

# Linear COB Optics

## Office Optics

e.g. for LED Line AluFix LUGA and \*NEW\* LUGA RX

- Efficiency: 94%
- Material: PMMA



## Retail Optics 1-SYM

e.g. for LED Line AluFix LUGA and \*NEW\* LUGA RX

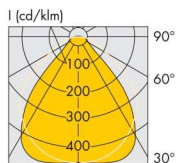
- Efficiency: 94%
- Material: PMMA



Type	Ref. No.	Dimensions (L x W x H) in mm		
		Length	Width	Height
89011	<b>554753</b>	305	36.2	15.2
89012	<b>563833</b>	586	36.2	15.2
89013	<b>563834</b>	867	36.2	15.2
89014	<b>563835</b>	1148	36.2	15.2
89015	<b>563836</b>	1429	36.2	15.2

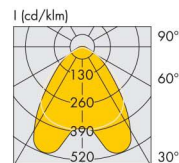
Type	Ref. No.	Dimensions (L x W x H) in mm		
		Length	Width	Height
89021	<b>554758</b>	305	36.2	15.2
89022	<b>563837</b>	586	36.2	15.2
89023	<b>563838</b>	867	36.2	15.2
89024	<b>563839</b>	1148	36.2	15.2
89025	<b>563840</b>	1429	36.2	15.2

## Typical Light Distributions



Office

## Typical Light Distributions



Retail 1-SYM

# Linear COB Optics

## Retail Optics 1-ASYM

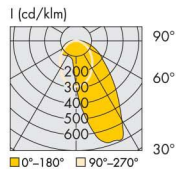
e.g. for LED Line AluFix LUGA and \*NEW\* LUGA RX

- Efficiency: 94%
- Material: PMMA



Type	Ref. No.	Dimensions (L x W x H) in mm		
		Length	Width	Height
89031	<b>556413</b>	305	36.2	15.2
89032	<b>563841</b>	586	36.2	15.2
89033	<b>563842</b>	867	36.2	15.2
89034	<b>563843</b>	1148	36.2	15.2
89035	<b>563844</b>	1429	36.2	15.2

## Typical Light Distributions



Retail 1-ASYM  
(preliminary)

# Batwing Optics

## Batwing optics for LED PCBs W1.5

For lighting using wall washers and for indirect lighting.

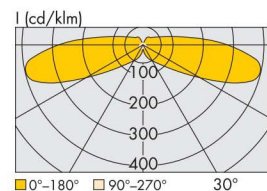
- Dimensions (L x W x H)  
Type 91000: 560/1,800 x 24.7 x 31 mm  
Type 91010: 560/1,800 x 24.7 x 25 mm
- Idea for SMD PCBs types  
WU-M-499/WU-M-500 and for LUGA Line modules.



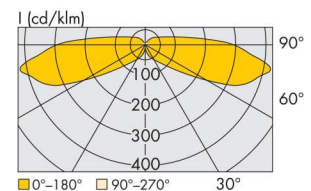
Material: PMMA

Type	Ref. No.	Length mm
<b>For wall washers</b>		
91000	<b>559587</b>	1,800 ±2
91000	<b>562895</b>	560 ±2
<b>For indirect lighting</b>		
91010	<b>559588</b>	1,800 ±2
91010	<b>562896</b>	560 ±2

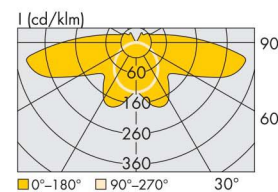
## Typical Light Distributions



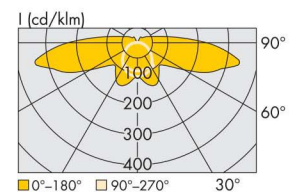
91000 - WU-M-499 / 500



91000 - LUGA Line



91010 - WU-M-499 / 500



91010 - LUGA Line

# Circular COB Optics

## LUGA COB Silicone Lenses M Class, Area

- M class: optics for lighting M class streets (in acc. with EN 13201).
- Area: optics for lighting public places.
- High temperature resistance.
- IK stability of silicone optics: IK 08.



Material: silicone, transparent

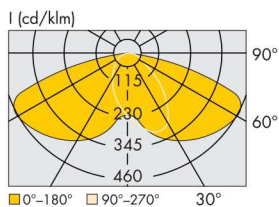
Dimensions M-class (incl. frame) Ø x H: 100 x 24 mm

Dimensions Area (incl. frame) Ø x H: 100 x 23 mm

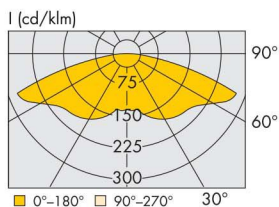
Type	Ref. No.	Efficiency %
M-class Optics, asymmetrical	<b>559042</b>	93
Area Optics, symmetrical	<b>562512</b>	96

### Typical Light Distributions

Measured COB module: DMx11xxx



M Class



Area

Using COB LEDs made by other manufacturers can alter the light distribution shown here.

### Holder

Material: PC, black

**Ref. No. 558607**

## LUGA COB Silicone Lenses SYM II

- Optics for industrial and high-bay lighting.
- High temperature resistance.
- IK stability of silicone optics: IK 08.



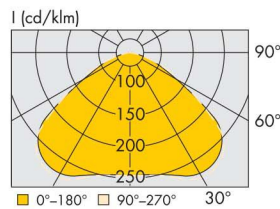
Material: silicone, transparent

Dimensions (incl. frame) Ø x H: 100 x 24.6 mm

Light Distribution	Ref. No.	Efficiency %
Optics SYM II, symmetrical	<b>562513</b>	97

### Typical Light Distributions

Measured COB module: DMx11xxx



Using COB LEDs made by other manufacturers can alter the light distribution shown here.

### Holder

Material: PC, black

**Ref. No. 558607**