

Ordering number CA13307_LAURA-O-WAS-PIN

Family	Laura	FWHM	Asym degrees
Type	Assembly	Efficiency	84 %
LED	XP-G	cd/lm	2.600
Color	White	Gerber File	Available
Diameter	21.6x21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Pin, tape		
Status	Ready		

Ordering number CP13308_LAURA-O-WAS-PG

Family	Laura	FWHM	Asym degrees
Type	Assembly	Efficiency	84 %
LED	XP-G	cd/lm	2.600
Color	White	Gerber File	Available
Diameter	21.6x21.6 mm		
Height	12.9 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Pin, glue		
Status	Ready		

Ordering number CP13311_LAURA-SS-WAS-PG

Family	Laura	FWHM	Asym degrees
Type	Assembly	Efficiency	91 %
LED	XP-G	cd/lm	8.000
Color	White	Gerber File	Available
Diameter	21.6x21.6 mm		
Height	12.9 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Pin, glue		
Status	Ready		

Ordering number CA13312_LAURA-SS-WAS-PIN

Family	Laura	FWHM	Asym degrees
Type	Assembly	Efficiency	91 %
LED	XP-G	cd/lm	8.000
Color	White	Gerber File	Available
Diameter	21.6x21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Pin, tape		
Status	Ready		

**Ordering number CA11353_LAURA-RS**

Family	Laura	FWHM	10 degrees
Type	Assembly	Efficiency	93 %
LED	XP-G	cd/lm	18.600
Color	Black	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Tape		
Status	Ready		

**Ordering number CA11959_LAURA-RS-PIN**

Family	Laura	FWHM	11 degrees
Type	Assembly	Efficiency	93 %
LED	XP-G	cd/lm	-
Color	White	Gerber File	Available
Diameter	21.6 x 21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Pin, tape		
Status	Ready		

**Ordering number CA11643_LAURA-SS**

Family	Laura	FWHM	12 degrees
Type	Assembly	Efficiency	93 %
LED	XP-G	cd/lm	12.500
Color	Black	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Tape		
Status	Ready		

**Ordering number CA12011_LAURA-SS-PIN**

Family	Laura	FWHM	12 degrees
Type	Assembly	Efficiency	94 %
LED	XP-G	cd/lm	-
Color	White	Gerber File	Available
Diameter	21.6 + 21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Pin, tape		
Status	Ready		

**Ordering number CA11360_LAURA-D**

Family	Laura	FWHM	15 degrees
Type	Assembly	Efficiency	93 %
LED	XP-G	cd/lm	7.000
Color	Black	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Tape		
Status	Ready		

**Ordering number CA11960_LAURA-D-PIN**

Family	Laura	FWHM	16 degrees
Type	Assembly	Efficiency	94 %
LED	XP-G	cd/lm	-
Color	White	Gerber File	Available
Diameter	21.6 + 21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Pin, tape		
Status	Ready		

**Ordering number CA11837_LAURA-M-PIN**

Family	Laura	FWHM	30 degrees
Type	Assembly	Efficiency	93 %
LED	XP-G	cd/lm	2.500
Color	White	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Pin, tape		
Status	Ready		

**Ordering number CA11355_LAURA-M**

Family	Laura	FWHM	34 degrees
Type	Assembly	Efficiency	93 %
LED	XP-G	cd/lm	1.950
Color	Black	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Tape		
Status	Ready		

**Ordering number CA11365_LAURA-O**

Family	Laura	FWHM	36+13 degrees
Type	Assembly	Efficiency	91 %
LED	XP-G	cd/lm	4.100
Color	Black	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Tape		
Status	Ready		

**Ordering number CA12012_LAURA-O-PIN**

Family	Laura	FWHM	40+13 degrees
Type	Assembly	Efficiency	91 %
LED	XP-G	cd/lm	-
Color	White	Gerber File	Available
Diameter	21.6 + 21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Pin, tape		
Status	Ready		

**Ordering number CA12344_LAURA-W-PIN**

Family	Laura	FWHM	46 degrees
Type	Assembly	Efficiency	91 %
LED	XP-G	cd/lm	1.550
Color	White	Gerber File	Available
Diameter	21.6 + 21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Pin, tape		
Status	Ready		

**Ordering number CA11766_LAURA-WW**

Family	Laura	FWHM	68 degrees
Type	Assembly	Efficiency	86 %
LED	XP-G	cd/lm	0.610
Color	Black	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Tape		
Status	Ready		

**Ordering number CA12325_LAURA-WW-PIN**

Family	Laura	FWHM	68 degrees
Type	Assembly	Efficiency	86 %
LED	XP-G	cd/lm	0.640
Color	White	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Pin, tape		
Status	Ready		

**Ordering number CA11525_LAURA-R-W**

Family	Laura	FWHM	71 degrees
Type	Assembly	Efficiency	70 %
LED	XP-G	cd/lm	-
Color	Black	Gerber File	Available
Diameter	21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PC		
Holder Material	PC		
Fastening	Tape		
Status	Ready		

**Ordering number CA12981_LAURA-R-XW**

Family	Laura	FWHM	72 degrees
Type	Assembly	Efficiency	86 %
LED	XP-G	cd/lm	0.590
Color	Black	Gerber File	Available
Diameter	21.6 x 21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PC		
Holder Material	PC		
Fastening	Tape		
Status	Ready		

**Ordering number CA12984_LAURA-R-XW-PIN**

Family	Laura	FWHM	72 degrees
Type	Assembly	Efficiency	86 %
LED	XP-G	cd/lm	0.590
Color	White	Gerber File	Available
Diameter	21.6 + 21.6 mm		
Height	13.1 mm		
Style	Square		
Optic Material	PC		
Holder Material	PC		
Fastening	Pin, tape		
Status	Ready		



PRODUCT DATASHEET
Laura series
last update 7/1/2013

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

Laura series

last update 7/1/2013

GENERAL INFORMATION

- Product series especially designed & optimized for XP-G 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>

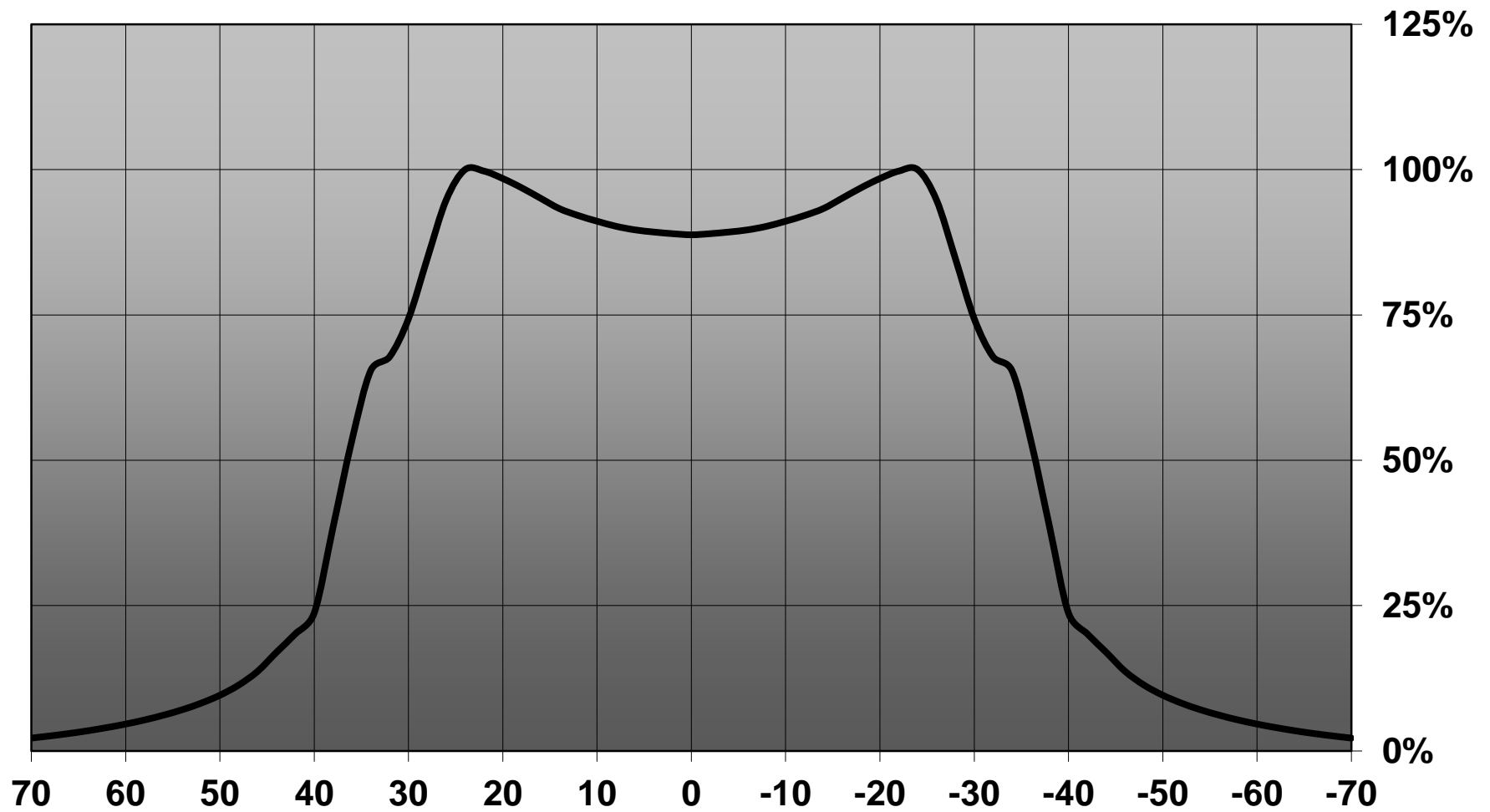
- Lens material optical grade PC with high UV and temperature resistance (120 degrees of Celcius / 248 degrees of Fahrenheit). Allows use of high current and temperature conditions.

Please find more information about used materials from below:

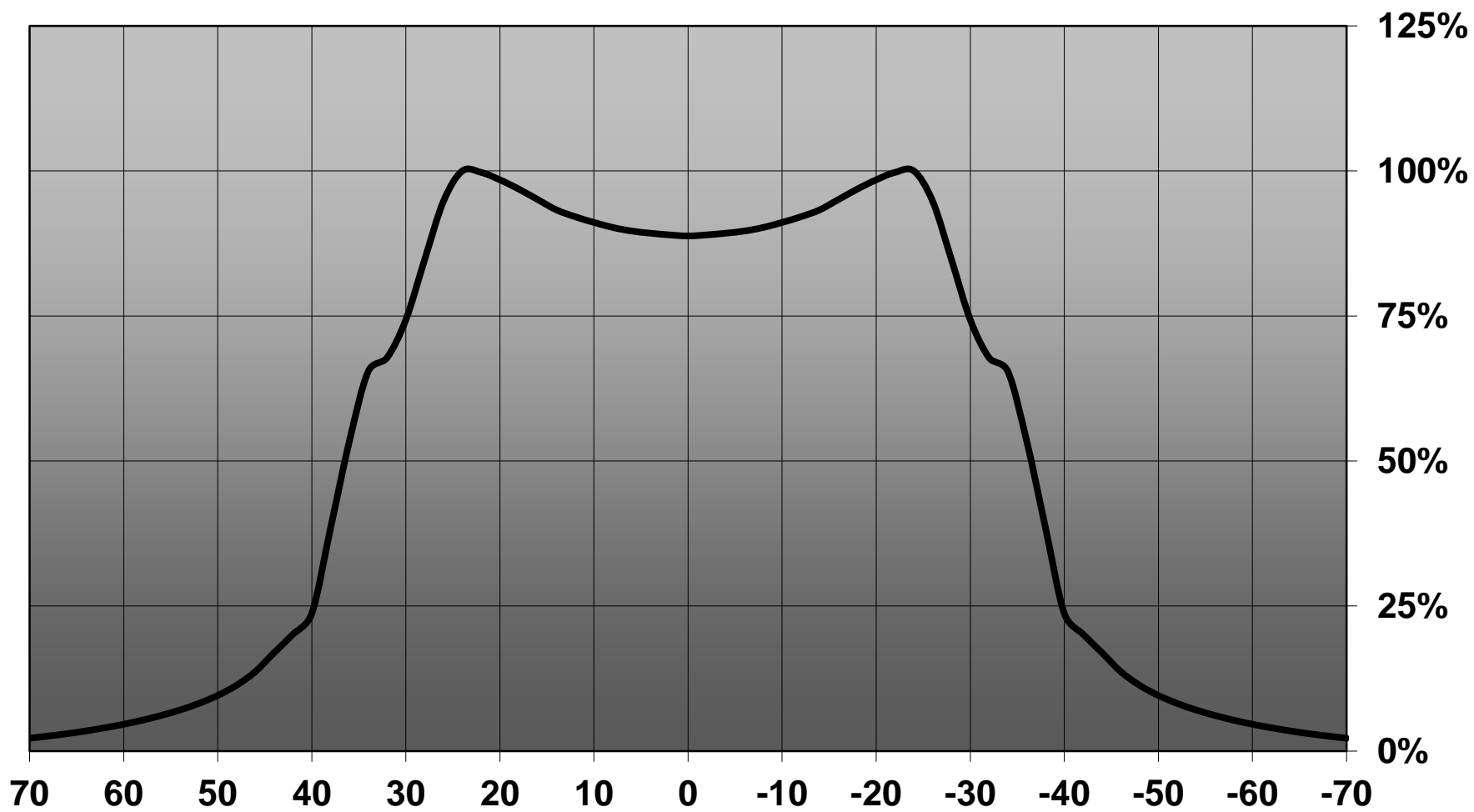
http://ledil.fi/sites/default/files/Documents/Technical/Material/PC%20Makrolon%202400_2407_2456_2458-UL.pdf

- 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 CA12981_LAURA-REF-XW (XP-G)



Relative intensity of CA12984_LAURA-REF-XW-PIN



D

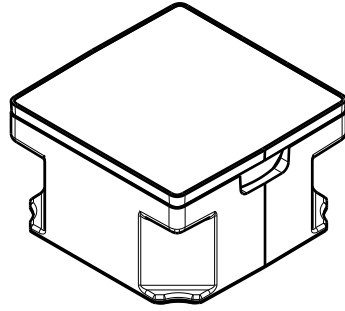
C

B

A

4

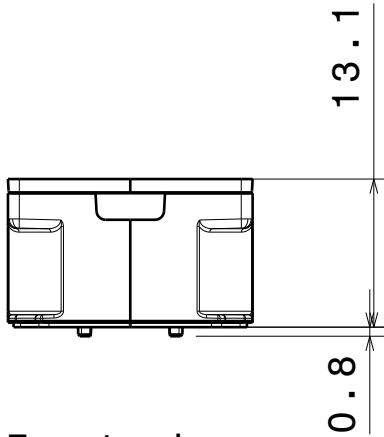
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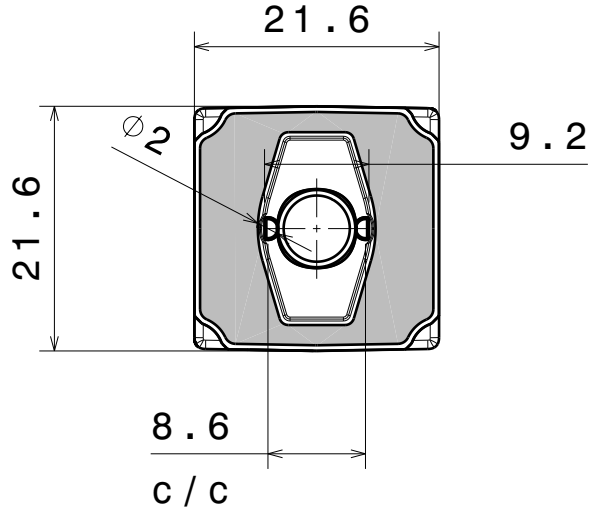
Isometric view

3

3



Front view



Bottom view

2

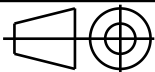
2

Tolerances if not otherwise shown
 According to DIN ISO 2768-1
 Linear measures:
 Up to 30mm class F, otherwise class M.
 According to DIN ISO 2768-2
 Form and position: class K



Ledil Oy
 Salorankatu 10
 FIN 24240 SALO
 Finland

THIRD ANGLE PROJECTION:



DRAWING TITLE

LAURA-WAS-PIN-TAPE

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 of LEDiL Oy. It may not be
 reproduced, copied or
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 agreement with LEDiL Oy."

SIZE	PART NUMBER
A4	-

SCALE	3:2	WEIGHT	-	SHEET	1/1
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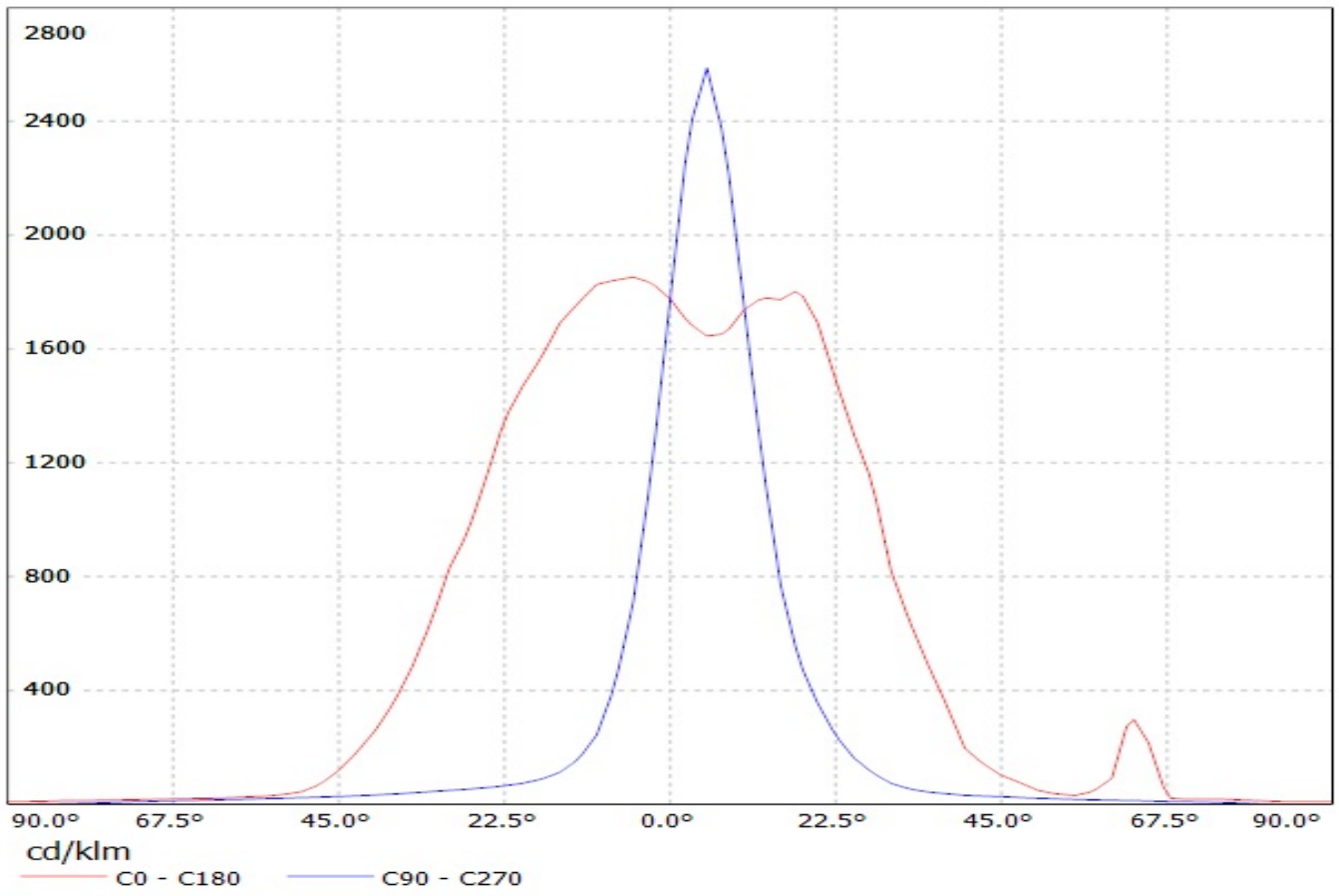
D

A

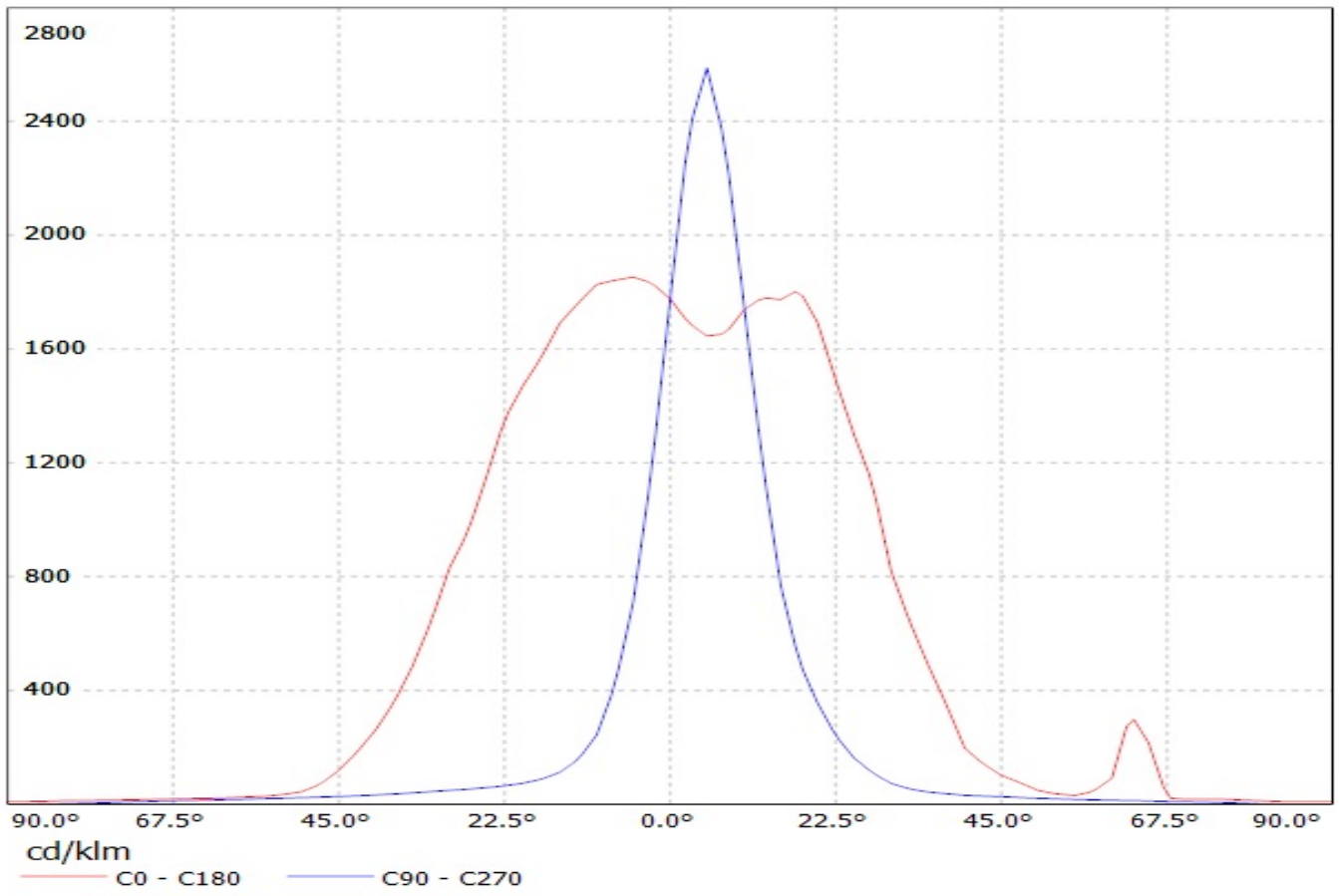
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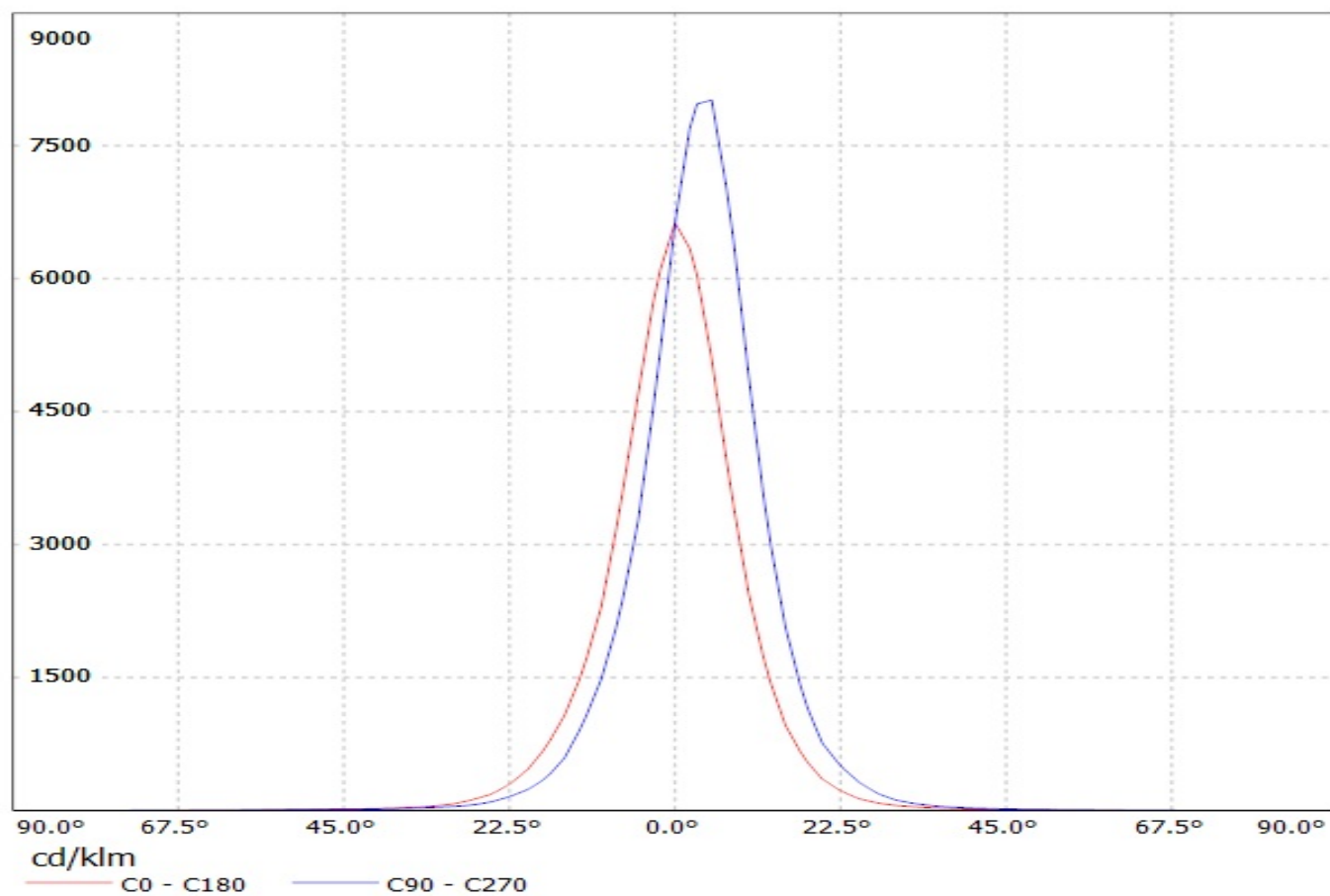
Luminaire: Ledil Oy CP13308&CA13307_LAURA-O-WAS (Cree XP-G 70lm @ 250mA) Efficiency=84%
Lamps: 1 x Cree XP-G 70lm @ 250mA



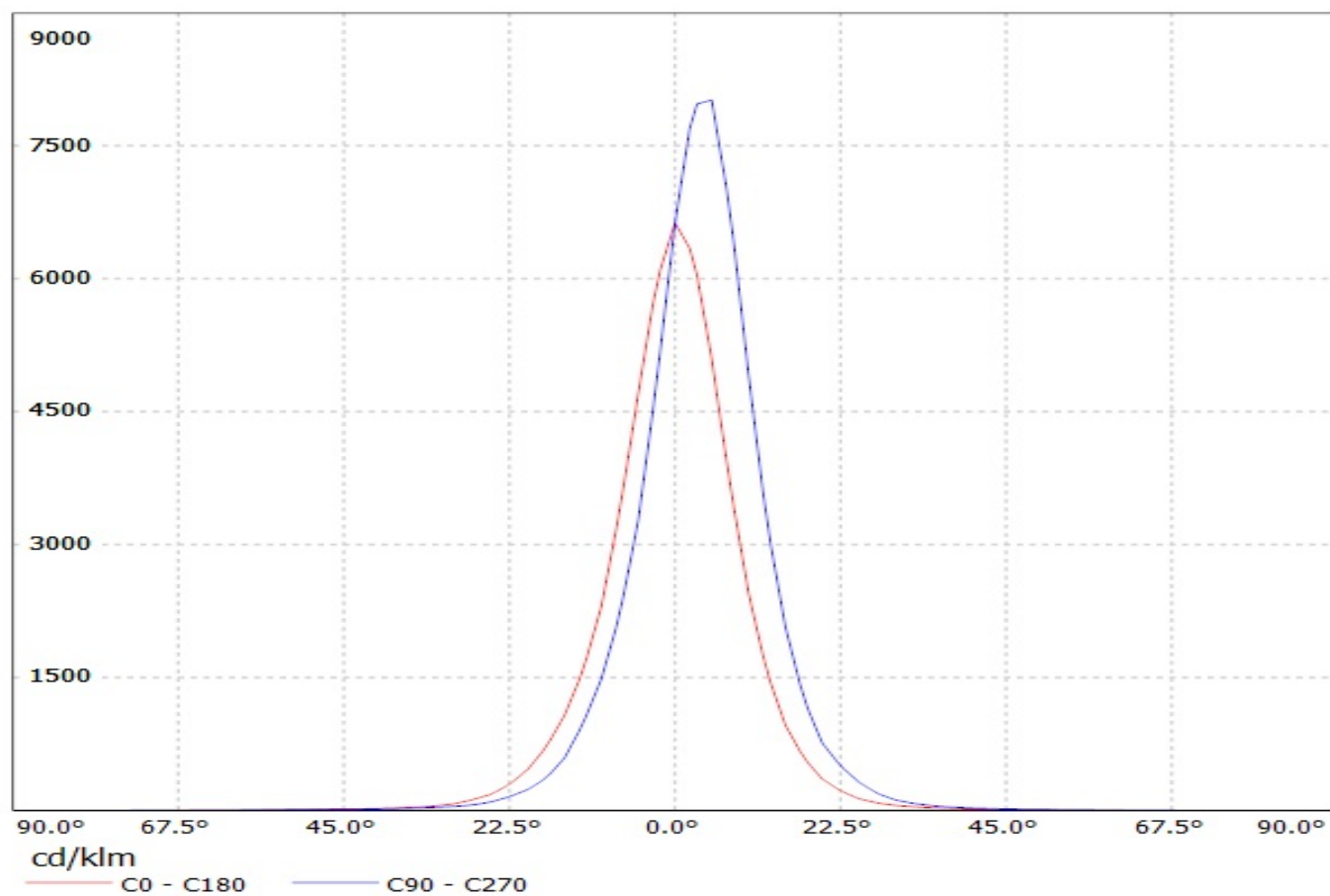
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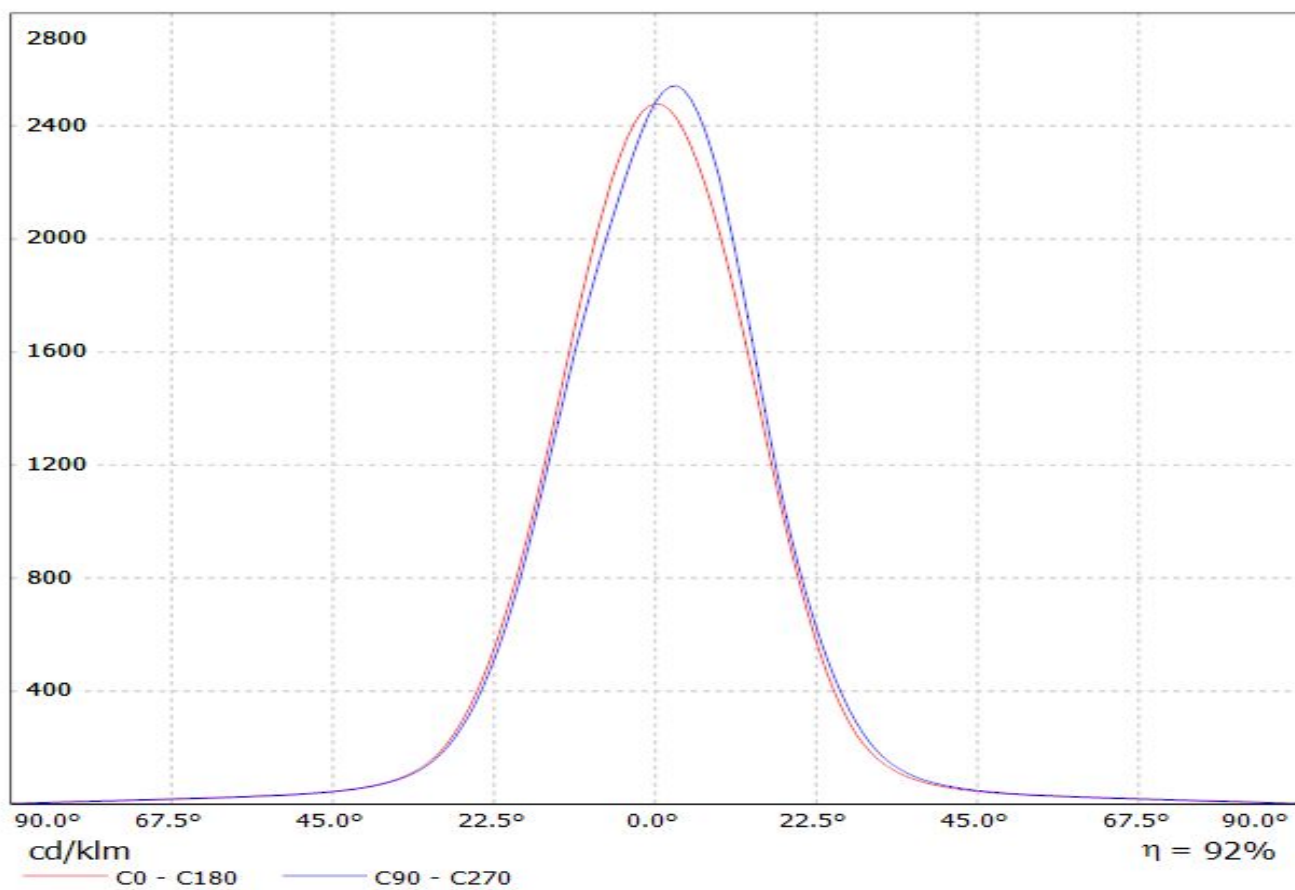
Luminaire: Ledil Oy CP13311&CA13312_LAURA-SS-WAS (Cree XP-G 71lm @ 250mA) Efficiency=91%
Lamps: 1 x Cree XP-G 71lm @ 250mA



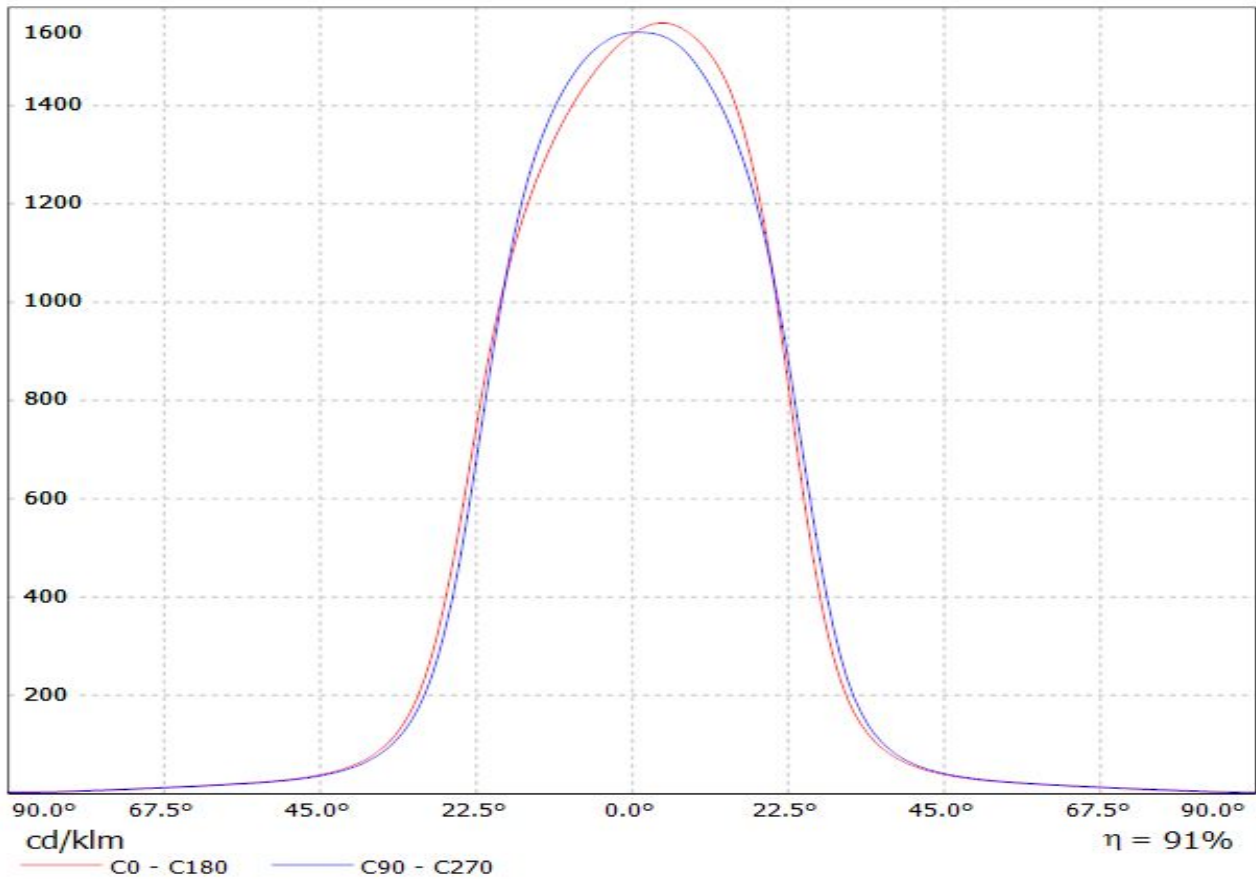
Luminaire: Ledil Oy CP13311&CA13312_LAURA-SS-WAS (Cree XP-G 71lm @ 250mA) Efficiency=91%
Lamps: 1 x Cree XP-G 71lm @ 250mA



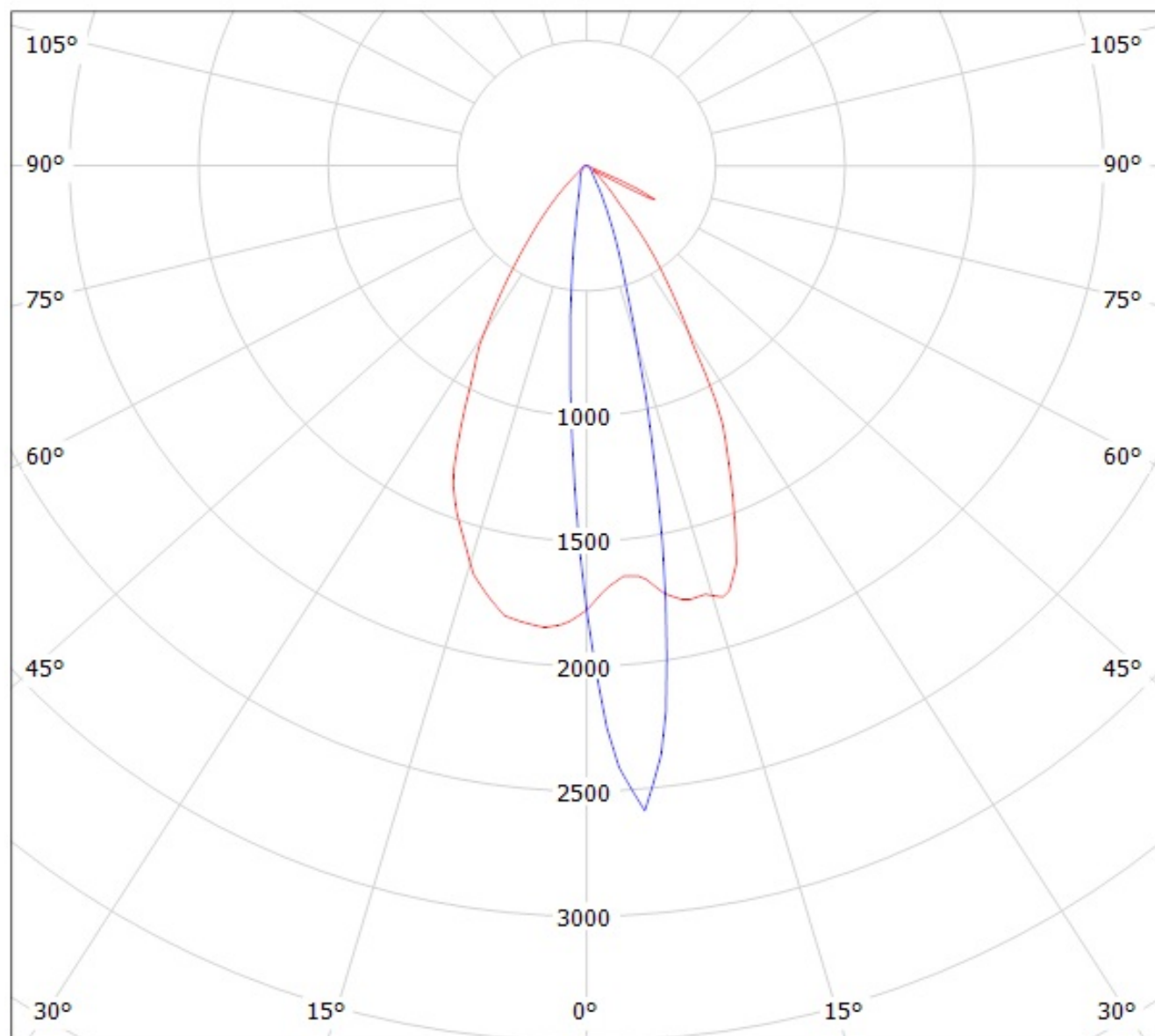
Luminaire: LEDIL OY CA11837_LAURA-M-PIN_(XP-G) Eff.93%
Lamps: 1 x Cree XP-G (66.49lm@250mA)



Luminaire: LEDIL OY CA12344_LAURA-W-PIN_(XP-G) Eff.90.9%
Lamps: 1 x Cree XP-G (66.49lm@250mA)



Luminaire: Ledil Oy CP13308&CA13307_LAURA-O-WAS (Cree XP-G 70lm @ 250mA) Efficiency=84%
Lamps: 1 x Cree XP-G 70lm @ 250mA

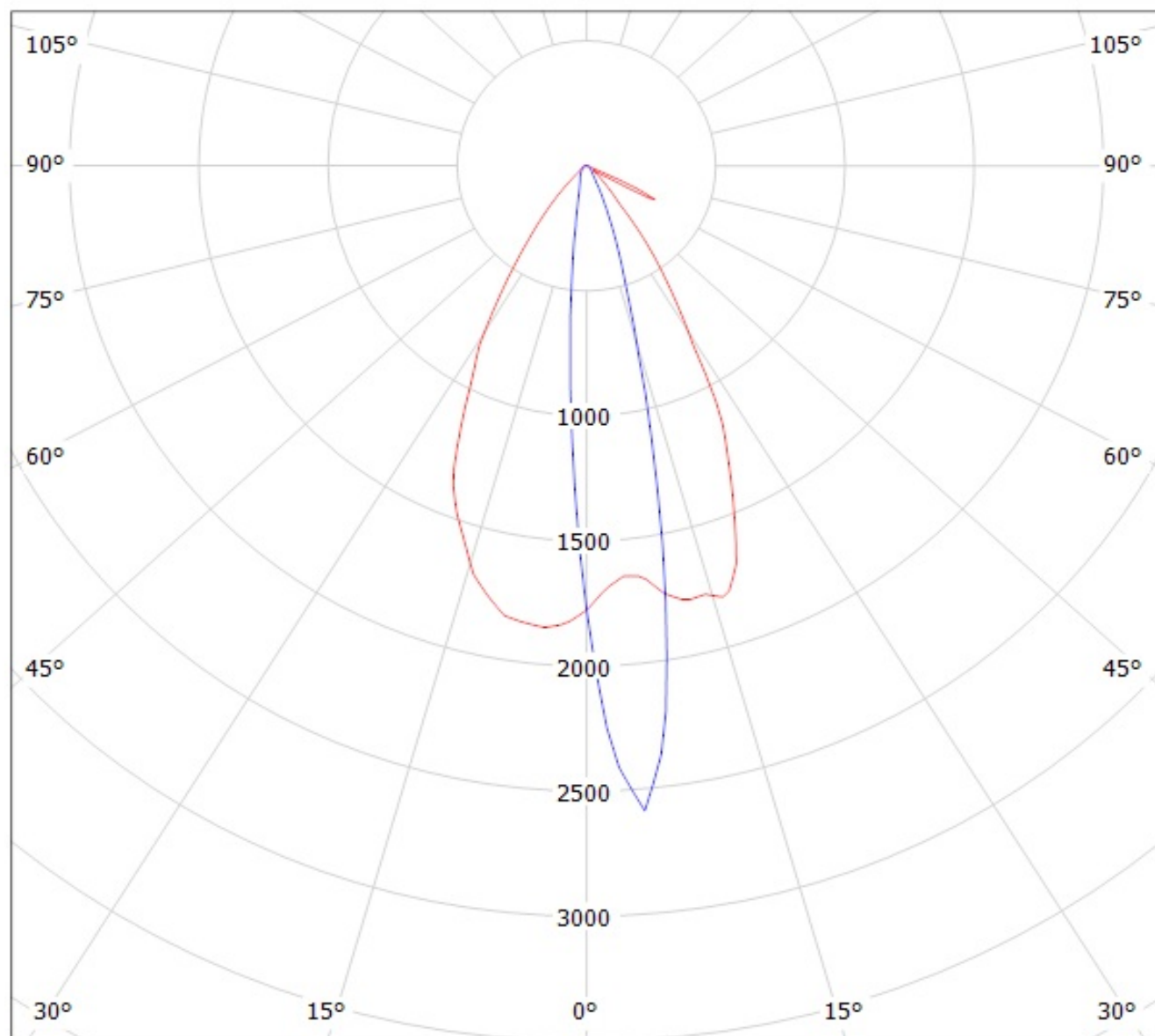


cd/klm

— C0 - C180

— C90 - C270

Luminaire: Ledil Oy CP13308&CA13307_LAURA-O-WAS (Cree XP-G 70lm @ 250mA) Efficiency=84%
Lamps: 1 x Cree XP-G 70lm @ 250mA

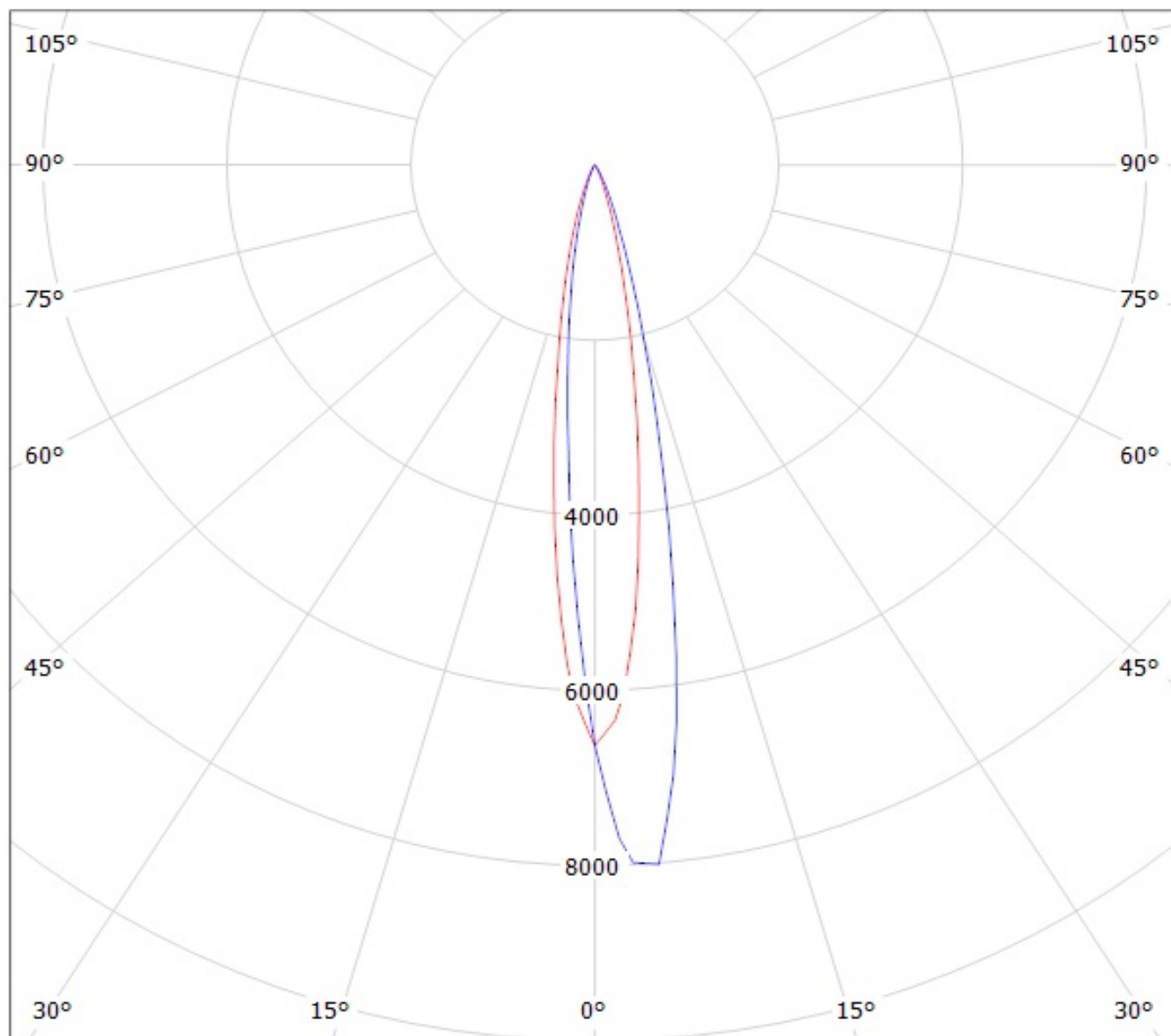


cd/klm

— C0 - C180

— C90 - C270

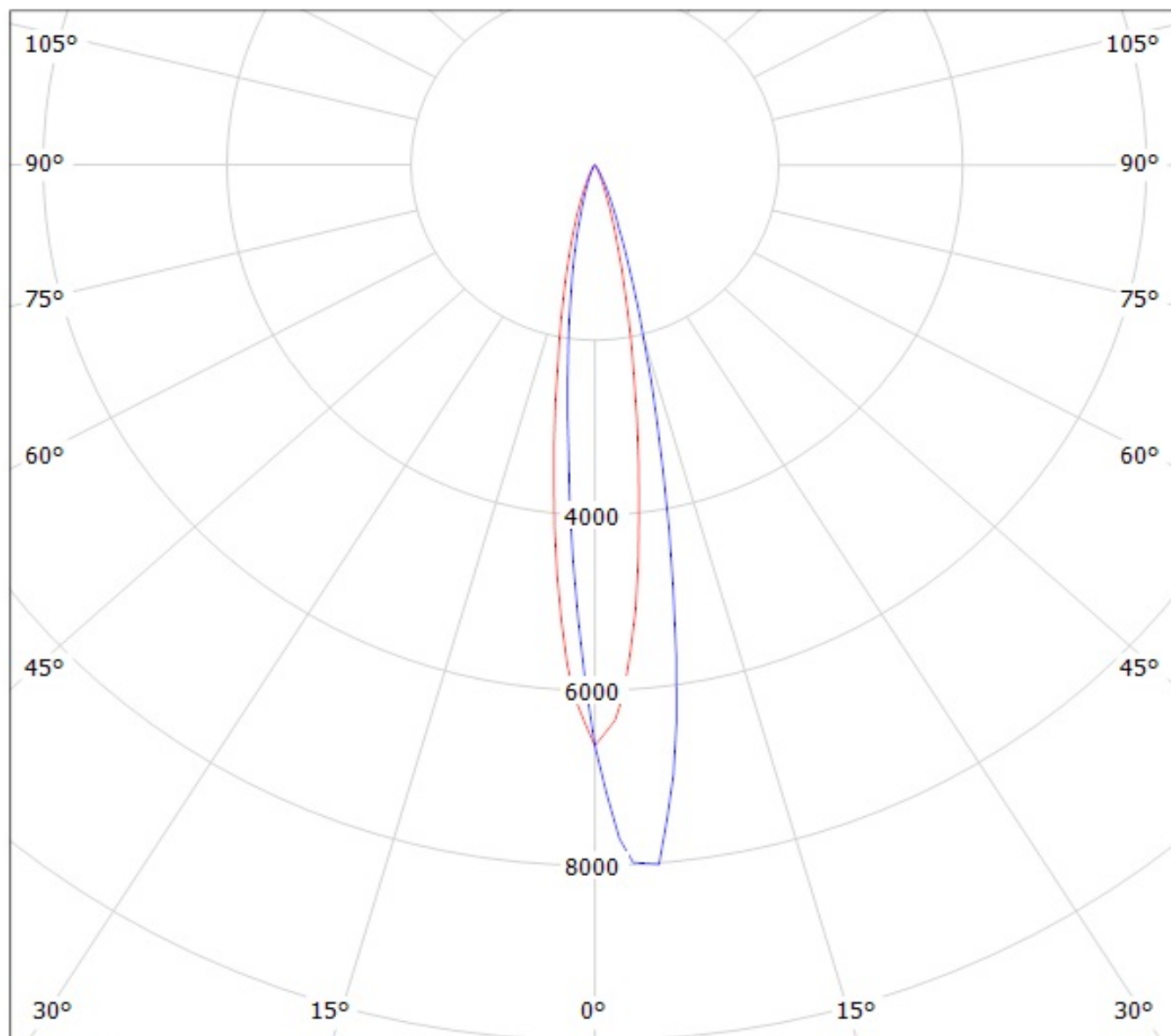
Luminaire: Ledil Oy CP13311&CA13312_LAURA-SS-WAS (Cree XP-G 71lm @ 250mA) Efficiency=91%
Lamps: 1 x Cree XP-G 71lm @ 250mA



cd/klm

— C0 - C180 — C90 - C270

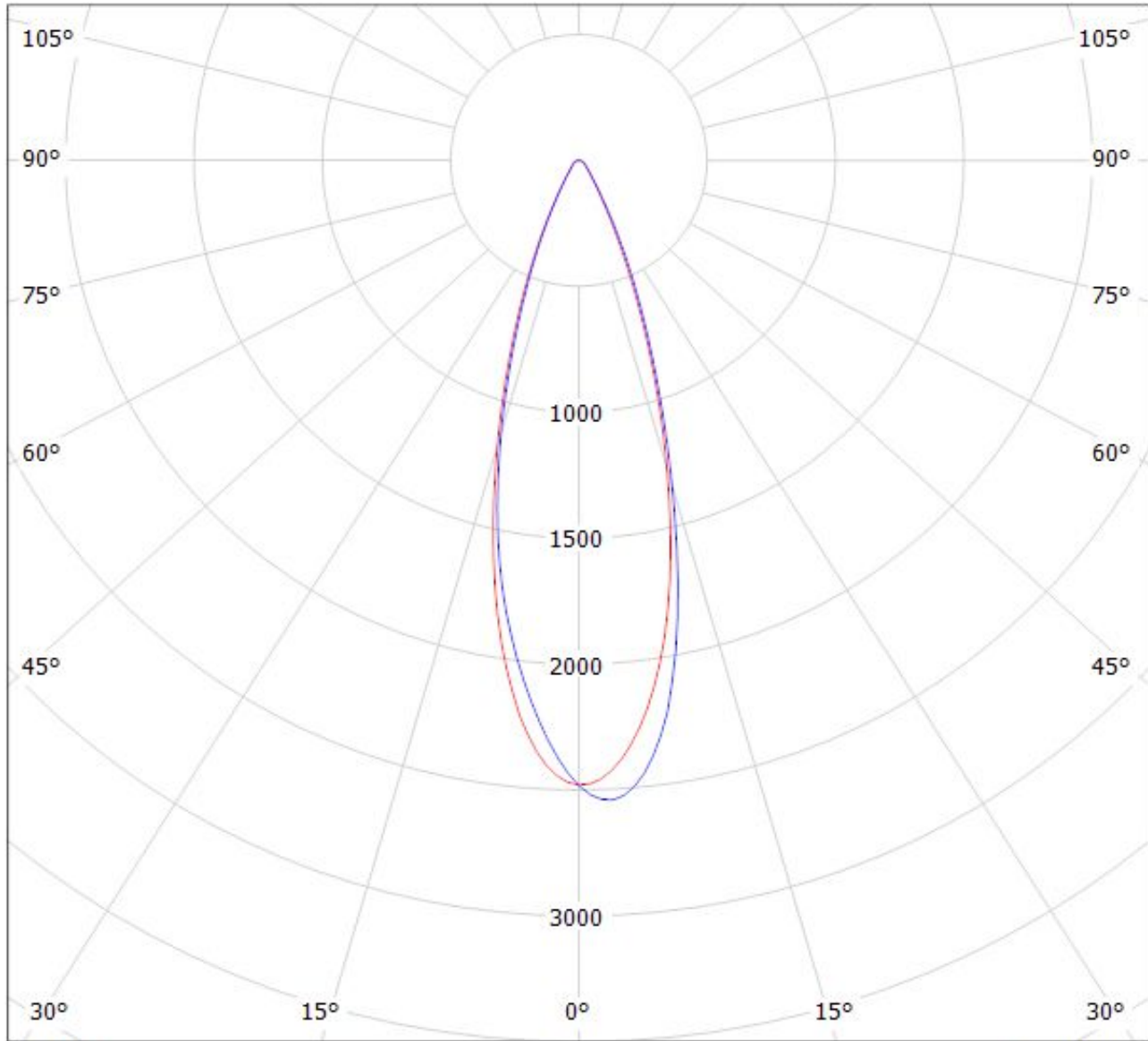
Luminaire: Ledil Oy CP13311&CA13312_LAURA-SS-WAS (Cree XP-G 71lm @ 250mA) Efficiency=91%
Lamps: 1 x Cree XP-G 71lm @ 250mA



cd/klm

— C0 - C180 — C90 - C270

Luminaire: LEDIL OY CA11837_LAURA-M-PIN_(XP-G) Eff.93%
Lamps: 1 x Cree XP-G (66.49lm@250mA)



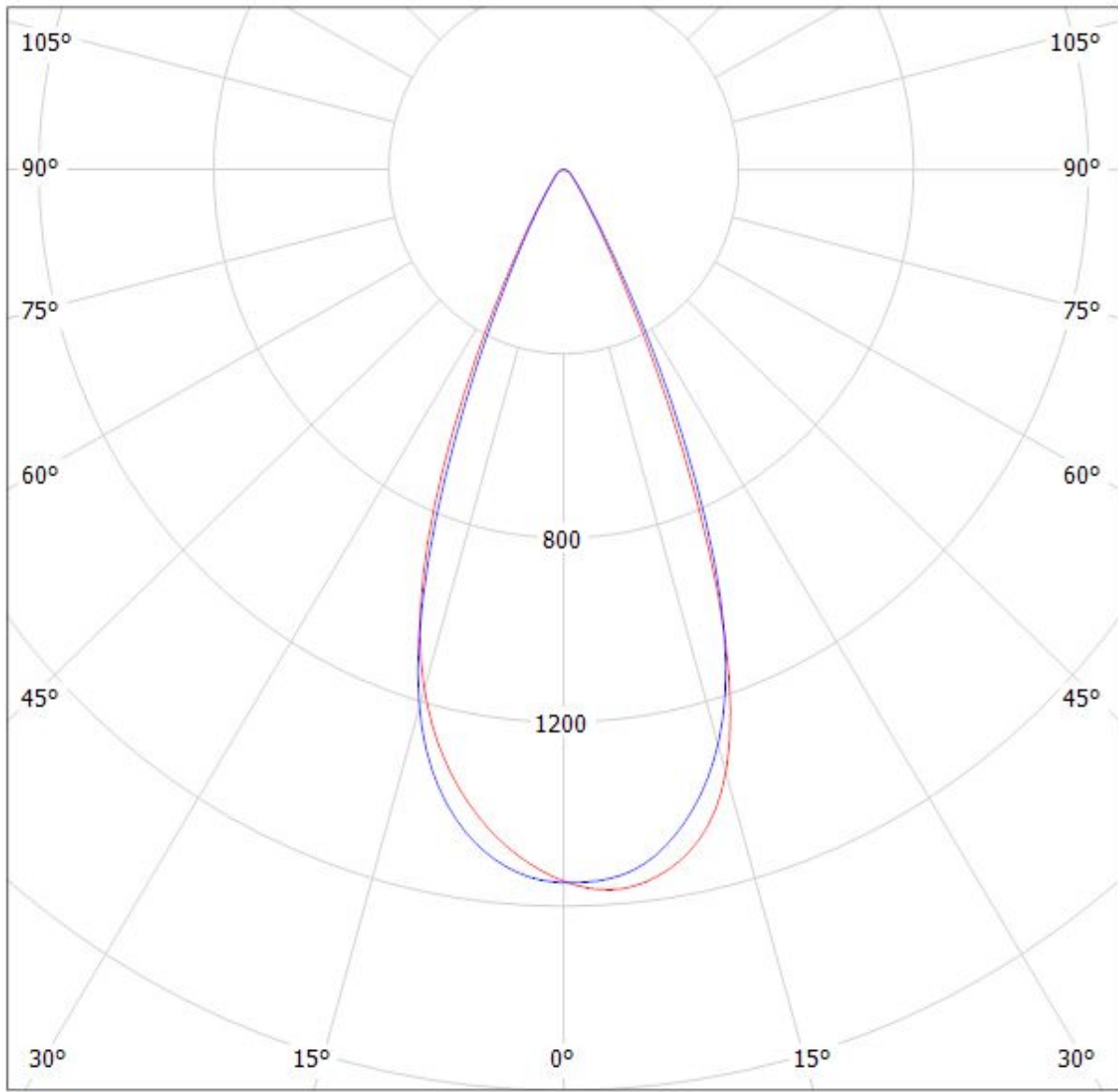
cd/klm

— C0 - C180

— C90 - C270

$\eta = 92\%$

Luminaire: LEDIL OY CA12344_LAURA-W-PIN_(XP-G) Eff.90.9%
Lamps: 1 x Cree XP-G (66.49lm@250mA)



cd/klm

— C0 - C180 — C90 - C270

$\eta = 91\%$