

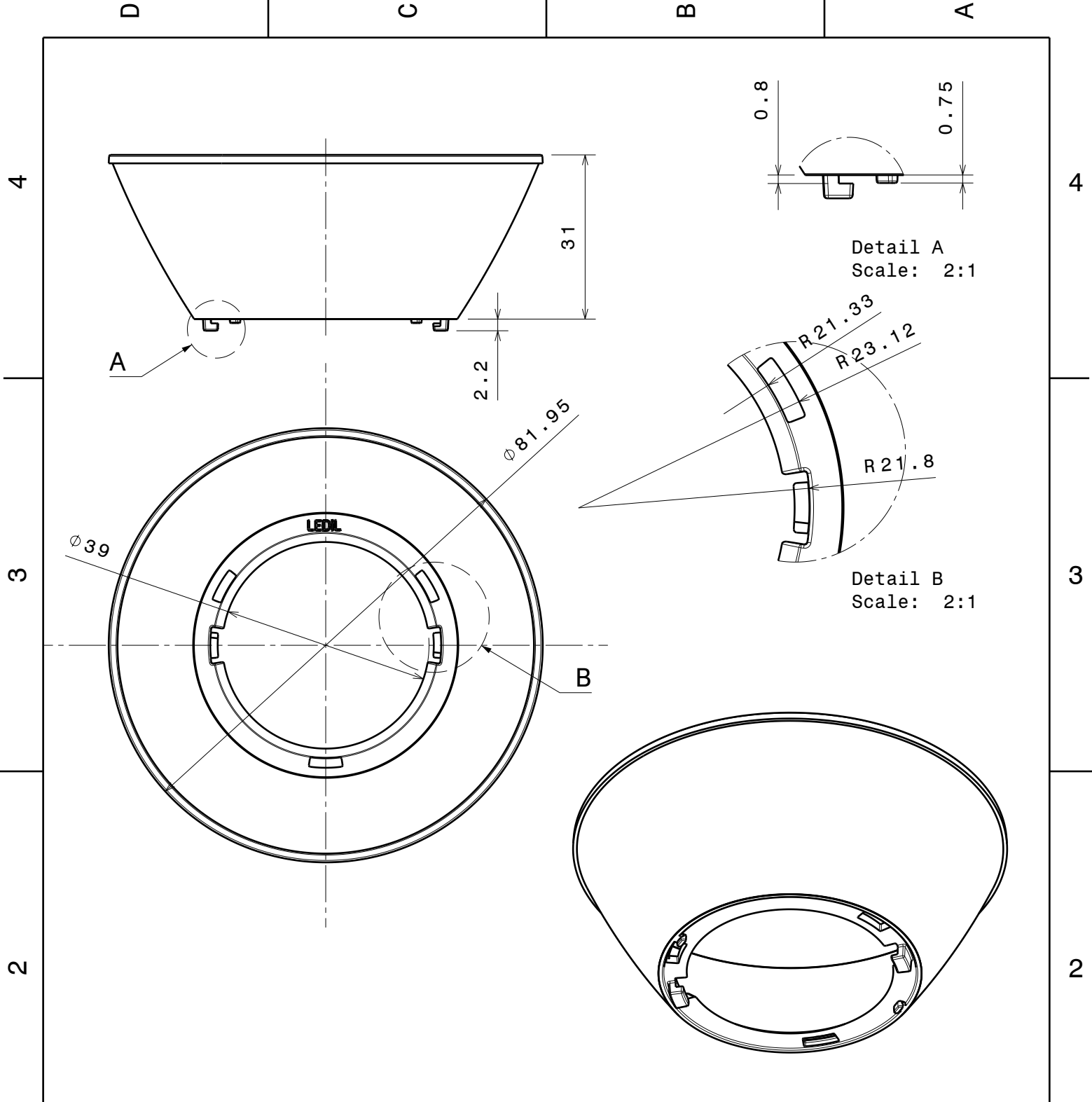
## DETAILS

<b>Product Number</b>	F13660_ANGELINA-M-B
<b>Family</b>	ANGELINA
<b>Type</b>	Reflector
<b>Color</b>	metal
<b>Diameter</b>	82 mm
<b>Height</b>	31 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>	16/01/2015



## OPTICAL PROPERTIES

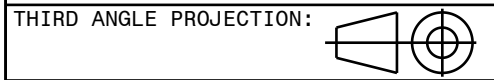
LED	Viewing Angle	Light Beam	Efficiency	cd/lm	Connector
LUXEON K12	sim: 29	Medium	-	sim: 0.000	BJB: Solderless Connector 47.319.2070
LUXEON K16	sim: 31	Medium	-	sim: 0.000	BJB: Solderless Connector 47.319.2070
CLU730	sim: 37	Medium	sim: 91 %	sim: 1.570	BJB: Solderless Connector 47.319.2030
CLL04x/CLU044	sim: 37	Medium	sim: 95 %	sim: 1.600	BJB: Solderless Connector 47.319.2030
COB 10W/13W/17W/24W	sim: 36	Medium	-	sim: 0.000	BJB: Solderless Connector 47.319.2080
CLU720	34 deg	Medium	94 %	1.400	BJB: Solderless Connector 47.319.2021
CLU720	35 deg	Medium	94 %	1.300	A.A.G. STUCCHI: 8101/G2
CLL03x/CLU034	37 deg	Medium	92 %	1.400	BJB: Solderless Connector 47.319.2021
COB 10W/13W/17W/24W	37 deg	Medium	94 %	1.280	A.A.G. STUCCHI: 8600/G2
SLE G4 LES19 H	37 deg	Medium	92 %	1.300	-
Soleriq S13	37 deg	Medium	94 %	1.270	A.A.G. STUCCHI: 8502/G2
LUXEON CoB 1204/1205	38 deg	Medium	94 %	1.260	A.A.G. STUCCHI: 8301/G2
BXRA ES Rectangle	38 deg	Medium	92 %	1.320	BJB: Solderless Connector 47.319.2040
Soleriq P13	39 deg	Medium	94 %	1.230	A.A.G. STUCCHI: 8502/G2
LUXEON CoB 1208	39 deg	Medium	94 %	1.230	A.A.G. STUCCHI: 8301/G2
CLL03x/CLU034	39 deg	Medium	94 %	1.220	A.A.G. STUCCHI: 8101/G2
CLL04x/CLU044	39 deg	Medium	94 %	1.200	A.A.G. STUCCHI: 8102/G2
ZC12/18	39 deg	Medium	93 %	1.230	A.A.G. STUCCHI: 8101/G2
CXM-14	40 deg	Medium	94 %	1.300	BJB: Solderless Connector 47.319.2021
Mega Zenigata (GW6DME)	40 deg	Medium	94 %	1.210	A.A.G. STUCCHI: 8301/G2
Soleriq S19	41 deg	Medium	93 %	1.200	A.A.G. STUCCHI: 8503/G2
STARK SLE PURE G3 LES17	41 deg	Medium	94 %	1.170	A.A.G. STUCCHI: 8101/G2
Soleriq S19	41 deg	Medium	94 %	1.170	BJB: Solderless Connector 47.319.2170
SLE G4 LES23 H	42 deg	Medium	92 %	1.200	-
CXA/B 25xx	42 deg	Medium	93 %	1.140	A.A.G. STUCCHI: 8401/G2



INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1		ANGELINA-B	PC	metal

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** Ledil Oy  
 Salorankatu 10  
 FIN 24240 SALO  
 Finland



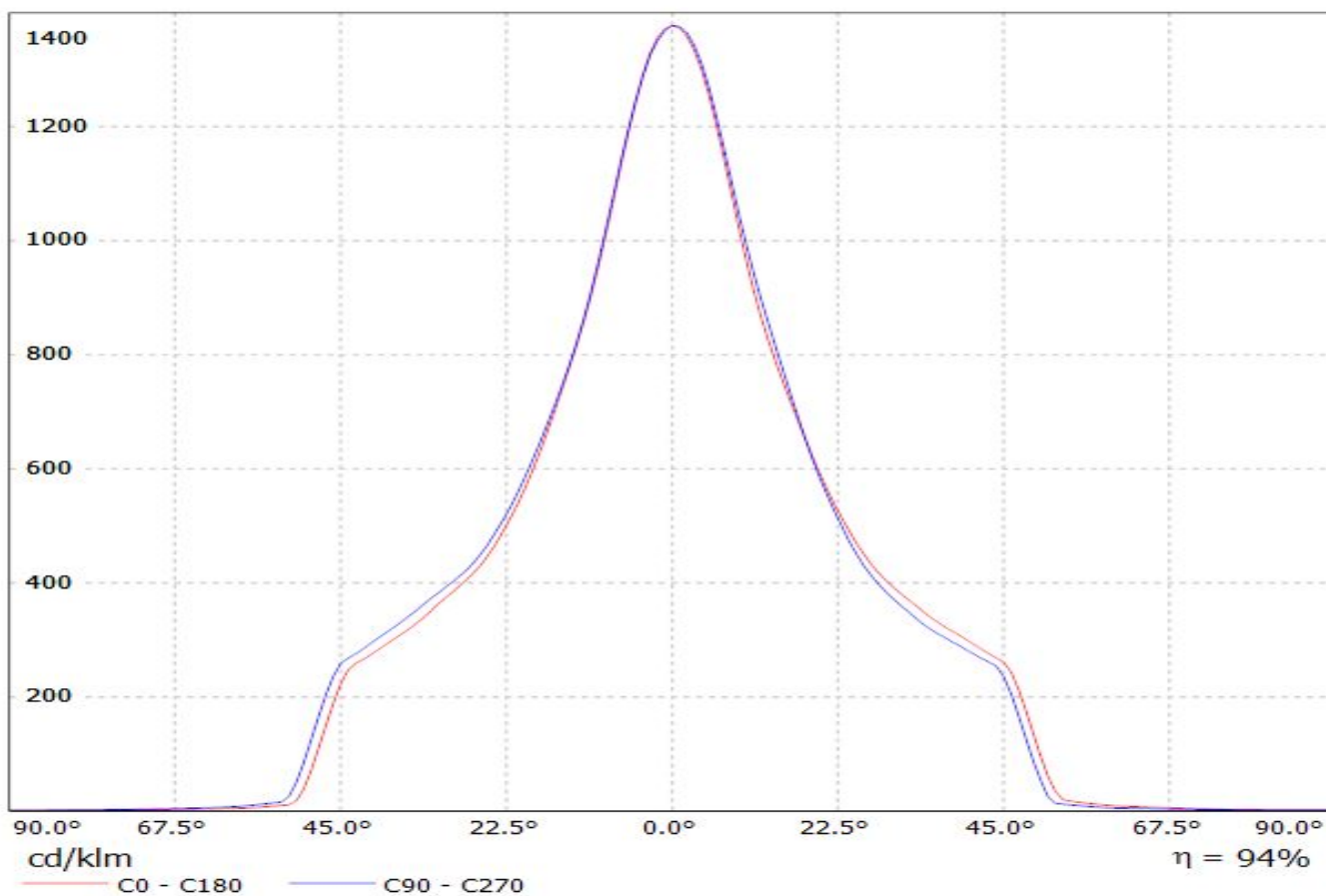
DRAWING TITLE  
**ANGELINA-B series Reflector**

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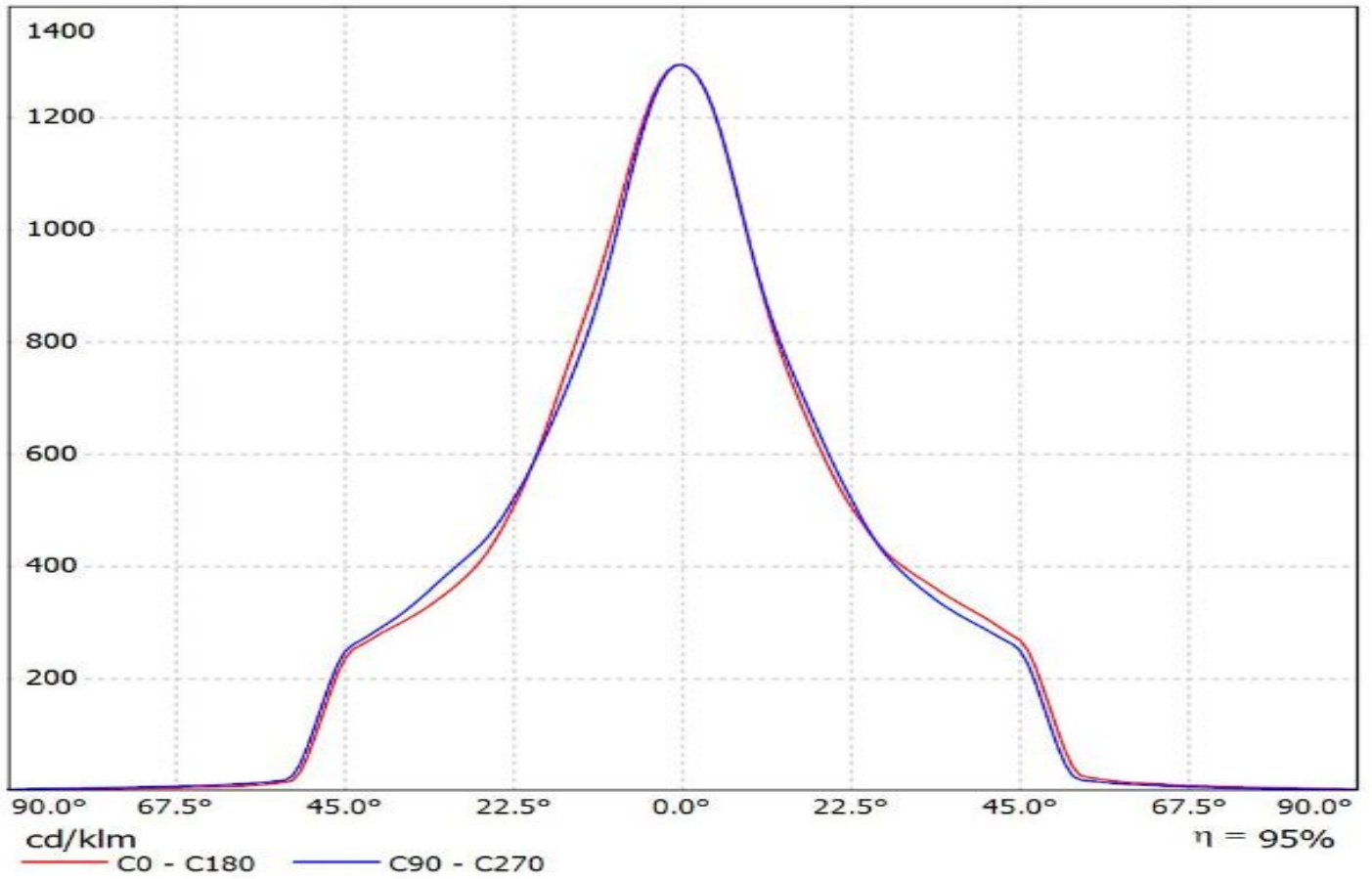
SIZE	PART NUMBER
A4	-

SCALE	1:1	WEIGHT	-	SHEET	1/1
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Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(CITIZEN\_CLU720)  
Lamps: 1 x CITIZEN\_CLU720\_(BJB: 47.319.2020)\_1214.68lm@250mA\_CCT=2700K\_P=8.31842W\_I=0.25A



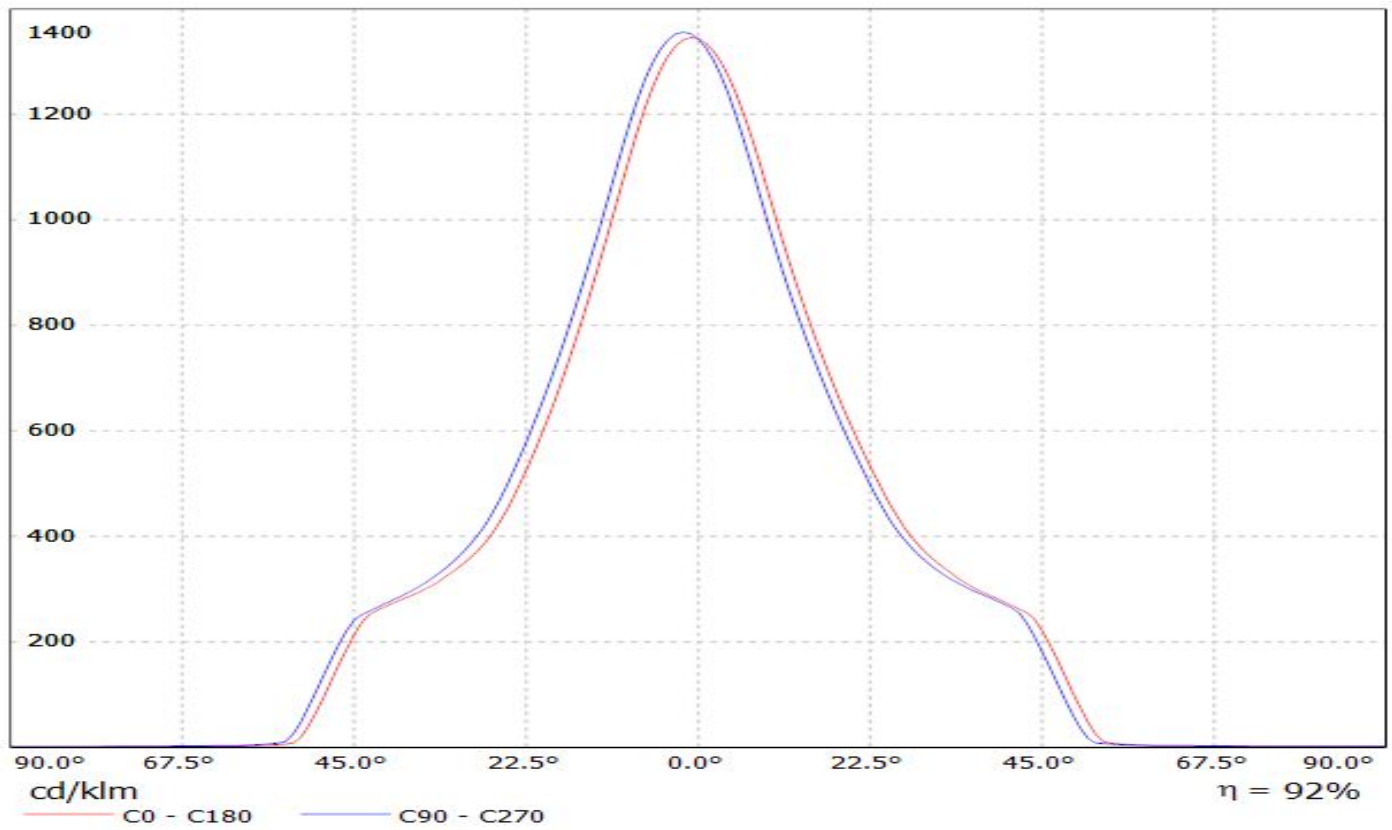
Luminaire: Ledil F13660\_ANGELINA-M-B\_(CITIZEN\_CLU720)  
Lamps: 1 x CITIZEN\_CLU720\_(CLU720-1206B8-273M2)  
\_1320.42lm@250mA\_CCT=2700K\_P=8.35W\_I=0.25A



# LEDiL Oy C13660\_ANGELINA-M-B\_(CLL030) Eff.91.7% / LDC (Linear)

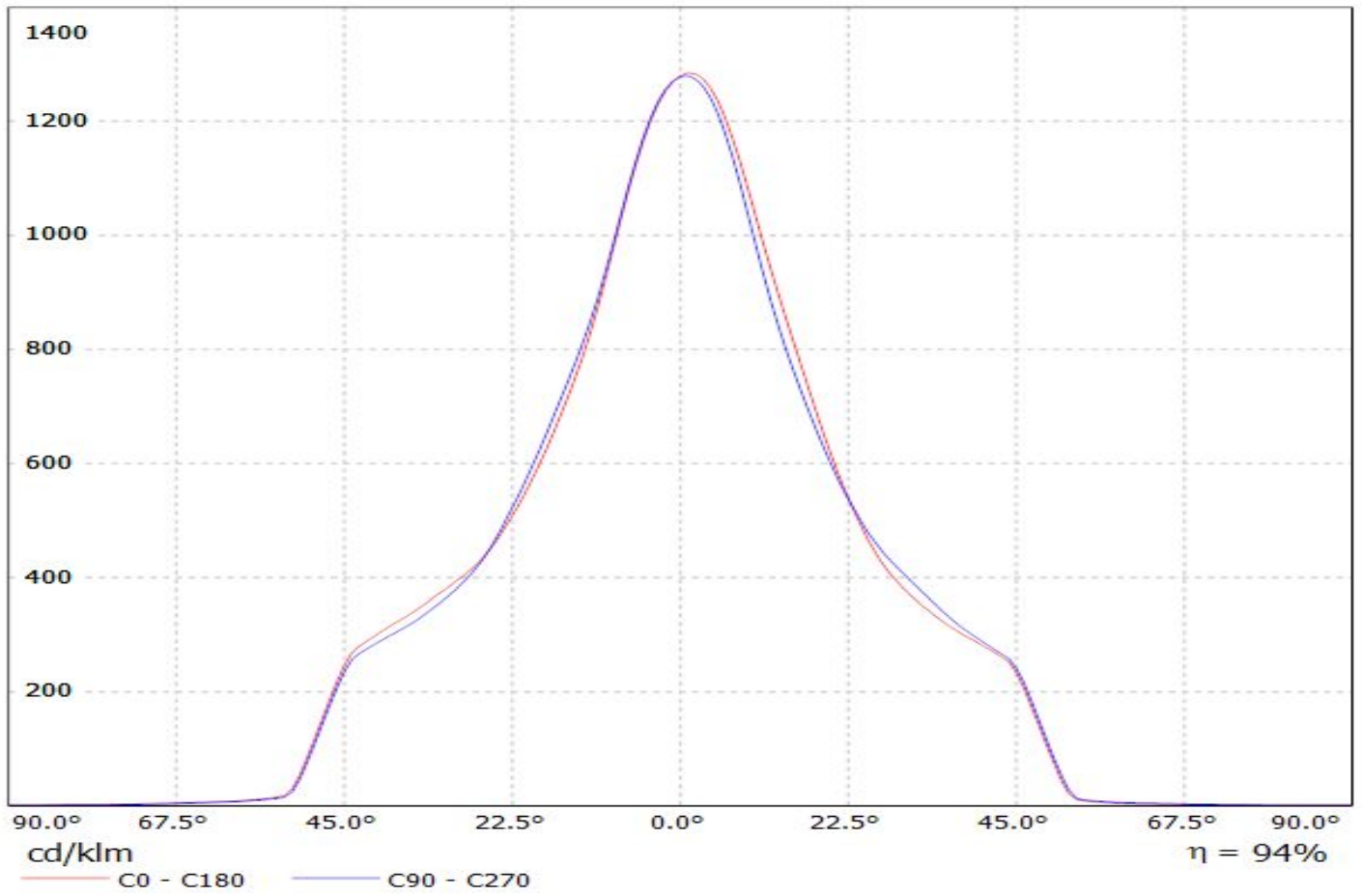
Luminaire: LEDiL Oy C13660\_ANGELINA-M-B\_(CLL030) Eff.91.7%

Lamps: 1 x CITIZEN\_CLL030\_(CLL030-1205A5-303H1A7) 797.292lm@250mA CCT=3000K P=8.65307W I=249.8mA

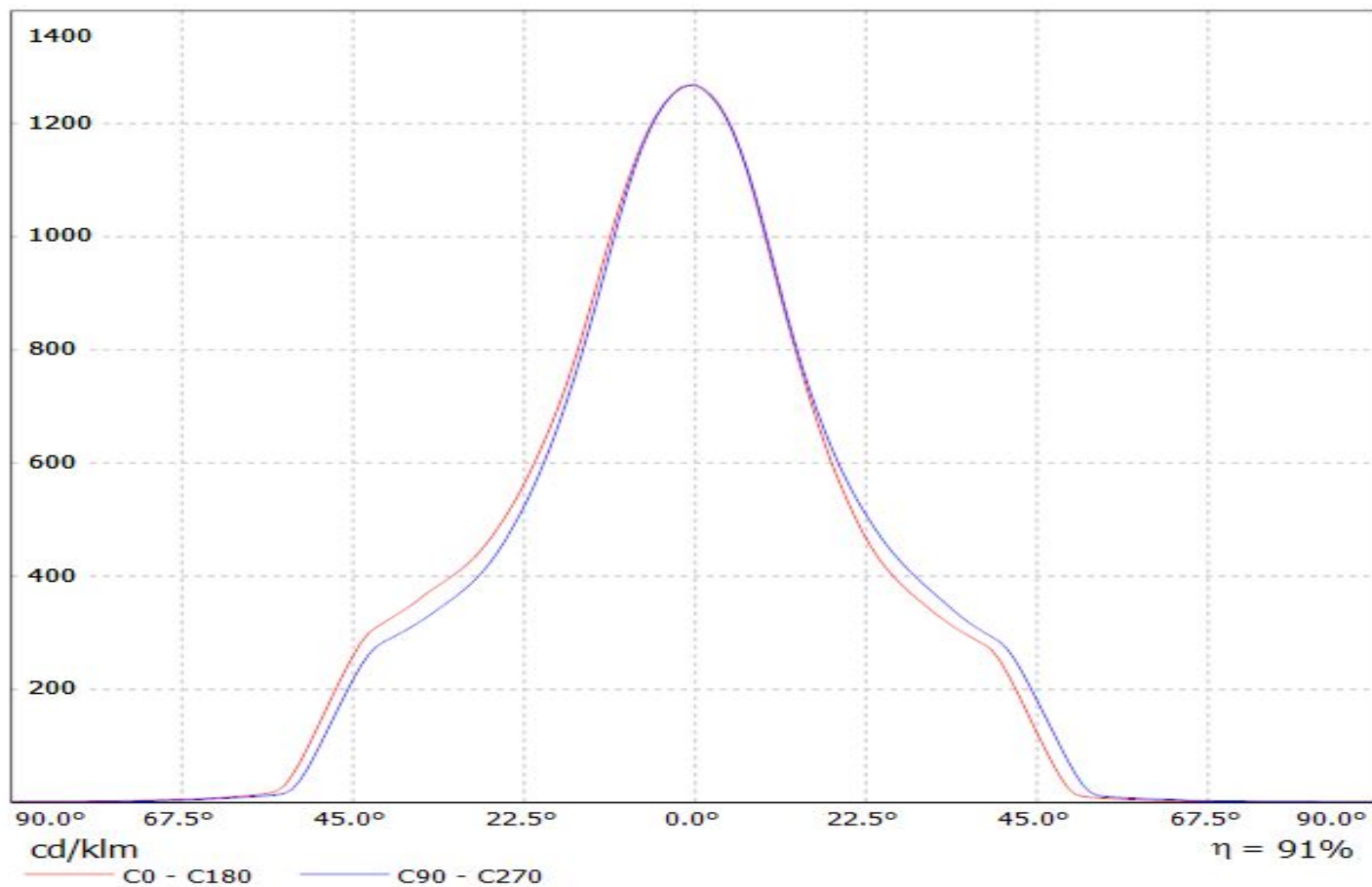


Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(LG\_COB\_10W)

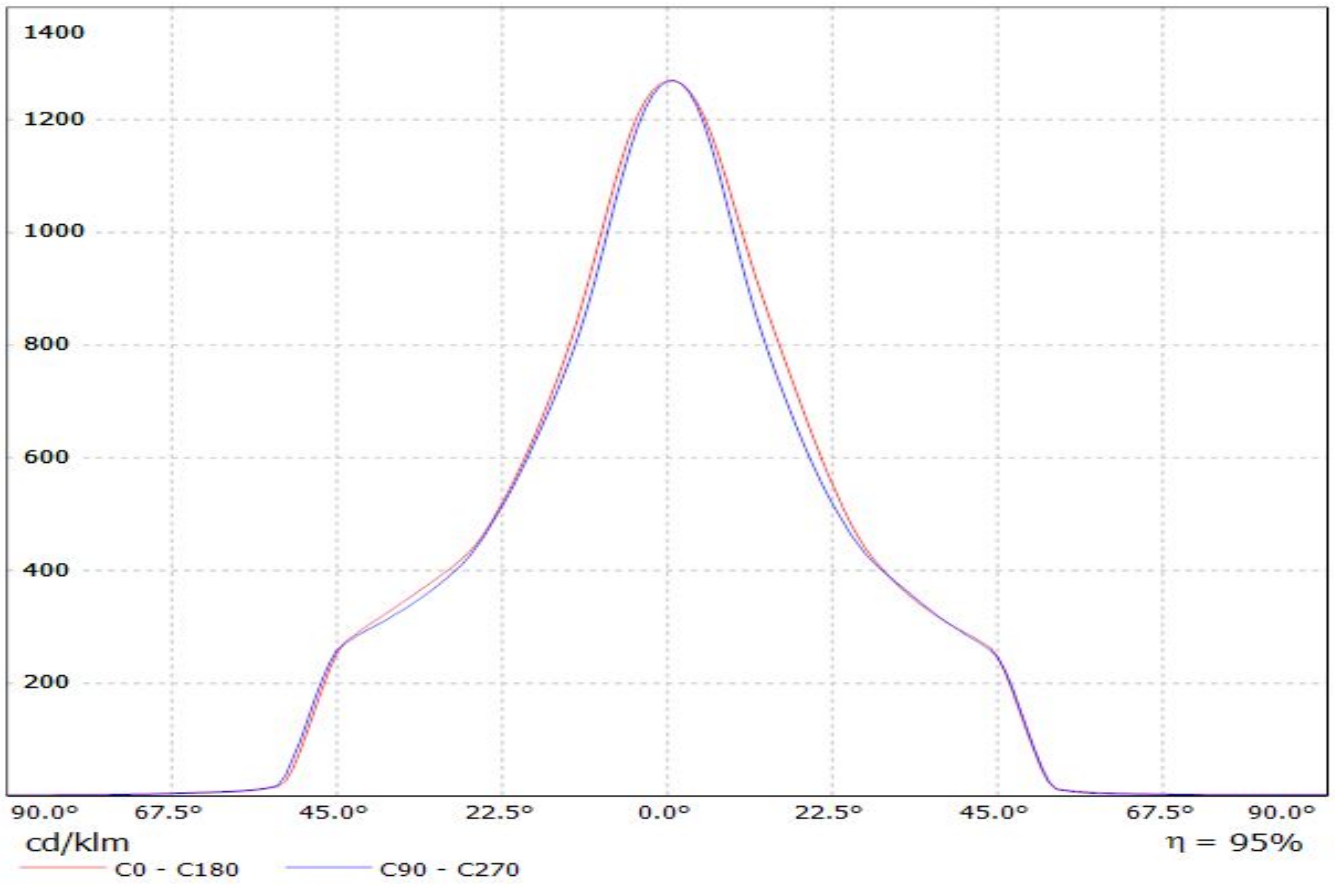
Lamps: 1 x LG\_COB\_10W\_(LEMWM18580LG00)\_917.757lm@250mA\_P=9.31304W\_I=249.8mA



Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(SLE GEN4 LES19)  
Lamps: 1 x SLE GEN4 LES19\_1226.28lm@250mA\_P=8.21367W\_I=0.2498A

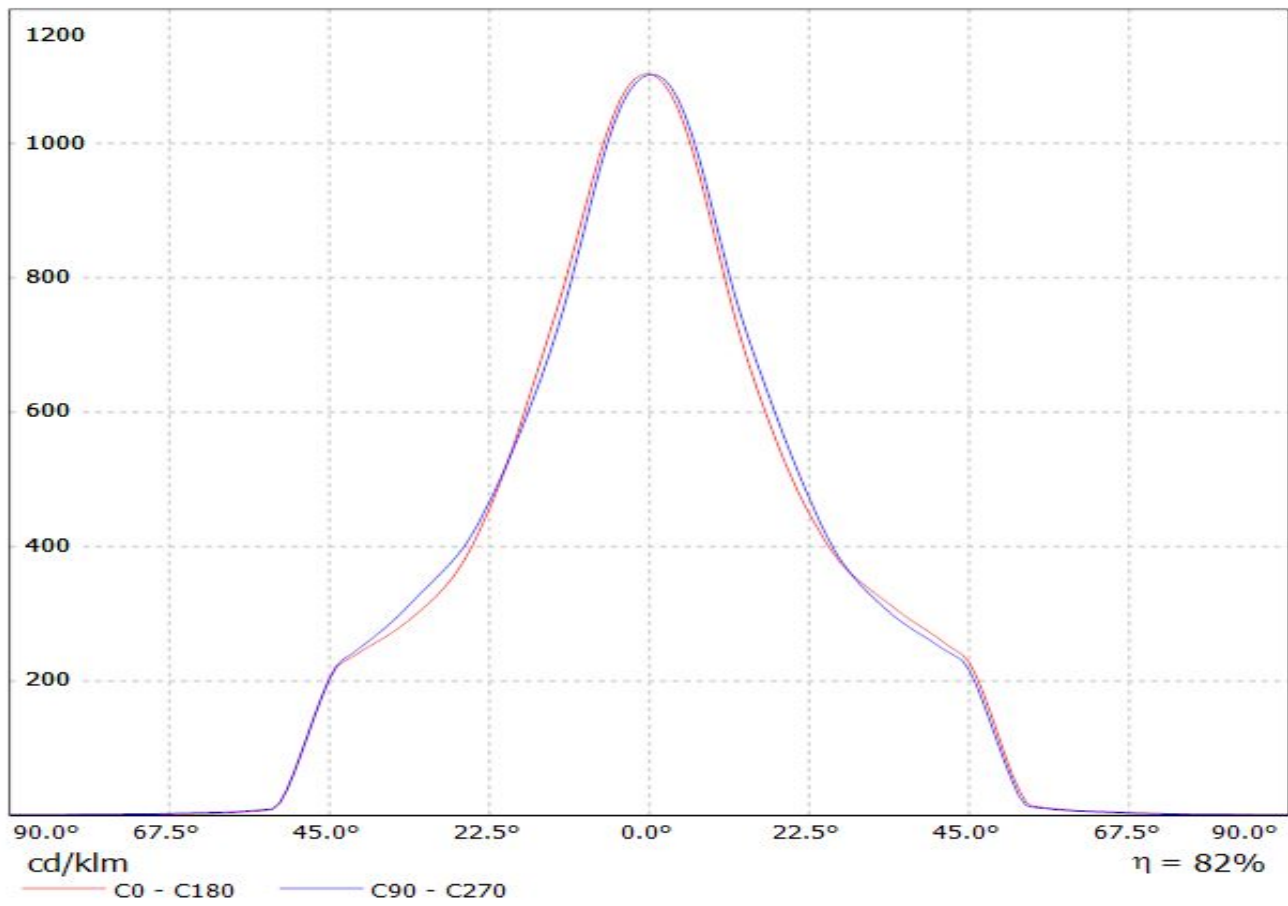


Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(Soleriq\_S13) Eff.94.0%  
Lamps: 1 x Osram\_Soleriq\_S13\_825.418lm@250mA\_CCT=3125K\_P=7.33663W\_I=249.8mA

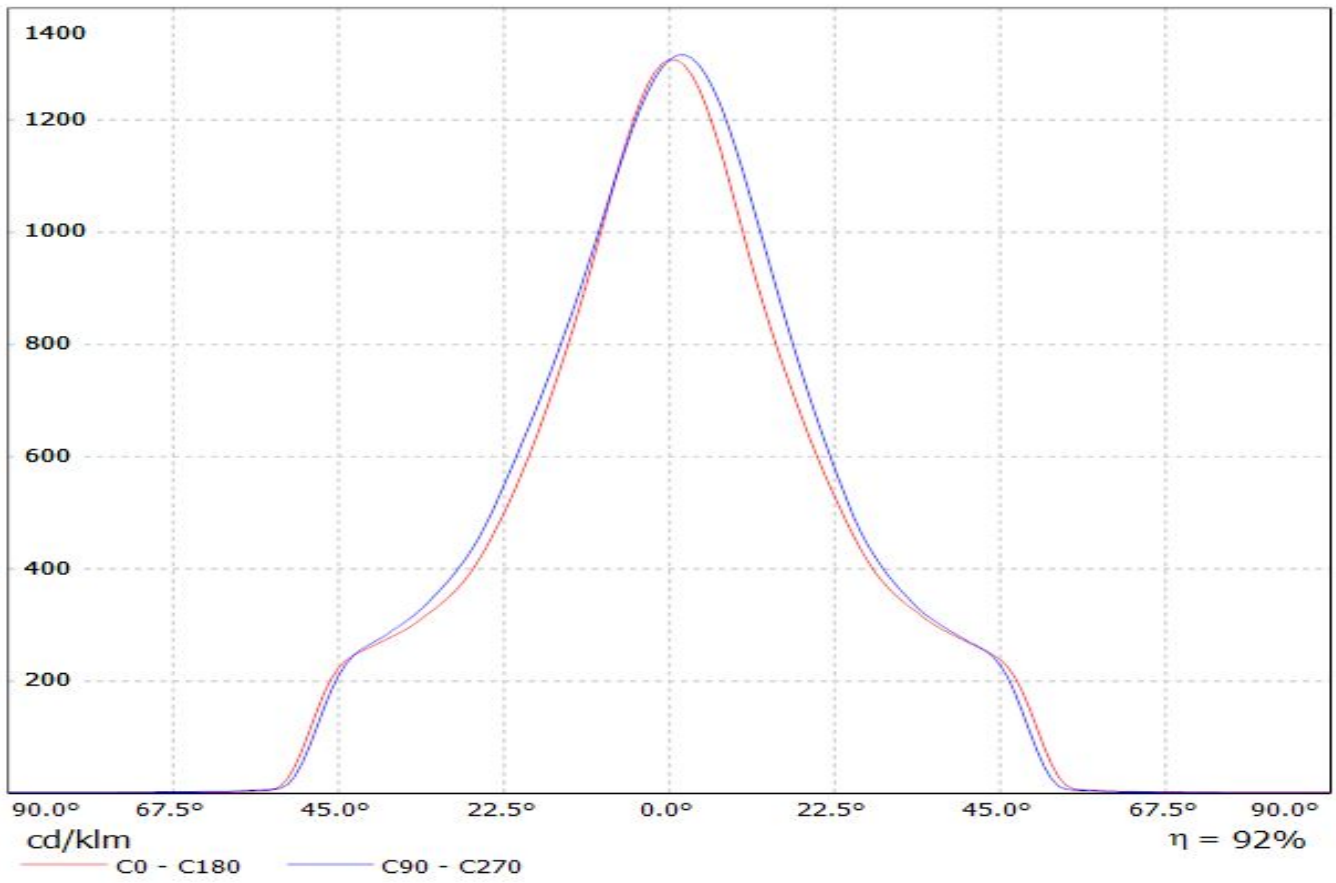


Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(Luxeon\_CoB\_1205)

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

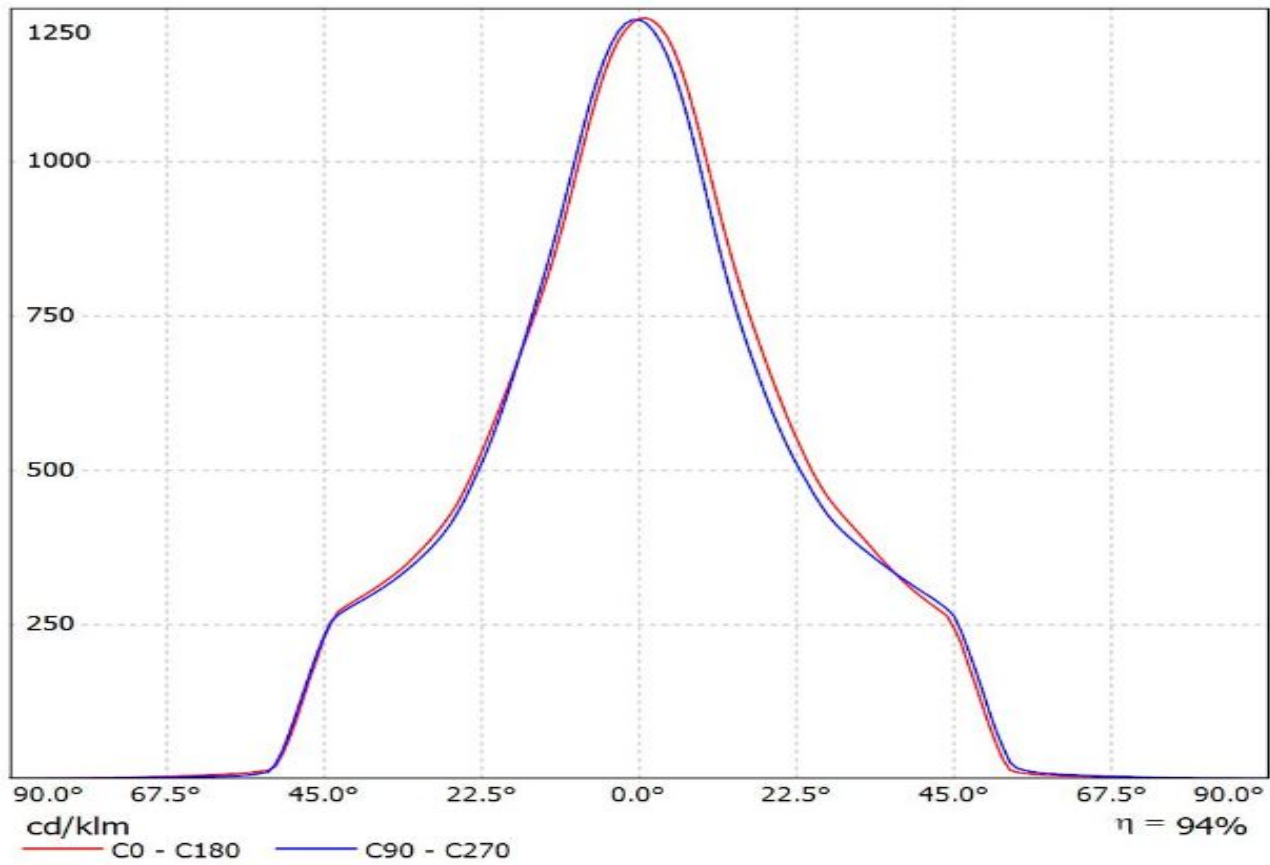


Luminaire: LEDiL Oy C13660\_ANGELINA-M-B (BXRA\_ES) Eff. 92%  
Lamps: 1 x Bridgelux BXRA\_ES\_(QQ40\_BXRA-W1202\_1019A-2010) 268lm@250mA\_P=3.36W\_I=250mA

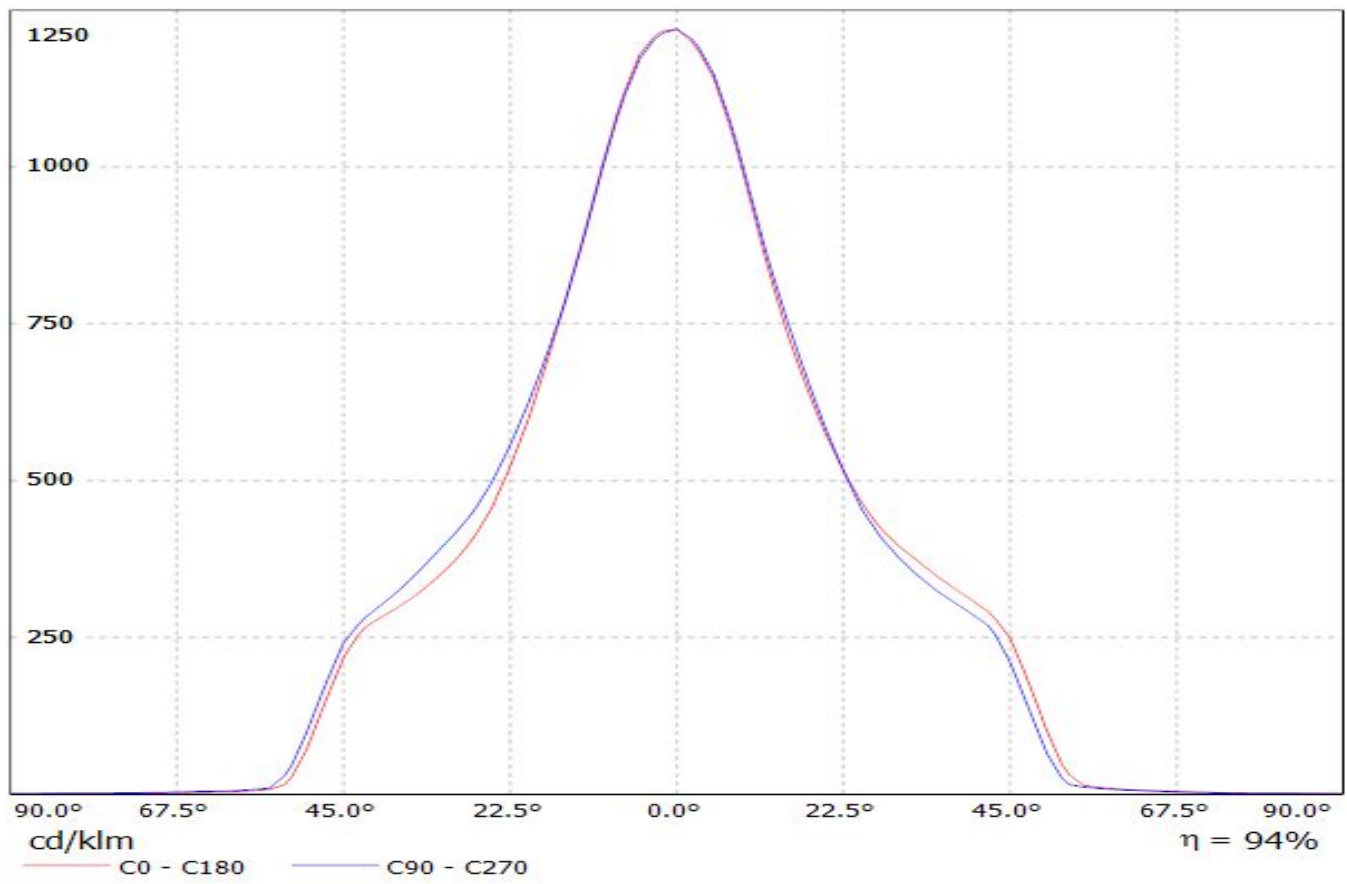


Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(SOLERIQ\_P13)

Lamps: 1 x SOLERIQ\_P13\_(GW\_MAGMB1.EM)\_1053.65lm@250mA\_CCT=3000K\_P=8.82044W\_I=249.8mA

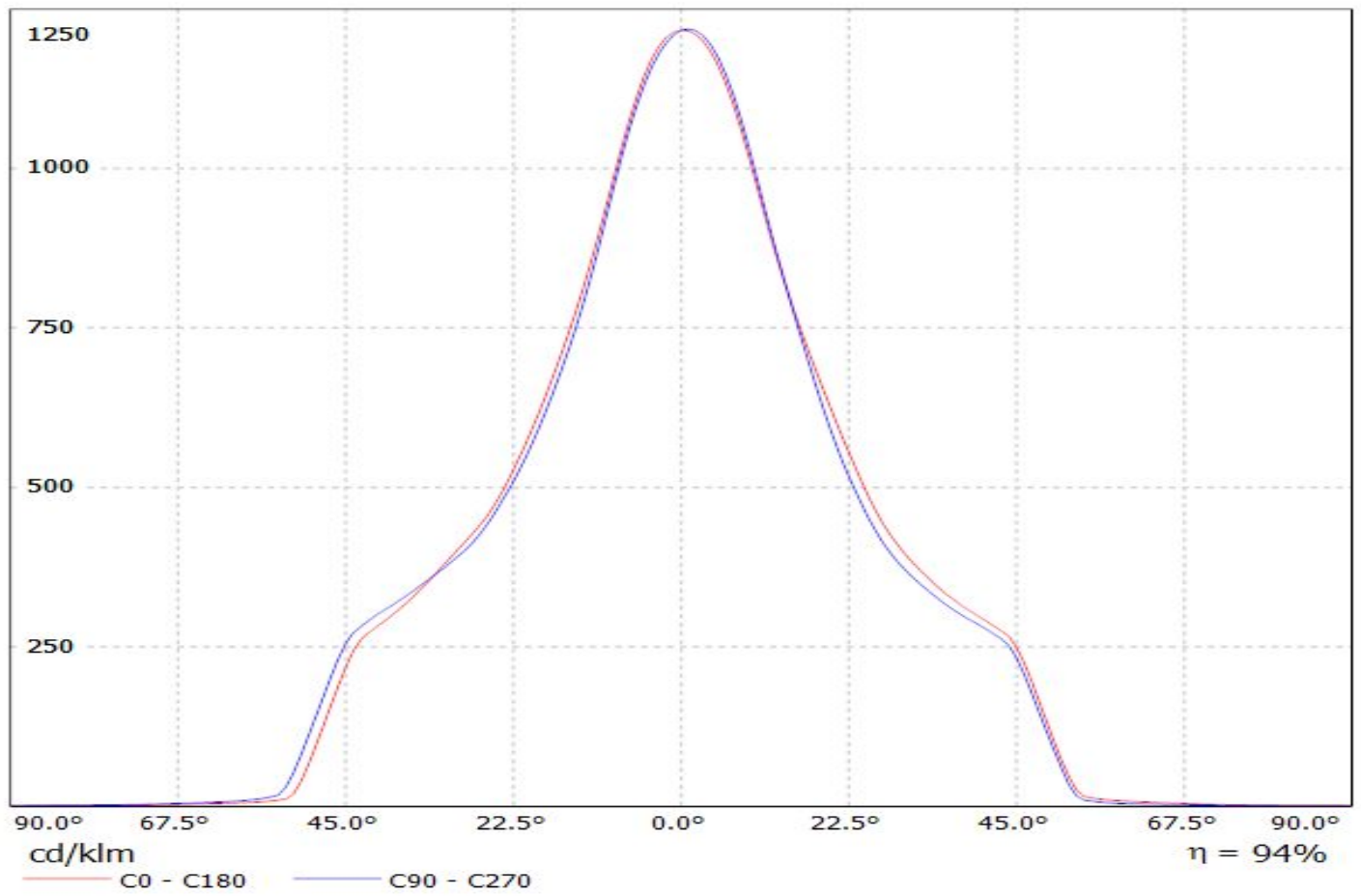


Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(Luxeon\_CoB\_1208)  
Lamps: 1 x Luxeon\_CoB\_1208\_1057.71lm@250mA\_P=8.26438W\_I=249.8mA



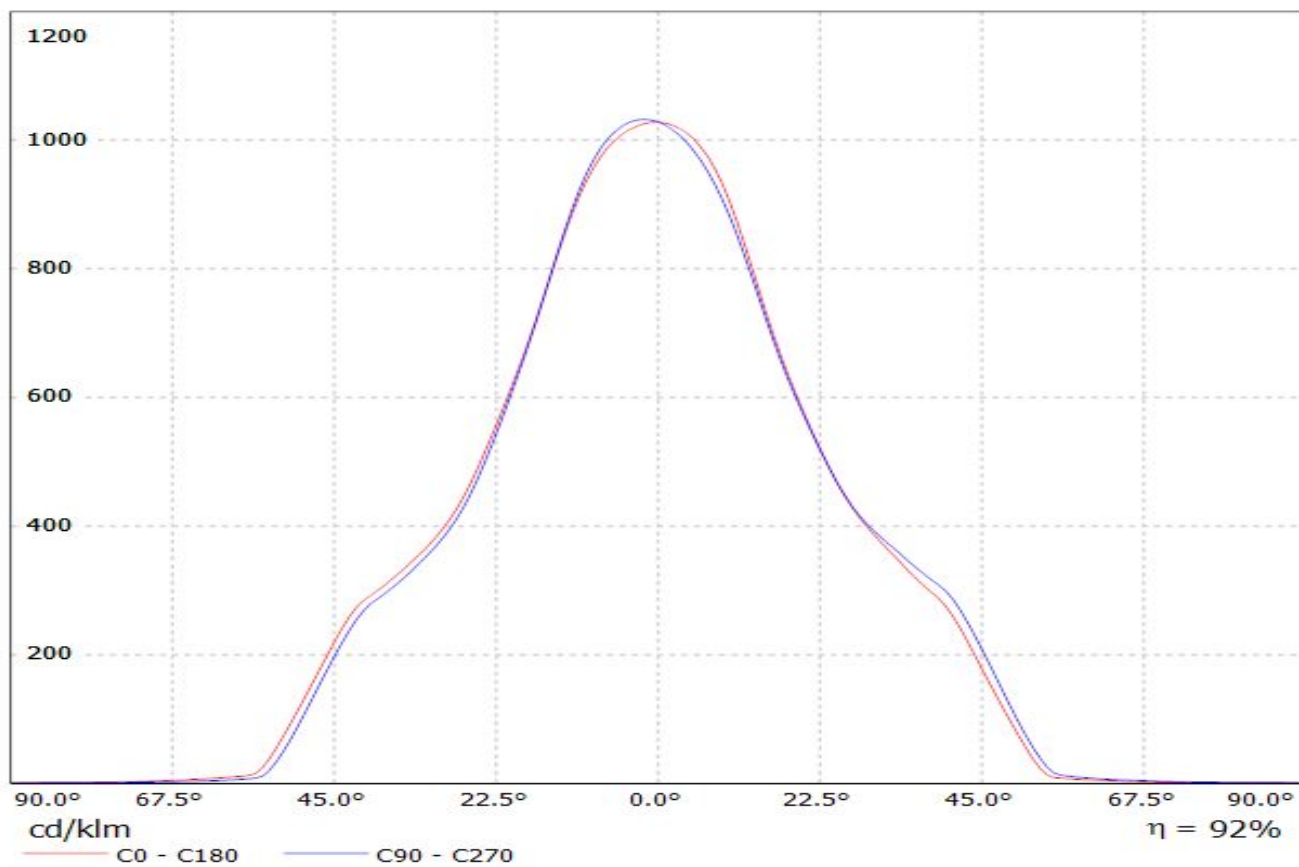
Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(CLU034)

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



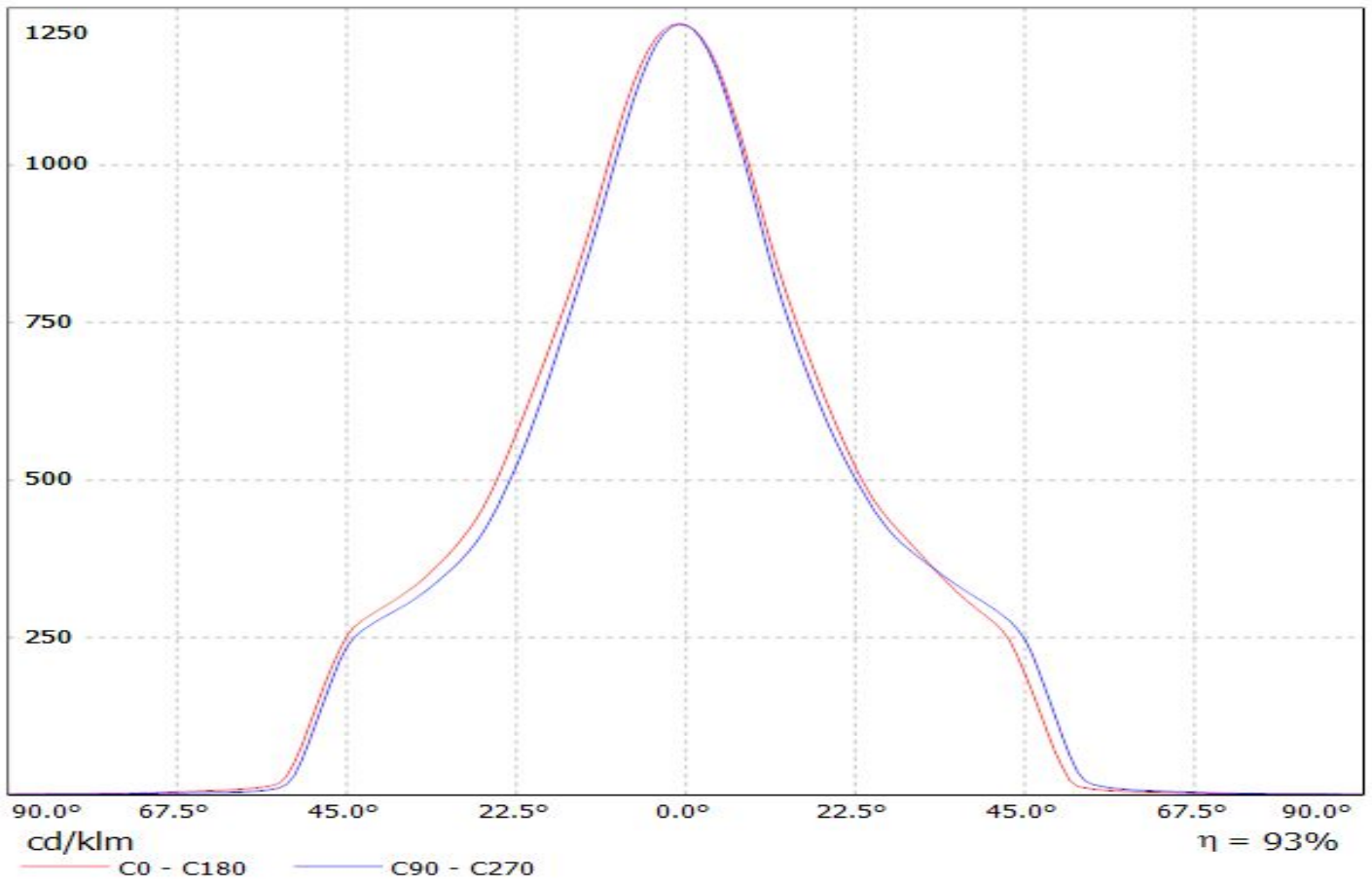
Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(CLU044)

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



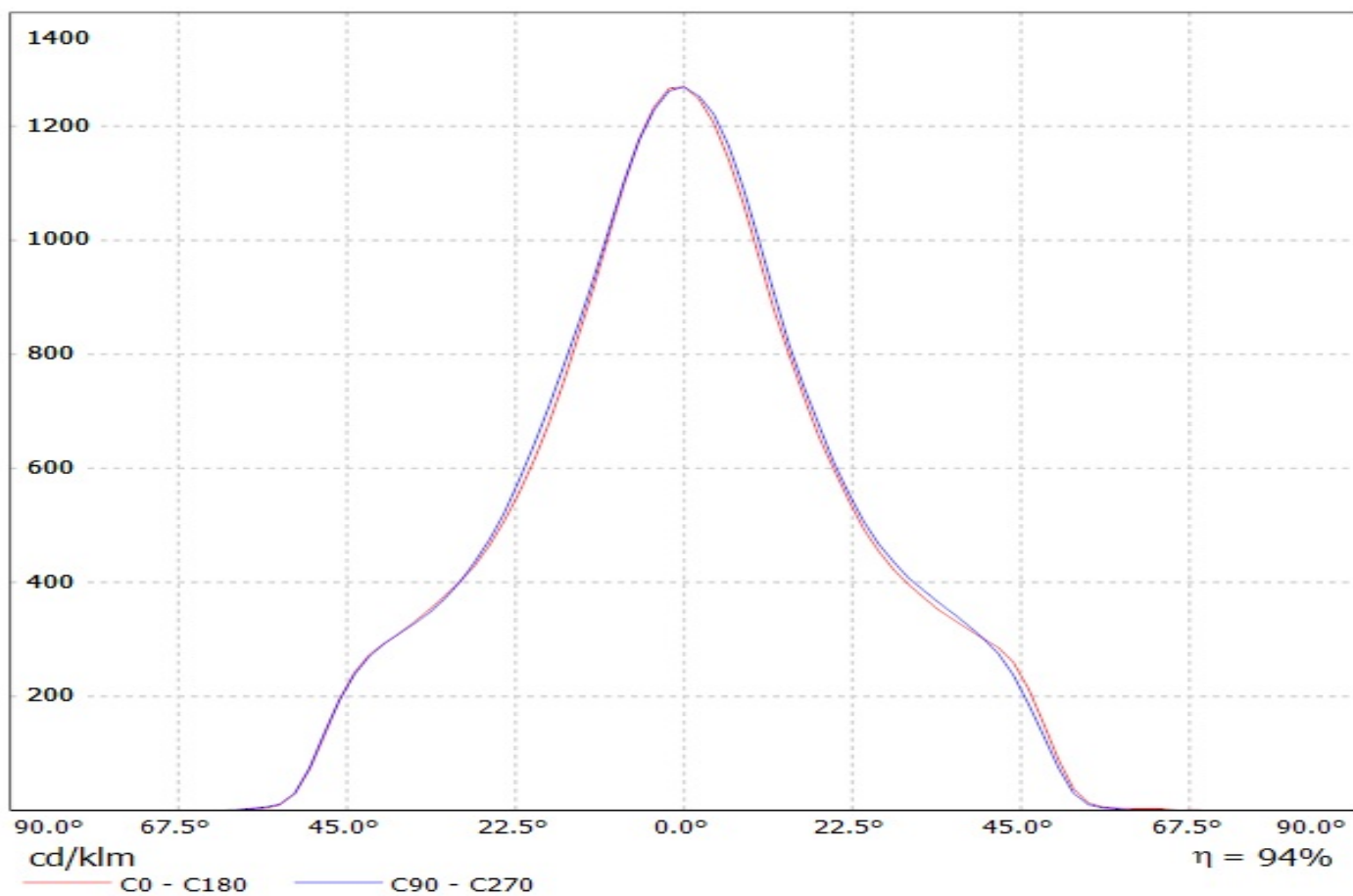
Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(ZC12)

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

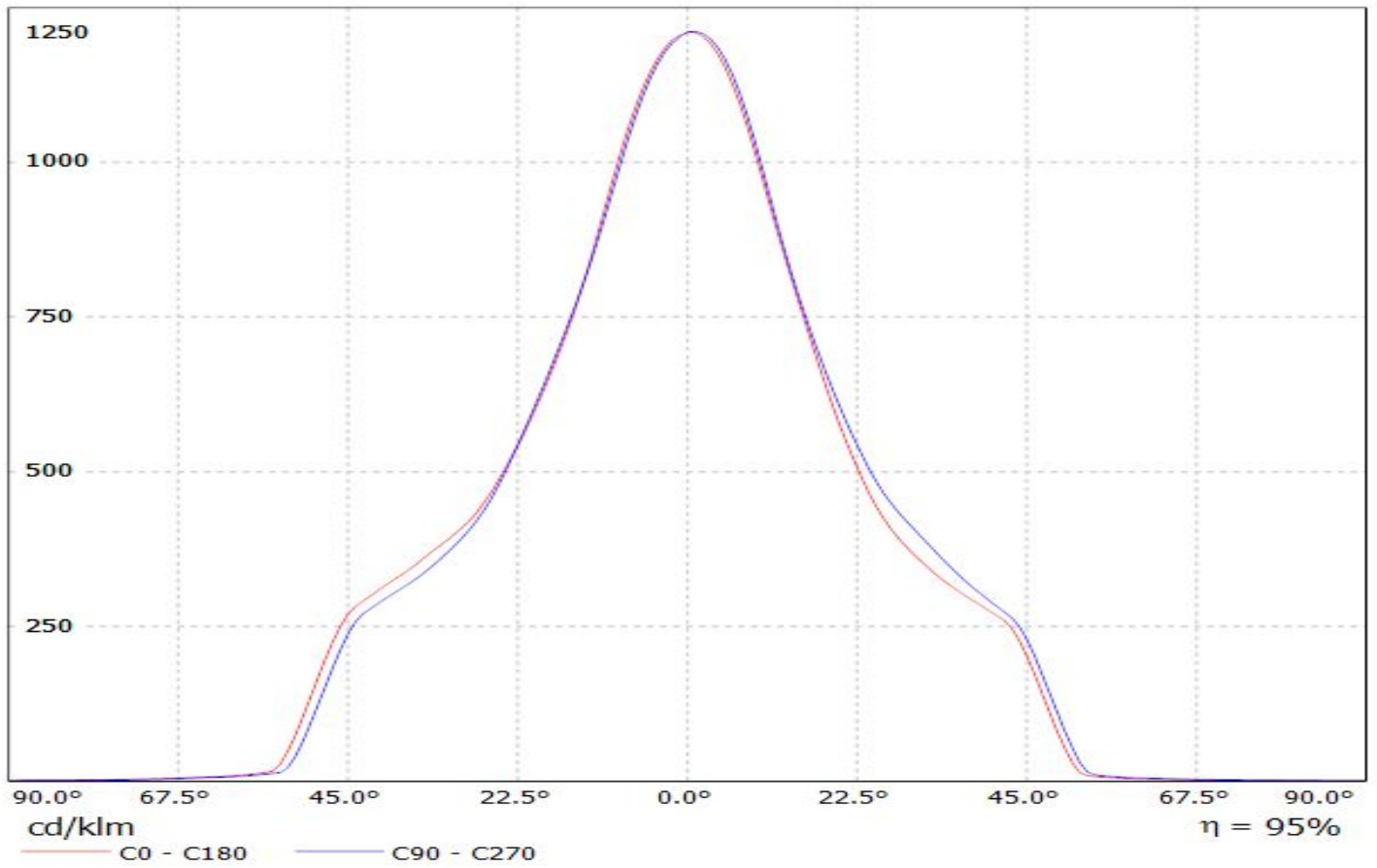


Luminaire: LEDil Oy F13660\_ANGELINA-M-B\_(CXM-14)

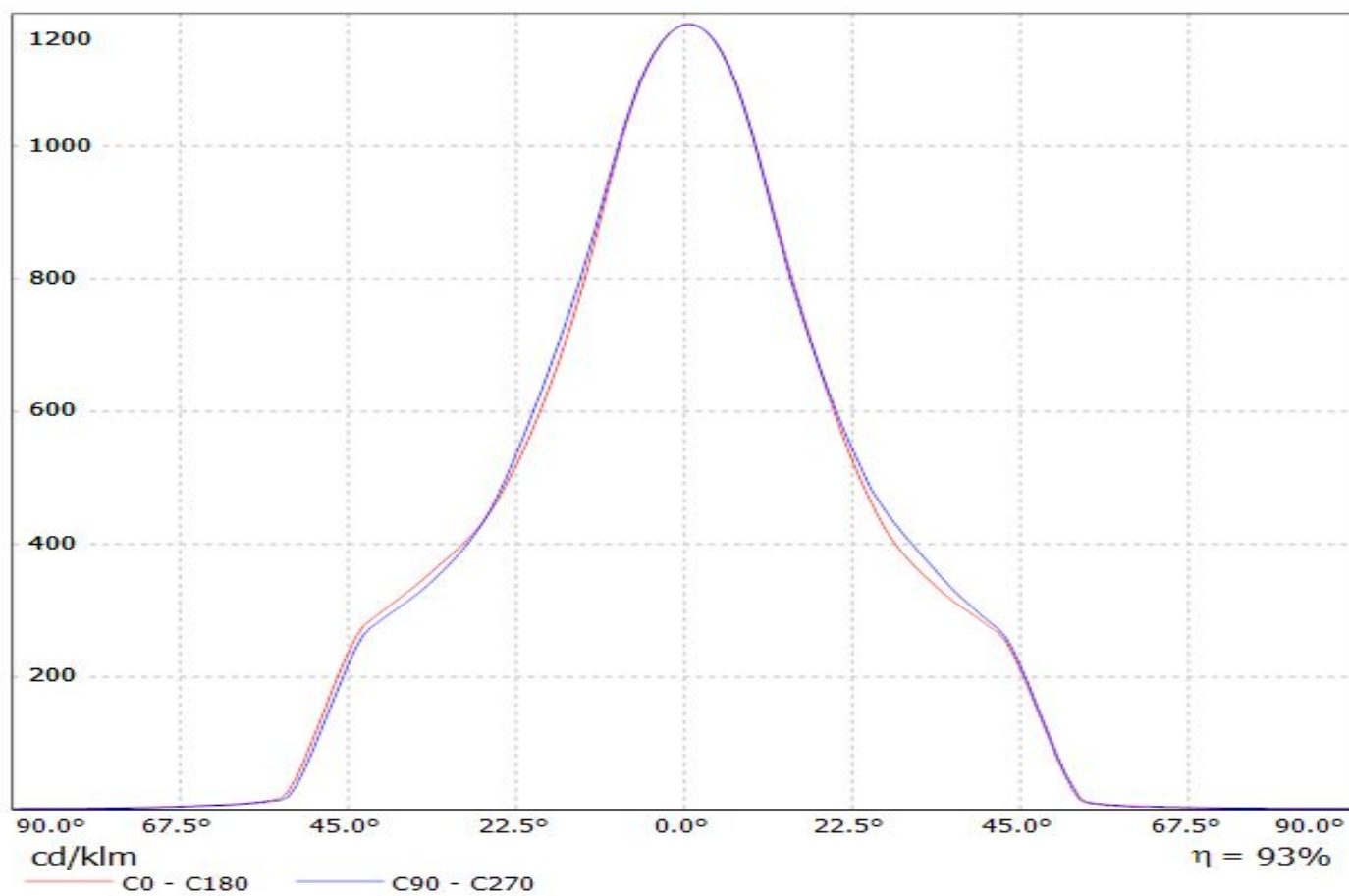
Lamps: 1 x Luminus CXM-14 (1078.95lm @ 250mA) CCT=3100K P=8.5W I=250mA



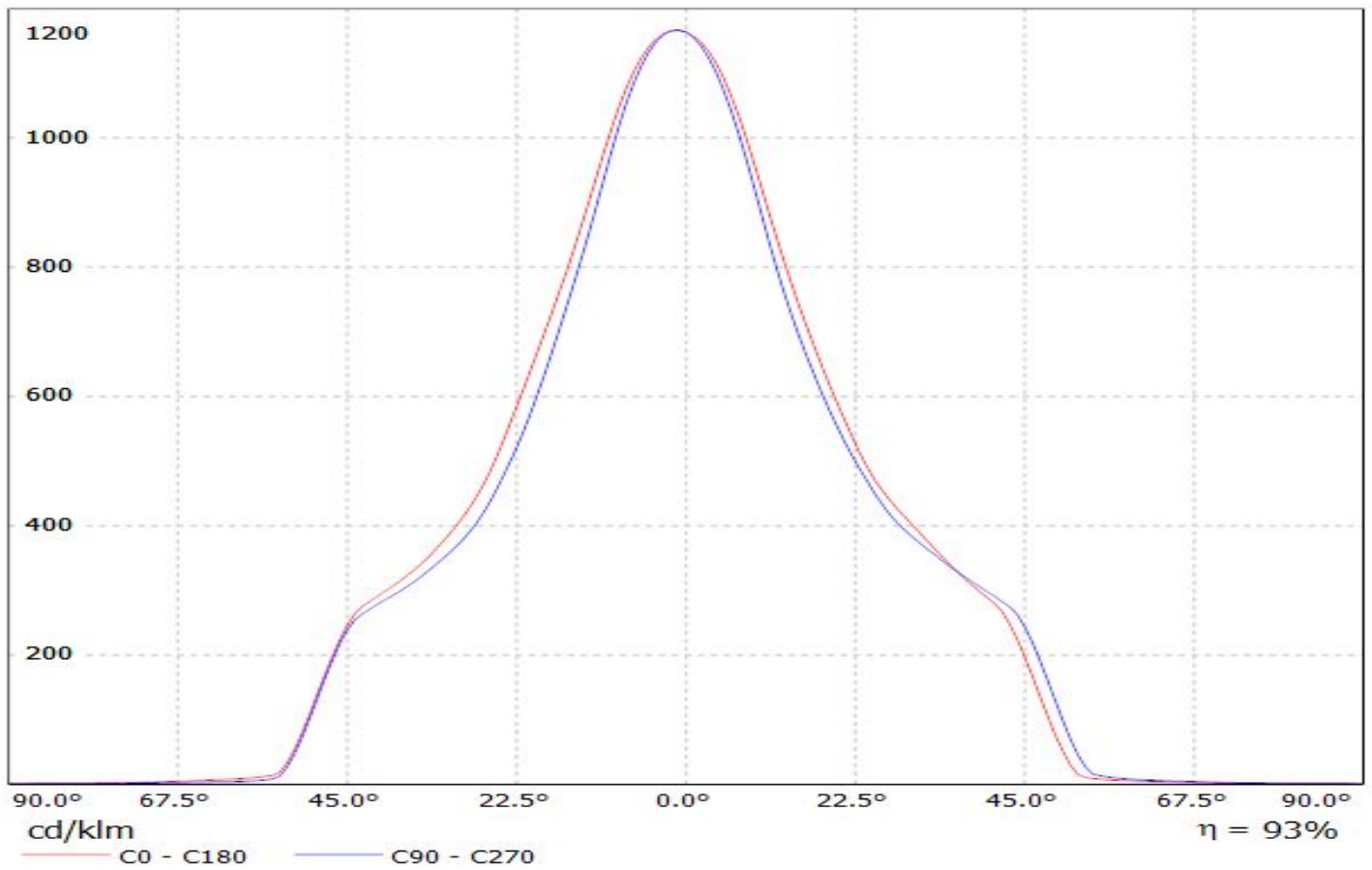
Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(MegaZenigata\_GW6)  
Lamps: 1 x Sharp\_MegaZenigata\_GW6\_(GW6DME30NFC)  
\_1266.19lm@250mA\_CCT=3038K\_P=11.2151W\_I=250.6mA



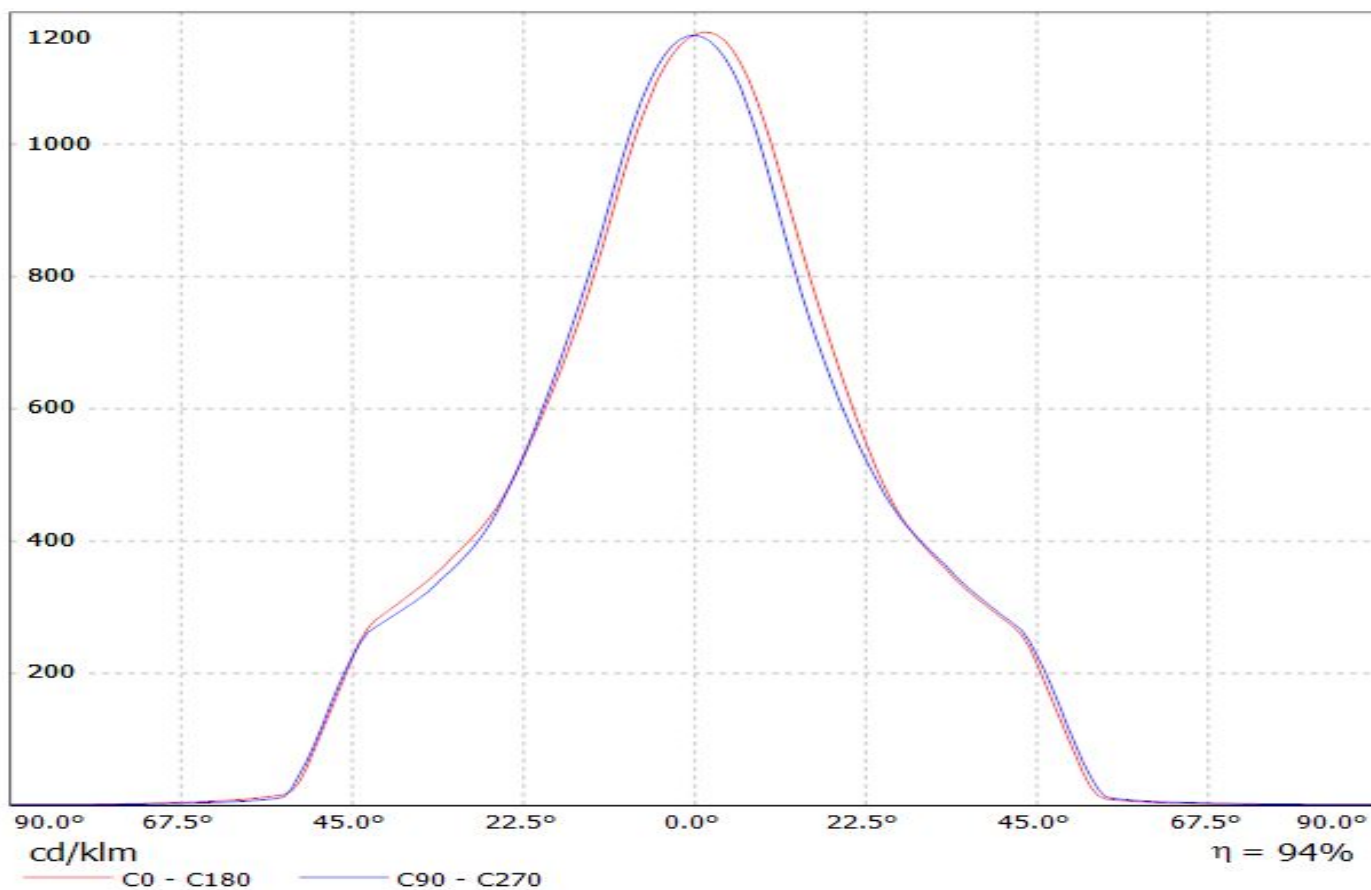
Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(S19) Eff.93.3%  
Lamps: 1 x Osram\_SOLERIQ\_S19\_1434.85lm@250mA\_P=10.5595W\_I=249.8mA



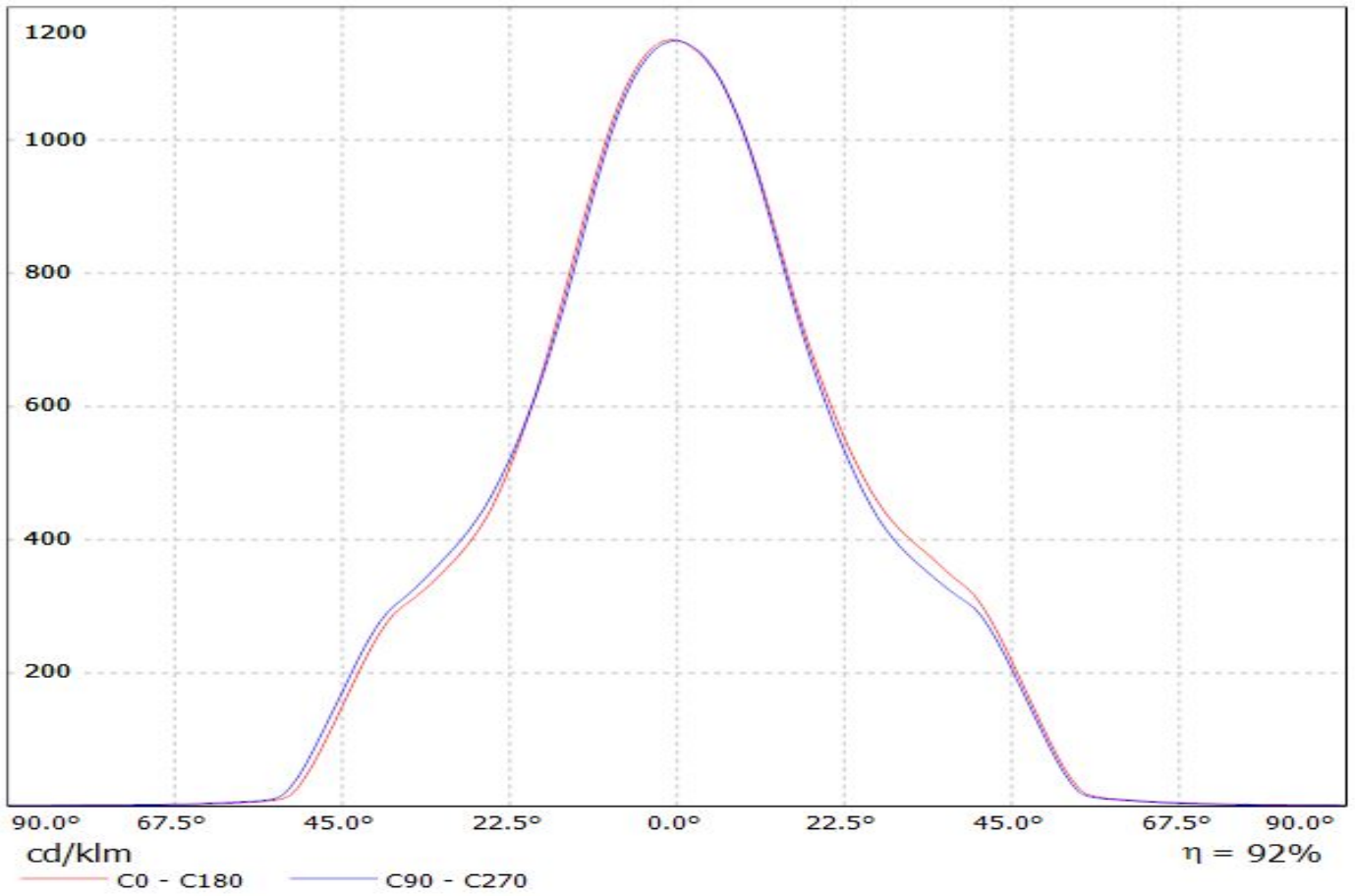
Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(STARK\_SLE\_G3\_LES17)  
Lamps: 1 x TRIDONIC\_STARK\_SLE\_G3\_LES17\_(STARK-SLE-PURE\_G3-17-2000-840-CLA)  
\_1030.26lm@250mA\_CCT=2000K\_P=8.34707W\_I=249.8mA



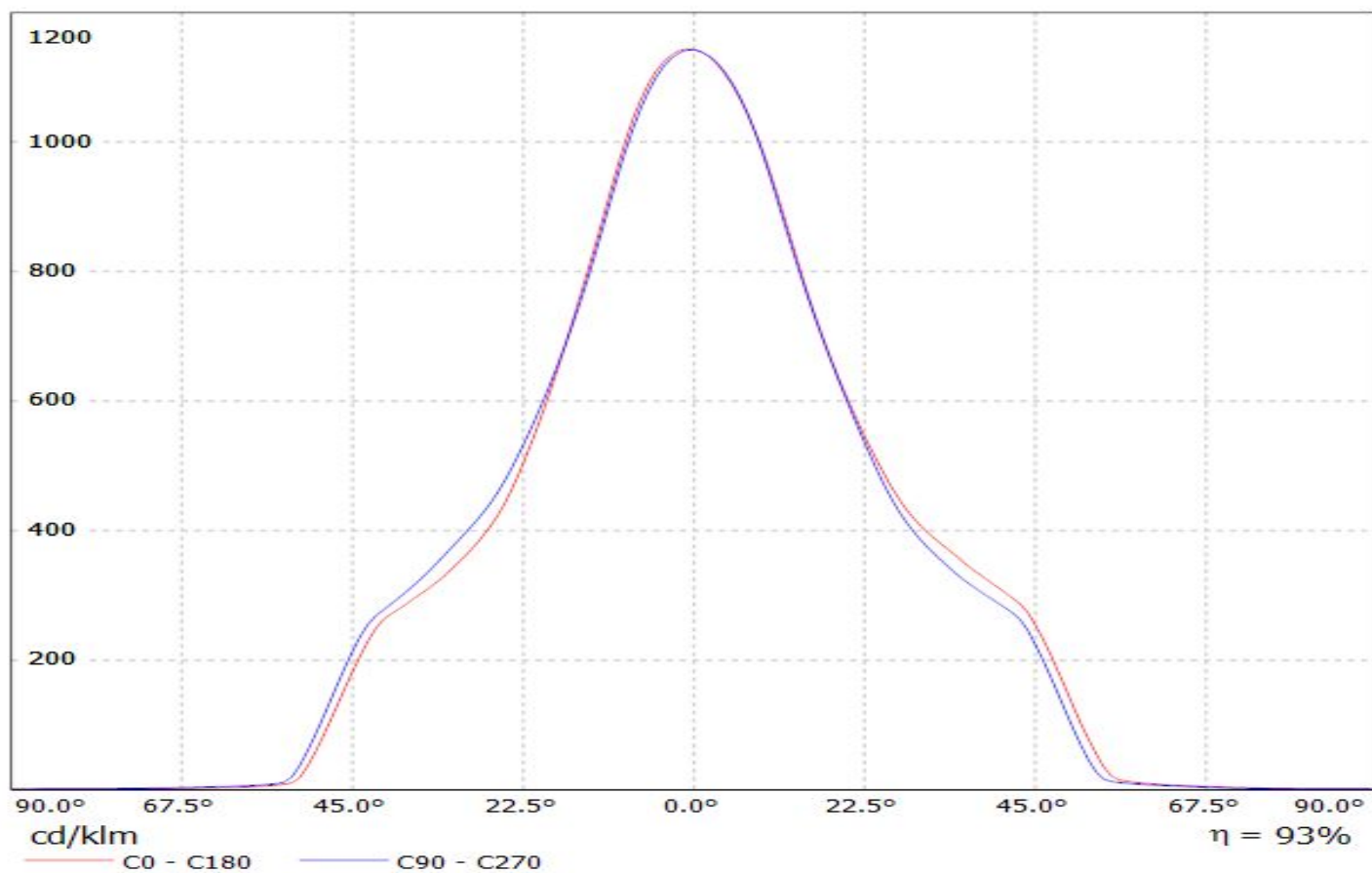
Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(Soleriq S19) Eff.93.8%  
Lamps: 1 x OSRAM\_SOLERIQ\_S19\_(GW\_KAHJB1.EM)  
\_1445.44lm@250mA\_CCT=3000K\_P=10.558W\_I=249.8mA



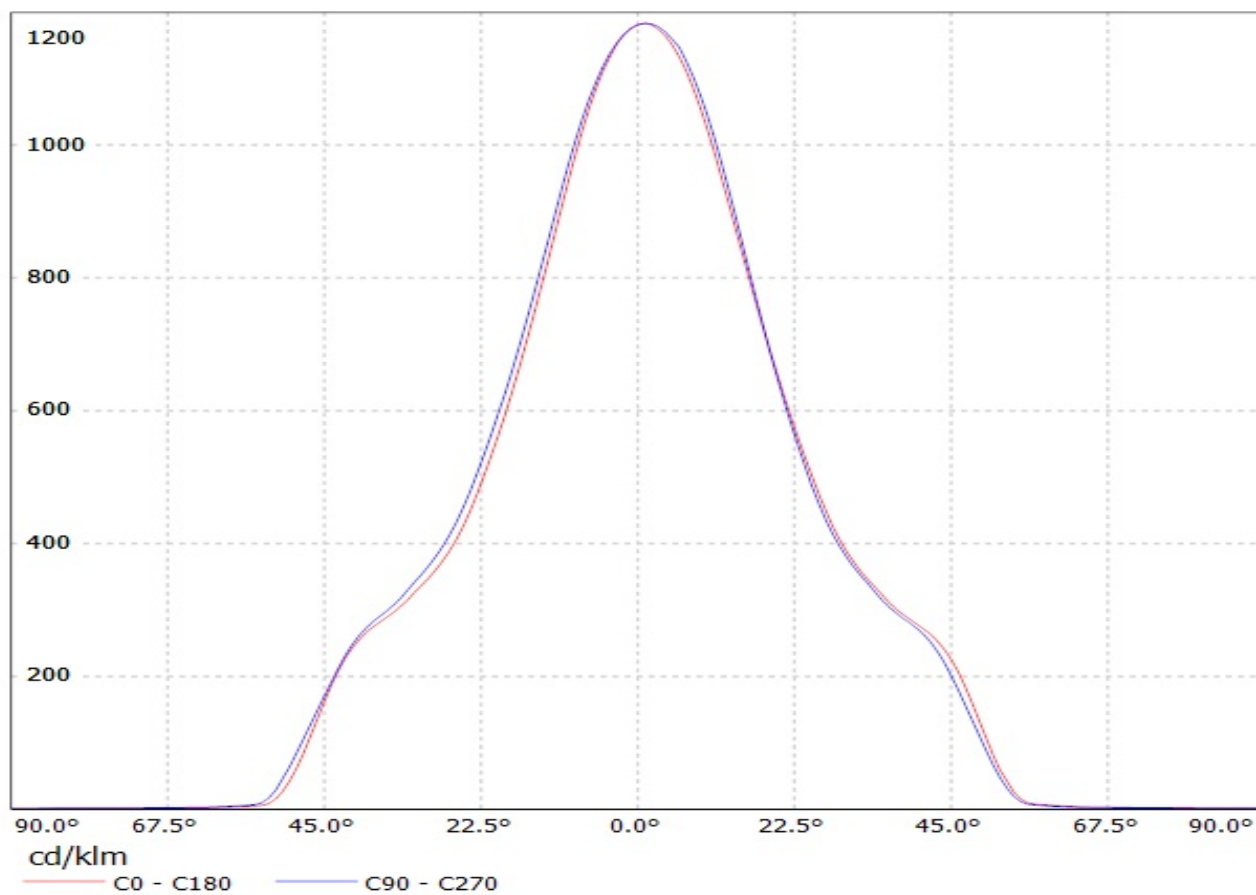
Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(SLE G4 LES23)  
Lamps: 1 x Tridonic\_SLE\_G4\_LES23\_1428.75lm@250mA\_P=8.19944W\_I=0.2498A



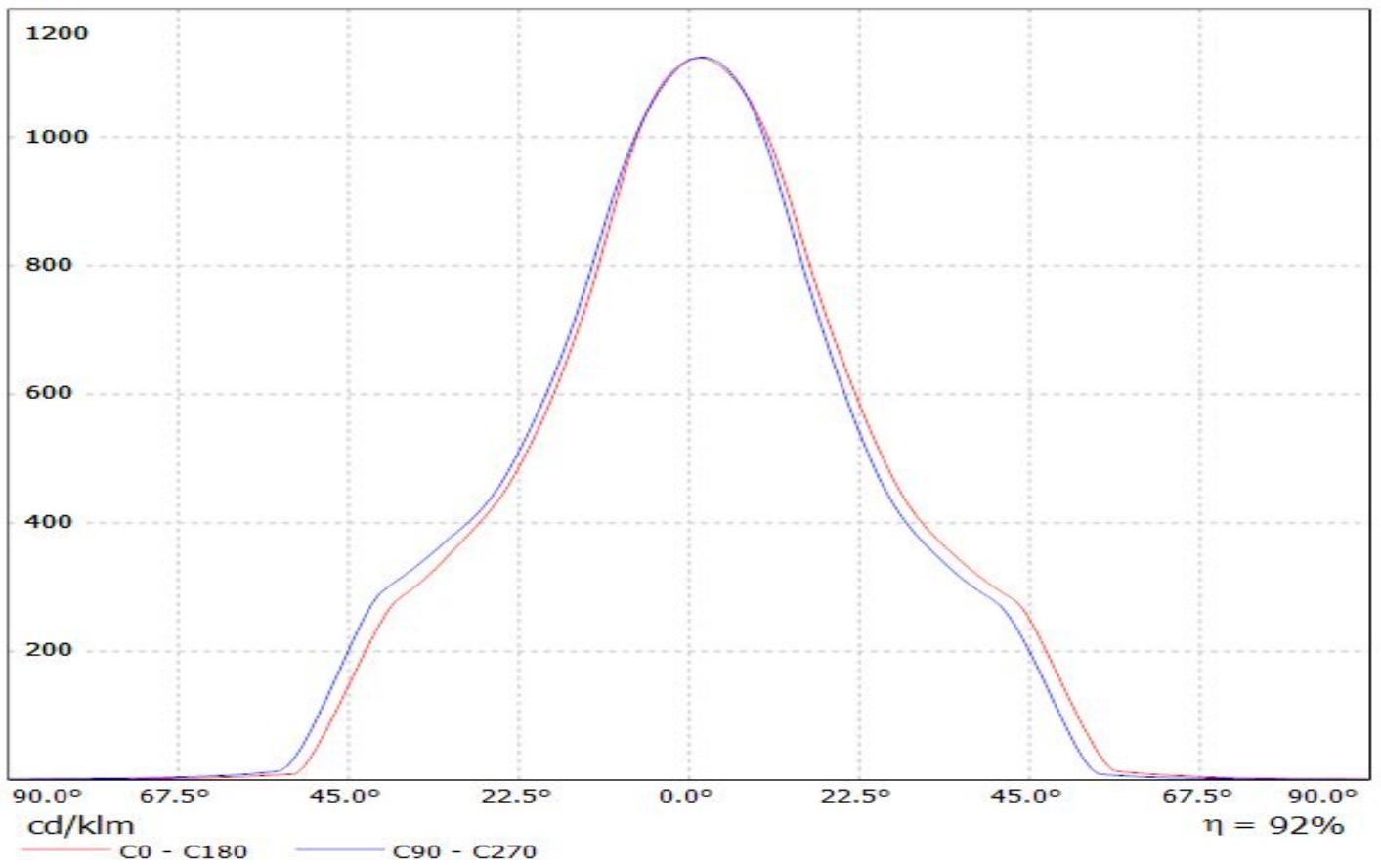
Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(CXA2590)  
Lamps: 1 x CREE\_CXA2590\_(CXA2590-30F-Z4-RPH-00001)  
\_837.275lm@100mA\_CCT=3000K\_P=6.36316W\_I=100.1mA



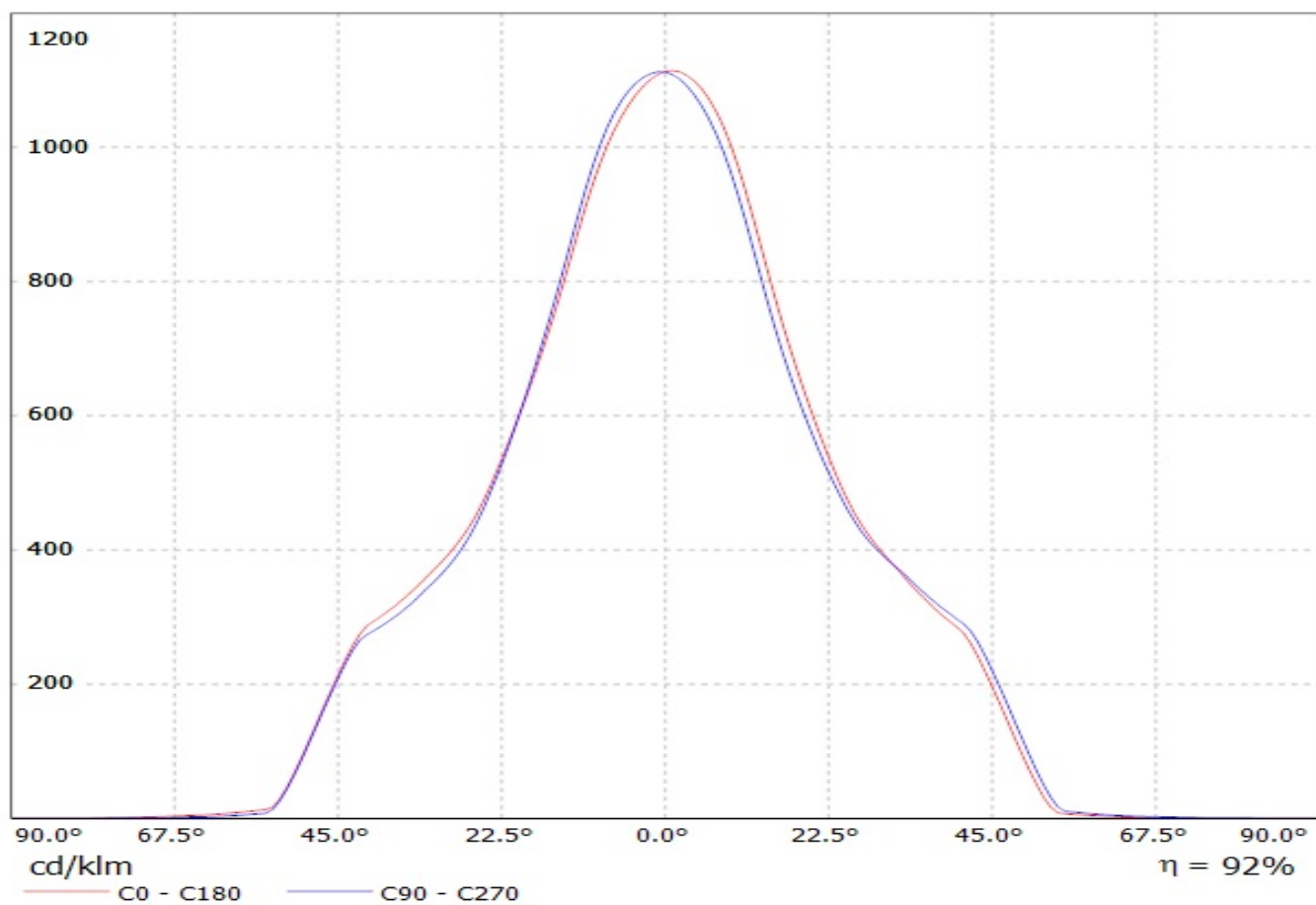
Luminaire: LEDiL Oy C13660\_ANGELINA-M-B\_(Soleriq-E30) Eff. 90 %  
Lamps: 1 x Osram Soleriq E30 (QW KAJRB2.EM-TPTR-50H4) 1358.6lm@250mA\_P=10.2338W\_I=0.2498mA



Luminaire: LEDiL Oy F13660\_ANGELINA-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

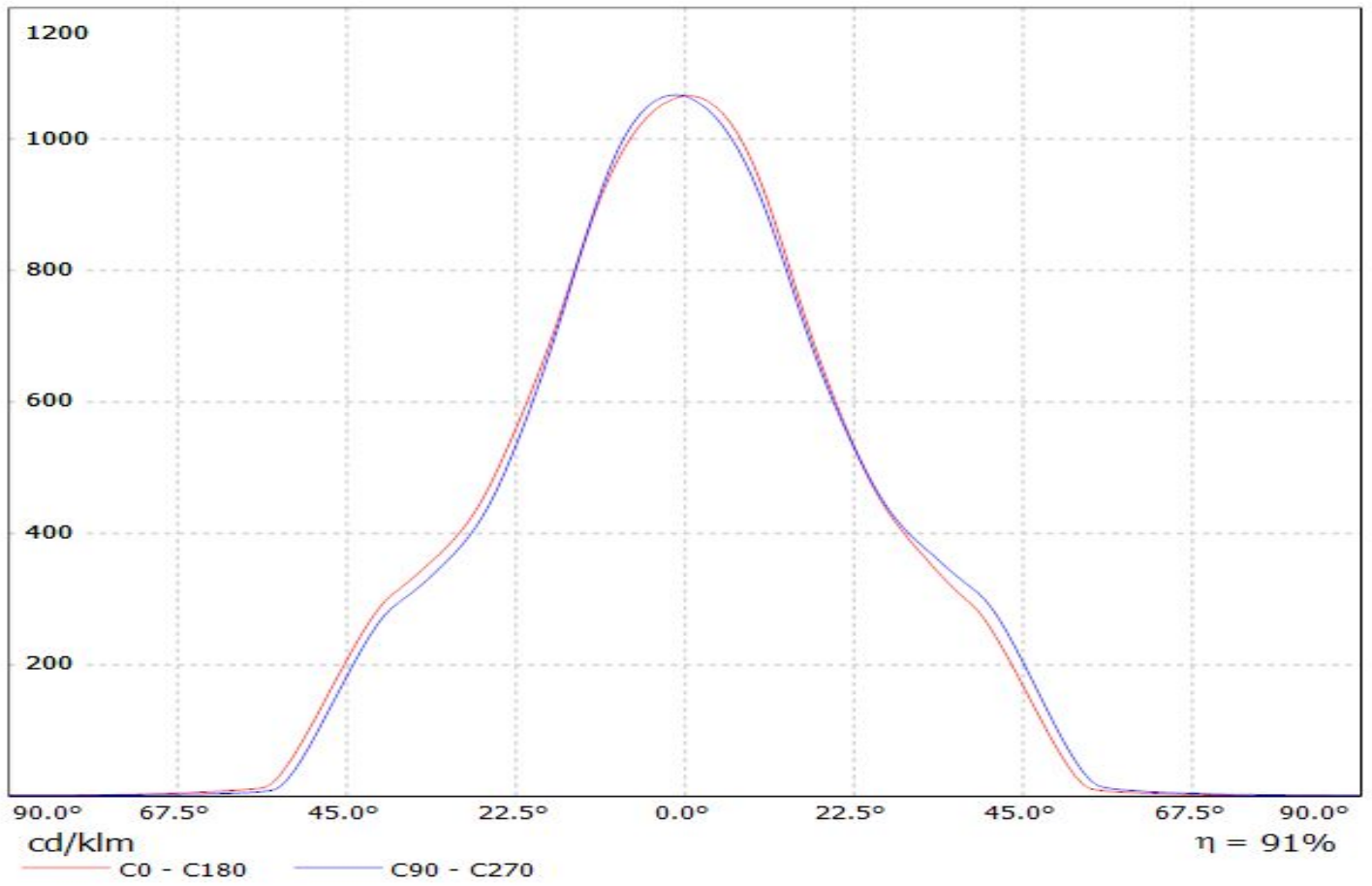


Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(Luxeon\_CoB\_1211)\_(BJB2030) 82  
Lamps: 1 x Luxeon\_CoB\_1211\_(LHC1-5780-1211)\_(BJB2030)\_1330.16lm@250mA\_P=8.03503W\_I=0.2499A



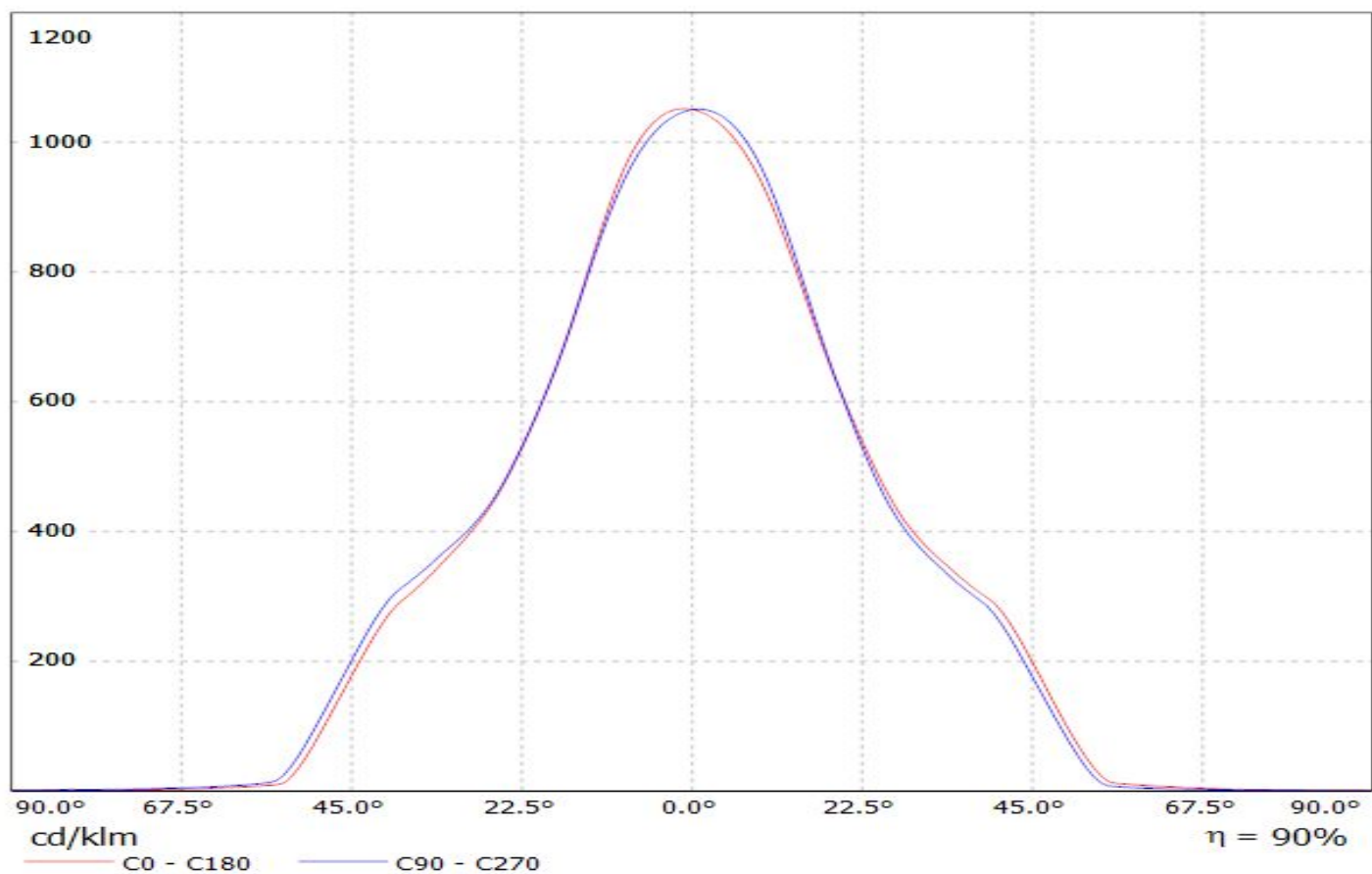
Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(CXA30)

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



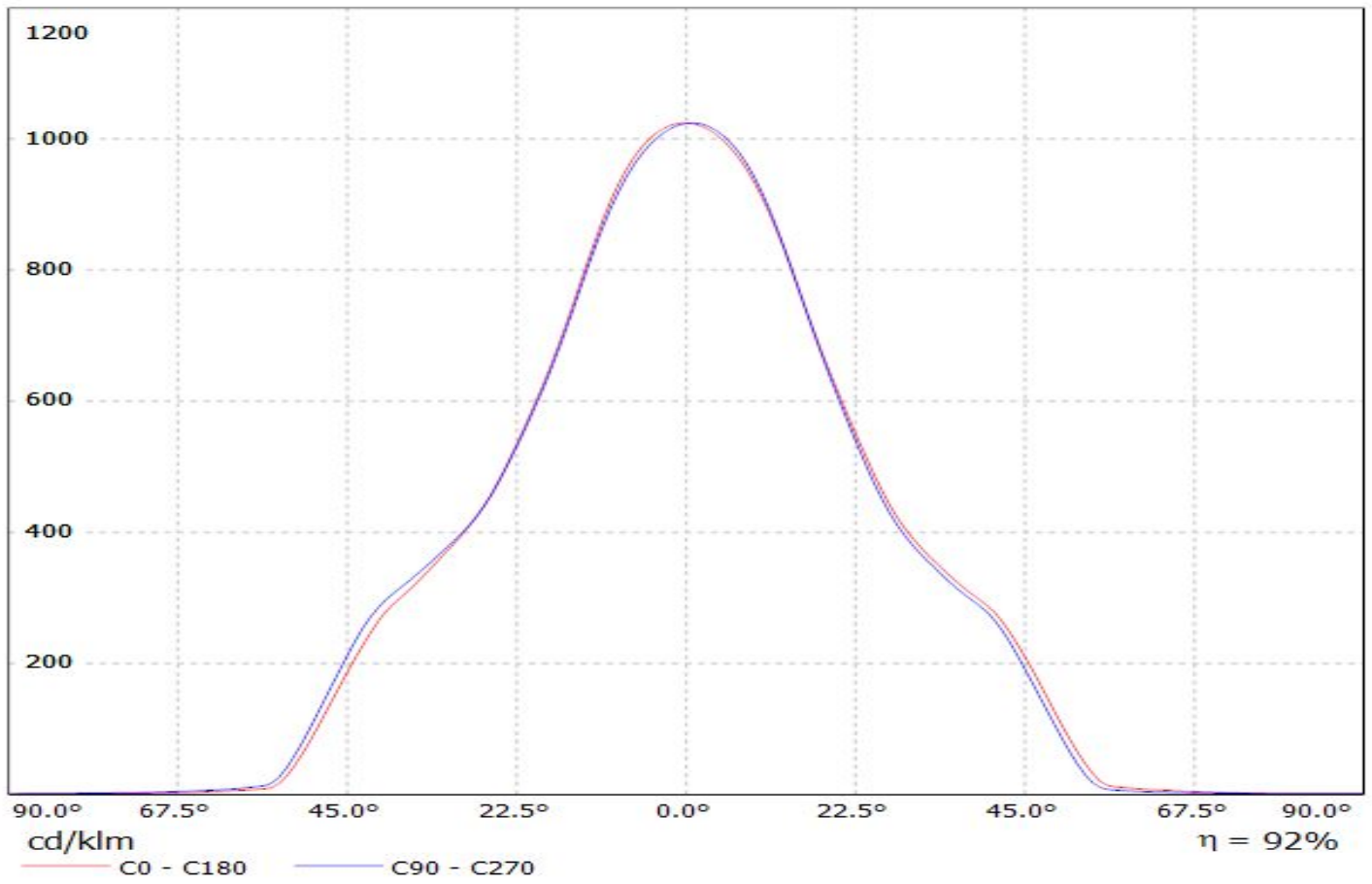
Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(COB\_40W)

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

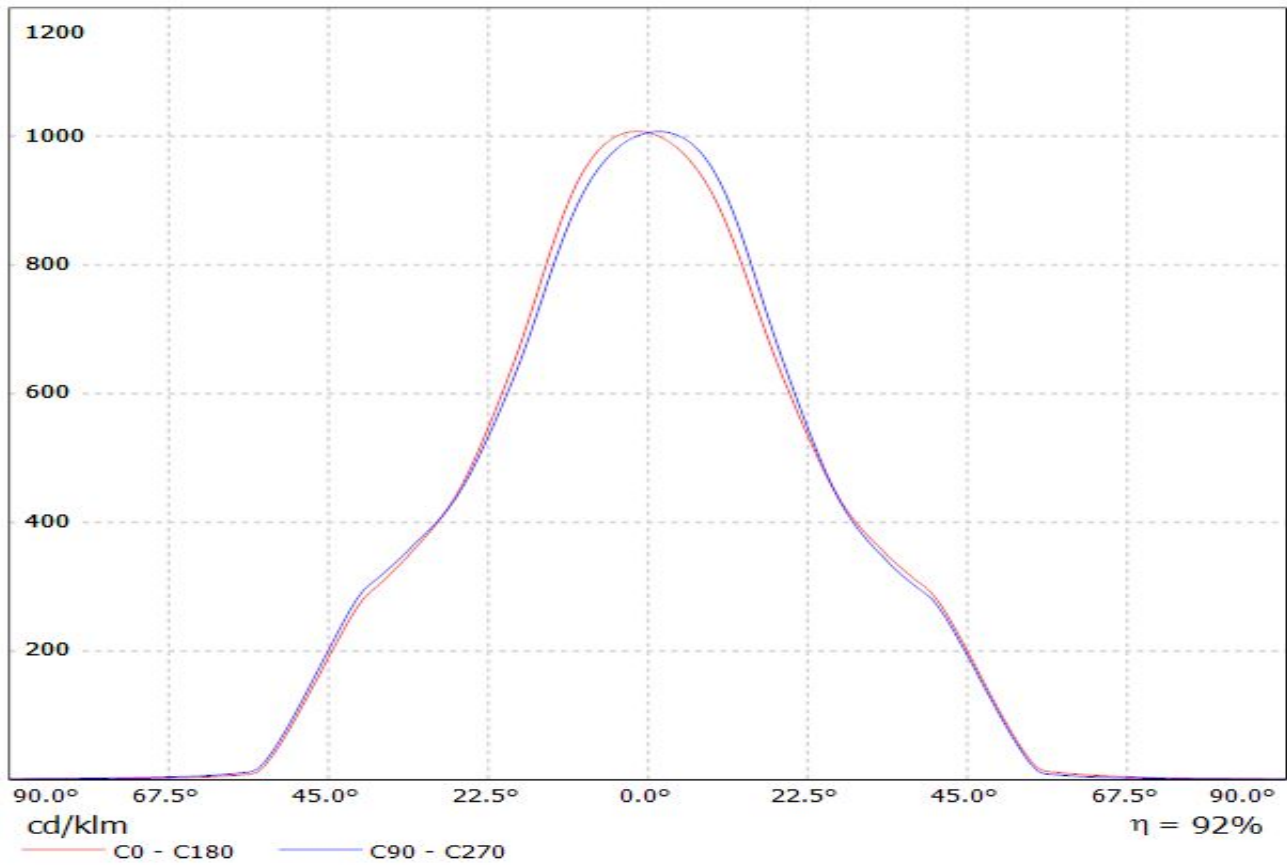


Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(ZC40)

Lamps: 1 x SEOUL\_ZC40\_(SBWW5F1B)\_1185.55lm@250mA\_P=8.2384W\_I=249.8mA

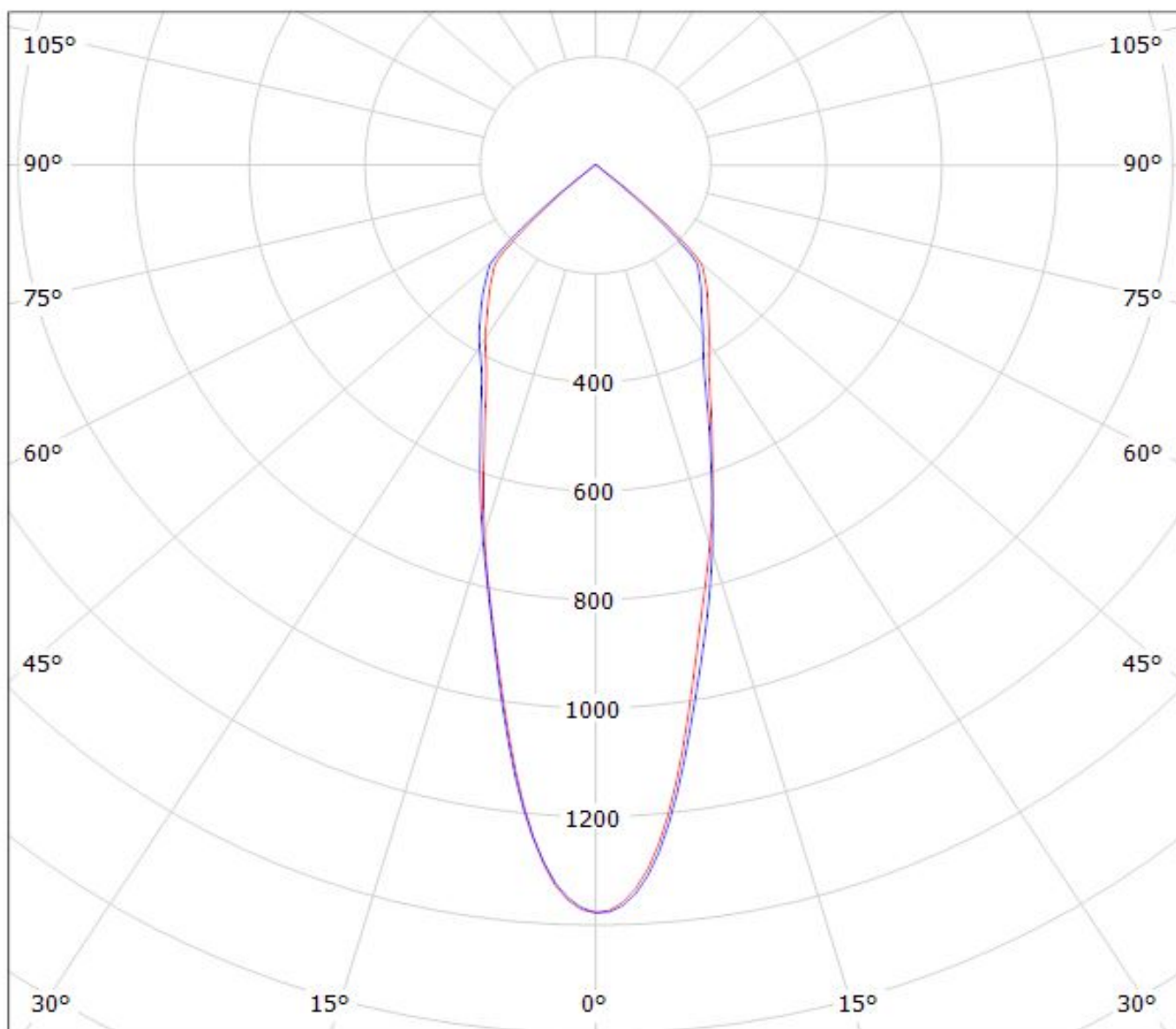


Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(CXM-22) Eff.91.8%  
Lamps: 1 x LUMINUS\_CXM-22\_1221.8lm@250mA\_P=8.00809W\_CCT=3000K\_I=249.8mA



Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(CITIZEN\_CLU720)

Lamps: 1 x CITIZEN\_CLU720\_(BJB: 47.319.2020)\_1214.68lm@250mA\_CCT=2700K\_P=8.31842W\_I=0.25A



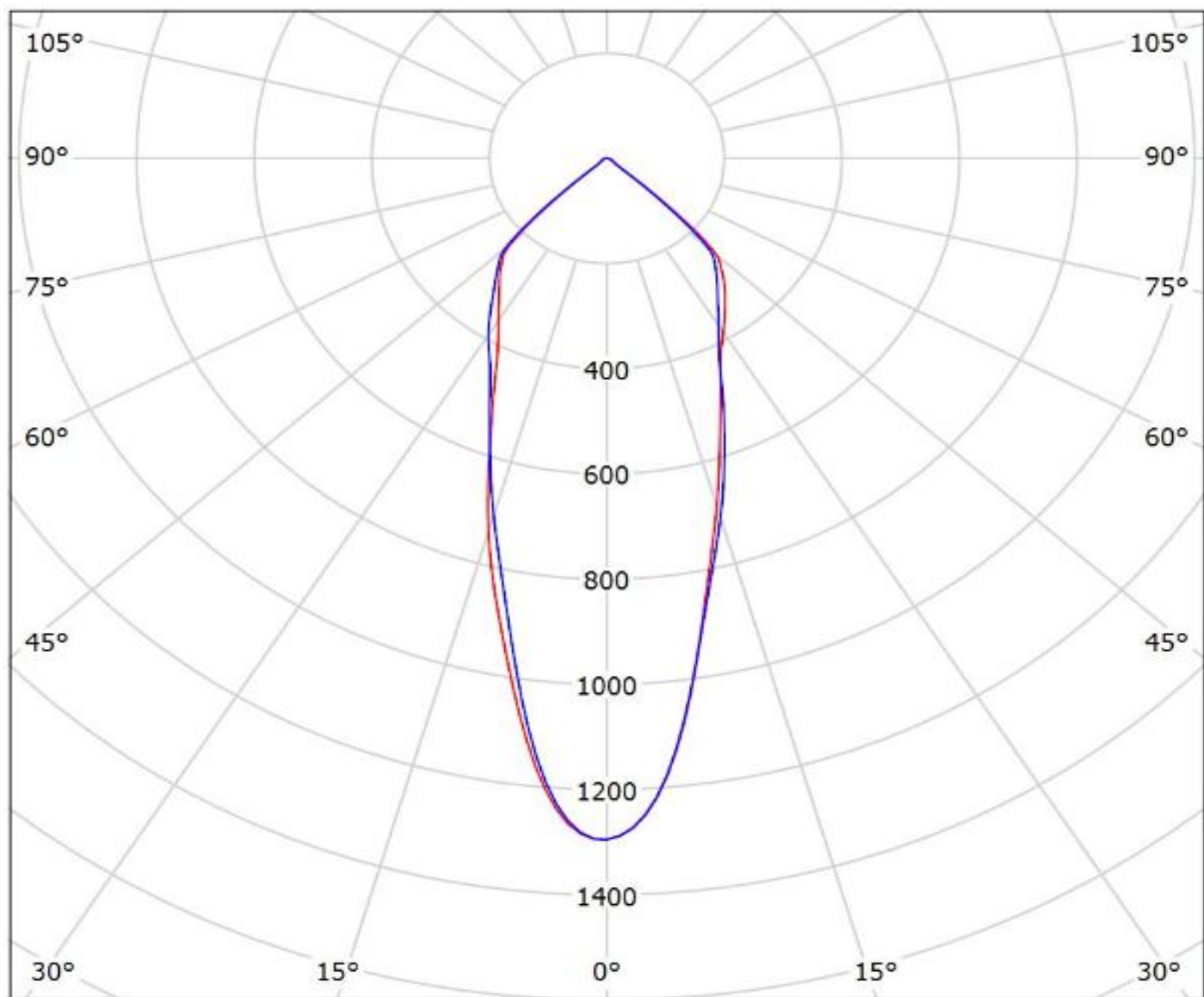
cd/klm

— C0 - C180

— C90 - C270

$\eta = 94\%$

Luminaire: Ledil F13660\_ANGELINA-M-B\_(CITIZEN\_CLU720)  
Lamps: 1 x CITIZEN\_CLU720\_(CLU720-1206B8-273M2)  
\_1320.42lm@250mA\_CCT=2700K\_P=8.35W\_I=0.25A



cd/klm

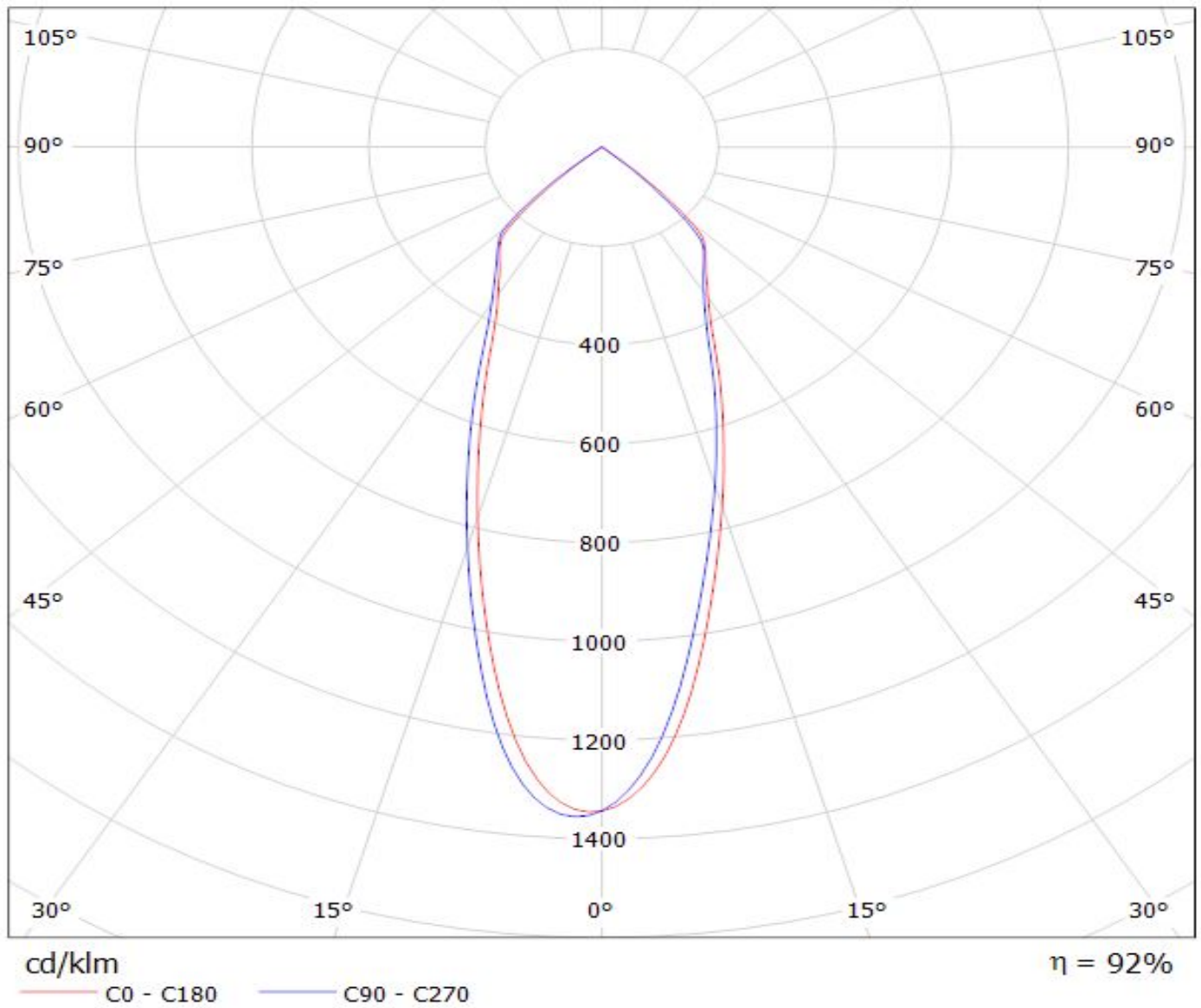
— C0 - C180 — C90 - C270

$\eta = 95\%$

# LEDiL Oy C13660\_ANGELINA-M-B\_(CLL030) Eff.91.7% / LDC (Polar)

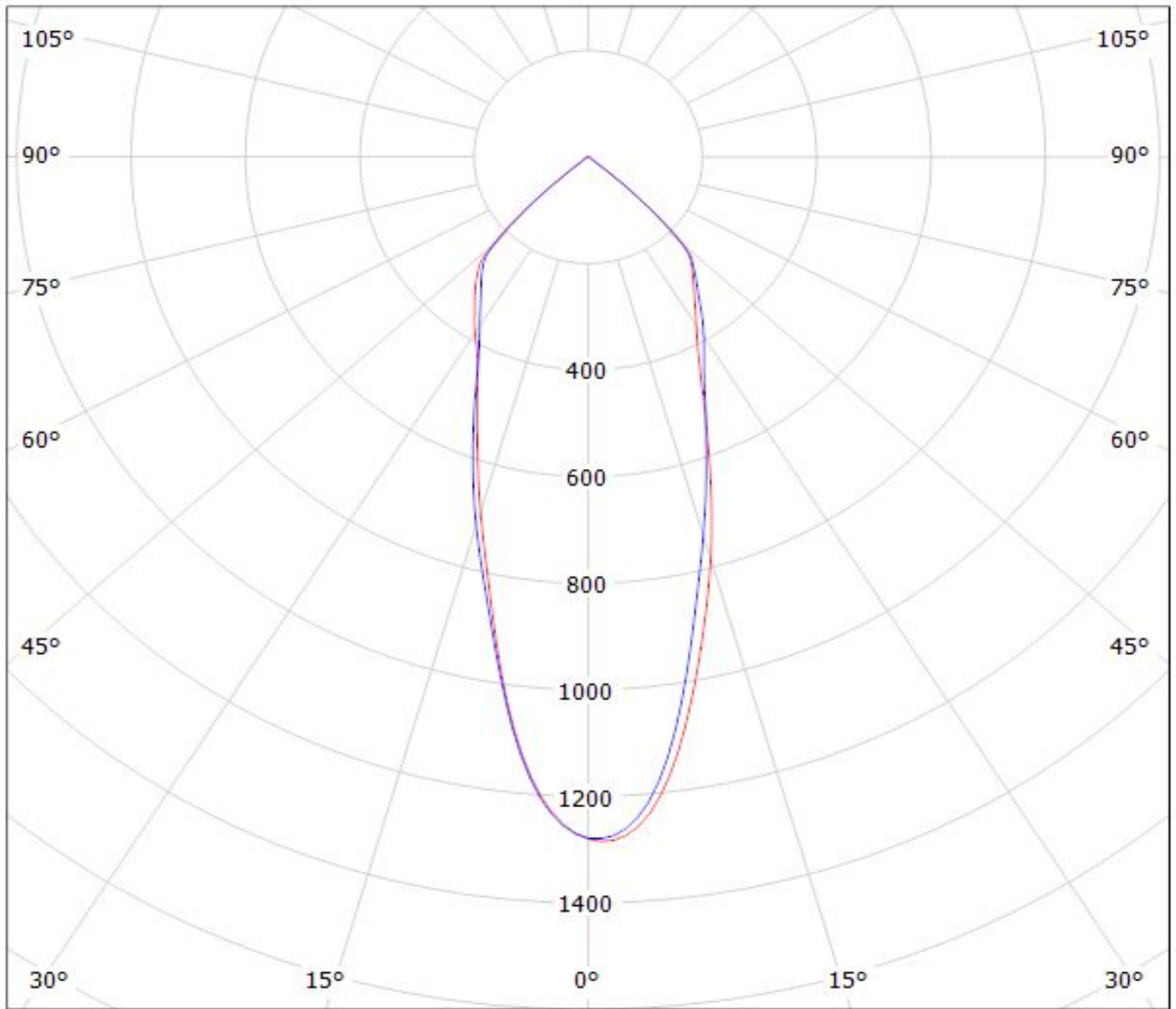
Luminaire: LEDiL Oy C13660\_ANGELINA-M-B\_(CLL030) Eff.91.7%

Lamps: 1 x CITIZEN\_CLL030\_(CLL030-1205A5-303H1A7) 797.292lm@250mA CCT=3000K P=8.65307W  
I=249.8mA



Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(LG\_COB\_10W)

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



cd/klm

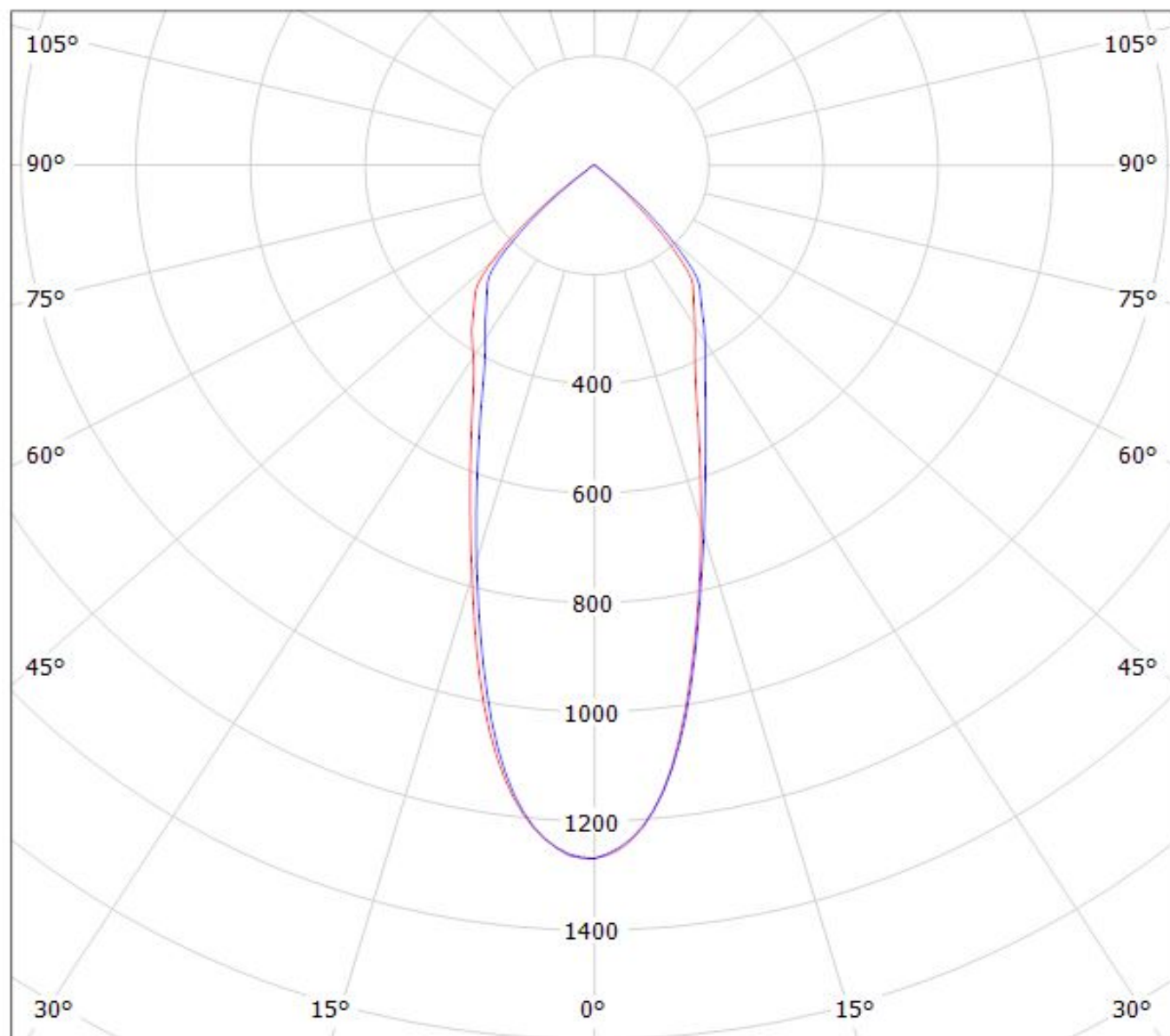
— C0 - C180

— C90 - C270

$\eta = 94\%$

Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(SLE GEN4 LES19)

Lamps: 1 x SLE GEN4 LES19\_1226.28lm@250mA\_P=8.21367W\_I=0.2498A



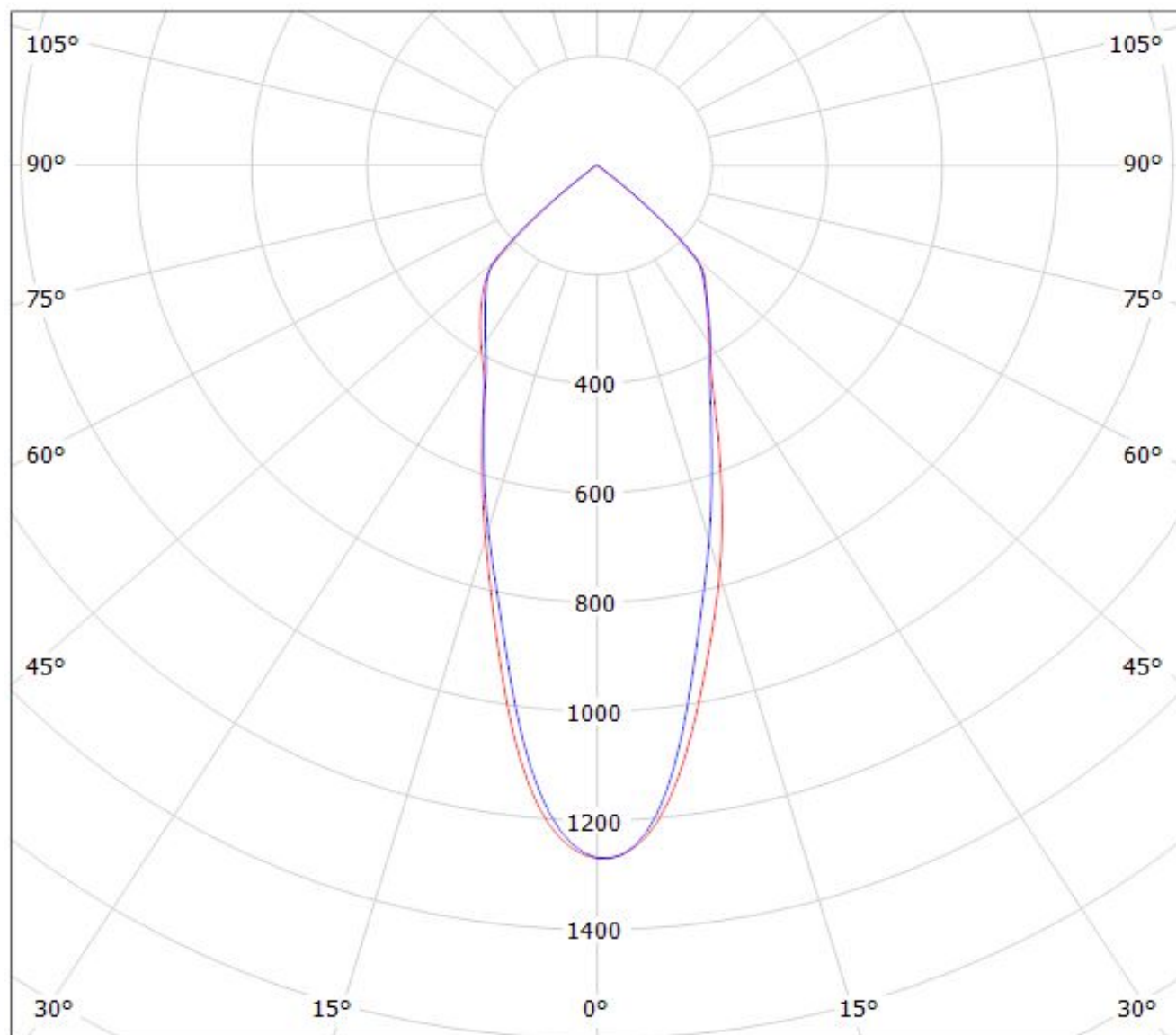
cd/klm

— C0 - C180

— C90 - C270

Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(Soleriq\_S13) Eff.94.0%

Lamps: 1 x Osram\_Soleriq\_S13\_825.418lm@250mA\_CCT=3125K\_P=7.33663W\_I=249.8mA



cd/klm

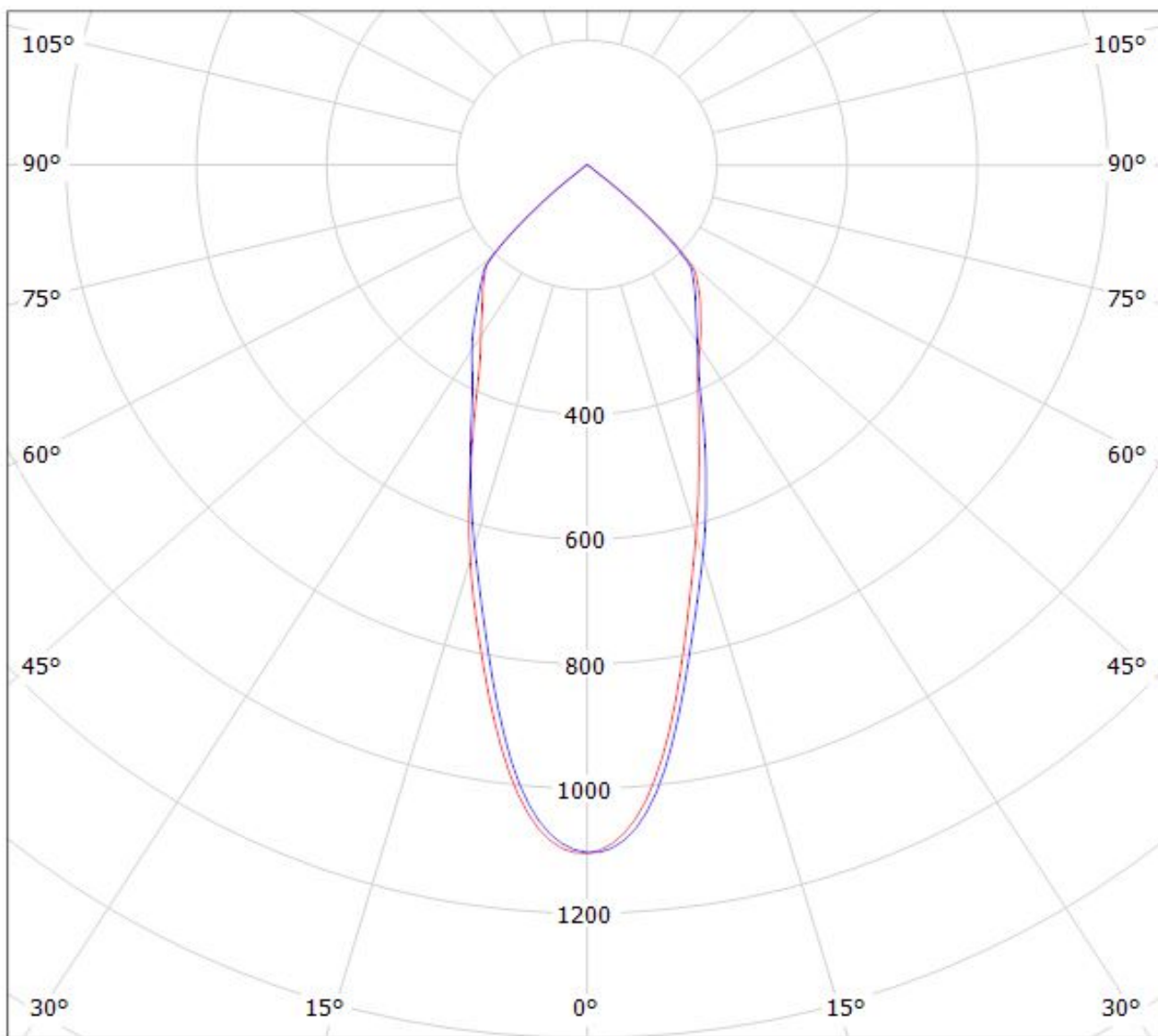
— C0 - C180

— C90 - C270

$\eta = 95\%$

Luminaire: LEDiL Oy F13660\_ANGELINA-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

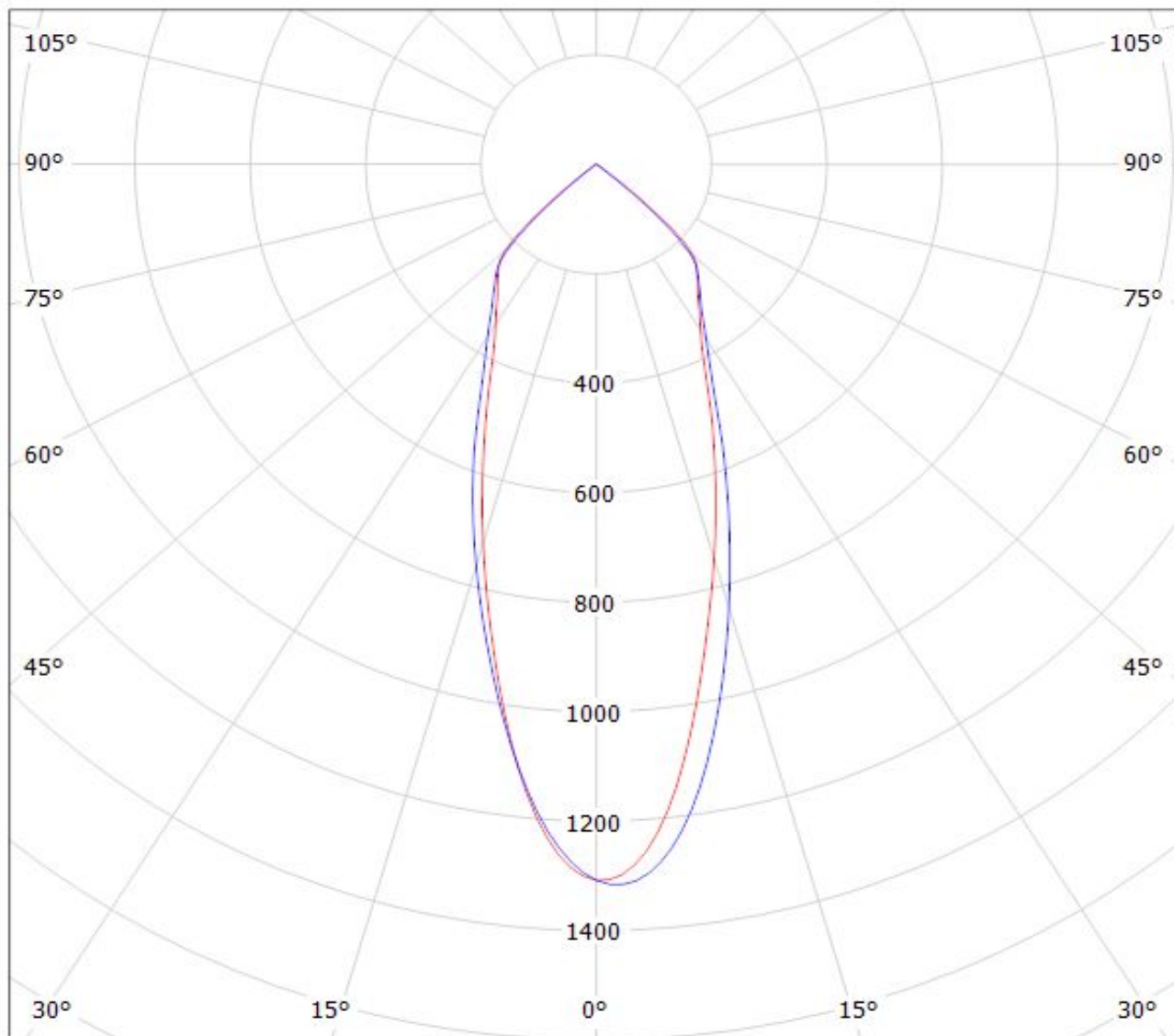
$\eta = 82\%$

— C0 - C180

— C90 - C270

Luminaire: LEDiL Oy C13660\_ANGELINA-M-B\_(BXRA\_ES) Eff. 92%

Lamps: 1 x Bridgelux BXRA\_ES\_(QQ40\_BXRA-W1202\_1019A-2010) 268lm@250mA\_P=3.36W\_I=250mA



cd/klm

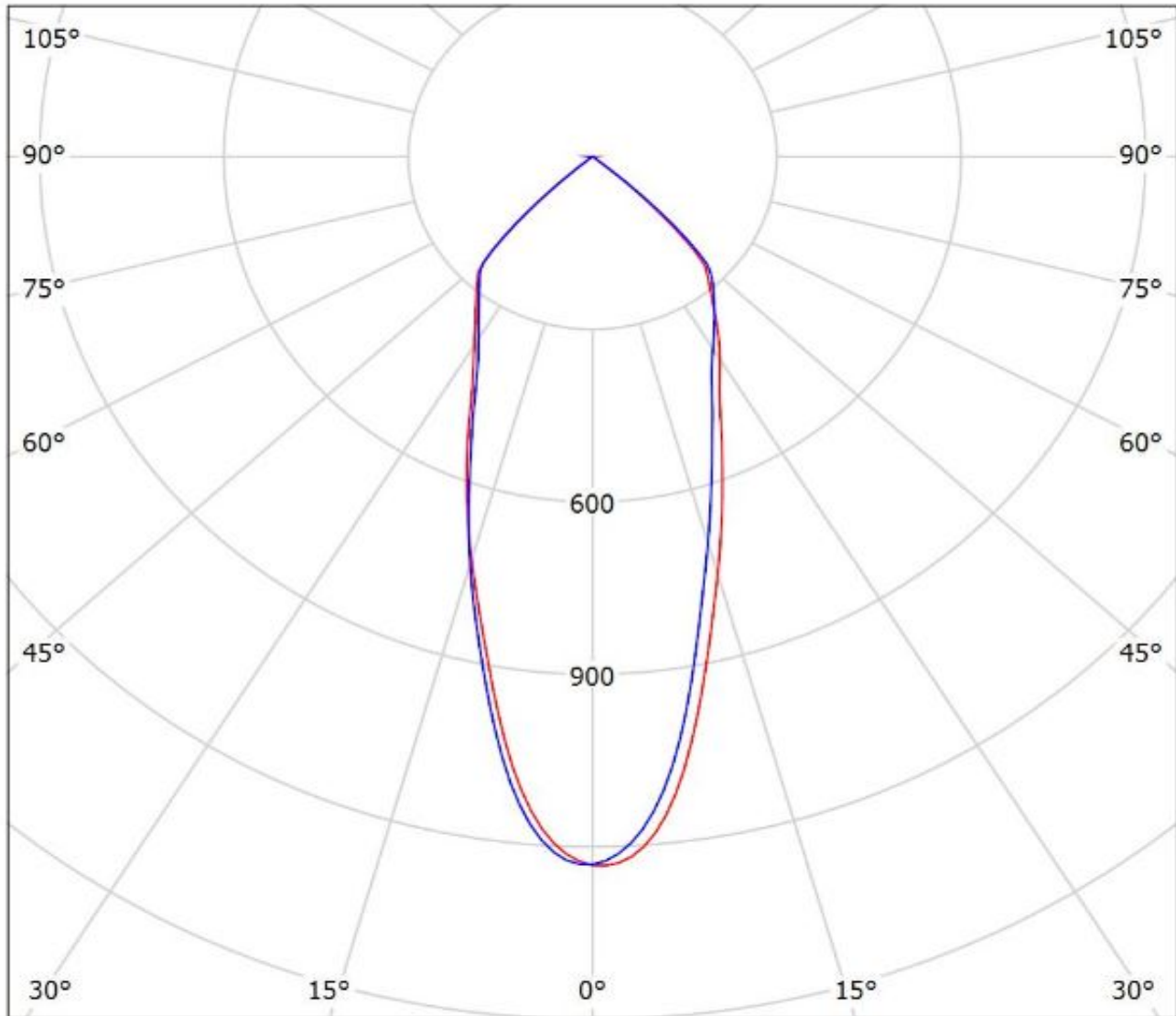
$\eta = 92\%$

— C0 - C180

— C90 - C270

Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(SOLERIQ\_P13)

Lamps: 1 x SOLERIQ\_P13\_(GW\_MAGMB1.EM)\_1053.65lm@250mA\_CCT=3000K\_P=8.82044W\_I=249.8mA



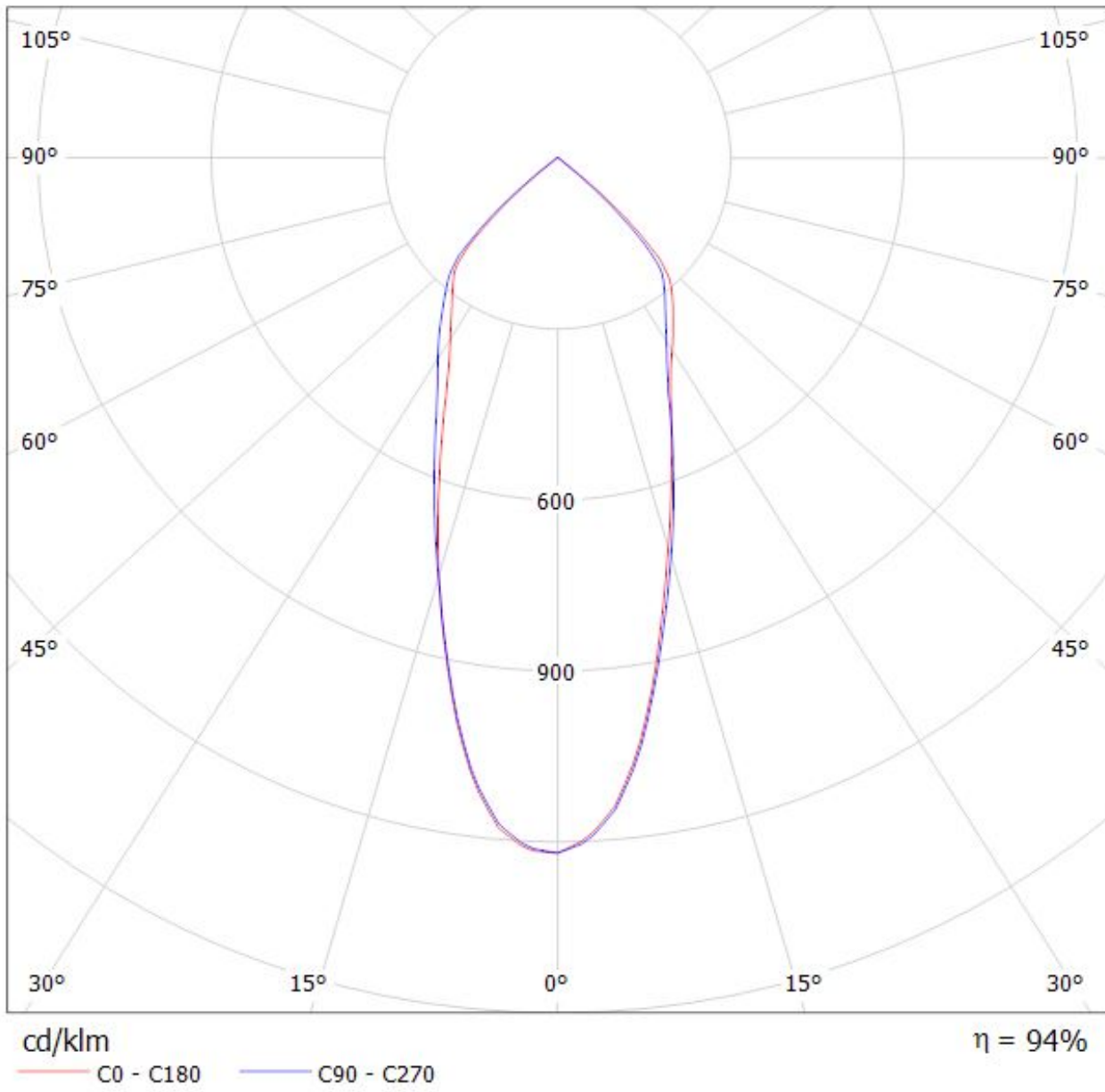
cd/klm

— C0 - C180

— C90 - C270

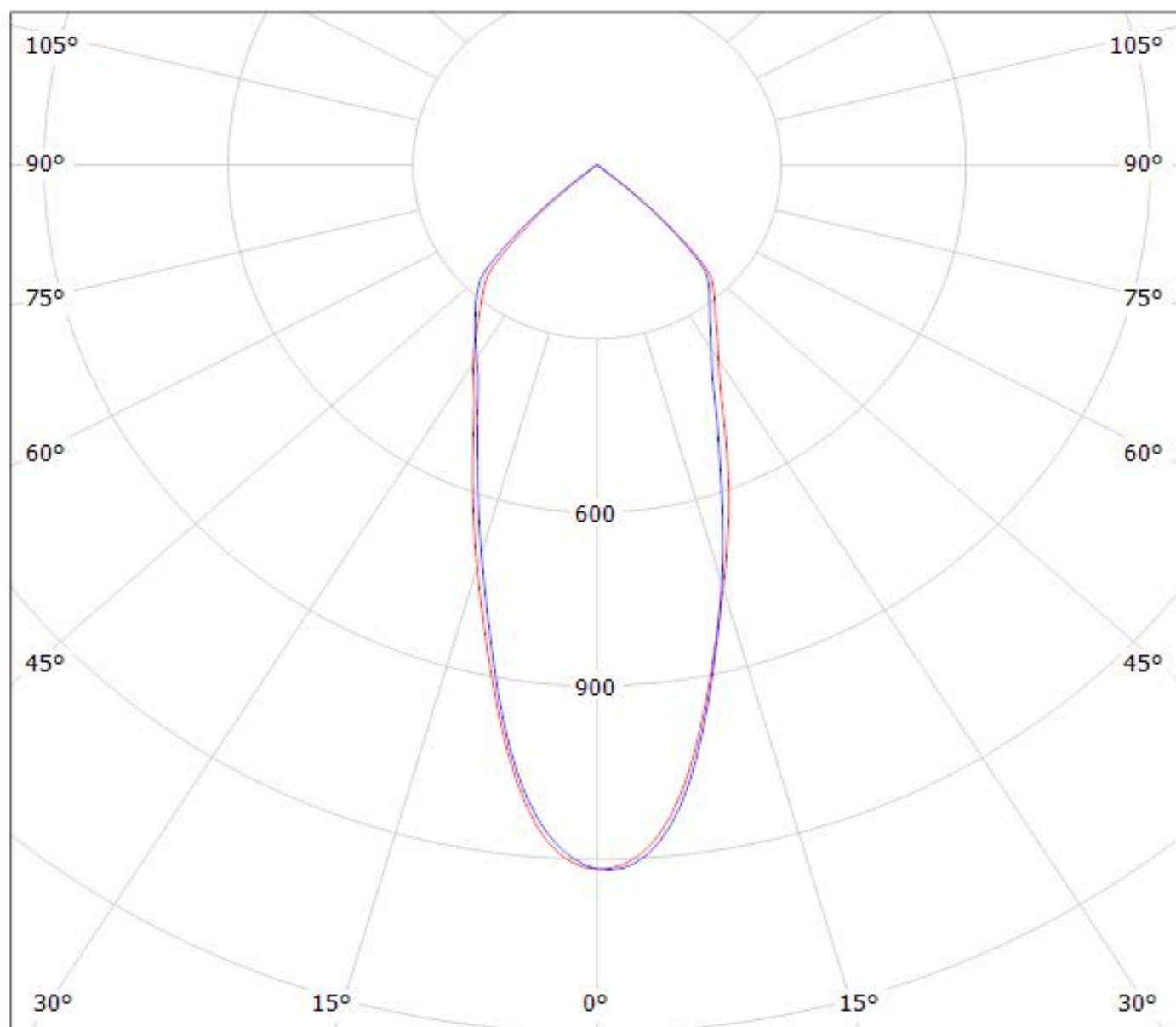
$\eta = 94\%$

Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(Luxeon\_CoB\_1208)  
Lamps: 1 x Luxeon\_CoB\_1208\_1057.71lm@250mA\_P=8.26438W\_I=249.8mA



Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(CLU034)

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



cd/klm

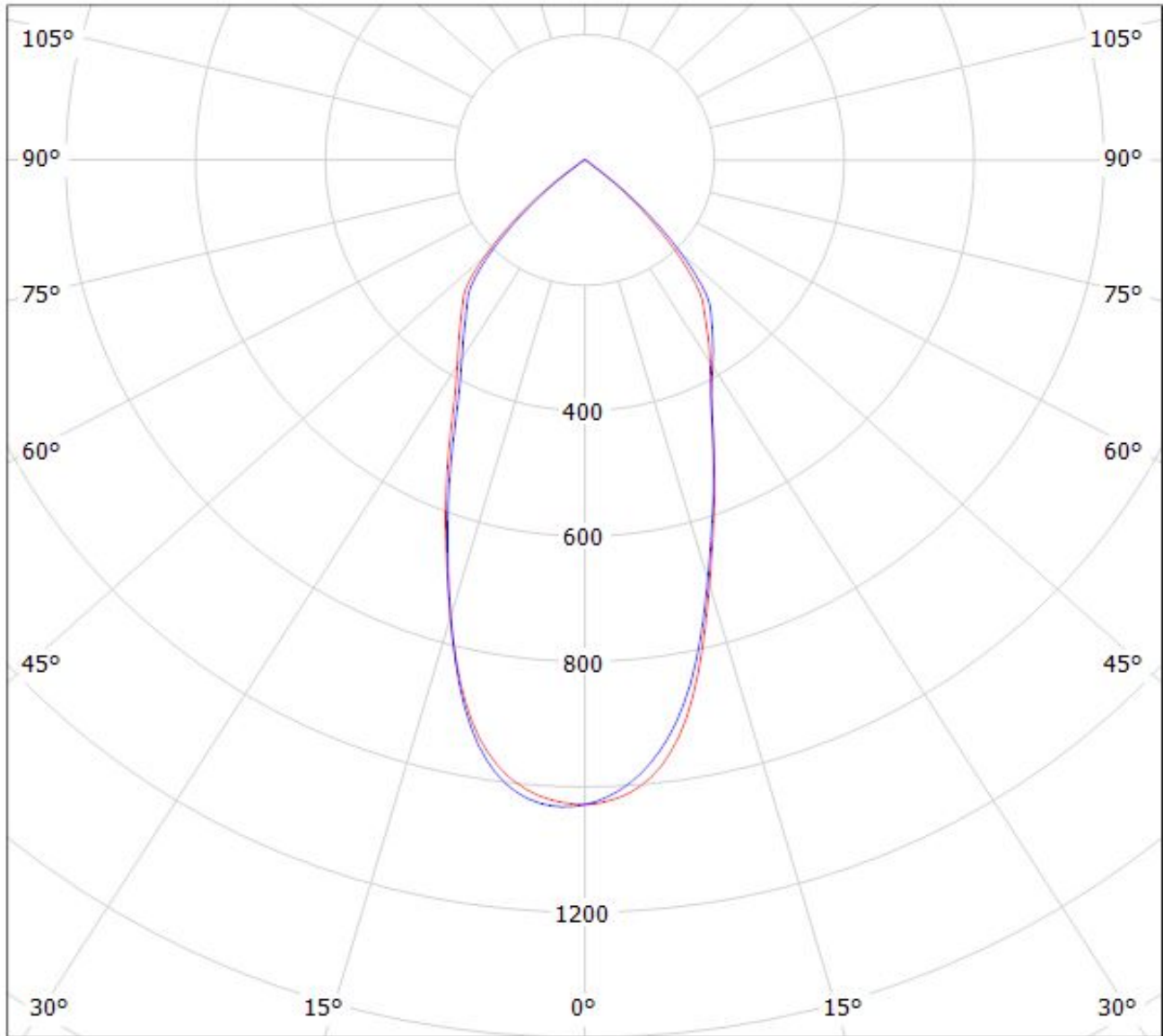
— C0 - C180

— C90 - C270

$\eta = 94\%$

Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(CLU044)

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



cd/klm

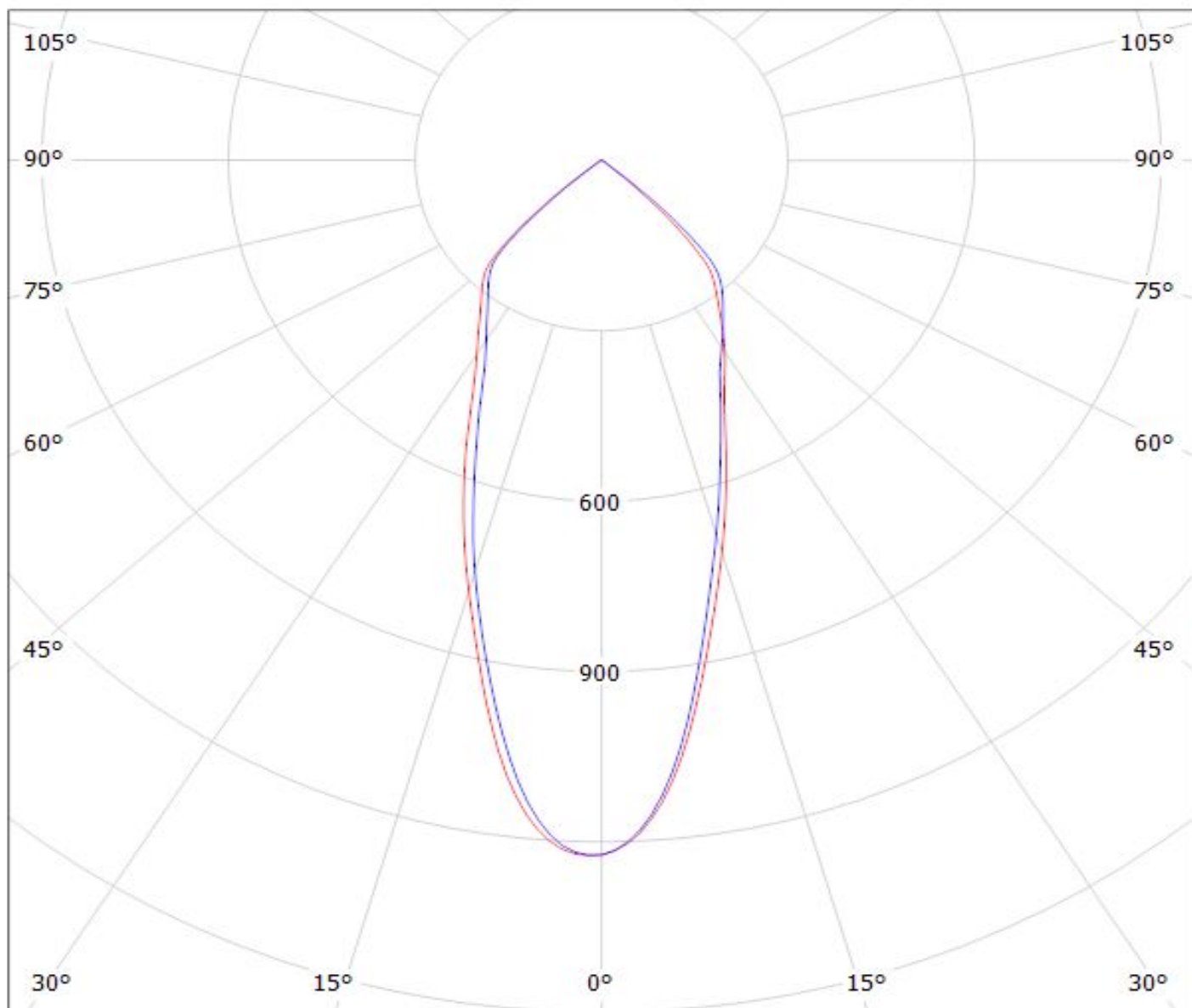
— C0 - C180

— C90 - C270

$\eta = 92\%$

Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(ZC12)

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



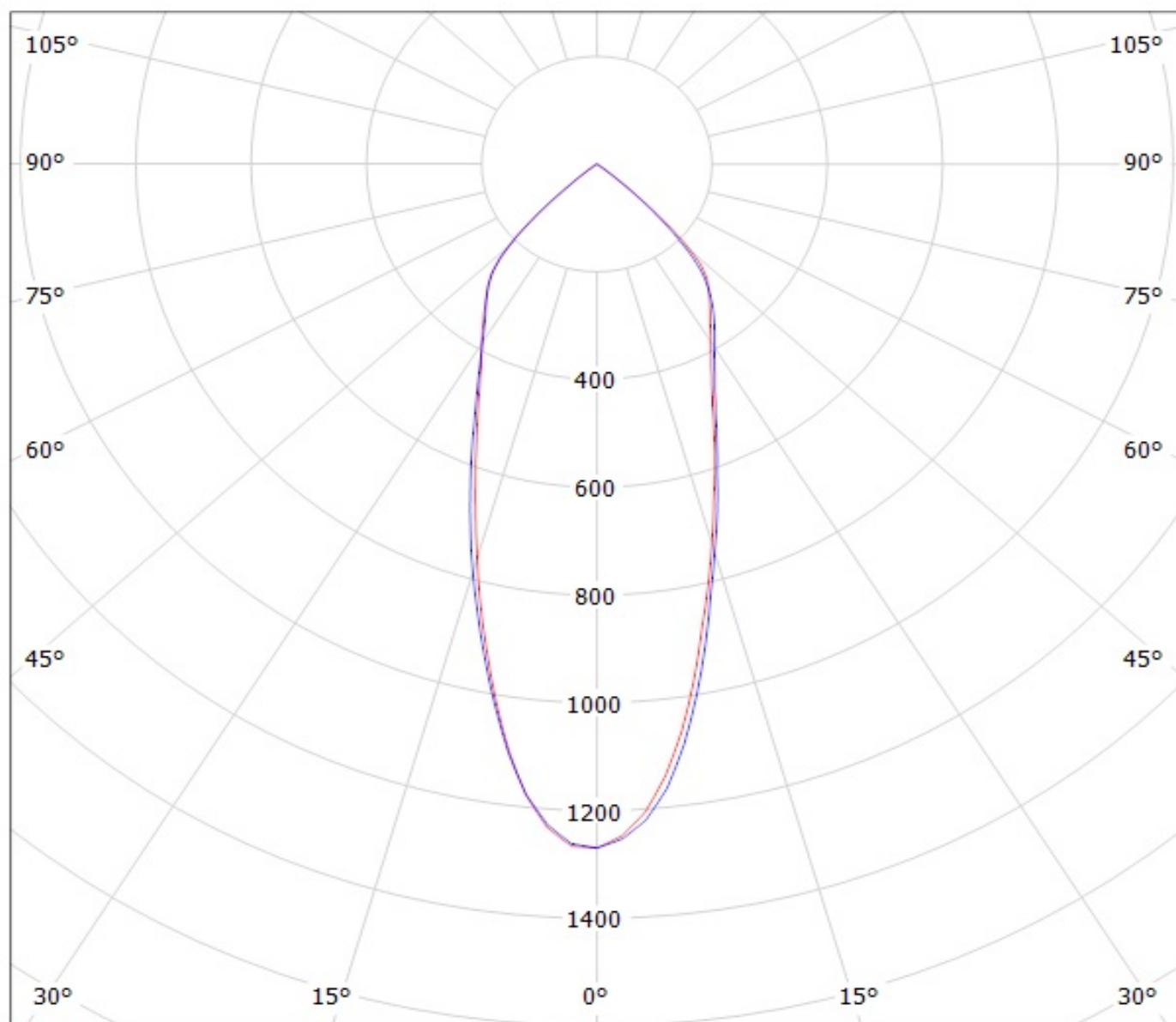
cd/klm

— C0 - C180 — C90 - C270

$\eta = 93\%$

Luminaire: LEDil Oy F13660\_ANGELINA-M-B\_(CXM-14)

Lamps: 1 x Luminus CXM-14 (1078.95lm @ 250mA) CCT=3100K P=8.5W I=250mA



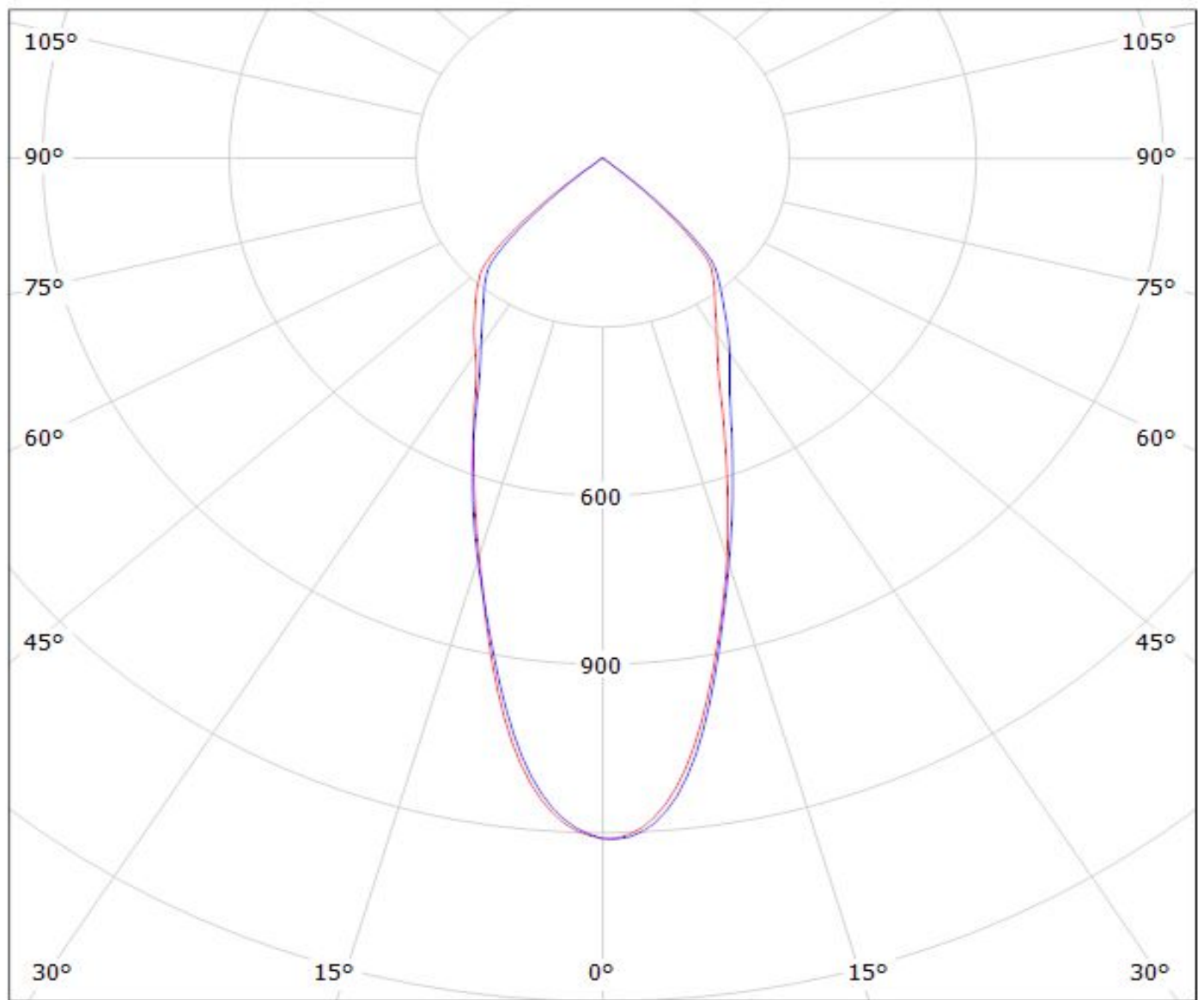
cd/klm

— C0 - C180

— C90 - C270

$\eta = 94\%$

Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(MegaZenigata\_GW6)  
Lamps: 1 x Sharp\_MegaZenigata\_GW6\_(GW6DME30NFC)  
\_1266.19lm@250mA\_CCT=3038K\_P=11.2151W\_I=250.6mA

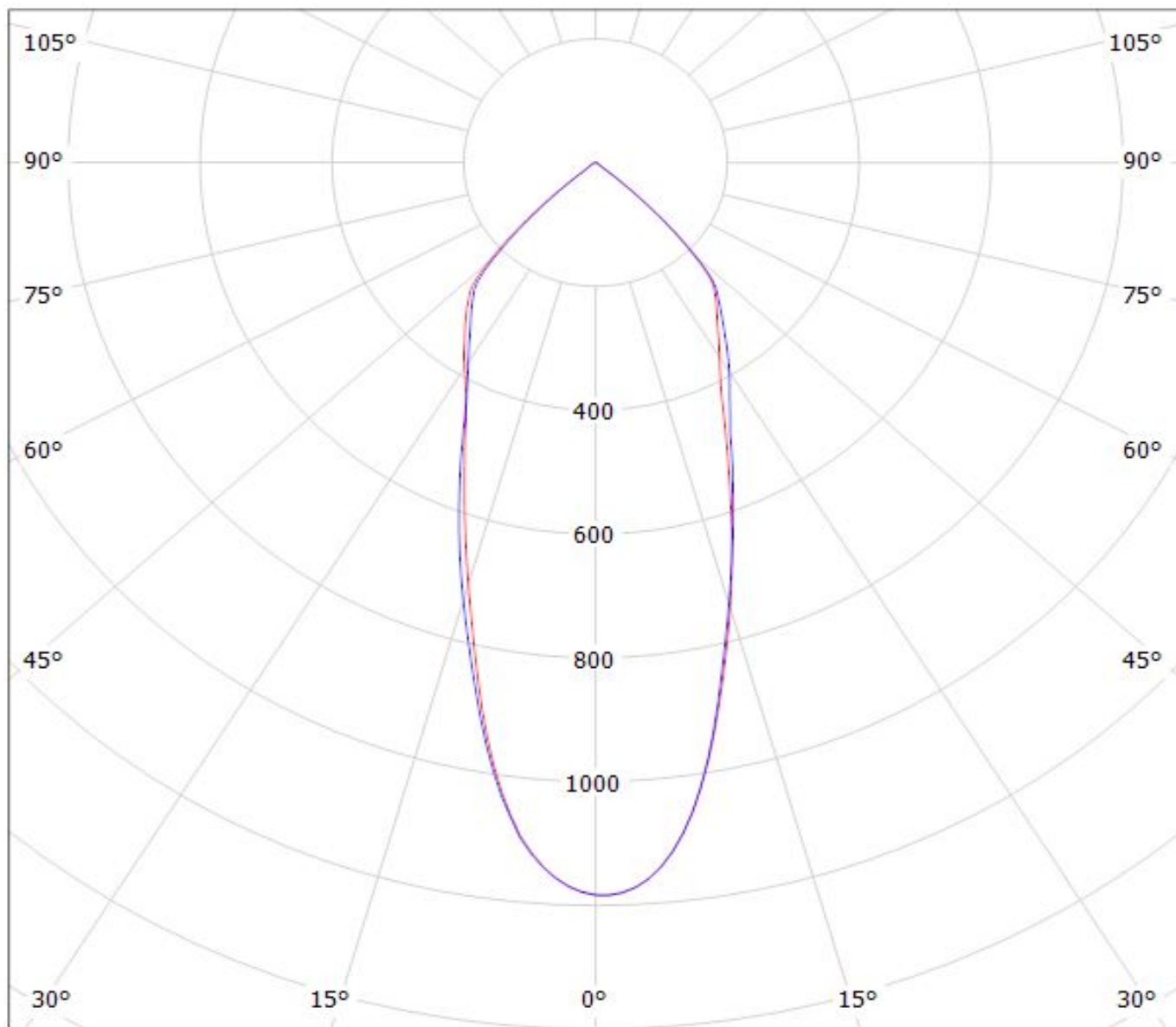


cd/klm

— C0 - C180 — C90 - C270

$\eta = 95\%$

Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(S19) Eff.93.3%  
Lamps: 1 x Osram\_SOLERIQ\_S19\_1434.85lm@250mA\_P=10.5595W\_I=249.8mA

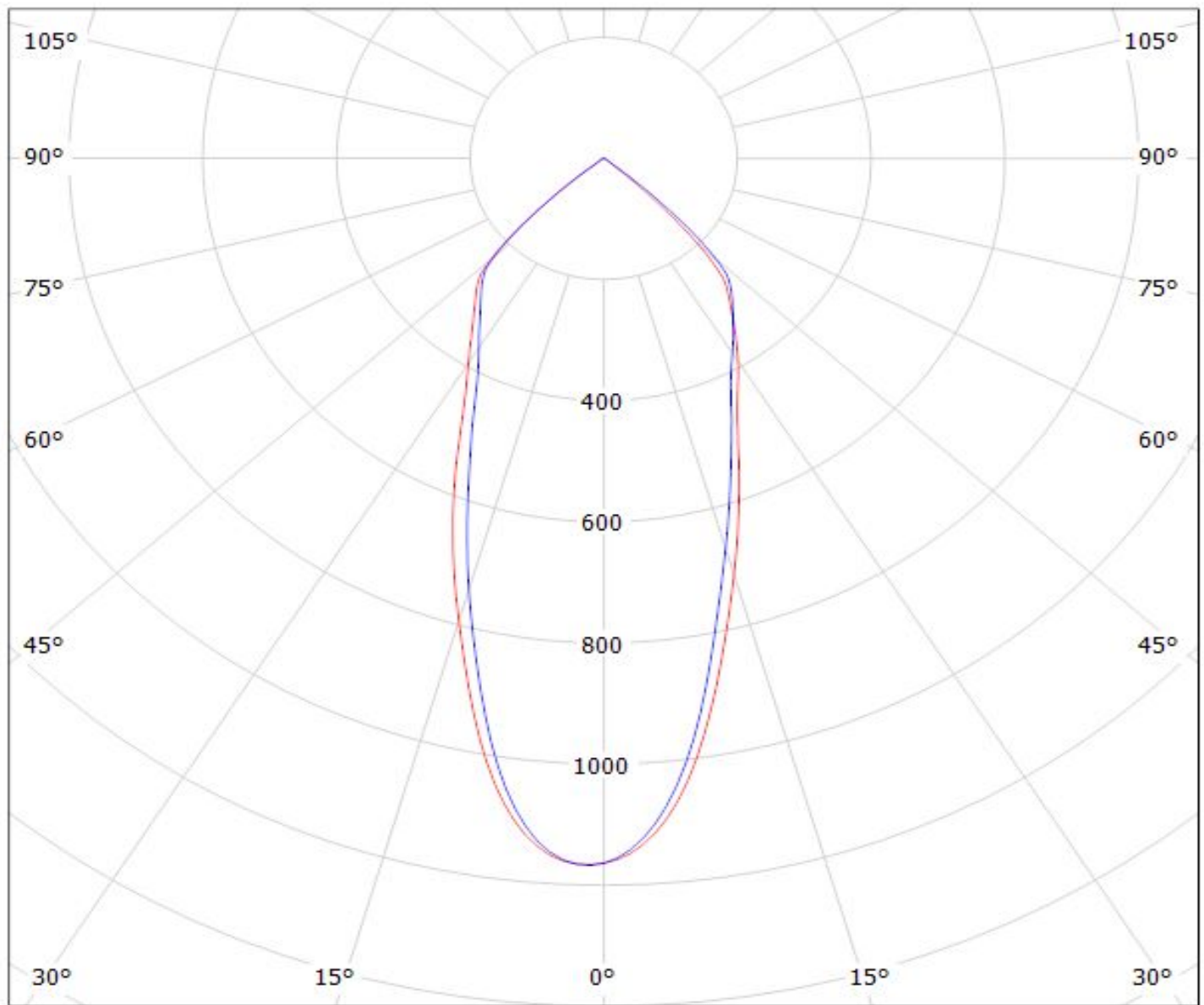


cd/klm

— C0 - C180    — C90 - C270

$\eta = 93\%$

Luminaire: LEDiL Oy F13660\_ANGELINA-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

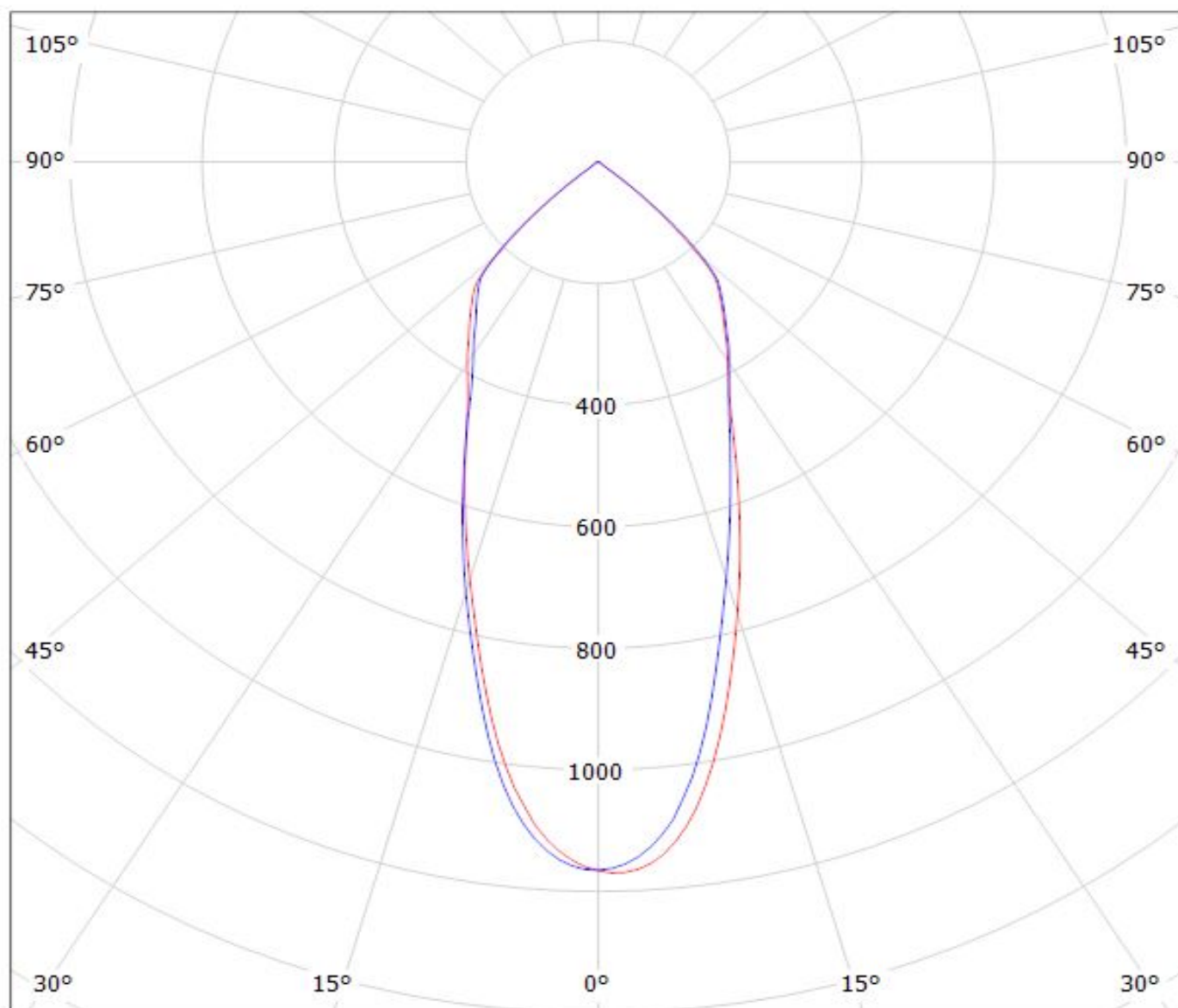


cd/klm

— C0 - C180    — C90 - C270

$\eta = 93\%$

Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(Soleriq S19) Eff.93.8%  
Lamps: 1 x OSRAM\_SOLERIQ\_S19\_(GW\_KAHJB1.EM)  
\_1445.44lm@250mA\_CCT=3000K\_P=10.558W\_I=249.8mA



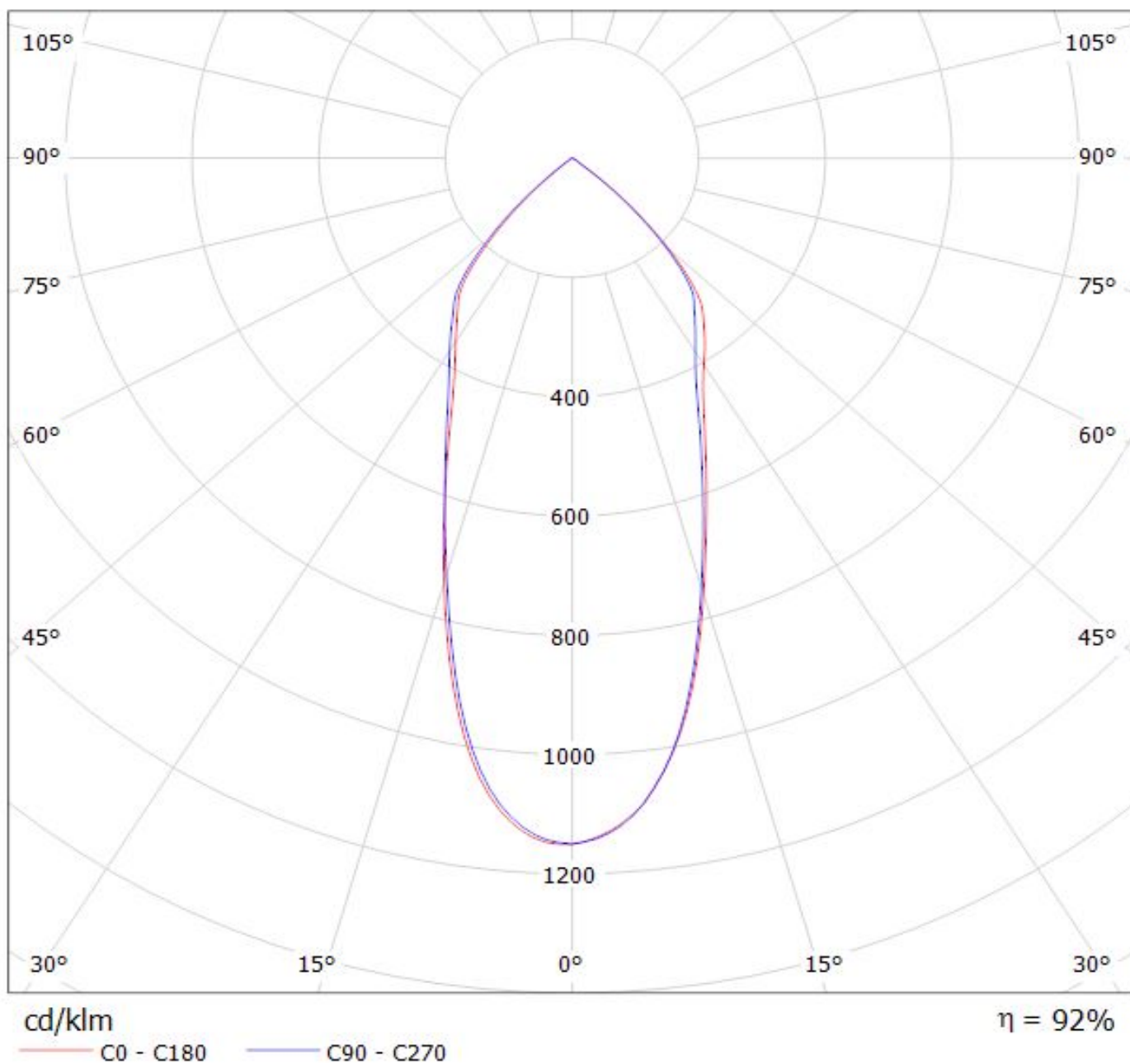
cd/klm

— C0 - C180

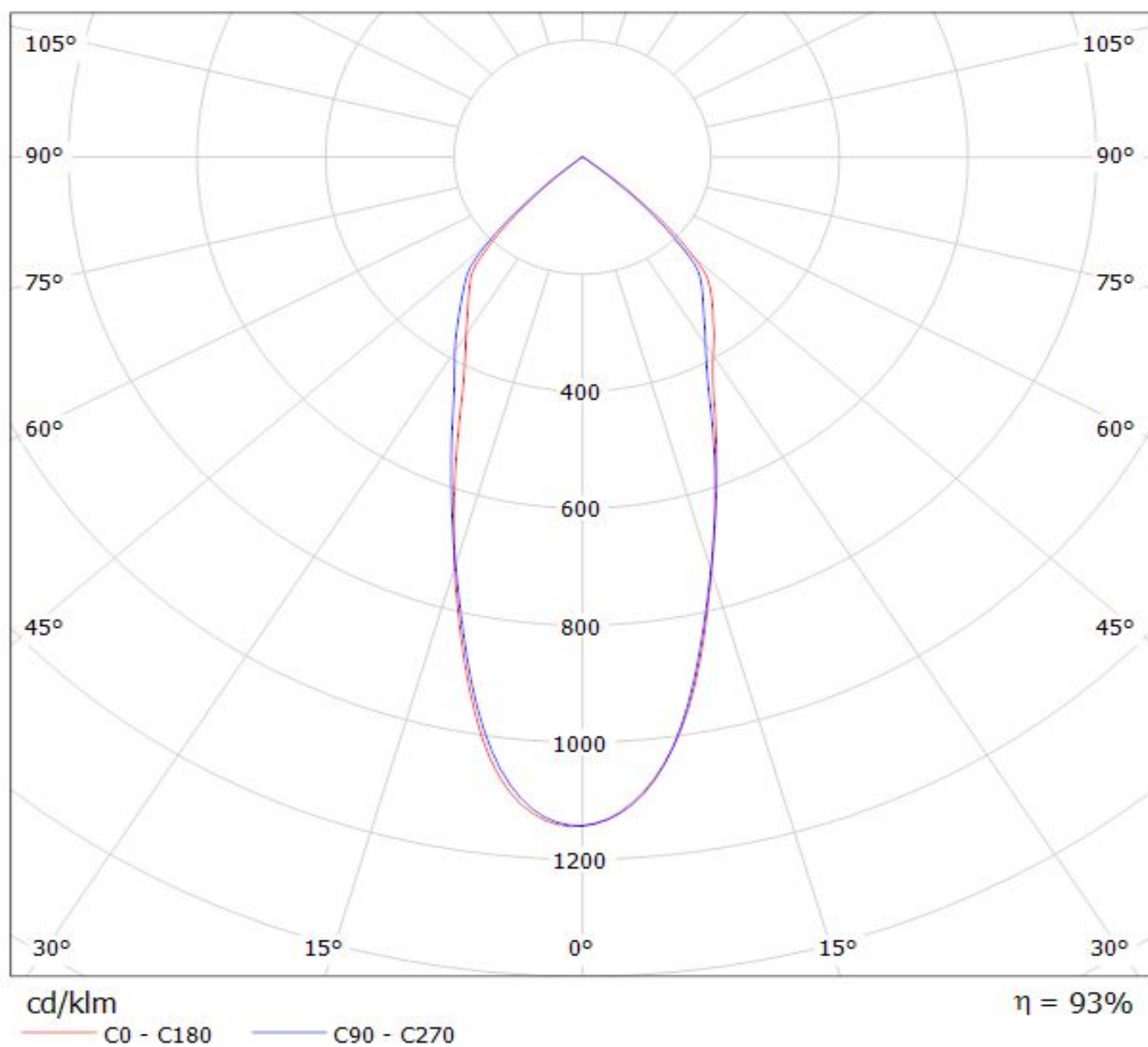
— C90 - C270

$\eta = 94\%$

Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(SLE G4 LES23)  
Lamps: 1 x Tridonic\_SLE\_G4\_LES23\_1428.75lm@250mA\_P=8.19944W\_I=0.2498A

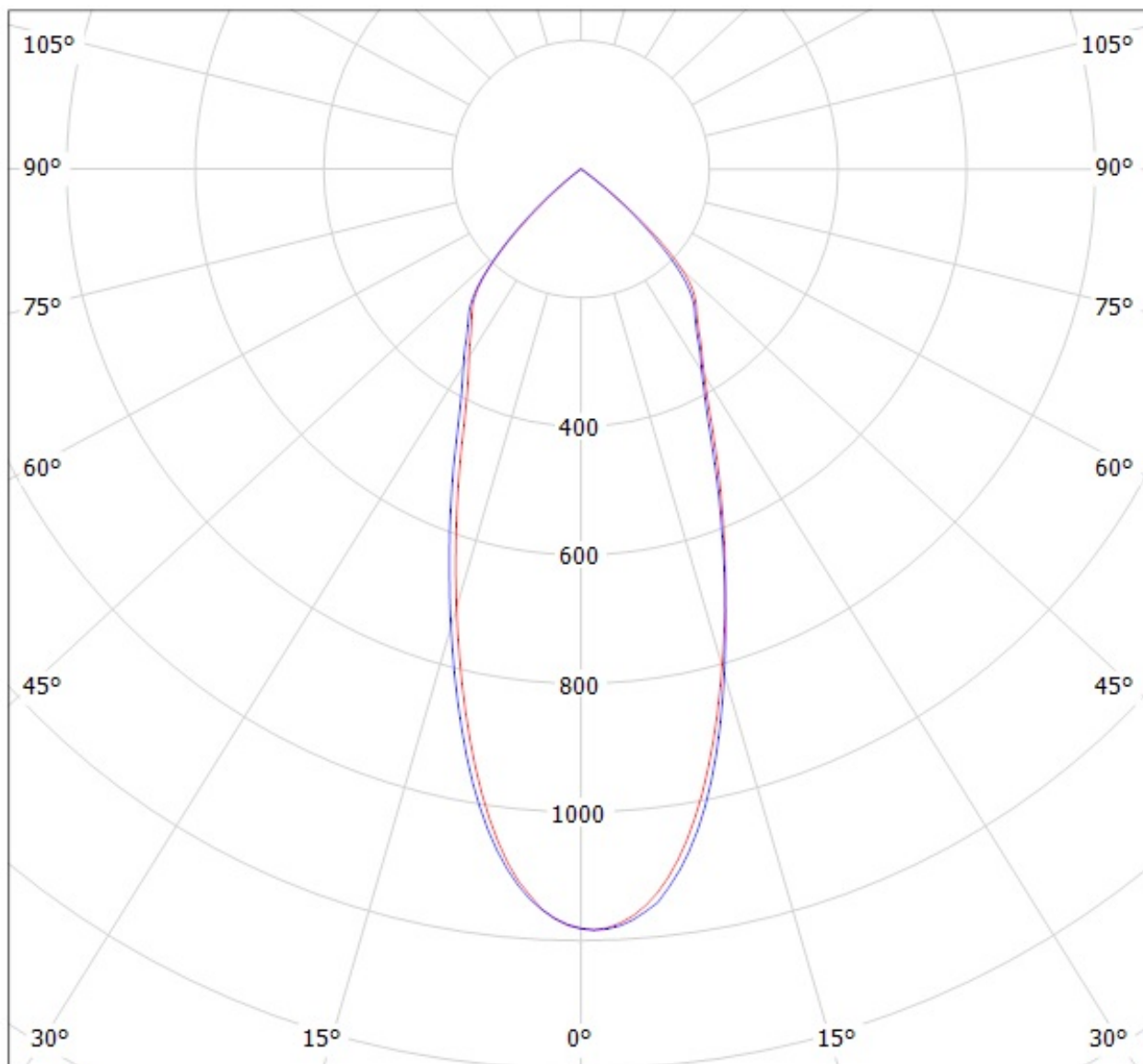


Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(CXA2590)  
Lamps: 1 x CREE\_CXA2590\_(CXA2590-30F-Z4-RPH-00001)  
\_837.275lm@100mA\_CCT=3000K\_P=6.36316W\_I=100.1mA



Luminaire: LEDiL Oy C13660\_ANGELINA-M-B\_(Soleriq-E30) Eff: 90 %

Lamps: 1 x Osram Soleriq E30 (QW KAJRB2.EM-TPTR-50H4) 1358.6lm@250mA\_P=10.2338W\_I=0.2498mA

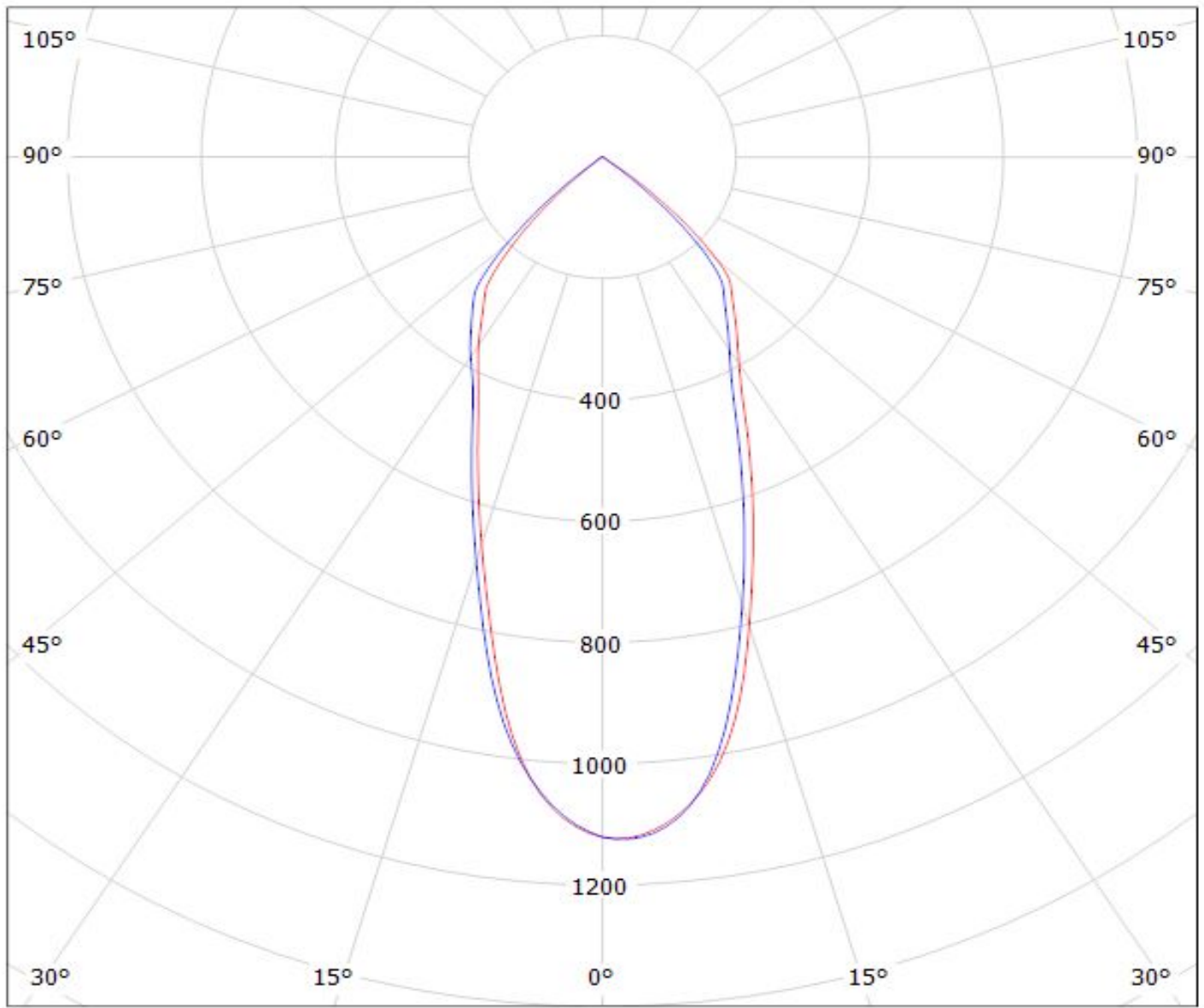


cd/klm

— C0 - C180

— C90 - C270

Luminaire: LEDiL Oy F13660\_ANGELINA-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



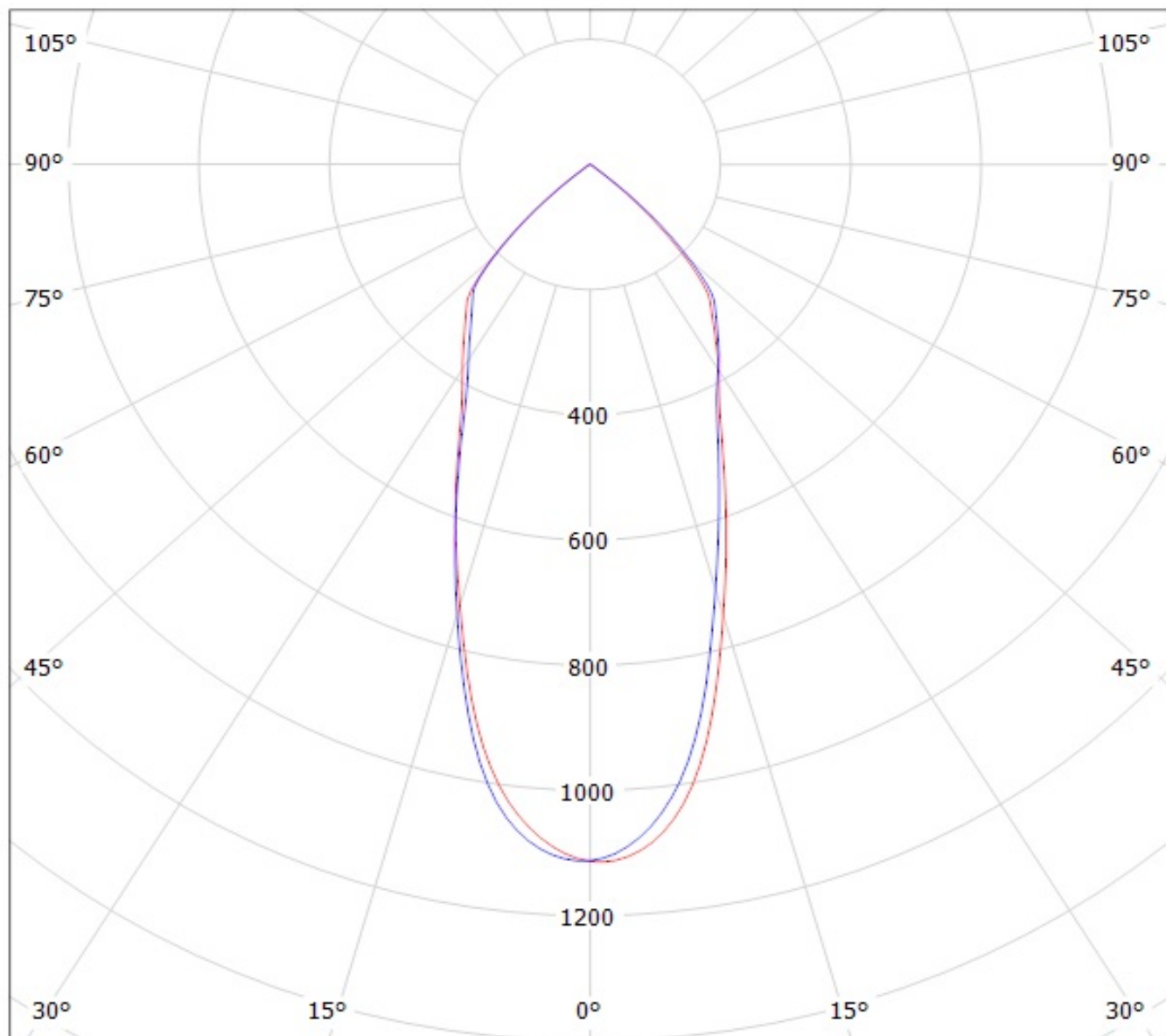
cd/klm

— C0 - C180    — C90 - C270

$\eta = 92\%$

Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(Luxeon\_CoB\_1211)\_(BJB2030) 82

Lamps: 1 x Luxeon\_CoB\_1211\_(LHC1-5780-1211)\_(BJB2030)\_1330.16lm@250mA\_P=8.03503W\_I=0.2499A



cd/klm

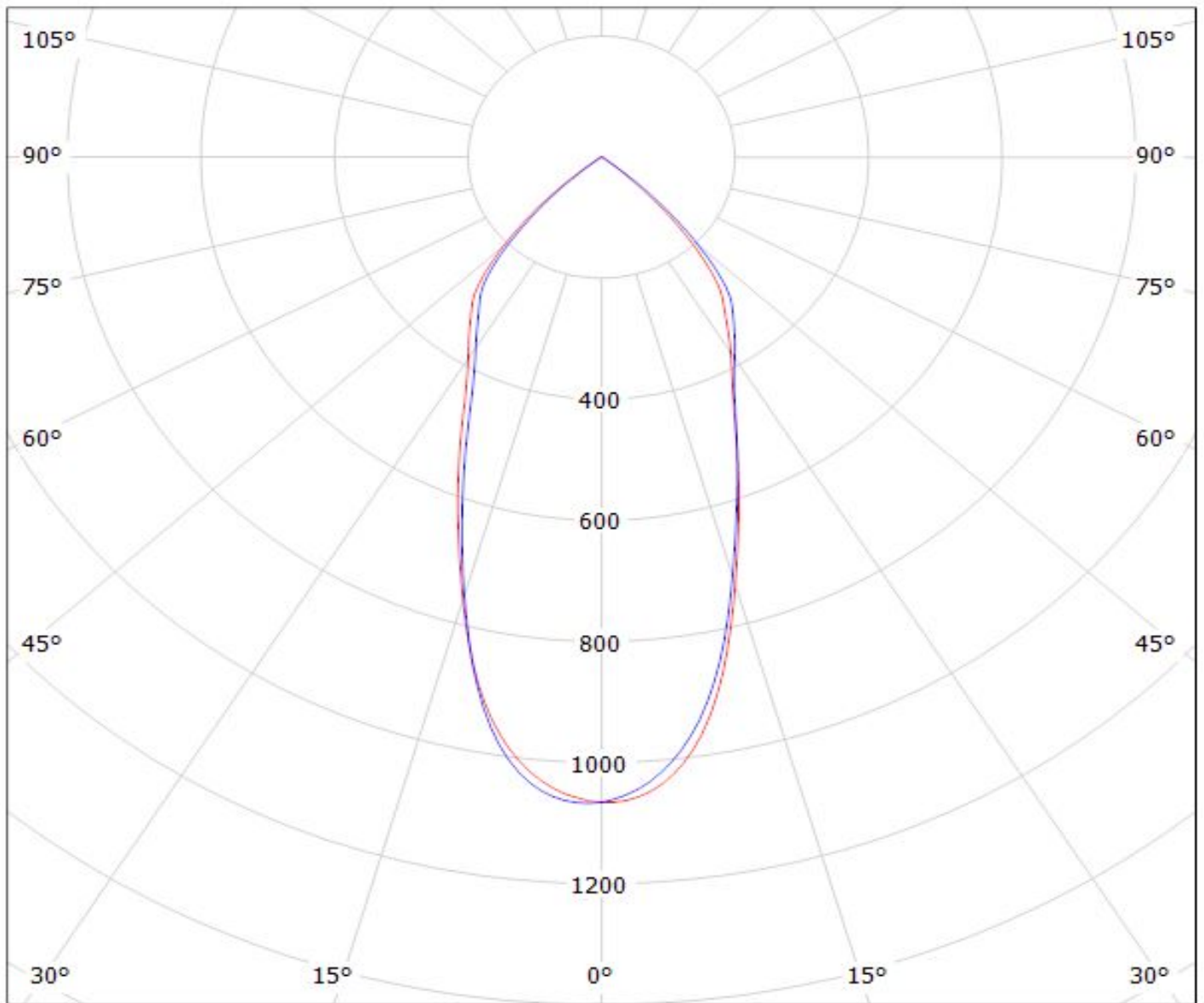
— C0 - C180

— C90 - C270

$\eta = 92\%$

Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(CXA30)

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



cd/klm

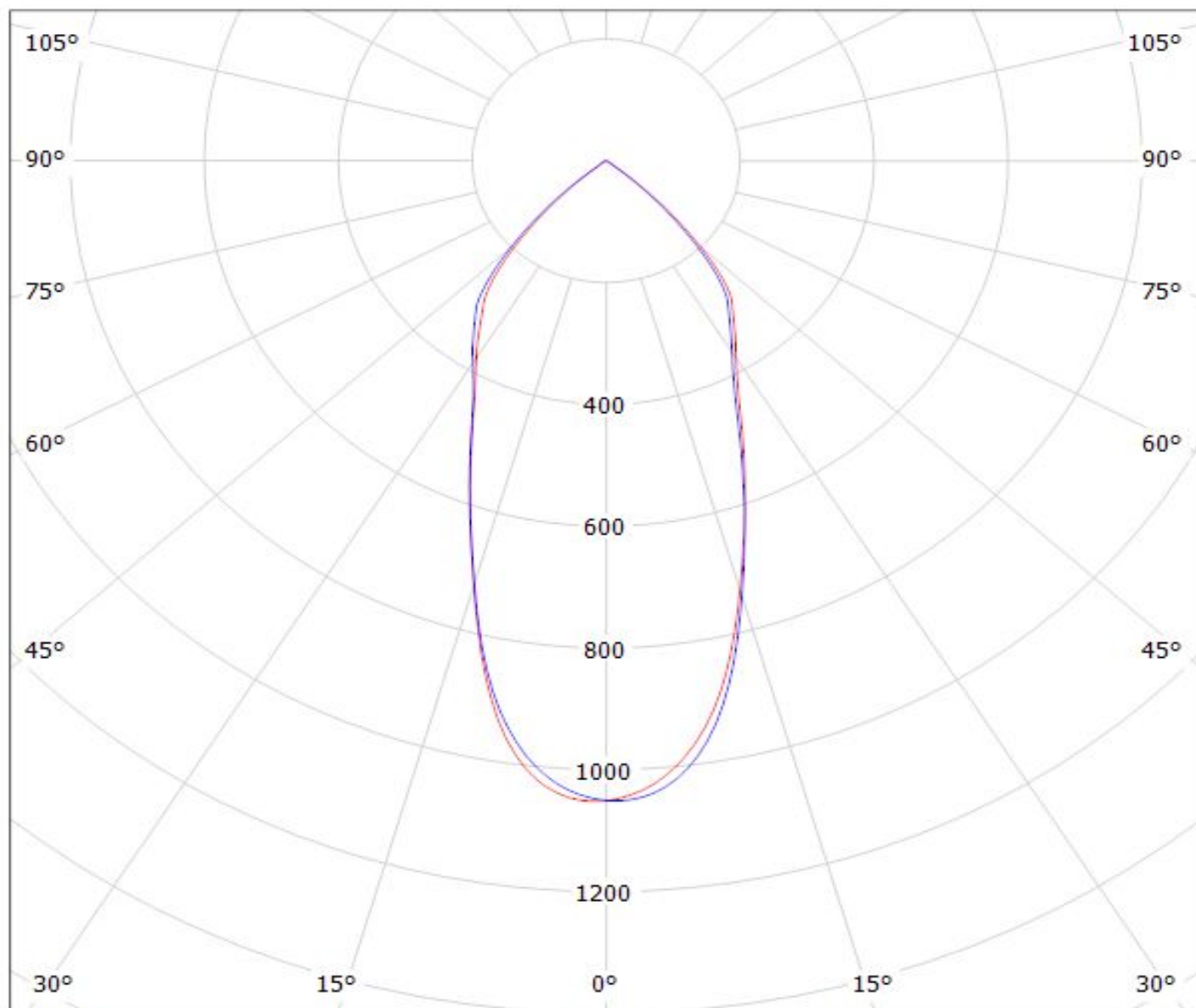
— C0 - C180

— C90 - C270

$\eta = 91\%$

Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(COB\_40W)

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



cd/klm

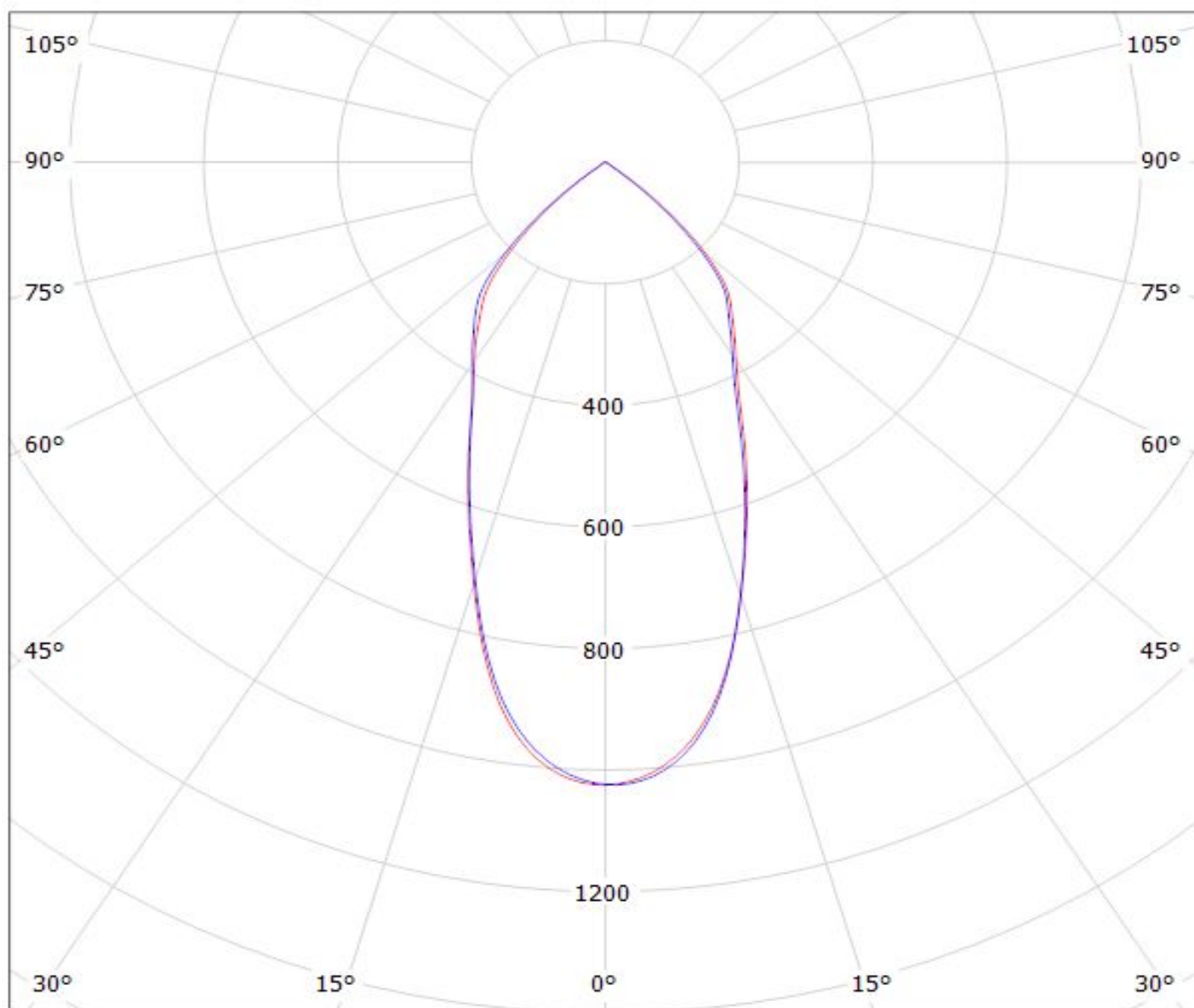
— C0 - C180

— C90 - C270

$\eta = 90\%$

Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(ZC40)

Lamps: 1 x SEOUL\_ZC40\_(SBWW5F1B)\_1185.55lm@250mA\_P=8.2384W\_I=249.8mA



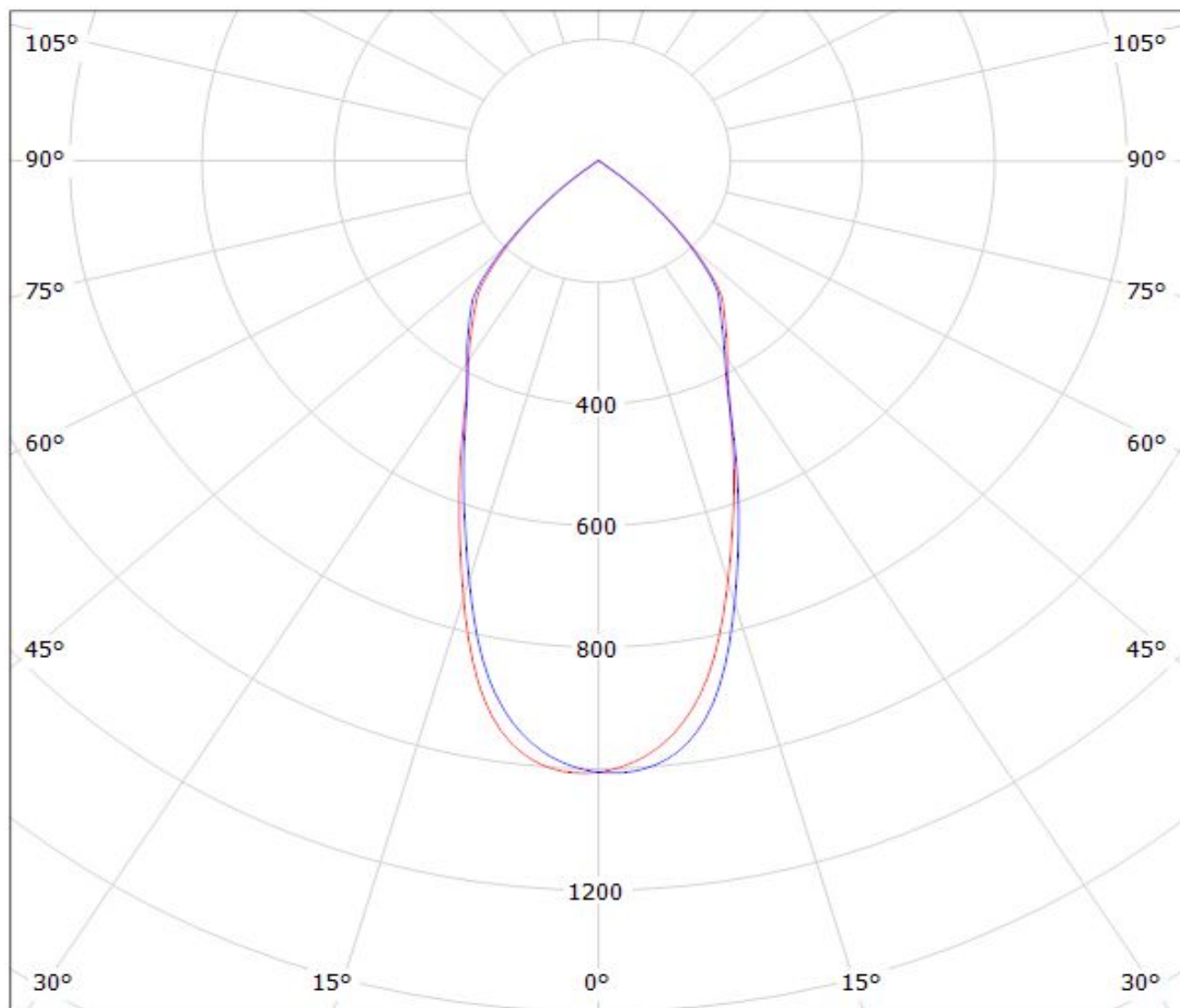
cd/klm

— C0 - C180

— C90 - C270

$\eta = 92\%$

Luminaire: LEDiL Oy F13660\_ANGELINA-M-B\_(CXM-22) Eff.91.8%  
Lamps: 1 x LUMINUS\_CXM-22\_1221.8lm@250mA\_P=8.00809W\_CCT=3000K\_I=249.8mA



cd/klm

— C0 - C180 — C90 - C270

$\eta = 92\%$

**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.