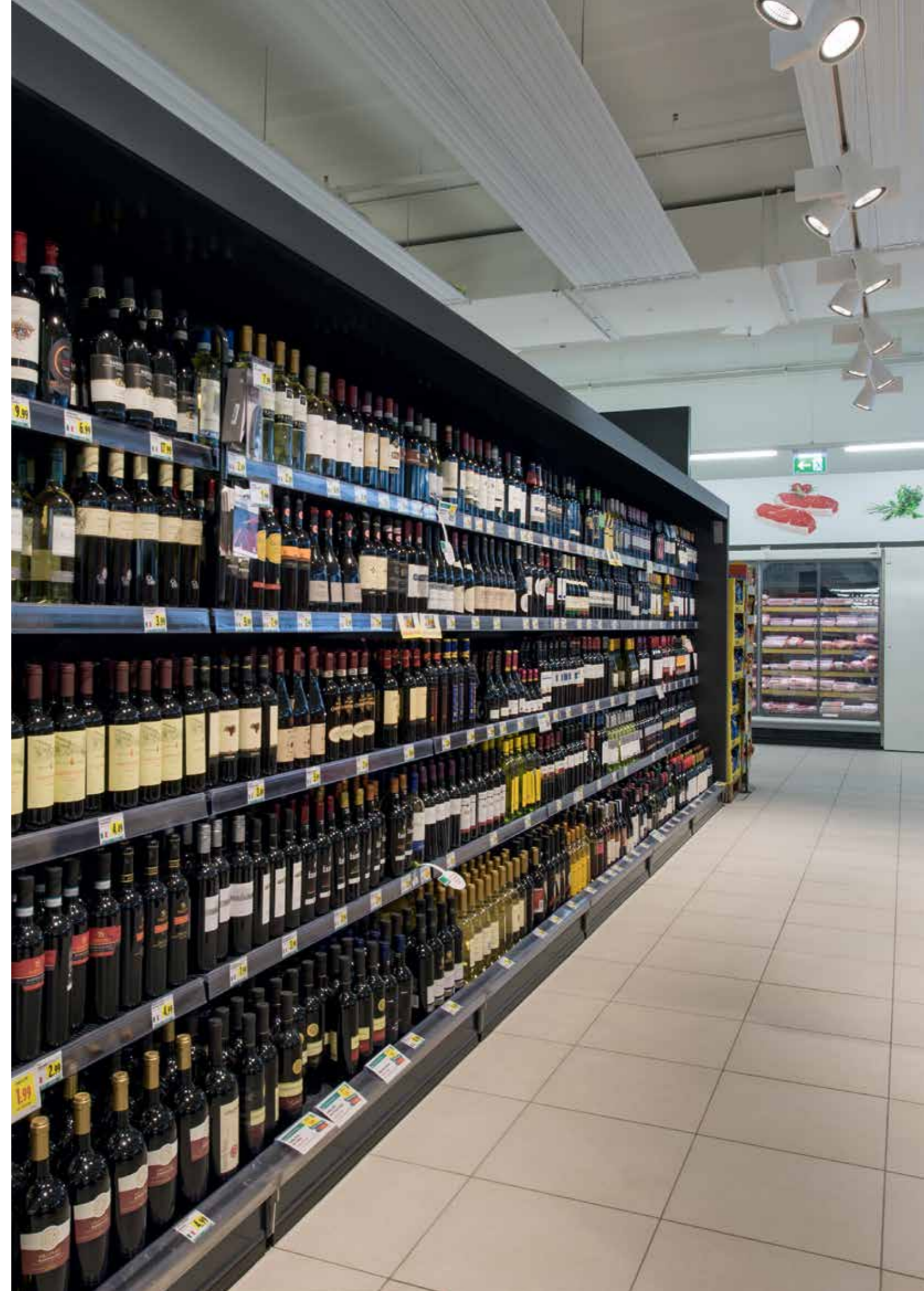
Cover everything with one luminaire.

More settings make for more versatile deployment options. The Matrix LED spotlight's unique construction permits a maximum rotational range for the spotlight head in every direction. Rotation up to 45° above the horizontal permits illumination above the installed track. The setting 45° beyond the vertical permits space-saving installation in the shop window, while the 360° full rotation ensures coverage of the entire presentation area.



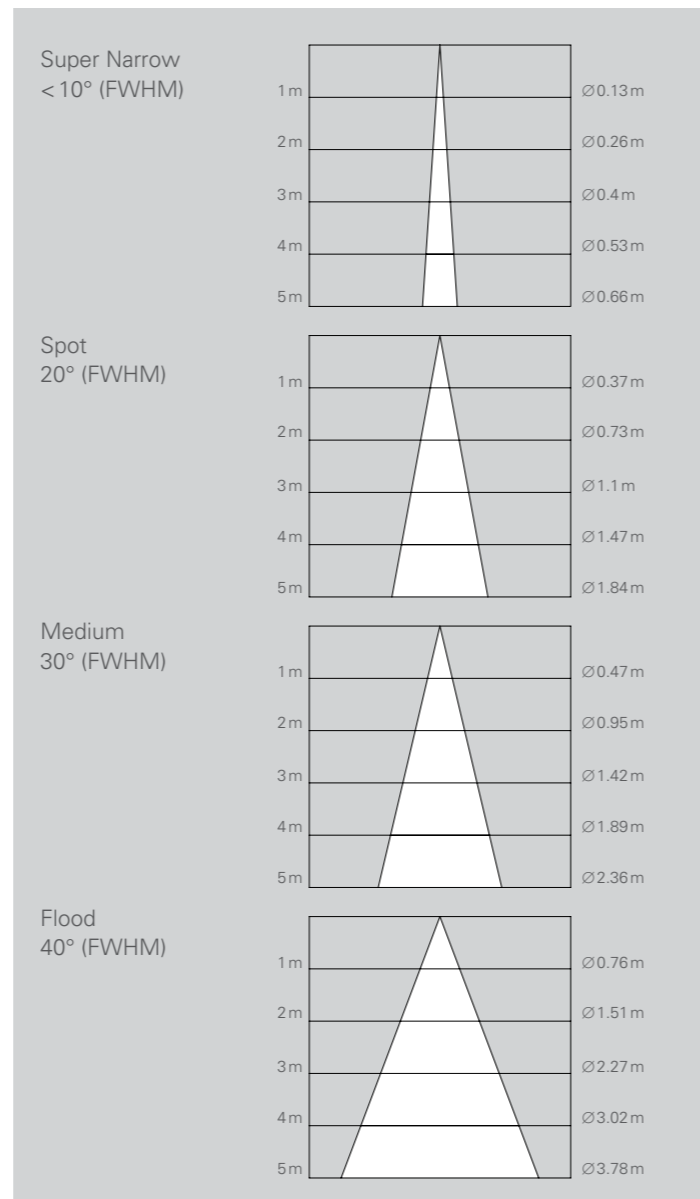
Cool thermal management.

Even the form of the housing has a functional, as well as a design-related task. Warm air can be diverted quickly and reliably through the side slits via the integrated, patented cooling system. All elements of the passive thermal management system are simultaneous design elements that support the harmony of the design.



Super Narrow.

Perfect illumination at a distance.



Very special accent lighting.

Imagine you could illuminate an object with an extremely defined cone of light from a great distance. With Matrix LED Super Narrow you will be able to evoke a theatrical atmosphere. In this way you will be able to achieve special and efficient accent lighting, assuring a very special presentation of every object in an exhibition, gallery or display.

Light beam angles at your discretion.

The product range, consisting of the exchangeable reflector designs Spot, Medium or Flood, enables Matrix LED to be used for any application. If necessary, light beam angle characteristics can be quickly modified through the tool-free exchange of reflectors. This flexible range is supplemented by the Matrix LED spotlight in the Super Narrow version.





Choose your light.

1 luminaire: 3 settings, 17 colour tones, PAL+

Use the full potential of LED with Matrix and PAL+ technology. PAL+ (Perception Adaptive LED light source), with a colour spectrum similar to that of daylight, guarantees complete colour recognition. The true-white LEDs combine optimal lighting for the highest demands with UV- and heat-free light emission. As a result, Matrix LED is ideal when colours, temperatures and light-fastness play a key role. These could be demanding applications like museums, lighting fresh food or colour-intensive non-food products.

- true-to-nature colour rendition
- true-white LED light
- CRI up to 94 (irrespective of dimming value) from 2500K – 6500K
- colour rendition and colour temperature in dimming range constant from 10 – 100%

Manage your light.

More options with DMX control.

Whether to illuminate, create a mood or for decoration, variable and dynamic light is the trend. A need satisfied by Regent. Matrix PAL+ is ready for DMX. The control technology is distinguished by extreme speed, high reliability, easy integration capability and first-class operating efficiency. Customers carry out programming themselves so that the light can be controlled according to their individual wishes.

Service,
ganz wie Du ihn willst!



LTE

Kein Vertrag

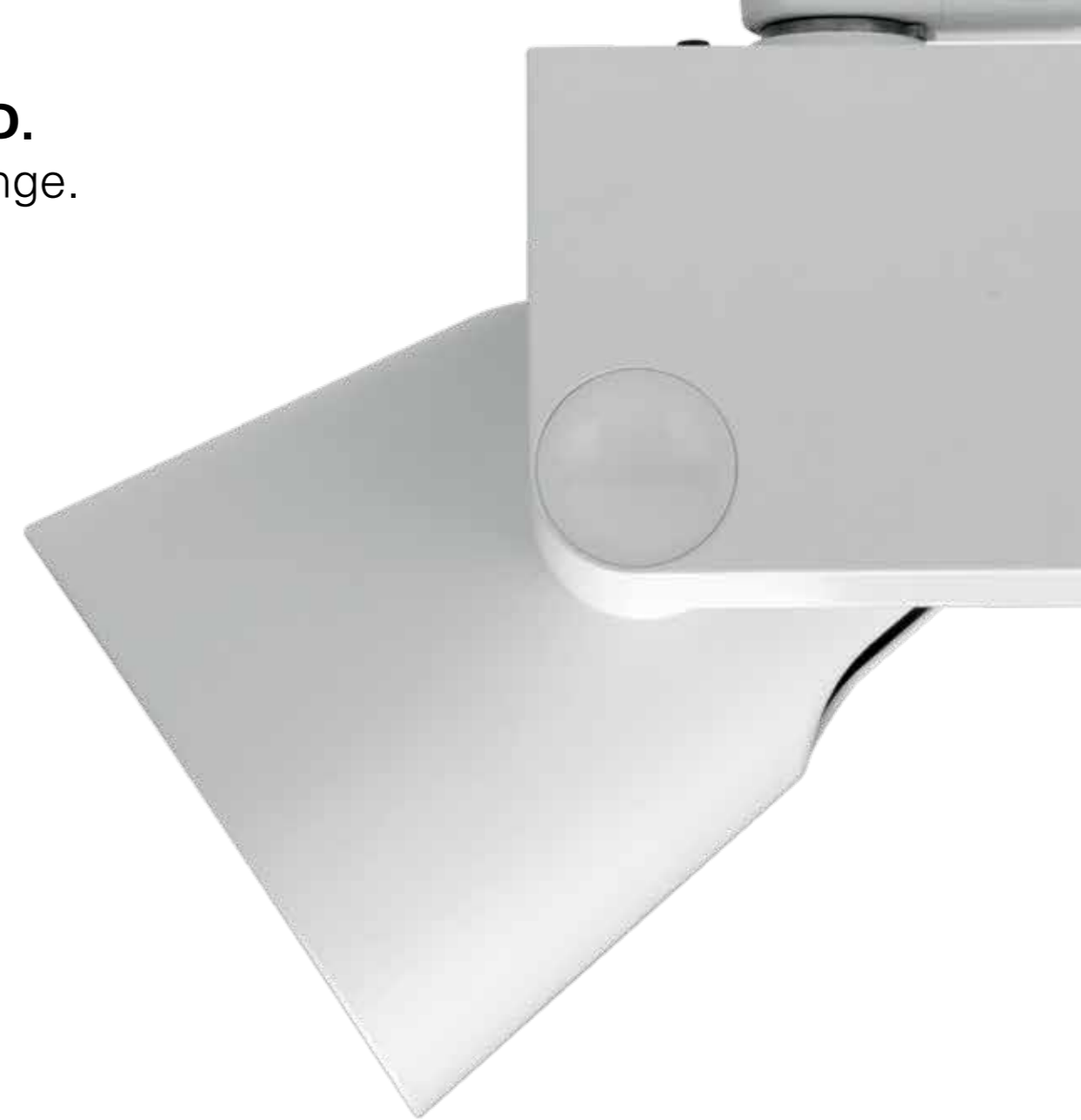
Komm LTE-Hotspot immer und überall in 4G-Netzwerk mit LTE-Modem



Vodafone's modern flagship store in Cologne guarantees a first-class shopping experience. Lighting plays a central role here. Regent was able to surpass the high expectations of the communication company in design, efficiency and illumination with the Matrix LED spotlight.

Vodafone flagship store, Cologne, Germany
 Client: Oliver Josten, Vodafone D2 GmbH, Düsseldorf, DE
 Architect: Carsten A. Schubert, Schubert 2 Architekten, Ratingen, DE
 Lighting designer: Jörg Klasen, Die Lichtplaner, Wesel, DE

Matrix LED. Product range.



The Vodafone flagship store.

Vodafone communicates with Matrix LED.



Interview with Oliver Josten, CRM - location management, retail construction

What general expectations do you have when it comes to optimal lighting?

Lighting in the shop area must achieve the best possible presentation of the products displayed, as well as guaranteeing the illumination of general areas (advisor stations, POS, waiting areas, walkways, etc.) to the satisfaction of employees and customers.

What were the central challenges facing the lighting solution of your project?

The central challenges in this project in relation to the lighting solution were the glare-free illumination of workplaces, optimal product presentation, low thermal loading from the spotlights installed and, finally, an architecturally restrained lighting design in the ceiling installation – especially in the case of the track spotlights.

What led you to Matrix LED?

The convenient and unproblematic integration of the spotlights in the store's light management and thus in the multimedia system, combined with the option to control/dim

every single luminaire for different lighting scenarios for day, night and event operations. In addition, the opportunity to use different light colours, adapted to the sections of the store (sales, consulting), and the option of realising different light distribution using interchangeable reflectors in later operation were also important.

Why did you opt for Matrix LED in the end?

In the end, the restrained design of these luminaires in combination with the fact that the spotlight was available both in a version for track installation, as well as in an identical version for ceiling installation tipped the scales in favour of this spotlight.

What differentiates Matrix LED from its competitors?

The timeless design of the luminaires in particular.

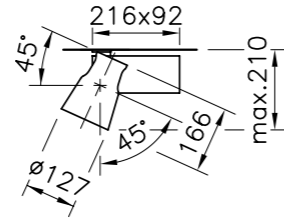
LED spotlight, white or silver; optionally with LED fixed white in 3000 K or 4000 K, or with true-white LED light source PAL+, brilliant glare-free light thanks to longitudinal or ball-faceted high-gloss reflectors made of 99.9% aluminium. Clear geometric forms ensure timeless design.

Reflector housing and operating device housing made of high-quality die-cast aluminium. The integrated, patented heat sink always ensures optimal operating conditions for the integrated LEDs. Tool-free exchangeable reflectors with the light beam angles Spot, Medium or Flood.

System efficiency of up to 80 lm/W with a high colour rendition with CRI > 83 for the fixed white versions and CRI up to 94 when using PAL+. The fact that the luminaire head is rotatable by 360° and pivotable by up to 45° above the horizontal and by up to 45° beyond the vertical means greater freedom, permitting use of the spotlight in every conceivable application. Available for three-phase tracks as ON/OFF, as a DALI version in fixed white or as a DMX version for PAL+.



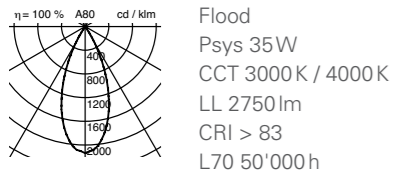
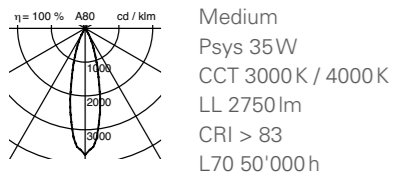
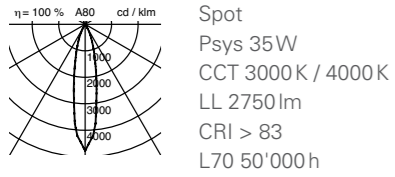
Matrix LED. 35W.



LED

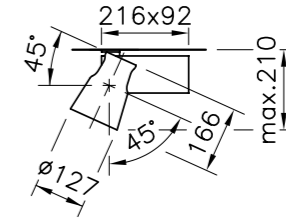
Spotlight, with LED, with 3~adaptor, rotatable 360°, spotlight head pivotable by up to 45° above the horizontal and by up to 45° beyond the vertical backwards, LED power with passive cooling, high efficiency of 80 lm/W, luminous flux corresponds to that of conventional light sources of 35 W HIT.

Output	Light beam angle (FWHM)	Reflector surface, high gloss	Kelvin	Housing colour	
				White	Silver
35W	Spot 20°	Ball-faceted	3000K	56W3S32D8A00	56H3S32D8A00
	Medium 30°	Ball-faceted	3000K	56W3M32D8A00	56H3M32D8A00
	Flood 40°	Ball-faceted	3000K	56W3F32D8A00	56H3F32D8A00
35W	Spot 20°	Ball-faceted	4000K	56W3S32J8A00	56H3S32J8A00
	Medium 30°	Ball-faceted	4000K	56W3M32J8A00	56H3M32J8A00
	Flood 40°	Ball-faceted	4000K	56W3F32J8A00	56H3F32J8A00



Note: also available in DALI.

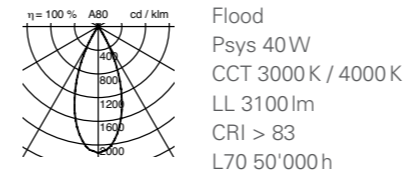
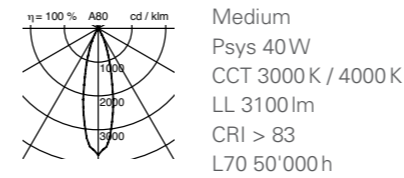
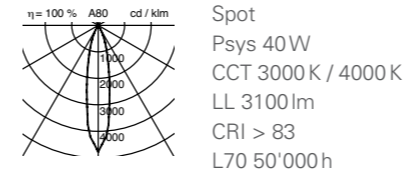
Matrix LED. 40W.



LED

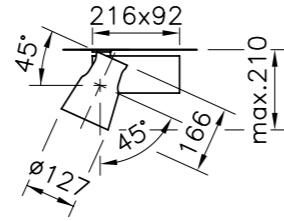
Spotlight, with LED, with 3~adaptor, rotatable 360°, spotlight head pivotable by up to 45° above the horizontal and by up to 45° beyond the vertical backwards, LED power with passive cooling, high efficiency of 80 lm/W, luminous flux corresponds to that of conventional light sources of more than 35 W HIT

Output	Light beam angle (FWHM)	Reflector surface, high gloss	Kelvin	Housing colour	
				White	Silver
40W	Spot 20°	Ball-faceted	3000K	56W3S36D8A00	56H3S36D8A00
	Medium 30°	Ball-faceted	3000K	56W3M36D8A00	56H3M36D8A00
	Flood 40°	Ball-faceted	3000K	56W3F36D8A00	56H3F36D8A00
40W	Spot 20°	Ball-faceted	4000K	56W3S36J8A00	56H3S36J8A00
	Medium 30°	Ball-faceted	4000K	56W3M36J8A00	56H3M36J8A00
	Flood 40°	Ball-faceted	4000K	56W3F36J8A00	56H3F36J8A00



Note: also available in DALI.

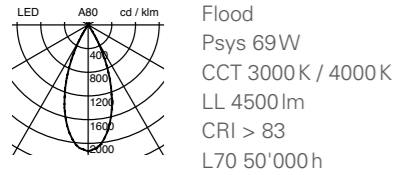
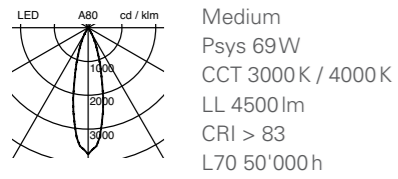
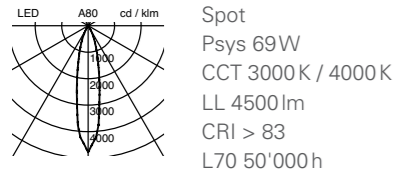
Matrix LED. 69W.



LED

Spotlight, with LED, with 3~adaptor, rotatable 360°, spotlight head pivotable by up to 45° above the horizontal and by up to 45° beyond the vertical backwards, LED power with active cooling. The advantages of LED with the power of a 70 W HIT! luminous flux corresponds to that of conventional light sources of 70 W HIT

Output	Light beam angle (FWHM)	Reflector surface, high gloss	Kelvin	Housing colour	
				White	Silver
69W	Spot 20°	Ball-faceted	3000K	56W3S58D8A00	56H3S58D8A00
69W	Medium 30°	Ball-faceted	3000K	56W3M58D8A00	56H3M58D8A00
69W	Flood 40°	Ball-faceted	3000K	56W3F58D8A00	56H3F58D8A00
69W	Spot 20°	Ball-faceted	4000K	56W3S58J8A00	56H3S58J8A00
69W	Medium 30°	Ball-faceted	4000K	56W3M58J8A00	56H3M58J8A00
69W	Flood 40°	Ball-faceted	4000K	56W3F58J8A00	56H3F58J8A00



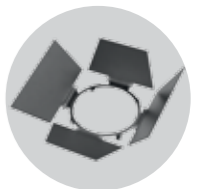
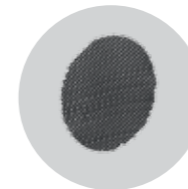
Note: also available in DALI.

Matrix LED. Accessories.



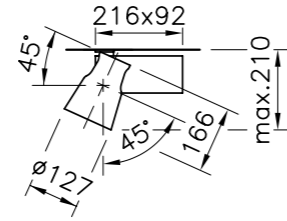
Spot 20° (FWHM) High-gloss ball-faceted	Medium 30° (FWHM) High-gloss ball-faceted	Flood 40° (FWHM) High-gloss ball-faceted
56REFSET.06	56REFSET.05	56REFSET.04

Exchangeable reflector set consisting of reflector holder and high-gloss reflector. Thanks to the tool-free exchange of reflectors, the light beam angle characteristics can be adjusted on the installed spotlight.



Glass closure	Honeycomb pattern	Shade set (movable slats), black powder-coated	Protective shade set, black powder-coated
56ABSET.01	56RASSET.01	56BLESET.01	56BLKSET.01

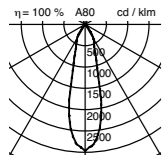
Matrix PAL+



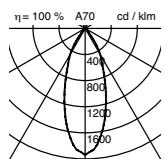
LED

Spotlight, with LED, with 3~adaptor, rotatable 360°, spotlight head pivotable by up to 45° above the horizontal and by up to 45° beyond the vertical backwards, LED power with passive cooling. Best colour rendition, adjustable 2500 – 6500 K + FOOD + COLOUR + DIM.

Switch discreetly integrated in operating device housing. Luminous flux corresponds to that of conventional light sources of 20 W HIT or 100 W halogen light bulb.



Medium
Psys 38W
CCT 2500 – 6500 K
LL 1800lm
CRI up to 94
L70 50'000h



Flood
Psys 38W
CCT 2500 – 6500 K
LL 1800lm
CRI up to 94
L70 50'000h

Output	Light beam angle (FWHM)	Reflector surface, high gloss	Kelvin	Housing colour	
				White	Silver
38 W	Medium 30°	longitudinally faceted	2500 – 6500 K	56W3M29.87100	56H3M29.87100
38 W	Flood 40°	Ball-faceted	2500 – 6500 K	56W3F29.87100	56H3F29.87100

Version with DMX track adaptor for track, Global Track Control, adjustable via external DMX controller.

38 W	Medium 30°	longitudinally faceted	2500 – 6500 K	56W5M29.87E00	56H5M29.87E00
38 W	Flood 40°	Ball-faceted	2500 – 6500 K	56W5F29.87E00	56H5F29.87E00



integrated switch

Matrix LED PAL+ Accessories.



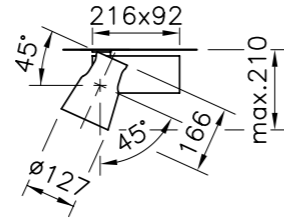
Medium 30° (FWHM) High gloss longitudinally faceted	Flood 40° (FWHM) High gloss ball-faceted
56REFSET.02	56REFSET.01

Exchangeable reflector set consisting of reflector holder and high-gloss reflector. Thanks to the tool-free exchange of reflectors, the light beam angle characteristics can be adjusted on the installed spotlight.



Glass closure	Honeycomb pattern	Shade set (movable slats), black powder-coated	Protective shade set, black powder-coated
56ABSET.02	56RASSET.02	56BLESET.01	56BLKSET.01

Matrix LED. Super Narrow.



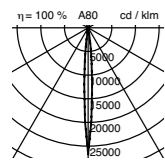
LED

Matrix LED Super Narrow spotlight, with LED, with 3~ adaptor, via switch on spotlight housing, dimmable from 40% to 100%, rotatable 360°, spotlight head pivotable by up to 45° above the horizontal and by up to 45° beyond the vertical backwards

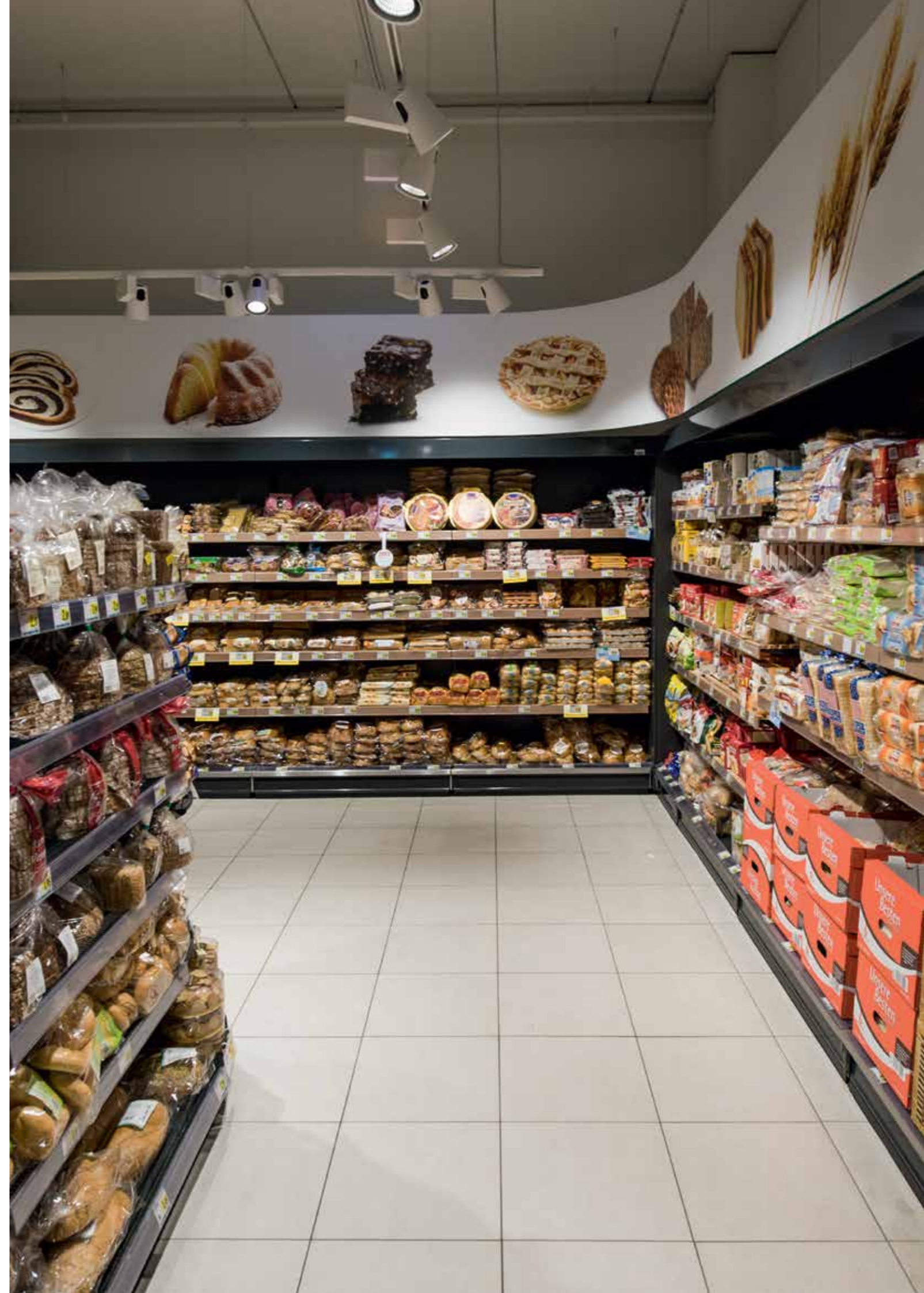
Output	Light beam angle (FWHM)	Reflector surface, high gloss	Kelvin	Housing colour	
				White	Silver
22W	Super Narrow <10°	longitudinally faceted	3000K	56W3W20D8100	56H3W20D8100

LED power with passive cooling, best colour rendition, fixed white 3000 K (4000 K on request)

Luminous flux corresponds to that of conventional light sources of 70 W halogen light bulb



Super Narrow
Psys 22W
LL 1150 lm
CCT 3000K
CRI > 80
L70 50'000h



Glossary.

Psys:	System power in Watts (W)
LL:	Luminous flux in lumens (lm)
CCT:	Correlated color temperature in Kelvin (K)
CRI:	Colour Rendering Index
L70:	LED lifespan. Currently typically 50,000hrs, number of operating hours after which the light diode still retains a minimum of 70% of its original luminous flux
UGR:	Unified Glare Rating, evaluation of the glare standard CIE S 008/E, ISO 8995 (CIE117)
PAL+	1 luminaire (PAL+ complete colour recognition, true-white LEDs without UV/IR), 3 settings (“PAL”, “FOOD”, “COLOUR”), 17 colour tones (“PAL”: true-white, 2500K, 2700K, 3000K, 3500K, 4000K, 4500K, 5000K, 5700K, 6500K; “FOOD”: meat red, cheese yellow, fish red, bakery goods; “COLOUR”: light green, blue, red, magenta)

Offices

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