

## DETAILS

<b>Product Number</b>	F13663_ANGELA-M-B
<b>Family</b>	ANGELA
<b>Type</b>	Reflector
<b>Color</b>	metal
<b>Diameter</b>	119.5 mm
<b>Height</b>	74.5 mm
<b>Style</b>	round
<b>Optic Material</b>	PC
<b>Holder Material</b>	
<b>Fastening</b>	
<b>Status</b>	ready
<b>ROHS Compliant</b>	Yes
<b>Date Updated</b>	16/05/2014



## OPTICAL PROPERTIES

LED	Viewing Angle	Light Beam	Efficiency	cd/lm	connector
Soleriq S13	15 degrees		83 %	4.000	8502/G2 A.A.G. STUCCHI
LUXEON CoB 1204/1205	16 degrees		82 %	3.840	8301/G2 A.A.G. STUCCHI
COB 10W/13W/17W/24W	16 degrees		82 %	3.800	8600/G2 A.A.G. STUCCHI
CLL03x/CLU034	16 degrees		83 %	3.630	8101/G2 A.A.G. STUCCHI
ZC12/18	16 degrees		82 %	3.770	8101/G2 A.A.G. STUCCHI
CXM-14	16 degrees		82 %	3.900	Solderless Connector 47.319.2020 BJB
COB 10W/13W/17W/24W	16 degrees		83 %	3.900	Solderless Connector 47.319.2080 BJB
BXRA ES Rectangle	16 degrees		82 %	3.690	Solderless Connector 47.319.2040 BJB
CLL03x/CLU034	16 degrees		83 %	3.800	Solderless Connector 47.319.2020 BJB
Mega Zenigata (GW6DME)	17 degrees		83 %	3.560	8301/G2 A.A.G. STUCCHI
Soleriq S19	17 degrees		83 %	3.400	8503/G2 A.A.G. STUCCHI
STARK SLE PURE G3 LES17	17 degrees		82 %	3.450	8101/G2 A.A.G. STUCCHI
Mega Zenigata (GW6DME)	17 degrees		84 %	3.700	Solderless Connector 47.319.2010 BJB
LUXEON K16	17 degrees		87 %	3.700	Solderless Connector 47.319.2070 BJB
LUXEON K12	17 degrees		87 %	3.700	Solderless Connector 47.319.2070 BJB
LUXEON CoB 1208	17 degrees		83 %	3.500	8301/G2 A.A.G. STUCCHI
CXA25xx	18 degrees		82 %	3.180	8401/G2 A.A.G. STUCCHI
Soleriq S19	18 degrees		83 %	3.380	Solderless Connector 47.319.2170 BJB

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**PRODUCT DATASHEET**  
**ANGELA series**  
last update 16/5/2014

LUXEON CoB 1211

19 degrees

81 %

3.060

8102/G2 A.A.G. STUCCHI



**PRODUCT DATASHEET**  
**ANGELA series**  
last update 16/5/2014

Soleriq E30

20 degrees

81 %

2.900

Solderless Connector



**PRODUCT DATASHEET**  
**ANGELA series**  
last update 16/5/2014

47.319.2090 BJB



**PRODUCT DATASHEET**  
**ANGELA series**  
last update 16/5/2014

CLL04x/CLU044

21 degrees

81 %

2.650

8102/G2 A.A.G. STUCCHI



**PRODUCT DATASHEET**  
**ANGELA series**  
last update 16/5/2014

ZC25/40

21 degrees

81 %

2.720

8102/G2 A.A.G. STUCCHI



**PRODUCT DATASHEET**  
**ANGELA series**  
last update 16/5/2014

CXA30

21 degrees

80 %

2.700

8404/G2 A.A.G. STUCCHI



**PRODUCT DATASHEET**  
**ANGELA series**  
last update 16/5/2014

CLL04x/CLU044

21 degrees

81 %

2.730

Solderless Connector



**PRODUCT DATASHEET**  
**ANGELA series**  
last update 16/5/2014

47.319.2030 BJB



**PRODUCT DATASHEET**  
**ANGELA series**  
last update 16/5/2014

CXM-22

22 degrees

81 %

2.500

Solderless Connector



**PRODUCT DATASHEET**  
**ANGELA series**  
last update 16/5/2014

47.319.2030 BJB

D

C

B

A

4

4

LED position

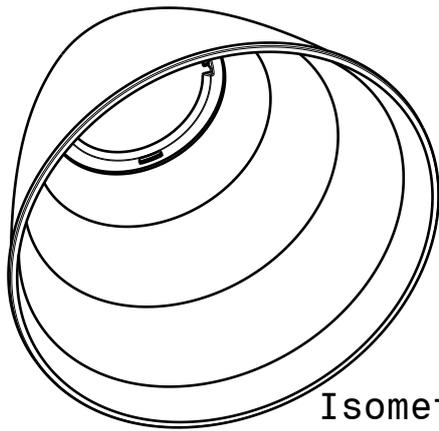
Ø 119.5

Ø 39

Bottom view  
Scale: 1:2

3

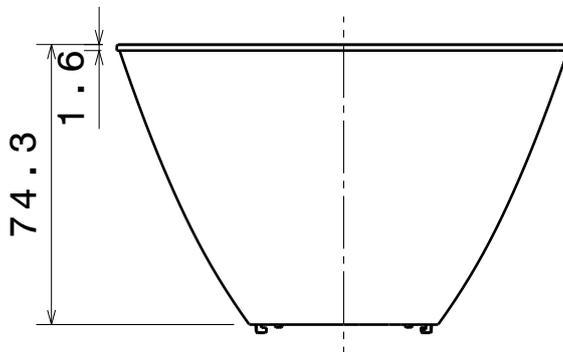
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Isometric view  
Scale: 1:2

2

2



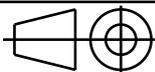
Front view  
Scale: 1:2

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

Angela-B

This drawing is the property  
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SIZE PART NUMBER

A4

-

SCALE 1:2 WEIGHT

-

SHEET 1/1

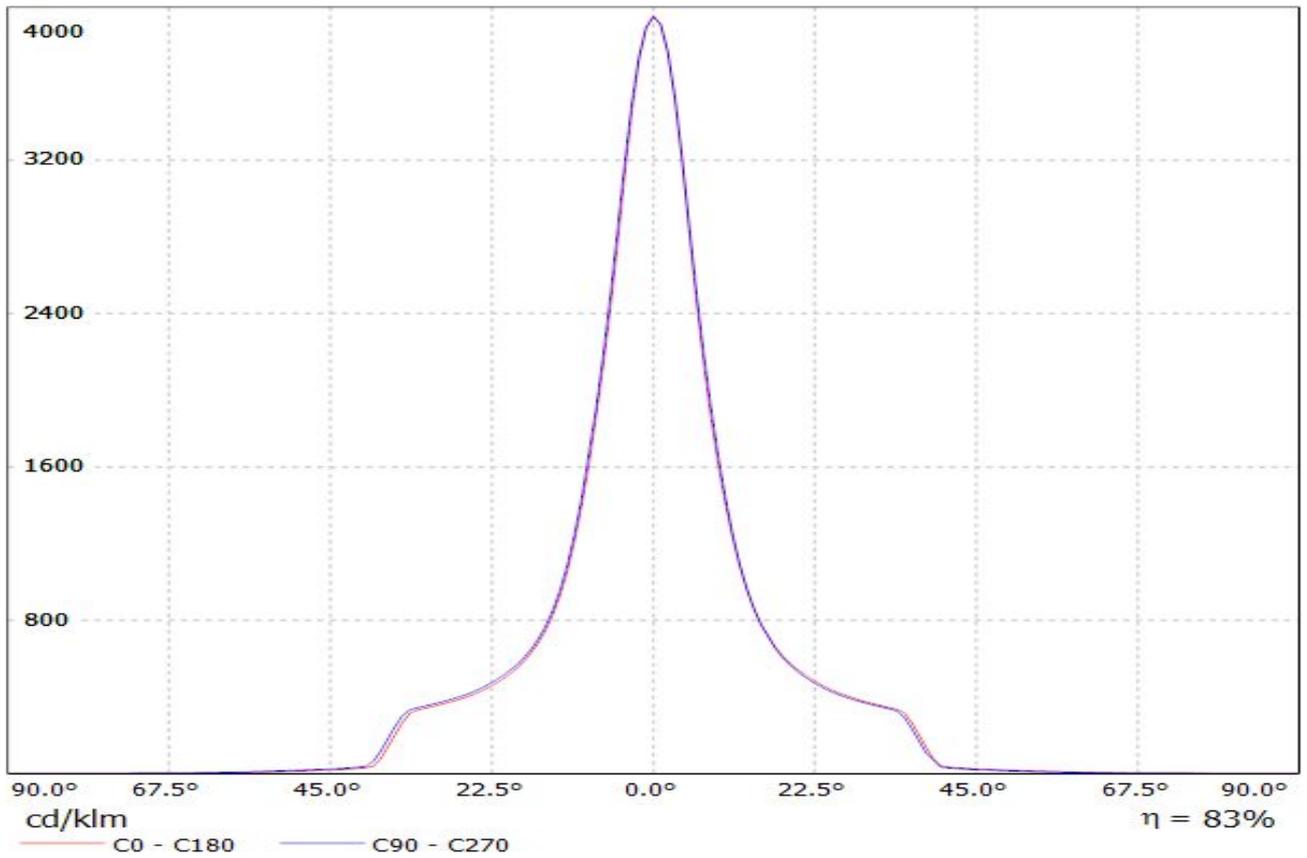
D

A

1

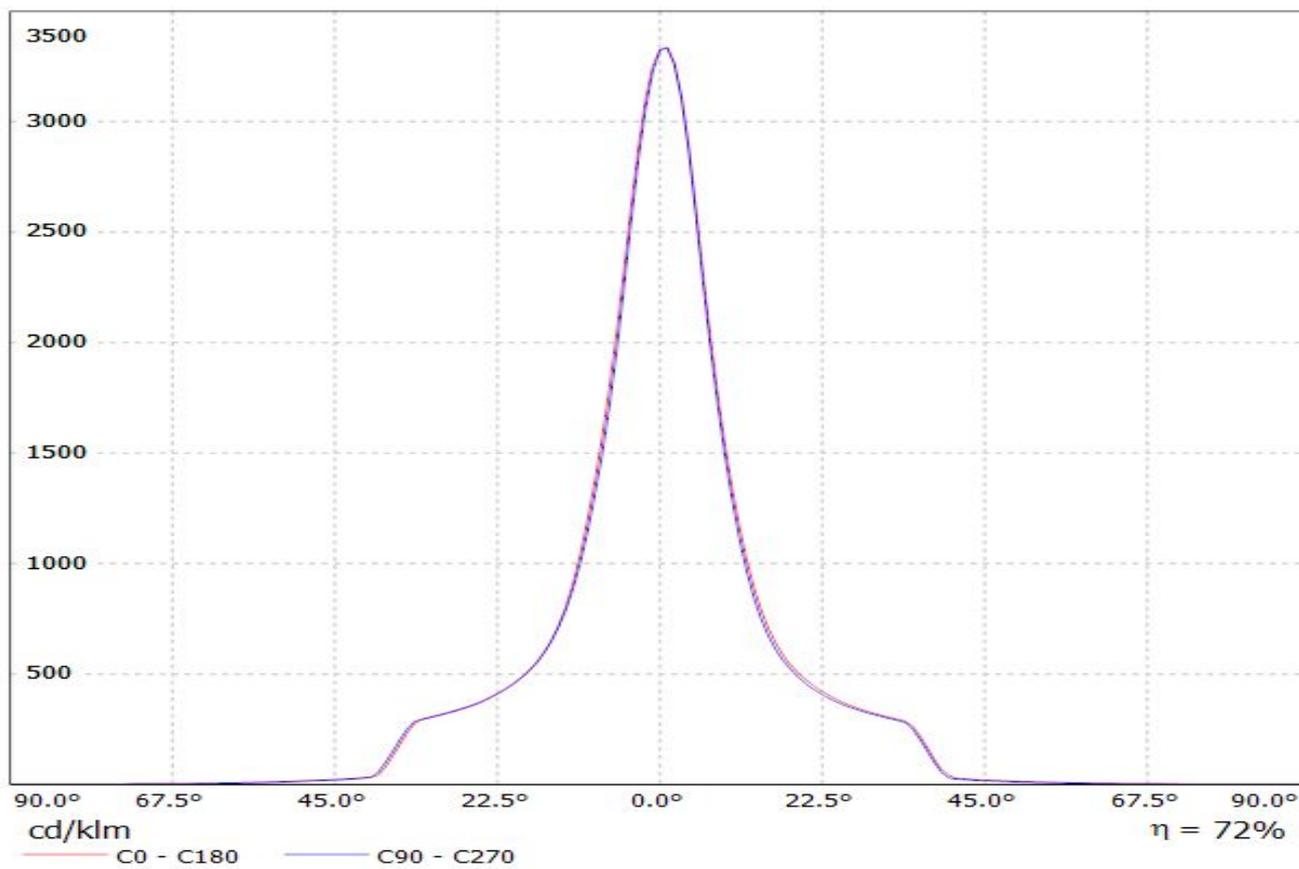
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Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(S13) Eff.83.2%  
Lamps: 1 x Osram\_Soleriq\_S13\_901.003lm@250mA\_P=7.48151W\_I=249.9mA

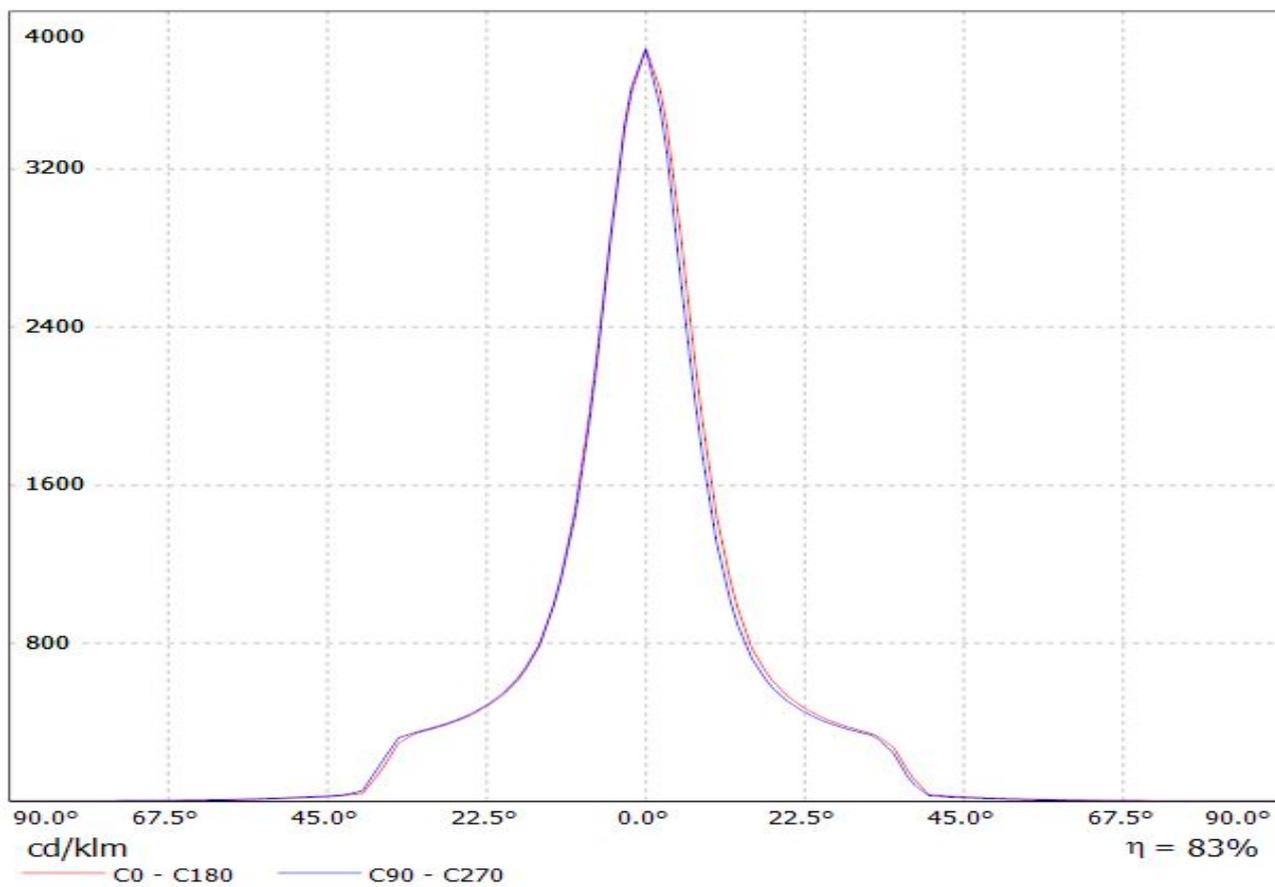


Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(Luxeon\_CoB\_1205)

Lamps: 1 x LUXEON\_COB\_1205\_(LHC1-3080-1205)\_1274.35lm@250mA\_CCT=3000K\_P=11.183W\_I=249.8mA

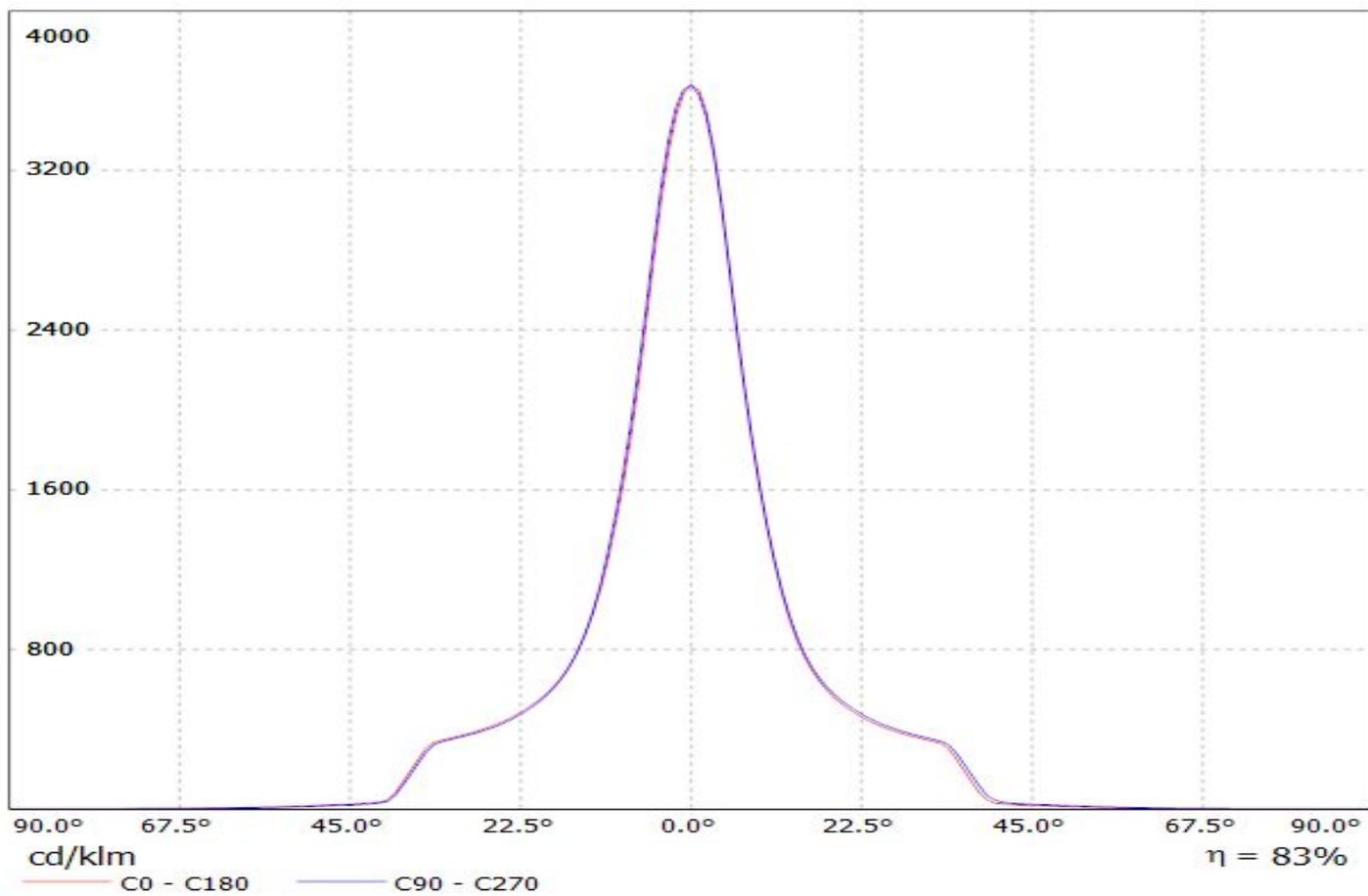


Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(LG\_COB\_10W)  
Lamps: 1 x LG\_COB\_10W\_(LEMWM18580LG00)\_917.757lm@250mA\_P=9.31304W\_I=249.8mA



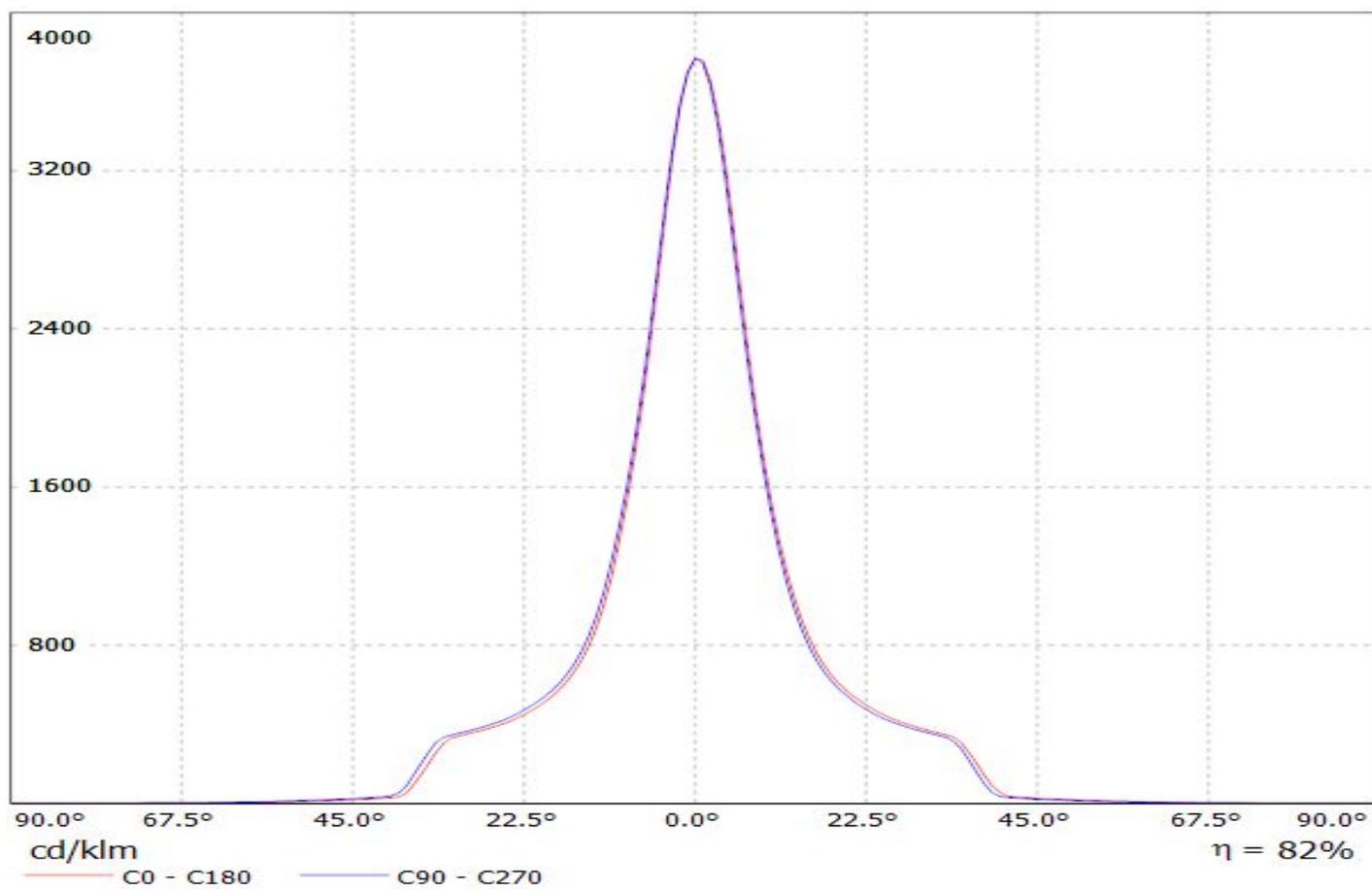
Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CLU034)

Lamps: 1 x Citizen\_CLU034\_(CLU034-1205B8-303M1A2)\_1159.11lm@250mA\_P=8.46586W\_I=249.9mA

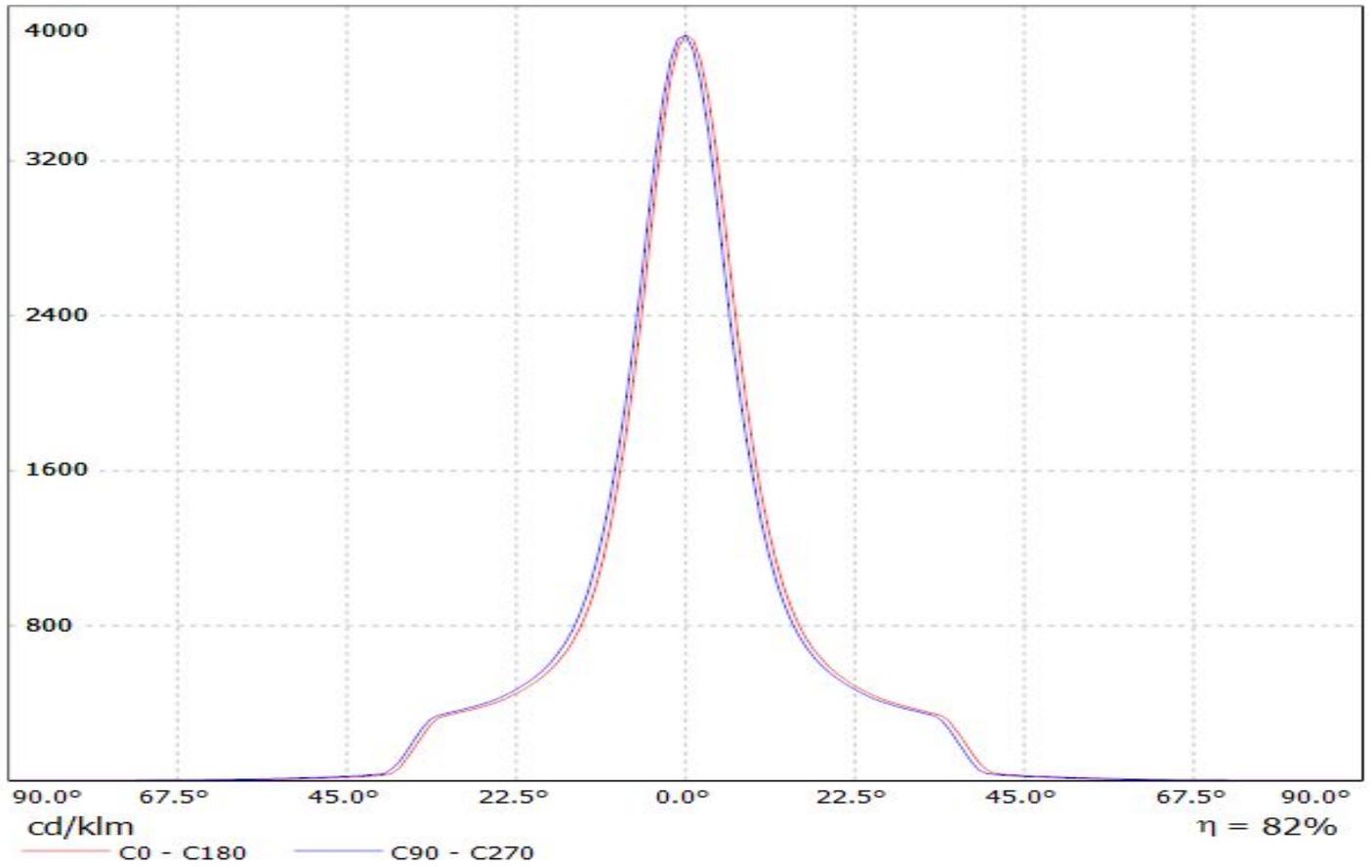


Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(ZC12)

Lamps: 1 x SEOUL\_ZC12\_(SDW82F1C)\_1240.73lm@250mA\_P=8.68405W\_I=249.8mA

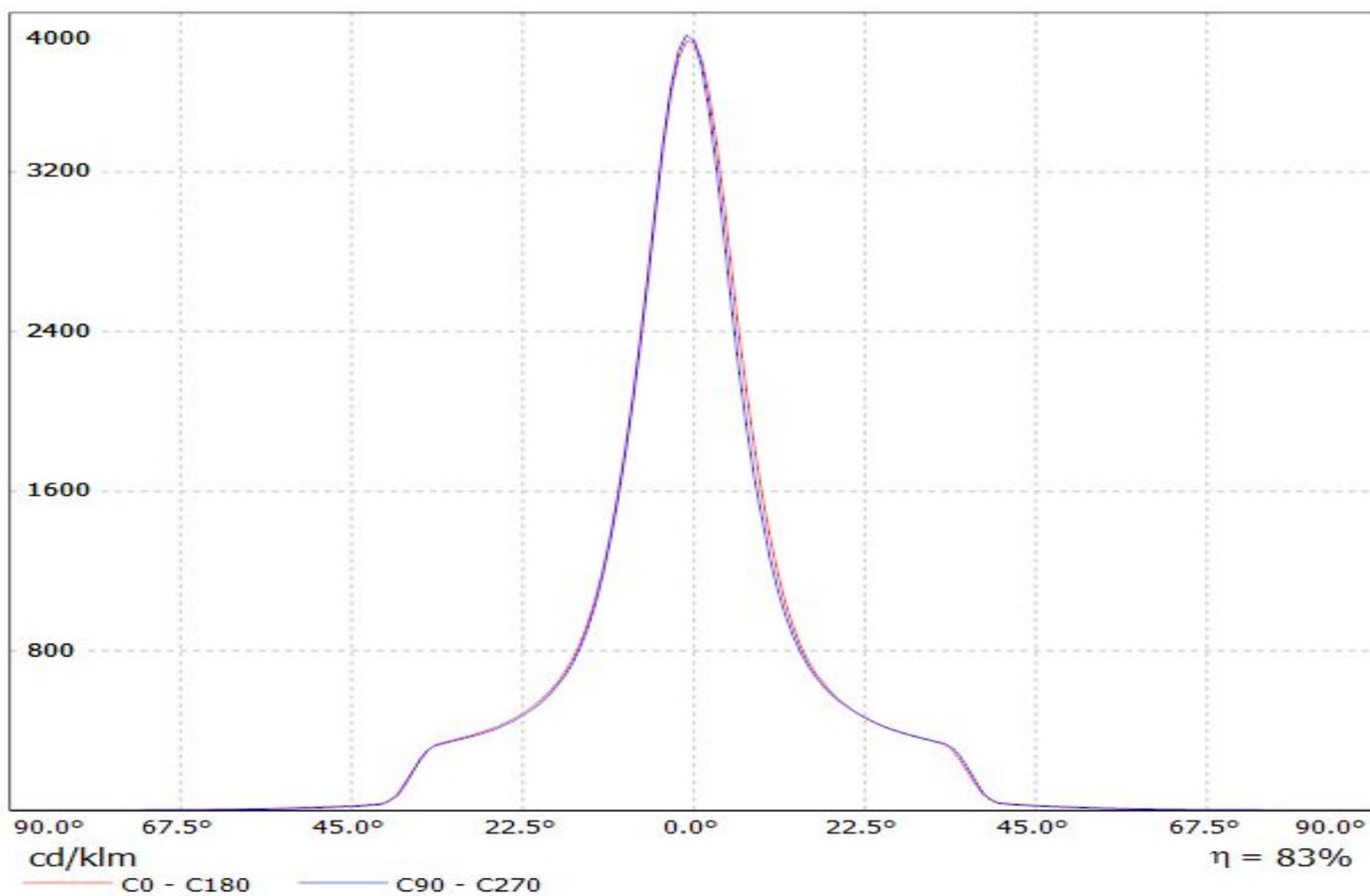


Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CXM-14)  
Lamps: 1 x LUMINUS\_XNOVA\_CXM-14\_(AC00)  
\_1049.18lm@250mA\_CCT=3126K\_P=8.31834W\_I=249.8mA

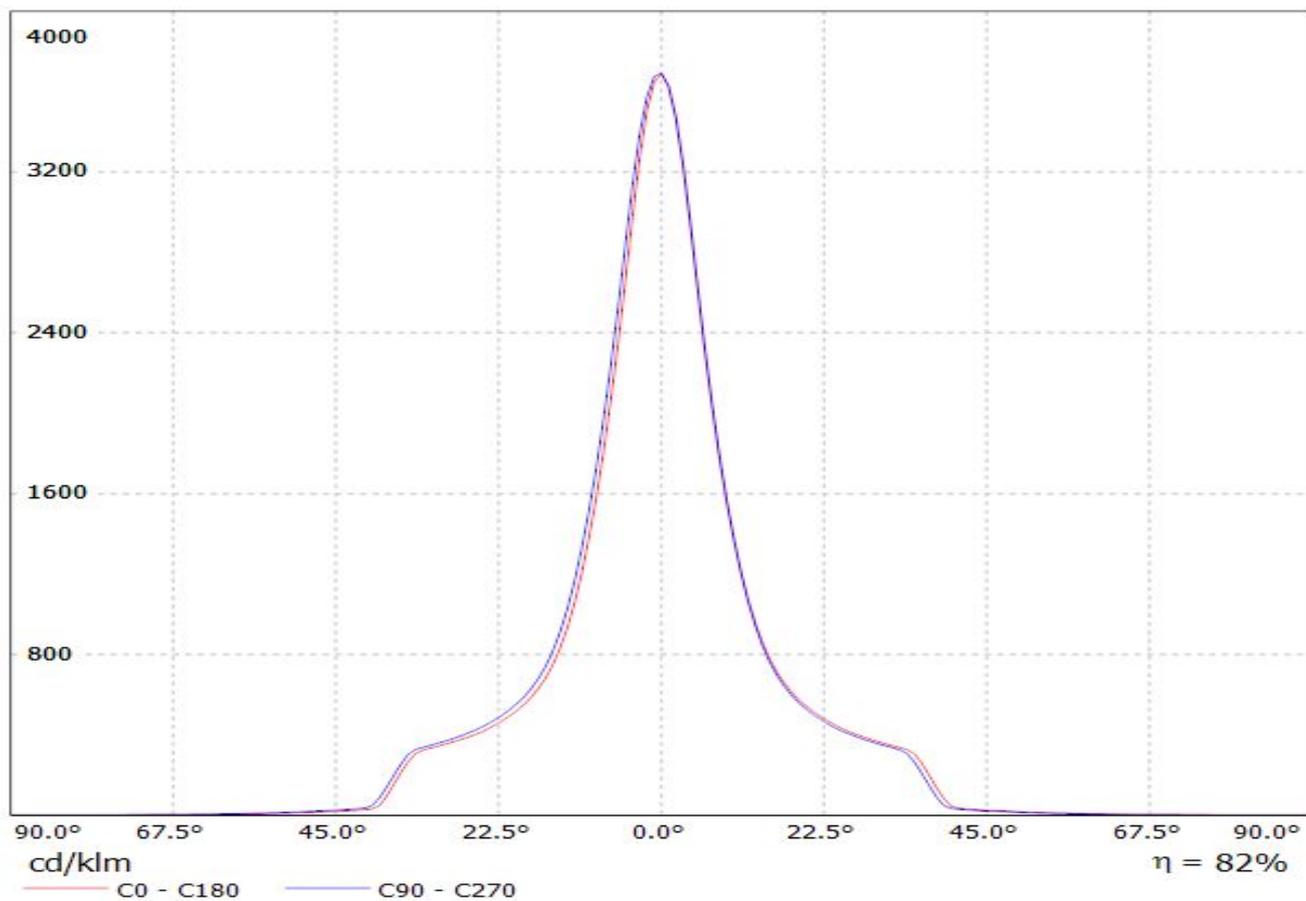


Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(COB-10W) Eff.83.2%

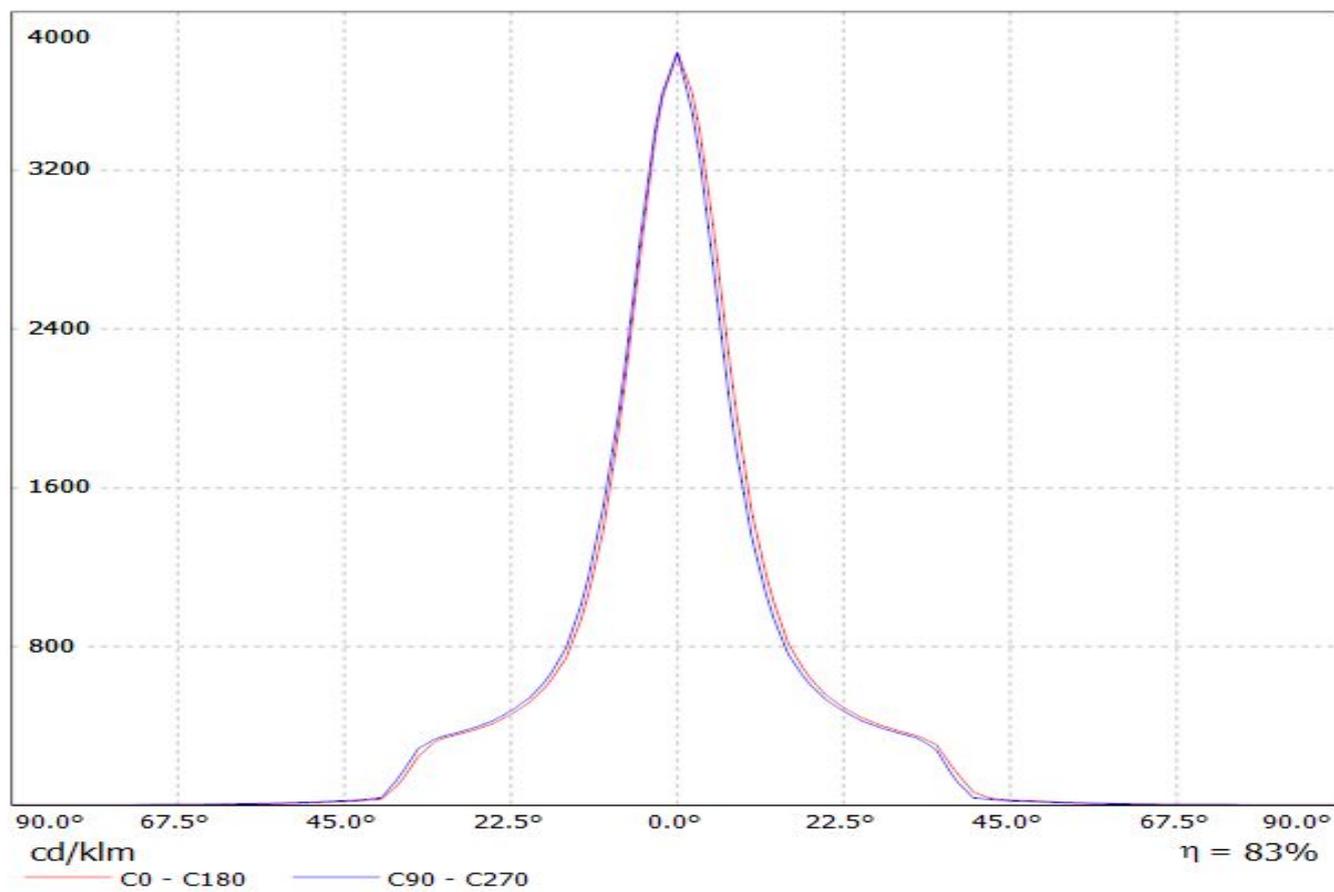
Lamps: 1 x LG\_COB-10W\_1065.85lm@250mA\_CCT=5090K\_P=9.10871W\_I=249.8mA



Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(BXRA\_ES) Eff.82.2%  
Lamps: 1 x Bridgelux\_BXRA\_ES\_287.055lm@250mA\_P=4.09486W\_I=249.9mA

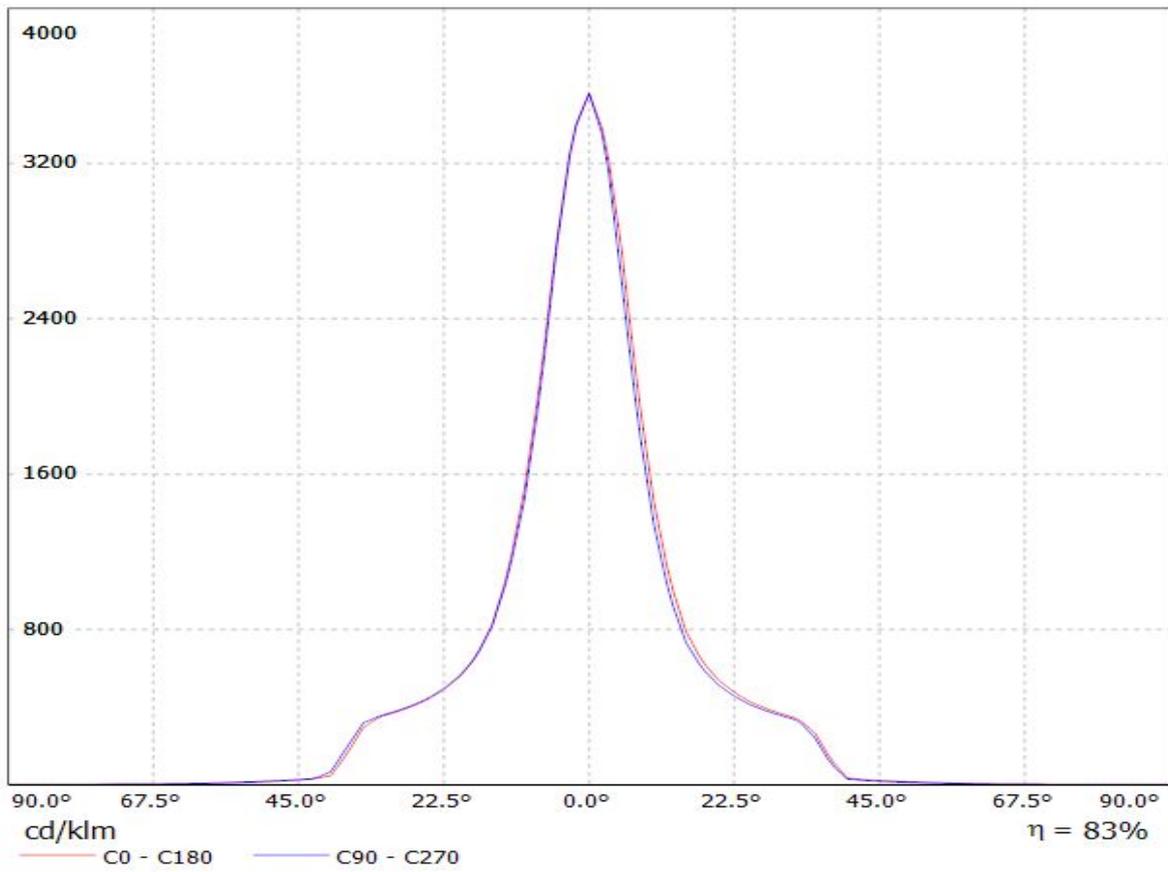


Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CLL030) Eff.82.7%  
Lamps: 1 x Citizen\_CLL030\_1040.57lm@250mA\_P=8.45923W\_I=249.8mA

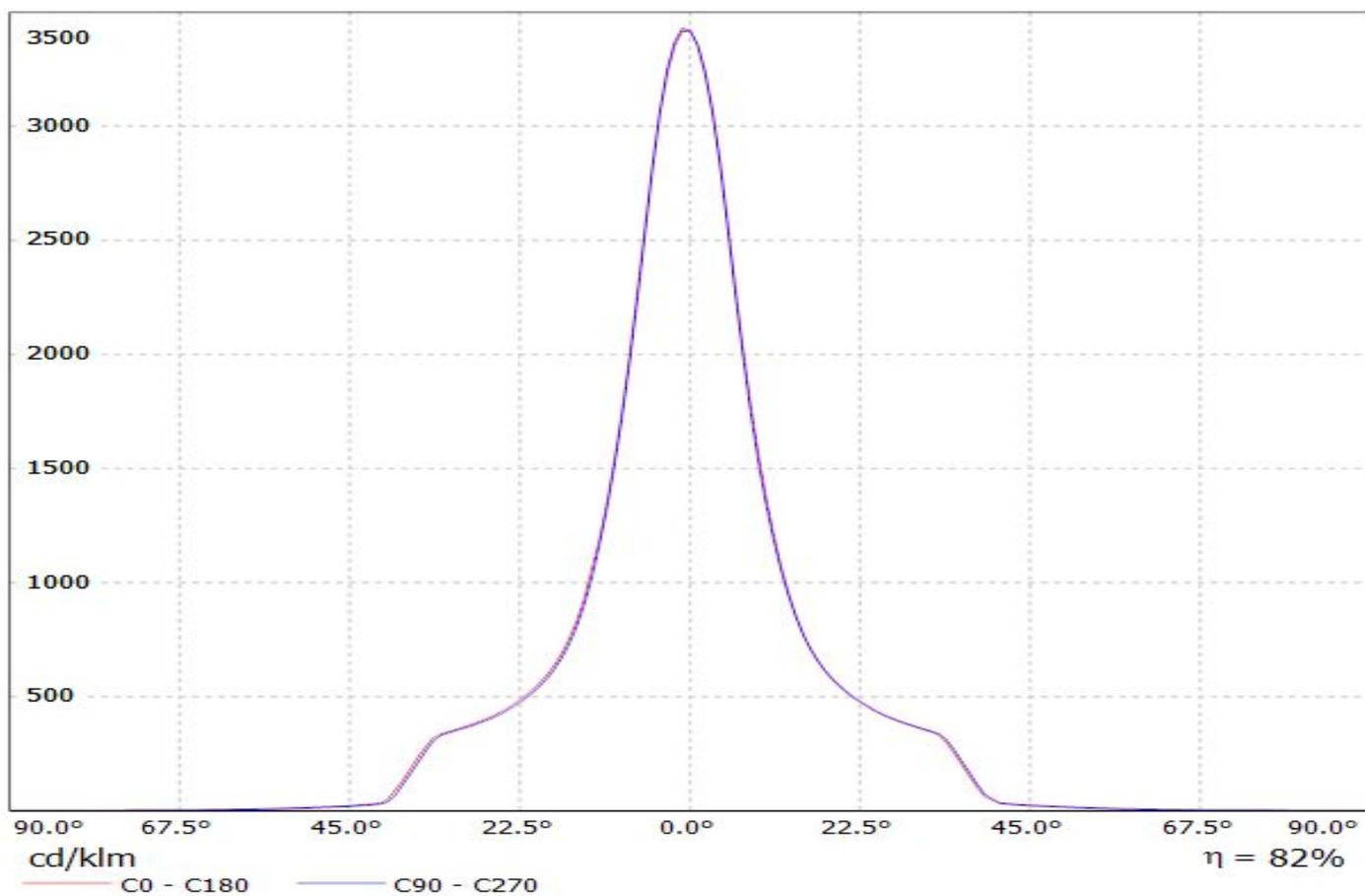


Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(MegaZenigata\_GW6)

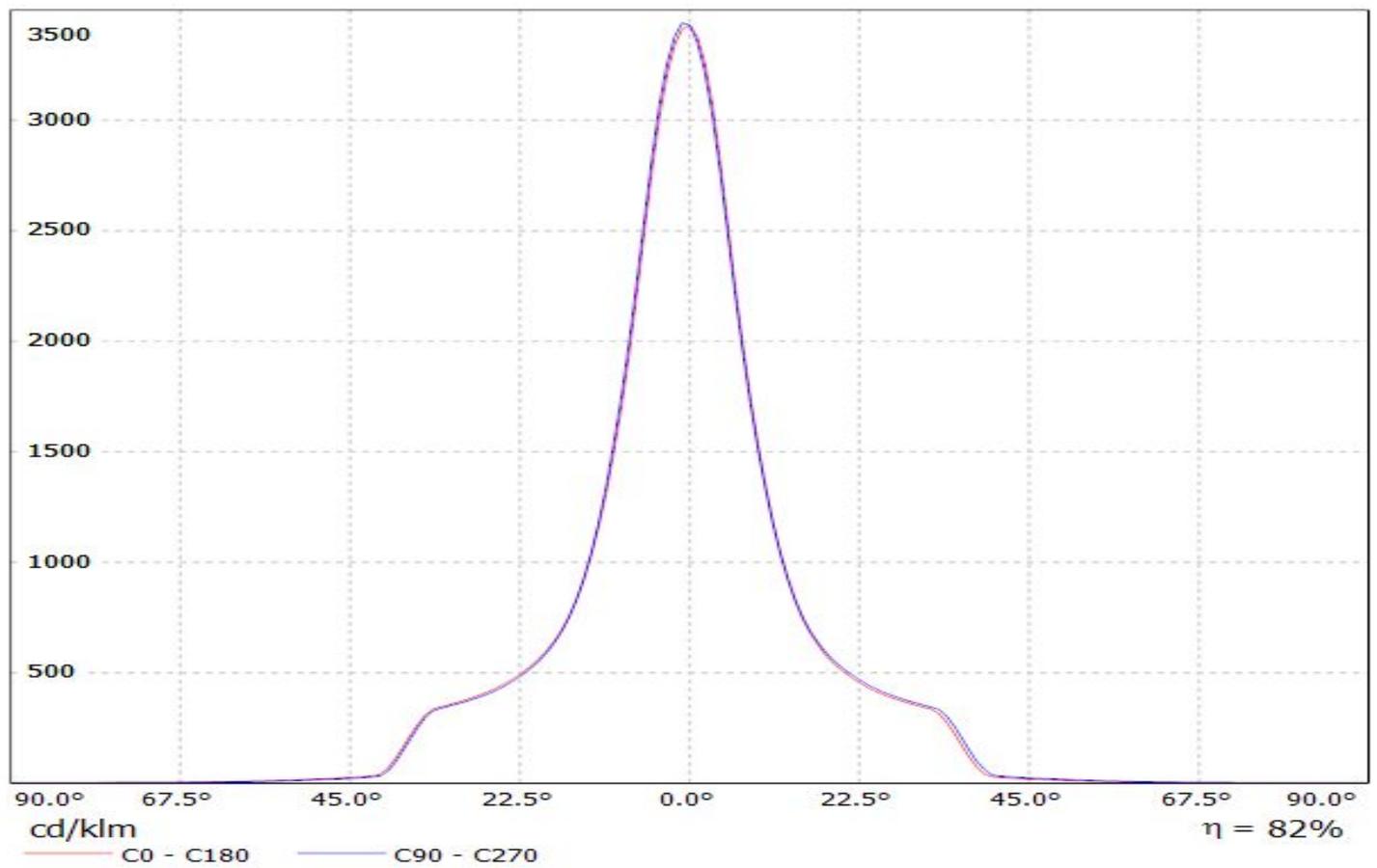
Lamps: 1 x Sharp\_MegaZenigata\_GW6\_(GW6DME30NFC)\_1266.19lm@250mA\_CCT=3038K\_P=11.2151W\_I=250.6mA



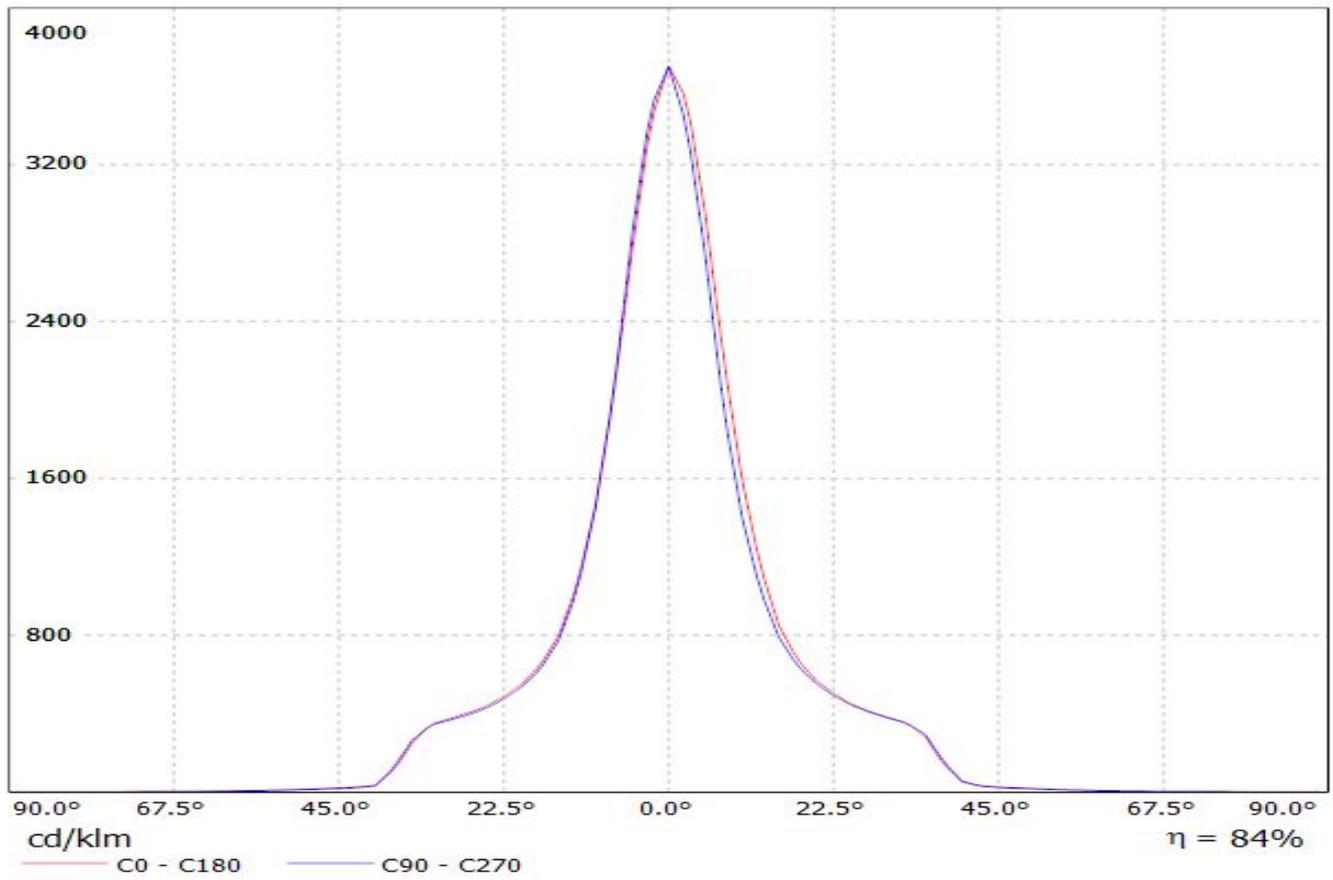
Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(S19) Eff.82.6%  
Lamps: 1 x Osram\_SOLERIQ\_S19\_1434.85lm@250mA\_P=10.5595W\_I=249.8mA



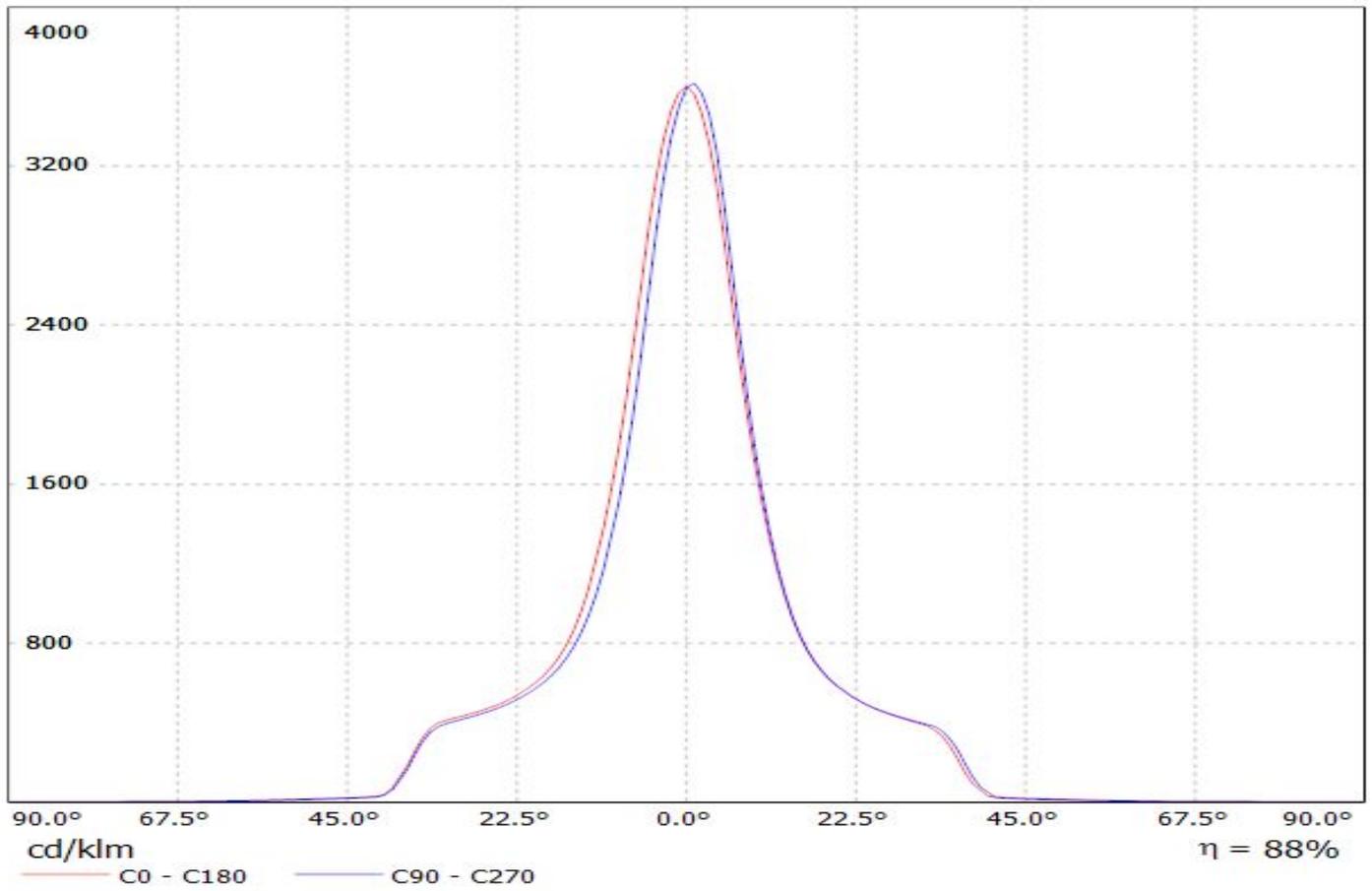
Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(STARK\_SLE\_G3\_LES17)  
Lamps: 1 x TRIDONIC\_STARK\_SLE\_G3\_LES17\_(STARK-SLE-PURE\_G3-17-2000-840-CLA)  
\_1030.26lm@250mA\_CCT=2000K\_P=8.34707W\_I=249.8mA



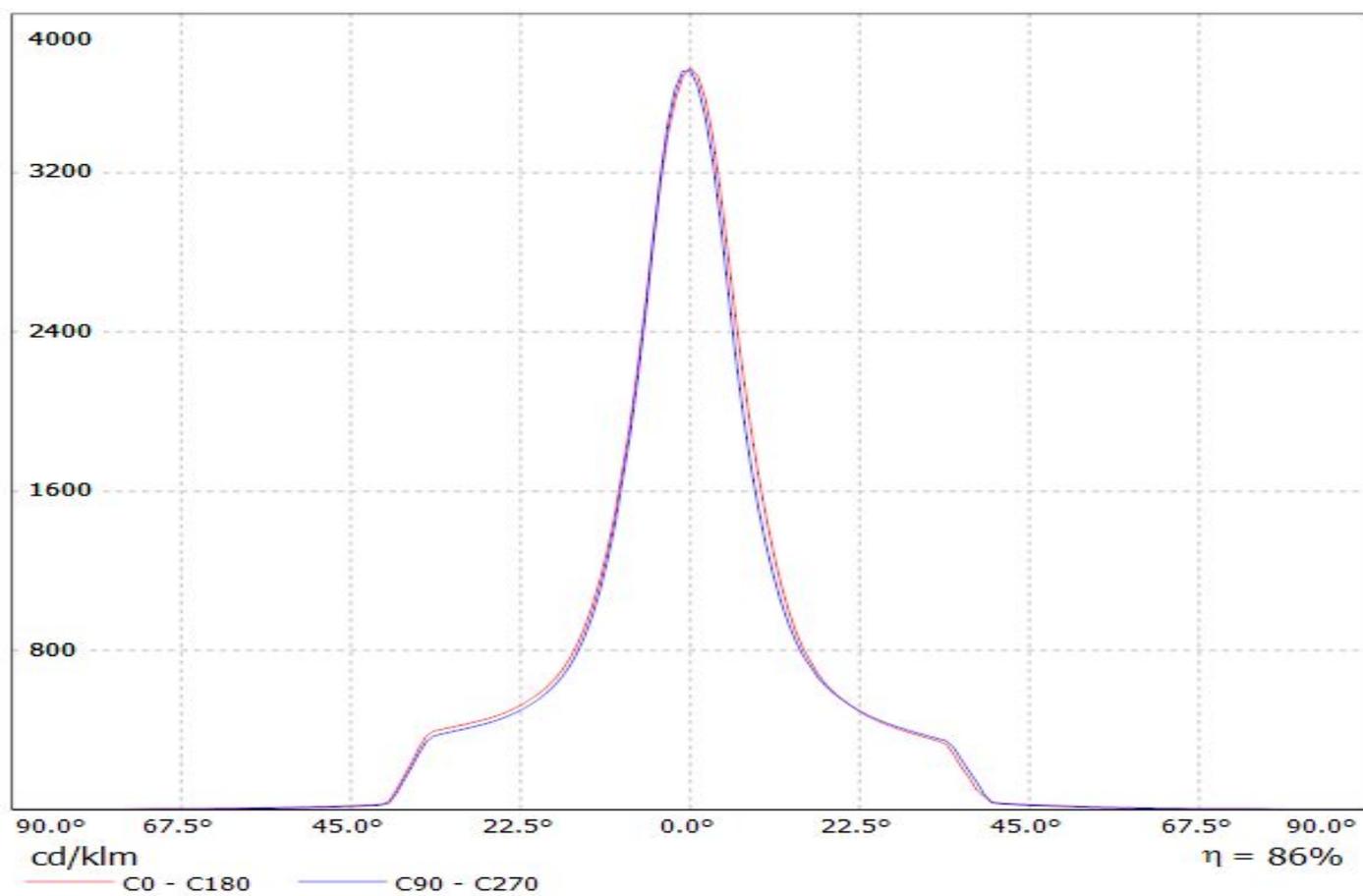
Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(MZ) Eff 84.3%  
Lamps: 1 x Sharp\_Mega\_Zenigata\_1226.07lm@250mA\_P=11.1573W\_I=249.8mA



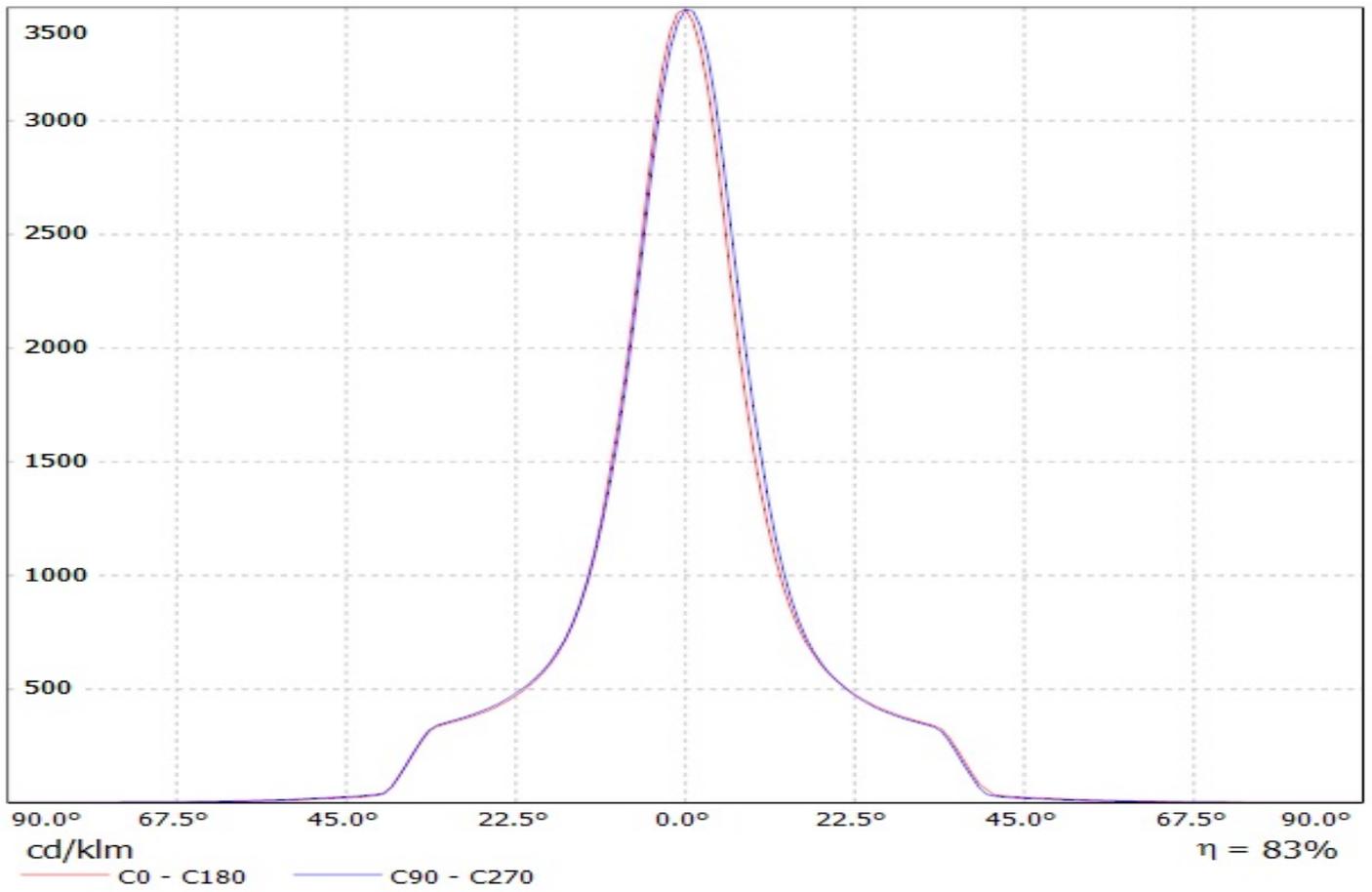
Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(K16) Eff.87.9%  
Lamps: 1 x Luxeon\_K16\_1224.2lm@250mA\_P=10.8991W\_U=249.9mA



Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(K12) Eff.86.5%  
Lamps: 1 x Luxeon\_K12\_933.514lm@250mA\_P=8.21721W\_I=249.9mA

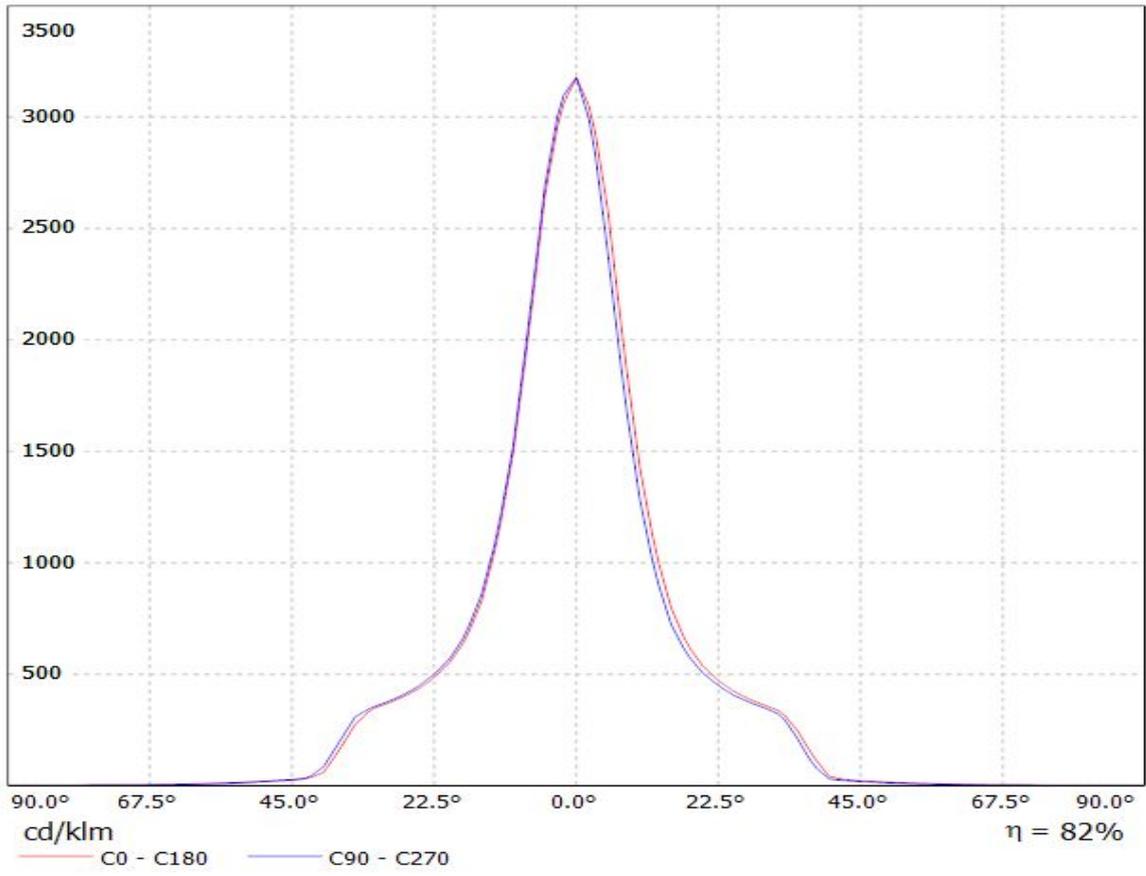


Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(Luxeon\_CoB\_1208)  
Lamps: 1 x Luxeon\_CoB\_1208\_1045.92lm@250mA\_P=8.25314W\_I=249.8mA

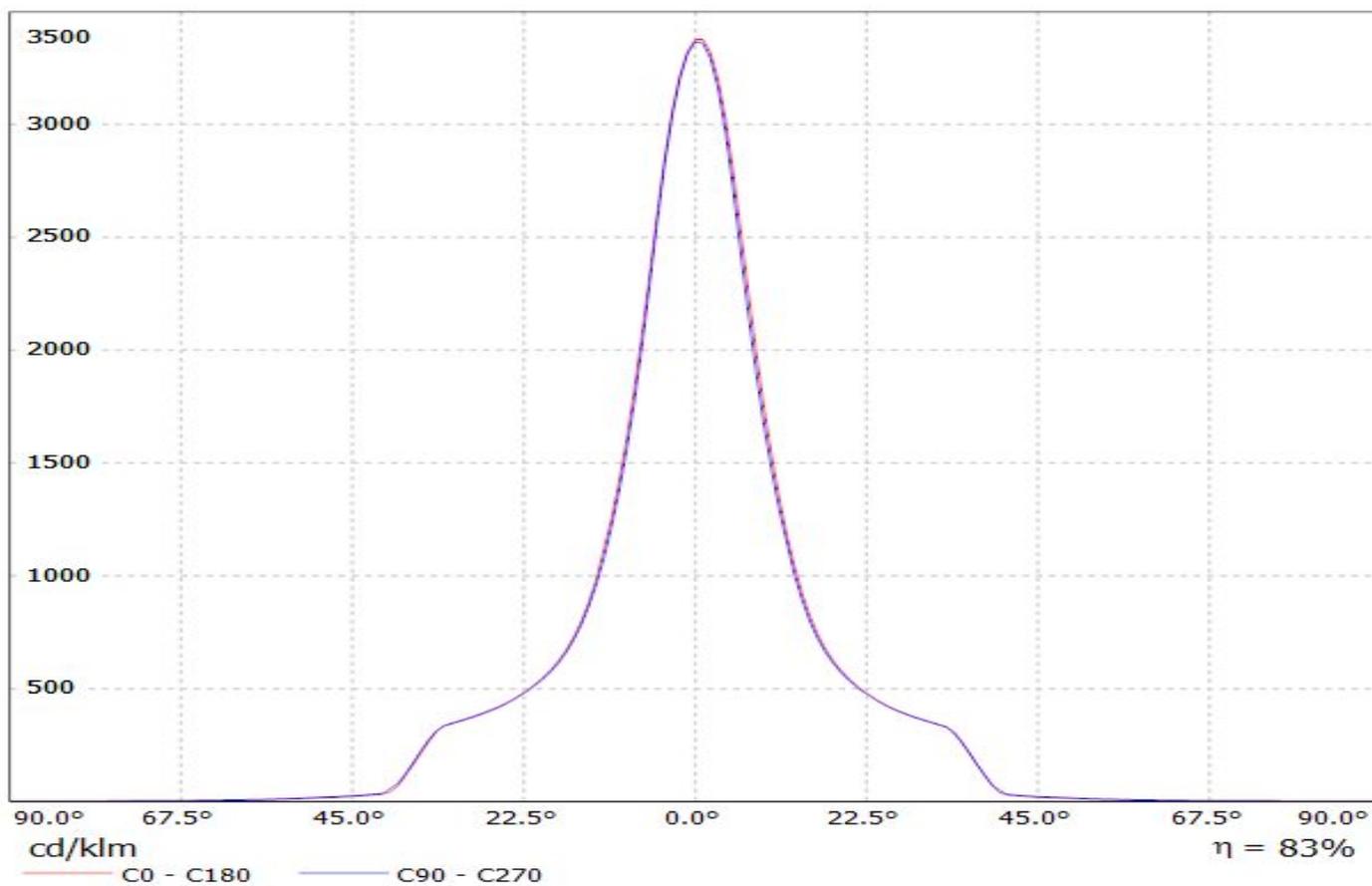


Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CXA2590)

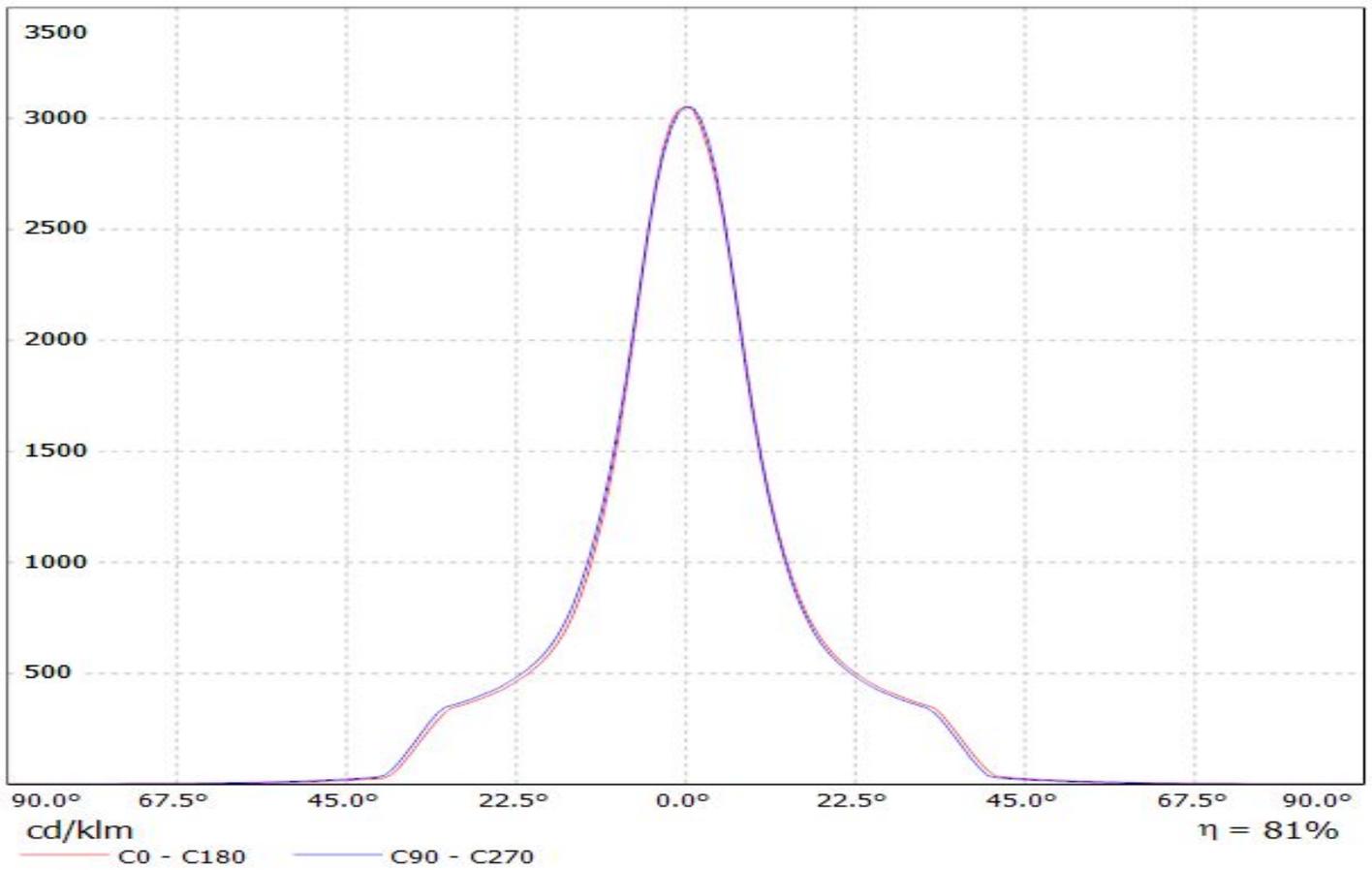
Lamps: 1 x CREE\_CXA2590\_(CXA2590-30F-Z4-RPH-00001)\_837.275lm@100mA\_CCT=3000K\_P=6.36316W\_I=100.1mA



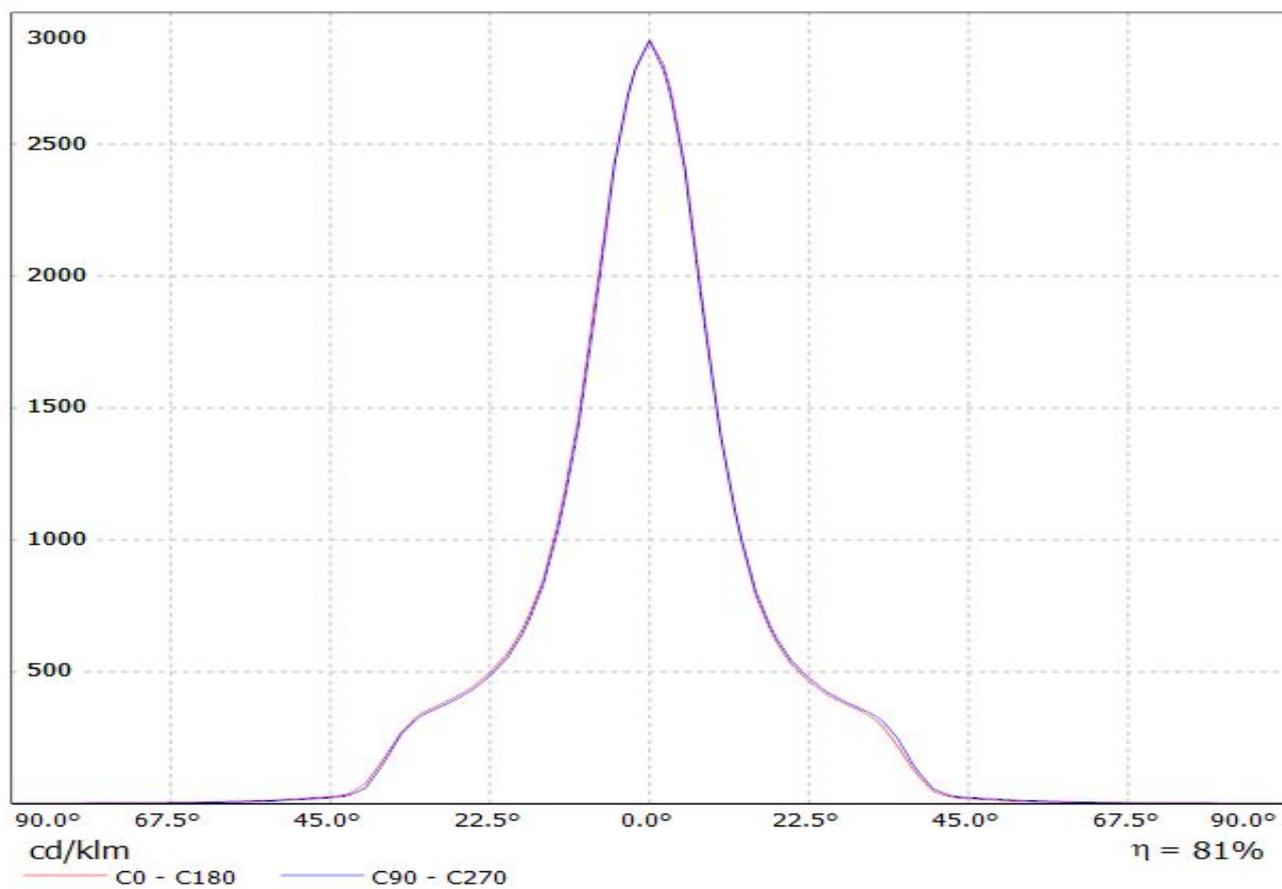
Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(Soleriq S19) Eff.82.6%  
Lamps: 1 x OSRAM\_SOLERIQ\_S19\_(GW\_KAHJB1.EM)  
\_1445.44lm@250mA\_CCT=3000K\_P=10.558W\_I=249.8mA



Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(Luxeon\_CoB\_1211)  
Lamps: 1 x LUXEON\_COB\_1211\_(LHC1-2790-1211)  
\_923.583lm@250mA\_CCT=2700K\_P=8.00909W\_I=249.8mA

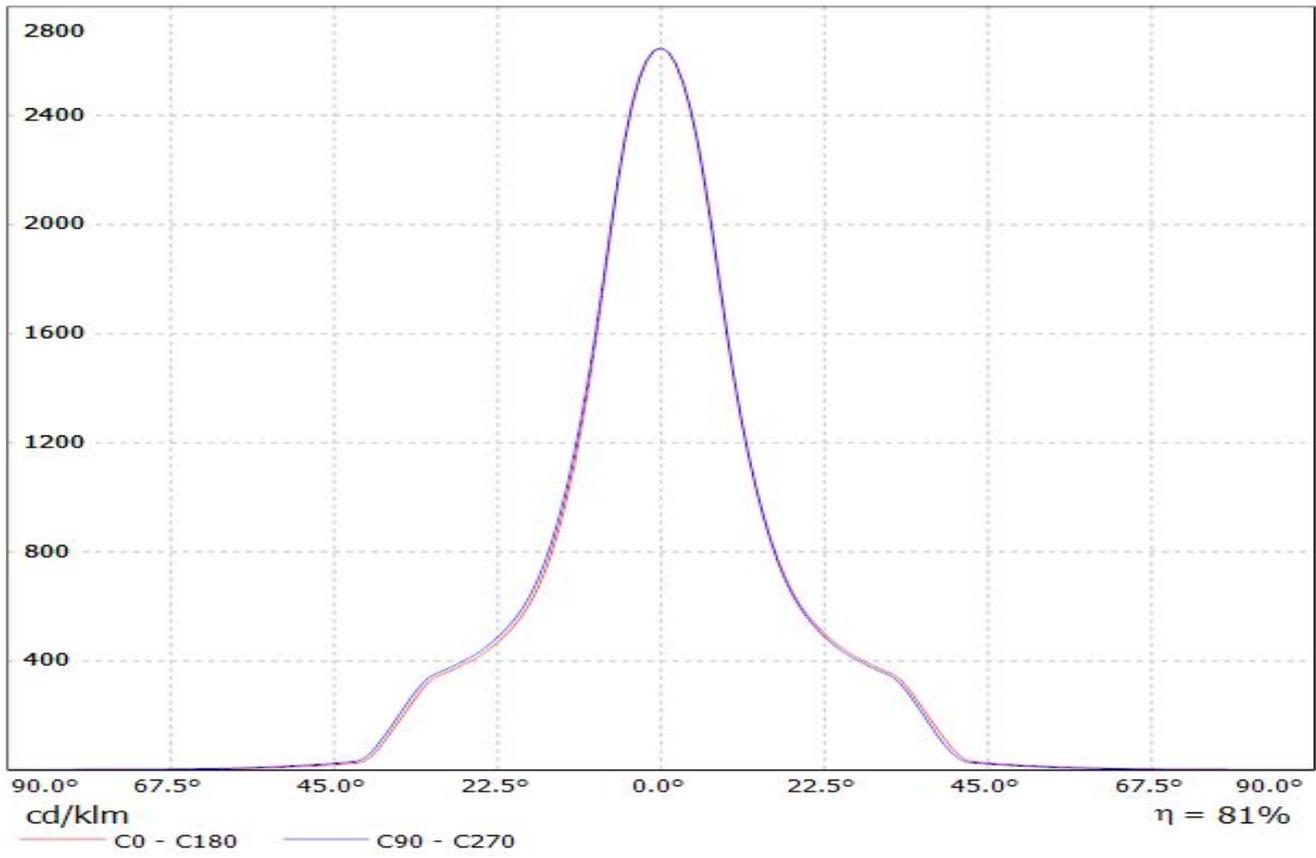


Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(E30) Eff.80.7%  
Lamps: 1 x Osram\_Solericq\_E30\_1364.86lm@250mA\_P=10.2445W\_I=249.8mA



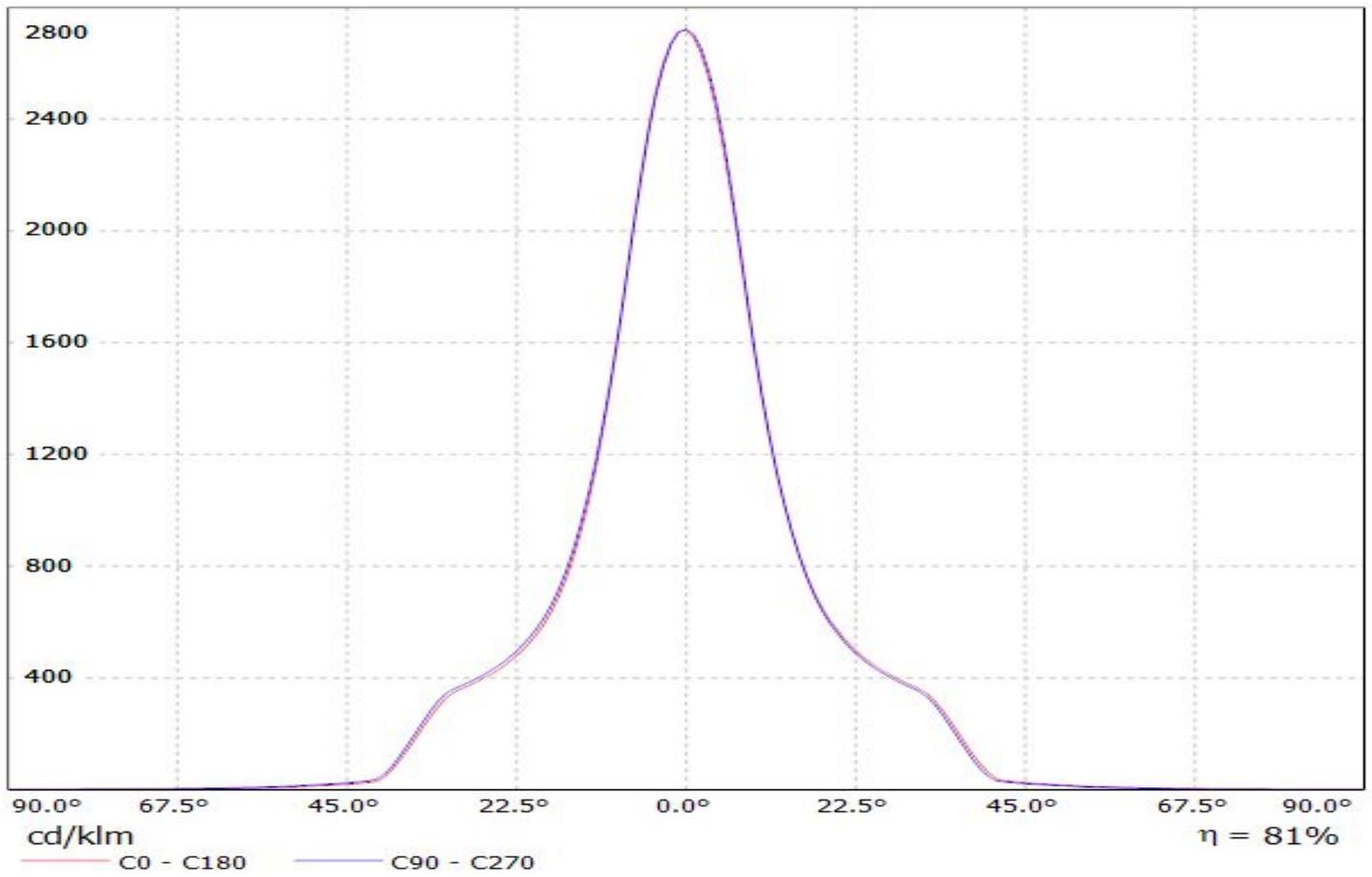
Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CLU044)

Lamps: 1 x Citizen\_CLU044\_(CLU044-1212B8-303M1A2)\_1300.9lm@250mA\_P=8.14849W\_I=249.9mA



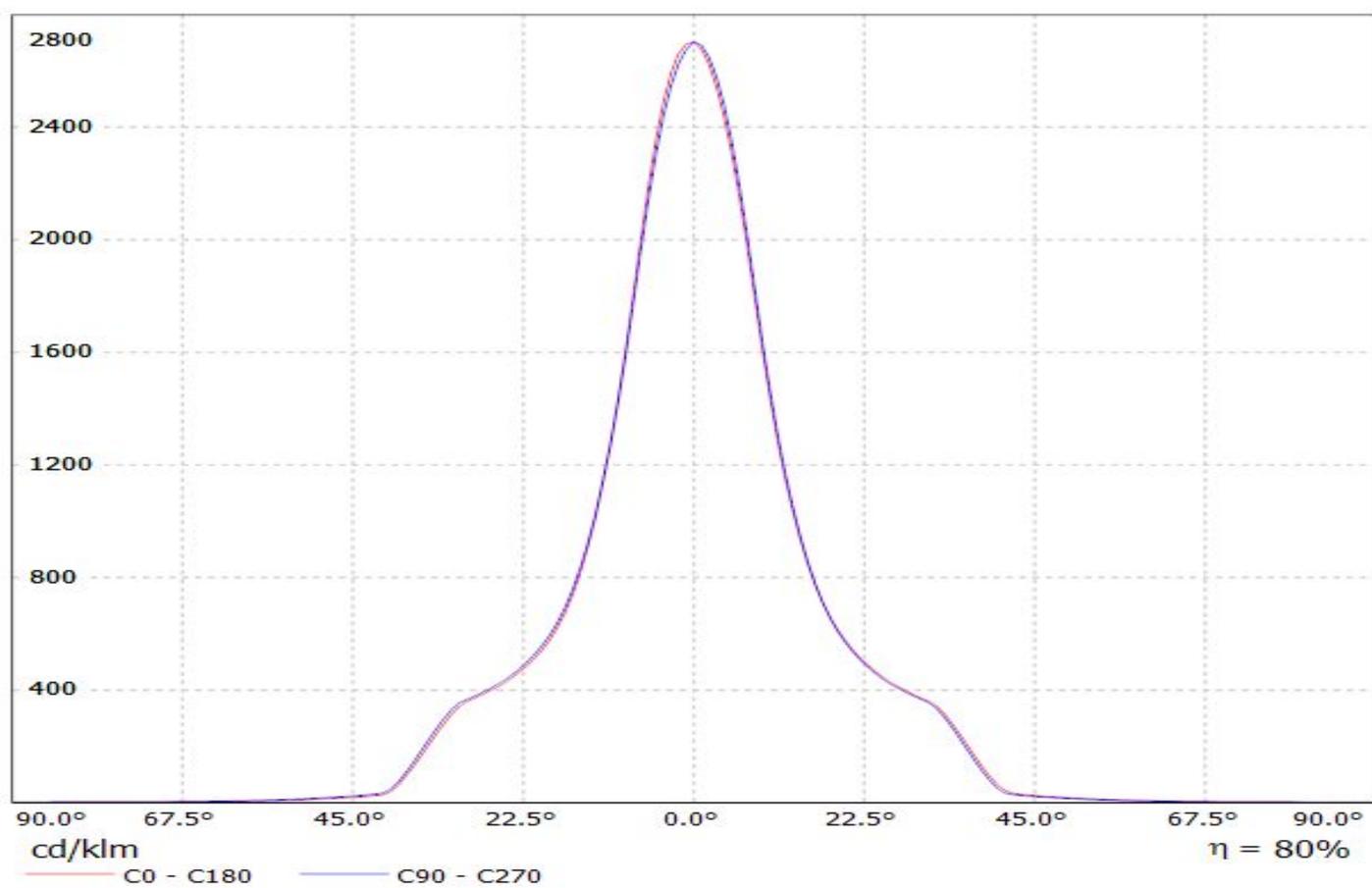
Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(ZC40)

Lamps: 1 x SEOUL\_ZC40\_(SBWW5F1B)\_1176.6lm@250mA\_P=8.22171W\_I=249.9mA

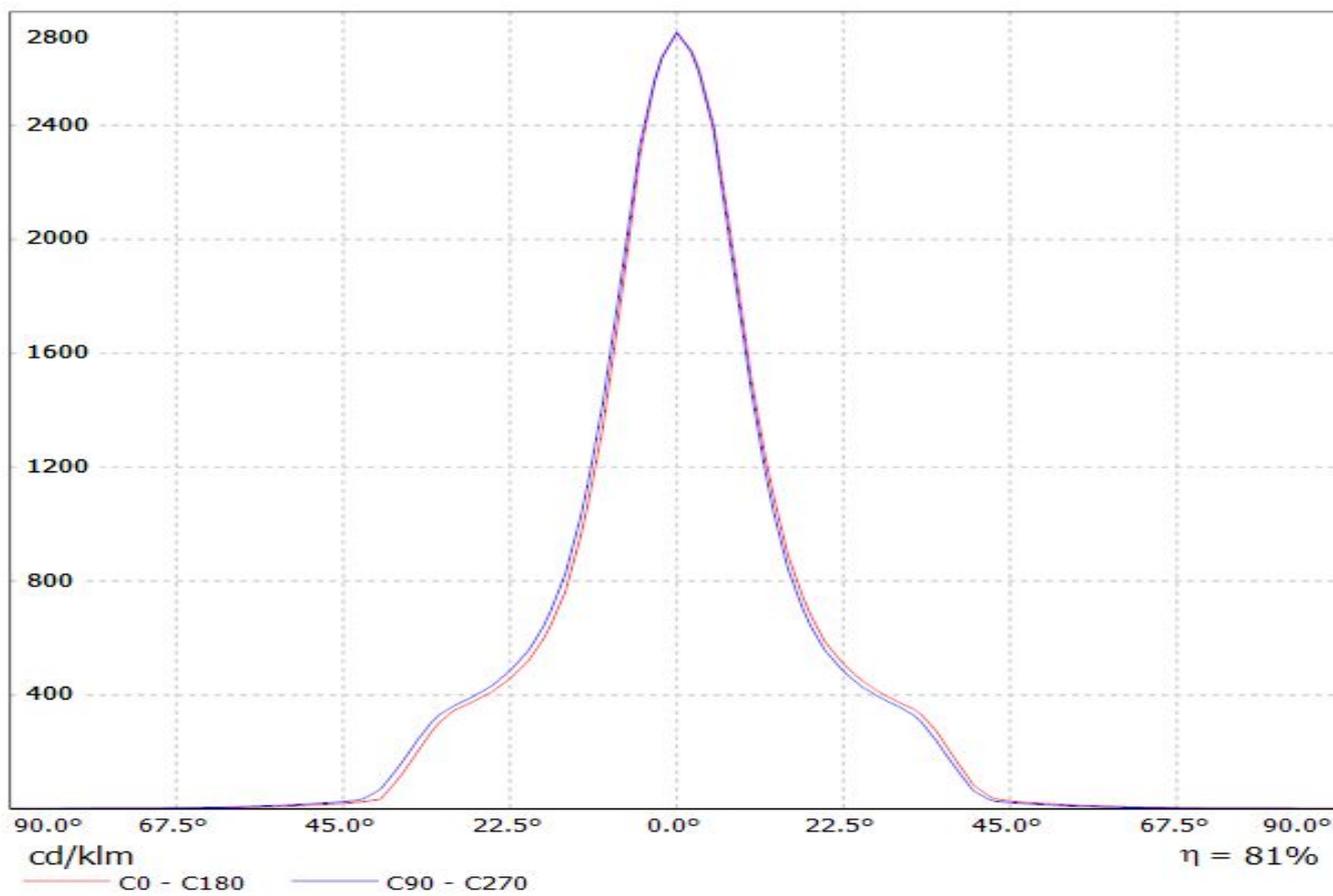


Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CXA30)

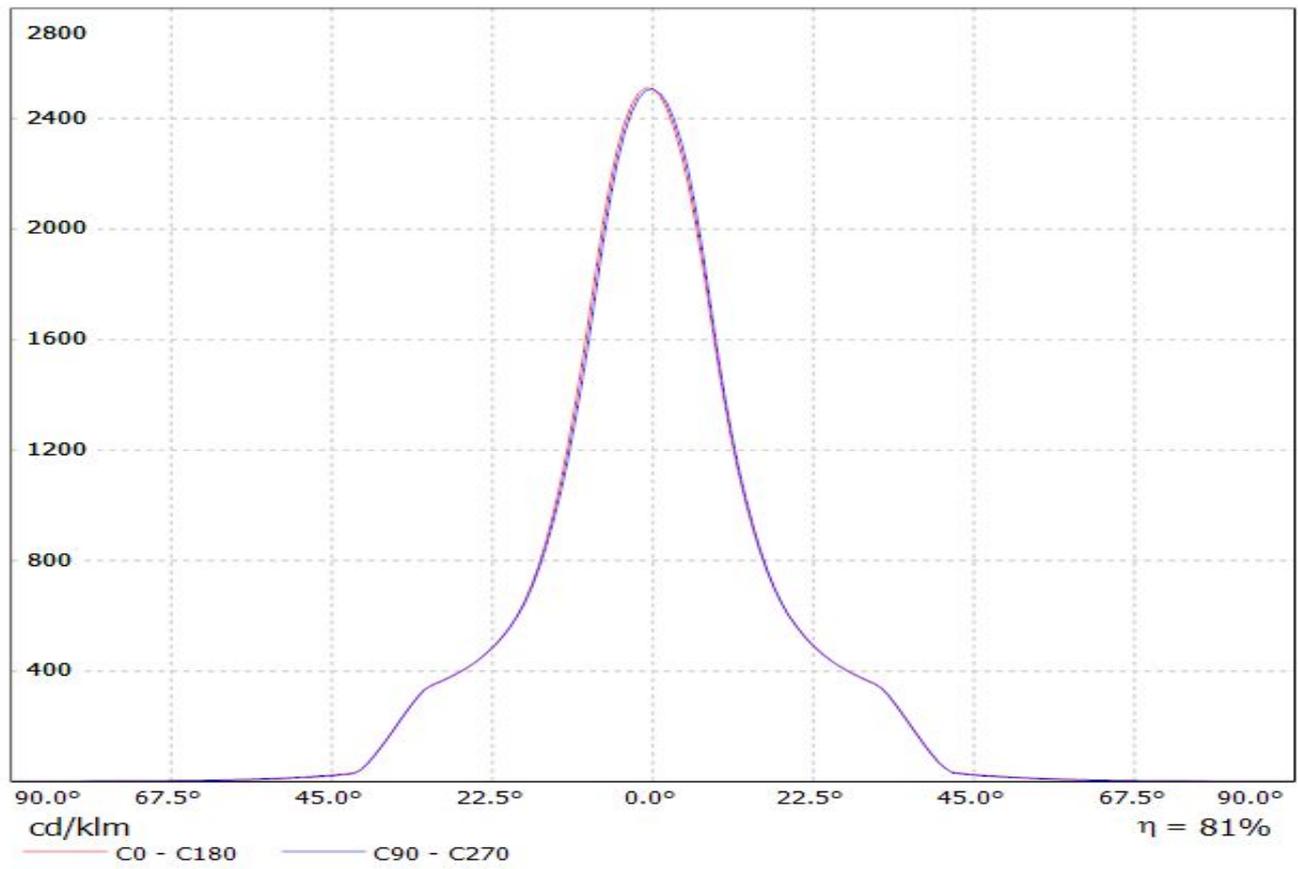
Lamps: 1 x Cree\_CXA30\_(CXA3050-3C0-Y2-N0H)\_1395.36lm@250mA\_P=8.20318W\_I=249.8mA



Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CLL040) Eff.81.0%  
Lamps: 1 x Citizen\_CLL040\_1011.32lm@250mA\_P=8.24545W\_I=249.9mA

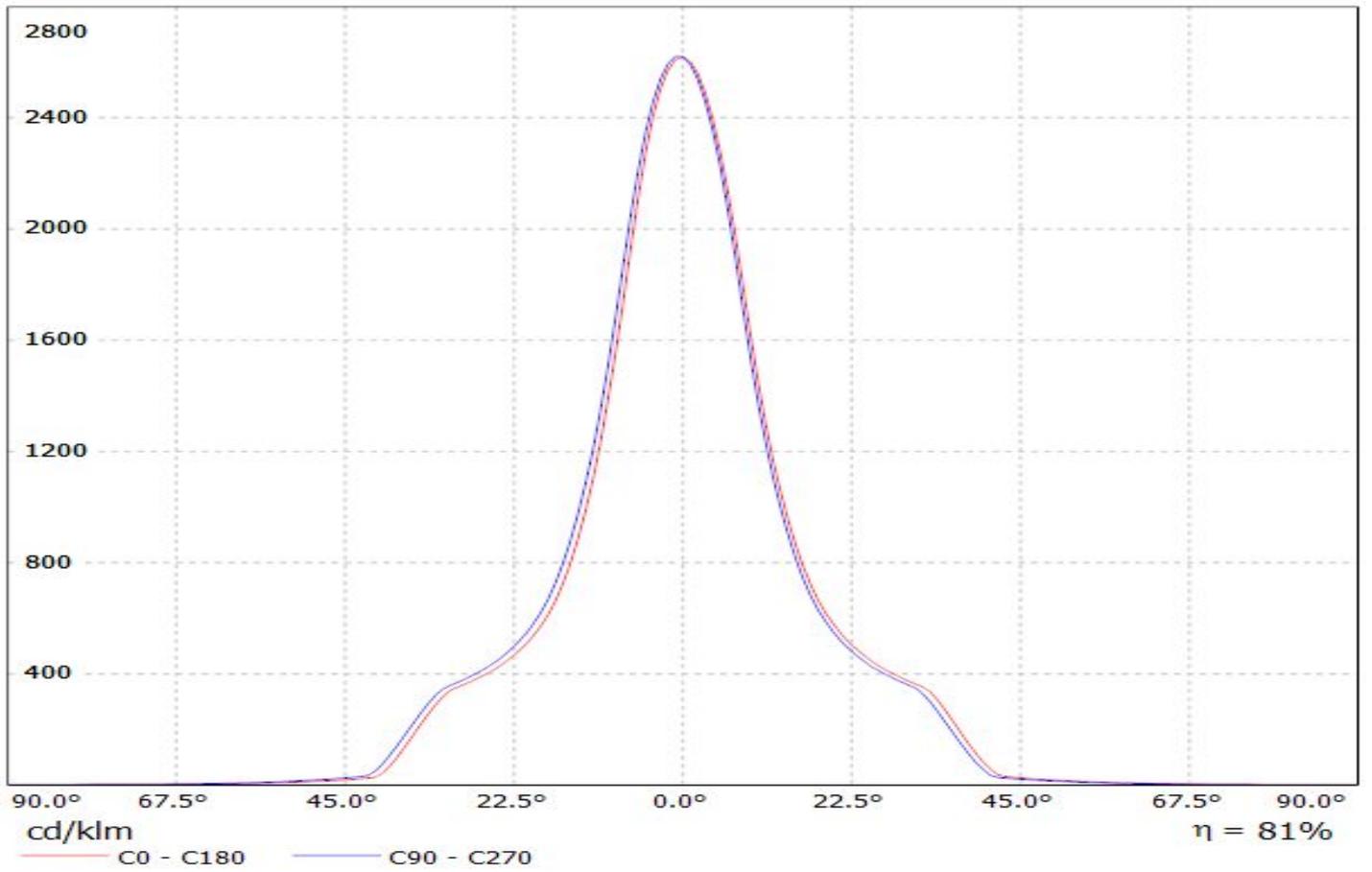


Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CXM-22) Eff.80.7%  
Lamps: 1 x LUMINUS\_CXM-22\_1221.8lm@250mA\_P=8.00809W\_CCT=3000K\_I=249.8mA

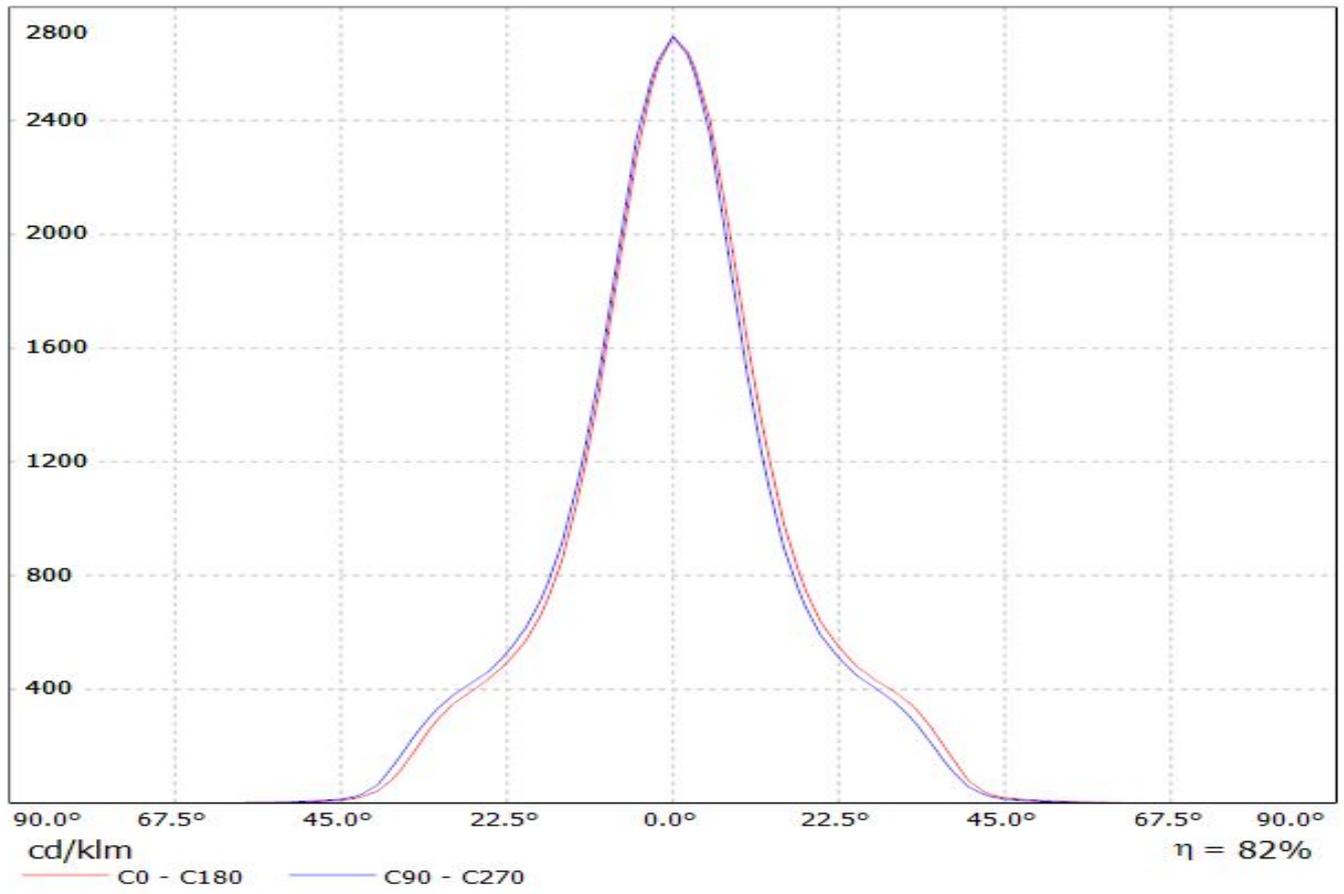


Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(COB\_40W)

Lamps: 1 x LG\_COB\_40W\_1163.31lm@250mA\_CCT=3000K\_P=8.04906W\_I=249.8mA

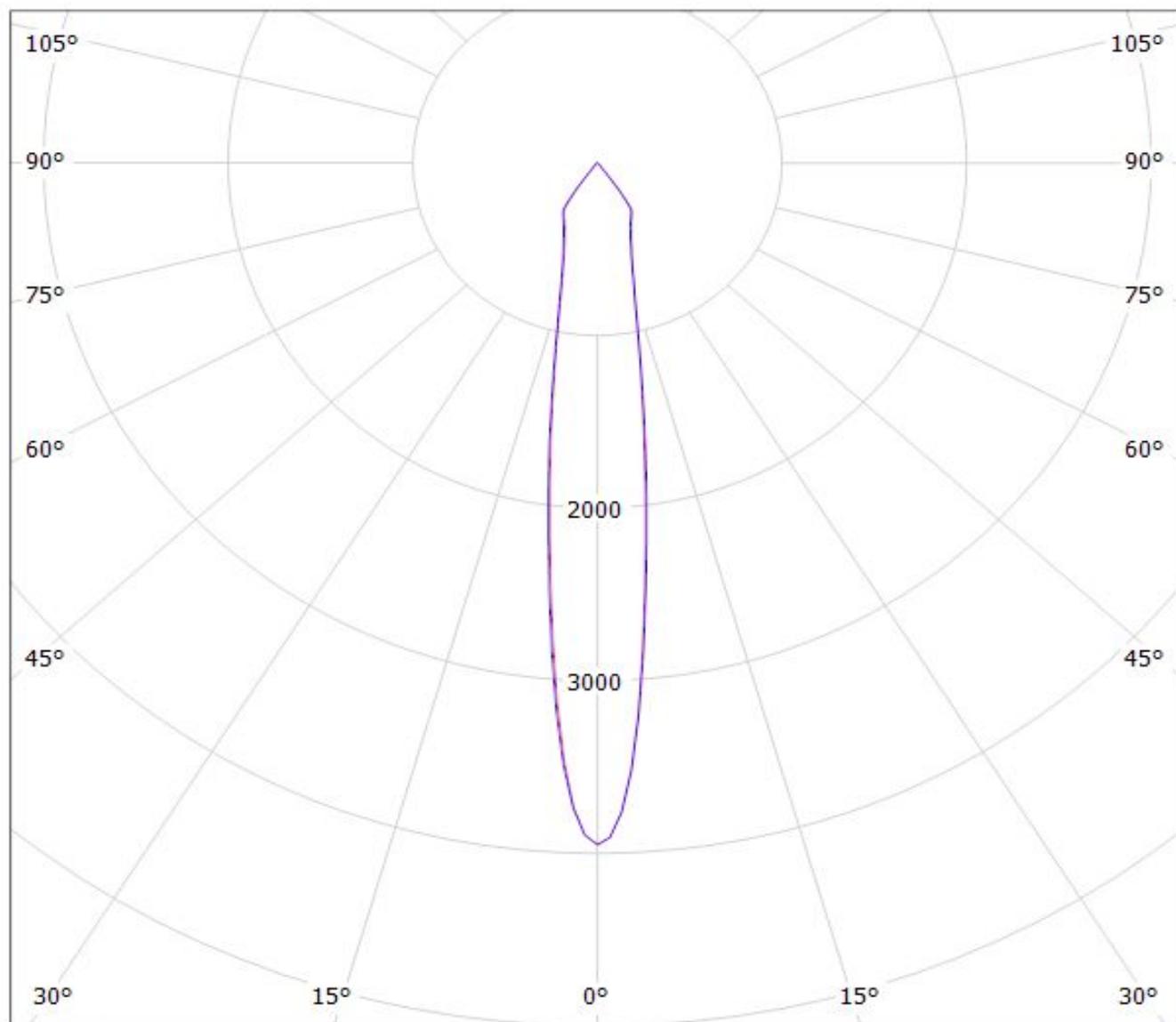


Luminaire: Ledil Oy F13663\_ANGELA-M-B\_(ZC-40) Efficiency=81%  
Lamps: 1 x Seoul ZC-40 (SBWW5F1B) 1153lm @ 250mA CCT= P=8.25W I=250mA



Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(S13) Eff.83.2%

Lamps: 1 x Osram\_Solericq\_S13\_901.003lm@250mA\_P=7.48151W\_I=249.9mA



cd/klm

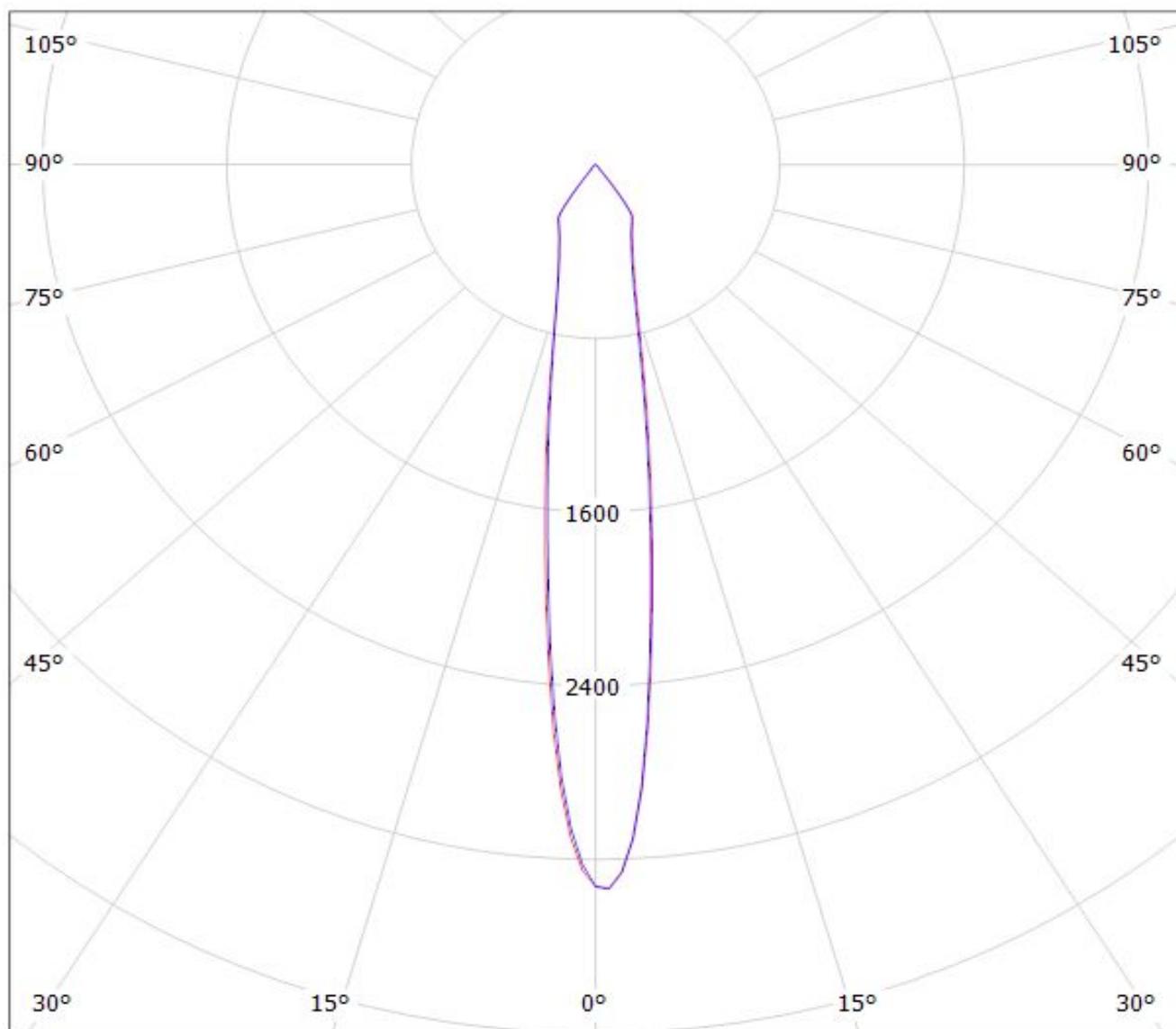
— C0 - C180

— C90 - C270

$\eta = 83\%$

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(Luxeon\_CoB\_1205)

Lamps: 1 x LUXEON\_COB\_1205\_(LHC1-3080-1205)\_1274.35lm@250mA\_CCT=3000K\_P=11.183W\_I=249.8mA



cd/klm

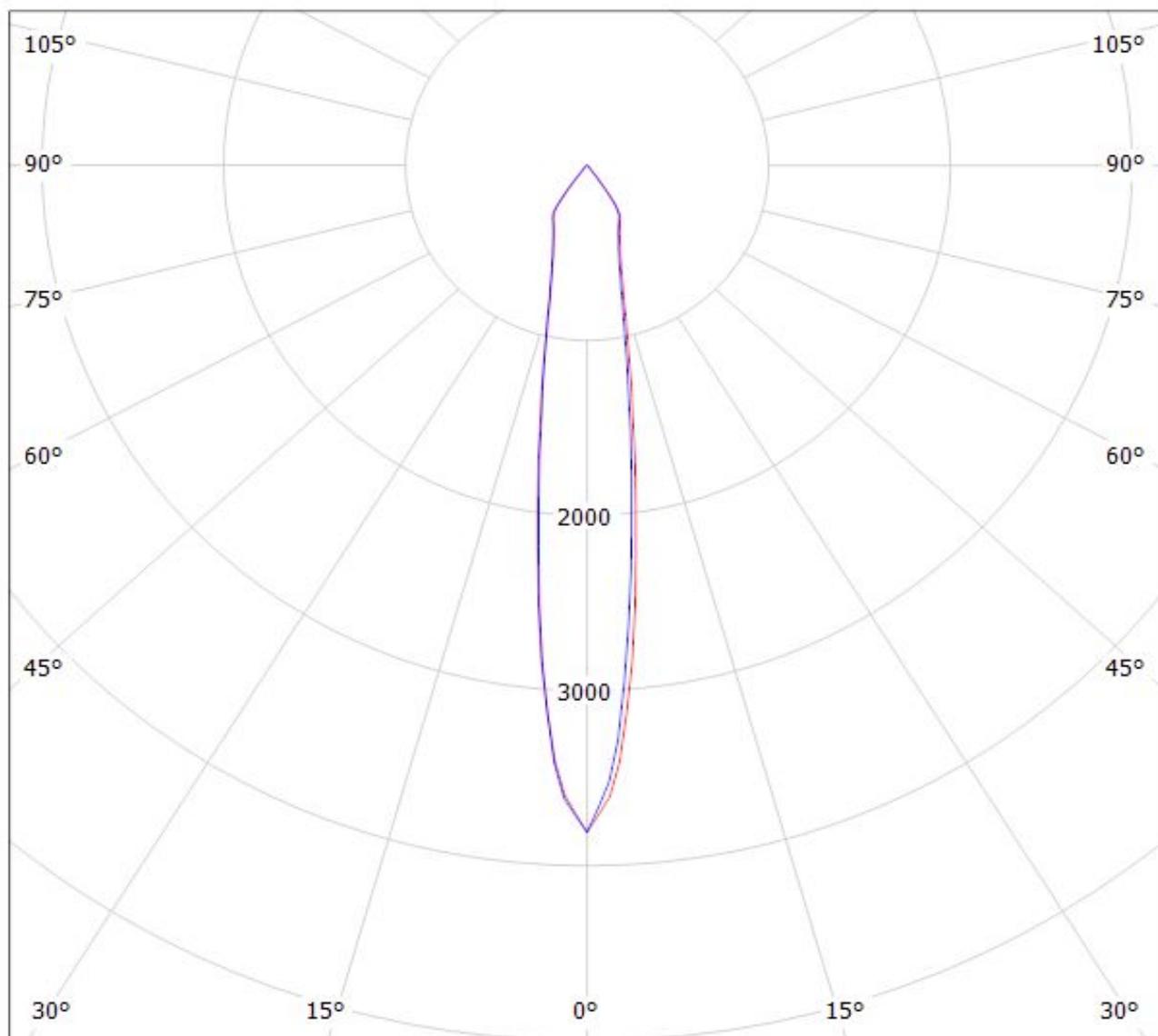
— C0 - C180

— C90 - C270

$\eta = 72\%$

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(LG\_COB\_10W)

Lamps: 1 x LG\_COB\_10W\_(LEMWM18580LG00)\_917.757lm@250mA\_P=9.31304W\_I=249.8mA



cd/klm

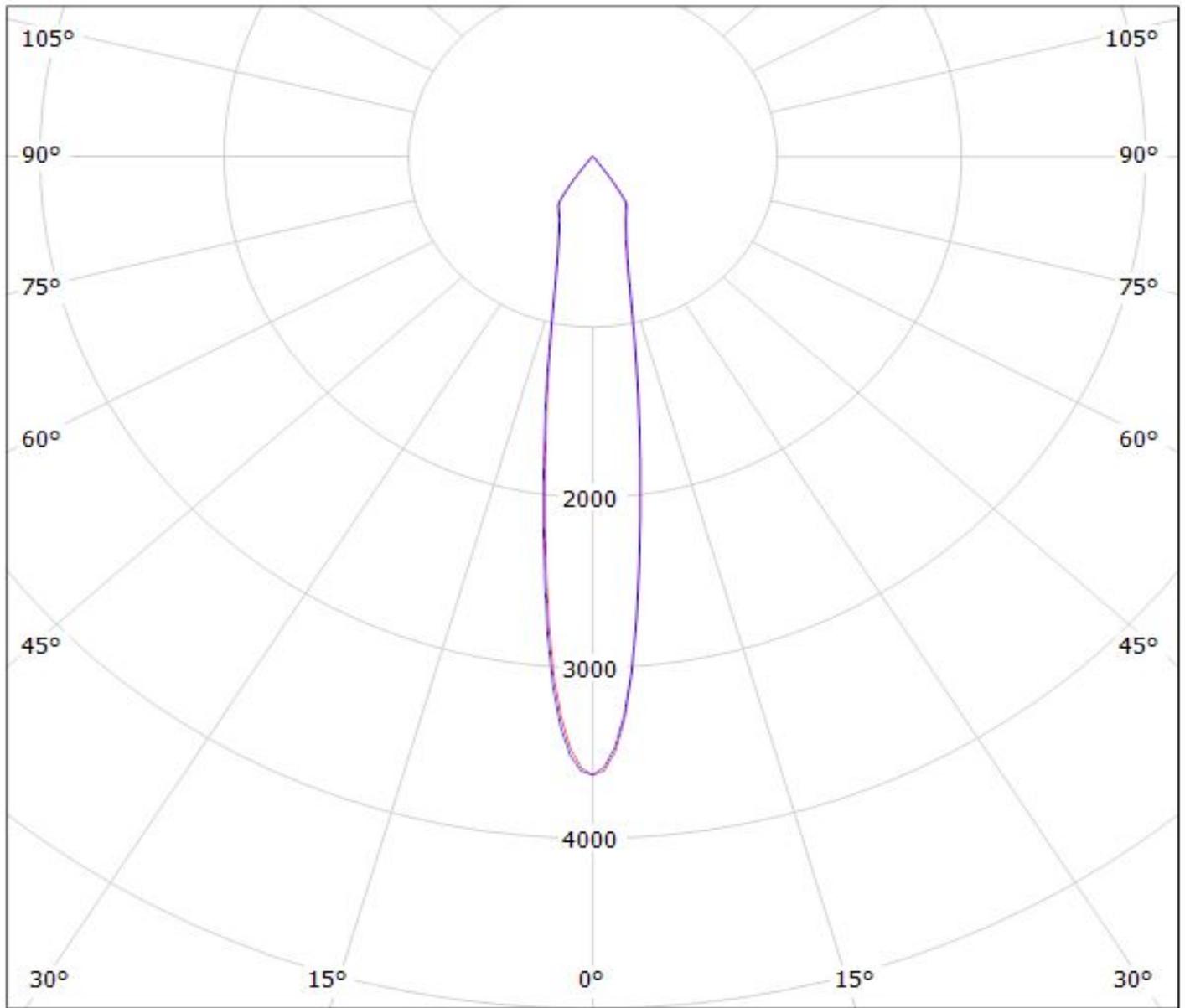
η = 83%

— C0 - C180

— C90 - C270

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CLU034)

Lamps: 1 x Citizen\_CLU034\_(CLU034-1205B8-303M1A2)\_1159.11lm@250mA\_P=8.46586W\_I=249.9mA



cd/klm

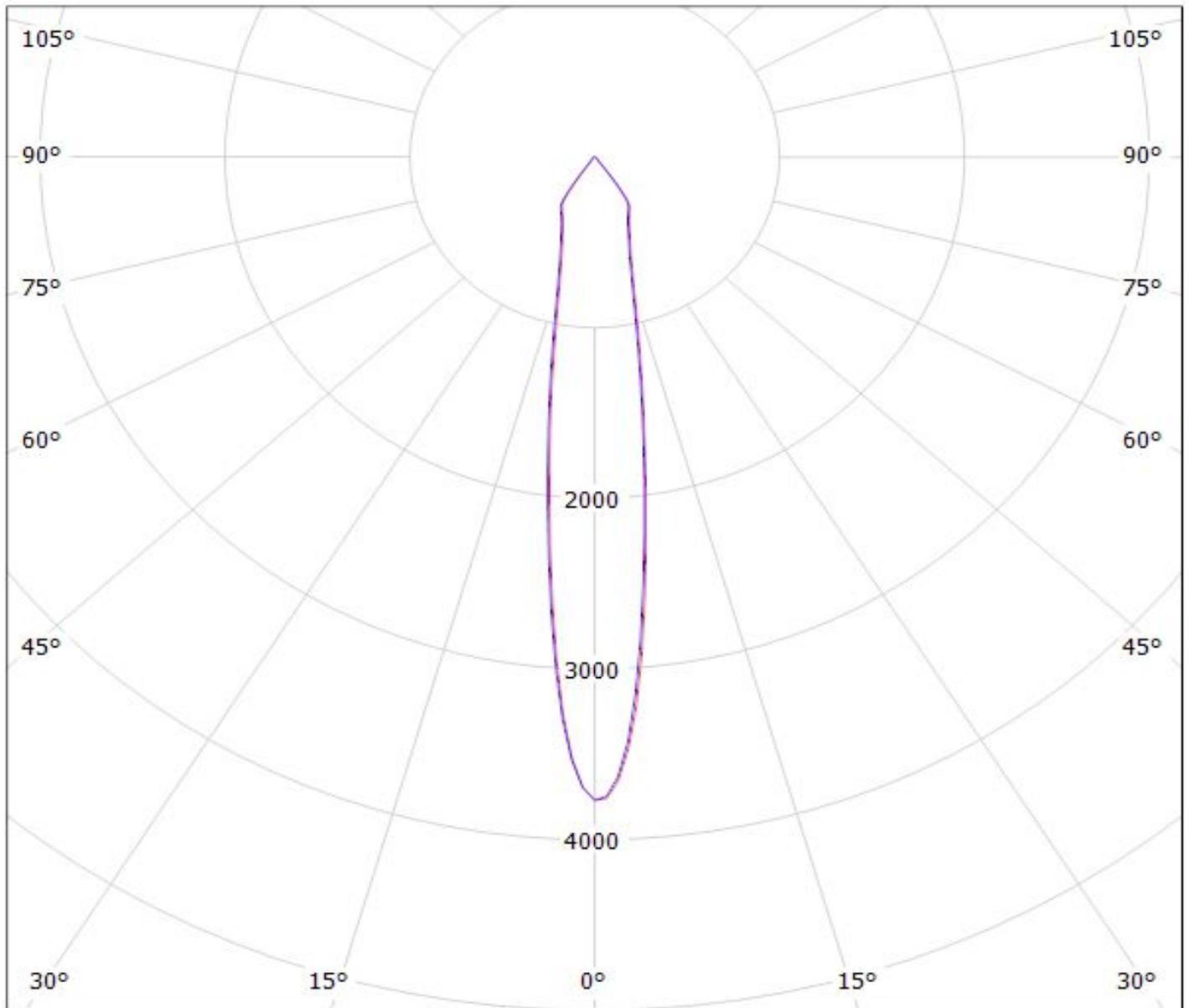
η = 83%

— C0 - C180

— C90 - C270

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(ZC12)

Lamps: 1 x SEOUL\_ZC12\_(SDW82F1C)\_1240.73lm@250mA\_P=8.68405W\_I=249.8mA



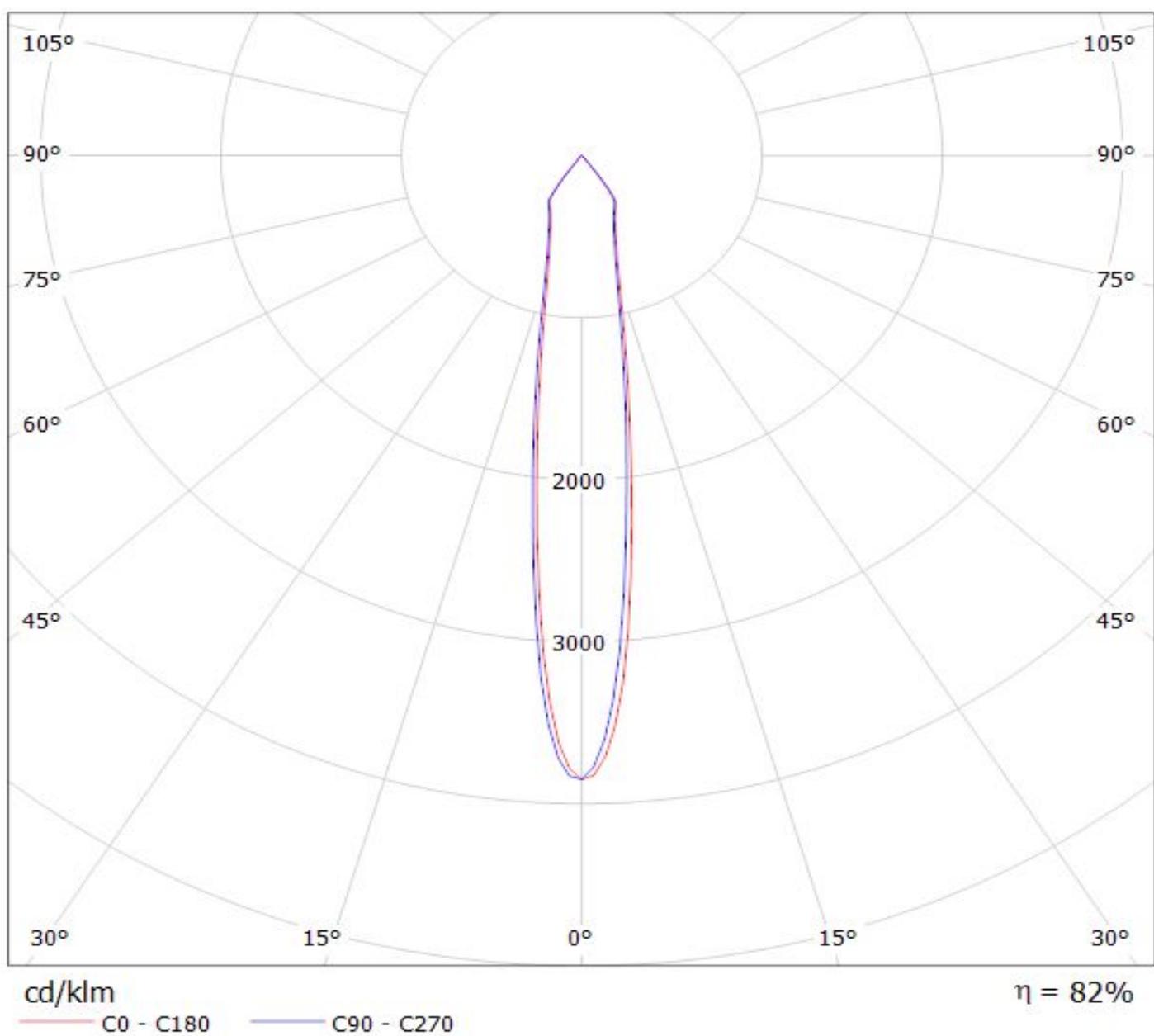
cd/klm

— C0 - C180

— C90 - C270

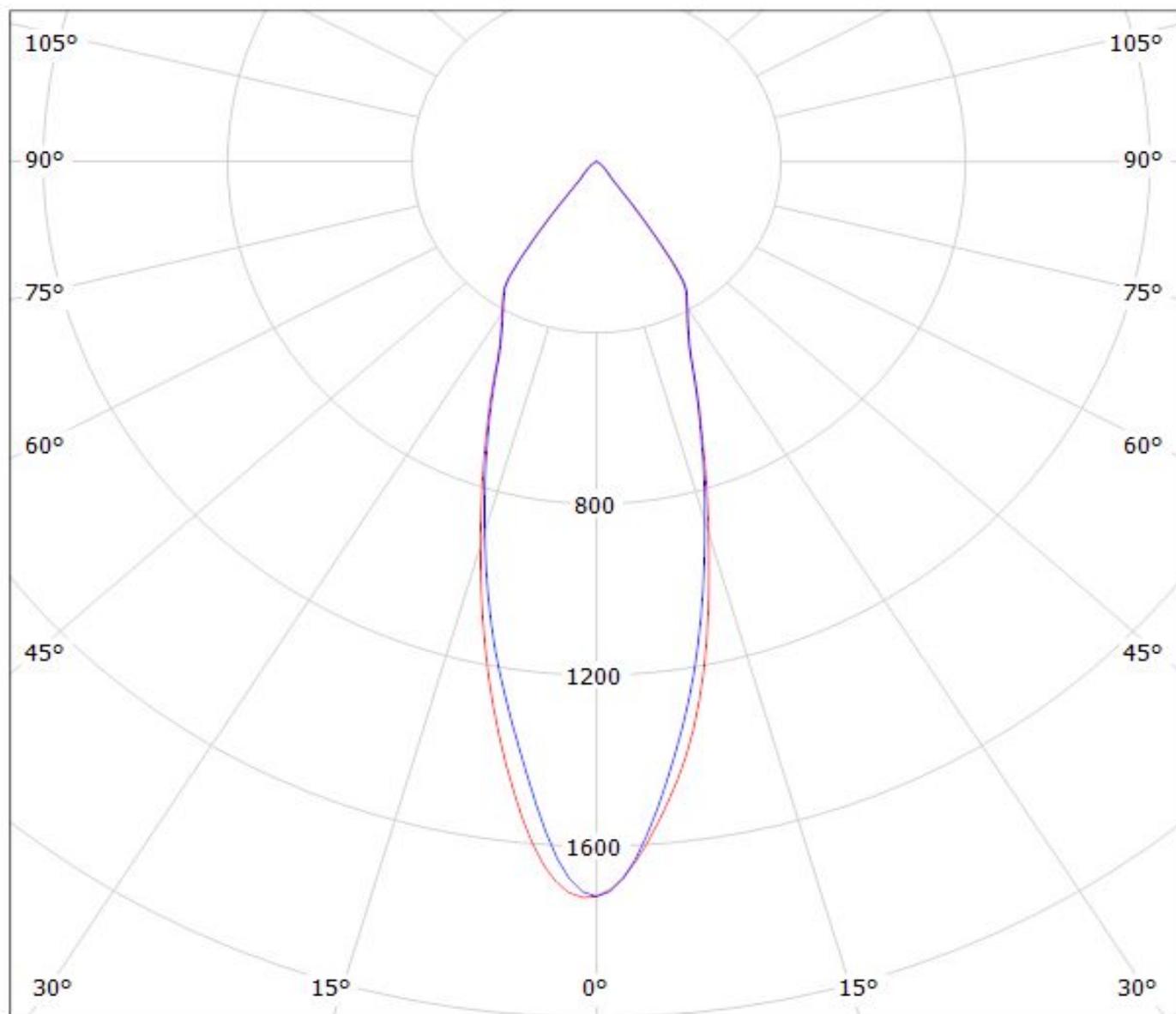
$\eta = 82\%$

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CXM-14)  
Lamps: 1 x LUMINUS\_XNOVA\_CXM-14\_(AC00)  
\_1049.18lm@250mA\_CCT=3126K\_P=8.31834W\_I=249.8mA



Luminaire: LEDiL Oy F13664\_ANGELA-W-B\_(COB-10W) Eff.84.0%

Lamps: 1 x LG\_COB-10W\_1065.85lm@250mA\_CCT=5090K\_P=9.10871W\_I=249.8mA



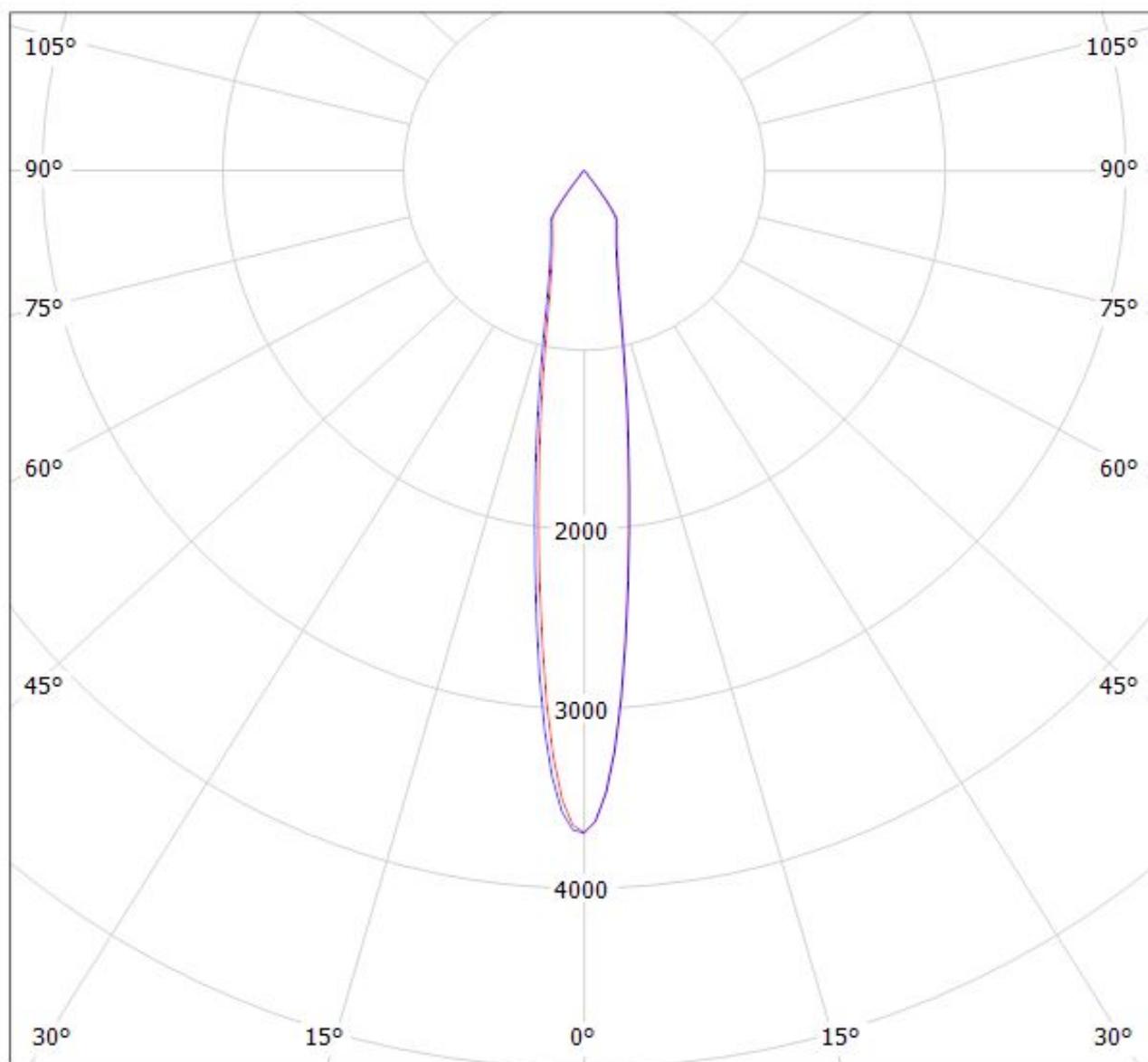
cd/klm

— C0 - C180

— C90 - C270

$\eta = 84\%$

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(BXRA\_ES) Eff.82.2%  
Lamps: 1 x Bridgelux\_BXRA\_ES\_287.055lm@250mA\_P=4.09486W\_I=249.9mA

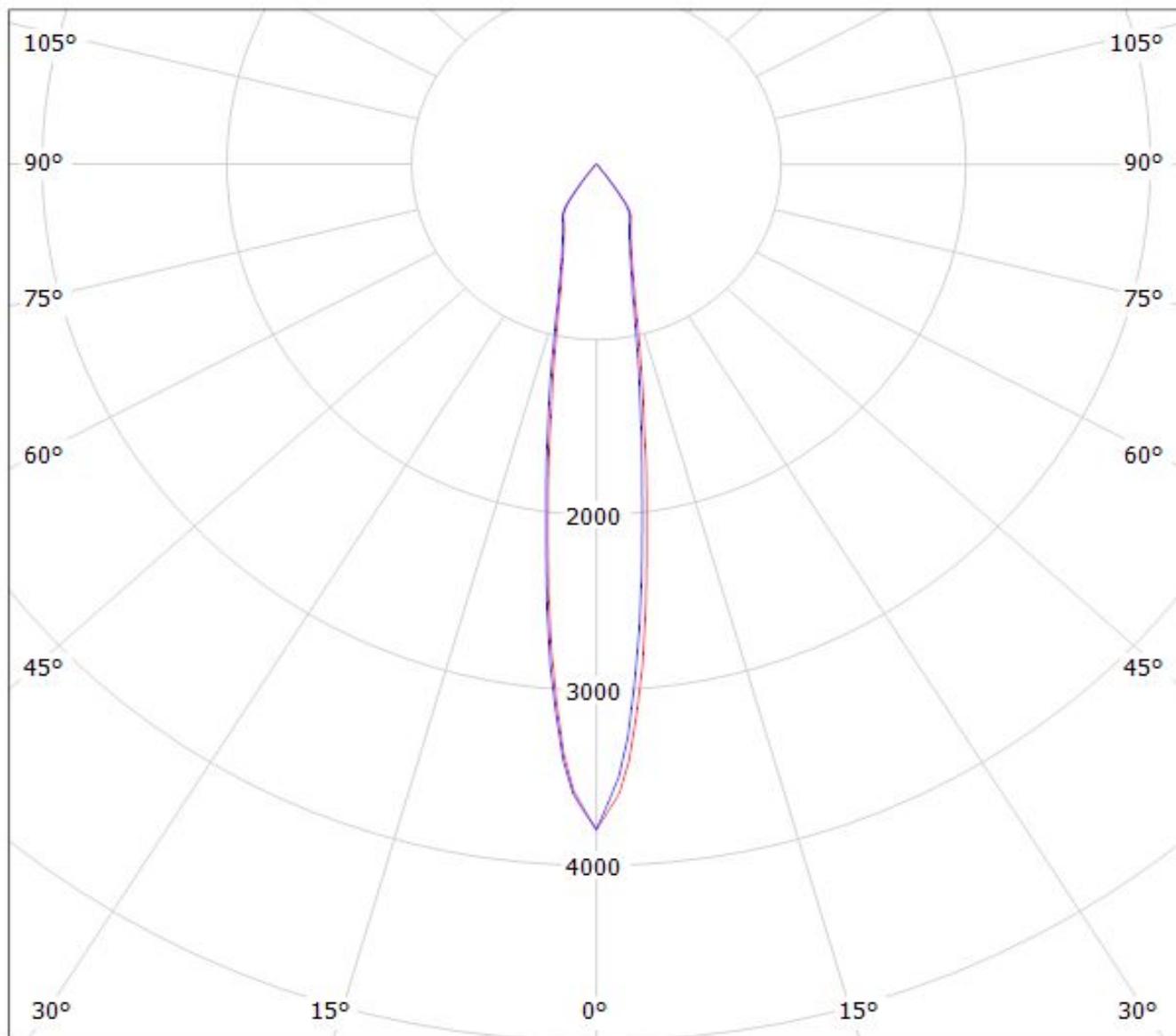


cd/klm

$\eta = 82\%$

— C0 - C180    — C90 - C270

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CLL030) Eff.82.7%  
Lamps: 1 x Citizen\_CLL030\_1040.57lm@250mA\_P=8.45923W\_I=249.8mA



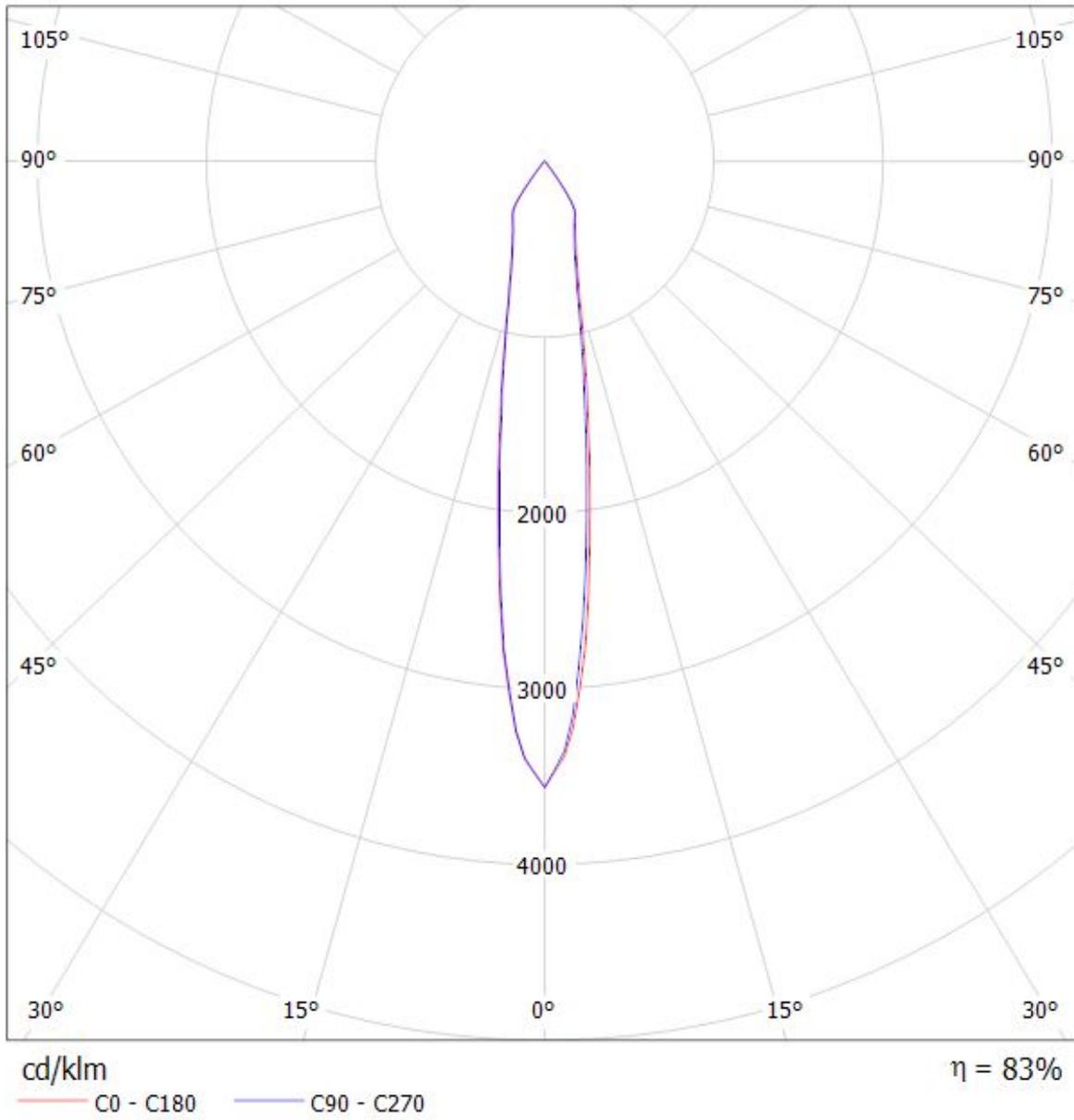
cd/klm

$\eta = 83\%$

— C0 - C180 — C90 - C270

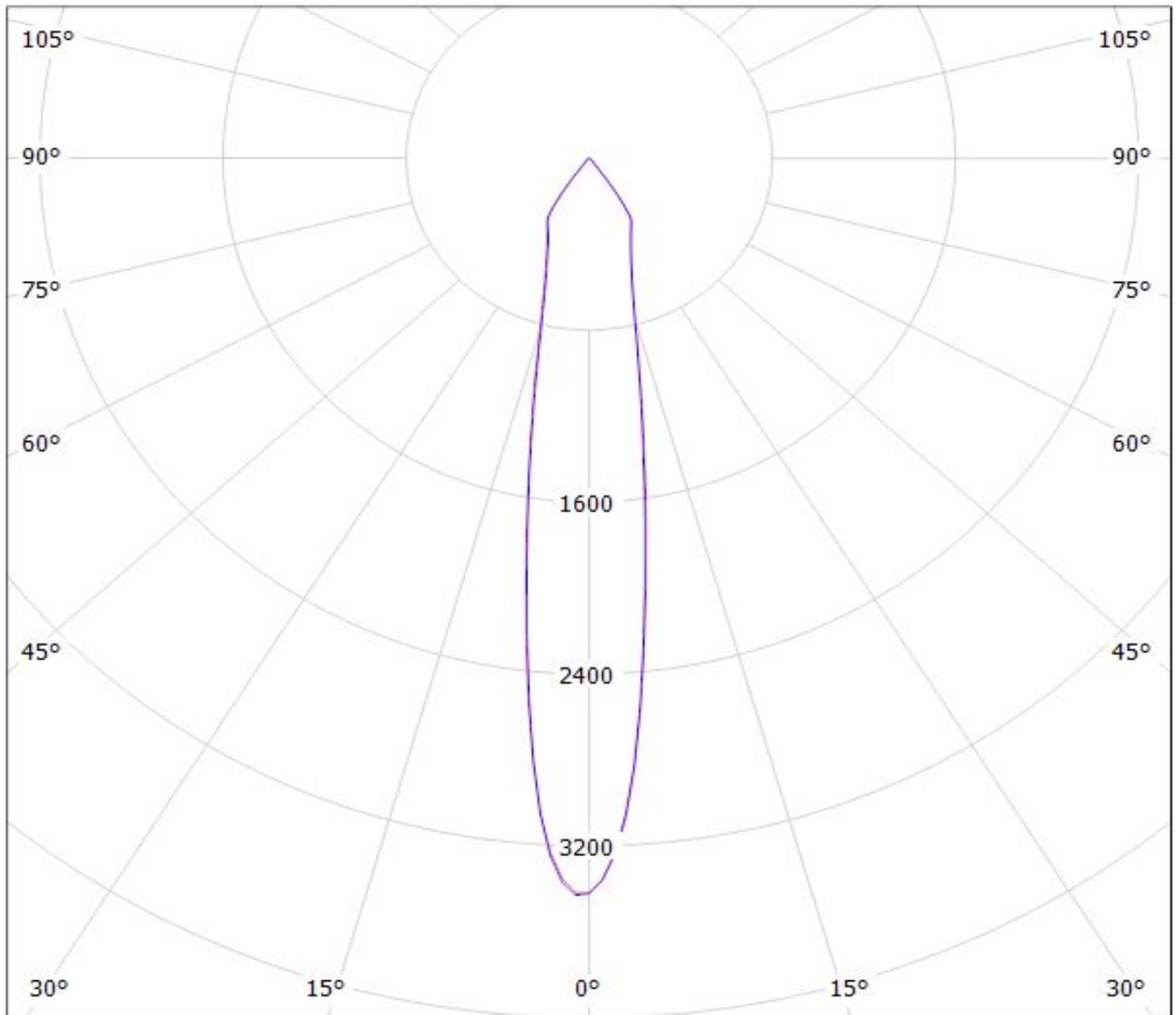
Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(MegaZenigata\_GW6)

Lamps: 1 x Sharp\_MegaZenigata\_GW6\_(GW6DME30NFC)\_1266.19lm@250mA\_CCT=3038K\_P=11.2151W\_I=250.6mA



Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(S19) Eff.82.6%

Lamps: 1 x Osram\_SOLERIQ\_S19\_1434.85lm@250mA\_P=10.5595W\_I=249.8mA



cd/klm

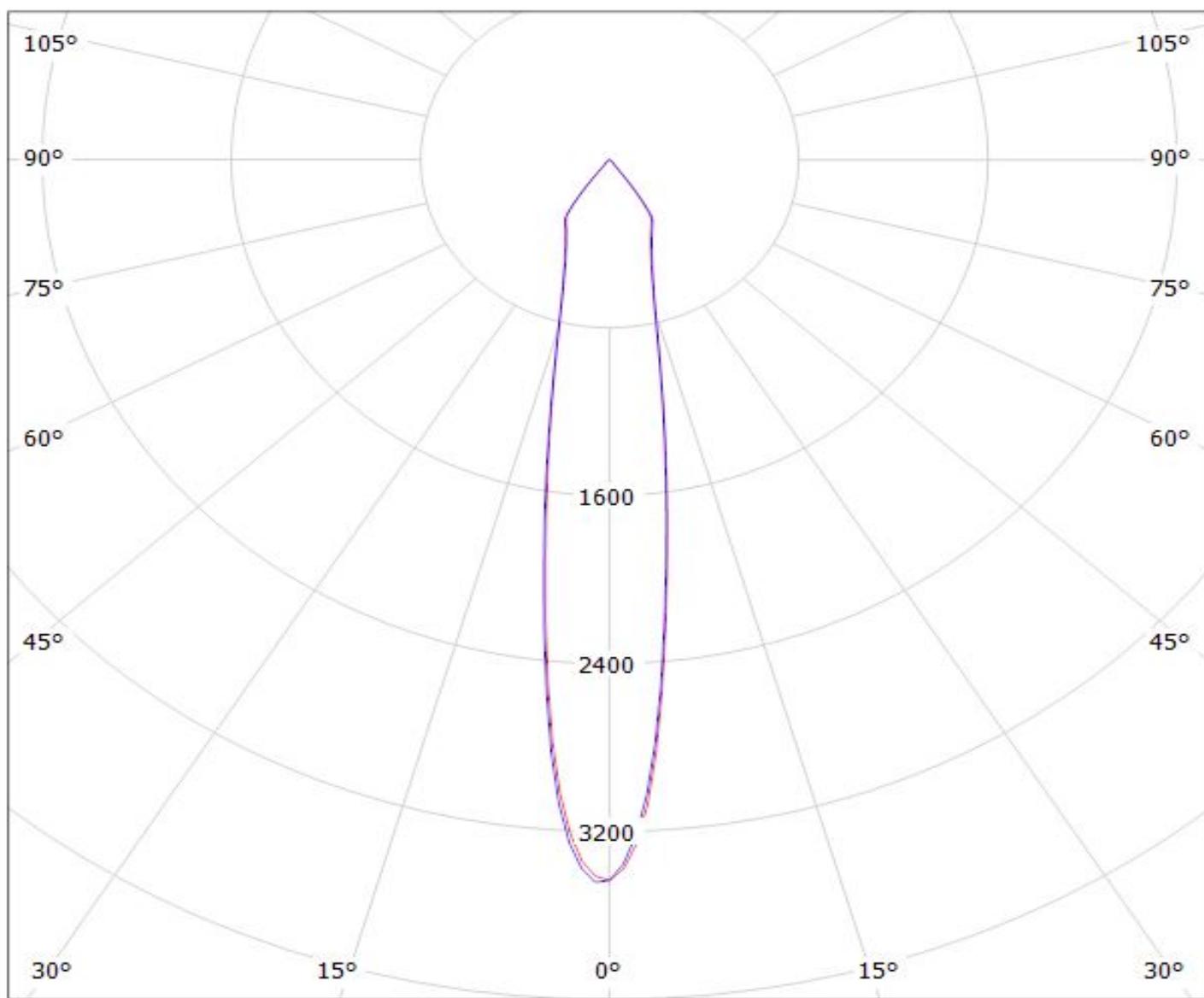
$\eta = 82\%$

— C0 - C180

— C90 - C270

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(STARK\_SLE\_G3\_LES17)

Lamps: 1 x TRIDONIC\_STARK\_SLE\_G3\_LES17\_(STARK-SLE-PURE\_G3-17-2000-840-CLA)  
\_1030.26lm@250mA\_CCT=2000K\_P=8.34707W\_I=249.8mA



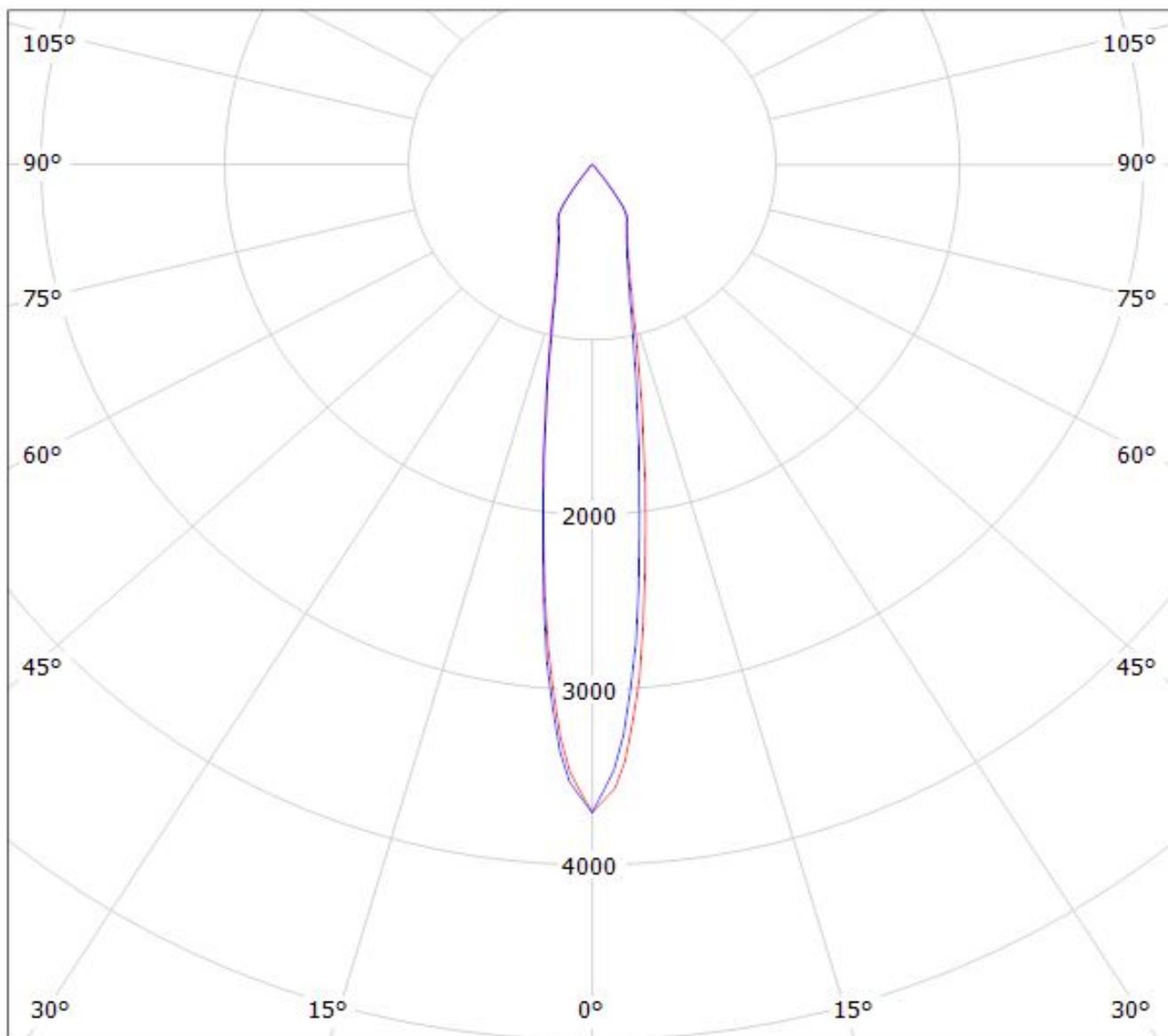
cd/klm

— C0 - C180 — C90 - C270

$\eta = 82\%$

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(MZ) Eff.84.3%

Lamps: 1 x Sharp\_Mega\_Zenigata\_1226.07lm@250mA\_P=11.1573W\_I=249.8mA



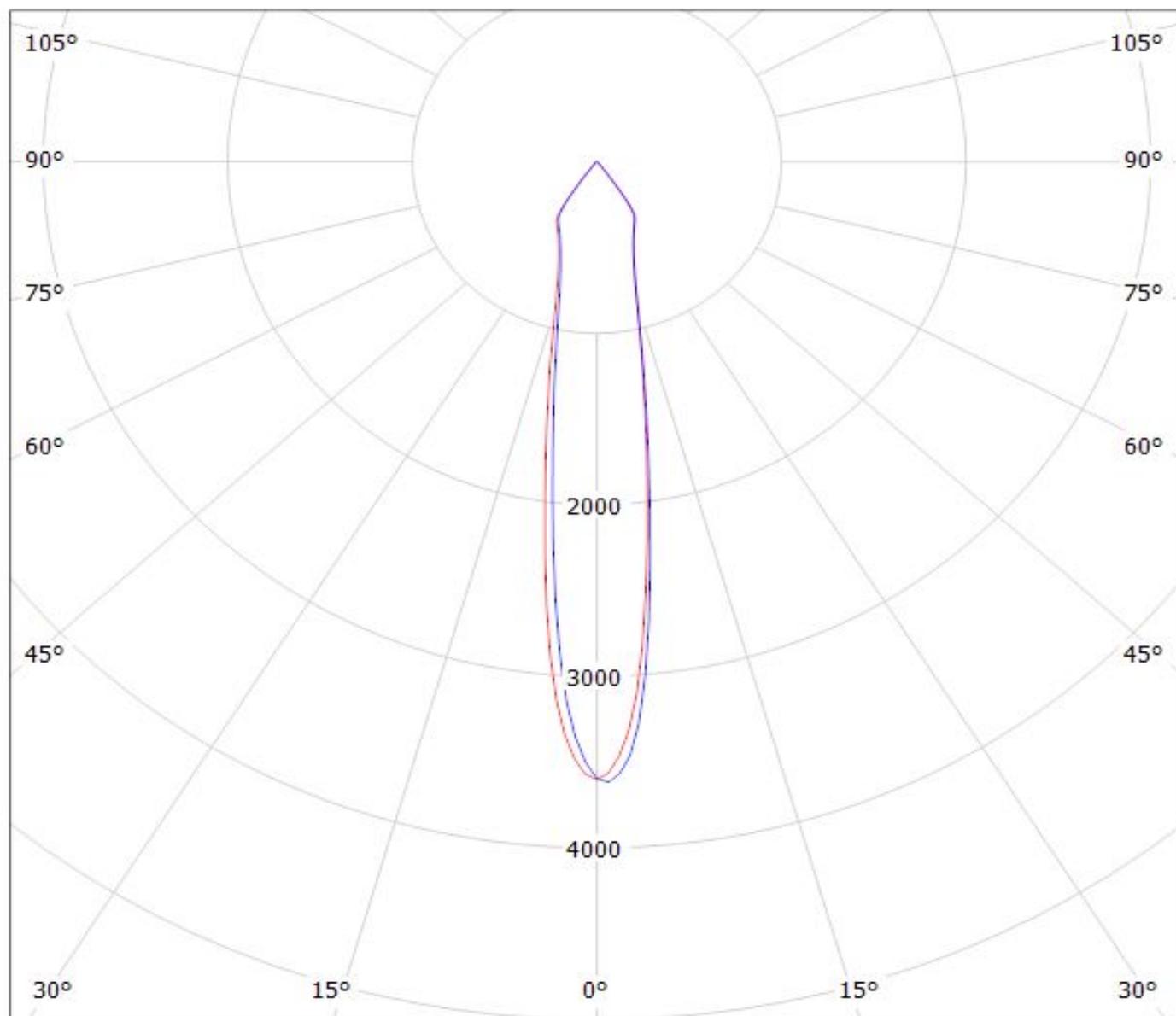
cd/klm

— C0 - C180

— C90 - C270

$\eta = 84\%$

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(K16) Eff.87.9%  
Lamps: 1 x Luxeon\_K16\_1224.2lm@250mA\_P=10.8991W\_U=249.9mA

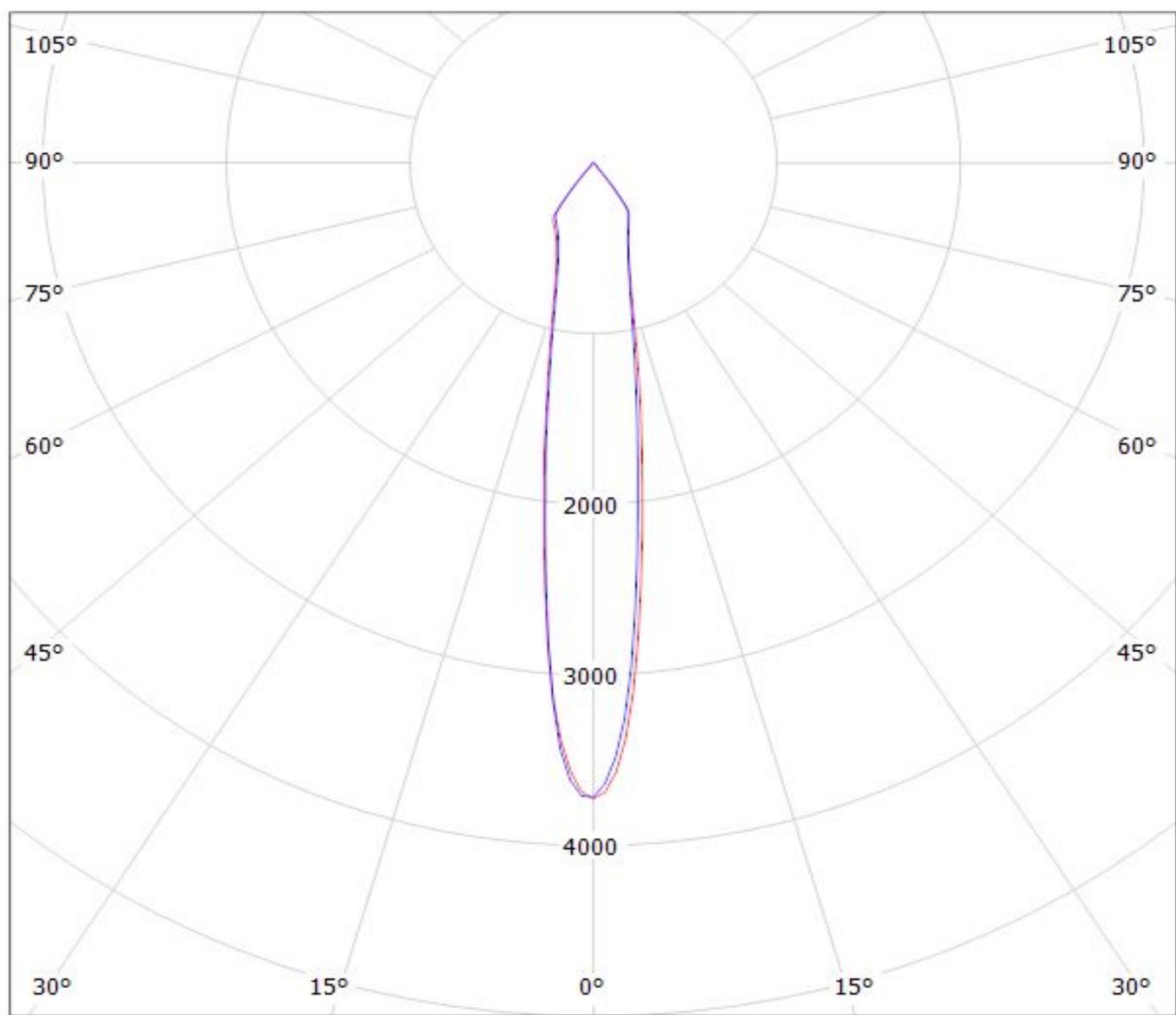


cd/klm

— C0 - C180 — C90 - C270

$\eta = 88\%$

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(K12) Eff.86.5%  
Lamps: 1 x Luxeon\_K12\_933.514lm@250mA\_P=8.21721W\_I=249.9mA

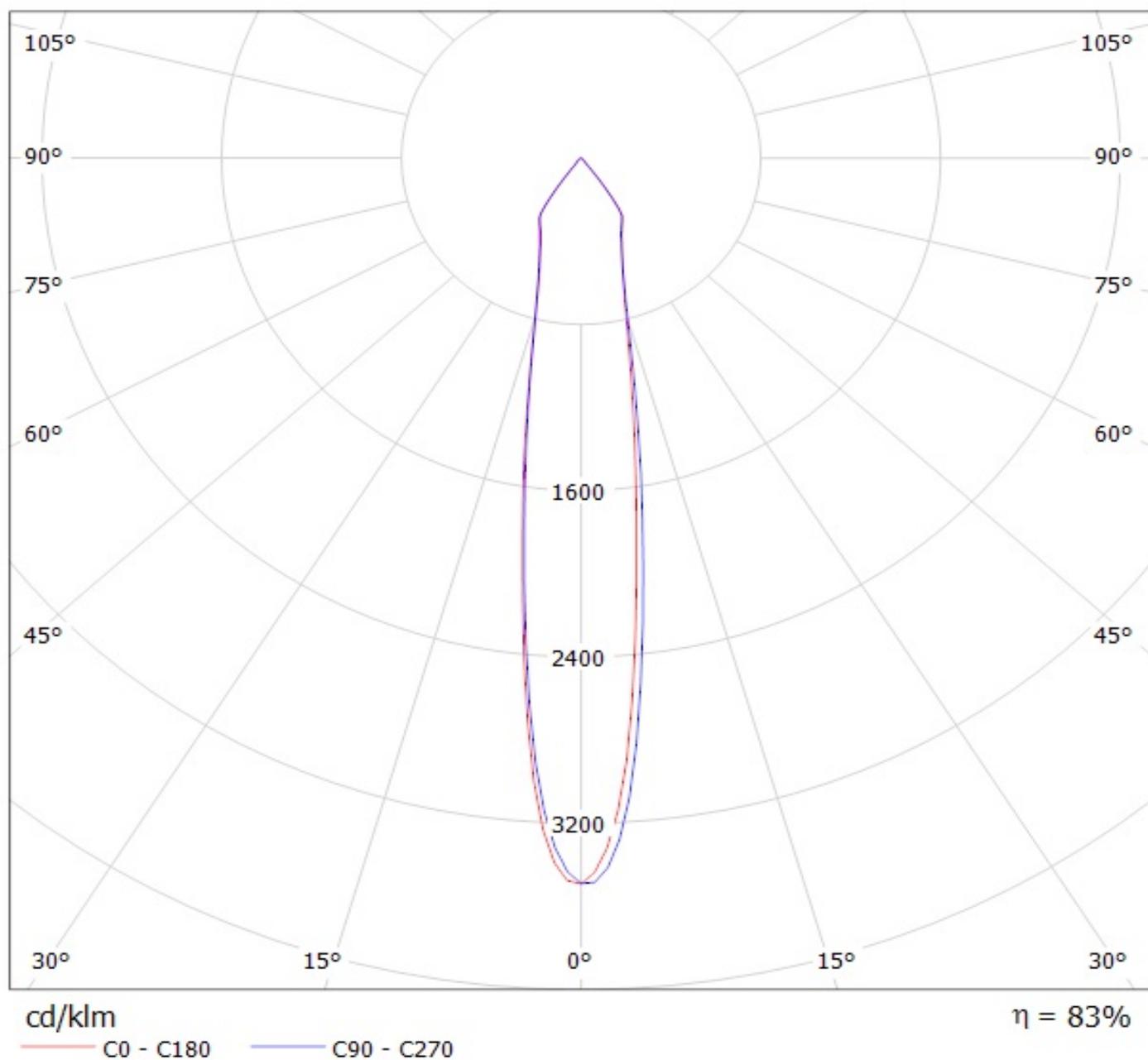


cd/klm

— C0 - C180    — C90 - C270

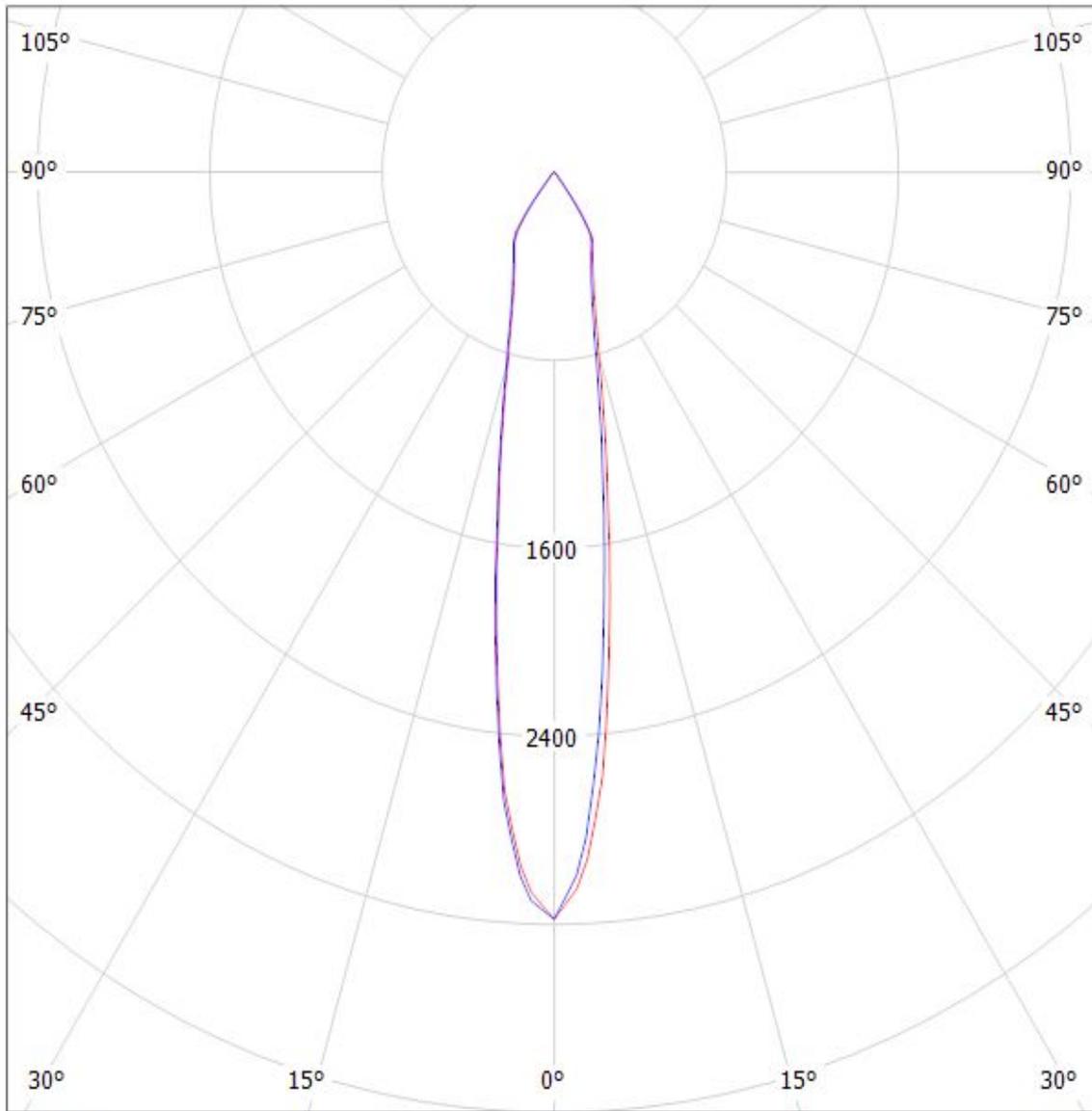
$\eta = 86\%$

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(Luxeon\_CoB\_1208)  
Lamps: 1 x Luxeon\_CoB\_1208\_1045.92lm@250mA\_P=8.25314W\_I=249.8mA



Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CXA2590)

Lamps: 1 x CREE\_CXA2590\_(CXA2590-30F-Z4-RPH-00001)\_837.275lm@100mA\_CCT=3000K\_P=6.36316W\_I=100.1mA



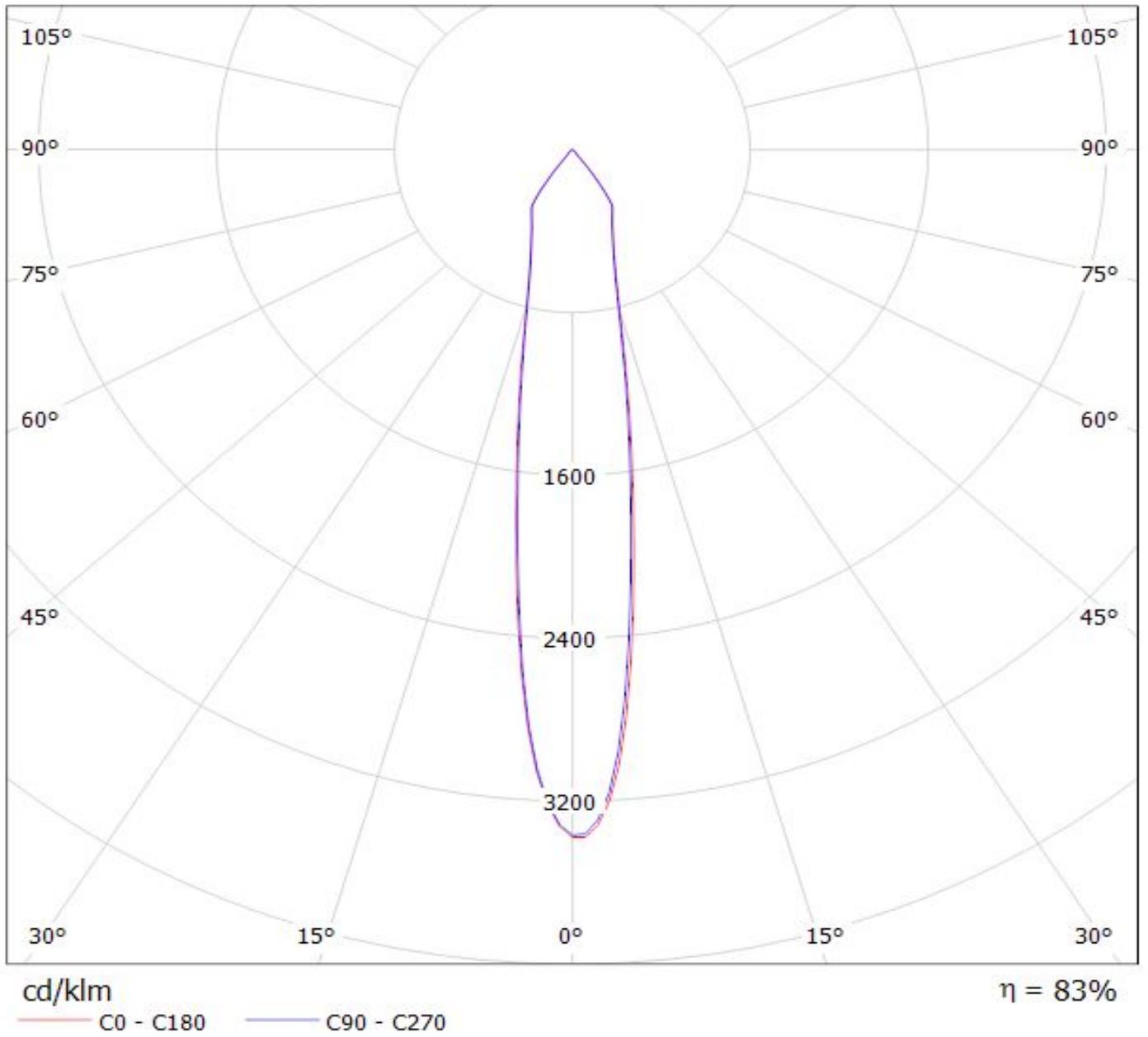
cd/klm

— C0 - C180

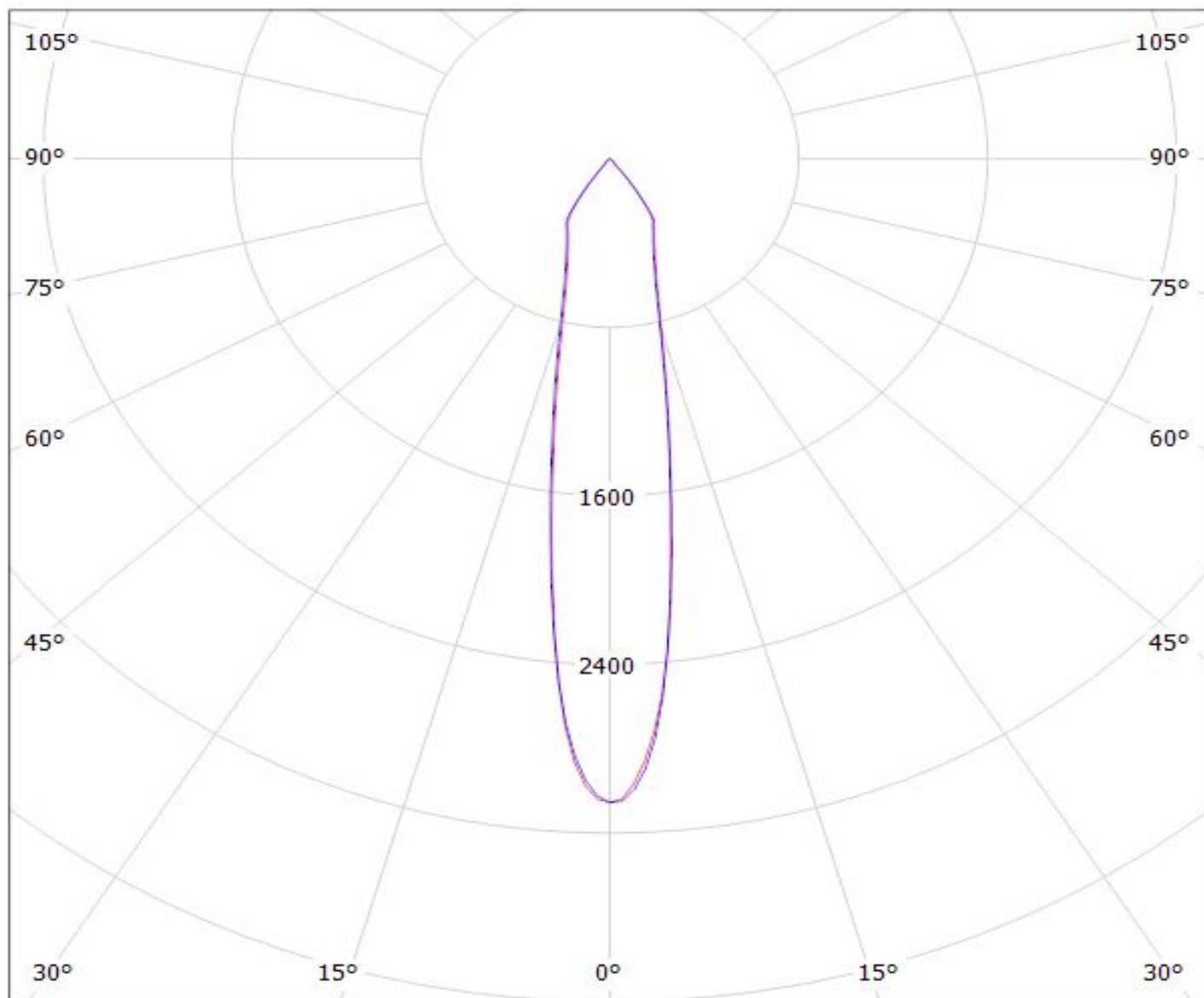
— C90 - C270

$\eta = 82\%$

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(Soleriq S19) Eff.82.6%  
Lamps: 1 x OSRAM\_SOLERIQ\_S19\_(GW\_KAHJB1.EM)  
\_1445.44lm@250mA\_CCT=3000K\_P=10.558W\_I=249.8mA



Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(Luxeon\_CoB\_1211)  
Lamps: 1 x LUXEON\_COB\_1211\_(LHC1-2790-1211)  
\_923.583lm@250mA\_CCT=2700K\_P=8.00909W\_I=249.8mA



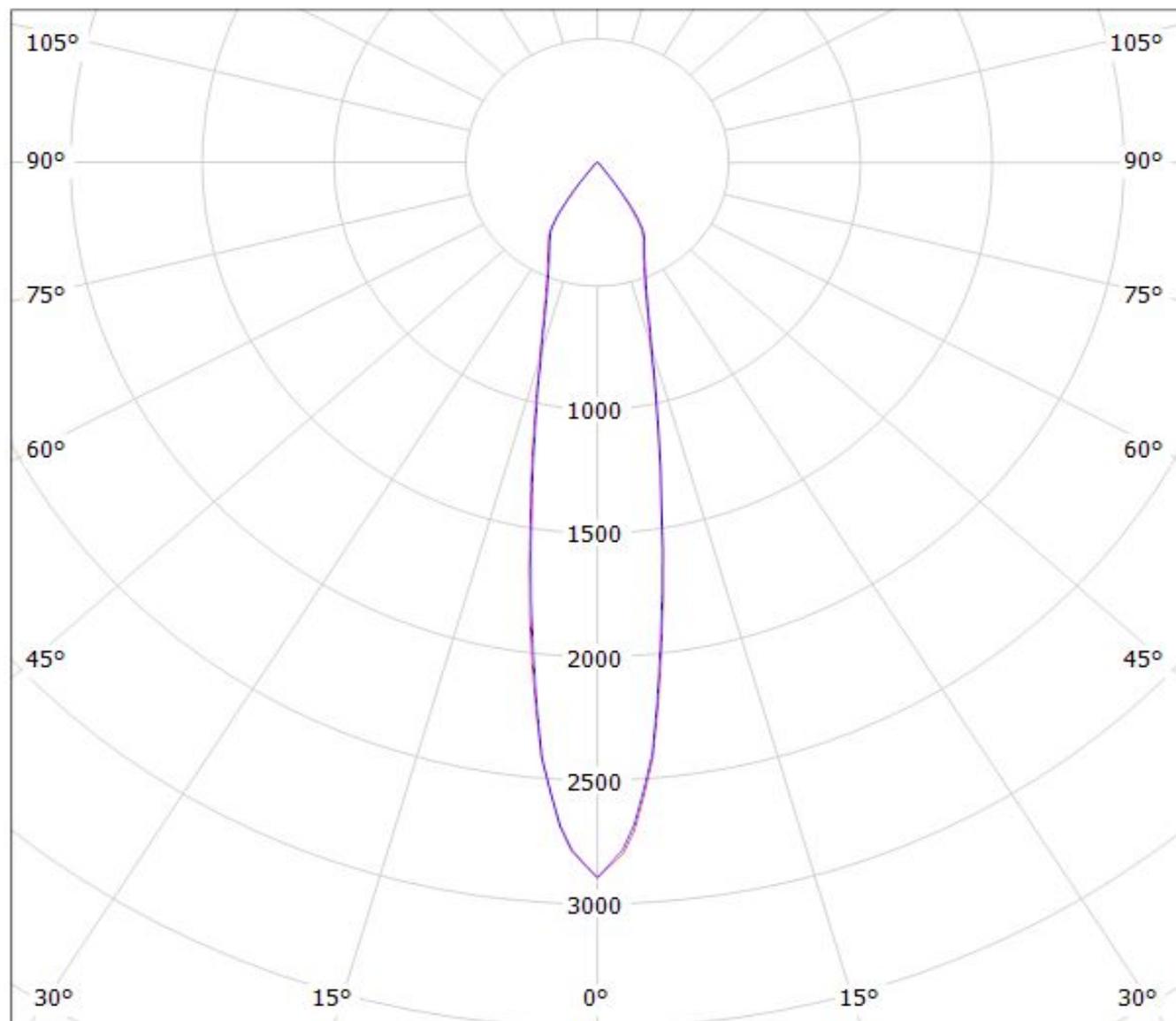
cd/klm

— C0 - C180 — C90 - C270

$\eta = 81\%$

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(E30) Eff.80.7%

Lamps: 1 x Osram\_Soleriq\_E30\_1364.86lm@250mA\_P=10.2445W\_I=249.8mA



cd/klm

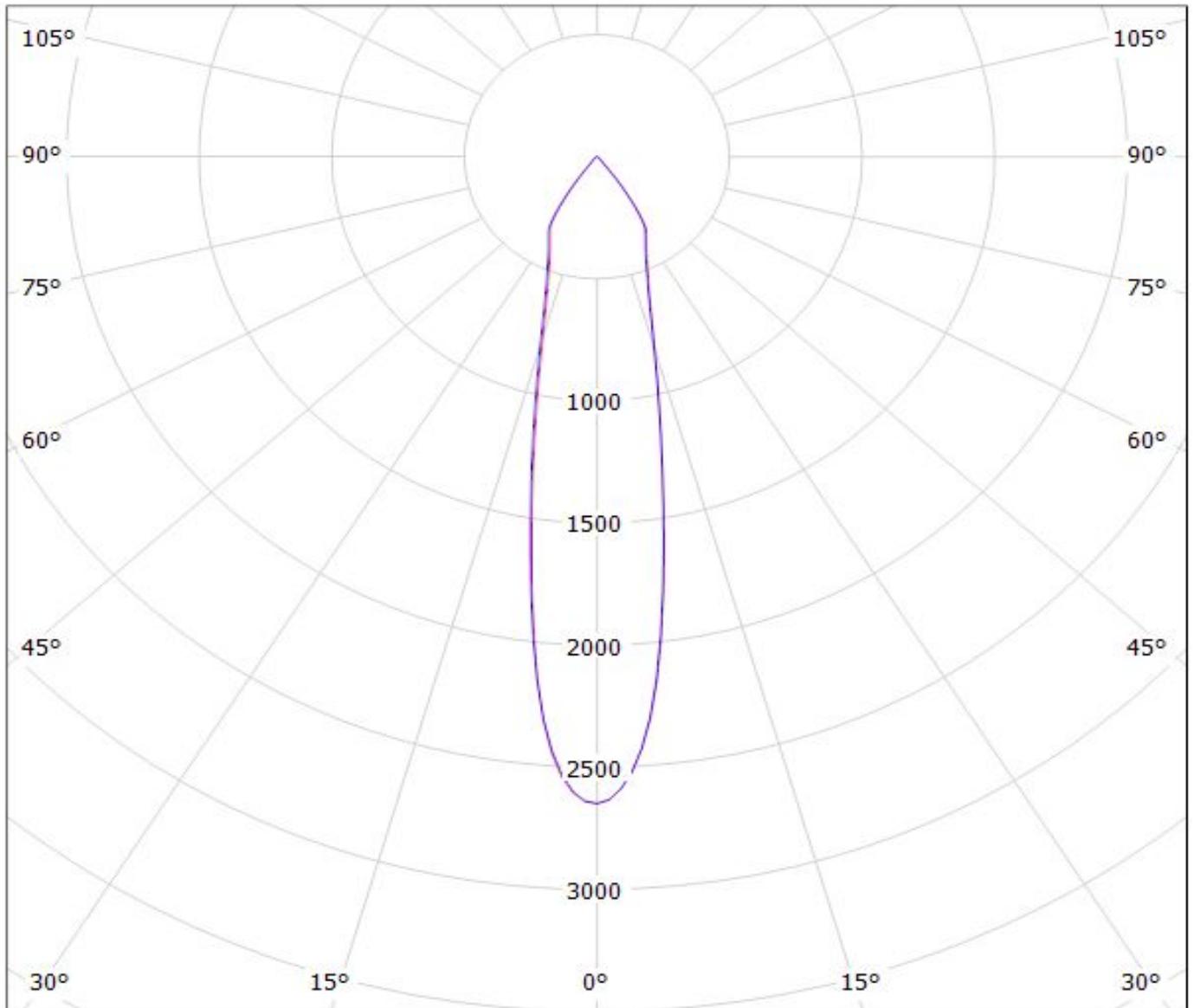
— C0 - C180

— C90 - C270

$\eta = 81\%$

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CLU044)

Lamps: 1 x Citizen\_CLU044\_(CLU044-1212B8-303M1A2)\_1300.9lm@250mA\_P=8.14849W\_I=249.9mA



cd/klm

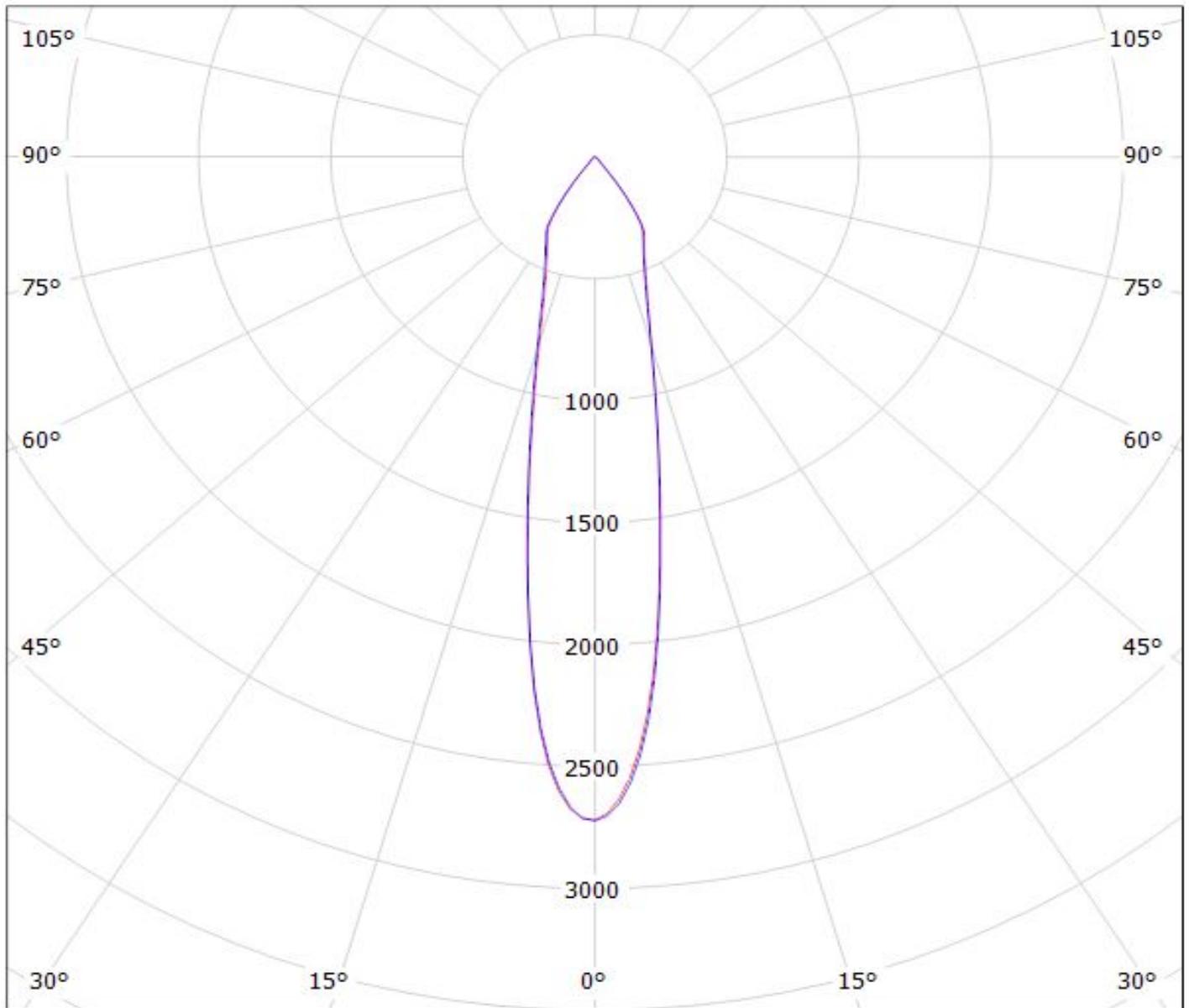
$\eta = 81\%$

— C0 - C180

— C90 - C270

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(ZC40)

Lamps: 1 x SEOUL\_ZC40\_(SBWW5F1B)\_1176.6lm@250mA\_P=8.22171W\_I=249.9mA



cd/klm

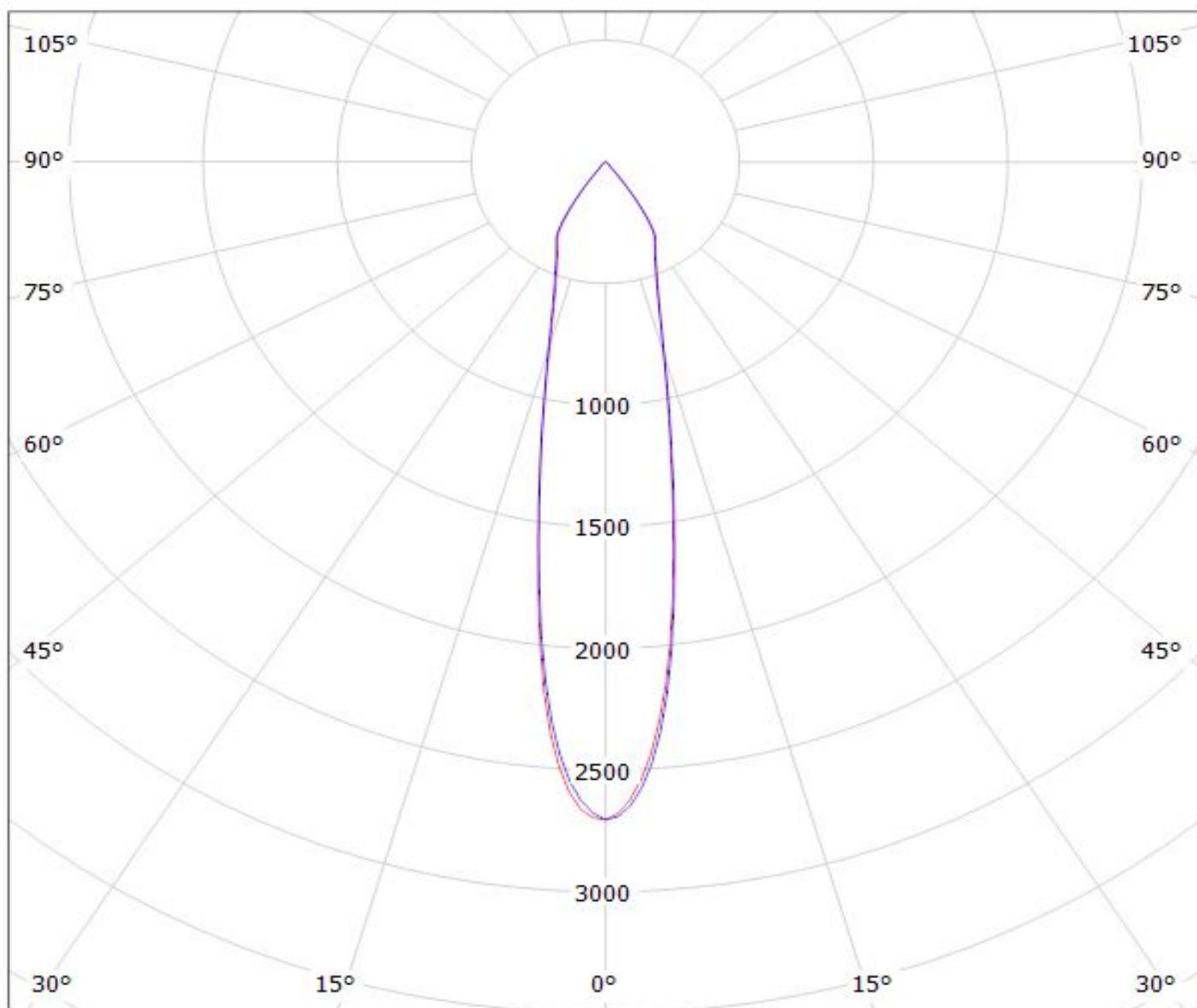
— C0 - C180

— C90 - C270

$\eta = 81\%$

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CXA30)

Lamps: 1 x Cree\_CXA30\_(CXA3050-3C0-Y2-N0H)\_1395.36lm@250mA\_P=8.20318W\_I=249.8mA



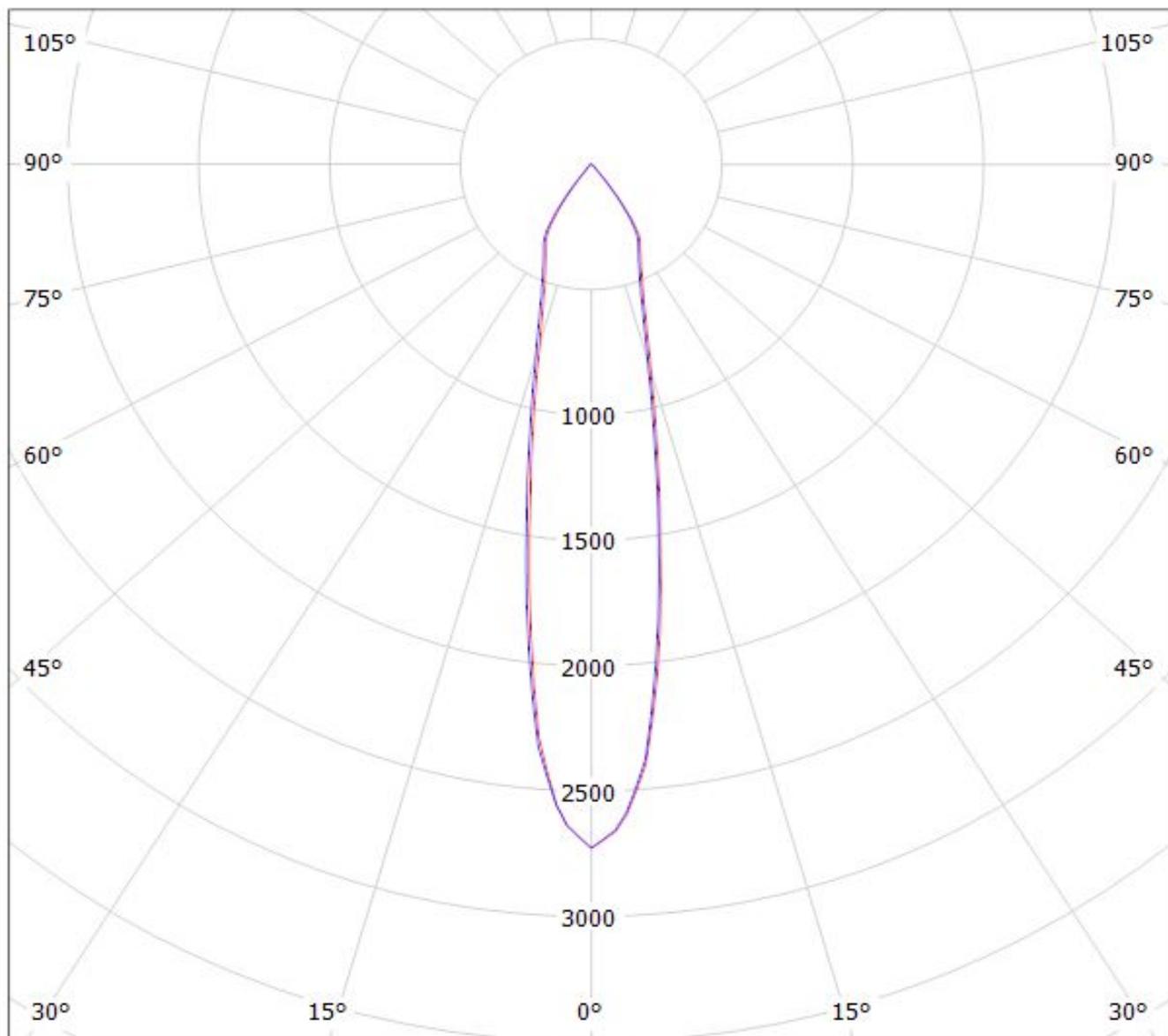
cd/klm

— C0 - C180

— C90 - C270

$\eta = 80\%$

Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CLL040) Eff.81.0%  
Lamps: 1 x Citizen\_CLL040\_1011.32lm@250mA\_P=8.24545W\_I=249.9mA



cd/klm

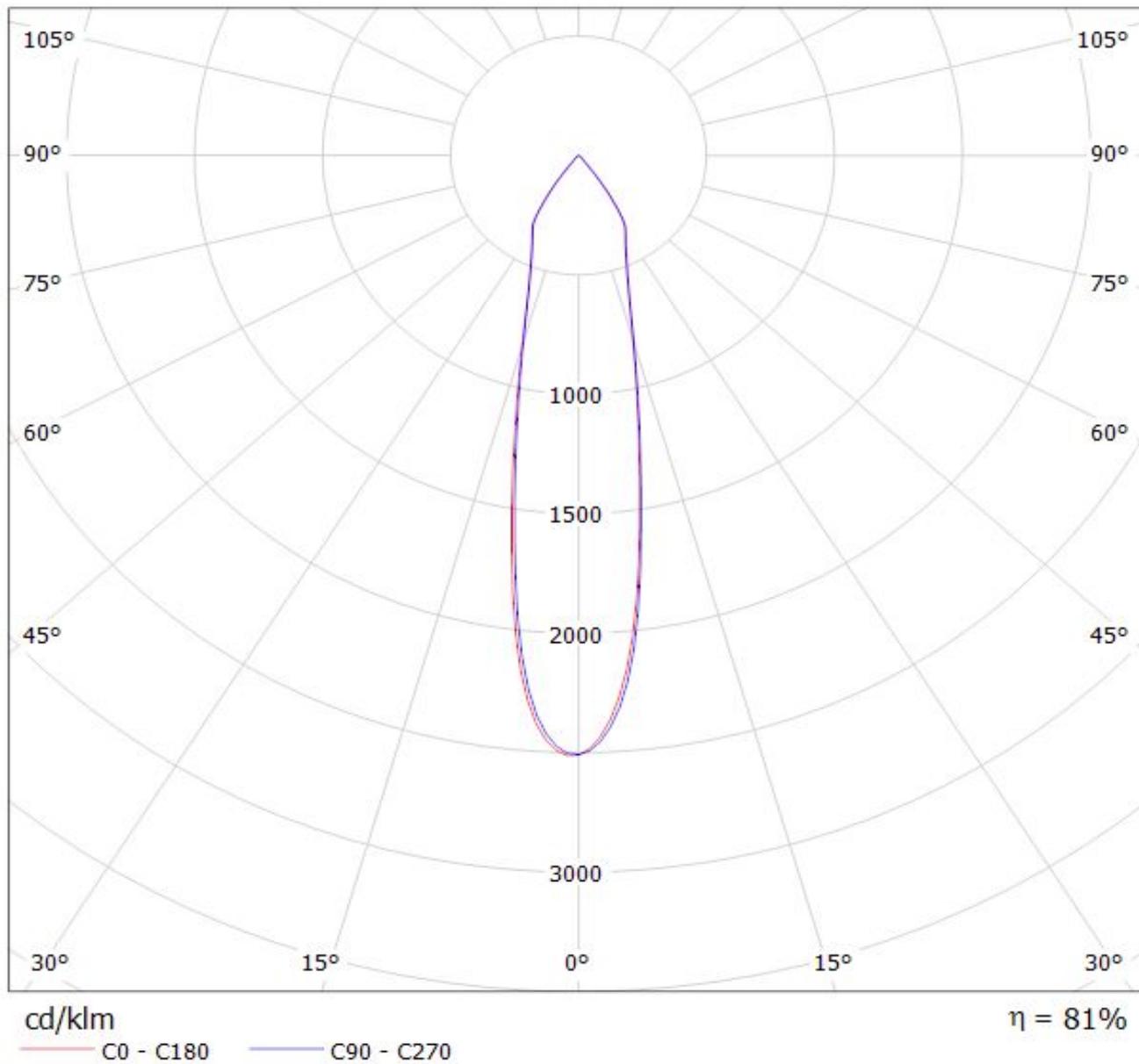
$\eta = 81\%$

— C0 - C180

— C90 - C270

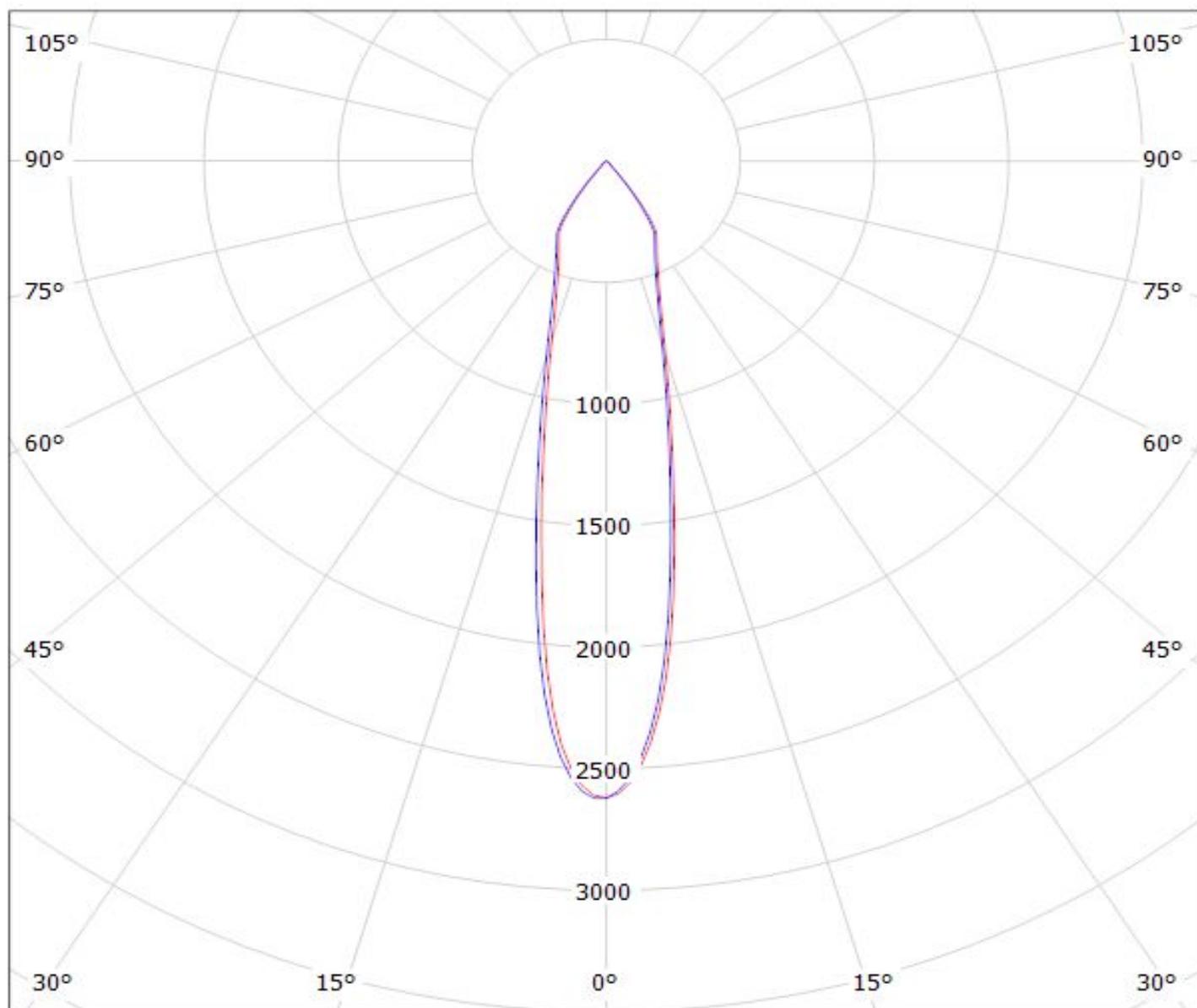
Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(CXM-22) Eff.80.7%

Lamps: 1 x LUMINUS\_CXM-22\_1221.8lm@250mA\_P=8.00809W\_CCT=3000K\_I=249.8mA



Luminaire: LEDiL Oy F13663\_ANGELA-M-B\_(COB\_40W)

Lamps: 1 x LG\_COB\_40W\_1163.3lm@250mA\_CCT=3000K\_P=8.04906W\_I=249.8mA



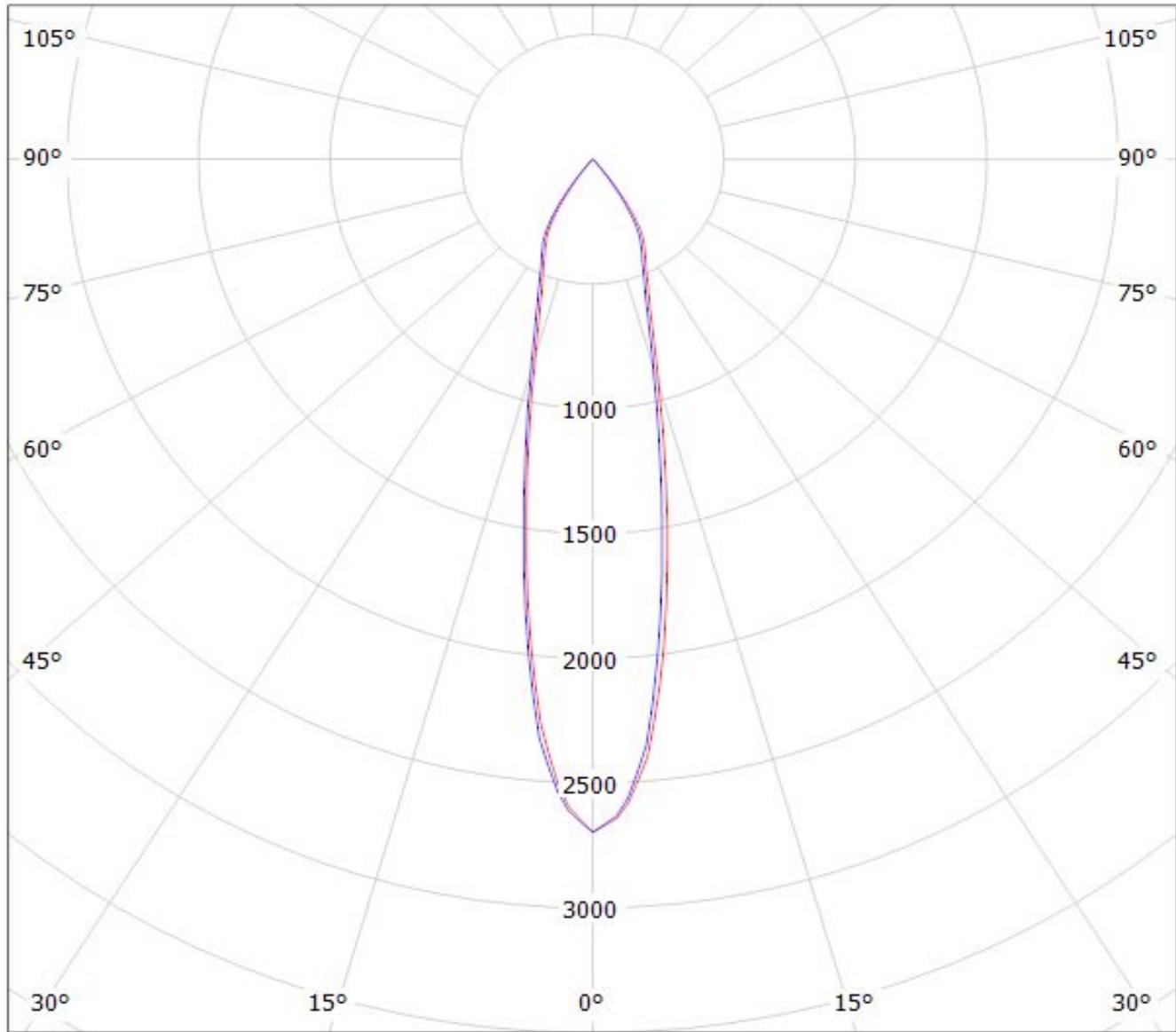
cd/klm

— C0 - C180

— C90 - C270

$\eta = 81\%$

Luminaire: Ledil Oy F13663\_ANGELA-M-B\_(ZC-40) Efficiency=81%  
Lamps: 1 x Seoul ZC-40 (SBWW5F1B) 1153lm @ 250mA CCT= P=8.25W I=250mA



cd/klm

— C0 - C180

— C90 - C270

$\eta = 82\%$

**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.
- 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).

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.