

**Product number FP11055_LISA2-RS-PIN**

Family	Lisa2	FWHM	16 degrees
Type	Assembly	Efficiency	90 %
LED	XP-E	cd/lm	6.500
Color	Black	Gerber File	Available
Diameter	9.9 mm		
Height	6.8 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	["glue", "pin"]		
Status	Production ready		

Product number FP11085_LISA2-RS-CLIP

Family	Lisa2	FWHM	16 degrees
Type	Assembly	Efficiency	90 %
LED	XP-E	cd/lm	-
Color	Black	Gerber File	Available
Diameter	9.9 mm		
Height	6.8 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	["clips", "glue"]		
Status	Production ready		

Product number FP11121_LISA2-O-CLIP

Family	Lisa2	FWHM	18+48 degrees
Type	Assembly	Efficiency	83 %
LED	XP-E	cd/lm	2.300
Color	Black	Gerber File	Available
Diameter	9.9 mm		
Height	6.8 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	["clips", "glue"]		
Status	Production ready		

Product number FP11125_LISA2-O-PIN

Family	Lisa2	FWHM	18+48 degrees
Type	Assembly	Efficiency	83 %
LED	XP-E	cd/lm	2.300
Color	Black	Gerber File	Available
Diameter	9.9 mm		
Height	6.8 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	["pin", "glue"]		
Status	Production ready		

**Product number FP10995_LISA2-M-PIN**

Family	Lisa2	FWHM	24 degrees
Type	Assembly	Efficiency	92 %
LED	XP-E	cd/lm	-
Color	Black	Gerber File	Available
Diameter	9.9 mm		
Height	6.8 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	["pin", "glue"]		
Status	Production ready		

Product number FP11075_LISA2-M-CLIP

Family	Lisa2	FWHM	24 degrees
Type	Assembly	Efficiency	92 %
LED	XP-E	cd/lm	-
Color	Black	Gerber File	Available
Diameter	9.9 mm		
Height	6.8 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	["glue", "clips"]		
Status	Production ready		

Product number FP10996_LISA2-W-PIN

Family	Lisa2	FWHM	37 degrees
Type	Assembly	Efficiency	90 %
LED	XP-E	cd/lm	1.960
Color	Black	Gerber File	Available
Diameter	9.9 mm		
Height	6.8 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	["pin", "glue"]		
Status	Production ready		

Product number FP11076_LISA2-W-CLIP

Family	Lisa2	FWHM	37 degrees
Type	Assembly	Efficiency	90 %
LED	XP-E	cd/lm	1.960
Color	Black	Gerber File	Available
Diameter	9.9 mm		
Height	6.8 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	["glue", "clips"]		
Status	Production ready		

**Product number FP10997_LISA2-WW-PIN**

Family	Lisa2	FWHM	42 degrees
Type	Assembly	Efficiency	91 %
LED	XP-E	cd/lm	1.000
Color	Black	Gerber File	Available
Diameter	9.9 mm		
Height	7 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	["glue", "pin"]		
Status	Production ready		

**Product number FP11077_LISA2-WW-CLIP**

Family	Lisa2	FWHM	42 degrees
Type	Assembly	Efficiency	91 %
LED	XP-E	cd/lm	1.300
Color	Black	Gerber File	Available
Diameter	9.9 mm		
Height	6.8 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	["glue", "clips"]		
Status	Production ready		

**Product number FP11851_LISA2-O-90-PIN**

Family	Lisa2	FWHM	48+18 degrees
Type	Assembly	Efficiency	83 %
LED	XP-E	cd/lm	-
Color	Black	Gerber File	Available
Diameter	9.9 mm		
Height	6.8 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	["pin", "glue"]		
Status	Production ready		

**Product number FP11856_LISA2-O-90-CLIP**

Family	Lisa2	FWHM	48+18 degrees
Type	Assembly	Efficiency	83 %
LED	XP-E	cd/lm	-
Color	Black	Gerber File	Available
Diameter	9.9 mm		
Height	6.8 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	["glue", "clips"]		
Status	Production ready		

**Product number C12469_LISA2-R-PIN**

Family	Lisa2	FWHM	82 degrees
Type	Reflector	Efficiency	86 %
LED	XP-E	cd/lm	0.350
Color	White	Gerber File	Available
Diameter	9.9 mm		
Height	6.5 mm		
Style	Round		
Optic Material	HRPC		
Holder Material	-		
Fastening	["glue", "pin"]		
Status	Production ready		

**Product number FP11429_LISA2-WWW-PIN**

Family	Lisa2	FWHM	84 degrees
Type	Assembly	Efficiency	77 %
LED	XP-E	cd/lm	0.500
Color	Black	Gerber File	Available
Diameter	9.9 mm		
Height	7 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	["pin", "glue"]		
Status	Production ready		

**Product number FP11431_LISA2-WWW-CLIP**

Family	Lisa2	FWHM	84 degrees
Type	Assembly	Efficiency	77 %
LED	XP-E	cd/lm	0.500
Color	Black	Gerber File	Available
Diameter	9.9 mm		
Height	7 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	-		
Fastening	["clips", "glue"]		
Status	Production 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

Lisa2 series

last update 18/8/2014

GENERAL INFORMATION

- Product series especially designed & optimized for XP-E series of LEDs.
- Special care taken to make light distribution as uniform as possible.
- Lens material optical grade PMMA with high UV and temperature resistance. Allows use of high current and temperature conditions.

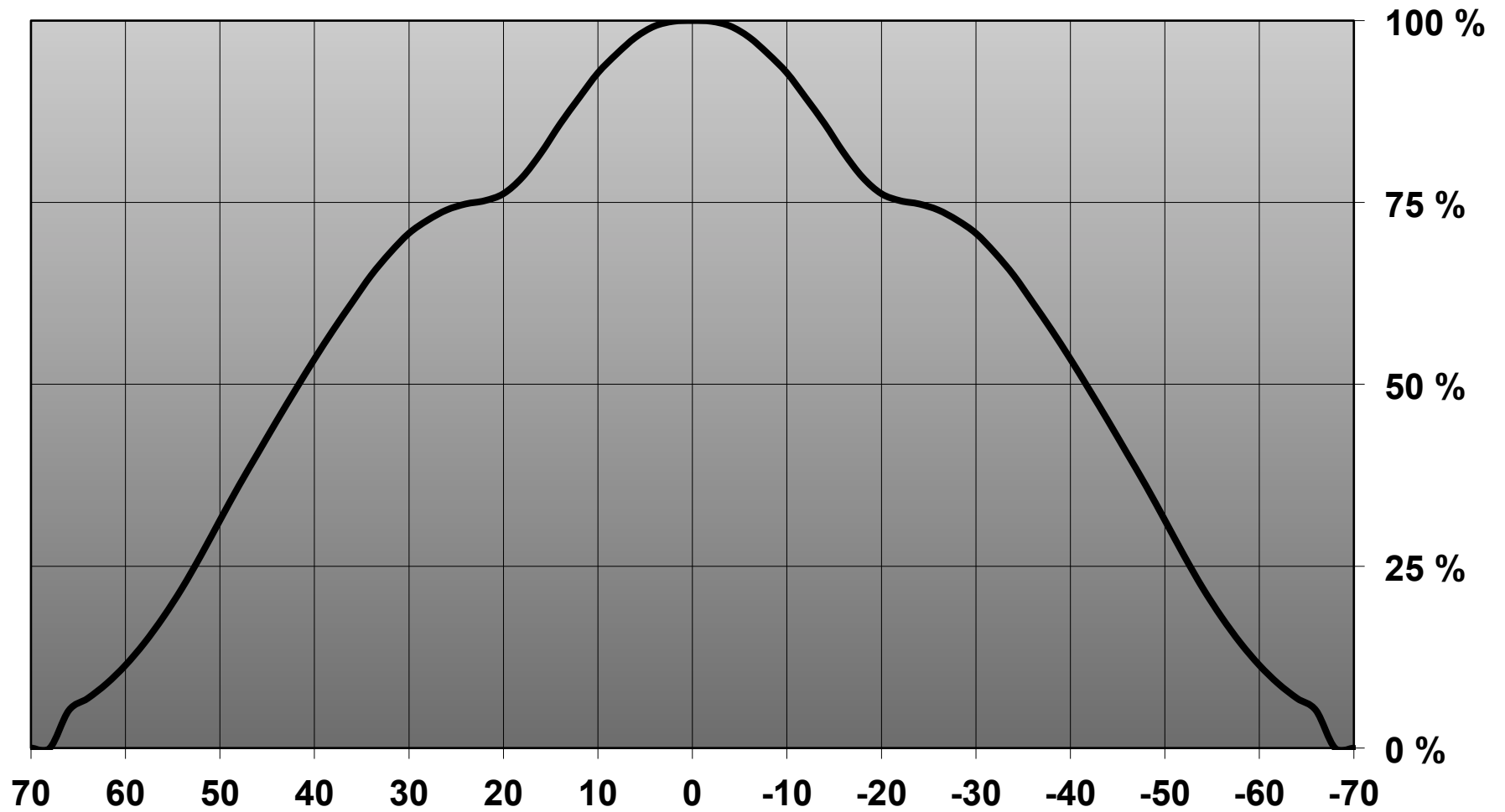
Please find more information about used material from below:

http://ledil.fi/sites/default/files/Documents/Technical/Material/PMMA%20N%20UL94_Yellow%20Card.pdf

<http://ledil.fi/sites/default/files/Documents/Technical/Material/PMMA%20N%20PLEXIGLAS-Datasheet.pdf>

- Reflector is made of aluminium coated PC (120 degrees of Celcius / 248 degrees of Fahrenheit) with protective lacquer (short term 100 degrees of Celcius / 212 degrees of Fahrenheit).

**Relative intensity of FP11431_LISA2-WWW-CLIP &
FP11429_LISA2-WWW-PIN**



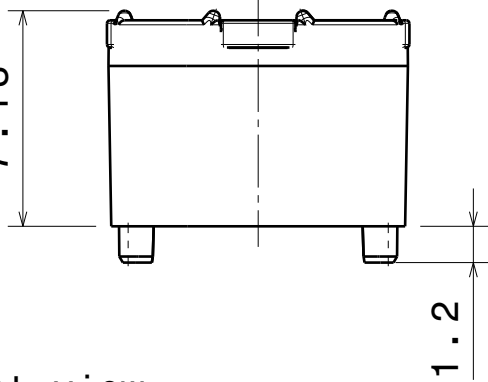
D

C

B

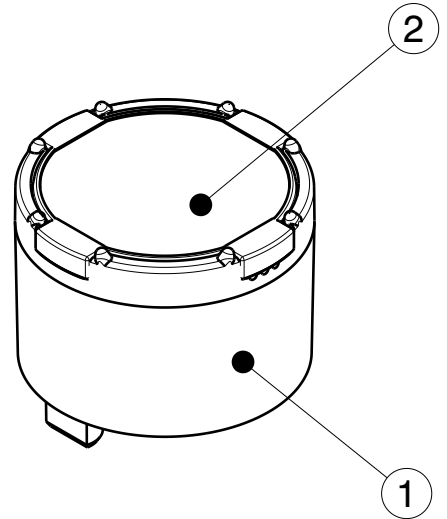
A

7.13

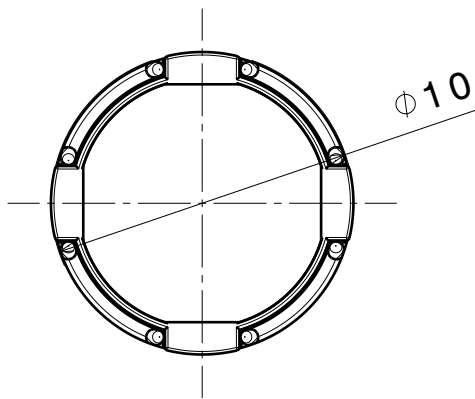


Front view

1.2

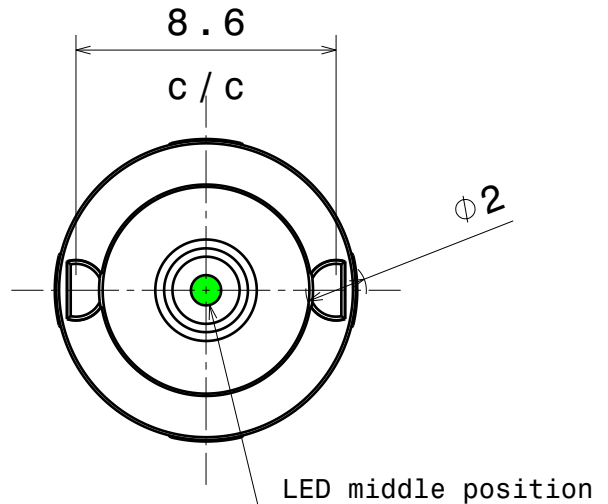


Isometric view



Top view

Ø10



Bottom view

8.6

c / c

Ø2

LED middle position

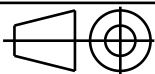
INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	F10989	LISA2-HLD-PIN	PC	black
2	-	LISA2_lens	PMMA	

Tolerances if not otherwise shown
According to DIN ISO 2768-1
Linear measures:
up to 30mm class M, otherwise class C
According to DIN ISO 2768-2
Form and position: class L

LEDiL

Ledil Oy
Salorankatu 10
FIN 24240 SALO
Finland

THIRD ANGLE PROJECTION:



DRAWING TITLE

Lisa2-PIN-XP assembly

This drawing is the property
of LEDiL Oy. It may not be
reproduced, copied or
communicated without a written
agreement with LEDiL Oy.

SIZE PART NUMBER

A4

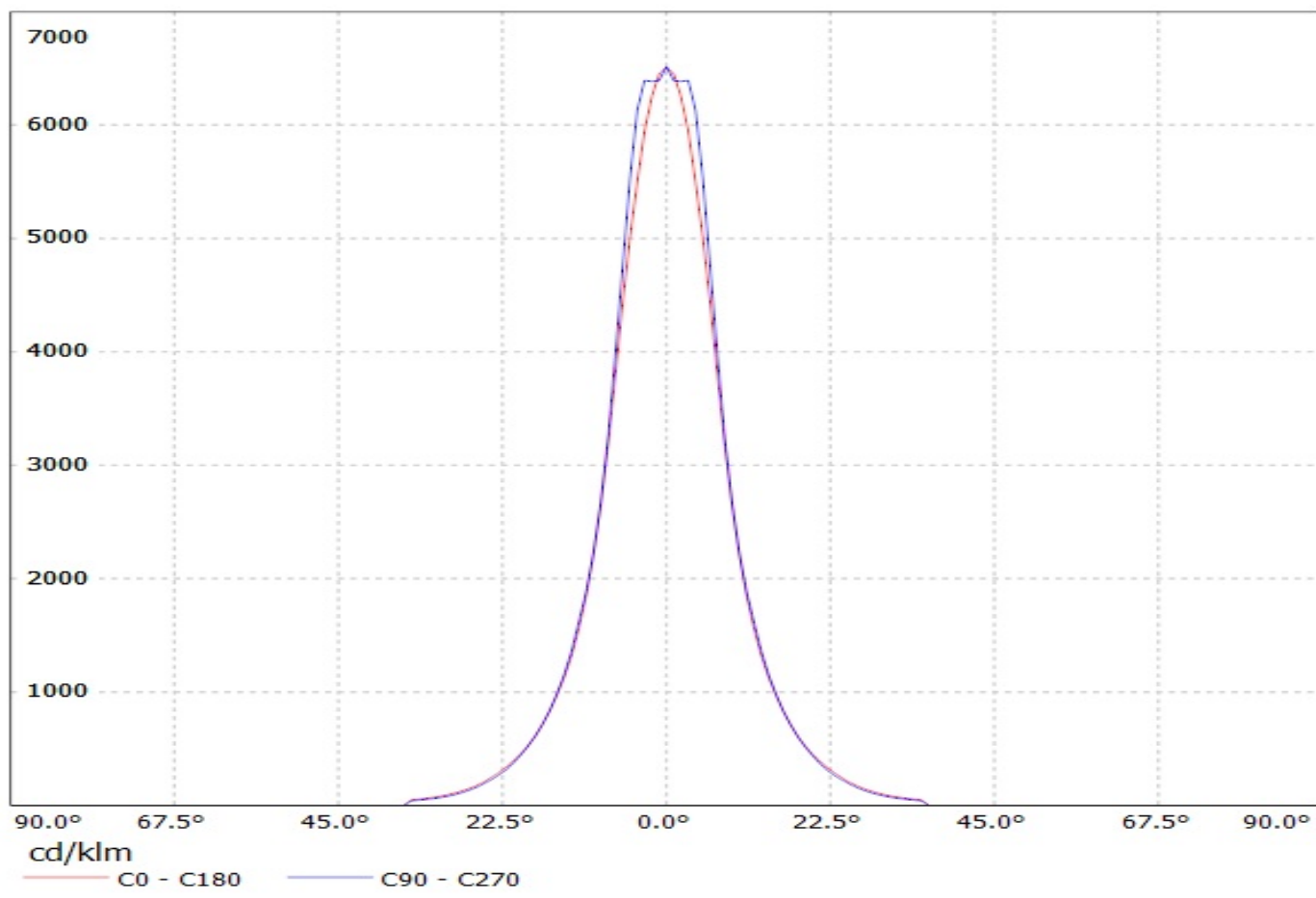
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SCALE	4:1	WEIGHT	0,5 g	SHEET	1/1
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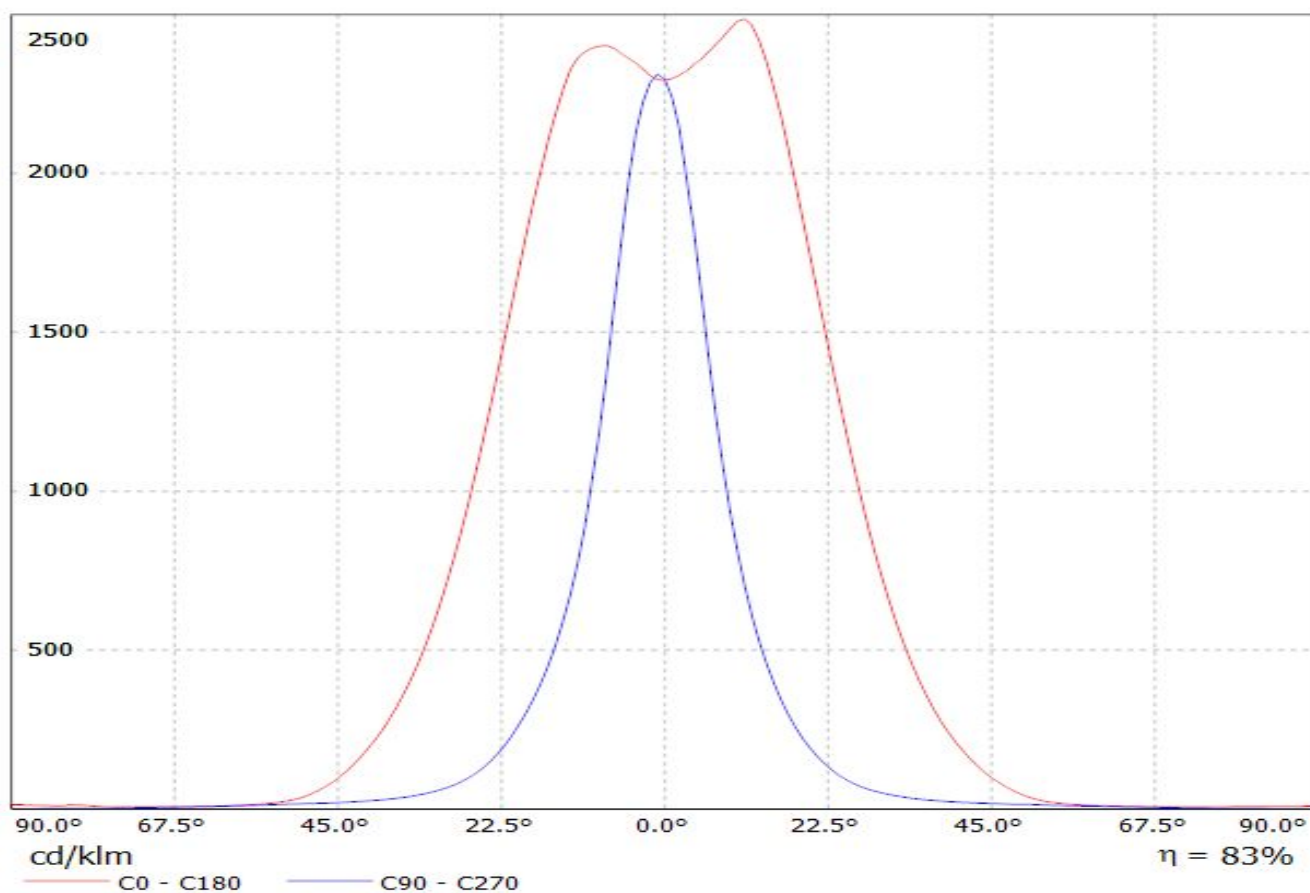
D

A

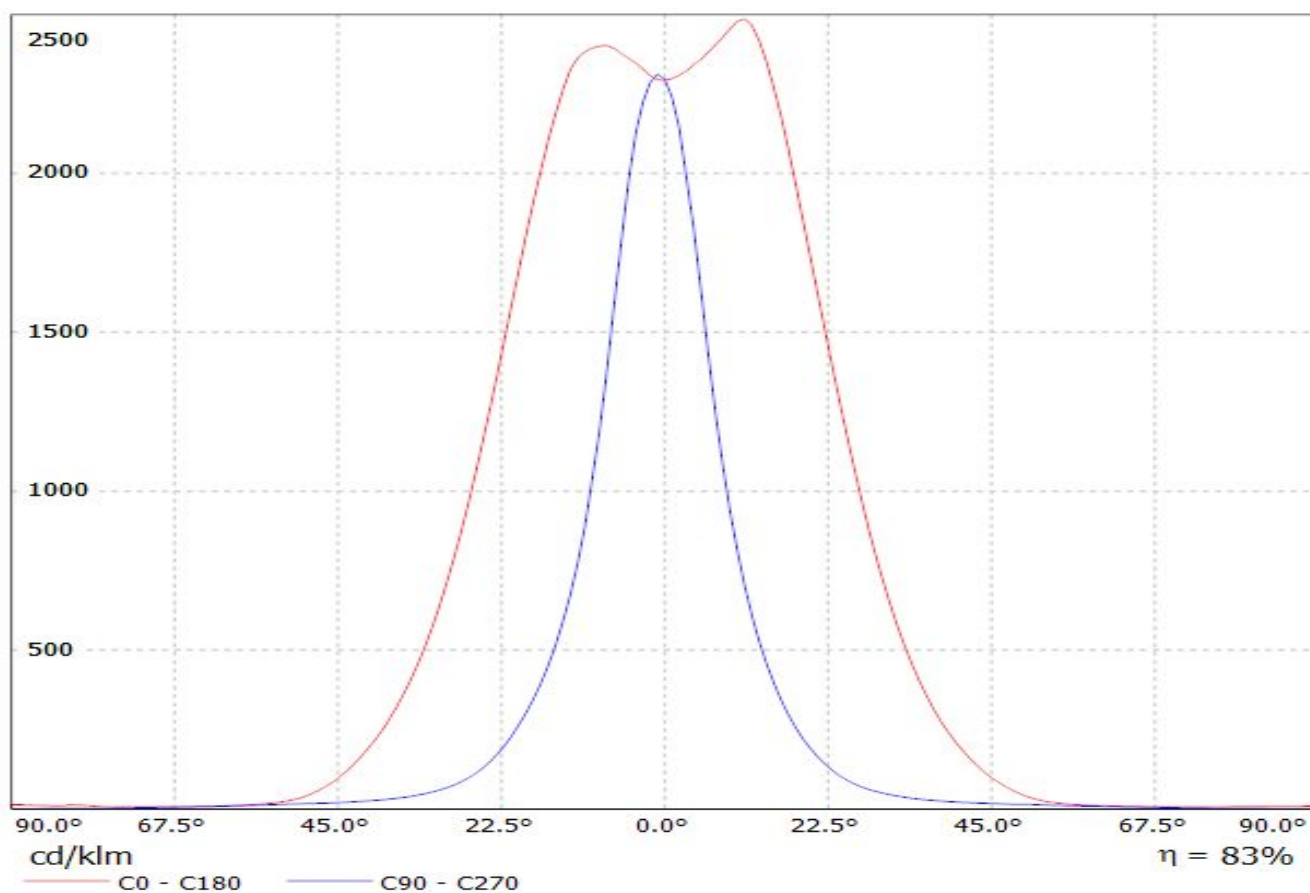
Luminaire: Ledil Oy FA11055_Lisa2-RS-Pin-XP FA11055_Lisa2-RS-Pin-XP
Lamps: 1 x Cree XP-E (White)



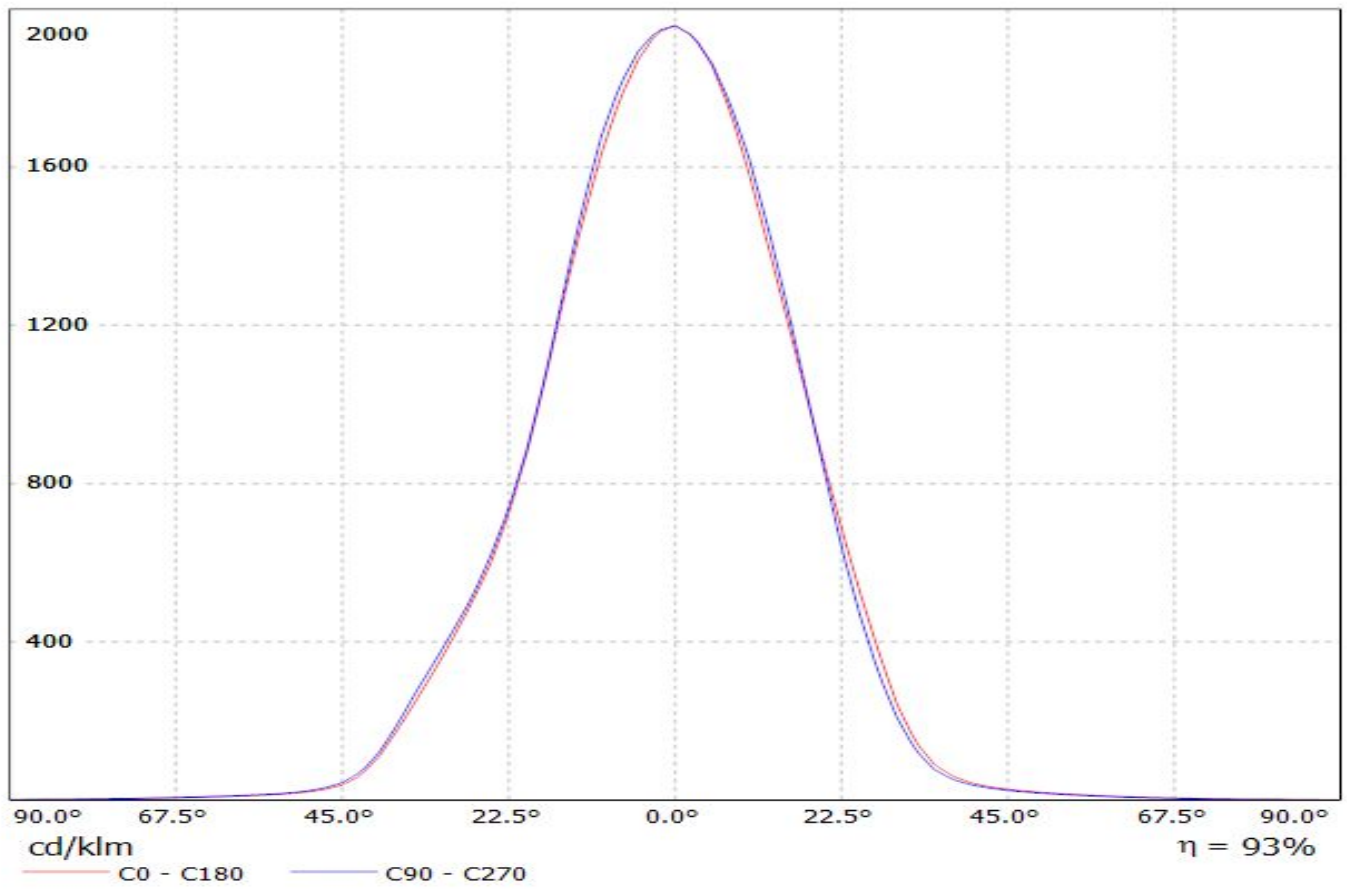
Luminaire: LEDiL Oy FP11125&_FP11121_LISA2-O_(XP-E) Eff.83.3%
Lamps: 1 x CREE XP-E (70.0622lm@250mA)



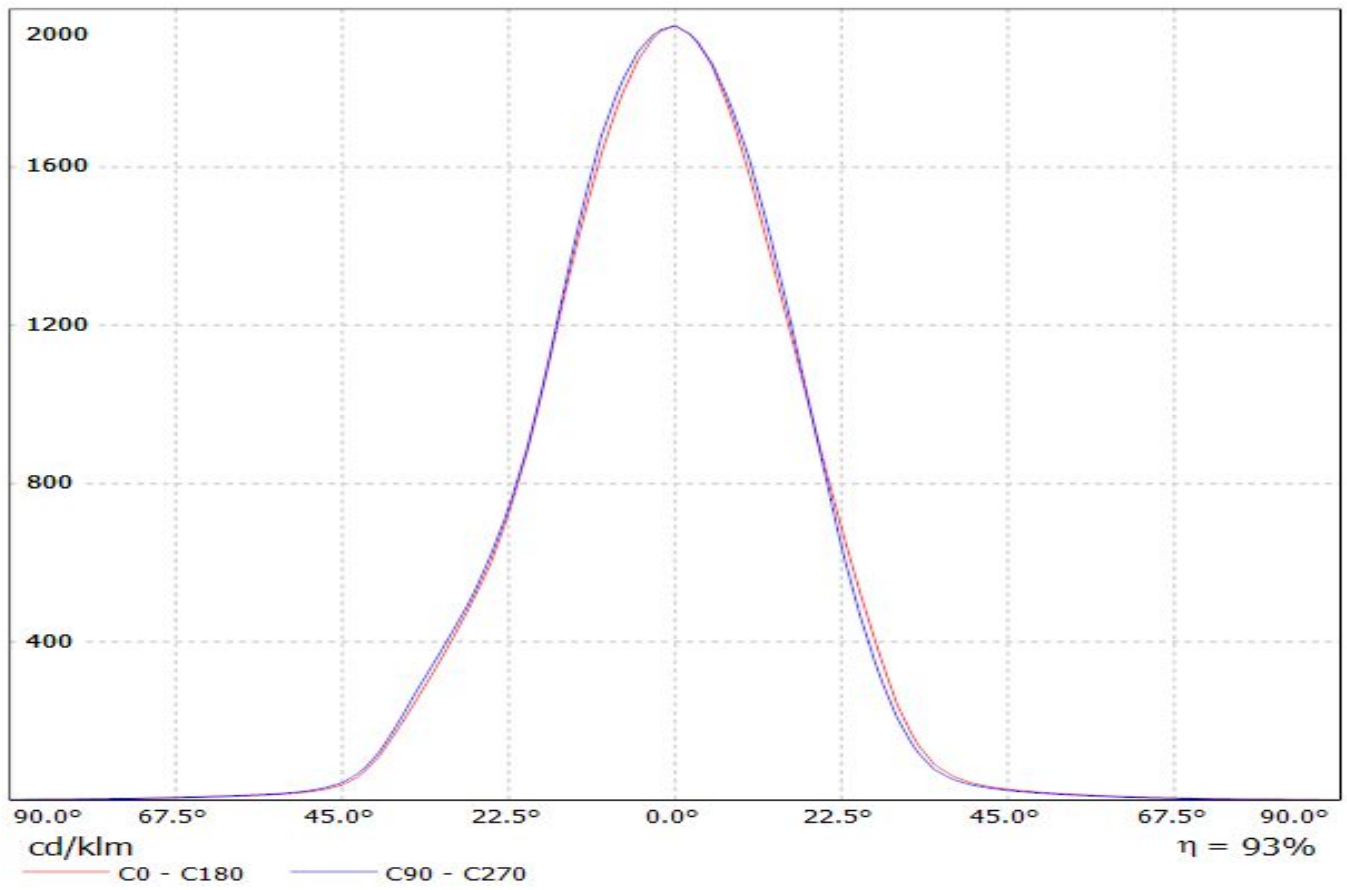
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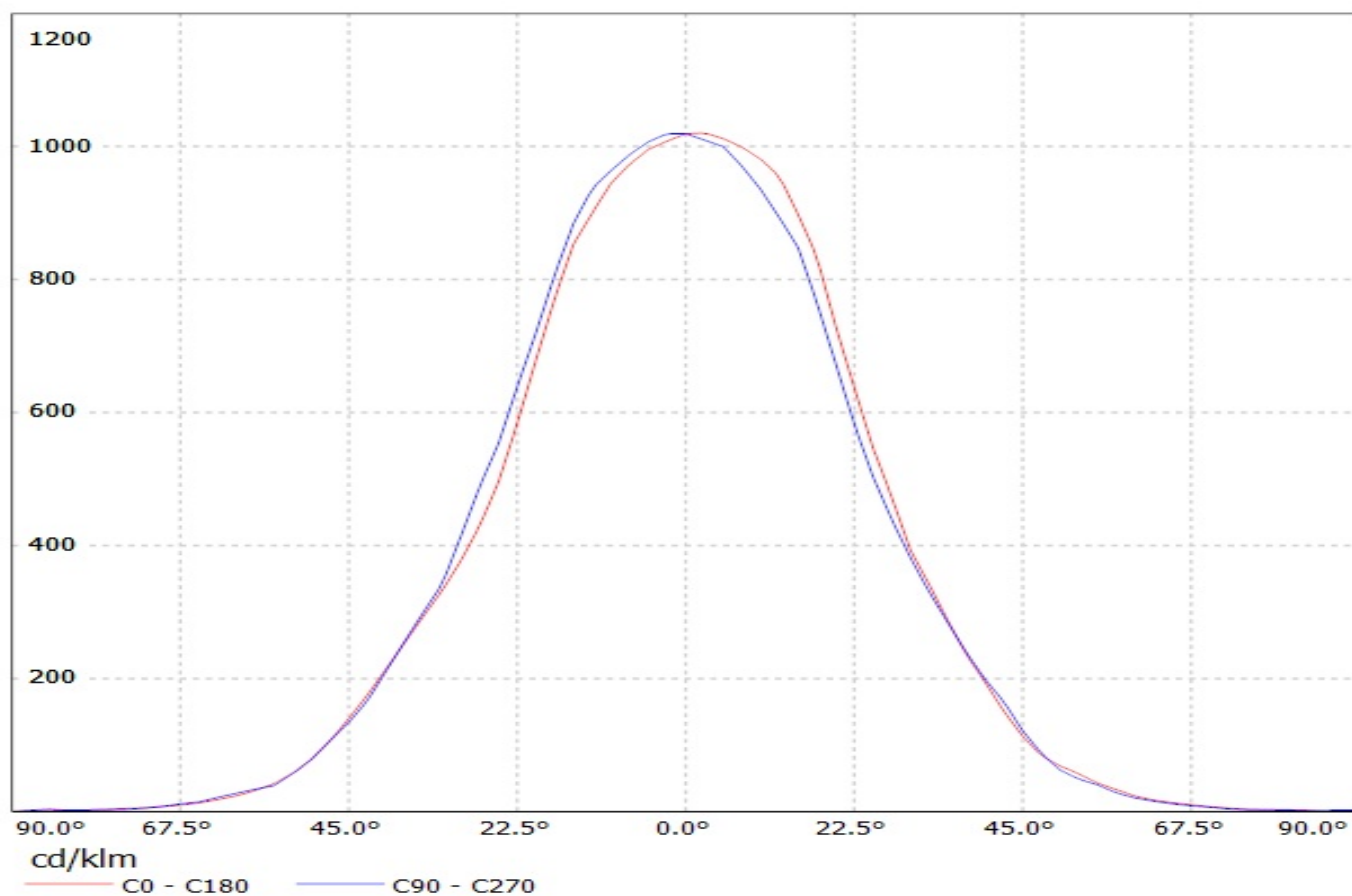
Luminaire: LEDiL Oy FP10996&FP11076_LISA2-W_(XP-E) Eff.93.1%
Lamps: 1 x Cree XP-E (69.4929lm@250mA)



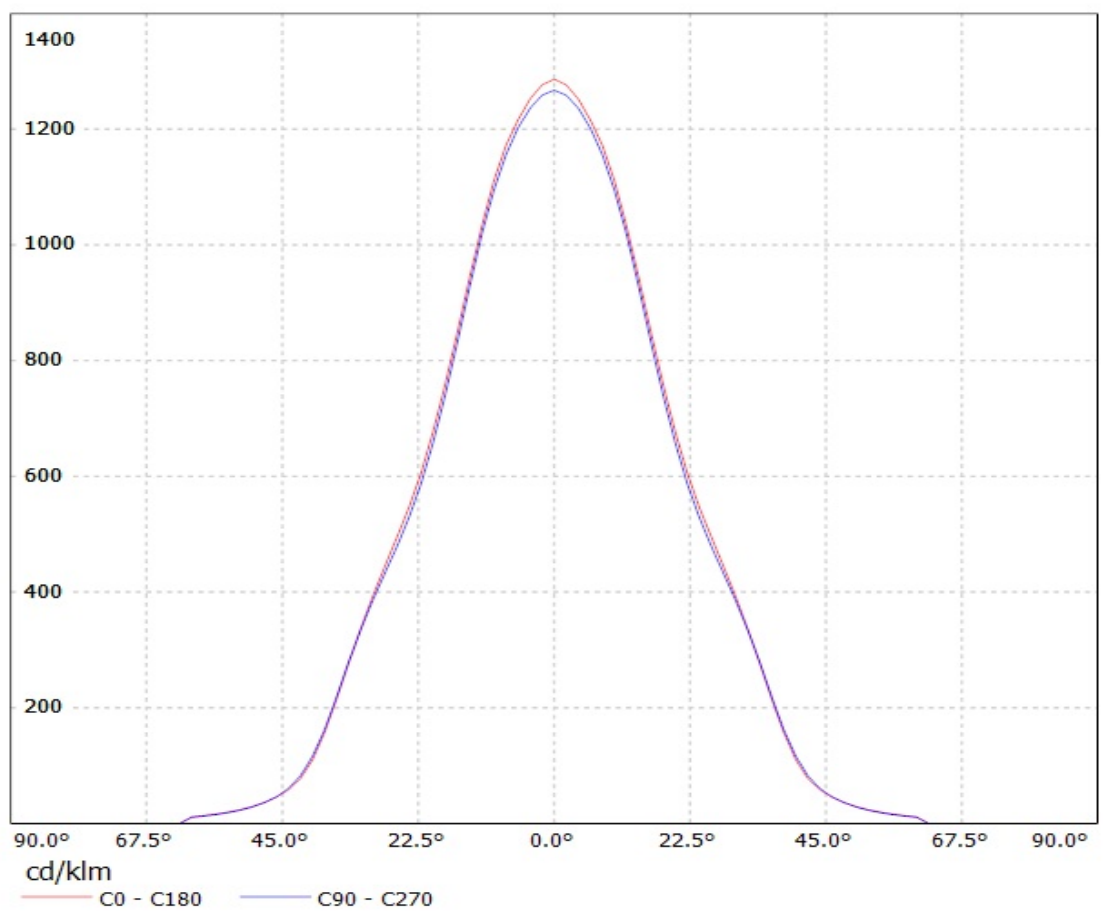
Luminaire: LEDiL Oy FP10996&FP11076_LISA2-W_(XP-E) Eff.93.1%
Lamps: 1 x Cree XP-E (69.4929lm@250mA)



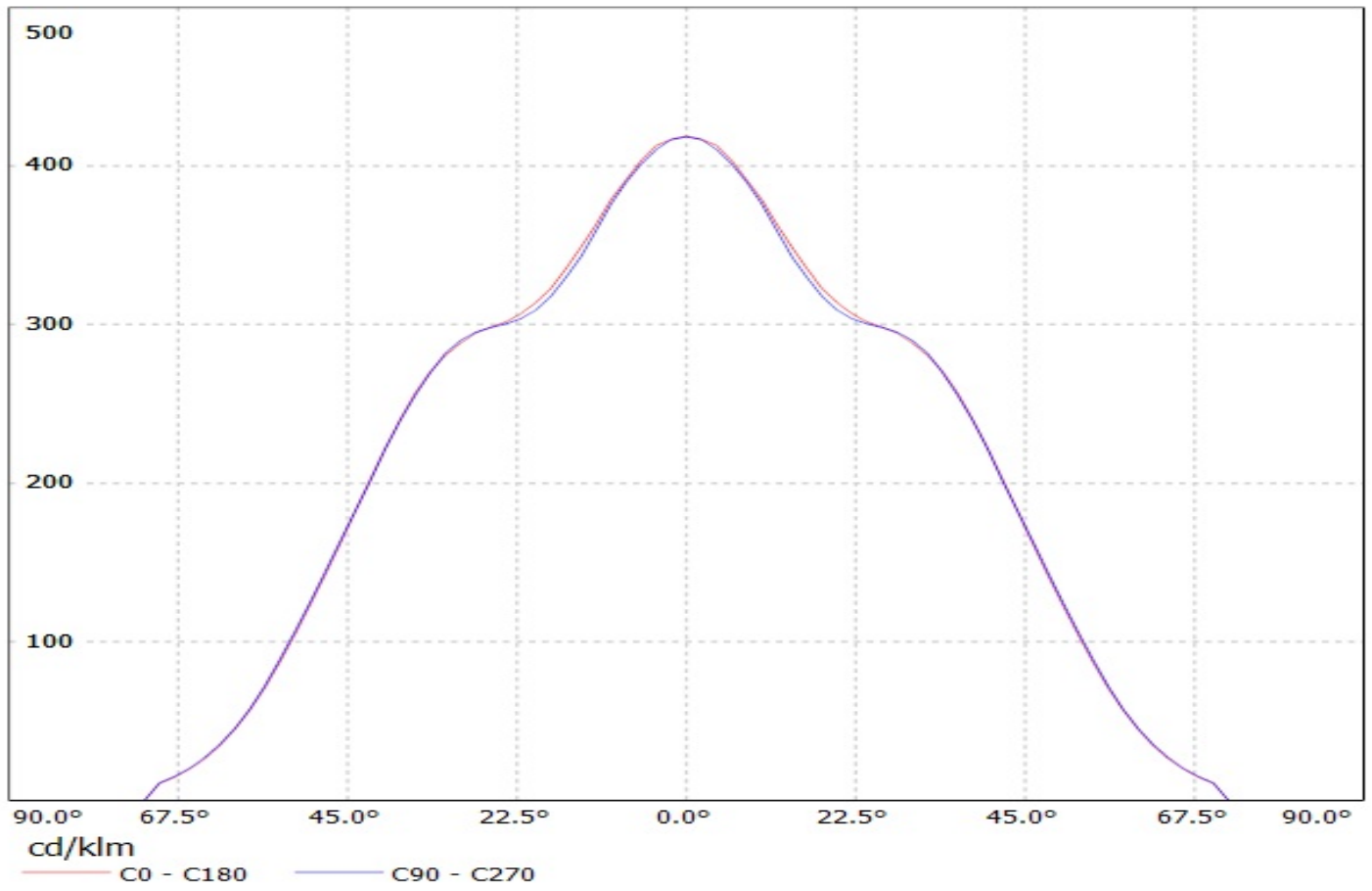
Luminaire: Ledil Oy FP10997_LISA2-WW-PIN (Cree XP-E 73lm @ 250mA) Efficiency=91%
Lamps: 1 x Cree XP-E 73lm @ 250mA



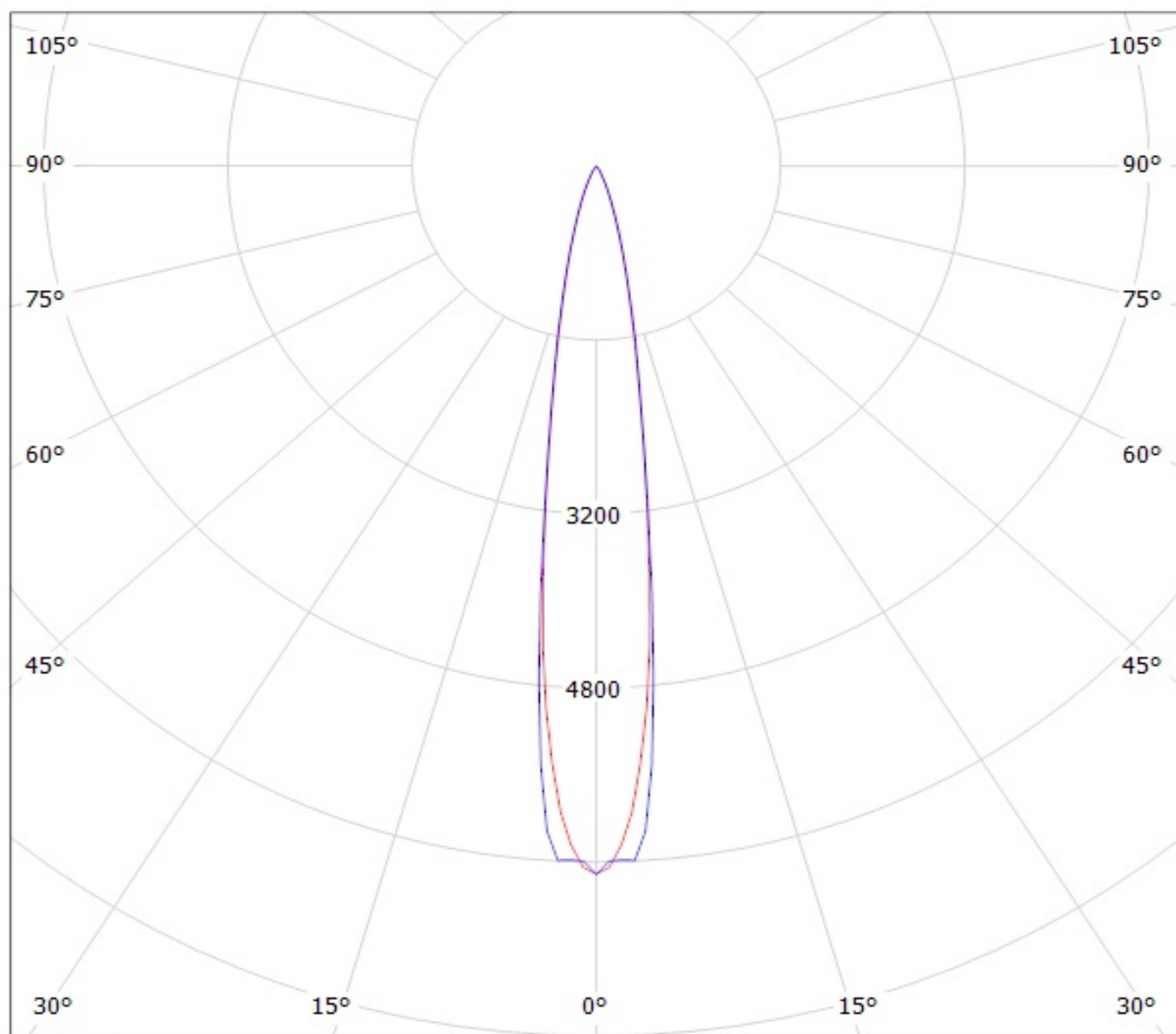
Luminaire: Ledil Oy FA10997_Lisa2-WW-Pin/FP11077_LISA2-WW-CLIP-XP FA10997_Lisa2-WW-Pin/FP11077_LISA2-WW-CLIP-XP
Lamps: 1 x cree xp-e white



Luminaire: Ledil Oy Lisa2-WWW-XP Lisa2-WWW-XP
Lamps: 1 x cree xp-e white



Luminaire: Ledil Oy FA11055_Lisa2-RS-Pin-XP FA11055_Lisa2-RS-Pin-XP
Lamps: 1 x Cree XP-E (White)

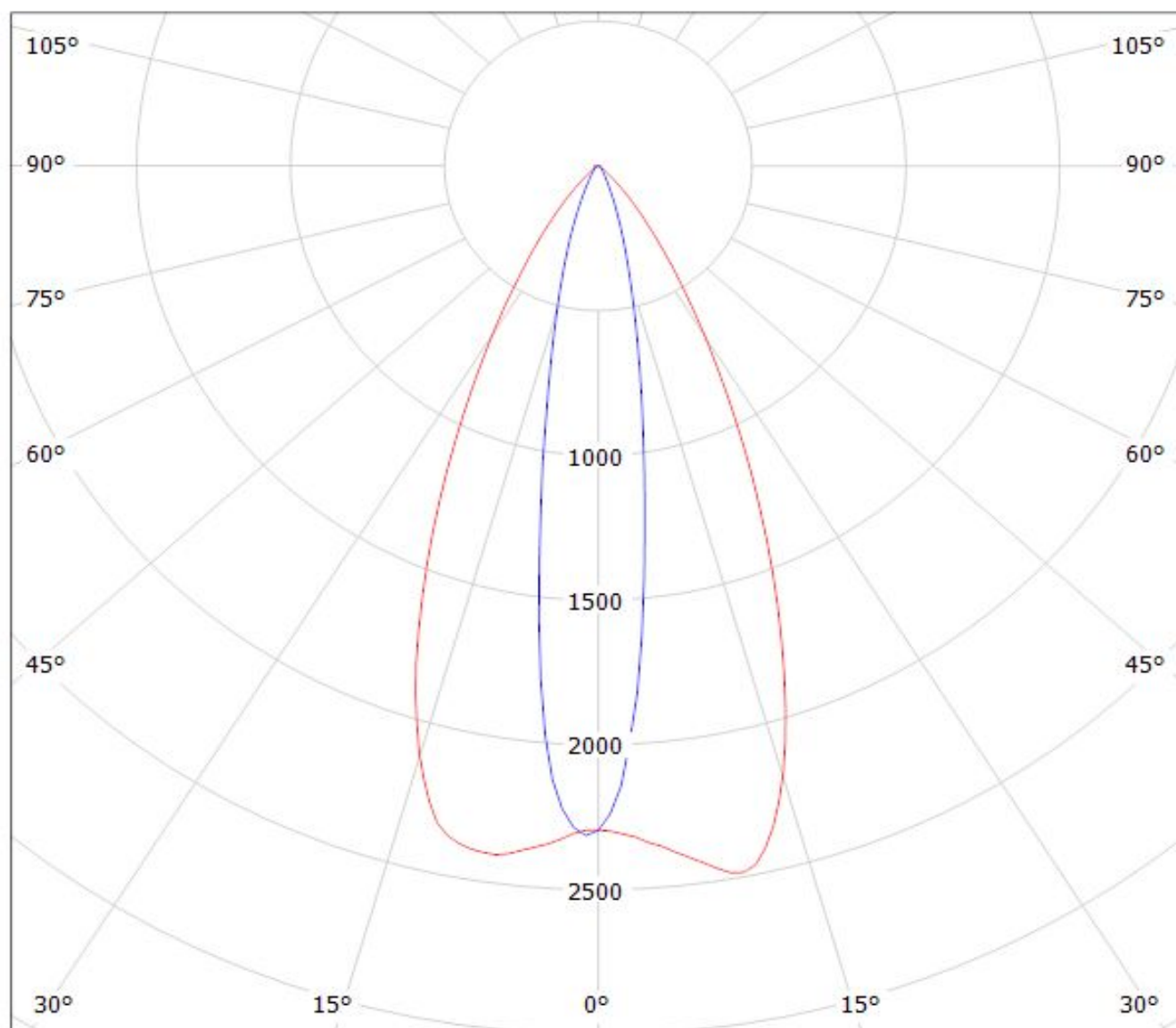


cd/klm

— C0 - C180

— C90 - C270

Luminaire: LEDiL Oy FP11125&_FP11121_LISA2-O_(XP-E) Eff.83.3%
Lamps: 1 x CREE XP-E (70.0622lm@250mA)

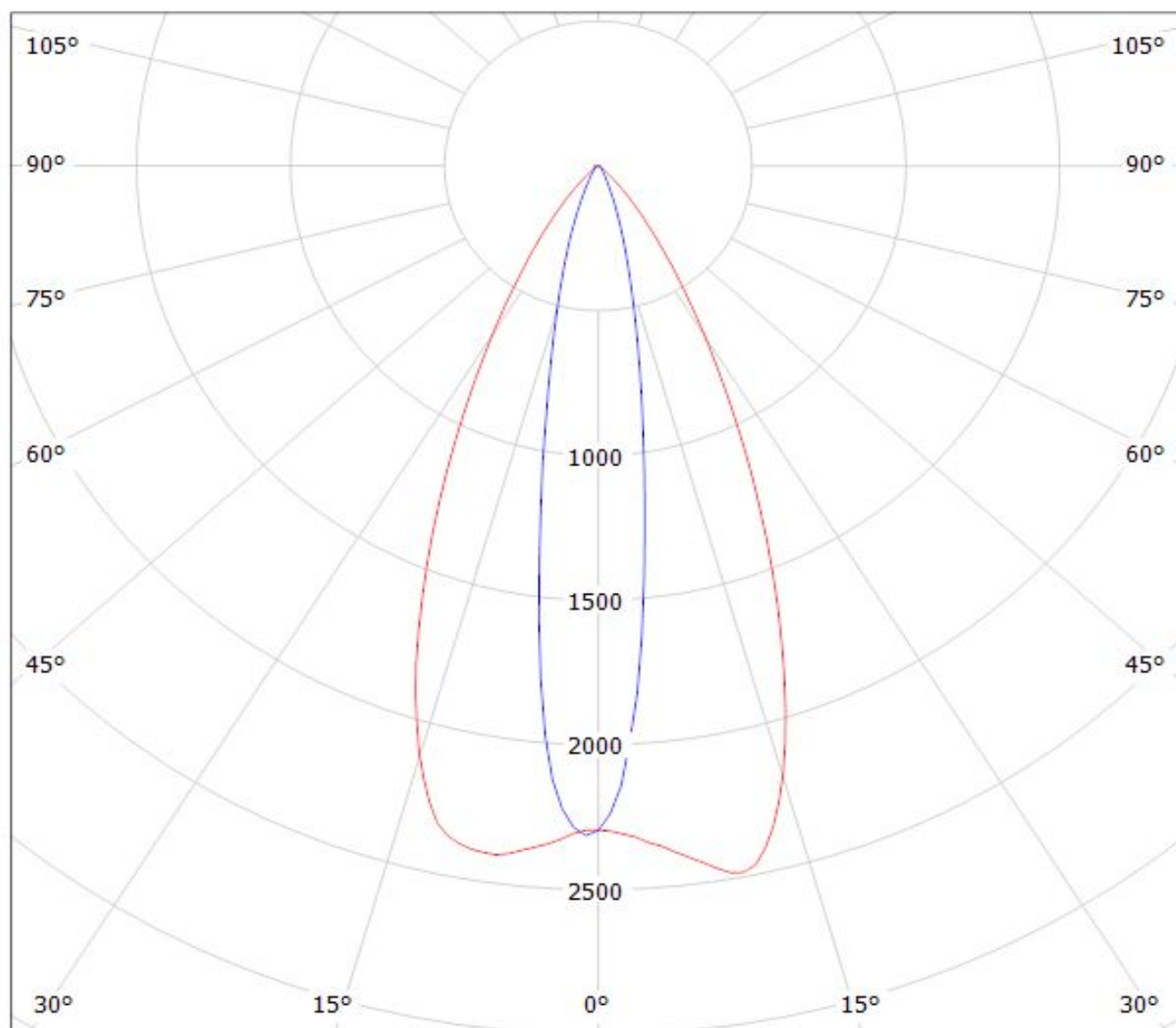


cd/klm

$\eta = 83\%$

— C0 - C180 — C90 - C270

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Lamps: 1 x CREE XP-E (70.0622lm@250mA)

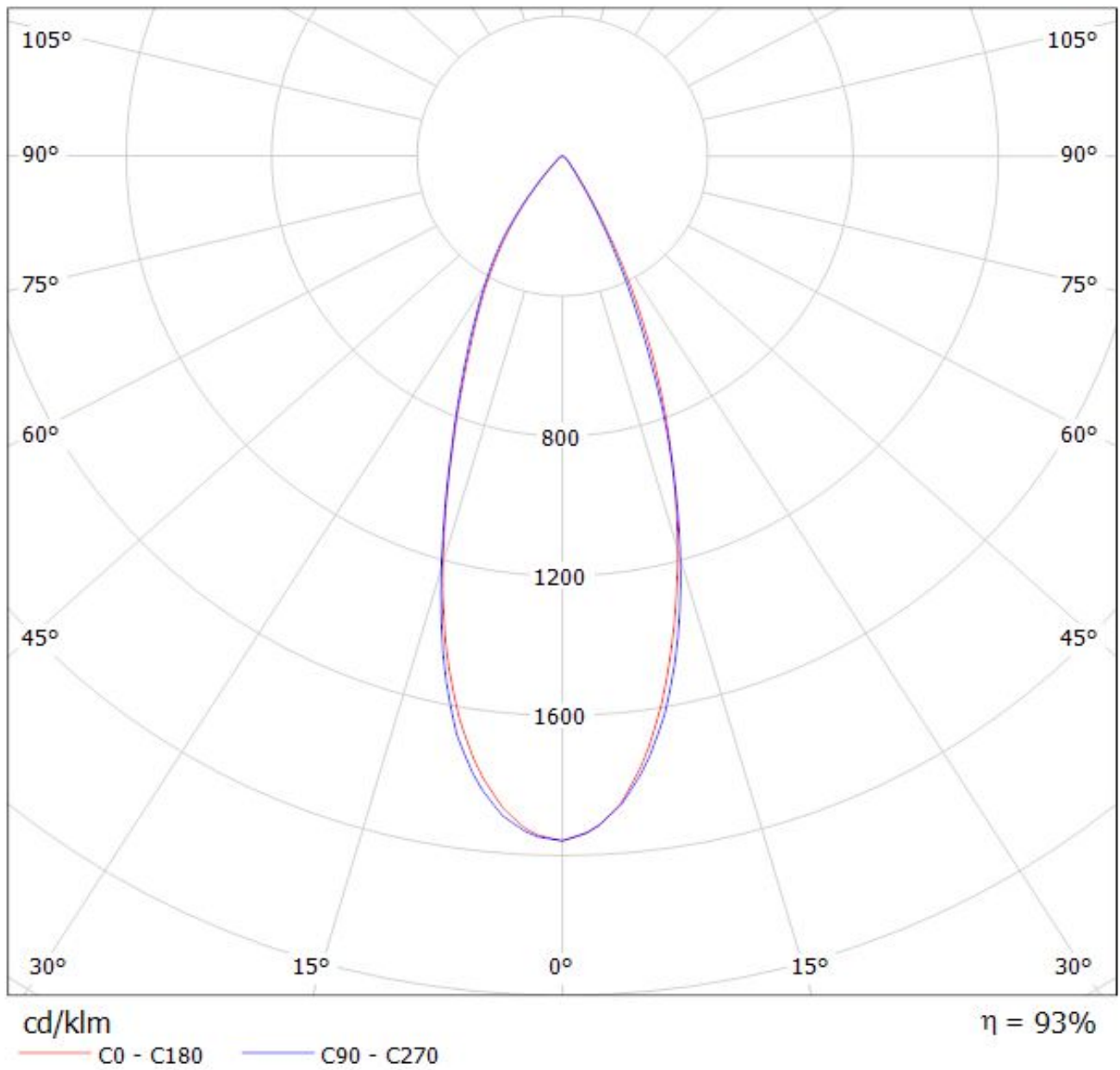


cd/klm

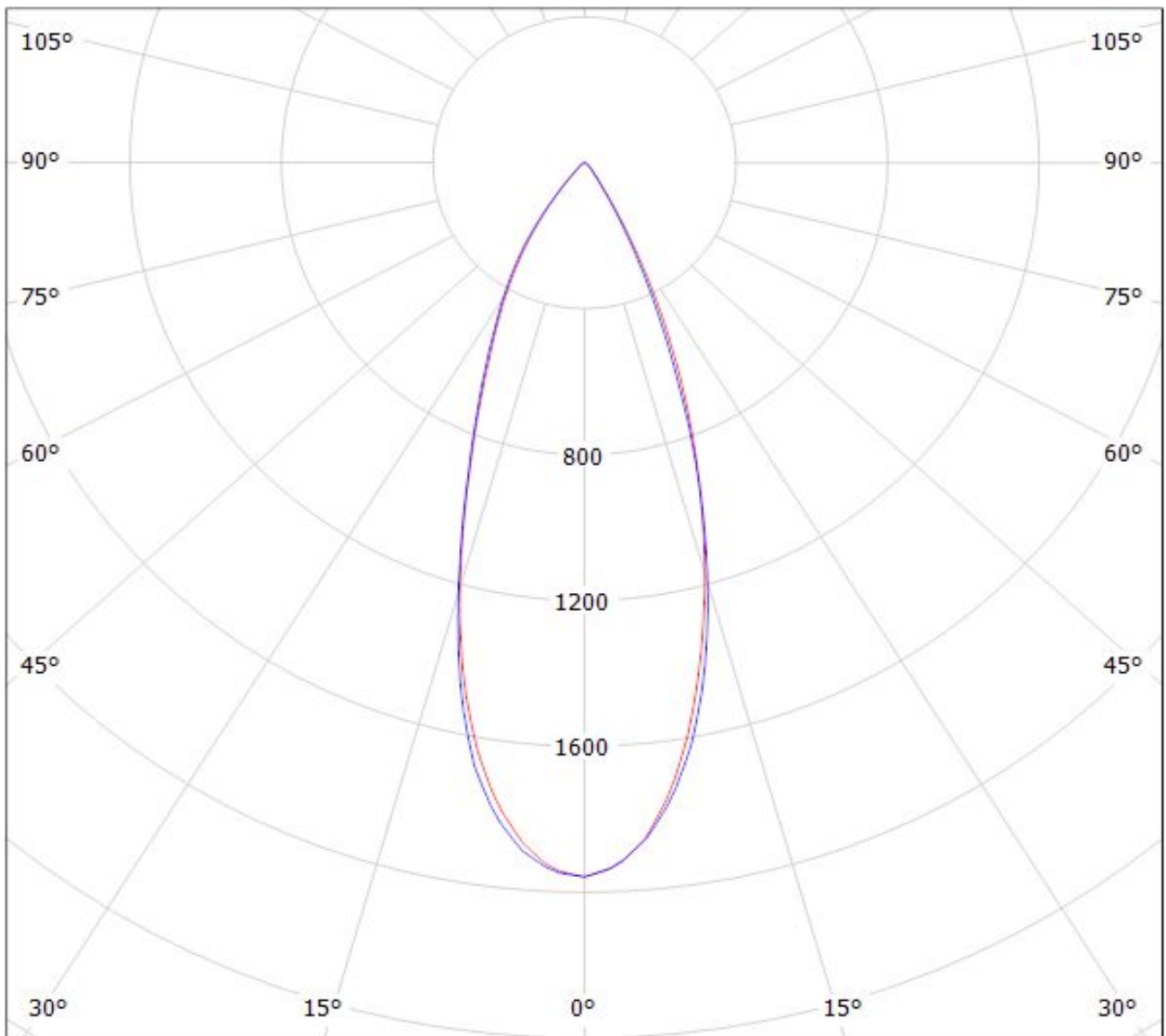
$\eta = 83\%$

— C0 - C180 — C90 - C270

Luminaire: LEDiL Oy FP10996&FP11076_LISA2-W_(XP-E) Eff.93.1%
Lamps: 1 x Cree XP-E (69.4929lm@250mA)



Luminaire: LEDiL Oy FP10996&FP11076_LISA2-W_(XP-E) Eff.93.1%
Lamps: 1 x Cree XP-E (69.4929lm@250mA)



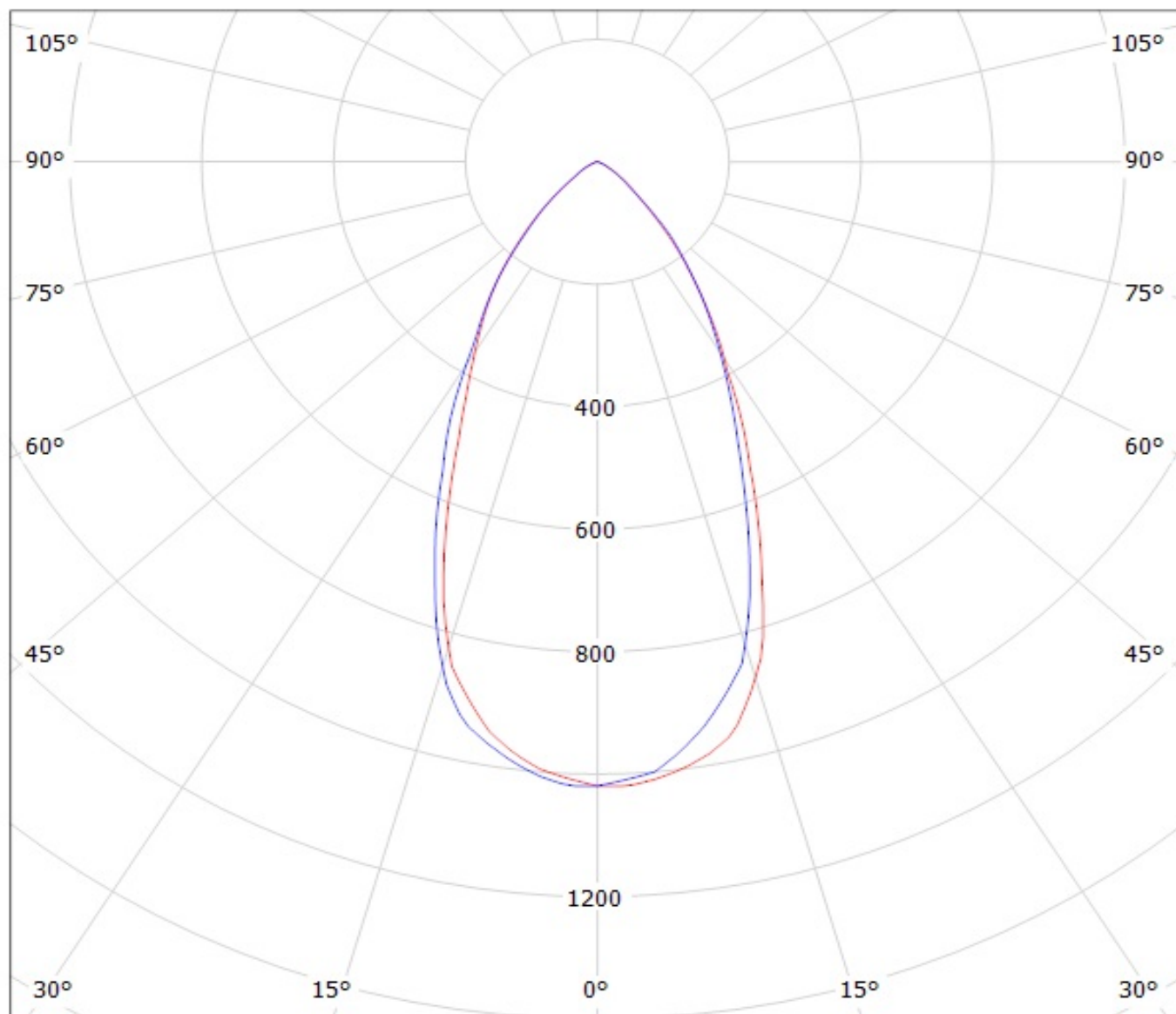
cd/klm

— C0 - C180

— C90 - C270

$\eta = 93\%$

Luminaire: Ledil Oy FP10997_LISA2-WW-PIN (Cree XP-E 73lm @ 250mA) Efficiency=91%
Lamps: 1 x Cree XP-E 73lm @ 250mA

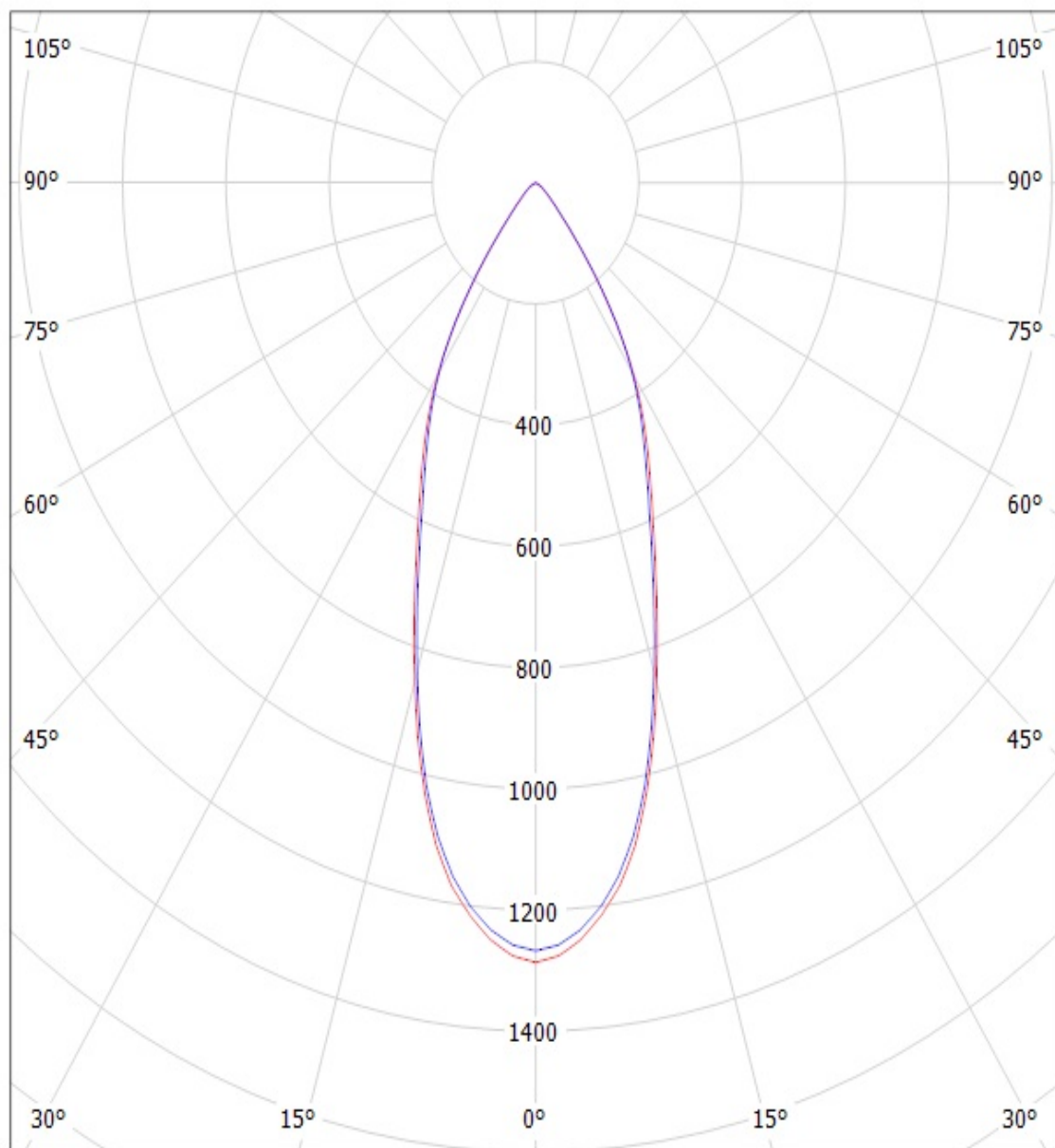


cd/klm

— C0 - C180

— C90 - C270

Luminaire: Ledil Oy FA10997_Lisa2-WW-Pin/FP11077_LISA2-WW-CLIP-XP FA10997_Lisa2-WW-Pin/FP11077_LISA2-WW-CLIP-XP
Lamps: 1 x cree xp-e white

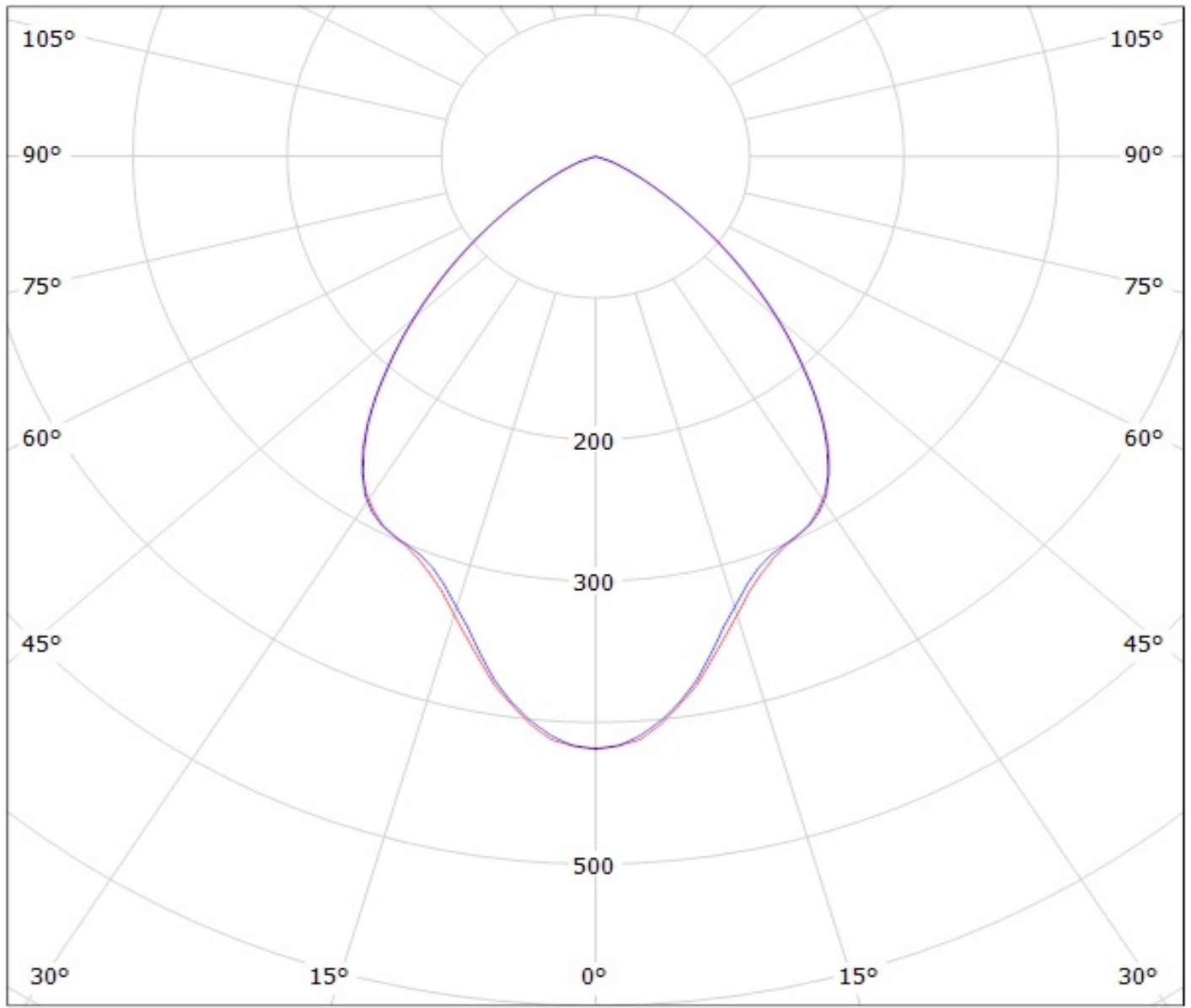


cd/klm

— C0 - C180

— C90 - C270

Luminaire: Ledil Oy Lisa2-WWW-XP Lisa2-WWW-XP
Lamps: 1 x cree xp-e white



cd/klm

— C0 - C180 — C90 - C270