

**Ordering number CN13160_LENA-WAS**

Family	Lena	FWHM	Asymmetric degrees
Type	Pack	Efficiency	80 %
LED	BXRA ES Rectangle	cd/lm	1.130
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	39 mm		
Style	Round		
Optic Material	PC		
Holder Material	-		
Fastening	Socket		
Status	Ready		

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

Ordering number CN13170_LENA-WAS-DL

Family	Lena	FWHM	Asymmetric degrees
Type	Pack	Efficiency	77 %
LED	BXRA ES Rectangle	cd/lm	0.460
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	-		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		

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

Ordering number CN13368_LENA-X-WAS

Family	Lena	FWHM	Asymmetric degrees
Type	Pack	Efficiency	81 %
LED	BXRA ES Rectangle	cd/lm	0.500
Color	White	Gerber File	Available
Diameter	111 mm		
Height	39.1 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Socket, screw		
Status	Ready		

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

Ordering number CN13375_LENA-X-WAS-DL

Family	Lena	FWHM	Asymmetric degrees
Type	Pack	Efficiency	77 %
LED	BXRA ES Rectangle	cd/lm	0.460
Color	White	Gerber File	Available
Diameter	111 mm		
Height	42 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		

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

**Ordering number CN12159_LENA-S-DL**

Family	Lena	FWHM	11 degrees
Type	Pack	Efficiency	78 %
LED	BXRA ES Rectangle	cd/lm	-
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	86.2 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		

**Ordering number CN12164_LENA-M**

Family	Lena	FWHM	19 degrees
Type	Pack	Efficiency	83 %
LED	BXRA ES Rectangle	cd/lm	-
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	86.2 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		

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

**Ordering number CN12168_LENA-M-DL**

Family	Lena	FWHM	20 degrees
Type	Pack	Efficiency	77 %
LED	BXRA ES Rectangle	cd/lm	-
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	86.2 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		

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

**Ordering number CN12160_LENA-W-DL**

Family	Lena	FWHM	46 degrees
Type	Pack	Efficiency	74 %
LED	BXRA ES Rectangle	cd/lm	-
Color	Metal	Gerber File	Available
Diameter	111 mm		
Height	86.2 mm		
Style	Round		
Optic Material	PC		
Holder Material	PC		
Fastening	Screw		
Status	Ready		

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



PRODUCT DATASHEET

Lena series

last update 7/5/2013



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 7/5/2013



GENERAL INFORMATION

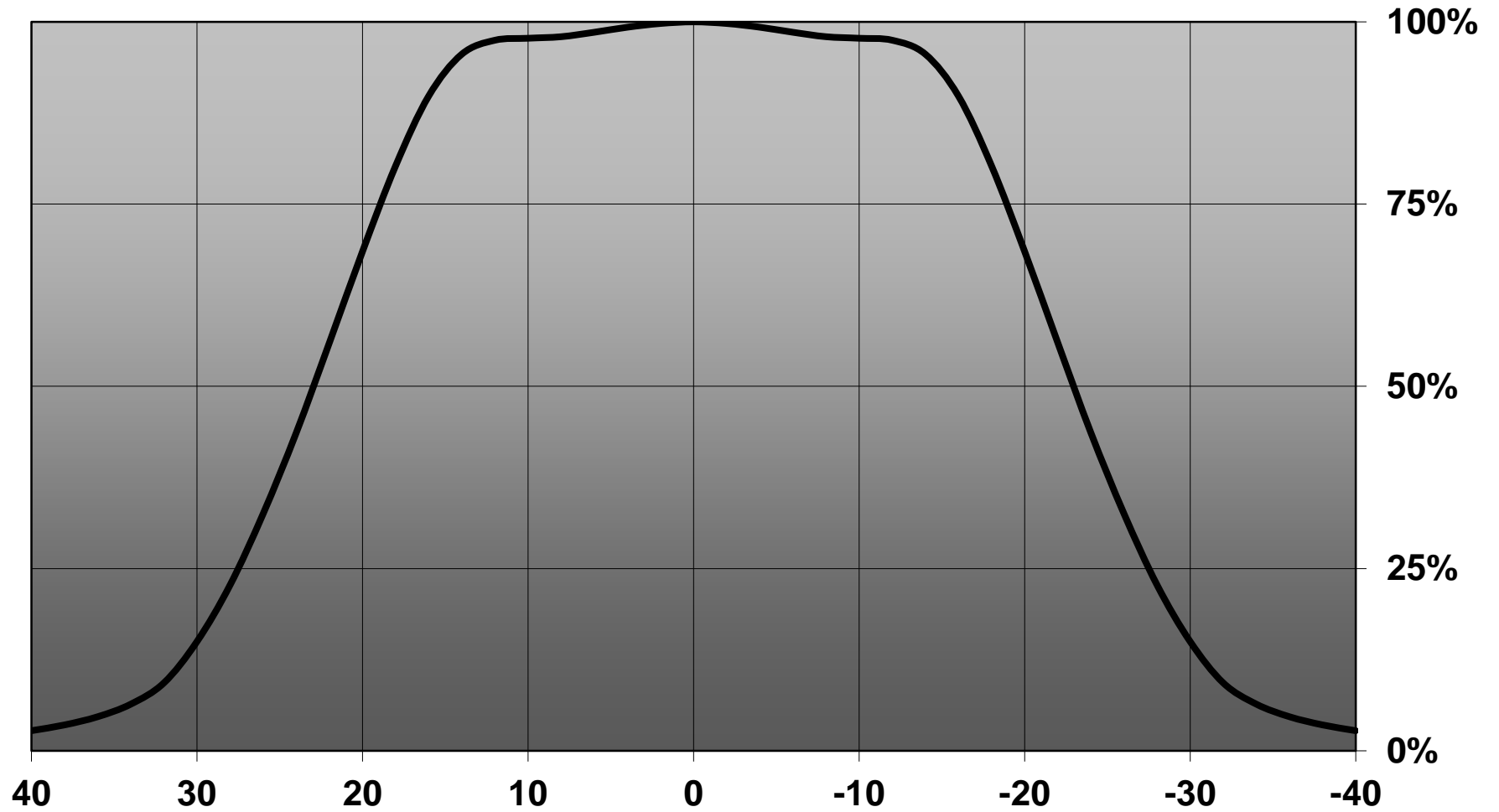
- Product series especially designed & optimized for BXRA ES Rectangle series of LEDs.
- Special care taken to make light distribution as uniform as possible.
- Lens material optical grade PC with high UV and temperature resistance (120 degrees of Celcius / 248 degrees of Fahrenheit). Allows use of high 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 CA12160_Lena-W-Diffuser-Lens_BXRA-W1203



D

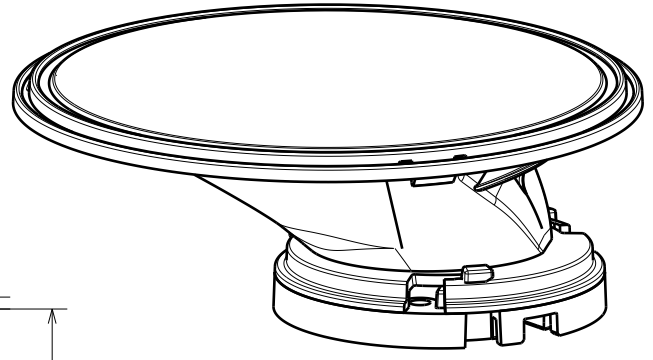
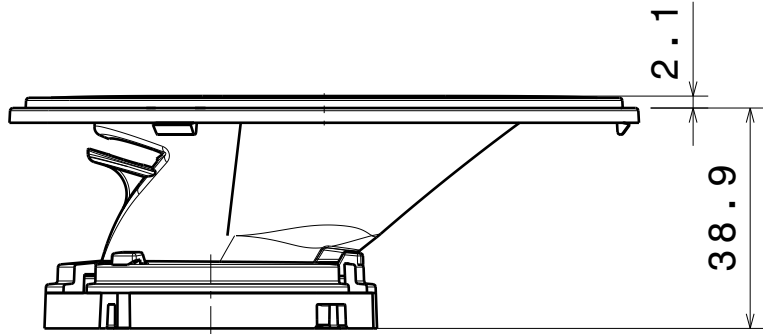
C

B

A

4

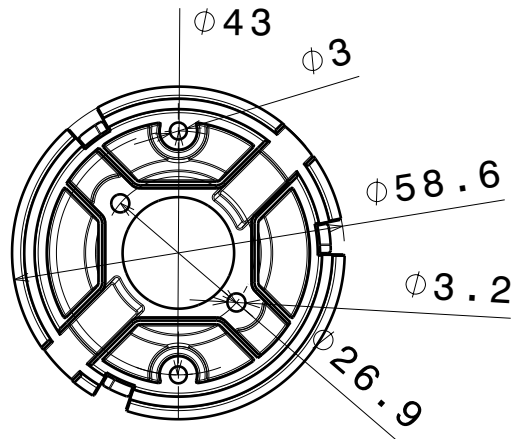
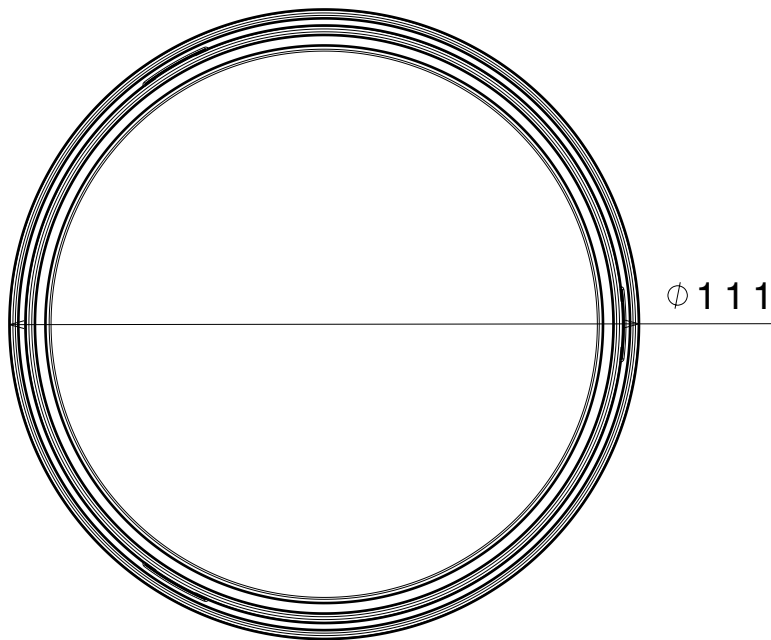
4



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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 Salorankatu 10
 FIN 24240 SALO
 Finland

DRAWING TITLE Mechanical drawing

DRAWN BY
 as

DATE
 26.9.2012

LENA-WAS

CHECKED BY
 VS

DATE
 -

SIZE
 A4

PART NUMBER

REV
 001

DESIGNED BY
 -

DATE
 -

SCALE

1:4

WEIGHT

- mg

SHEET

1/1

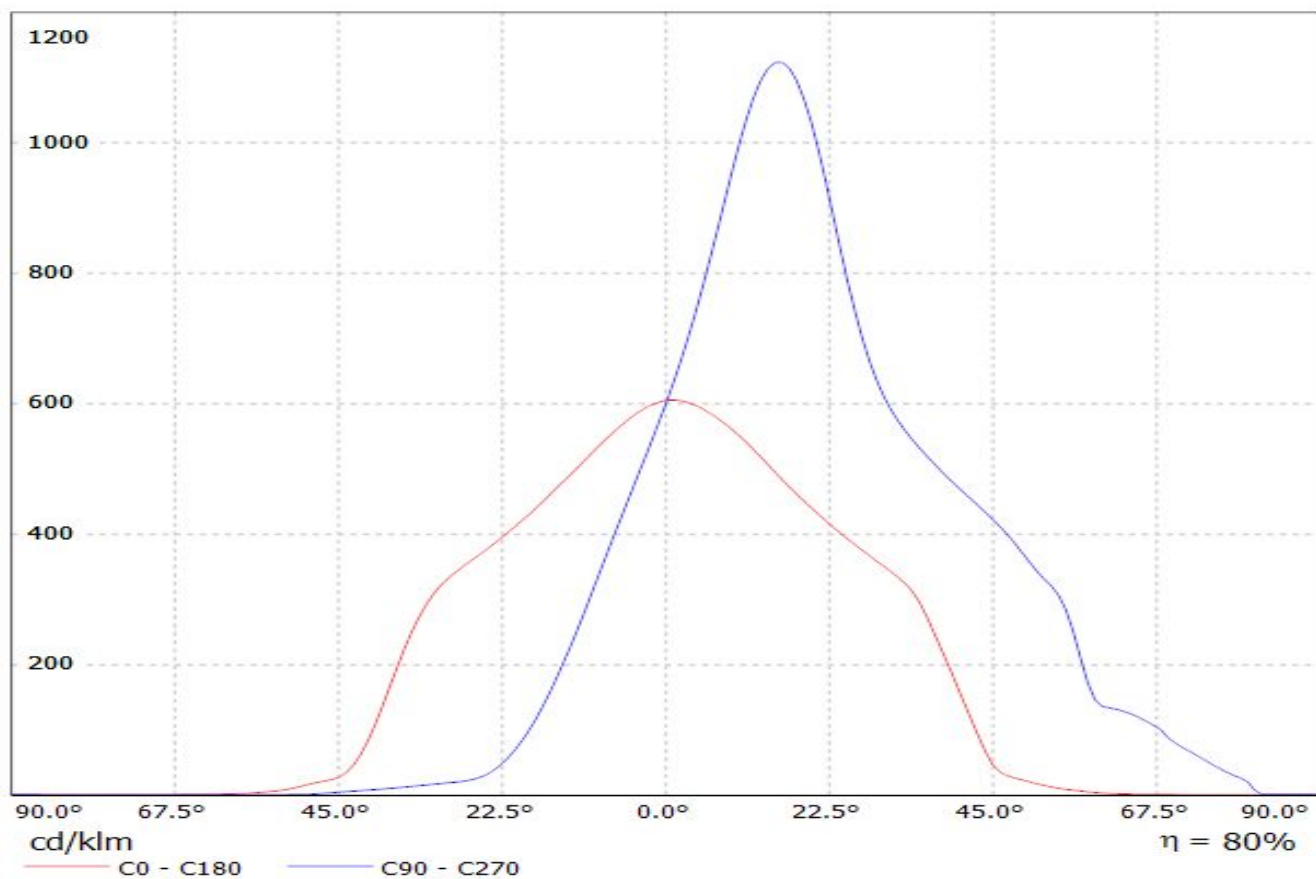
D

A

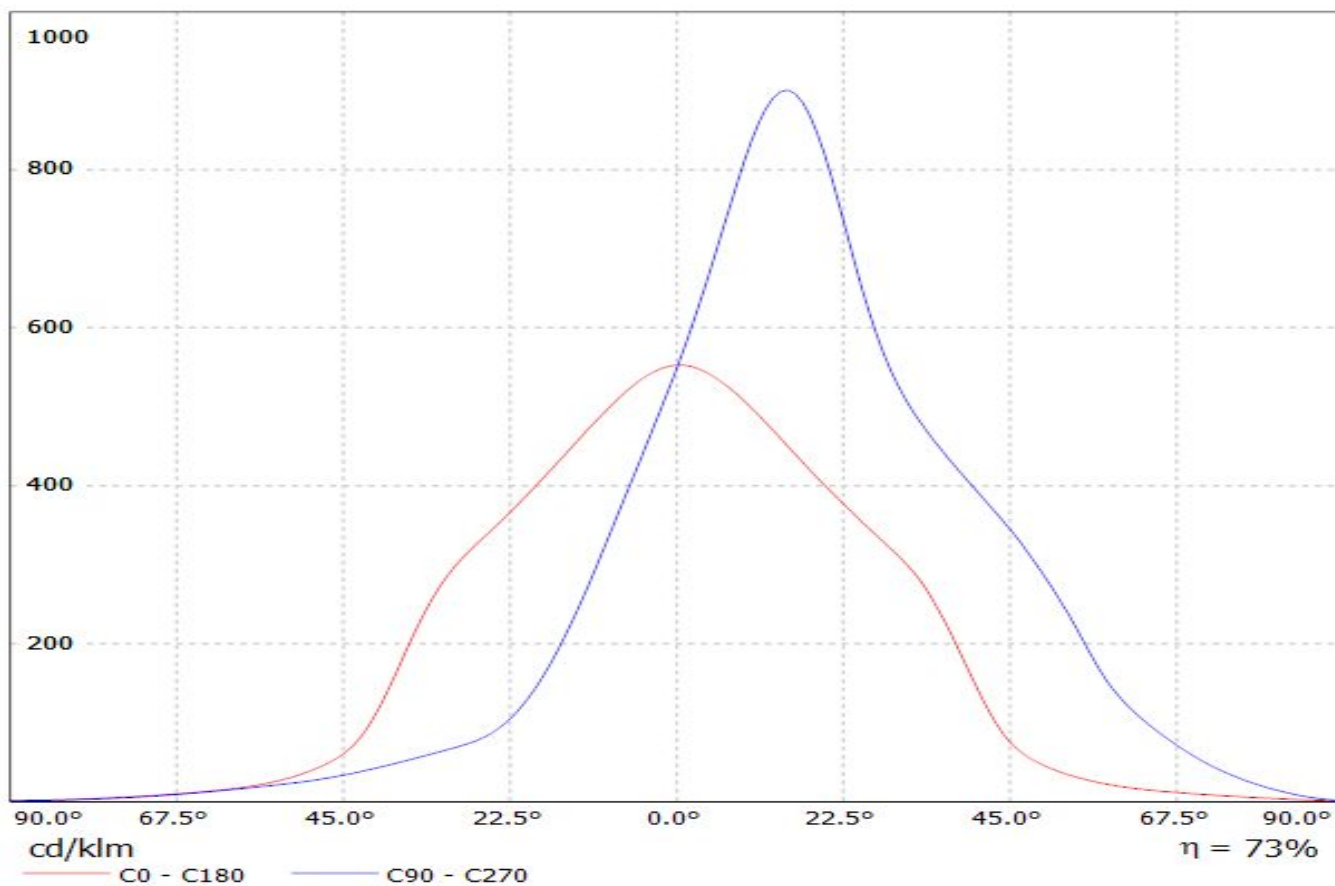
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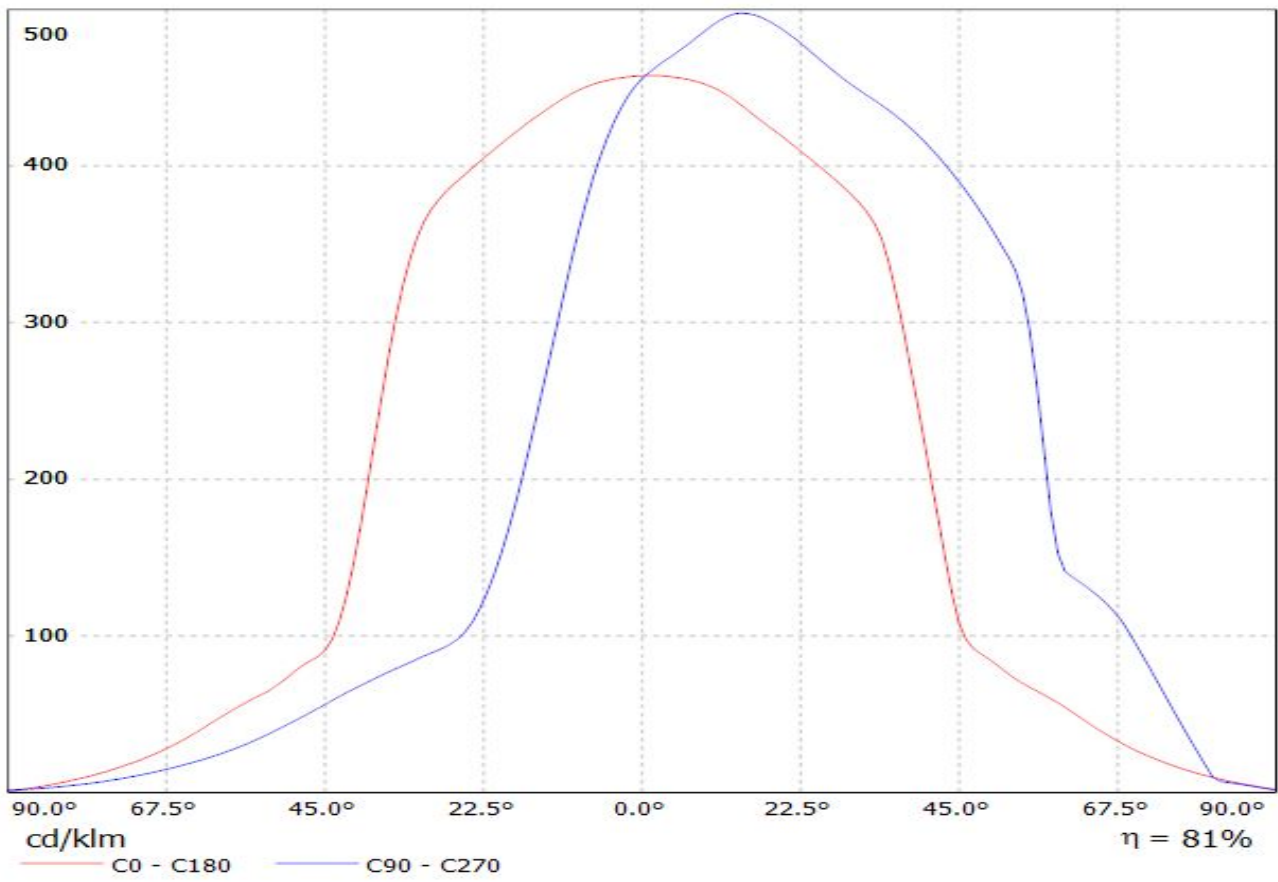
Luminaire: LEDiL Oy CN13160_LENA-WAS_(BXRA_ES) Eff.79.6%
Lamps: 1 x BXRA-W1203_ES (297.805lm@250mA)



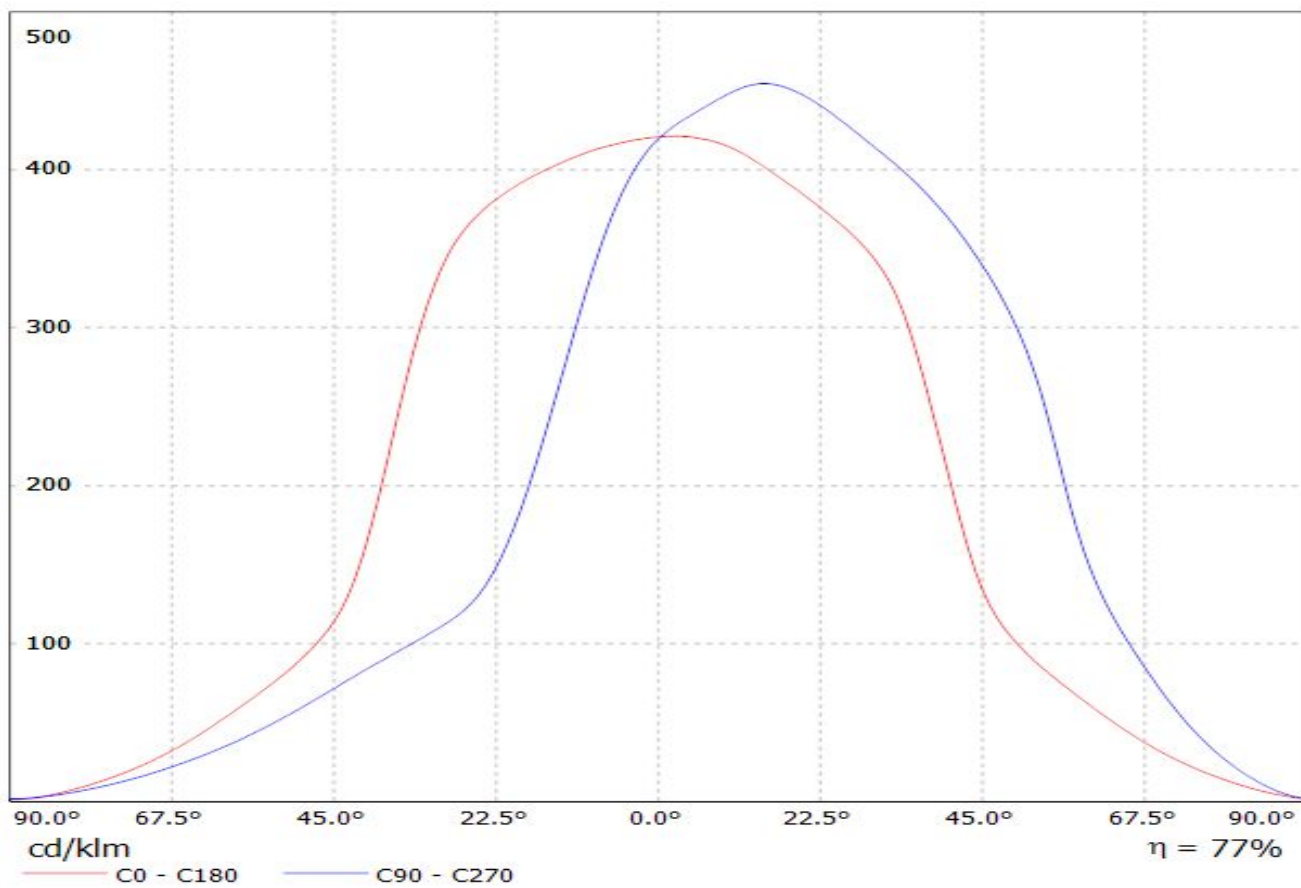
Luminaire: LEDiL Oy CN13170_LENA-WAS-DL_(BXRA_ES) Eff.73.2%
Lamps: 1 x BXRA-W1203 (297.805lm@250mA)



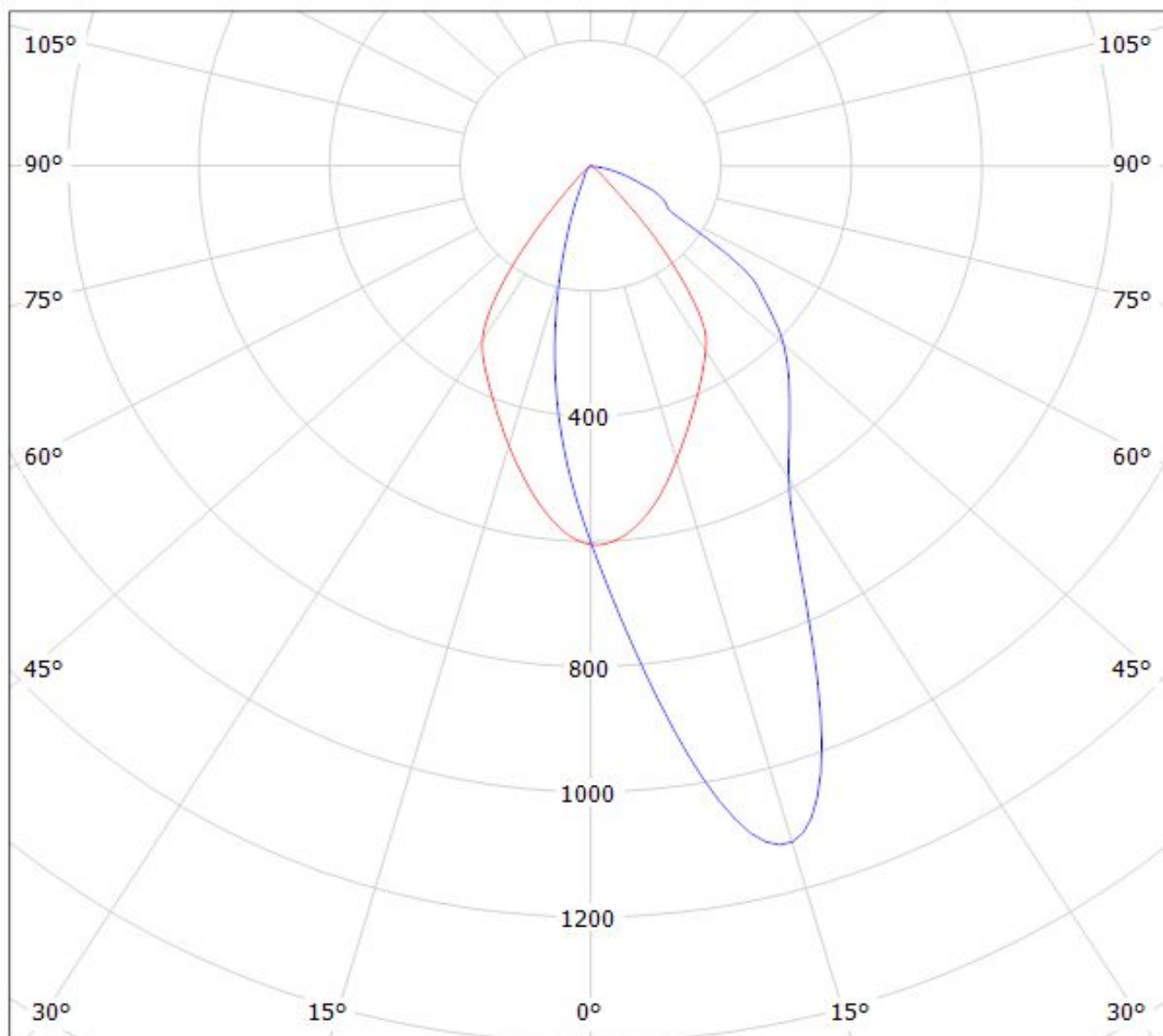
Luminaire: LEDiL Oy CN13368_LENA-X-WAS_(BXRA_ES) Eff.80.5%
Lamps: 1 x BXRA-W1203 (297.805lm@250mA)



Luminaire: LEDiL Oy CN13375_LENA-X-WAS-DL_(BXRA_ES) Eff.76.6%
Lamps: 1 x BXRA-W1203 (297.805lm@250mA)



Luminaire: LEDiL Oy CN13160_LENA-WAS_(BXRA_ES) Eff.79.6%
Lamps: 1 x BXRA-W1203_ES (297.805lm@250mA)

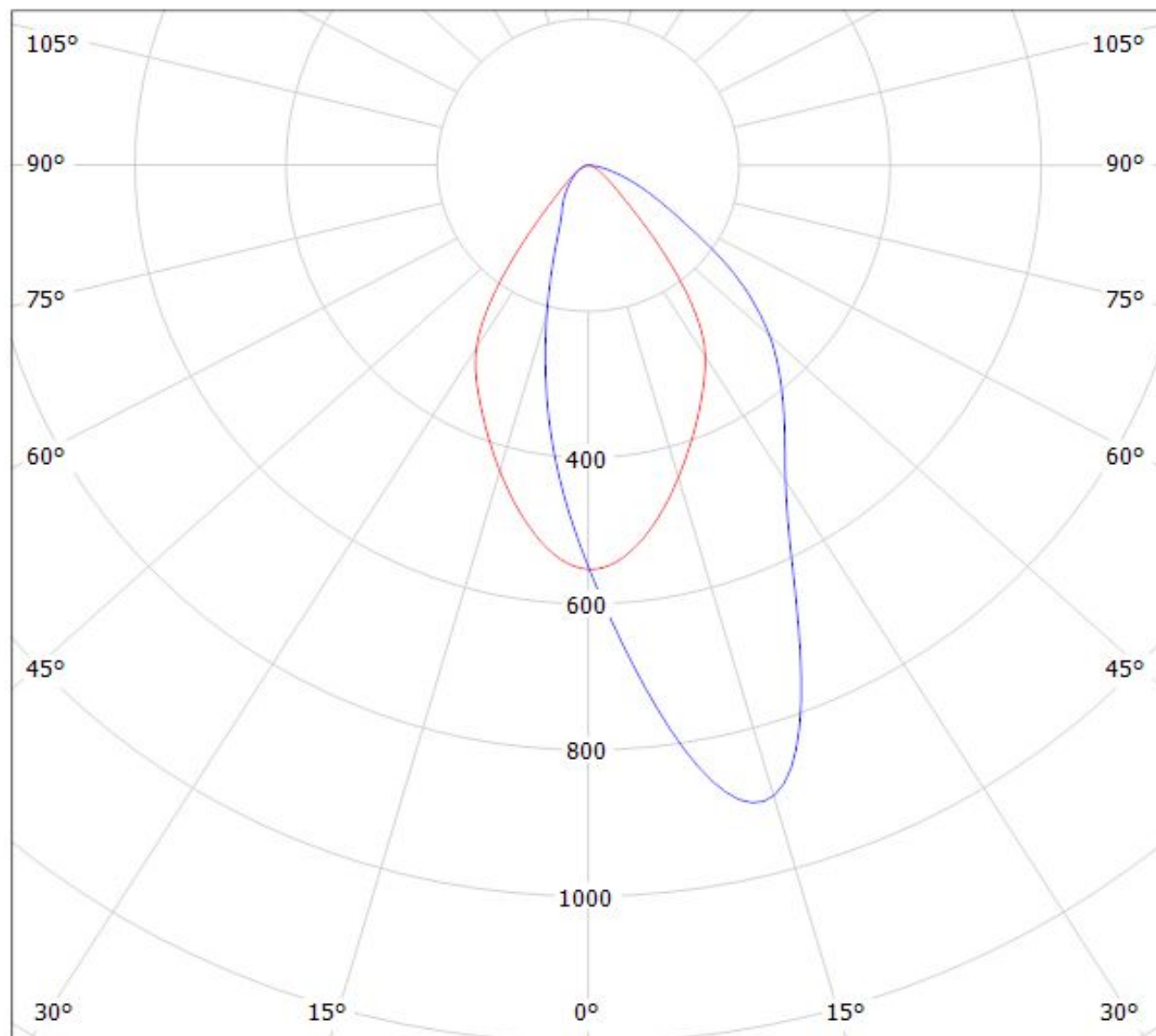


cd/klm

— C0 - C180 — C90 - C270

$\eta = 80\%$

Luminaire: LEDiL Oy CN13170_LENA-WAS-DL_(BXRA_ES) Eff.73.2%
Lamps: 1 x BXRA-W1203 (297.805lm@250mA)



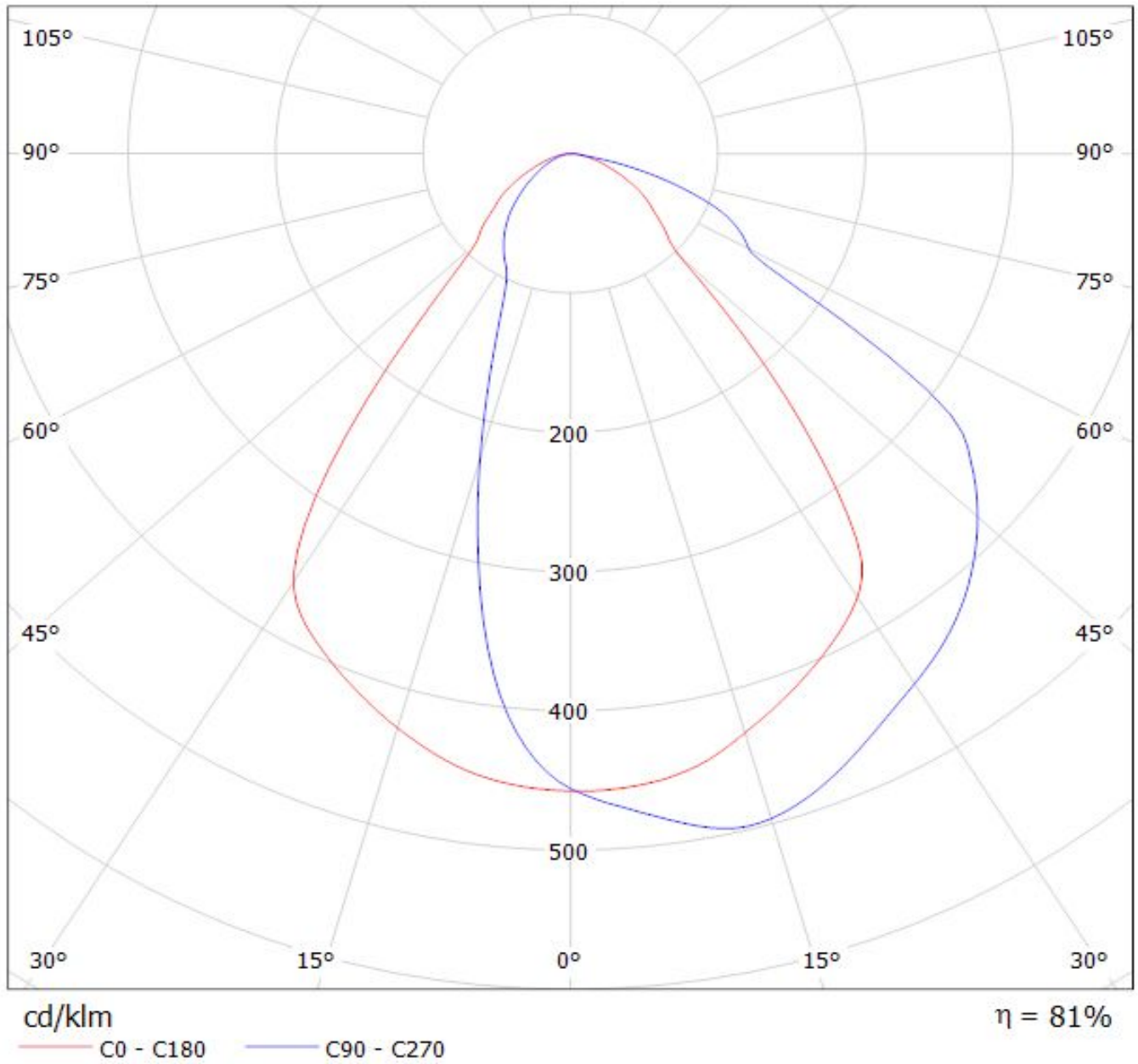
cd/klm

— C0 - C180

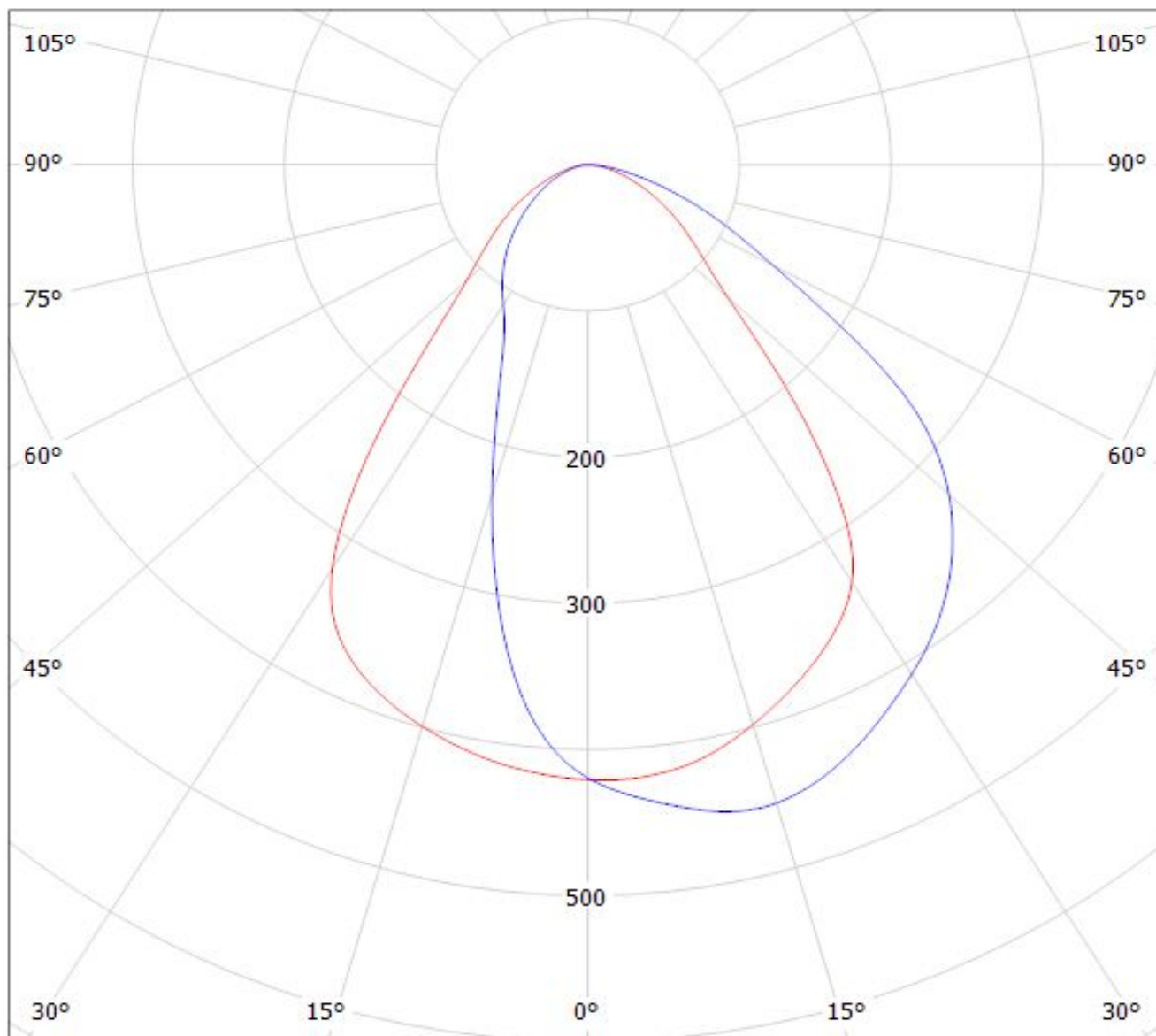
— C90 - C270

$\eta = 73\%$

Luminaire: LEDiL Oy CN13368_LENA-X-WAS_(BXRA_ES) Eff.80.5%
Lamps: 1 x BXRA-W1203 (297.805lm@250mA)



Luminaire: LEDiL Oy CN13375_LENA-X-WAS-DL_(BXRA_ES) Eff.76.6%
Lamps: 1 x BXRA-W1203 (297.805lm@250mA)



cd/klm

— C0 - C180 — C90 - C270

$\eta = 77\%$