

## DETAILS

|                        |                |
|------------------------|----------------|
| <b>Product Number</b>  | C12608_VIRPI-M |
| <b>Family</b>          | Virpi          |
| <b>Type</b>            | Lens array     |
| <b>Color</b>           | clear          |
| <b>Diameter</b>        | 74,9 x 74,9 mm |
| <b>Height</b>          | 9,4 mm         |
| <b>Style</b>           | square         |
| <b>Optic Material</b>  | PMMA           |
| <b>Holder Material</b> |                |
| <b>Fastening</b>       | pin, glue      |
| <b>Status</b>          | ready          |
| <b>ROHS Compliant</b>  | Yes            |
| <b>Date Updated</b>    | 30/09/2014     |

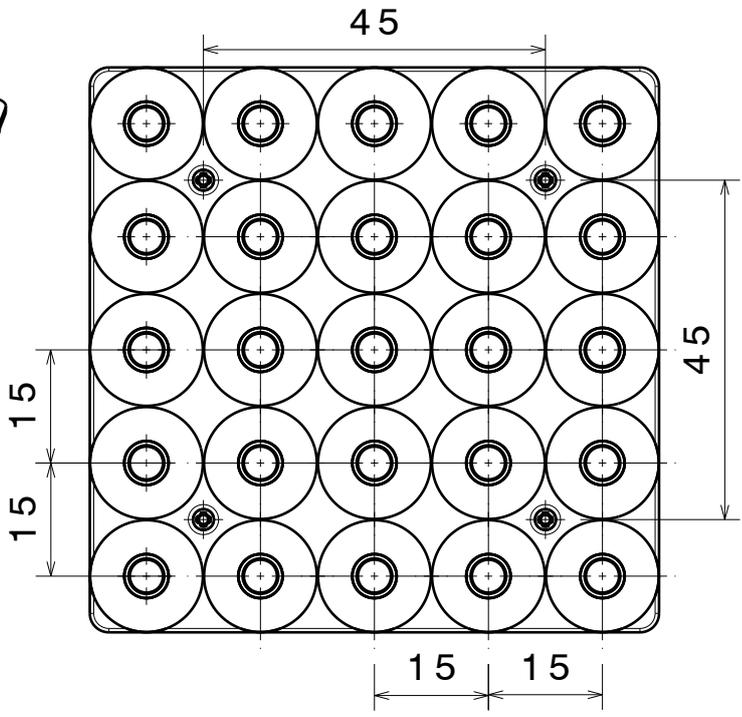
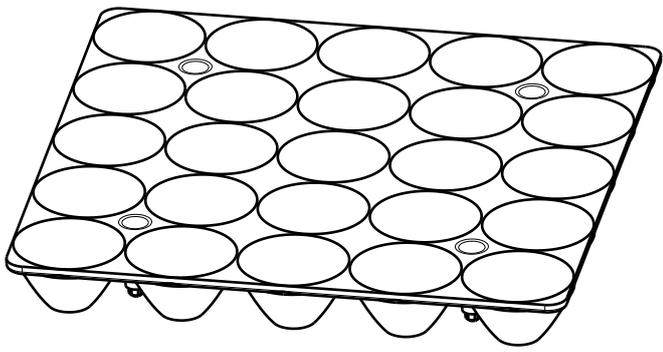


## OPTICAL PROPERTIES

| LED                    | Viewing | Light  | Effi-     |            | Connector |
|------------------------|---------|--------|-----------|------------|-----------|
|                        | Angle   | Beam   | ciency    | cd/lm      |           |
| LUXEON T               | sim: 26 | Medium | sim: 91 % | sim: 3.350 | -         |
| LUXEON TX              | sim: 27 | Medium | sim: 92 % | sim: 3.250 | -         |
| LUXEON Rebel ES        | 28 deg  | Medium | 91 %      | 2.620      | -         |
| Oslon Square EC        | 28 deg  | Medium | 91 %      | 2.820      | -         |
| XB-D                   | 28 deg  | Medium | 92 %      | 2.830      | -         |
| XP-E2                  | 28 deg  | Medium | 91 %      | 3.000      | -         |
| LM231 A/B              | 28 deg  | Medium | 92 %      | 3.100      | -         |
| Duris S5 (Single chip) | 28 deg  | Medium | 92 %      | 3.100      | -         |
| LG 3030                | 28 deg  | Medium | 91 %      | 2.800      | -         |
| NF2x757A               | 28 deg  | Medium | 92 %      | 2.900      | -         |
| XP-G                   | 29 deg  | Medium | 92 %      | 2.530      | -         |
| XT-E                   | 29 deg  | Medium | 91 %      | 2.620      | -         |
| NVSxx19A               | 29 deg  | Medium | 90 %      | 2.580      | -         |
| XP-G2                  | 29 deg  | Medium | 91 %      | 2.700      | -         |
| Duris P5               | 29 deg  | Medium | 90 %      | 2.600      | -         |
| ML-E                   | 29 deg  | Medium | 91 %      | 2.500      | -         |
| XH-B/G                 | 30 deg  | Medium | 90 %      | 2.400      | -         |

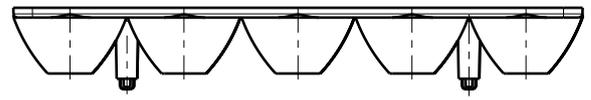
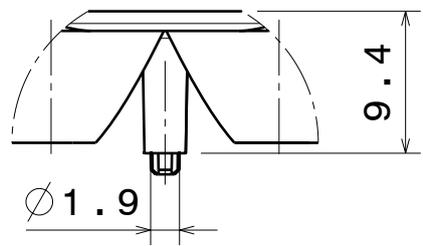
D C B A

4



4

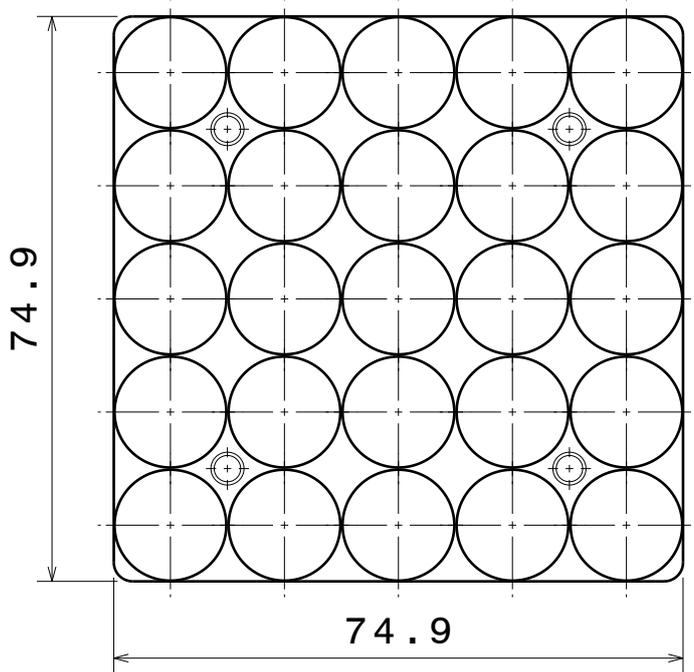
3



3

Detail A  
Scale: 2:1

2



2

Material:  
- 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

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our written agreement.



Ledil Oy  
Salorankatu 10  
FIN 24240 SALO  
Finland

DRAWING TITLE

Datasheet Virpi series

1

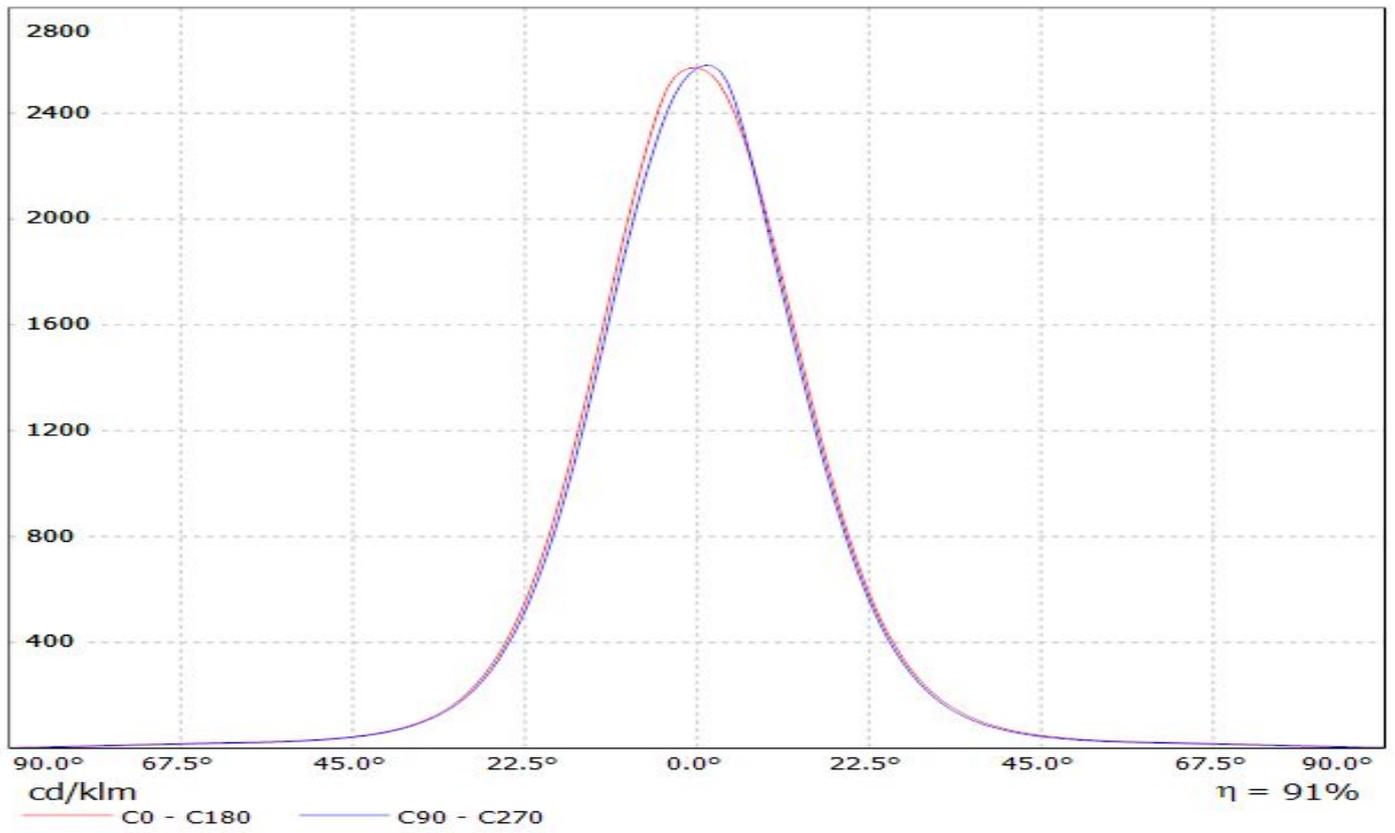
|                   |                    |   |                     |              |
|-------------------|--------------------|---|---------------------|--------------|
| DRAWN BY<br>pl    | DATE<br>20.02.2012 | DRAWING TITLE<br>Datasheet Virpi series |                     |              |
| CHECKED BY        | DATE               | SIZE<br>A4                              | DRAWING NUMBER<br>- | REV<br>1     |
| DESIGNED BY<br>PL | DATE<br>03.02.2012 | SCALE<br>1:1                            | WEIGHT (g)          | SHEET<br>1/1 |

1

D A

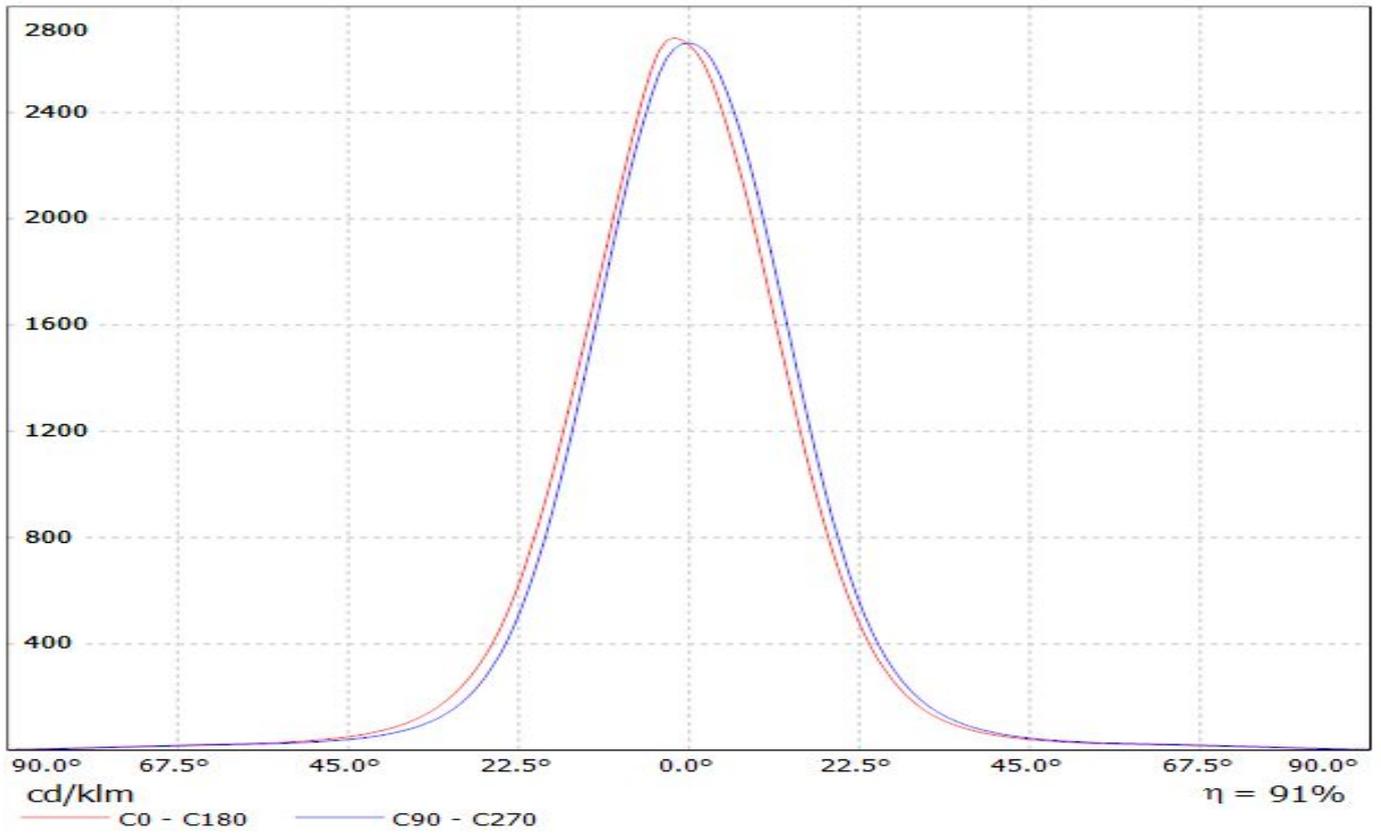
**LEDiL Oy C12608\_VIRPI-M\_(REBEL\_ES) Eff.90.6% / LDC (Linear)**

Luminaire: LEDiL Oy C12608\_VIRPI-M\_(REBEL\_ES) Eff.90.6%  
Lamps: 1 x REBEL\_ES\_5x5 (1766.64lm@250mA)



# LEDiL Oy C12608\_VIRPI-M\_(SQ-EC) Eff.91.0% / LDC (Linear)

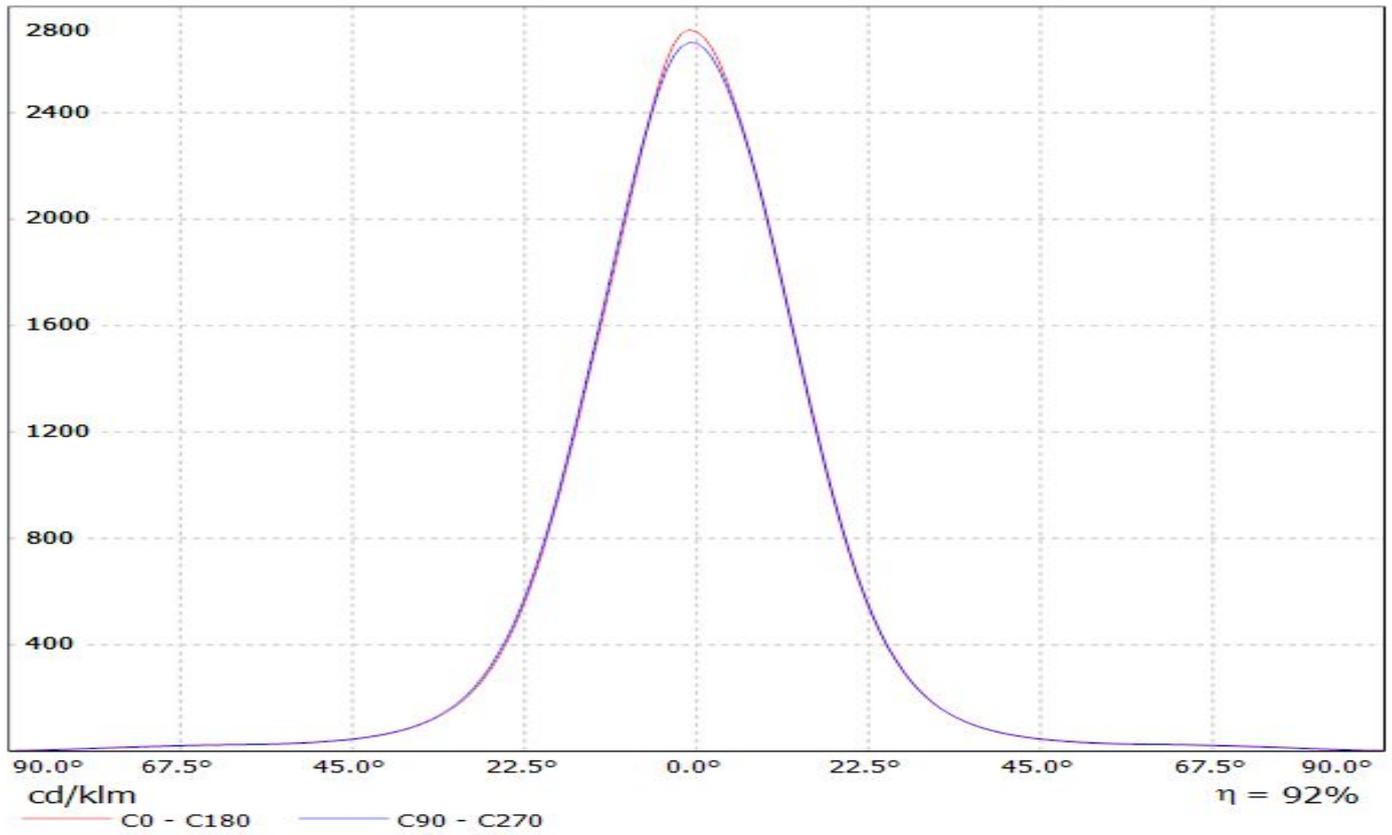
Luminaire: LEDiL Oy C12608\_VIRPI-M\_(SQ-EC) Eff.91.0%  
Lamps: 1 x SQ-EC\_5x5 (2043.47lm@250mA)



**LEDiL Oy C12608\_VIRPI-M\_(XB-D) Eff.92.1% / LDC (Linear)**

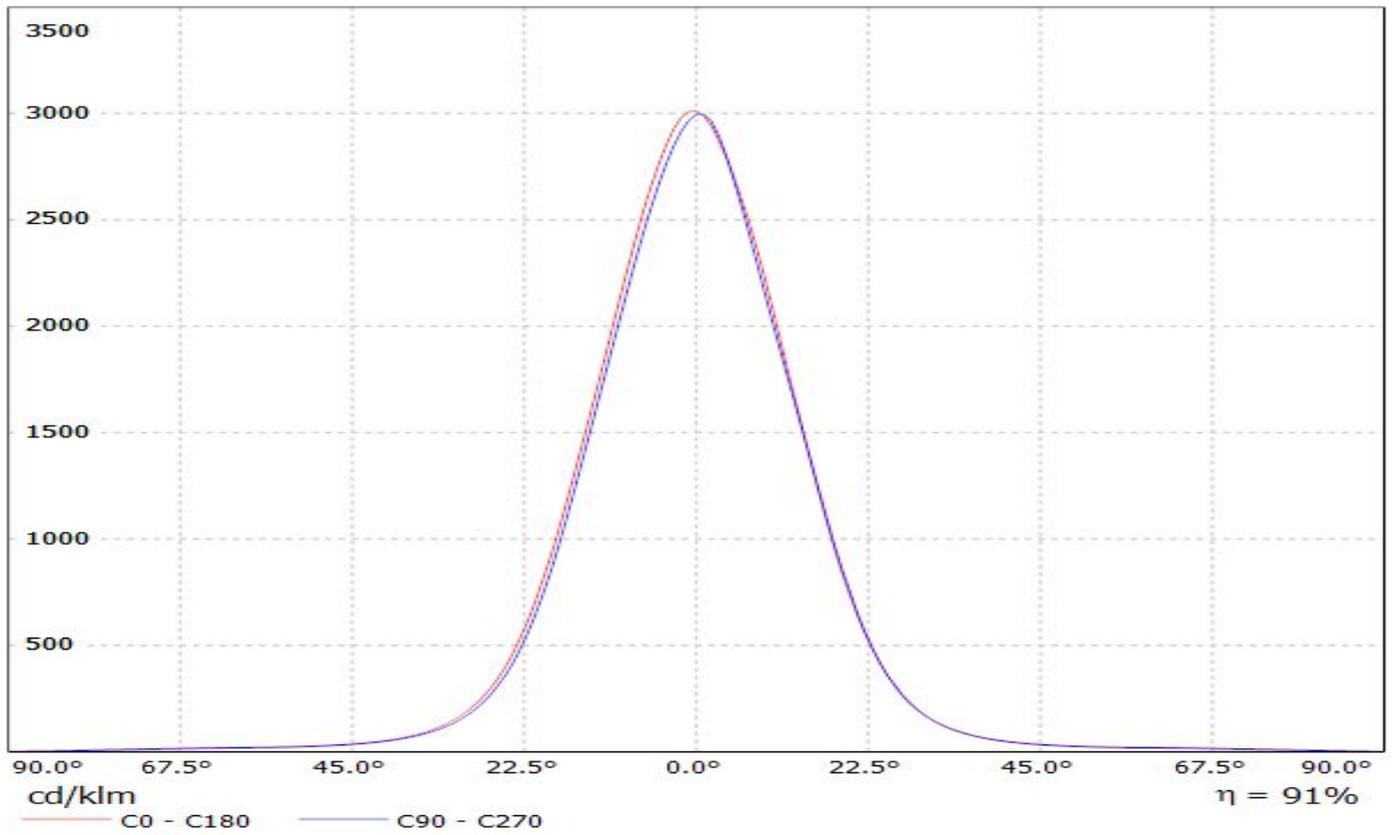
Luminaire: LEDiL Oy C12608\_VIRPI-M\_(XB-D) Eff.92.1%

Lamps: 1 x XB-D\_5x5 (1878.23lm@250mA)



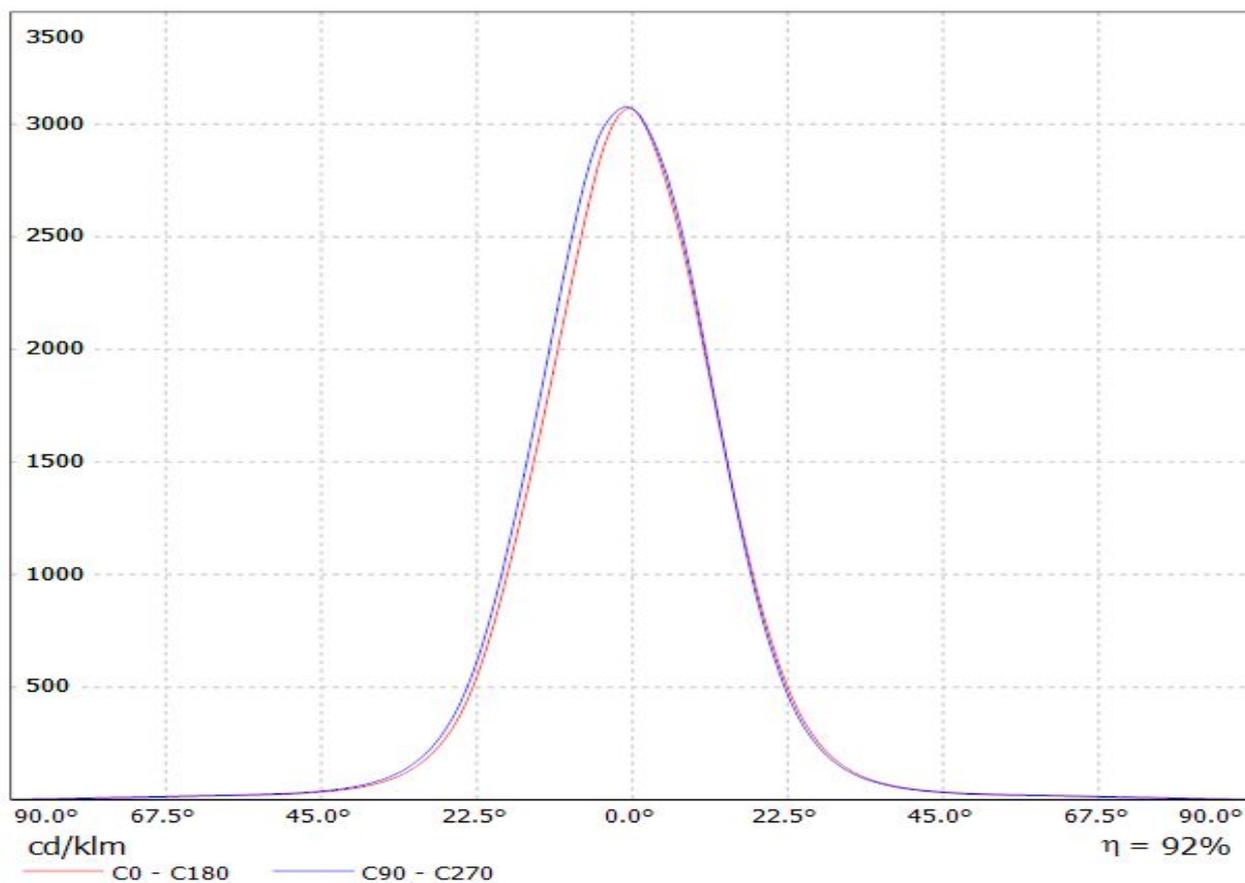
# LEDiL Oy C12608\_VIRPI-M\_(XP-E2) Eff.91.2% / LDC (Linear)

Luminaire: LEDiL Oy C12608\_VIRPI-M\_(XP-E2) Eff.91.2%  
Lamps: 1 x XP-E2\_x25 (2039.65lm@250mA)



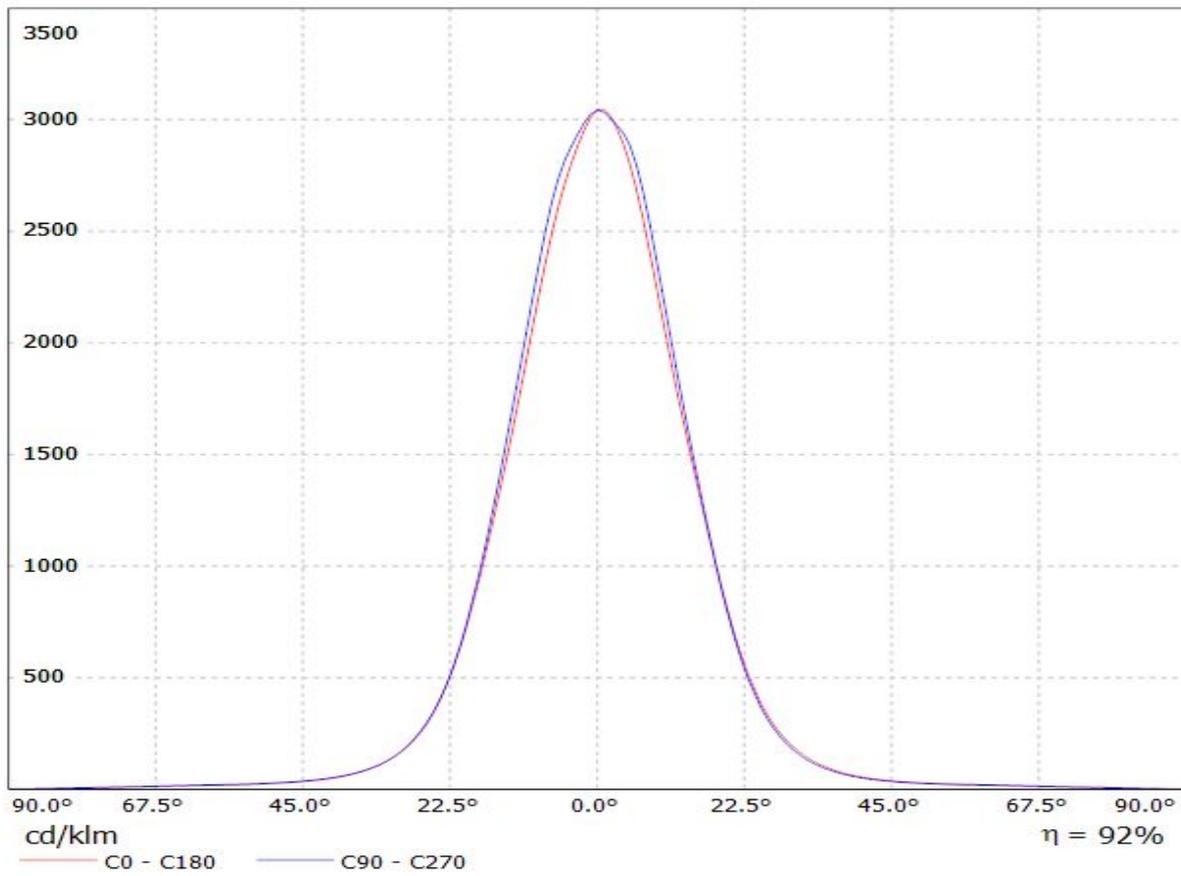
Luminaire: LEDiL Oy C12608\_VIRPI-M\_(LM231B)

Lamps: 1 x SAMSUNG\_LM231B\_5X5\_121.687lm@65mA\_P=0.886133W\_I=65,2mA

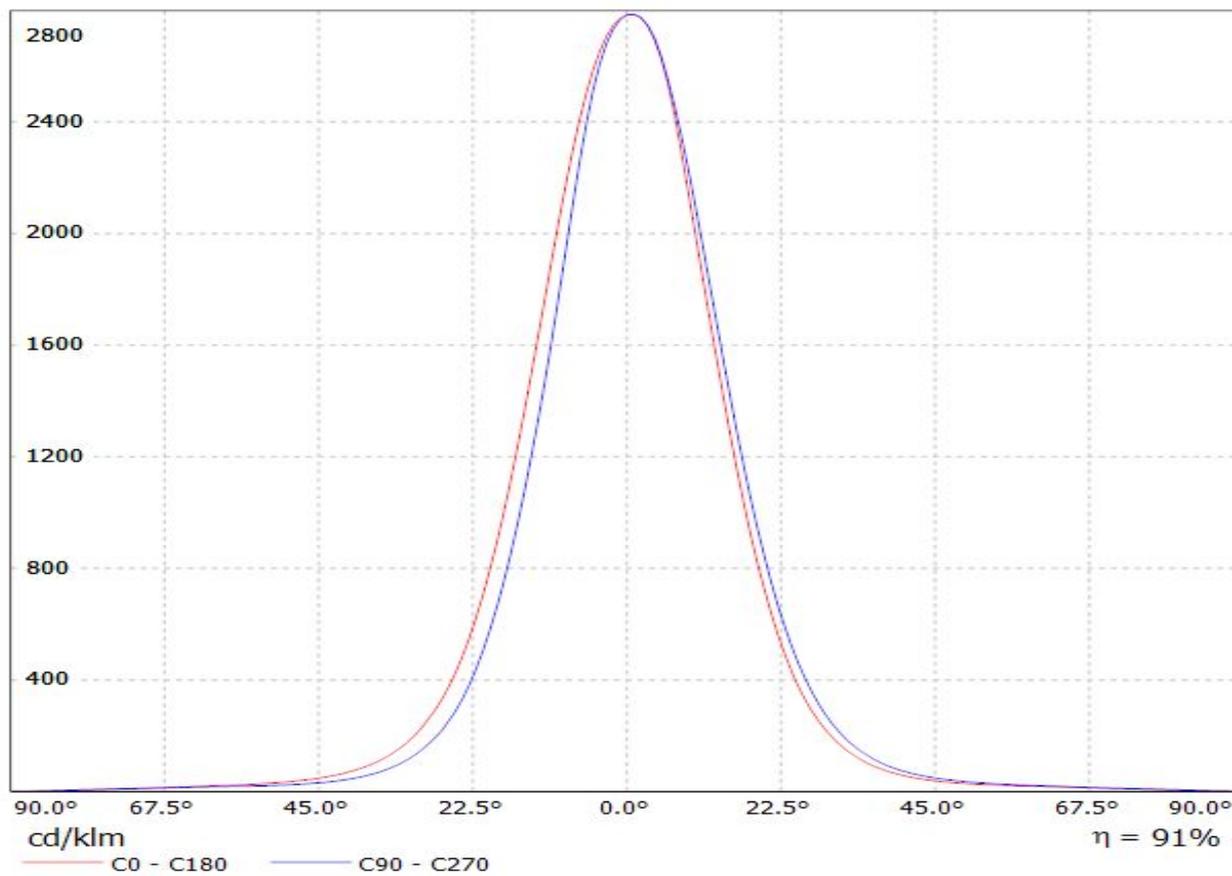


Luminaire: LEDiL Oy C12608\_VIRPI-M\_(DURIS-S5)

Lamps: 1 x OSRAM\_DURIS-S5\_5x5\_(GW\_PSLLS1.EC-HPHR-5L7N-1)\_160.476lm@80mA\_P=1.10163W\_I=80.2mA

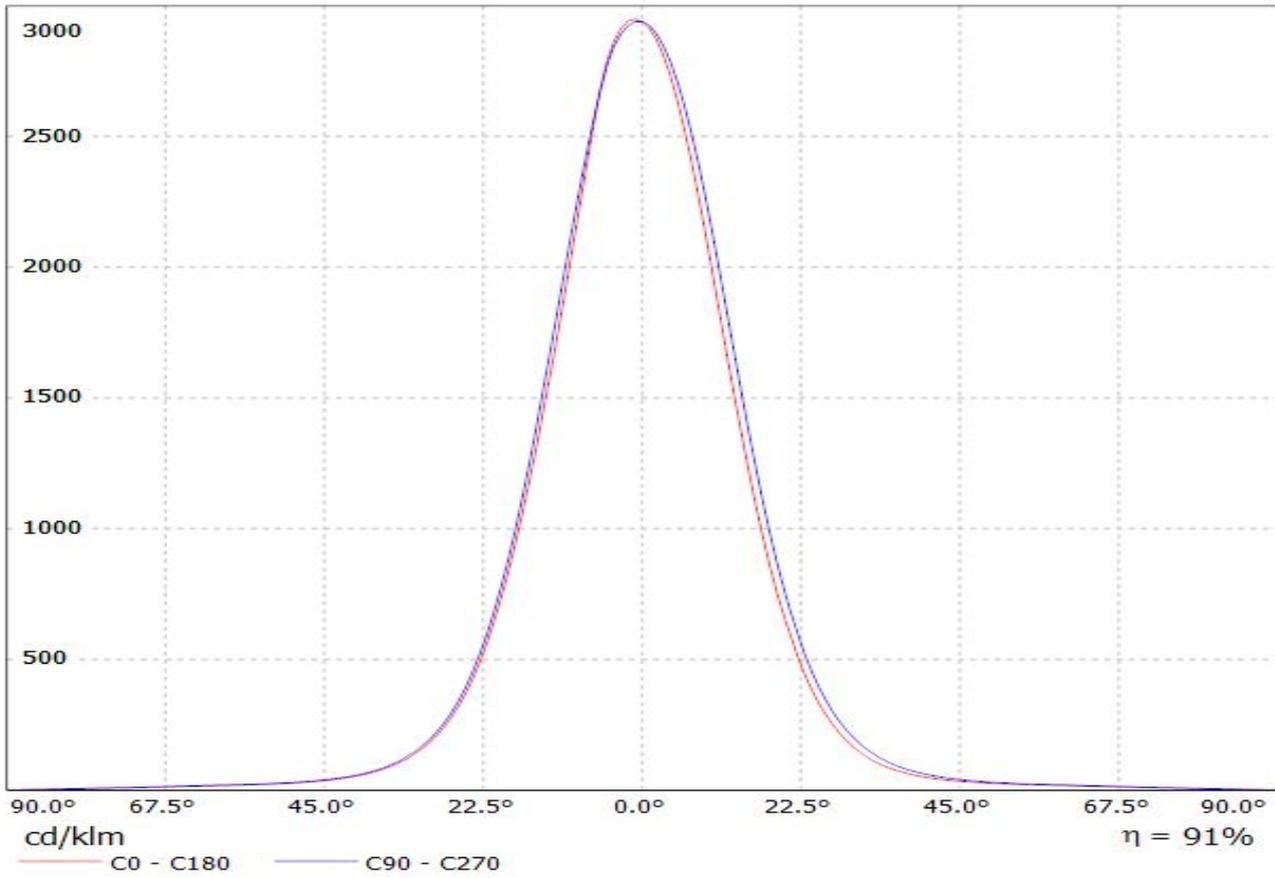


Luminaire: LEDiL Oy C12608\_VIRPI-M\_(LG\_3030)  
Lamps: 1 x LG\_3030\_3000k\_522.247lm@150mA\_P=4.12515W\_I=150mA



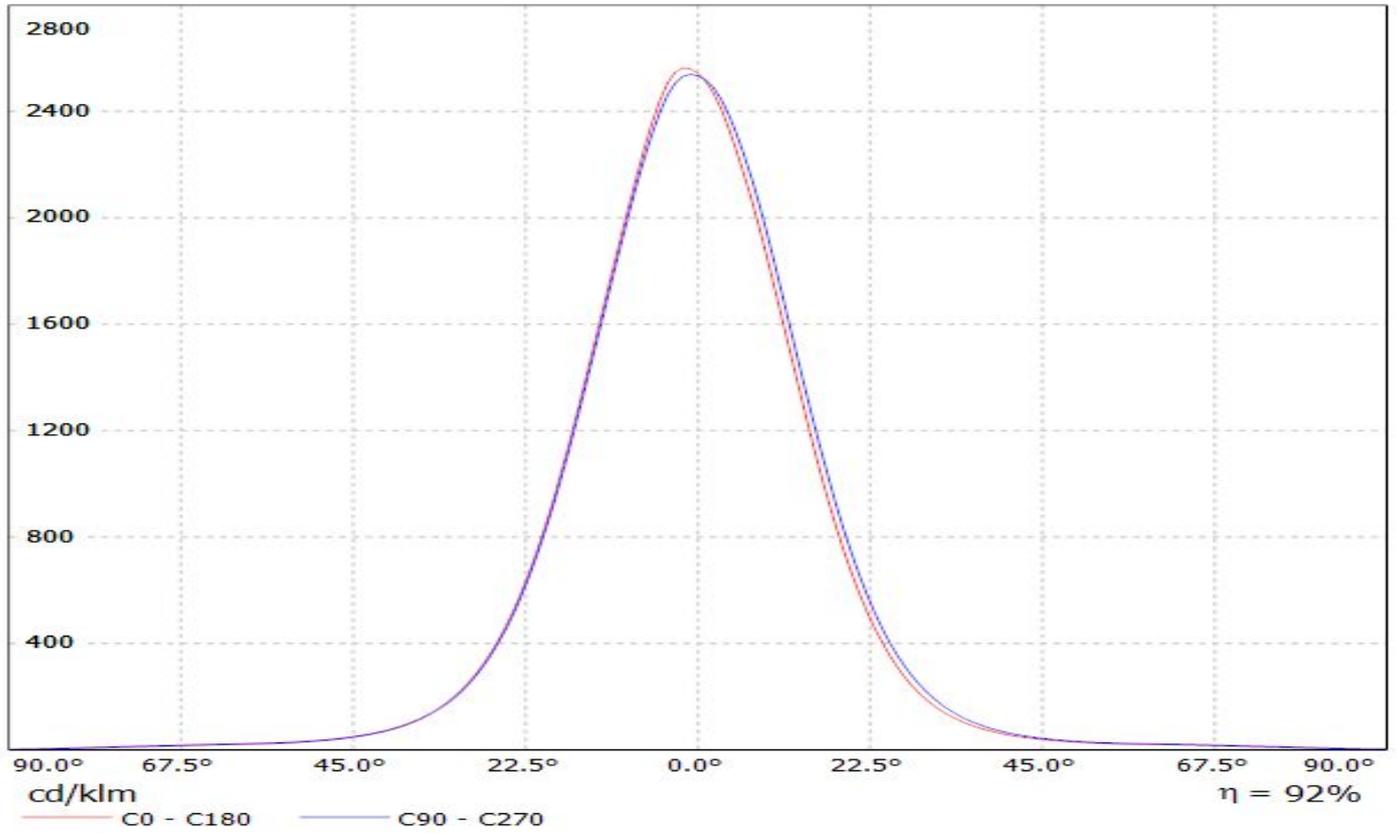
Luminaire: LEDiL Oy C12608\_VIRPI-M\_(NF2x757A)

Lamps: 1 x Nichia\_NF2x757A\_(NF2W757ARTV1)\_1037.67lm@250mA P=6.97966W I=249.8mA



**LEDiL Oy C12608\_VIRPI-M\_(XP-G) Eff.91.9% / LDC (Linear)**

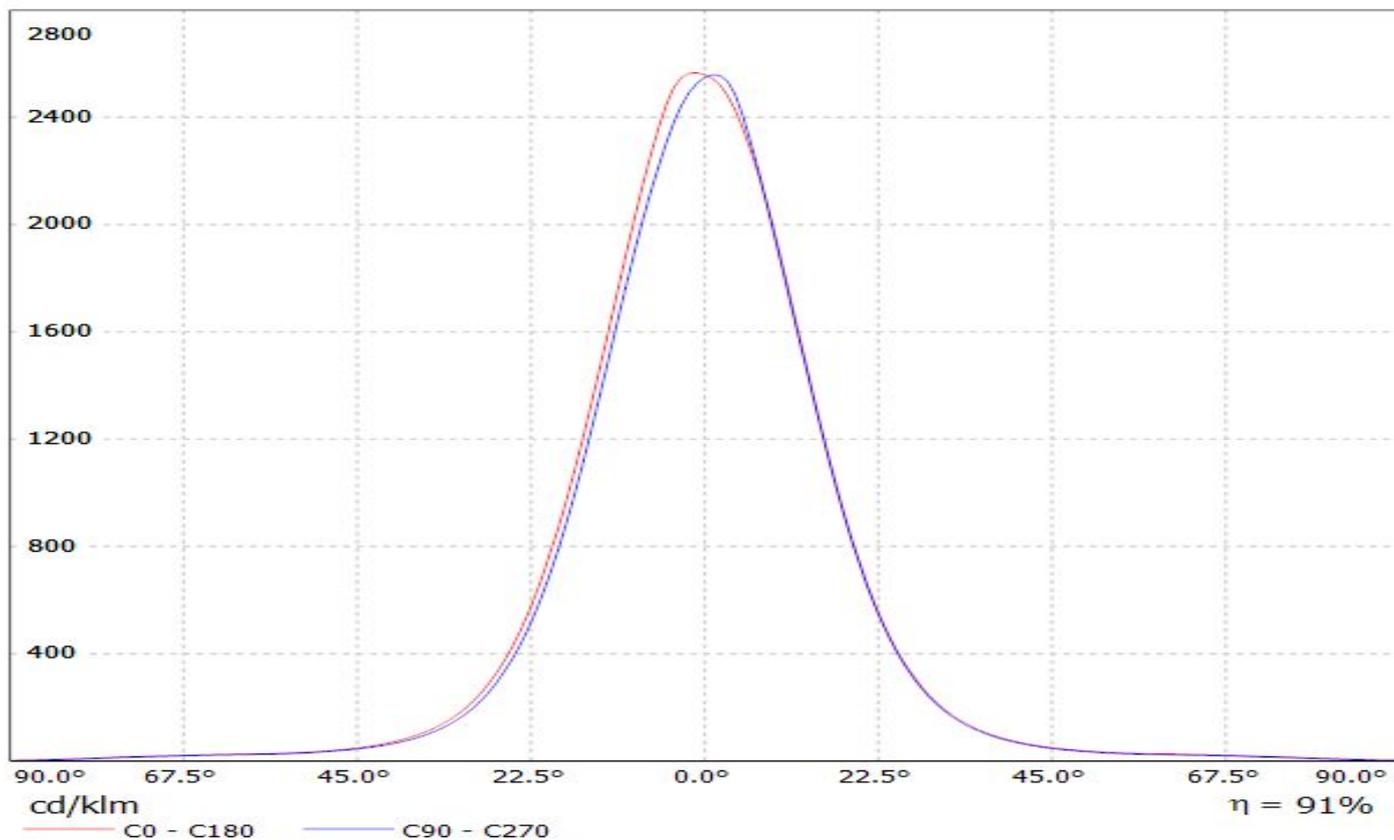
Luminaire: LEDiL Oy C12608\_VIRPI-M\_(XP-G) Eff.91.9%  
Lamps: 1 x XP-G\_5x5 (1544.25lm@250mA)



**LEDiL Oy C12608\_VIRPI-M\_(XT-E) Eff.91.0% / LDC (Linear)**

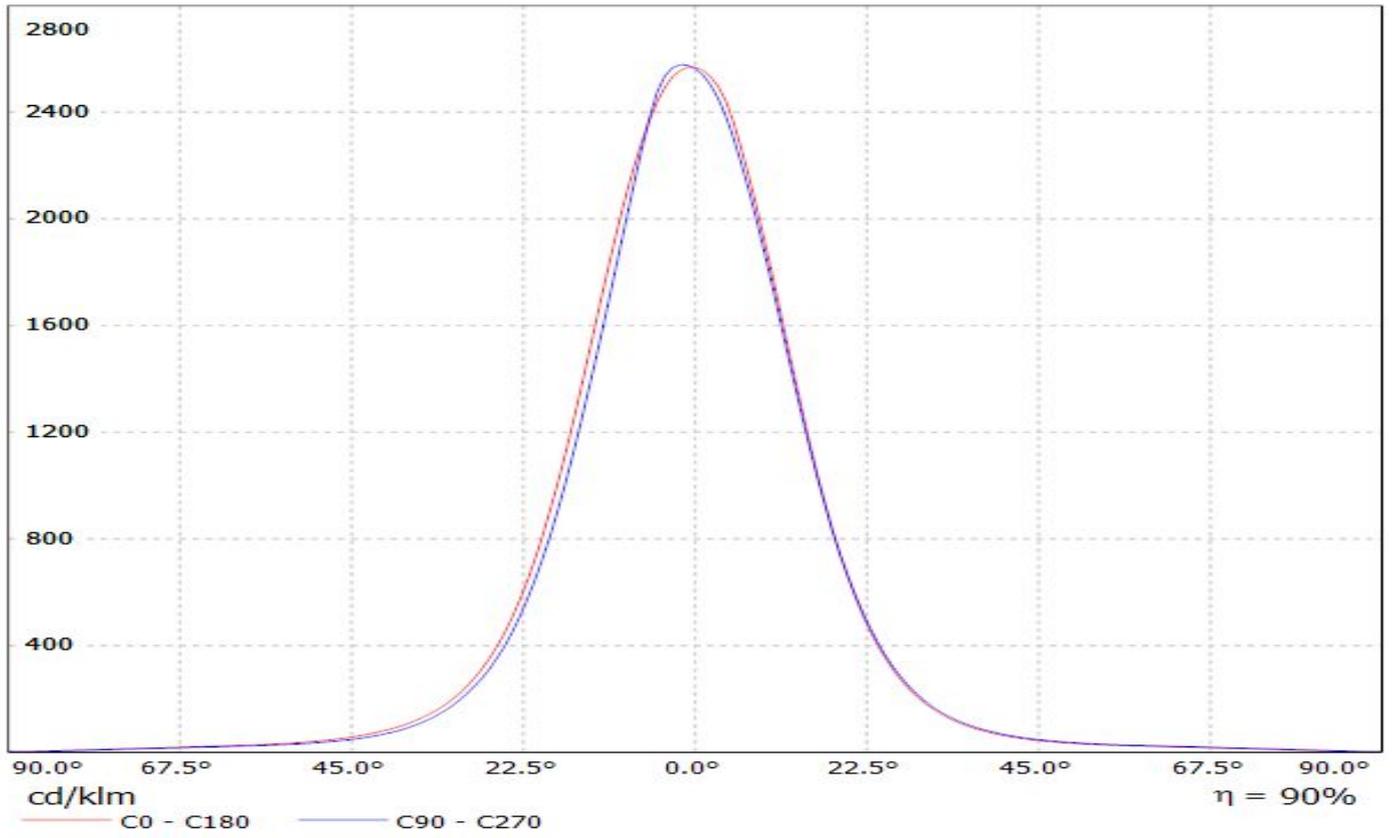
Luminaire: LEDiL Oy C12608\_VIRPI-M\_(XT-E) Eff.91.0%

Lamps: 1 x XT-E\_5x5 (2049.85lm@250mA)



**LEDiL Oy C12608\_VIRPI-M\_(NVS19) Eff.90.1% / LDC (Linear)**

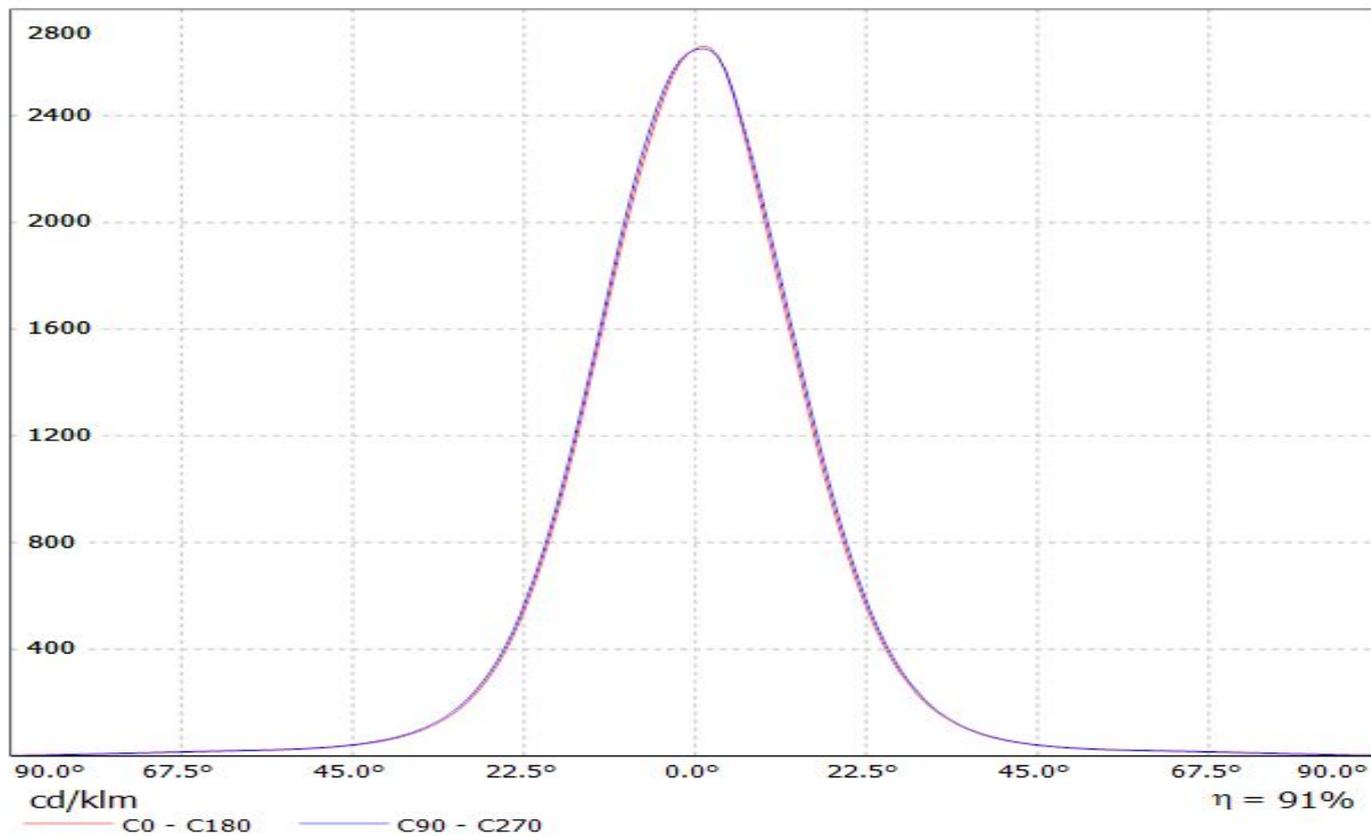
Luminaire: LEDiL Oy C12608\_VIRPI-M\_(NVS19) Eff.90.1%  
Lamps: 1 x NVS19\_5x5 (1782.78lm@250mA)



**LEDiL Oy C12608\_VIRPI-M\_(XP-G2) Eff.91.1% / LDC (Linear)**

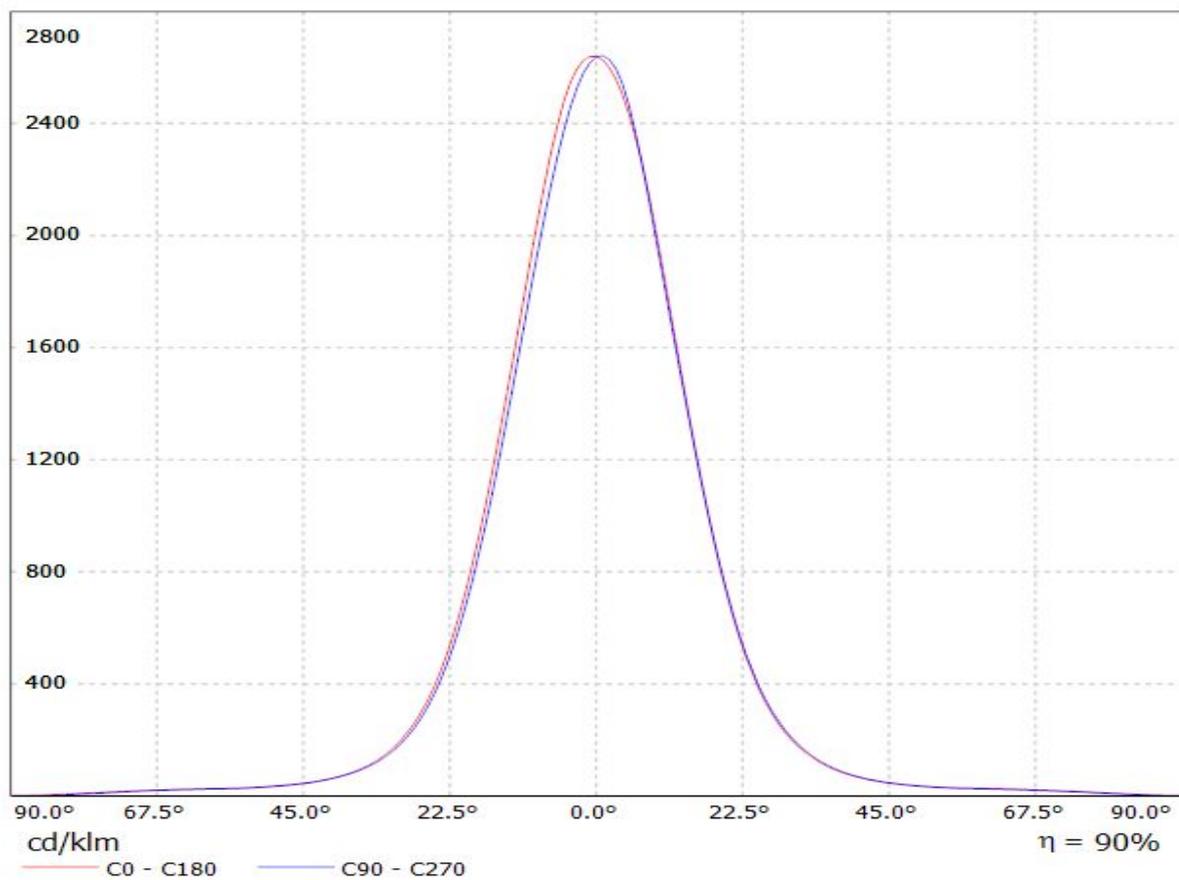
Luminaire: LEDiL Oy C12608\_VIRPI-M\_(XP-G2) Eff.91.1%

Lamps: 1 x XP-G2\_x25 (2535.22lm@250mA)



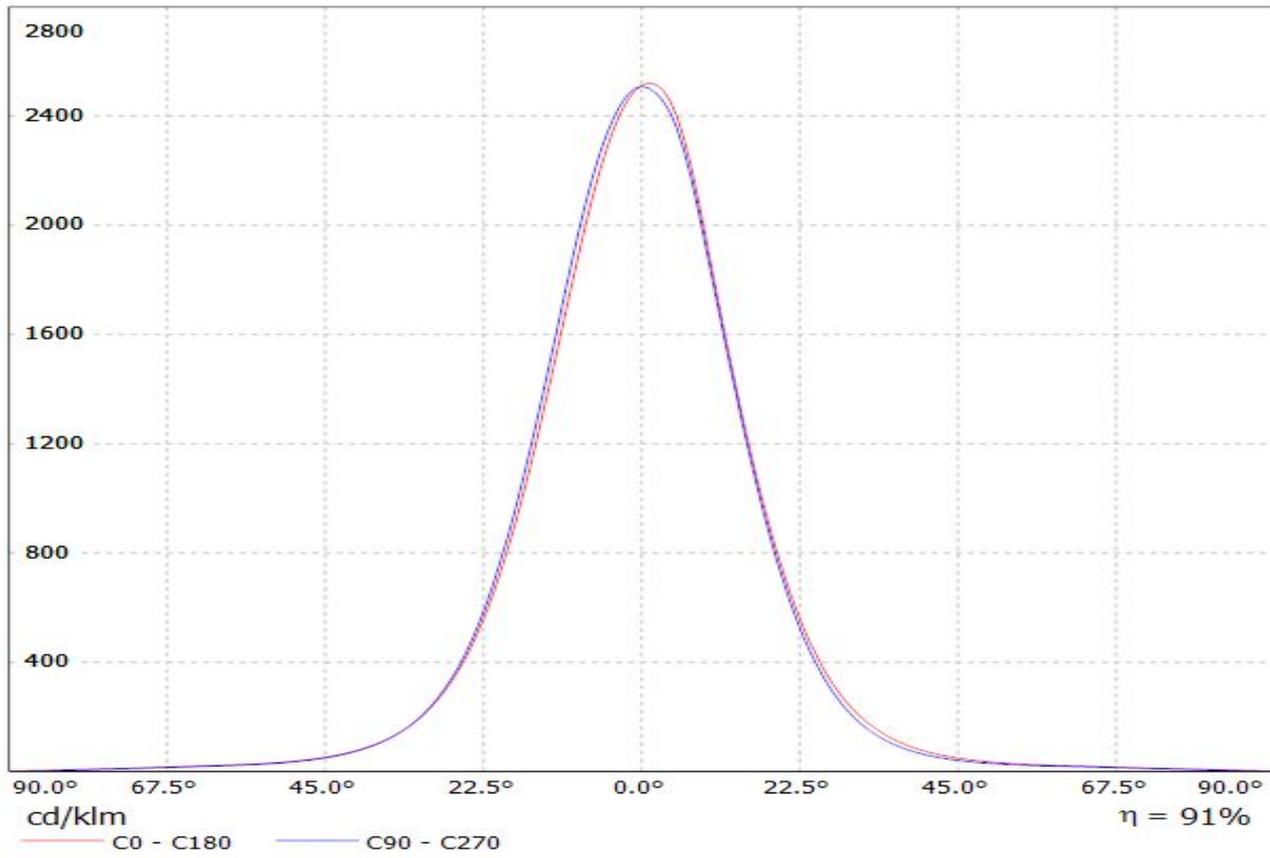
Luminaire: LEDiL Oy C12608\_VIRPI-M\_(DURIS\_P5)

Lamps: 1 x OSRAM\_DURIS\_P5\_5x5\_(GW\_DASPA1.EC-HPHR-5R8T-1)\_163.795lm@100mA\_P=1.37895W\_I=100.2mA

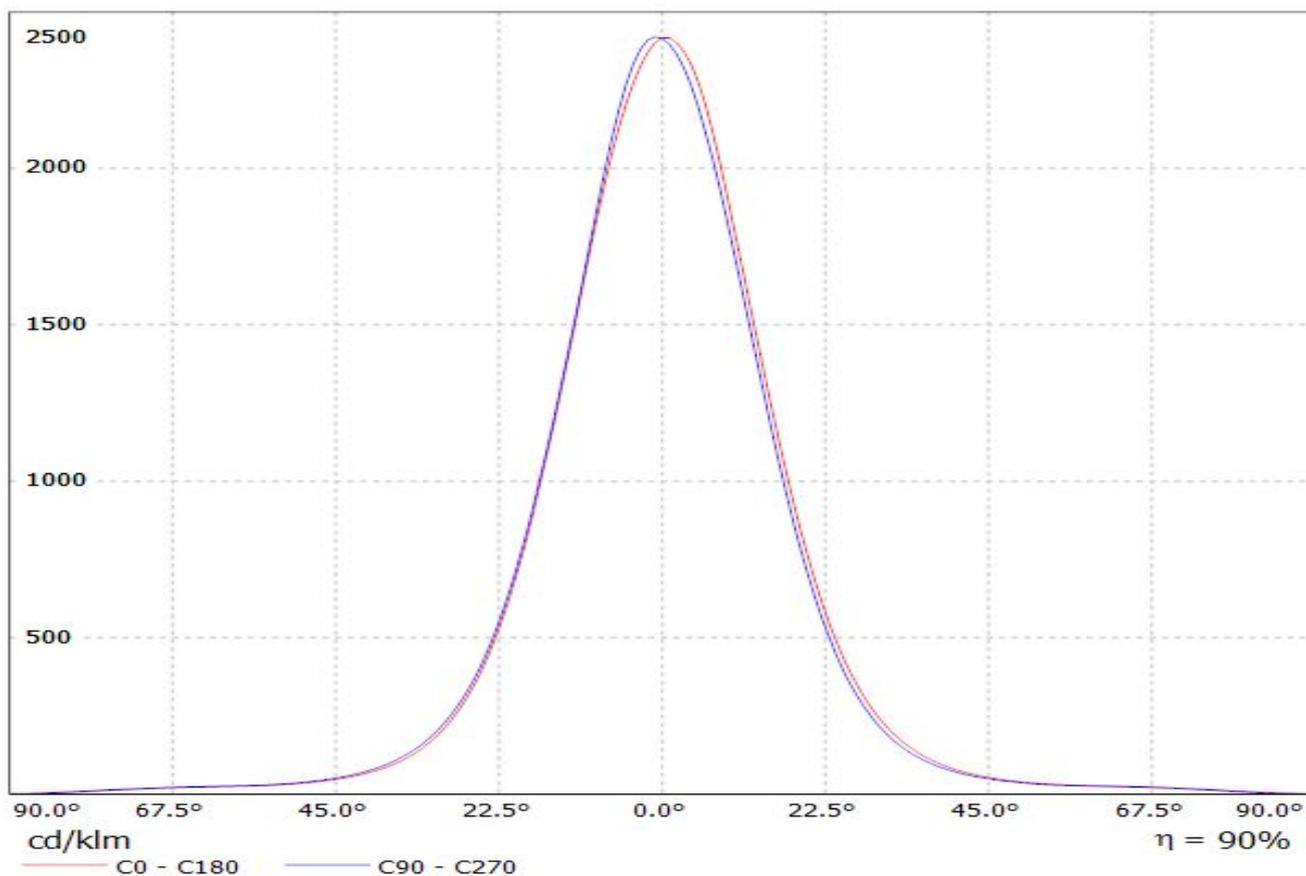


Luminaire: LEDiL Oy C12608\_VIRPI-M\_(ML-E)

Lamps: 1 x CREE\_ML-E\_5x5\_(MLEAWT-U1-7A3-K3-0-00003)\_178.608lm@150mA\_P=2.1053W\_I=150.1mA



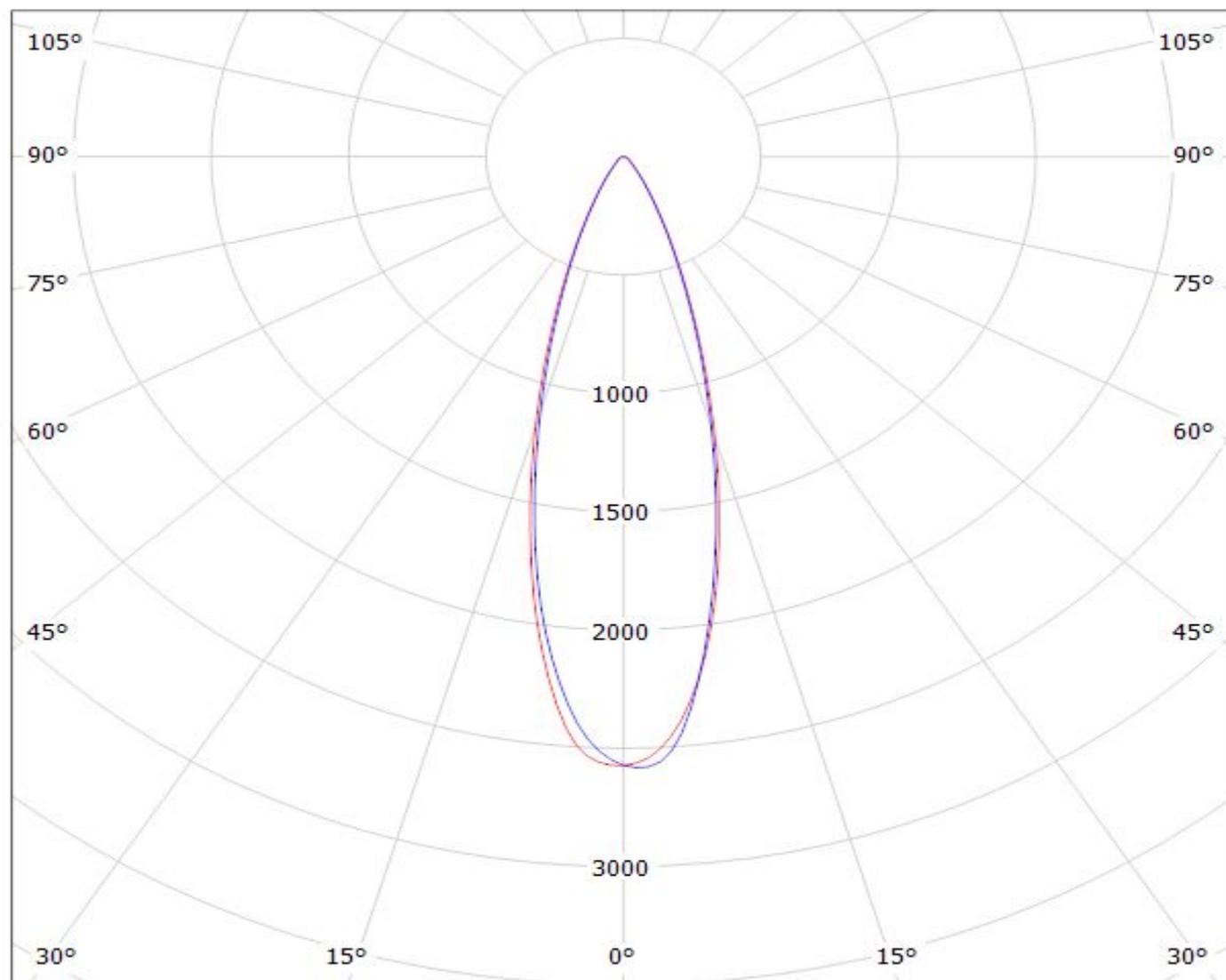
Luminaire: LEDiL Oy C12608\_VIRPI-M\_(XH-B)  
Lamps: 1 x CREE\_XH-B\_136.467lm@65mA\_P=0.911626\_I=65.2mA



# LEDiL Oy C12608\_VIRPI-M\_(REBEL\_ES) Eff.90.6% / LDC (Polar)

Luminaire: LEDiL Oy C12608\_VIRPI-M\_(REBEL\_ES) Eff.90.6%

Lamps: 1 x REBEL\_ES\_5x5 (1766.64lm@250mA)



cd/klm

— C0 - C180

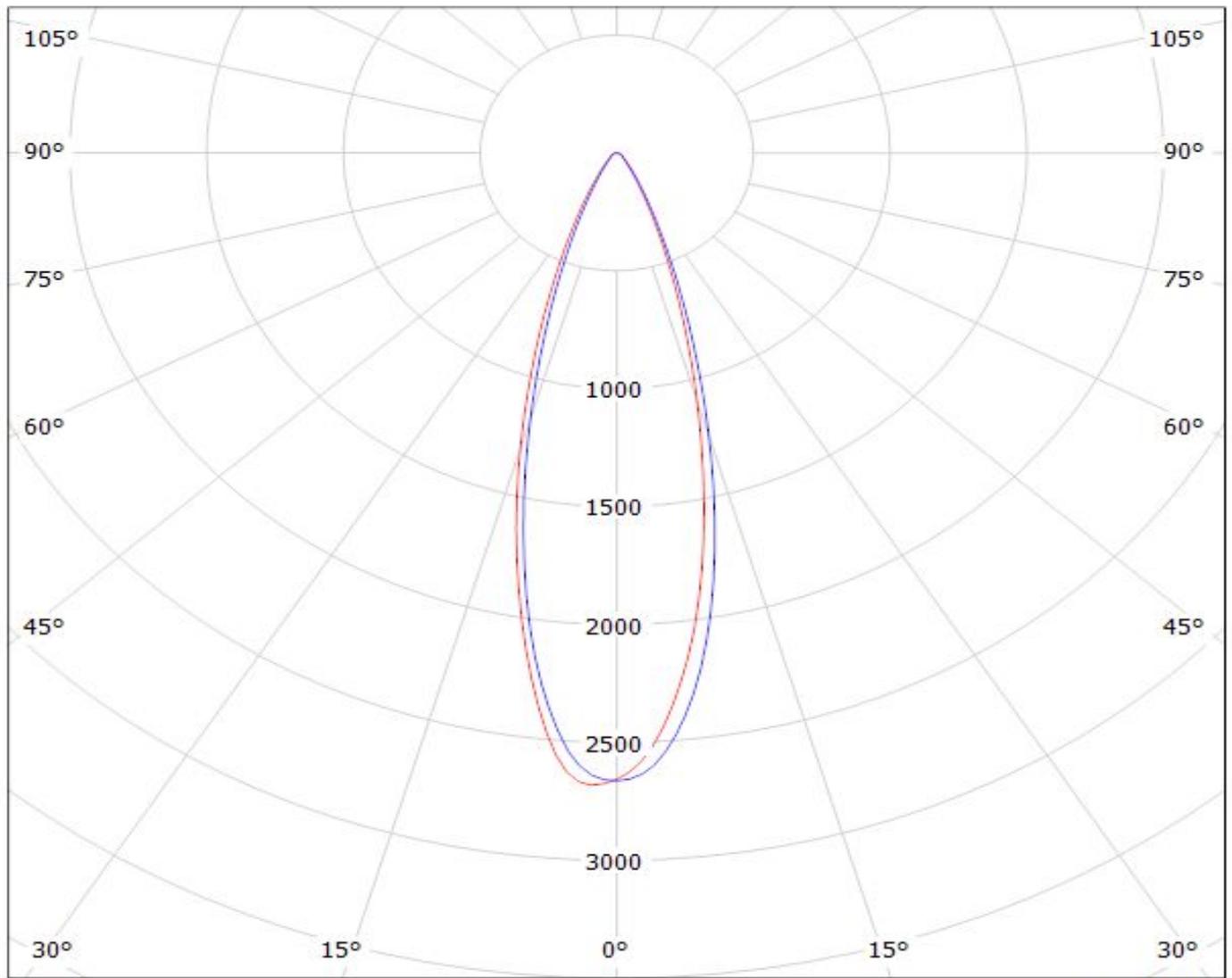
— C90 - C270

$\eta = 91\%$

# LEDiL Oy C12608\_VIRPI-M\_(SQ-EC) Eff.91.0% / LDC (Polar)

Luminaire: LEDiL Oy C12608\_VIRPI-M\_(SQ-EC) Eff.91.0%

Lamps: 1 x SQ-EC\_5x5 (2043.47lm@250mA)



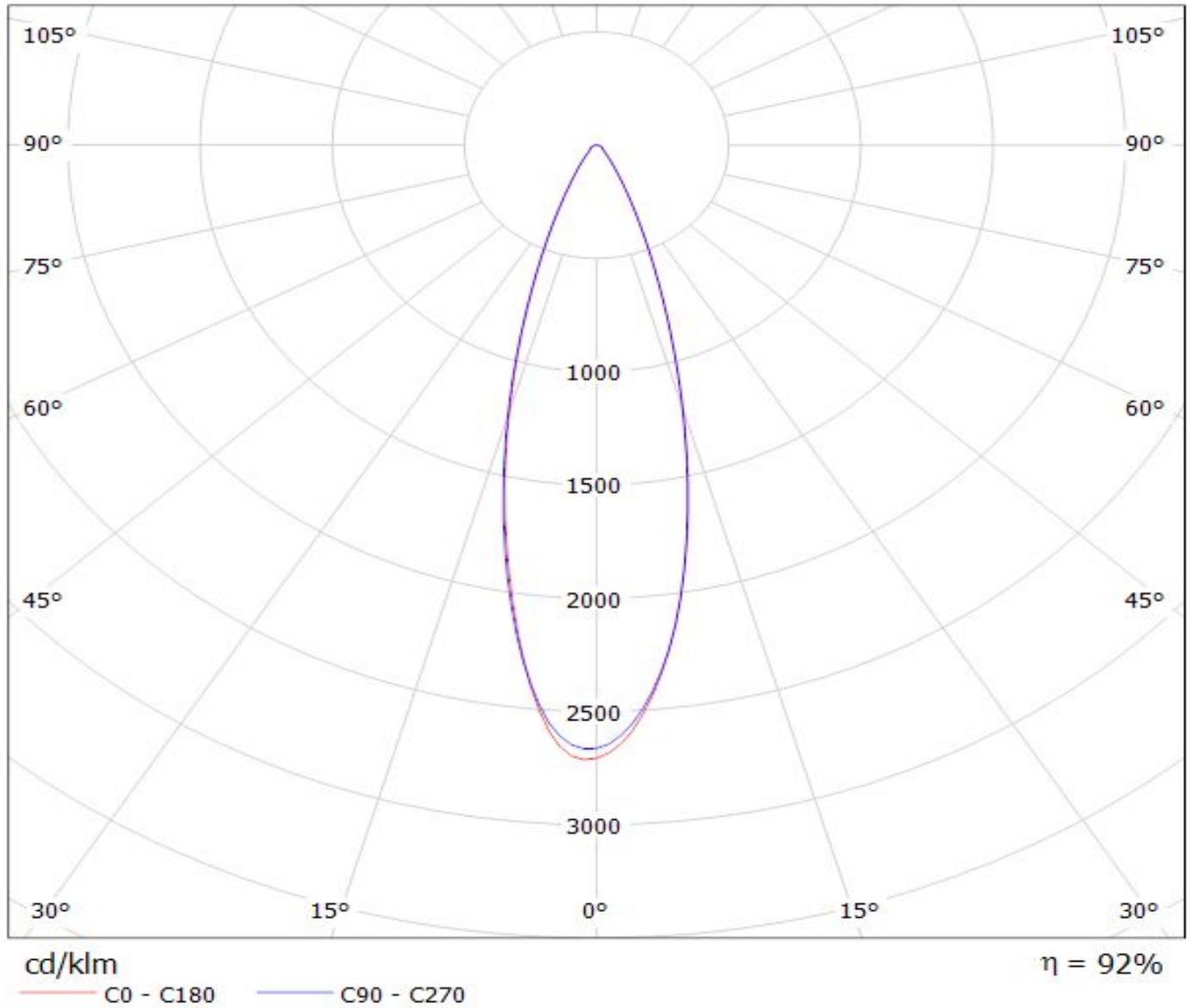
cd/klm

— C0 - C180

— C90 - C270

# LEDiL Oy C12608\_VIRPI-M\_(XB-D) Eff.92.1% / LDC (Polar)

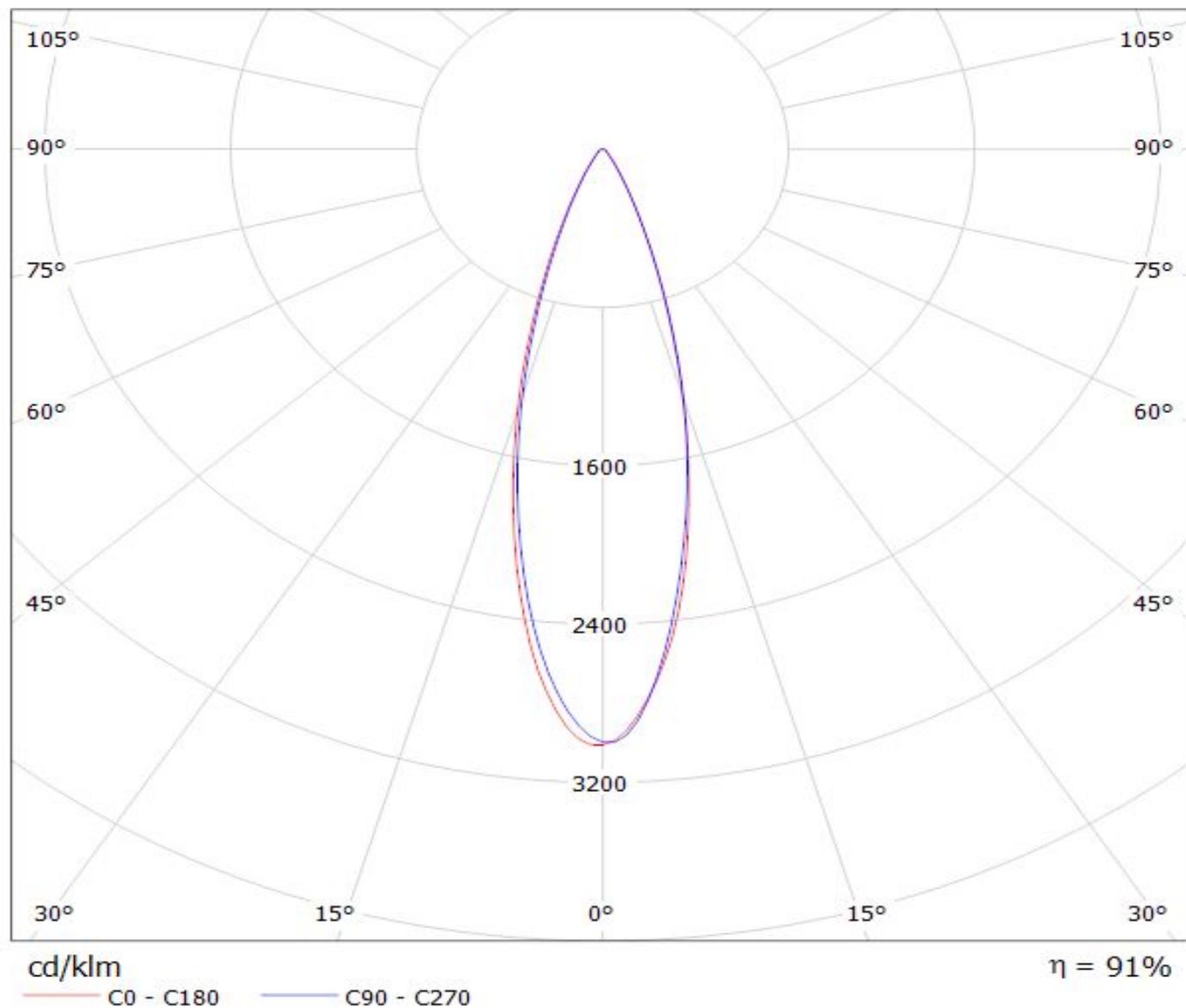
Luminaire: LEDiL Oy C12608\_VIRPI-M\_(XB-D) Eff.92.1%  
Lamps: 1 x XB-D\_5x5 (1878.23lm@250mA)



# LEDiL Oy C12608\_VIRPI-M\_(XP-E2) Eff.91.2% / LDC (Polar)

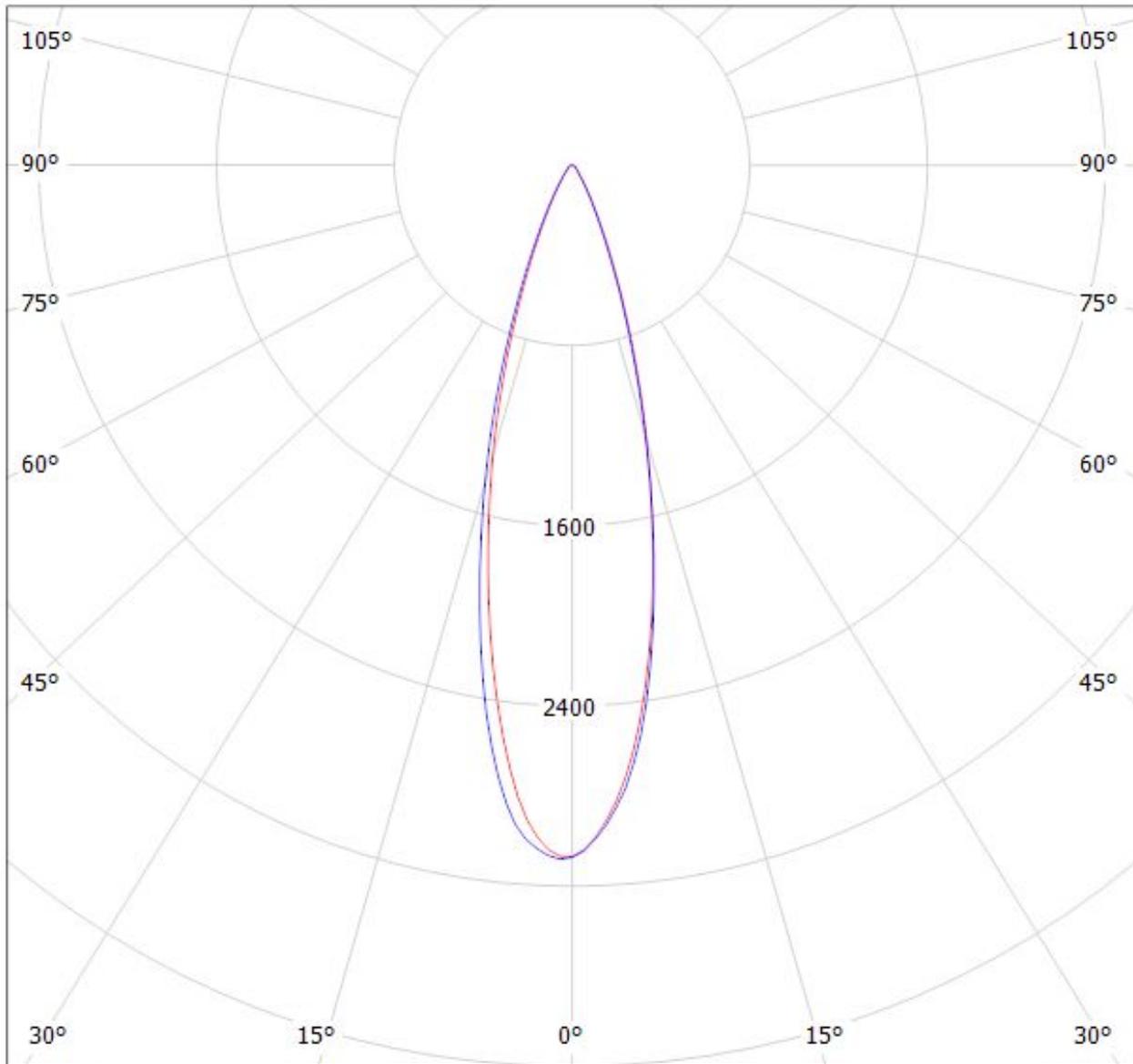
Luminaire: LEDiL Oy C12608\_VIRPI-M\_(XP-E2) Eff.91.2%

Lamps: 1 x XP-E2\_x25 (2039.65lm@250mA)



Luminaire: LEDiL Oy C12608\_VIRPI-M\_(LM231B)

Lamps: 1 x SAMSUNG\_LM231B\_5X5\_121.687lm@65mA\_P=0.886133W\_I=65,2mA



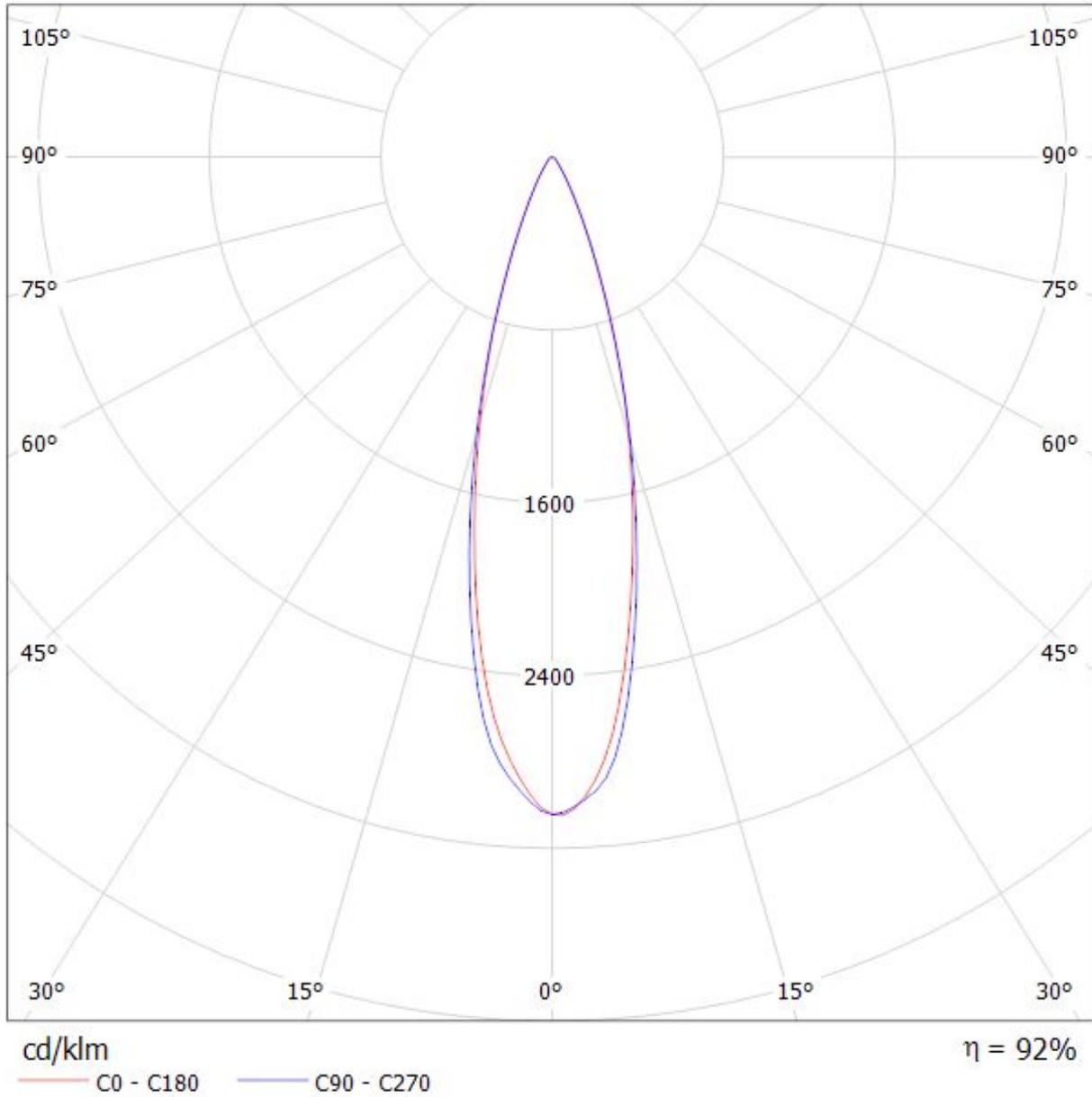
cd/klm

— C0 - C180    — C90 - C270

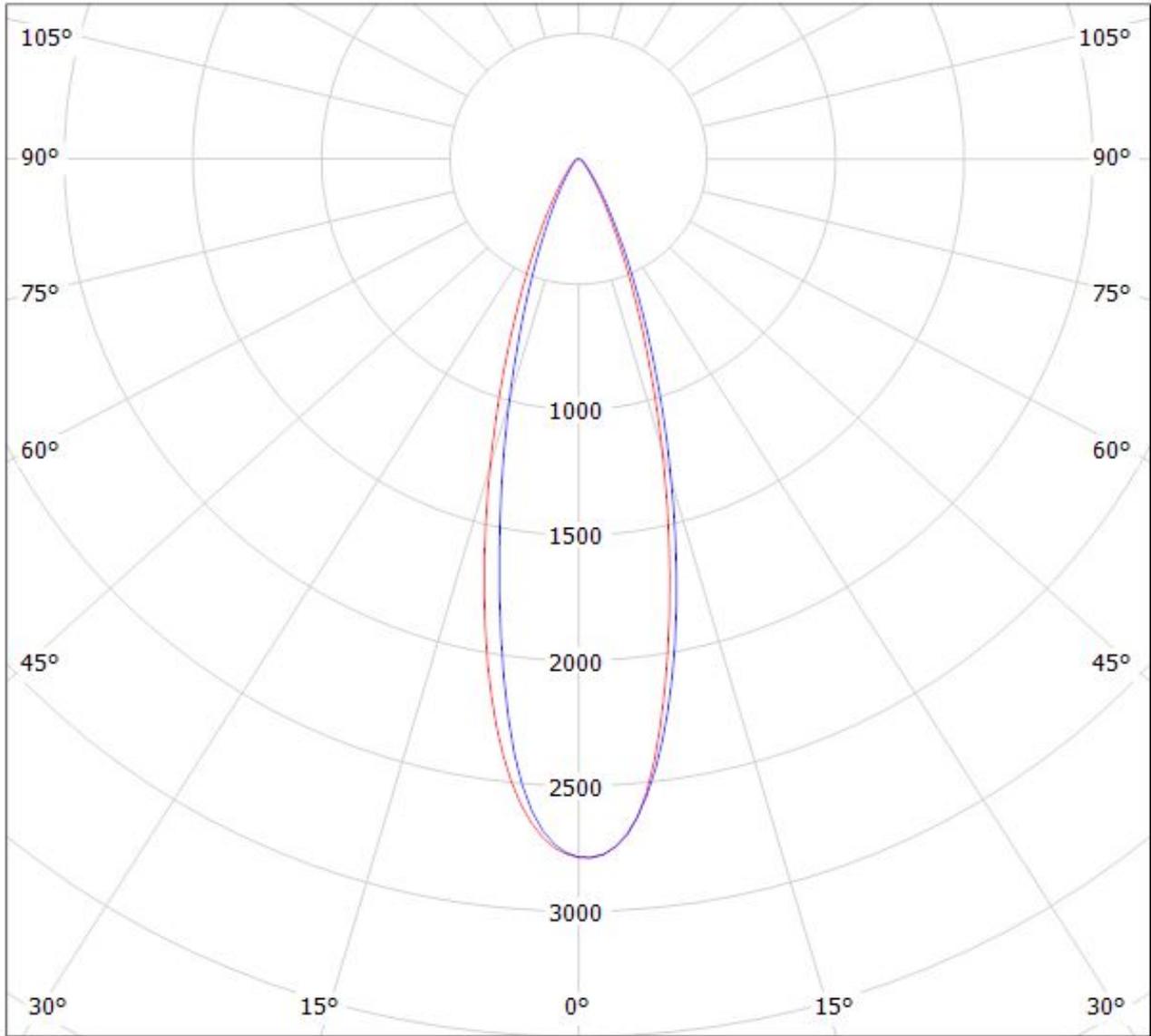
$\eta = 92\%$

Luminaire: LEDiL Oy C12608\_VIRPI-M\_(DURIS-S5)

Lamps: 1 x OSRAM\_DURIS-S5\_5x5\_(GW\_PSLLS1.EC-HPHR-5L7N-1)\_160.476lm@80mA\_P=1.10163W\_I=80.2mA



Luminaire: LEDiL Oy C12608\_VIRPI-M\_(LG\_3030)  
Lamps: 1 x LG\_3030\_3000k\_522.247lm@150mA\_P=4.12515W\_I=150mA



cd/klm

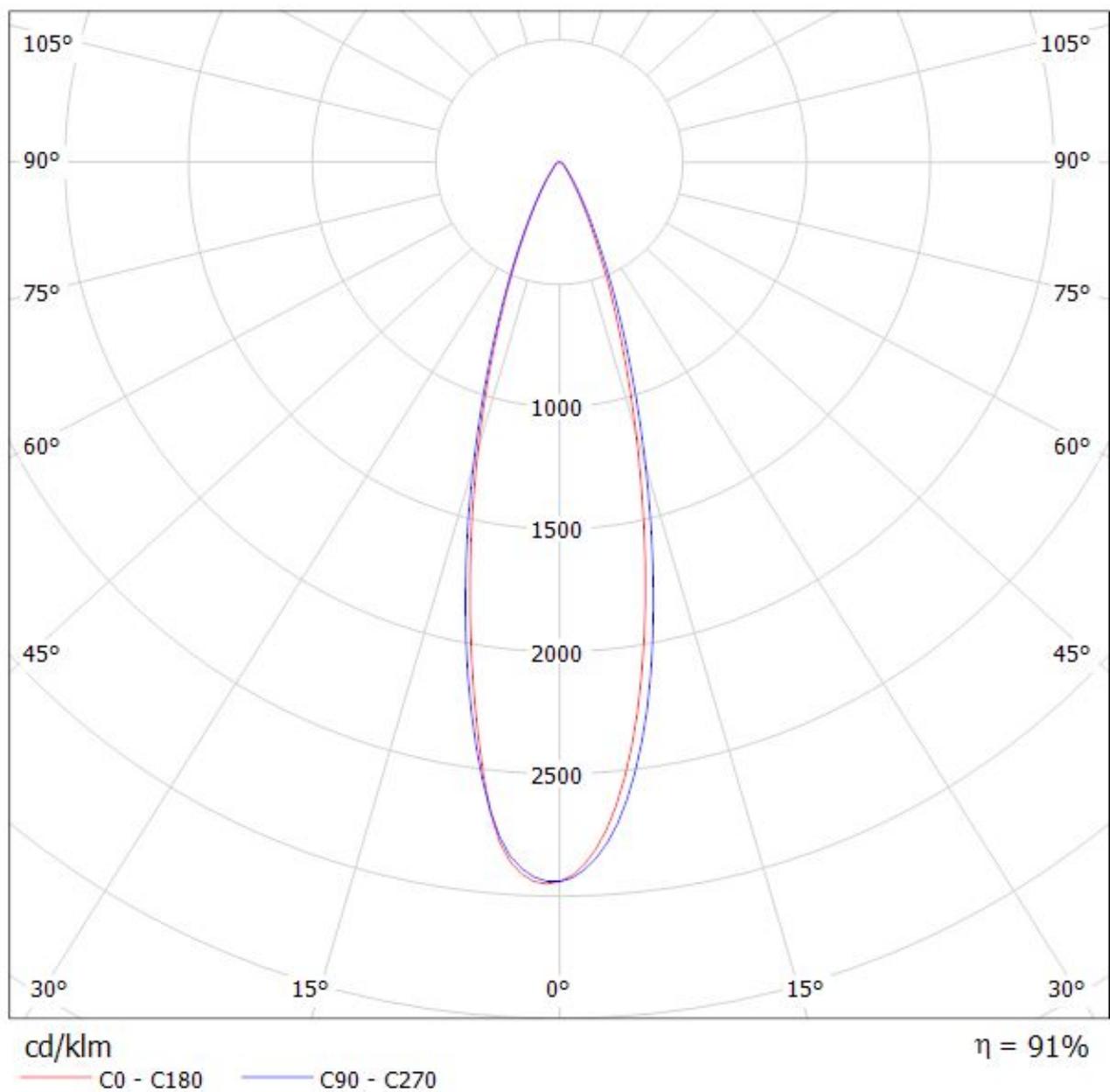
— C0 - C180

— C90 - C270

$\eta = 91\%$

Luminaire: LEDiL Oy C12608\_VIRPI-M\_(NF2x757A)

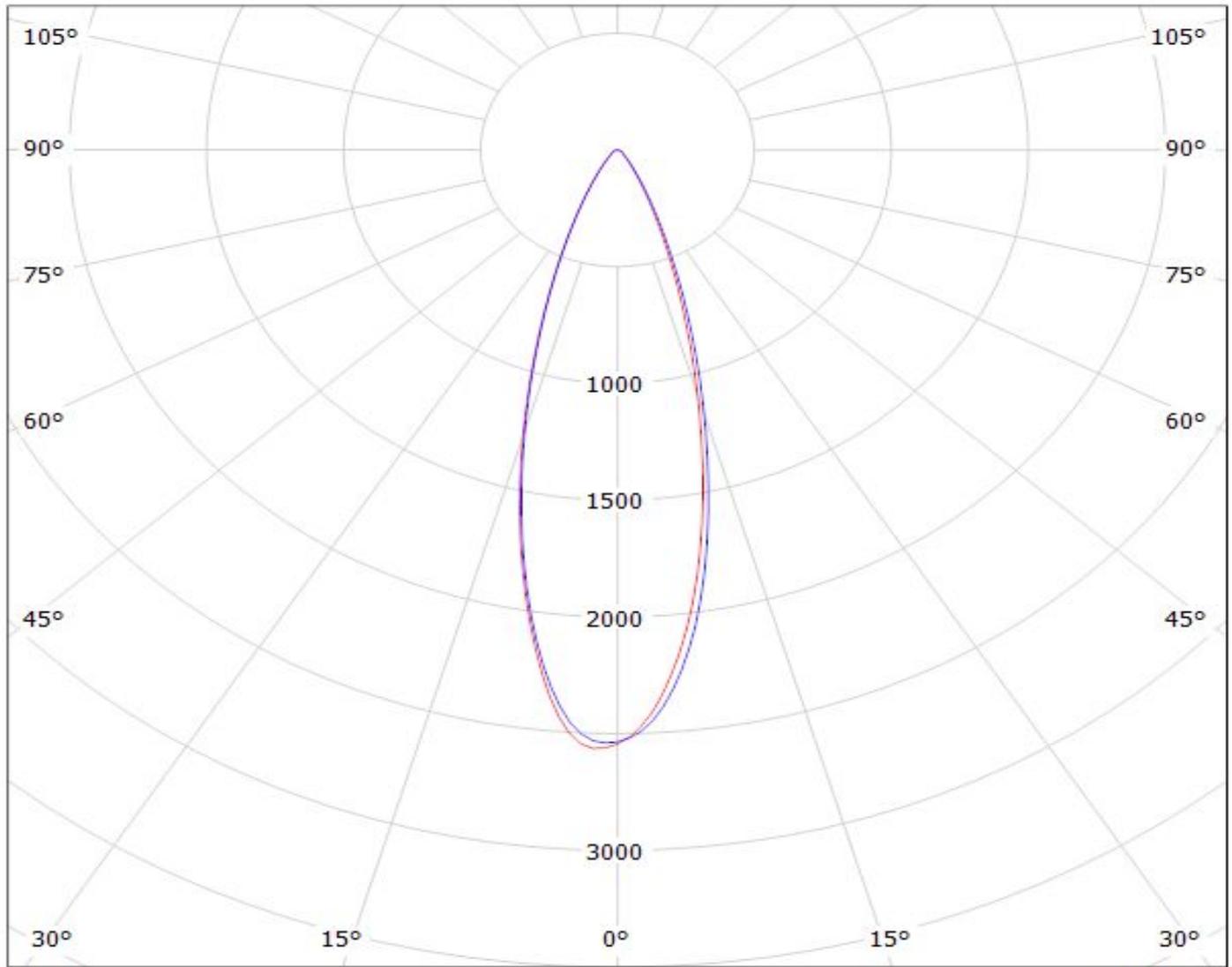
Lamps: 1 x Nichia\_NF2x757A\_(NF2W757ARTV1)\_1037.67lm@250mA P=6.97966W I=249.8mA



# LEDiL Oy C12608\_VIRPI-M\_(XP-G) Eff.91.9% / LDC (Polar)

Luminaire: LEDiL Oy C12608\_VIRPI-M\_(XP-G) Eff.91.9%

Lamps: 1 x XP-G\_5x5 (1544.25lm@250mA)



cd/klm

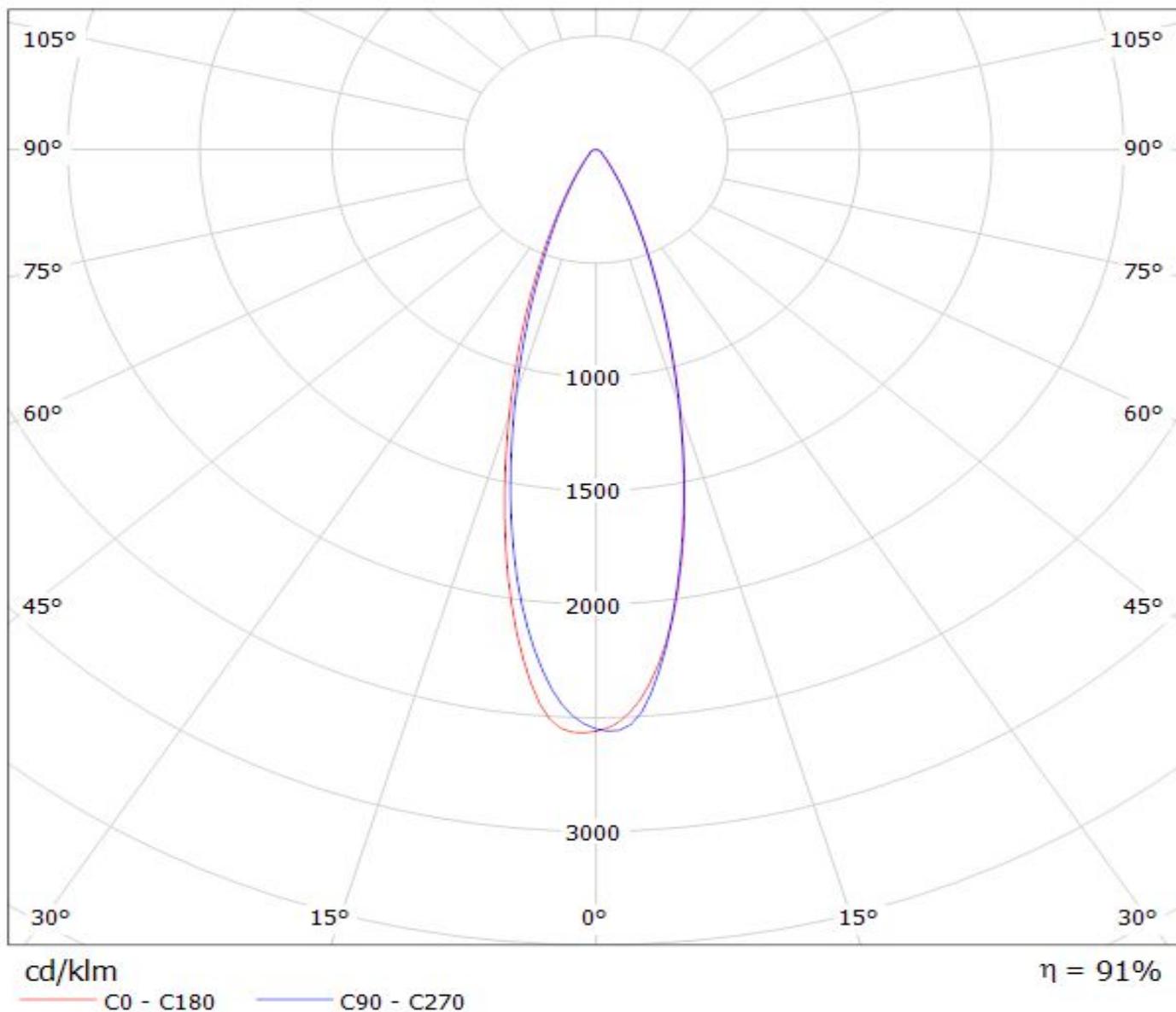
— C0 - C180

— C90 - C270

$\eta = 92\%$

# LEDiL Oy C12608\_VIRPI-M\_(XT-E) Eff.91.0% / LDC (Polar)

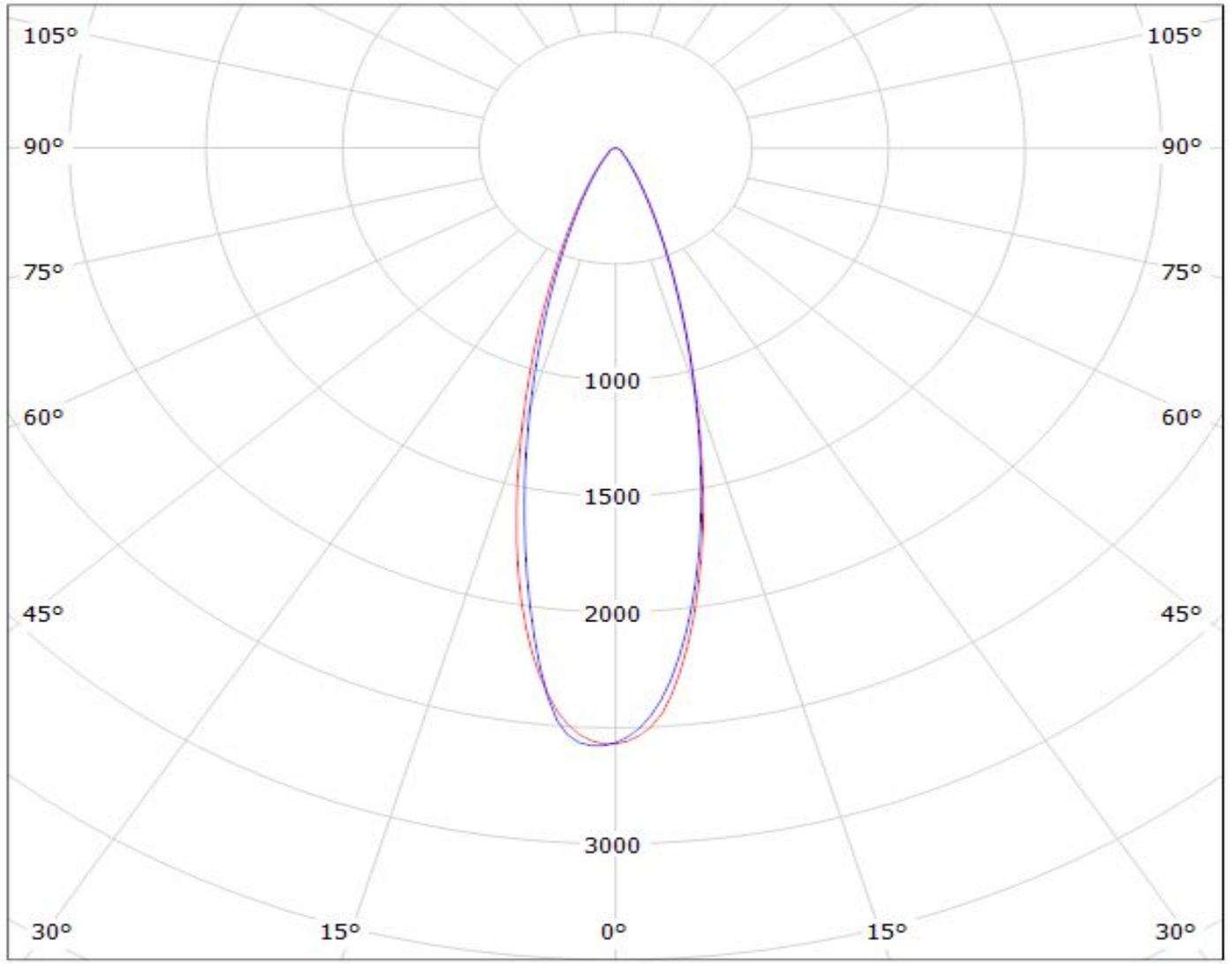
Luminaire: LEDiL Oy C12608\_VIRPI-M\_(XT-E) Eff.91.0%  
Lamps: 1 x XT-E\_5x5 (2049.85lm@250mA)



# LEDiL Oy C12608\_VIRPI-M\_(NVS19) Eff.90.1% / LDC (Polar)

Luminaire: LEDiL Oy C12608\_VIRPI-M\_(NVS19) Eff.90.1%

Lamps: 1 x NVS19\_5x5 (1782.78lm@250mA)



cd/klm

— C0 - C180

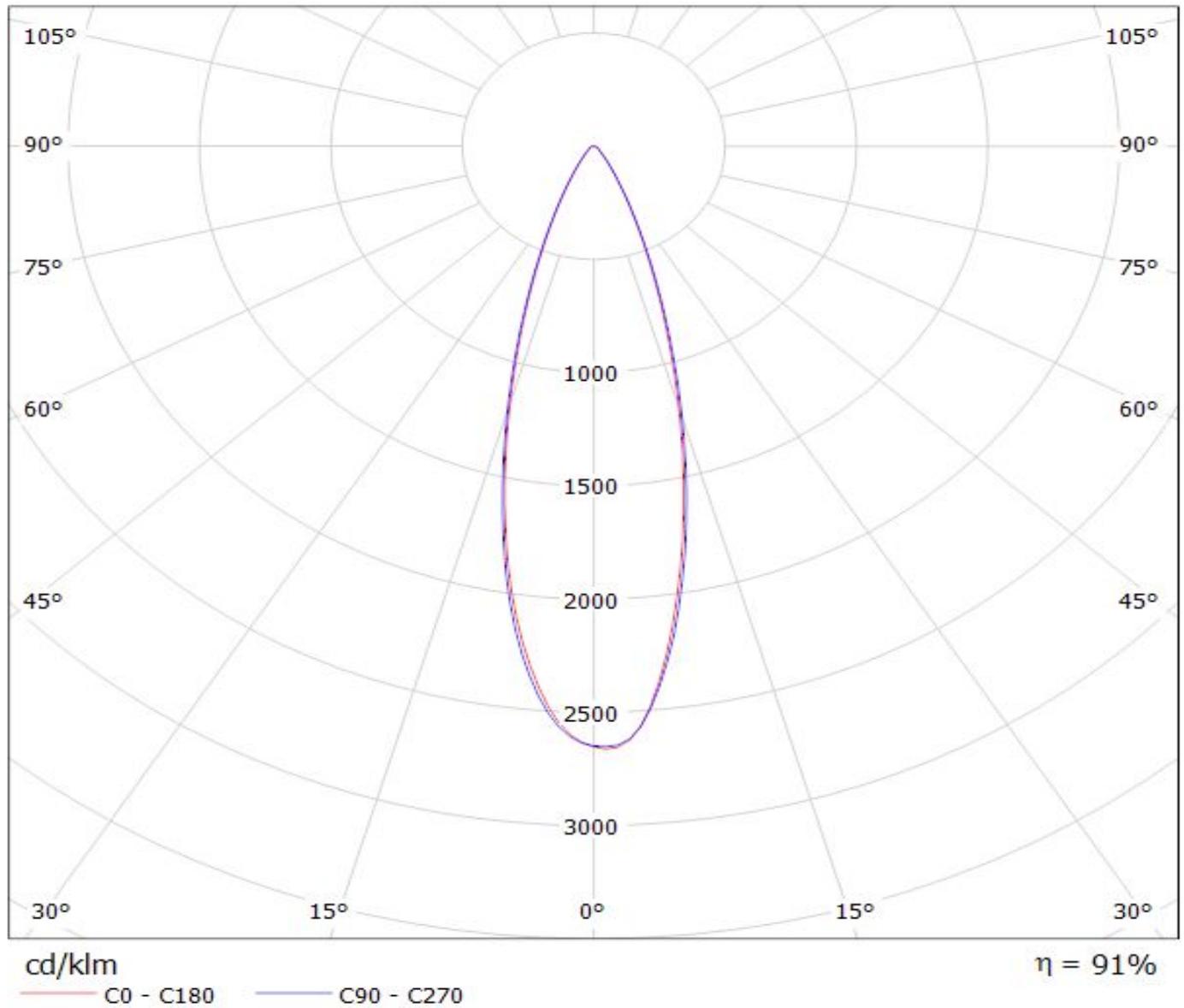
— C90 - C270

$\eta = 90\%$

# LEDiL Oy C12608\_VIRPI-M\_(XP-G2) Eff.91.1% / LDC (Polar)

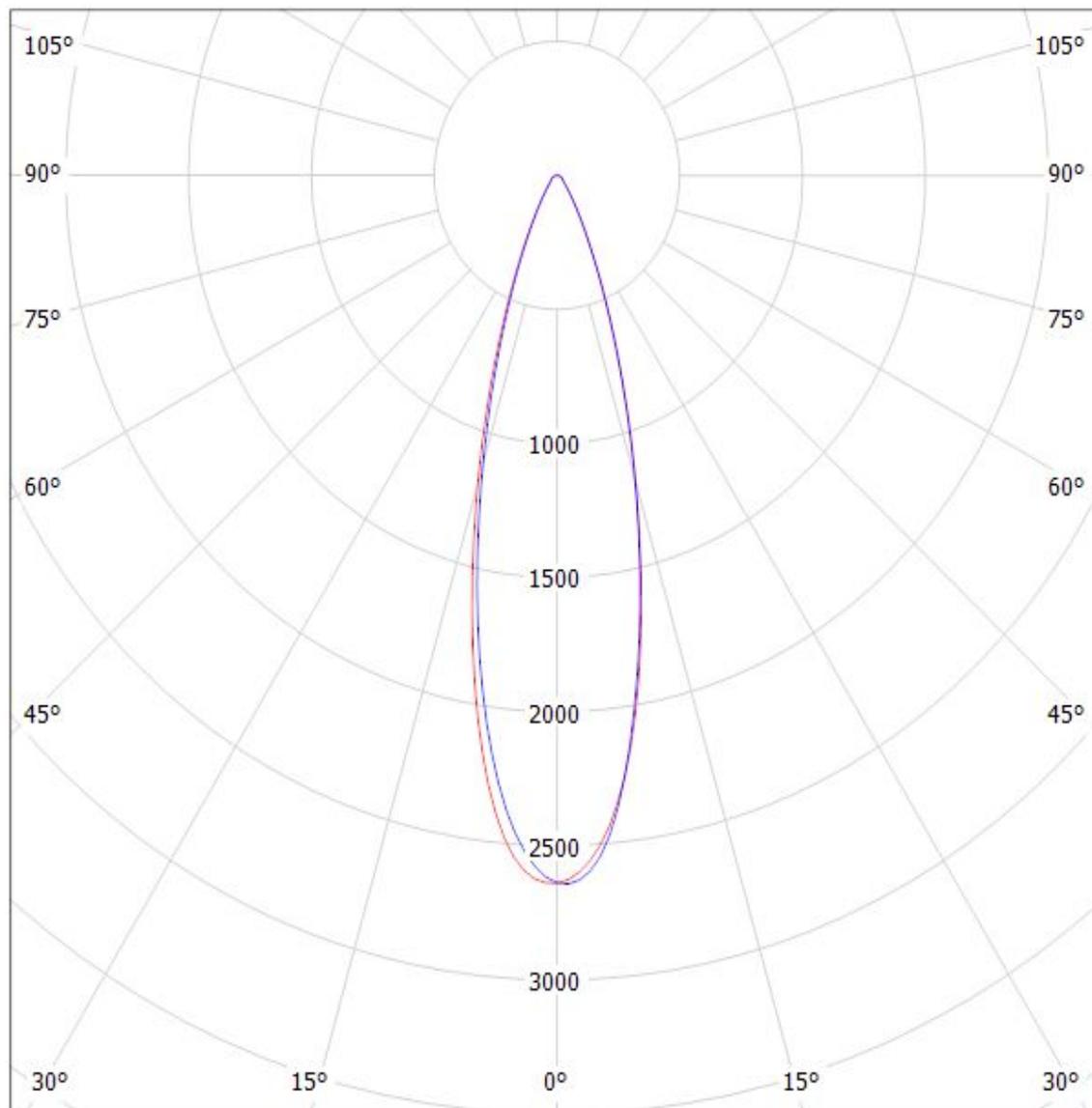
Luminaire: LEDiL Oy C12608\_VIRPI-M\_(XP-G2) Eff.91.1%

Lamps: 1 x XP-G2\_x25 (2535.22lm@250mA)



Luminaire: LEDiL Oy C12608\_VIRPI-M\_(DURIS\_P5)

Lamps: 1 x OSRAM\_DURIS\_P5\_5x5\_(GW\_DASPA1.EC-HPHR-5R8T-1)\_163.795lm@100mA\_P=1.37895W\_I=100.2mA



cd/klm

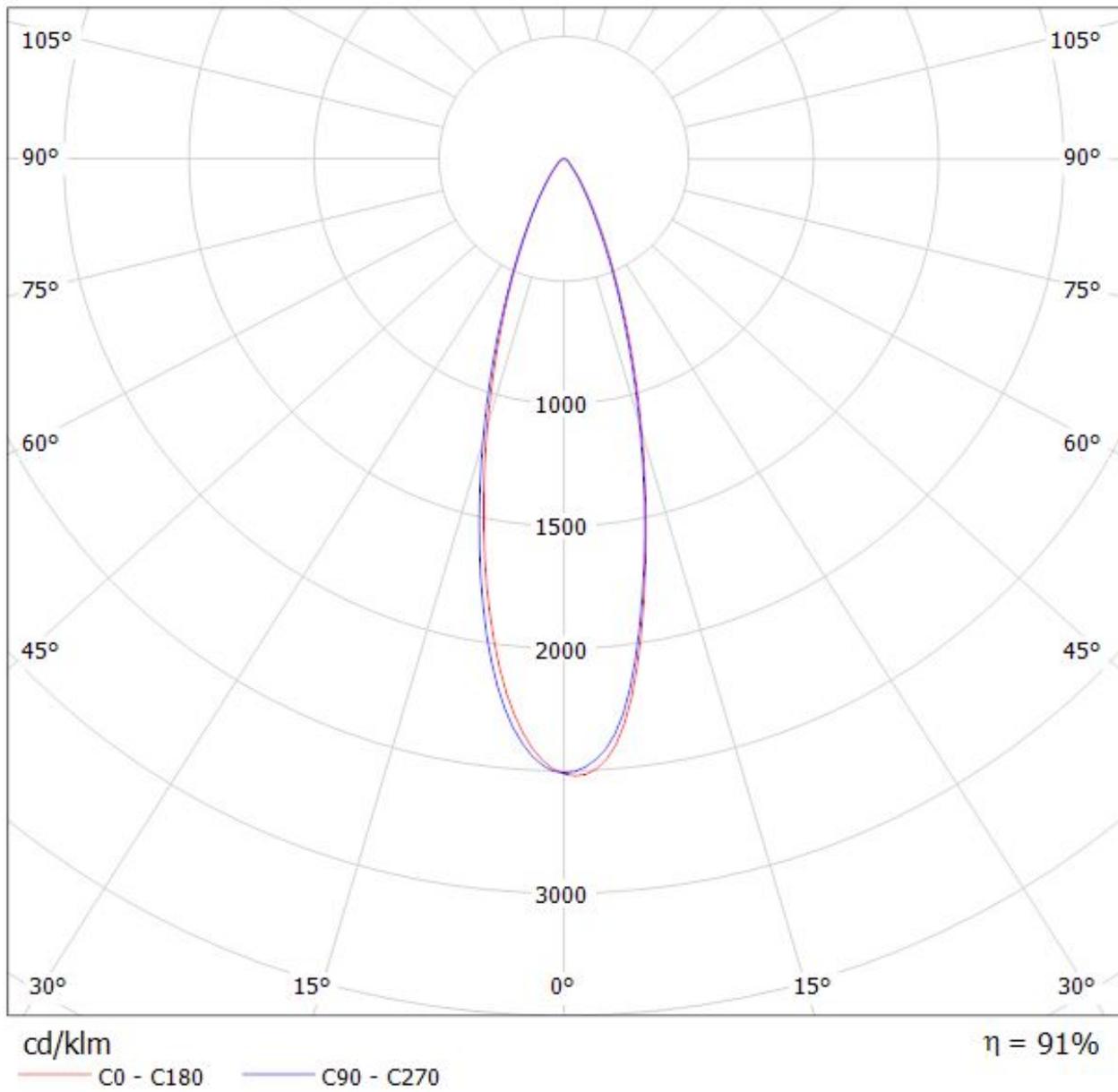
— C0 - C180

— C90 - C270

$\eta = 90\%$

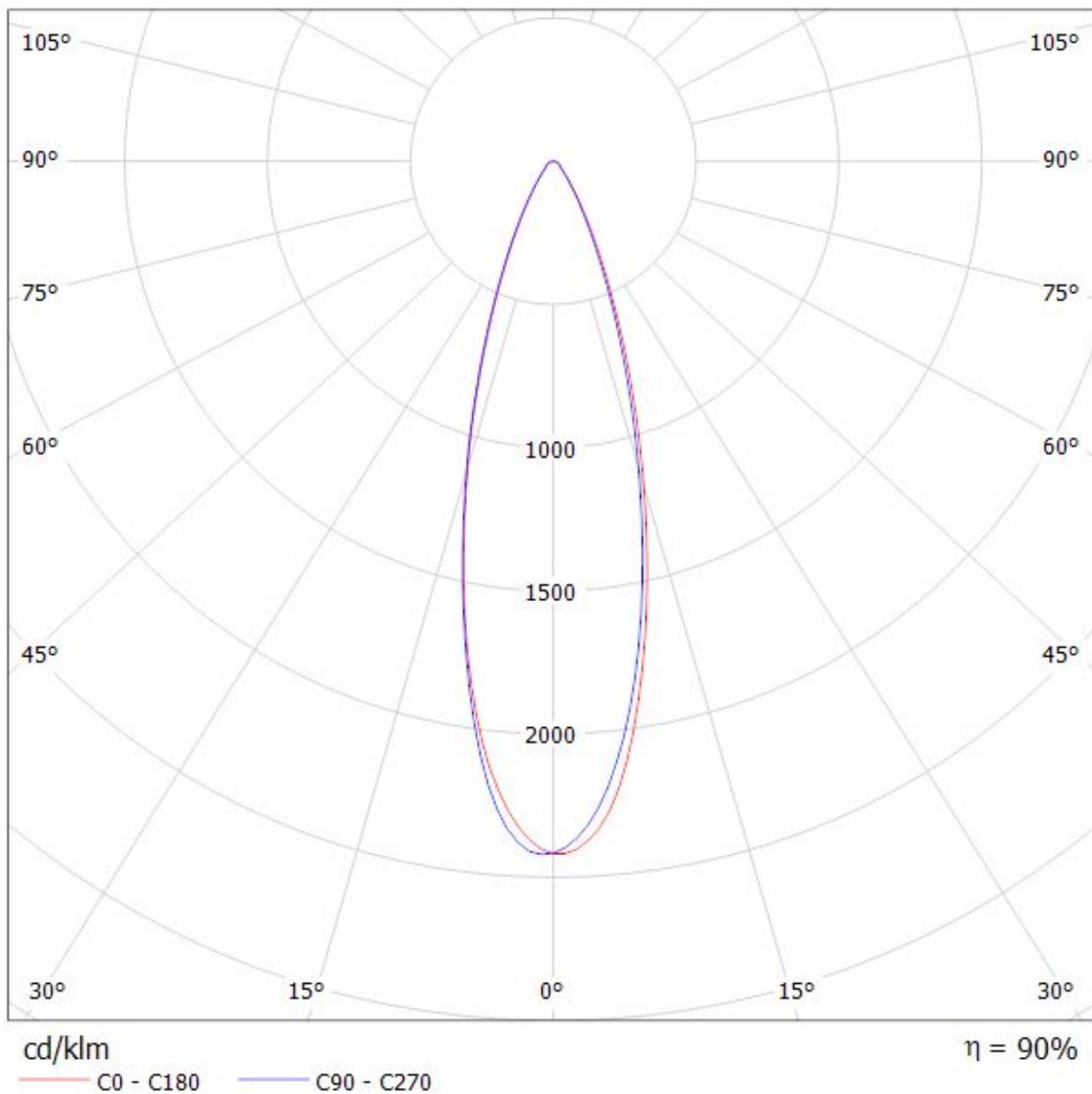
Luminaire: LEDiL Oy C12608\_VIRPI-M\_(ML-E)

Lamps: 1 x CREE\_ML-E\_5x5\_(MLEAWT-U1-7A3-K3-0-00003)\_178.608lm@150mA\_P=2.1053W\_I=150.1mA



Luminaire: LEDiL Oy C12608\_VIRPI-M\_(XH-B)

Lamps: 1 x CREE\_XH-B\_136.467lm@65mA\_P=0.911626\_I=65.2mA



**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.