

## DETAILS

<b>Product Number</b>	C13232_HB-2X2-WW
<b>Family</b>	High Bay
<b>Type</b>	Lens array
<b>Color</b>	clear
<b>Diameter</b>	50x50 mm
<b>Height</b>	8.5 mm
<b>Style</b>	square
<b>Optic Material</b>	PMMA
<b>Holder Material</b>	
<b>Fastening</b>	screw, pin, glue
<b>Status</b>	ready
<b>ROHS Compliant</b>	Yes
<b>Date Updated</b>	11/11/2014



## OPTICAL PROPERTIES

LED	Viewing Angle	Light Beam	Efficiency	cd/lm	Connector
Oslon SSL 80	54 deg	Wide	92 %	1.080	-
LUXEON Z ES	59 deg	Wide	90 %	1.000	-
TL1L4	60 deg	Wide	84 %	0.870	-
LH351Z	63 deg	Wide	89 %	0.860	-
Oslon Square PC	63 deg	Wide	91 %	0.863	-
XT-E	65 deg	Wide	91 %	0.900	-
Z5M1/Z5M2	65 deg	Wide	90 %	0.900	-
LH351B	65 deg	Wide	89 %	0.780	-
LUXEON Q	67 deg	Wide	91 %	0.800	-
NVSxx19B/NVSxx19C	67 deg	Wide	91 %	0.800	-
LH351A(3535)	68 deg	Wide	92 %	0.800	-
H35C1 (LEMWA33)	68 deg	Wide	89 %	0.800	-
XP-G2	69 deg	Wide	91 %	0.700	-
XP-G	69 deg	Wide	91 %	0.800	-

D

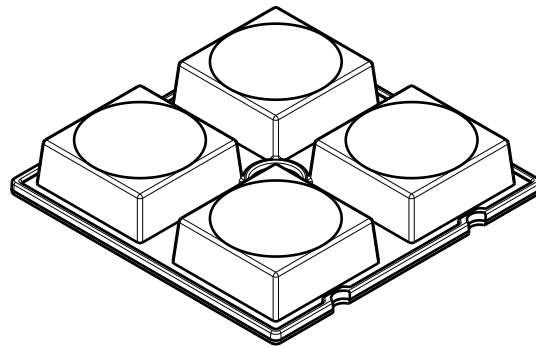
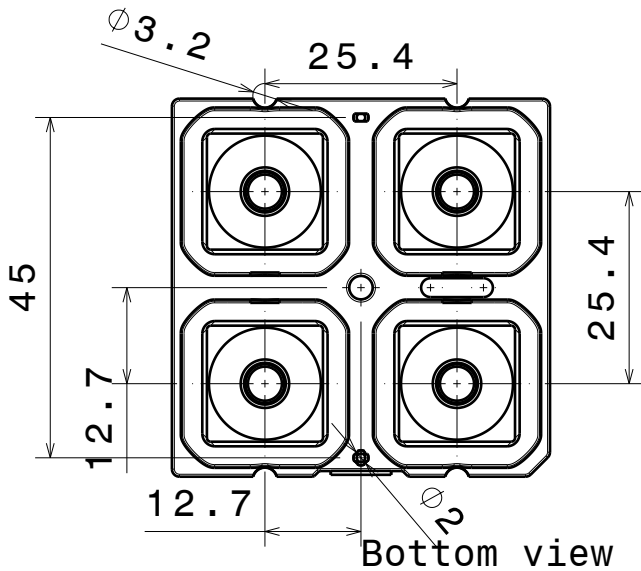
C

B

A

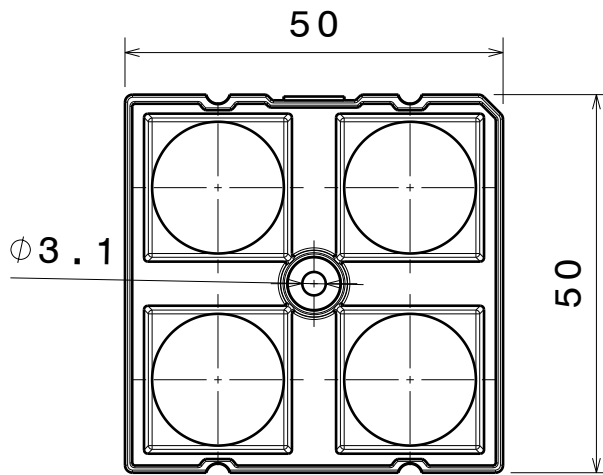
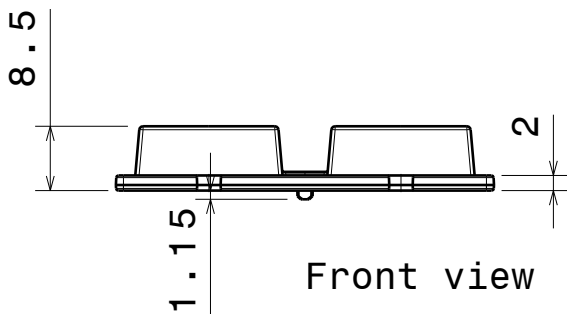
4

4



3

3



2

2

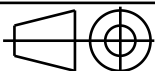
INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	C13232	HB-2X2-WW	PMMA	

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 Oy  
Salorankatu 10  
FIN 24240 SALO  
Finland

THIRD ANGLE PROJECTION:



DRAWING TITLE

HB-2X2-WW

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SIZE  
A4

C13232

SCALE 1:1 WEIGHT

SHEET 1/1

1

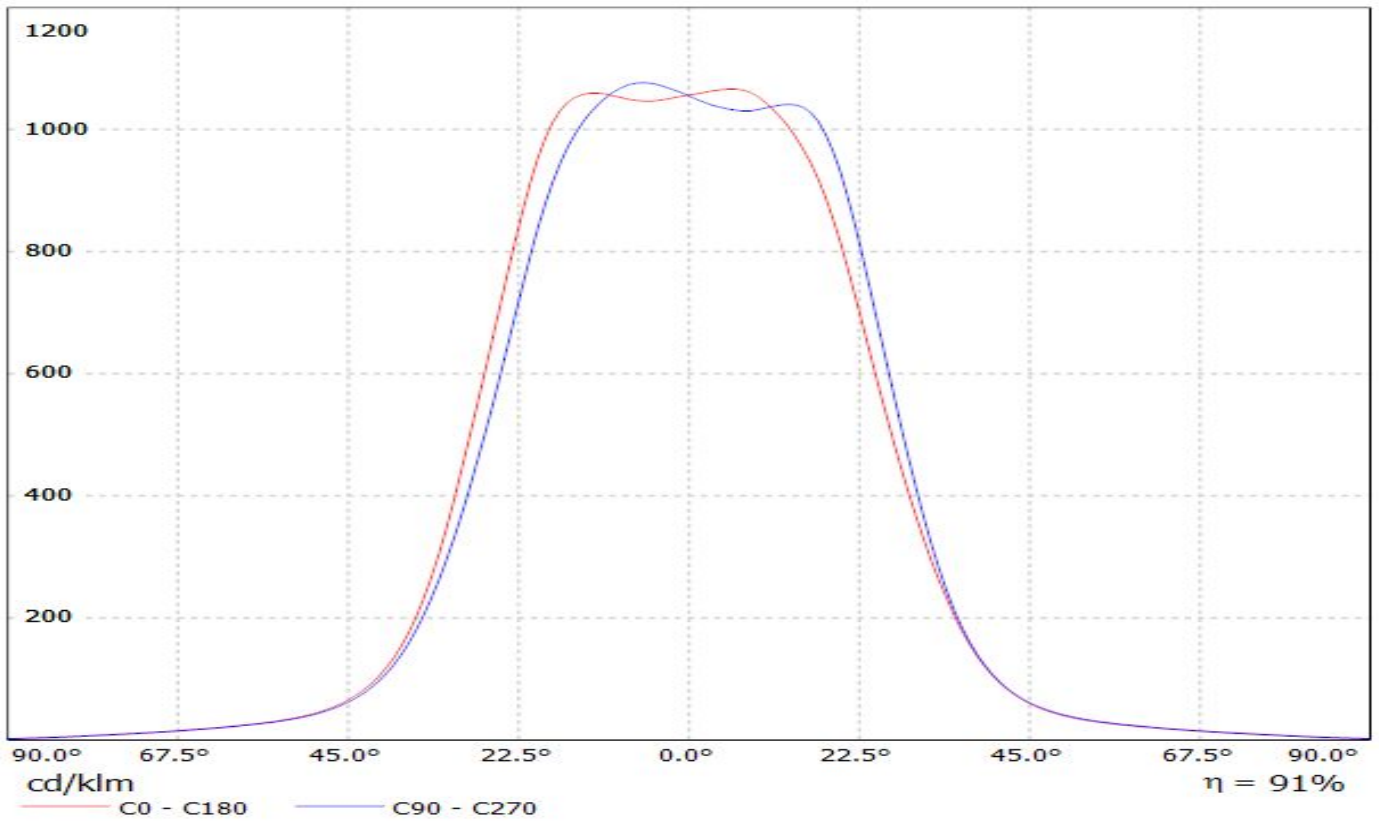
1

D

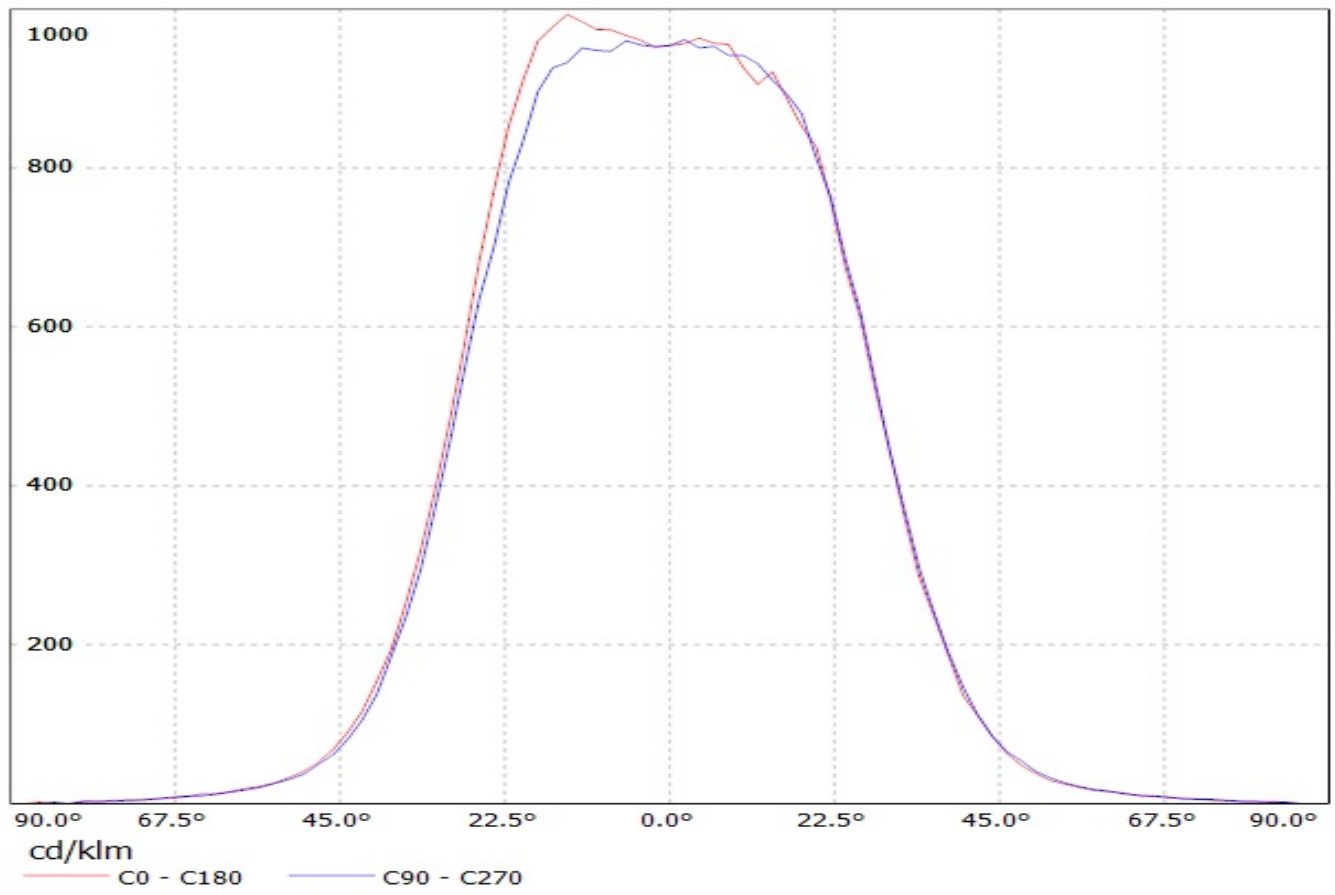
A

# LEDiL Oy C13232\_HB-2x2-WW\_(SSL80) Eff.91.5% / LDC (Linear)

Luminaire: LEDiL Oy C13232\_HB-2x2-WW\_(SSL80) Eff.91.5%  
Lamps: 1 x Osram Oslon SSL80 (308lm@250mA)



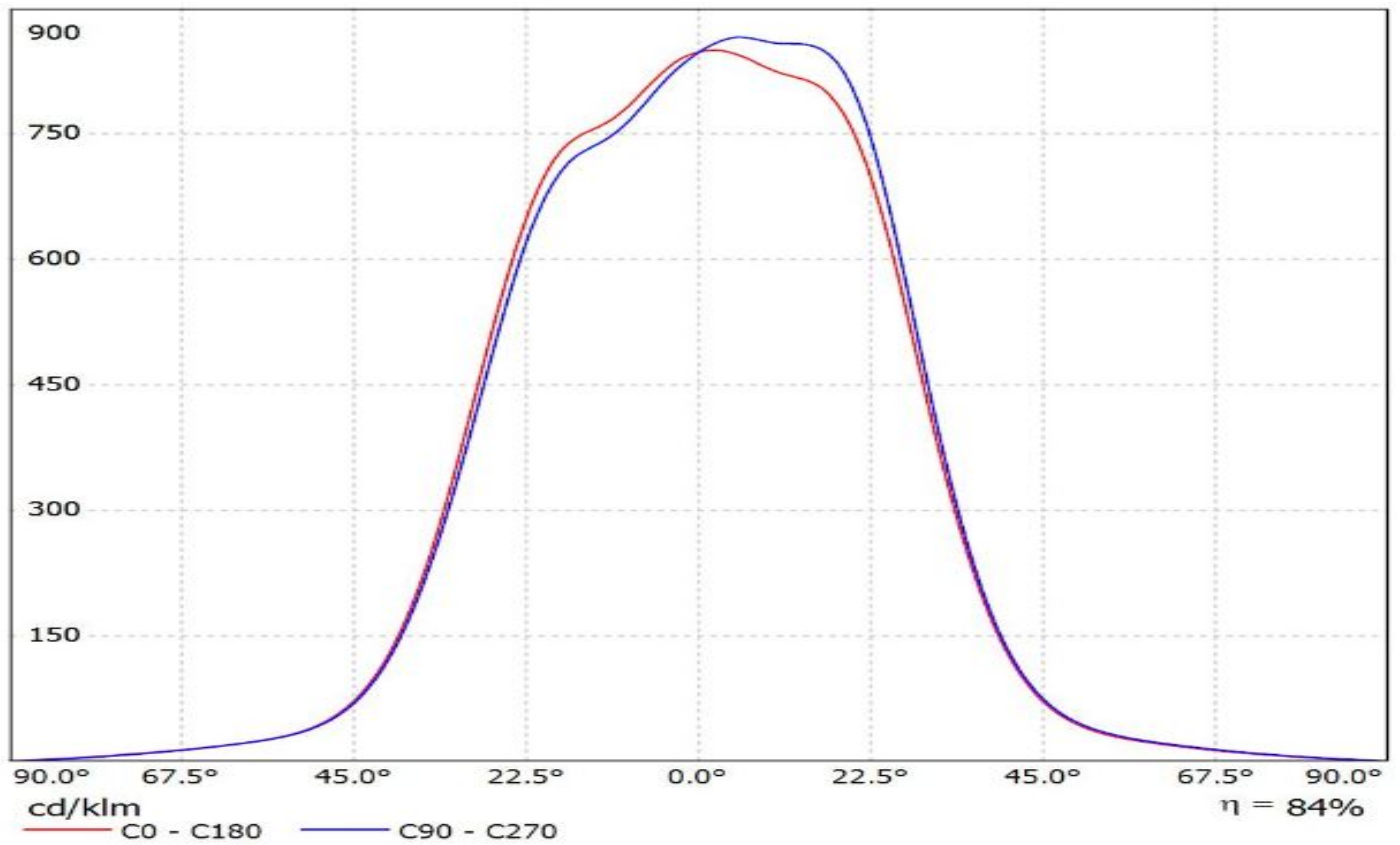
Luminaire: Ledil Oy C13232\_HB-2X2-WW\_(Luxeon\_Z\_ES) Efficiency=90%  
Lamps: 1 x Luxeon Z ES (LXZ2-3090) 209lm @ 250mA CCT=3000k P=2.8W I=250mA



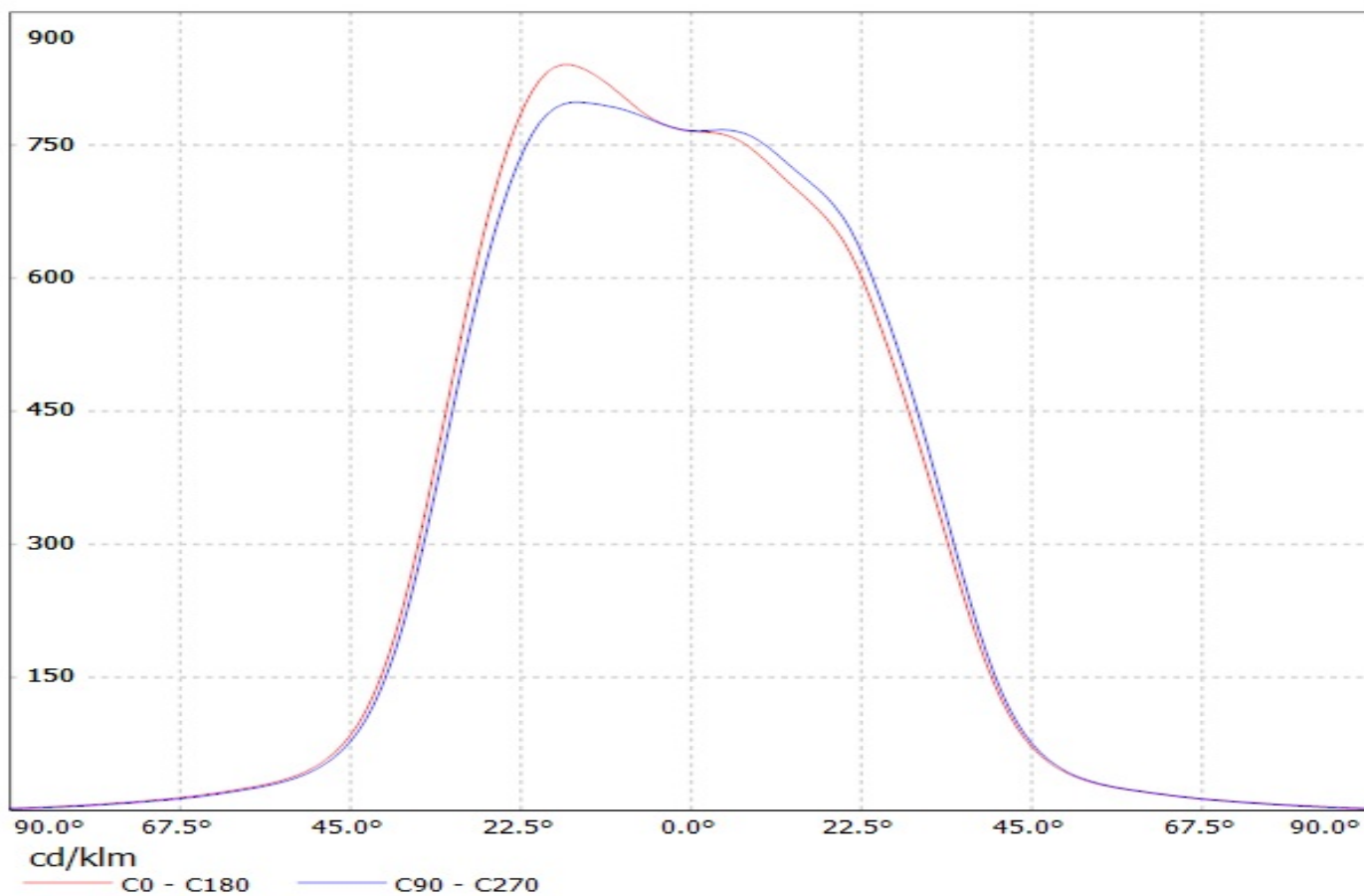
# Ledil C13232\_HB-2X2-WW\_(TL1L4) / LDC (Linear)

Luminaire: Ledil C13232\_HB-2X2-WW\_(TL1L4)

Lamps: 1 x Toshiba\_TL1L4\_2x2\_(TL1L4-DW0)\_472.639lm@250mA\_CCT=6500K\_P=2.9W\_I=0.25A

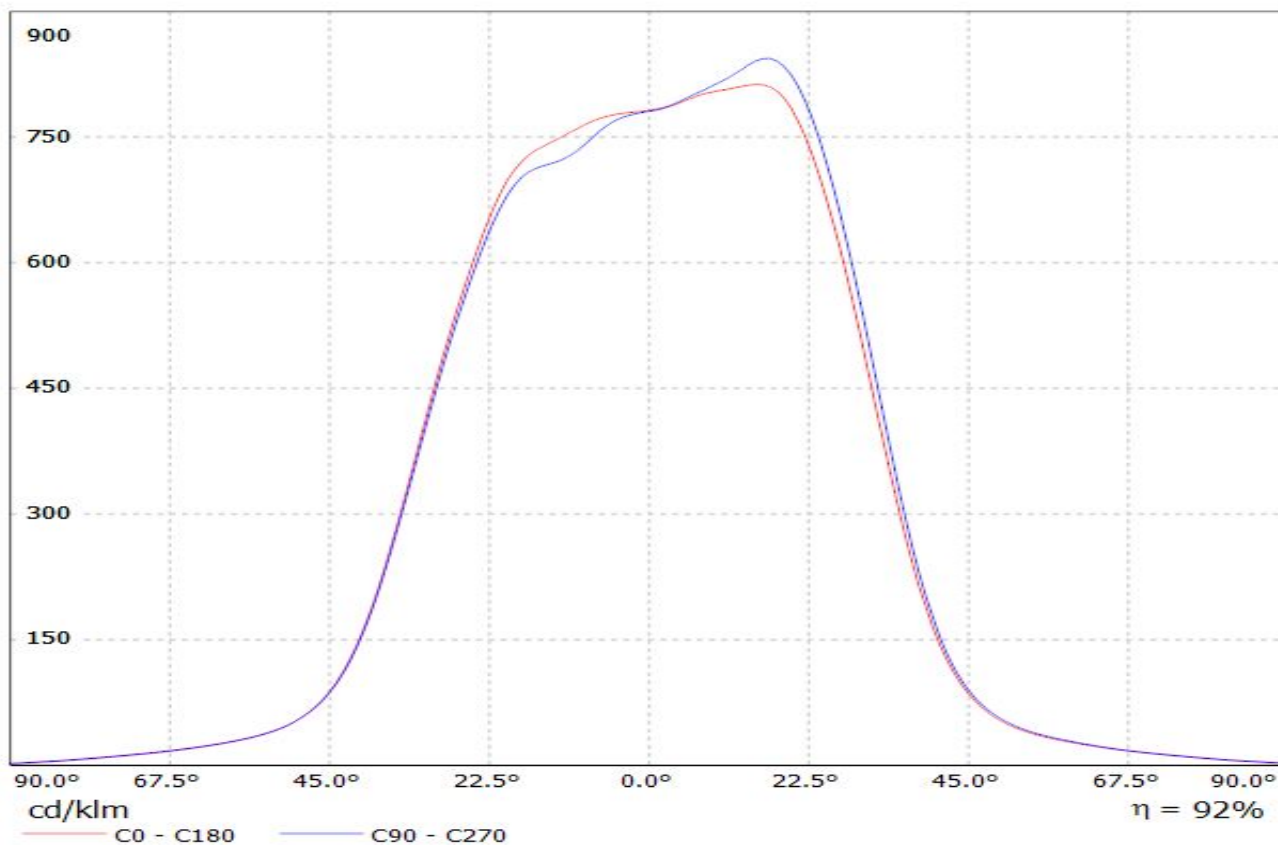


Luminaire: LEDiL Oy C13232\_HB-2X2-WW\_(LH351Z) Eff.89.0%  
Lamps: 1 x SAMSUNG\_LH351Z\_2x2\_359.49lm@250mA\_P=2.86371W\_I=249.8mA

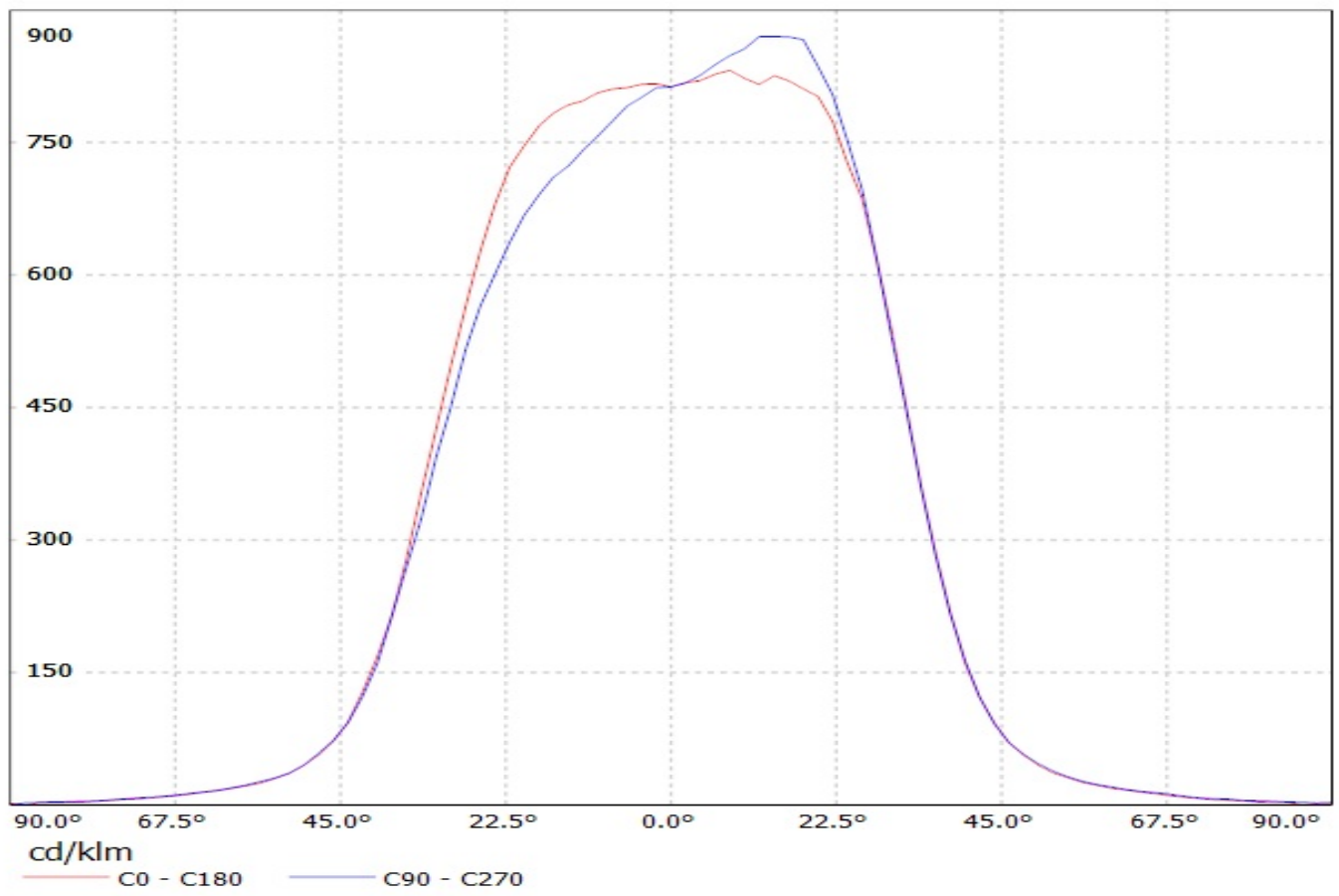


Luminaire: LEDiL Oy C13232\_HB-2x2-WW\_(Osram\_Square\_PC) Eff. 91,6%

Lamps: 1 x Osram Square PC (385lm@100mA)

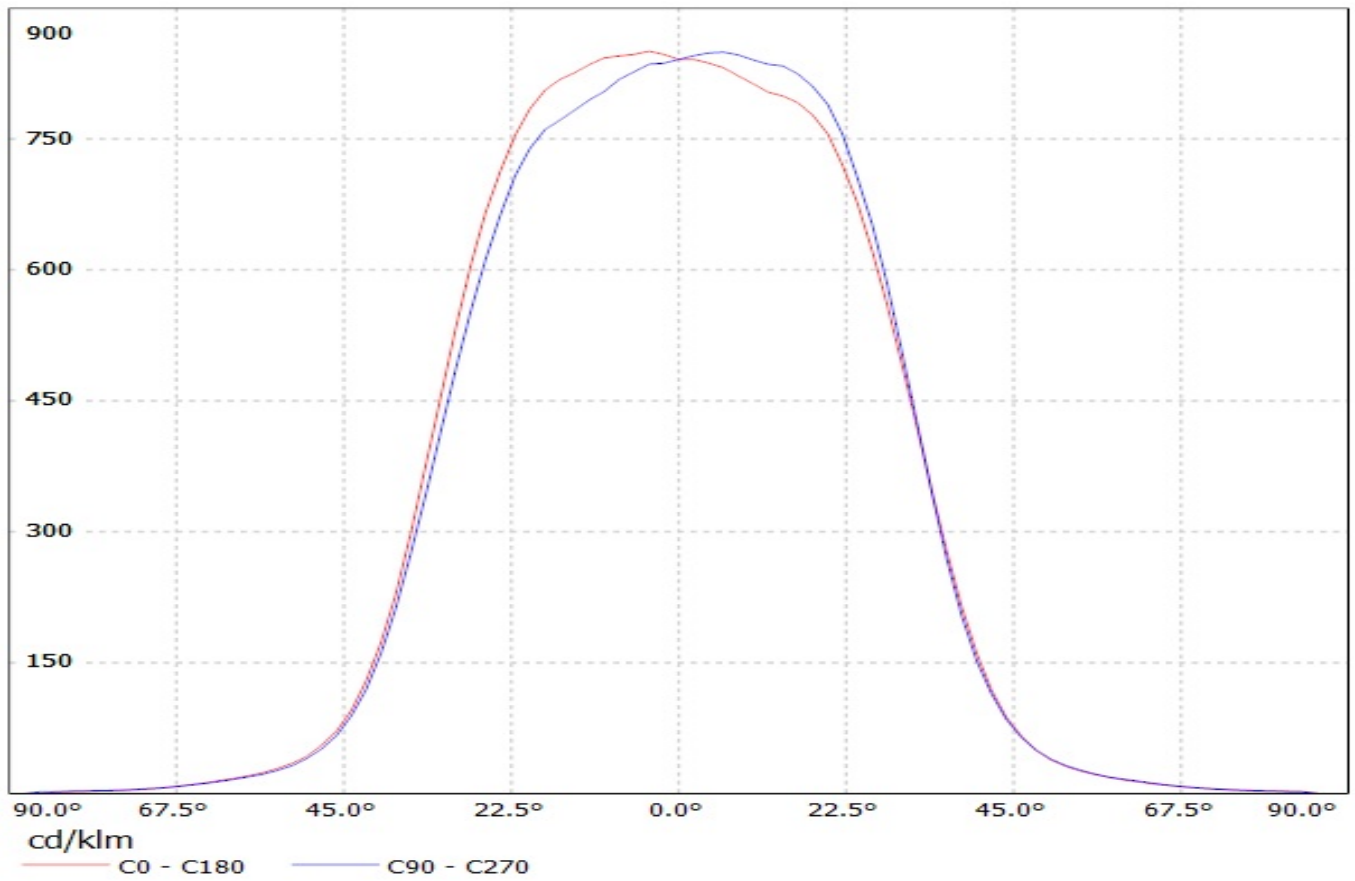


Luminaire: Ledil Oy C13237&C13232\_HB-2X2-WW (Cree XT-E 390lm @ 250mA) Efficiency=91%  
Lamps: 1 x Cree XT-E 390lm @ 250mA

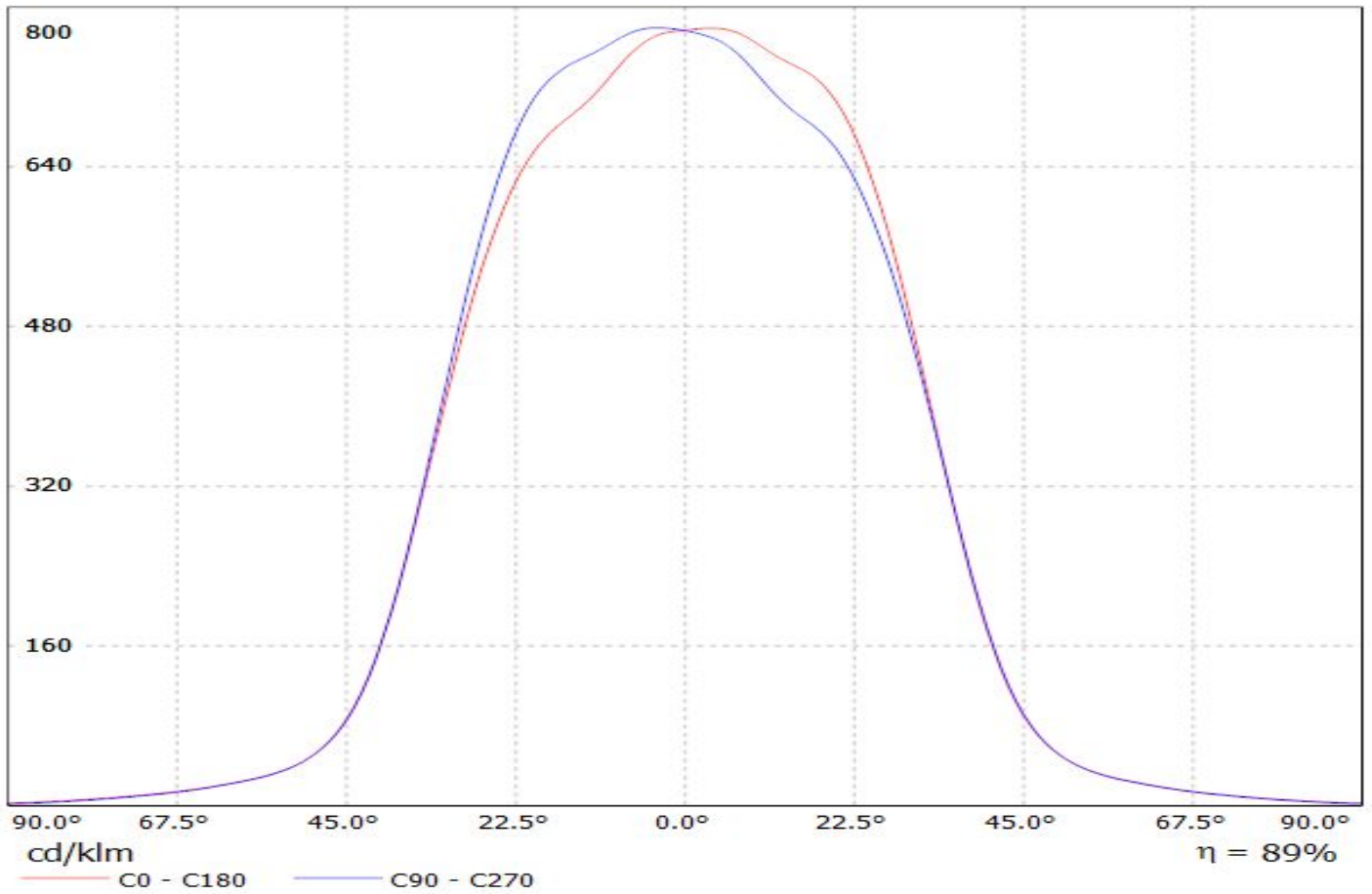




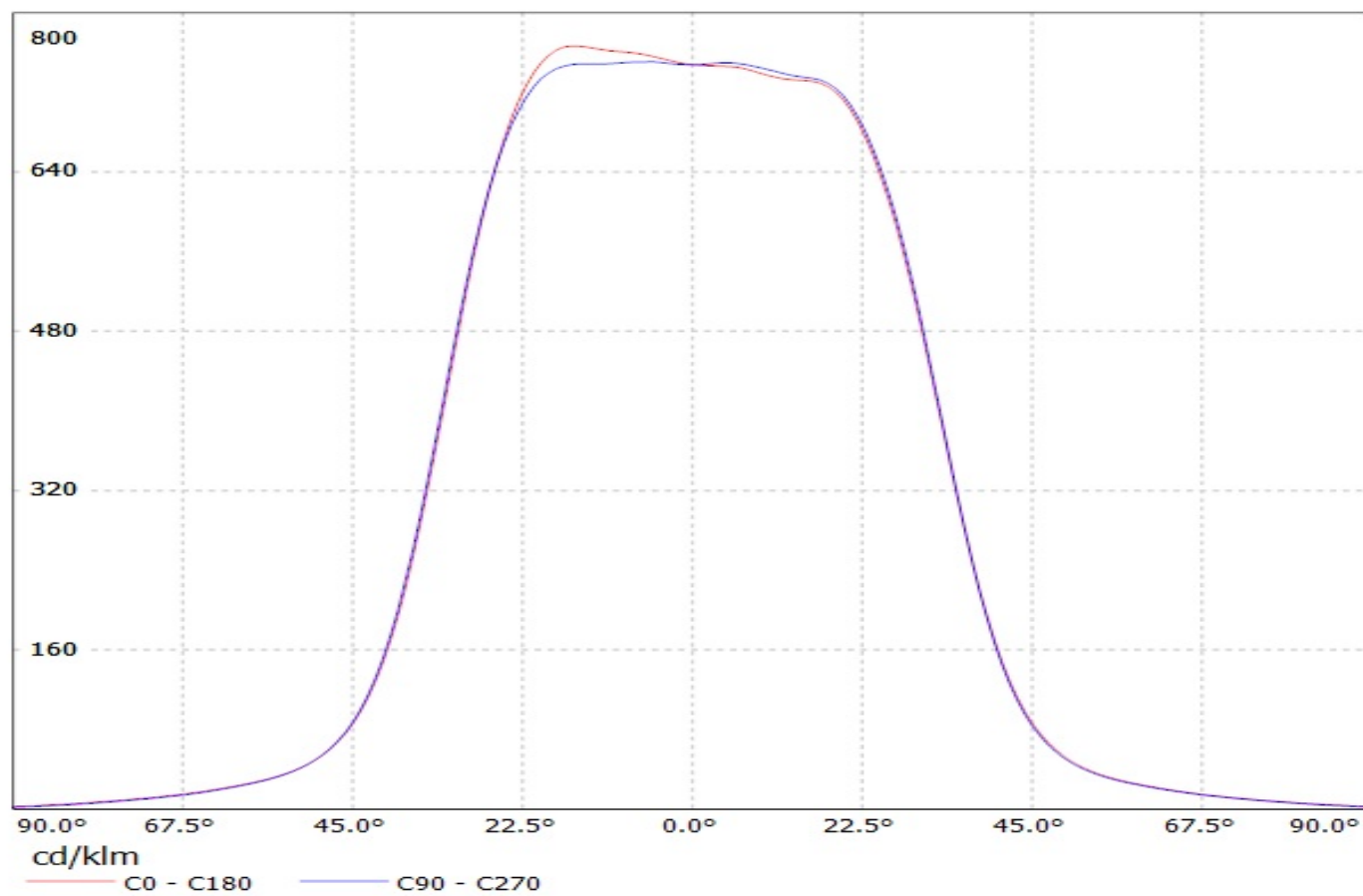
Luminaire: LEDil Oy C13232\_HB-2x2-WW\_(Z5M1) Efficiency=90%  
Lamps: 1 x Seoul Z5M1 (SZ5-M1-WN-C8) 379lm @ 250mA CCT=4600K P=2.9W I=250mA



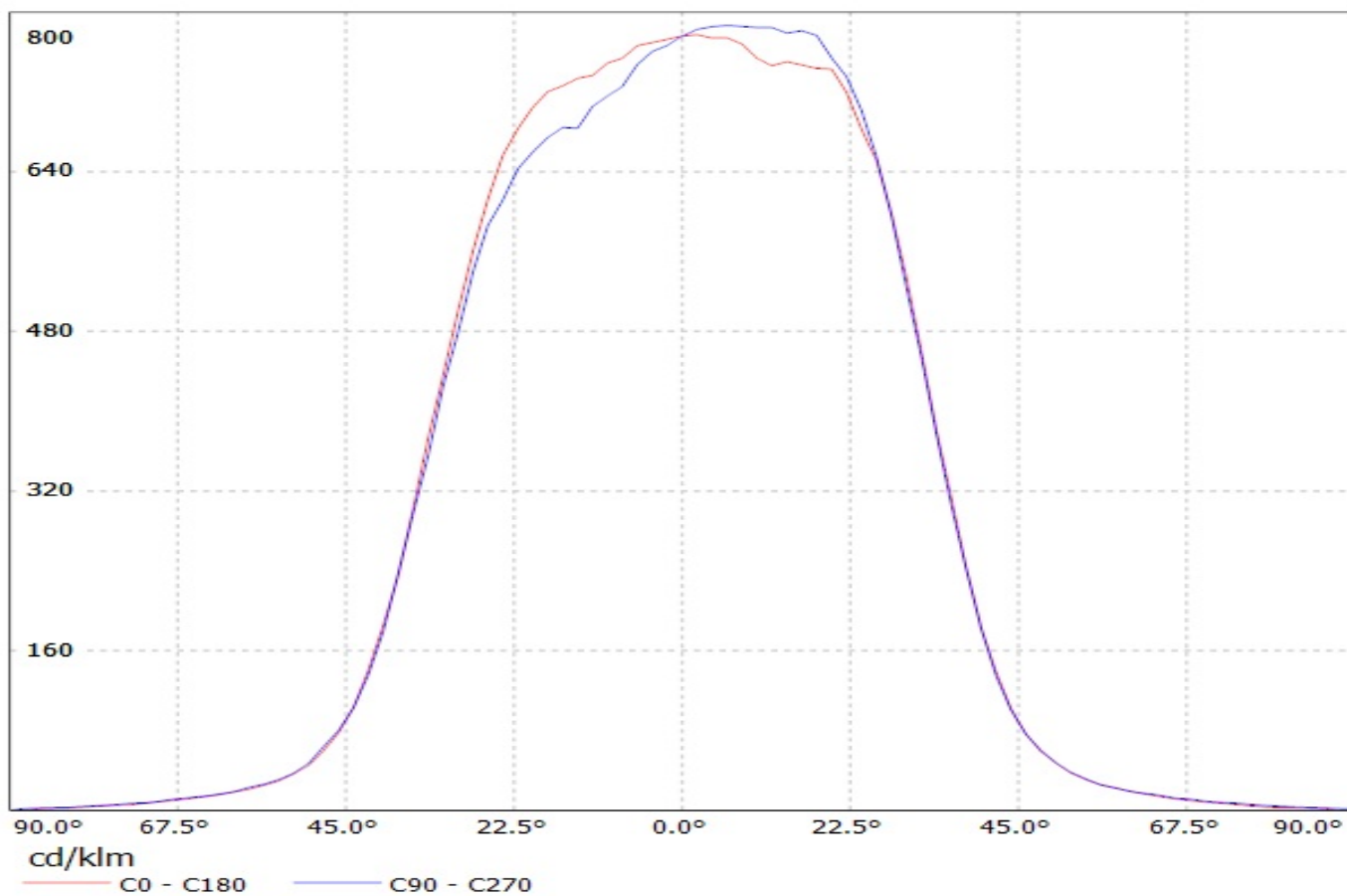
Luminaire: LEDiL Oy C13232\_HB-2X2-WW\_(LH351B) Eff.88.6%  
Lamps: 1 x SAMSUNG\_LH351B\_2x2\_430.715lm@250mA\_P=2.84311W\_I=249.9mA



Luminaire: LEDiL Oy C13232\_HB-2X2-WW\_(LUXEON\_Q) Eff.90.8%  
Lamps: 1 x LUXEON\_Q\_2x2\_(LHQ-3080)\_298.363lm@250mA\_P=2.87385W\_I=249.9mA

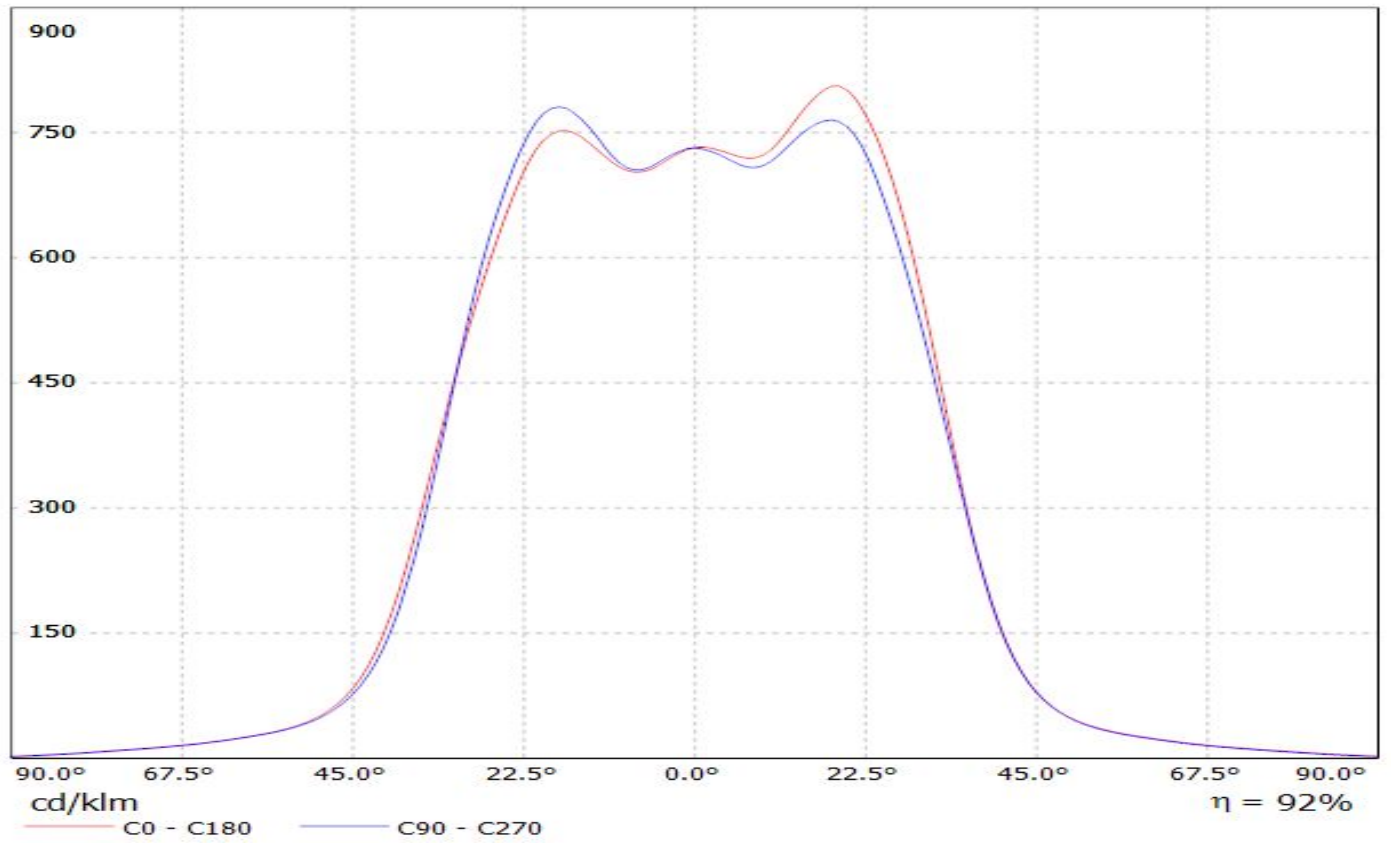


Luminaire: Ledil Oy C13237&C13232\_HB-2X2-WW (Nichia NVS19B 306lm @ 250mA) Efficiency=91%  
Lamps: 1 x Nichia NVS19B 306lm @ 250mA

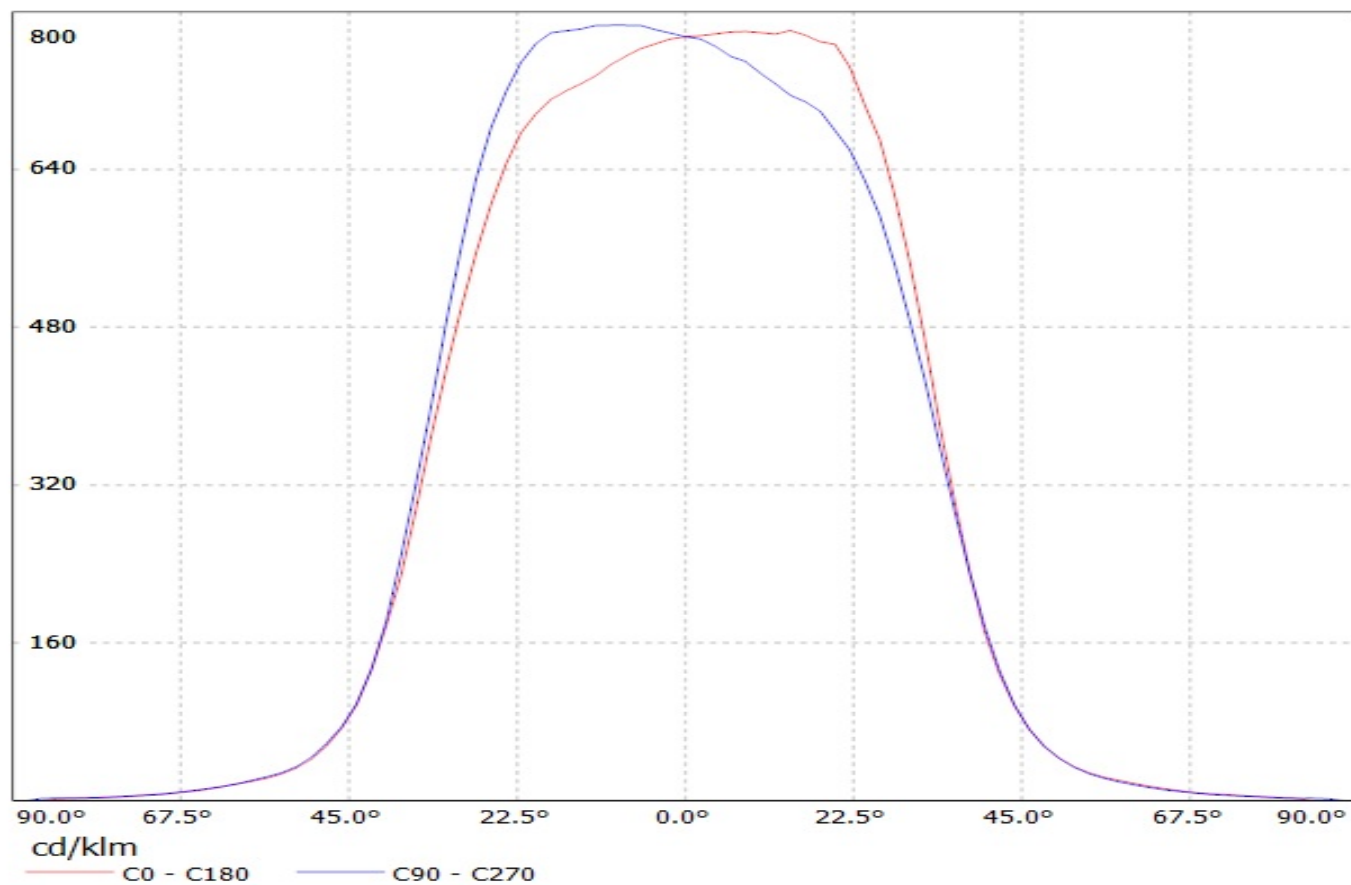


# LEDiL Oy C13232\_HB-2x2-WW\_(Samsung\_3535) Eff.92.0% / LDC (Linear)

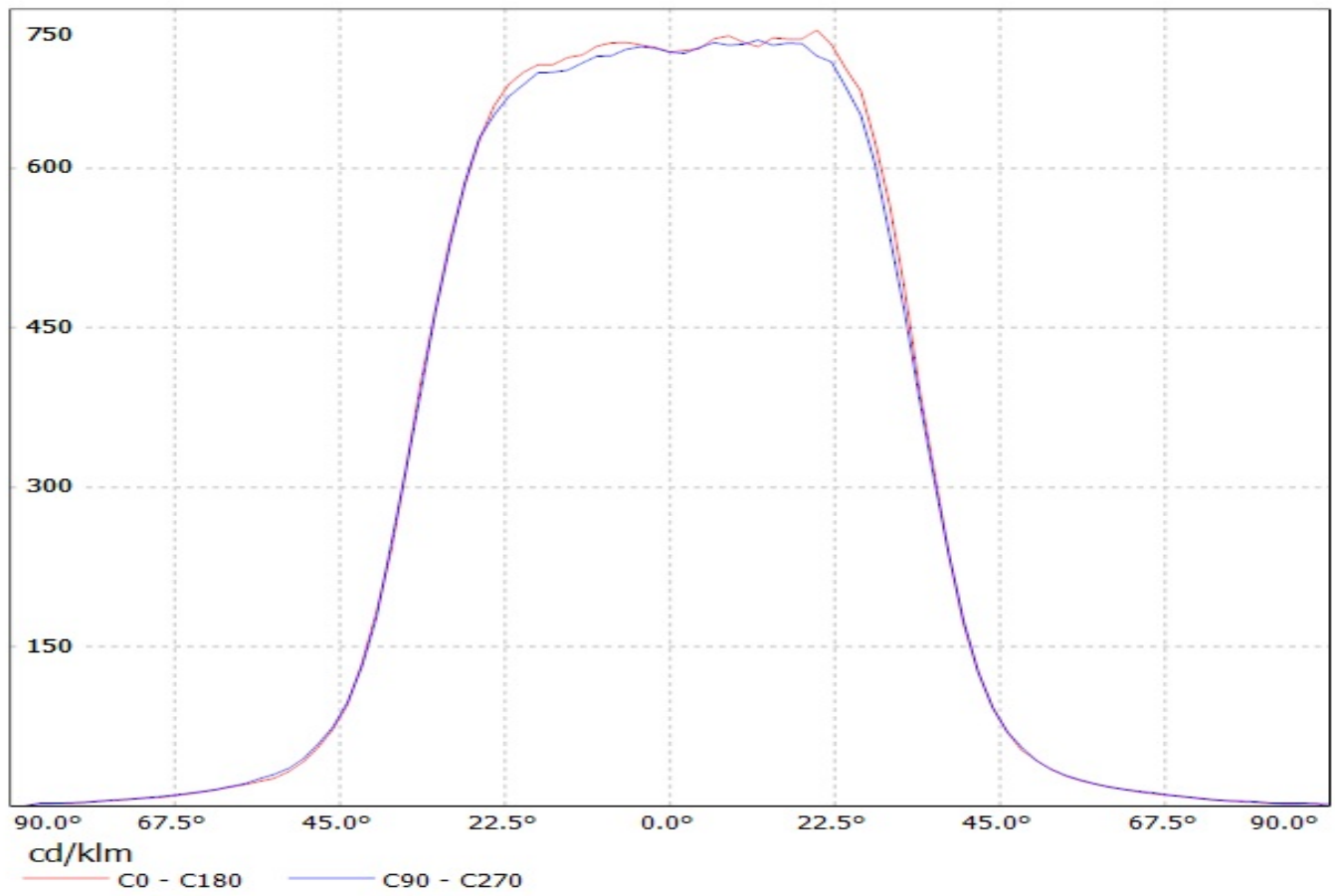
Luminaire: LEDiL Oy C13232\_HB-2x2-WW\_(Samsung\_3535) Eff.92.0%  
Lamps: 1 x Samsung\_3535\_(LH35A1) (333lm@250mA)



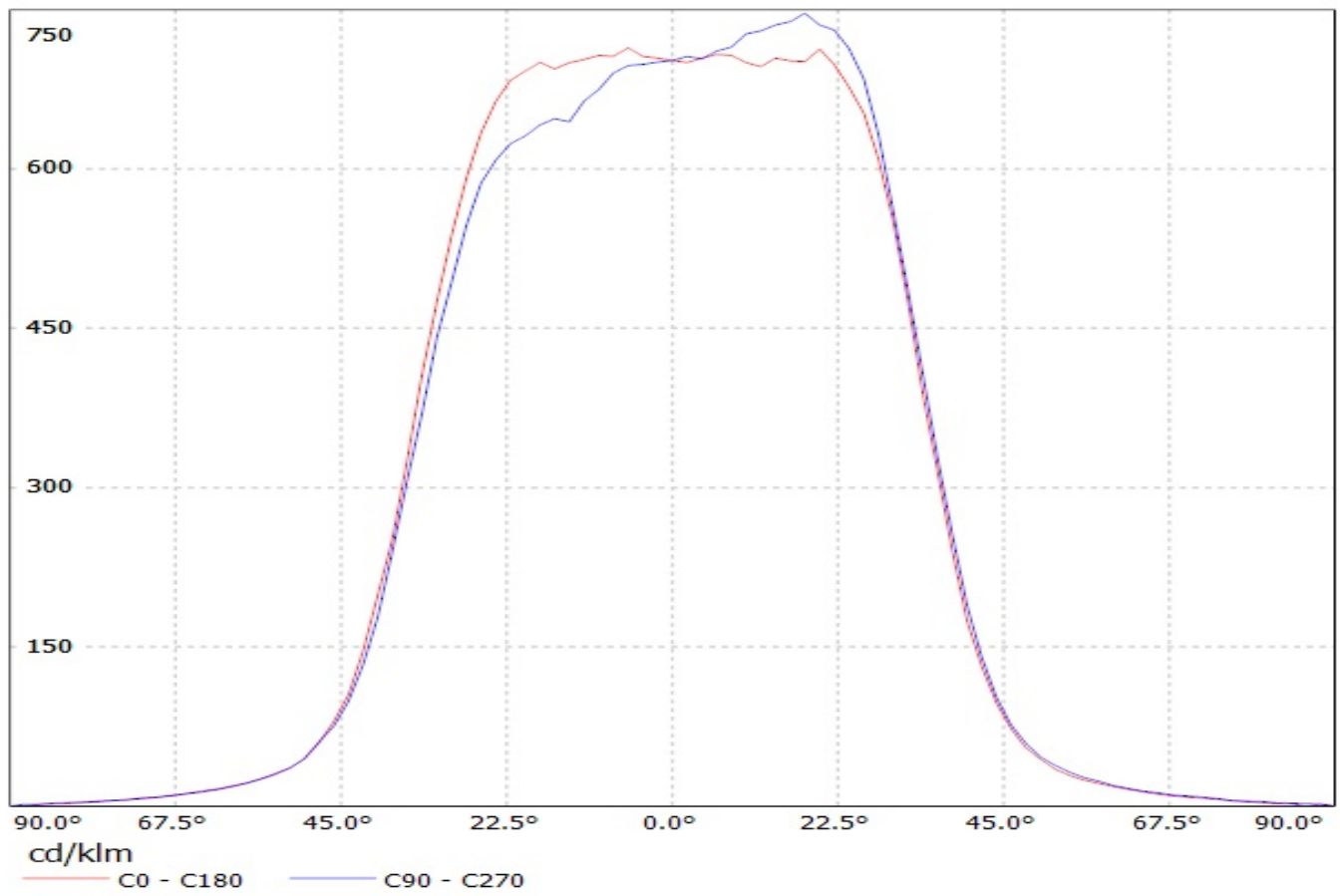
Luminaire: Ledil Oy C13232\_HB-2x2-WW\_(3535\_Ceramic\_gen2) Efficiency=89%  
Lamps: 1 x LG 3535 Ceramic gen2 (PKG5700K) 461lm @ 250mA CCT=6600K P=2.9W I=250mA



Luminaire: Ledil Oy C13237&C13232\_HB-2X2-WW (Cree XP-G2 420lm @ 250mA) Efficiency=91%  
Lamps: 1 x Cree XP-G2 420lm @ 250mA



Luminaire: Ledil Oy C13237&C13232\_HB-2X2-WW (Cree XP-G 257lm @ 250mA) Efficiency=91%  
Lamps: 1 x Cree XP-G 257lm @ 250mA

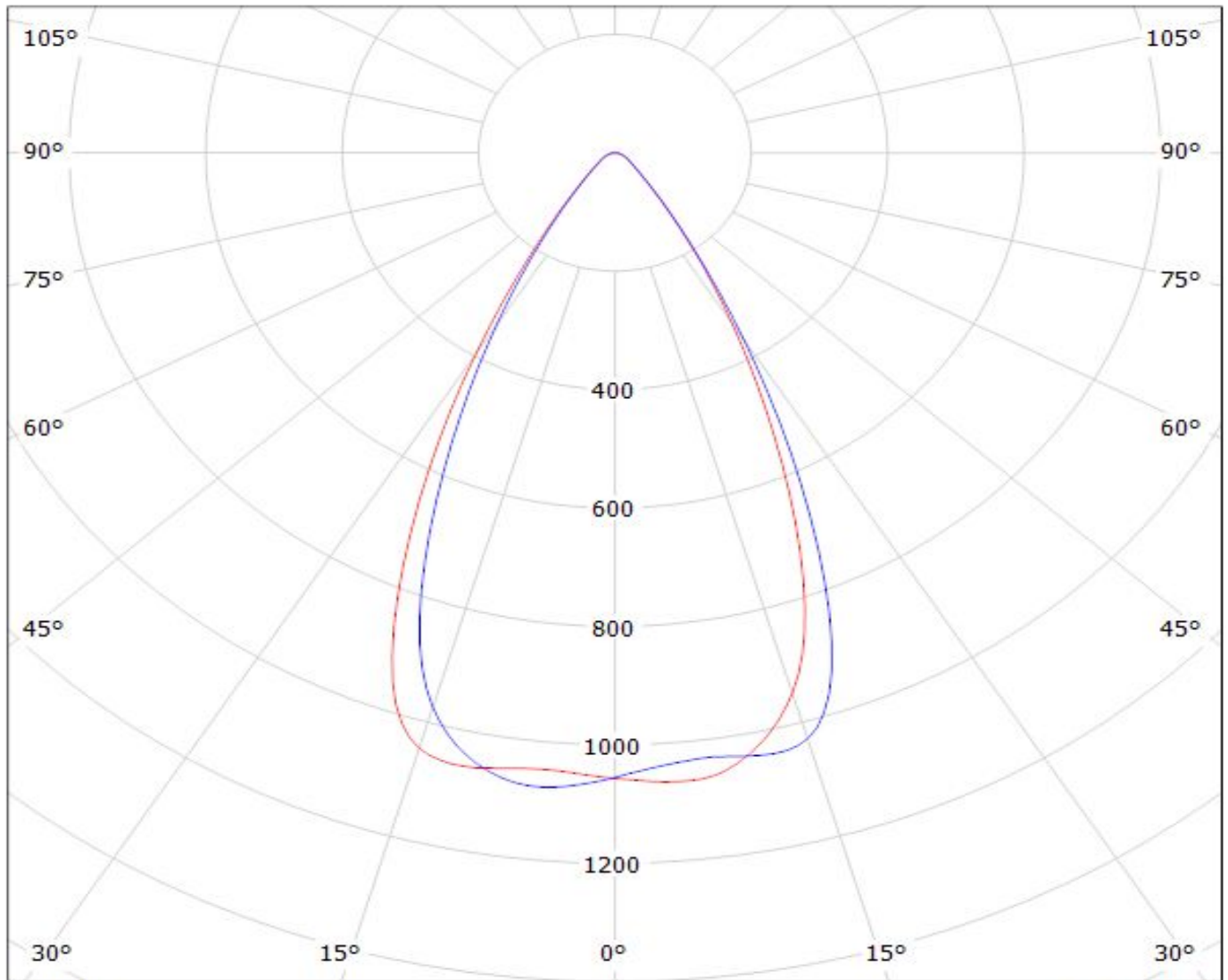




# LEDiL Oy C13232\_HB-2x2-WW\_(SSL80) Eff.91.5% / LDC (Polar)

Luminaire: LEDiL Oy C13232\_HB-2x2-WW\_(SSL80) Eff.91.5%

Lamps: 1 x Osram Oslon SSL80 (308lm@250mA)



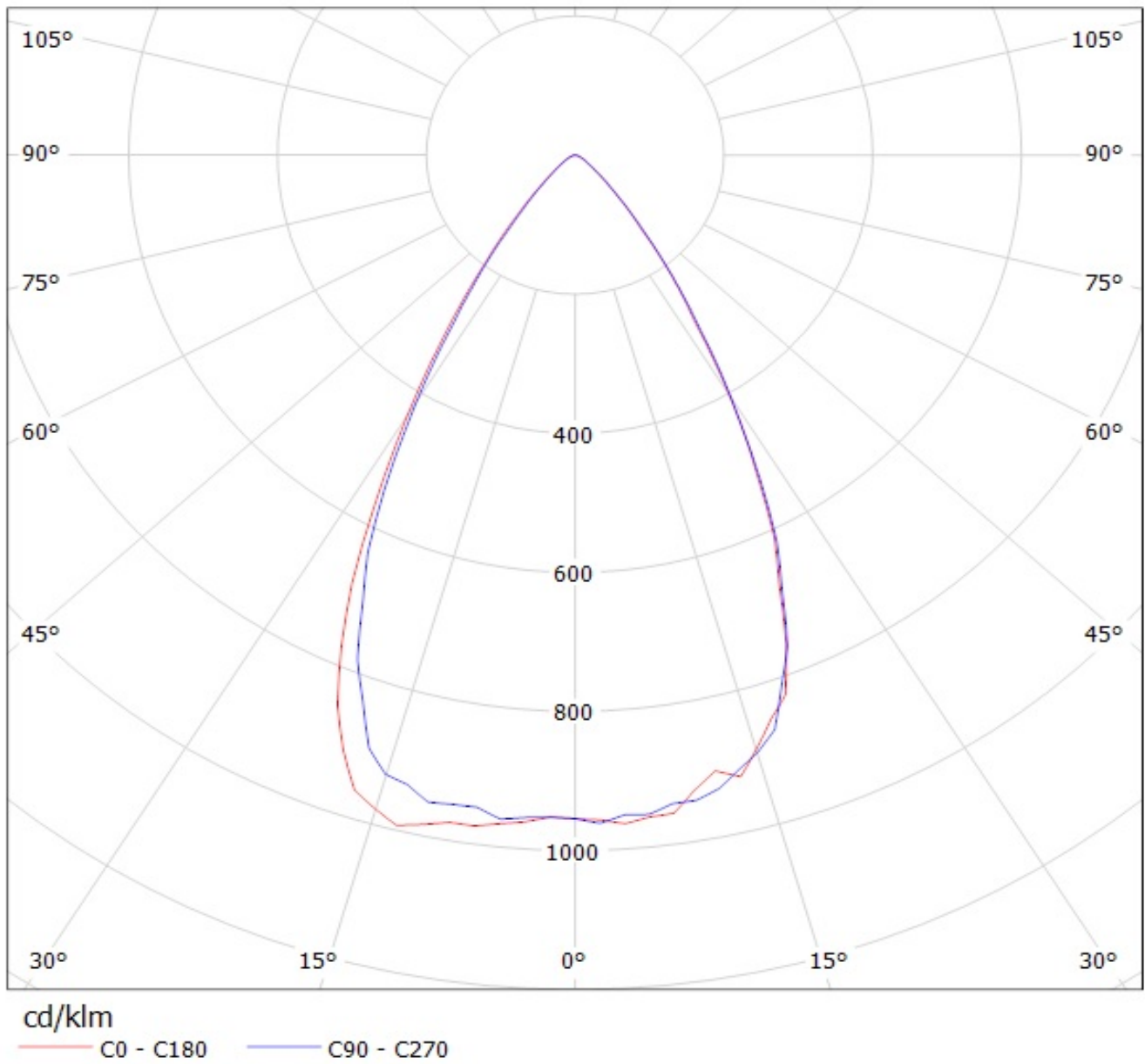
cd/klm

— C0 - C180

— C90 - C270

$\eta = 91\%$

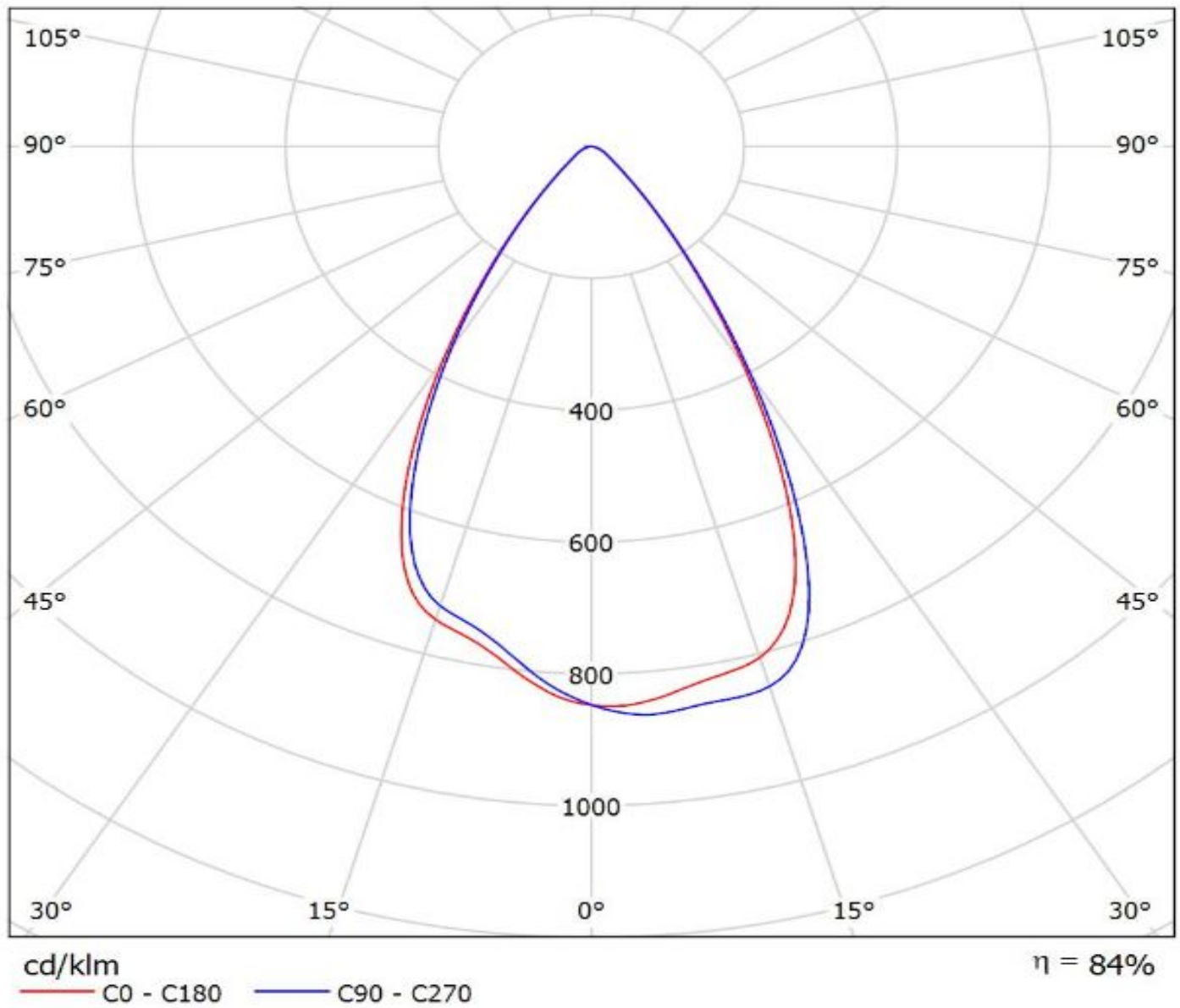
Luminaire: Ledil Oy C13232\_HB-2X2-WW\_(Luxeon\_Z\_ES) Efficiency=90%  
Lamps: 1 x Luxeon Z ES (LXZ2-3090) 209lm @ 250mA CCT=3000k P=2.8W I=250mA



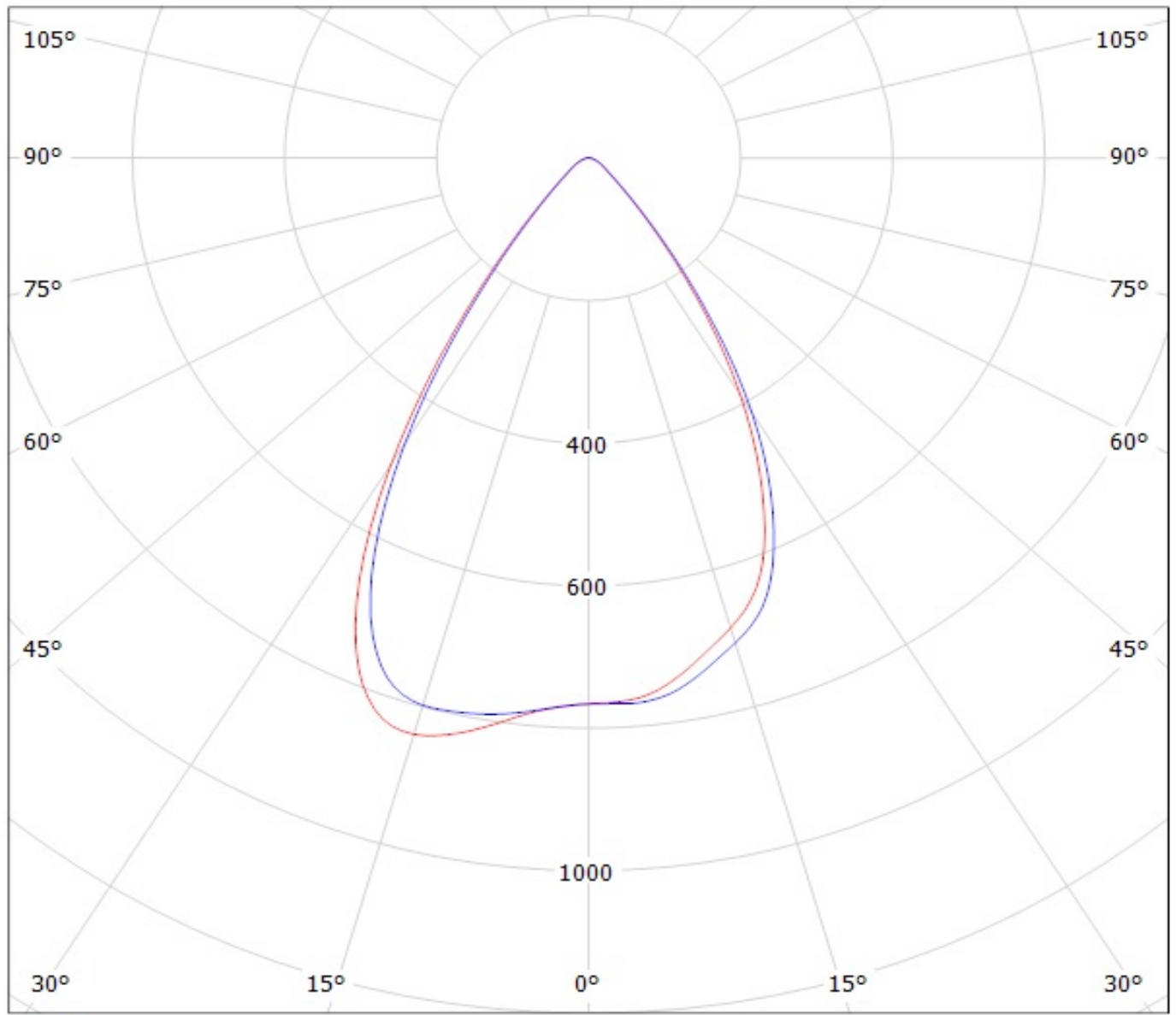
# Ledil C13232\_HB-2X2-WW\_(TL1L4) / LDC (Polar)

Luminaire: Ledil C13232\_HB-2X2-WW\_(TL1L4)

Lamps: 1 x Toshiba\_TL1L4\_2x2\_(TL1L4-DW0)\_472.639lm@250mA\_CCT=6500K\_P=2.9W\_I=0.25A



Luminaire: LEDiL Oy C13232\_HB-2X2-WW\_(LH351Z) Eff.89.0%  
Lamps: 1 x SAMSUNG\_LH351Z\_2x2\_359.49lm@250mA\_P=2.86371W\_I=249.8mA

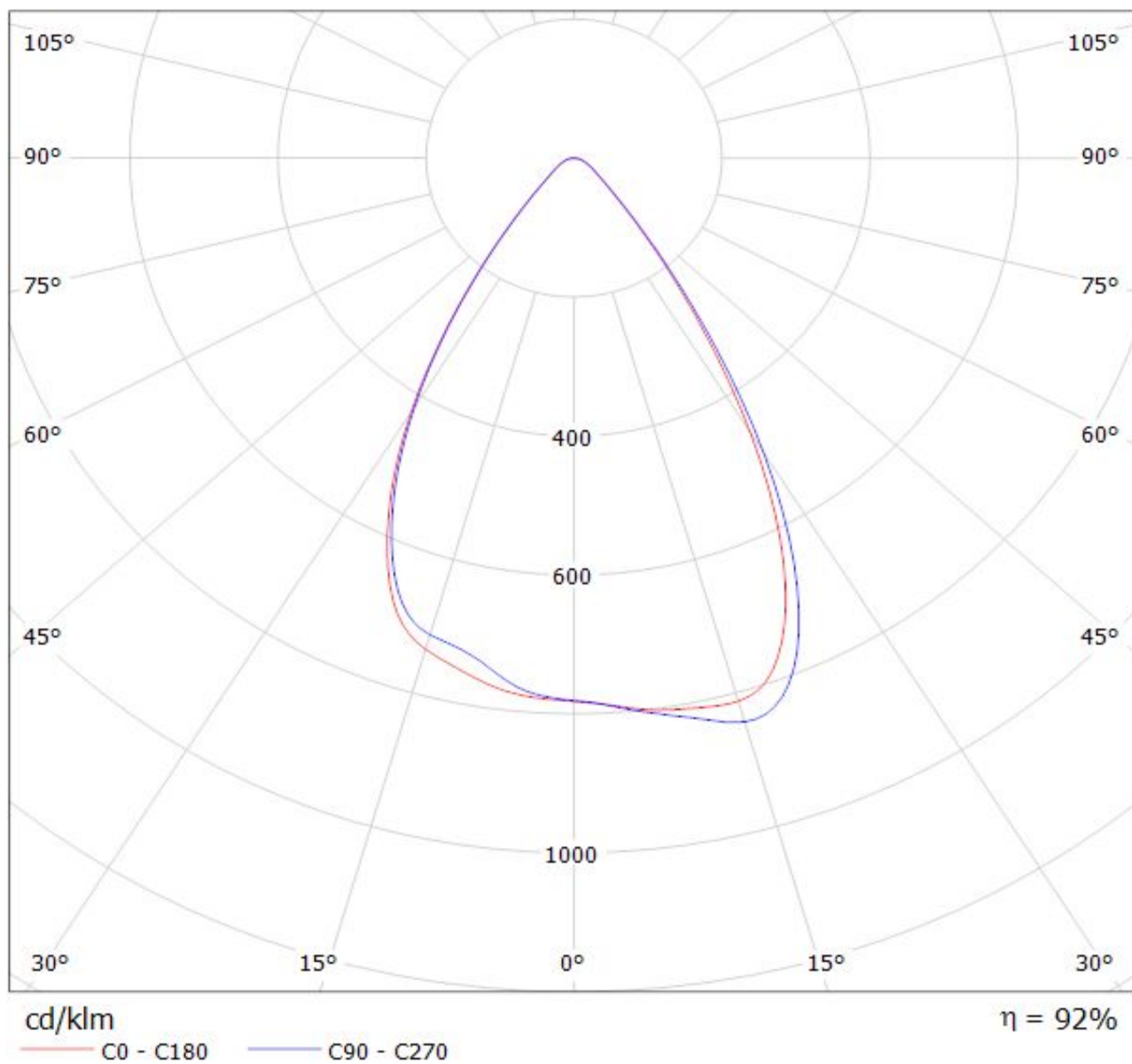


cd/klm

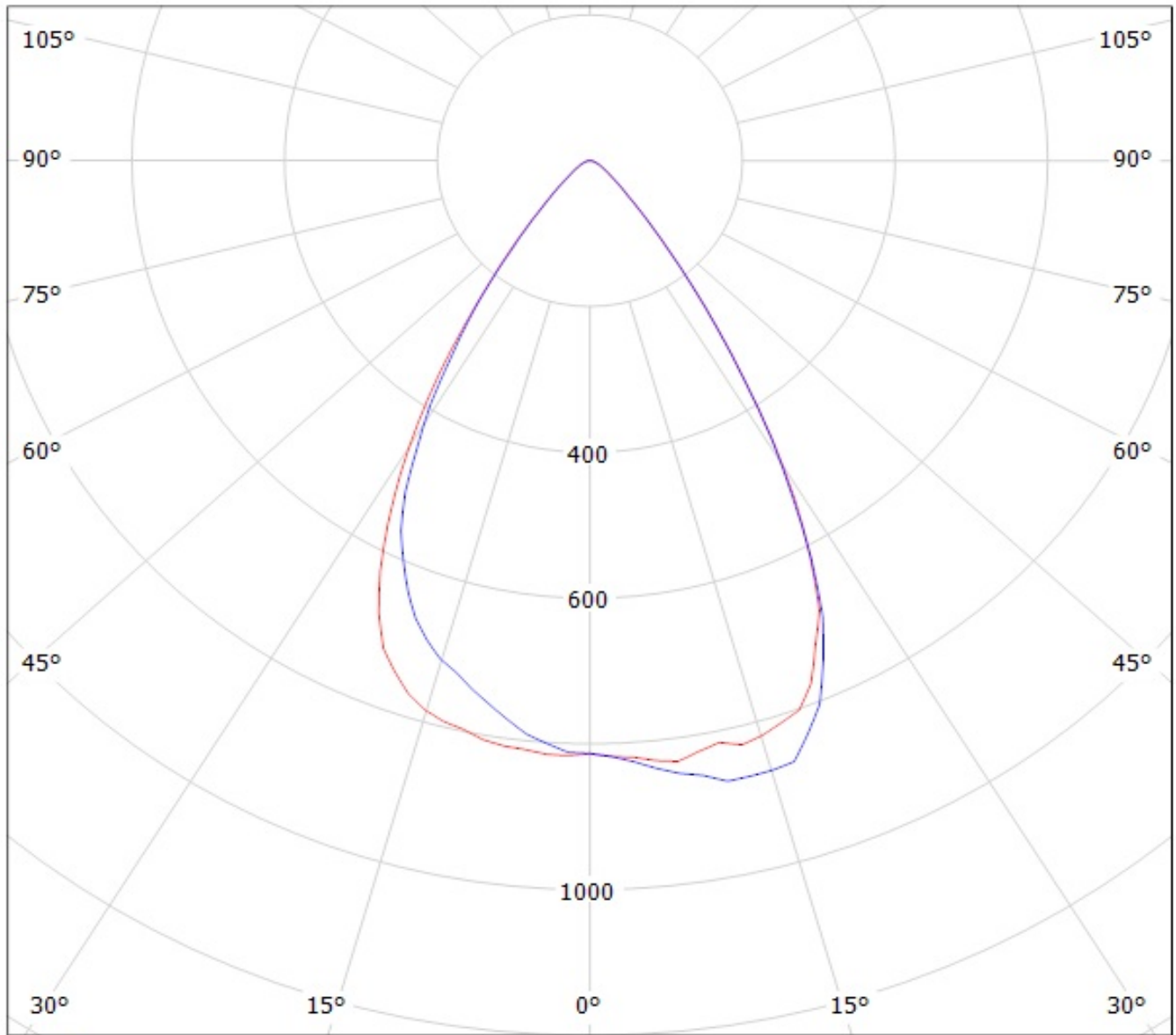
— C0 - C180

— C90 - C270

Luminaire: LEDiL Oy C13232\_HB-2x2-WW\_(Osram\_Square\_PC) Eff. 91,6%  
Lamps: 1 x Osram Square PC (385lm@100mA)



Luminaire: Ledil Oy C13237&C13232\_HB-2X2-WW (Cree XT-E 390lm @ 250mA) Efficiency=91%  
Lamps: 1 x Cree XT-E 390lm @ 250mA



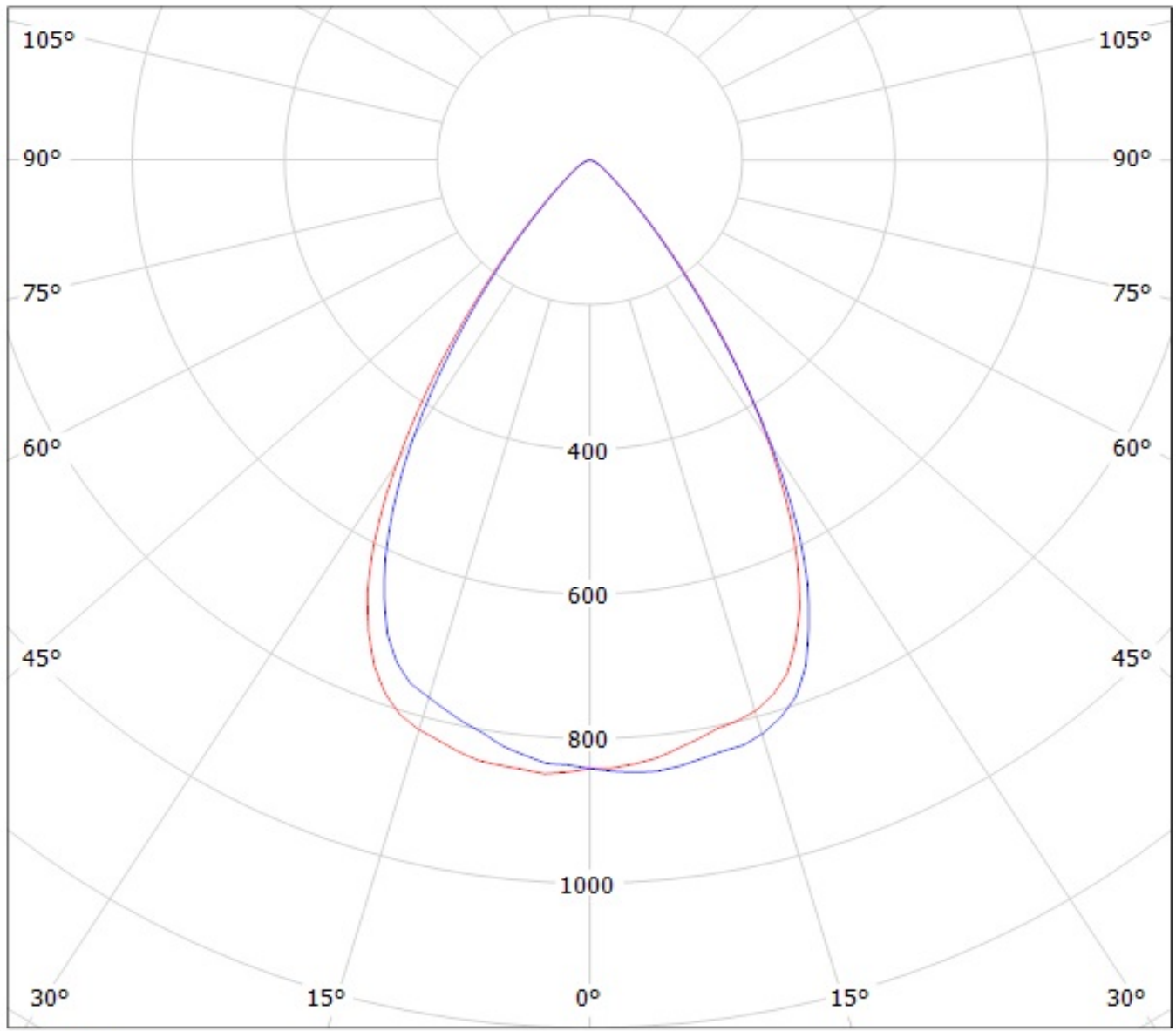
cd/klm

— C0 - C180

— C90 - C270



Luminaire: LEDil Oy C13232\_HB-2x2-WW\_(Z5M1) Efficiency=90%  
Lamps: 1 x Seoul Z5M1 (SZ5-M1-WN-C8) 379lm @ 250mA CCT=4600K P=2.9W I=250mA

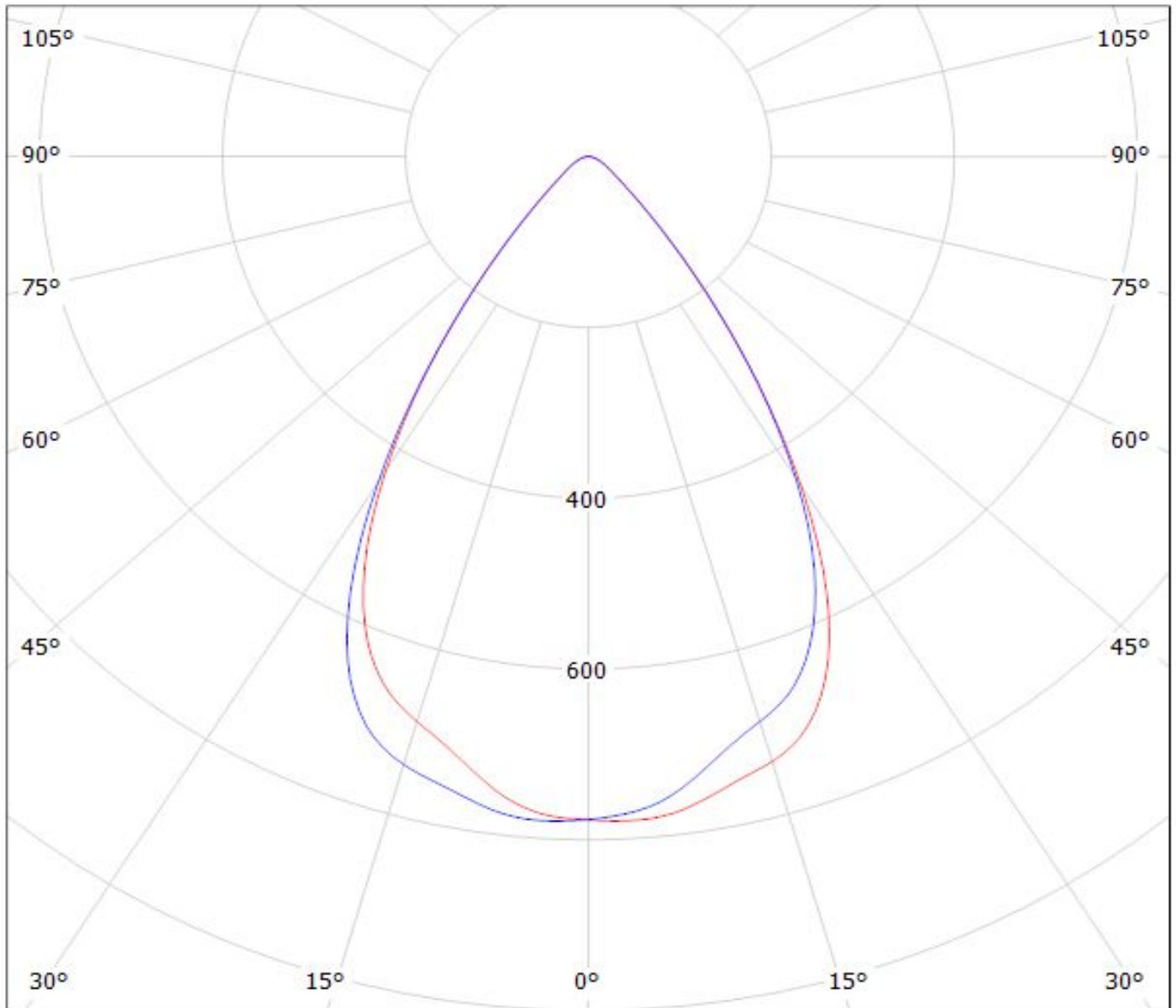


cd/klm

— C0 - C180    — C90 - C270

Luminaire: LEDiL Oy C13232\_HB-2X2-WW\_(LH351B) Eff.88.6%

Lamps: 1 x SAMSUNG\_LH351B\_2x2\_430.715lm@250mA\_P=2.84311W\_I=249.9mA



cd/klm

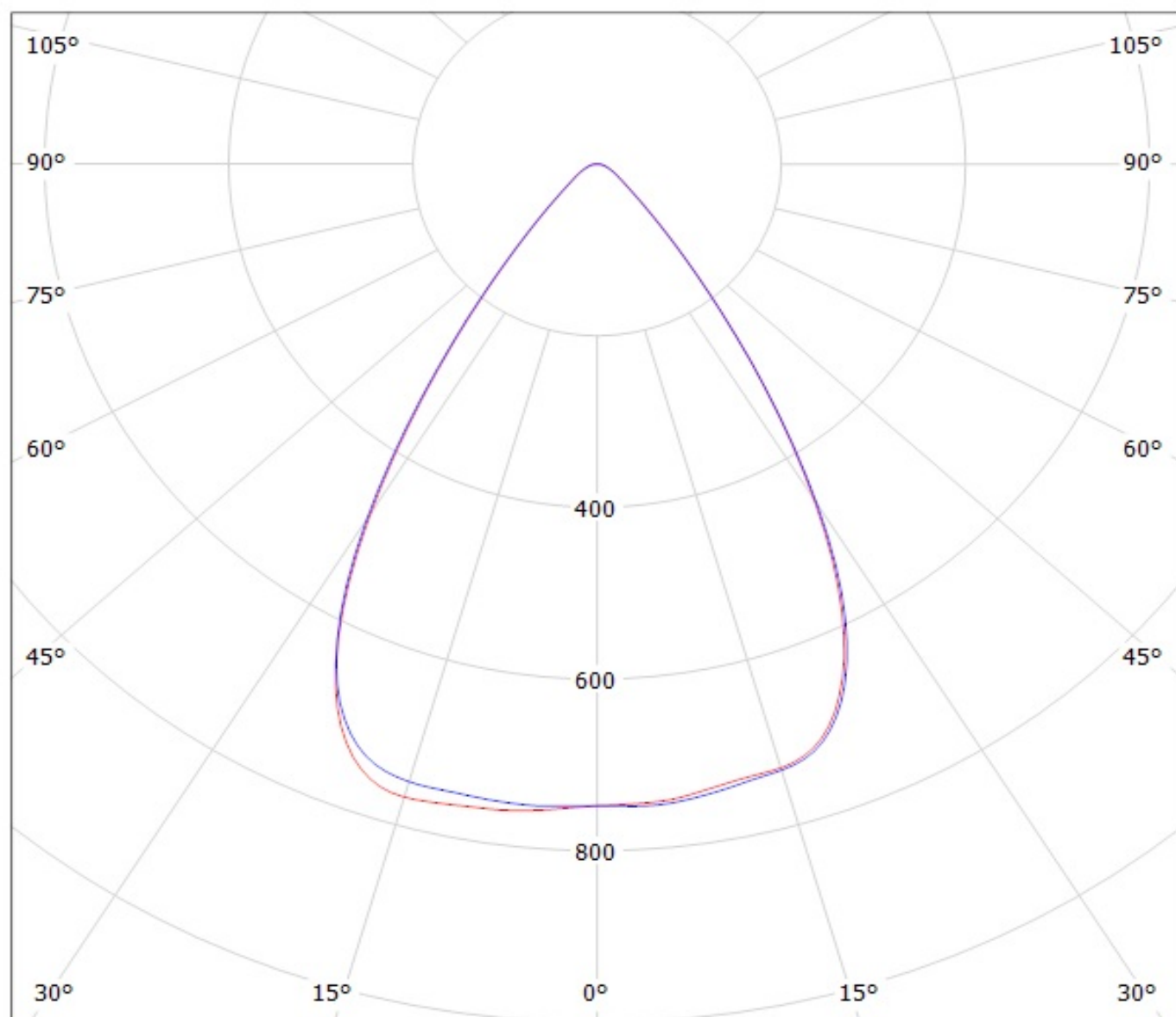
— C0 - C180    — C90 - C270

$\eta = 89\%$



Luminaire: LEDiL Oy C13232\_HB-2X2-WW\_(LUXEON\_Q) Eff.90.8%

Lamps: 1 x LUXEON\_Q\_2x2\_(LHQ-3080)\_298.363lm@250mA\_P=2.87385W\_I=249.9mA

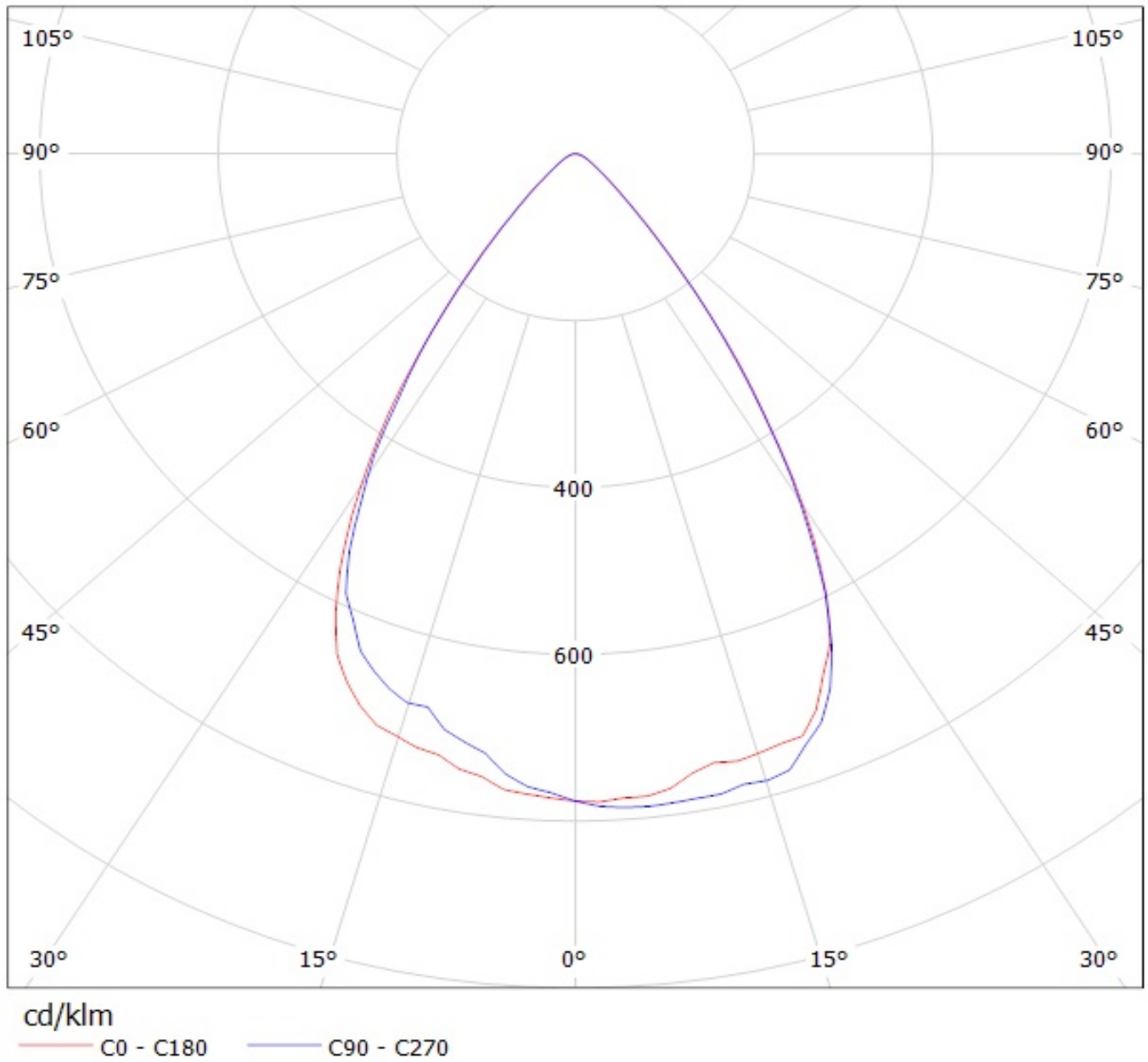


cd/klm

— C0 - C180

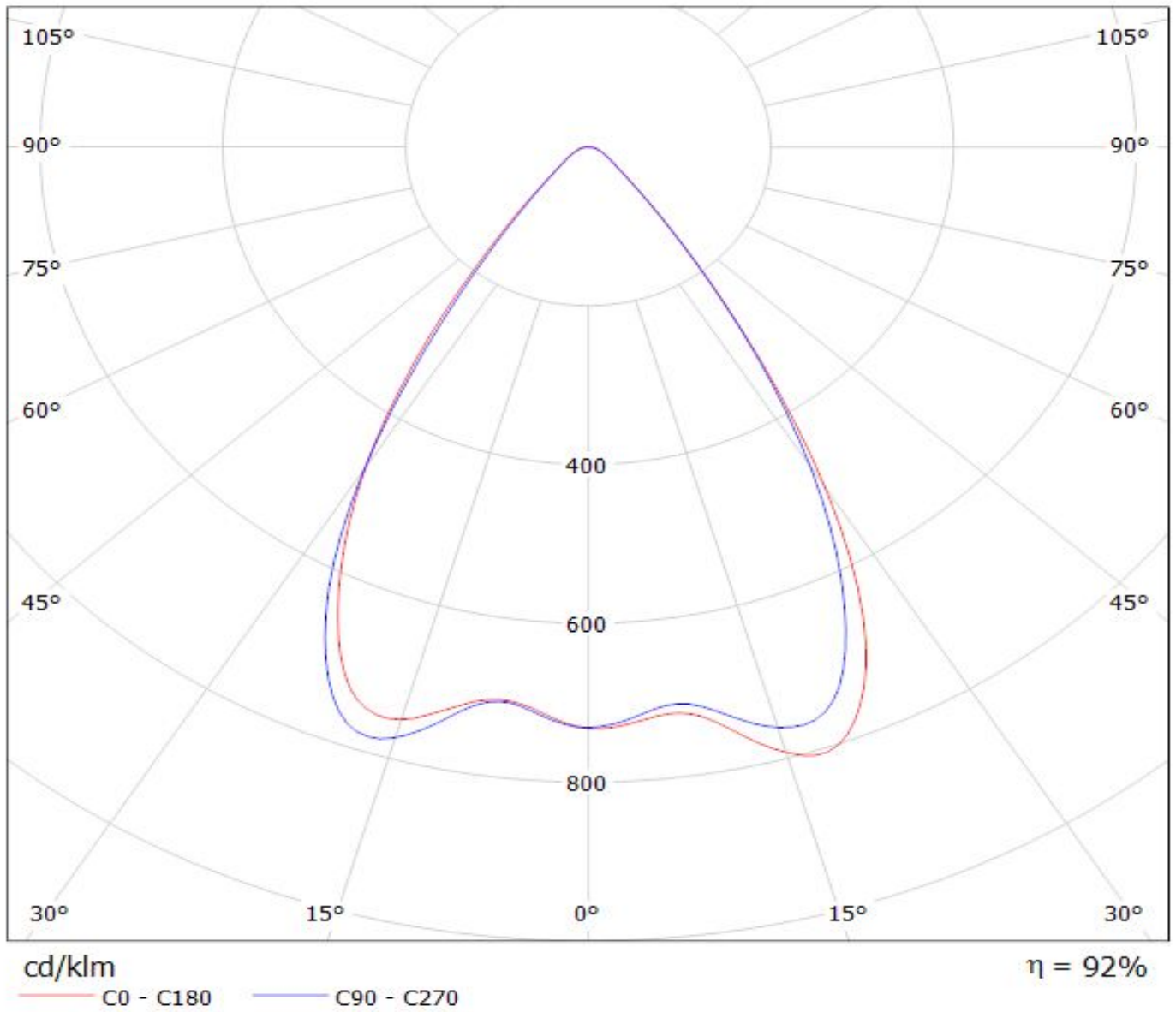
— C90 - C270

Luminaire: Ledil Oy C13237&C13232\_HB-2X2-WW (Nichia NVS19B 306lm @ 250mA) Efficiency=91%  
Lamps: 1 x Nichia NVS19B 306lm @ 250mA

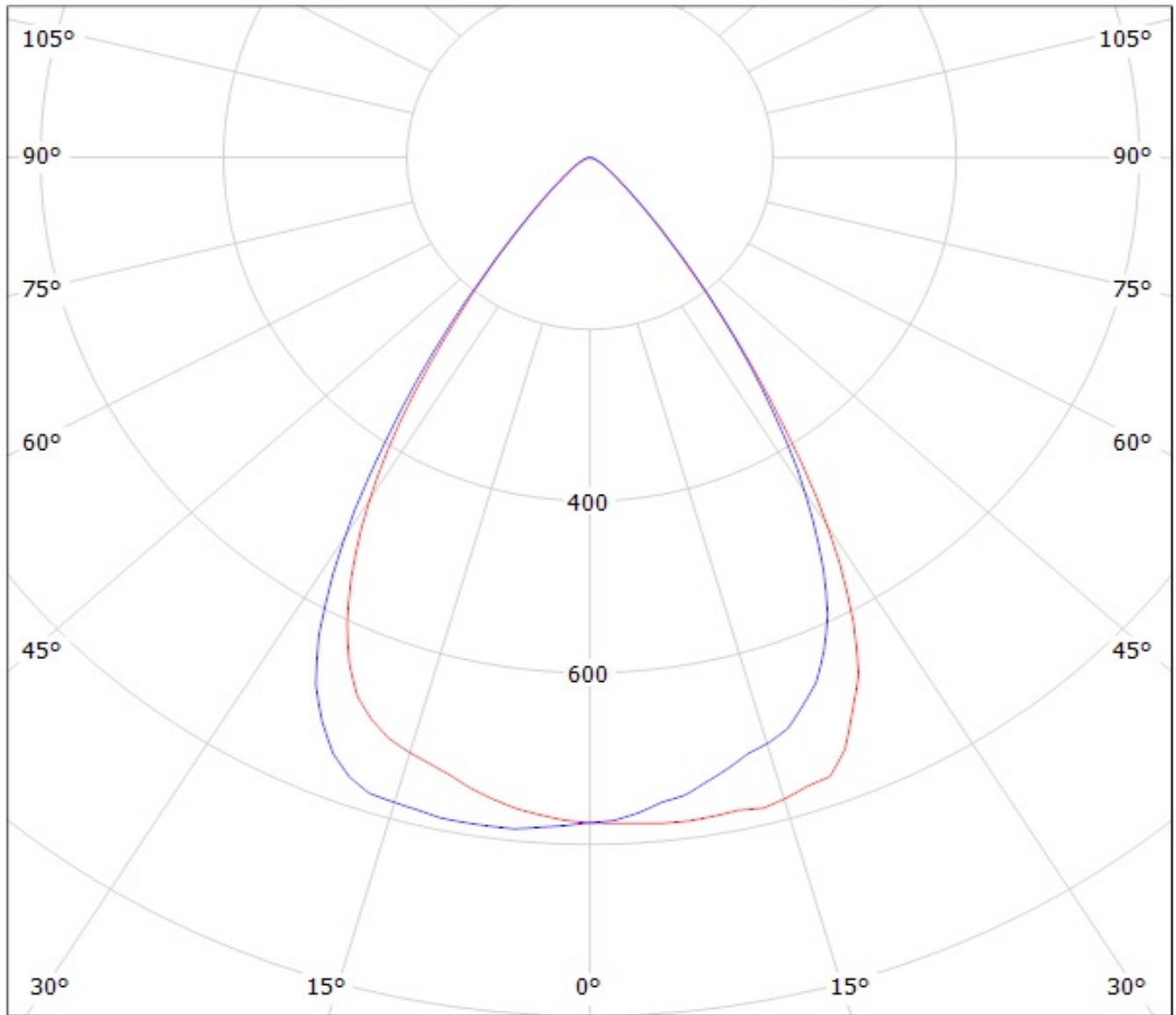


# LEDiL Oy C13232\_HB-2x2-WW\_(Samsung\_3535) Eff.92.0% / LDC (Polar)

Luminaire: LEDiL Oy C13232\_HB-2x2-WW\_(Samsung\_3535) Eff.92.0%  
Lamps: 1 x Samsung\_3535\_(LH35A1) (333lm@250mA)



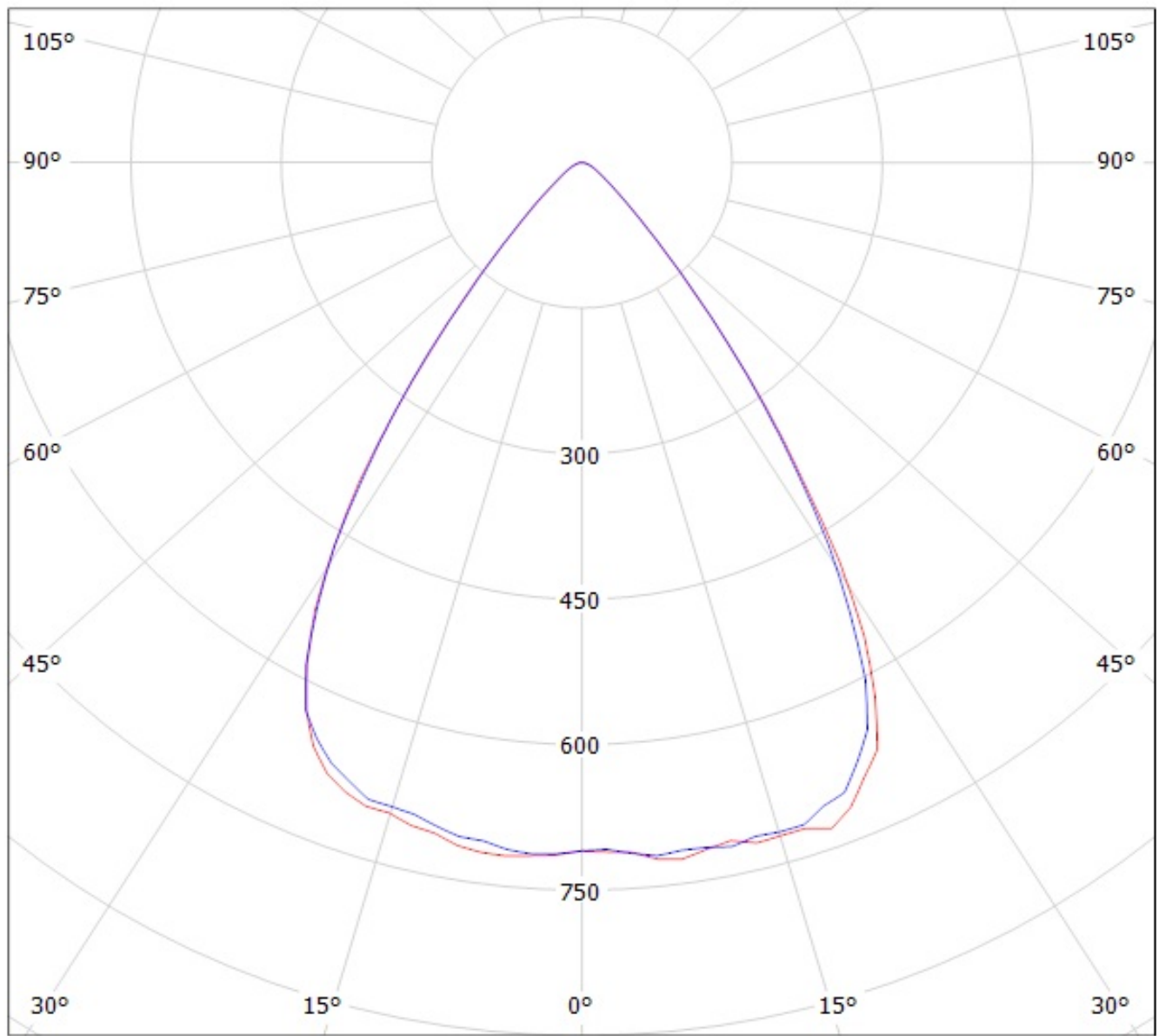
Luminaire: Ledil Oy C13232\_HB-2x2-WW\_(3535\_Ceramic\_gen2) Efficiency=89%  
Lamps: 1 x LG 3535 Ceramic gen2 (PKG5700K) 461lm @ 250mA CCT=6600K P=2.9W I=250mA



cd/klm

— C0 - C180    — C90 - C270

Luminaire: Ledil Oy C13237&C13232\_HB-2X2-WW (Cree XP-G2 420lm @ 250mA) Efficiency=91%  
Lamps: 1 x Cree XP-G2 420lm @ 250mA

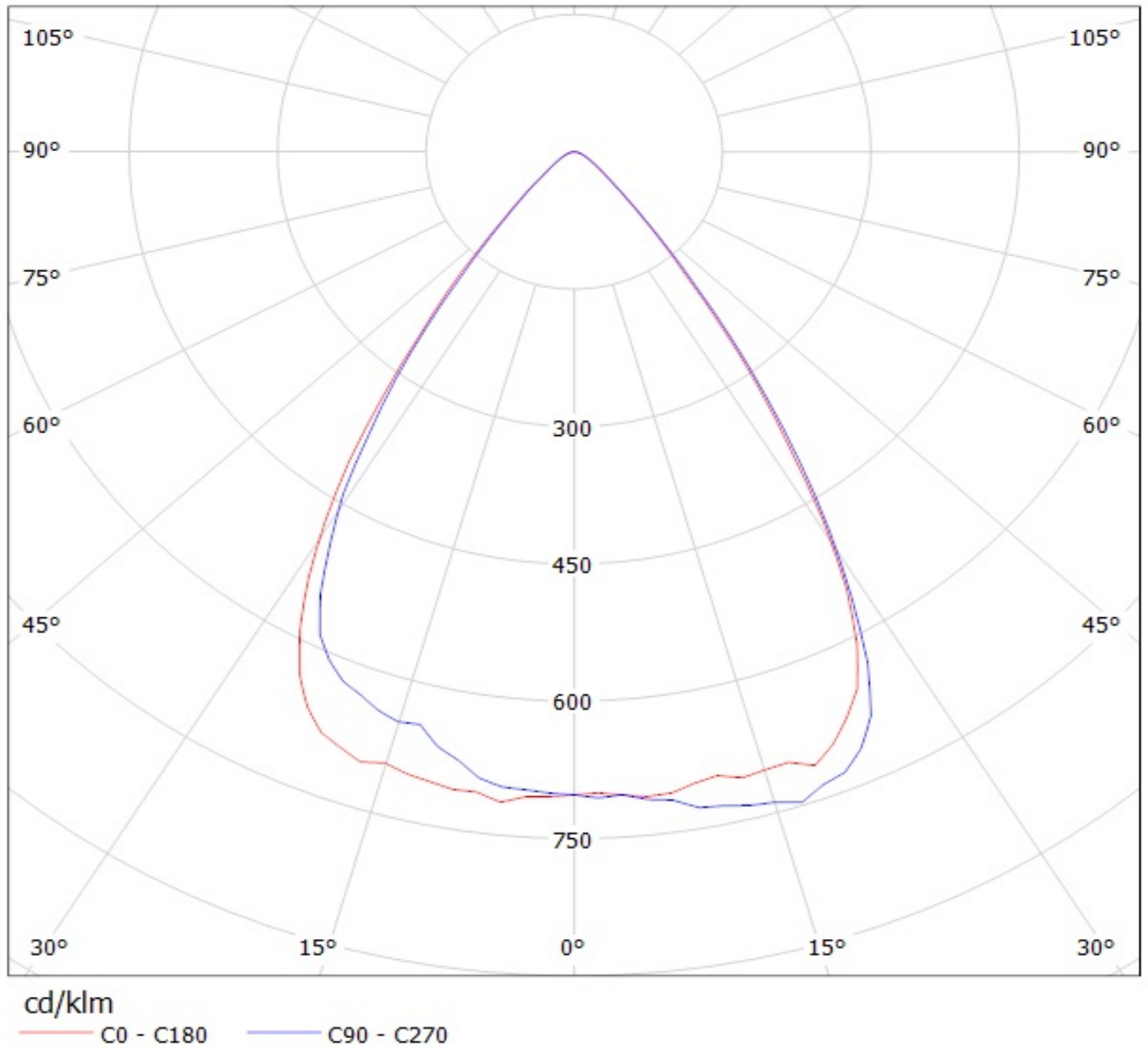


cd/klm

— C0 - C180

— C90 - C270

Luminaire: Ledil Oy C13237&C13232\_HB-2X2-WW (Cree XP-G 257lm @ 250mA) Efficiency=91%  
Lamps: 1 x Cree XP-G 257lm @ 250mA



**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.**