

## DETAILS

<b>Product Number</b>	CN13920_MIRELLA-50-M-PF-VERO13
<b>Family</b>	Mirella
<b>Type</b>	RefPack
<b>Color</b>	metal
<b>Diameter</b>	49,9 mm
<b>Height</b>	24 mm
<b>Style</b>	round
<b>Optic Material</b>	
<b>Holder Material</b>	
<b>Fastening</b>	
<b>Status</b>	production ready
<b>ROHS Compliant</b>	Yes
<b>Date Updated</b>	6/03/2017



## OPTICAL PROPERTIES

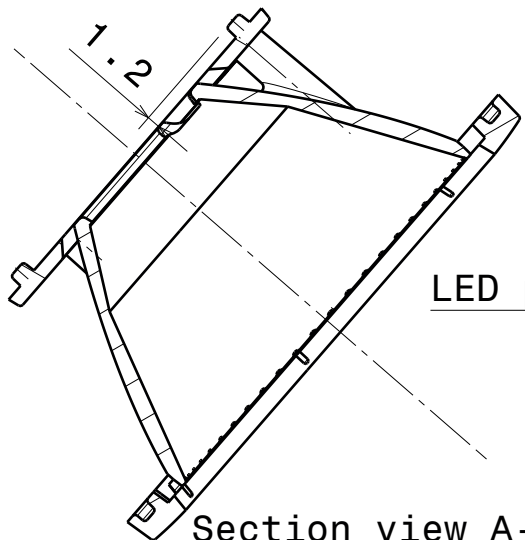
LED	Viewing	Light	Effi-		Connector
	Angle	Beam	ciency	cd/lm	
VERO13	34 deg	Medium	88 %	1.800	-
Xenio Point 13mm	34 deg	Medium	84 %	1.760	LEDiL: LEDiL
CLU720/721	29 deg	Medium	80 %	2.000	Bender Wirth: 433 Typ L1
CLU700/701	18 deg	Medium	82 %	4.000	Bender Wirth: 434 Typ L1
CLL02x/CLU02x (LES10)	26 deg	Medium	84 %	2.500	Bender Wirth: 434 Typ L1
CXA/B 15xx	24 deg	Medium	83 %	2.660	Bender Wirth: 441 Typ L1
LUXEON CoB 1202/1203	25 deg	Medium	82 %	2.500	Bender Wirth: 438 Typ L1
LUXEON CoB 1202s	17 deg	Medium	86 %	4.200	Bender Wirth: 452 Typ L1
LUXEON CoB Compact	sim: 17	Medium	sim: 86 %	sim: 4.200	Bender Wirth: 452 Typ L1
CXM-14	sim: 38	Medium	sim: 75 %	sim: 1.400	-
CXM-9	sim: 26	Medium	sim: 84 %	sim: 2.500	Bender Wirth: 434 Typ L1
COB L-Type (LES 9)	24 deg	Medium	84 %	2.600	Bender Wirth: 438 Typ L1
COB S-Type	sim: 17	Medium	sim: 86 %	sim: 4.200	Bender Wirth: 452 Typ L1
COB L-Type (LES 11)	31 deg	Medium	81 %	1.900	Bender Wirth: 438 Typ L1
Solerialq P9	24 deg	Medium	85 %	2.600	Bender Wirth: 461 Typ L1
Solerialq P6	18 deg	Medium	87 %	4.300	Bender Wirth: 446 Typ L1
Solerialq S9	sim: 23	Medium	sim: 88 %	sim: 3.200	Bender Wirth: 434 Typ L1
Solerialq S15	sim: 38	Medium	sim: 85 %	sim: 1.560	Bender Wirth: 433 Typ L1
LC010C	sim: 17	Medium	sim: 87 %	sim: 5.300	Bender Wirth: 479 Typ L1
LC020C	sim: 20	Medium	sim: 86 %	sim: 3.900	Bender Wirth: 479 Typ L1
LC040C	sim: 28	Medium	sim: 84 %	sim: 2.200	Bender Wirth: 480 Typ L1
ZC4/6	sim: 26	Medium	sim: 84 %	sim: 2.500	Bender Wirth: 434 Typ L1

D

C

B

A



Section view A-A  
Scale: 3:2

LED position

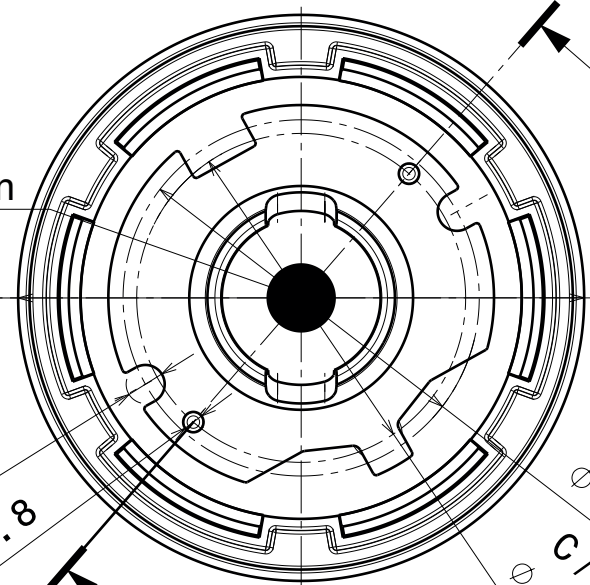
Ø 49.9

Ø 3.4

Ø 1.8

Ø 31.4

Ø 29



A

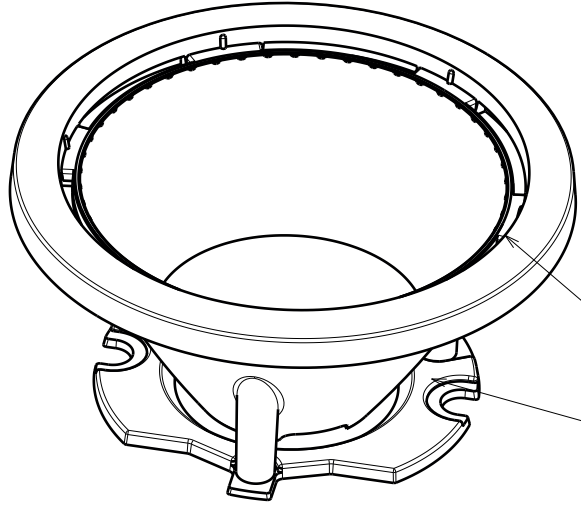
4

A

C/C

C/C

3

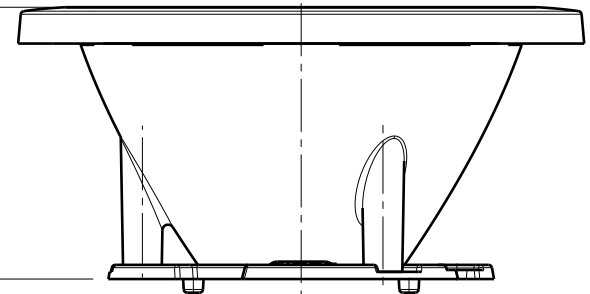


Reflector

Socket

Isometric view  
Scale: 3:2

24



2

CN13918\_MIRELLA-50-S-PF-VER013/18  
CN13920\_MIRELLA-50-M-PF-VER013/18  
CN13923\_MIRELLA-50-W-PF-VER013/18

NOTE: It is recommended to use glue like DELO-PUR 9895 for pin fastening.

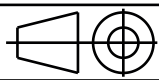
[http://www.delo.de/fileadmin/datasheet/DELO-PUR\\_9895\\_\(TIDB-GB\).pdf](http://www.delo.de/fileadmin/datasheet/DELO-PUR_9895_(TIDB-GB).pdf)

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  
**MIRELLA-50-PF-VER013/18**

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	-		

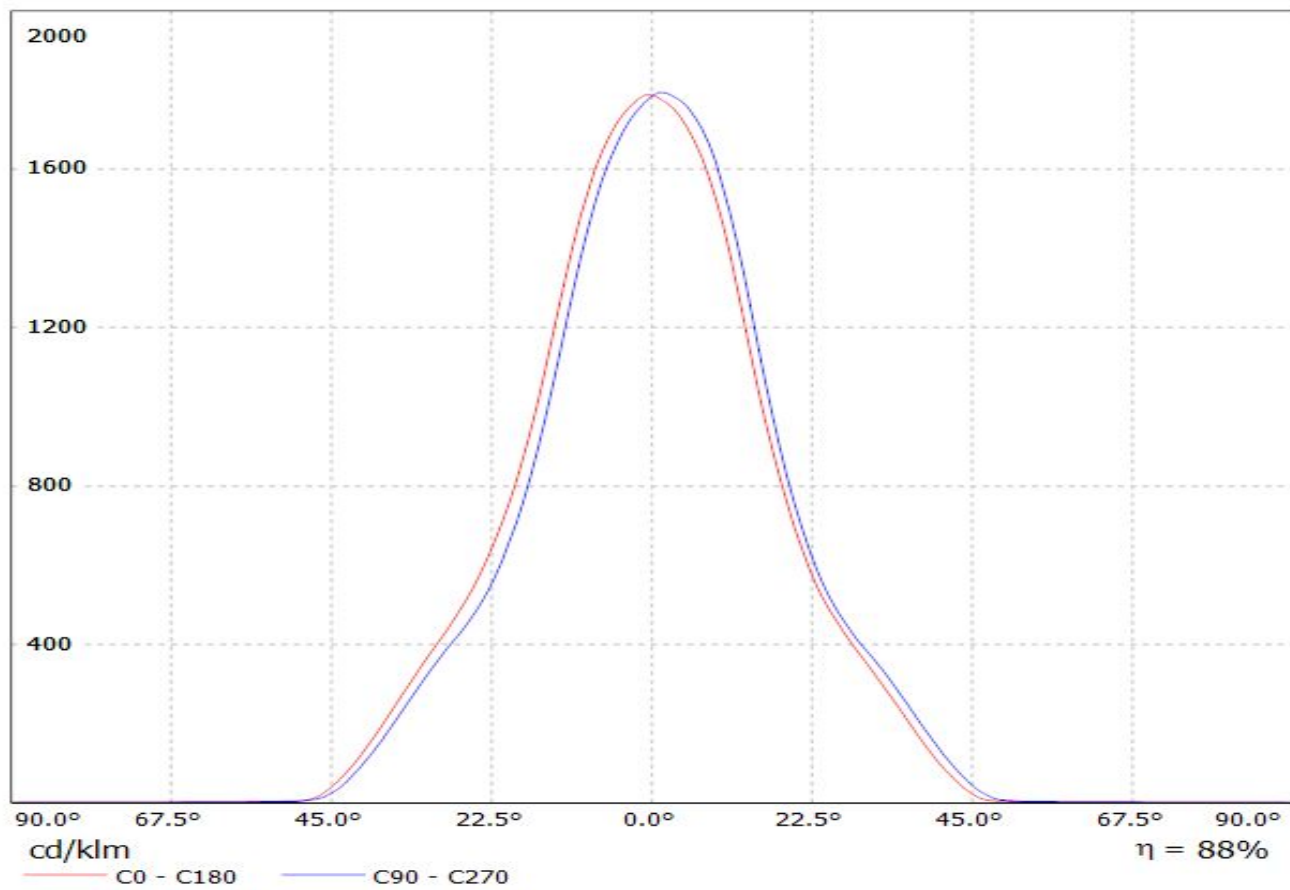
SCALE	3:2	WEIGHT	-	SHEET	1/1
-------	-----	--------	---	-------	-----

D

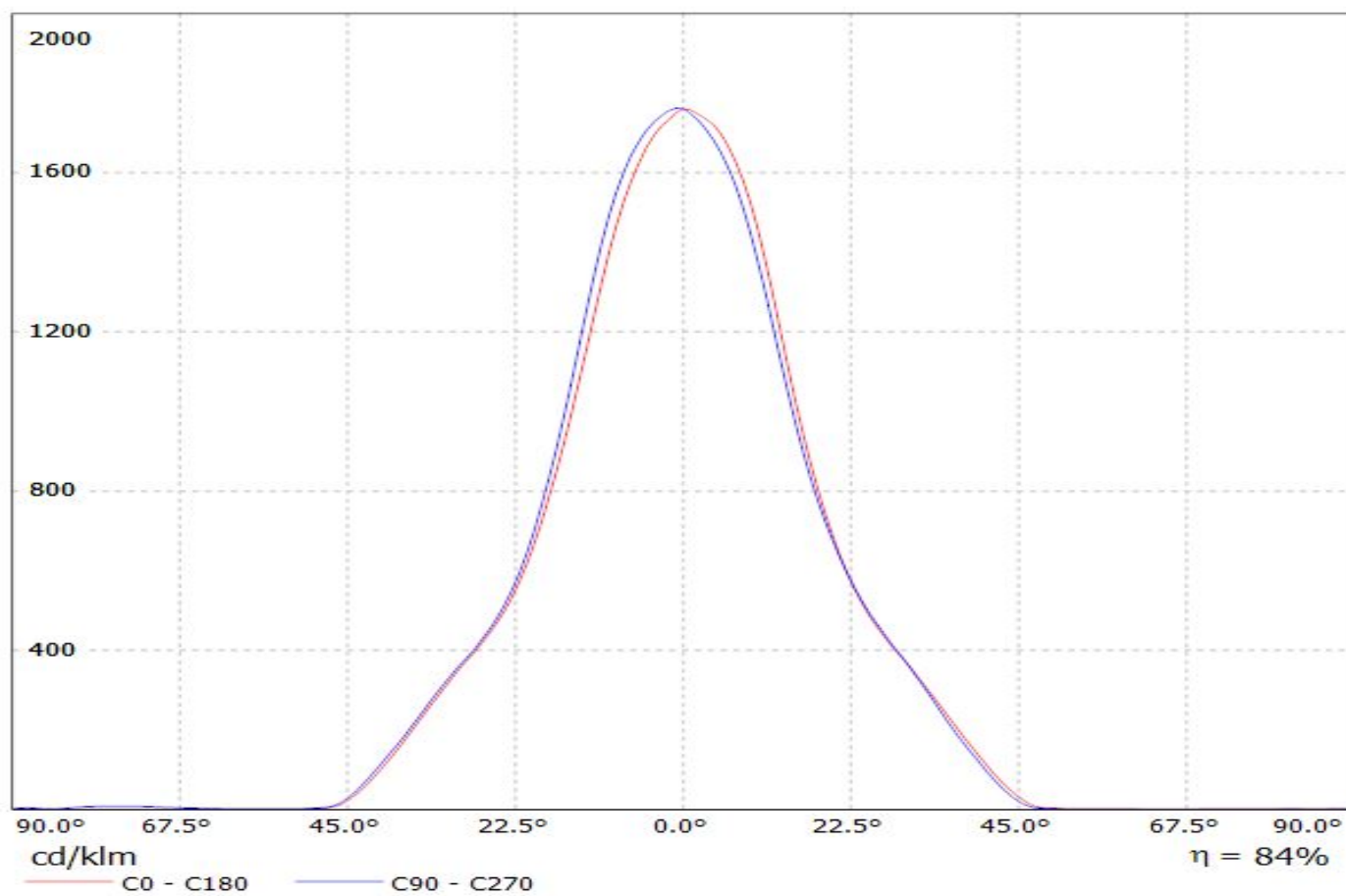
A

1

Luminaire: LEDiL Oy C13086\_MIRELLA-50-M-PF Eff 88.1%  
Lamps: 1 x Bridgelux\_VERO13\_(BXRC-30E2000C)\_989.57lm@250mA\_P=7.48526W\_I=249.8mA



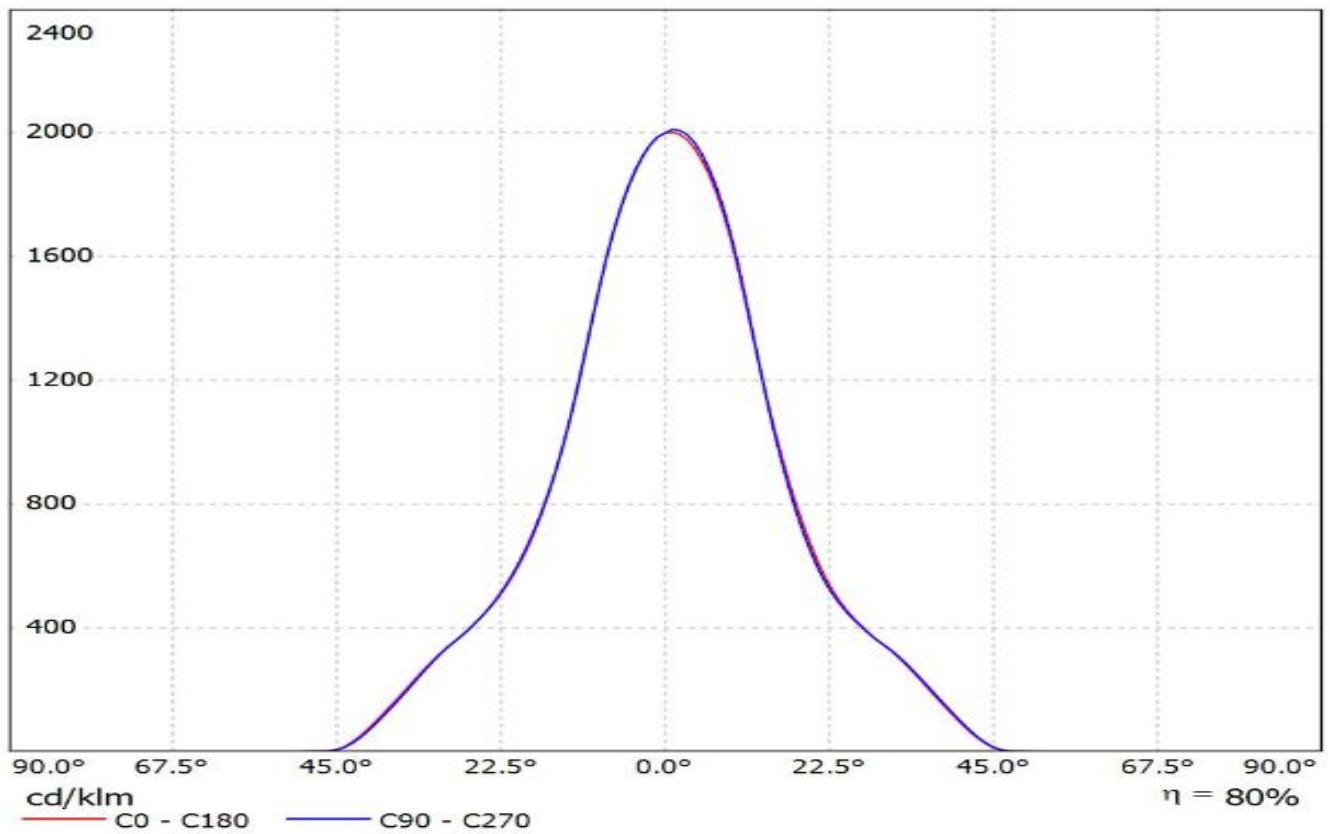
Luminaire: LEDiL Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(XENIO\_13MM)  
Lamps: 1 x XENIO\_13MM\_2066.26lm@?mA\_P=23W\_I=?A



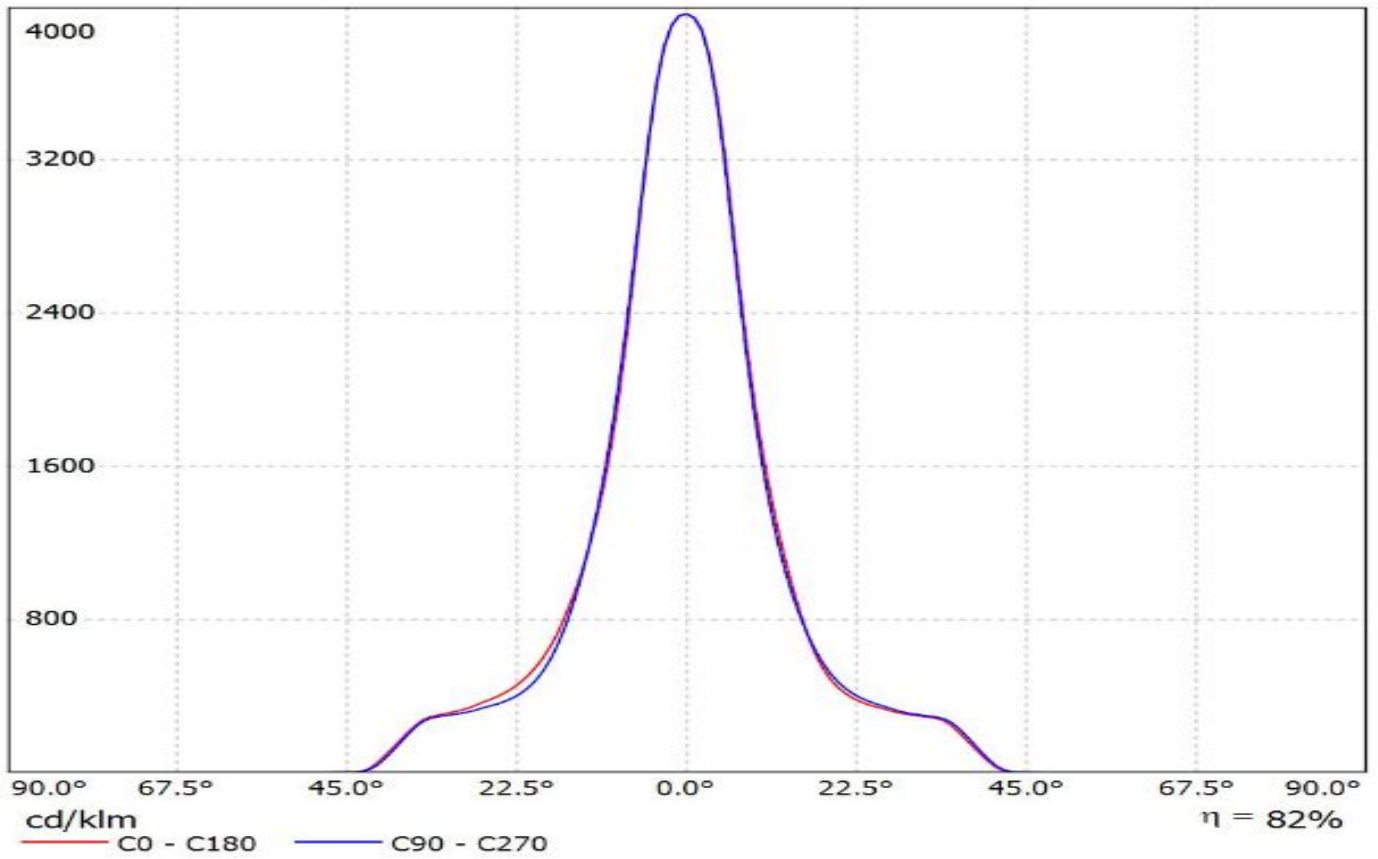
## Ledil CN13920\_MIRELLA-50-M-PF-VERO13\_(CLU720) / LDC (Linear)

Luminaire: Ledil CN13920\_MIRELLA-50-M-PF-VERO13\_(CLU720)

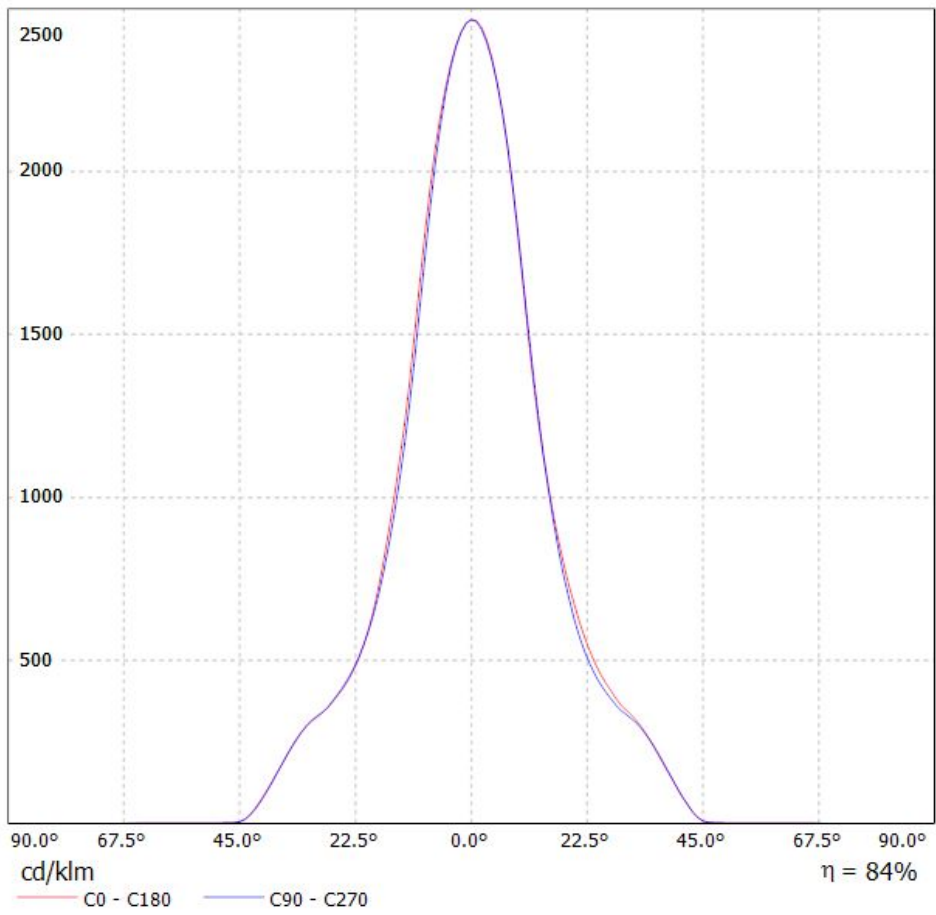
Lamps: 1 x Citizen\_(CLU720)\_ (433\_Typ\_L1)\_ (C13709)\_ 1238.4lm@250mA\_P=8.3W\_I=0.25A



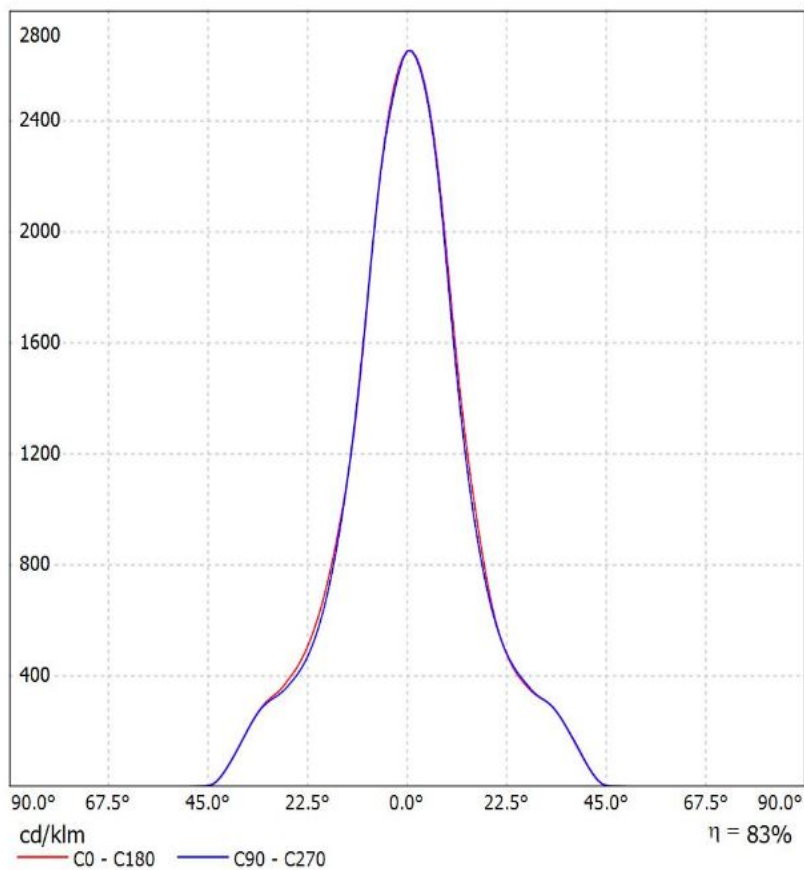
Luminaire: Ledil CN13920\_MIRELLA-50-M-PF-VERO13\_(CLU700) Citizen\_CLU700\_(CLU700-1002B8-273M2G1)\_ (434\_Typ\_L1)\_ (C13709\_PF-SOCKET-VERO13-18)\_389.152lm@100mA\_P=2.8W\_I=0.10A  
Lamps: 1 x Citizen\_CLU700\_(CLU700-1002B8-273M2G1)\_ (434\_Typ\_L1)\_ (C13709\_PF-SOCKET-VERO13-18)\_389.152lm@100mA\_P=2.8W\_I=0.10A



Luminaire: LEDiL Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(CLU024) Citizen\_CLU024\_(434\_Typ\_L1)\_(C13709)\_1022.97lm@250mA\_P=8.5066W\_I=0.2499A  
Lamps: 1 x Citizen\_CLU024\_(434\_Typ\_L1)\_(C13709)\_1022.97lm@250mA\_P=8.5066W\_I=0.2499A



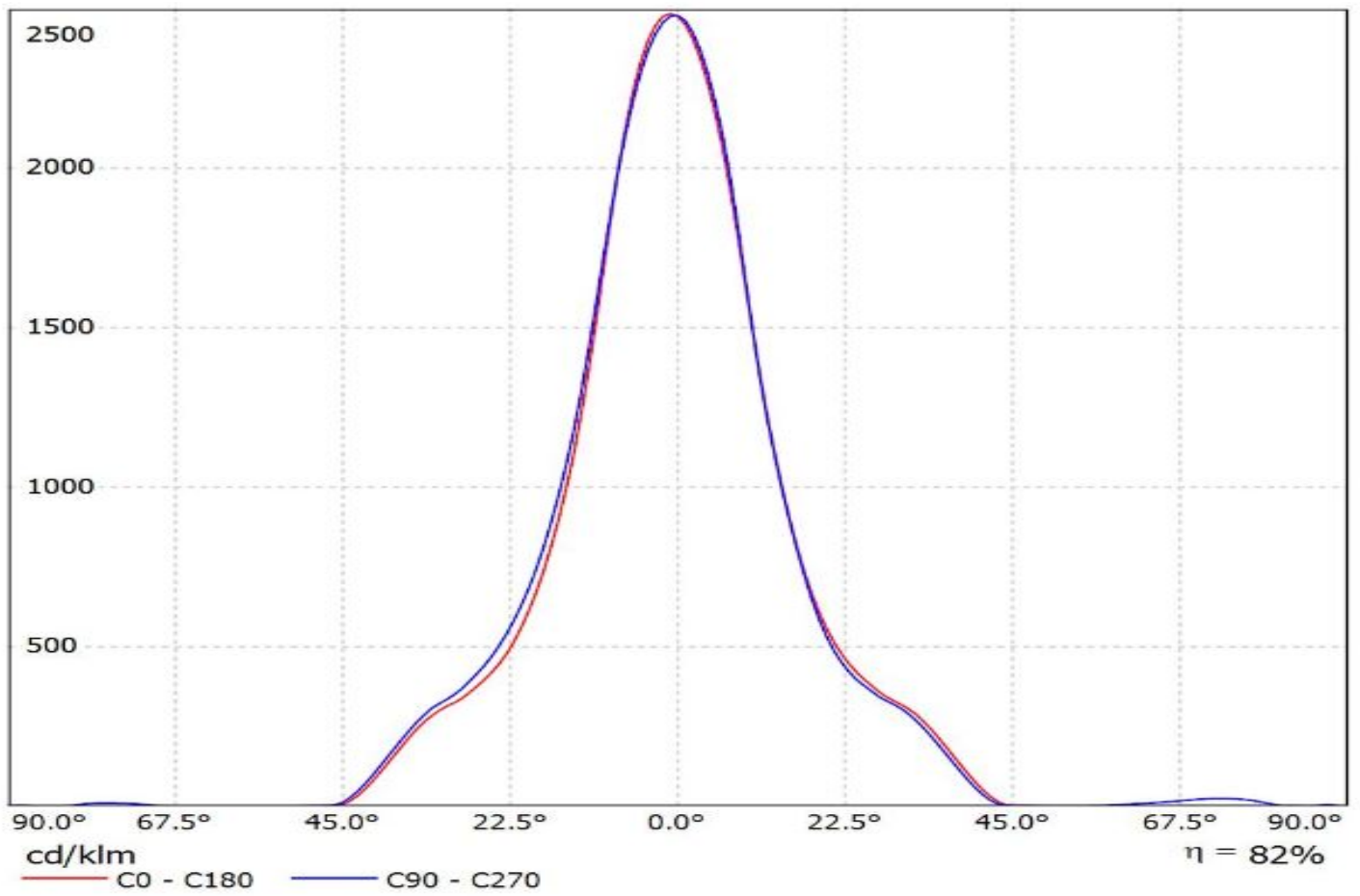
Luminaire: Ledil CN13920\_MIRELLA-50-M-PF-VERO13\_(CXA1520)\_(441\_Typ\_L1) CREE\_CXA1520\_(CXA1520-30F-N4-N0H-00001)\_(441\_Typ\_L1)\_(C13709\_PF-SOCKET-VERO13-18)\_1033.5lm@250mA\_P=8.8W\_I=0.25A  
Lamps: 1 x CREE\_CXA1520\_(CXA1520-30F-N4-N0H-00001)\_(441\_Typ\_L1)\_(C13709\_PF-SOCKET-VERO13-18)\_1033.5lm@250mA\_P=8.8W\_I=0.25A



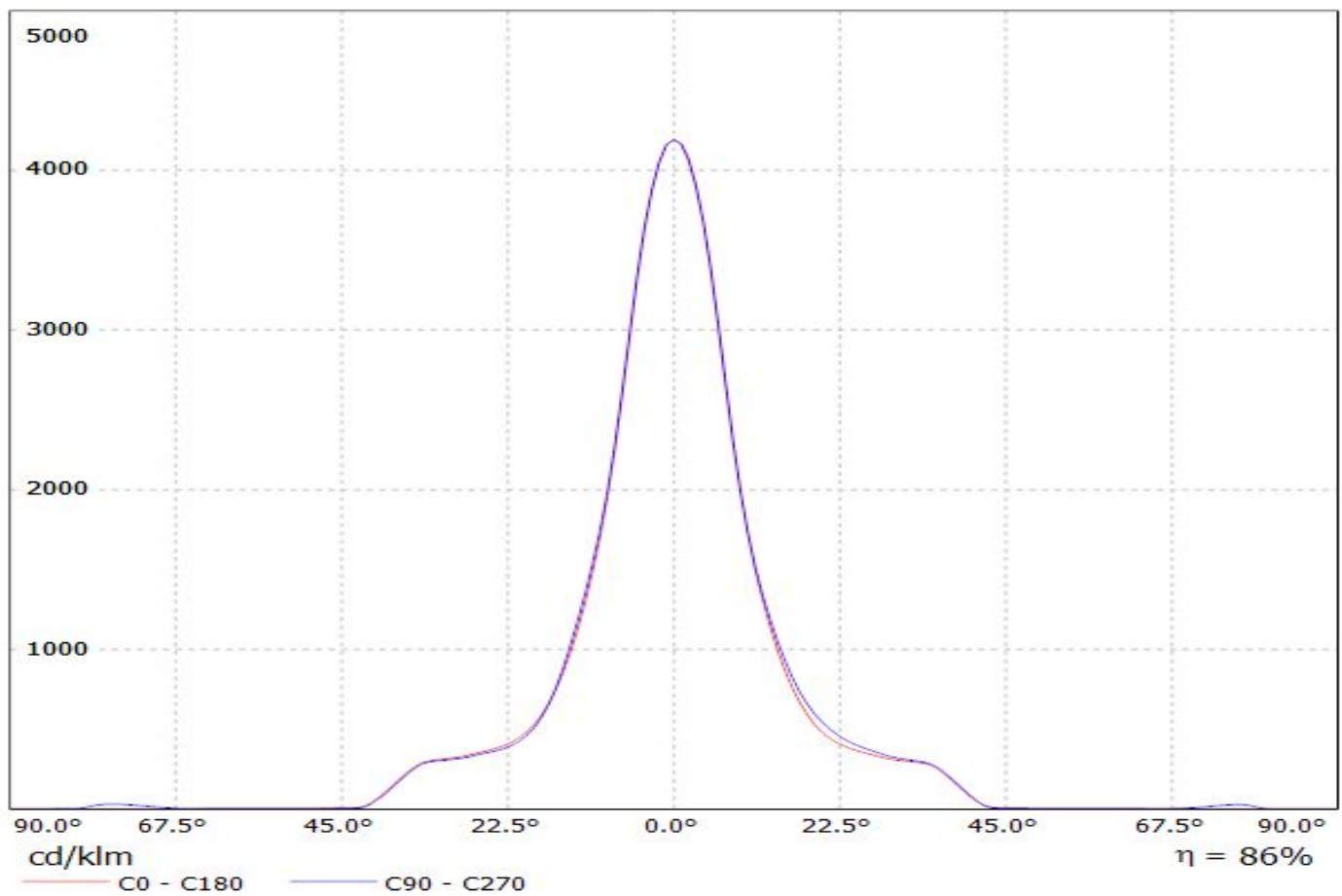


Luminaire: Ledil CN13920\_MIRELLA-50-M-PF-VERO13\_(CoB\_1203)

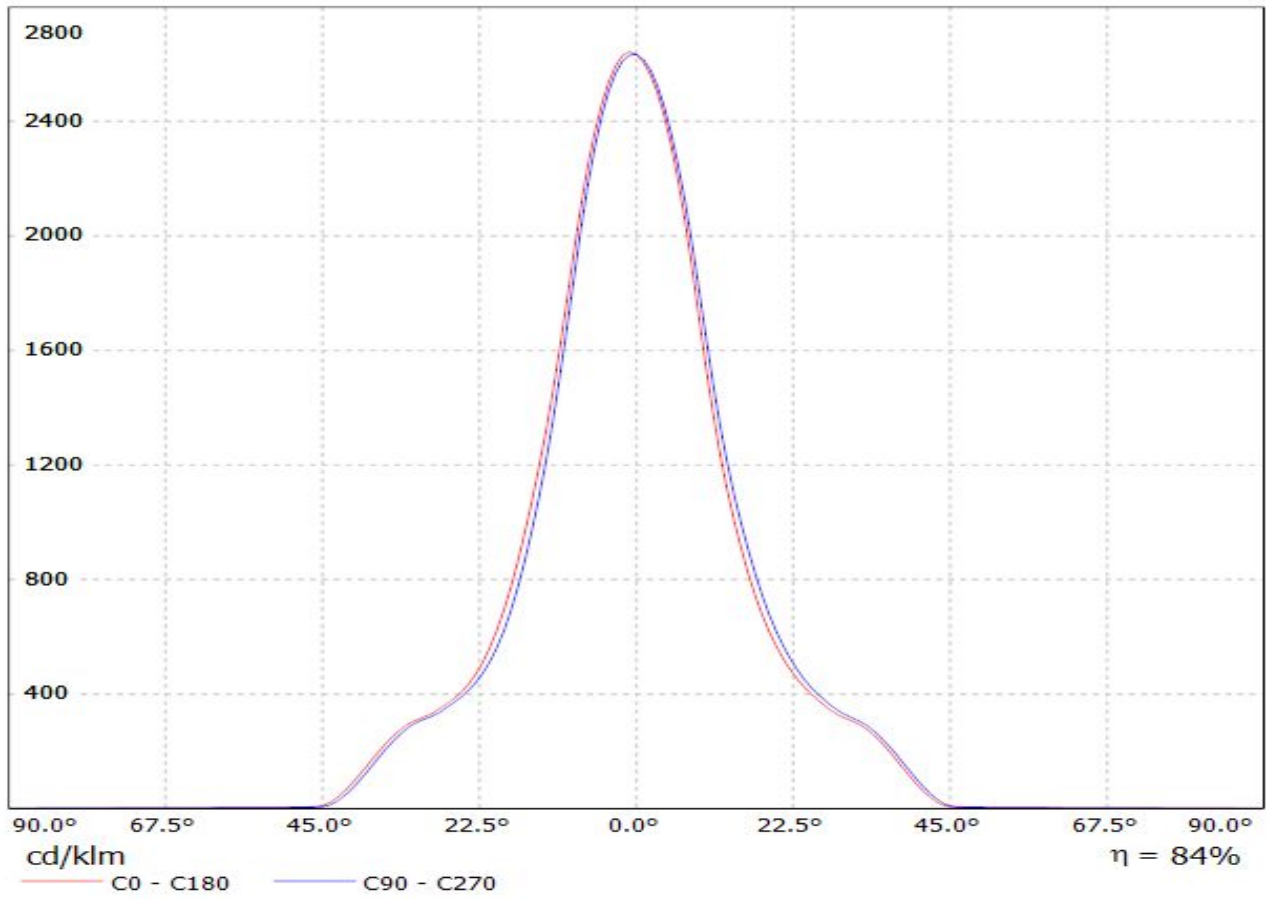
Lamps: 1 x Luxeon\_CoB\_1203\_(438 Typ L1)\_1054.48lm@250mA\_P=0.7\_I=0.25A



Luminaire: LEDiL Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(Luxeon\_CoB\_1202s)  
Lamps: 1 x Luxeon\_CoB\_1202s\_(452 Typ L1)\_231.765lm@100mA\_P=1.62683W\_I=0.10A

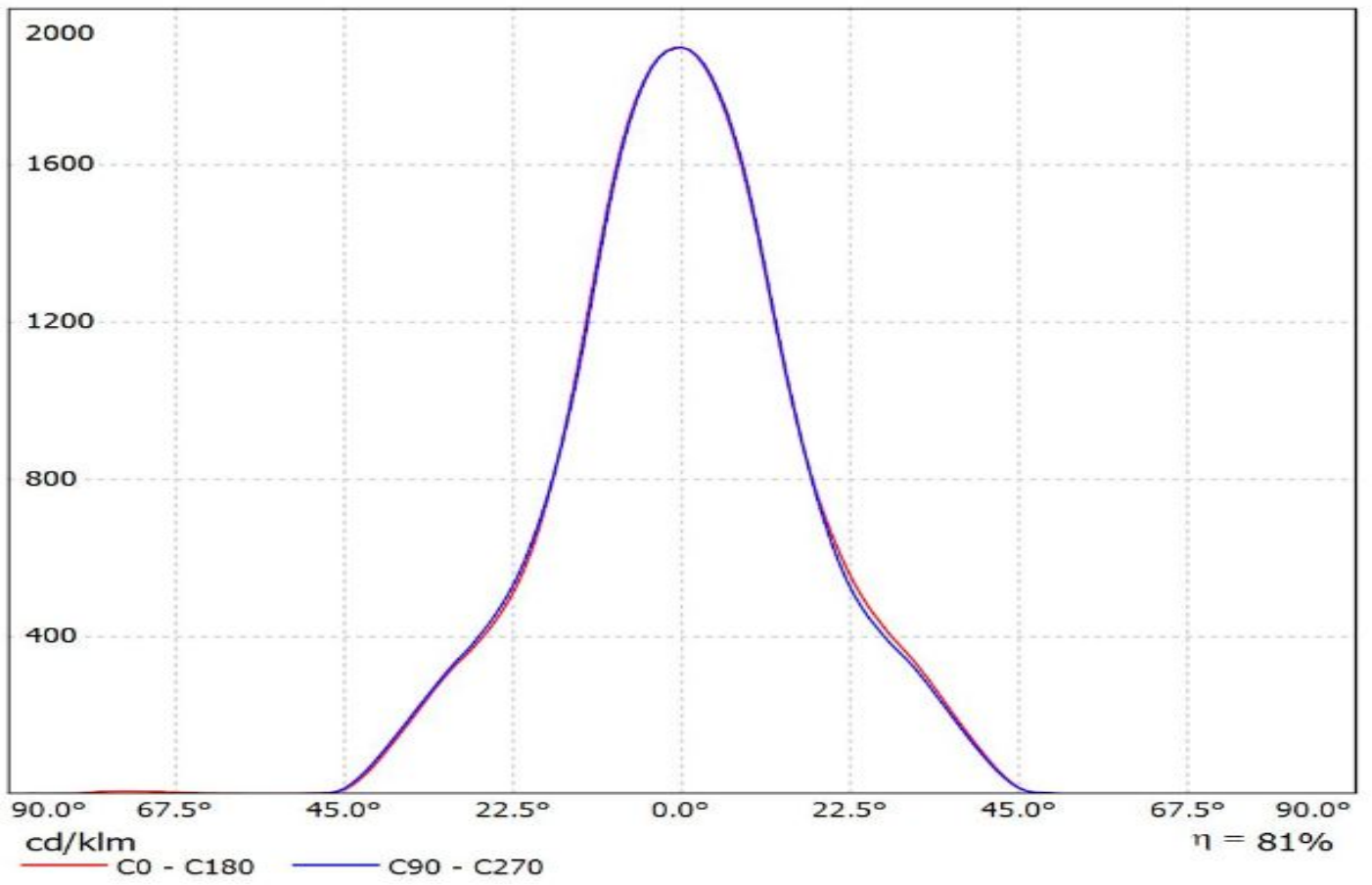


Luminaire: LEDiL Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(NFCLL036B)  
Lamps: 1 x Nichia NFCLL036B (sm403J1300R8000)\_542.913lm@100mA\_CCT=4000K\_P=3.34084W\_I=0.100A

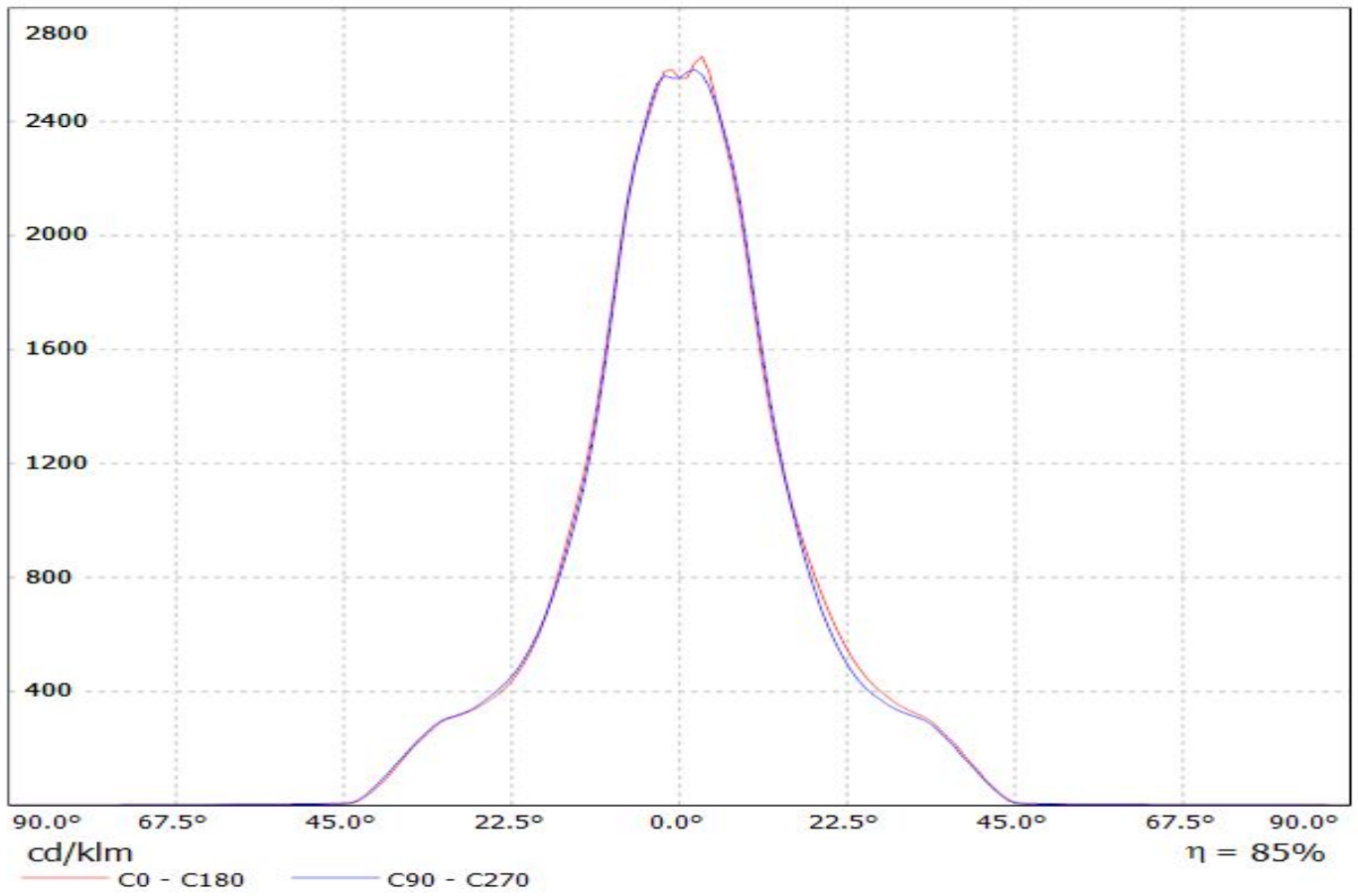


Luminaire: Ledil CN13920\_MIRELLA-50-M-PF-VERO13\_(NFCLL060B)

Lamps: 1 x Nichia\_NFCLL060B\_(438 Typ L1)\_1355.59lm@250mA\_P=8.5W\_I=0.25A



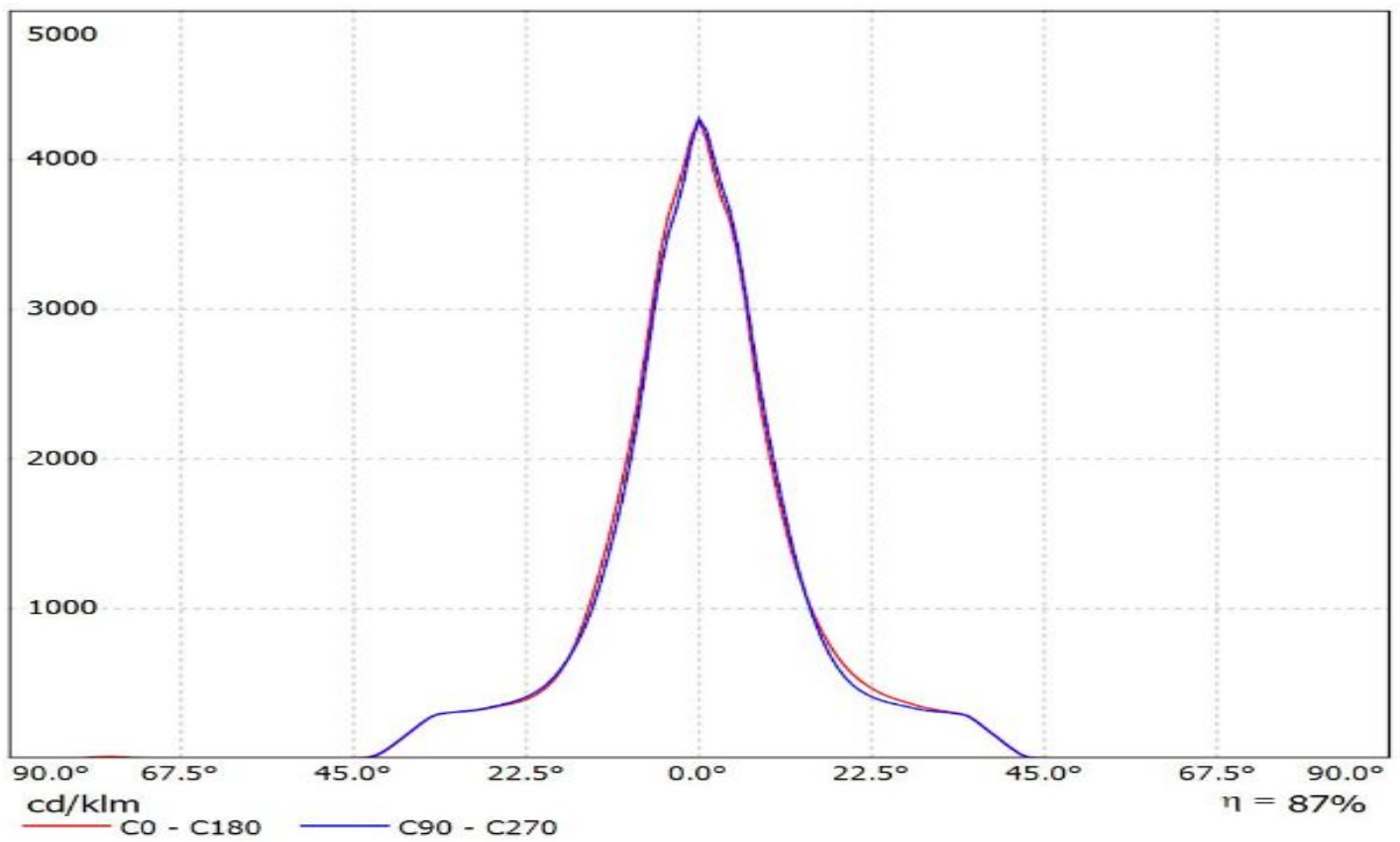
Luminaire: LEDiL Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(Soleriq P9+461 Typ L1)  
Lamps: 1 x Soleriq P9+461 Typ L1\_881.86lm@250mA\_P=6.96846W\_I=250mA



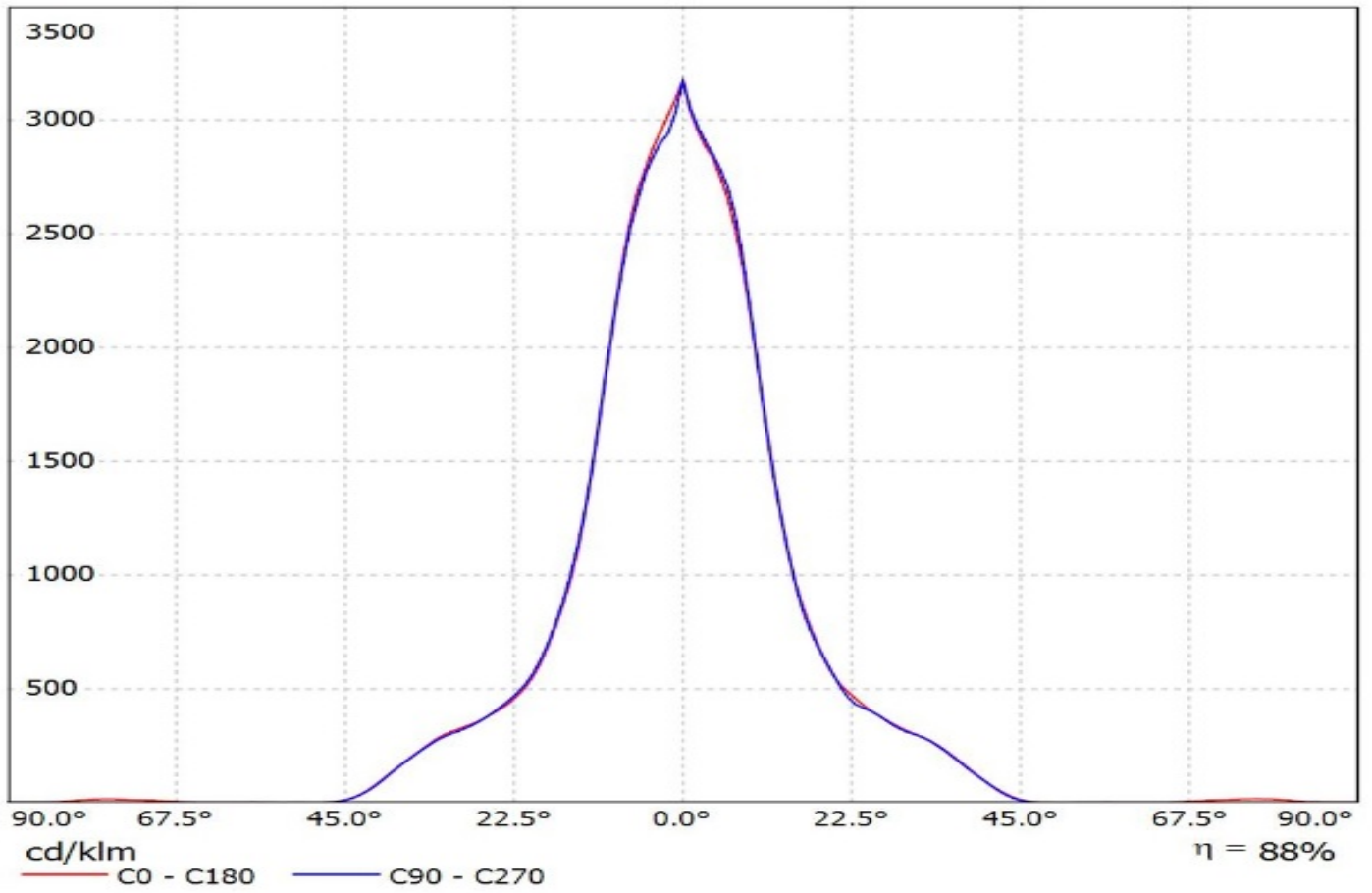
# LEDiL Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(Soleriq\_P6) / LDC (Linear)

Luminaire: LEDiL Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(Soleriq\_P6)

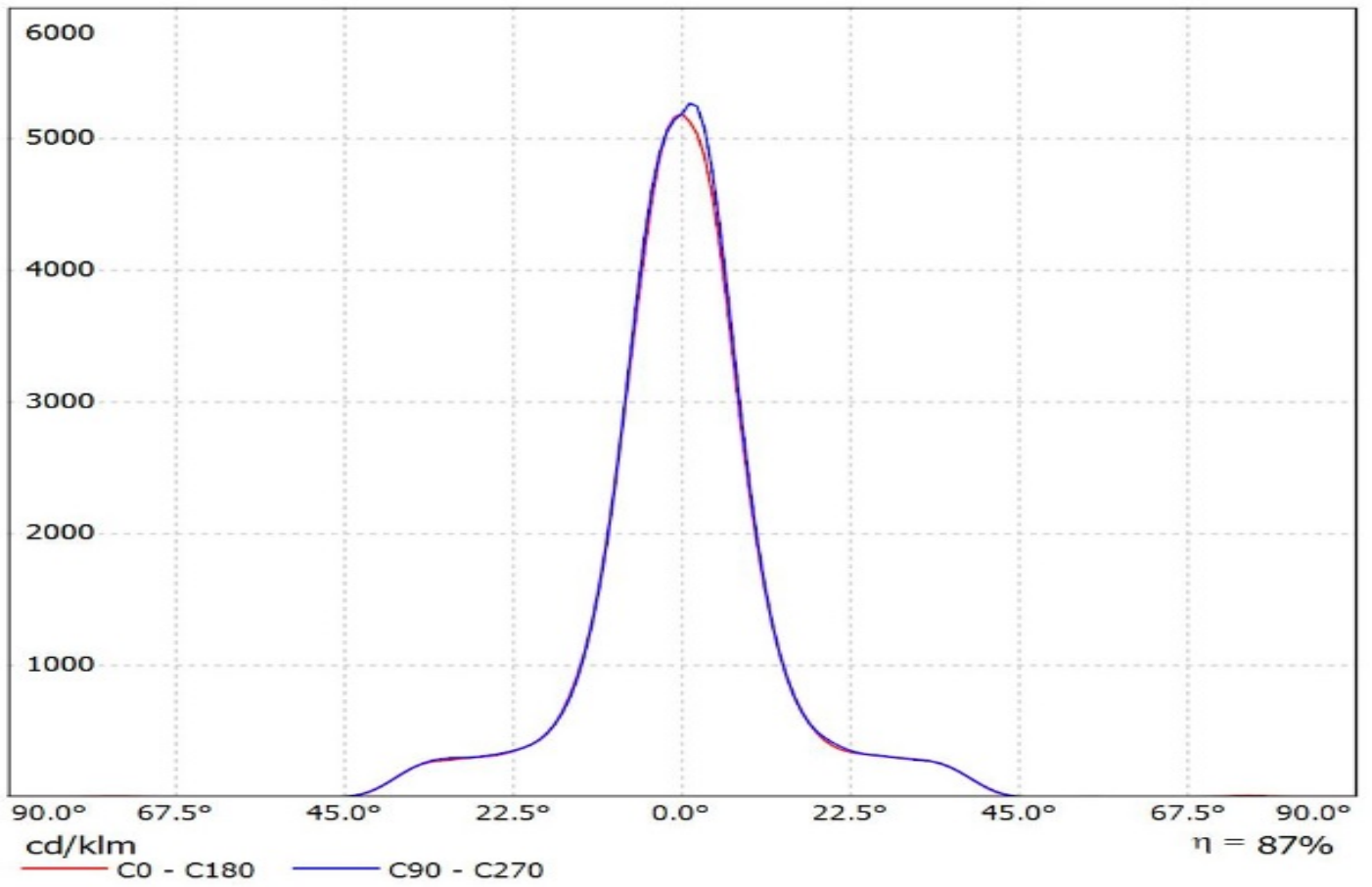
Lamps: 1 x Osram\_Soleriq\_P6\_(446 Typ L1)\_464.246lm@250mA\_P=6.28598W\_I=0.25A



Luminaire: Ledil Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(Soleriq\_S9)\_SIMULATED  
Lamps: 1 x Osram Soleriq S9 (GW KAFJB3.EM)

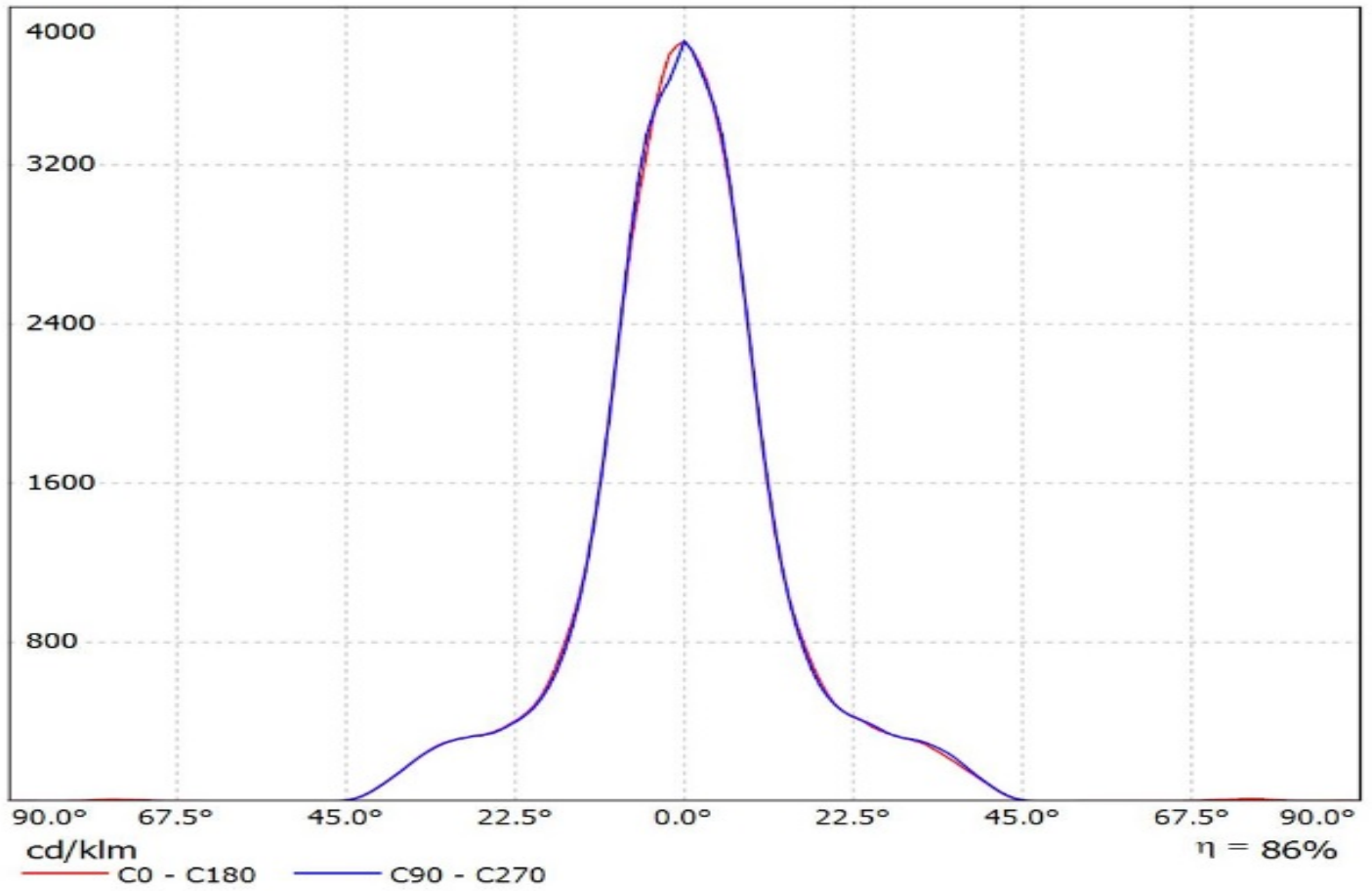


Luminaire: Ledil Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(LC010C)\_(479\_type\_L1)\_SIMULATED  
Lamps: 1 x Samsung LC010C + Bender & Wirth 479 Type L1

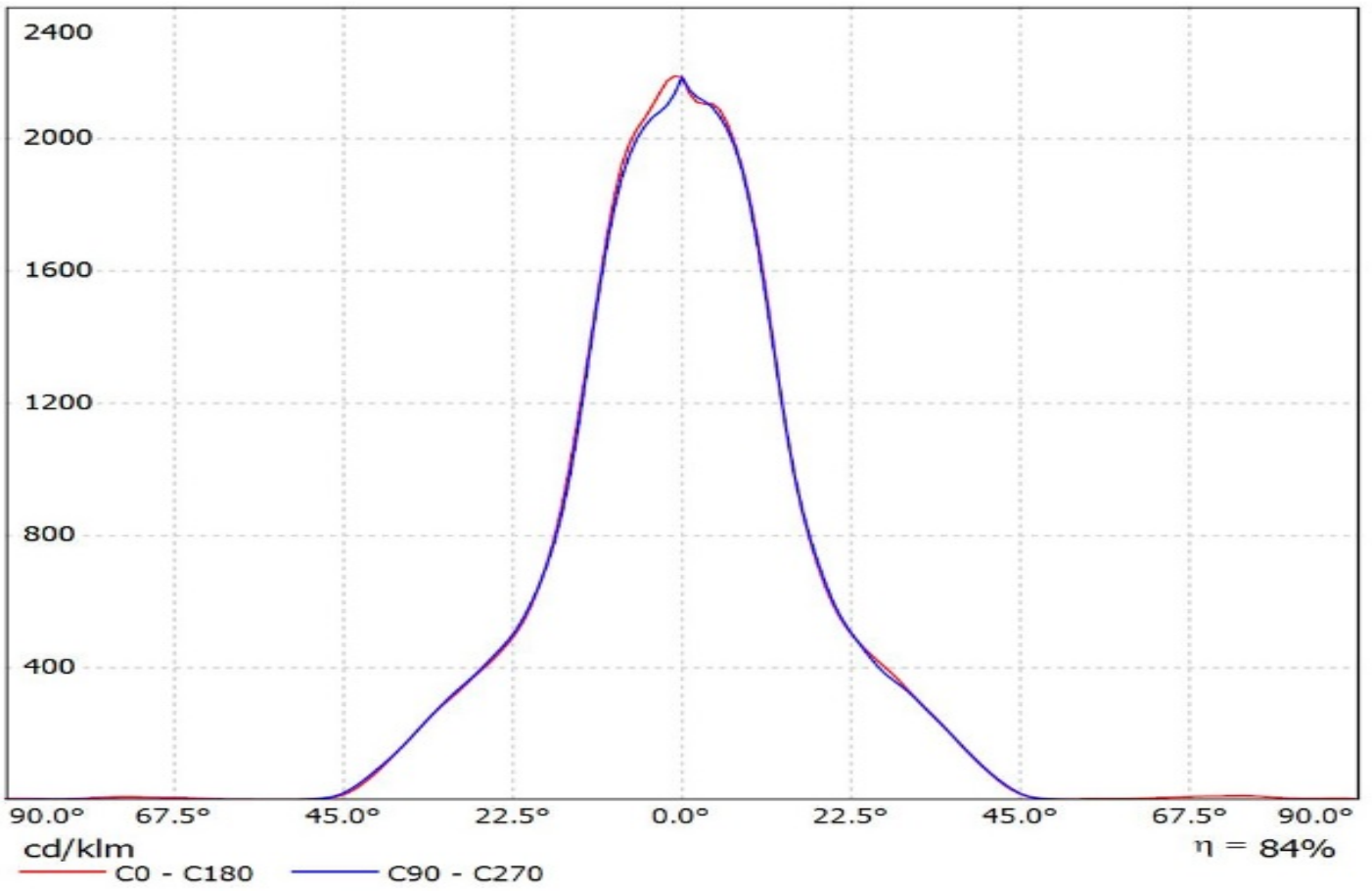




Luminaire: Ledil Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(LC020C)\_(479\_type\_L1)\_SIMULATED  
Lamps: 1 x Samsung LC020C + Bender & Wirth 479 Type L1

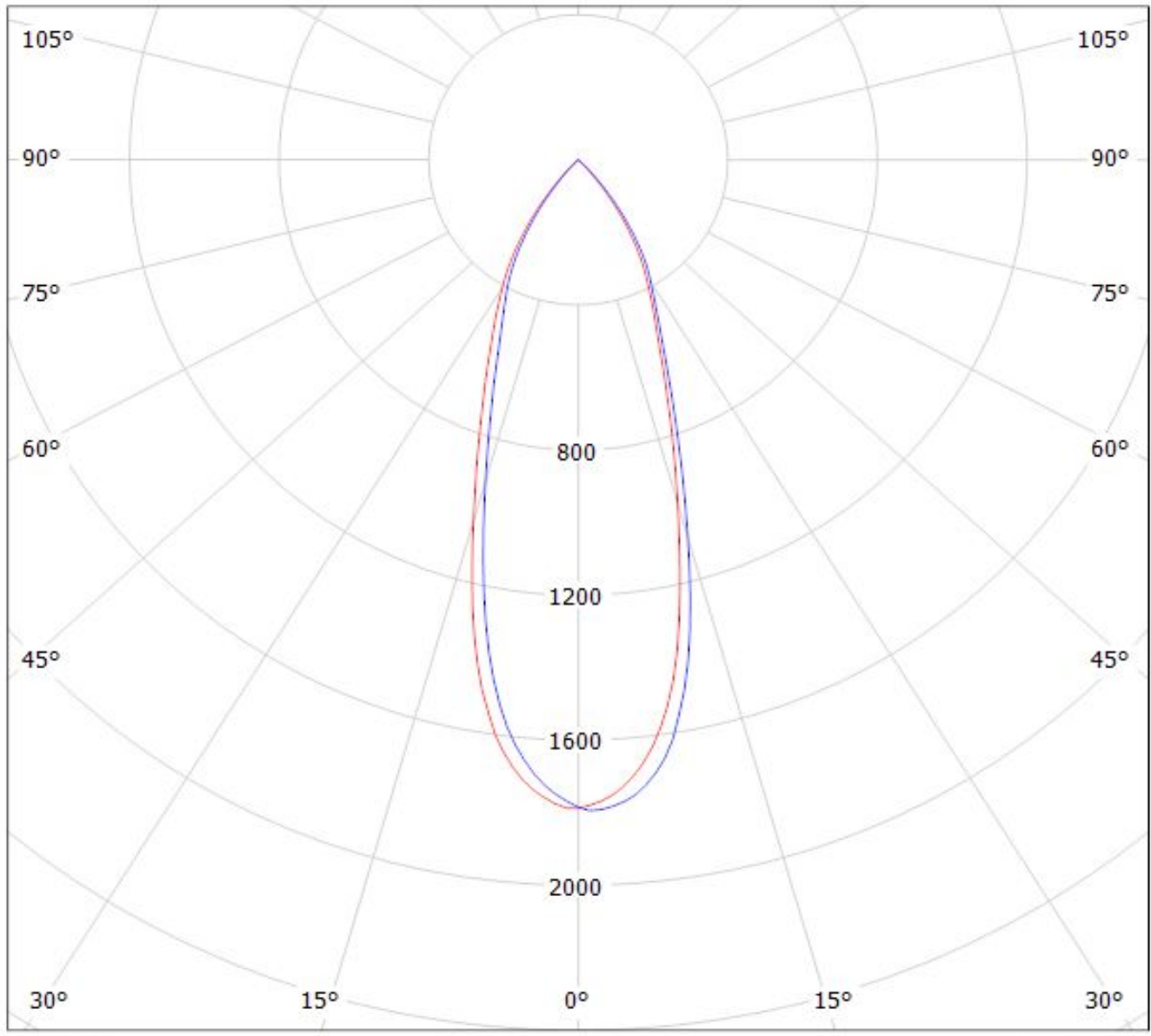


Luminaire: Ledil Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(LC040C)\_(480\_type\_L1)\_SIMULATED  
Lamps: 1 x Samsung LC040C + Bender & Wirth 480 Type L1



Luminaire: LEDiL Oy C13086\_MIRELLA-50-M-PF Eff.88.1%

Lamps: 1 x Bridgelux\_VERO13\_(BXRC-30E2000C)\_989.57lm@250mA\_P=7.48526W\_I=249.8mA



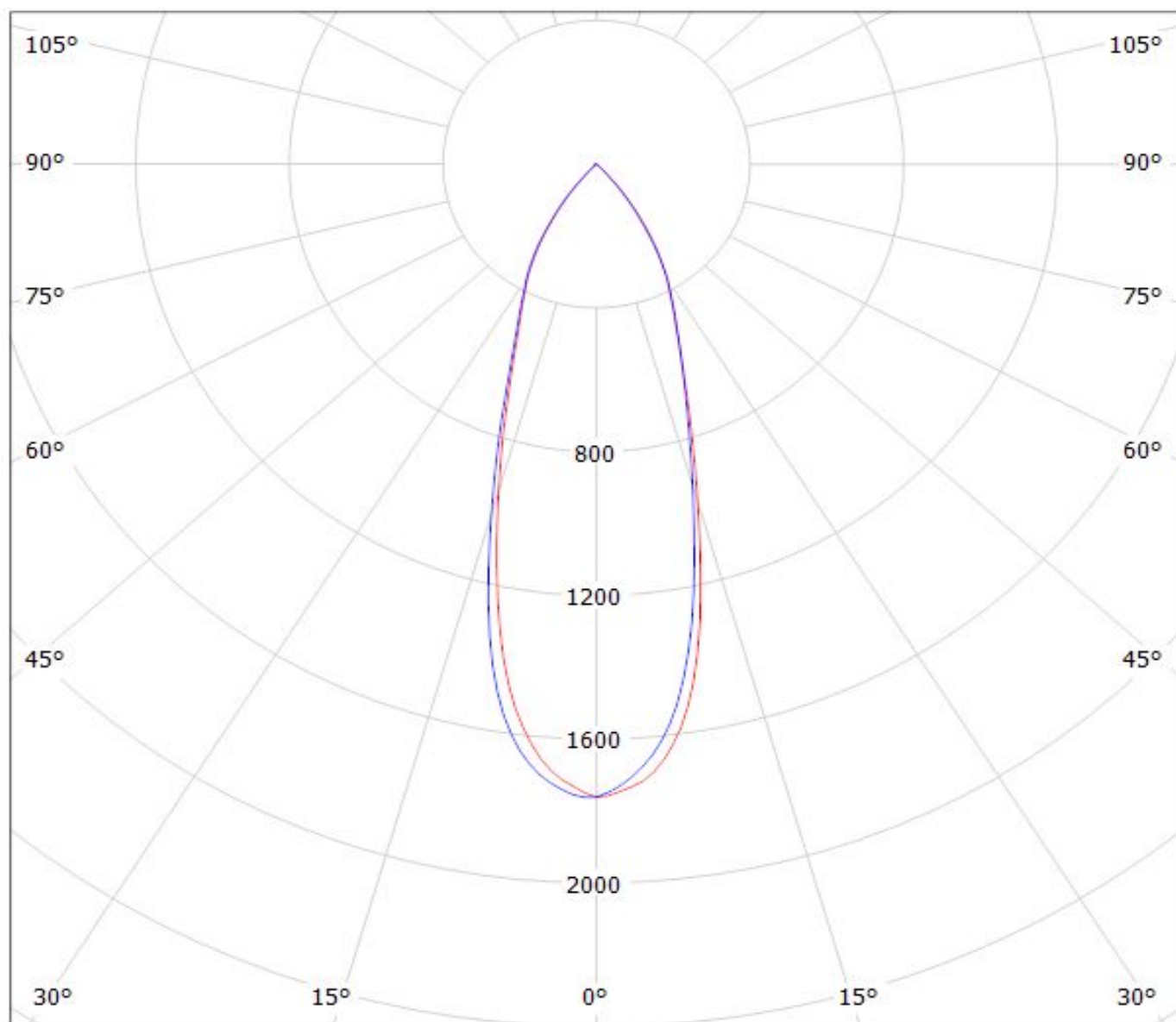
cd/klm

— C0 - C180

— C90 - C270

$\eta = 88\%$

Luminaire: LEDiL Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(XENIO\_13MM)  
Lamps: 1 x XENIO\_13MM\_2066.26lm@?mA\_P=23W\_I=?A



cd/klm

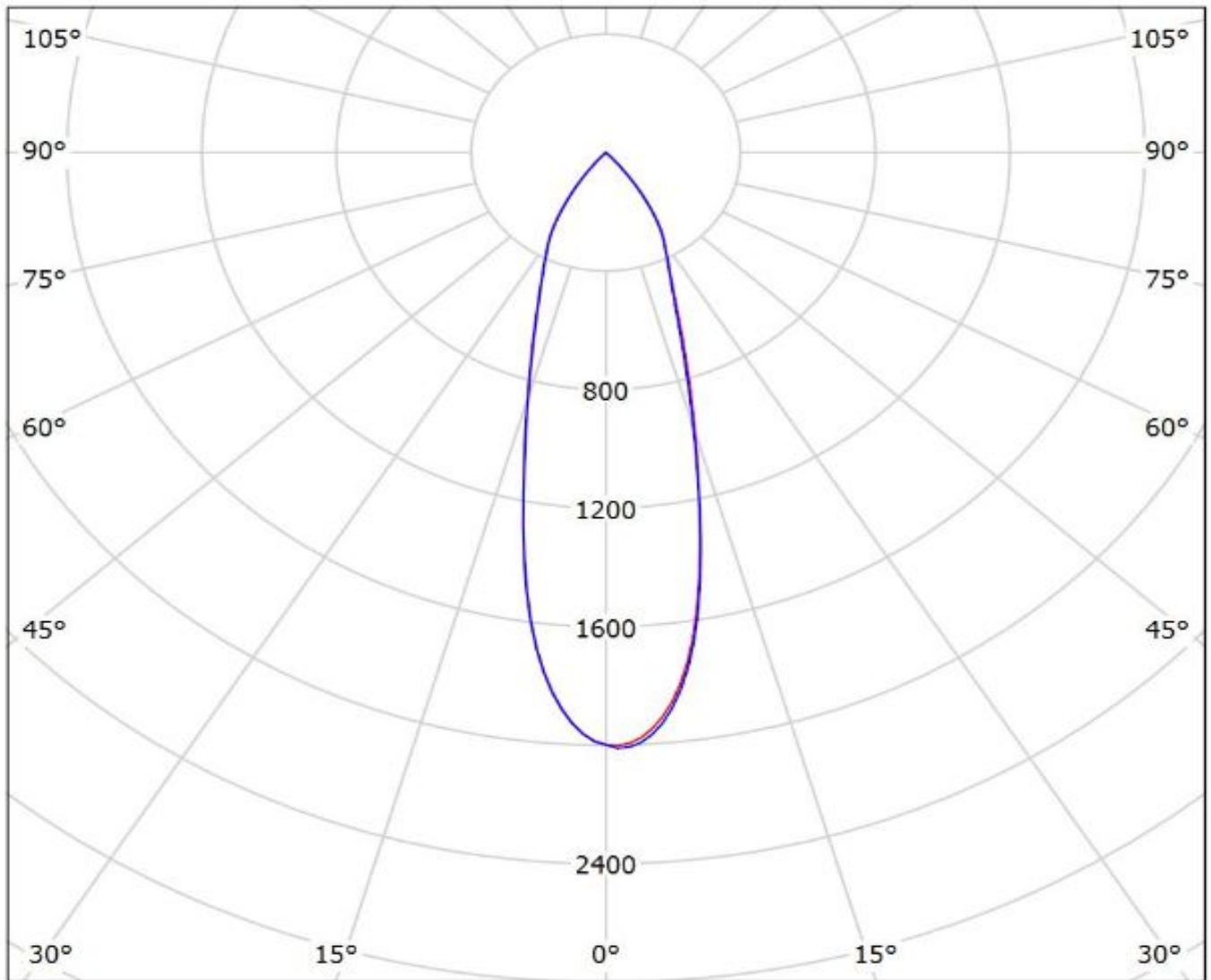
— C0 - C180    — C90 - C270

$\eta = 84\%$

# Ledil CN13920\_MIRELLA-50-M-PF-VERO13\_(CLU720) / LDC (Polar)

Luminaire: Ledil CN13920\_MIRELLA-50-M-PF-VERO13\_(CLU720)

Lamps: 1 x Citizen\_(CLU720)\_ (433\_Typ\_L1)\_ (C13709)\_ 1238.4lm@250mA\_P=8.3W\_I=0.25A

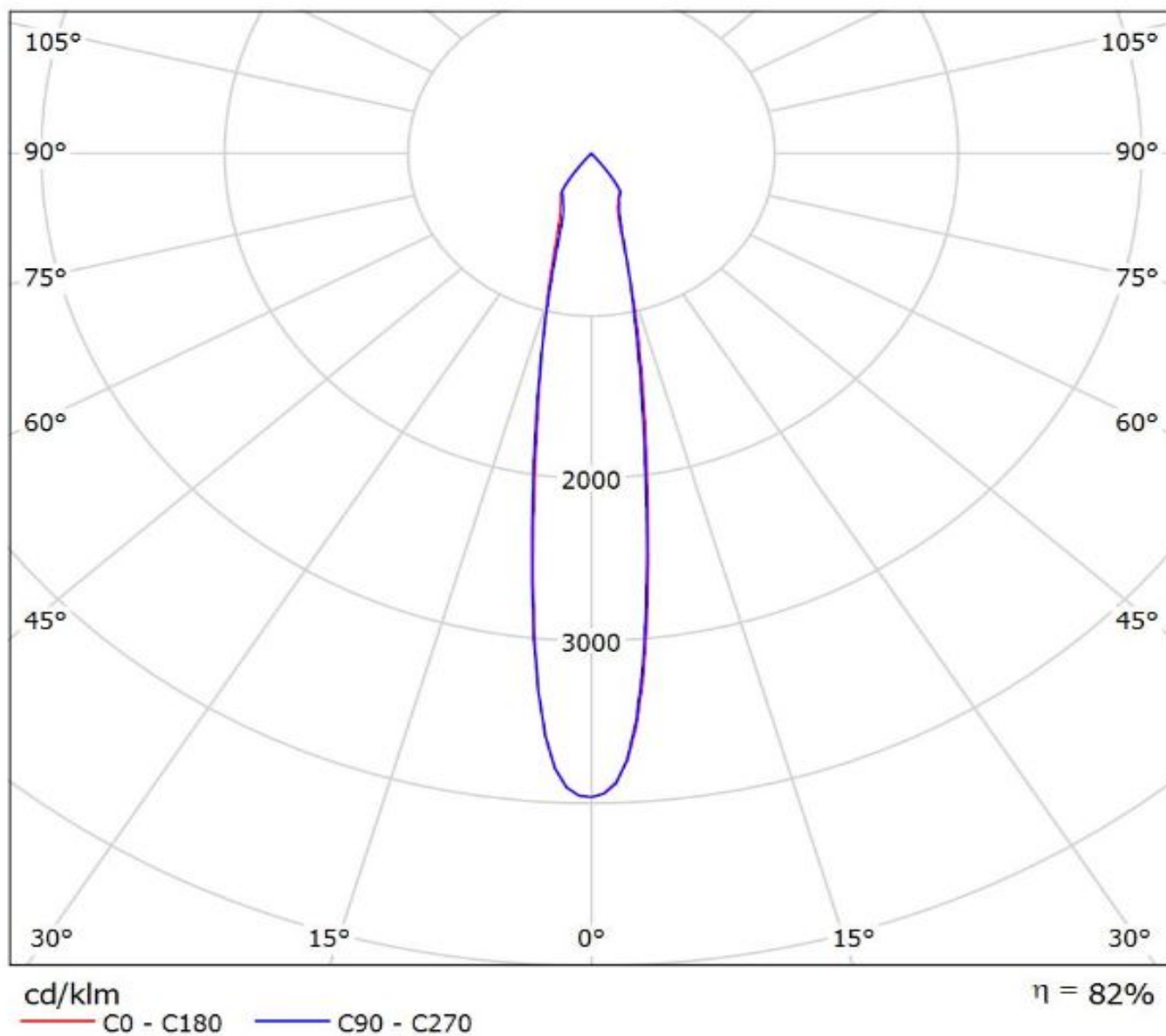


cd/klm

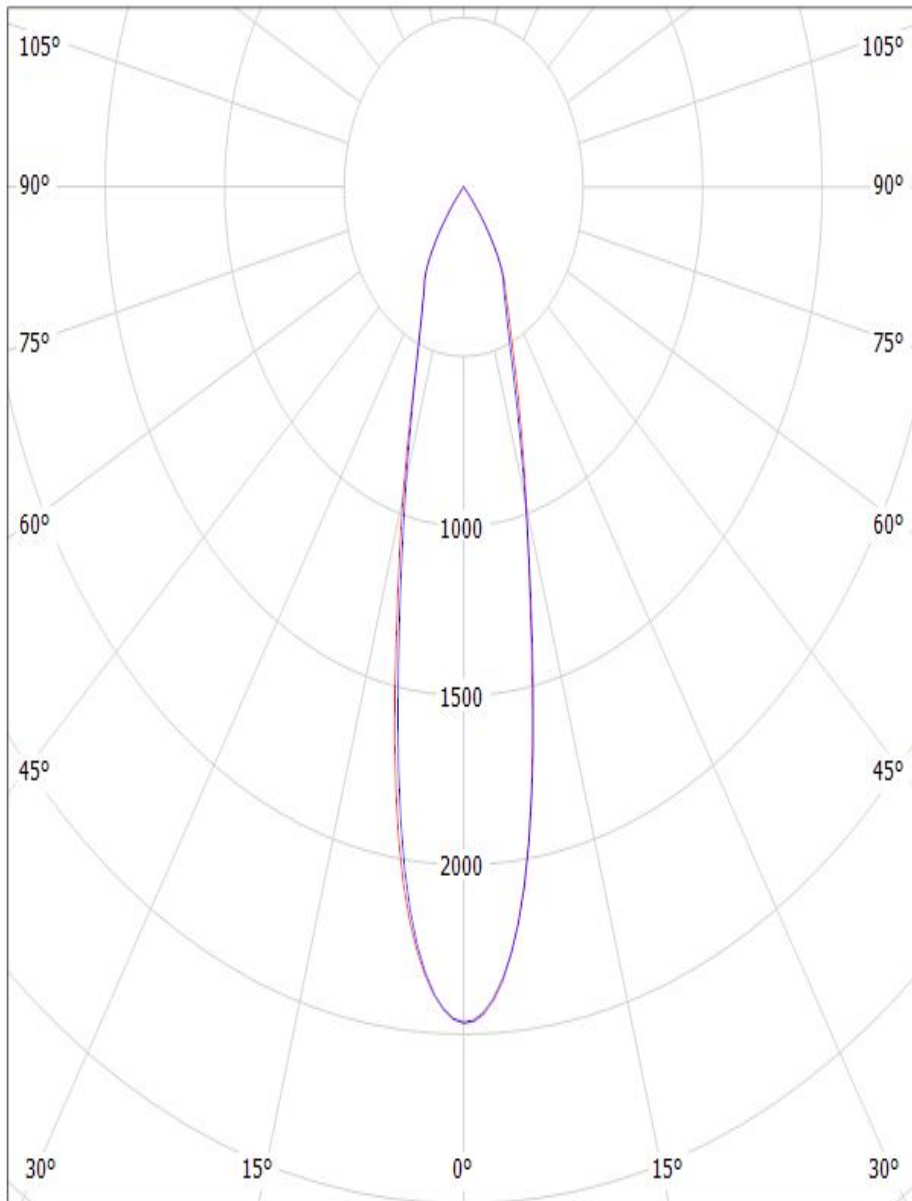
— C0 - C180 — C90 - C270

$\eta = 80\%$

Luminaire: Ledil CN13920\_MIRELLA-50-M-PF-VERO13\_(CLU700) Citizen\_CLU700\_(CLU700-1002B8-273M2G1)\_ (434\_Typ\_L1)\_ (C13709\_PF-SOCKET-VERO13-18)\_ 389.152lm@100mA\_P=2.8W\_I=0.10A  
Lamps: 1 x Citizen\_CLU700\_(CLU700-1002B8-273M2G1)\_ (434\_Typ\_L1)\_ (C13709\_PF-SOCKET-VERO13-18)\_ 389.152lm@100mA\_P=2.8W\_I=0.10A



Luminaire: LEDiL Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(CLU024) Citizen\_CLU024\_(434\_Typ\_L1)\_(C13709)\_1022.97lm@250mA\_P=8.5066W\_I=0.2499A  
Lamps: 1 x Citizen\_CLU024\_(434\_Typ\_L1)\_(C13709)\_1022.97lm@250mA\_P=8.5066W\_I=0.2499A



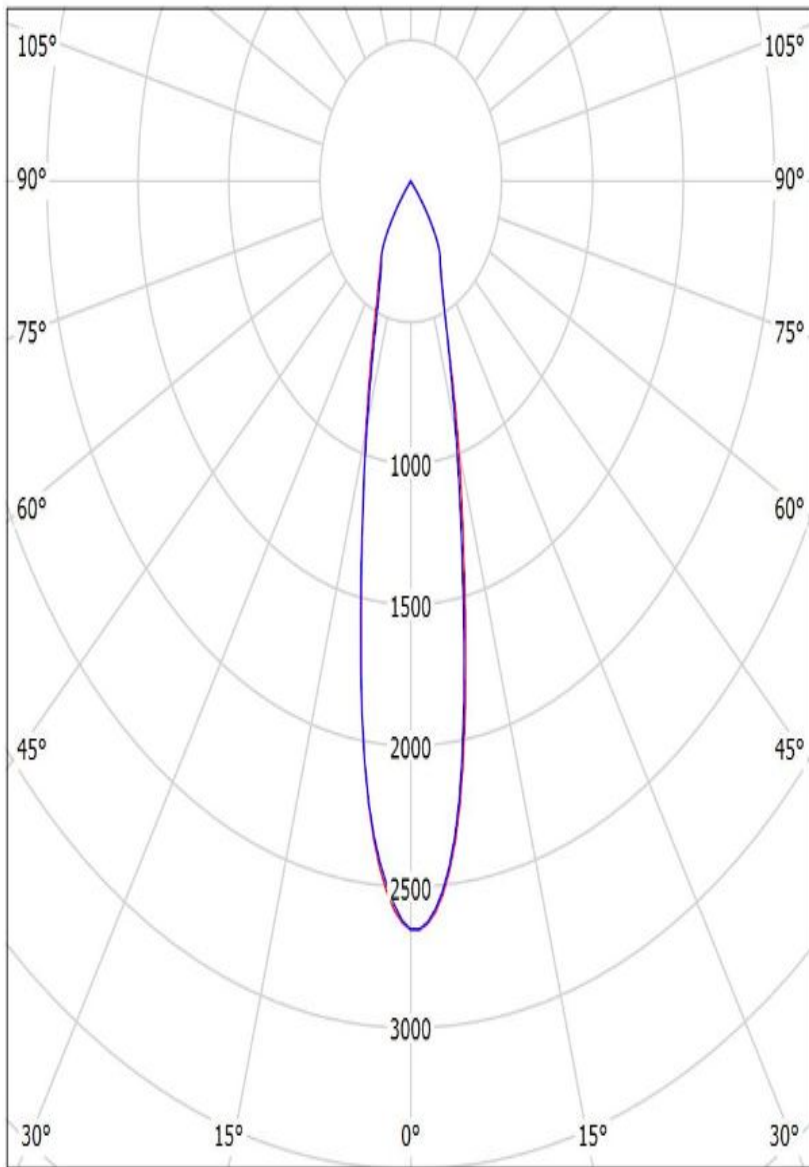
cd/klm

$\eta = 84\%$

— C0 - C180 — C90 - C270

Luminaire: Ledil CN13920\_MIRELLA-50-M-PF-VERO13\_(CXA1520)\_(441\_Typ\_L1)\_CREE\_CXA1520\_(CXA1520-30F-N4-N0H-00001)\_(441\_Typ\_L1)\_(C13709\_PF-SOCKET-VERO13-18)\_1033.5lm@250mA\_P=8.8W\_I=0.25A

Lamps: 1 x CREE\_CXA1520\_(CXA1520-30F-N4-N0H-00001)\_(441\_Typ\_L1)\_(C13709\_PF-SOCKET-VERO13-18)\_1033.5lm@250mA\_P=8.8W\_I=0.25A



cd/klm

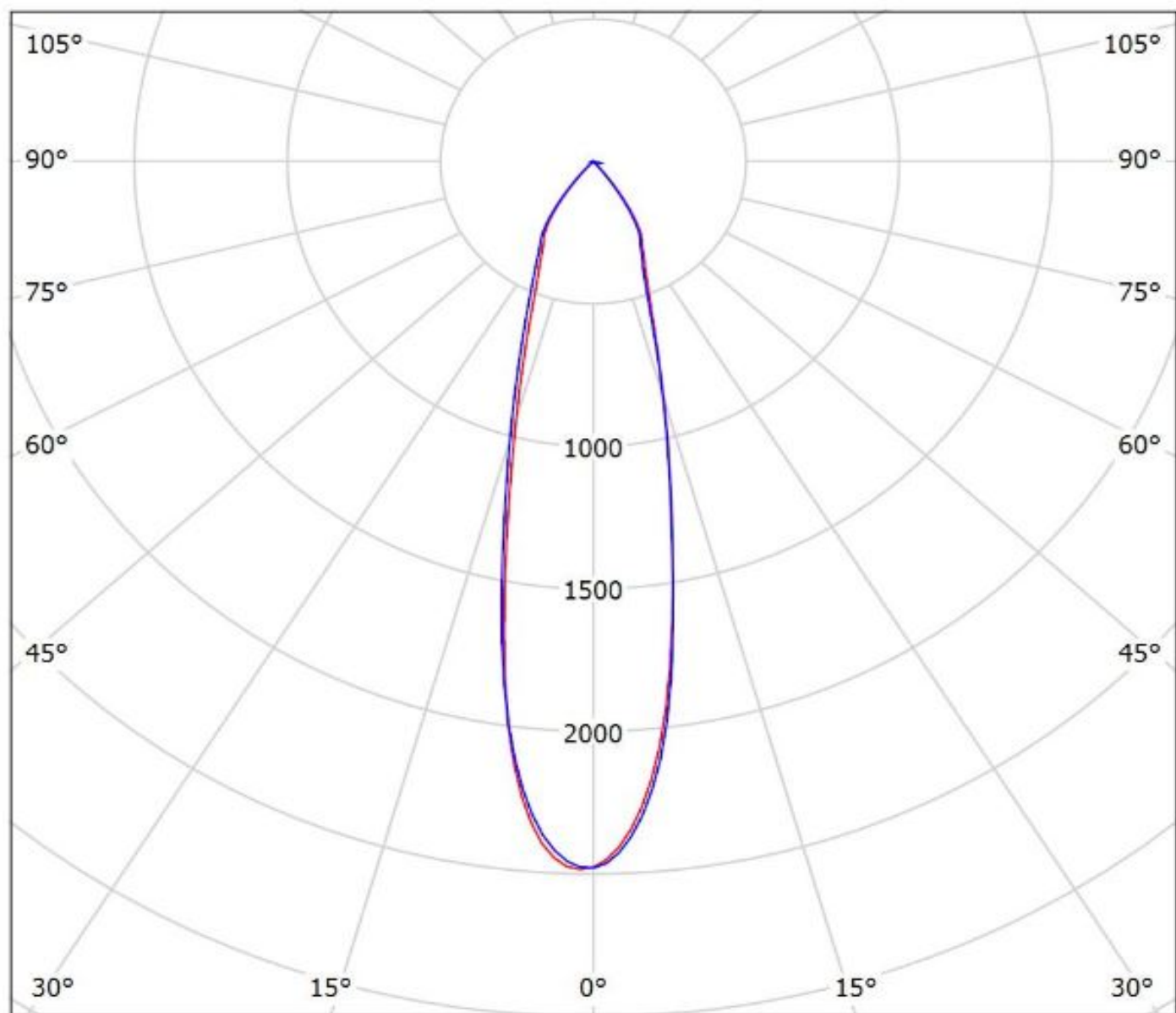
— C0 - C180 — C90 - C270

$\eta = 83\%$



Luminaire: Ledil CN13920\_MIRELLA-50-M-PF-VERO13\_(CoB\_1203)

Lamps: 1 x Luxeon\_CoB\_1203\_(438 Typ L1)\_1054.48lm@250mA\_P=0.7\_I=0.25A

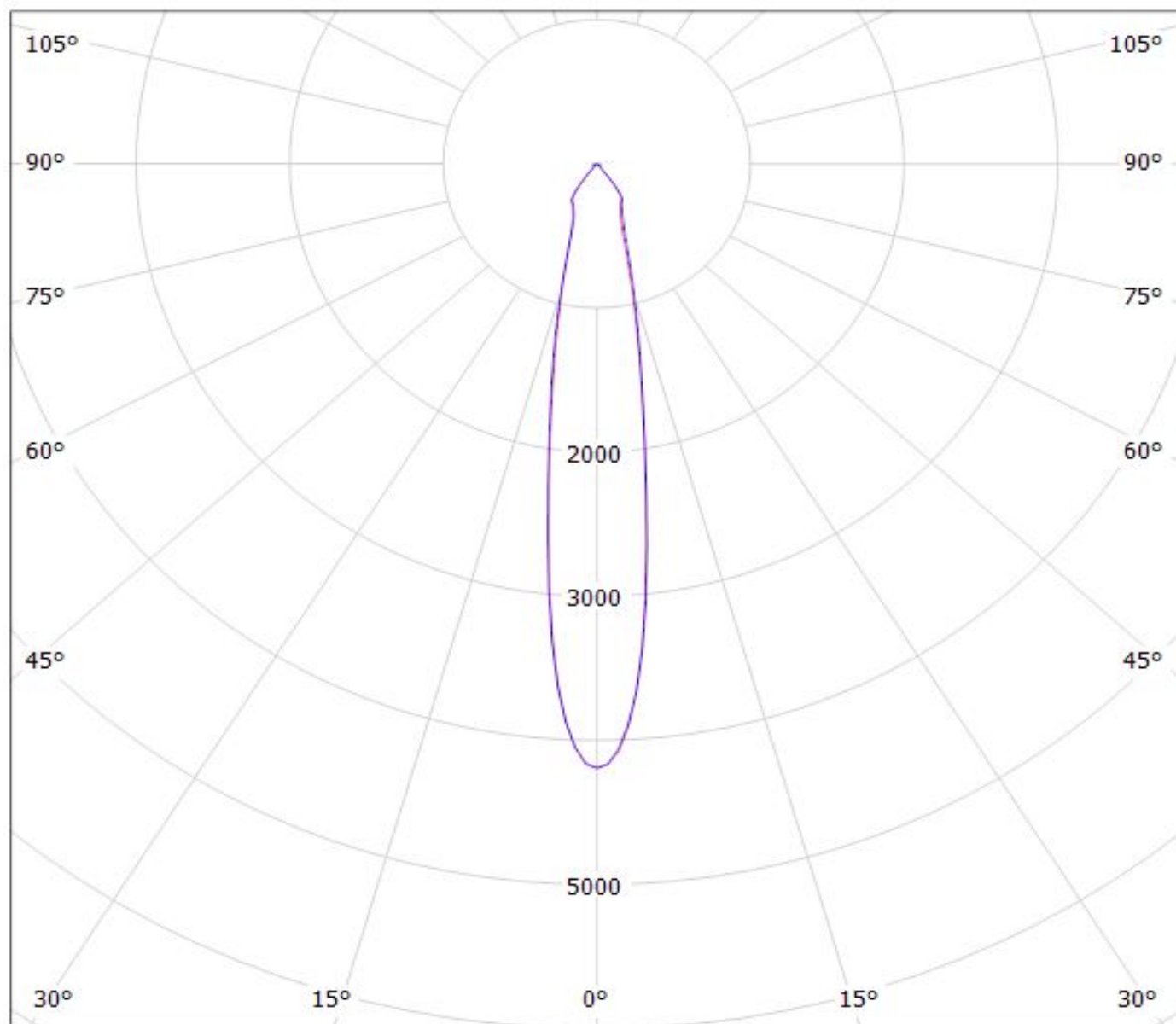


cd/klm

— C0 - C180 — C90 - C270

$\eta = 82\%$

Luminaire: LEDiL Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(Luxeon\_CoB\_1202s)  
Lamps: 1 x Luxeon\_CoB\_1202s\_(452 Typ L1)\_231.765lm@100mA\_P=1.62683W\_I=0.10A



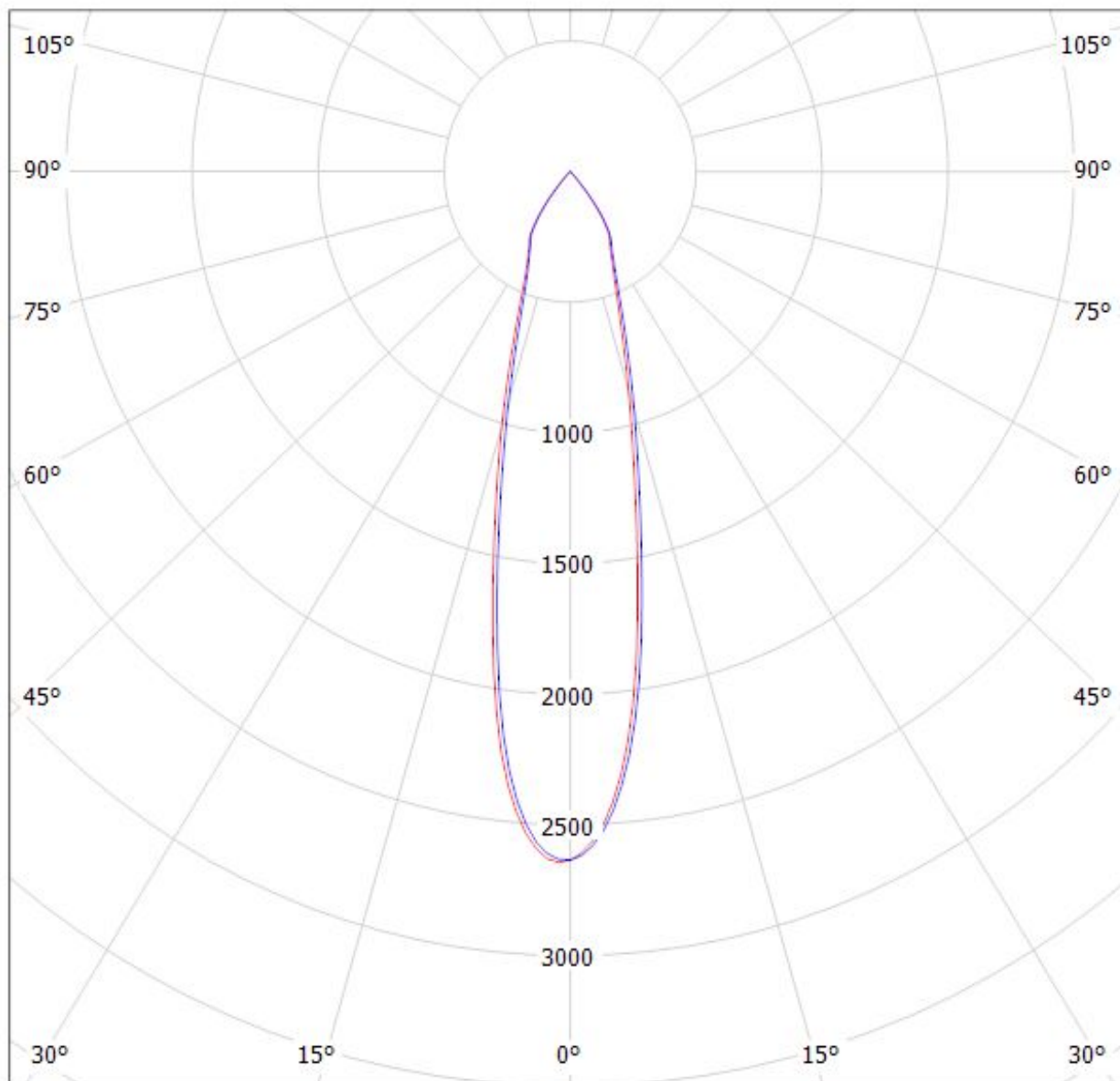
cd/klm

— C0 - C180 — C90 - C270

$\eta = 86\%$

Luminaire: LEDiL Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(NFCLL036B)

Lamps: 1 x Nichia NFCLL036B (sm403J1300R8000)\_542.913lm@100mA\_CCT=4000K\_P=3.34084W\_I=0.100A



cd/klm

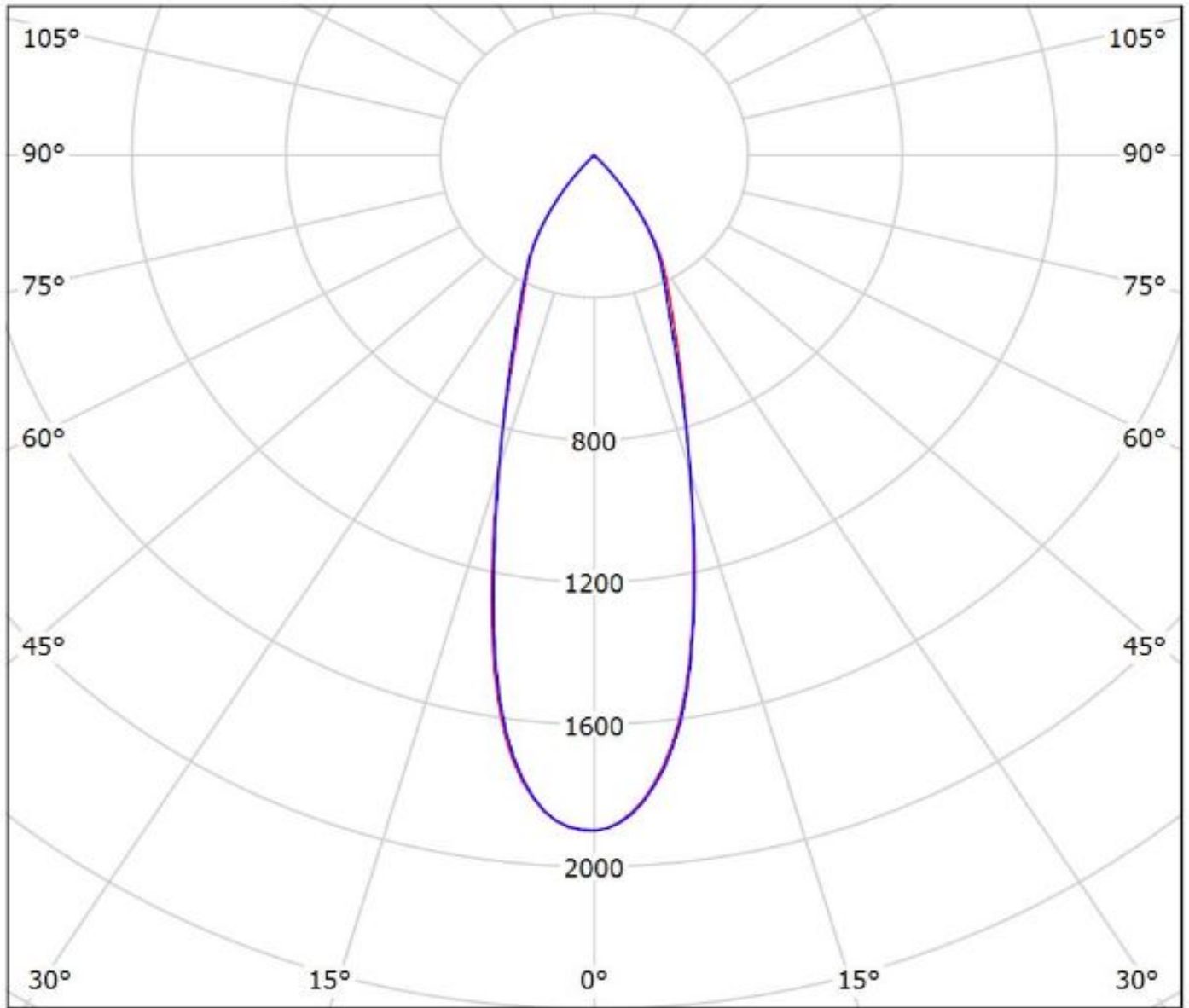
— C0 - C180

— C90 - C270

$\eta = 84\%$

Luminaire: Ledil CN13920\_MIRELLA-50-M-PF-VERO13\_(NFCLL060B)

Lamps: 1 x Nichia\_NFCLL060B\_(438 Typ L1)\_1355.59lm@250mA\_P=8.5W\_I=0.25A

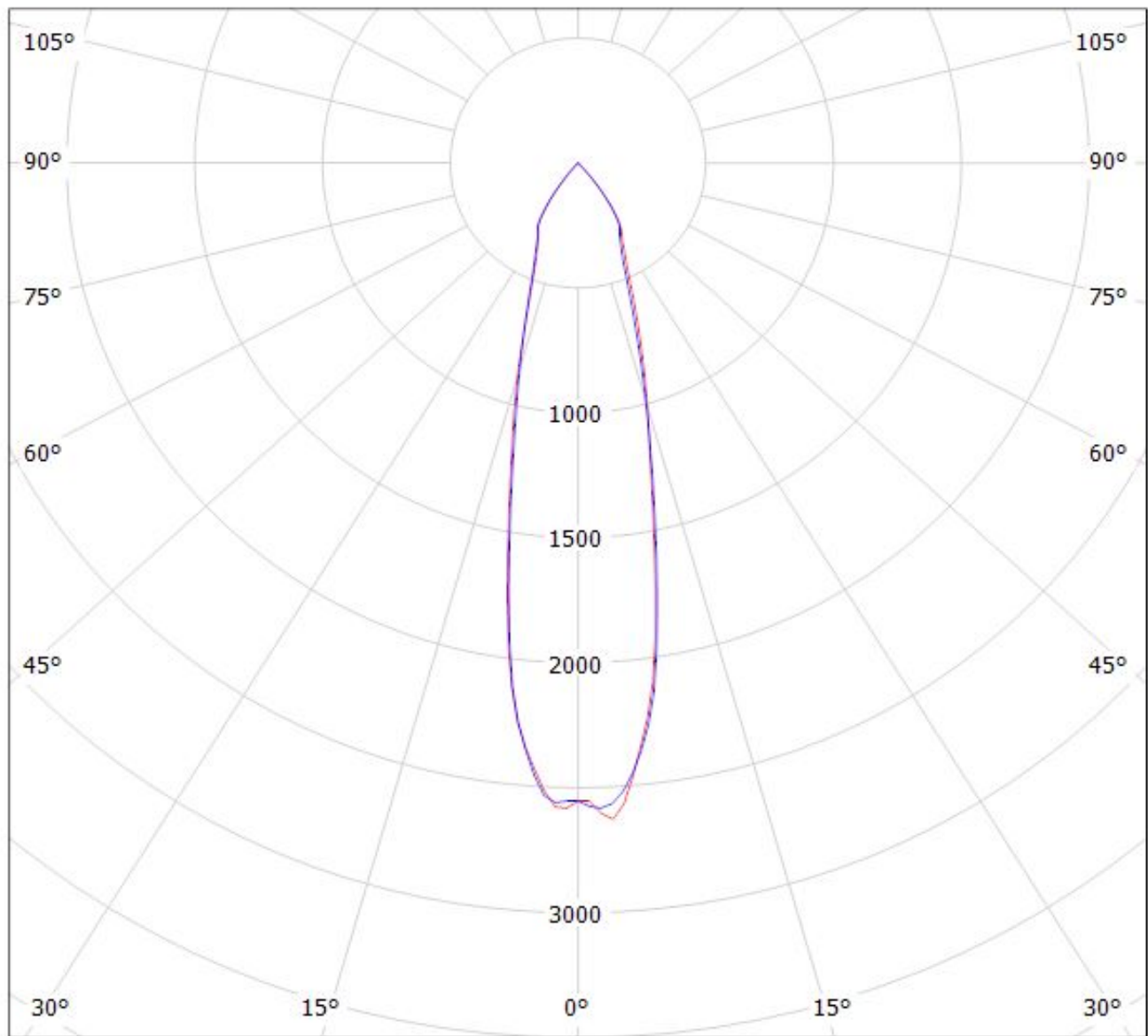


cd/klm

— C0 - C180 — C90 - C270

$\eta = 81\%$

Luminaire: LEDiL Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(Soleriq P9+461 Typ L1)  
Lamps: 1 x Soleriq P9+461 Typ L1\_881.86lm@250mA\_P=6.96846W\_I=250mA



cd/klm

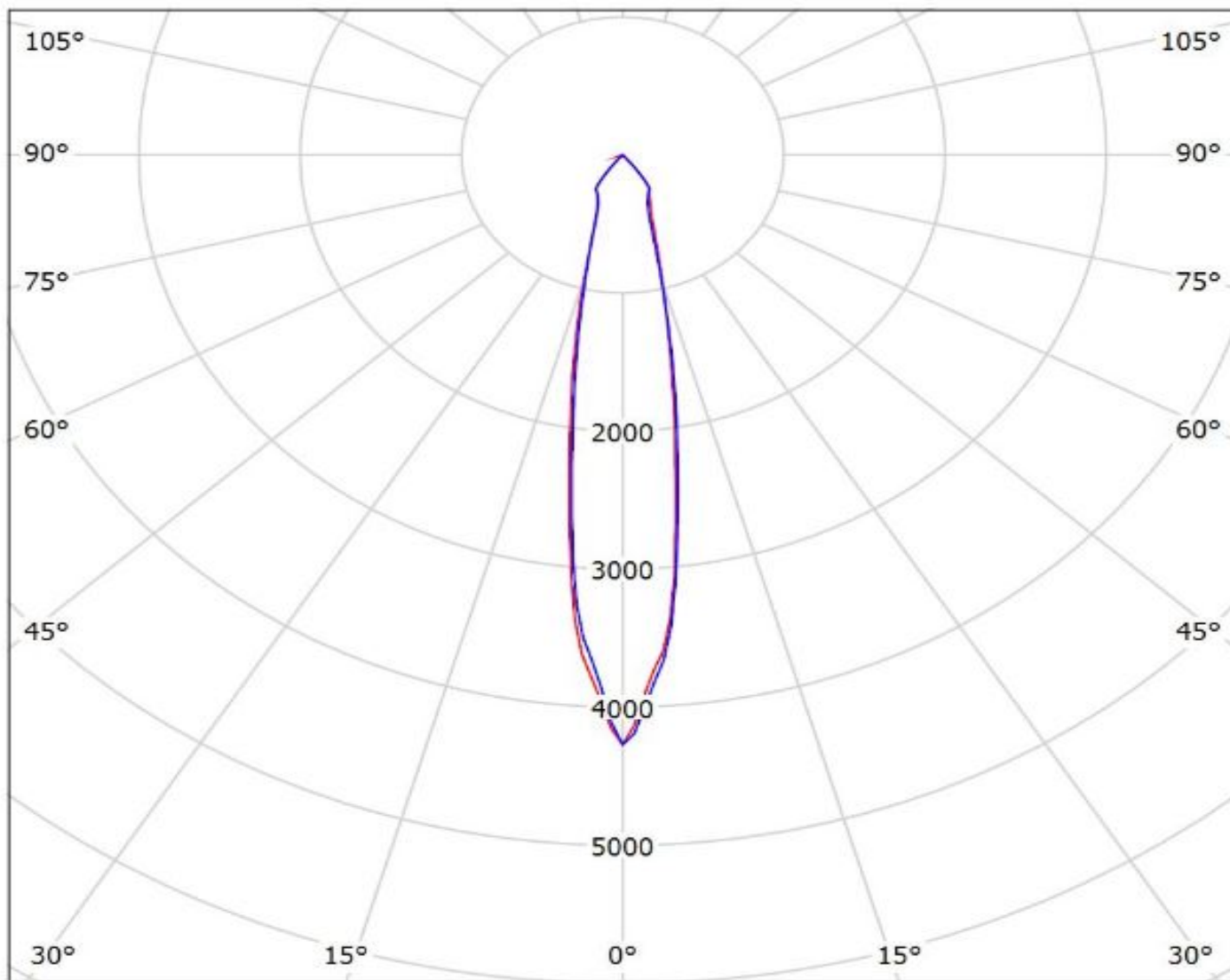
— C0 - C180    — C90 - C270

$\eta = 85\%$

# LEDiL Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(Soleriq\_P6) / LDC (Polar)

Luminaire: LEDiL Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(Soleriq\_P6)

Lamps: 1 x Osram\_Soleriq\_P6\_(446 Typ L1)\_464.246lm@250mA\_P=6.28598W\_I=0.25A



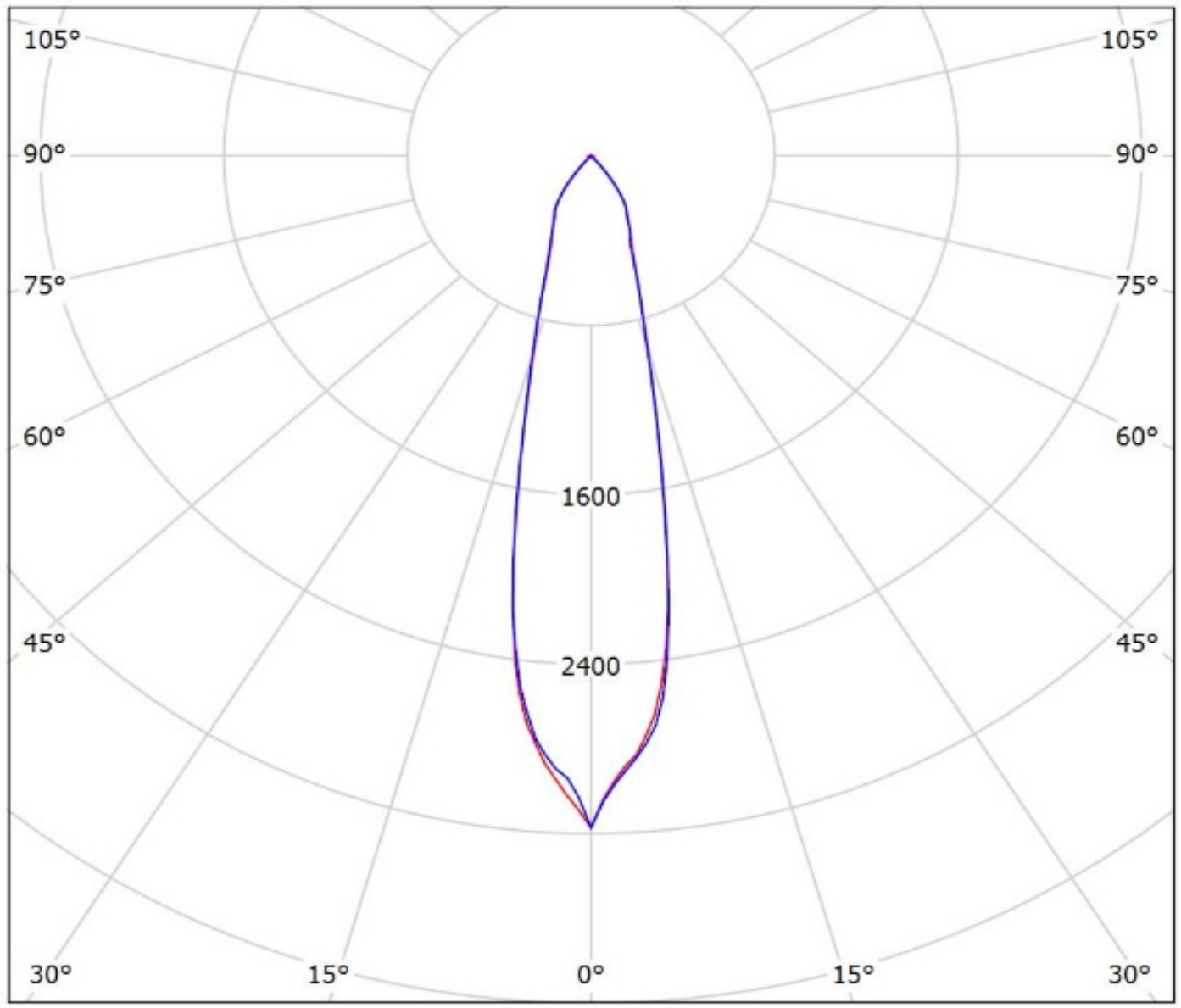
cd/klm

— C0 - C180

— C90 - C270

$\eta = 87\%$

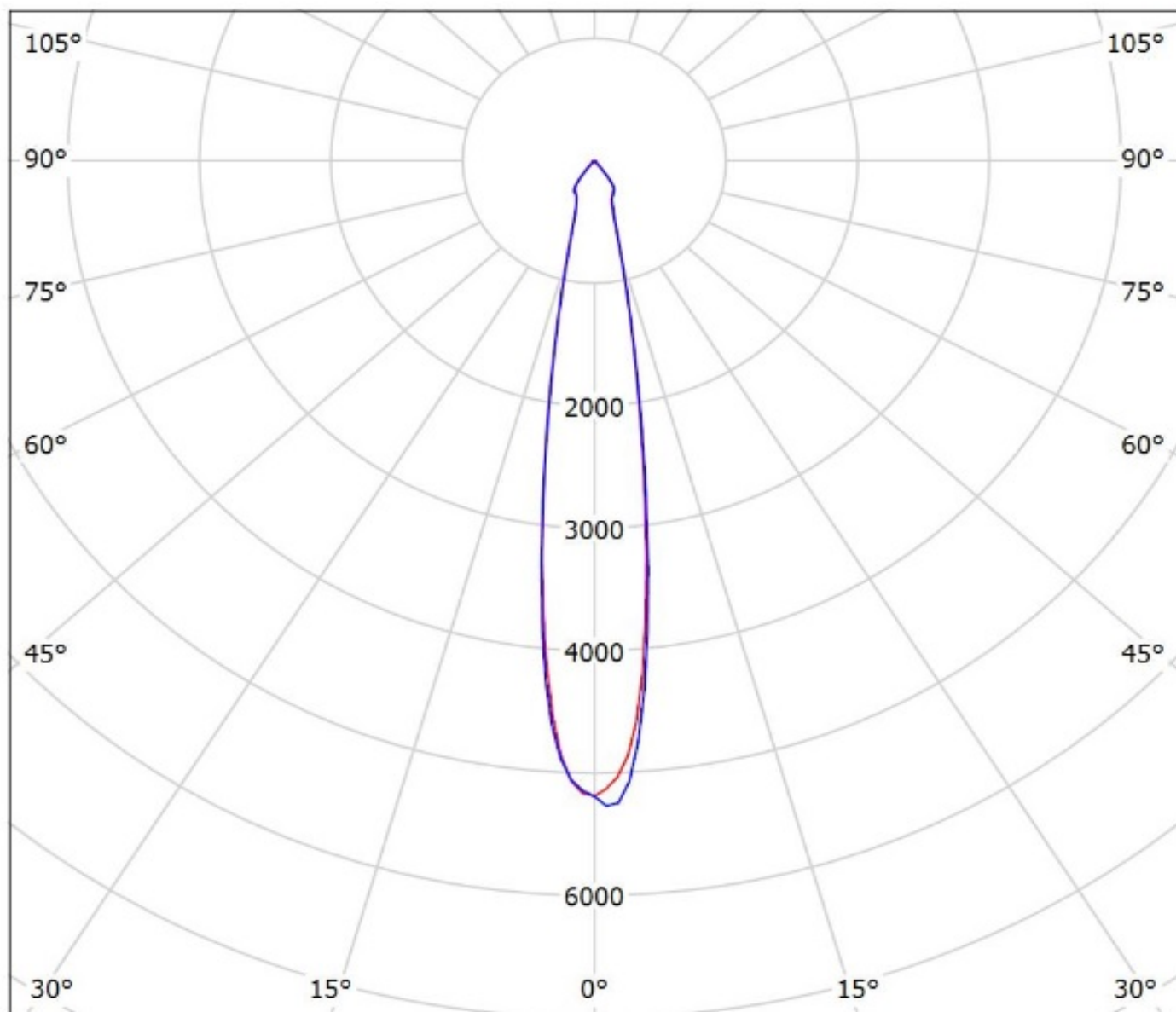
Luminaire: Ledil Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(Soleriq\_S9)\_SIMULATED  
Lamps: 1 x Osram Soleriq S9 (GW KAFJB3.EM)



cd/klm  
— C0 - C180 — C90 - C270

$\eta = 88\%$

Luminaire: Ledil Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(LC010C)\_(479\_type\_L1)\_SIMULATED  
Lamps: 1 x Samsung LC010C + Bender & Wirth 479 Type L1



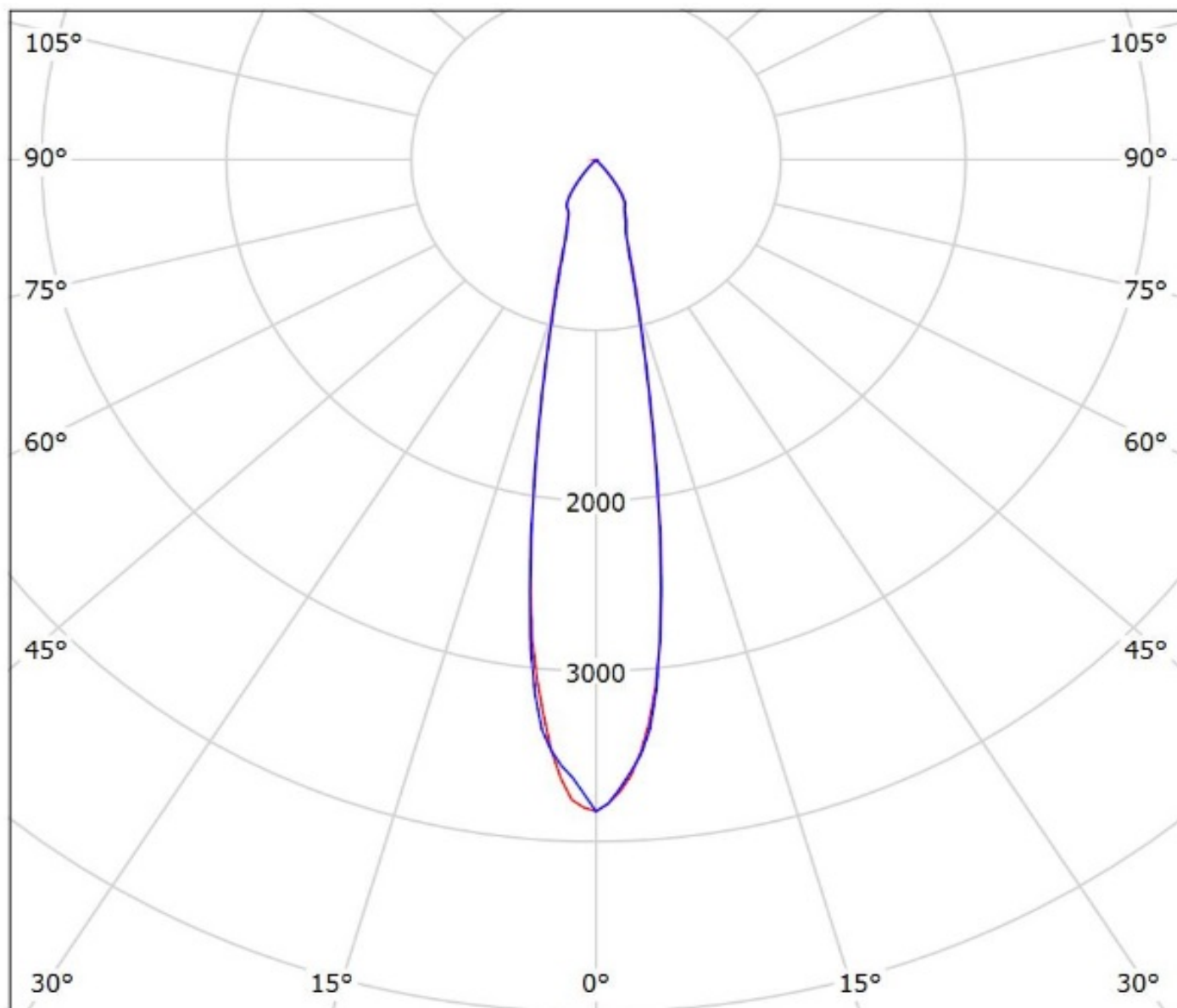
cd/klm

— C0 - C180 — C90 - C270

$\eta = 87\%$



Luminaire: Ledil Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(LC020C)\_(479\_type\_L1)\_SIMULATED  
Lamps: 1 x Samsung LC020C + Bender & Wirth 479 Type L1

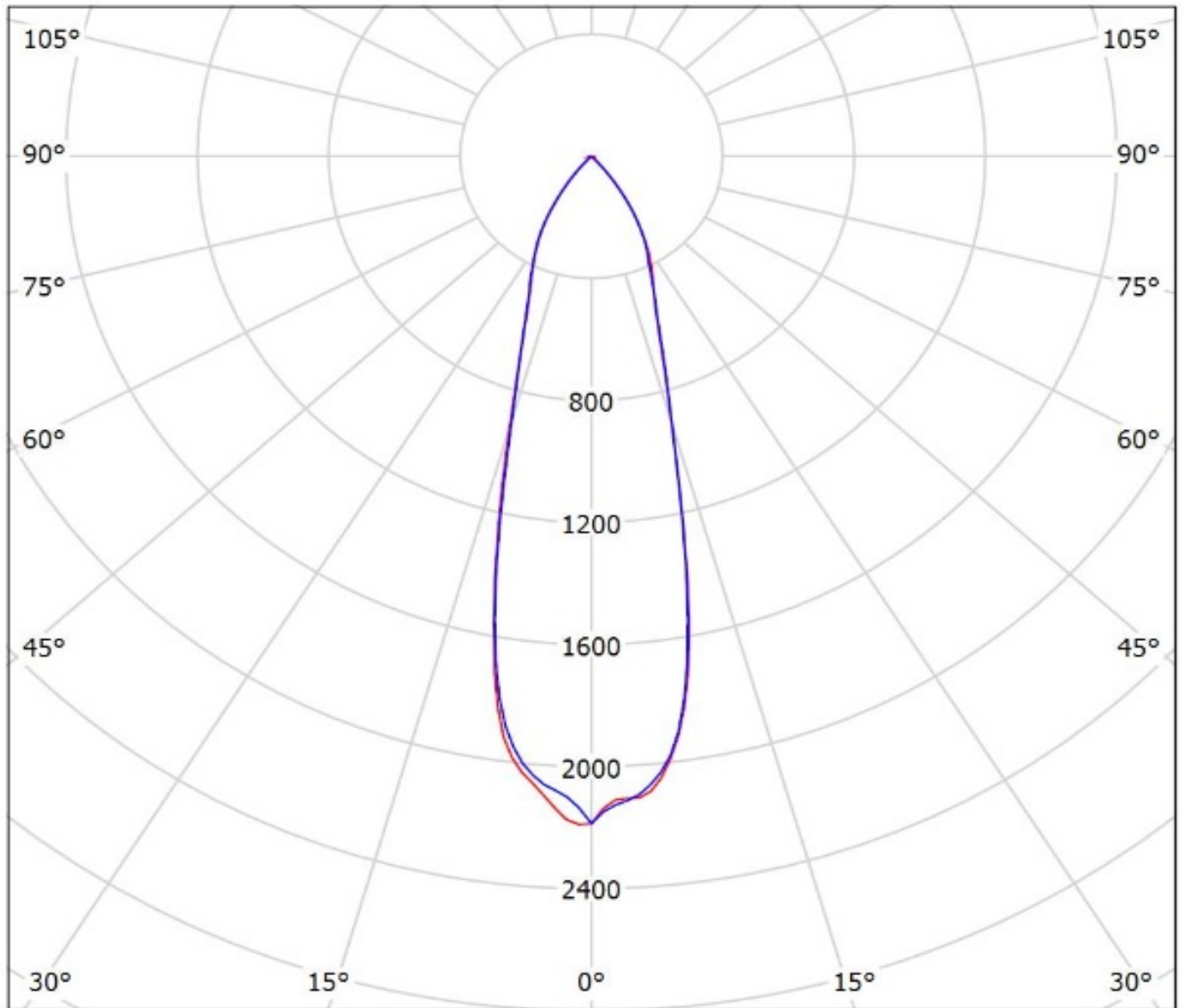


cd/klm

— C0 - C180 — C90 - C270

$\eta = 86\%$

Luminaire: Ledil Oy CN13920\_MIRELLA-50-M-PF-VERO13\_(LC040C)\_(480\_type\_L1)\_SIMULATED  
Lamps: 1 x Samsung LC040C + Bender & Wirth 480 Type L1



cd/klm

— C0 - C180 — C90 - C270

$\eta = 84\%$

**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.**

### **GENERAL INFORMATION**

- Product series especially designed & optimized for series of LEDs.
- Special care taken to make light distribution as uniform as possible.

Note! Due to use of high power COB's with this product, special attention to proper thermal design is highly recommended. LEDiL has no liability for direct, indirect or consecutive damages arising from the LEDiL products being used outside of the recommended temperature range.