

**Ordering number CN12712\_LENA-S**

Family	Lena	FWHM	12 degrees
Type	Reflector	Efficiency	88 %
LED	CLL030	cd/lm	-
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	85.4 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		

**Ordering number CN12718\_LENA-S-DL**

Family	Lena	FWHM	12 degrees
Type	Reflector	Efficiency	83 %
LED	CLL030	cd/lm	-
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	85.4 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		

**Ordering number CN12713\_LENA-M**

Family	Lena	FWHM	19 degrees
Type	Reflector	Efficiency	86 %
LED	CLL030	cd/lm	-
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	85.4 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		

**Ordering number CN12719\_LENA-M-DL**

Family	Lena	FWHM	20 degrees
Type	Reflector	Efficiency	81 %
LED	CLL030	cd/lm	-
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	85.4 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		

**Ordering number CN12714\_LENA-W**

Family	Lena	FWHM	43 degrees
Type	Reflector	Efficiency	83 %
LED	CLL030	cd/lm	-
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	85.4 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		

**Ordering number CN12720\_LENA-W-DL**

Family	Lena	FWHM	44 degrees
Type	Reflector	Efficiency	78 %
LED	CLL030	cd/lm	-
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	85.4 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		

**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 5/7/2012

CITIZEN

#### GENERAL INFORMATION

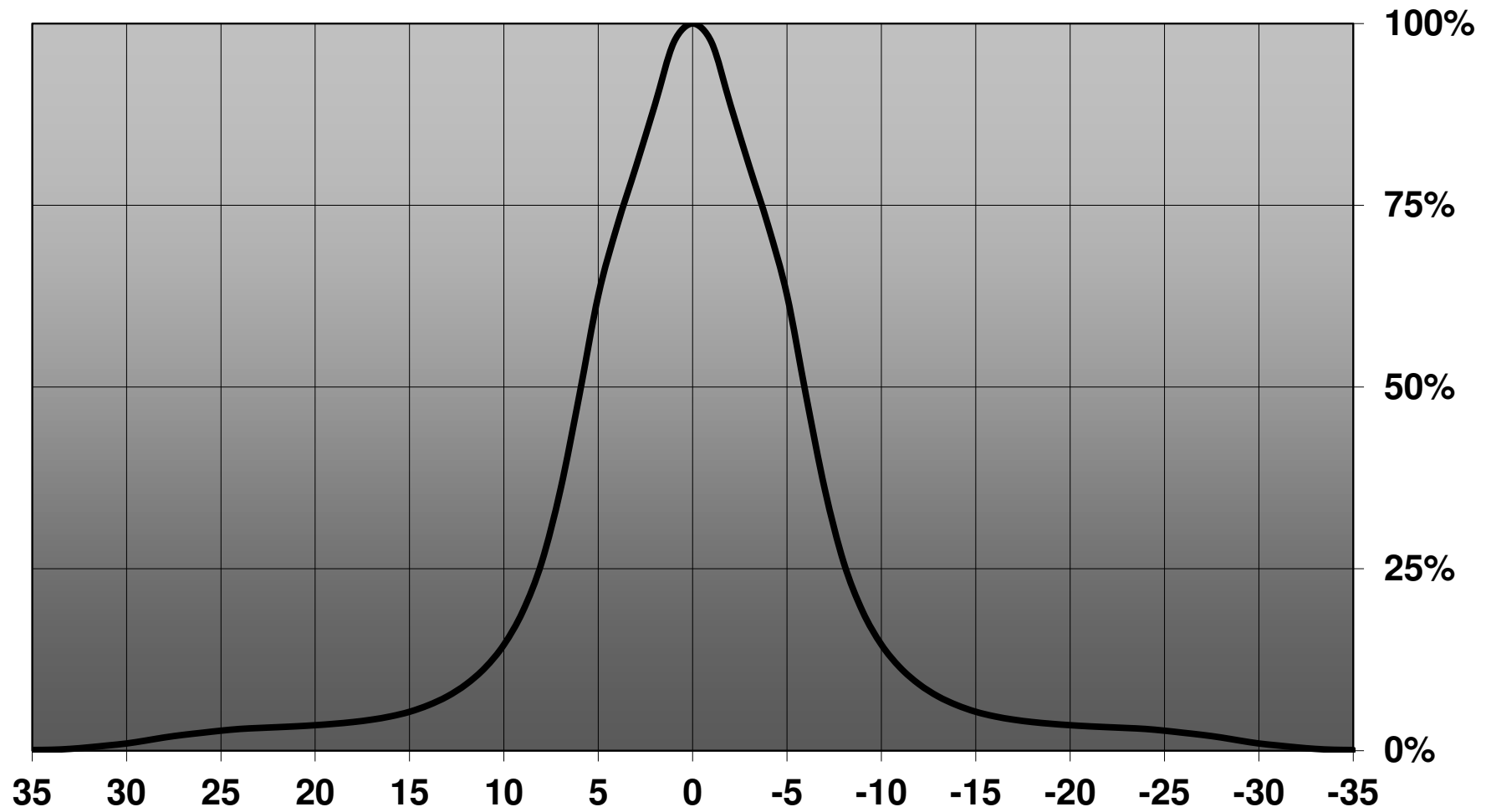
- Product series especially designed & optimized for CLL030 series of LEDs.
- Special care taken to make light distribution as uniform as possible.
- Lens material optical grade PC with high UV and temperature resistance (120 degrees of Celcius / 248 degrees of Fahrenheit). Allows use of high current and temperature conditions.

Please find more information about used materials from below:

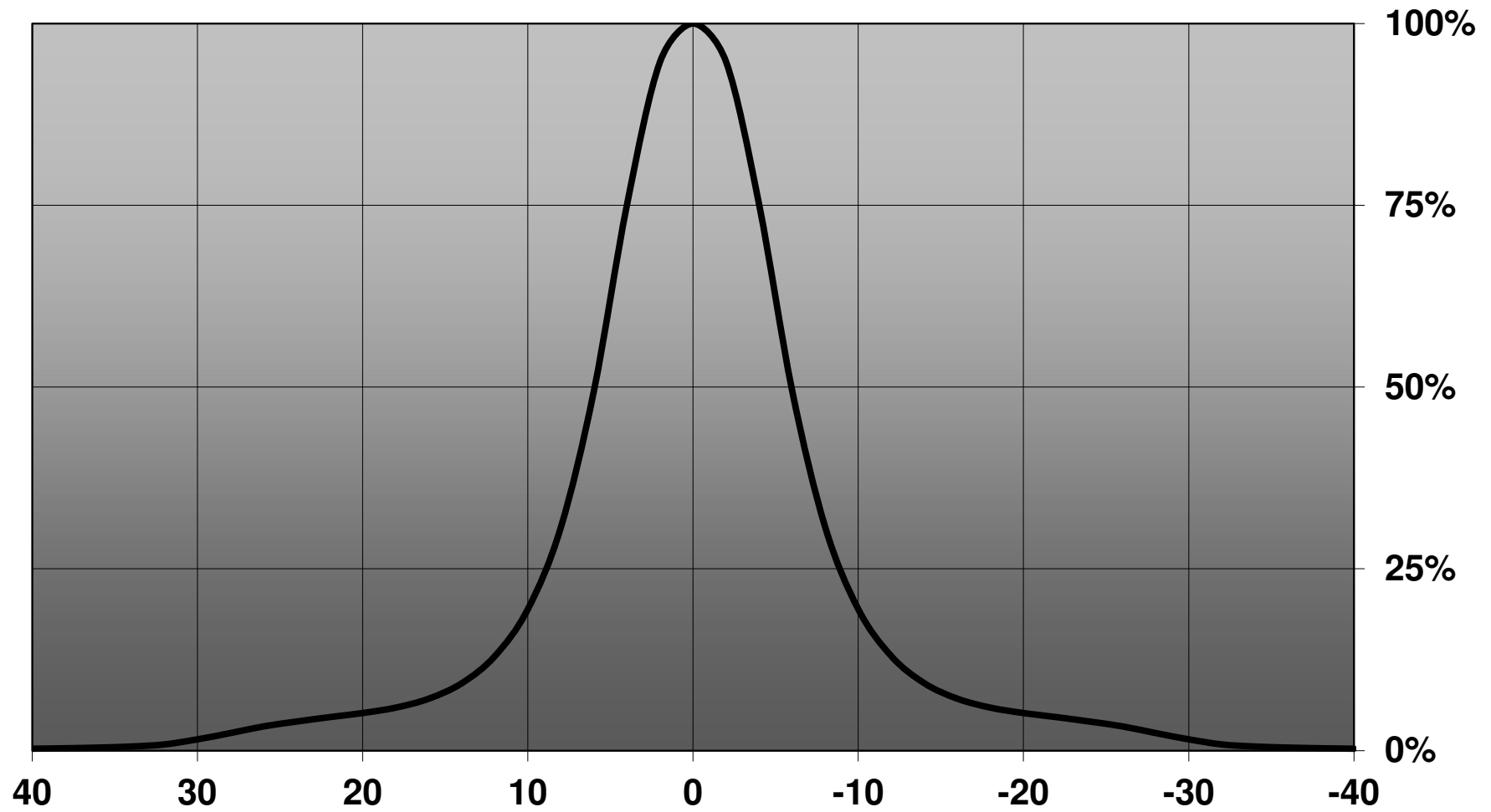
[http://ledil.fi/sites/default/files/Documents/Technical/Material/PC%20Makrolon%202400\\_2407\\_2456\\_2458-UL.pdf](http://ledil.fi/sites/default/files/Documents/Technical/Material/PC%20Makrolon%202400_2407_2456_2458-UL.pdf)

- 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).

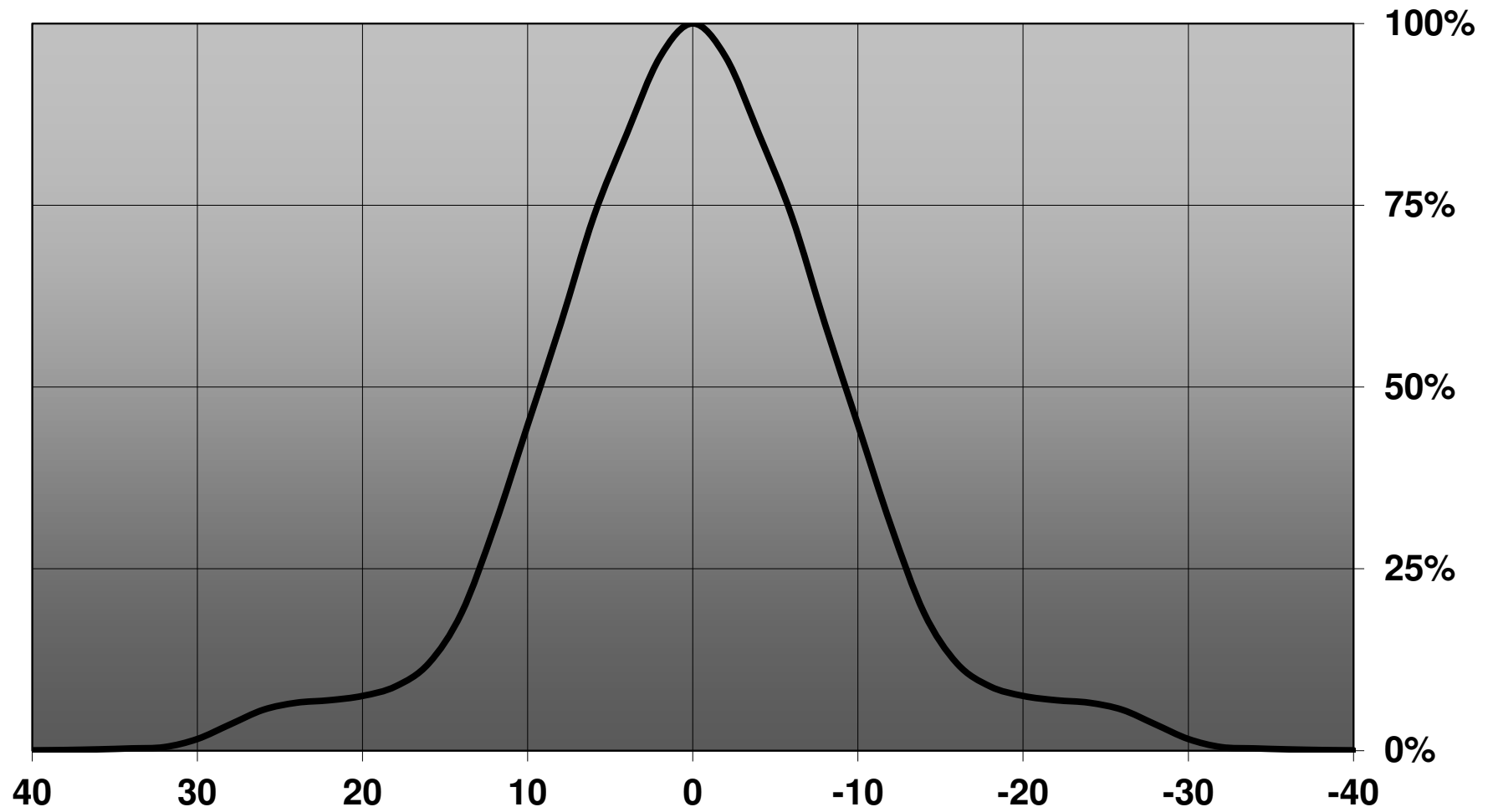
Relative intensity of CN12712\_LENA-S (CLL030-1208)



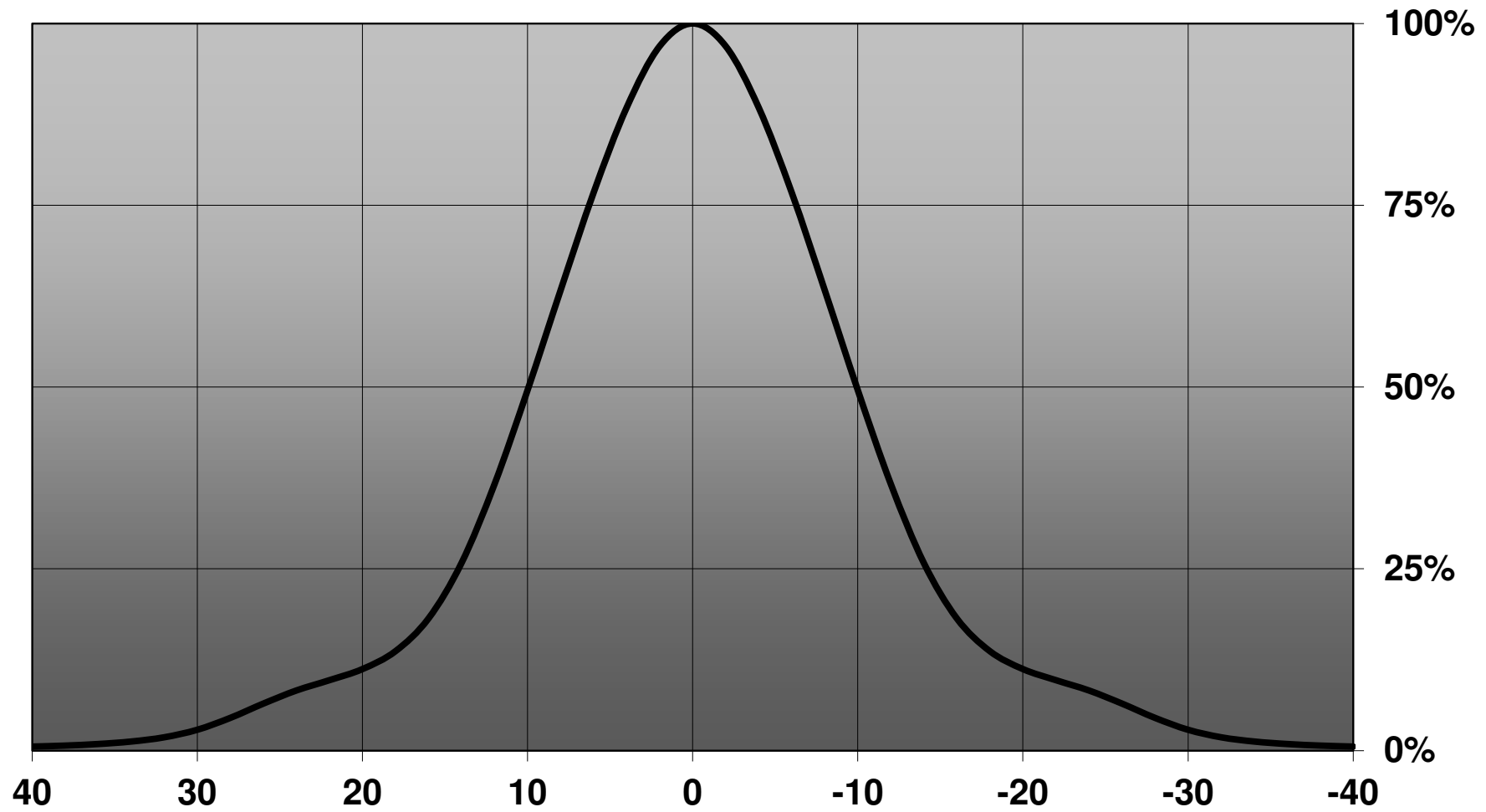
Relative intensity of CN12718\_LENA-S-DL (CLL030-1208)



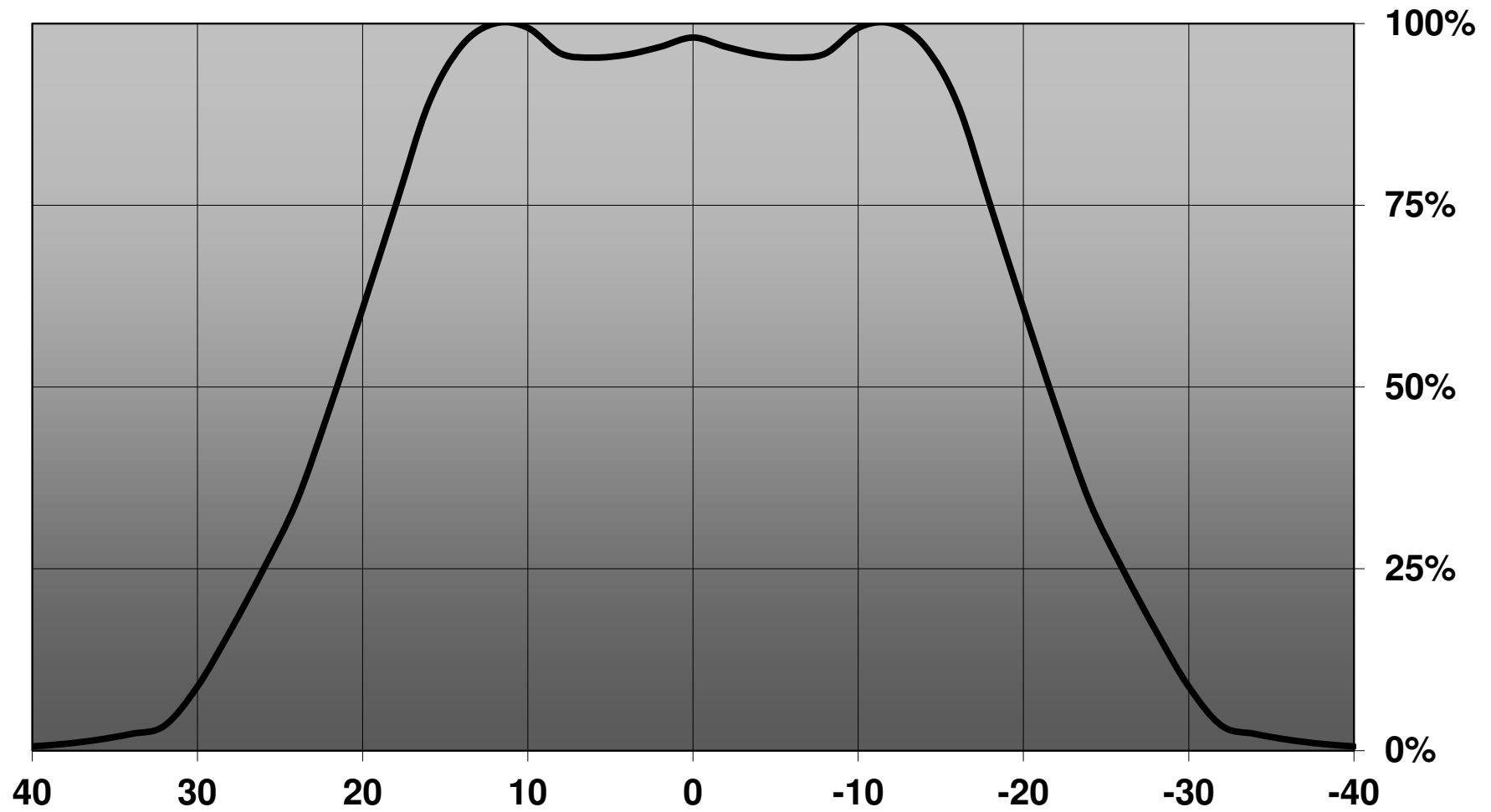
**Relative intensity of CN12713\_LENA-M (CLL030-1208)**



**Relative intensity of CN12719\_LENA-M-DL (CLL030-1208)**

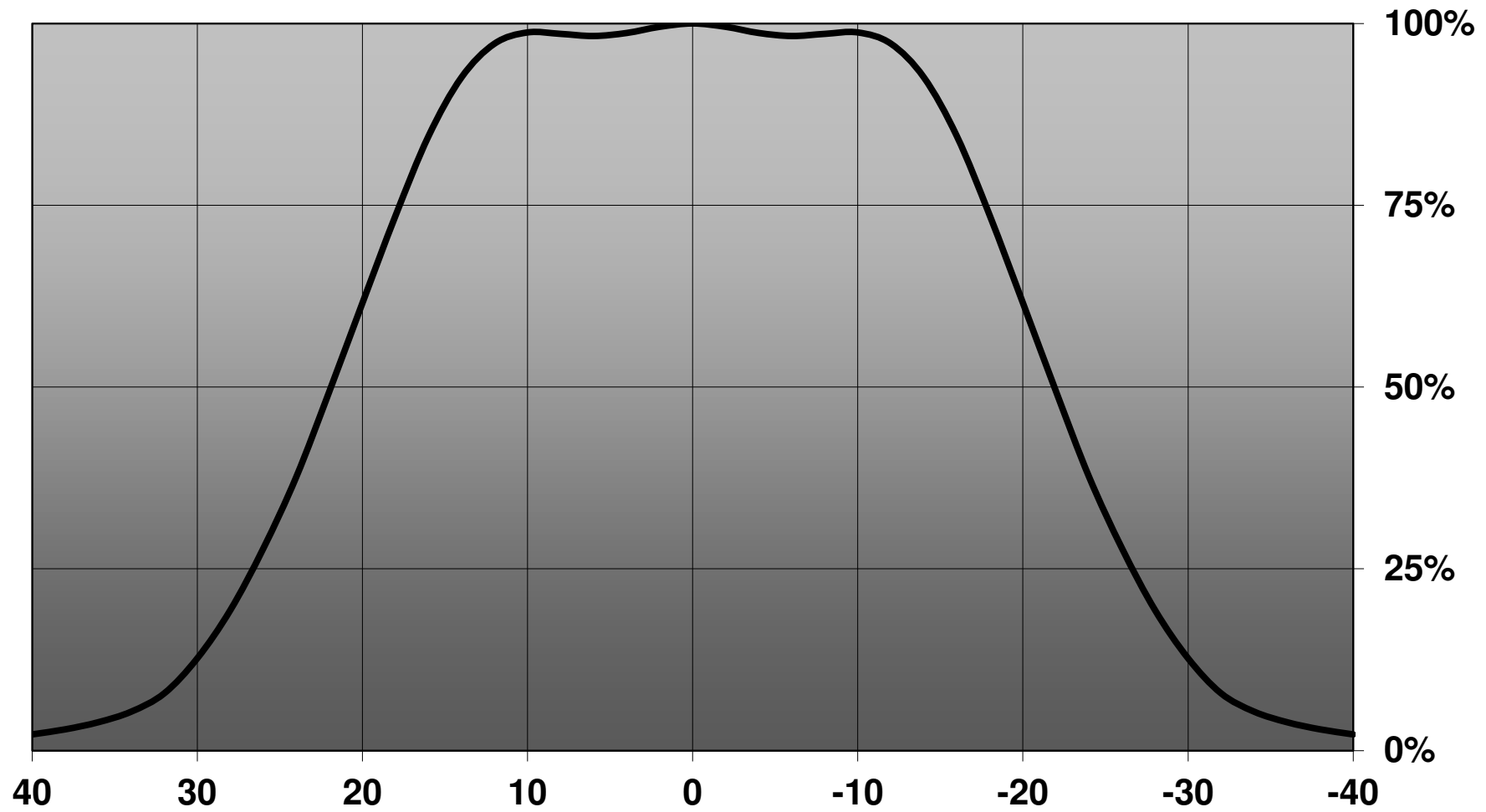


Relative intensity of CN12714\_LENA-W (CLL030-1208)





Relative intensity of CN12720\_LENA-W-DL (CLL030-1208)



D

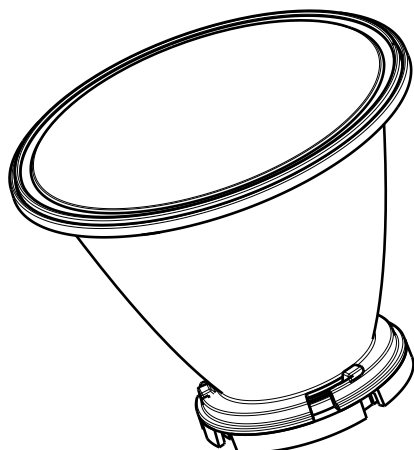
C

B

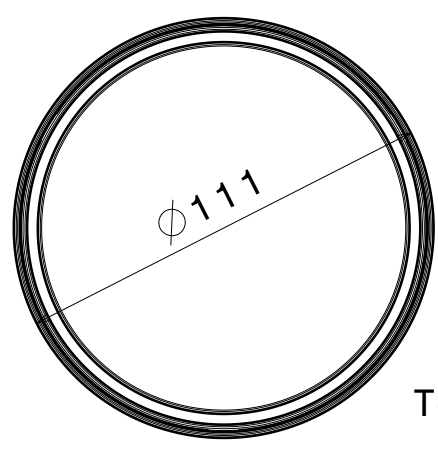
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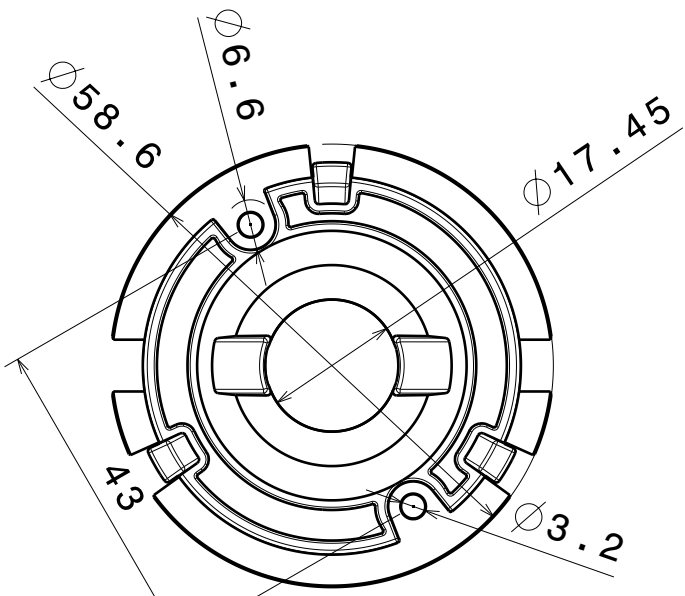
Isometric view



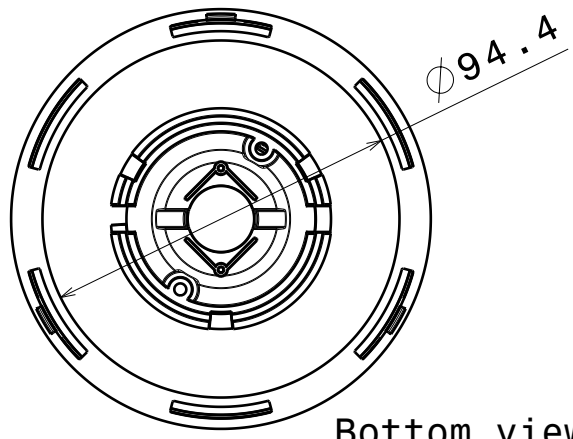
Top view

3

3



Front view  
Scale: 1:1



Bottom view

2

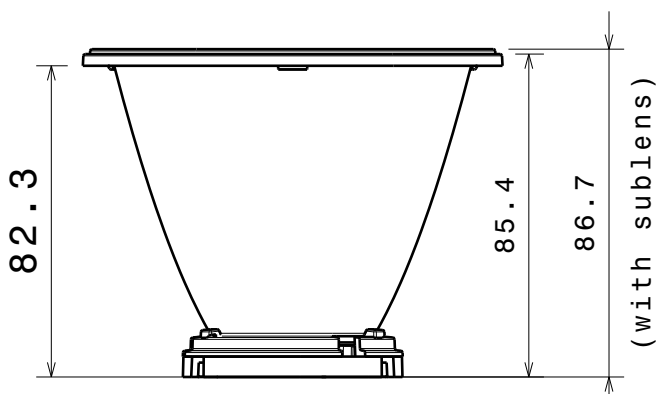
2

Material:

subLens  
- PMMA

Reflector  
- PC  
- Metal coating and clear lacquer

Holder base  
- PC  
- Color white



Front view

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DRAWING TITLE

Datasheet Lena-CLL030 series Assy

1

1

DRAWN BY  
ca

DATE  
10.04.2012

CHECKED BY

DATE

SIZE  
A4

DRAWING NUMBER

REV  
1

DESIGNED BY  
pl

DATE  
15.03.2012

SCALE 1:2

WEIGHT (g)

SHEET 1/1

D

A