

Contents

1	SAGIT/M1/AX/XXXX	Double asymmetric for long distances	Pag. 2
2	SAGIT/M3/AX/XXXX	Double asymmetric with high uniformity	Pag. 3
3	SAGIT/SM/AX/XXXX	Double asymmetric with soft beam	Pag. 4
4	SAGIT/SL/AS/XXXX	Single Asymmetric Wallwasher	Pag. 5
5	SAGIT/SL/GW/XXXX	Giga Wide Beam - FWHM 140° Up Light	Pag. 6
6	SAGIT/DIF/XXXX	FWHM 120° - High Efficiency Compact Diffusor	Pag. 7
7	SAGIT/SL/MW/XXXX	Mega Wide - FWHM 110°	Pag. 8
8	SAGIT/M1/UW/XXXX	Ultra Wide - FWHM 90° - 96% efficiency	Pag. 9
9	SAGIT/SM/UW/XXXX	Ultra Wide - FWHM 90° - High Uniformity	Pag. 10
10	SAGIT/M1/W7/XXXX	Wide - FWHM 70°	Pag. 11
11	SAGIT/M3/EW/XXXX	Extra Wide - FWHM 60° - Low Glare	Pag. 12
12	SAGIT/M1/WI/XXXX	Wide - FWHM 45°	Pag. 13
13	Sample Kit - Full Kit		Pag. 14
14	Sample Kit	Kit for Supermarket & Retail Applications	Pag. 15
15	SAGITTARIO – Guidelines for product coding		Pag. 16-17
16	Assembly Specifications		Pag. 18
17	Packaging		Pag. 19
18	Materials / Use and Maintenance / Disclaimer		Pag. 20

SAGITTARIO is the new family of linear optics, made by Khatod: ideal for all indoor environments like supermarkets, warehouses and offices.

At the core, lies the new **OMP™ (Optical Multilayer Performance) Technology**, an innovative production method that combines different optical layers in one piece, to achieve highest efficiencies, reduces color-over-angle and optimizes distribution. Light enters a first secondary optic and passes through a layer of color-mixing nanostructures, before leaving SAGITTARIO through an additional layer of nanoprisms.

They are available in various Beam Angle Types: **Double Asymmetric, Single Asymmetric, 140°, 120°, 110°, 70°, 90° Uniform, 60° Low Glare** and **45°**. **Efficiencies exceed 95%**, with uniformities of 0.9.

It is available in any length, thanks to a new cold-forming technology – ideal to cover large spaces.

The whole line-up revolves around one core feature: energy savings.

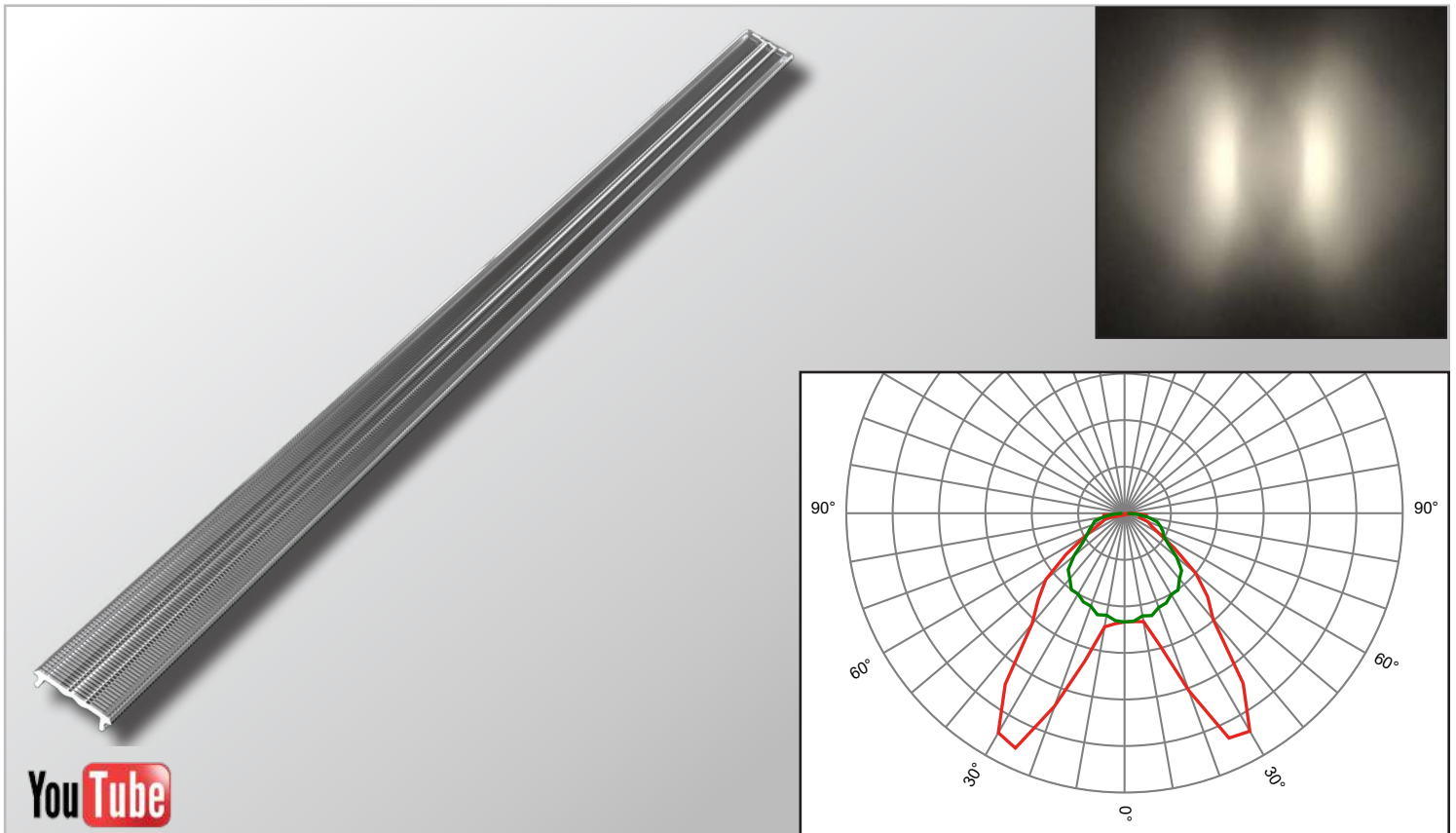
The optical efficiency is tailored on the applications and takes into account not only lumen/Watt, but also Lux/€.

Available from stock in three **standard lengths: 1.220mm, 1.550mm and 3.050mm**.

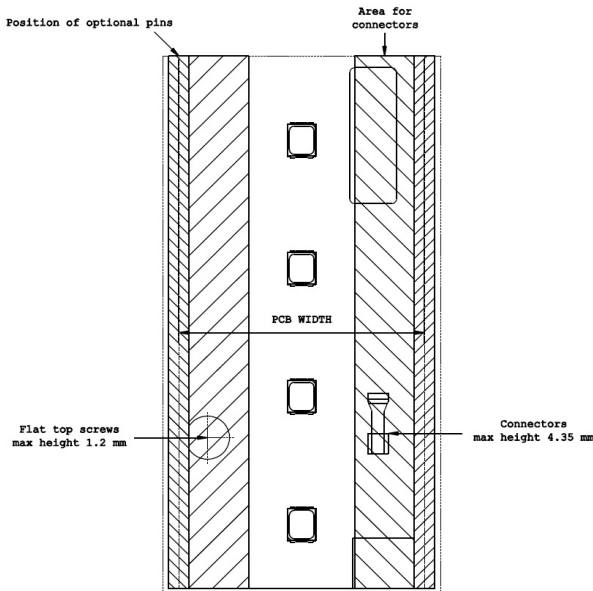
Optimized for **2835** and **3030 LEDs series**, in 20 mm and 24 mm modules. Made of optical grade **PMMA**, these optics work perfectly within -40° to +90° temperature range. Mechanical snap-in function, allows assembly without screws.



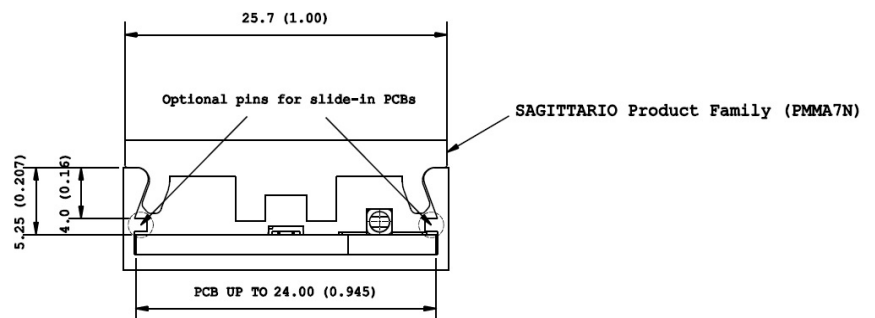
SAGIT/M1/AX/XXXX - Double asymmetric for long distances (max beam angle peak: 27°)



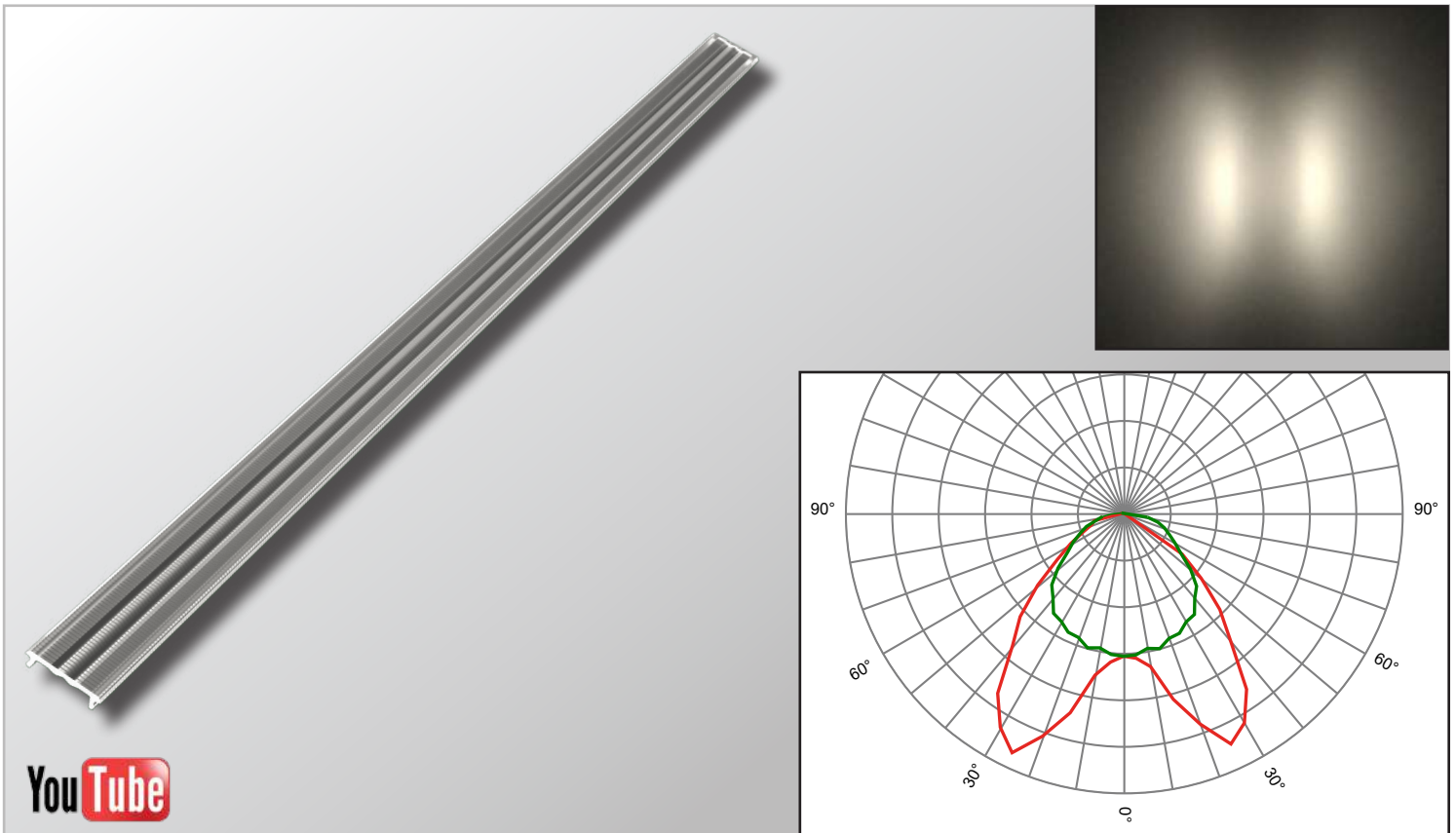
Dimensions	Type of fixing	Material	Beams	LED
Standard dimensions: from (1.220, 1.550, 3.050)mm x 25.70mm Free Pitch *Length customizable	Mechanical snap-in function	PMMA	<ul style="list-style-type: none"> Full angle C0-C180 at 50% from maximum: ~ 86°x90° Full angle C0-C180 at 10% from maximum: ~ 140°x140° 	44 LEDs 560x24mm size, and ~ 2310 Lumen



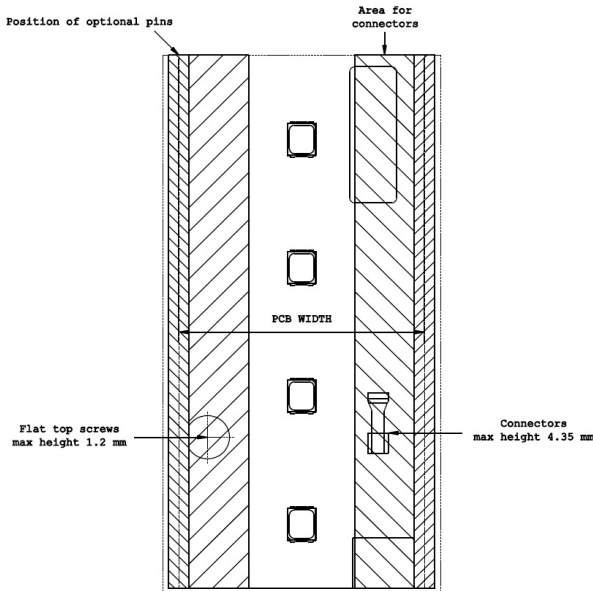
The lens is supplied without the holder.



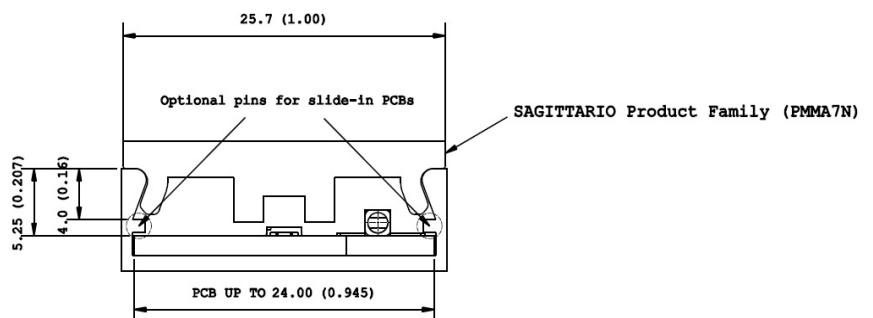
SAGIT/M3/AX/XXXX - Double asymmetric with high uniformity (max beam angle peak: 27°)



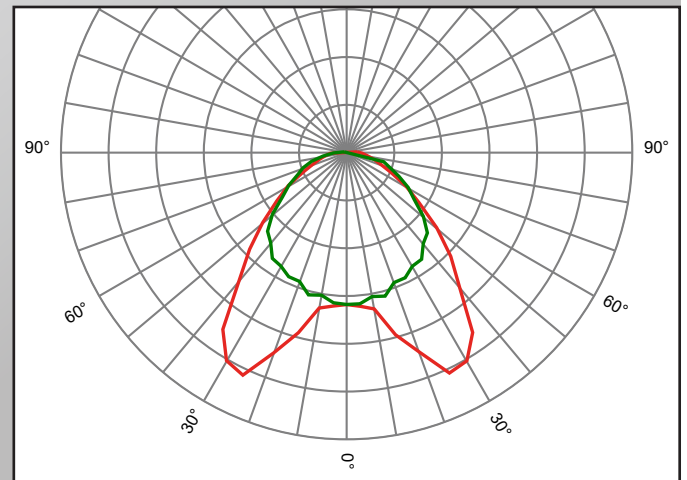
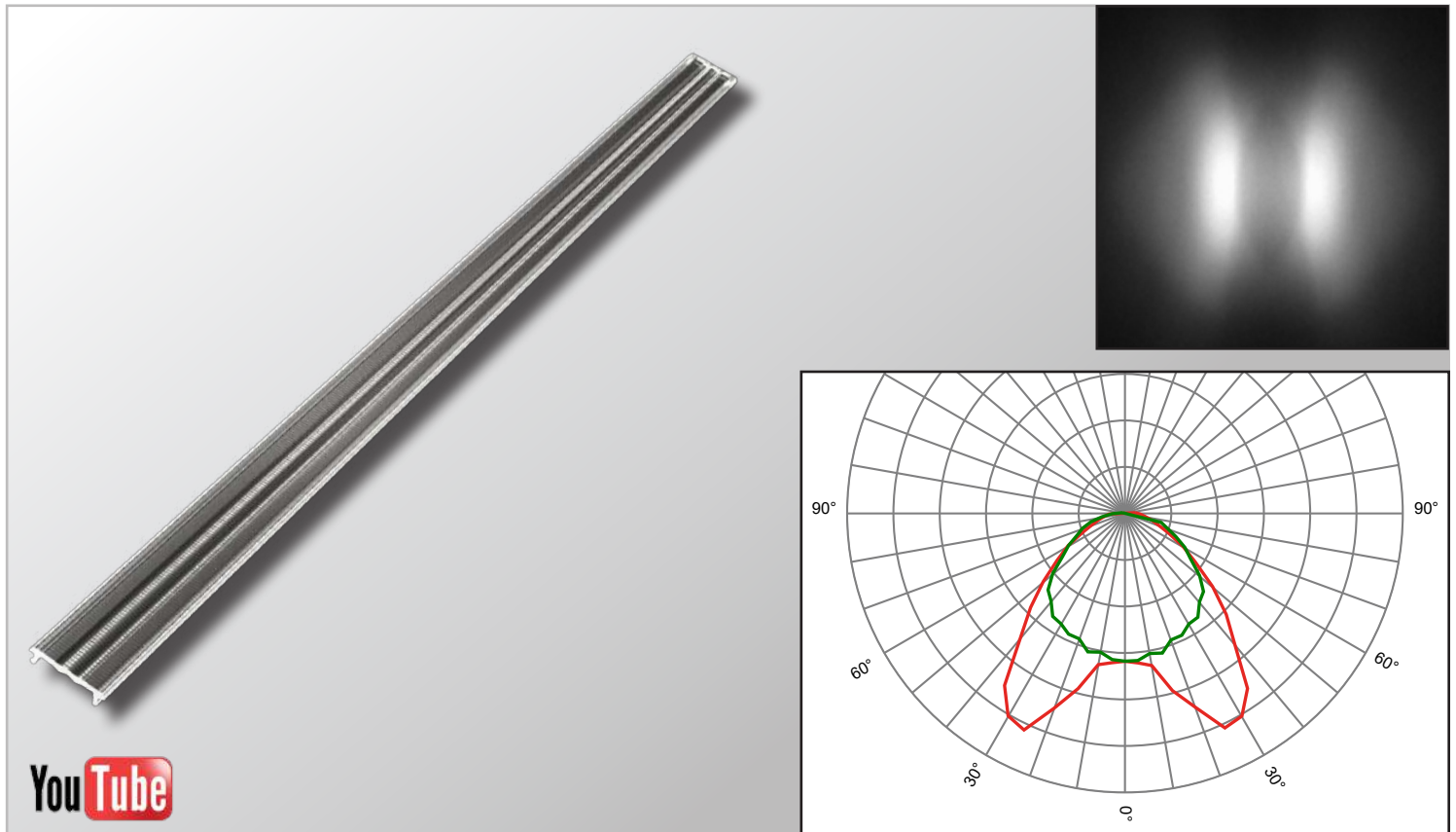
Dimensions	Type of fixing	Material	Beams	LED
Standard dimensions: from (1.220, 1.550, 3.050)mm x 25.70mm Free Pitch *Length customizable	Mechanical snap-in function	PMMA	<ul style="list-style-type: none"> Full angle C0-C180 at 50% from maximum: ~ 90°x90° Full angle C0-C180 at 10% from maximum: ~ 150°x150° 	44 LEDs 560x24mm size, and ~ 2310 Lumen



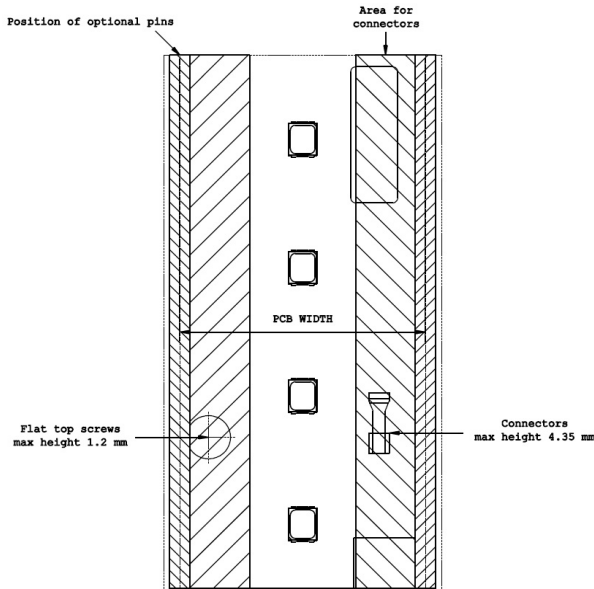
The lens is supplied without the holder.



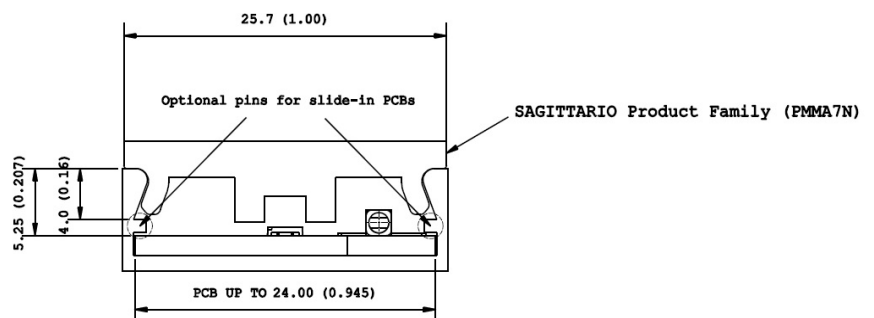
SAGIT/SM/AX/XXXX - Double asymmetric with soft beam



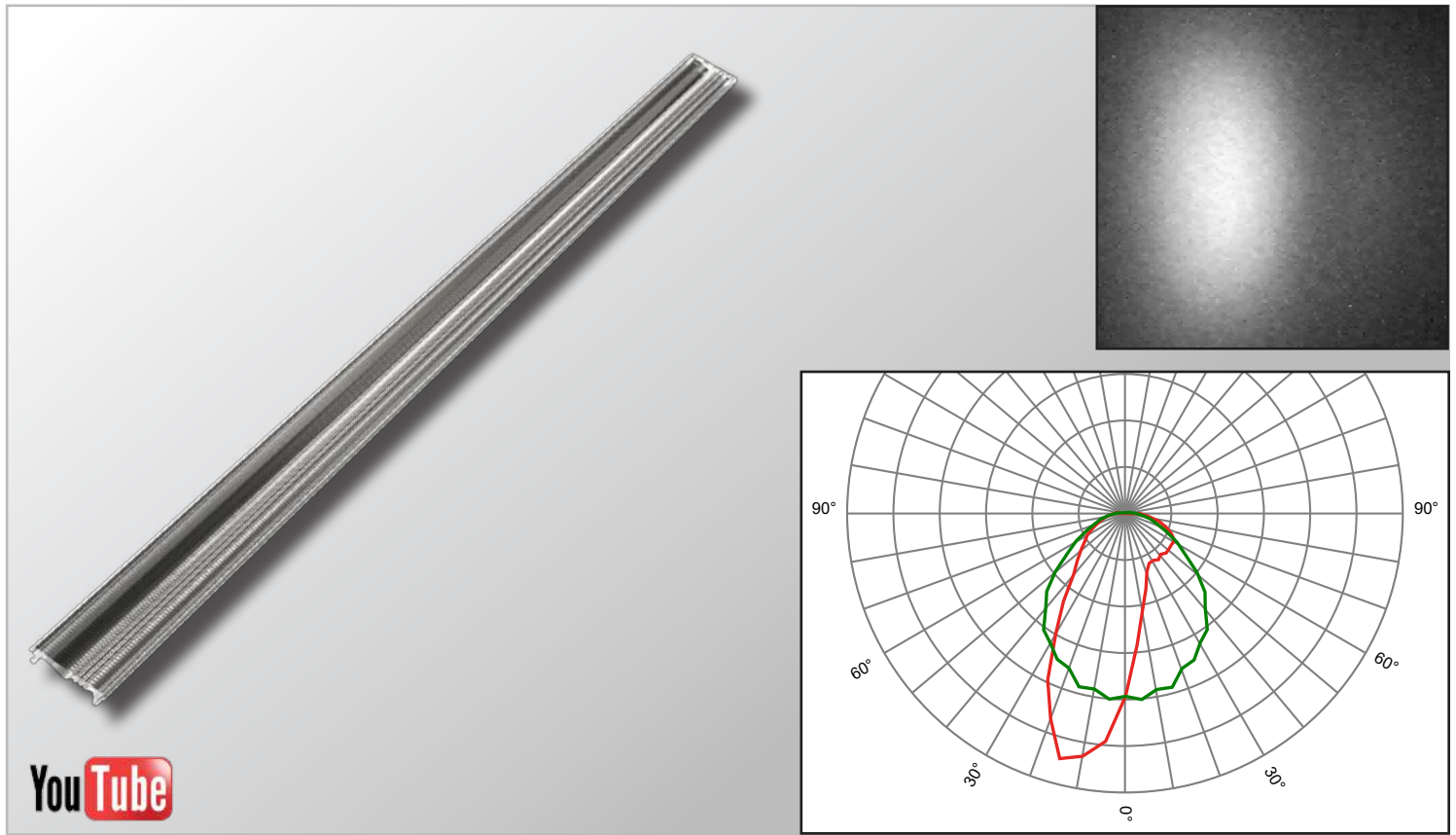
Dimensions	Type of fixing	Material	Beams	LED
Standard dimensions: from (1.220, 1.550, 3.050)mm x 25.70mm Free Pitch *Length customizable	Mechanical snap-in function	PMMA	<ul style="list-style-type: none"> Full angle C0-C180 at 50% from maximum: ~ 90°x90° Full angle C0-C180 at 10% from maximum: ~ 150°x150° 	44 LEDs 560x24mm size, and ~ 2310 Lumen



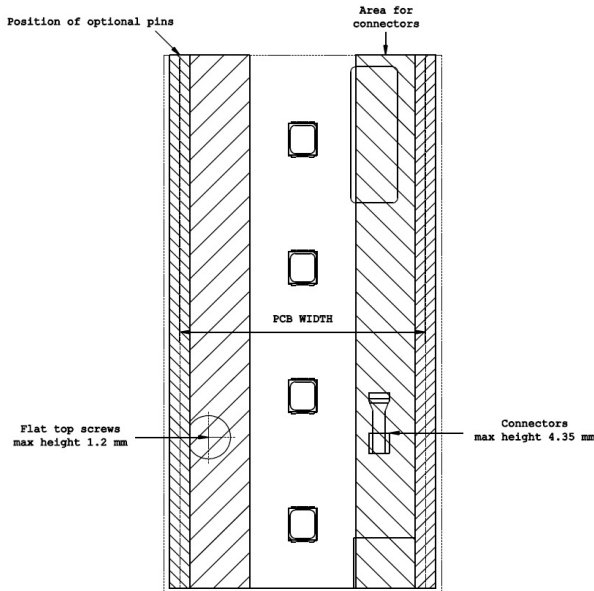
The lens is supplied without the holder.



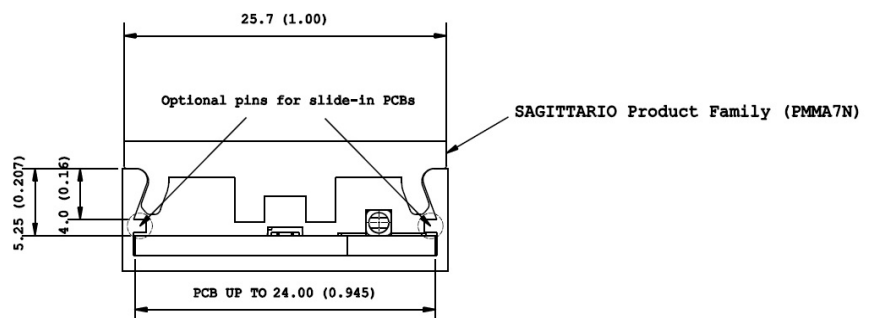
SAGIT/SL/AS/XXXX - Single Asymmetric Wallwasher



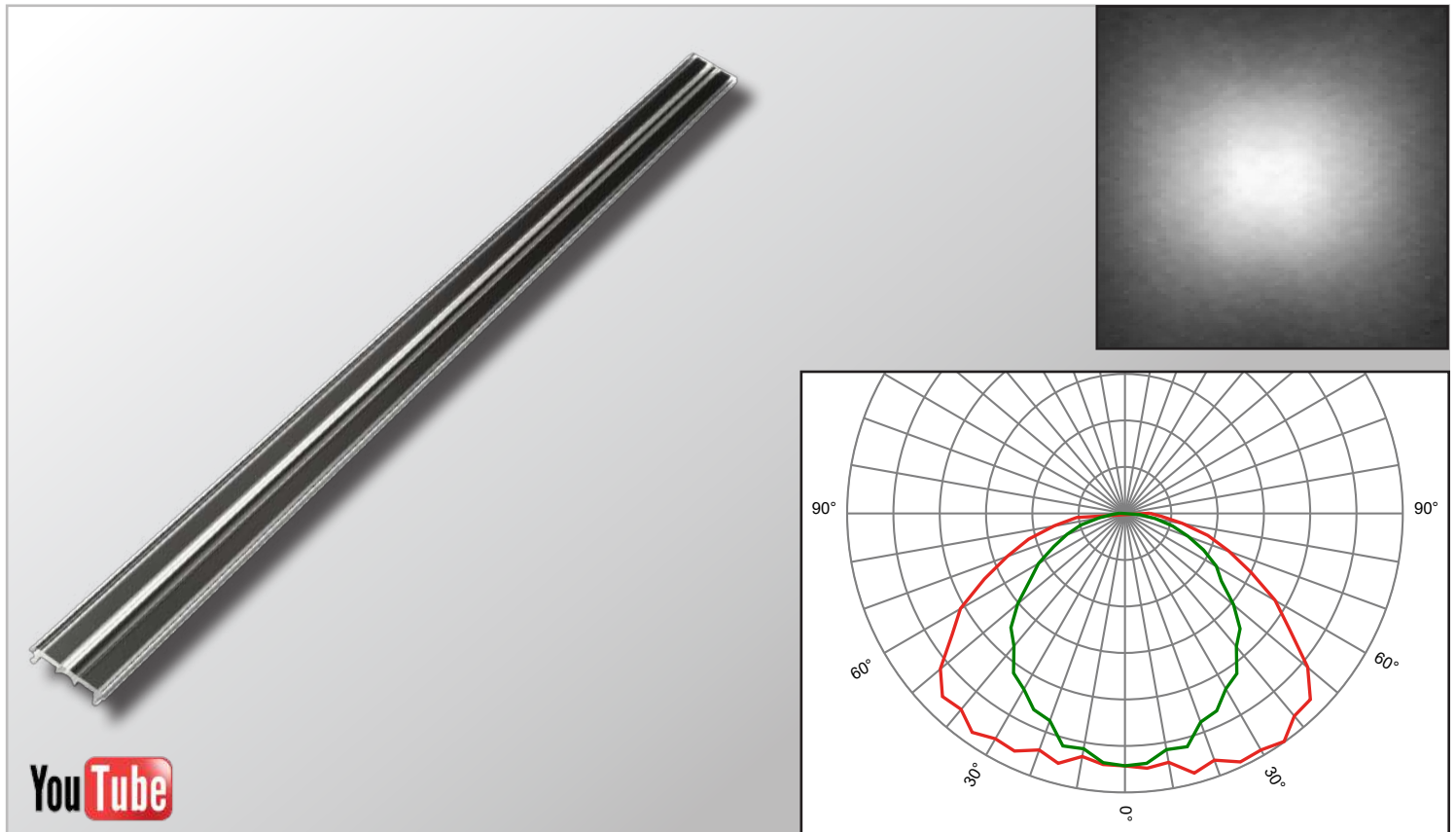
Dimensions	Type of fixing	Material	Beams	LED
Standard dimensions: from (1.220, 1.550, 3.050)mm x 25.70mm Free Pitch *Length customizable	Mechanical snap-in function	PMMA	<ul style="list-style-type: none"> Peak at 15° Cut Off at 60° 	44 LEDs 560x24mm size, and ~ 2310 Lumen



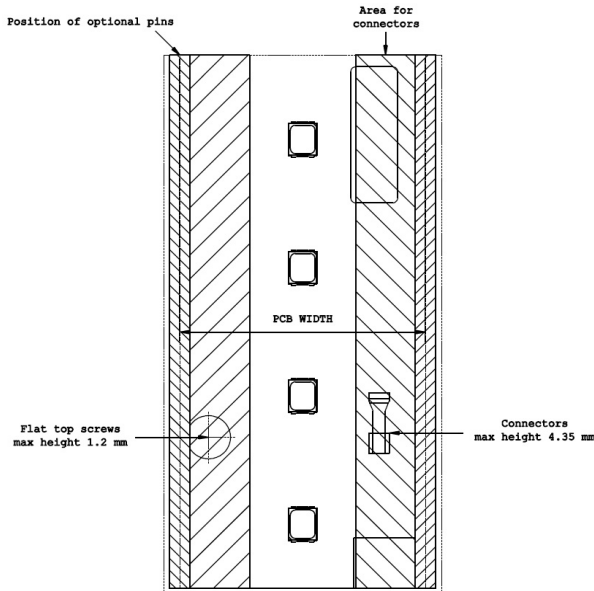
The lens is supplied without the holder.



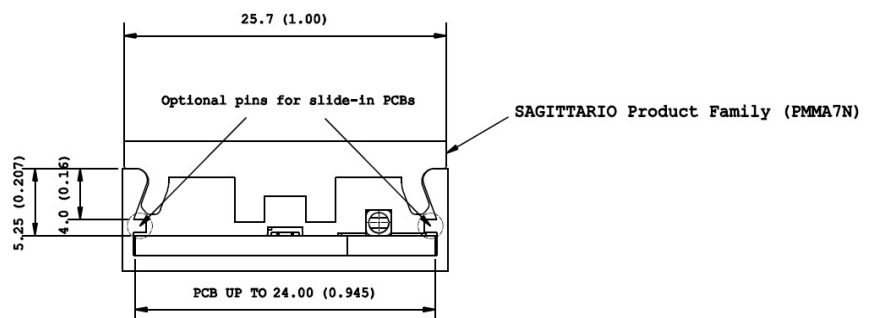
SAGIT/SL/GW/XXXX - Giga Wide Beam - FWHM 140° Up Light



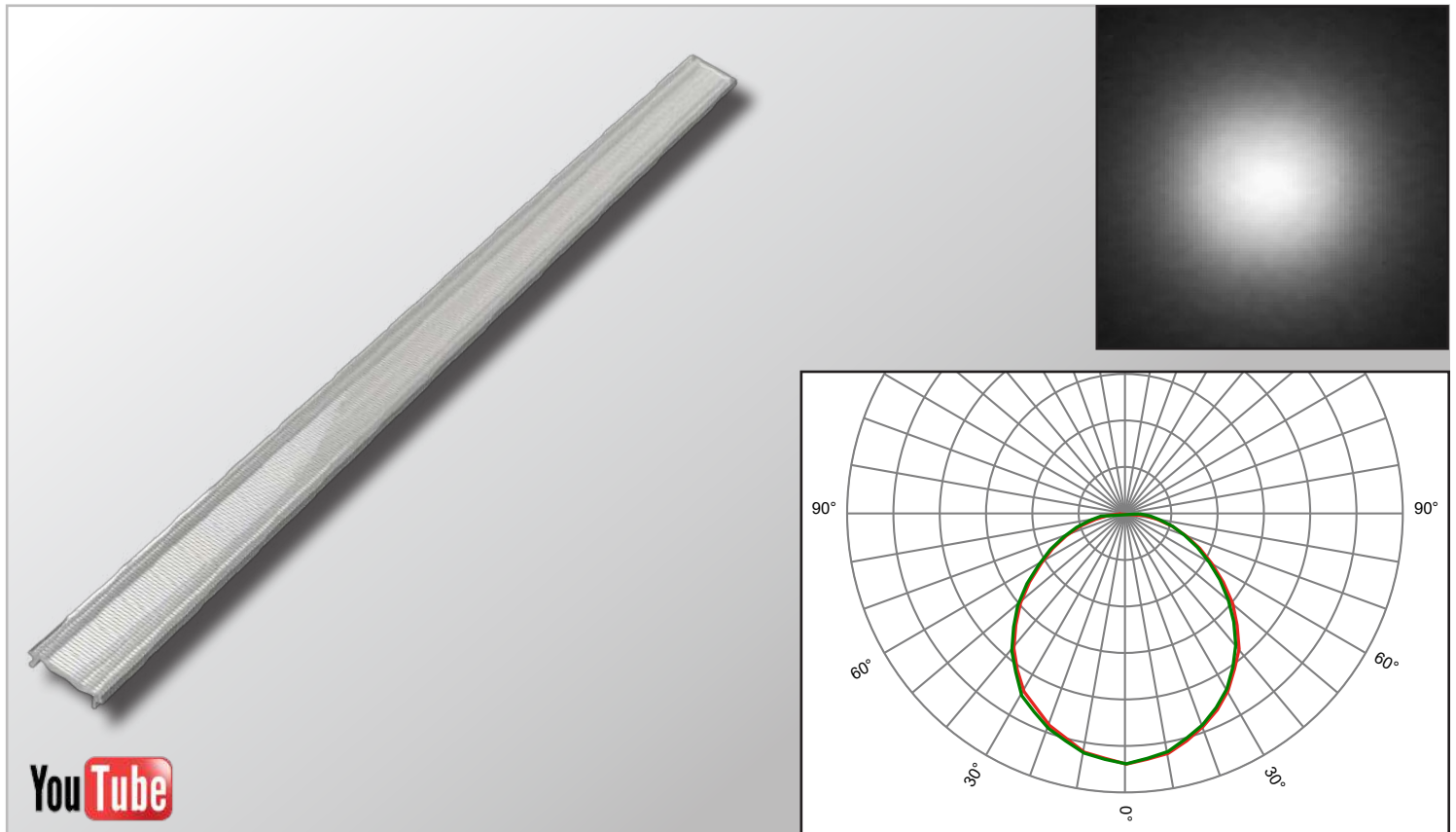
Dimensions	Type of fixing	Material	Beams	LED
Standard dimensions: from (1.220, 1.550, 3.050)mm x 25.70mm Free Pitch *Length customizable	Mechanical snap-in function	PMMA	<ul style="list-style-type: none"> Full angle C0-C180 at 50% from maximum: ~ 140°x90° Full angle C0-C180 at 10% from maximum: ~ 160°x140° 	44 LEDs 560x24mm size, and ~ 2310 Lumen



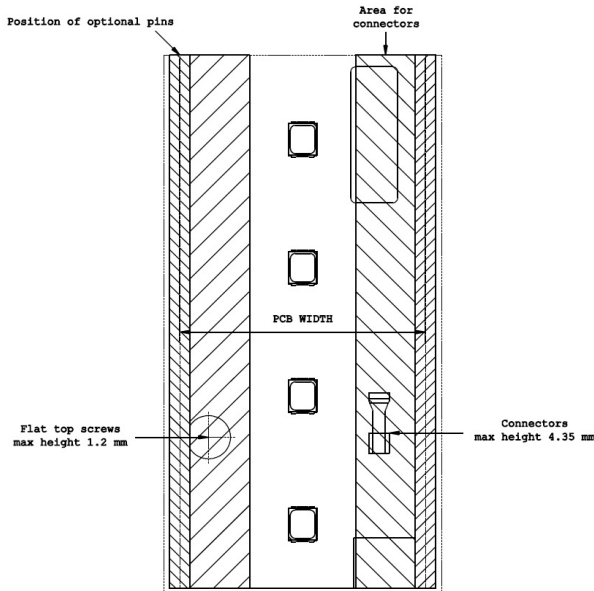
The lens is supplied without the holder.



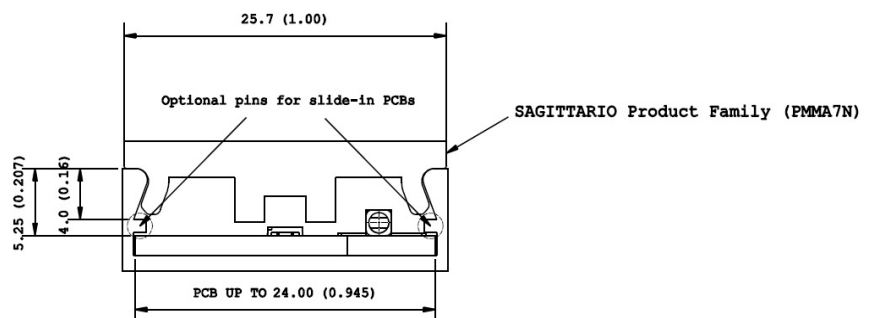
SAGIT/DIF/XXXX - FWHM 120° - High Efficiency Compact Diffusor



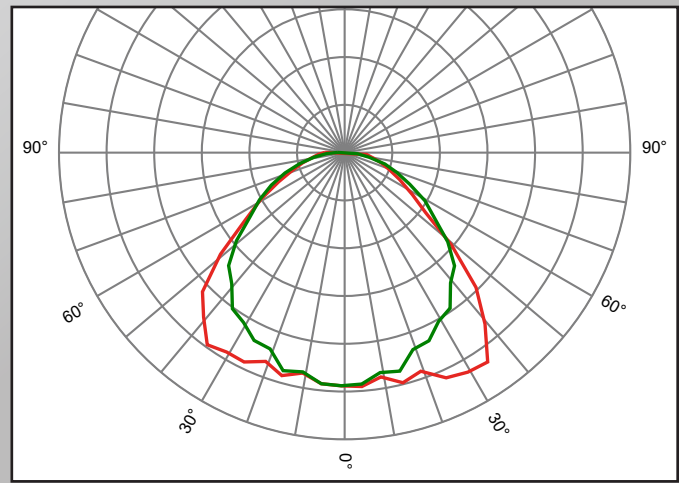
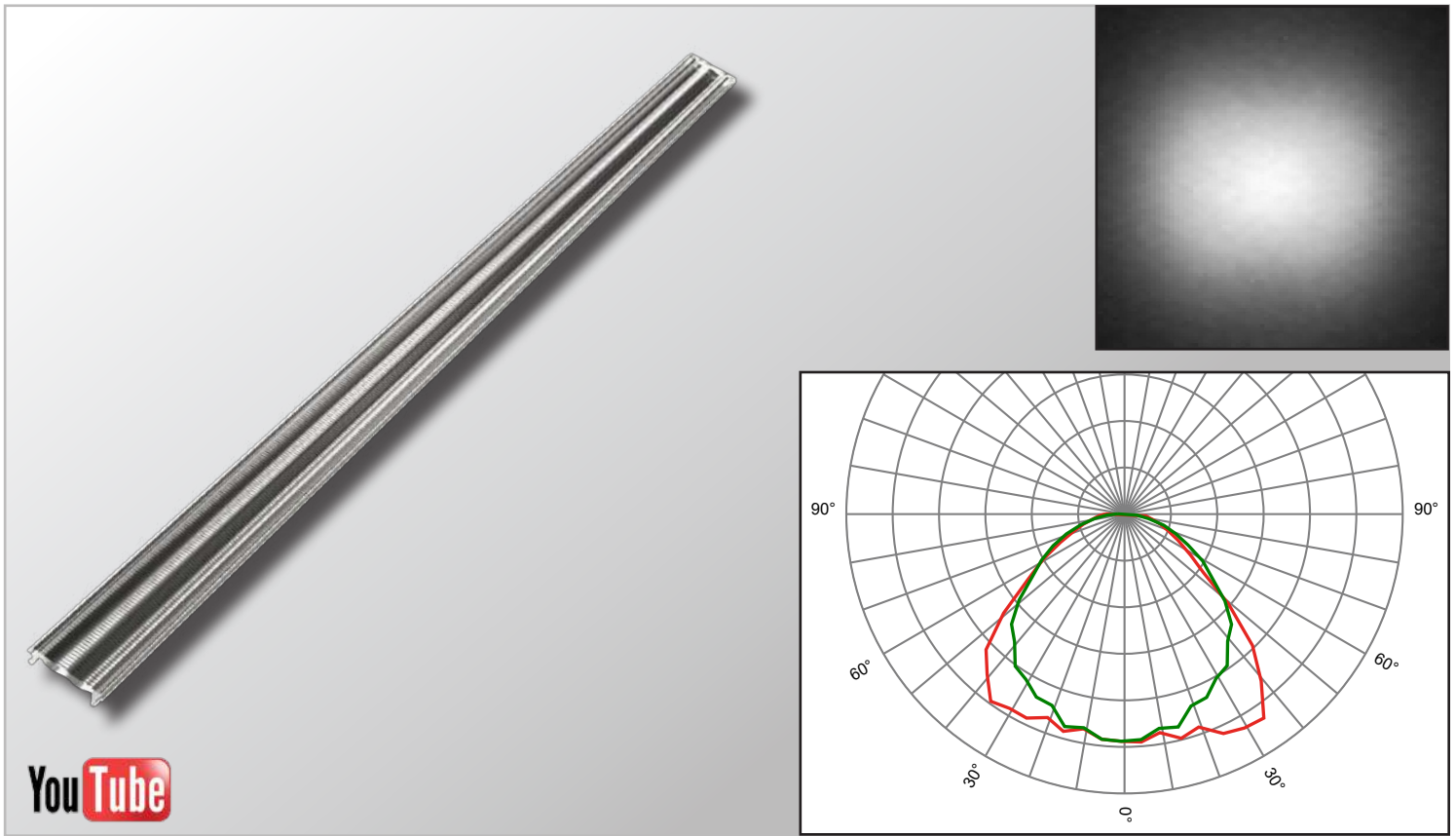
Dimensions	Type of fixing	Material	Beams	LED
Standard dimensions: from (1.220, 1.550, 3.050)mm x 25.70mm Free Pitch *Length customizable	Mechanical snap-in function	PMMA	<ul style="list-style-type: none"> Full angle C0-C180 at 50% from maximum: ~ 120°x120° Full angle C0-C180 at 10% from maximum: ~ 140°x140° 	44 LEDs 560x24mm size, and ~ 2310 Lumen



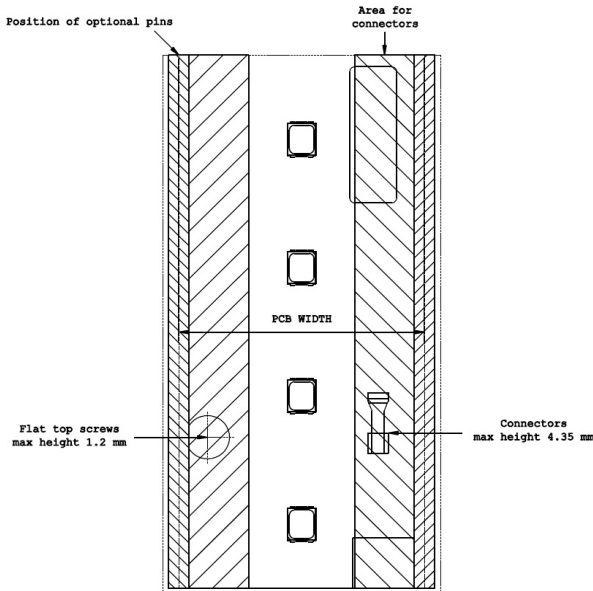
The lens is supplied without the holder.



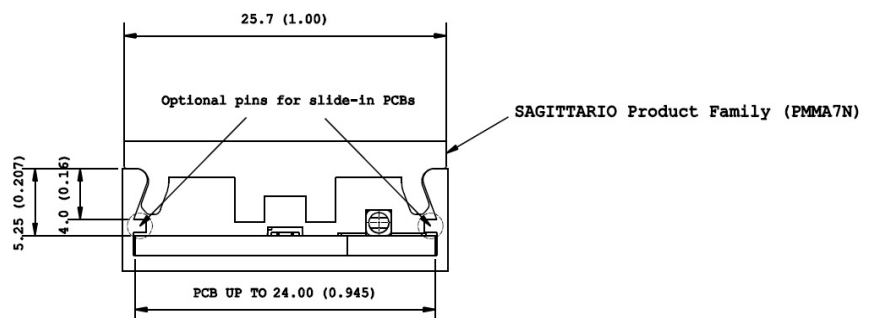
SAGIT/SL/MW/XXXX - Mega Wide - FWHM 110°



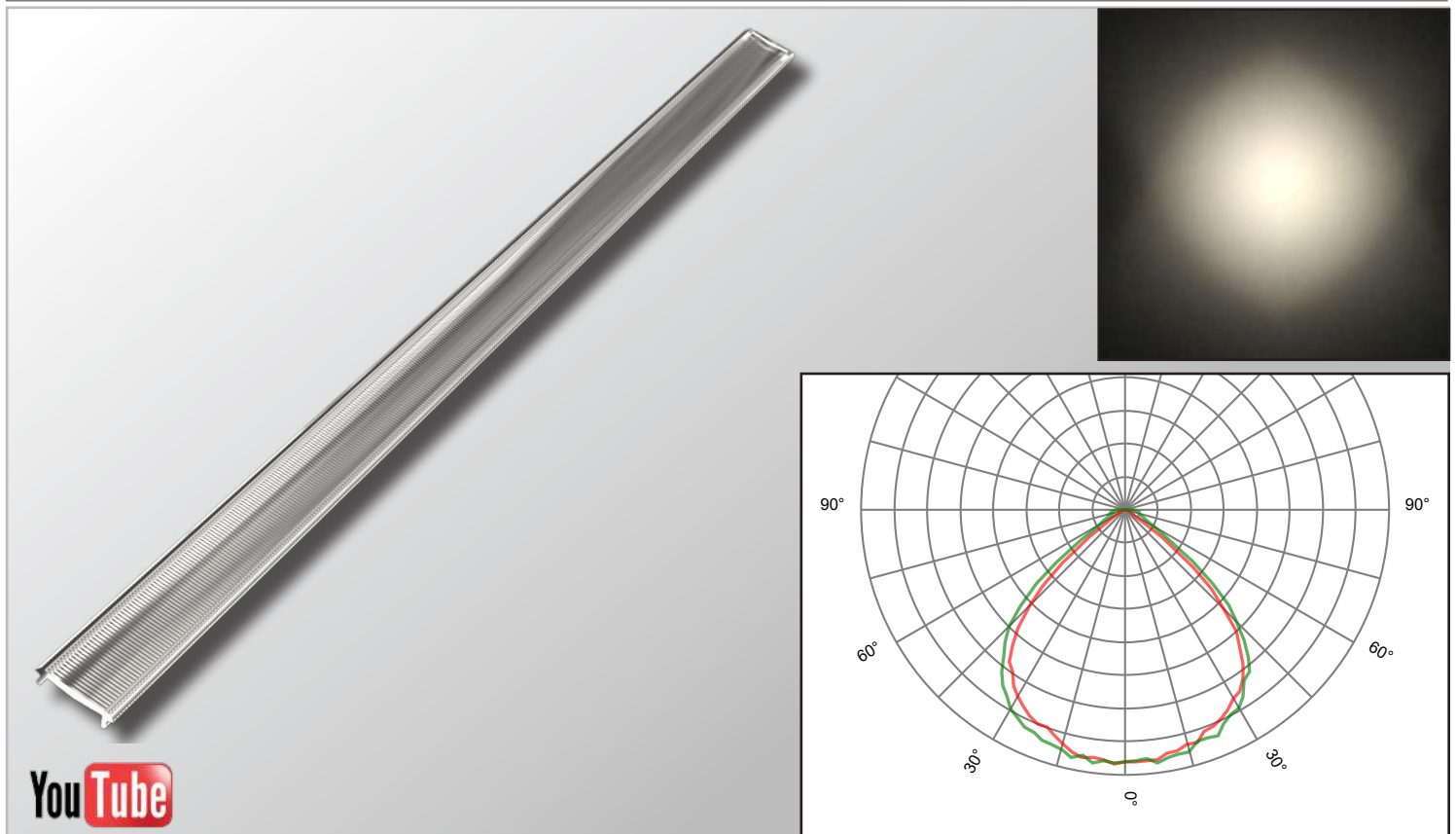
Dimensions	Type of fixing	Material	Beams	LED
Standard dimensions: from (1.220, 1.550, 3.050)mm x 25.70mm Free Pitch *Length customizable	Mechanical snap-in function	PMMA	<ul style="list-style-type: none"> Full angle C0-C180 at 50% from maximum: ~ 110°x100° Full angle C0-C180 at 10% from maximum: ~ 120°x120° 	44 LEDs 560x24mm size, and ~ 2310 Lumen



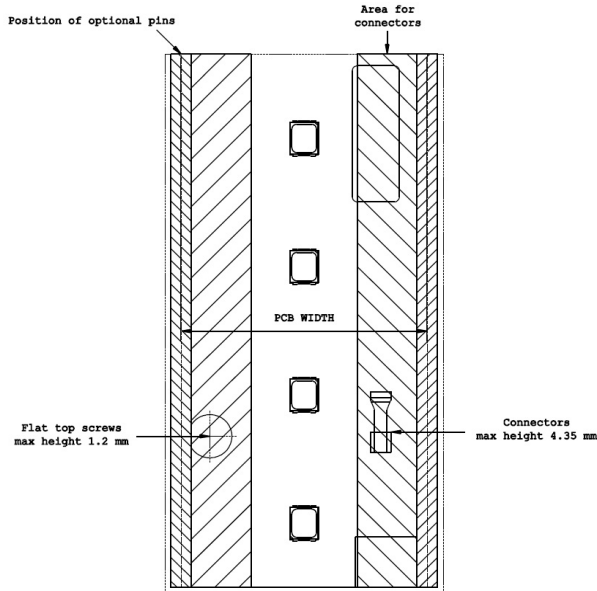
The lens is supplied without the holder.



SAGIT/M1/UW/XXXX - FWHM 90° - *96% efficiency

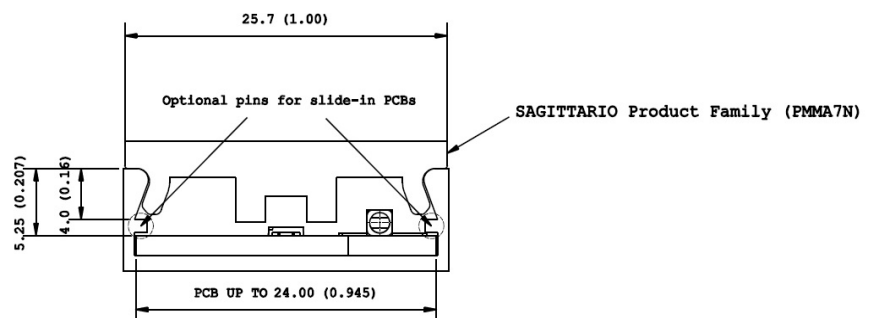


Dimensions	Type of fixing	Material	Beams	LED
Standard dimensions: from (1.220, 1.550, 3.050)mm x 25.70mm Free Pitch *Length customizable	Mechanical snap-in function	PMMA	<ul style="list-style-type: none"> Full angle C0-C180 at 50% from maximum: ~ 90°x110° Full angle C0-C180 at 10% from maximum: ~ 140°x150° 	44 LEDs 560x24mm size, and ~ 2310 Lumen

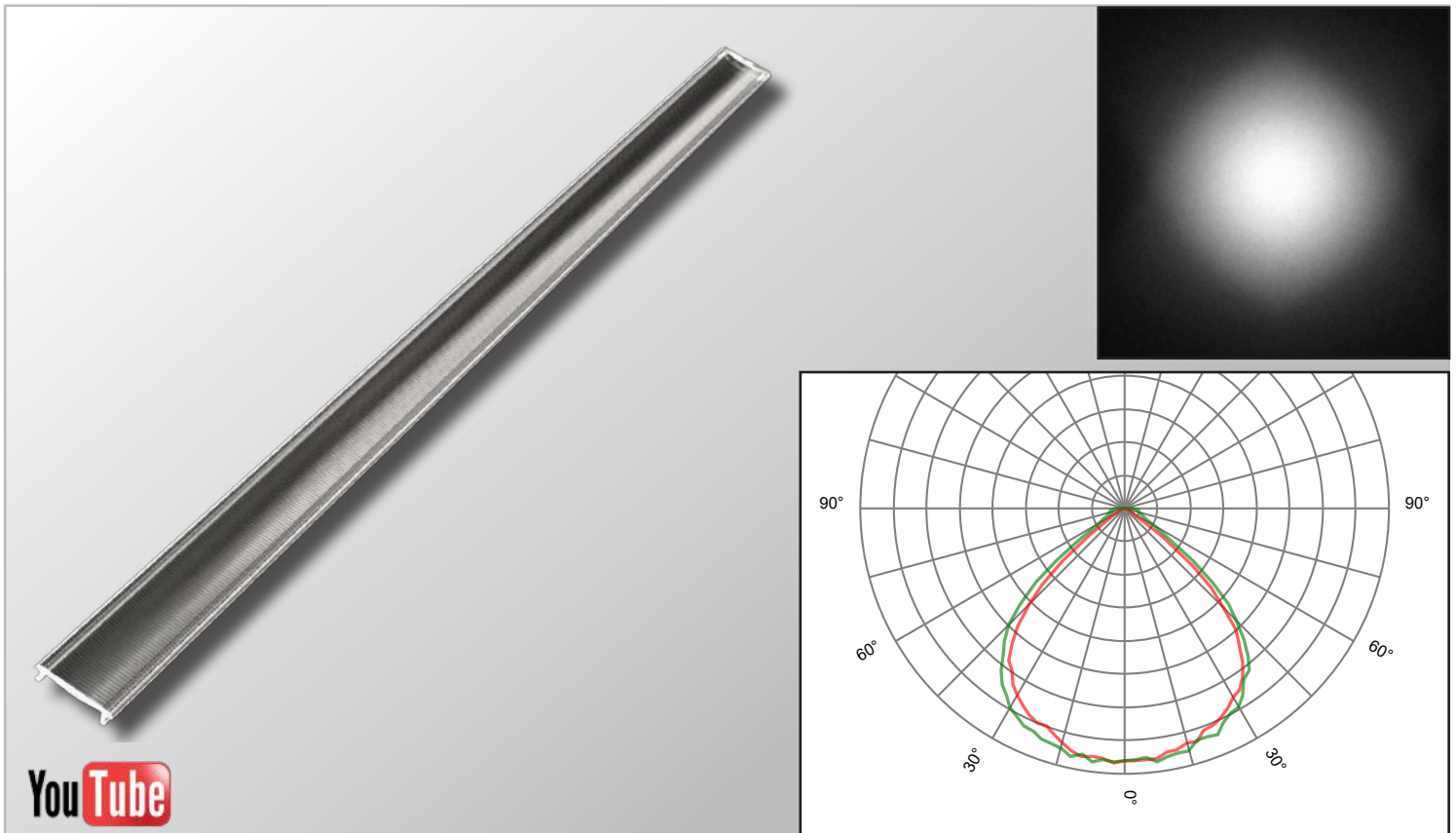


*measured with KESAGITTARIO Holder, efficiency is relative to the system LED modules + mechanical holder

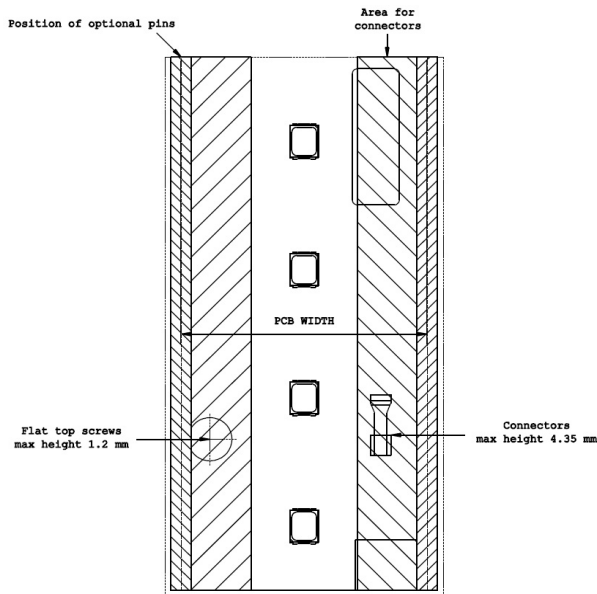
The lens is supplied without the holder.



SAGIT/SM/UW/XXXX - Ultra Wide - FWHM 90° - High Uniformity

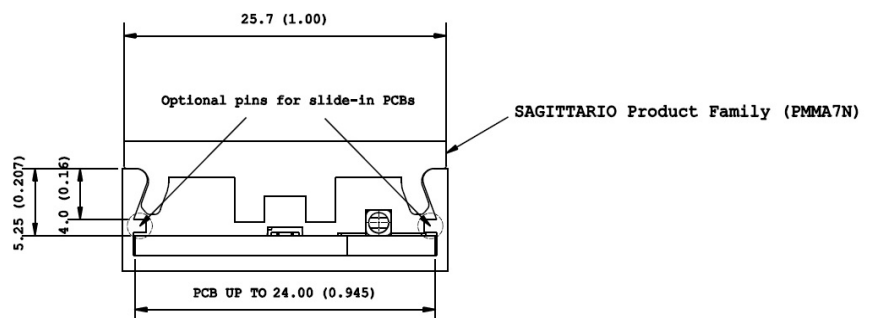


Dimensions	Type of fixing	Material	Beams	LED
Standard dimensions: from (1.220, 1.550, 3.050)mm x 25.70mm Free Pitch *Length customizable	Mechanical snap-in function	PMMA	<ul style="list-style-type: none"> Full angle C0-C180 at 50% from maximum: ~ 90°x110° Full angle C0-C180 at 10% from maximum: ~ 140°x150° 	44 LEDs 560x24mm size, and ~ 2310 Lumen

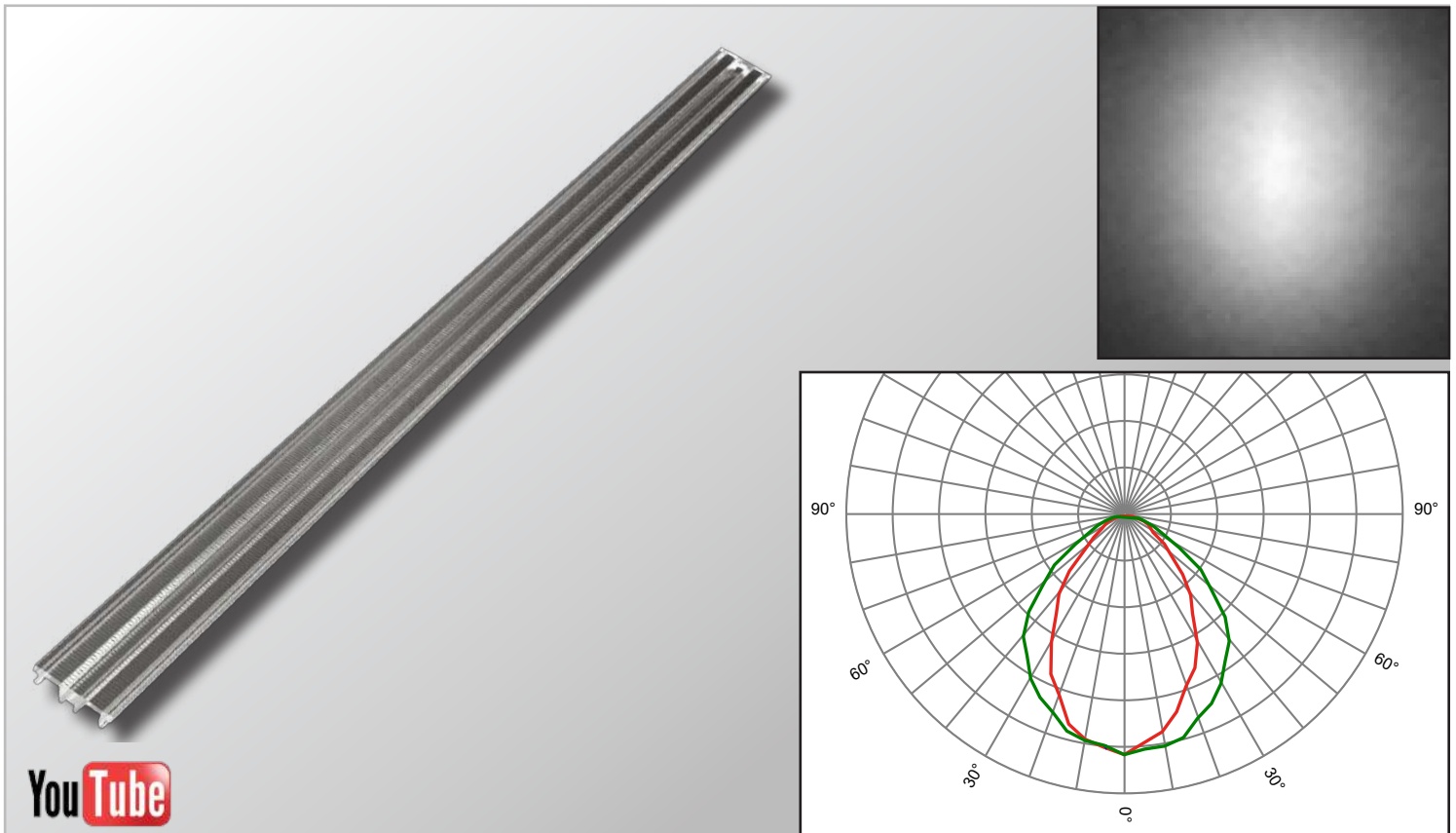


*measured with KESAGITTARIO Holder, efficiency is relative to the system LED modules + mechanical holder

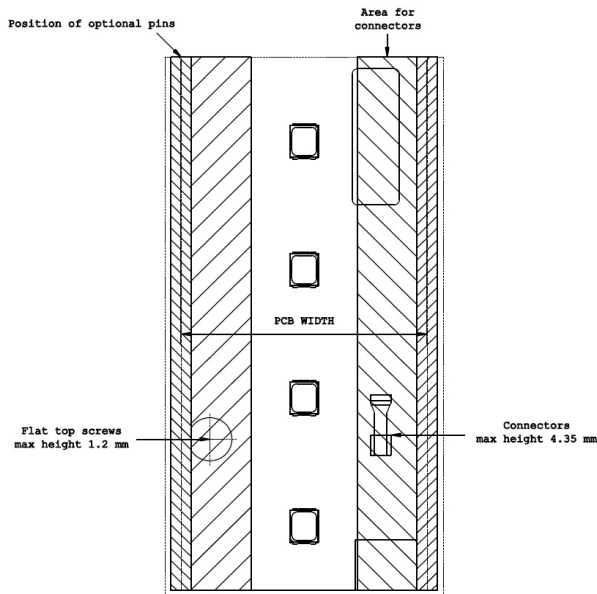
The lens is supplied without the holder.



SAGIT/M1/W7/XXXX - Wide - FWHM 70°

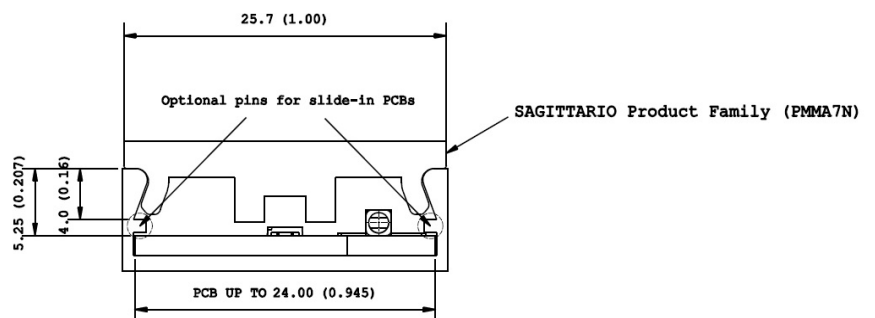


Dimensions	Type of fixing	Material	Beams	LED
Standard dimensions: from (1.220, 1.550, 3.050)mm x 25.70mm Free Pitch *Length customizable	Mechanical snap-in function	PMMA	<ul style="list-style-type: none"> Full angle C0-C180 at 50% from maximum: ~ 70°x100° Full angle C0-C180 at 10% from maximum: ~ 100°x120° 	44 LEDs 560x24mm size, and ~ 2310 Lumen



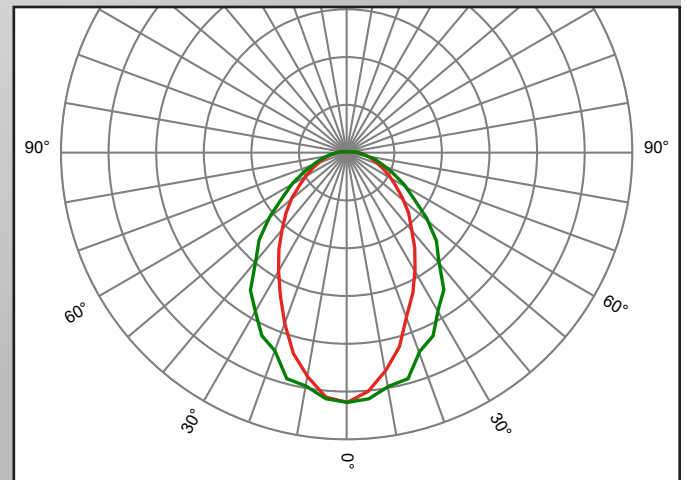
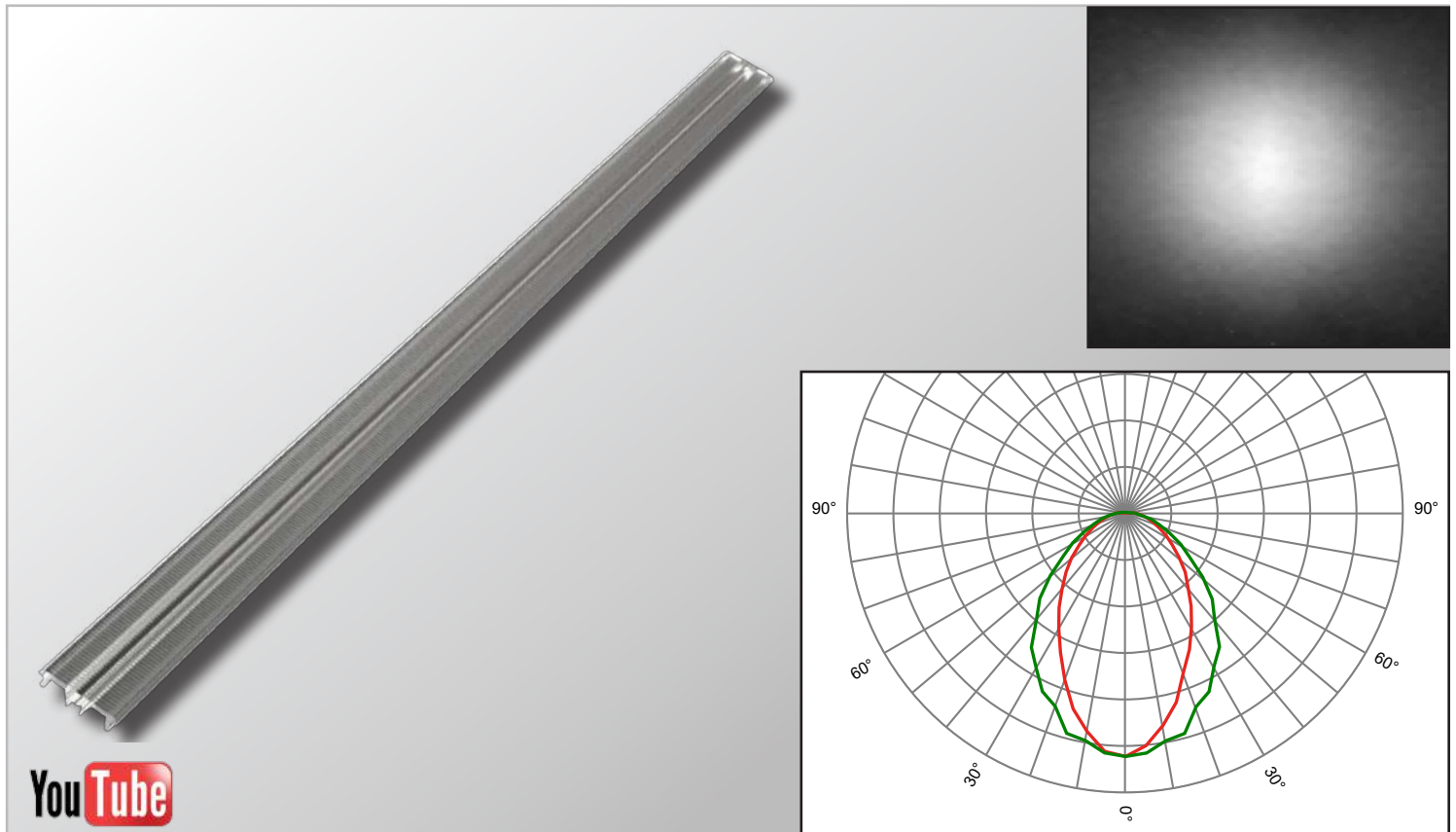
*measured with KESAGITTARIO Holder, efficiency is relative to the system LED modules + mechanical holder

The lens is supplied without the holder.

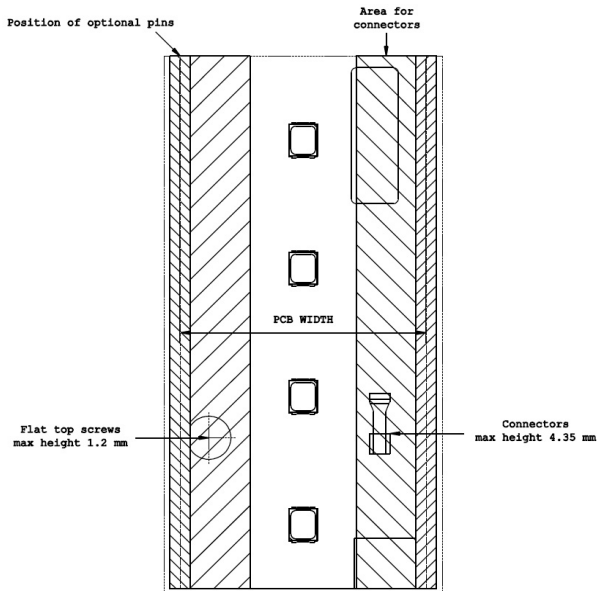


Technical Datasheet

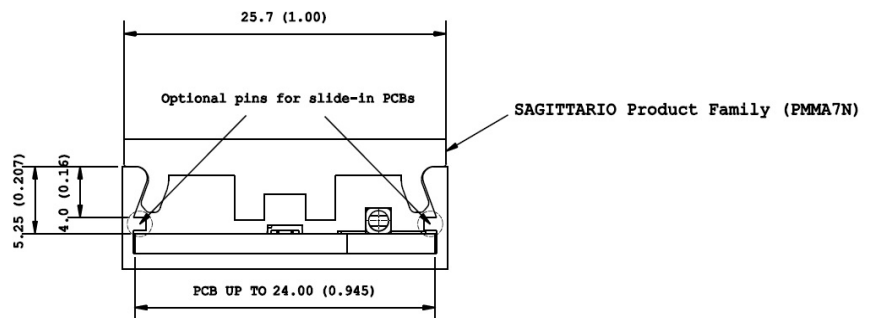
SAGIT/M3/EW/XXXX - Extra Wide - FWHM 60° - Low Glare



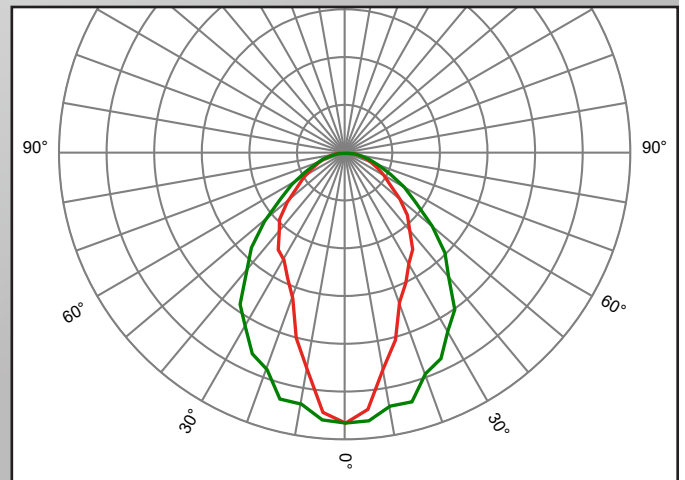
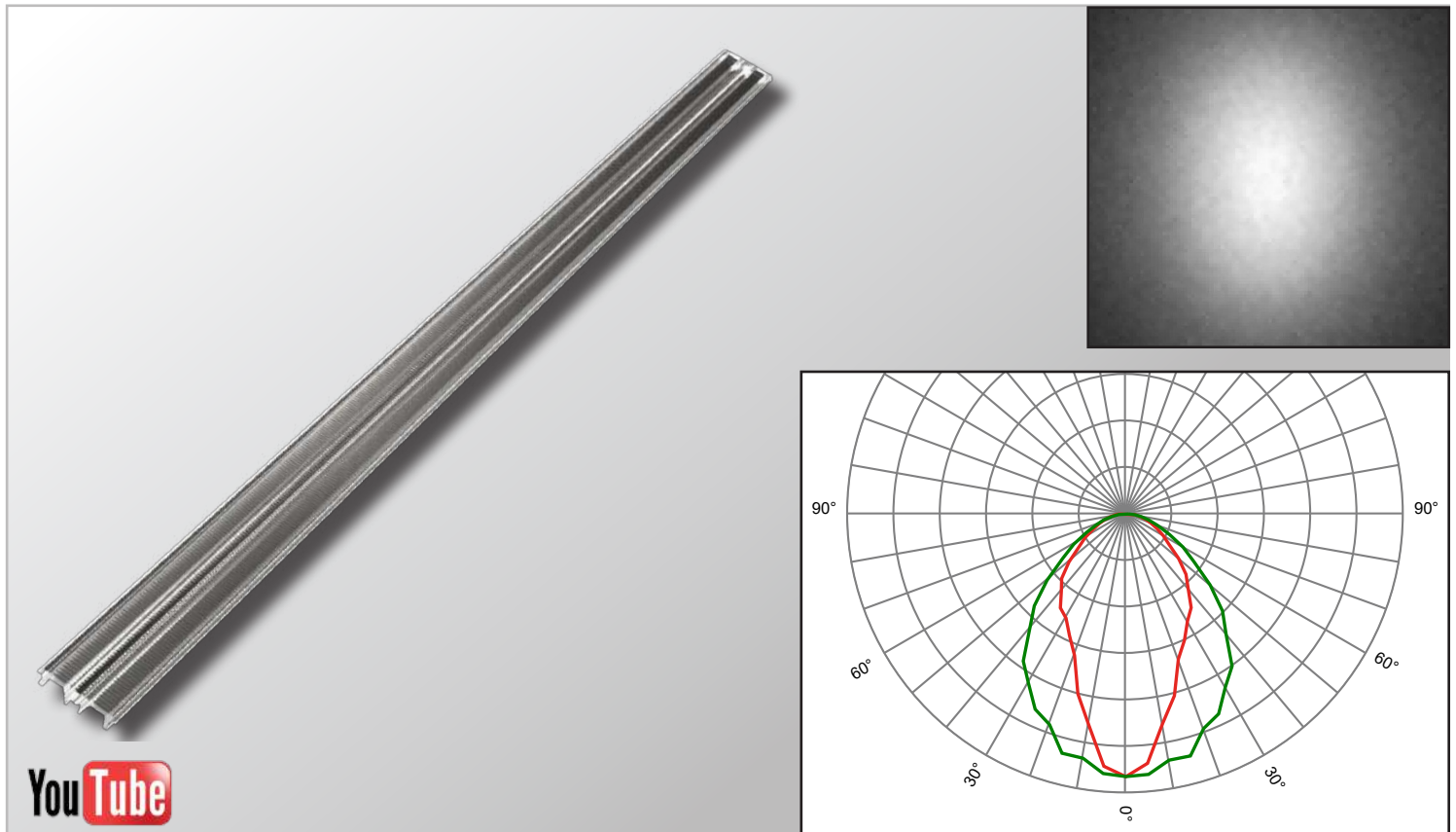
Dimensions	Type of fixing	Material	Beams	LED
Standard dimensions: from (1.220, 1.550, 3.050)mm x 25.70mm Free Pitch *Length customizable	Mechanical snap-in function	PMMA	<ul style="list-style-type: none"> Full angle C0-C180 at 50% from maximum: ~ 60°x80° Full angle C0-C180 at 10% from maximum: ~ 110°x110° 	44 LEDs 560x24mm size, and ~ 2310 Lumen



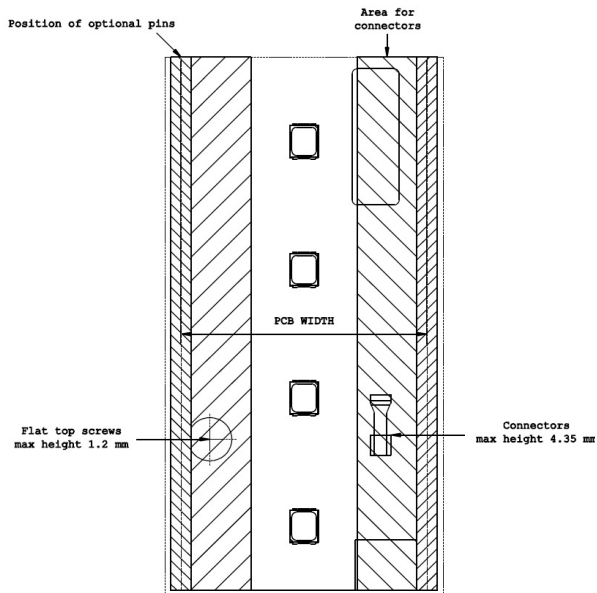
The lens is supplied without the holder.



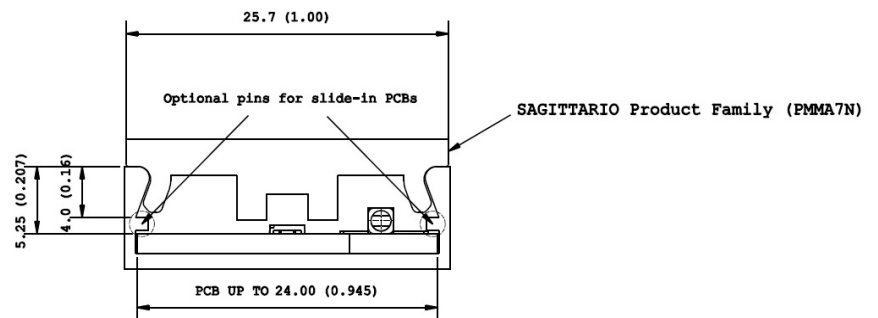
SAGIT/M1/WI/XXXX - Wide - FWHM 45°



Dimensions	Type of fixing	Material	Beams	LED
Standard dimensions: from (1.220, 1.550, 3.050)mm x 25.70mm Free Pitch *Length customizable	Mechanical snap-in function	PMMA	<ul style="list-style-type: none"> Full angle C0-C180 at 50% from maximum: ~ 45°x80° Full angle C0-C180 at 10% from maximum: ~ 100°x120° 	44 LEDs 560x24mm size, and ~ 2310 Lumen



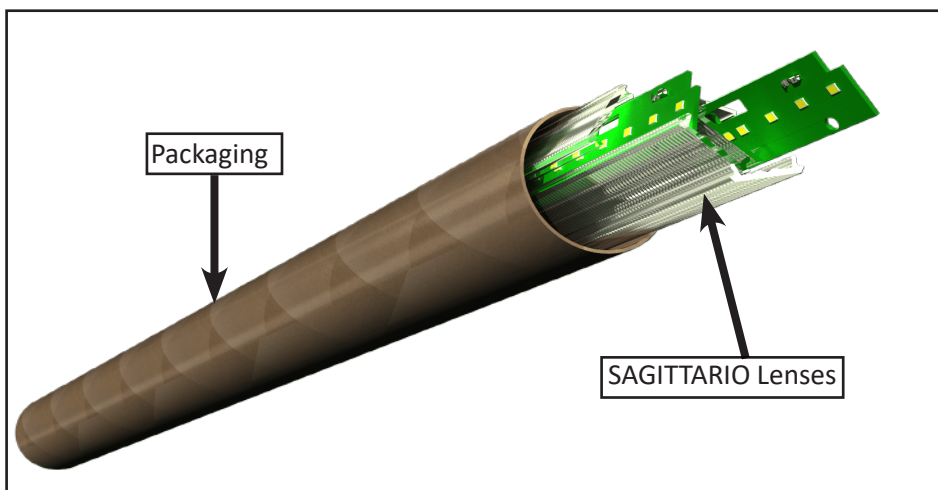
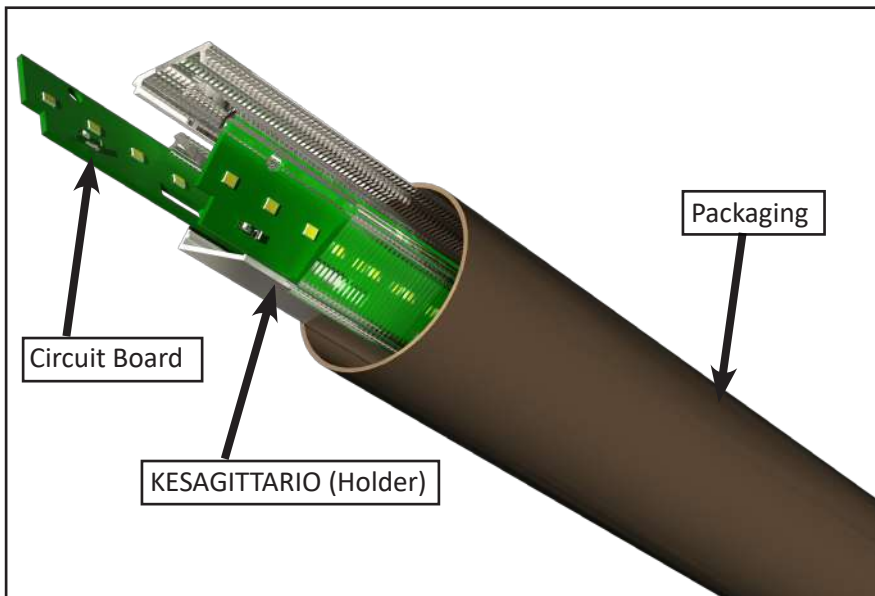
The lens is supplied without the holder.



Sample Kit - Full Kit

Sample Kit available with:

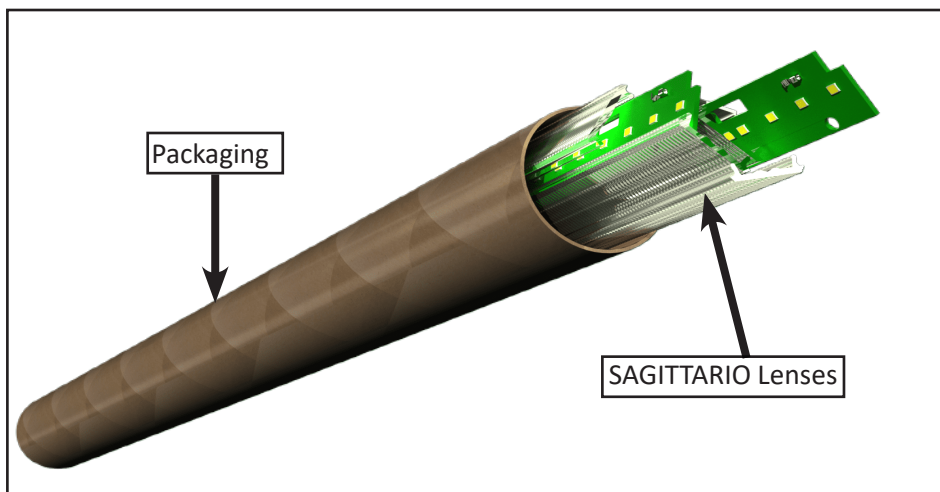
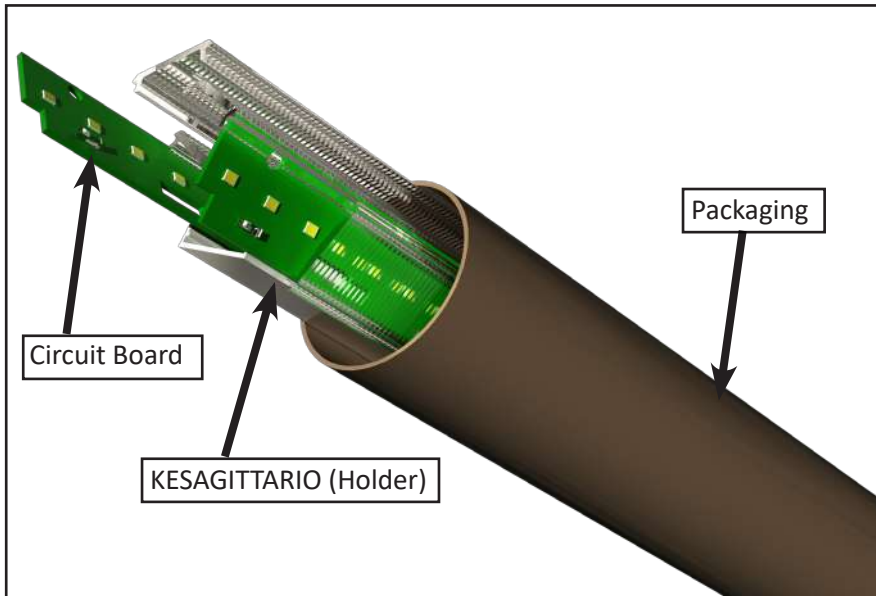
- SAGIT/M1/AX/0565 – Double asymmetric for long distances. 1 piece L= 565 mm
- SAGIT/M3/AX/0565 – Double asymmetric with high uniformity. 1 piece L= 565 mm
- SAGIT/SM/AX/0565 – Double asymmetric with soft beam. 1 piece L= 565 mm
- SAGIT/SL/AS/0565 – Single Asymmetric Wallwasher. 1 piece L= 565 mm
- SAGIT/SL/GW/0565 – Giga Wide Beam - FWHM 140° Up Light. 1 piece L= 565 mm
- SAGIT/DIF/0565 – FWHM 120° - High Efficiency Compact Diffusor. 1 piece L= 565 mm
- SAGIT/SL/MW/0565 – Mega Wide - FWHM 110°. 1 piece L= 565 mm
- SAGIT/M1/UW/0565 – Ultra Wide - FWHM 90° - 96% efficiency. 1 piece L= 565 mm
- SAGIT/SM/UW/0565 – Ultra Wide - FWHM 90° - High Uniformity. 1 piece L= 565 mm
- SAGIT/M1/W7/0565 – Wide - FWHM 70°. 1 piece L= 565 mm
- SAGIT/M3/EW/0565 – Extra Wide - FWHM 60° - Low Glare. 1 piece L= 565 mm
- SAGIT/M1/WI/0565 – Wide - FWHM 45°. 1 piece L= 565 mm
- KESAGITTARIO – Polycarbonate holder for trials. 1 piece L= 565 mm
- KFP58 – LED module with 44 pcs of SAMSUNG LM301B. 1 piece L= 560 mm
- KFP59 - LED module with 44 pcs of SAMSUNG LM281B+. 1 piece L= 560 mm



Sample Kit - Kit for Supermarket & Retail Applications

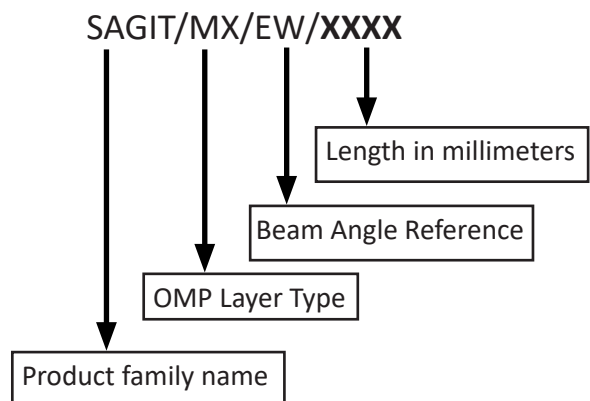
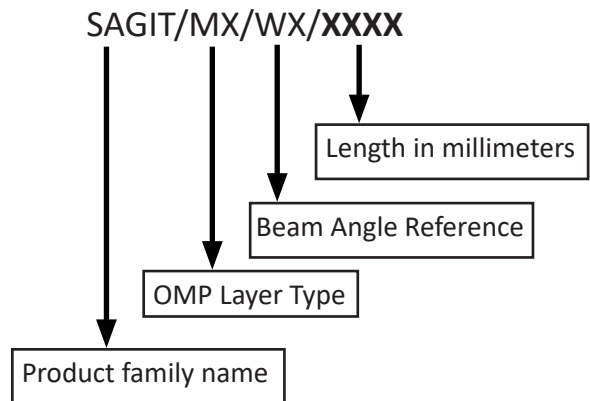
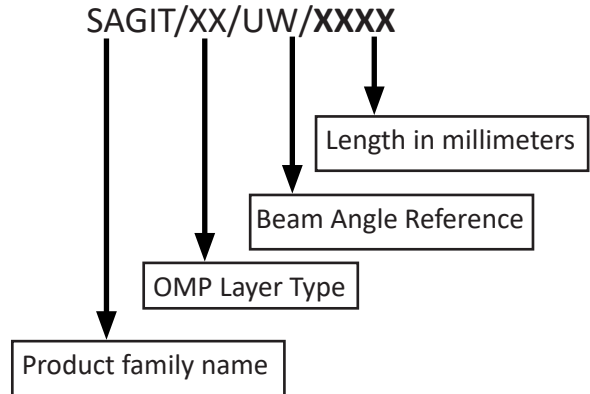
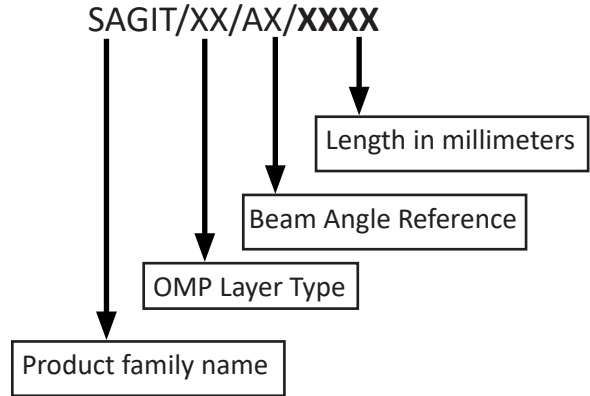
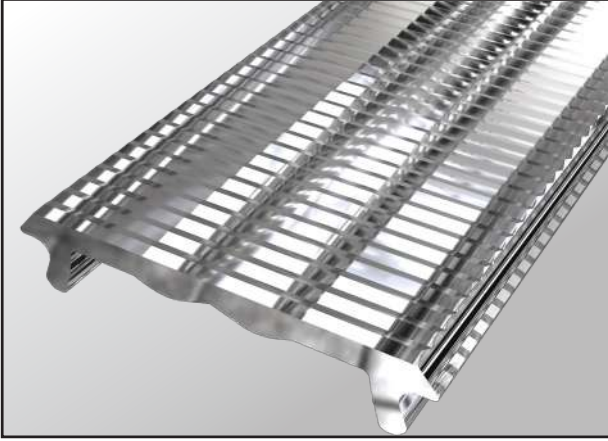
Sample Kit available with:

- SAGIT/M3/AX/0565 – Double asymmetric with high uniformity. 1 piece L= 565 mm
- SAGIT/SM/AX/0565 – Double asymmetric with soft beam. 1 piece L= 565 mm
- SAGIT/SL/AS/0565 – Single Asymmetric Wallwasher. 1 piece L= 565 mm
- SAGIT/SM/UW/0565 – Ultra Wide - FWHM 90° - High Uniformity. 1 piece L= 565 mm
- SAGIT/M3/EW/0565 – Extra Wide - FWHM 60° - Low Glare. 1 piece L= 565 mm
- SAGIT/M1/WI/0565 – Wide - FWHM 45°. 1 piece L= 565 mm
- KESAGITTARIO – Polycarbonate holder for trials. 1 piece L= 565 mm
- KFP58 – LED module with 44 pcs of SAMSUNG LM301B. 1 piece L= 560 mm
- KFP59 - LED module with 44 pcs of SAMSUNG LM281B+. 1 piece L= 560 mm

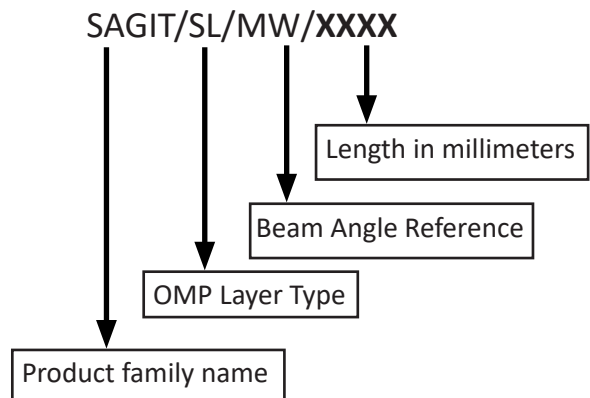
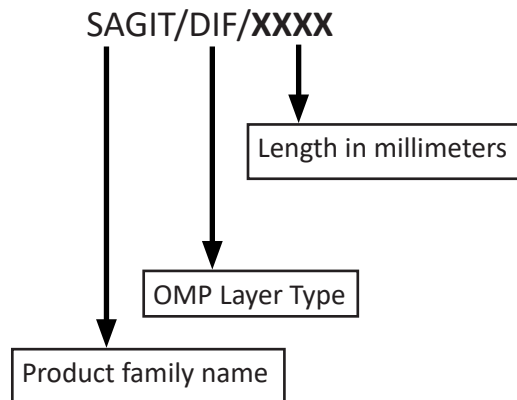
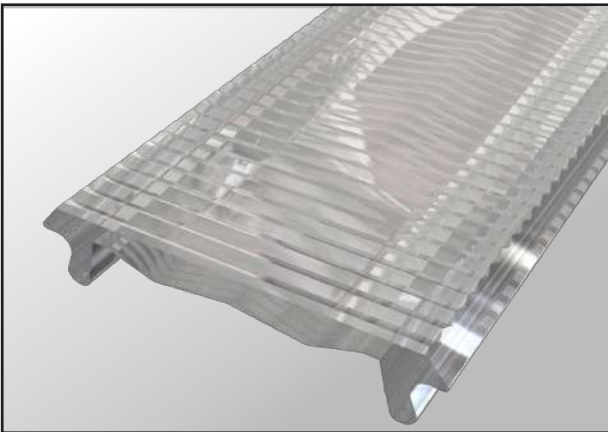
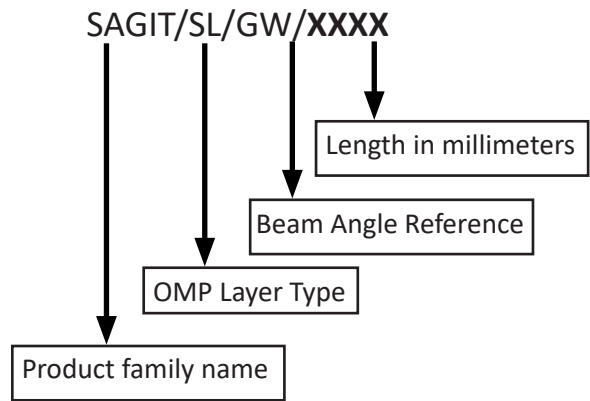
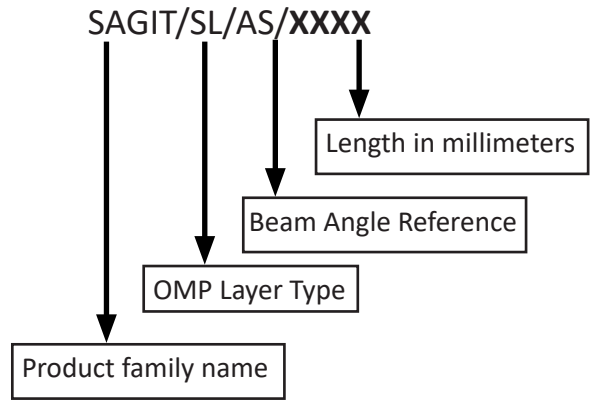


SAGITTARIO – Guidelines for product coding

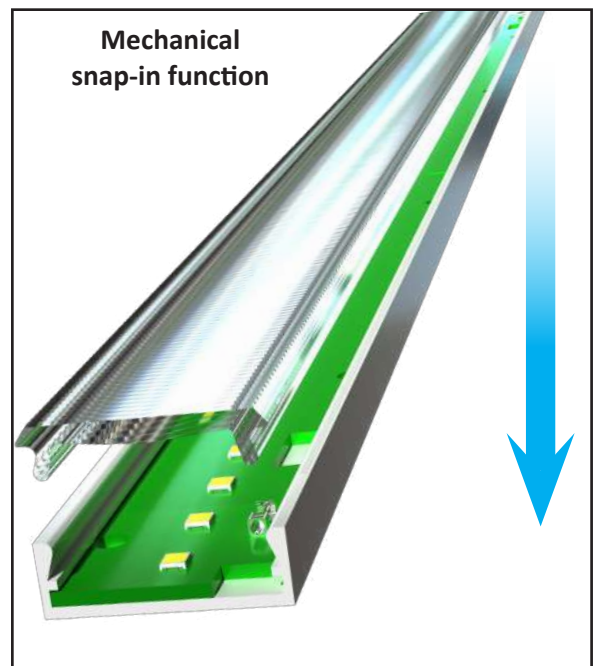
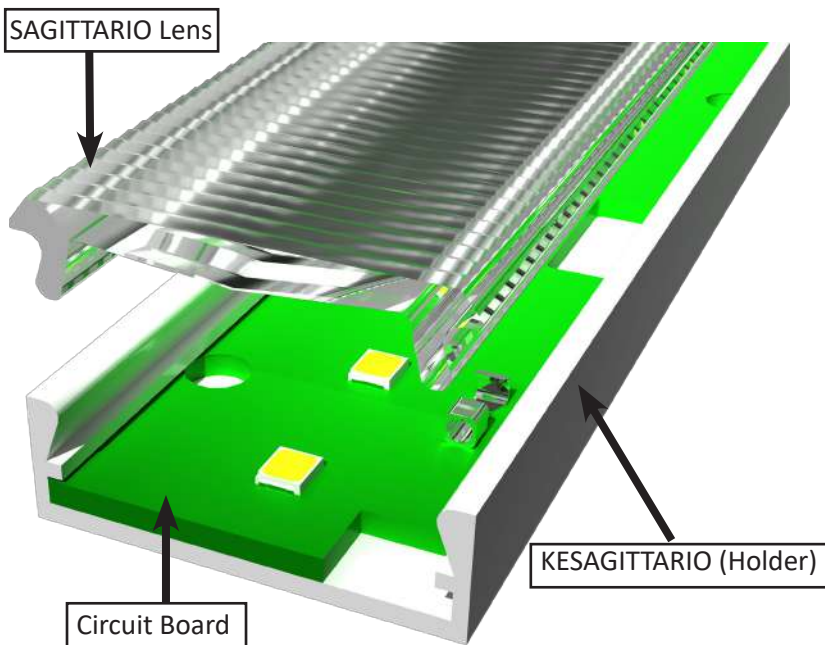
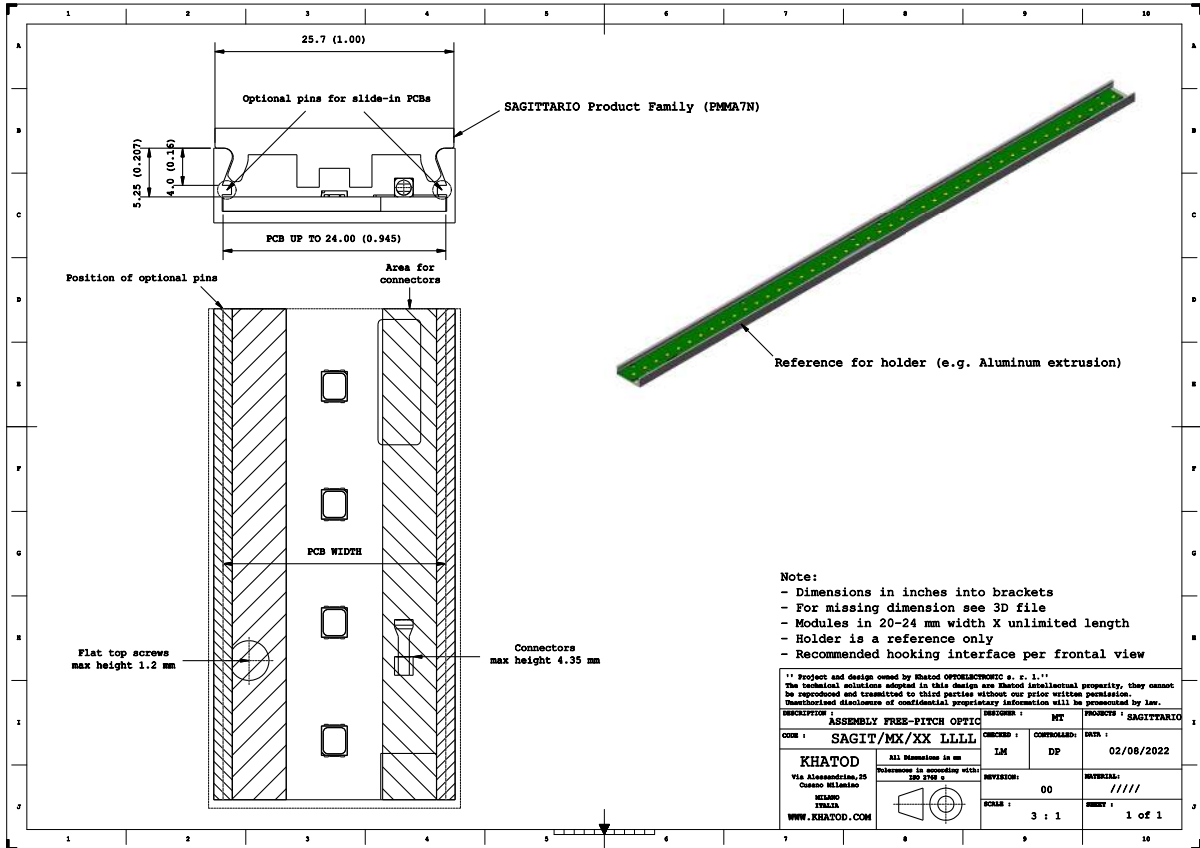
Product guidelines to choose the right lens for your application
(Sagittario lenses lengths are customizable):



Product guidelines to choose the right lens for your application
(Sagittario lenses lengths are customizable):



Assembly Specifications



Packaging

Item	Quantity	Total Parts	Size (L*W*H)	G.W.
Plastic bag	20 pieces per plastic bag	20 pcs	-	0.371 Kg
Outer Box (version 1.220mm)	5 pocket plastic bags per Outer Box	100 pcs	130*18*9.5 cm	12.0 Kg
Outer Box (version 1.550mm)	5 pocket plastic bags per Outer Box	100 pcs	160*18*9.5 cm	15.0 Kg
Outer Box (version 3.050mm)	5 pocket plastic bags per Outer Box	100 pcs	310*18*9.5 cm	30.0 Kg



20 Lenses / Pocket plastic bag



5 pocket plastic bags per Outer Box

Materials



Material	Temperatures
PMMA	-40° / + 90°C
• Temperature resistance: long-term exposure	-40° / + 85°C
• Temperature resistance: short exposure	up to + 90°C

Tests

The present document is an internal document showing the tests carried out by Khatod in its laboratory.

The tests, photos and videos presented in this document are made available for demonstration purposes only. Khatod, with its laboratory, is not a certification body.

If customers need thermal and IK accredited certifications, they have to apply to the appointed Certification Bodies, under their sole care and responsibility.

Test	Link
Climatic Test 	Click here
IK Test 	Click here

Notes:

- The optical values shown are the result of optical simulations carried out with LIGHTTOOLS, ASAP and ZEMAX software systems. The optical simulations are carried out on the basis of the typical values provided in the LED manufacturers' official datasheets. The photometric analysis has been carried out on physical samples. On request, by supplying your PCB, we can provide the measurement photometric file.

Use and Maintenance

- DO NOT HANDLE OR INSTALL LENSES WITHOUT WEARING GLOVES, SKIN OILS MAY DAMAGE LENS OR LIGHT TRANSMISSION;
- CLEAN LENSES WITH MILD SOAP AND WATER AND A SOFT CLOTH;
- DO NOT USE ANY COMMERCIAL CLEANING SOLVENTS ON LENSES.

Disclaimer

Please note that flow lines and weld lines on the external surfaces of the lenses are acceptable if the optical performance of the lens is within the specifications.

Should you require further information, please contact Khatod for advice. All lens testing must be subject to identical conditions as Khatod test condition. Khatod Optoelectronic, Milan, Italy, manufactures lenses for LEDs. Any other use of the lens shall void our liability and warranty. The lenses are an inert component to be used in the manufacture of

various products. Our warranty and liability are limited only to the manufacture of the lens. You may not modify, copy, distribute reproduce, license or alter the lens and related materials of Khatod. Khatod does not warrant against damages or defects arising out of the use or misuse of the products; against defects or damage arising from improper installation, or against defects in the product or in its components. No warranty of any kind, expressed or implied, is made regarding the safety of the products. The entire risk as to the quality or performance of the product is with the buyer. In no event

shall Khatod be liable for any direct, indirect, punitive, incidental, special, consequential damages, or any damages whatsoever arising out of or connected with the use or misuse of the product. Khatod shall not have any obligation with respect to the product or any part thereof, whether based on contract, tort, strict liability or otherwise. Buyer assumes all risks and liability from use of the product. The laws of Milan, Italy govern this product warranty and liability and you hereby consent to the exclusive jurisdiction and venue of courts in Milan, Italy in all disputes arising out of or relating to the use of this product. Production, marketing, distribution, sale of these products as well as their possible modifications and variations are only exclusive right of Khatod Optoelectronic. No company can perform any of these actions without written permission released by Khatod Optoelectronic. The information contained in this document is proprietary of Khatod Optoelectronic and may change without notice.

REPRODUCTION PROHIBITED.