# PRODUCT DATASHEET
# HB series
last update 3/1/2017

## DETAILS

| | |
|---|---|
| **Product Number** | C14607_HB-2X2-M |
| **Family** | HB |
| **Type** | Lens array |
| **Color** | clear |
| **Diameter** | 50x50 mm |
| **Height** | 8,5 mm |
| **Style** | square |
| **Optic Material** | PMMA |
| **Holder Material** | |
| **Fastening** | pin, screw |
| **Status** | production ready |
| **ROHS Comliant** | Yes |
| **Date Updated** | 3/01/2017 |

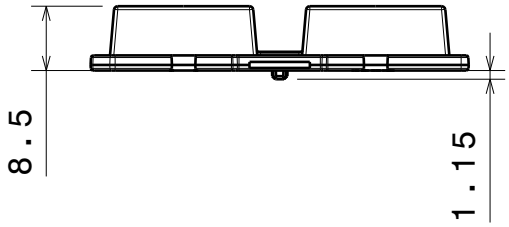
## OPTICAL PROPERTIES

| LED | Viewing Angle | Light Beam | Effi-ciency | cd/lm | Connector |
|---|---|---|---|---|---|
| XM-L | 32 deg | Medium | 93 % | 2.040 | - |
| XP-L | 31 deg | Medium | 94 % | 2.213 | - |
| XM-L2 | 32 deg | Medium | 92 % | 2.112 | - |
| XP-G3 | sim: 28 | Medium | sim: 92 % | sim: 3.000 | - |
| XP-G2 | 25 deg | Medium | - | 3.100 | - |
| XP-L2 | 31 deg | Medium | 93 % | 2.100 | - |
| LUXEON MZ | 30 deg | Medium | 91 % | 2.400 | - |
| LUXEON 5050 | 34 deg | Medium | 94 % | 1.950 | - |
| NWSx229A | 33 deg | Medium | 87 % | 2.200 | - |
| NVSW3x9A | 28 deg | Medium | 94 % | 2.800 | - |
| Duris S8 | sim: 33 | Medium | sim: 88 % | sim: 2.000 | - |
| Oslon Square Gen3 | 23 deg | Medium | 91 % | 3.750 | - |
| Fortimo FastFlex LED board 2x8 DA G4 | 25 deg | Medium | 92 % | 3.000 | - |
| LH351B | 28 deg | Medium | 85 % | 2.720 | - |
| LH351D | 35 deg | Medium | 91 % | 1.900 | - |
| Z8Y22P | 25 deg | Medium | 92 % | 3.100 | - |
| RLE G1 49x223mm 4000lm xxx EXC OTP | 24 deg | Medium | 94 % | 3.000 | - |
| RLE G1 49x245mm 4000lm xxx EXC OTP | 24 deg | Medium | 94 % | 3.000 | - |
| RLE G1 49x121mm 2000lm xxx EXC OTP | 24 deg | Medium | 94 % | 3.000 | - |
| RLE G1 49x133mm 2000lm xxx EXC OTP | 24 deg | Medium | 94 % | 3.000 | - |

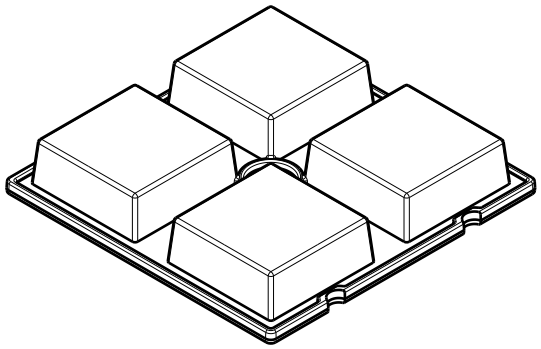


*Ledil Oy*
*Salorankatu 10*
*24240 SALO, Finland*

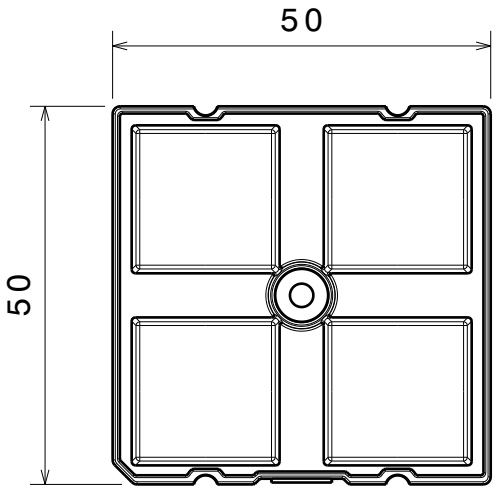
*http://www.ledil.com*
*email: ledil@ledil.com*
*FAX: +358-2-733 8001*



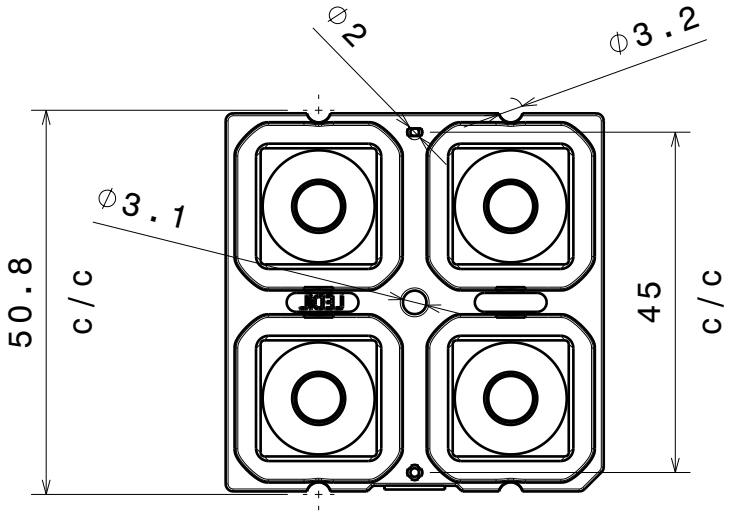

Front view



Isometric view




Top view




Bottom view

| INDEX | PART NO | DESCRIPTION | MATERIAL | COLOUR |
|---|---|---|---|---|
| 1 | C14607 | HB-2X2-M | 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

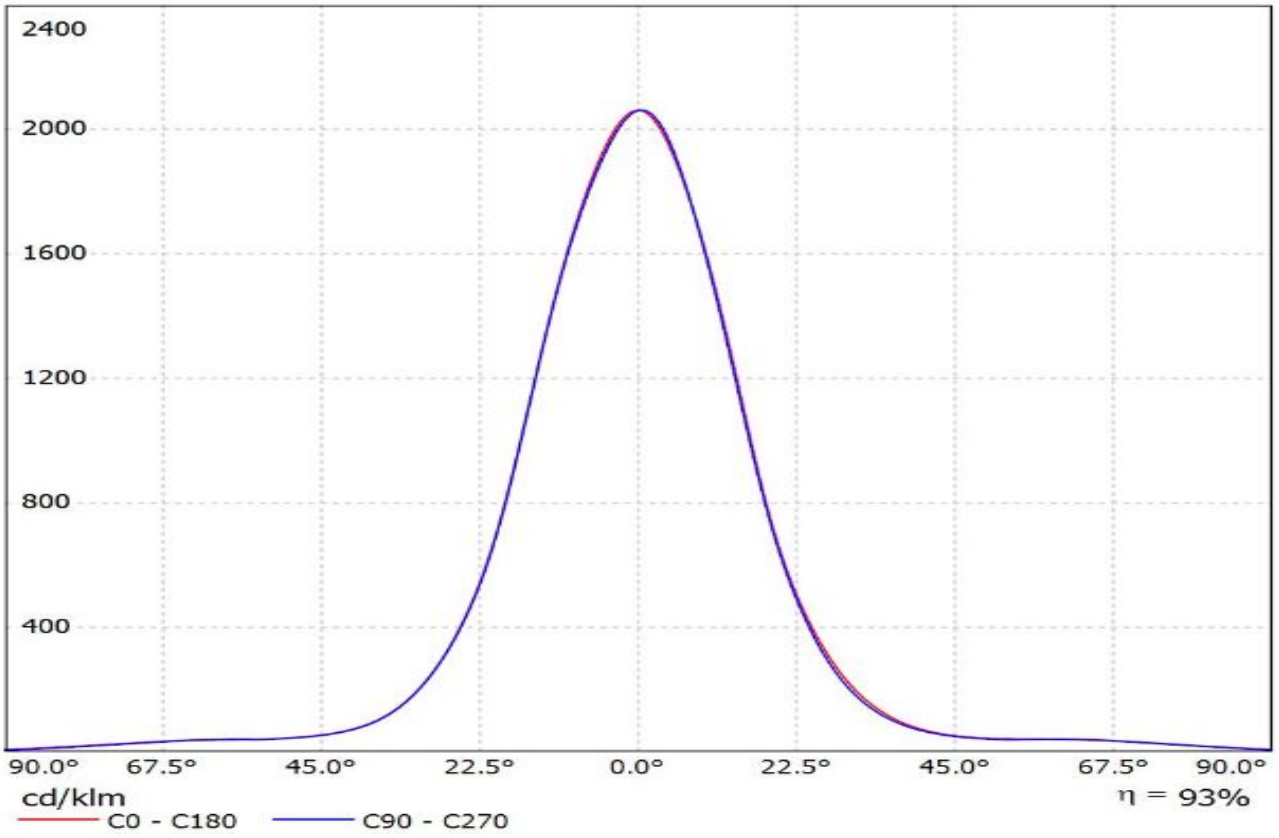
C14607_HB-2X2-M



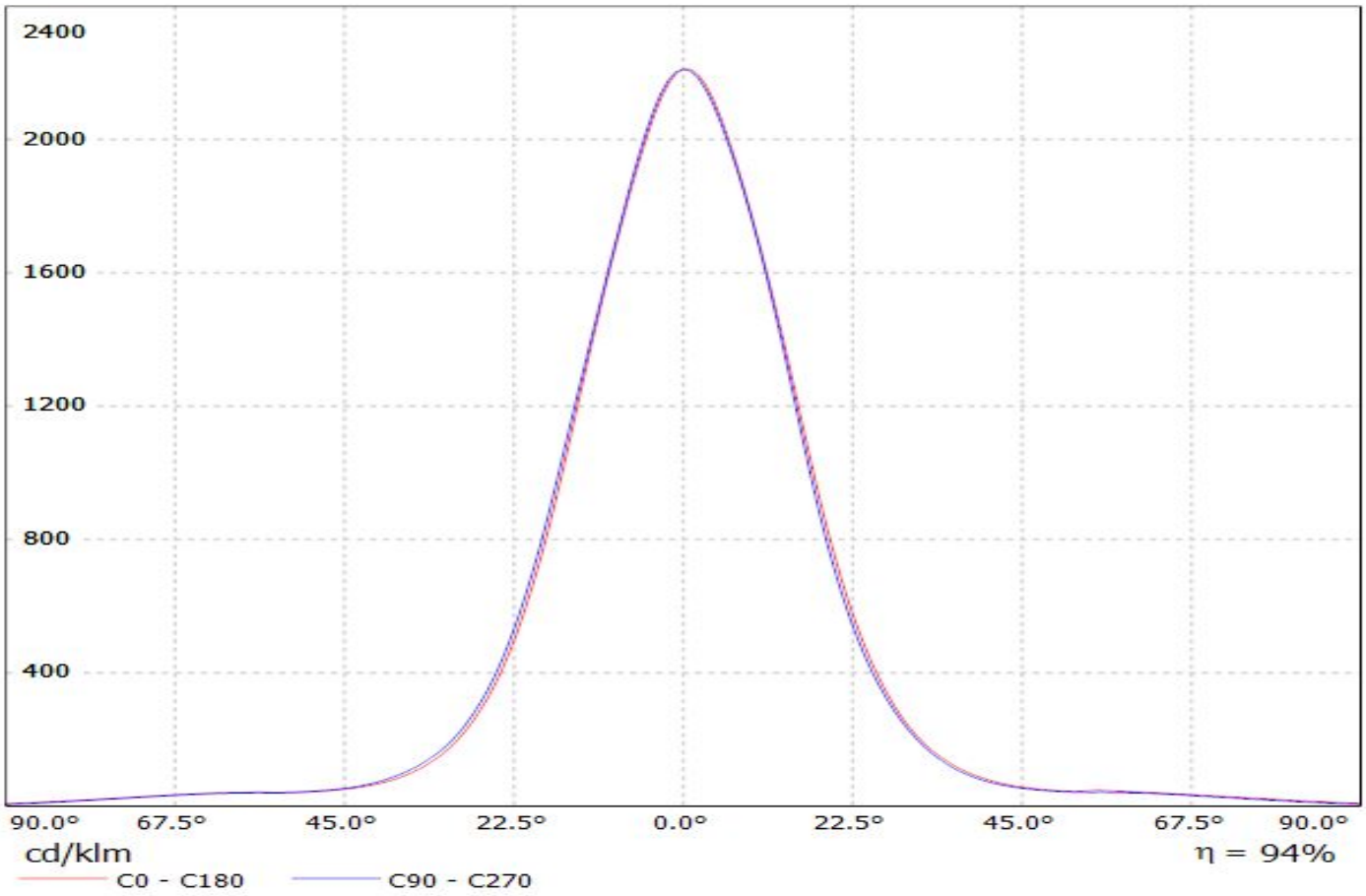
| SIZE | PART NUMBER |
|---|---|
| A4 | C14607 |

| SCALE | WEIGHT | | SHEET |
|---|---|---|---|
| 1:1 | 10,53 g | | 1/1 |

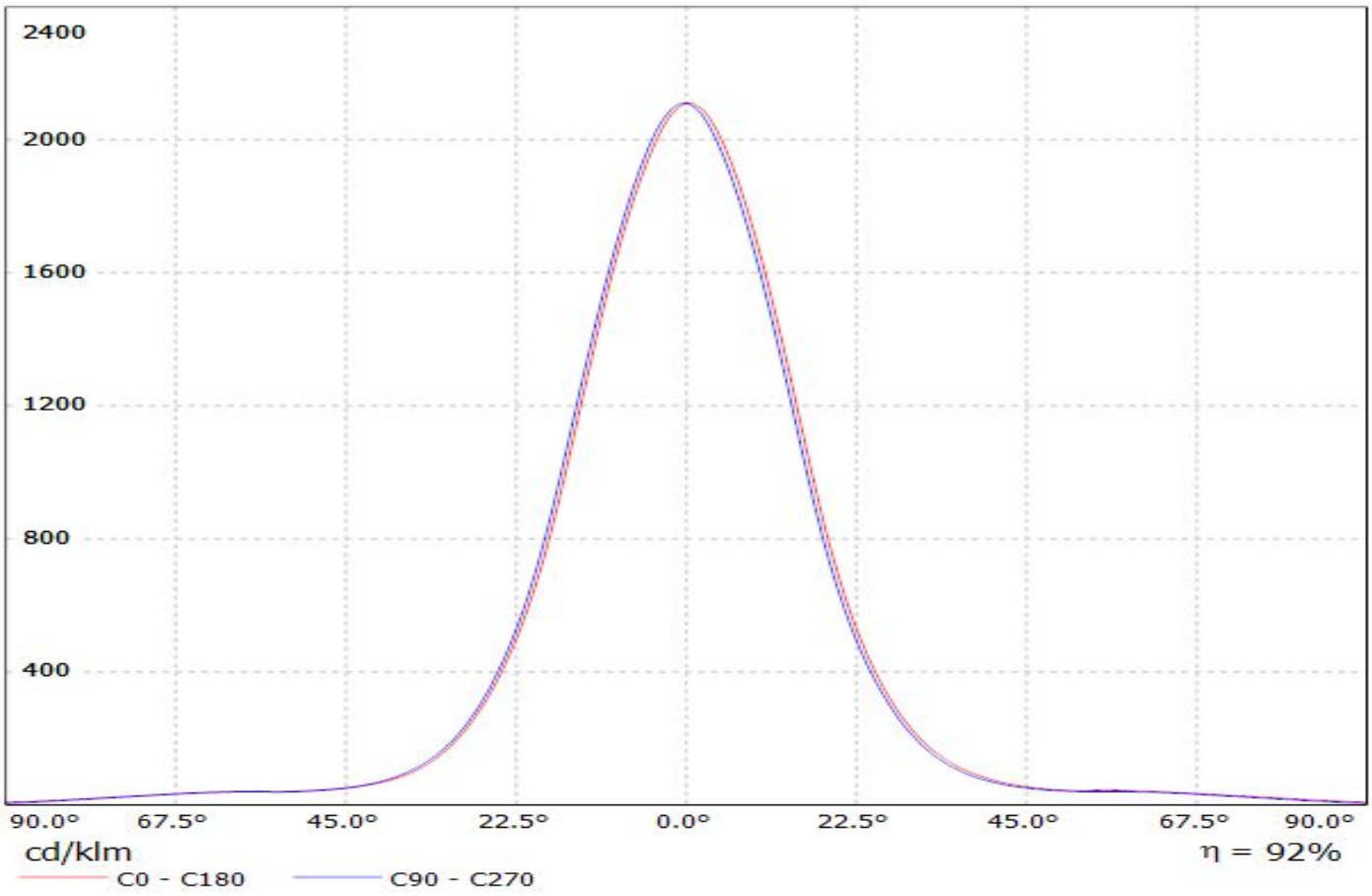
Luminaire: LEDiL Oy C14607_HB-2X2-M_(XM-L)
Lamps: 1 x Cree_XM-L_2x2_(XMLAWT-00-0000-000LT20E7)_334.631lm@250mA_P=2.75215W_I=0.2499A



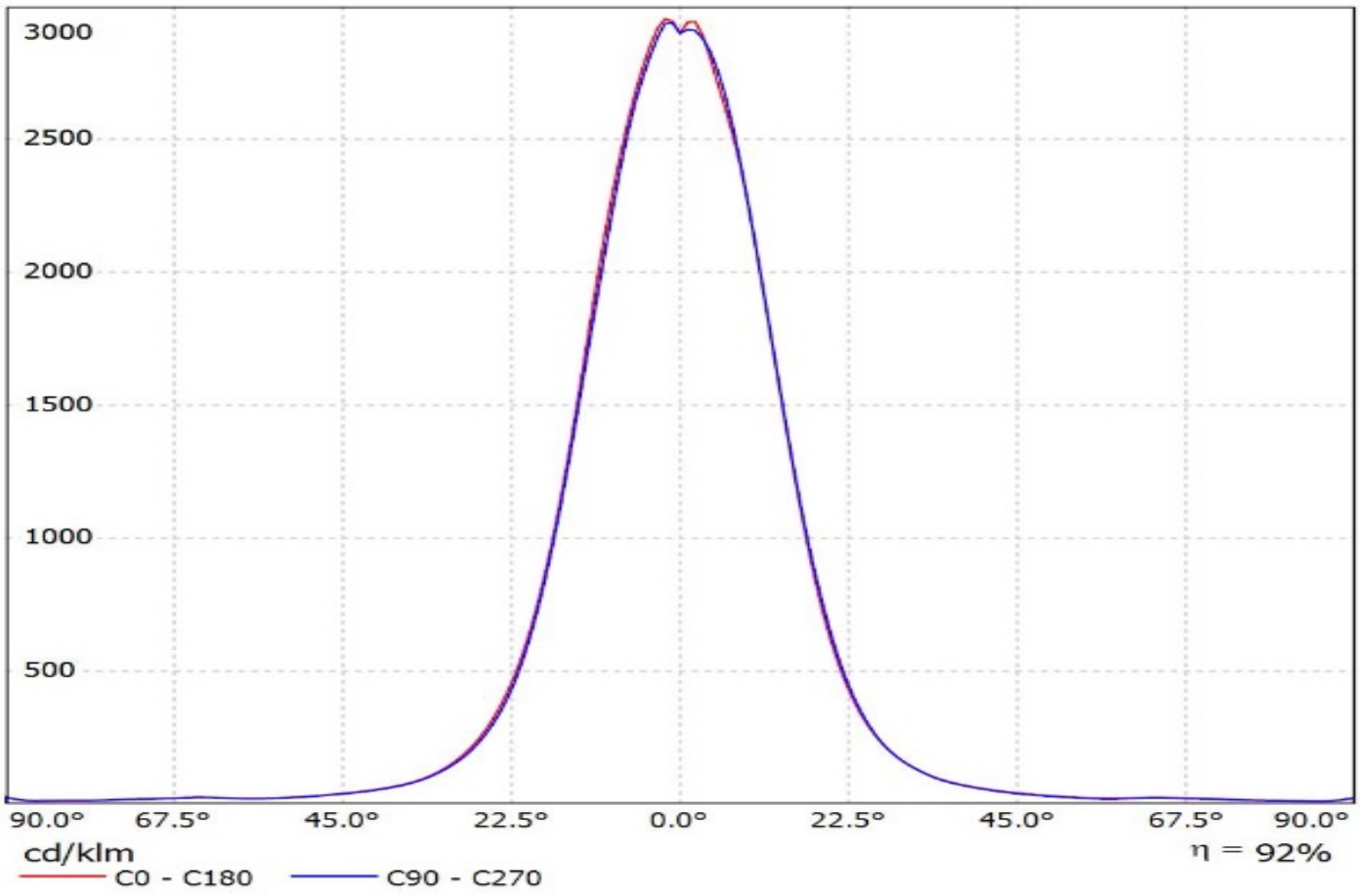
Luminaire: LEDiL Oy C14607_HB-2X2-M_(XP-L)
Lamps: 1 x Cree_XP-L_(XPLAWT-1B0-V40-00-0001)_496.74lm@250mA_P=2.80138W_I=0.2499A



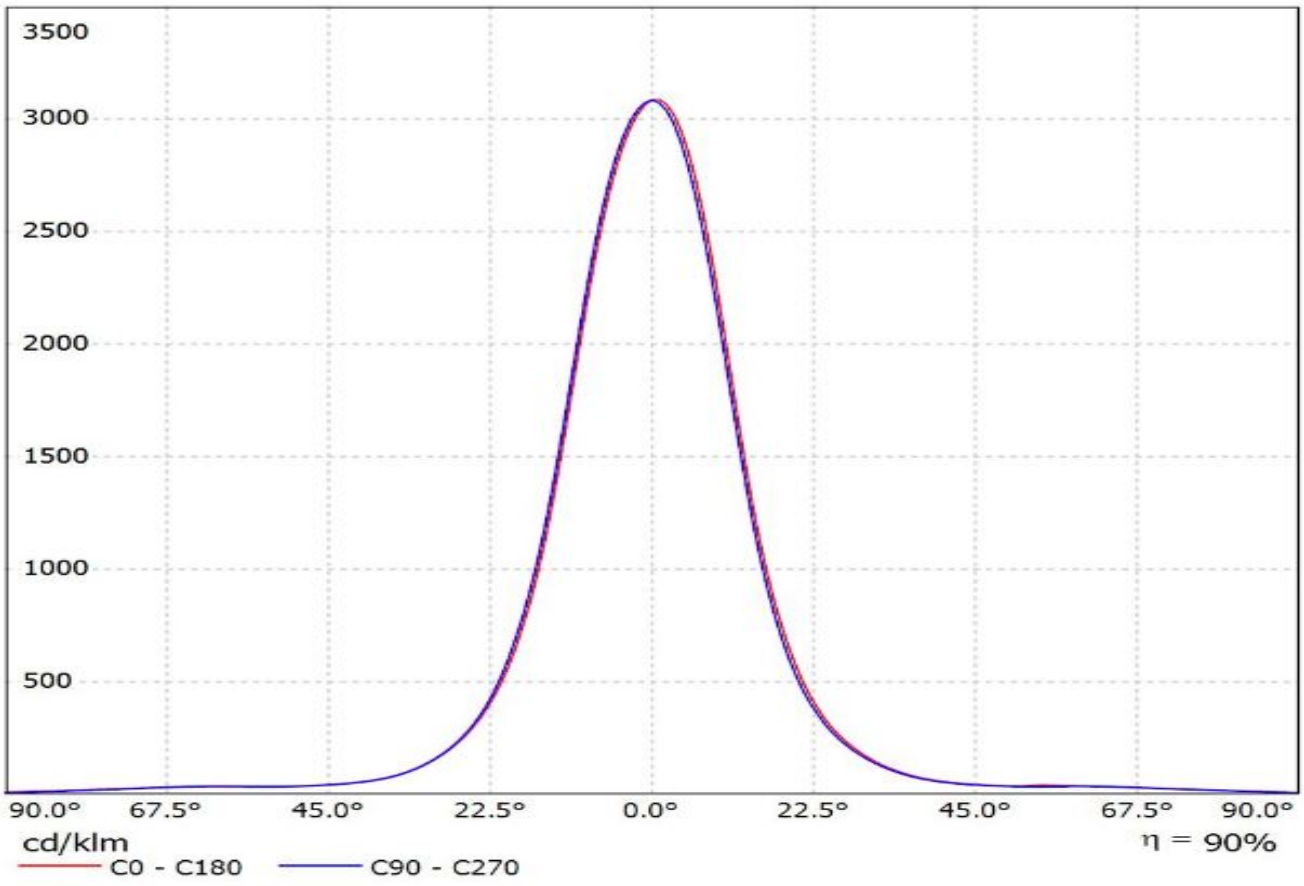
Luminaire: LEDiL Oy C14607_HB-2X2-M_(XM-L2)
Lamps: 1 x Cree_XM-L2_2X2_(XMLBWT-0-7B4-0L-0001)_354.093lm@250mA_P=2.81687W_I=0.2499A



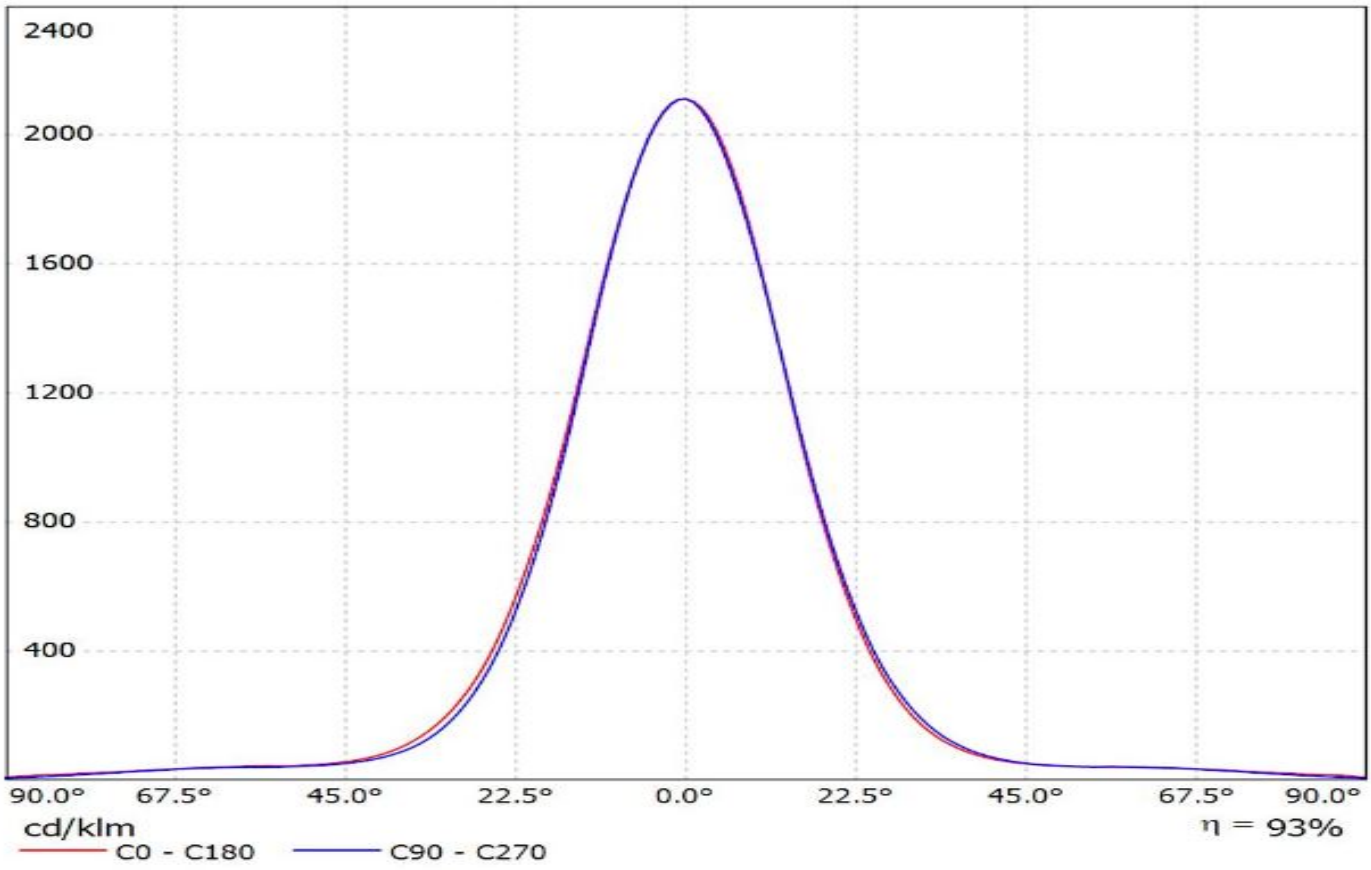
Luminaire: Ledil Oy C14607_HB-2X2-M_(XP-G3)_SIMULATED
Lamps: 1 x Cree XP-G3



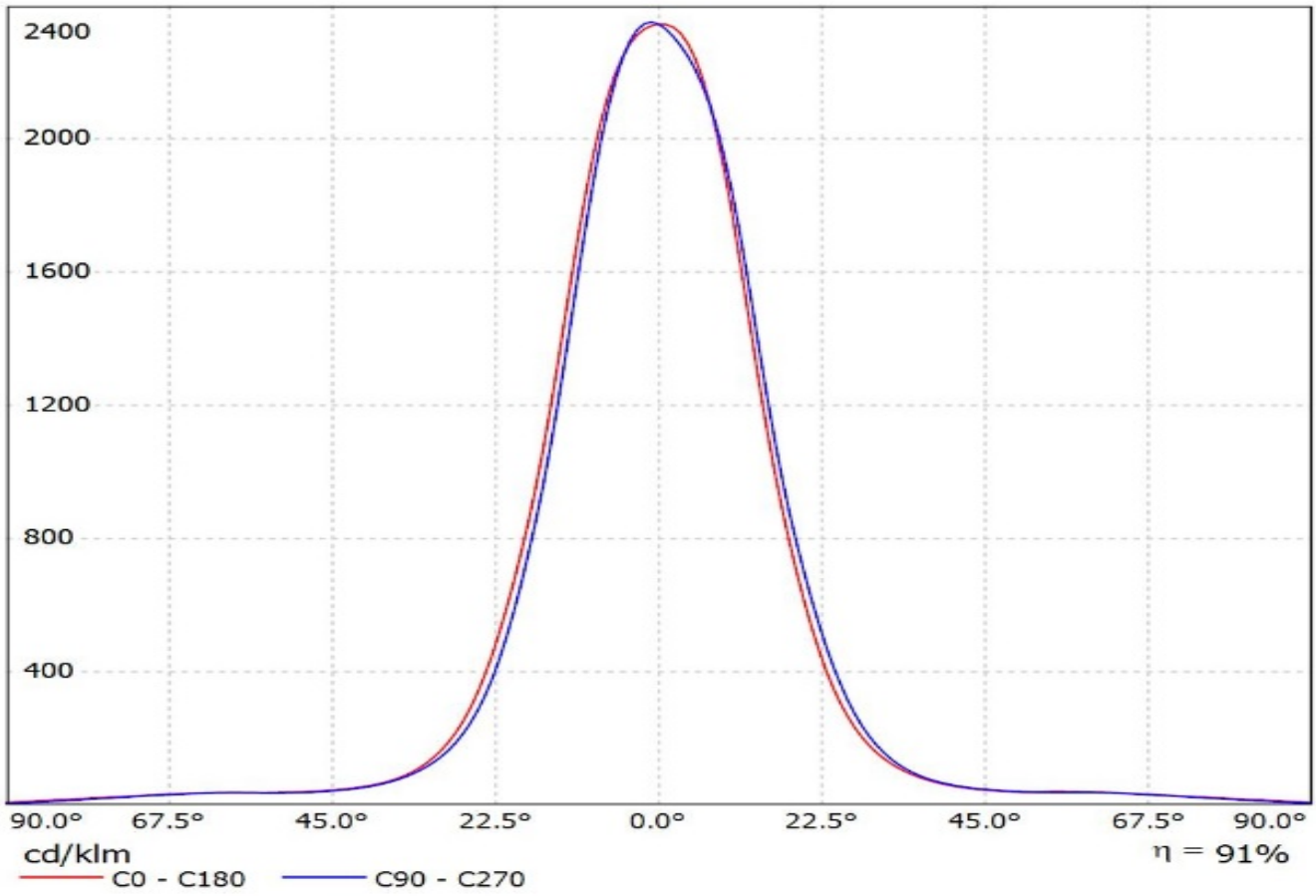
Luminaire: Ledil C14607_HB-2X2-M_(XP-G2)
Lamps: 1 x Cree_XP-G2_2x2_(XPGBWT-L1-000-00-G51)_421.786lm@250mA_P=2.9665W_I=0.250A



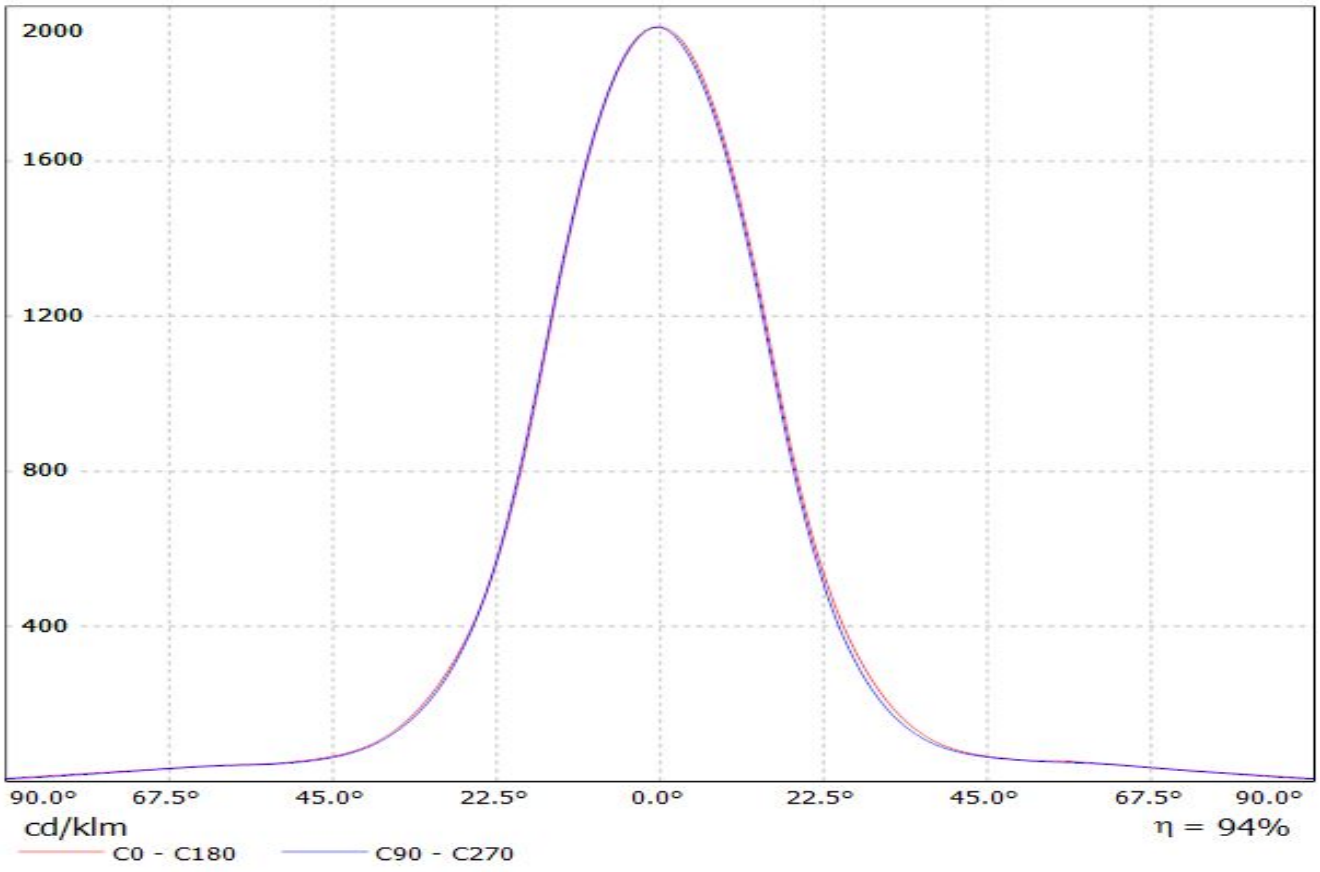
Luminaire: Ledil C14607_HB-2X2-M_(XP-L2)
Lamps: 1 x Cree_XP-L2_2x2_(XPLBWT-00-0000-000BV50E3)550.93lm@250mA_P=2.7815W_I=0.25A



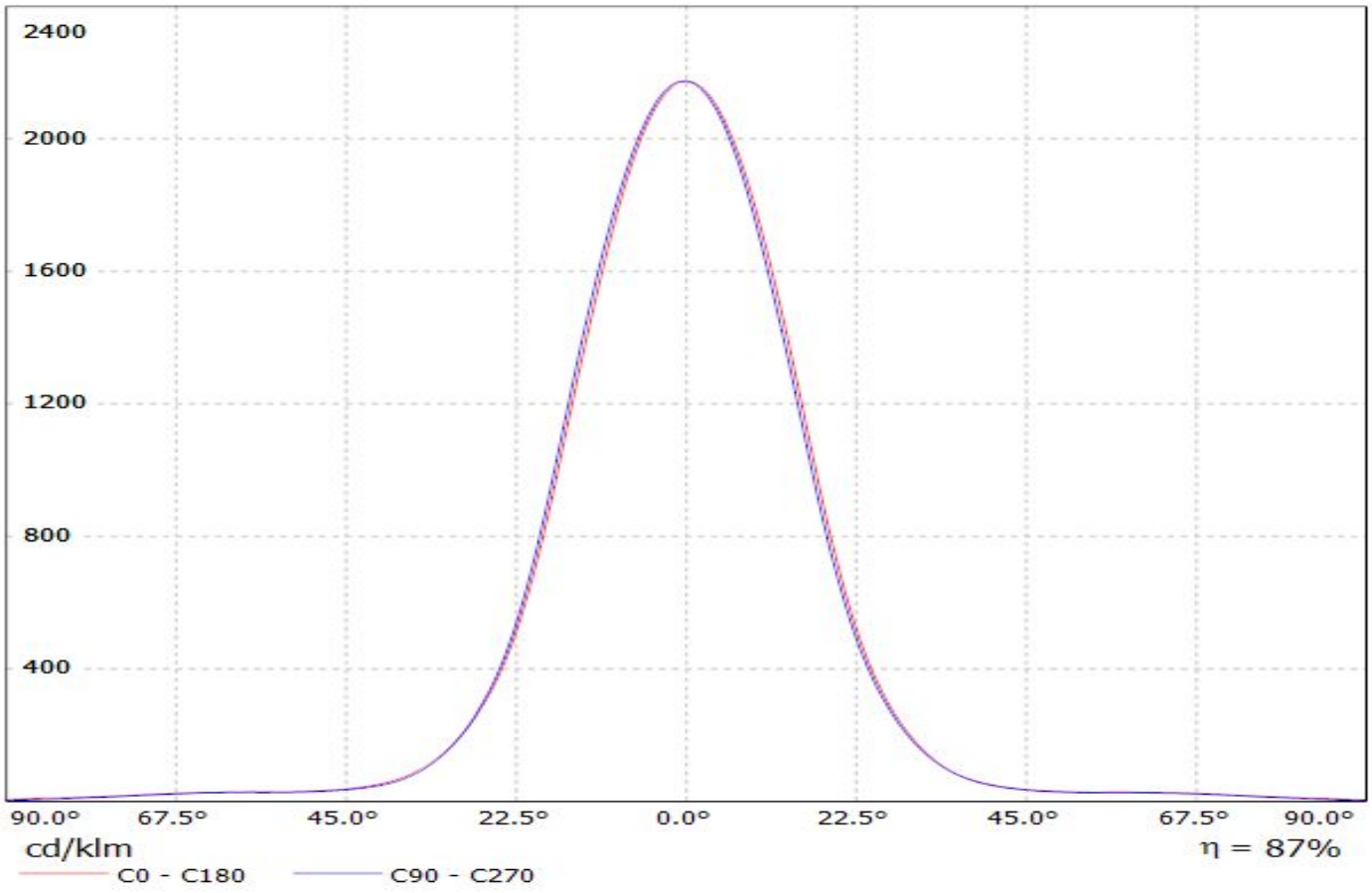
Luminaire: Ledil C14607_HB-2X2-M_(Luxeon_MZ)
Lamps: 1 x Philips_Lumileds_Luxeon_MZ_(LMZ7-QW57)_(2x2)_428.395lm@250mA_P=2.73175W_I=0.2500A



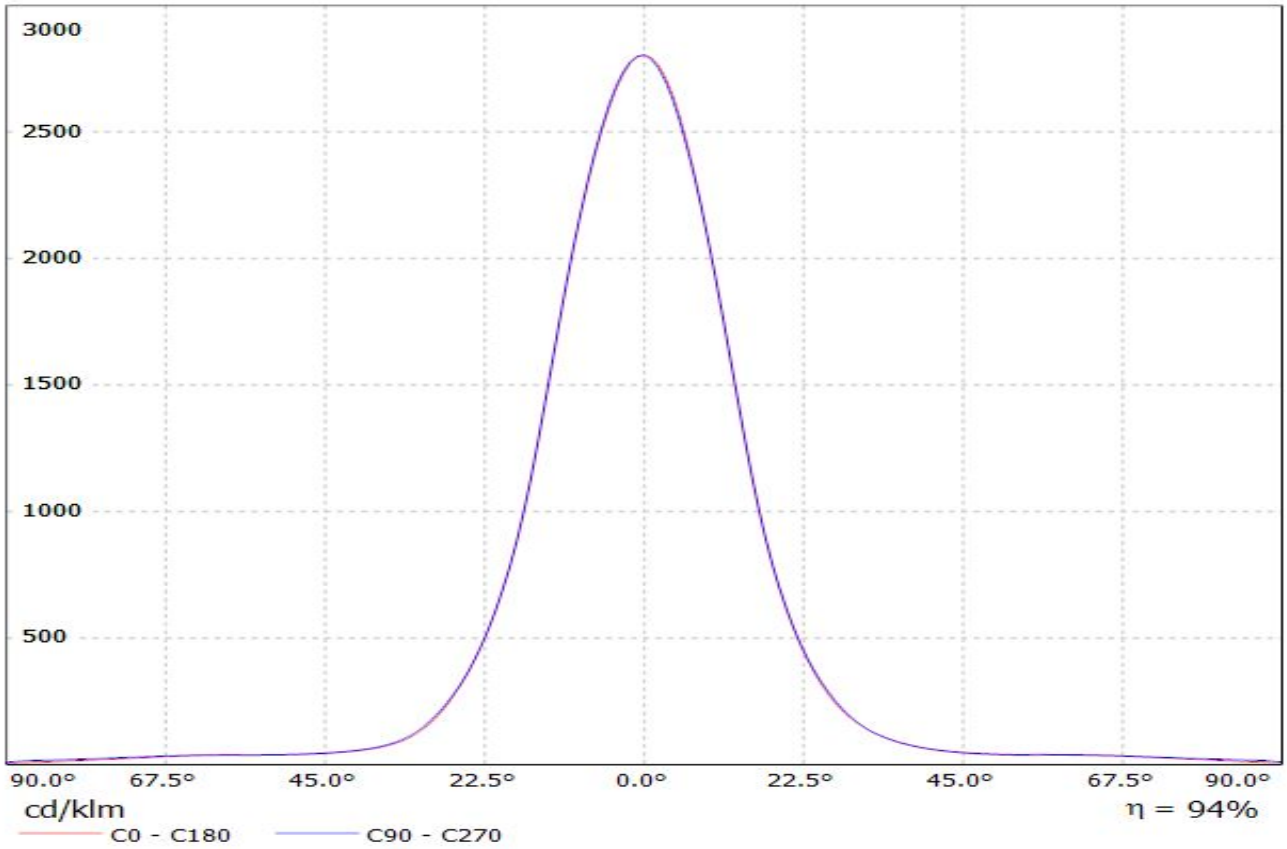
Luminaire: LEDiL Oy C14607_HB-2X2-M_(Luxeon_5050)
Lamps: 1 x Luxeon_5050_2x2_1270.76lm@80mA_CCT=5700K_P=7.35815W_I=0.080A_70CRI



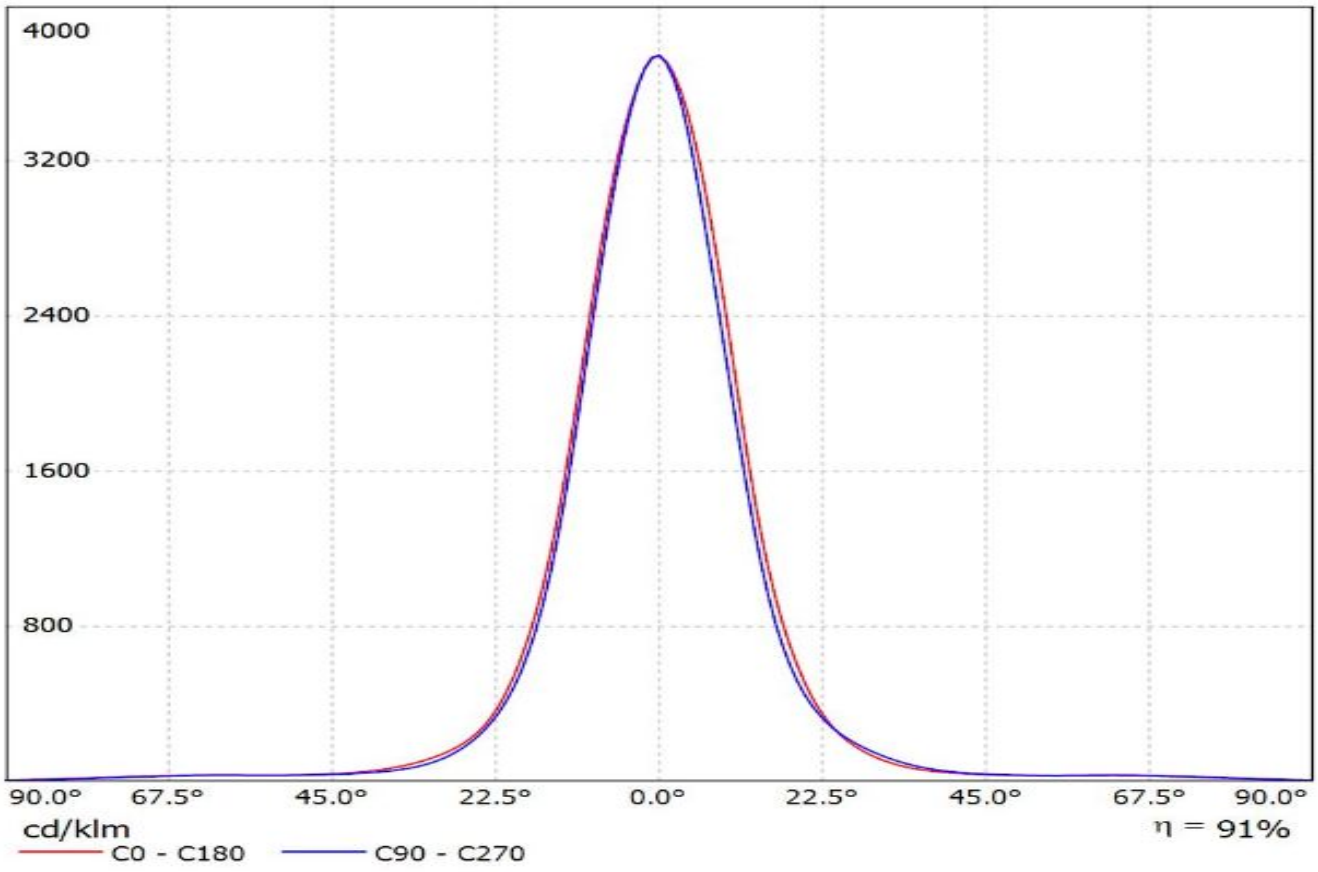
Luminaire: LEDiL Oy C14607_HB-2X2-M_(NWSL229AE)
Lamps: 1 x Nichia_2X2_NWSL229AE_476.548lm@250mA_P=2.7515W_I=0.250A



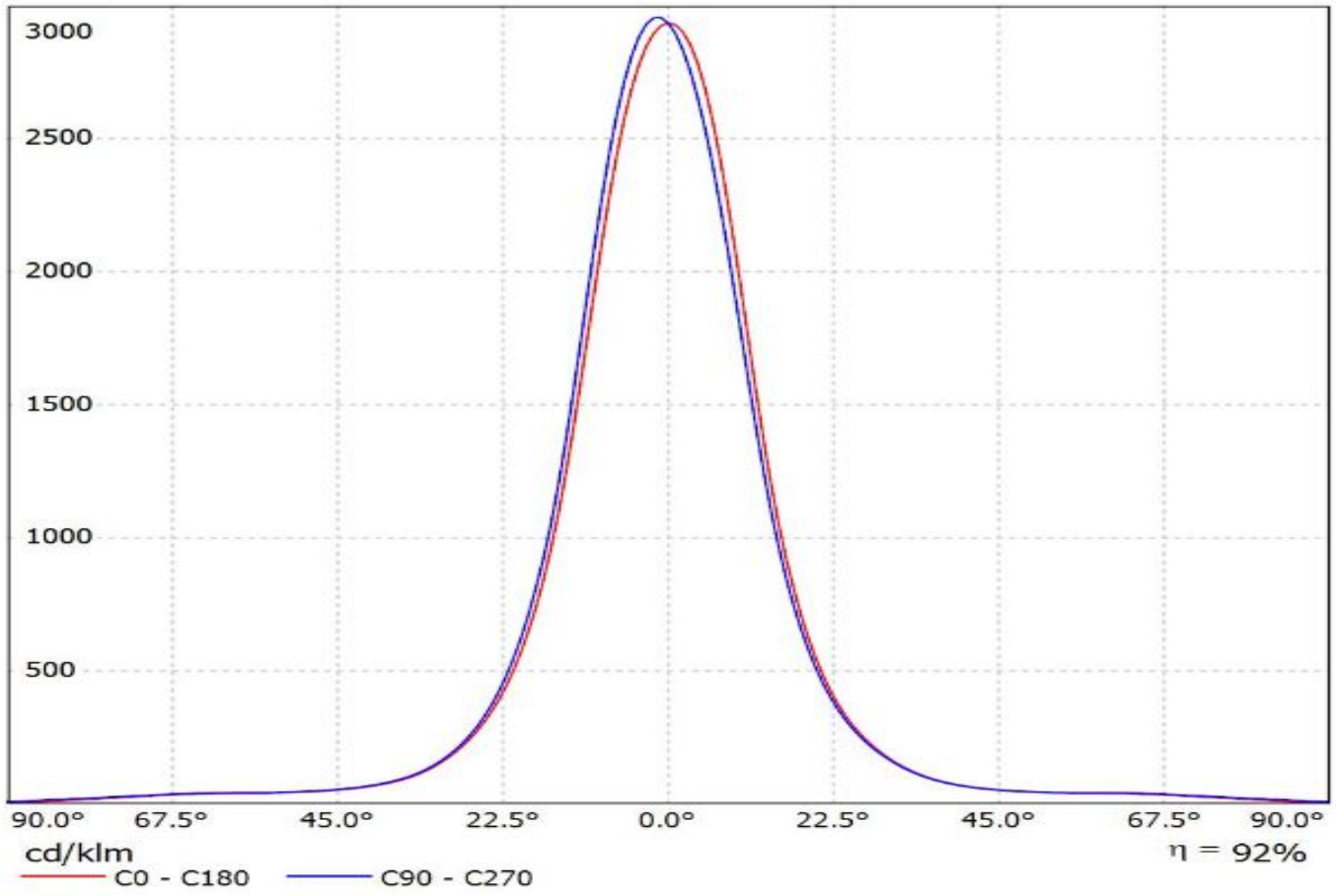
Luminaire: LEDiL Oy C14607_HB-2X2-M_(NVSW319AE)
Lamps: 1 x Nichia_NVSW319AE_(sm405D440f2L2R70)_500.359lm@250mA_P=2.79351W_I=0.25A



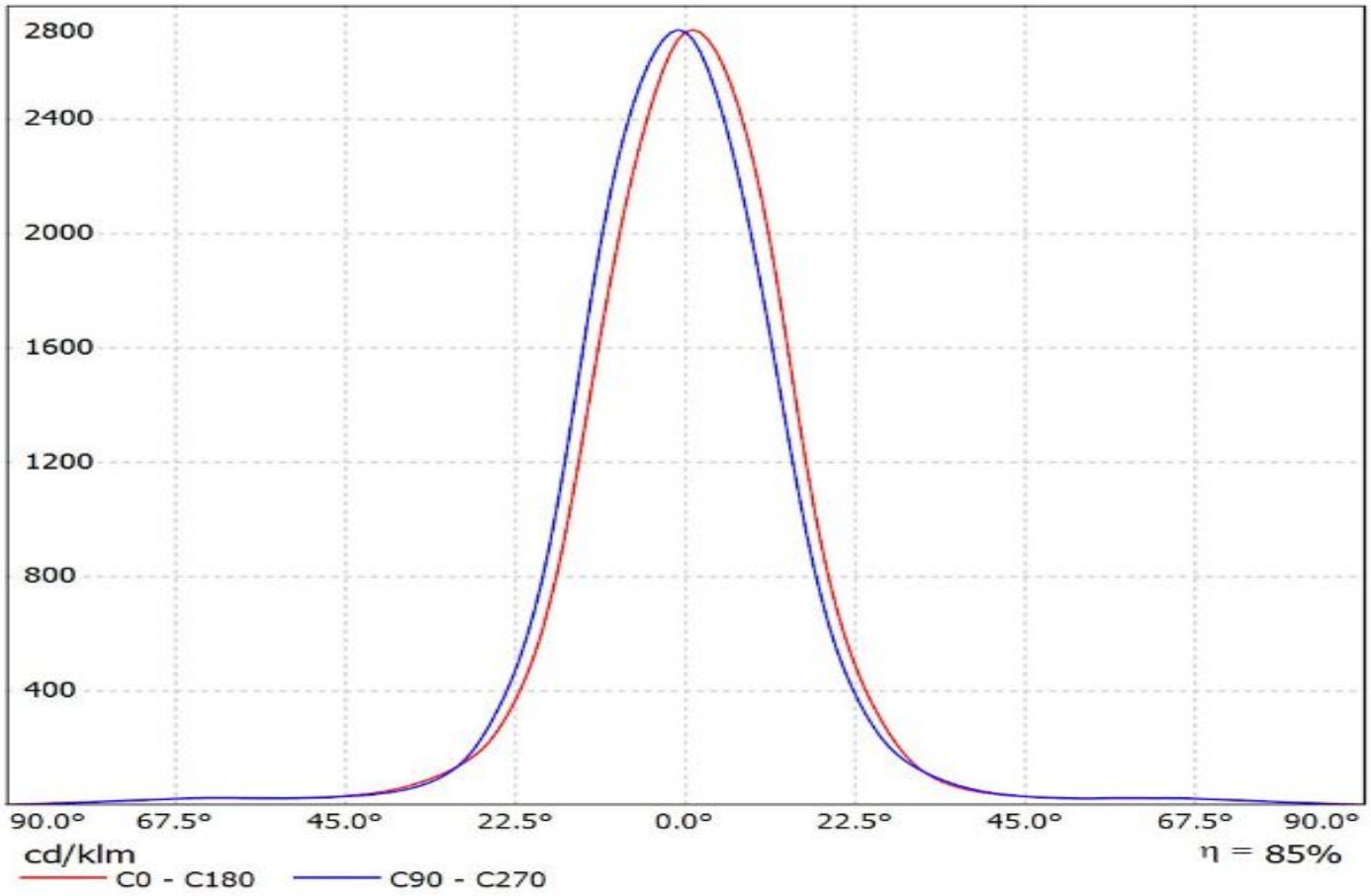
Luminaire: Ledil C14607_HB-2X2-M_(Square_Gen3)
Lamps: 1 x Osram_Square_Gen3_(GW_CSSRM2.PM)_461.082lm@250mA_P=2.79075W_I=0.250A



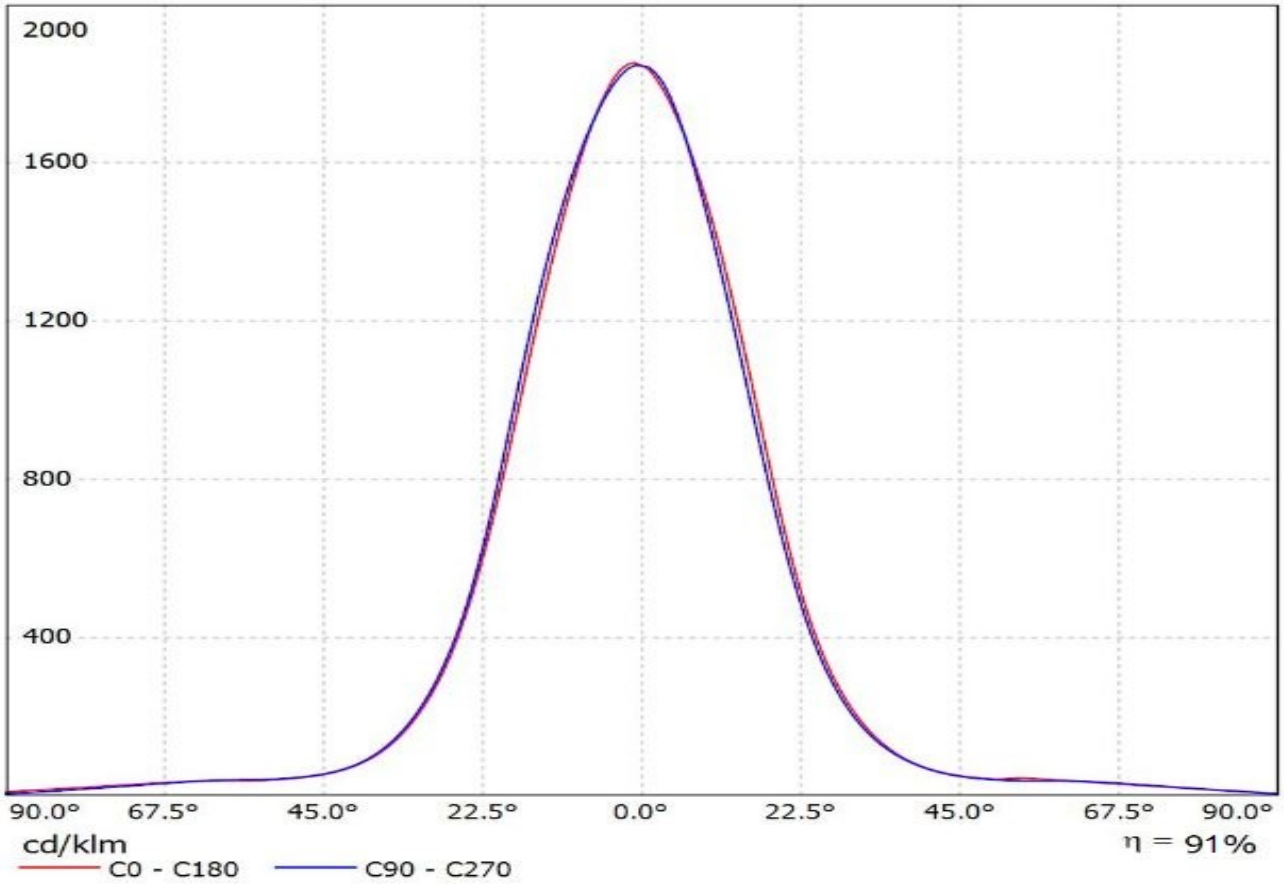
Luminaire: Ledil C14607_HB-2X2-M_(Fortimo_FastFlex_LED_board_2x8/740_DA_G3)
Lamps: 1 x Fortimo_FastFlex_LED_board_2x8/740_DA_G3_1823.98lm@250mA_P=11.65W_I=0.25A



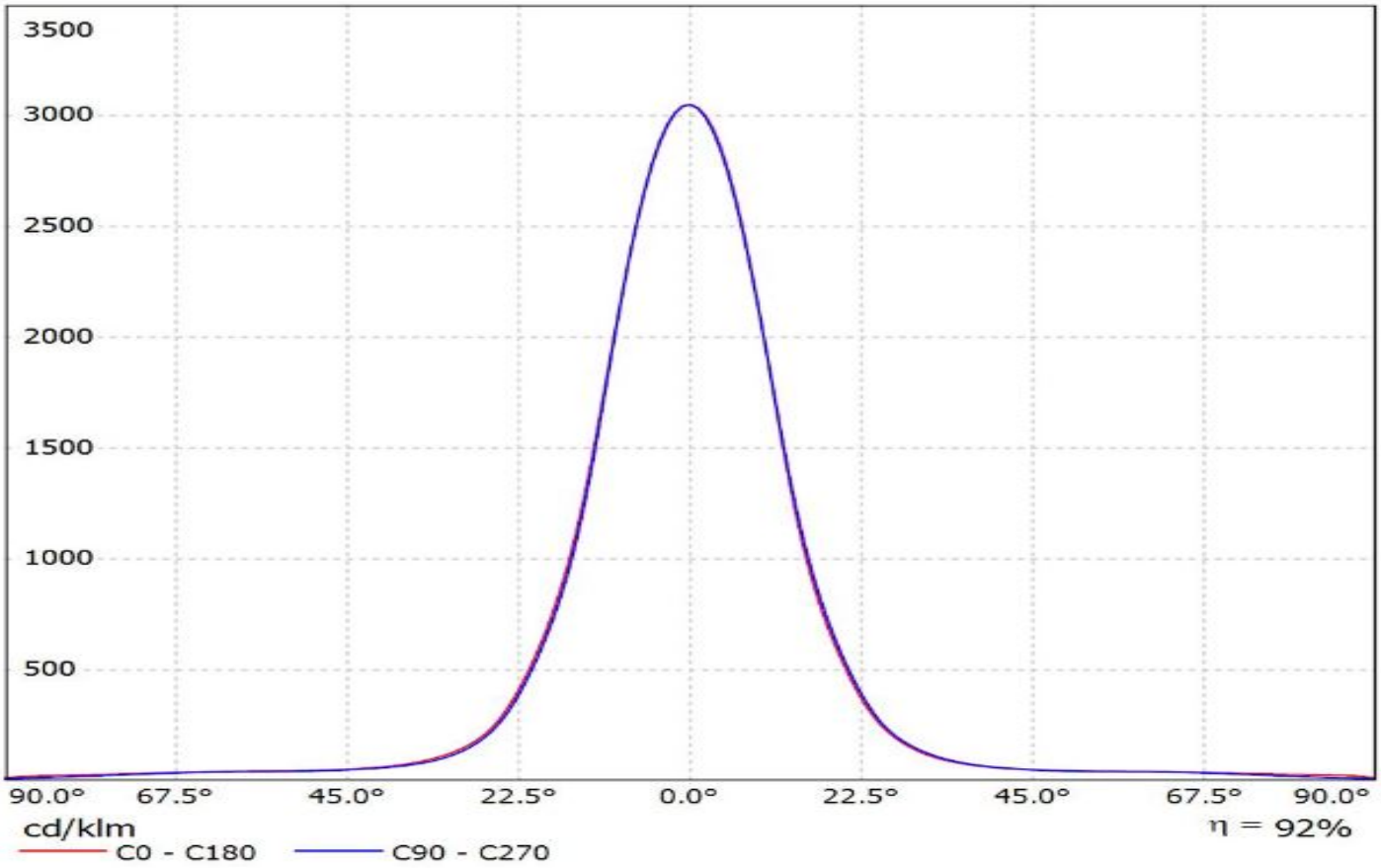
Luminaire: Ledil C14607_HB-2X2-M_(LH351B)
Lamps: 1 x Samsung_LH351B_2x2_444.178lm@250mA_P=2.8535W_I=0.25A



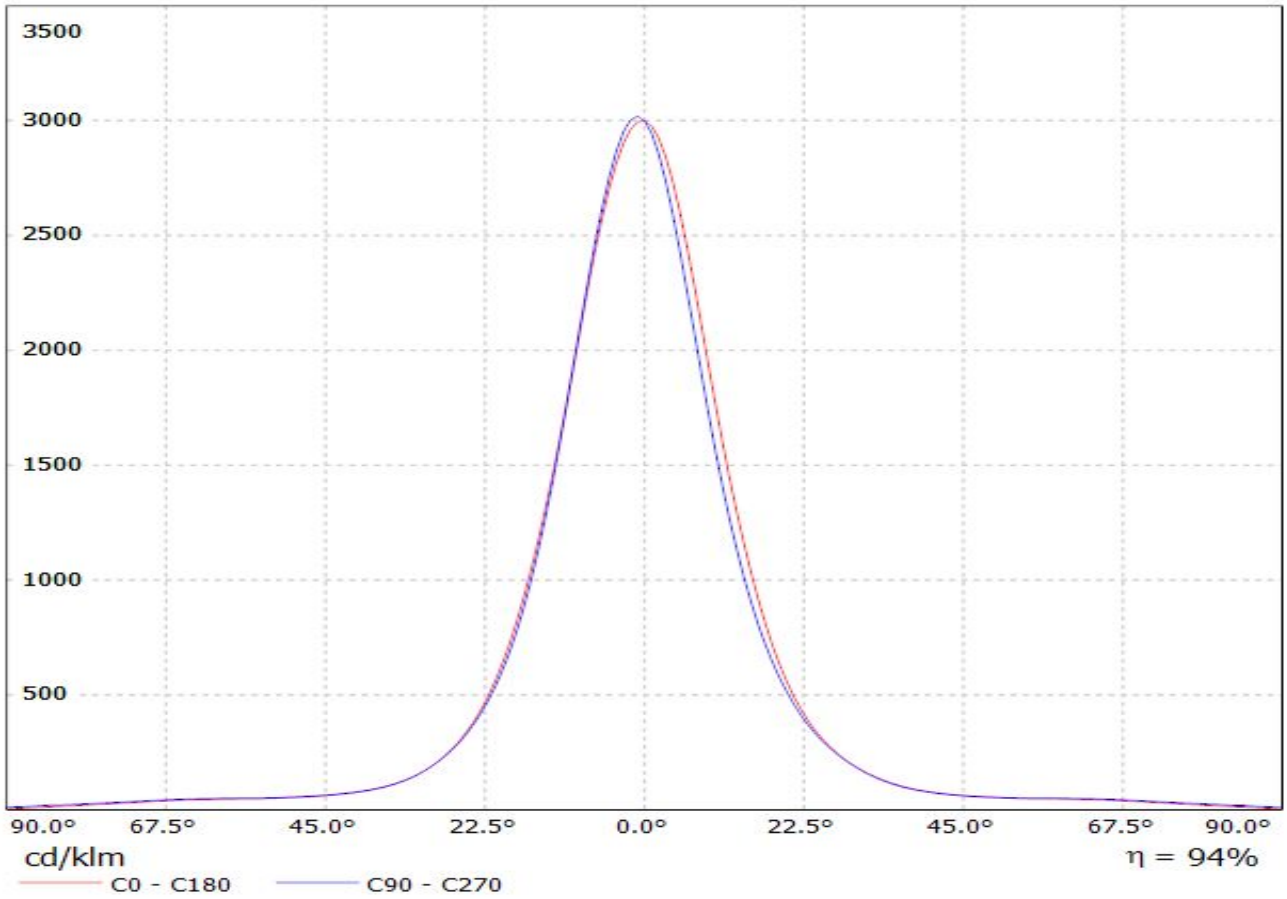
Luminaire: Ledil C14607_HB-2X2-M_(LH351D)
Lamps: 1 x Samsung_LH351D_536.957lm@250mA_P=2.7695W_I=0.250A



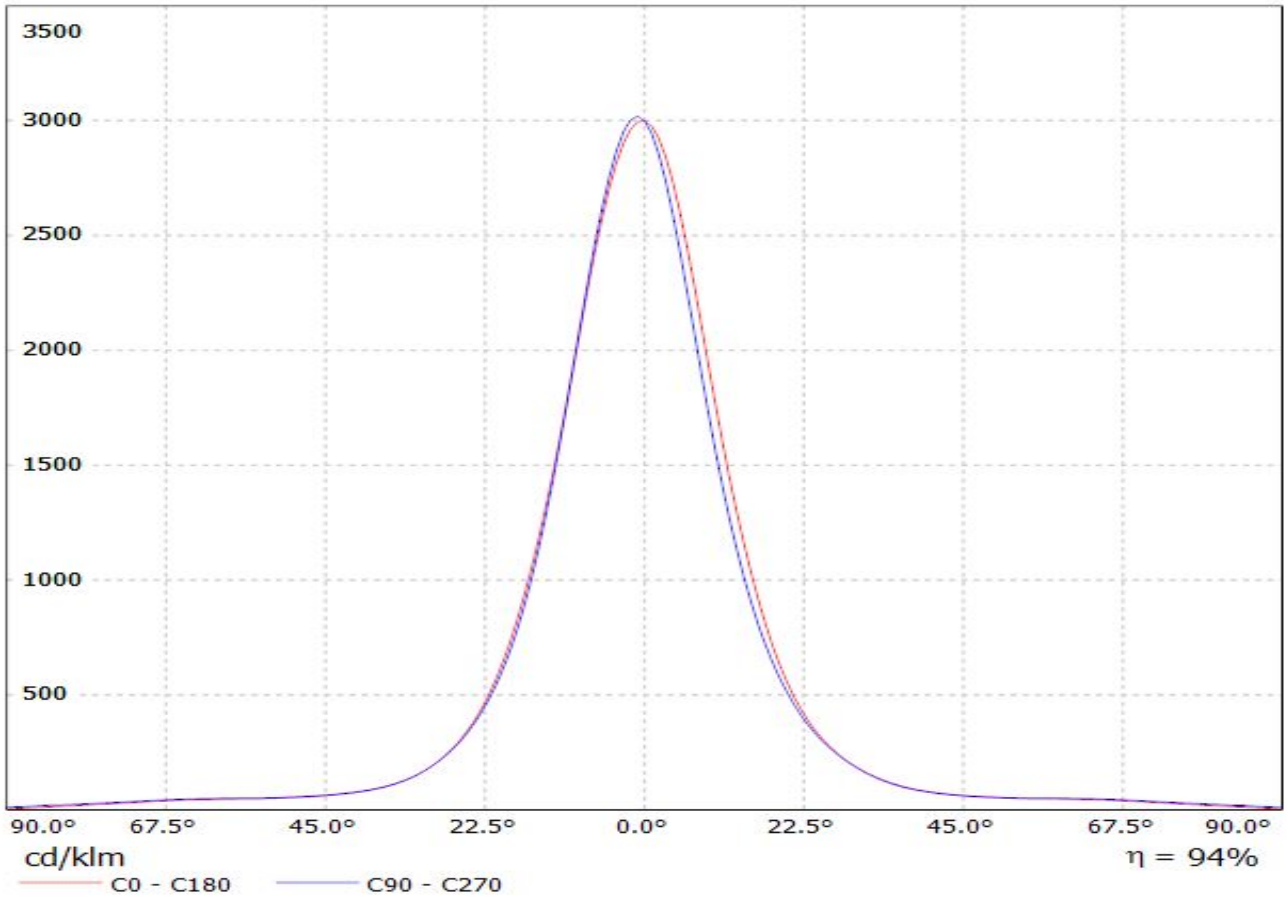
Luminaire: Ledil C14607_HB-2X2-M_(Z8Y22plus)
Lamps: 1 x Seoul_Z8Y22plus_(W6E2G)_513.996lm@250mA_P=2.754W_I=0.250A



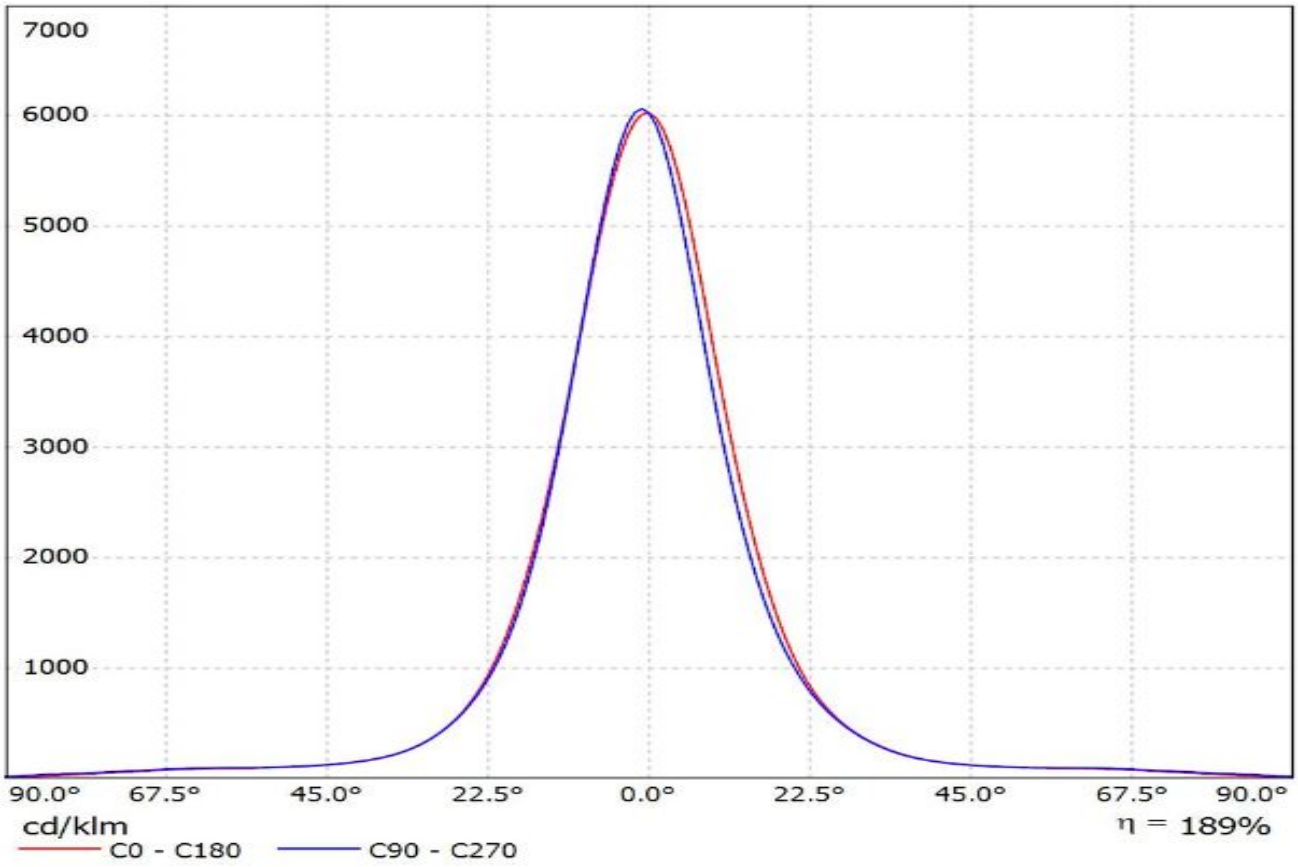
Luminaire: LEDiL Oy C14607_HB-2X2-M_(Tridonic_Module_RLE_G1)
Lamps: 1 x Tridonic_Module_RLE_G1_4594.42lm@700mA_P=32.1515W_I=0.700A



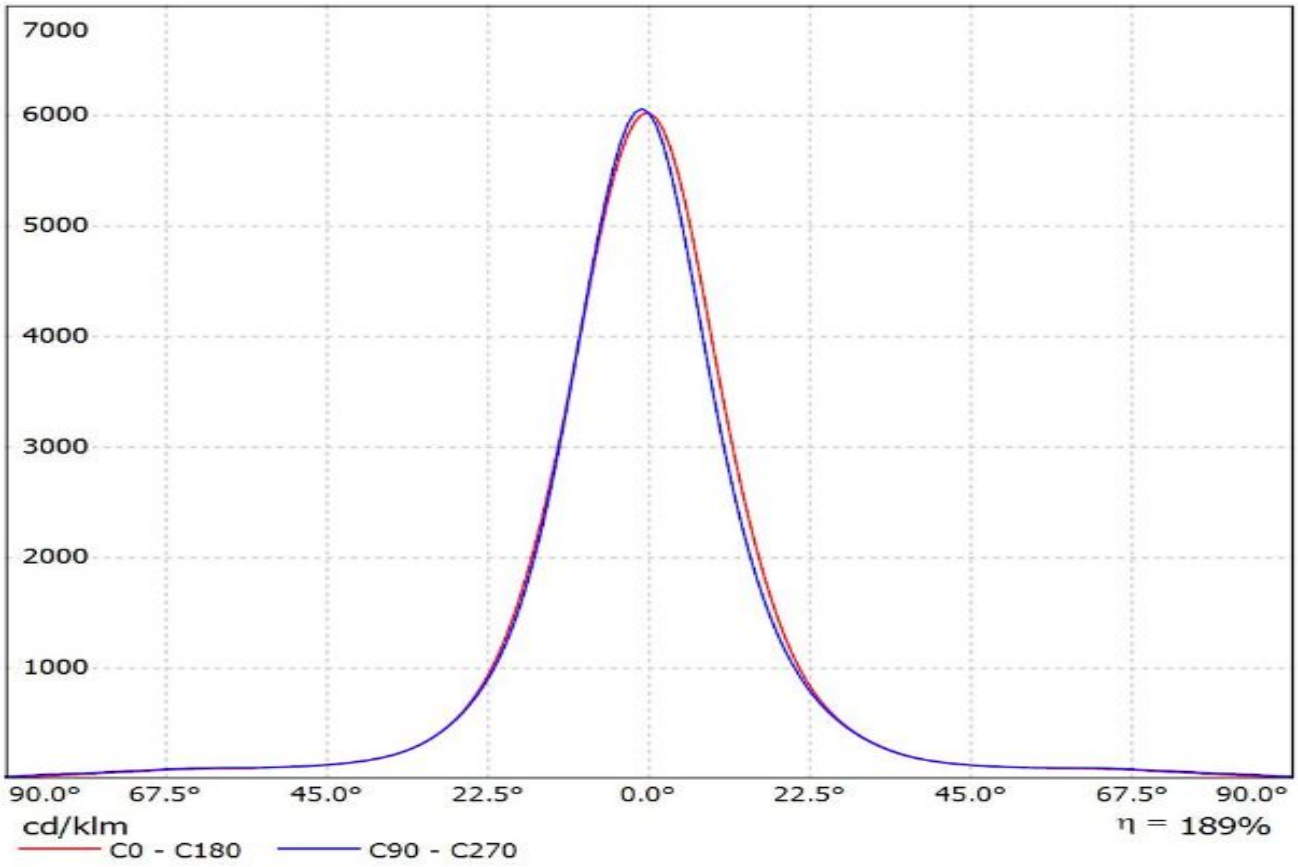
Luminaire: LEDiL Oy C14607_HB-2X2-M_(Tridonic_Module_RLE_G1)
Lamps: 1 x Tridonic_Module_RLE_G1_4594.42lm@700mA_P=32.1515W_I=0.700A



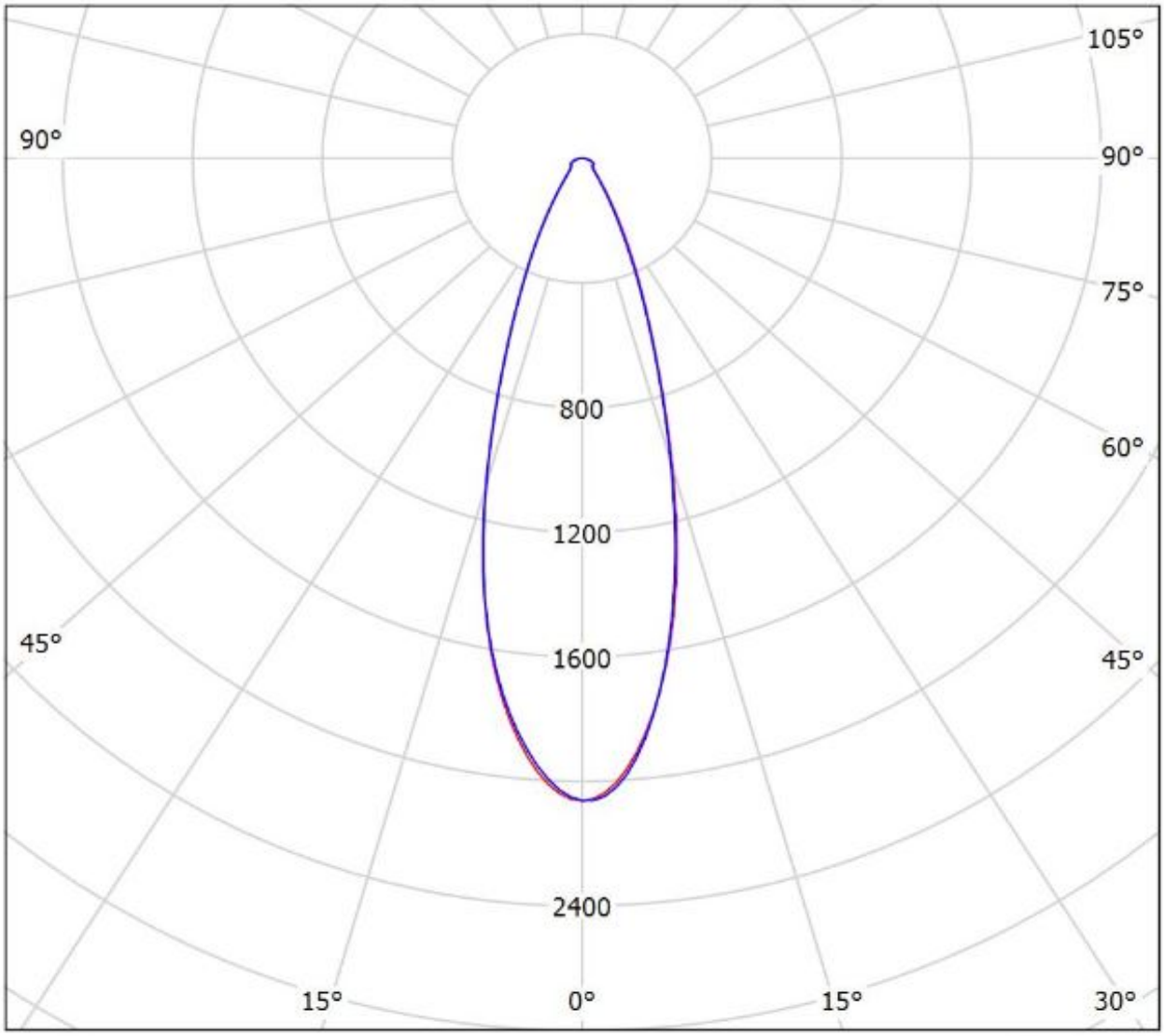
Luminaire: LEDiL Oy C14607_HB-2X2-M_(Tridonic_Module_RLE_G1
Lamps: 1 x Tridonic_Module_RLE_G1_2288lm@700mA_P=16W_I=0.700A



Luminaire: LEDiL Oy C14607_HB-2X2-M_(Tridonic_Module_RLE_G1
Lamps: 1 x Tridonic_Module_RLE_G1_2288lm@700mA_P=16W_I=0.700A

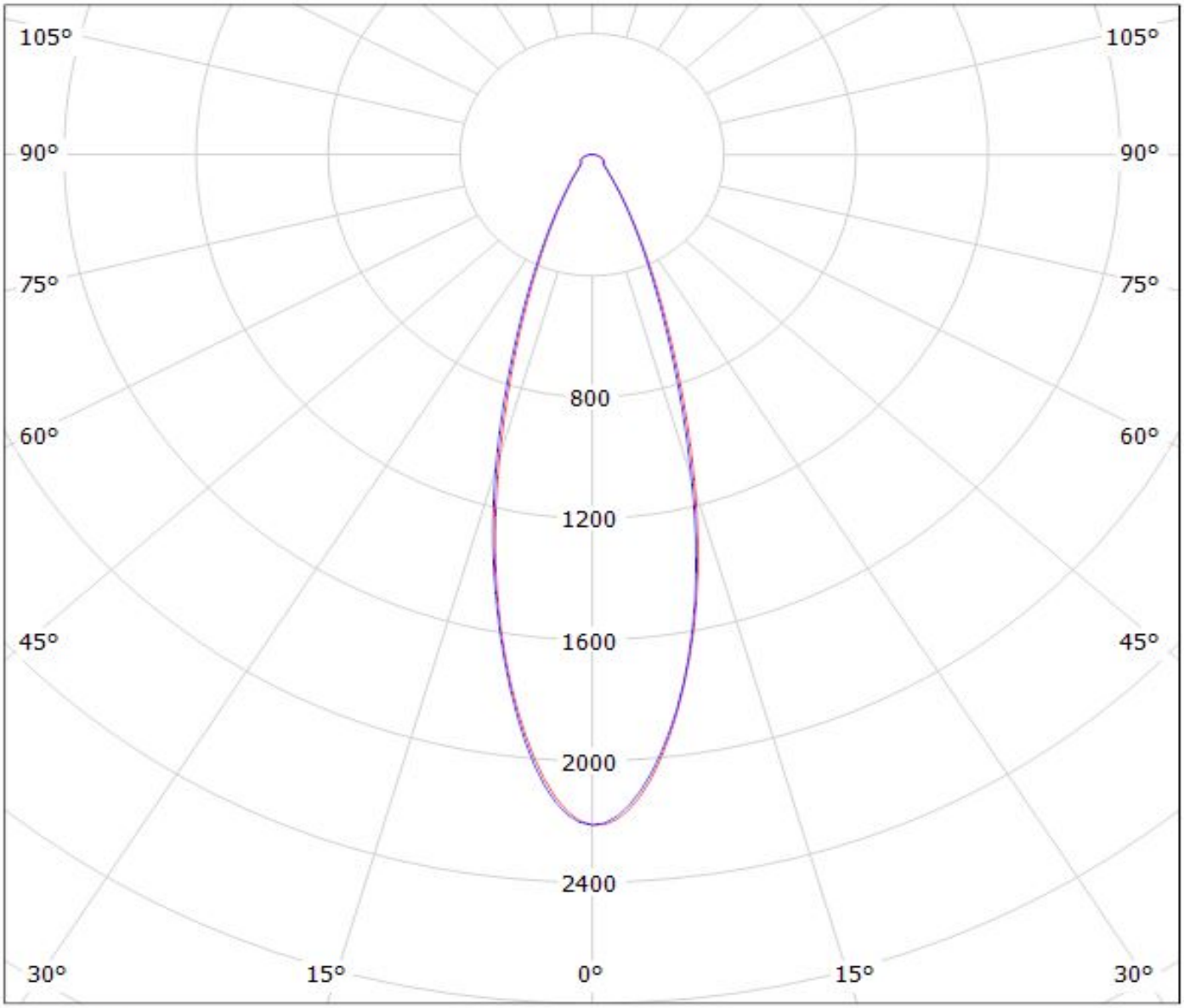


Luminaire: LEDiL Oy C14607_HB-2X2-M_(XM-L)
Lamps: 1 x Cree_XM-L_2x2_(XMLAWT-00-0000-000LT20E7)_334.631lm@250mA_P=2.75215W_I=0.2499A




cd/klm
η = 93%
C0 - C180
C90 - C270

Luminaire: LEDiL Oy C14607_HB-2X2-M_(XP-L)
Lamps: 1 x Cree_XP-L_(XPLAWT-1B0-V40-00-0001)_496.74lm@250mA_P=2.80138W_I=0.2499A

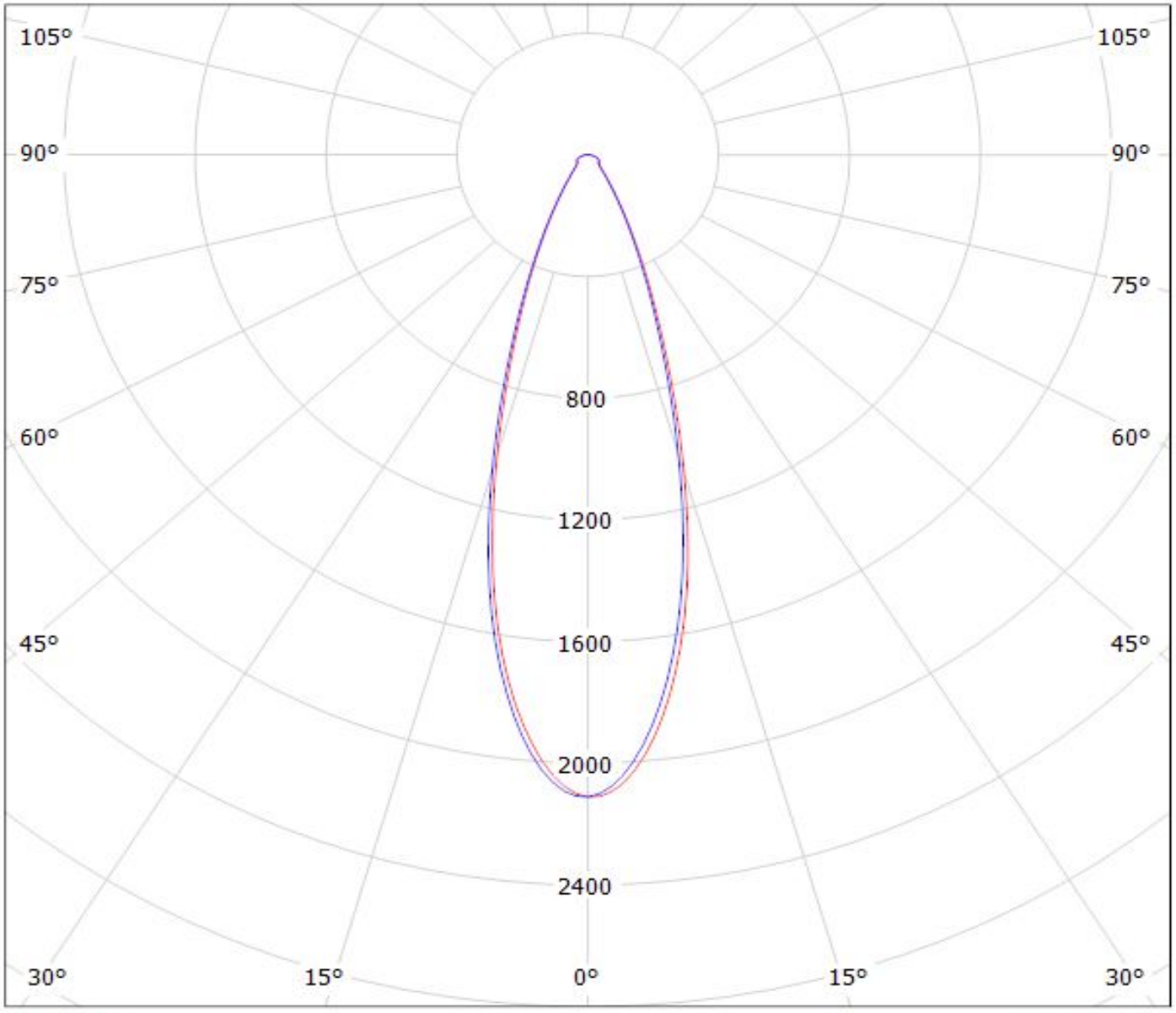



cd/klm

η = 94%

C0 - C180 C90 - C270

Luminaire: LEDiL Oy C14607_HB-2X2-M_(XM-L2)
Lamps: 1 x Cree_XM-L2_2X2_(XMLBWT-0-7B4-0L-0001)_354.093lm@250mA_P=2.81687W_I=0.2499A

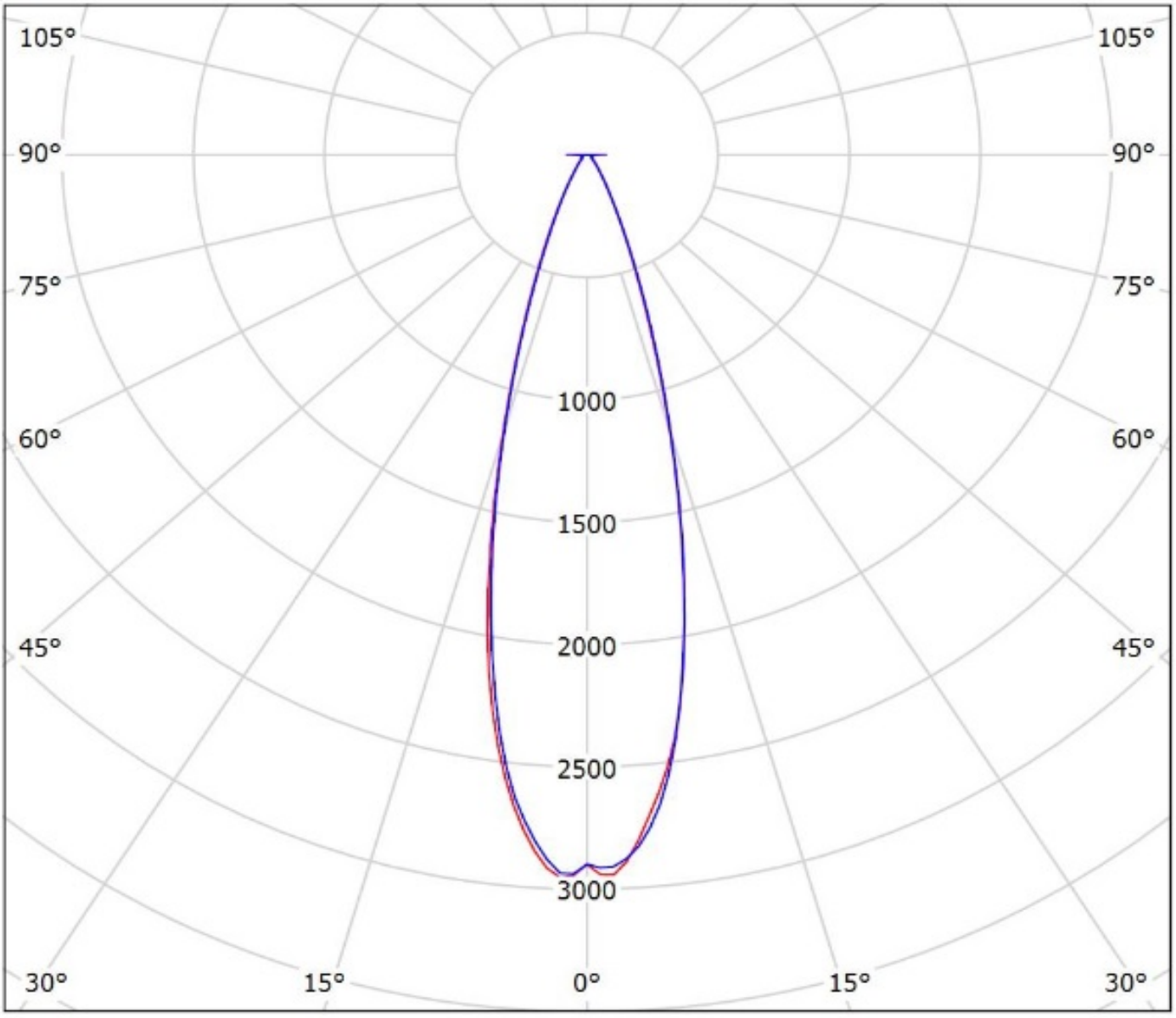



cd/klm

η = 92%

C0 - C180 C90 - C270

Luminaire: Ledil Oy C14607_HB-2X2-M_(XP-G3)_SIMULATED
Lamps: 1 x Cree XP-G3

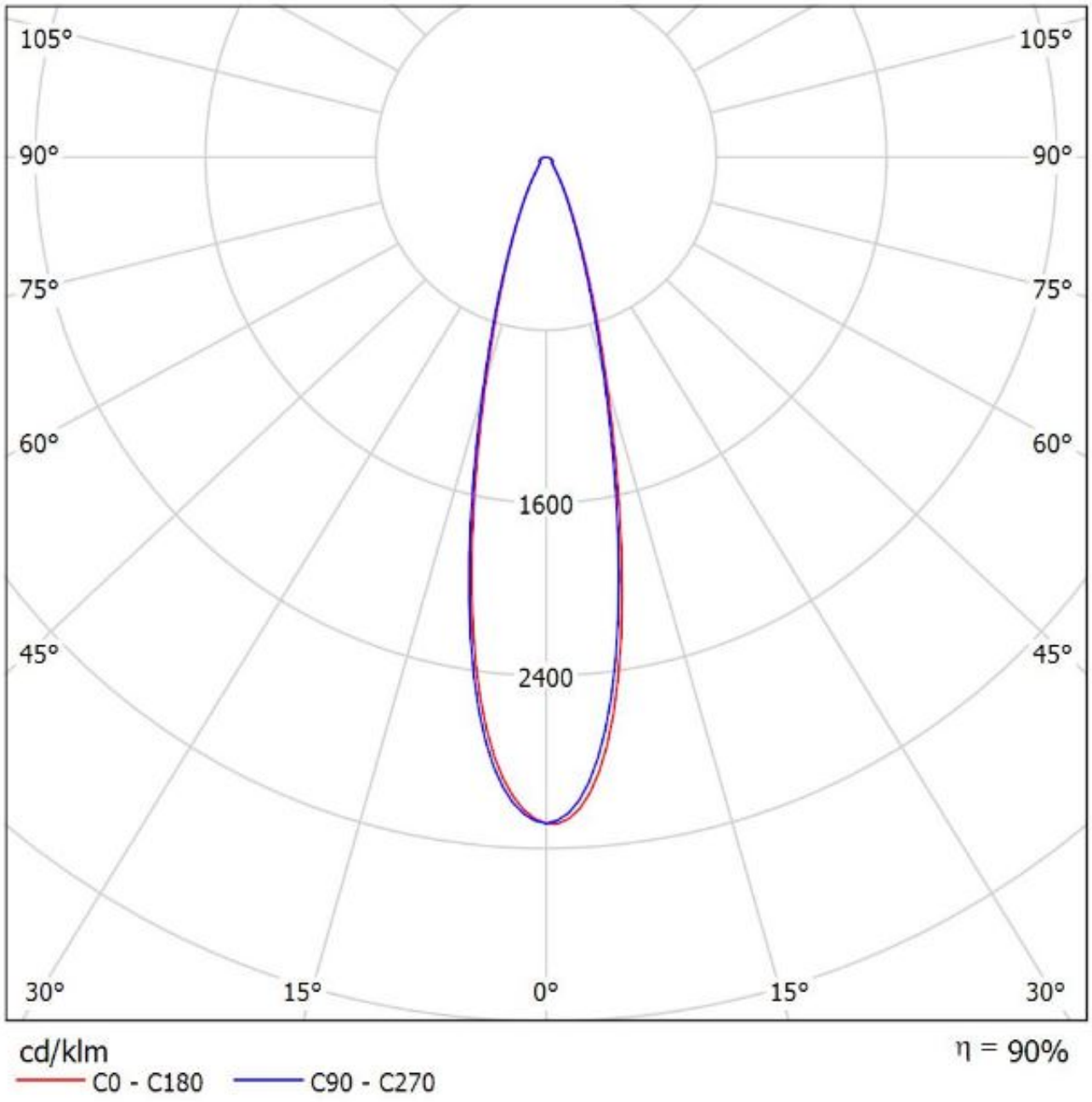



cd/klm

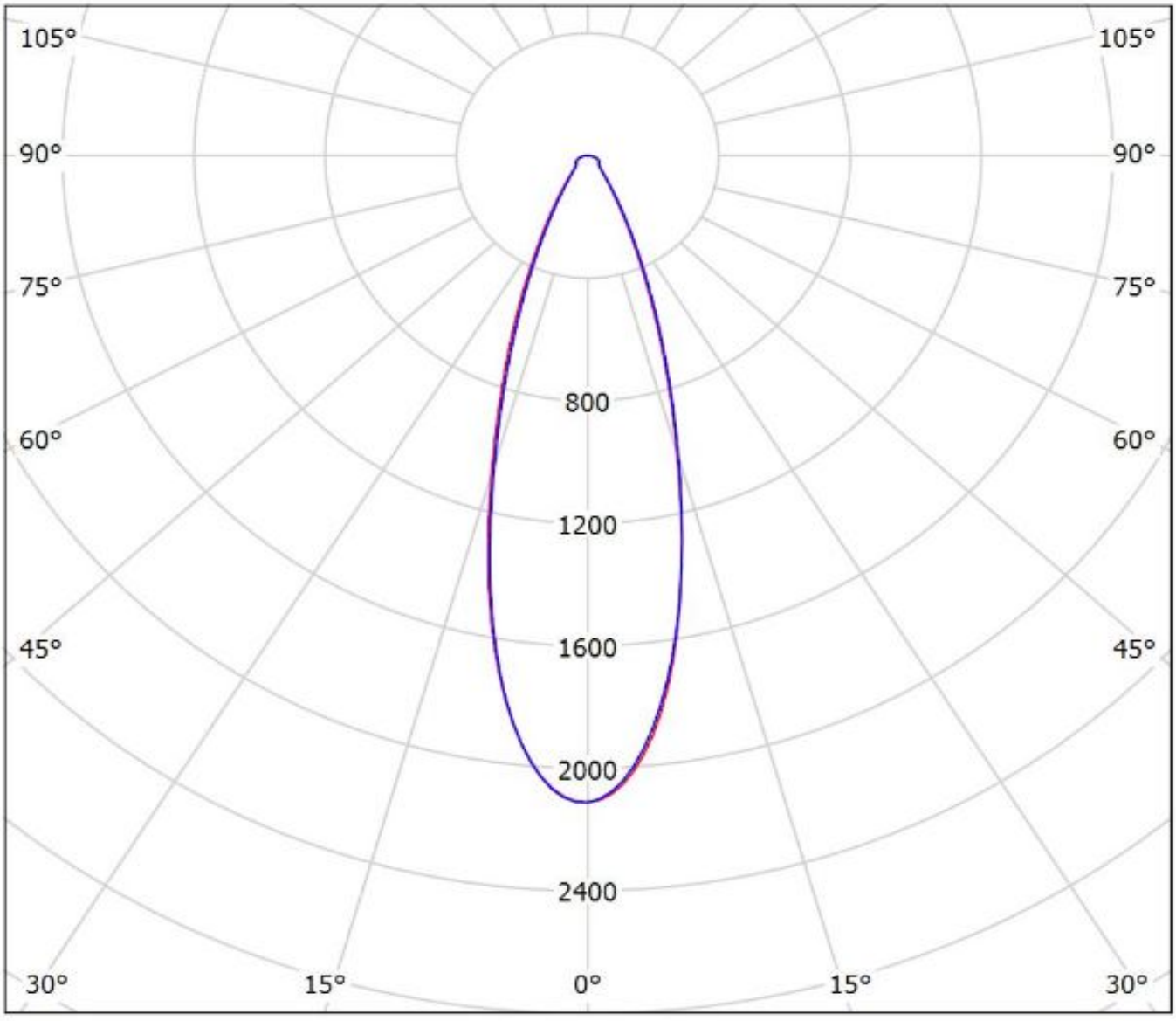
η = 92%

C0 - C180 C90 - C270

Luminaire: Ledil C14607_HB-2X2-M_(XP-G2)
Lamps: 1 x Cree_XP-G2_2x2_(XPGBWT-L1-000-00-G51)_421.786lm@250mA_P=2.9665W_I=0.250A



Luminaire: Ledil C14607_HB-2X2-M_(XP-L2)
Lamps: 1 x Cree_XP-L2_2x2_(XPLBWT-00-0000-000BV50E3)550.93lm@250mA_P=2.7815W_I=0.25A

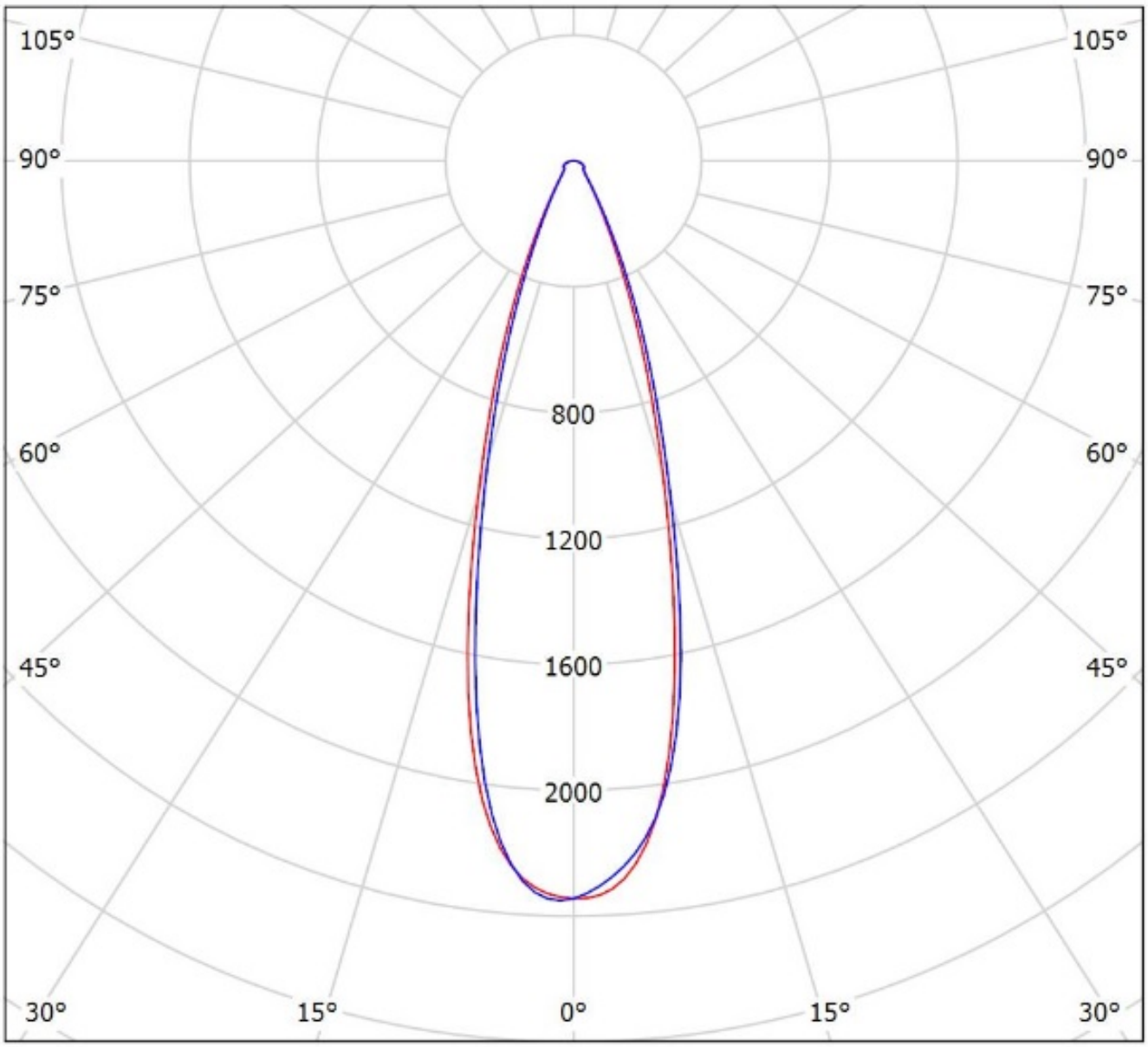



cd/klm

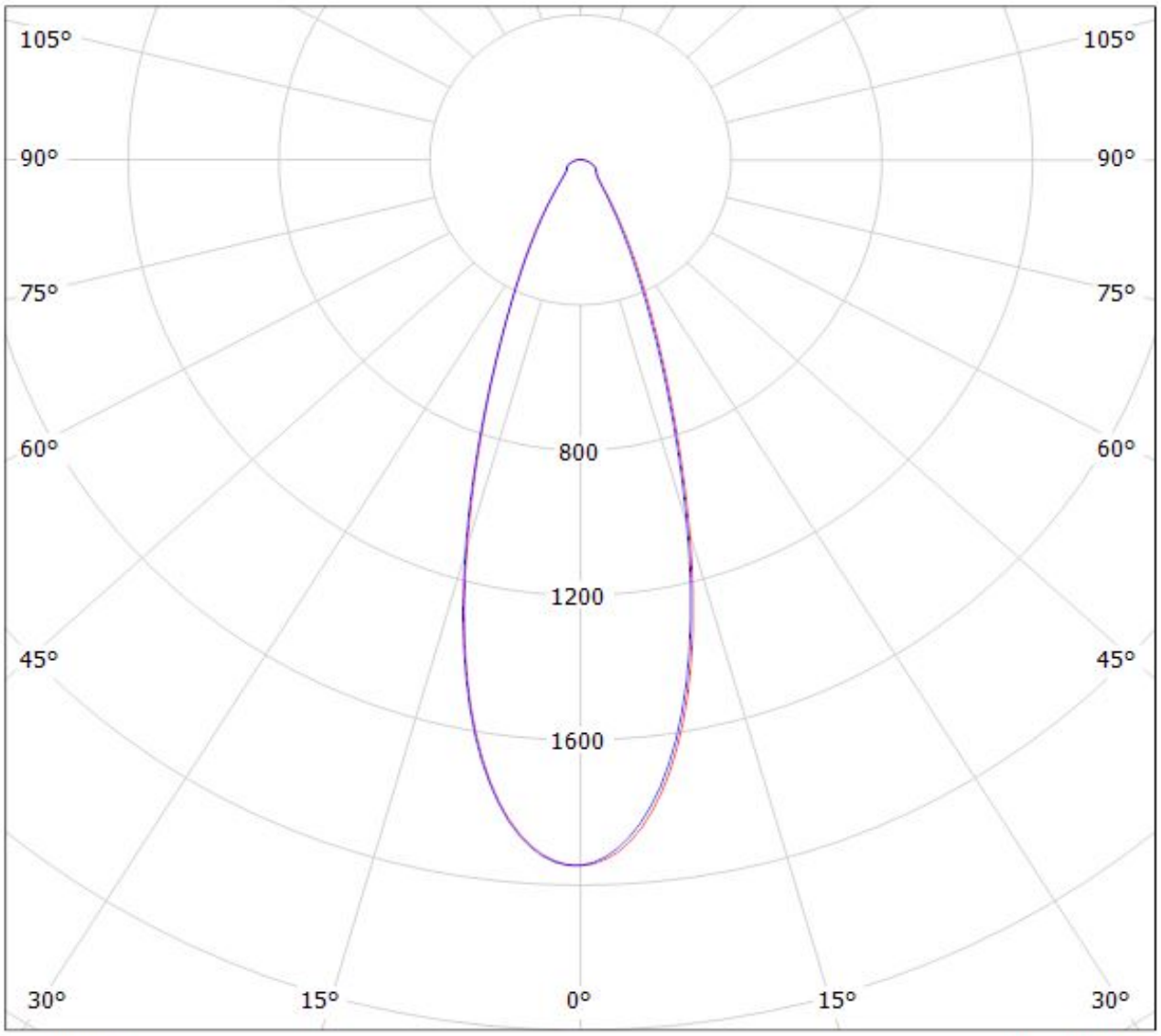
η = 93%

C0 - C180 C90 - C270

Luminaire: Ledil C14607_HB-2X2-M_(Luxeon_MZ)
Lamps: 1 x Philips_Lumileds_Luxeon_MZ_(LMZ7-QW57)_(2x2)_428.395lm@250mA_P=2.73175W_I=0.2500A



Luminaire: LEDiL Oy C14607_HB-2X2-M_(Luxeon_5050)
Lamps: 1 x Luxeon_5050_2x2_1270.76lm@80mA_CCT=5700K_P=7.35815W_I=0.080A_70CRI

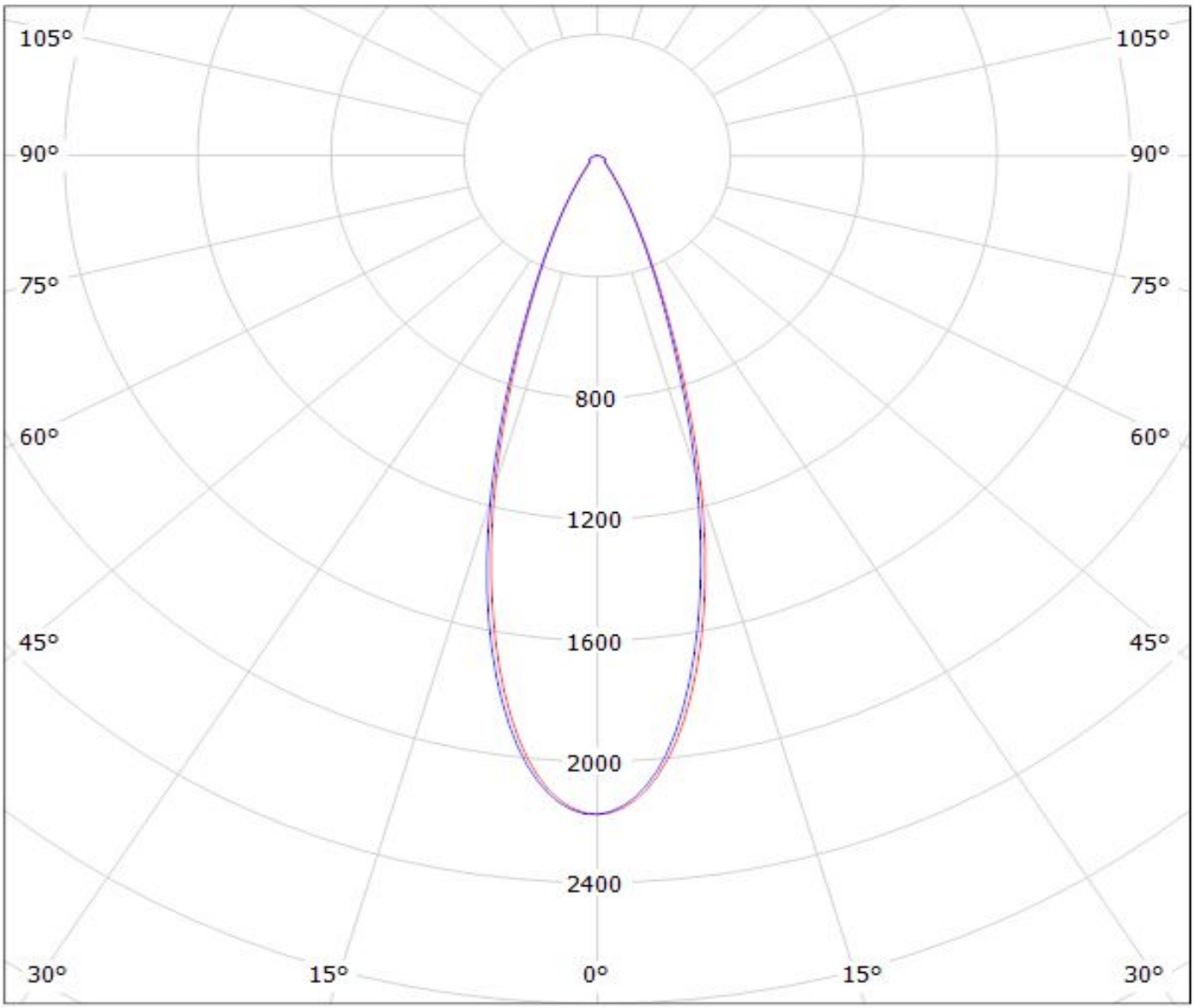



cd/klm

η = 94%

C0 - C180 C90 - C270

Luminaire: LEDiL Oy C14607_HB-2X2-M_(NWSL229AE)
Lamps: 1 x Nichia_2X2_NWSL229AE_476.548lm@250mA_P=2.7515W_I=0.250A

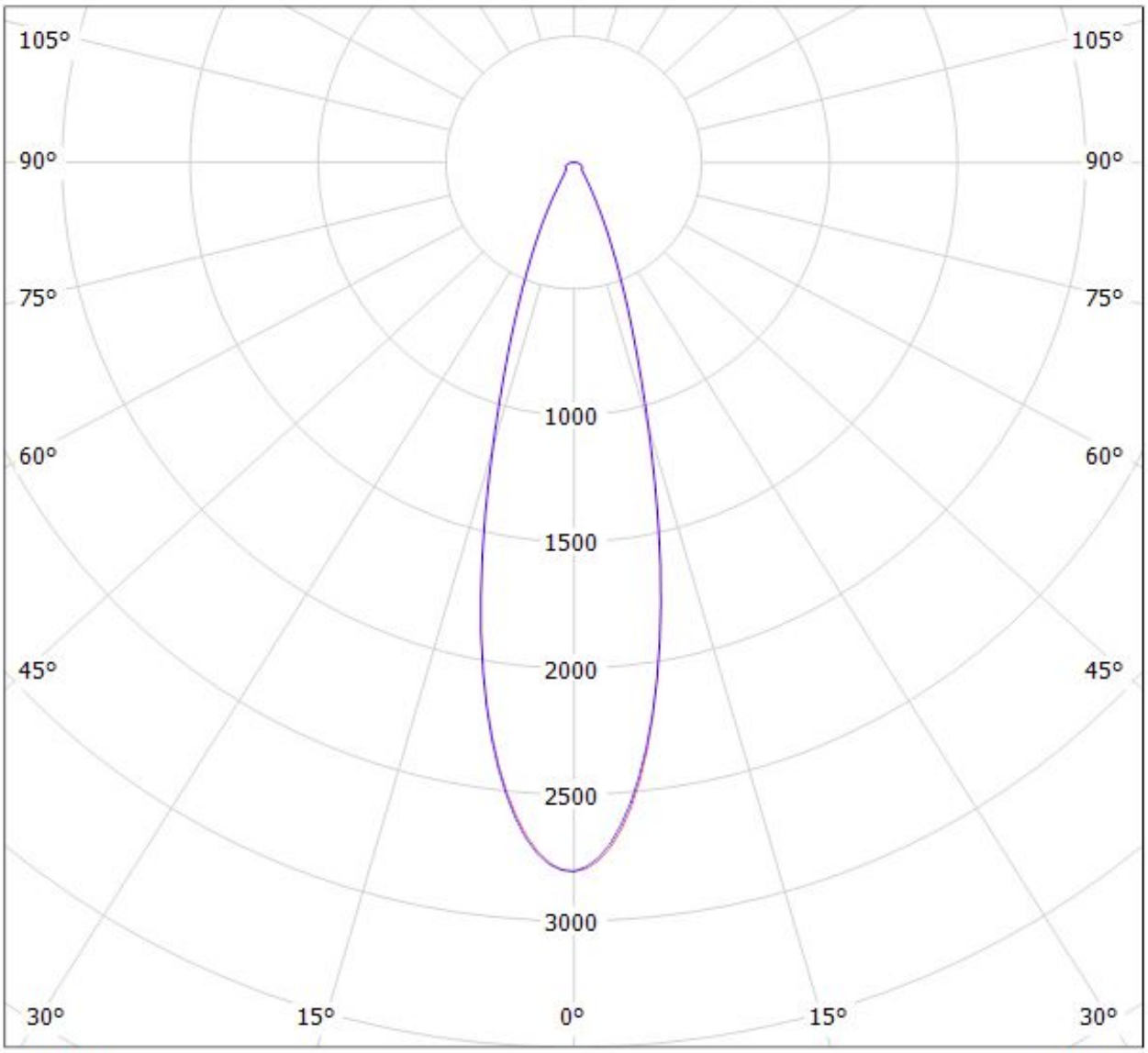



cd/klm

η = 87%

C0 - C180 C90 - C270

Luminaire: LEDiL Oy C14607_HB-2X2-M_(NVSW319AE)
Lamps: 1 x Nichia_NVSW319AE_(sm405D440f2L2R70)_500.359lm@250mA_P=2.79351W_I=0.25A

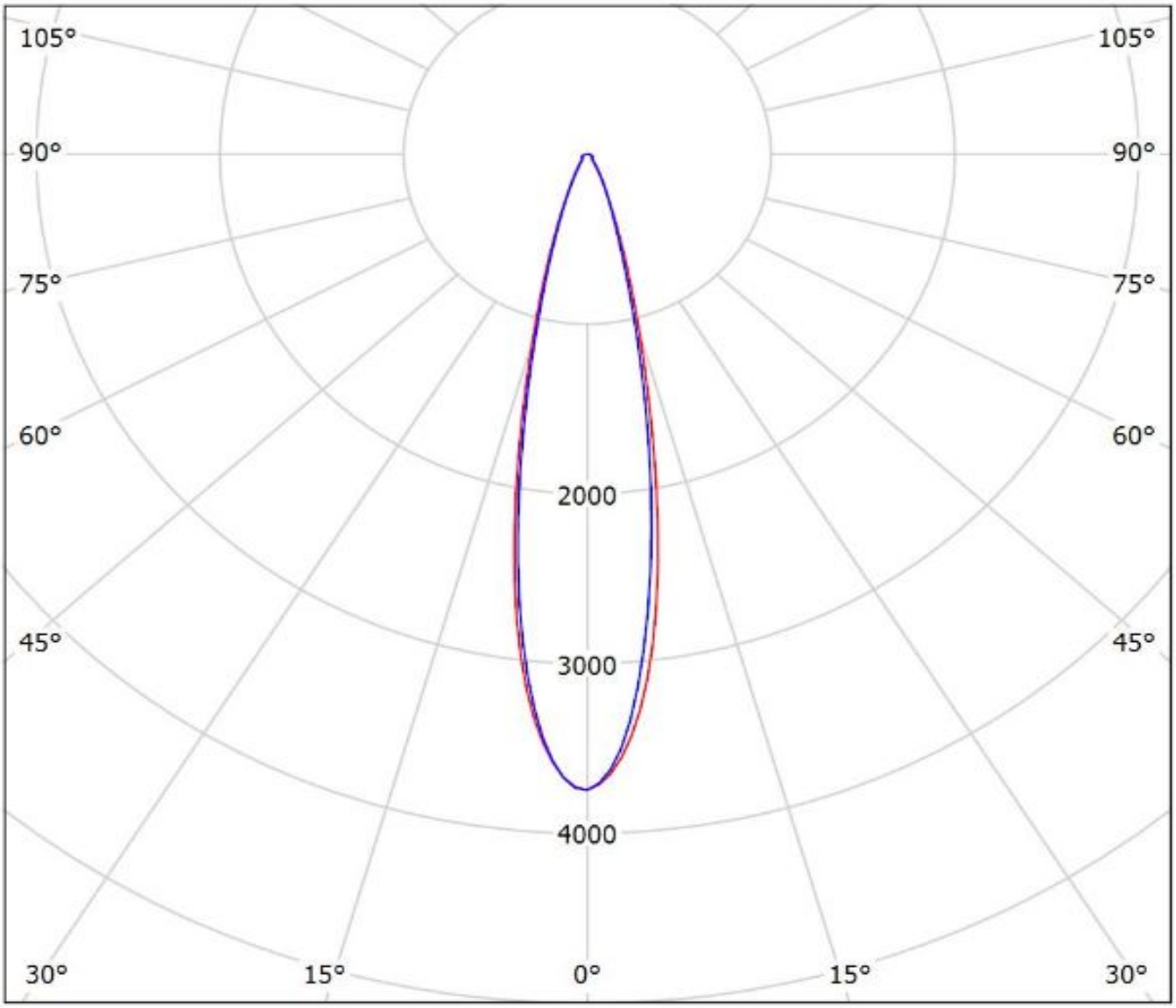



cd/klm

η = 94%

C0 - C180 C90 - C270

Luminaire: Ledil C14607_HB-2X2-M_(Square_Gen3)
Lamps: 1 x Osram_Square_Gen3_(GW_CSSRM2.PM)_461.082lm@250mA_P=2.79075W_I=0.250A

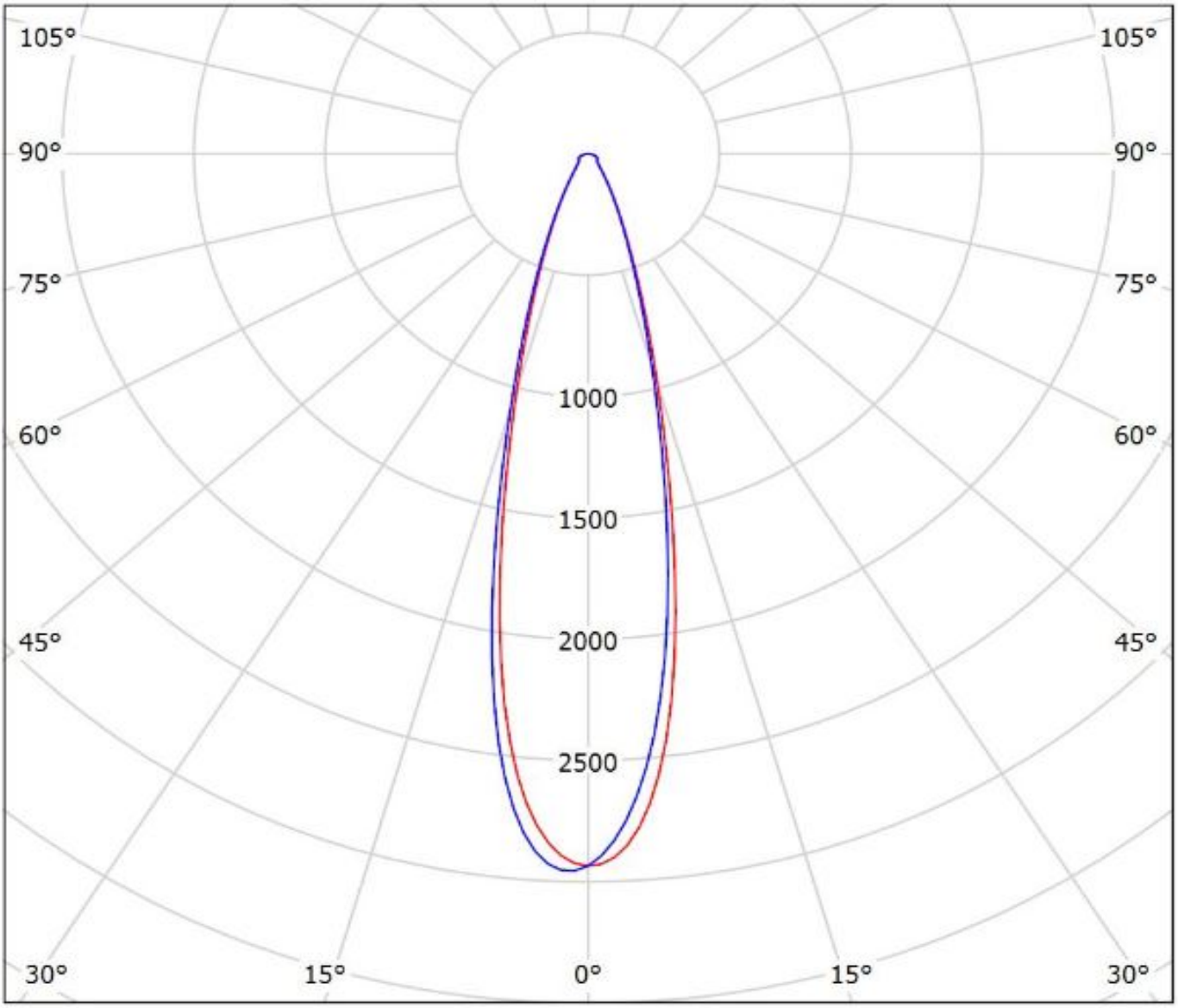



cd/klm

η = 91%

C0 - C180 C90 - C270

Luminaire: Ledil C14607_HB-2X2-M_(Fortimo_FastFlex_LED_board_2x8/740_DA_G3)
Lamps: 1 x Fortimo_FastFlex_LED_board_2x8/740_DA_G3_1823.98lm@250mA_P=11.65W_I=0.25A

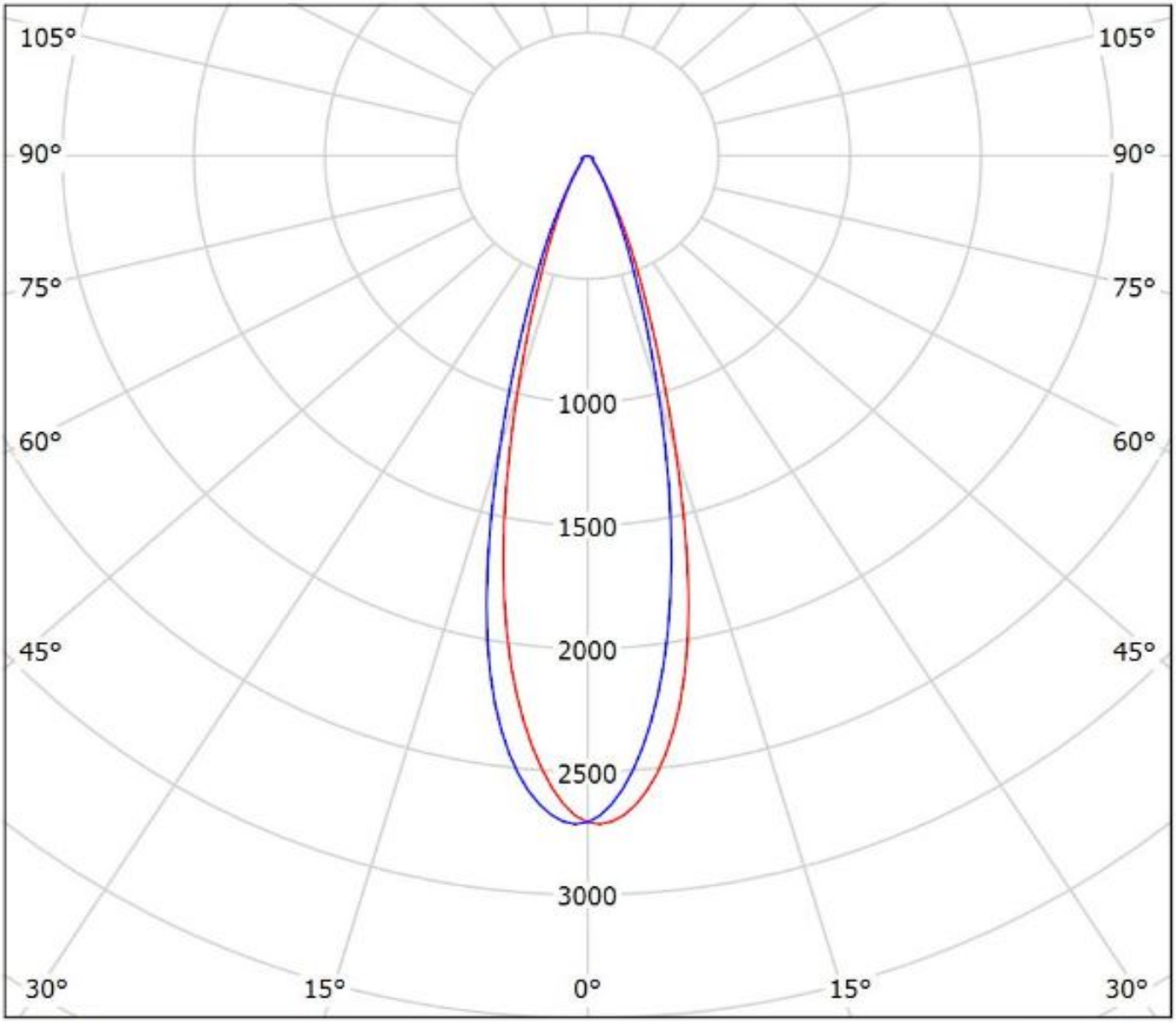



cd/klm

η = 92%

C0 - C180 C90 - C270

Luminaire: Ledil C14607_HB-2X2-M_(LH351B)
Lamps: 1 x Samsung_LH351B_2x2_444.178lm@250mA_P=2.8535W_I=0.25A

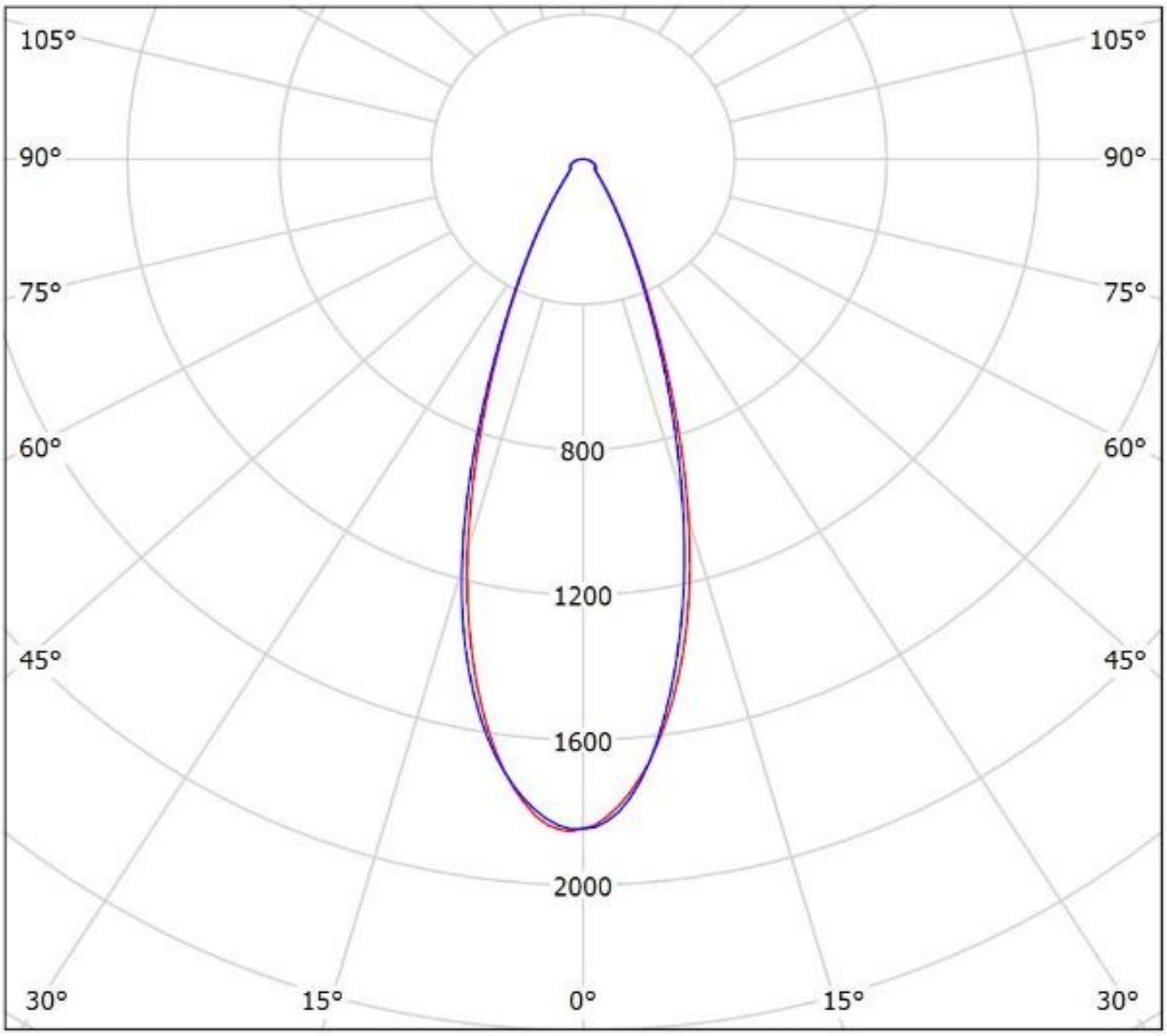



cd/klm

η = 85%

C0 - C180 C90 - C270

Luminaire: Ledil C14607_HB-2X2-M_(LH351D)
Lamps: 1 x Samsung_LH351D_536.957lm@250mA_P=2.7695W_I=0.250A

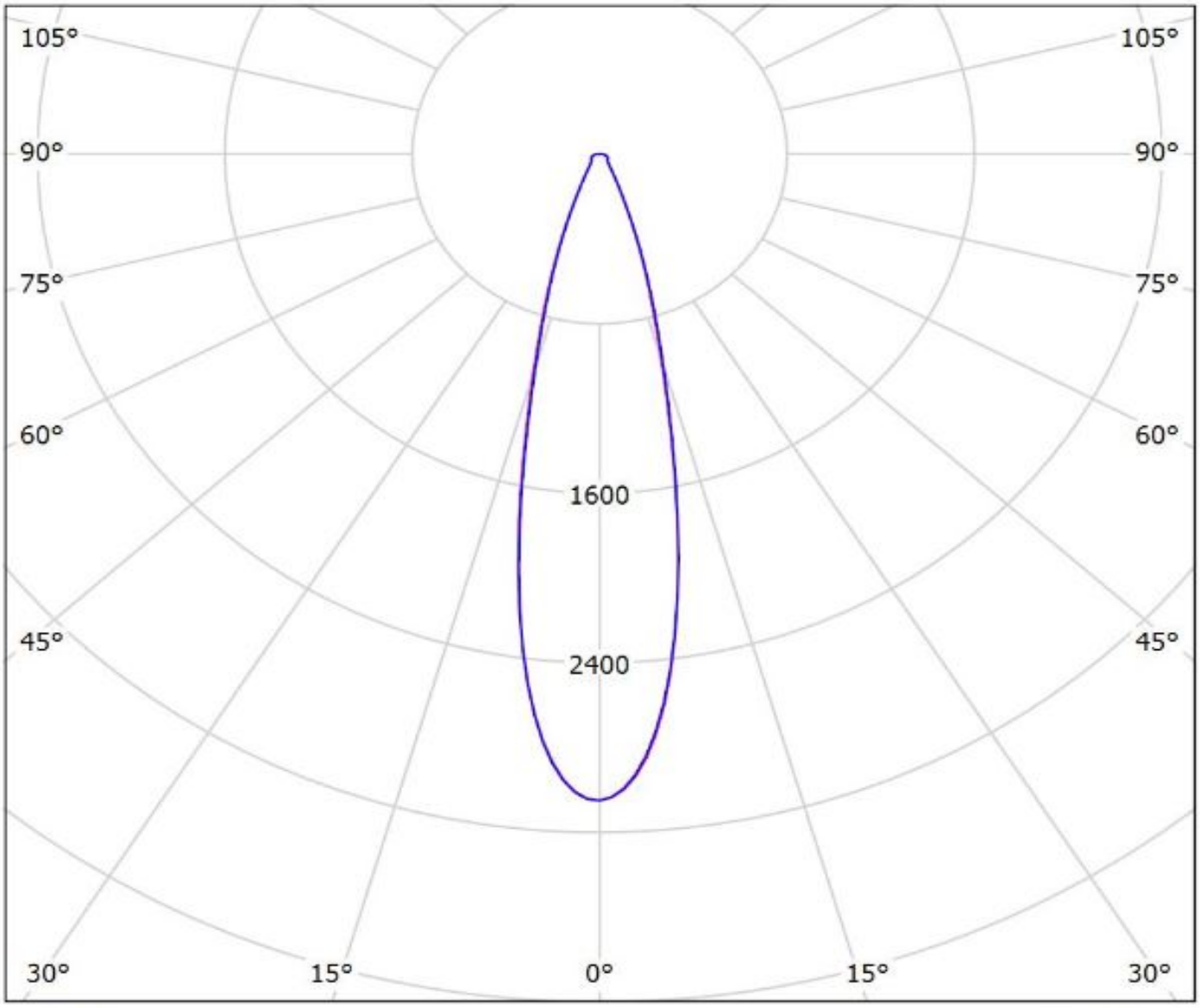



cd/klm

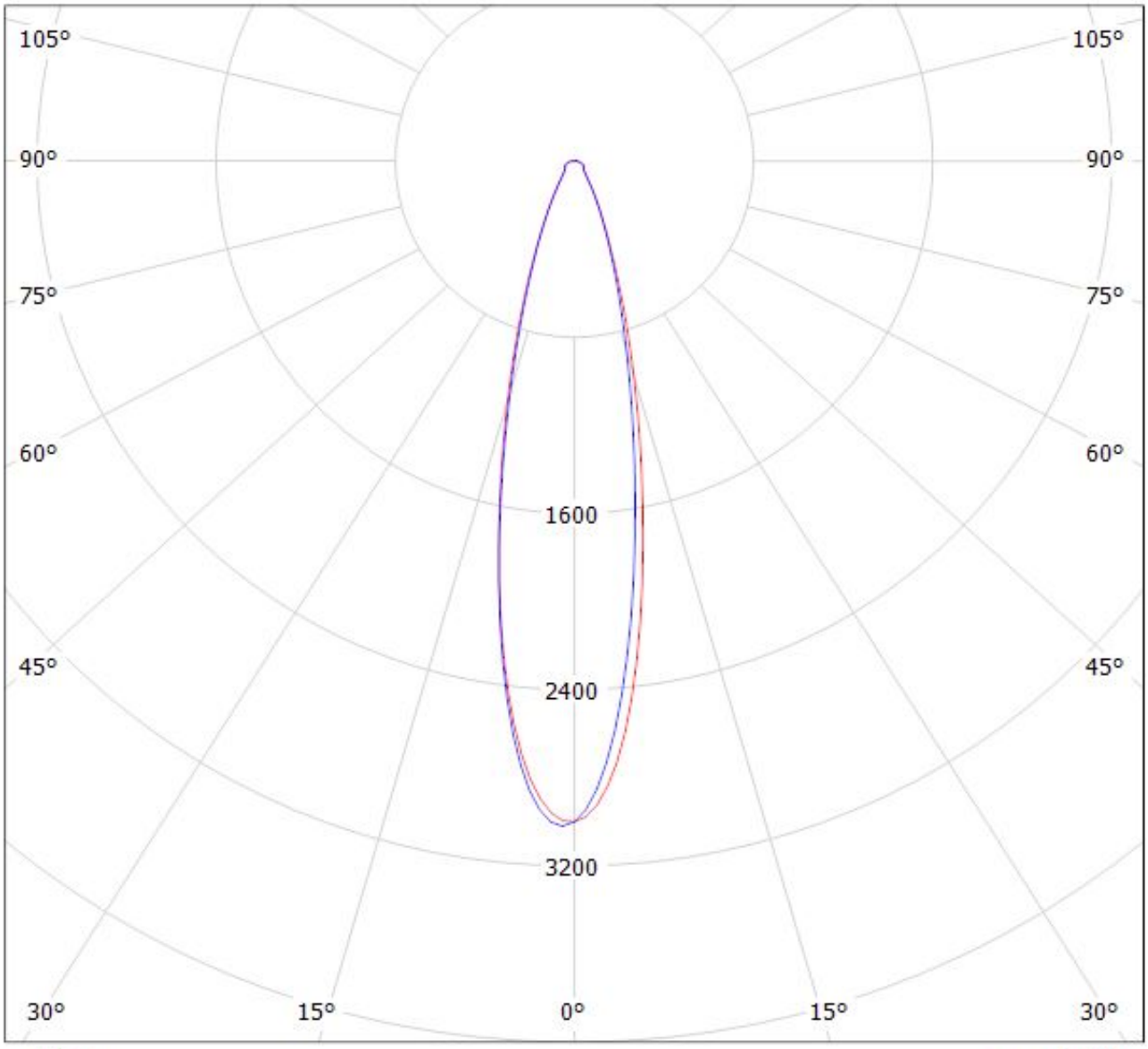
η = 91%

C0 - C180 C90 - C270

Luminaire: Ledil C14607_HB-2X2-M_(Z8Y22plus)
Lamps: 1 x Seoul_Z8Y22plus_(W6E2G)_513.996lm@250mA_P=2.754W_I=0.250A



Luminaire: LEDiL Oy C14607_HB-2X2-M_(Tridonic_Module_RLE_G1)
Lamps: 1 x Tridonic_Module_RLE_G1_4594.42lm@700mA_P=32.1515W_I=0.700A

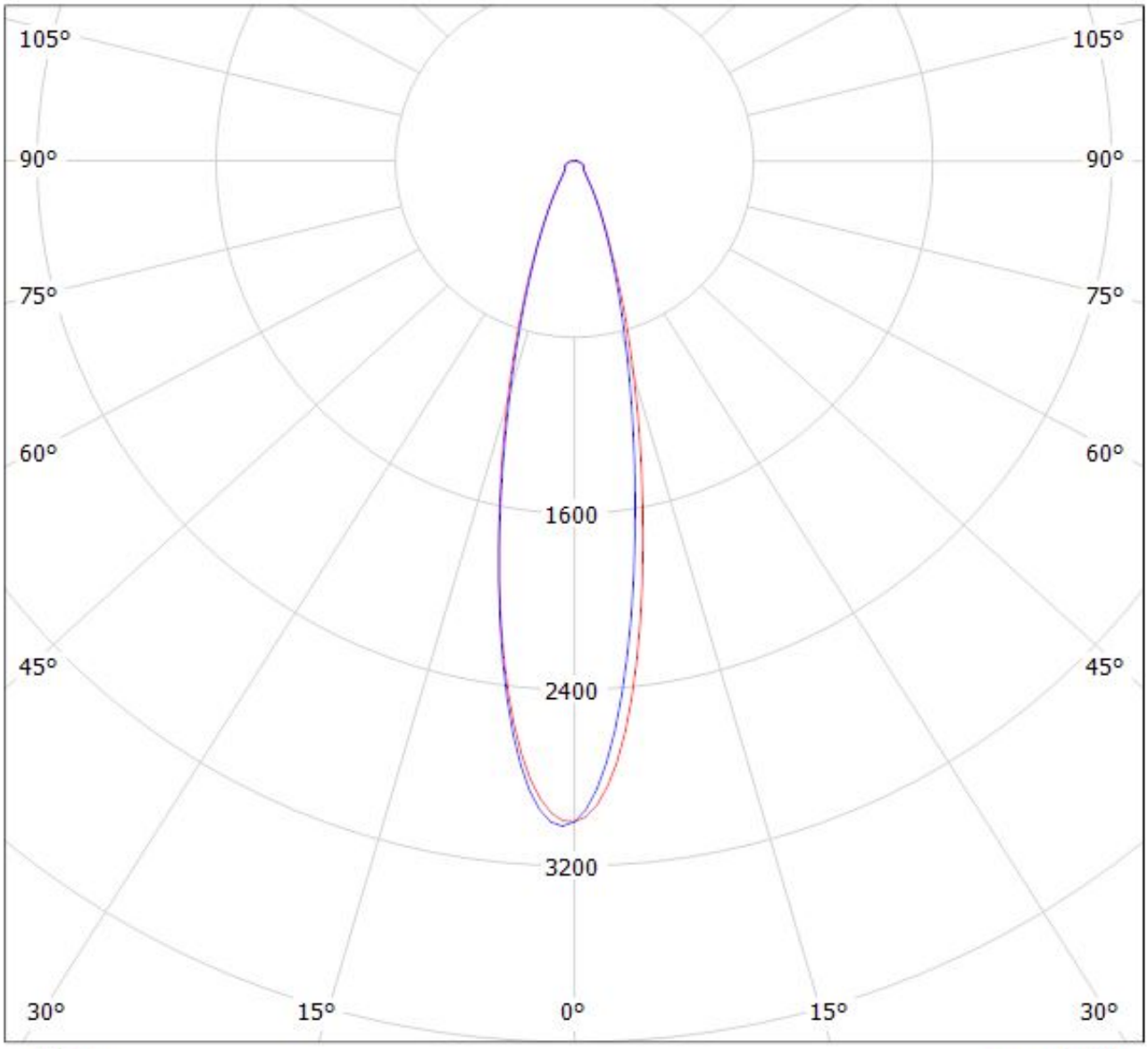



cd/klm

η = 94%

C0 - C180 C90 - C270

Luminaire: LEDiL Oy C14607_HB-2X2-M_(Tridonic_Module_RLE_G1)
Lamps: 1 x Tridonic_Module_RLE_G1_4594.42lm@700mA_P=32.1515W_I=0.700A

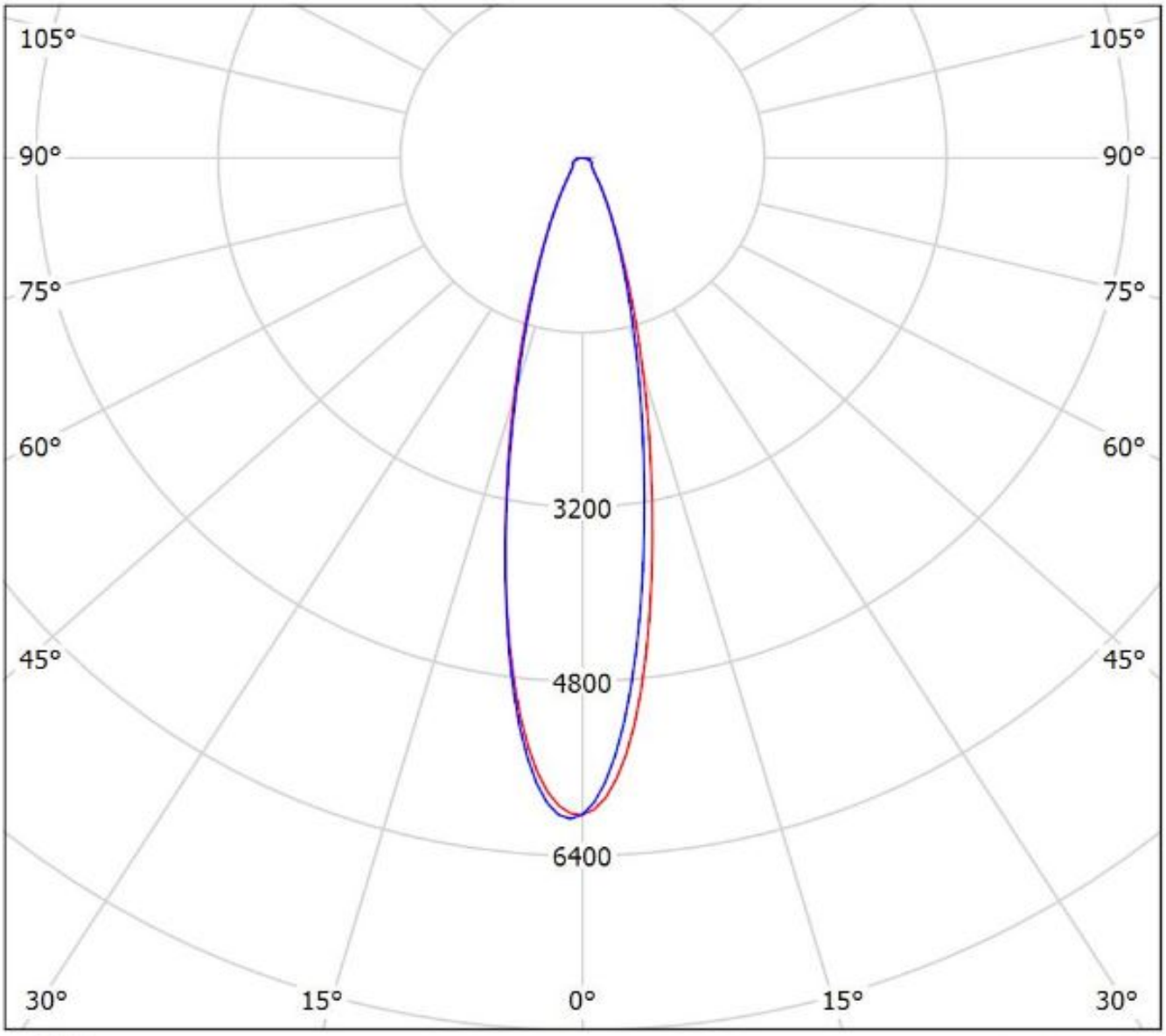



cd/klm

η = 94%

C0 - C180 C90 - C270

Luminaire: LEDiL Oy C14607_HB-2X2-M_(Tridonic_Module_RLE_G1
Lamps: 1 x Tridonic_Module_RLE_G1_2288lm@700mA_P=16W_I=0.700A

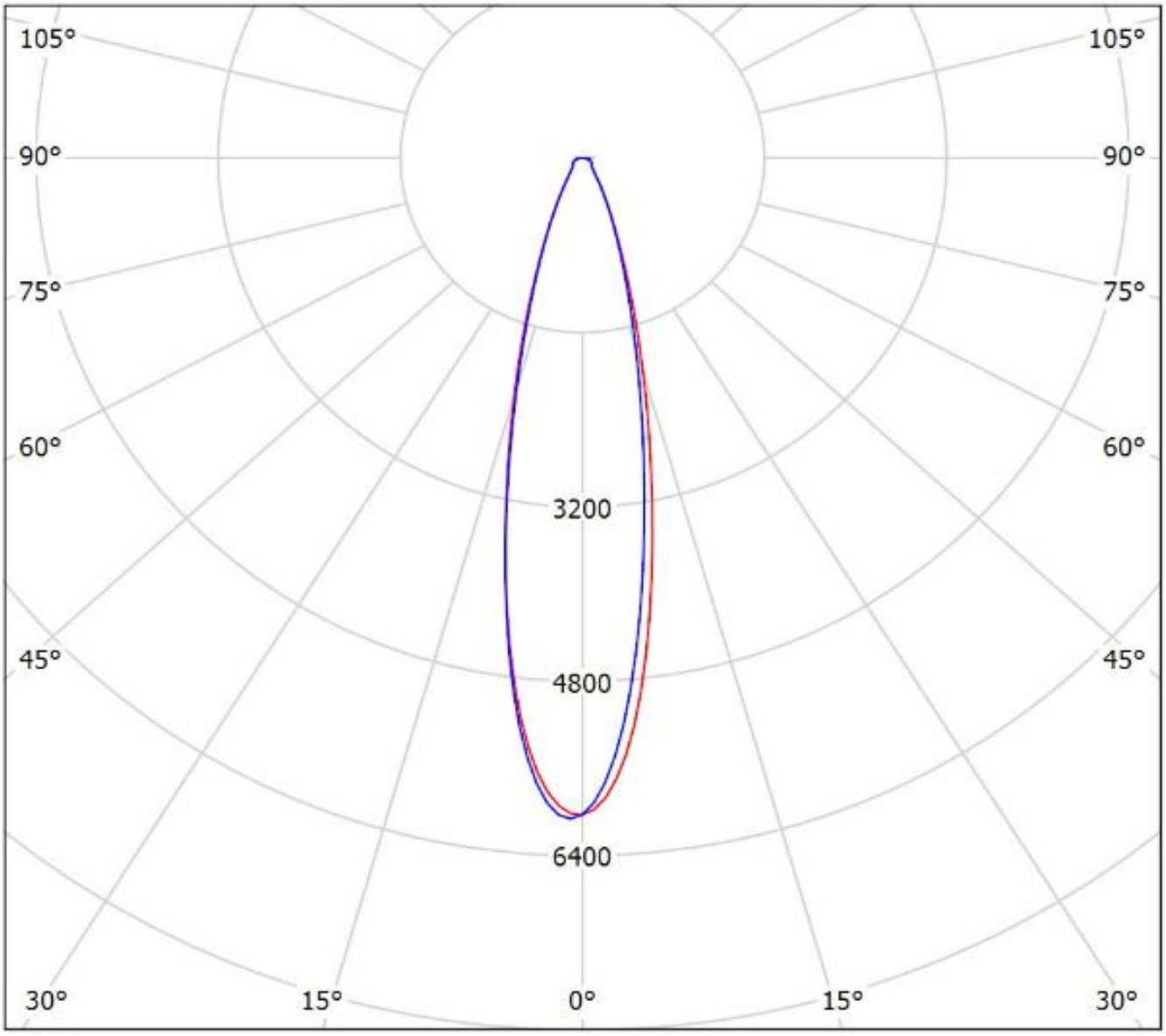



cd/klm

η = 189%

C0 - C180 C90 - C270

Luminaire: LEDiL Oy C14607_HB-2X2-M_(Tridonic_Module_RLE_G1
Lamps: 1 x Tridonic_Module_RLE_G1_2288lm@700mA_P=16W_I=0.700A




cd/klm

η = 189%

C0 - C180 C90 - C270

**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.**