

**Ordering number CN13163_LENA-WAS**

Family	Lena
Type	Pack
LED	CLL030
Color	Metal
Diameter	111 mm
Height	-
Style	Round
Optic Material	PC
Holder Material	-
Fastening	Socket
Status	Ready

FWHM	Asymmetric degrees
Efficiency	81 %
cd/Im	1.160
Gerber File	Available

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

**Ordering number CN13173_LENA-WAS-DL**

Family	Lena
Type	Pack
LED	CLL030
Color	Metal
Diameter	111 mm
Height	-
Style	Round
Optic Material	PC
Holder Material	-
Fastening	Socket
Status	Ready

FWHM	Asymmetric degrees
Efficiency	76 %
cd/Im	0.960
Gerber File	Available

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

**Ordering number CN13369_LENA-X-WAS**

Family	Lena
Type	Pack
LED	CLL030
Color	White
Diameter	111 mm
Height	39.1 mm
Style	Round
Optic Material	PC
Holder Material	PC
Fastening	Screw, socket
Status	Ready

FWHM	Asymmetric degrees
Efficiency	81 %
cd/Im	1.160
Gerber File	Available

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

**Ordering number CN13371_LENA-X-WAS-DL**

Family	Lena
Type	Pack
LED	CLL030
Color	White
Diameter	111 mm
Height	42 mm
Style	Round
Optic Material	PC
Holder Material	PC
Fastening	Screw, socket
Status	Ready

FWHM	Asymmetric degrees
Efficiency	80 %
cd/Im	0.500
Gerber File	Available

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

**Ordering number CN12712_LENA-S**

Family	Lena	FWHM	12 degrees
Type	Pack	Efficiency	88 %
LED	CLL030	cd/Im	-
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	Pack	Efficiency	83 %
LED	CLL030	cd/Im	-
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	Pack	Efficiency	86 %
LED	CLL030	cd/Im	-
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	Pack	Efficiency	81 %
LED	CLL030	cd/Im	-
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	Pack	Efficiency	83 %
LED	CLL030	cd/Im	-
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	Pack	Efficiency	78 %
LED	CLL030	cd/Im	-
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

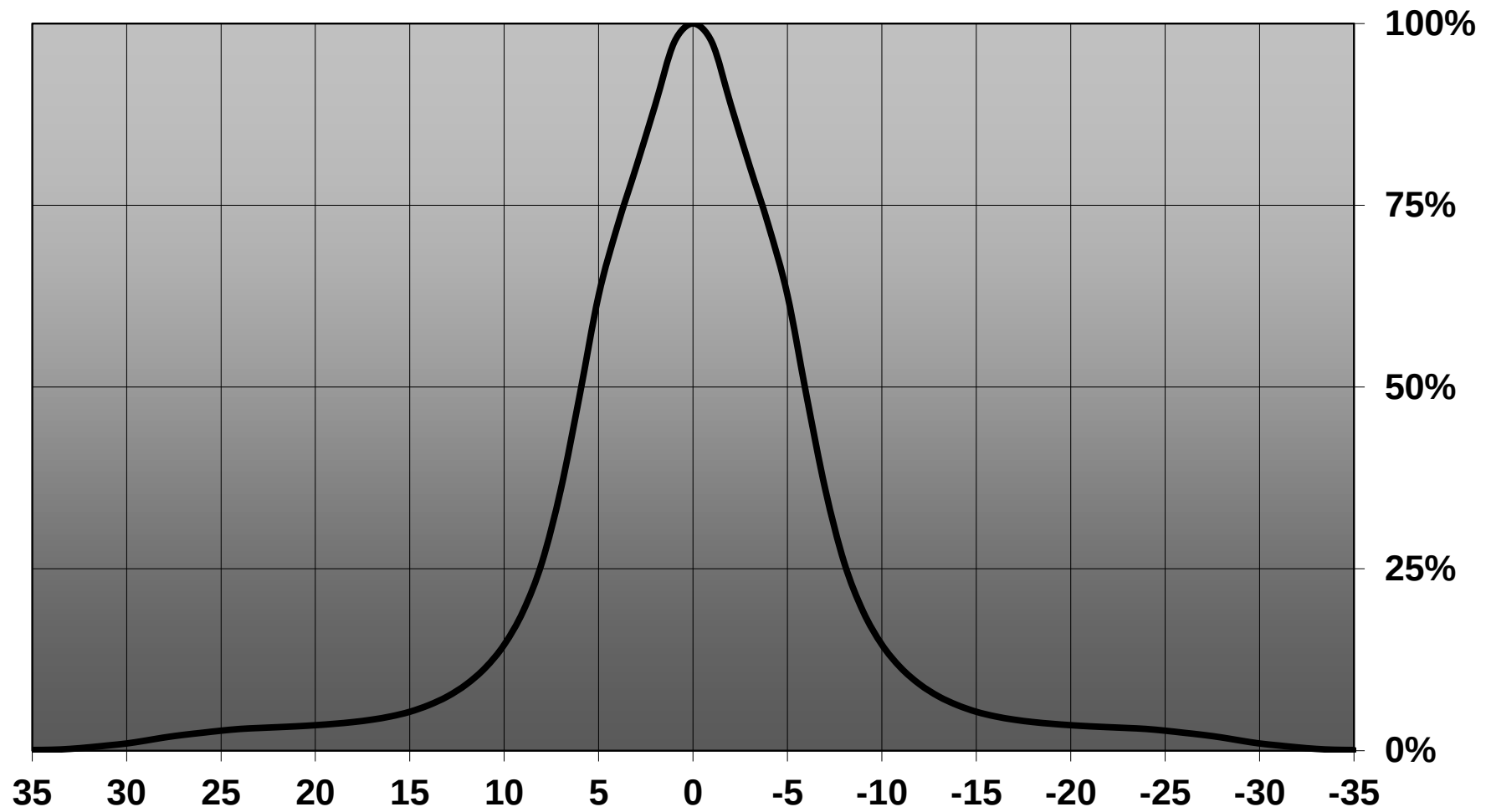
- Product series especially designed & optimized for CLL030 series of LEDs.
- Special care taken to make light distribution as uniform as possible.
- Lens material optical grade PC with high UV and temperature resistance (120 degrees of Celcius / 248 degrees of Fahrenheit). Allows use of high current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

Please find more information about used materials from below:

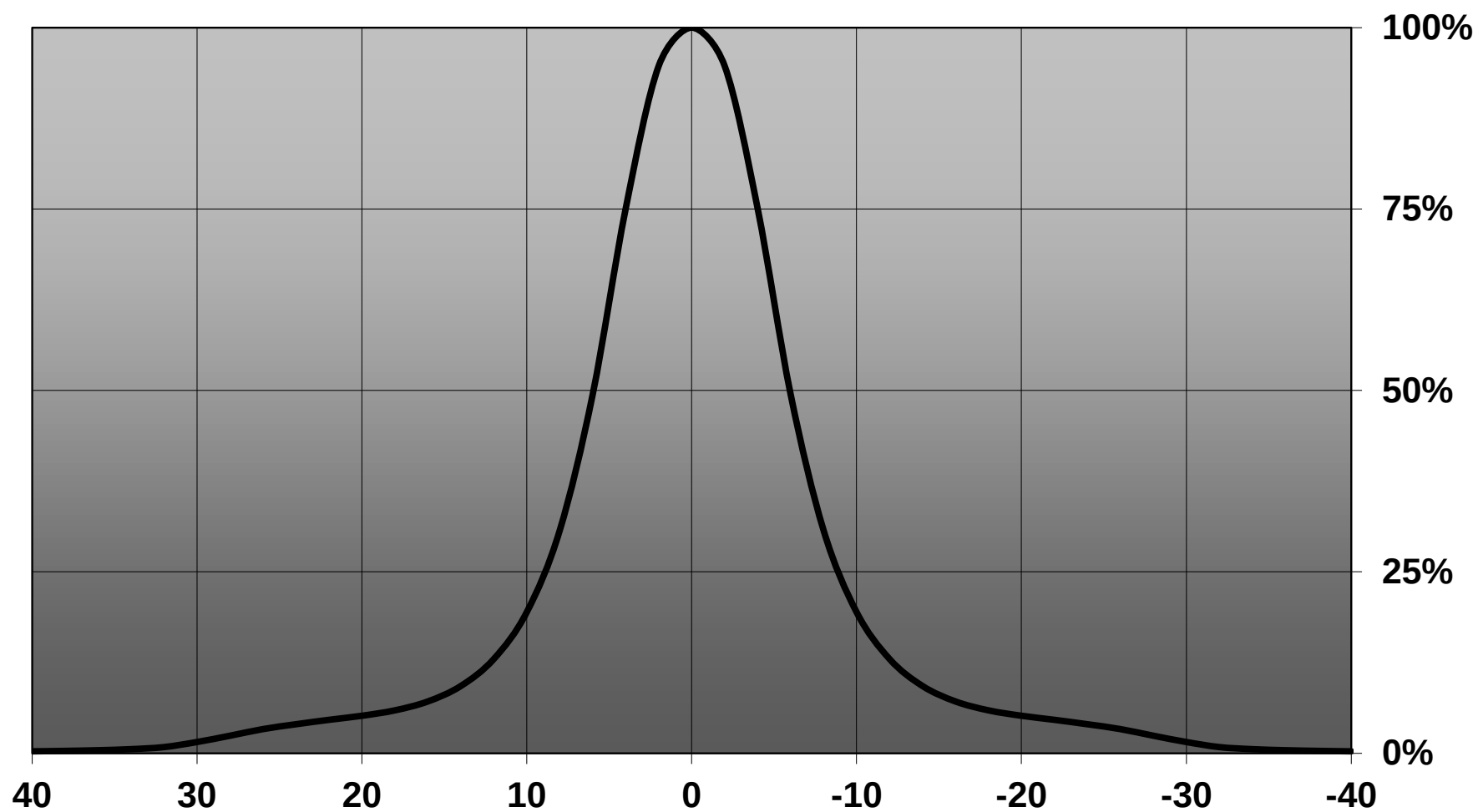
http://ledil.fi/sites/default/files/Documents/Technical/Material/PC%20Makrolon%202400_2407_2456_2458-UL.pdf

- 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).

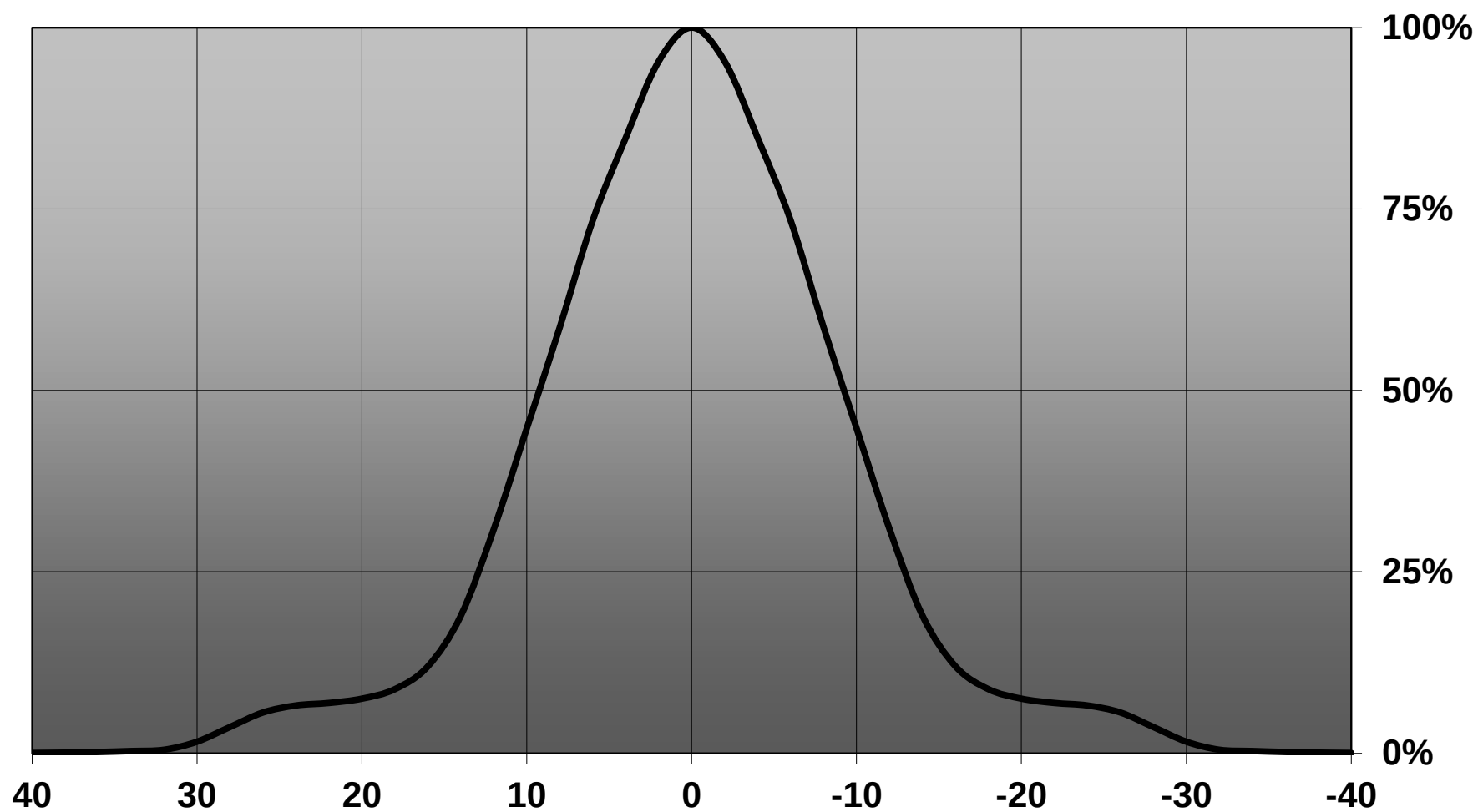
Relative intensity of CN12712_LENA-S (CLL030-1208)



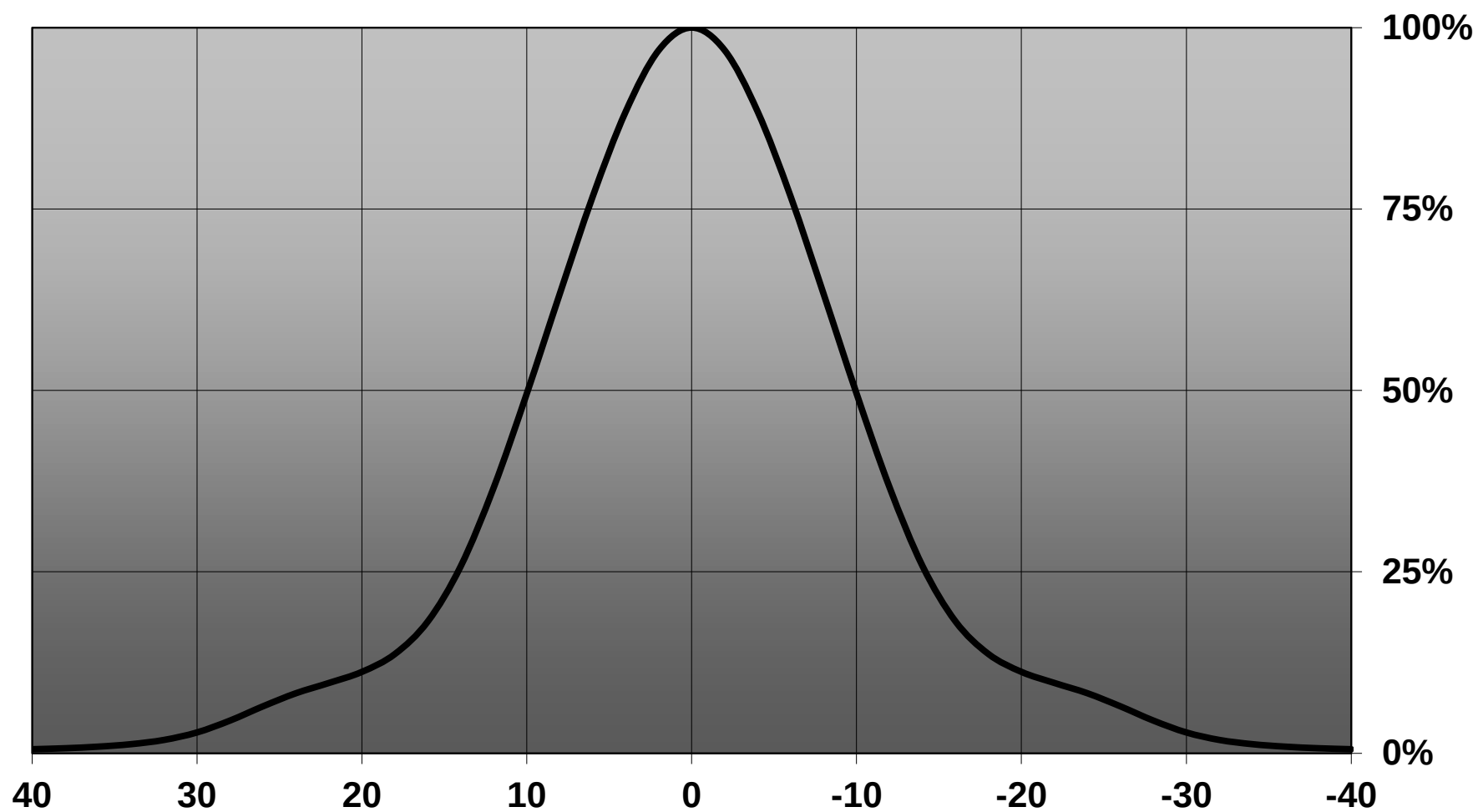
Relative intensity of CN12718_LENA-S-DL (CLL030-1208)



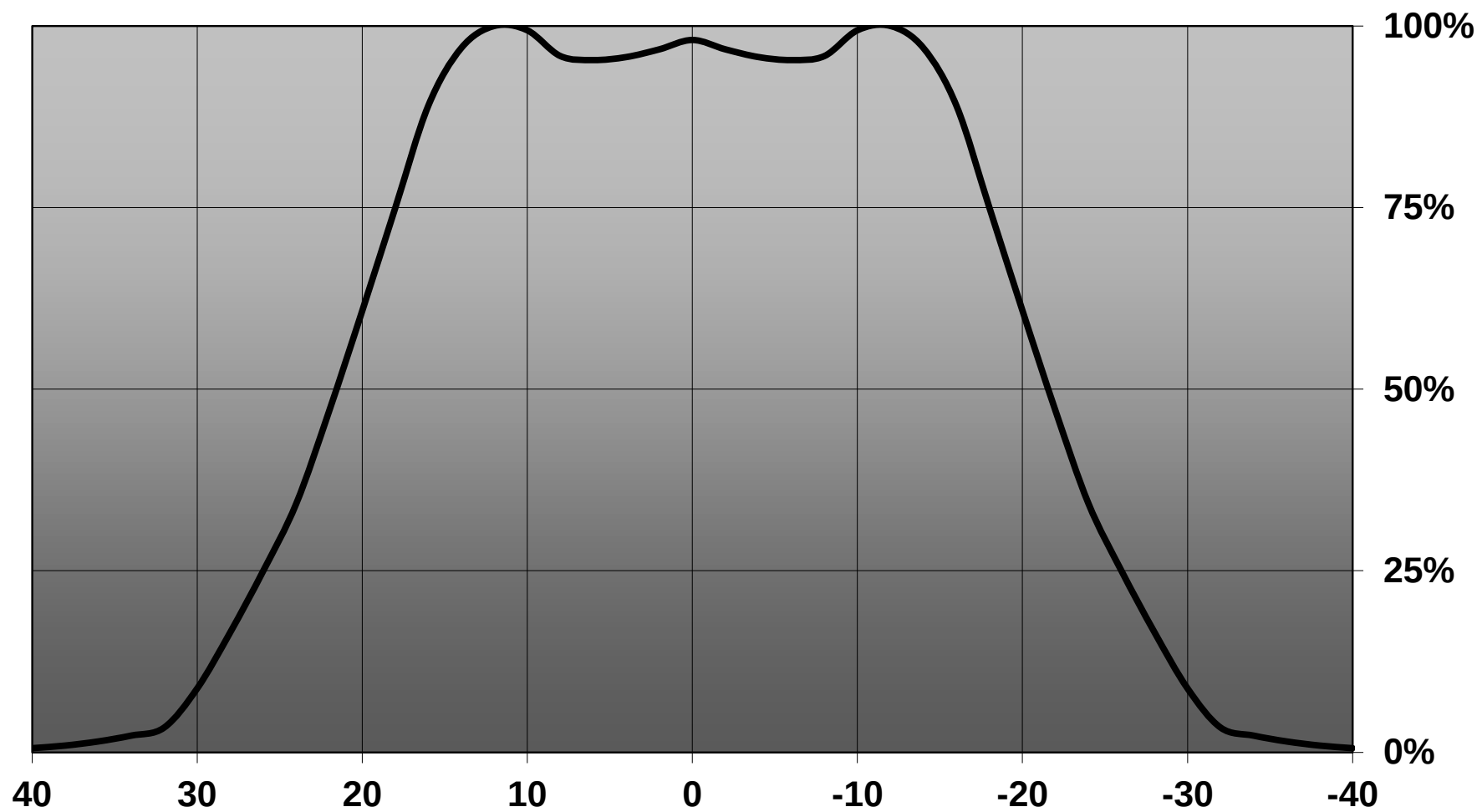
Relative intensity of CN12713_LENA-M (CLL030-1208)



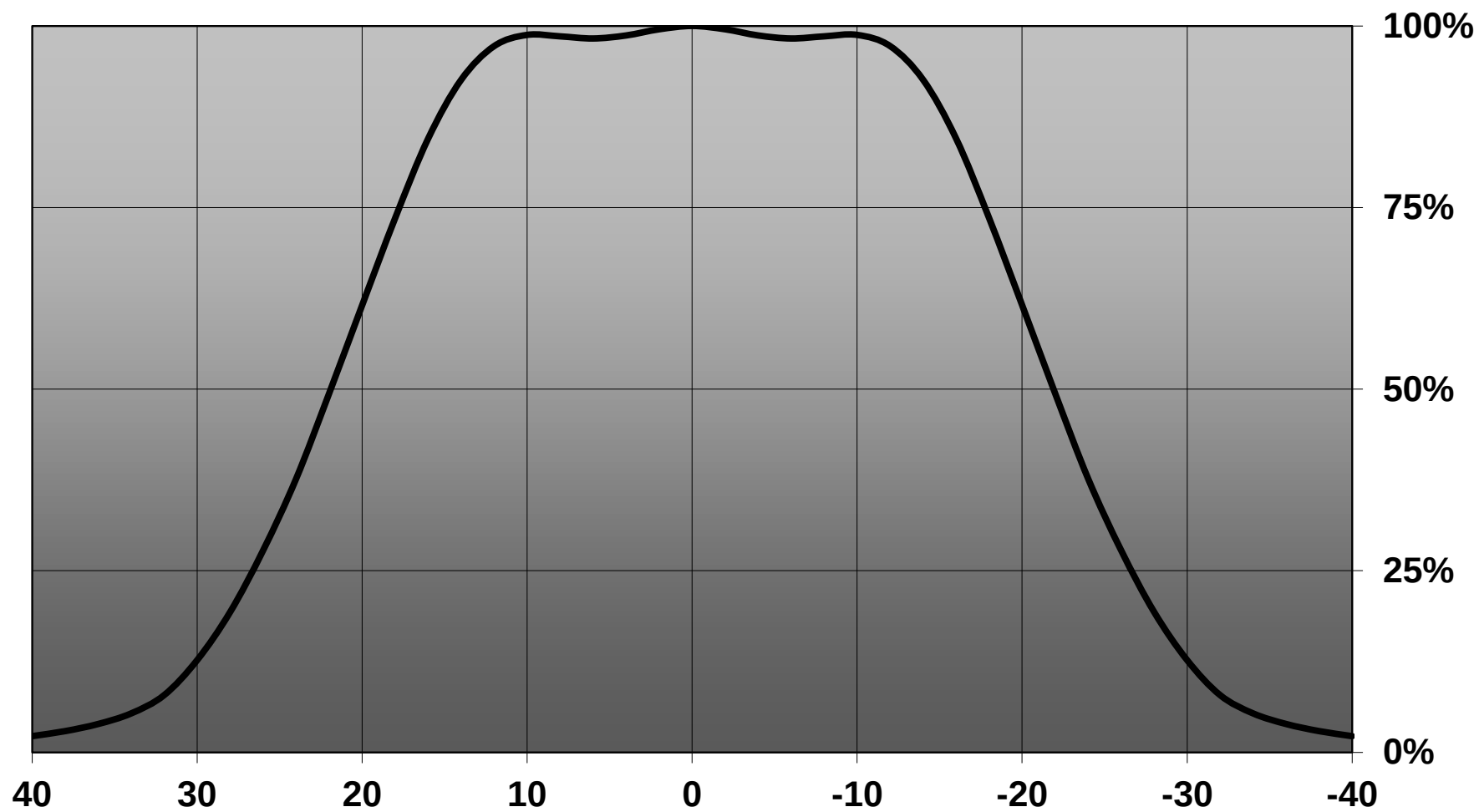
Relative intensity of CN12719_LENA-M-DL (CLL030-1208)



Relative intensity of CN12714_LENA-W (CLL030-1208)



Relative intensity of CN12720_LENA-W-DL (CLL030-1208)



D

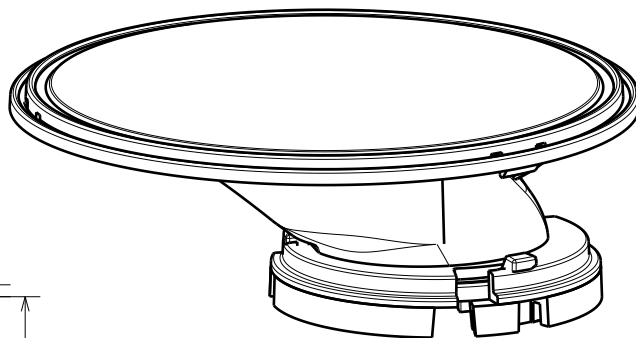
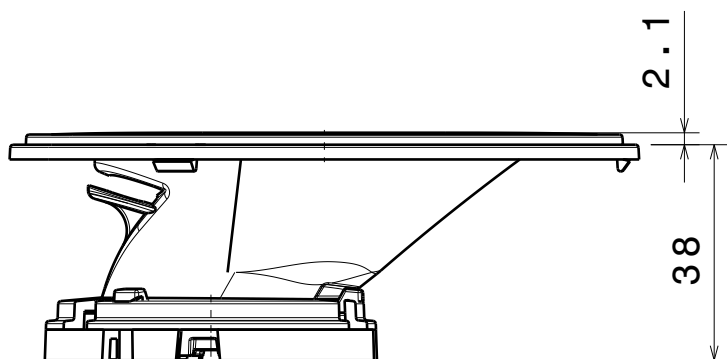
C

B

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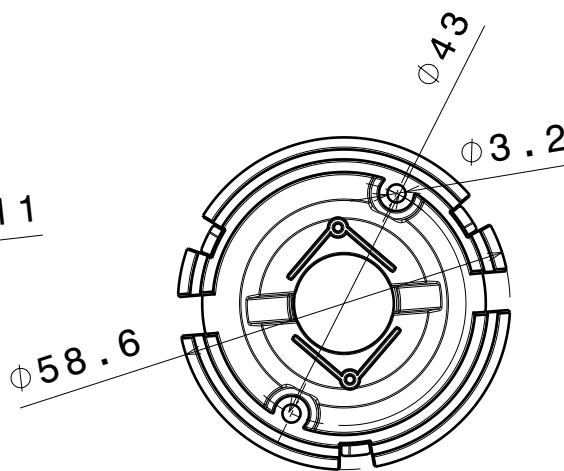
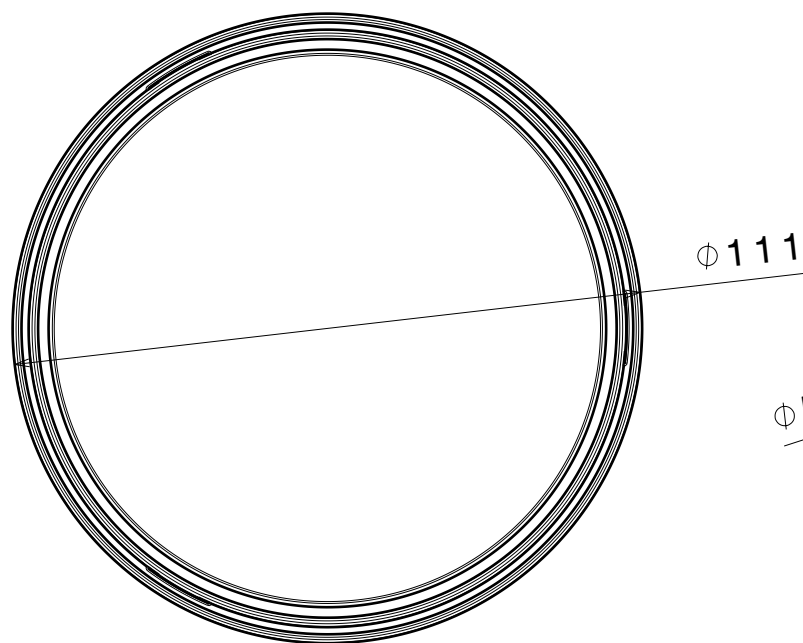
4



Isometric view

3

3



2

2

Materials

Reflector: PC
Base part: PC
Sublens: PC

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

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LEDiL

Ledil Oy
Salorankatu 10
FIN 24240 SALO
Finland

DRAWING TITLE

Mechanical drawing

DRAWN BY

DATE

as

26.9.2012

LENA-WAS

CHECKED BY

DATE

VS

-

SIZE

PART NUMBER

A4

REV

001

DESIGNED BY

DATE

-

-

SCALE

1:4

WEIGHT

- mg

SHEET

1/1

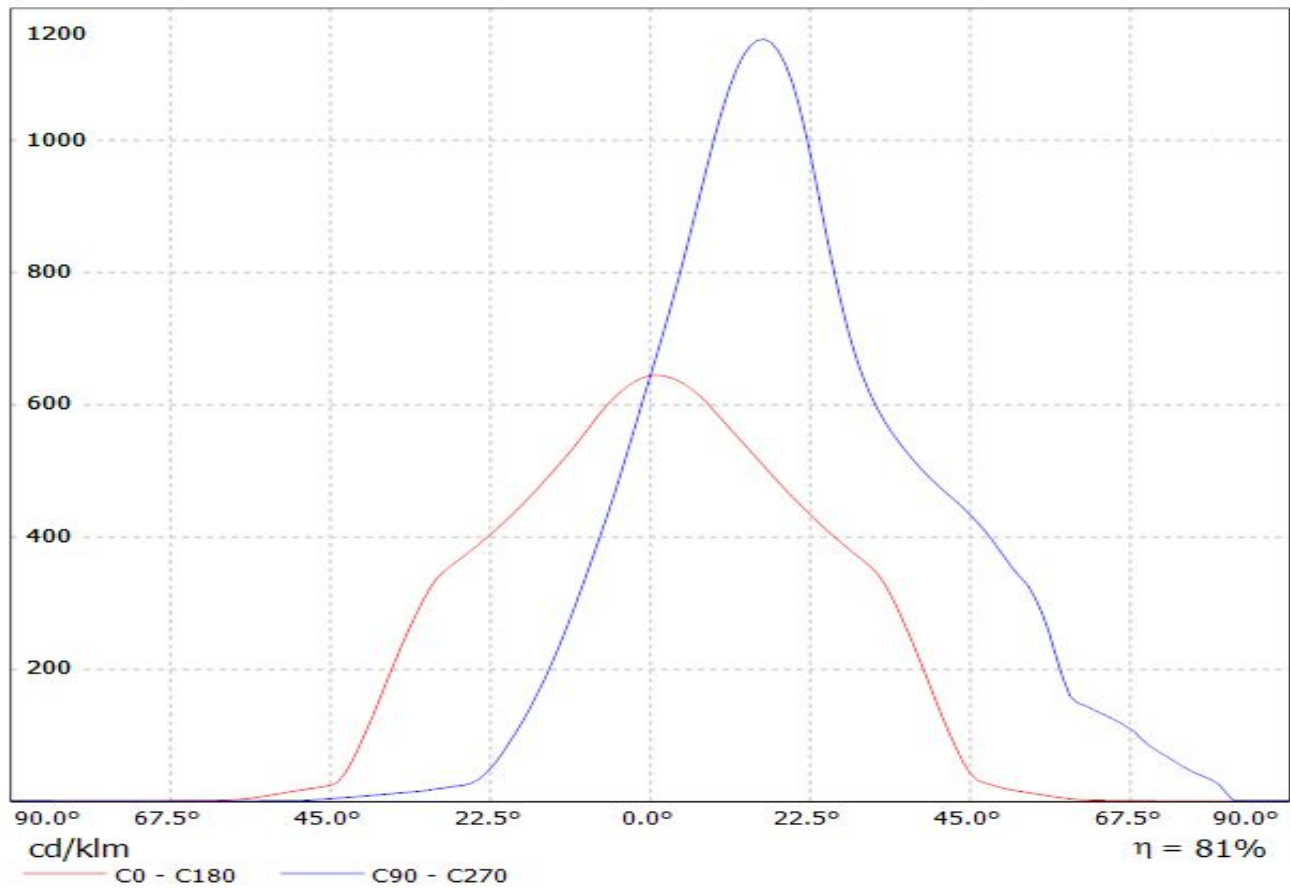
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A

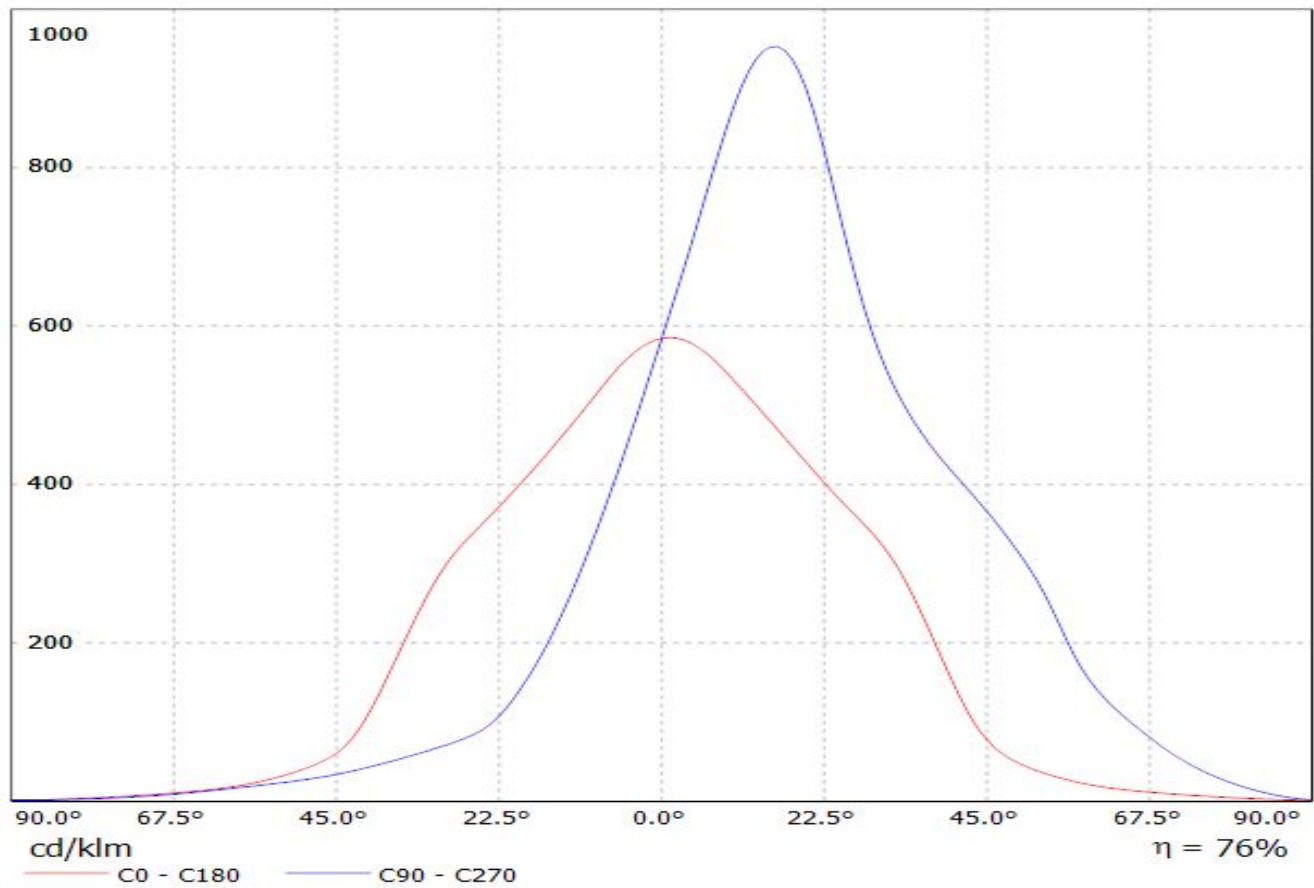
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1

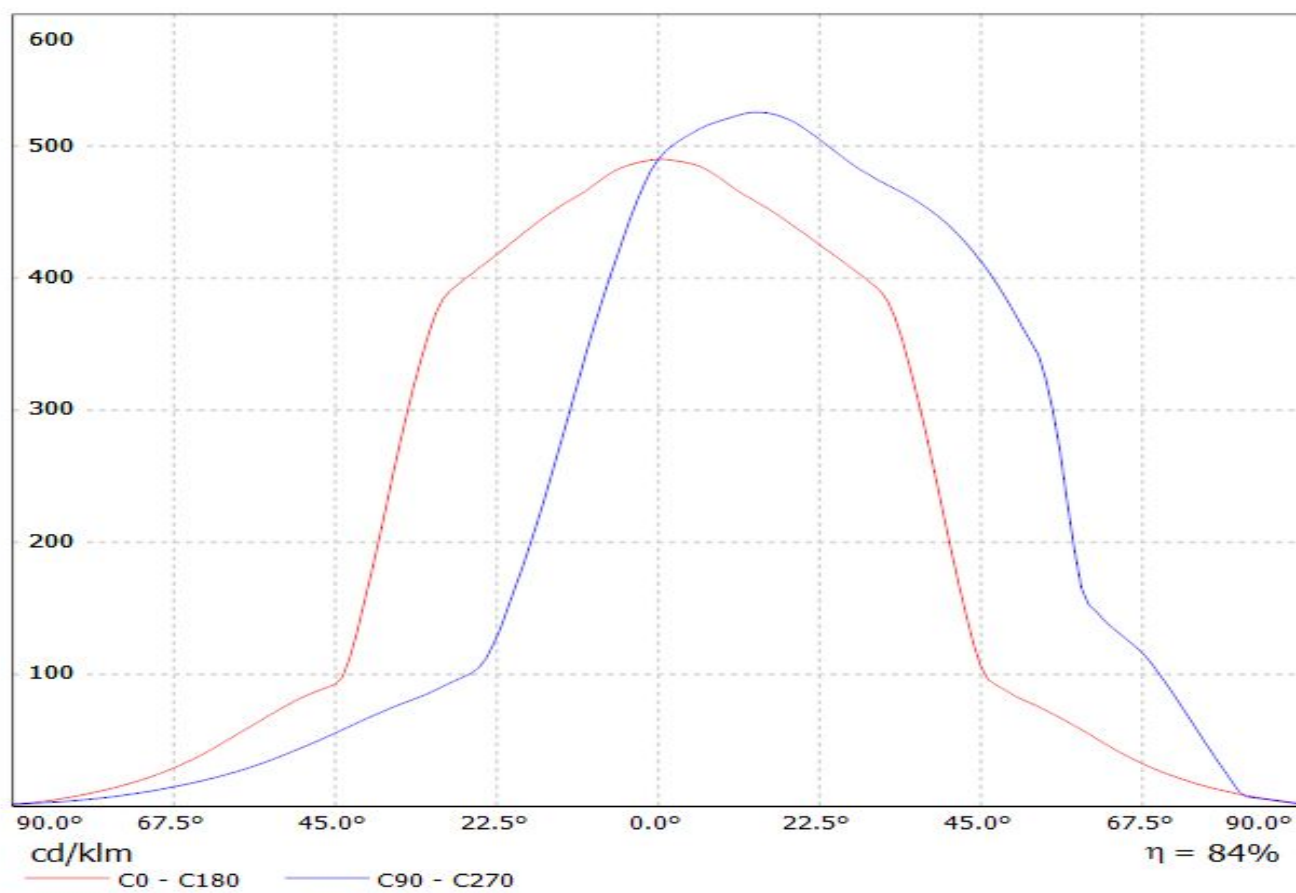
Luminaire: LEDiL Oy CN13163_LENA-WAS_(CLL030) Eff.80.7%
Lamps: 4 x CLL030 (231.104lm@250mA)



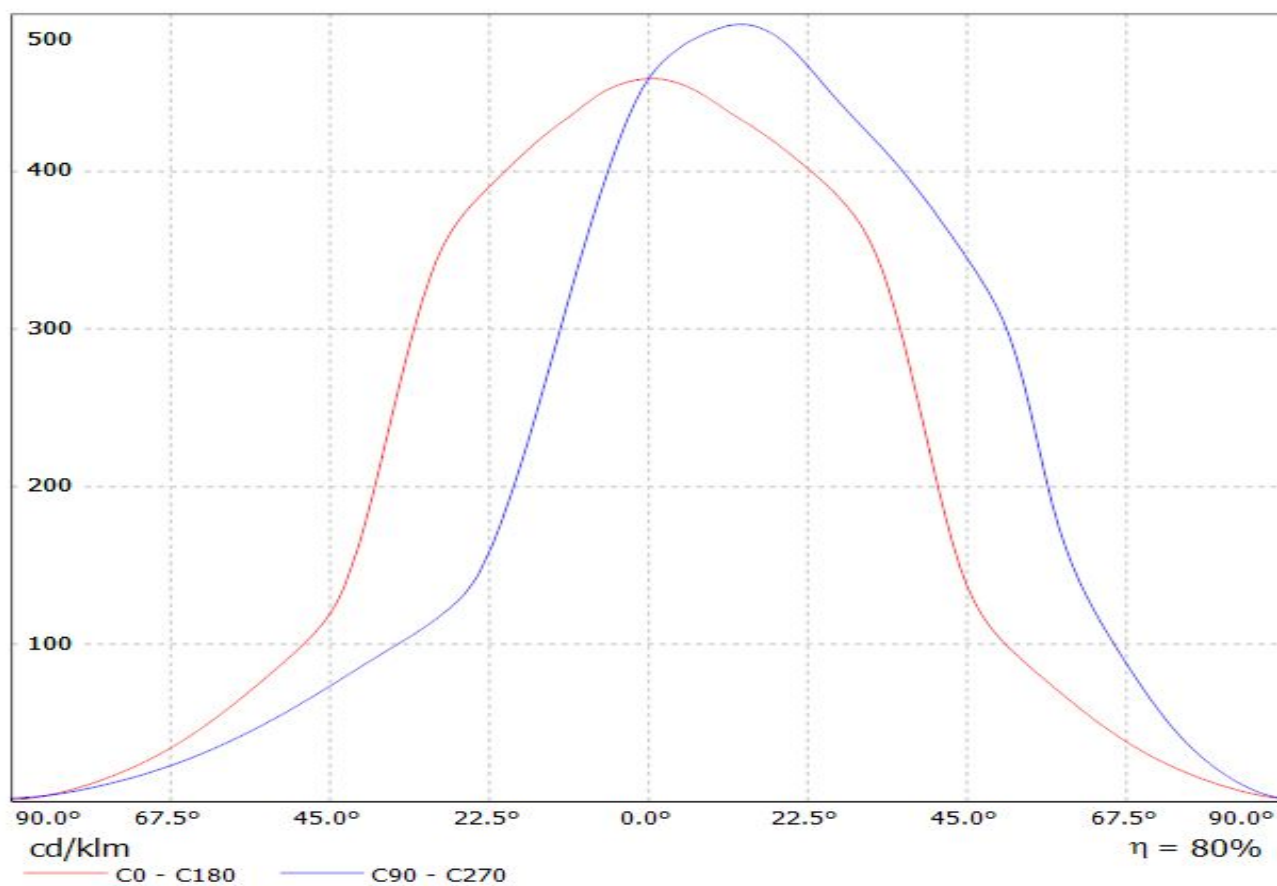
Luminaire: LEDiL Oy CN13173_LENA-WAS-DL_(CLL030) Eff.76.3%
Lamps: 4 x CLL030 (231.104lm@250mA)



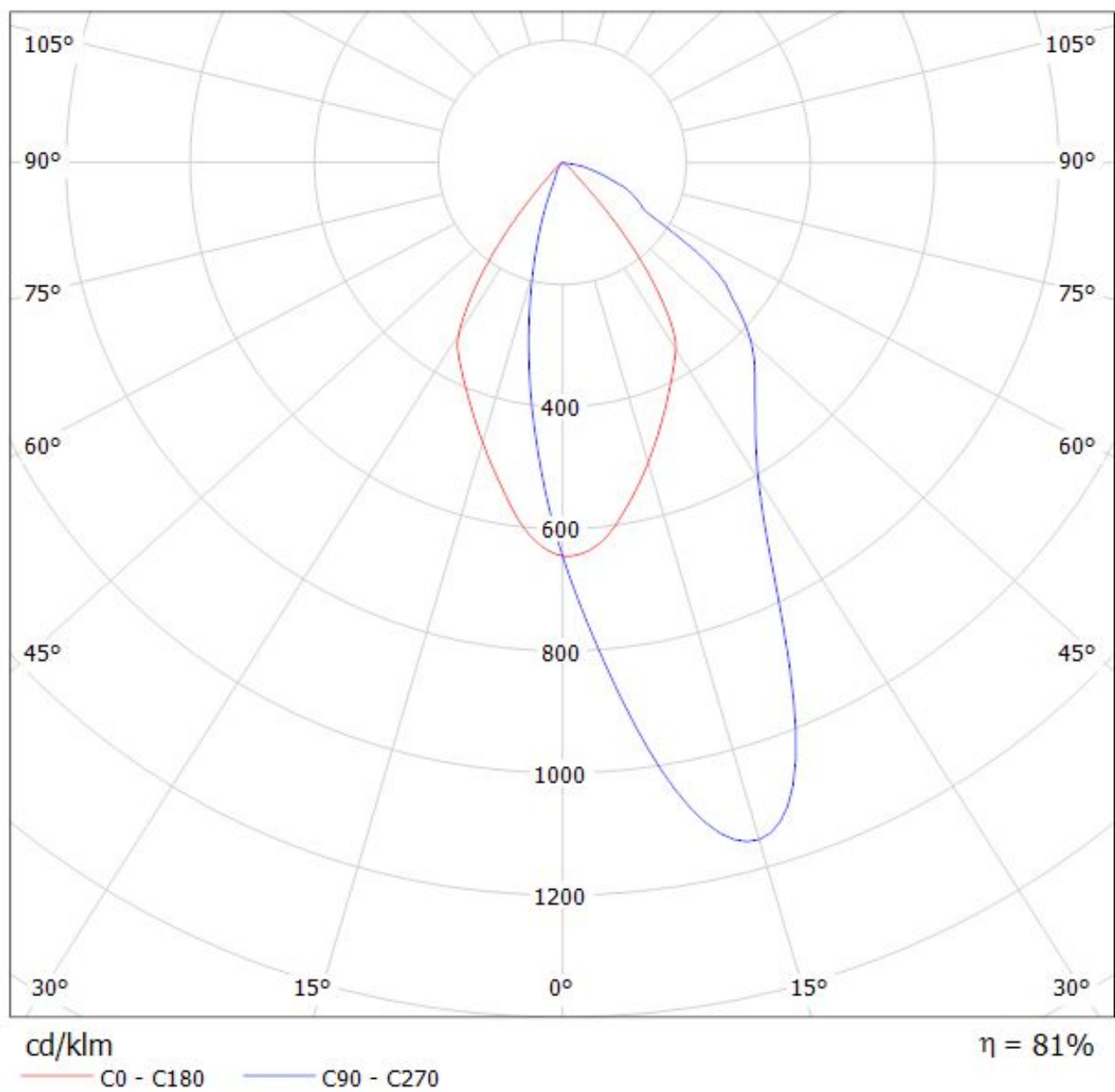
Luminaire: LEDiL Oy CN13369_LENA-X-WAS_(CLL030) Eff.83.6%
Lamps: 4 x CLL030 (231.104lm@250mA)



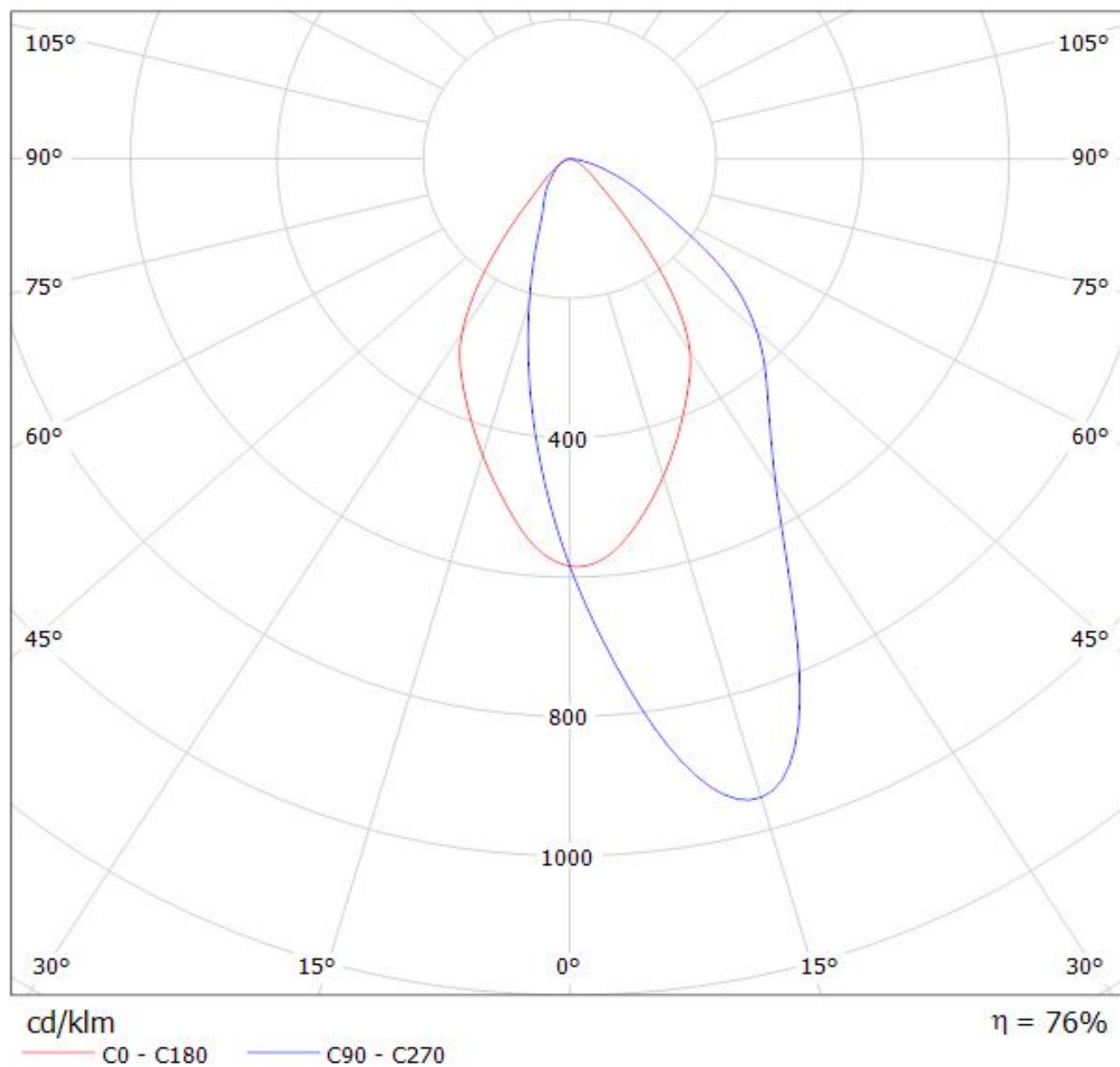
Luminaire: LEDiL Oy CN13371_LENA-X-WAS-DL_(CLL030) Eff.81.6%
Lamps: 4 x CLL030 (231.104lm@250mA)



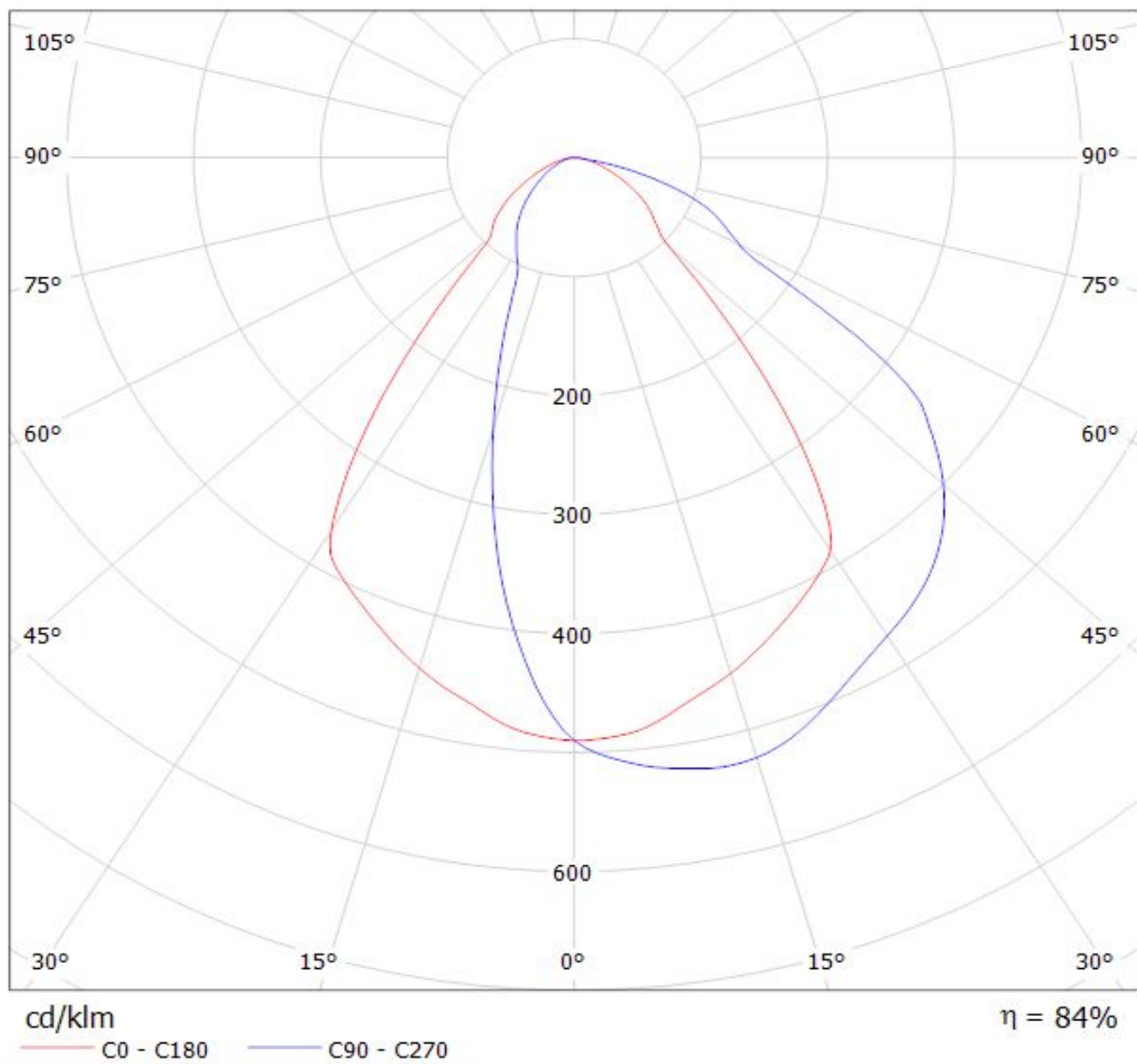
Luminaire: LEDiL Oy CN13163_LENA-WAS_(CLL030) Eff.80.7%
Lamps: 4 x CLL030 (231.104lm@250mA)



Luminaire: LEDiL Oy CN13173_LENA-WAS-DL_(CLL030) Eff.76.3%
Lamps: 4 x CLL030 (231.104lm@250mA)



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