

**Ordering number CN13157\_LENA-WAS**

Family Lena  
 Type Pack  
 LED COB204  
 Color Metal  
 Diameter 111 mm  
 Height 38.2 mm  
 Style Round  
 Optic Material PC  
 Holder Material -  
 Fastening Socket  
 Status Ready

FWHM (simulated) Asymmetric  
 Efficiency (simulated) 87 %  
 cd/lm -  
 Gerber File Available

Reflector twist-and-locks into included base part that holds COB

**Ordering number CN13167\_LENA-WAS-DL**

Family Lena  
 Type Pack  
 LED COB204  
 Color Metal  
 Diameter 111 mm  
 Height 40.3 mm  
 Style Round  
 Optic Material PC  
 Holder Material -  
 Fastening Socket  
 Status Ready

FWHM (simulated) Asymmetric  
 Efficiency (simulated) 85 %  
 cd/lm -  
 Gerber File Available

Reflector twist-and-locks into included base part that holds COB

**Ordering number CN13452\_LENA-X-WAS**

Family Lena  
 Type Pack  
 LED COB204  
 Color White  
 Diameter 111 mm  
 Height 38.2 mm  
 Style Round  
 Optic Material PC  
 Holder Material PC  
 Fastening Screw, socket  
 Status Ready

FWHM (simulated) Asym  
 Efficiency (simulated) 0 %  
 cd/lm -  
 Gerber File Available

Reflector twist-and-locks into included base part that holds COB

**Ordering number CN13453\_LENA-X-WAS-DL**

Family Lena  
 Type Pack  
 LED COB204  
 Color White  
 Diameter 111 mm  
 Height 40.3 mm  
 Style Round  
 Optic Material PC  
 Holder Material PC  
 Fastening Screw, socket  
 Status Ready

FWHM (simulated) Asym  
 Efficiency (simulated) 0 %  
 cd/lm -  
 Gerber File Available

Reflector twist-and-locks into included base part that holds COB

**Ordering number CN12099\_LENA-S**

Family	Lena	FWHM	10 degrees
Type	Pack	Efficiency	(simulated) 0 %
LED	COB204	cd/lm	-
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	85.6 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		

**Ordering number CN12110\_LENA-S-DL**

Family	Lena	FWHM	11 degrees
Type	Pack	Efficiency	(simulated) 0 %
LED	COB204	cd/lm	-
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	87.2 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		

**Ordering number CN12165\_LENA-M-DL**

Family	Lena	FWHM	19 degrees
Type	Pack	Efficiency	(simulated) 0 %
LED	COB204	cd/lm	-
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	87.2 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		

**Ordering number CN12111\_LENA-W-DL**

Family	Lena	FWHM	44 degrees
Type	Pack	Efficiency	(simulated) 0 %
LED	COB204	cd/lm	-
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	87.2 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		



## PRODUCT DATASHEET

### Lena series

last update 4/2/2013



**NOTE: The typical divergence will be changed by different color, chip size and chip position tolerance. The typical total divergence is the full angle measured where the luminous intensity is half of the peak value.**



## PRODUCT DATASHEET

### Lena series

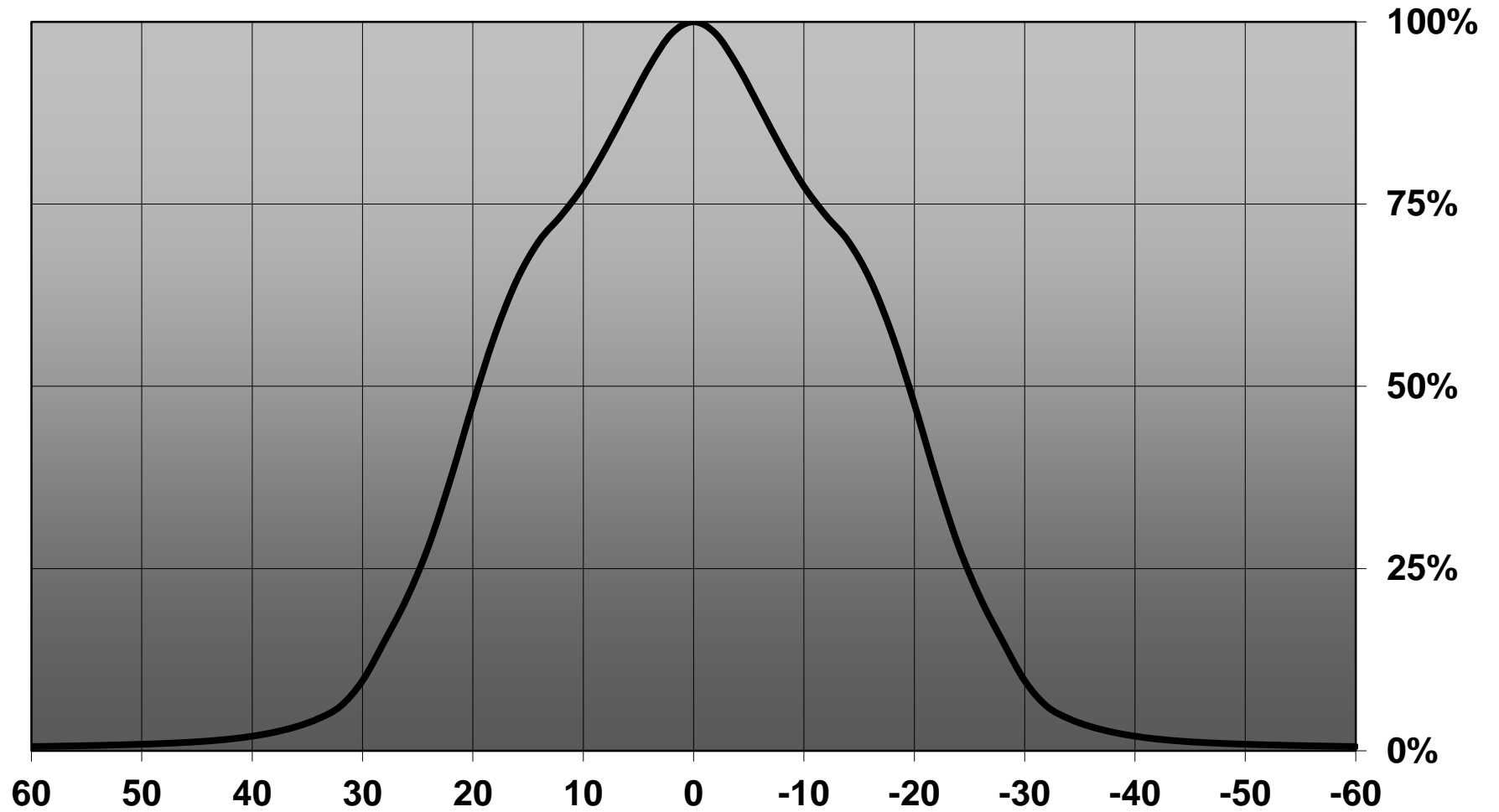
last update 4/2/2013



#### GENERAL INFORMATION

- Product series especially designed & optimized for COB204 series of LEDs.
- Special care taken to make light distribution as uniform as possible.
- Reflector is made of aluminium coated PC (120 degrees of Celcius / 248 degrees of Fahrenheit) with protective lacquer (110 degrees of Celcius / 230 degrees of Fahrenheit).
- Optic holder molded by high quality PC material (120 dergees of Celcius / 248 degrees of Fahrenheit).

Relative intensity of CA12111\_Lena-W-Diffuser-Lens\_COB-L110



D

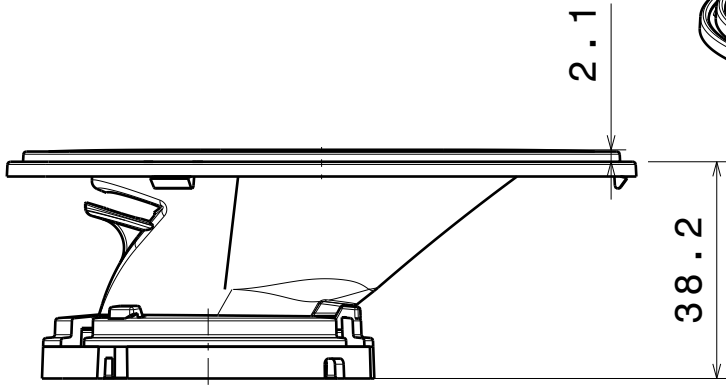
C

B

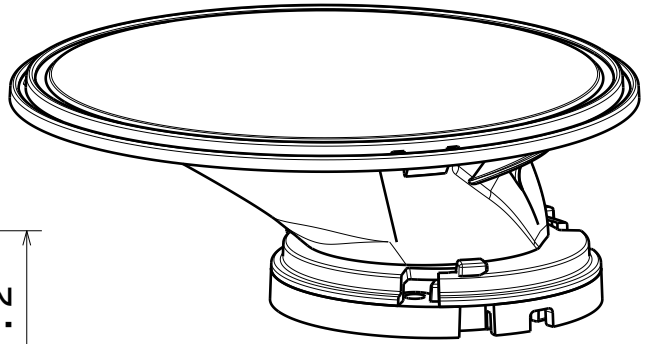
A

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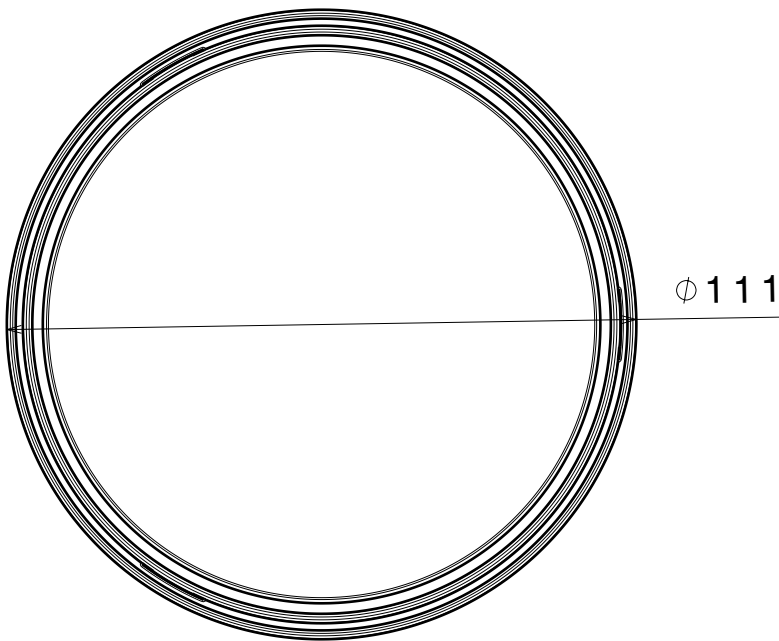
Front view



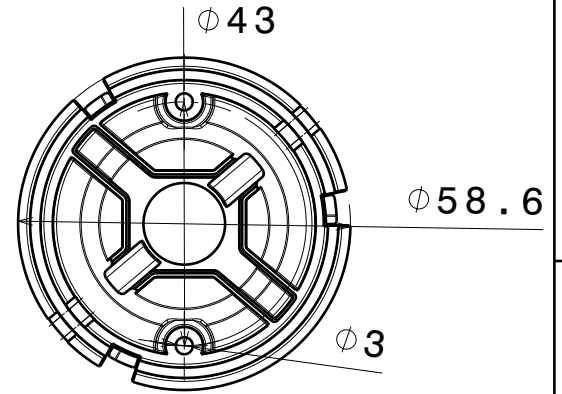
Isometric view

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3



Top view



Materials

Reflector: PC  
 Base part: PC  
 Sublens: PC

Note: Using additional sublens add 2,1mm to total height.

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2

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Ledil Oy  
 Salorankatu 10  
 FIN 24240 SALO  
 Finland

DRAWING TITLE Mechanical drawing

DRAWN BY DATE  
 - 26.9.2012

LENA-WAS

CHECKED BY DATE  
 - -

SIZE PART NUMBER REV  
 A4 001

DESIGNED BY DATE  
 - -

SCALE 1:4 WEIGHT - mg SHEET 1/1

D

A