



PHILIPS



Maxos fusion

Retail and industry
lighting

Maxos fusion

Guaranteed performance,
thinking ahead



The future's bright **for LED**

As a light source, LEDs are the way to go. They save energy without compromising light quality, last a very long time and provide a platform for connected technologies. The technology brings new values and benefits, so the future's even brighter. Brighter in terms of a lower total cost of ownership (TCO), easier installation and maintenance, and outstanding quality of light.

Get connected

New lighting technologies are helping organizations to achieve their business objectives. These technologies range from wireless connectivity that brings lighting into the Internet of Things (IoT) to collecting and sharing real-time data about space usage and more. These data help optimize building management, and take the potential savings to an even higher level. So it's an exciting time for LED. Whatever the future holds, choose Philips and you can be sure your LED lighting is ready.

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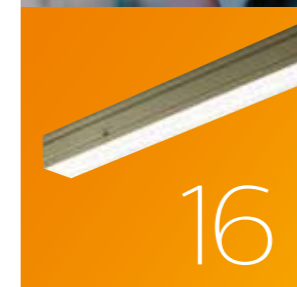
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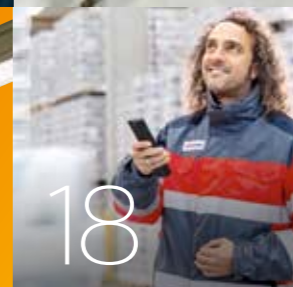
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Introducing Maxos fusion

With more than 20 years' experience in trunking lighting, we understand the challenges you face and have developed solutions that help you overcome them. For example, Maxos LED is already the number one choice for many professional applications. And now, thanks to our continuous focus on innovation, we've developed a new architecture that gives you even more possibilities. The result is a unique LED solution that ensures you get the best out of your lighting infrastructure. Maxos fusion not only offers excellent quality of light, efficiency and freedom of positioning, it facilitates seamless integration with other technologies to enable you to optimize your operations and control and get more out of your lighting infrastructure.



Maxos fusion

Maxos fusion

Redefining the standard in trunking

In response to changing demands relating to quality of light, energy efficiency and being prepared for future developments, we've introduced Maxos fusion. The brand new architecture offers three key areas of improvement that have redefined the standard in trunking lighting.

Excellent quality of light

Our new range of application-tailored optics are designed to suit the specific requirements, measurements and dimensions of different spaces, shining light only where it's needed resulting in additional savings. Maxos fusion also provides uniform light distribution without any disturbing artefacts to create a pleasant environment with excellent visibility.

Reducing Total Cost of Ownership

Tailor-made optics make Maxos fusion far more efficient by providing light only where it's needed. You also have complete flexibility when positioning or repositioning your trunking lighting. There's no need to design layout around the existing lighting! These

outstanding characteristics plus the high efficacy of Maxos fusion offer a very attractive TCO in industrial and retail applications.

Seamless integration

Simplified integration into a lighting system also received attention. The trunking accommodates 13 wires so it can accommodate emergency lighting. And it's ready for connectivity, because Maxos fusion can be integrated into connected light management systems where luminaires are individually addressable. This means you can already take advantage of connected lighting or upgrade later if your business objectives change.



The right light for retail stores

In addition to helping you save on energy costs and improve sustainability, Maxos fusion gives you the power to design a store concept with customized ambience. Thanks to the a family of fixtures – including spots and non-linears – you can direct light to where you want the shopper’s attention to be.

Customize ambiances

Maxos fusion gives you the power to design a really creative store concept while helping you save on energy costs and improve your sustainability.

Merchandise sparkles

Our new range of optics has been specially designed to create beautiful ambiances in retail environments. The pleasant, diffuse light makes all the merchandise on display sparkle with quality. With a CRI of 80+ it brings out the best in every color and texture to enhance the store experience and ensure shoppers stay for longer. Maxos fusion provides comfortable light that is pleasant to the eye.

Flexible layouts

The adaptable new trunking system is fast to install, reposition and maintain. You have freedom to click the lighting unit along the line so it can be easily positioned and re-configured. With up to 13 wires, it can also handle all electrical emergency lighting schemes or can connect other technologies to enhance the store experience..

Future-proof

Maxos fusion is also a carrier of connectivity. As the Internet of Things becomes an integral part of the retail, it is also ready to collect data and can also use the infrastructure to send data - even to your shoppers. The trunking is ready to be connected to lighting systems such as StoreWise to create dynamic lighting and increase savings further or Philips Indoor Positioning which brings the power of GPS right into your store.



Your own retail toolkit
Lighting with
consistent flexibility

Creating a consistent store image is easy with Maxos fusion. We've given you the option to combine our line lighting with a range of projectors, non-linear luminaires and linear modules. So you have the flexibility to use a wide range of luminaires, but still achieve a consistent family look and feel. You can make great use of this flexibility in such a dynamic environment as retail.



Maxos fusion

Retail toolkit



StoreWise

Modern lighting systems can do so much more than simply illuminate a space. That's why we've developed solutions like StoreWise. Not only is it economical and flexible thanks to LED technology, daylight integration and light control, but it also helps you to create a pleasant atmosphere, show off products in their best light and boost sales as a result.

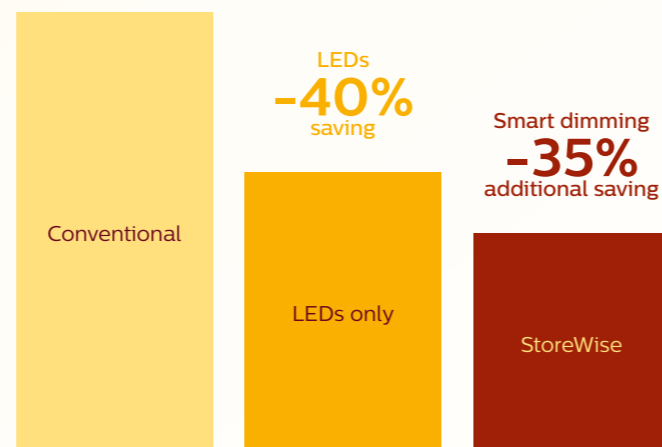


Save even more with StoreWise thanks to smart dimming.

- Create memorable shopper experience through the creation of zones and dynamic effects.
- Maximize energy saving using smart dimming.
- Adjust your lighting via an easy to use app interface.
- Future-proof platform, StoreWise can be easily integrated with an energy management system or other facility operations systems.

Daylight harvesting with skylights	15-20%	energy saving
Light Level preservation	10-15%	energy saving
Scheduling	10-15%	energy saving
Presence control (in staff-only area)	3-5%	energy saving

LED innovation continues



40% more energy efficient than conventional lighting
LED lifetime 50,000 burning hours compared to traditional lamps with 10,000 - 12,000 hours

Indoor positioning

Online shopping is becoming increasingly popular in retail. It's putting physical stores in a challenging position and omni channel shopping is now an emerging trend. Retailers need to adapt. For example in a large store it can sometimes be difficult to find your way around or to locate the product you want. It's the reason why 8 out of 10 smartphone shoppers use their mobile in-store to help with shopping.¹

Engage shoppers

Research shows that there is a significant opportunity for retailers to increase shopper engagement by offering truly relevant location-based services. They can also unlock the power of store apps and drive their usage.

Make it easy to shop

In the grocery segment, shoppers prefer location-based services that help them catch good deals, add excitement and find products. And in the DIY segment, shoppers prefer services that help them to get the right product and get assistance and advice.

1. Google Shopper Marketing Council, 2014

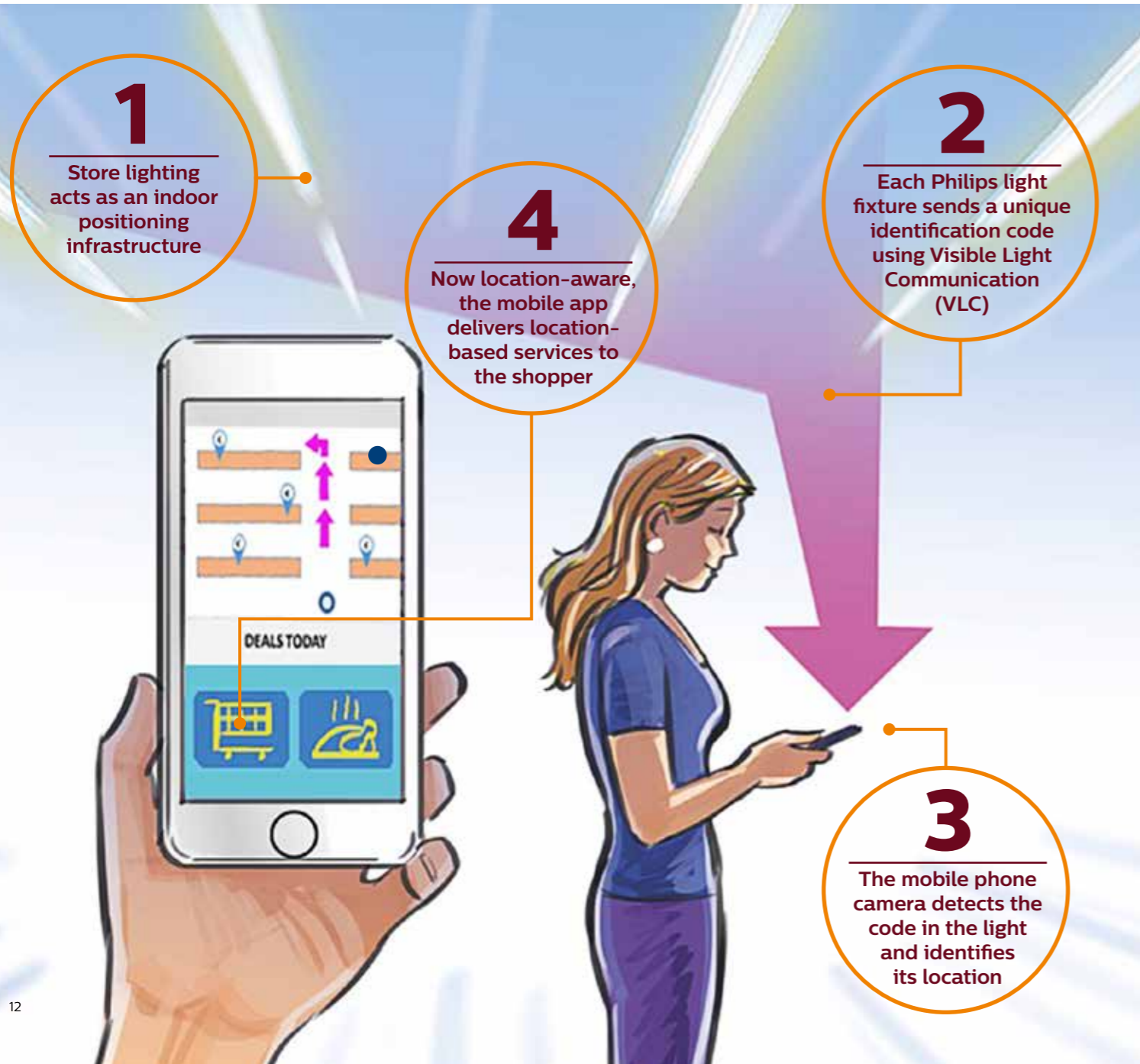
How indoor positioning works

The power of location-aware mobile apps

Our LED-based positioning solutions are accurate, easy to install and maintain, and cost-effective. An exciting new way to enhance shopper convenience and mobile customer engagement, they also improve store efficiency. And as an added bonus, the data gathered through the system can offer valuable insights to help you optimize your store layout.

Easy to integrate

There's no need for additional infrastructure or investment, besides the light fixtures themselves. The Philips indoor positioning system comes with an iOS and Android SDK and cloud service that you can use to embed positioning capabilities into your mobile apps. So you can create a seamless store experience that will delight shoppers.



The right light for industrial applications

Creating a safe environment is the first priority for industrial spaces. Now you can comply with industry regulations at the same time as maximizing the value of your investment with Maxos fusion.

Excellent TCO

If you're looking for a general lighting solution with excellent performance, Maxos fusion offers a high level of efficiency in application, great energy savings and minimum maintenance costs over a long and reliable lifetime.

Comply with regulations

Maxos fusion meets all the relevant norms for industry applications. It delivers high lux levels at the required color temperatures with a CRI of 80+ and complies with glare rating. Option to be connecting emergency lighting option, IP54 rate and the silicone free features provide you with a totally compliant lighting scheme.

Quality of light

The light distribution is highly uniform without artefacts. And thanks to the wide variety of optics you can direct the light to precisely where it is required.

Freedom of positioning

The adaptable new lighting system is fast to install, easy to reposition and maintain. You have full freedom to click the lighting unit along the line so it can be easily positioned and re-configured resulting in reduced downtime and the costs associated with layout changes. With up to 13 wires, it can also handle all electrical emergency lighting schemes.

GreenWarehouse ready

To get more out of your lighting, you can connect Maxos fusion to GreenWarehouse. enabling you to define your own lighting zones, set dimming levels and plan lighting patterns using motion sensors and lighting controls.



Food production

Maxos fusion complies with IP54 safety standards which means:

- Particles can't fall out of the Maxos fusion trunking and dust and moisture will not accumulate in the lighting unit, thus maintaining hygienic conditions.
- No loose components and no glass in the lighting installation for optimized food safety.
- Reduced power load compared to traditional systems (up to a factor of 2.5) ensures food production processes are not influenced by the lighting installation.
- Easy to clean lighting equipment.

Automotive

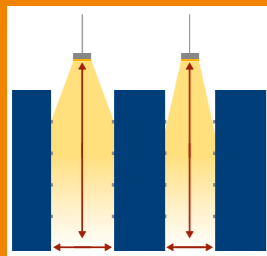
- Flexibility is key in the automotive industry. If the assembly line needs to be rearranged, the Maxos fusion lighting can be adapted in a minute.
- Maxos fusion prevents glare, resulting in motivated employees with higher productivity and no complaints.
- Impact resistance and dust/water tightness are required along the assembly lines. The optional IP54 solution combines them both, resulting in a sturdy and reliable lighting solution.
- Maxos fusion is silicone free, meeting specific demands in the automotive industry and preventing issues in the surface coating processes.

Warehouse and logistics

- Maxos fusion offers a high degree of flexibility to mount and reposition luminaires anywhere along the line. This accommodates tenant changes or change in usage very easily.
- Appropriate optics for areas with very high ceilings and narrow aisles provides the right lighting for employees and creates excellent visibility, and a safe environment in any type of warehouse.

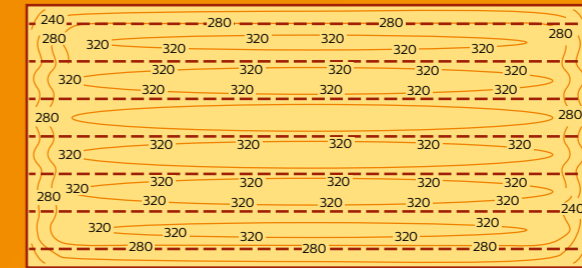
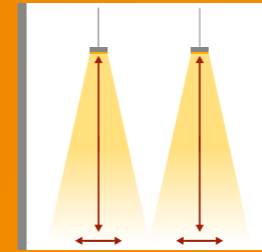
Lighting performance

We've created a range of optics that are specifically designed for different applications and geometries including wide, medium, narrow, asymmetric, 4 double-asymmetric versions and diffuse. This allows you to tailor the ambience to your exact requirements, from creating strong shelf attraction to creating a uniform light with mild contrast between the horizontal and vertical planes. And depending on the height of the ceiling we also have the ideal option to create excellent visibility and provide a safe and pleasant environment for warehouse workers.



Recommended optics in retail stores*		Aisle width [m]				
		1.6	1.8	2.0	2.2	2.4
Mounting height [m]	4.8	NB	NB	MB	DA25N	DA25N
	3.6	DA25N WB	DA25N WB	DA25N WB	DA25N	DA25N
	3.2	WB	DA25W DA25N WB	DA25W DA25N WB	DA35W DA25W DA25N	D35W DA25W DA25N
	2.8	DA25W DA25N WB	DA25W DA25N WB	DA45 DA35W DA25W	DA45 DA35W	DA45 DA35W
	2.6	DA25W WB	DA35W DA25W WB	DA45 DA35W WB	DA45	DA45

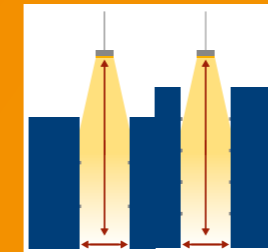
*Depending on space dimensions



Examples for 300 lux light level

Recommended optics in open spaces*		Mounting height of light line [m]				
		3	6	9	12	15
Illuminance [lux]	750	WB	MB	MB	NB	NB
	500	WB	MB	MB	NB	NB
	300	WB	WB	MB	MB	NB
	200	WB POC	WB	WB	MB	NB

*Depending on space dimensions



Recommended optics in warehouses*		Mounting height of light line [m]			
		3	6	9	12
Illuminance [lux]	300	WB	MB	NB	NB
	200	WB	MB	NB	NB
	150	WB	MB	NB	NB

*Depending on space dimensions

GreenWarehouse

Use light to transform your business



Maxos fusion

Green-Warehouse

“

Movement detection is **integrated into the fittings**, and **light intensity can be easily reconfigured**.

That's a big advantage.”

Anders Vaernholt, Infrastructure Manager,
Gothenburg Ro/Ro Terminal AB

Control your space with light

GreenWarehouse can be tailored to meet the exact needs of your business:

- A choice of energy-efficient LED luminaires.
- Wireless controls for easy operation.
- Plug and play for easy installation.
- Motion sensors for presence detection.
- Dimmable to 10% for extra economy.
- Suitable for all environments including open areas, racking and cold storage.

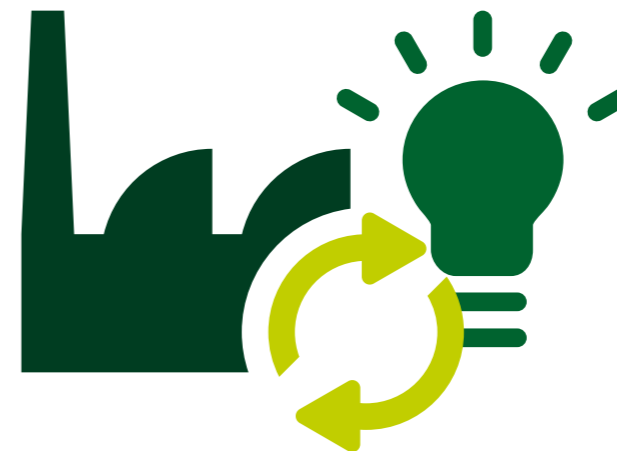


Benefit from GreenWarehouse

Thanks to their long lifetime and low energy use, LEDs are already highly attractive to energy-intensive businesses. Controllable, dimmable, and with the option of presence detection, LEDs unlock energy savings and eliminate inefficiencies to create instant value.

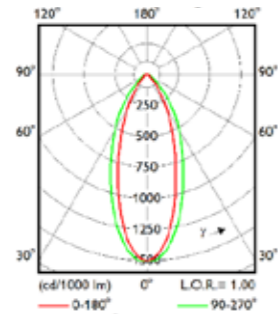
Choose Maxos fusion and you can also benefit from GreenWarehouse - a future-proof and flexible lighting system that lets you control your space with light. GreenWarehouse enables you to define your own lighting zones, set dimming levels and plan lighting patterns using motion sensors and lighting controls. That means you can create an environment that suits the exact needs of your business. And it's quick and easy to do.

Thanks to 'plug and play' installation, you're ready to go with the minimum of fuss.

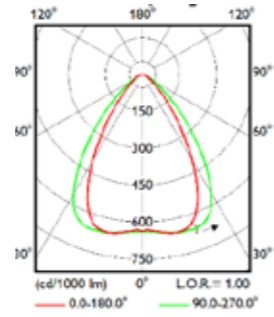


A complete range of application-tailored optics

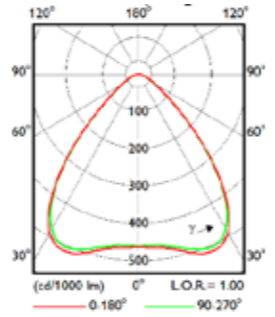
NB (Narrow beam)



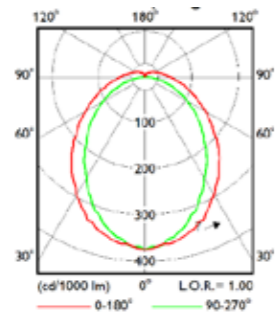
MB (Medium beam)



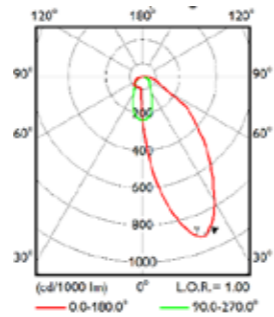
WB (Wide beam)



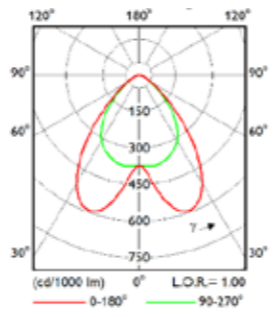
PCO (Polycarbonate Cover Opal)



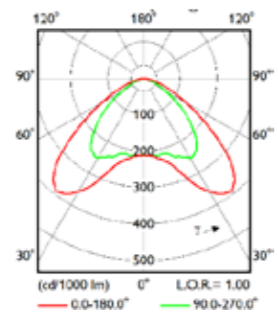
A20 (Asymmetric beam)



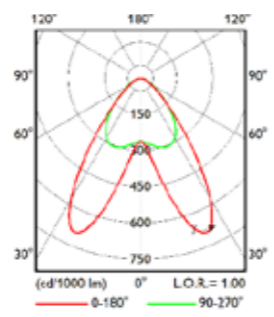
DA25W (Double asymmetric Wide)



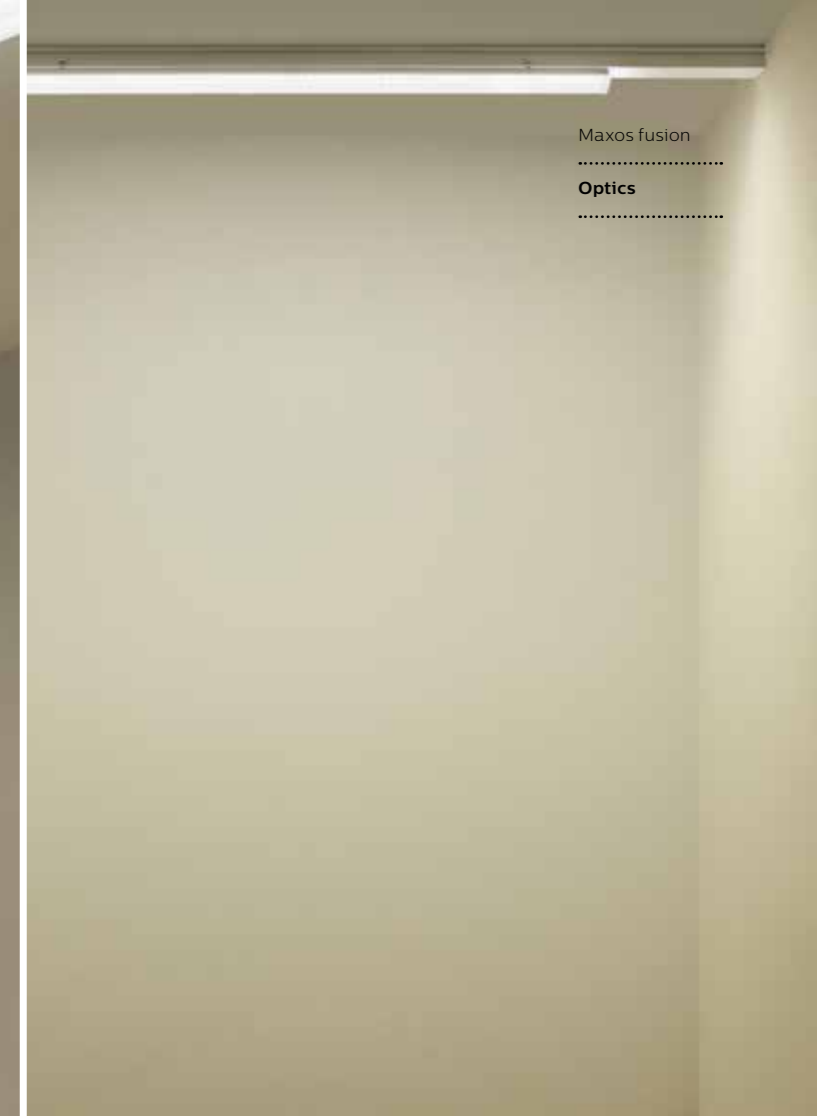
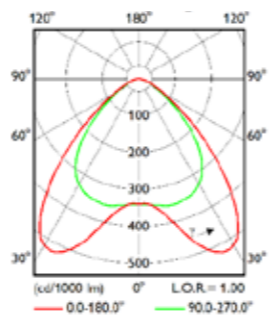
DA25N (Diffuse beam)



DA35W (Double asymmetric Narrow)

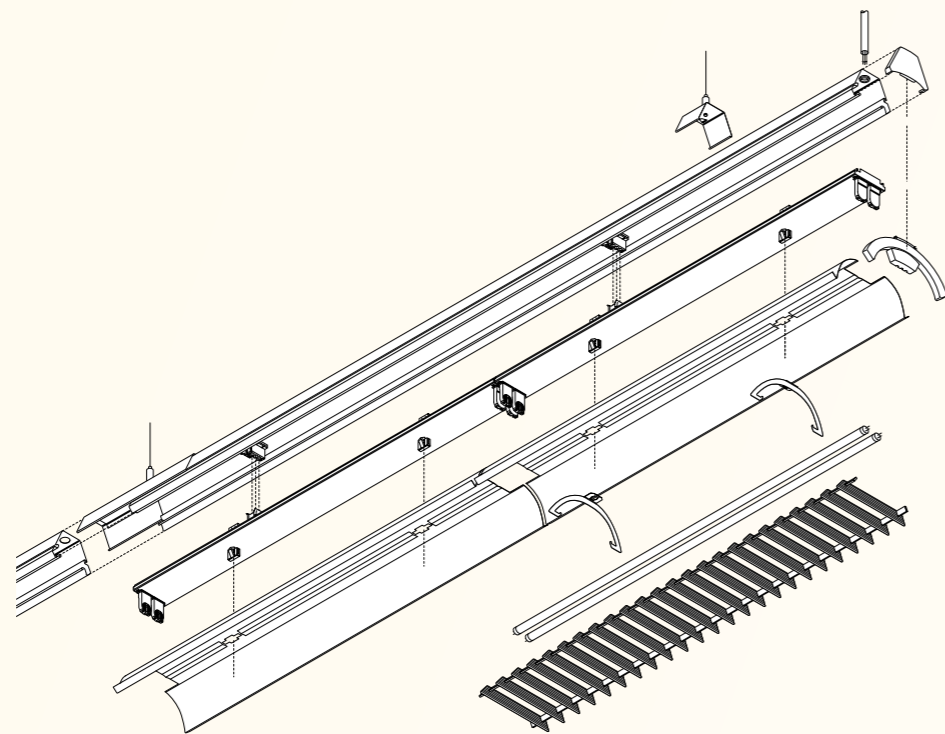


DA45 (Double asymmetric)



Components System overview

This diagram provides an overview of the components available for the Maxos fusion trunking system. The vertical columns refer to system configurations. The horizontal columns indicate the choice of specific types of components.



<p>SUSPENSION BRACKETS</p> <p>in black, silver and white</p>	<p>CB-CH: Chain bracket, adjustable CDS: Cable duct suspension MB-SW: Mounting bracket suspension wire PB: Profile bracket SMB: Surface mounting bracket</p>				
<p>TRUNKINGS</p> <p>in black, silver and white</p>	<p>7 wires</p>	<p>Options</p> <p>6x2.5 mm for 7 wire option 12x2.5 mm for 13 wire option IP54 (optional)</p>	<p>13 wires</p>		
<p>PANELS</p> <p>in black, silver and white</p>	<p>Flat optics: (NB, MB, WB, A20, DA25W, DA25N, DA35W, DA45) PCO IP54</p>				
<p>ADDITIONAL PRODUCTS</p>	<p>LL500Z 2xEP CU: Starter kit CPE: External coupling piece SPA: Spring attachment CD: Cable duct SW: Suspension wire</p>				

Ordering information

Panels

Product description	EOC
LL512X LED31S/840 PSD PCO 7 WH	38411400
LL512X LED50S/840 PSD PCO 7 WH	38412100
LL512X LED61S/840 PSD PCO 7 WH	38413800
LL523X LED62S/840 PSD PCO 7 WH	38414500
LL523X LED100S/840 PSD PCO 7 WH	38415200
LL523X LED123S/840 PSD PCO 7 WH	38416900
LL512X LED31S/840 PSED PCO 7 WH	38417600
LL512X LED50S/840 PSED PCO 7 WH	38418300
LL512X LED61S/840 PSED PCO 7 WH	38419000
LL512X LED31S/840 PSD WB 7 WH	38420600
LL512X LED50S/840 PSD WB 7 WH	38421300
LL512X LED61S/840 PSD WB 7 WH	38422000
LL523X LED62S/840 PSD WB 7 WH	38423700
LL523X LED100S/840 PSD WB 7 WH	38424400
LL523X LED123S/840 PSD WB 7 WH	38425100
LL512X LED31S/840 PSED WB 7 WH	38426800
LL512X LED50S/840 PSED WB 7 WH	38427500
LL512X LED61S/840 PSED WB 7 WH	38428200
LL512X LED31S/840 PSD MB 7 WH	38429900
LL512X LED50S/840 PSD MB 7 WH	38430500
LL512X LED61S/840 PSD MB 7 WH	38431200
LL523X LED62S/840 PSD MB 7 WH	38432900
LL523X LED100S/840 PSD MB 7 WH	38433600
LL523X LED123S/840 PSD MB 7 WH	38434300
LL512X LED61S/840 PSD NB 7 WH	38437400
LL523X LED62S/840 PSD NB 7 WH	38438100
LL523X LED100S/840 PSD NB 7 WH	38439800
LL523X LED123S/840 PSD NB 7 WH	38440400
LL512X LED31S/840 PSD DA35W 7 WH	38441100
LL512X LED50S/840 PSD DA35W 7 WH	38442800
LL512X LED61S/840 PSD DA35W 7 WH	38443500
LL523X LED62S/840 PSD DA35W 7 WH	38444200
LL523X LED100S/840 PSD DA35W 7 WH	38445900
LL523X LED123S/840 PSD DA35W 7 WH	38446600
LL512X LED31S/840 PSD DA25W 7 WH	38447300
LL512X LED50S/840 PSD DA25W 7 WH	38448000
LL512X LED61S/840 PSD DA25W 7 WH	38449700
LL523X LED62S/840 PSD DA25W 7 WH	38450300
LL523X LED100S/840 PSD DA25W 7 WH	38451000
LL523X LED123S/840 PSD DA25W 7 WH	38452700
LL512X LED31S/840 PSD DA25N 7 WH	38453400
LL512X LED50S/840 PSD DA25N 7 WH	38454100
LL512X LED61S/840 PSD DA25N 7 WH	38455800
LL523X LED62S/840 PSD DA25N 7 WH	38456500
LL523X LED100S/840 PSD DA25N 7 WH	38457200
LL523X LED123S/840 PSD DA25N 7 WH	38458900

Product description	EOC
LL512X LED61S/840 PSD A20 7 WH	38461900
LL523X LED100S/840 PSD A20 7 WH	38463300
LL523X LED123S/840 PSD A20 7 WH	38464000
LL512X LED31S/840 PSD WB 7 SI	38465700
LL512X LED50S/840 PSD WB 7 SI	38466400
LL512X LED61S/840 PSD WB 7 SI	38467100
LL523X LED62S/840 PSD WB 7 SI	38468800
LL523X LED100S/840 PSD WB 7 SI	38469500
LL523X LED123S/840 PSD WB 7 SI	38470100
LL512X LED31S/840 PSD WB 7 BK	38471800
LL512X LED50S/840 PSD WB 7 BK	38472500
LL512X LED61S/840 PSD WB 7 BK	38473200
LL523X LED62S/840 PSD WB 7 BK	38474900
LL523X LED100S/840 PSD WB 7 BK	38475600
LL523X LED123S/840 PSD WB 7 BK	38476300
LL612X LED61S/840 PSD WB 7 WH	38494700
LL612X LED61S/840 PSD MB 7 WH	38495400
LL612X LED61S/840 PSD NB 7 WH	38496100
LL623X LED123S/840 PSD WB 7 WH	38497800
LL623X LED123S/840 PSD MB 7 WH	38498500
LL623X LED123S/840 PSD NB 7 WH	38499200

Trunks

Product description	EOC
LL512T 7 WH	38375900
LL512T 13 WH	38376600
LL523T 7 WH	38377300
LL523T 13 WH	38378000
LL546T 7 WH	38379700
LL546T 13 WH	38380300
LL512T 7 SI	38381000
LL523T 7 SI	38383400
LL546T 7 SI	38385800
LL512T 7 BK	38387200
LL523T 7 BK	38389600
LL546T 7 BK	38391900
LL612T 7 WH	38393300
LL612T 13 WH	38394000
LL623T 7 WH	38395700
LL623T 13 WH	38396400

Accessories

Product description	EOC
LL512T 7 WH	38375900
LL512T 13 WH	38376600
LL523T 7 WH	38377300
LL523T 13 WH	38378000
LL546T 7 WH	38379700
LL546T 13 WH	38380300
LL512T 7 SI	38381000
LL523T 7 SI	38383400
LL546T 7 SI	38385800
LL512T 7 BK	38387200
LL523T 7 BK	38389600
LL546T 7 BK	38391900
LL612T 7 WH	38393300
LL612T 13 WH	38394000
LL623T 7 WH	38395700
LL623T 13 WH	38396400
LL646T 7 WH	38397100
LL646T 13 WH	38398800
LL500Z CM L400 WH	38319300
LL500Z CM L600 WH	38326100
LL500Z CPE WH	38329200
LL500Z CPE SI	38330800
LL500Z CPE BK	38331500
LL500Z 2xEP CU WH	38332200
LL500Z 2xEP CU SI	38333900
LL500Z 2xEP CU BK	38334600
LL500Z SMB WH	38336000
LL500Z SMB SI	38337700

Product description	EOC
LL500Z SMB BK	38338400
LL500Z MB-SW WH	38339100
LL500Z PB WH	38345200
LL500Z MB-SW2 L5000 WH	38348300
LL500Z MB-SW2 L5000 SI	38349000
LL500Z MB-SW2 L5000 BK	38350600
LL500Z CB-CH WH	38351300
LL500Z CB-CH SI	38352000
LL500Z CB-CH BK	38353700
LL500Z BC L2300 WH	38354400
LL500Z BC L2300 SI	38355100
LL500Z BC L2300 BK	38356800
LL500Z SPA-CD	38357500
LL512Z CD WH	38358200
LL512Z CD SI	38359900
LL523Z CD WH	38361200
LL523Z CD SI	38362900
LL546Z CD WH	38364300
LL546Z CD SI	38365000
LL546Z CD BK	38366700
LL500Z CDS WH	38367400
LL500Z SW2 L1250	38370400
LL500Z SW2 L3000	38371100
LL500Z SW2 L5000	38372800
LL500E ACW	38373500
LL500E IPT-CG	38374200



