PHILIPS

MISBAH UNITED

Batten and trunking

Create a unique experience with batten lighting. Whether for a new building or renovation of an existing space, customers want lighting solutions that provide quality of light and substantial energy and maintenance savings. This is where we come in.

up to 70Khrs

up to 72 lm/W

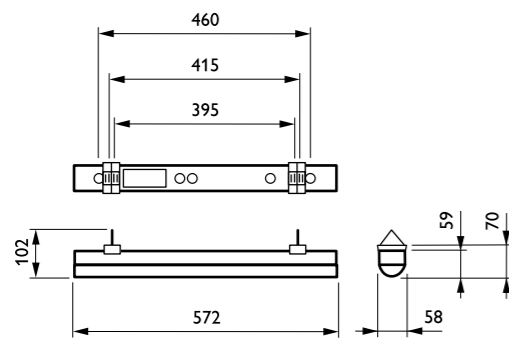# CoreLine Batten
The clear choice for LED

Whether for a new building or renovation of an existing space, customers want lighting solutions that provide quality of light and substantial energy and maintenance savings. The new CoreLine Batten range of LED products can be used to replace traditional battens with fluorescent lamps. The process of selecting, installing and maintaining is so easy – it's a simple switch.

Supermarket **Retail**
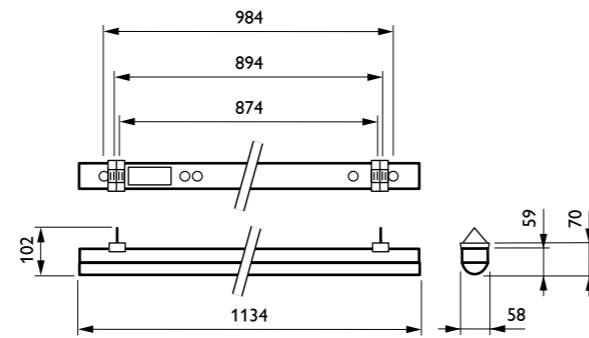
Features and Benefits

- Up to 40% energy savings compared with TL-D
- Reliable LED technology - maintenance- free
- Direct replacement for conventional battens in terms of light performance, installation flexibility and length
- Reliable integrated LED technology, ensuring maintenance-free installation and a long lifetime
- Can be used to replace traditional 2x18W and 2x36W TL-D battens
- Wide-beam light distribution
- Frosted diffuser ensures visual comfort

Technical parameters

Type	BN120C (internal push-in connection version) BN121C (IEC external power connection version)
Light source	Philips Fortimo LED Line 1R
Power (±10%)	20 W (600 mm version) 40 W (1200 mm version)
Beam angle	55°
Luminous flux	1900 lm (600 mm version) 3800 lm (1200 mm version)
Correlated Color Temperature	3000 or 4000 K
Color Rendering Index	≥ 80
Median useful life L70B50	50,000 hours
Median useful life L80B50	30,000 hours
Median useful life L90B50	15,000 hours
Driver failure rate	1% per 5000 hours
Average ambient temperature	25 °C
Driver	Built-in, replaceable
Mains voltage	220-240V / 50-60 Hz
Dimming	Non-dimming
Material	Housing: steel Diffuser: polycarbonate, extruded
Color	White
Optical cover	Polycarbonate, frosted
Connection	Push-in connector with pull relief or external IEC power connector
Maintenance	No internal cleaning required
Installation	Direct fixation with screws or fixation with ceiling mounted bracket Through-wiring possible In case of external power connection the product can be installed without removing the lightsource and cover
Accessories	Ceiling mounted bracket and suspension hook (BN120Z)
Remarks	In case of push-in connection type need to order separately the ceiling mount bracket, for the type with external power connection the bracket is included

Product size

All dimensions in millimeters

CoreLine Batten BN120C

CoreLine Batten BN121C

IP20   up to 50Khrs   up to 112 lm/W

GreenPerform Batten

The clear choice for LED

GreenPerform LED Batten is a high quality LED batten and a high system efficacy that delivers significant energy savings of up to 50% as compared to conventional T8 battens. With a reliable and robust housing structure, this maximizes the endurance and contributes to its long lifetime.
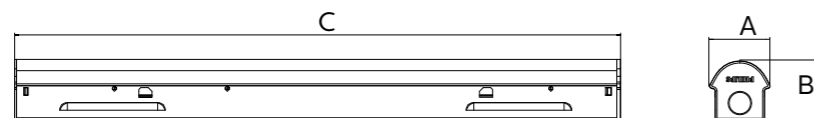
With its flexible optics and mounting accessories, it is suitable for Symmetrical, Asymmetrical, Bi-Asymmetrical, Wide Bi-Asymmetrical, direct and indirect lighting applications. It can be used in a wide variety of applications.

Features and Benefits

- High system efficacy
- Easy to install for various applications
- Quality lighting with good color uniformity
- High vertical illuminance
- Reliable and sustainable lifetime
- More than 100lm/W
- Symmetrical and asymmetrical mounting brackets
- Color Rendering Index of 80
- Bi-Asymmetrical, wide bi-Asymmetrical distribution
- 50,000 hrs life with 70% lumen maintained

Supermarket   Retail

Product size

All dimensions in millimeters

Type	A	B	C
BN208C LED43/L1200	57	58	1416

GreenPerform LED Batten, 1200mm

Technical parameters								
Type	GreenPerform LED Batten, 1200mm							
	2000lm	2100lm	4000lm	4200lm	4400lm	5900lm	6200lm	6400lm
System Power	20W	20W	40W	40W	40W	55W	55W	55W
System efficacy (lm/w)	100	105	100	105	110	108	112	116
Lens	N/A	N/A	N/A	N/A	BD/WBD	N/A	BD/WBD	N/A
Optical cover	Frosted	Clear	Frosted	Clear	Clear	Frosted	Clear	Clear
CCT	CW (6500K) NW (4000K)		CW (6500K) NW (4000K) WW (3000K)			CW (6500K) NW (4000K)		
Assembly	Standalone/Trunkable							
CRI	>85							
SDCM	<3.5SDCM							
IP rating	IP20							
Classification	Class I							
Input voltage	Fixed output; 200-240V, 50/60 Hz							
Power Factor	> 0.9							
Lifetime (hrs)	50,000 @L70B50				40,000 @L70B50			
Material	Housing: 0.5mm SPCC / Cover: PMMA							
Mounting	Surfaced (Bracket)							

GreenPerform LED Batten, 600mm

Technical parameters								
Type	GreenPerform LED Batten, 600mm							
	1000lm	1100lm	1900lm	2000lm	2000lm	3000lm	3000lm	3300lm
System Power	10W	10W	20W	20W	21W	30W	30W	30W
System efficacy (lm/w)	100	110	95	100	105	100	106	110
Lens	N/A	N/A	N/A	N/A	BD/WBD	N/A	BD/WBD	N/A
Optical cover	Frosted	Clear	Frosted	Clear	Clear	Frosted	Clear	Clear
CCT	CW (6500K) NW (4000K)		CW (6500K) NW (4000K) WW (3000K)			CW (6500K) NW (4000K)		
Assembly	Standalone							
CRI	>85							
SDCM	<3.5SDCM							
IP rating	IP20							
Classification	Class I							
Input voltage	Fixed output; 200-240V, 50/60 Hz							
Power Factor	> 0.9							
Lifetime (hrs)	50,000 @L70B50				40,000 @L70B50			
Material	Housing: 0.5mm SPCC / Cover: PMMA							
Mounting	Surfaced (Bracket)							

GreenPerform Batten Core Range

The clear choice for LED

GreenPerform Core Range Batten is a high quality LED batten and a high system efficacy that delivers significant energy savings of up to 54% as compared to conventional T8 battens. With a reliable and robust housing structure, this maximizes the endurance and contributes to its long lifetime.
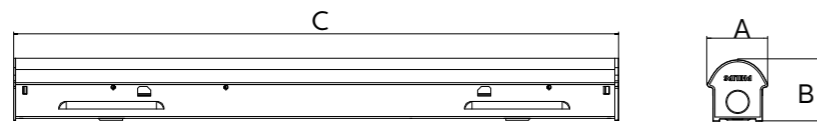
With its flexible mounting accessories, it is suitable for Symmetrical, Asymmetrical, direct and indirect lighting applications. It can be used in a wide variety of applications.

Supermarket   Retail

Features and Benefits

- High energy saving, up to 54% comparing to TL–8 batten
- Comfort light experience
- Safe & Reliable
- Application Flexibility
- Installation Flexibility
- Min.104lm/W; 4000 and 6000lm choices
- CRI 80, SDCM<5, high quality diffused cover provides good uniformity
- 50000hrs L70B50; 100 RoHS product; CB/EMC ASNZ
- Able to provide Symmetric and Asymmetric choices
- Suits for surface and suspension mounting

Product size

All dimensions in millimeters

Type	A	B	C
BN188C LED60/L1500 BR G2	57	58	1416
BN188C LED30/L1500 BR G2	57	58	1416
BN188C LED40/L1200 BR G2	57	58	1135
BN188C LED20/L1200 BR G2	57	58	1135
BN188C LED20/L600 BR G2	57	58	573
BN188C LED10/L600 BR G2	57	58	573

IP20   up to 50Khrs   up to 112 lm/W

Technical parameters

Type	GreenPerform Batten Core Range – BN188/189C			
	4000lm	4300lm	5900lm	6100lm
System Power	38.5W	38.5W	57W	57W
System efficacy (lm/w)	104	112	104	107
Length	1170mm	1170mm	1416mm	1416mm
Optical cover	Frosted	Clear	Frosted	Clear
CCT	CW (6500K); NW (4000K)			
Assembly	Standalone/Trunkable			
CRI	>80			
SDCM	<5SDCM			
IP rating	IP20			
Classification	Class I			
Input voltage	Fixed output; 200–240V, 50/60 Hz			
Power Factor	> 0.9			
Lifetime (hrs)	50,000 @L70B50			
Material	Housing: 0.5mm SPCC / Cover: PMMA			
Mounting	Surfaced and Suspended			

SmartBright LED Batten 11W, 21W

IP20

up to 25Khrs

SmartBright LED Batten 11W, 21W

The energy efficient T8 batten replacement
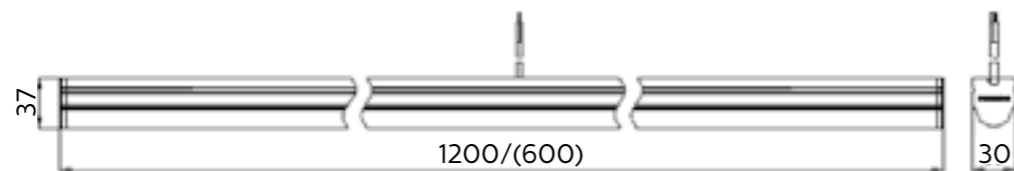
The SmartBright LED Batten boasts an integrated solution with new design features to give you greater flexibility in replacement and new installation, with no compromise on brightness and robustness.

Supermarket　**Retail**

Features and Benefits

- Ideal replacement for 1x36W and 1x18W T8 batten
- High system efficacy of up to 90lm/W
- Central and side cable entry with pre-wired 1.5m cable
- Long lifetime with up to 25,000 hr@L70 and low maintenance

Technical parameters

Family name	SmartBright LED Batten
Model	BN012C
Lumen/Watt	LED10 – 11W/ 1000lm/ 90lm/W LED20 – 21W/ 2000lm/ 90lm/W
Correlated Colour Temperature (CCT)	4000K (NW), 6500K (CW)
Colour Rendering Index (CRI)	80
Flex	Pre-wired 1.5m flex
Lifetime (L70@25°C)	25,000hrs* *When the fitting reaches 70% of full potential (new)
SDCM	≤6
Power factor	0.8
Operating temperature	25°C (-20°C,- 35°C)
Driver	Integrated fixed driver
Dimmable	None dimmable
Installation	Surface mounted, Suspended** **Suspension kit not included, to be purchased externally
IP rating	IP20
Dimension(mm)/ Weight(kg)	4ft – 1200(L) x 30(W) x 37(H)/ 0.29kg 2ft – 600(L) x 30(W) x 37(H)/ 0.19kg
Material	Housing and diffuser: PC Brackets: Stainless steel
Applications	Stairwells, back of house areas, garages

Product size

All dimensions in millimeters

37

1200/(600)

30

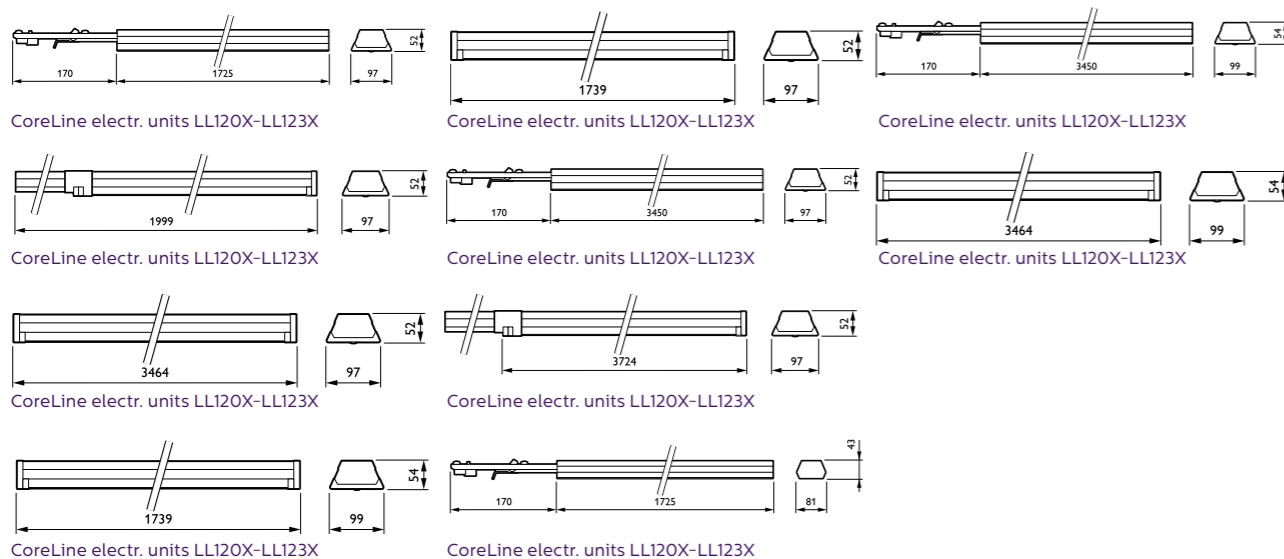| Model	Width (A)	Height (B)	Length (C)	Weight (KG)
LED10	30	600	37	0.19
LED20	30	1200	37	0.29

CoreLine Trunking

The clear choice for LED

Whether for a new facility or renovation of an existing space, customers want lighting solutions that provide quality of light and substantial energy and maintenance savings. The new CoreLine Trunking range of LED products can be used to replace general lighting. The process of selecting, installing and maintaining is so easy – it's a simple switch.

Supermarket   **Retail**

Features and Benefits

- High efficiency enables energy savings of more than 50% compared to fluorescent based luminaires; attractive investment level and fast payback
- Good quality of light with high output to meet the requirements of demanding applications
- Easy to order and install, thus requiring less time and reducing packaging waste and complexity
- Philips Fortimo LED Line 1R for high efficiency and reliability
- Advanced optics enable precise and energy-saving beam shapes
- Simplicity: only two 12 NC codes needed to make a light line
- Requires much less packaging than fluorescent, reducing total installation time

up to 70Khrs

up to 129 lm/W

Technical parameters

Type	LL120X (3.4 m version) LL120X (3.4 m standalone version: ready-to-install (KIT) with ceilingmounting bracket (SMB)) LL121X (1.7 m version) LL121X (1.7 m standalone version: ready-to-install (KIT) with ceilingmounting bracket (SMB)) LL122X (3.4 m half blind version) LL123X (3C track version)
Light source	Philips Fortimo LED Line 1R
Power	LL120X: 69 or 124 W LL121X: 34.5 or 62 W
Beam angle	2 x 20, 2 x 25, 2 x 30, 2 x 45, 2 x 50, 2 x 80, 1 x 30°
Luminous flux	LL120X: 9000 or 16000 lm for 4000 and 6500 K, 15200 lm for 3000 K LL121X: 4500 or 8000 lm for 4000 and 6500 K, 7600 lm for 3000 K
Correlated Color Temperature	3000, 4000 and 6500 K
Color Rendering Index	>80
Median useful life L70B50	70,000 hours
Median useful life L80B50	50,000 hours
Median useful life L90B50	25,000 hours
Driver failure rate	1% per 5000 hours
Average ambient temperature	25 °C
Driver	Built-in (Philips Xitanium)
Mains voltage	230 or 240 V / 50-60 Hz
Dimming	DALI dimmer
Controls system input	0-16 V
Material	Housing: steel Lenses: PMMA or polycarbonate (for emergency lighting versions)
Color	White
Optic	Narrow, medium, wide beam, asymmetric, double asymmetric and opal optic
Optical cover	PMMA or polycarbonate
Connection	Integral male / female connectors
Maintenance	No internal cleaning required
Installation	Suspended with brackets and wire (standard) Surface mounted with caddy clip or bracket (additional accesories needed) Through-wiring standard
Accessories	Blind covers, chain brackets, profile brackets, mounting brackets for suspension wire and ceiling mounting brackets, suspension wire, electrical connectors (LL120Z)
Remarks	Emergency lighting versions battery based (3 hours, EL3) or centrally driven emergency

Product size

All dimensions in millimeters

170   1725   52   97

CoreLine electr. units LL120X-LL123X

1739   52   97

CoreLine electr. units LL120X-LL123X

170   3450   52   99

CoreLine electr. units LL120X-LL123X

1999   52   97

CoreLine electr. units LL120X-LL123X

170   3450   52   97

CoreLine electr. units LL120X-LL123X

3464   52   99

CoreLine electr. units LL120X-LL123X

3464   52   97

CoreLine electr. units LL120X-LL123X

3724   52   97

CoreLine electr. units LL120X-LL123X

1739   54   99

CoreLine electr. units LL120X-LL123X

170   1725   43   81

CoreLine electr. units LL120X-LL123X

IP20   50Khrs   up to 108 lm/W

Supermarket   Retail

GreenPerform Trunking

Versatile, modular and energy-efficient trunking system

With Philips GreenPerform Trunking, industry and supermarket owners have an innovative LED solution that intelligently combines high-performance lighting features with maximized energy savings. This solution is designed to boost productivity and enhance shopping experience without compromising performance and energy efficiency.
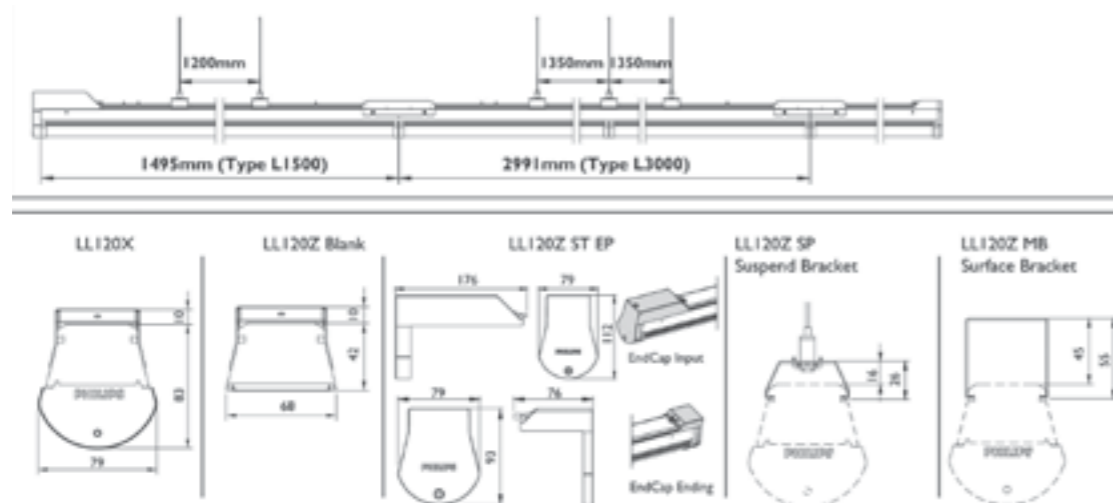
Suitable for a wide range of applications, GreenPerform Trunking is safe, reliable, and versatile, the perfect direct replacement for conventional fluorescent trunking.

Features and Benefits

- A system efficacy of 108lm/W, providing up to 50% energy saving when replacing 2 x 58W fluorescent trunking
- Specially designed plastic caps improve uniformity along the length leading to a more uniform lighting distribution
- 3 different beam angles available (Double asymmetric / Wide-beam / Opal) enabling you to choose the most optimum solution for different applications
- An integrated modular design with 3-phase 5-wire connection ensuring easy and flexible installation, and the possibility of controlling each phase separately
- Designed for 70% lumen maintenance over 50,000 hours ensuring reliable performance over the product lifetime

Product size

All dimensions in millimeters

Technical parameters

Model	GreenPerform Trunking - LL120X
Classifications	Class I
Specification	High lumen output (HLO) ; 2x58W/ 2x49W replacement Standard output (S.O) ; 2x36W/ 2x28W replacement
System output	7600lm, 15200lm (HLO) 3800lm, 7600lm (S.O)
SDCM	SDCM<4
CCT	CW (6500K)/ NW (4000K)
CRI	CRI.85
Optic	DA / WB/ OPAL
System Efficacy	108lm/W
System Wattage	70W,140W(HLO) 35W,70W(S.O)
Control	PSU/ DALI
Power factor	>0.9
Input voltage	220-240V, 50/60 Hz
Cabling	cable with 3-phase and 5-wire, rated 10A for each phase
IP	IP20
Track	Extrusion Aluminum
Endcap	Injection PC
Optical Cover	PC
Bracket	SUS301 stainless steel
Lifetime	50000 hrs(L70)
Ta.	-20˚C ~ 40˚C
Installation	suspended, surfaced
Maximum installation quantity (Piece)	72, 26 (HLO) 144, 72 (S.O)
Maximum connection length (PSU)	108m (HLO) 216m (S.O)
Maximum connection length (PSD)	90m
Certification	CCC/ CB/ EMC/ CE

IP20

up to 50Khrs

up to 107 lm/W

GreenUp Trunking

Energy-efficient lighting for industrial and commercial applications

GreenUp Trunking LL100X is a high quality LED trunking that delivers significant energy savings of up to 65% comparing to conventional T8 trunk system. LL100X uses simple one phase integrated module design, enables maximum 60 pieces connected . It provides uniform light distribution through the length by designing a special plastic cap, suits for supermarket, shopping mall and other general Indoor application.

Supermarket   Retail

Features and Benefits

- High energy saving – up to 65% comparing to TL-8 trunking
- Reliable long lasting performance
- Uniform light distribution
- Application flexibility
- Easy and flexible Installation
- System efficacy 107lm/W; 3000/6000lm
- Lifetime 50Khrs @L70B50; CB/EMC/CE/ASNZ
- Special plastic cap design to improve uniformity of light through the length
- Provides two optical choices (OP/DA)
- Max. to 60 pieces connected; Surface and suspension mounted

Technical parameters

Type	GreenUp Trunking – LL100X	
Specification	Standard output	
	2x36W/ 2x28W replacement	
System output	3000lm	6000lm
System efficiency	28W	56W
Length	1.2m	2.4m
Maximum installation quantity (Piece)	60	30
Maximum connection length (PSU)	72m	
System efficacy	107lm/W	
CCT	CW (6500K)/ NW (4000K)	
CRI	CRI.85	
SDCM	SDCM<5	
Optic	DA / OPAL	
Lifetime	50000hrs(L70B50)	
Driver	Fix	
LED chip	Philips Lumileds	
LED driver	Philips	
Power factor	>0.9	
Cabling	1 phase cable, 10A	
Materials	track: Sturdy cold rolled sheet steel ; body: galvanized steel, cover: PC	
IP	IP20	
Ta.	-20°~40°	
Classification	Class I	
Input voltage	220-240V, 50/60 Hz	
Installation	suspended, surfaced	
Certification	CB/ EMC/CE/SAA	

Product size

All dimensions in millimeters

GreenUp Trunking LL100X L1200

54

77

1159

GreenUp Trunking LL100X L2400

54

77

2319

up to 70Khrs

up to 110 lm/W

Maxos LED

Industry – innovative, flexible solution delivers ideal light output
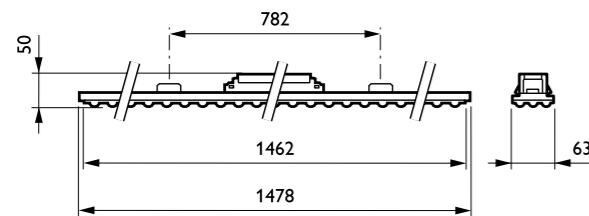
StoreWise system compatible

Customers in the industrial and retail sectors are looking for general lighting solutions with a justifiable payback, while meeting all relevant norms for supermarkets and industry applications. For a limited investment, Maxos LED Industry offers best-in-class energy savings while delivering high lux levels at the required color temperatures and glare factors.The minimalistic Maxos LED Industry system comprises exchangeable mid-power LED boards mounted on a standard Maxos trunking rail. A choice of wide and medium beam lenses means flexibility in light distribution. Compared with a conventional fluorescent installation, this highly efficient LED solution offers full payback in less than three years. And the benefits keep coming: the use of our upgradable LED engine platform makes Maxos LED Industry a truly future-proof solution.

Supermarket   Retail
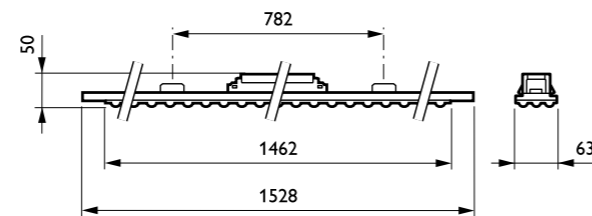
Features and Benefits

- Substantial energy savings for a limited investment
- Comfortable light, long lifetime
- Compatibility with proven Maxos trunking system
- Mid-power LED boards; exchangeable LED unit
- Up to 138 lm/W efficiency
- LED gear trays for T5 and TL-D-length trunkings (high lumen output); replacement LED gear trays with same lumen packages as installed T5 and TL-D solutions (lower wattage)
- Choice of narrow, medium, double asymmetric and asymmetric lenses
- Compatible with our standard Maxos and TTX400 rails for TL5 49W and TL-D 58W lengths

Technical parameters

Type	4MX850
Light source	Philips Fortimo LEDline 3R
Power	27 W (4000 lm, 4000 K) 39 W (5500 lm, 4000 K) 48 W (6600 lm, 4000 K) 60 W (8000 lm, 4000 K)
Beam angle	2 x 50° (wide beam) 2 x 25° (narrow beam) A20° (asymmetric) DA20° (double asymmetric) 2 x DA35° (double asymmetric)
Luminous flux	Up to 6600 lumen
Correlated Color Temperature	3000, 4000 or 5000 K
Color Rendering Index	> 80
Median useful life L70B50	70,000 hours
Median useful life L80B50	50,000 hours
Median useful life L90B50	25,000 hours
Driver failure rate	1% per 5000 hours
Average ambient temperature	25 ℃
Driver	Xitanium, easy to replace
Power/Data supply	75 Watt (max power), programmable
Mains voltage	220–240 V / 50–60 Hz
Dimming	DALI dimmable and fixed output versions
Options	Emergency lighting: central (EL) or with battery (EL3)
Material	Gear tray: sheet metal Lens plate: PMMA
Color	White (WH) and silver (SI)
Connection	Electrical contact via standard Maxos through-wiring connector
Maintenance	Via clicking out the gear unit from the rail
Installation	Fixation of the 4MX850 unit on the Maxos trunking with springs Suspended or surface (ceiling) mounted
Remarks	No exchange of bare LED engines, only the complete 4MX850 unit (1.5 m in length)

Product size

All dimensions in millimeters

Maxos LED electr. units 4MX850

Maxos LED electr. units 4MX850

up to
50Khrs

up to
121
lm/W

Supermarket   Retail

Maxos LED GreenWarehouse

Wireless lighting system, giving you control of energy savings
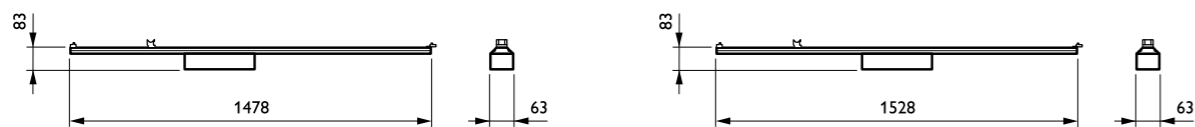
GreenWarehouse system compatible

This dedicated system makes it easy for warehouse developers and facility managers to achieve maximum energy savings. It seamlessly integrates state-of-the-art LED lighting with an easy-to-use and reliable networked control solution. When the situation on the work floor changes, settings such as dimming levels and timing can be changed wirelessly by the end-users themselves. Luminaires can be combined in groups across the layout, and re-zoning them does not require a hardware change, thus minimizing commissioning costs. The system delivers savings over and above the actual efficiency of the LEDs and is future-proof. Easy to understand, easy to design-in, and easy to use, the GreenWarehouse is simplicity itself.

Features and Benefits

- Optimal operating costs for a low investment
- One system; works across other Philips product platforms – GentleSpace gen2, Maxos LED and Pacific LED
- Future-proof system: wireless adjustment of lighting settings and fast re-zoning if use of space changes
- Different lighting levels and timings can be set per sensor, group and network of luminaires
- No compromise on operators' safety, well-being and productivity
- Wireless re-zoning by the end-user
- Advanced sensor technology for effective presence detection, even from a great height
- The system is suitable for both new builds and retrofit installations
- Dedicated warehouse kits; via bundled orders

Product size

All dimensions in millimeters

Technical parameters

Type	LL850X (based on Maxos LED 4MX850) - Long version (12 m): 4 units Maxos, 3 blind covers, 1 sensor - Short version (9 m): 3 units Maxos, 2 blind covers, 1 sensor - For T5 and TLD sized trunking rail LL400X (based on Maxos LED 4MX400 for TTX400 rail) - Long version (12 m): 4 units Maxos, 3 blind covers, 1 sensor - Short version (9 m): 3 units Maxos, 2 blind covers, 1 sensor - For T5 and TLD sized trunking rail LL883X (based on Maxos LED 4MX883) - Long version (12 m): 4 units Maxos (of which 1 with 3 hours 300 lumen Emergency lighting), 3 blind covers, 1 sensor - Short version (9 m): 3 units Maxos (of which 1 with 3 hrs 300 lumen Emergency lighting), 2 blind covers, 1 sensor - For T5 and TLD sized trunking rail LL433X (based on Maxos LED 4MX433 for TTX400 rail) - Long version (12 m): 4 units Maxos (of which 1 with 3 hours 300 lumen Emergency lighting), 3 blind covers, 1 sensor - Short version (9 m): 3 units Maxos (of which 1 with 3 hrs 300 lumen Emergency lighting), 2 blind covers, 1 sensor - For T5 and TLD sized trunking rail
Light source	Philips Fortimo LEDline 3R
Power	4 units: 218 W 3 units: 163 W
Luminous flux	Long version: 26,400 lm Short version: 19,800 lm
Correlated Color Temperature	4000 K
Color Rendering Index	> 80
Median useful life L80B50	50,000 hours
Median useful life L90B50	25,000 hours
Average ambient temperature	25 °C
Driver failure rate	1% per 5000 hours
Operating temperature range	–20 to 35 °C
Driver	Built-in
Mains voltage	230 or 240 V / 50-60 Hz
Dimming	Integrated dimmer
Controls system input	DALI
Options	Emergency lighting: 3 hours (EL3), 300 lm
Material	Housing: steel Optical cover: PMMA
Color	White (WH)
Optic	Narrow beam (NB)
Installation	Reutlinger or surface mounting brackets New or Retrofit to Maxos/TTX400 installations Through-wiring possible
Remarks	Maxos LED GreenWarehouse can only be ordered as a system via kits Remote control and guide come with each shipment