

**Ordering number CN13159\_LENA-WAS**

|                 |               |
|-----------------|---------------|
| Family          | Lena          |
| Type            | Pack          |
| LED             | CXA2011       |
| Color           | Metal         |
| Diameter        | 111 mm        |
| Height          | 49.6 mm       |
| Style           | Round         |
| Optic Material  | PC            |
| Holder Material | -             |
| Fastening       | Screw, socket |
| Status          | Ready         |

|             |              |
|-------------|--------------|
| FWHM        | Asym degrees |
| Efficiency  | 79 %         |
| cd/Im       | 1.000        |
| Gerber File | Available    |

Reflector twist-and-locks into included base part that holds COB

**Ordering number CN13169\_LENA-WAS-DL**

|                 |               |
|-----------------|---------------|
| Family          | Lena          |
| Type            | Pack          |
| LED             | CXA2011       |
| Color           | Metal         |
| Diameter        | 111 mm        |
| Height          | 41.7 mm       |
| Style           | Round         |
| Optic Material  | PC            |
| Holder Material | -             |
| Fastening       | Screw, socket |
| Status          | Ready         |

|             |              |
|-------------|--------------|
| FWHM        | Asym degrees |
| Efficiency  | 75 %         |
| cd/Im       | 0.900        |
| Gerber File | Available    |

Reflector twist-and-locks into included base part that holds COB

**Ordering number CN13455\_LENA-X-WAS**

|                 |               |
|-----------------|---------------|
| Family          | Lena          |
| Type            | Pack          |
| LED             | CXA2011       |
| Color           | White         |
| Diameter        | 111 mm        |
| Height          | 38.2 mm       |
| Style           | Round         |
| Optic Material  | PC            |
| Holder Material | PC            |
| Fastening       | Screw, socket |
| Status          | Ready         |

|             |              |
|-------------|--------------|
| FWHM        | Asym degrees |
| Efficiency  | 83 %         |
| cd/Im       | 0.500        |
| Gerber File | Available    |

Reflector twist-and-locks into included base part that holds COB

**Ordering number CN13456\_LENA-X-WAS-DL**

|                 |               |
|-----------------|---------------|
| Family          | Lena          |
| Type            | Pack          |
| LED             | CXA2011       |
| Color           | White         |
| Diameter        | 111 mm        |
| Height          | 40.3 mm       |
| Style           | Round         |
| Optic Material  | PC            |
| Holder Material | PC            |
| Fastening       | Screw, socket |
| Status          | Ready         |

|             |              |
|-------------|--------------|
| FWHM        | Asym degrees |
| Efficiency  | 80 %         |
| cd/Im       | 0.500        |
| Gerber File | Available    |

Reflector twist-and-locks into included base part that holds COB

**Ordering number** CN12107\_LENA-S-DL

|                 |         |             |            |
|-----------------|---------|-------------|------------|
| Family          | Lena    | FWHM        | 11 degrees |
| Type            | Pack    | Efficiency  | 80 %       |
| LED             | CXA2011 | cd/Im       | -          |
| Color           | Metal   | Gerber File | Available  |
| Diameter        | 111 mm  |             |            |
| Height          | 88.6 mm |             |            |
| Style           | Round   |             |            |
| Optic Material  | PC      |             |            |
| Holder Material | PC      |             |            |
| Fastening       | Screw   |             |            |
| Status          | Ready   |             |            |

**Ordering number** CN12167\_LENA-M-DL

|                 |         |             |            |
|-----------------|---------|-------------|------------|
| Family          | Lena    | FWHM        | 19 degrees |
| Type            | Pack    | Efficiency  | 78 %       |
| LED             | CXA2011 | cd/Im       | 4.100      |
| Color           | Metal   | Gerber File | Available  |
| Diameter        | 111 mm  |             |            |
| Height          | 88.6 mm |             |            |
| Style           | Round   |             |            |
| Optic Material  | PC      |             |            |
| Holder Material | PC      |             |            |
| Fastening       | Screw   |             |            |
| Status          | Ready   |             |            |

**Ordering number** CN12109\_LENA-W-DL

|                 |         |             |            |
|-----------------|---------|-------------|------------|
| Family          | Lena    | FWHM        | 42 degrees |
| Type            | Pack    | Efficiency  | 75 %       |
| LED             | CXA2011 | cd/Im       | -          |
| Color           | Metal   | Gerber File | Available  |
| Diameter        | 111 mm  |             |            |
| Height          | 88.6 mm |             |            |
| Style           | Round   |             |            |
| Optic Material  | PC      |             |            |
| Holder Material | PC      |             |            |
| Fastening       | Screw   |             |            |
| Status          | Ready   |             |            |

**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

### Lena series

last update 8/11/2012

#### GENERAL INFORMATION

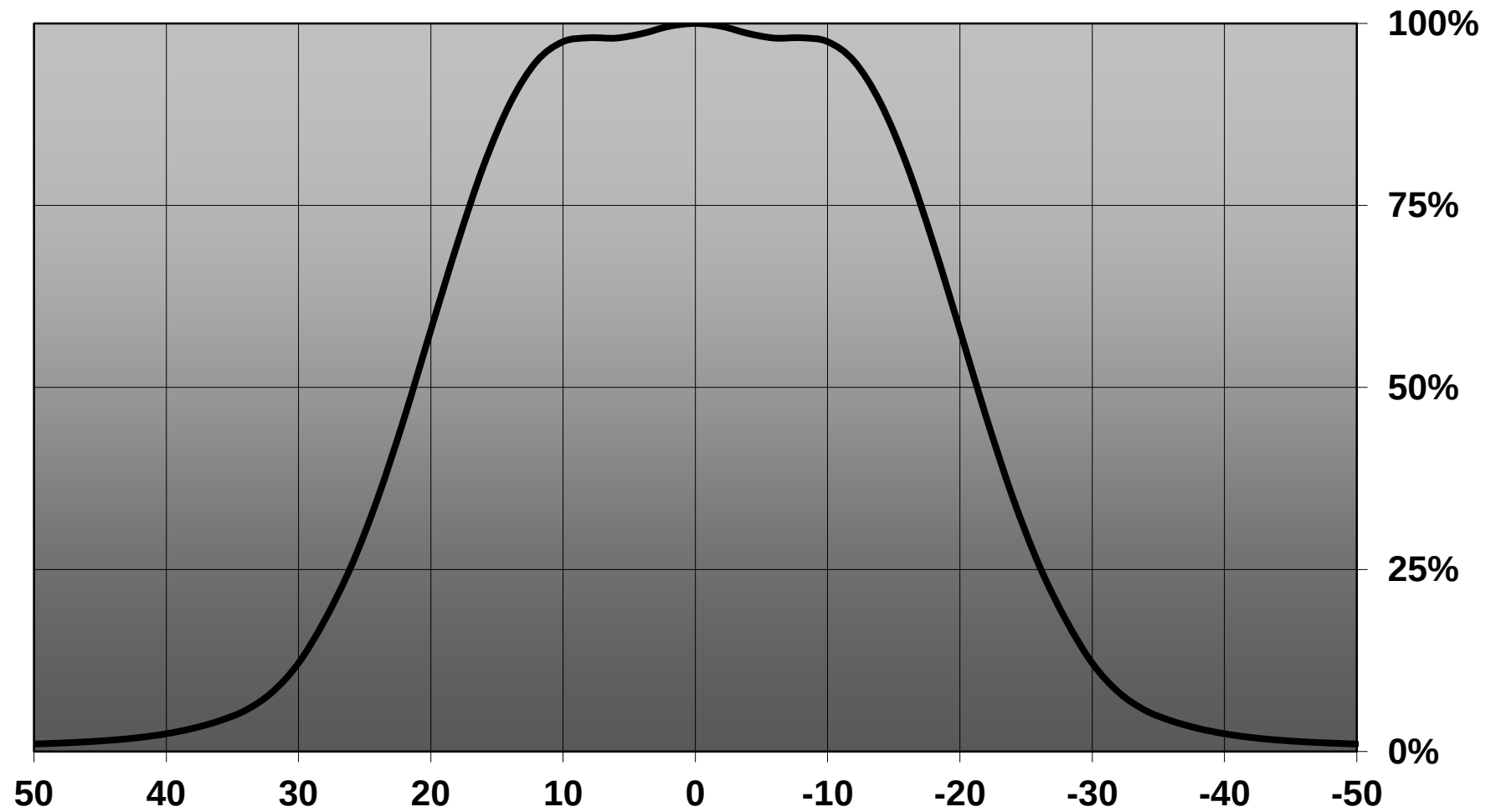
- Product series especially designed & optimized for CXA2011 series of LEDs.
- Special care taken to make light distribution as uniform as possible.
- Lens material optical grade PC with high UV and temperature resistance (120 degrees of Celcius / 248 degrees of Fahrenheit). Allows use of high current 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](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 CA12109\_Lena-W-Diffuser-Lens\_CXA20**



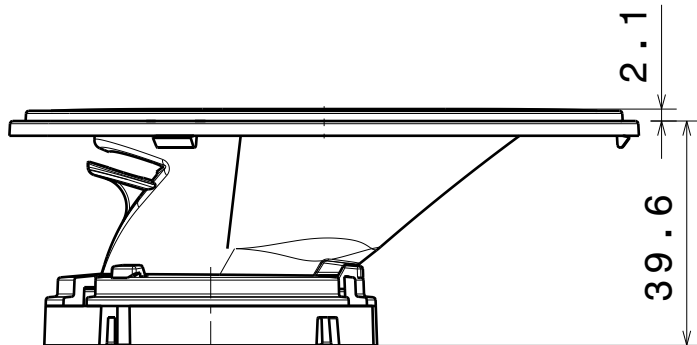
D

C

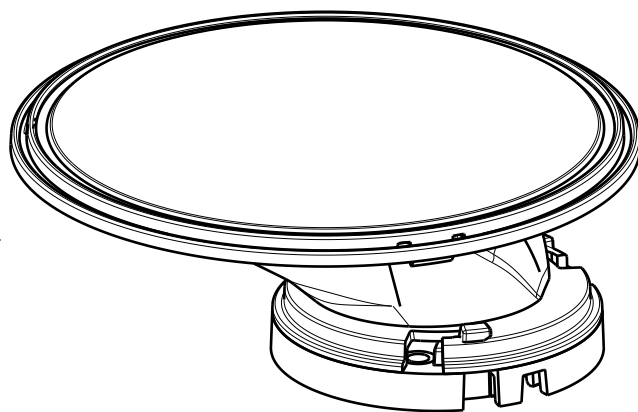
B

A

4

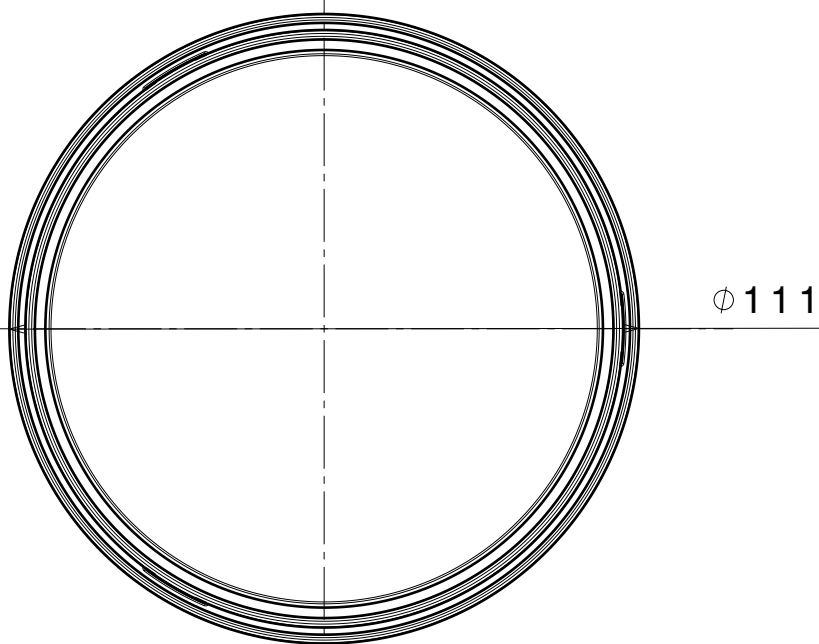


Front view

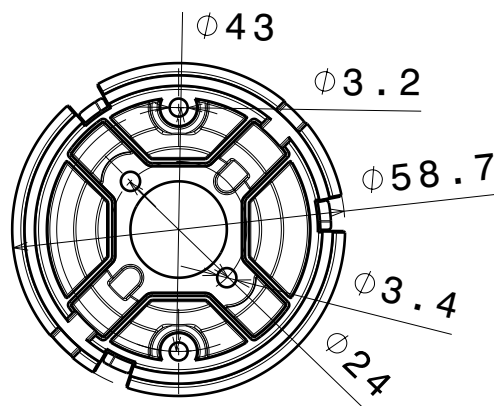


Isometric view

3



Top view



Materials

Note: Using additional sublens add 2,1mm to total height.

Reflector: PC  
Base part: PC  
Sublens: PC

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**LEDiL**

Ledil Oy  
Salorankatu 10  
FIN 24240 SALO  
Finland

DRAWN BY

DATE

DRAWING TITLE

Mechanical drawing

-

26.9.2012

LENA-WAS

CHECKED BY

DATE

SIZE

PART NUMBER

REV

-

-

A4

001

DESIGNED BY

DATE

SCALE

1:4

WEIGHT

0,00 mg

SHEET

1/1

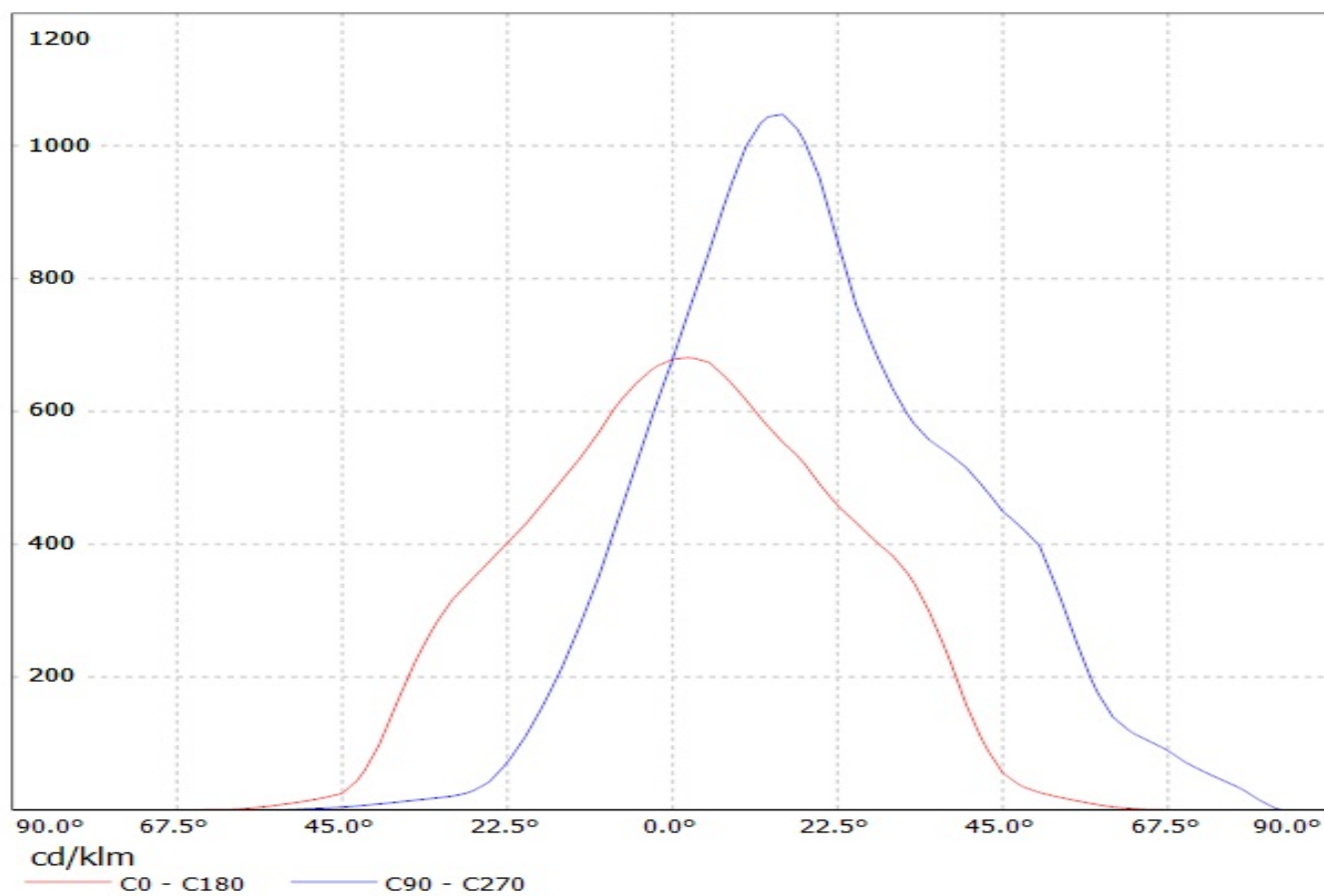
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A

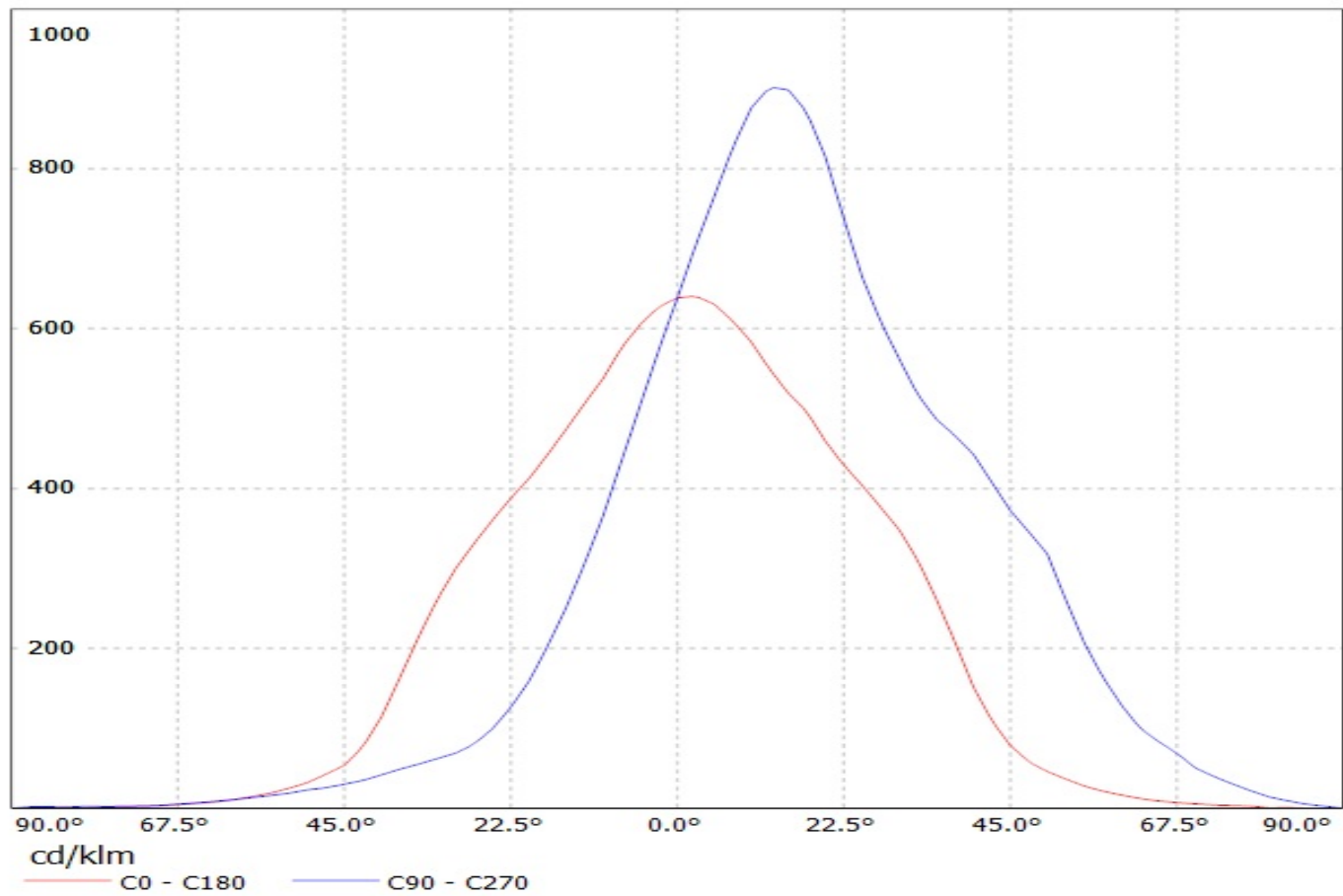
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1

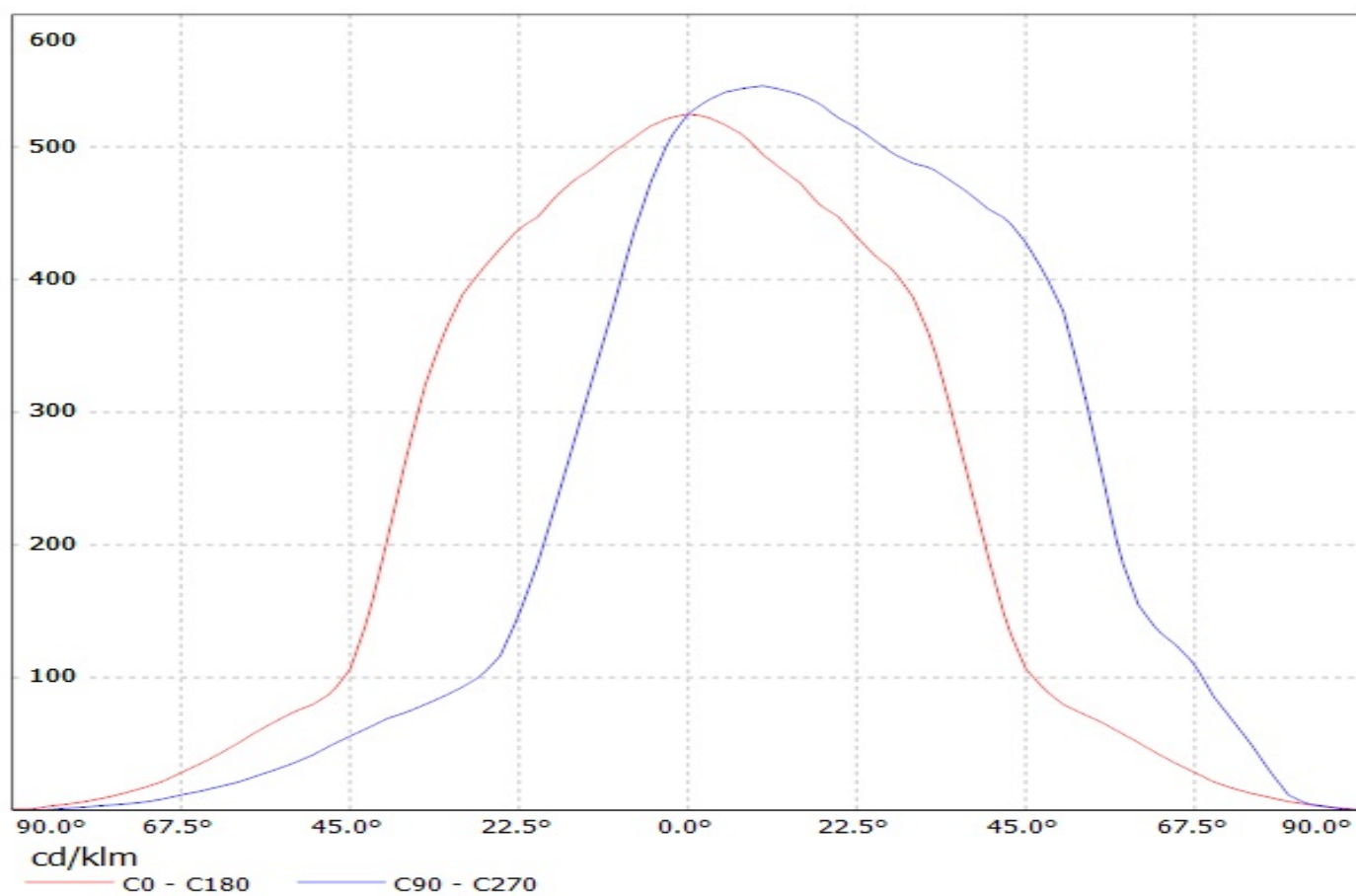
Luminaire: Ledil Oy CN13159\_LENA-WAS (Cree CXA20 698lm @ 250mA) Efficiency=79%  
Lamps: 1 x Cree CXA20 698lm @ 250mA



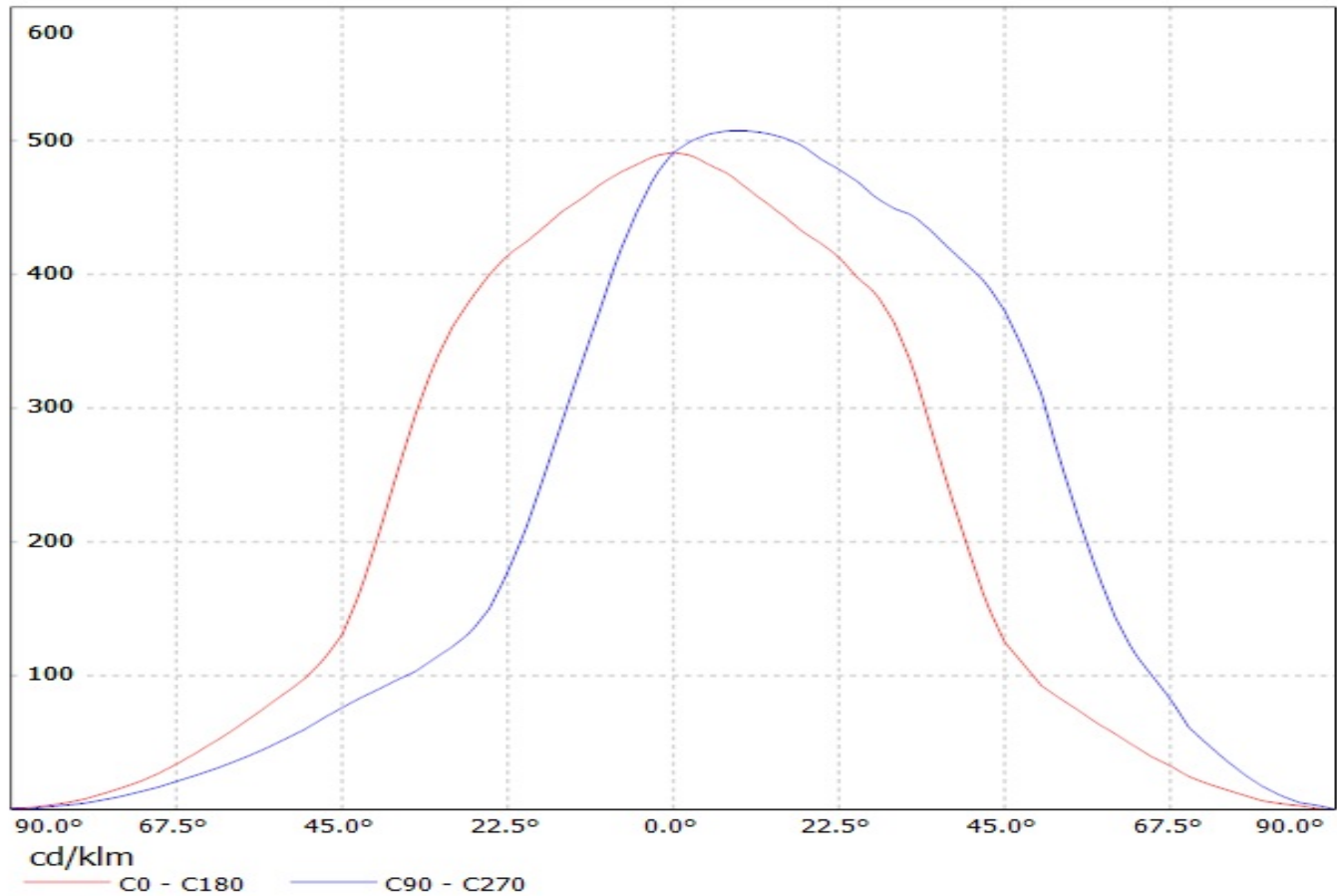
Luminaire: Ledil Oy CN13169\_LENA-WAS-DL (Cree CXA20 698lm @ 250mA) Efficiency=75%  
Lamps: 1 x Cree CXA20 698lm @ 250mA



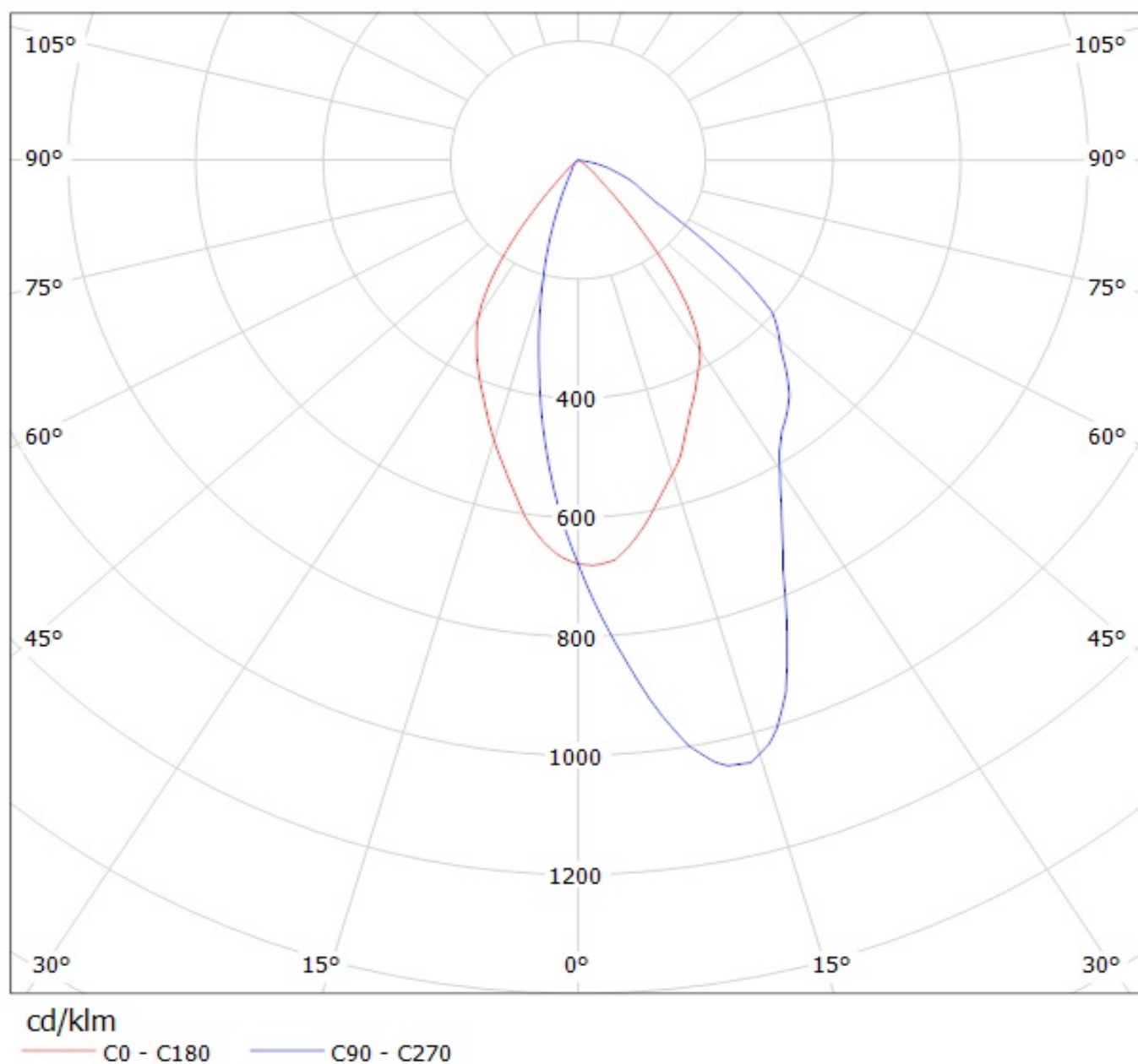
Luminaire: Ledil Oy CN13455\_LENA-X-WAS (Cree CXA20 698lm @ 250mA) Efficiency=83%  
Lamps: 1 x Cree CXA20 698lm @ 250mA



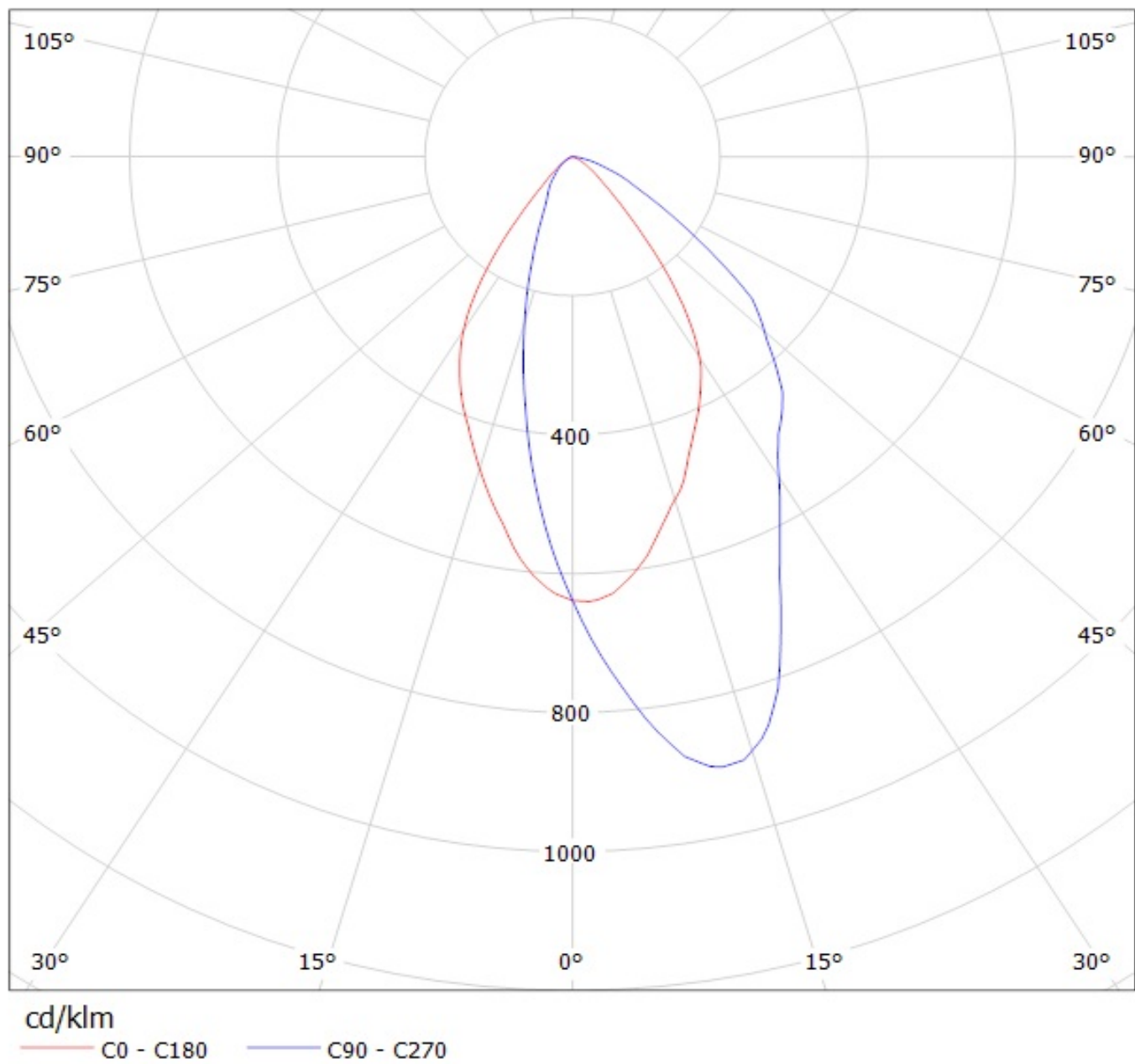
Luminaire: Ledil Oy CN13456\_LENA-X-WAS-DL (Cree CXA20 698lm @ 250mA) Efficiency=80%  
Lamps: 1 x Cree CXA20 698lm @ 250mA



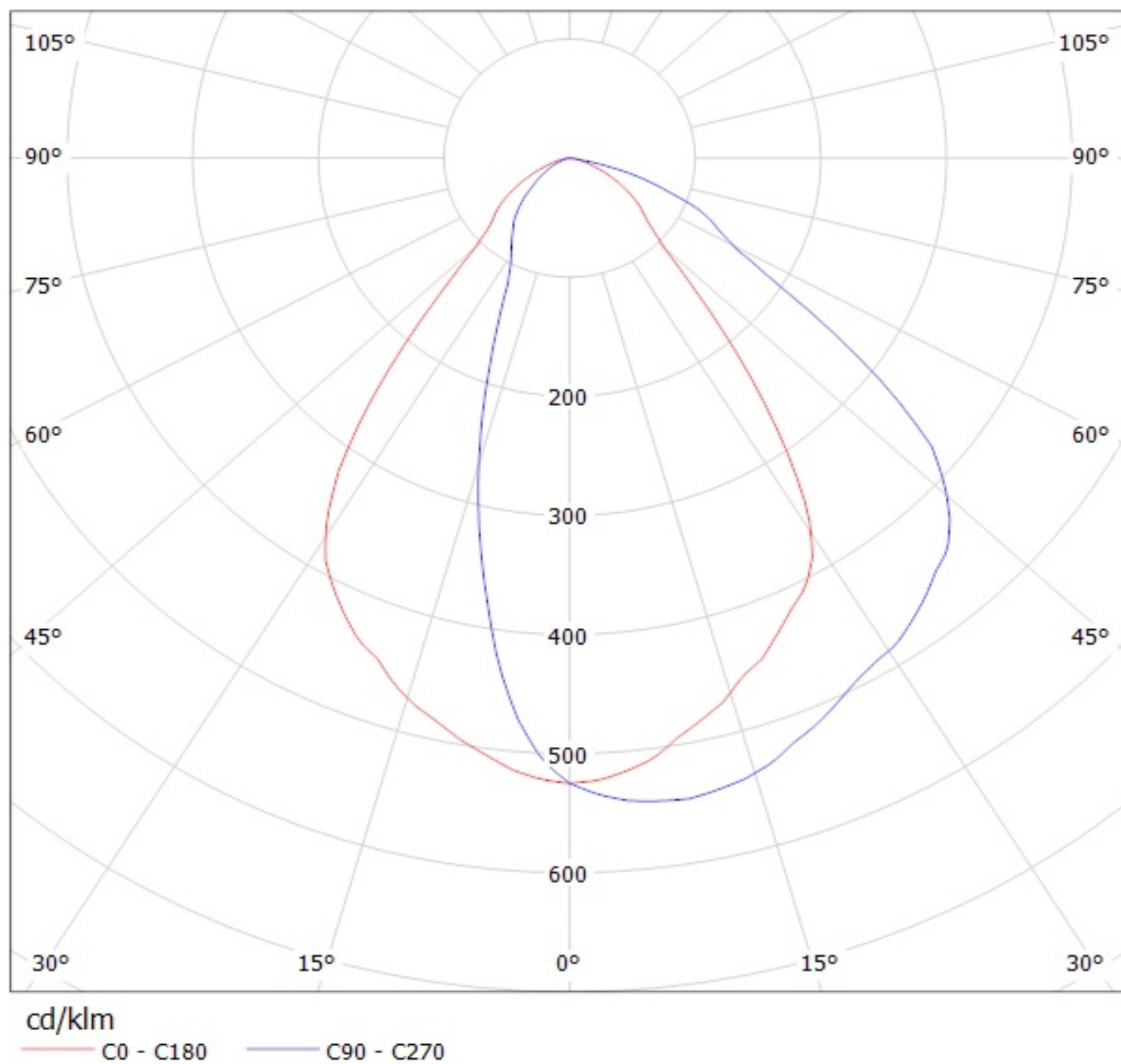
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