

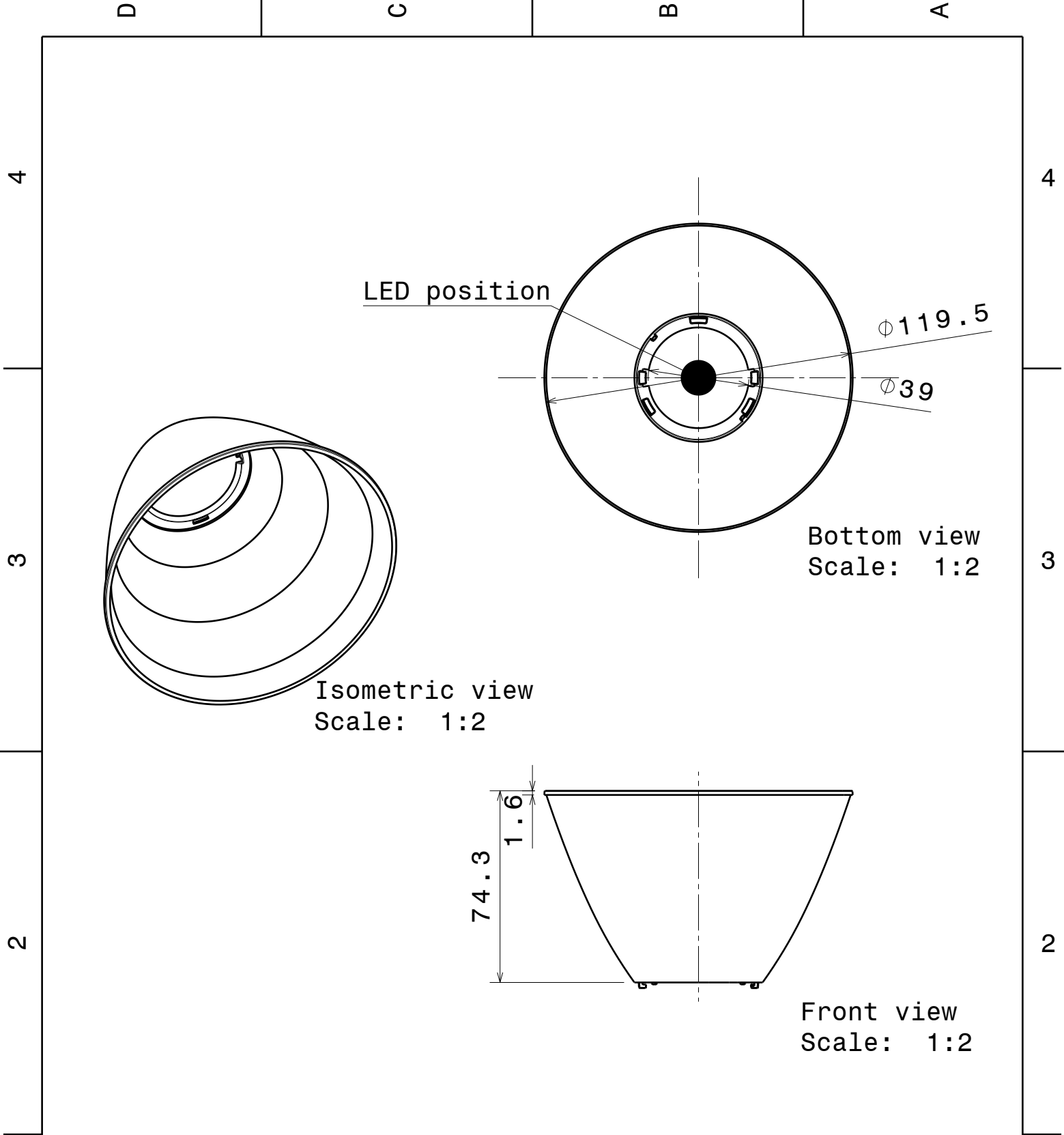
DETAILS

Product Number	F13663_ANGELA-M-B
Family	ANGELA
Type	Reflector
Color	metal
Diameter	119.5 mm
Height	74.5 mm
Style	round
Optic Material	PC
Holder Material	
Fastening	
Status	ready
ROHS Compliant	Yes
Date Updated	10/02/2015



OPTICAL PROPERTIES

LED	Viewing Angle	Light Beam	Efficiency	cd/lm	Connector
CLU730	sim: 16	Medium	sim: 91 %	7.780	BJB: Solderless Connector 47.319.2030
CLU720	14 deg	Medium	83 %	4.000	A.A.G. STUCCHI: 8101/G2
CLU720	14 deg	Medium	82 %	4.200	BJB: Solderless Connector 47.319.2021
Soleriq S13	15 deg	Medium	83 %	4.000	A.A.G. STUCCHI: 8502/G2
Soleriq P13	16 deg	Medium	83 %	3.760	A.A.G. STUCCHI: 8502/G2
LUXEON CoB 1204/1205	16 deg	Medium	82 %	3.840	A.A.G. STUCCHI: 8301/G2
COB 10W/13W/17W/24W	16 deg	Medium	82 %	3.800	A.A.G. STUCCHI: 8600/G2
CLL03x/CLU034	16 deg	Medium	83 %	3.630	A.A.G. STUCCHI: 8101/G2
ZC12/18	16 deg	Medium	82 %	3.770	A.A.G. STUCCHI: 8101/G2
CXM-14	16 deg	Medium	82 %	3.900	BJB: Solderless Connector 47.319.2021
COB 10W/13W/17W/24W	16 deg	Medium	83 %	3.900	BJB: Solderless Connector 47.319.2080
BXRA ES Rectangle	16 deg	Medium	82 %	3.690	BJB: Solderless Connector 47.319.2040
CLL03x/CLU034	16 deg	Medium	83 %	3.800	BJB: Solderless Connector 47.319.2021
Mega Zenigata (GW6DME)	17 deg	Medium	83 %	3.560	A.A.G. STUCCHI: 8301/G2
Soleriq S19	17 deg	Medium	83 %	3.400	A.A.G. STUCCHI: 8503/G2
STARK SLE PURE G3 LES17	17 deg	Medium	82 %	3.450	A.A.G. STUCCHI: 8101/G2
Mega Zenigata (GW6DME)	17 deg	Medium	84 %	3.700	BJB: Solderless Connector 47.319.2011
LUXEON K16	17 deg	Medium	87 %	3.700	BJB: Solderless Connector 47.319.2070
LUXEON K12	17 deg	Medium	87 %	3.700	BJB: Solderless Connector 47.319.2070
LUXEON CoB 1208	17 deg	Medium	83 %	3.500	A.A.G. STUCCHI: 8301/G2
SLE G4 LES19 H	17 deg	Medium	81 %	3.400	-
CXA/B 25xx	18 deg	Medium	82 %	3.180	A.A.G. STUCCHI: 8401/G2
Soleriq S19	18 deg	Medium	83 %	3.380	BJB: Solderless Connector 47.319.2170
LUXEON CoB 1211	19 deg	Medium	80 %	3.000	BJB: Solderless Connector 47.319.2030
LUXEON CoB 1211	19 deg	Medium	81 %	3.060	A.A.G. STUCCHI: 8102/G2

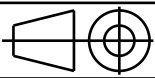


Tolerances if not otherwise shown
According to DIN ISO 2768-1
Linear measures:
Up to 30mm class M, otherwise class C.
According to DIN ISO 2768-2
Form and position: class L



Ledil Oy
Salorankatu 10
FIN 24240 SALO
Finland

THIRD ANGLE PROJECTION:



DRAWING TITLE

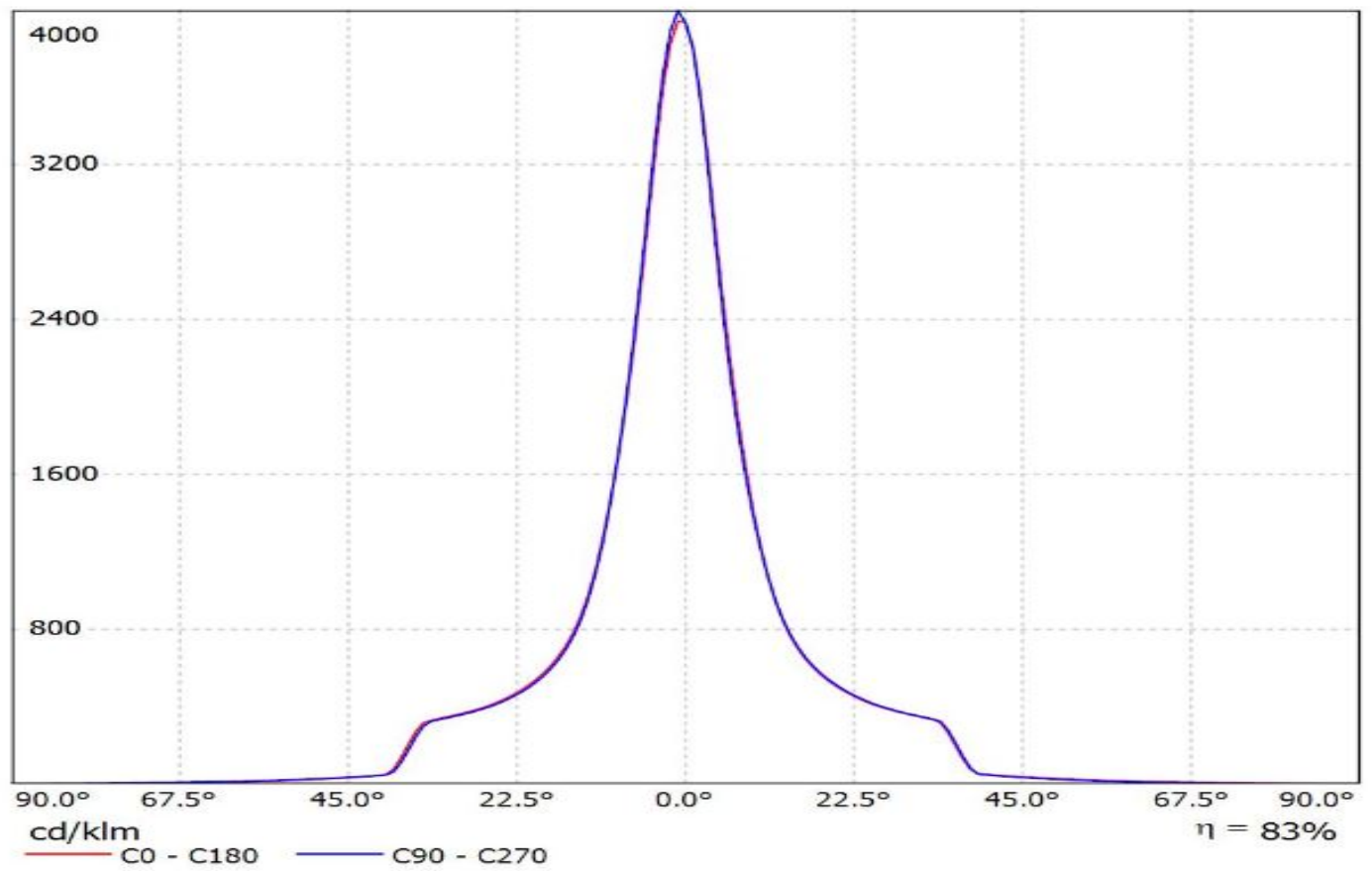
Angela-B

This drawing is the property
of LEDiL Oy. It may not be
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agreement with LEDiL Oy."

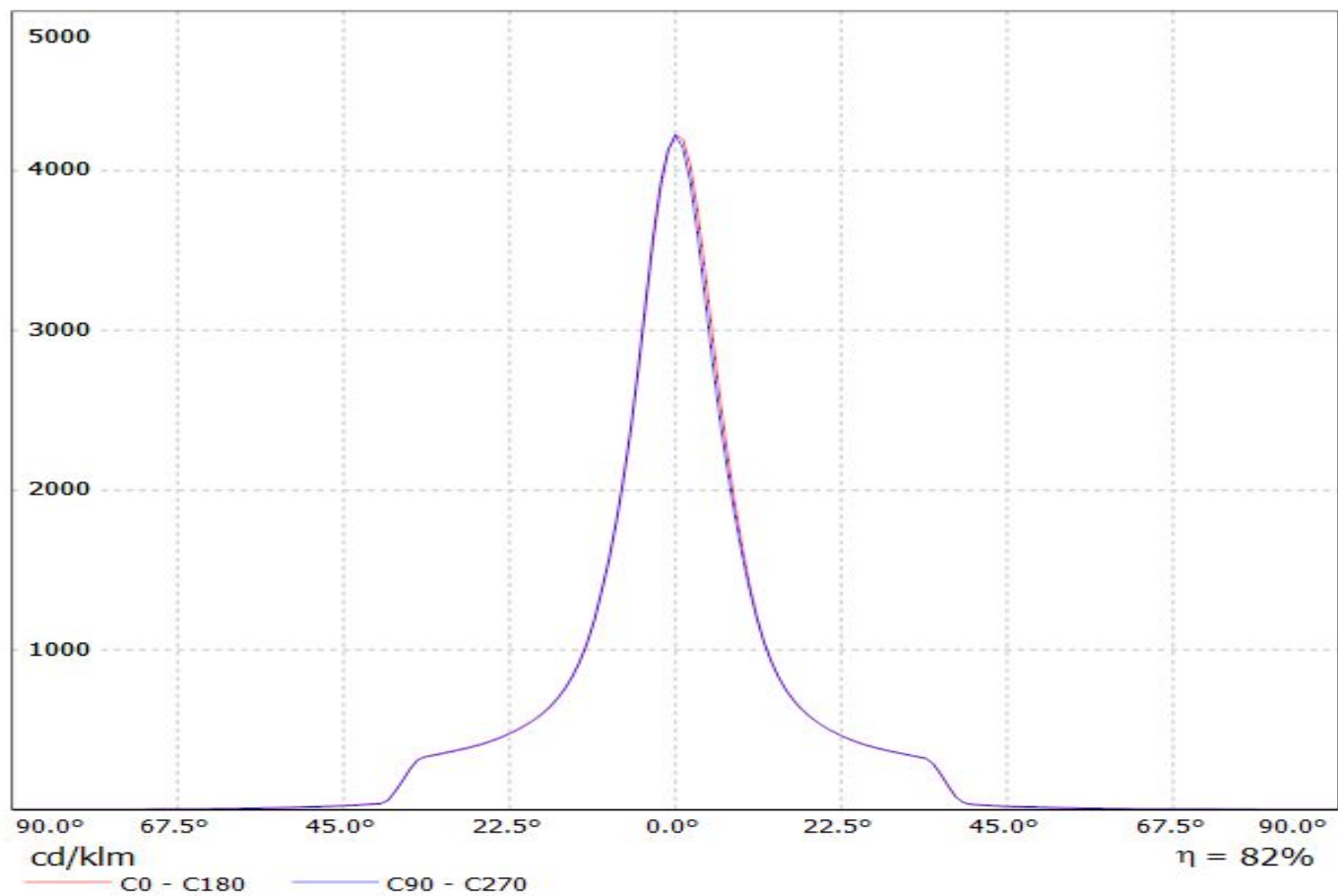
SIZE	PART NUMBER
A4	-

SCALE	1:2	WEIGHT	-	SHEET	1 / 1
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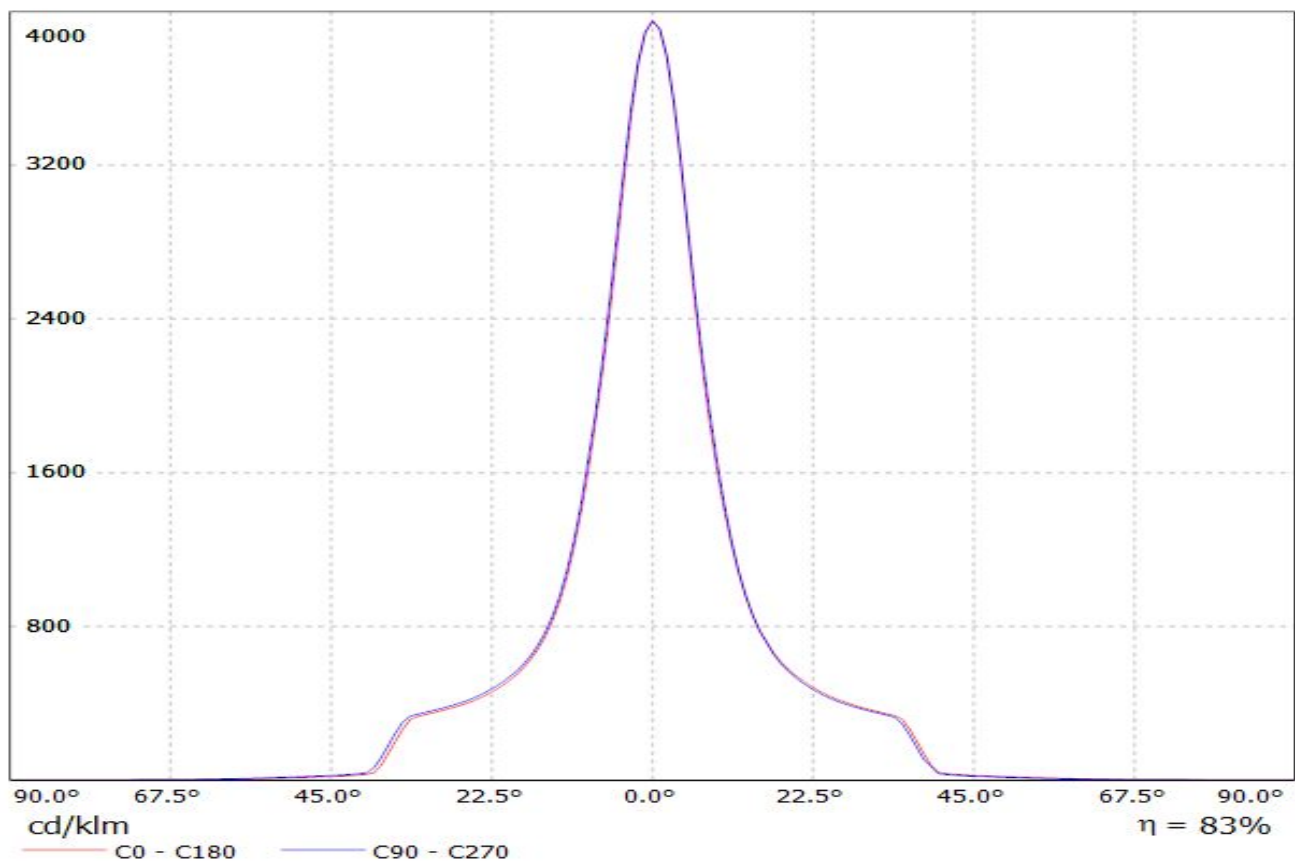
Luminaire: Ledil F13663_ANGELA-M-B_(CITIZEN_CLU720)
Lamps: 1 x CITIZEN_CLU720_(CLU720-1206B8-273M2)
_1320.42lm@250mA_CCT=2700K_P=8.35W_I=0.25A



Luminaire: LEDiL Oy F13663_ANGELA-M-B_(CITIZEN_CLU720)
Lamps: 1 x CITIZEN_CLU720_(BJB: 47.319.2020)_1214.68lm@250mA_CCT=2700K_P=8.31842W_I=0.25A

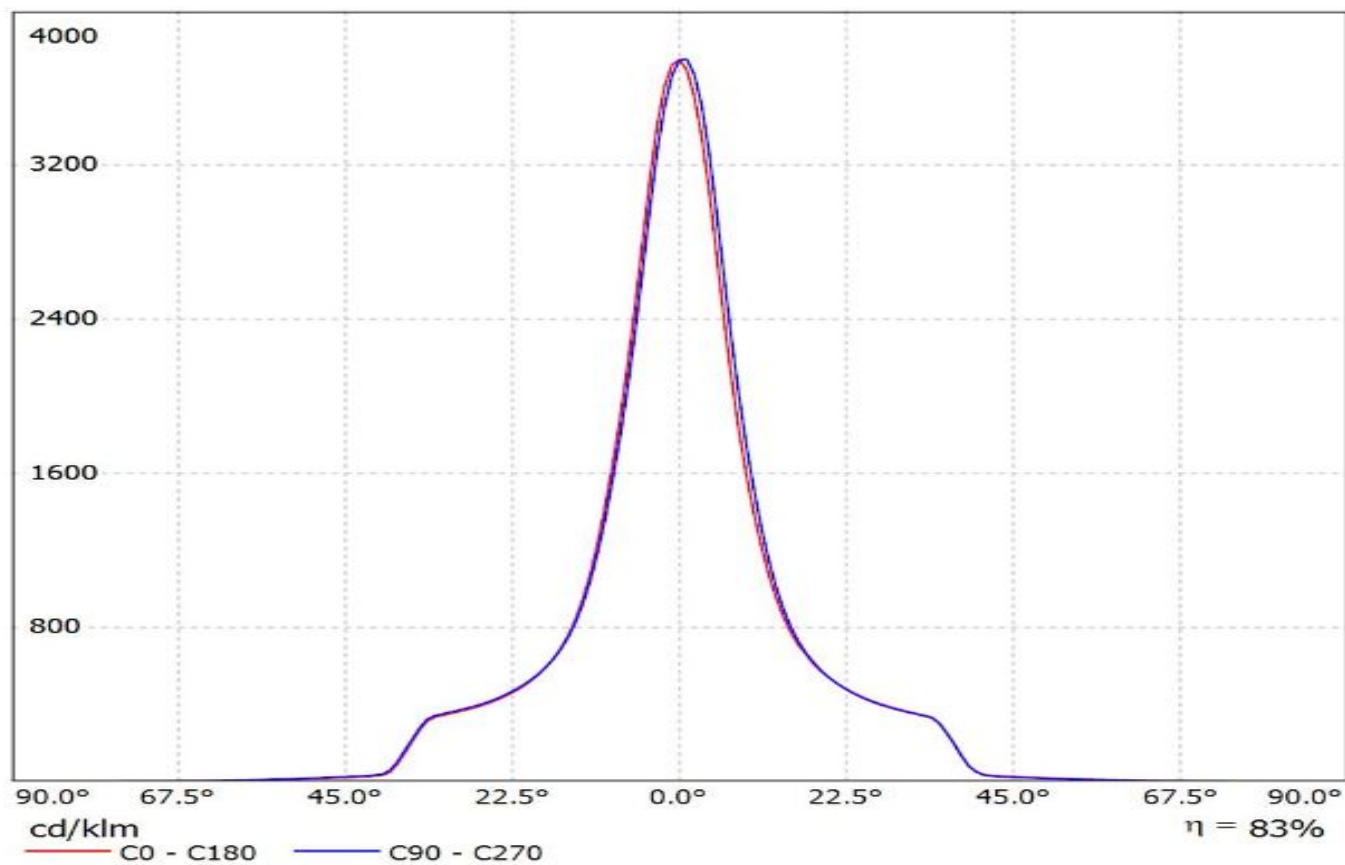


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(S13) Eff.83.2%
Lamps: 1 x Osram_Solericq_S13_901.003lm@250mA_P=7.48151W_I=249.9mA



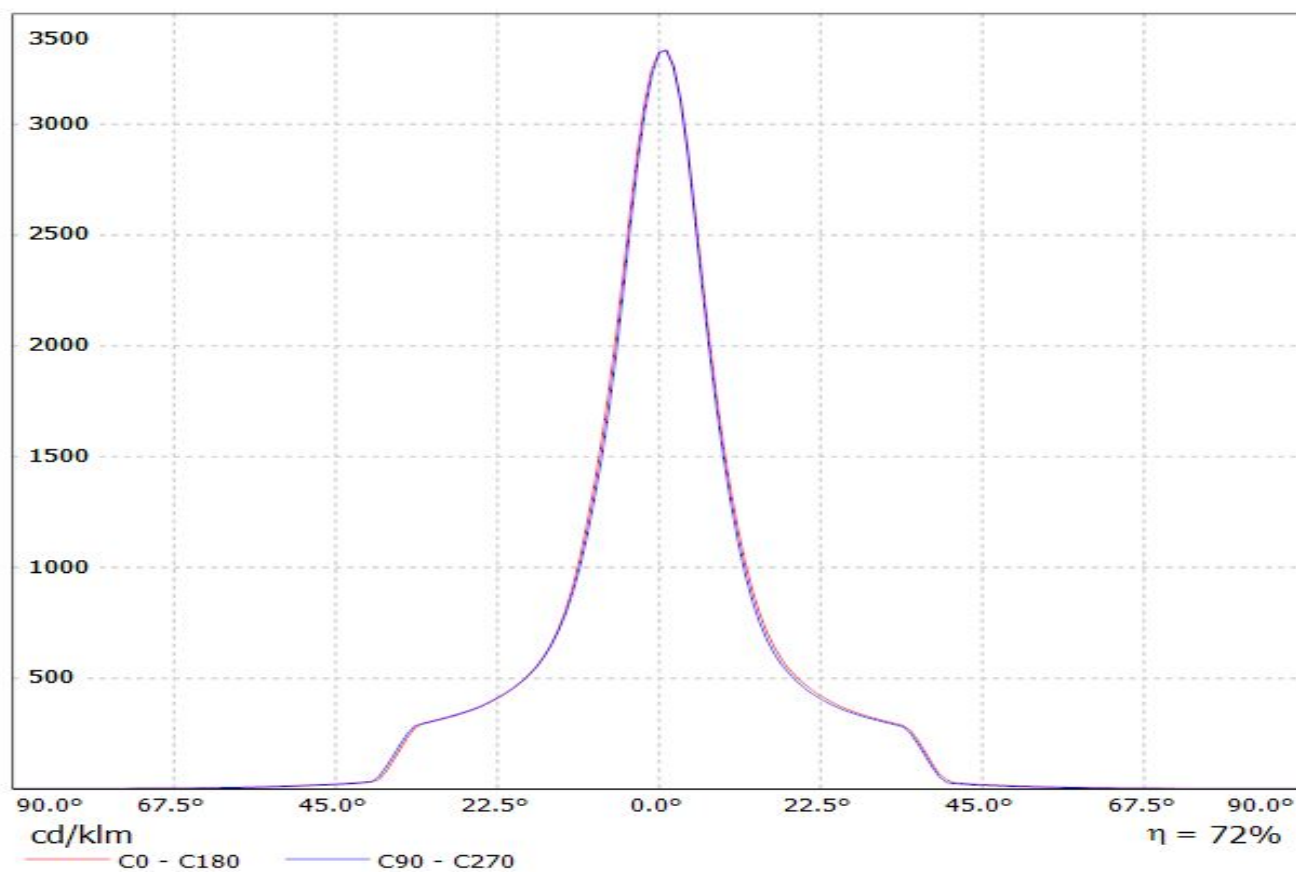
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(SOLERIQ_P13)

Lamps: 1 x SOLERIQ_P13_(GW_MAGMB1.EM)_1053.65lm@250mA_CCT=3000K_P=8.82044W_I=249.8mA

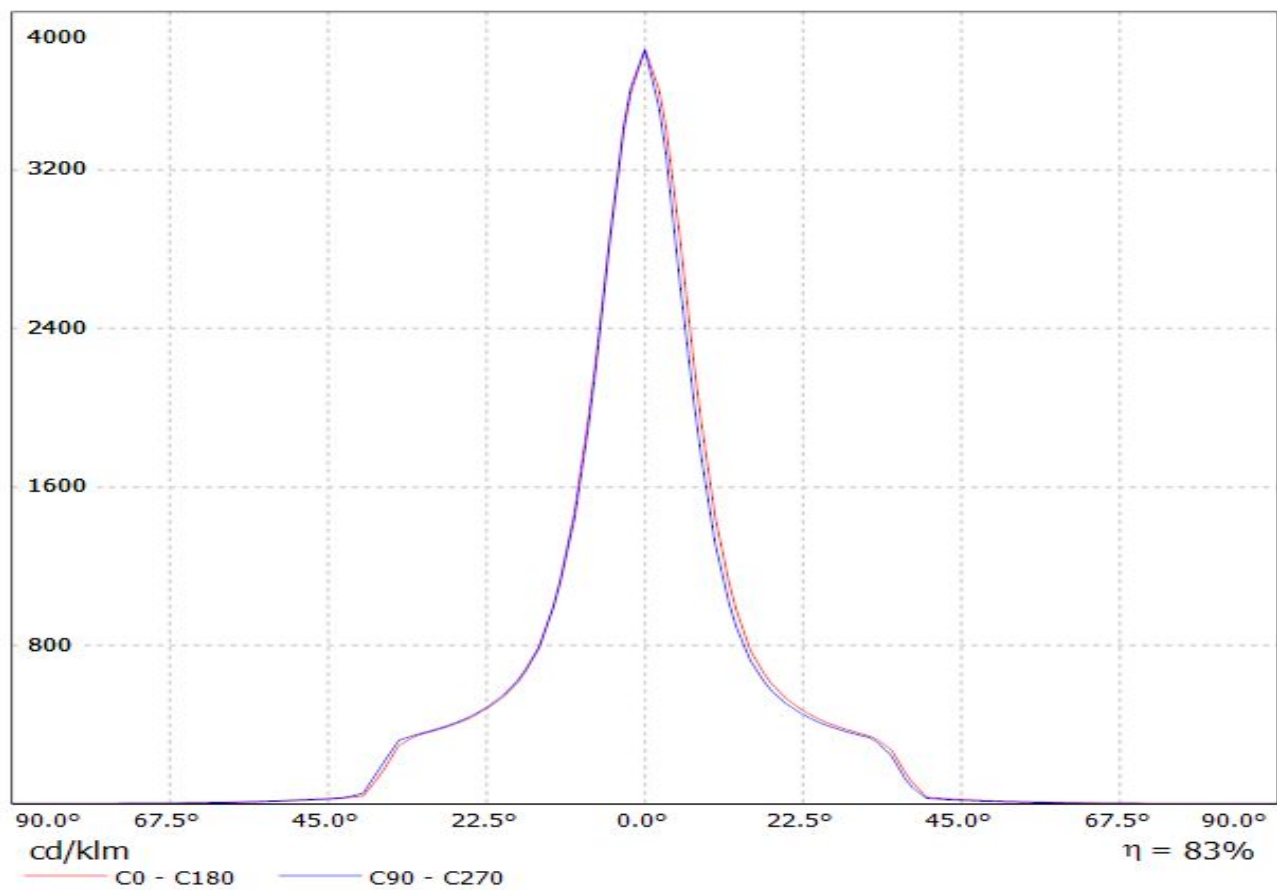


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(Luxeon_CoB_1205)

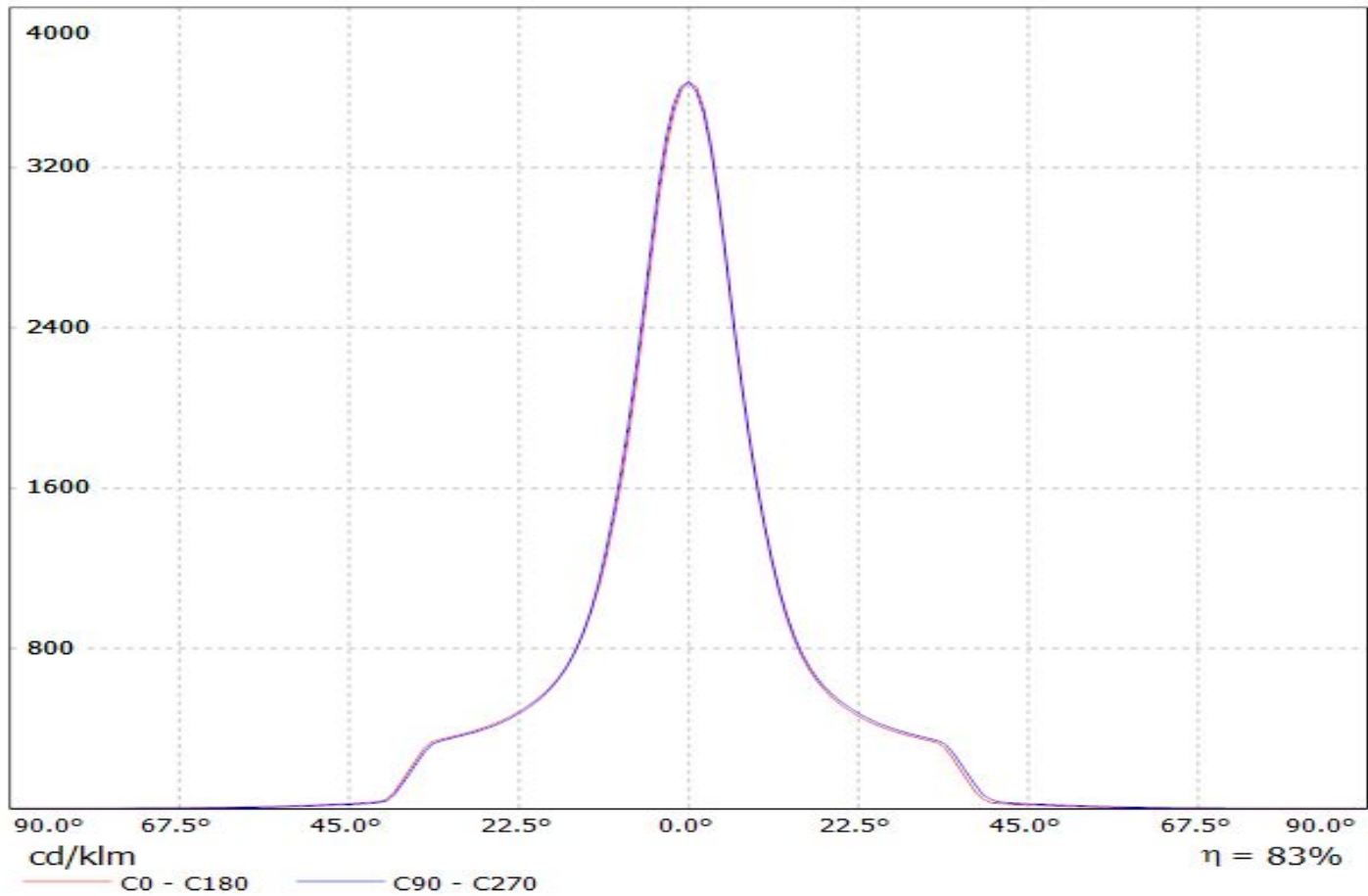
Lamps: 1 x LUXEON_COB_1205_(LHC1-3080-1205)_1274.35lm@250mA_CCT=3000K_P=11.183W_I=249.8mA



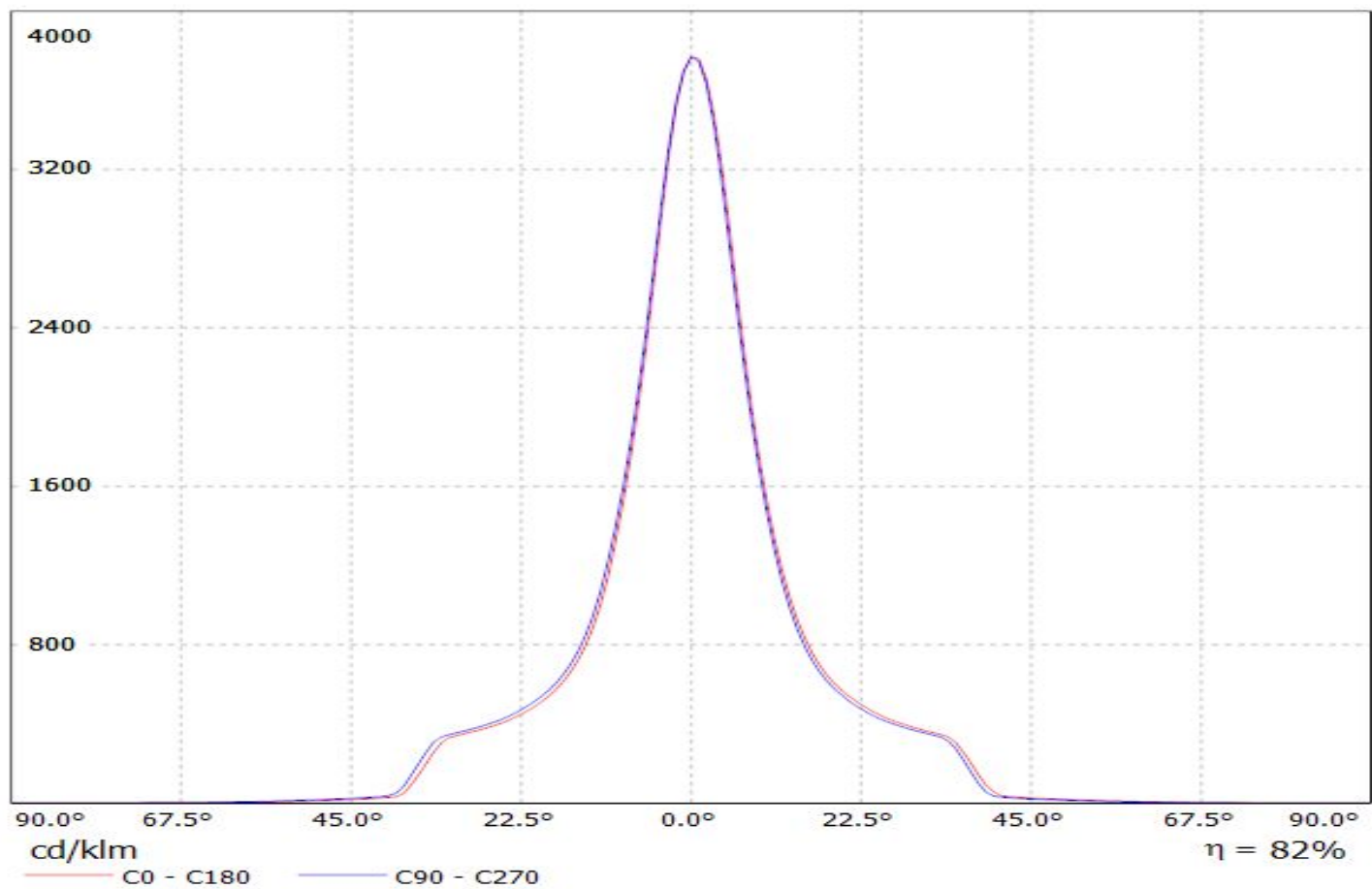
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(LG_COB_10W)
Lamps: 1 x LG_COB_10W_(LEMWM18580LG00)_917.757lm@250mA_P=9.31304W_I=249.8mA



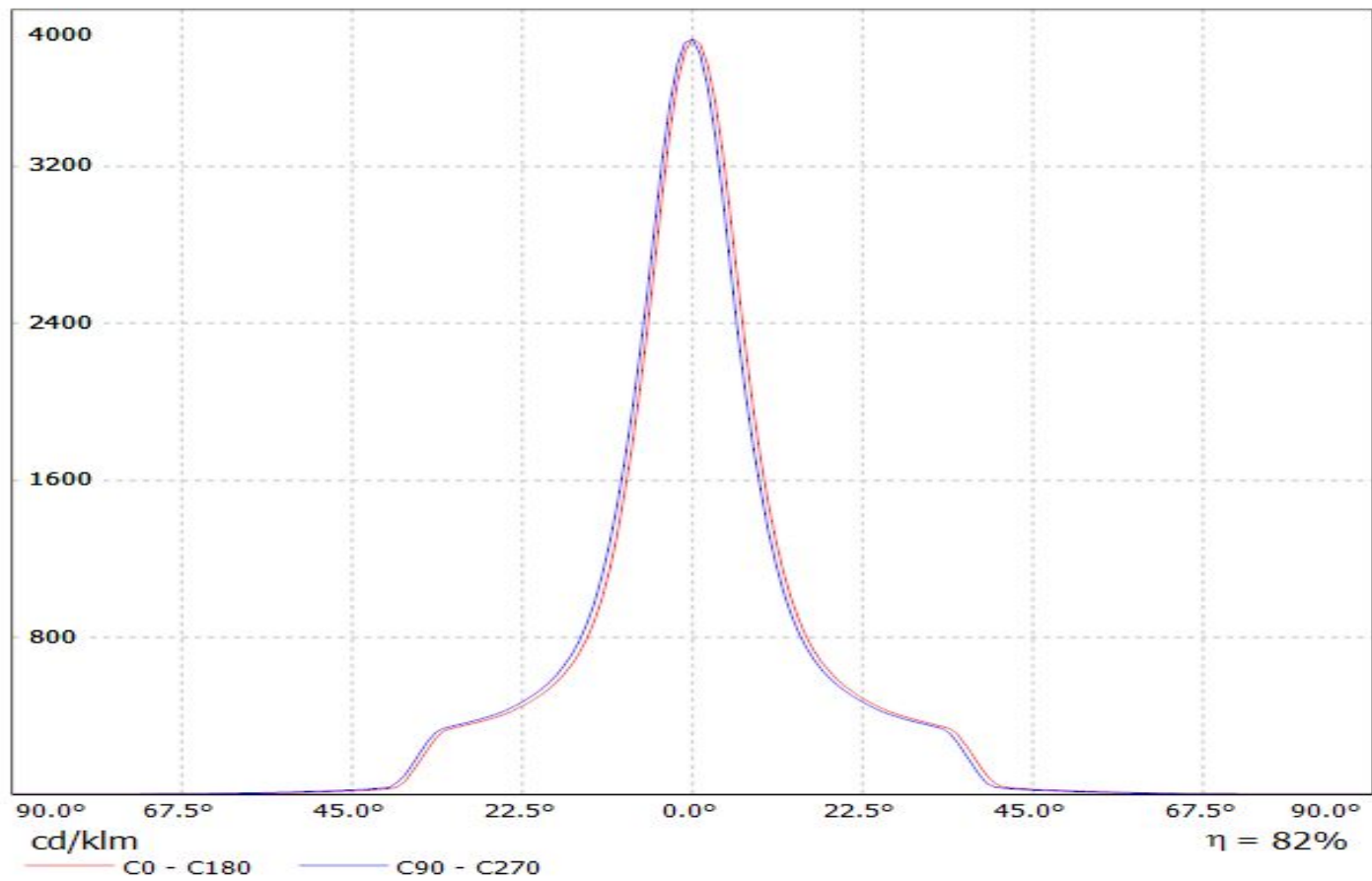
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(CLU034)
Lamps: 1 x Citizen_CLU034_(CLU034-1205B8-303M1A2)_1159.11lm@250mA_P=8.46586W_I=249.9mA



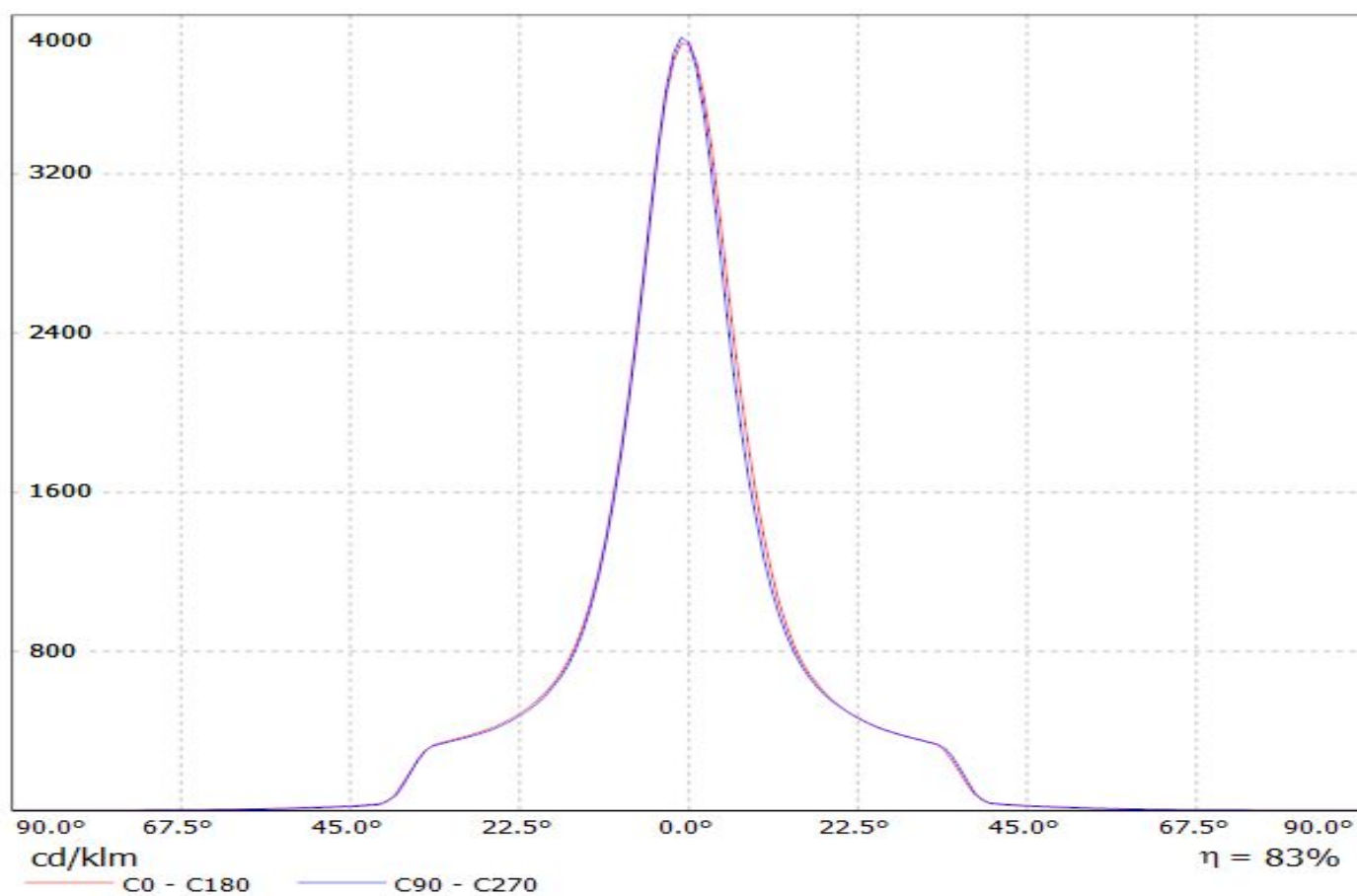
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(ZC12)
Lamps: 1 x SEOUL_ZC12_(SDW82F1C)_1240.73lm@250mA_P=8.68405W_I=249.8mA



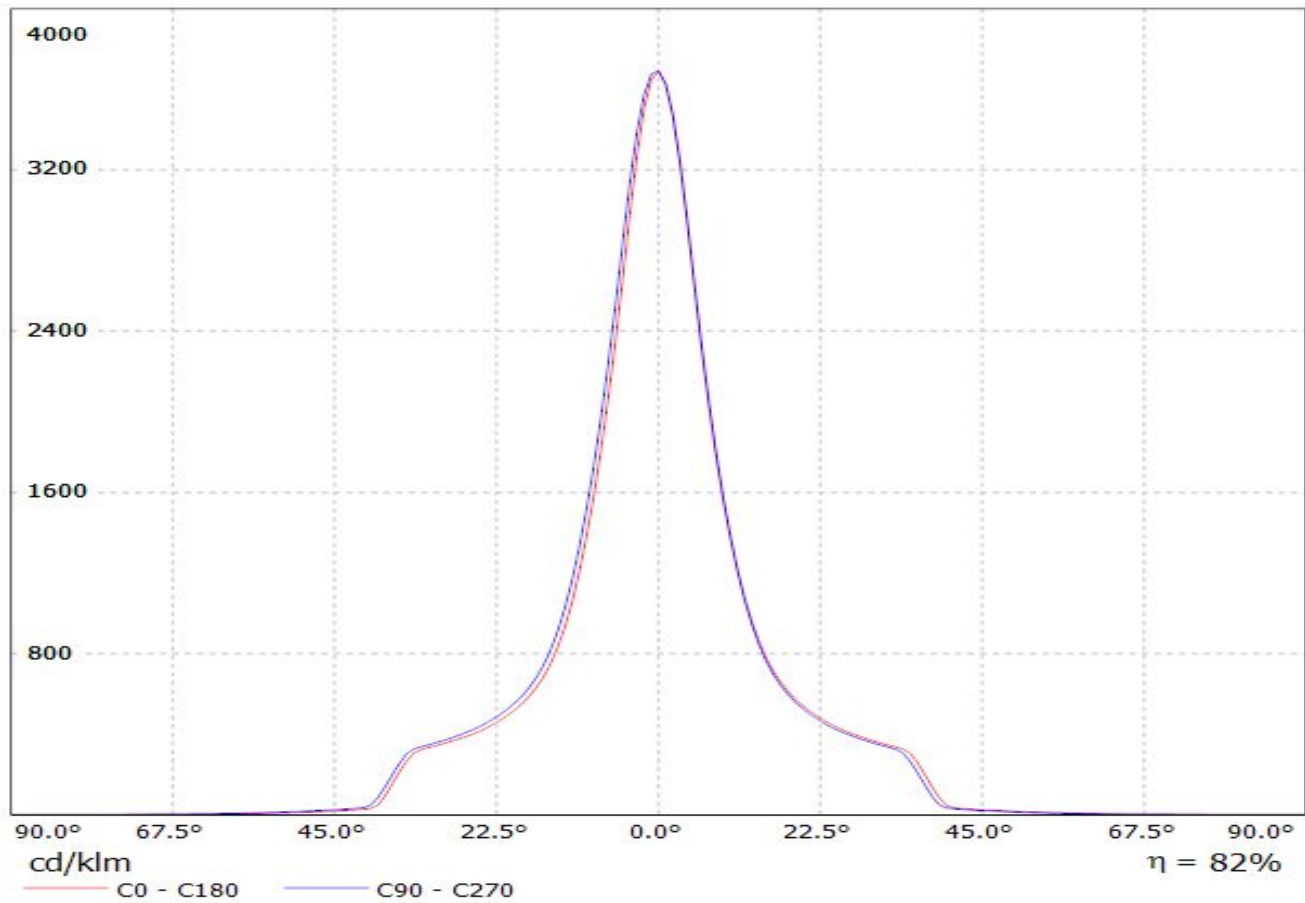
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(CXM-14)
Lamps: 1 x LUMINUS_XNOVA_CXM-14_(AC00)
_1049.18lm@250mA_CCT=3126K_P=8.31834W_I=249.8mA



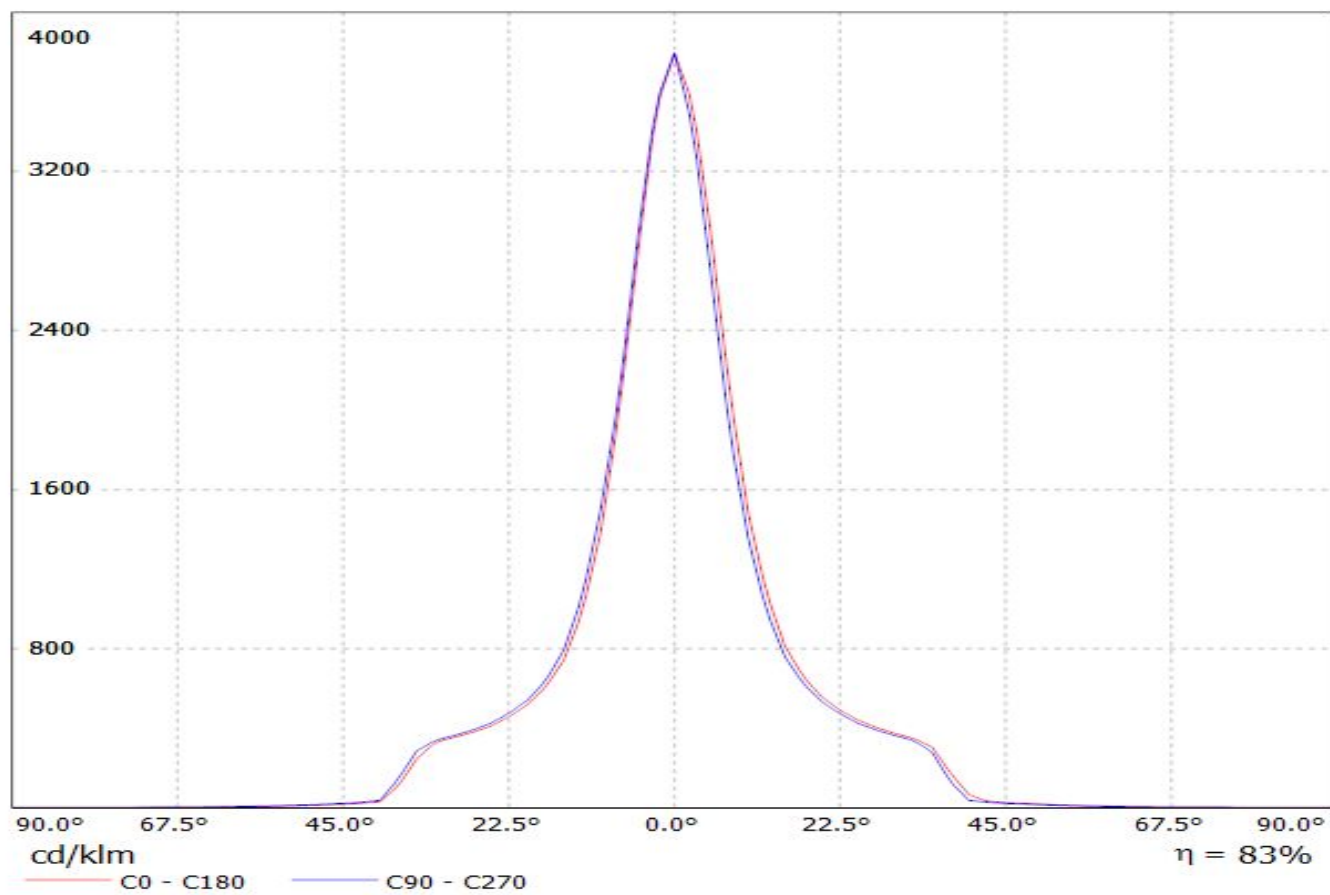
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(COB-10W) Eff.83.2%
Lamps: 1 x LG_COB-10W_1065.85lm@250mA_CCT=5090K_P=9.10871W_I=249.8mA



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

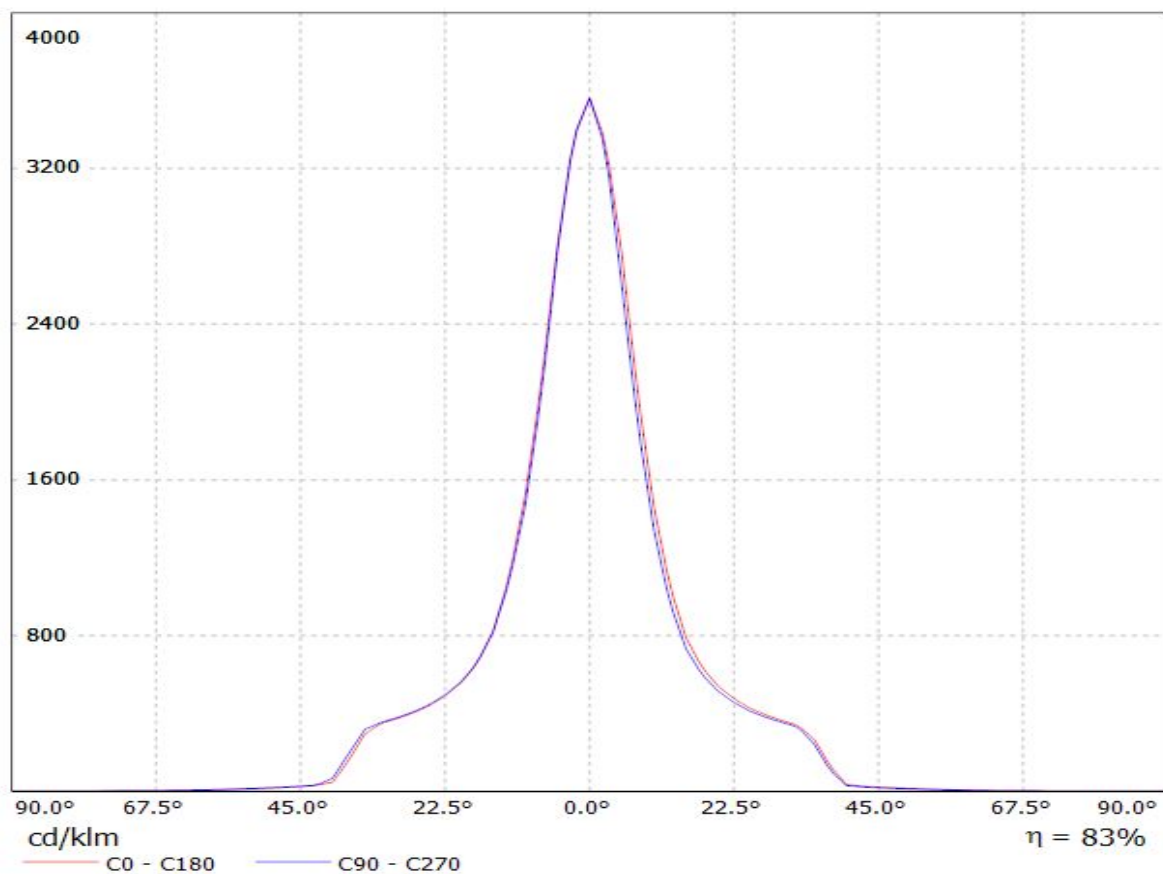


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(CLL030) Eff.82.7%
Lamps: 1 x Citizen_CLL030_1040.57lm@250mA_P=8.45923W_I=249.8mA

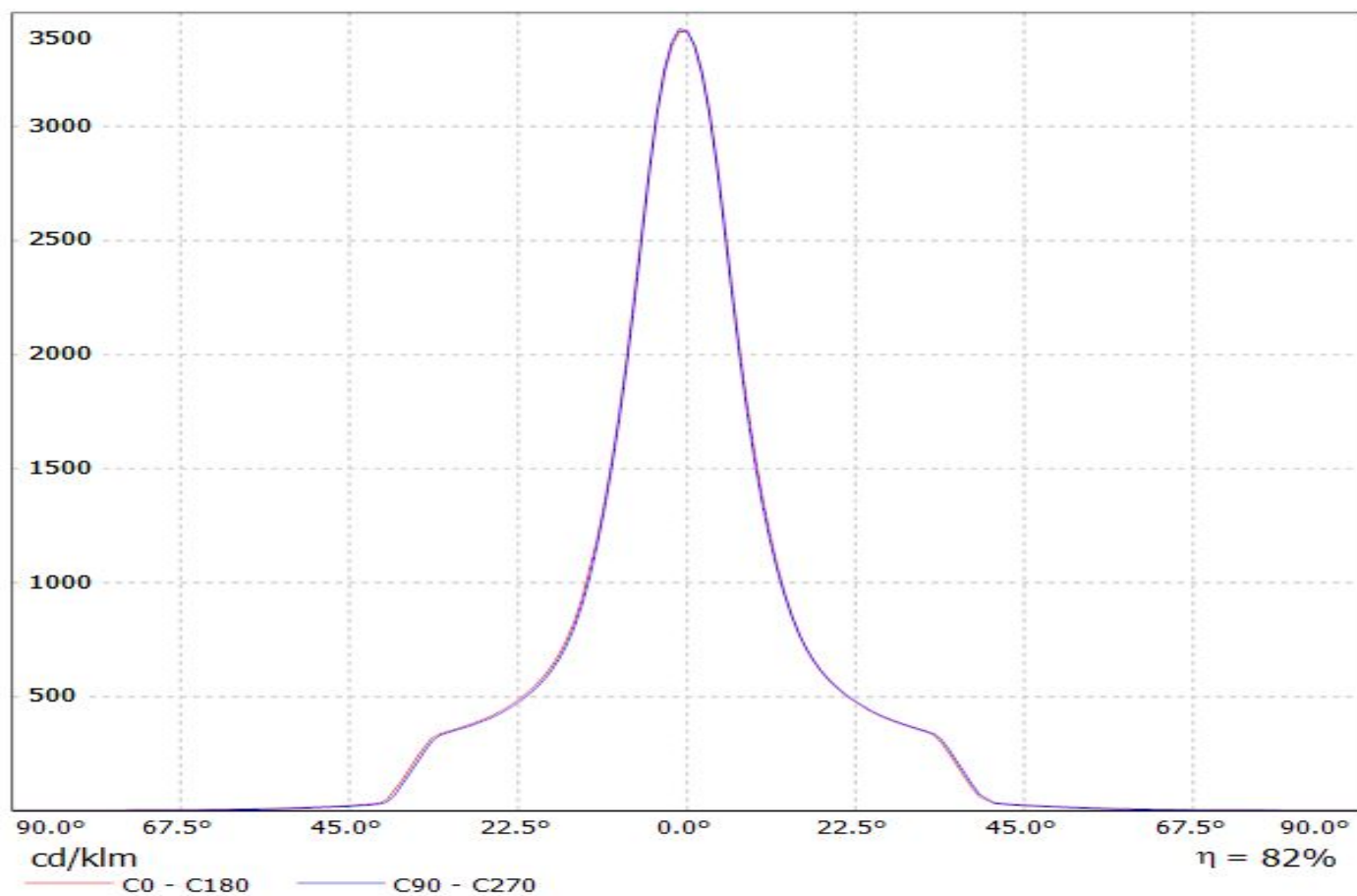


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(MegaZenigata_GW6)

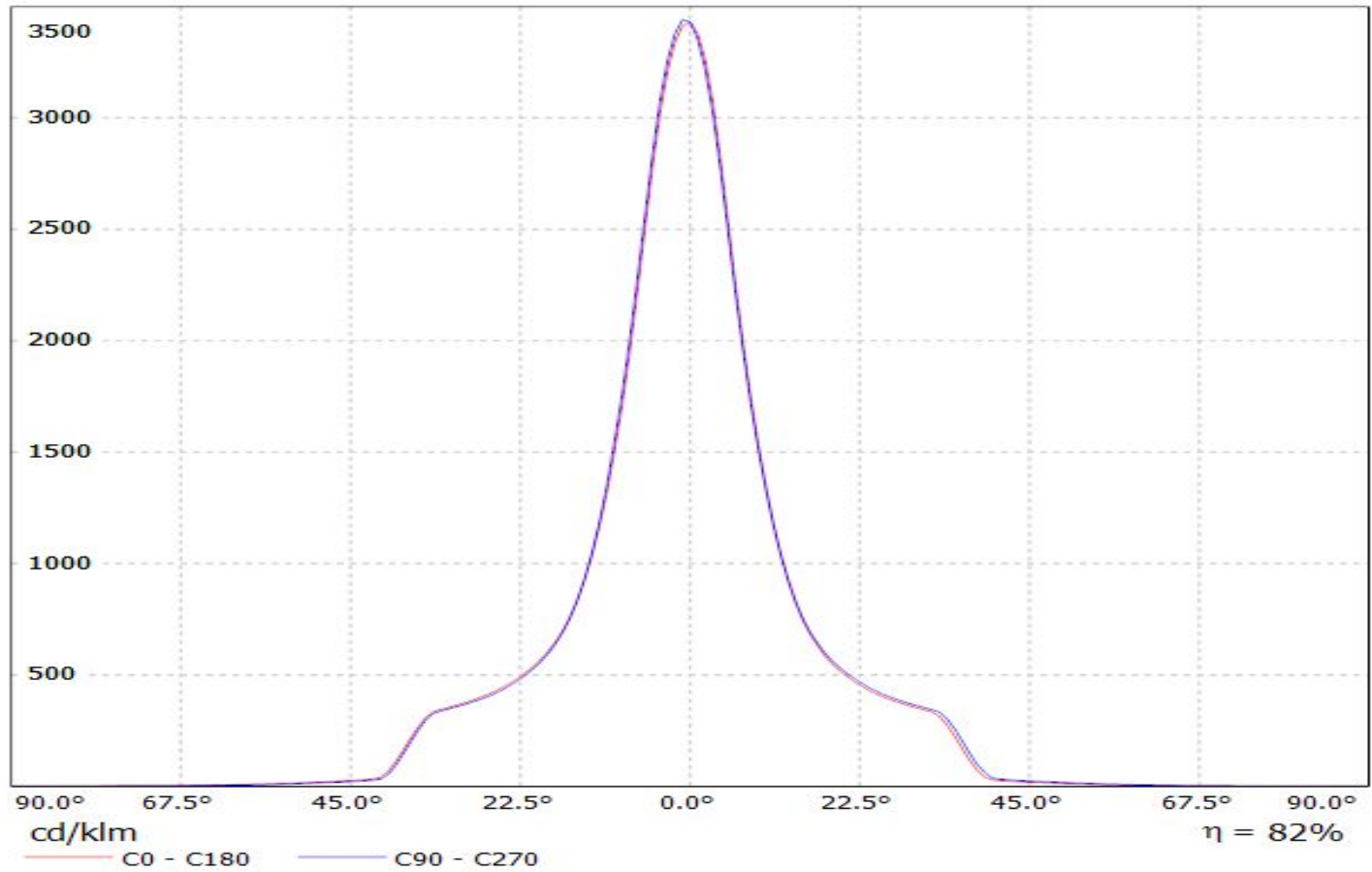
Lamps: 1 x Sharp_MegaZenigata_GW6_(GW6DME30NFC)_1266.19lm@250mA_CCT=3038K_P=11.2151W_I=250.6mA



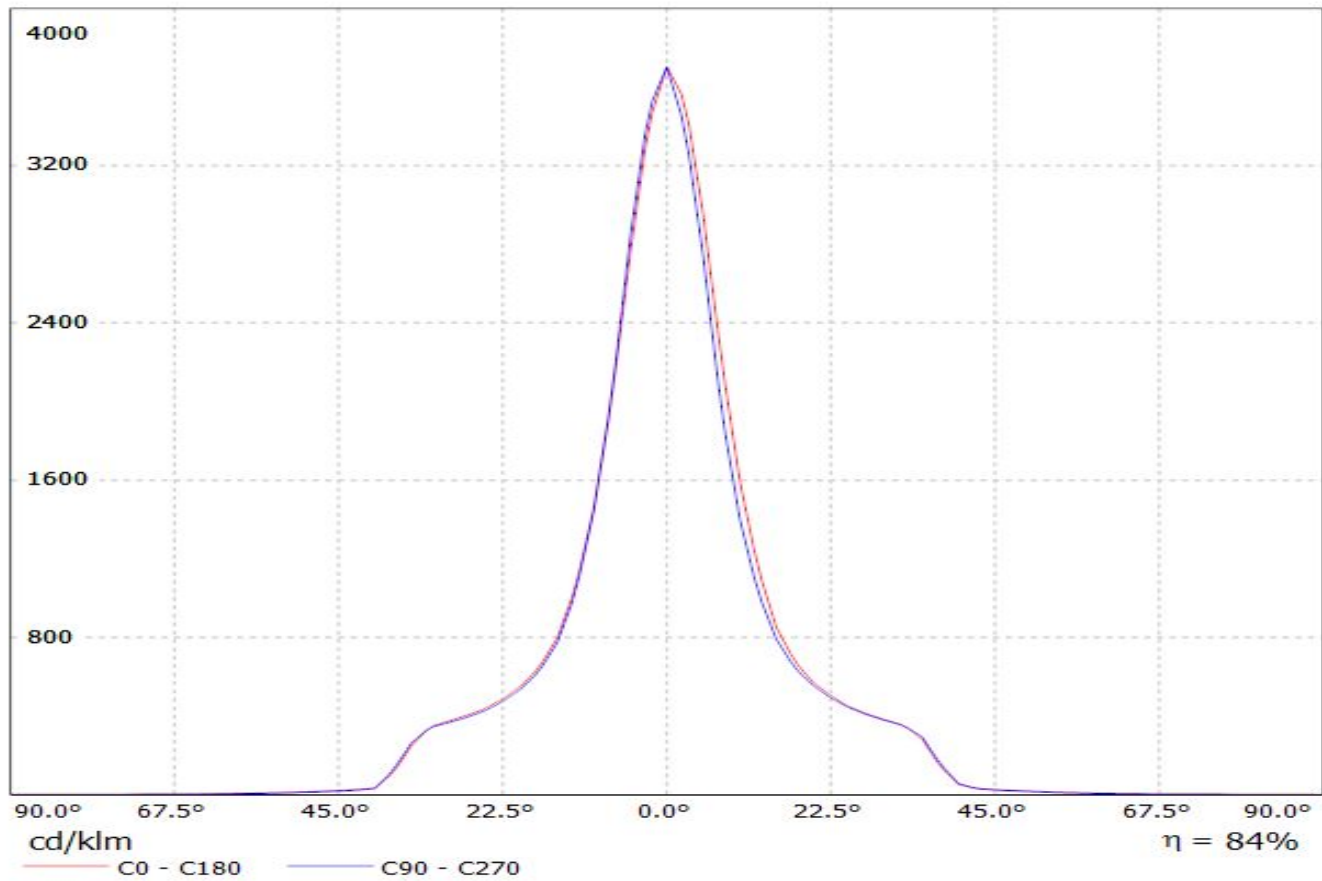
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(S19) Eff.82.6%
Lamps: 1 x Osram_SOLERIQ_S19_1434.85lm@250mA_P=10.5595W_I=249.8mA



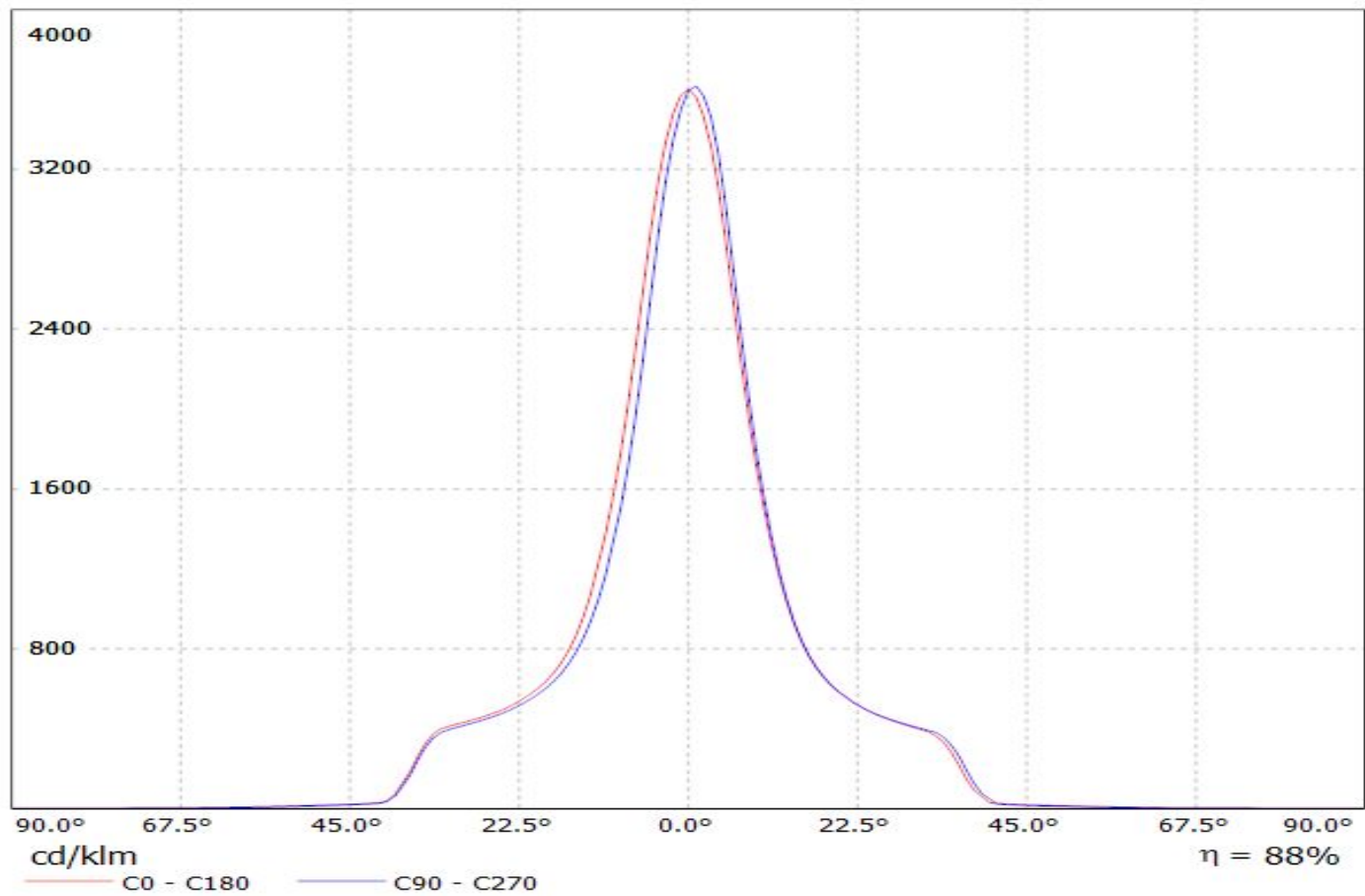
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(STARK_SLE_G3_LES17)
Lamps: 1 x TRIDONIC_STARK_SLE_G3_LES17_(STARK-SLE-PURE_G3-17-2000-840-CLA)
_1030.26lm@250mA_CCT=2000K_P=8.34707W_I=249.8mA



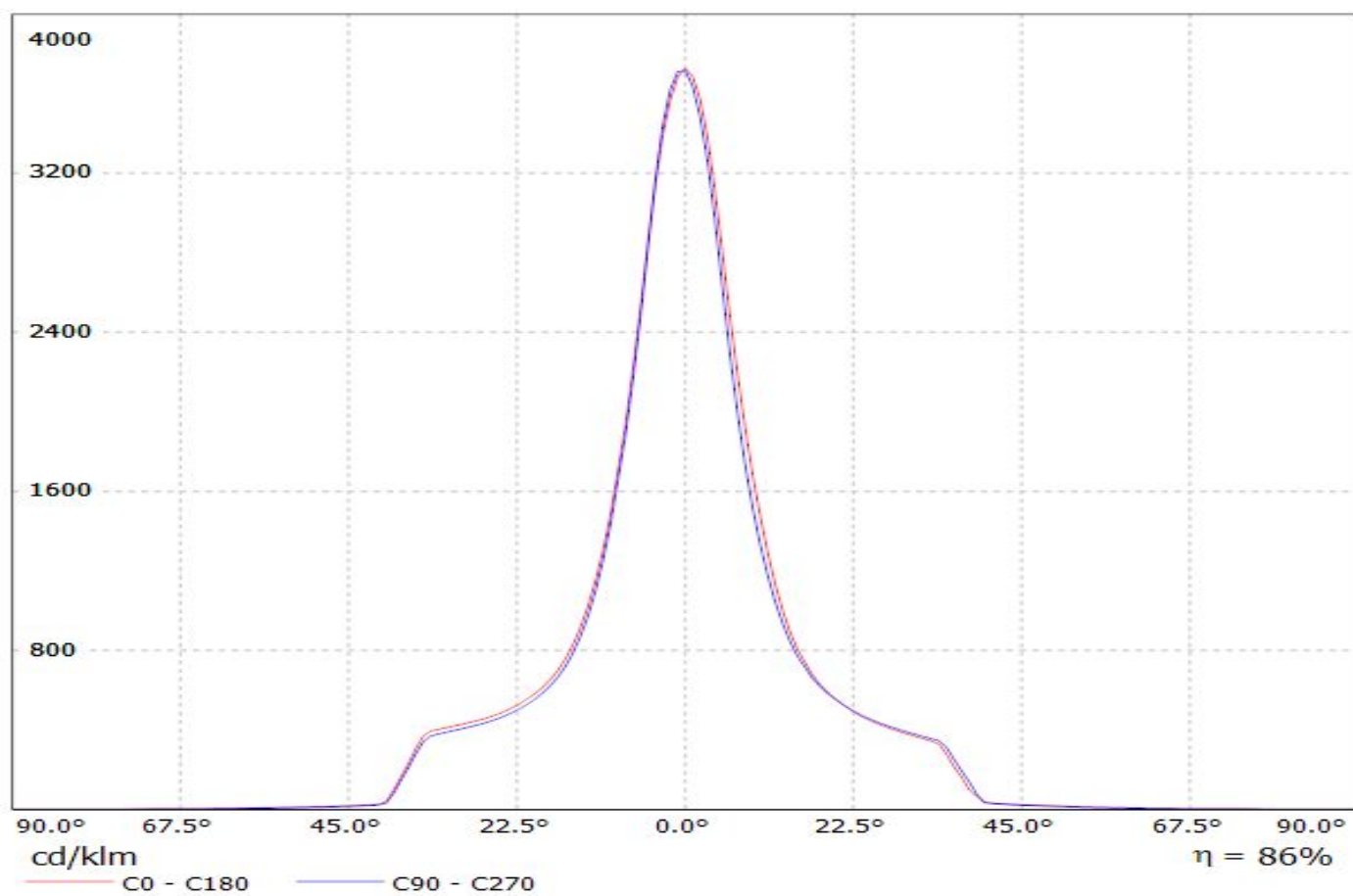
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(MZ) Eff.84.3%
Lamps: 1 x Sharp_Mega_Zenigata_1226.07lm@250mA_P=11.1573W_I=249.8mA



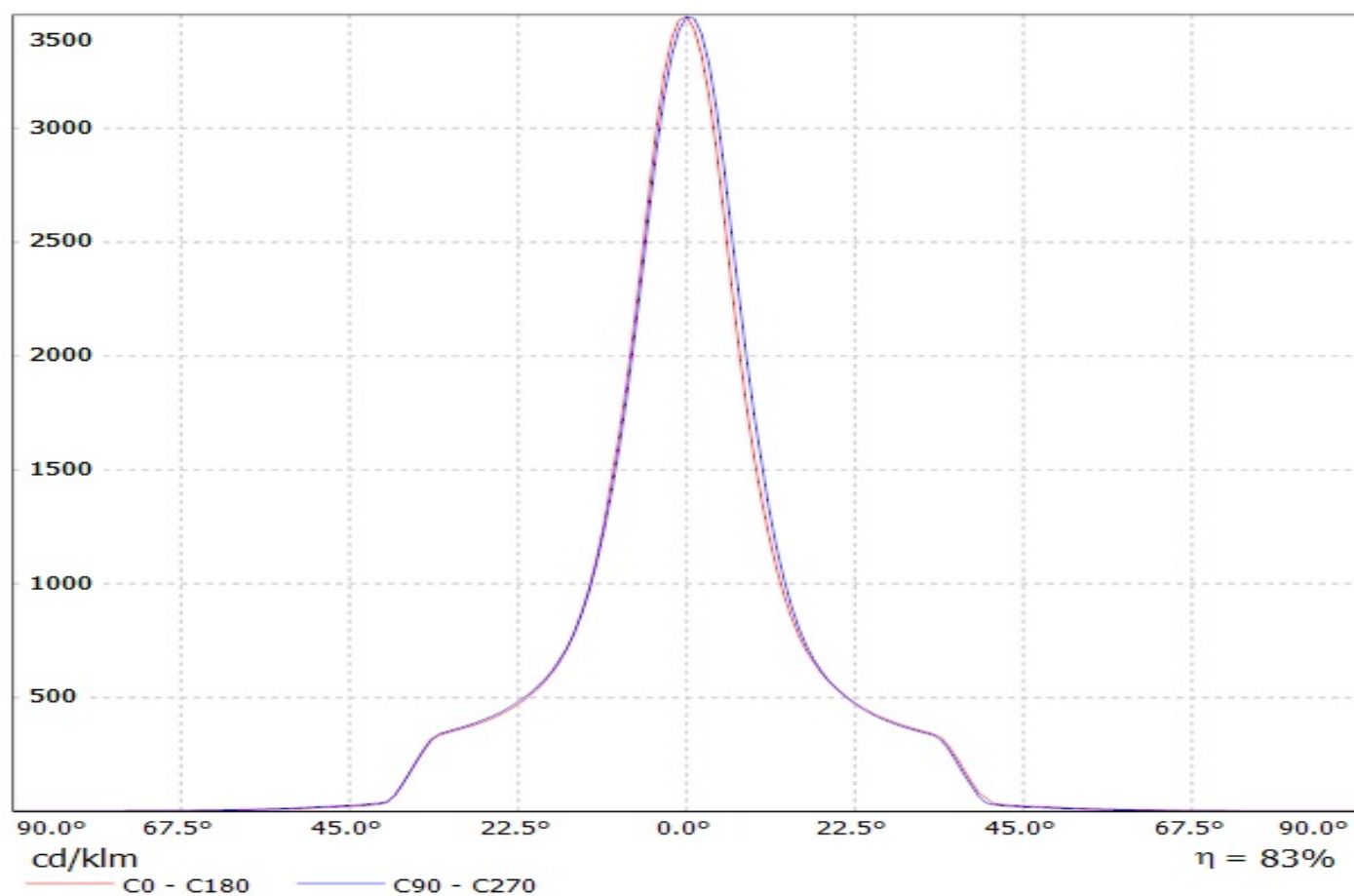
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(K16) Eff.87.9%
Lamps: 1 x Luxeon_K16_1224.2lm@250mA_P=10.8991W_U=249.9mA



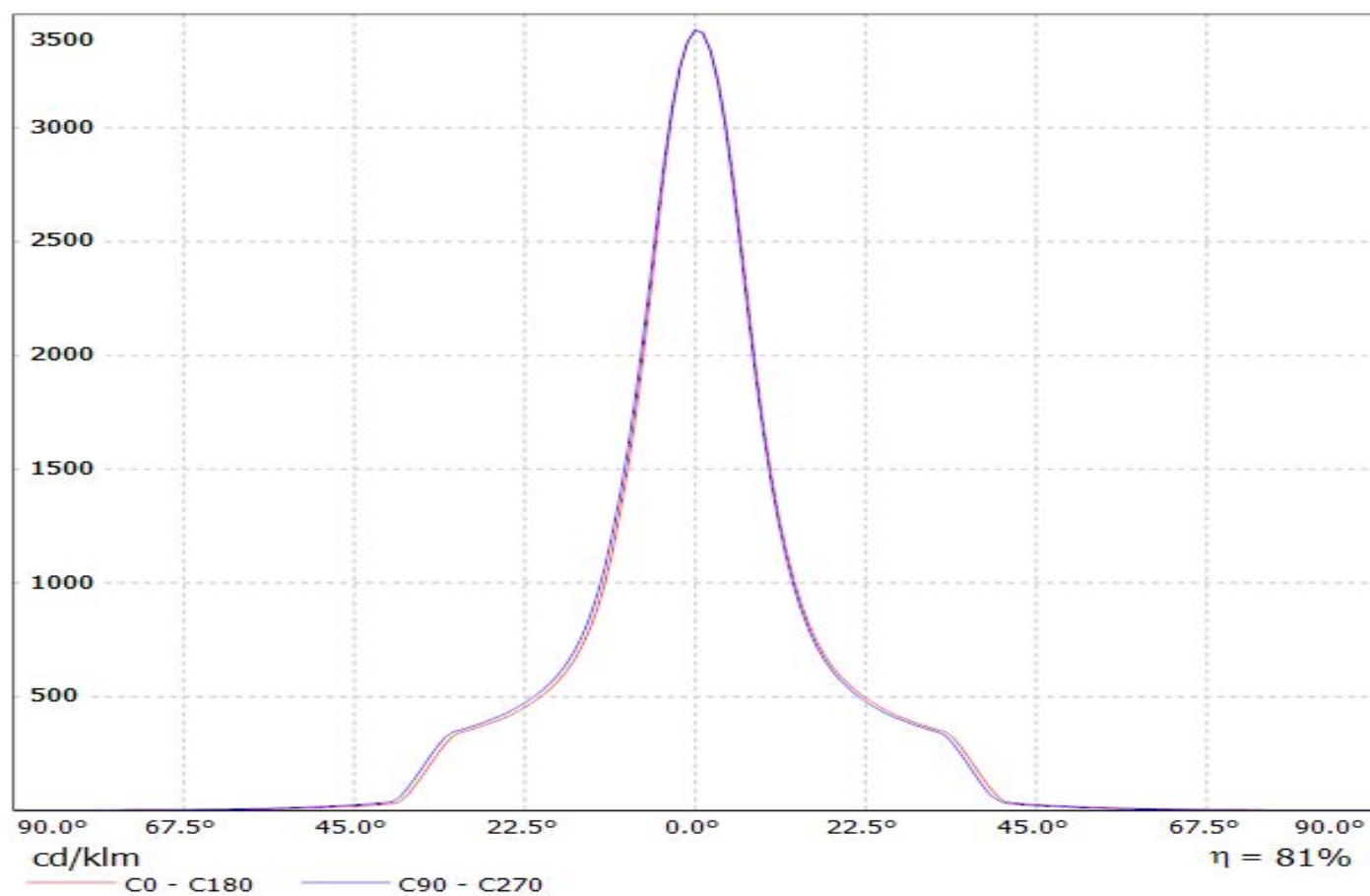
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(K12) Eff.86.5%
Lamps: 1 x Luxeon_K12_933.514lm@250mA_P=8.21721W_I=249.9mA



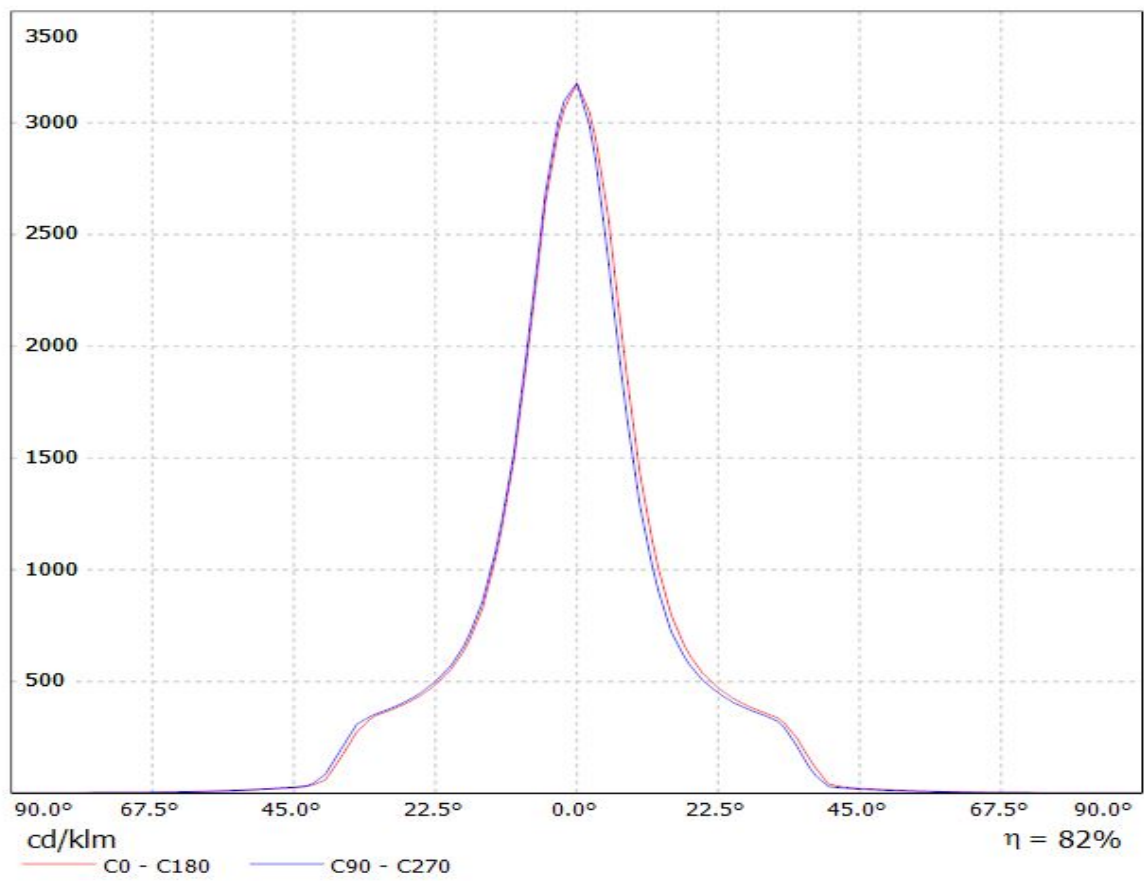
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(Luxeon_CoB_1208)
Lamps: 1 x Luxeon_CoB_1208_1045.92lm@250mA_P=8.25314W_I=249.8mA



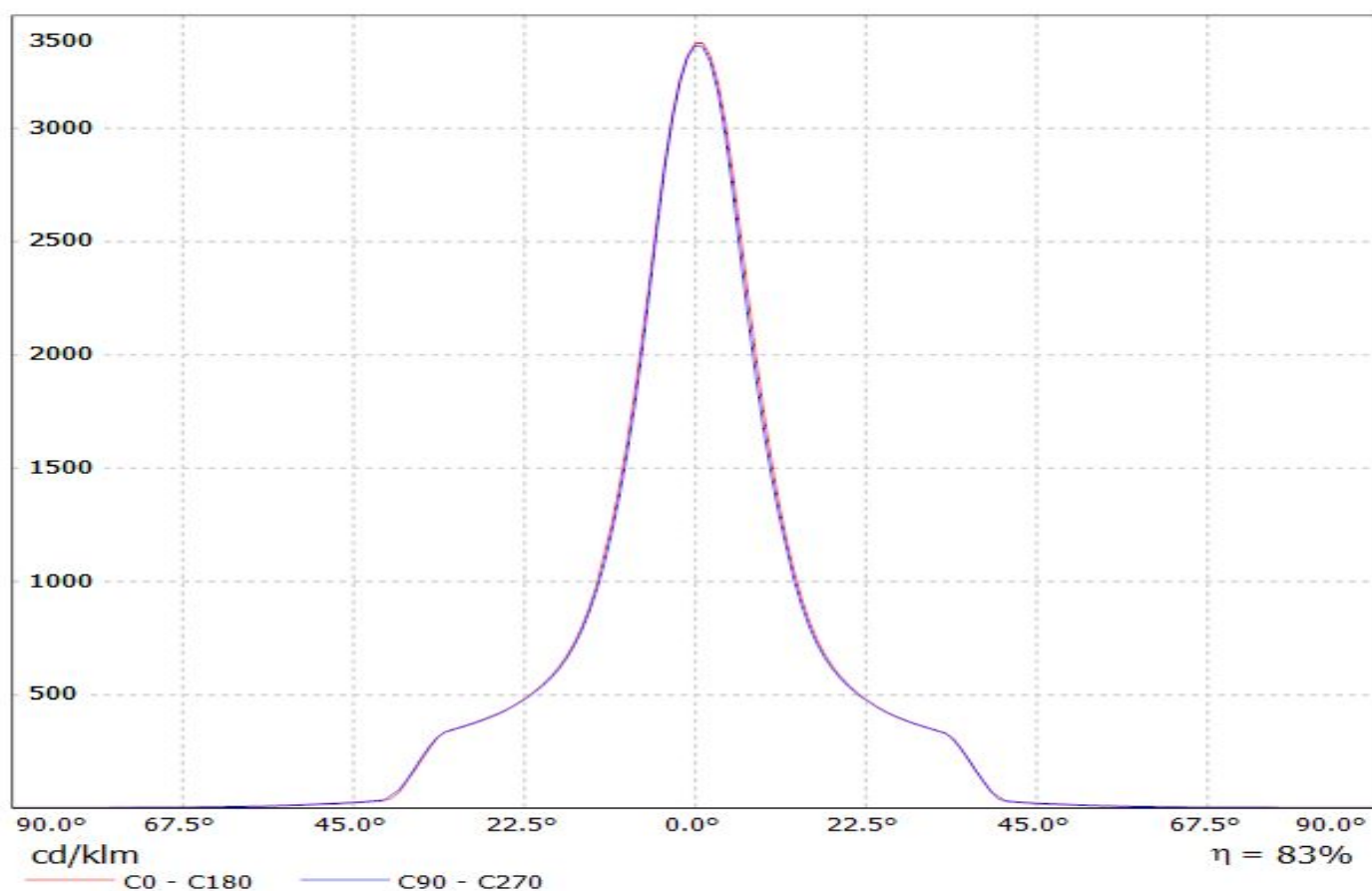
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(SLE GEN4 LES19)
Lamps: 1 x SLE GEN4 LES19_1226.28lm@250mA_P=8.21367W_I=0.2498A



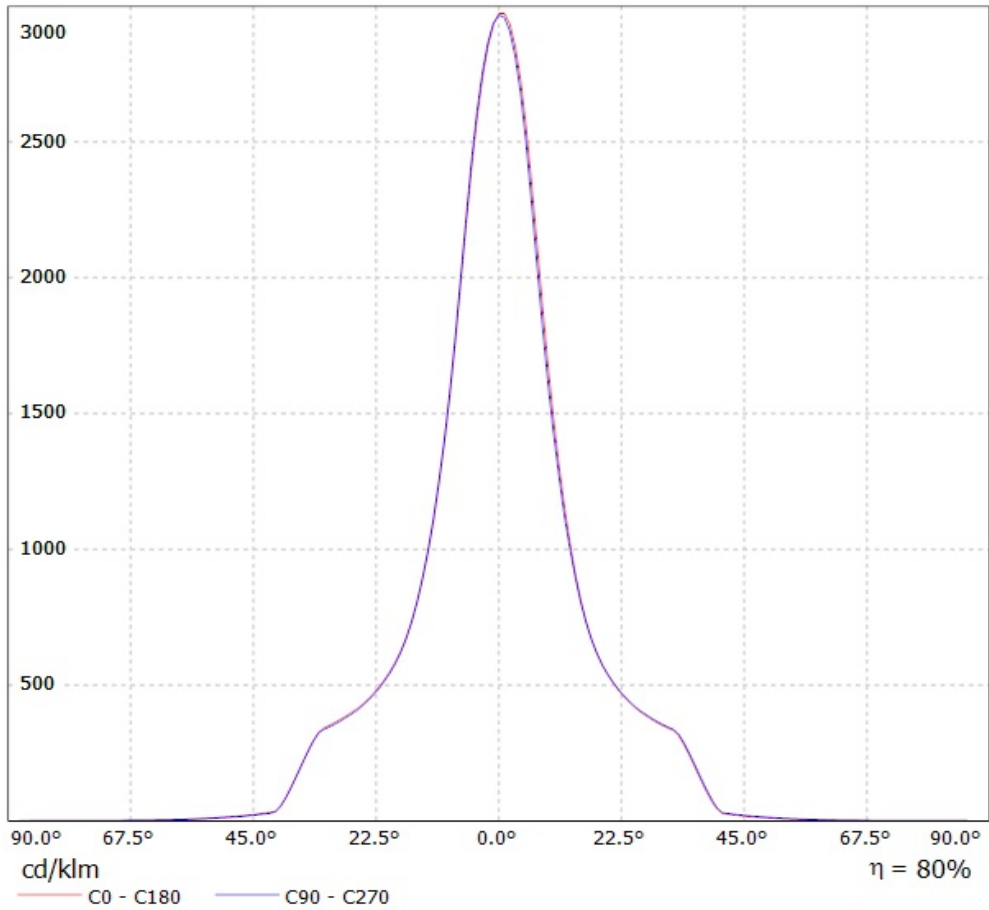
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(CXA2590)
Lamps: 1 x CREE_CXA2590_(CXA2590-30F-Z4-RPH-00001)_837.275lm@100mA_CCT=3000K_P=6.36316W_I=100.1mA



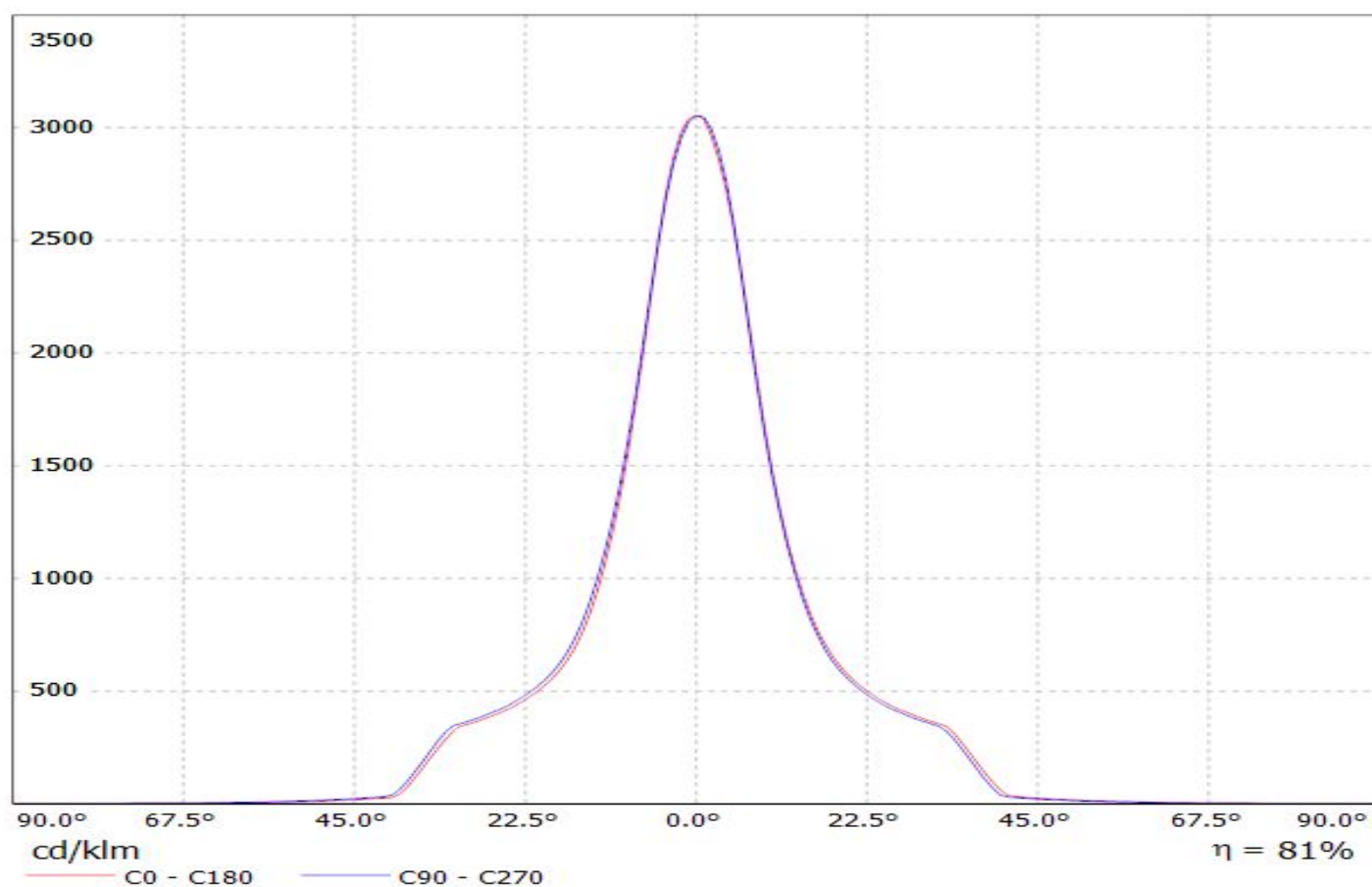
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(Soleriq S19) Eff.82.6%
Lamps: 1 x OSRAM_SOLERIQ_S19_(GW_KAHJB1.EM)
_1445.44lm@250mA_CCT=3000K_P=10.558W_I=249.8mA



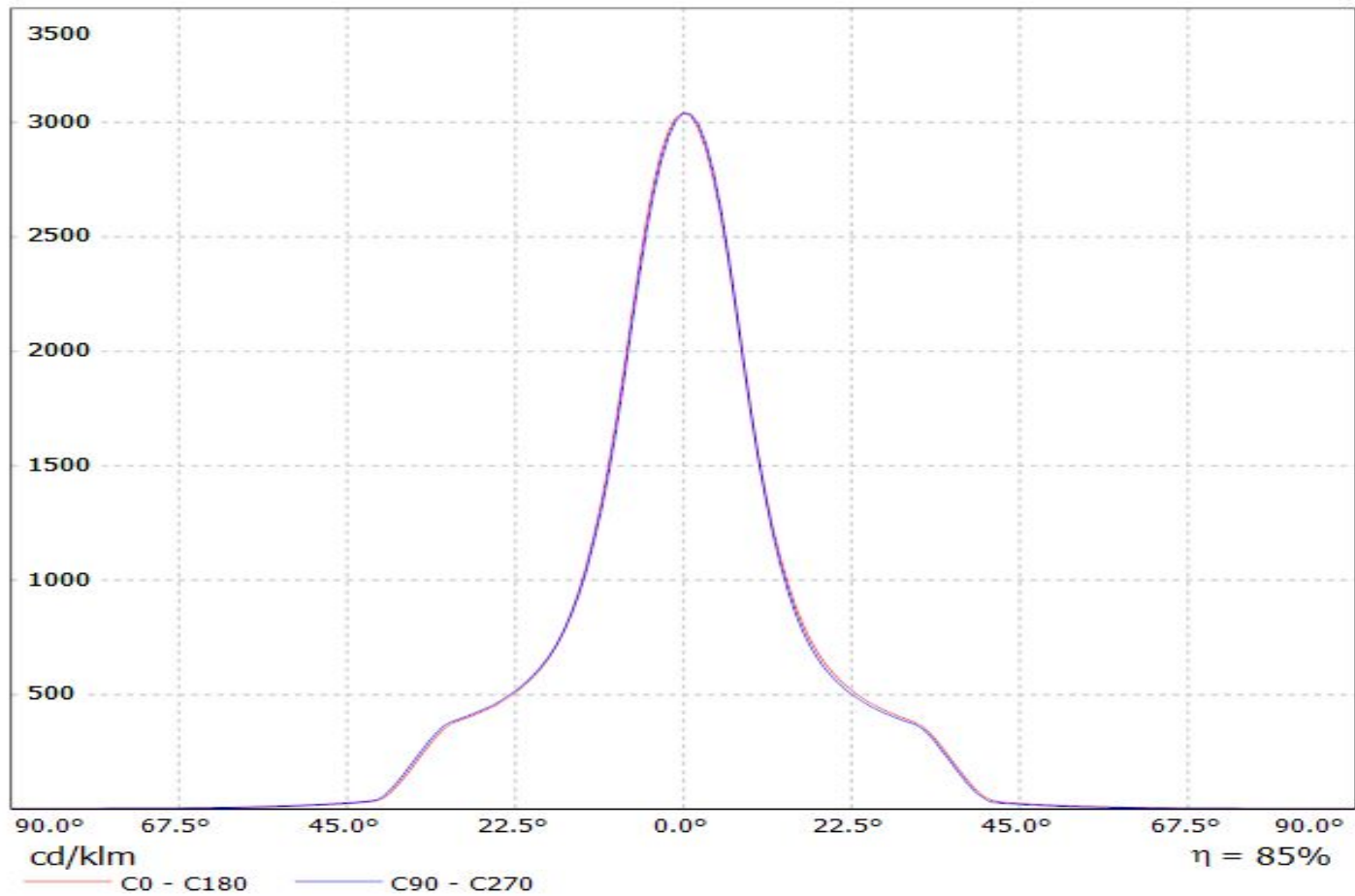
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(Luxeon_CoB_1211)_(BJB2030)
Lamps: 1 x Philips_Lumileds_Luxeon_CoB_1211_(LHC1-5780-1211)_(BJB2030)_1332.46lm@250mA_CCT(approx.)=5700K_P=8.03332W_I=0.2498A



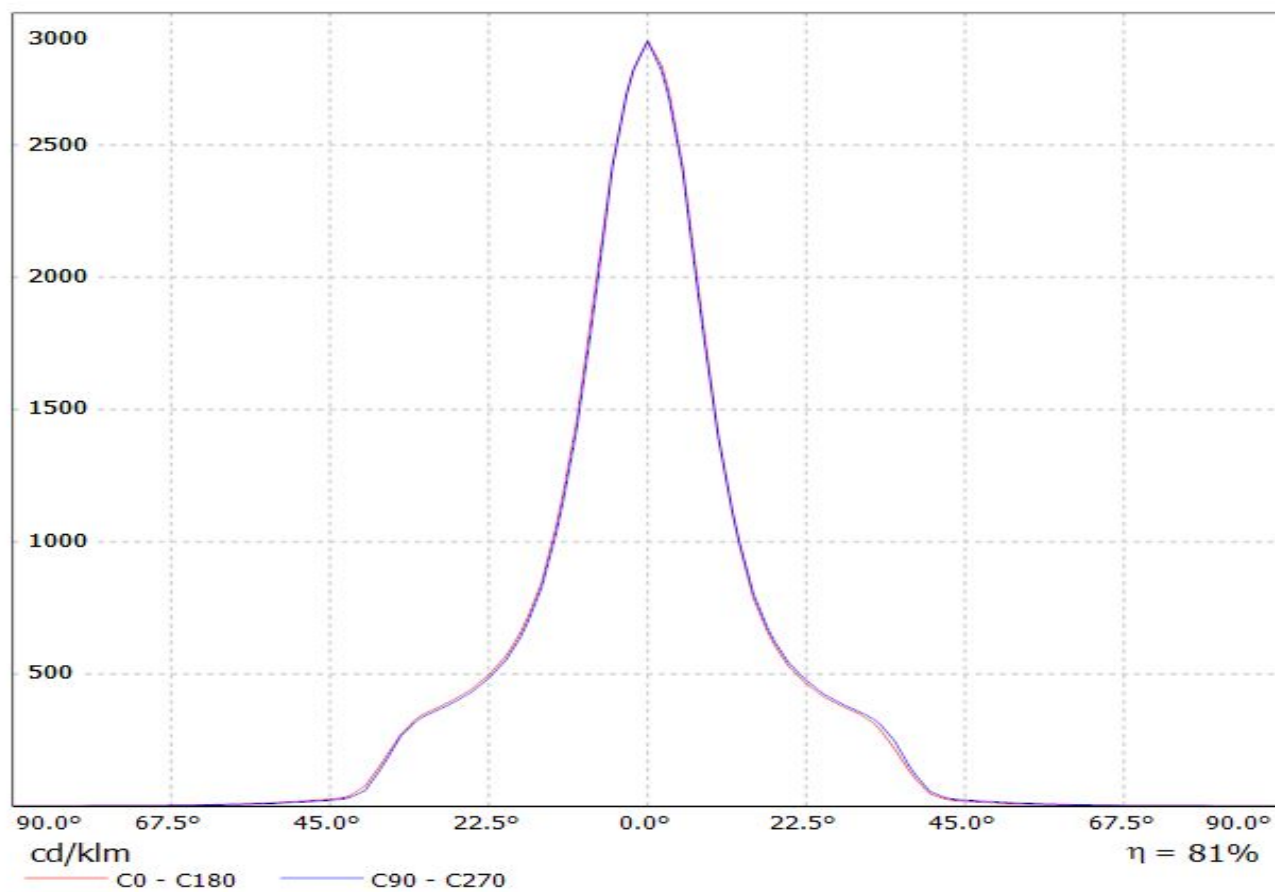
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(Luxeon_CoB_1211)
Lamps: 1 x LUXEON_COB_1211_(LHC1-2790-1211)
_923.583lm@250mA_CCT=2700K_P=8.00909W_I=249.8mA



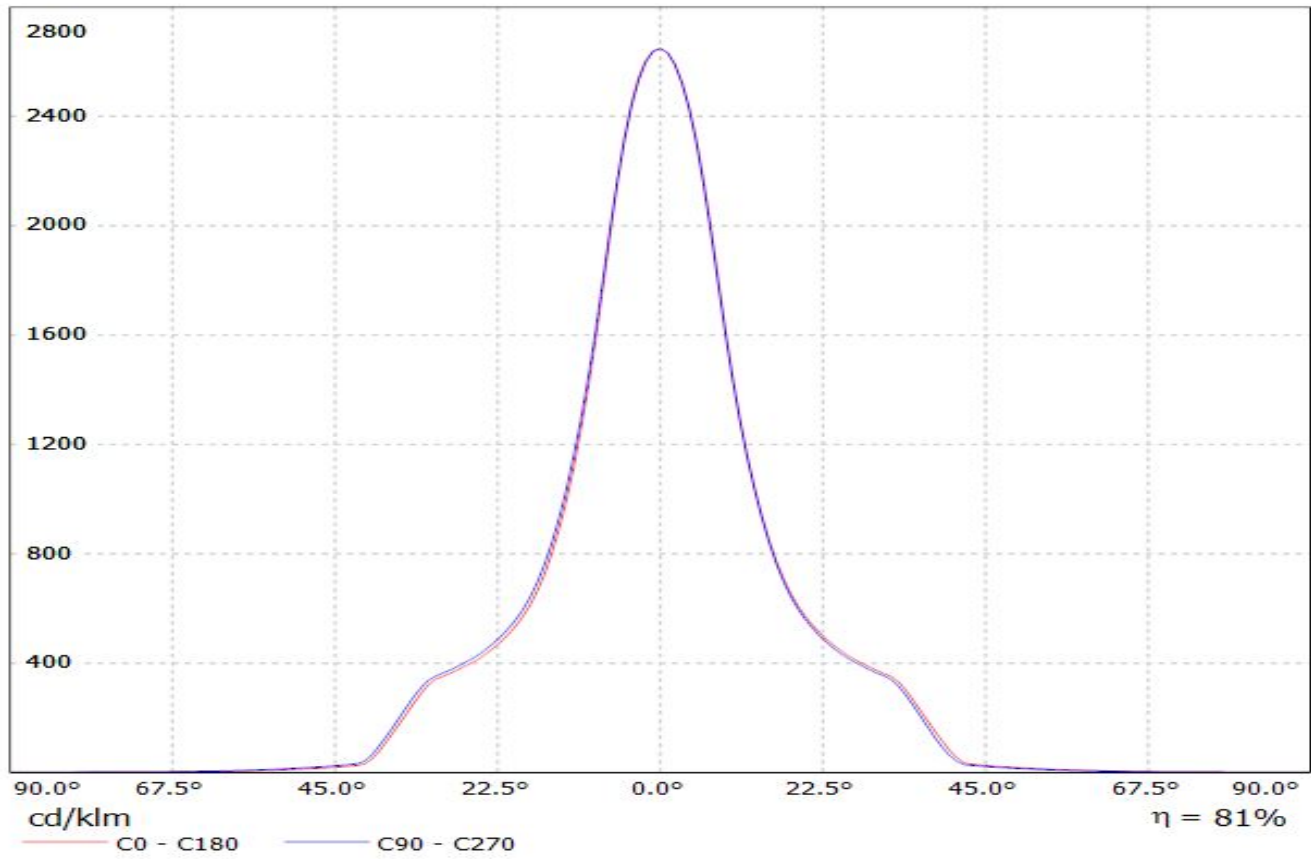
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(SLE_G4_LES23)
Lamps: 1 x Tridonic_SLE_G4_LES23_1354.57lm@250mA_P=8.18744W_I=0.2498A



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

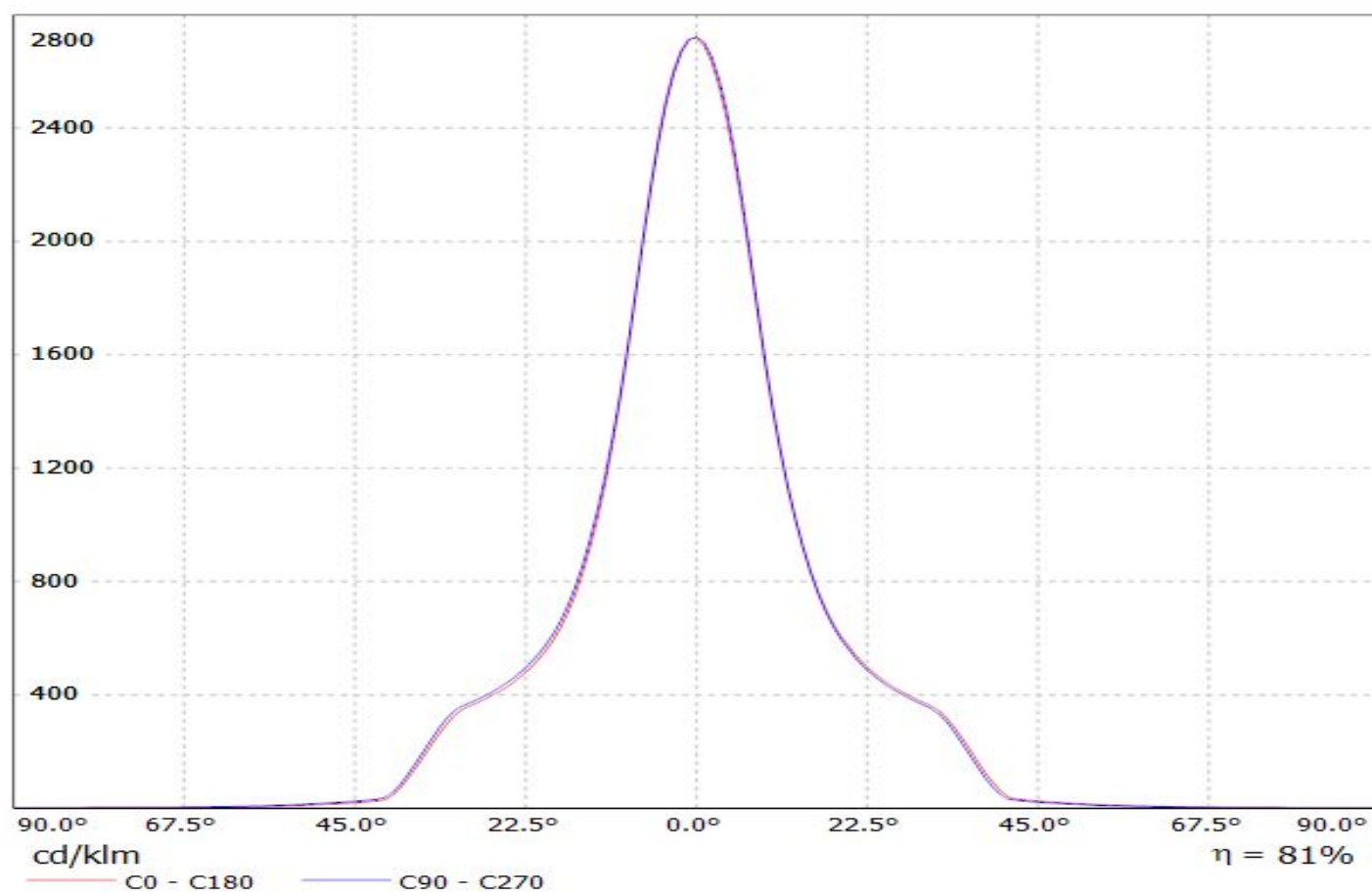


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(CLU044)
Lamps: 1 x Citizen_CLU044_(CLU044-1212B8-303M1A2)_1300.9lm@250mA_P=8.14849W_I=249.9mA



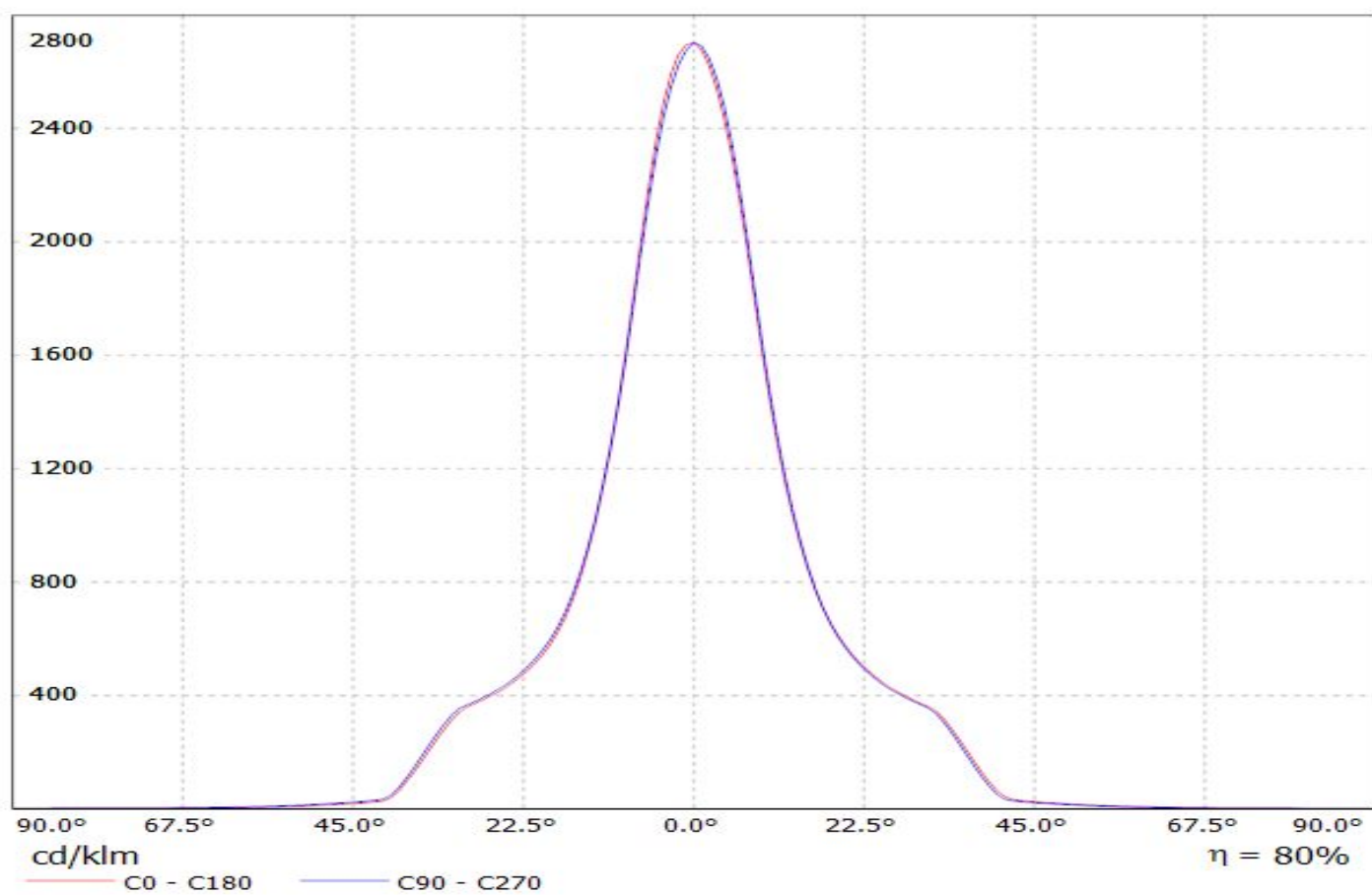
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(ZC40)

Lamps: 1 x SEOUL_ZC40_(SBWW5F1B)_1176.6lm@250mA_P=8.22171W_I=249.9mA

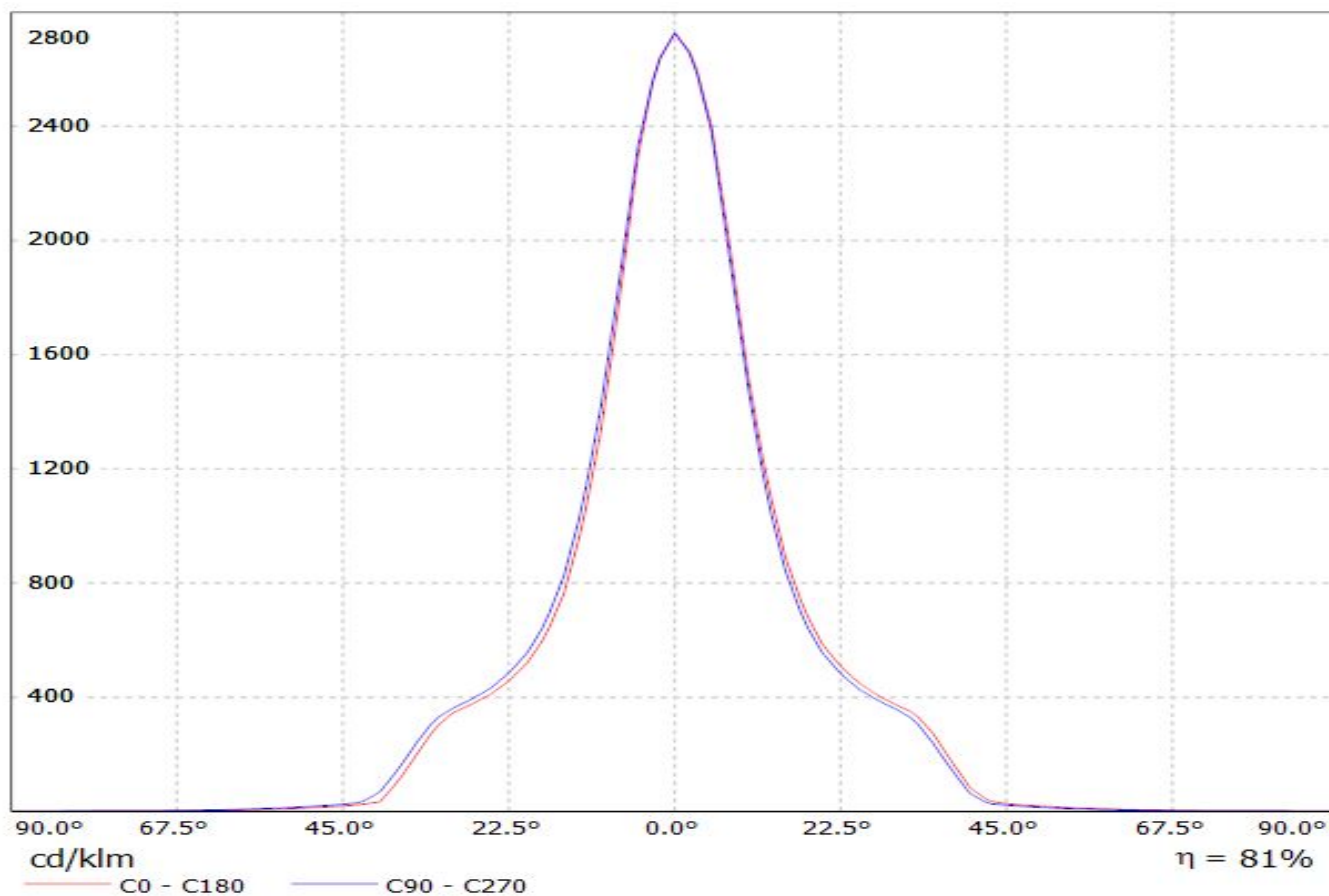


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(CXA30)

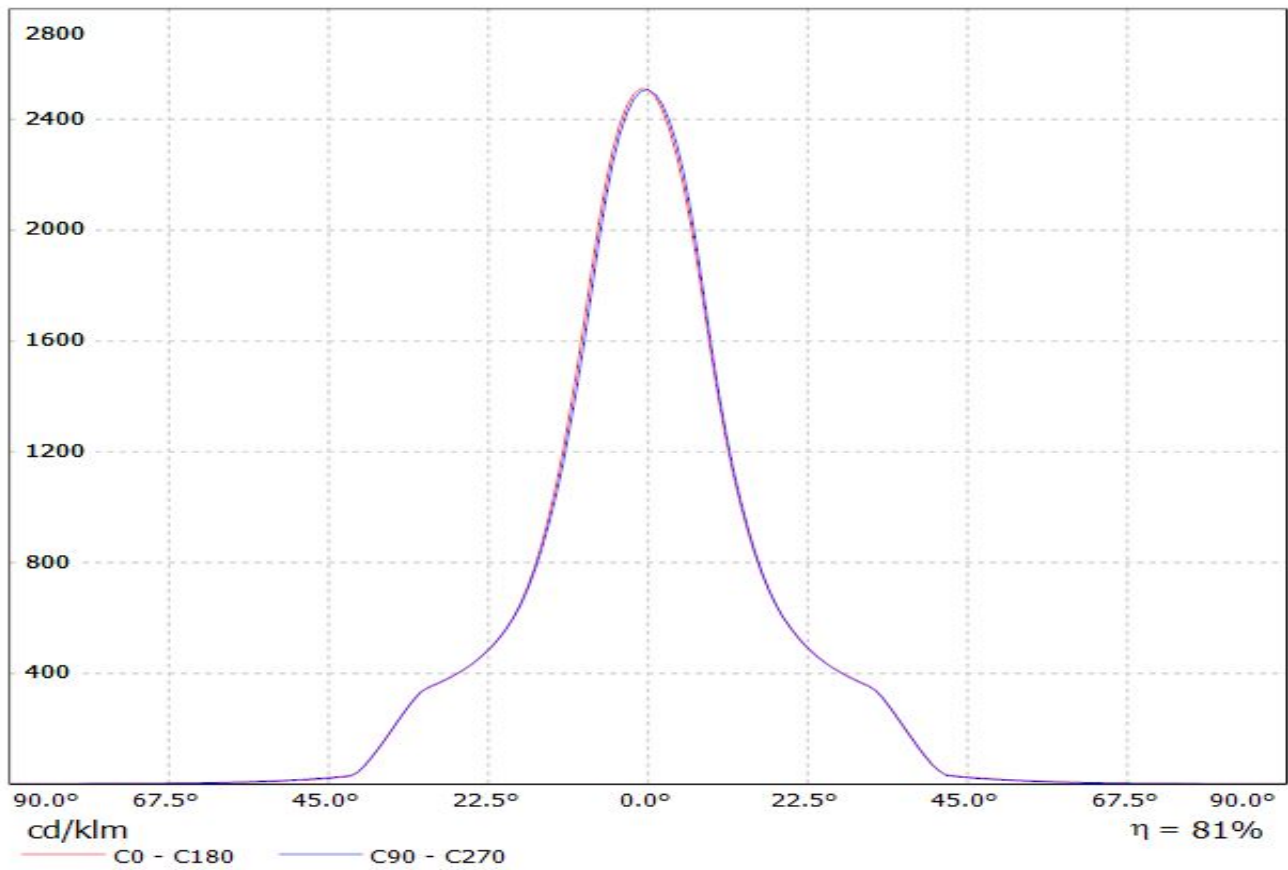
Lamps: 1 x Cree_CXA30_(CXA3050-3C0-Y2-N0H)_1395.36lm@250mA_P=8.20318W_I=249.8mA



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

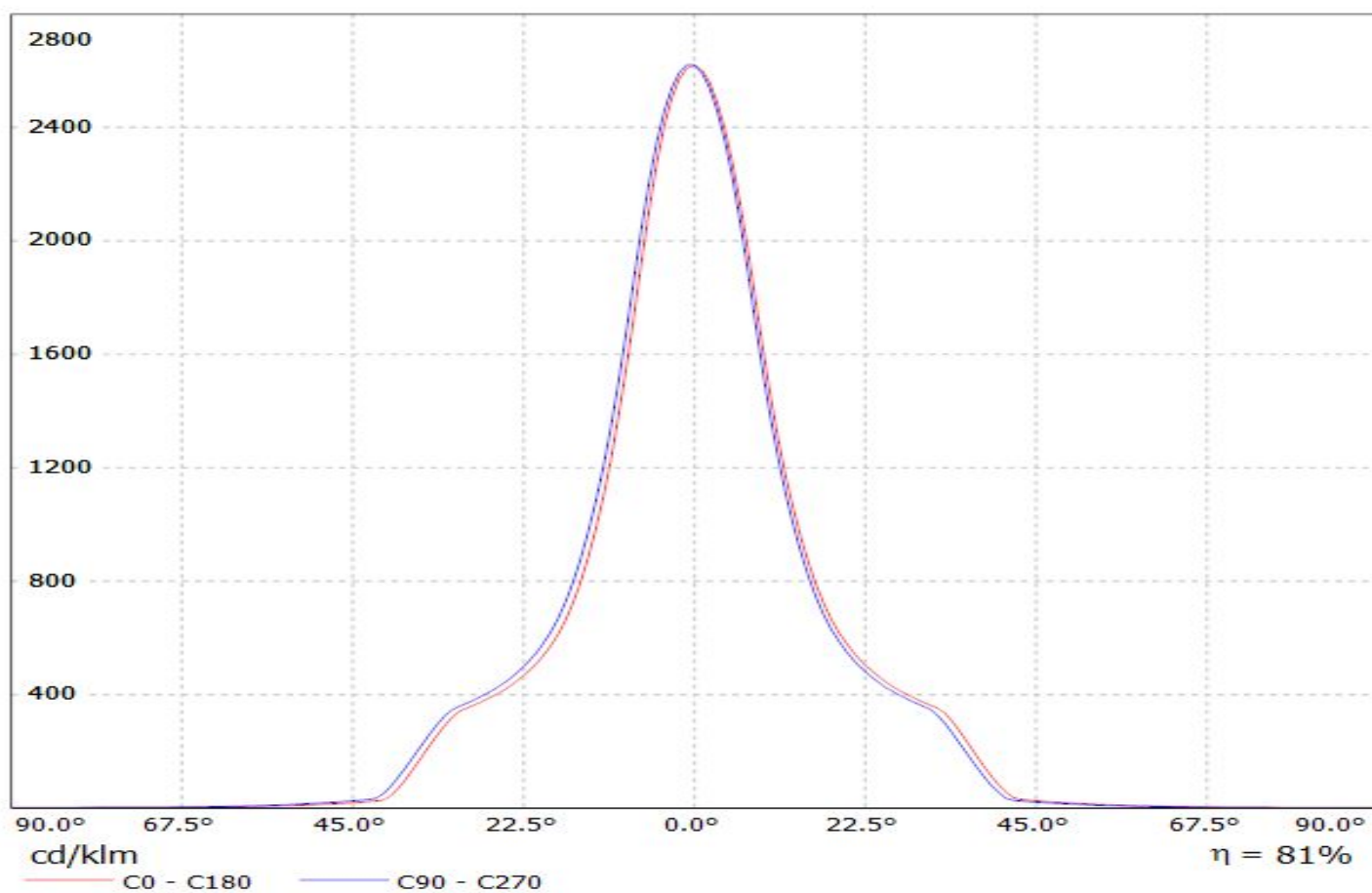


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(CXM-22) Eff.80.7%
Lamps: 1 x LUMINUS_CXM-22_1221.8lm@250mA_P=8.00809W_CCT=3000K_I=249.8mA

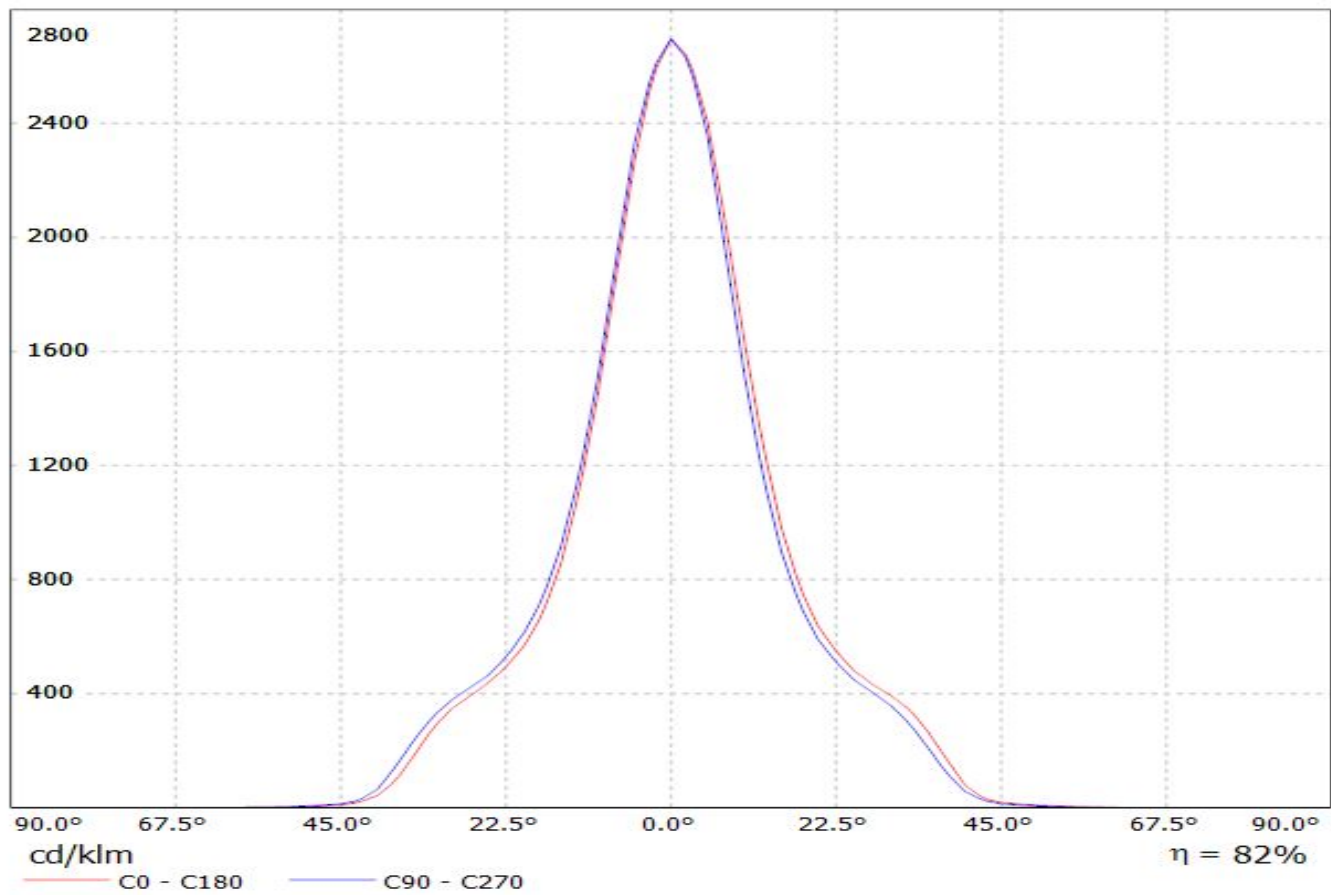


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(COB_40W)

Lamps: 1 x LG_COB_40W_1163.31lm@250mA_CCT=3000K_P=8.04906W_I=249.8mA



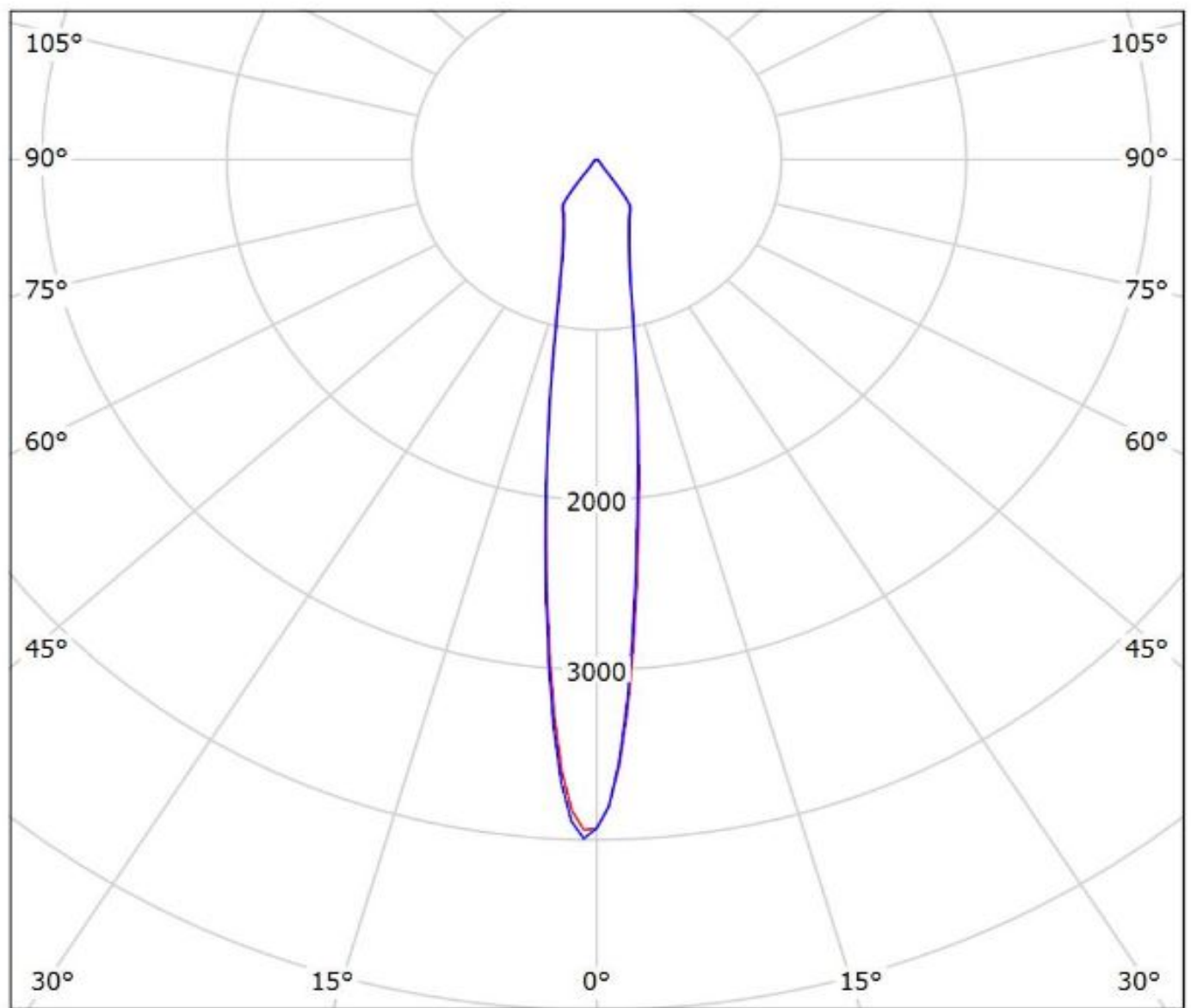
Luminaire: Ledil Oy F13663_ANGELA-M-B_(ZC-40) Efficiency=81%
Lamps: 1 x Seoul ZC-40 (SBWW5F1B) 1153lm @ 250mA CCT= P=8.25W I=250mA



Luminaire: Ledil F13663_ANGELA-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

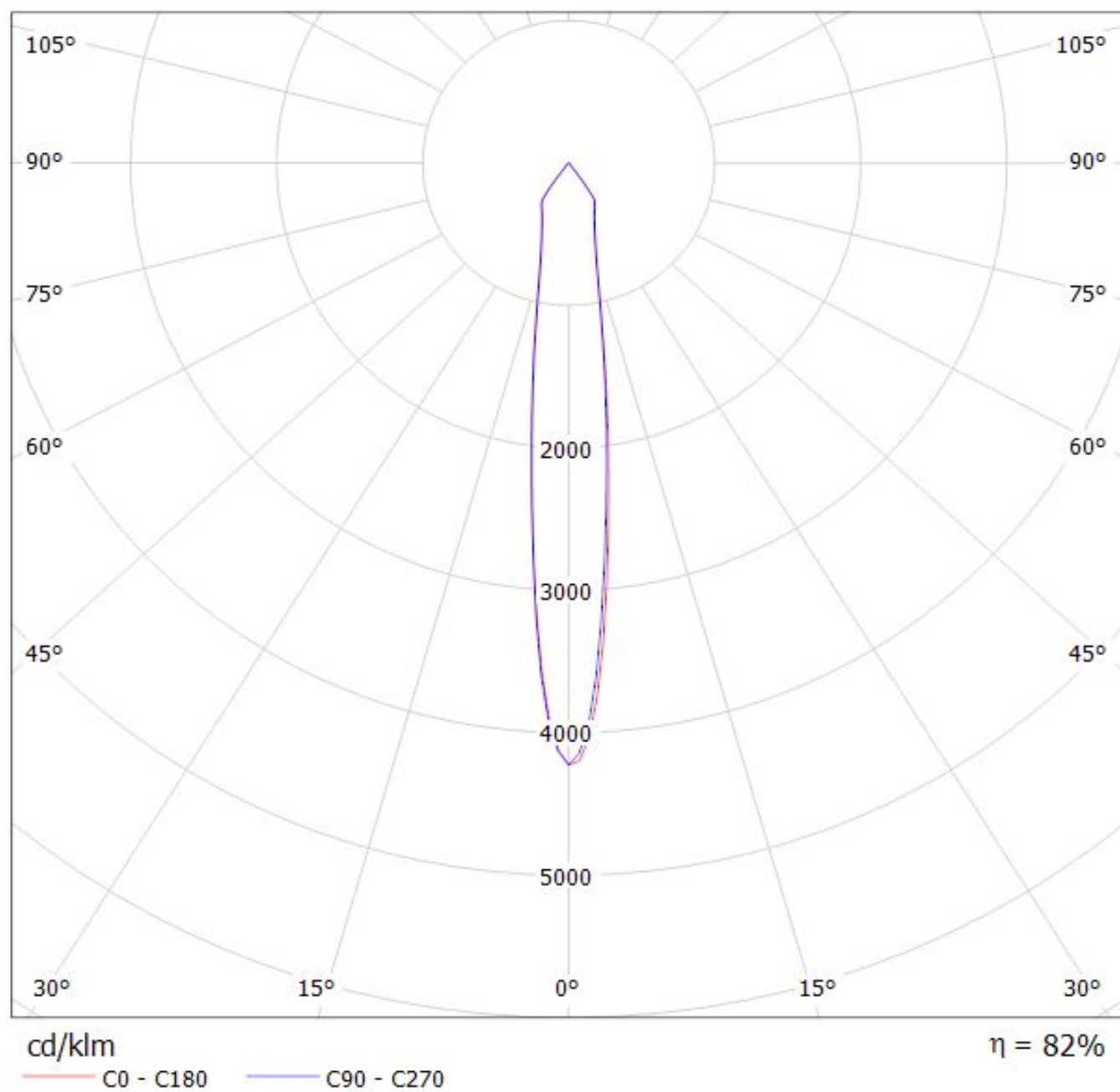
— C0 - C180

— C90 - C270

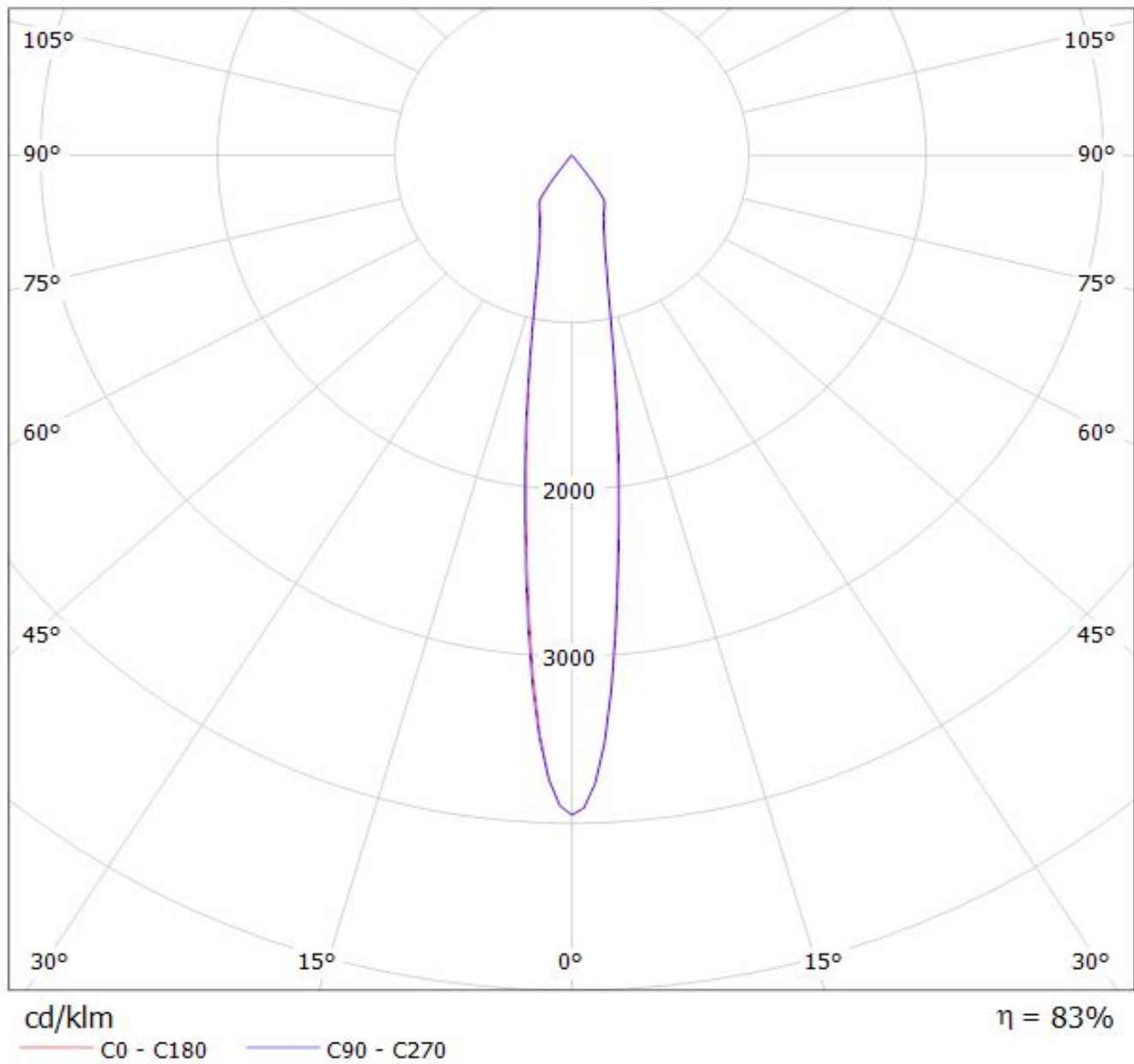
$\eta = 83\%$

Luminaire: LEDiL Oy F13663_ANGELA-M-B_(CITIZEN_CLU720)

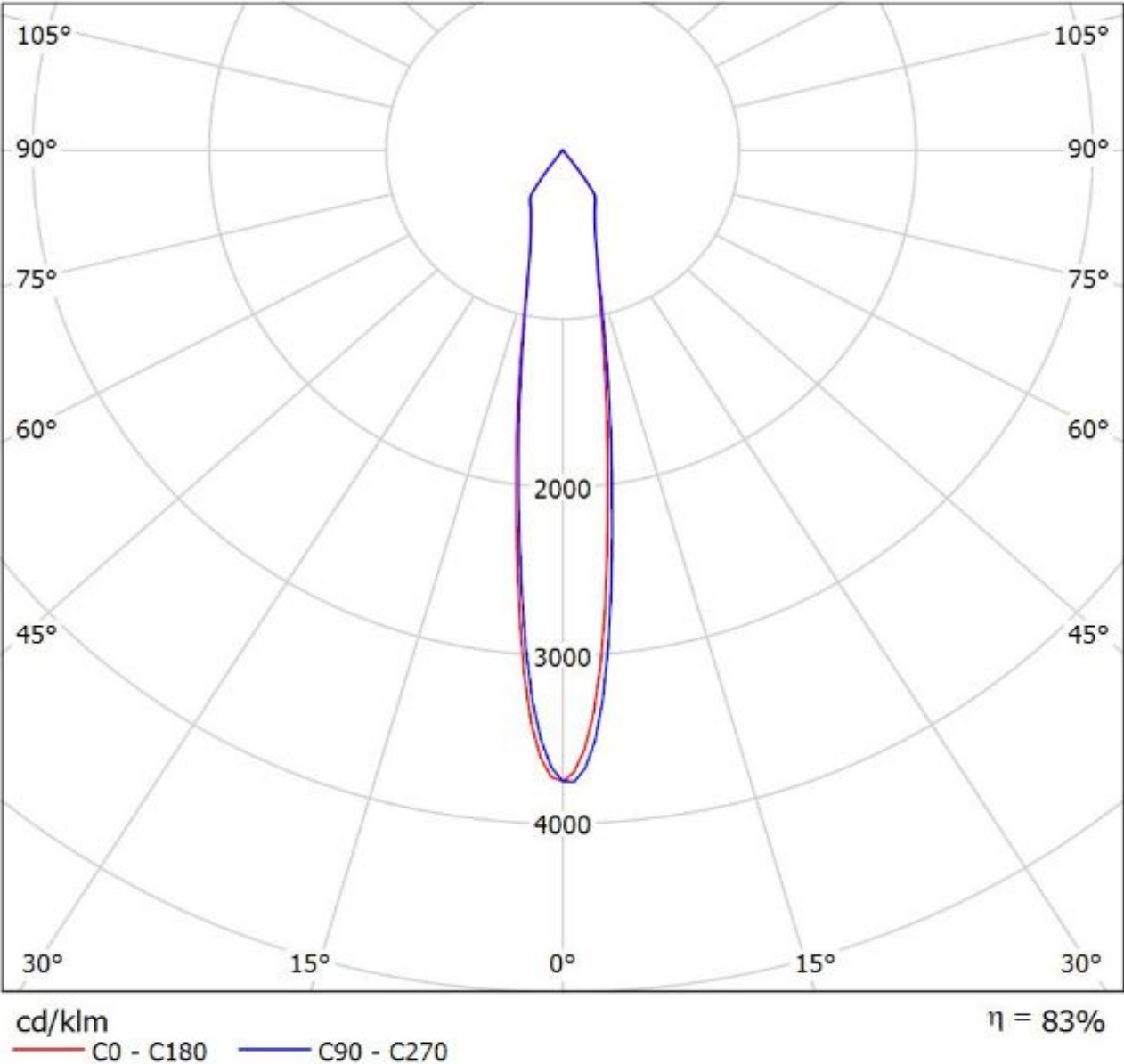
Lamps: 1 x CITIZEN_CLU720_(BJB: 47.319.2020)_1214.68lm@250mA_CCT=2700K_P=8.31842W_I=0.25A



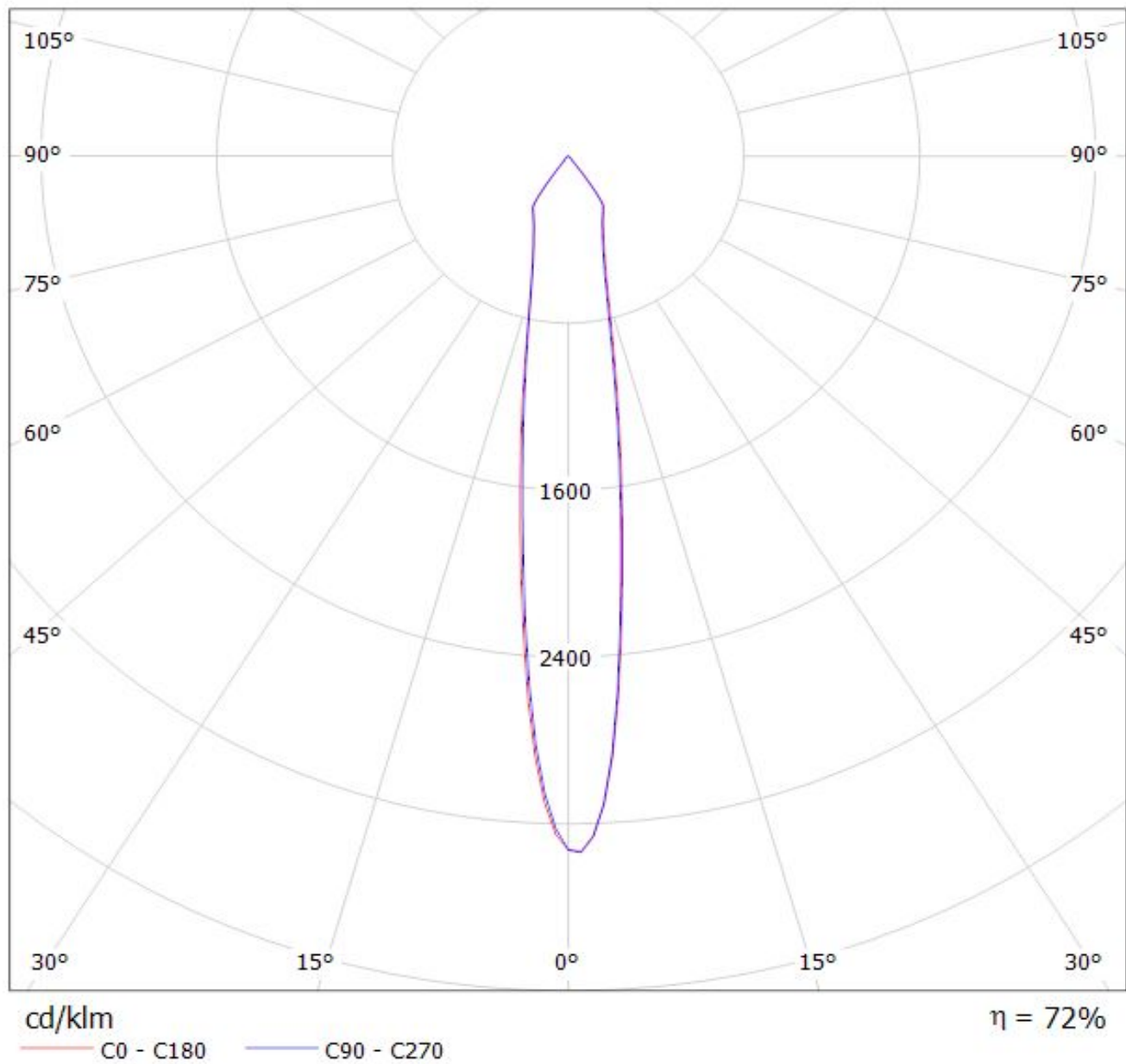
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(S13) Eff.83.2%
Lamps: 1 x Osram_Solericq_S13_901.003lm@250mA_P=7.48151W_I=249.9mA



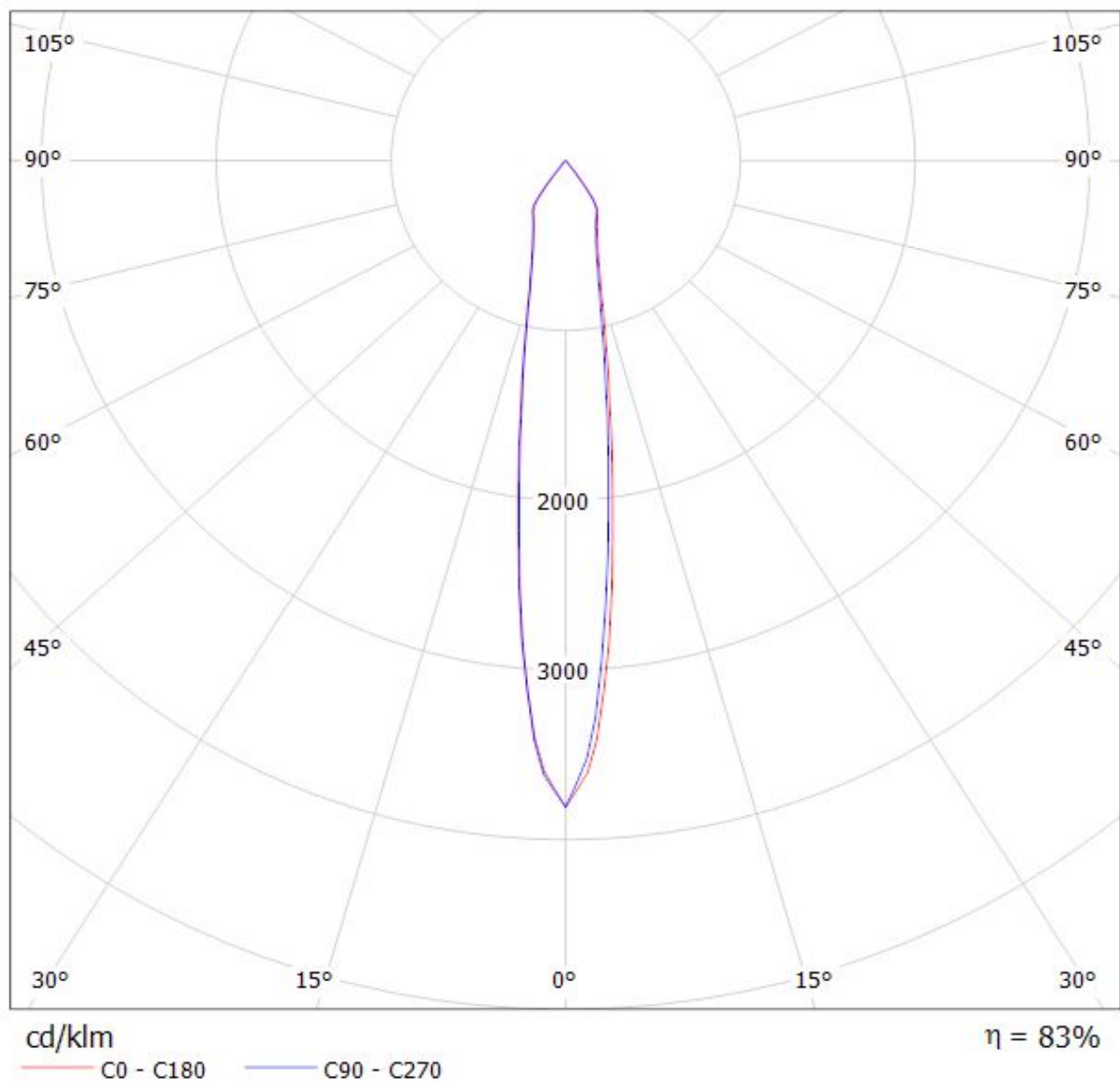
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(SOLERIQ_P13)
Lamps: 1 x SOLERIQ_P13_(GW_MAGMB1.EM)_1053.65lm@250mA_CCT=3000K_P=8.82044W_I=249.8mA



Luminaire: LEDiL Oy 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

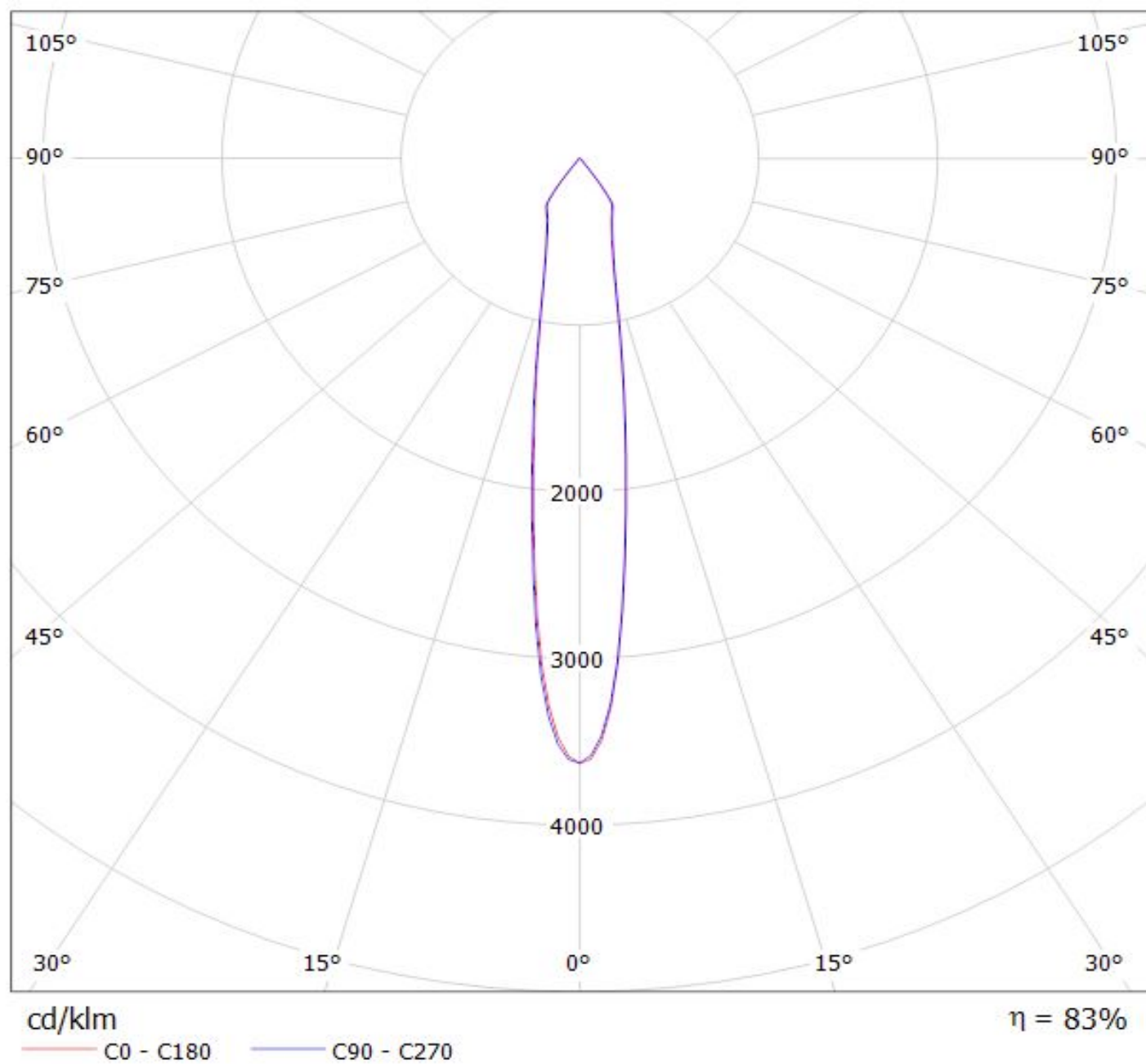


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(LG_COB_10W)
Lamps: 1 x LG_COB_10W_(LEMWM18580LG00)_917.757lm@250mA_P=9.31304W_I=249.8mA



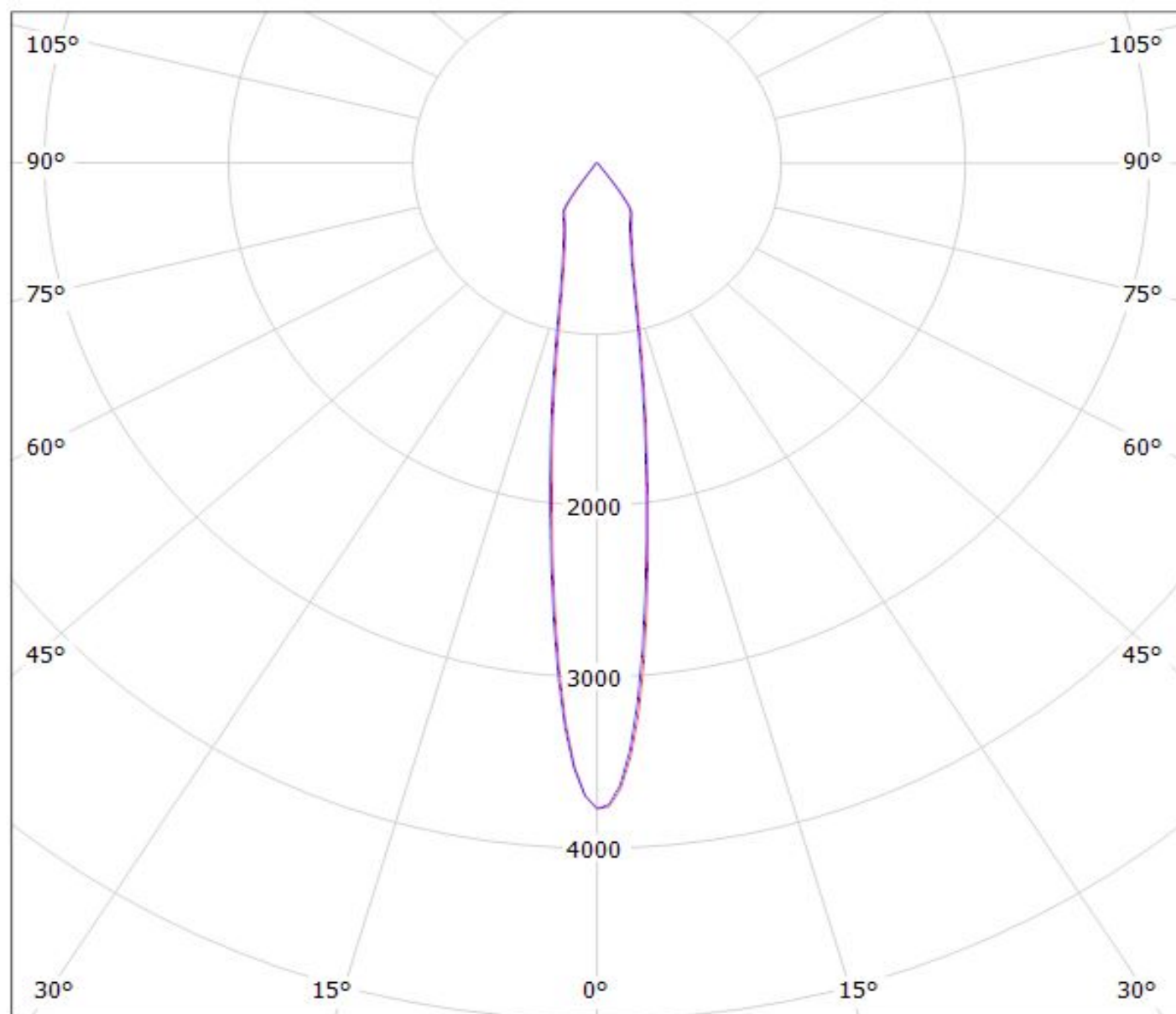
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(CLU034)

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



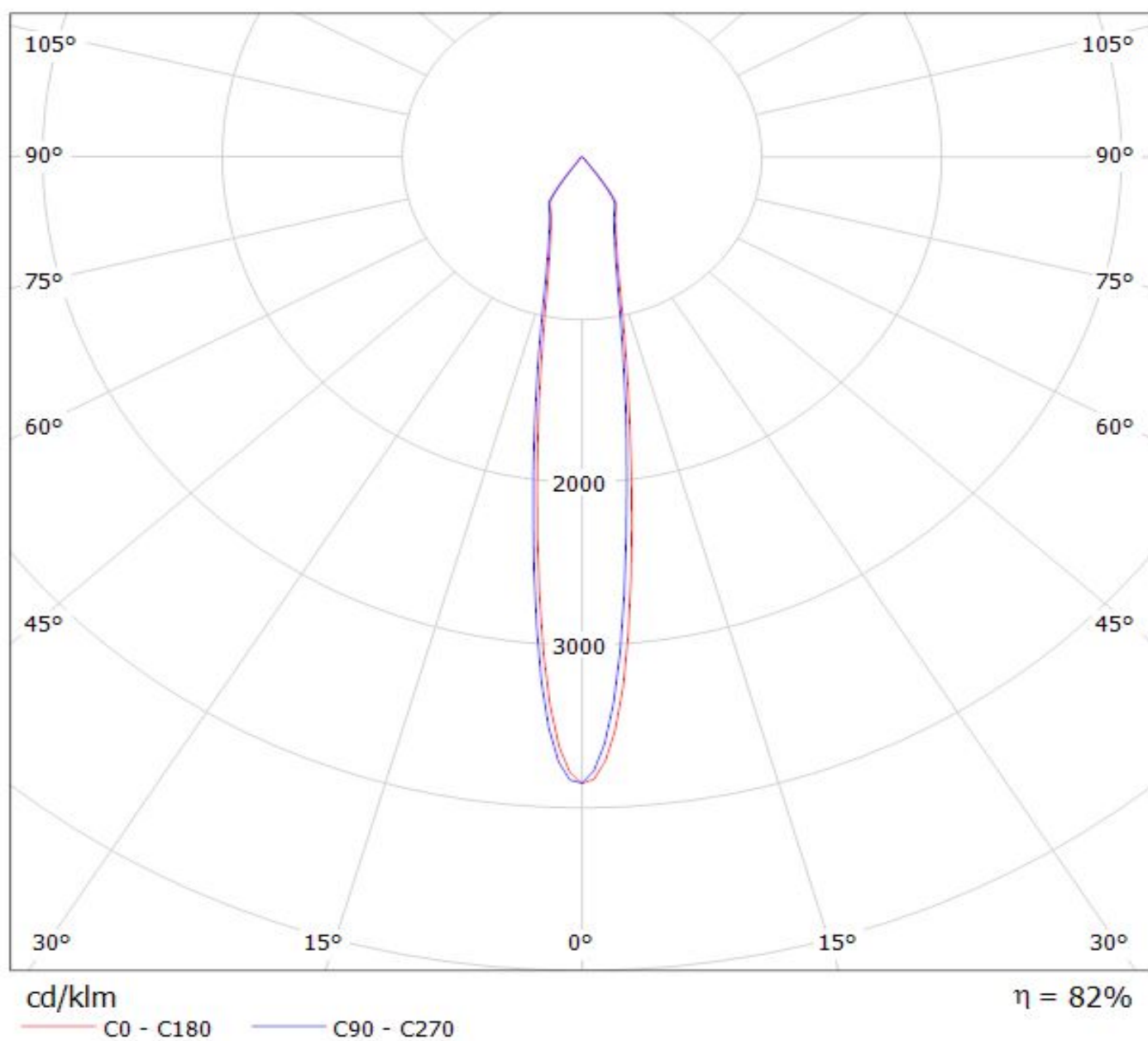
cd/klm

— C0 - C180

— C90 - C270

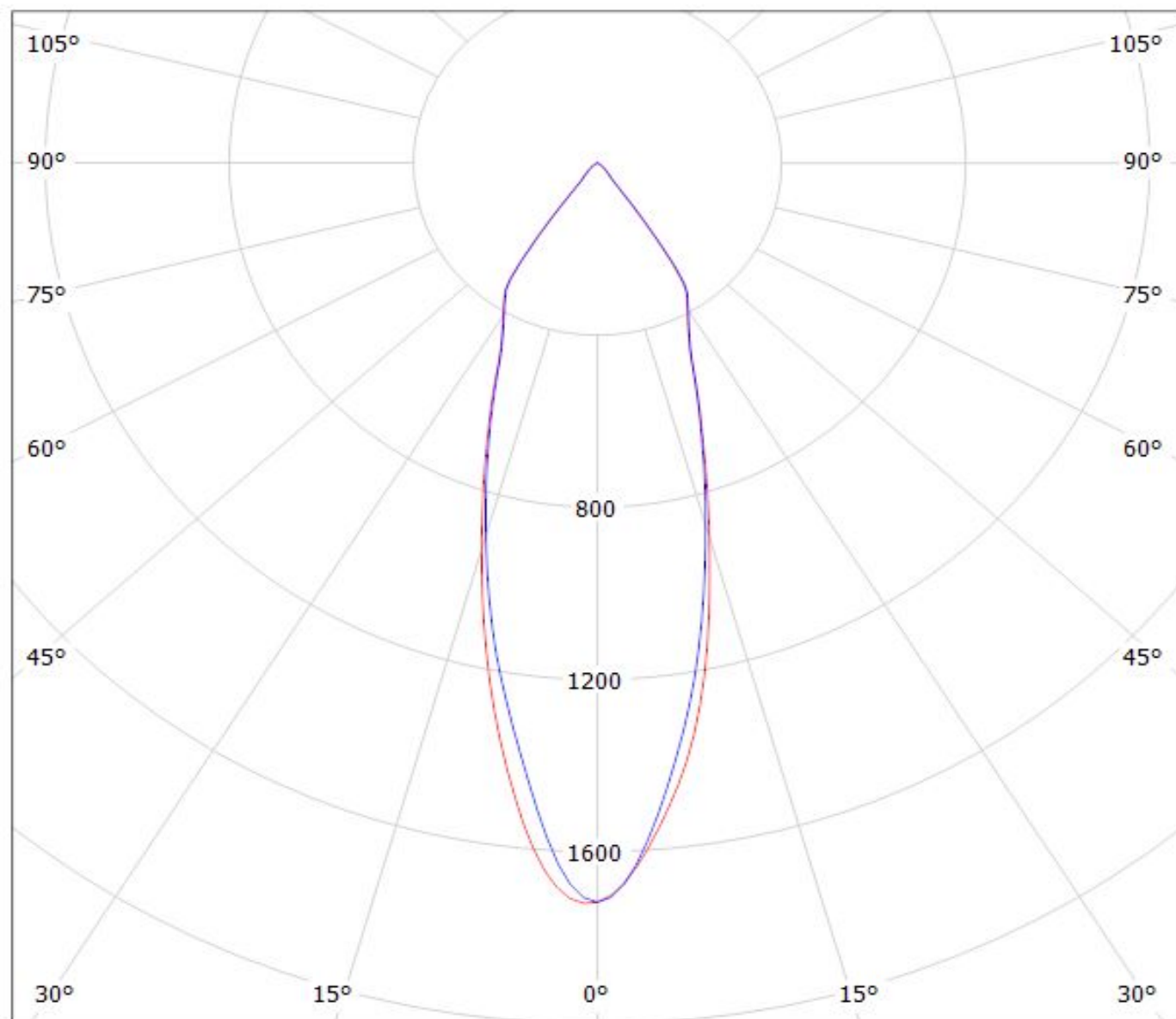
$\eta = 82\%$

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



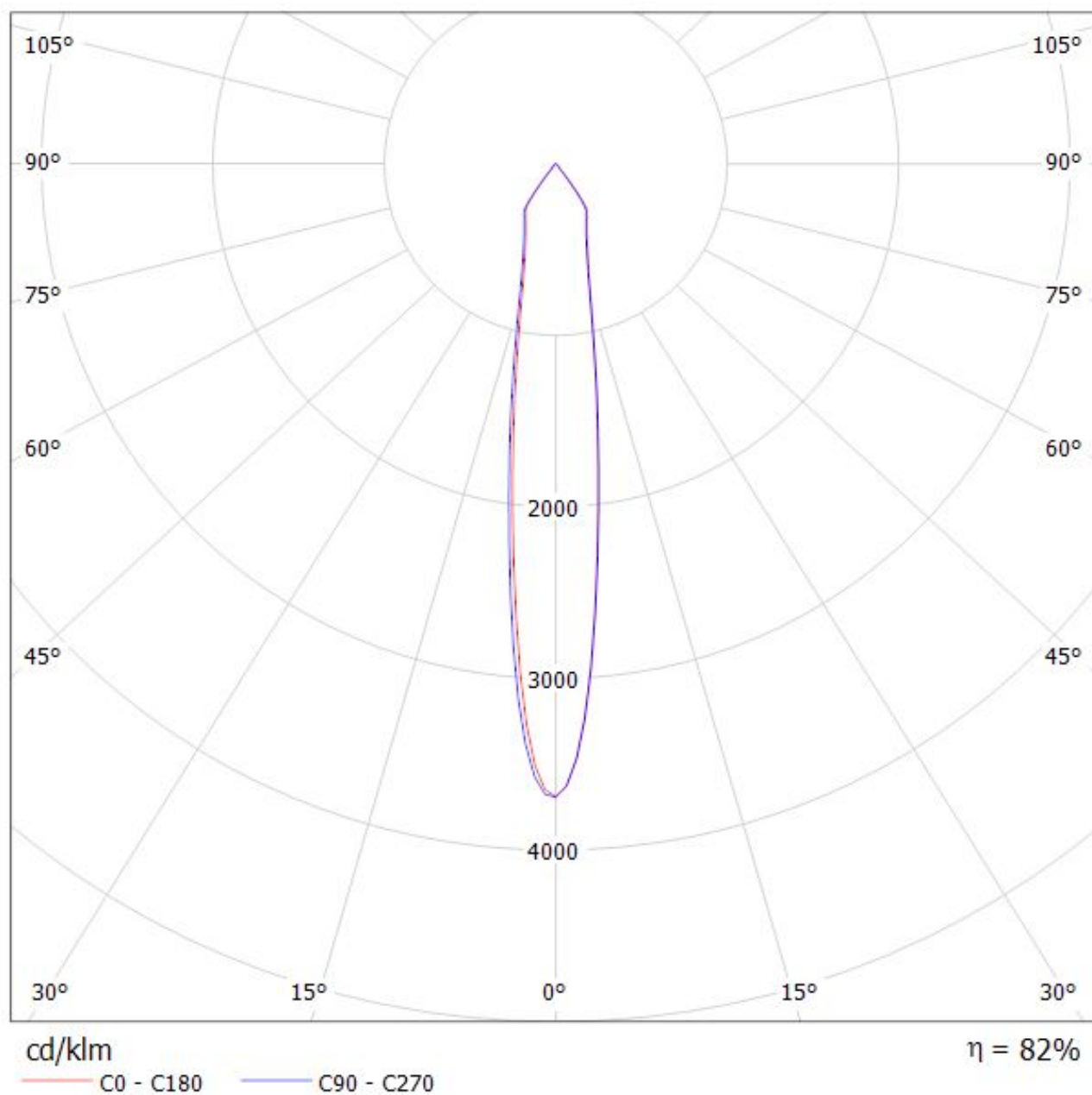
cd/klm

— C0 - C180

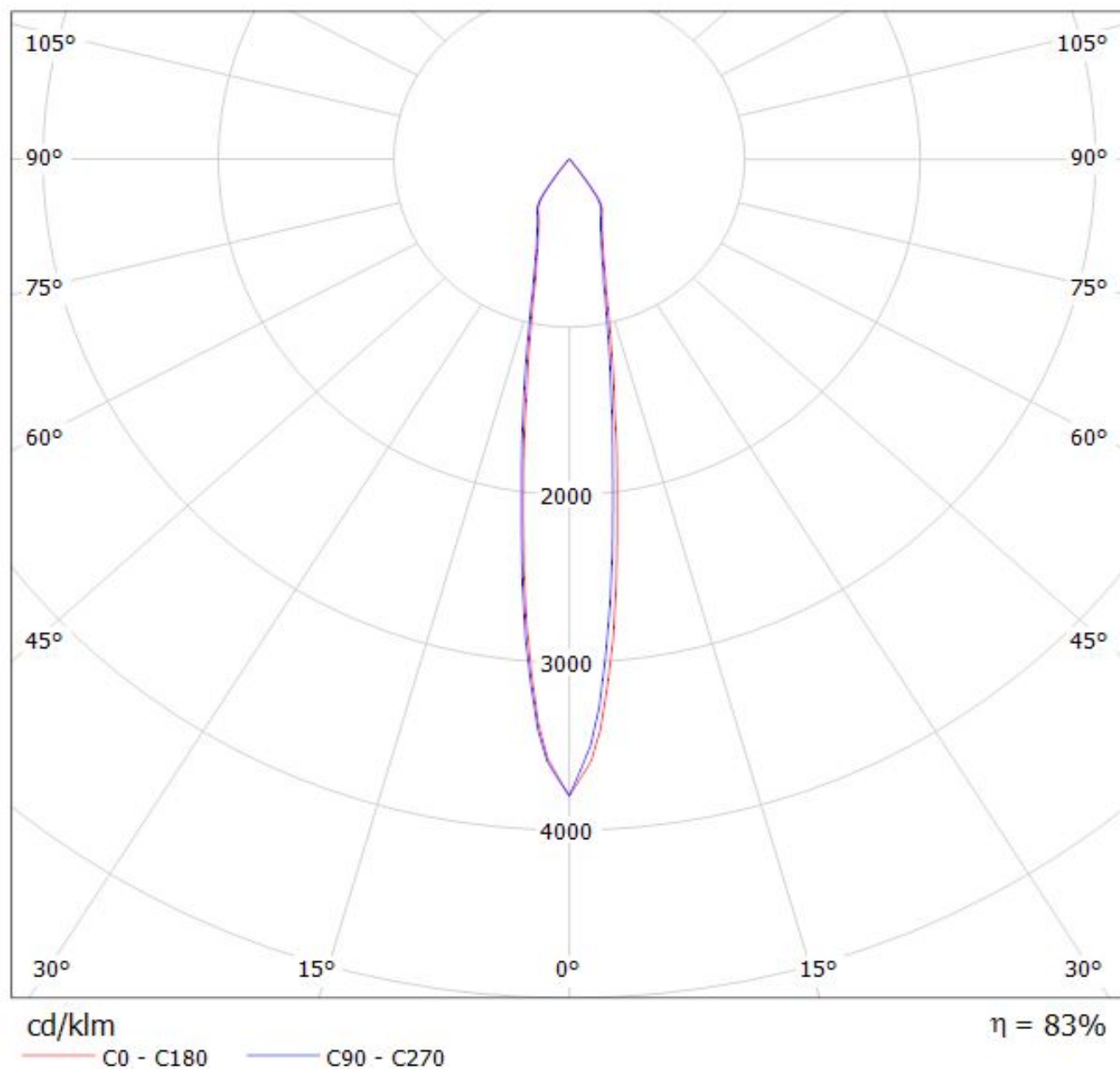
— C90 - C270

$\eta = 84\%$

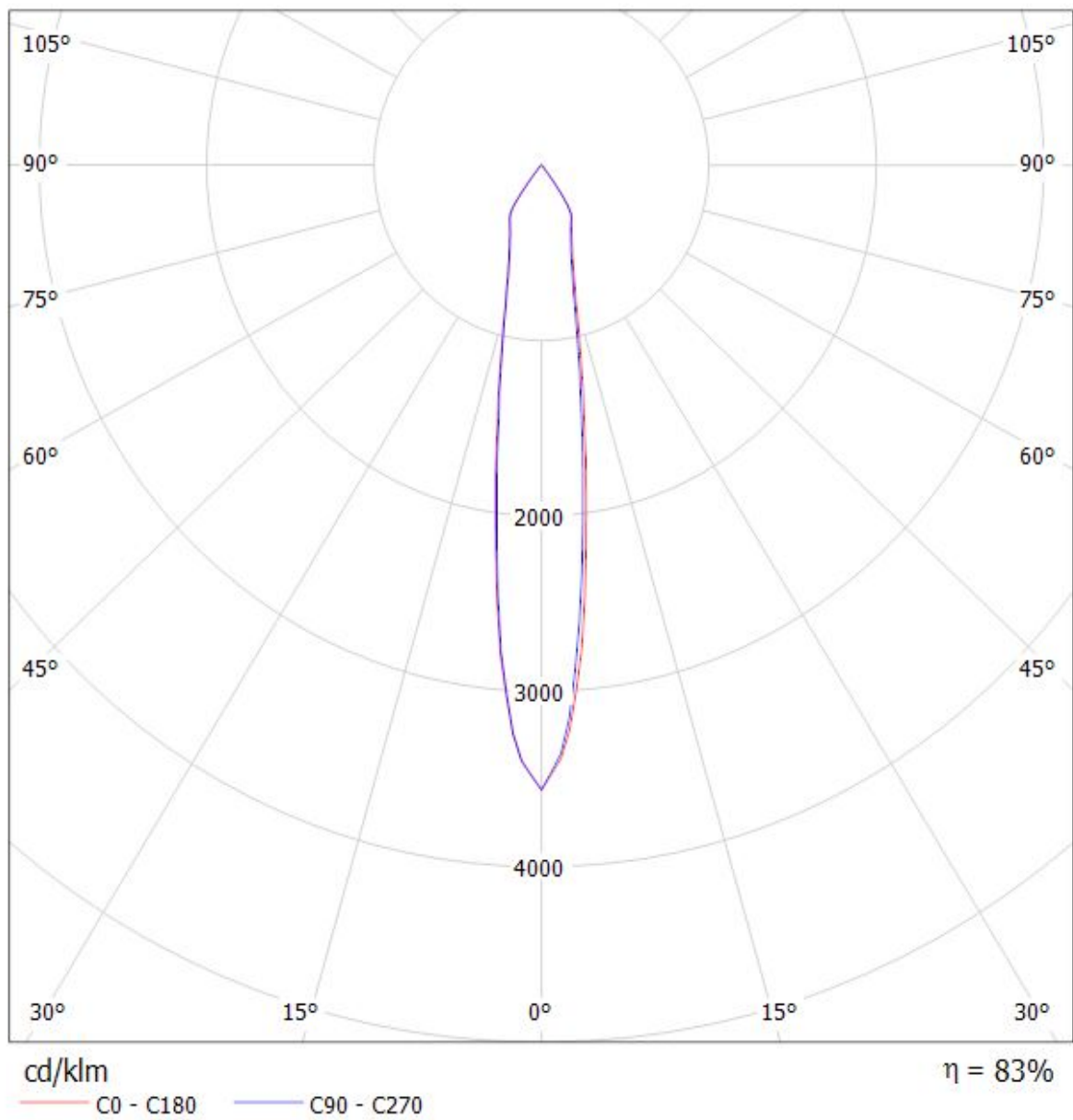
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(BXRA_ES) Eff.82.2%
Lamps: 1 x Bridgelux_BXRA_ES_287.055lm@250mA_P=4.09486W_I=249.9mA



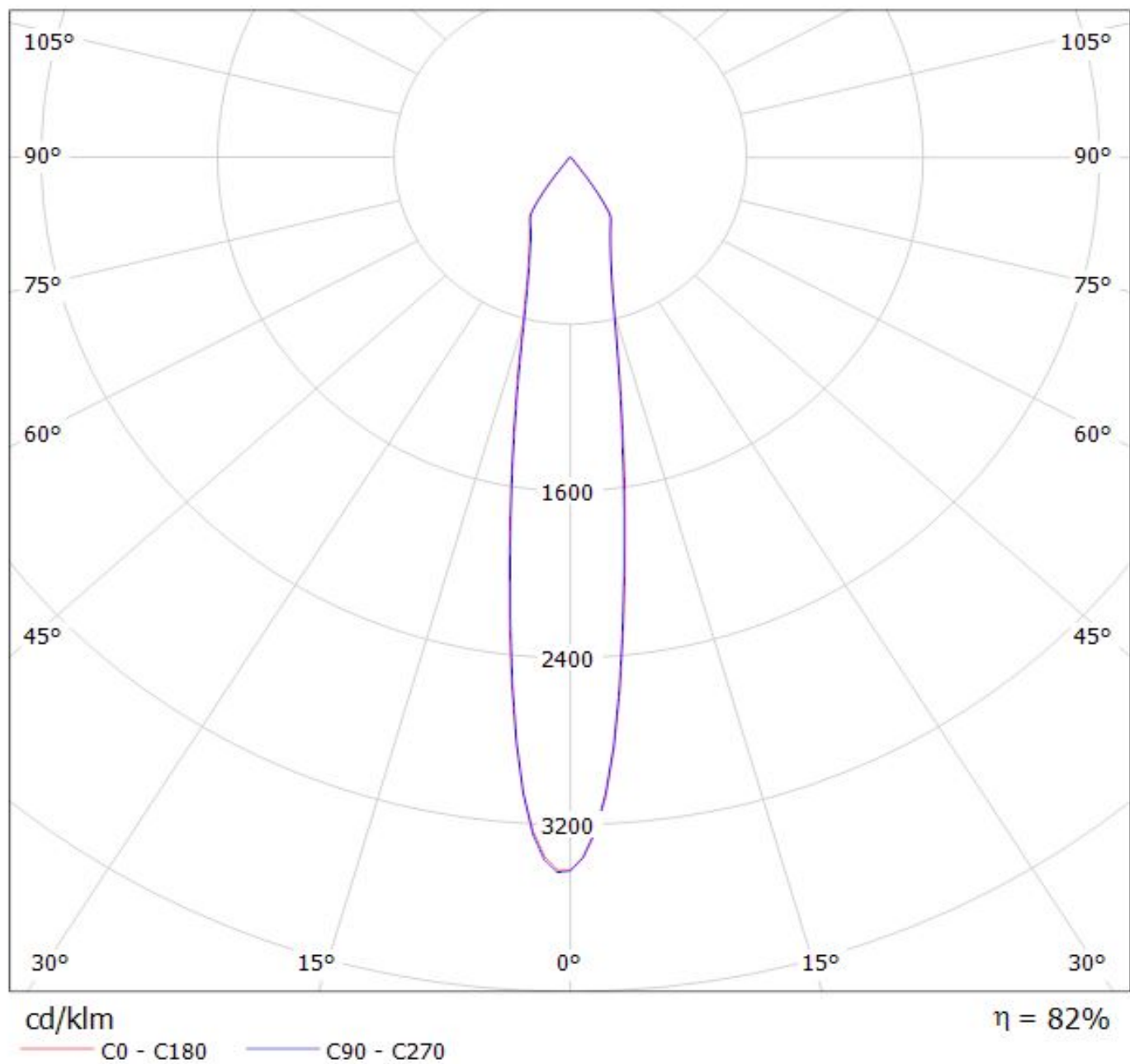
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(CLL030) Eff.82.7%
Lamps: 1 x Citizen_CLL030_1040.57lm@250mA_P=8.45923W_I=249.8mA



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

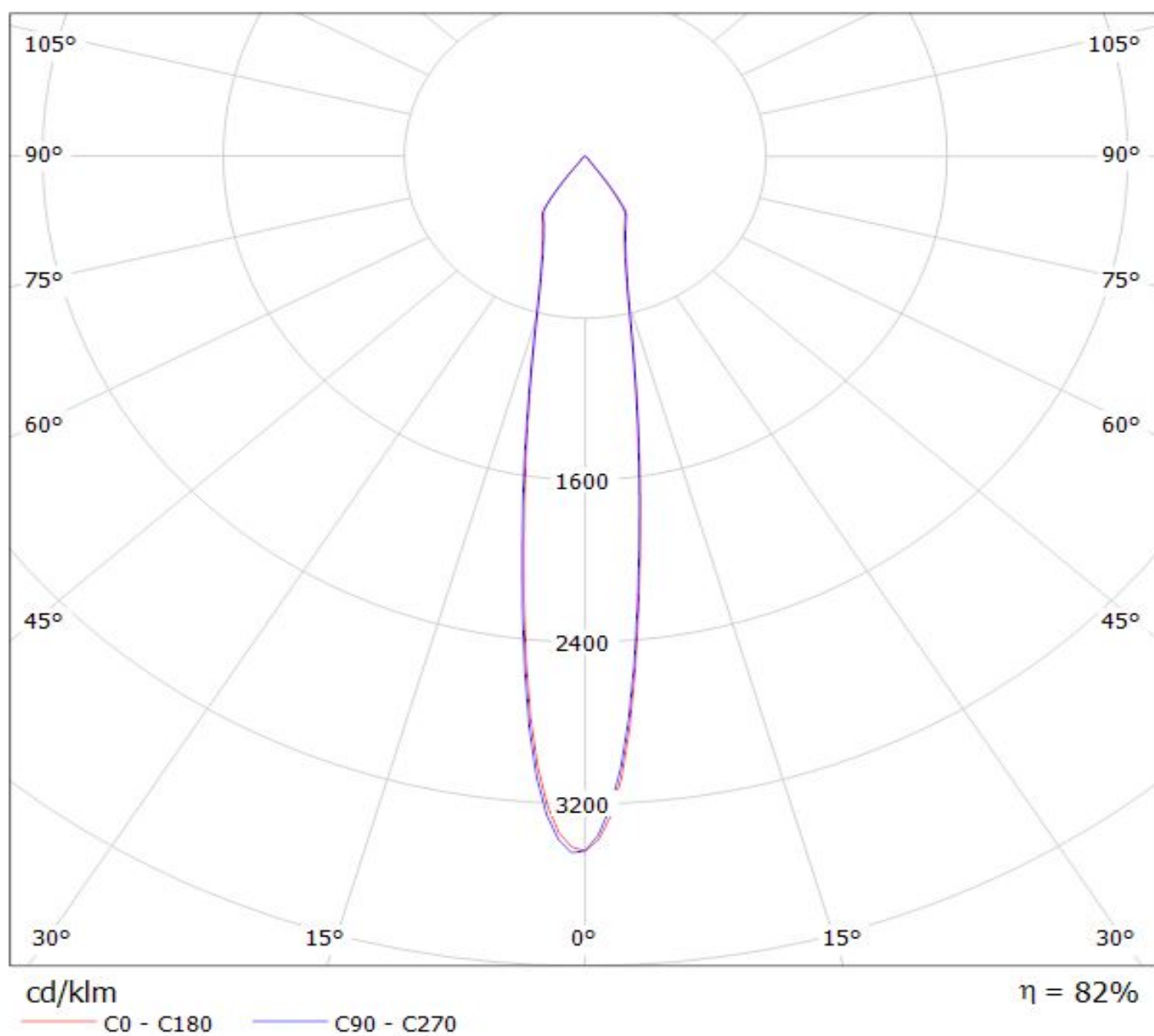


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(S19) Eff.82.6%
Lamps: 1 x Osram_SOLERIQ_S19_1434.85lm@250mA_P=10.5595W_I=249.8mA



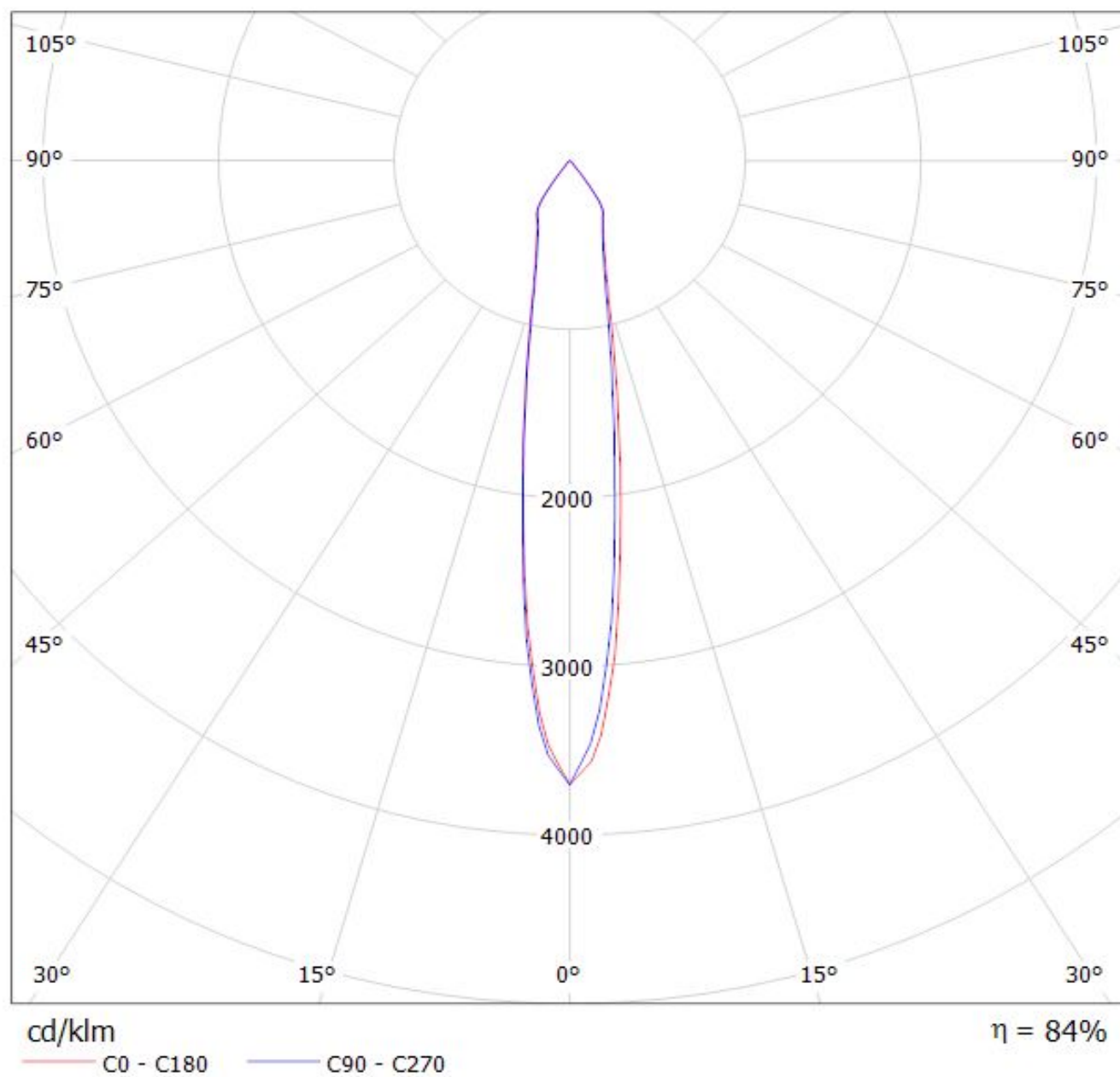
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(STARK_SLE_G3_LES17)

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

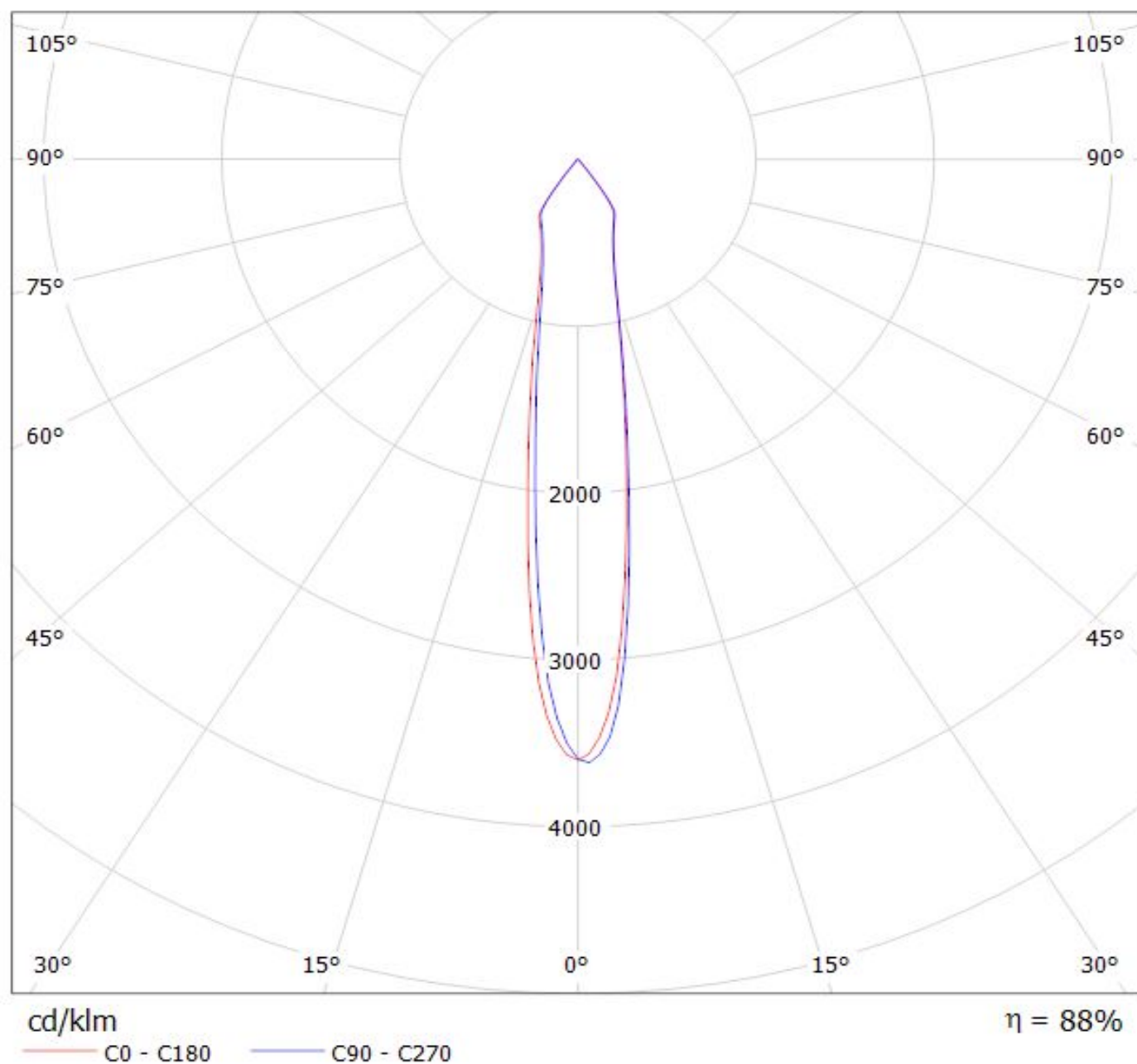


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(MZ) Eff.84.3%

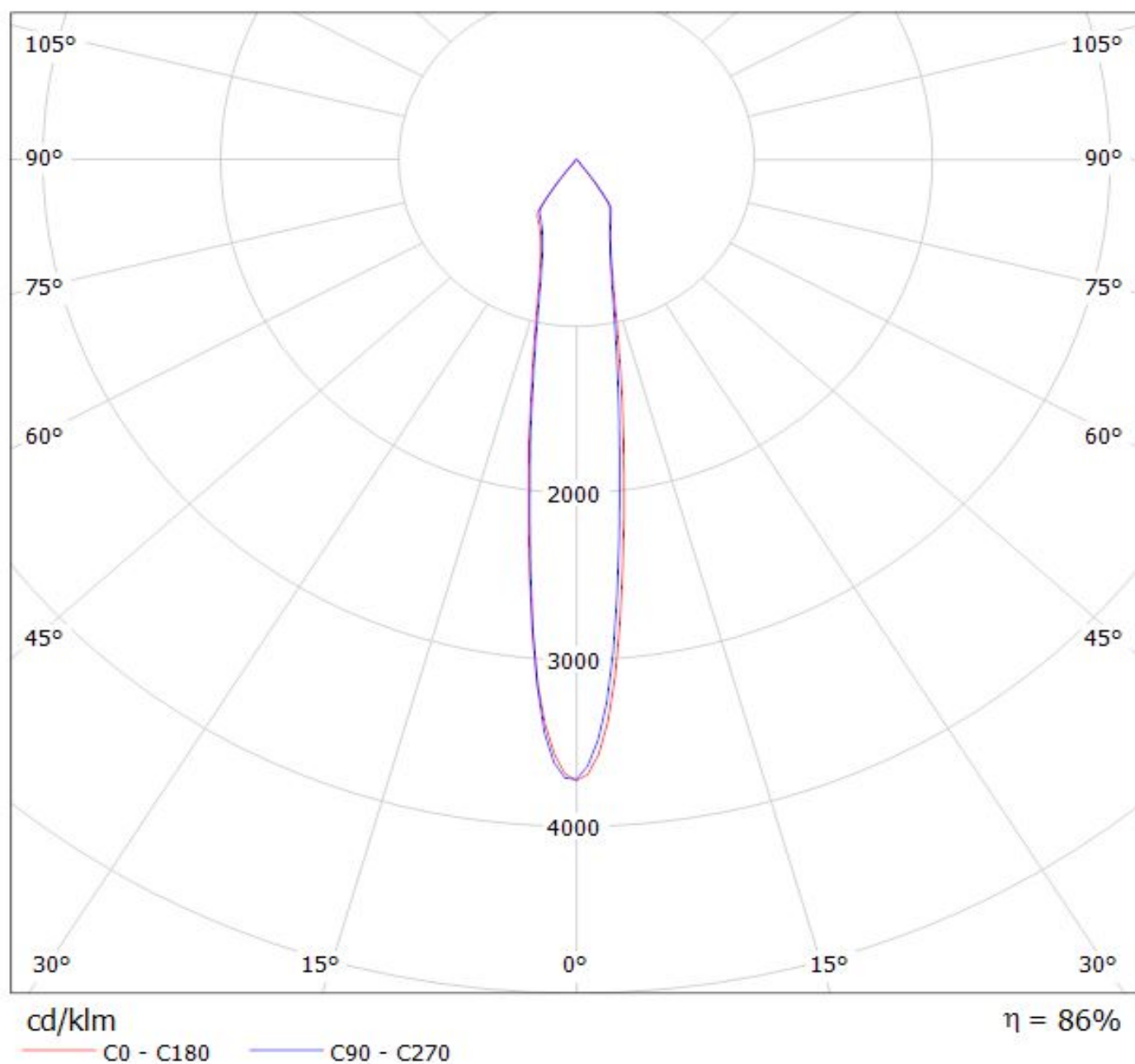
Lamps: 1 x Sharp_Mega_Zenigata_1226.07lm@250mA_P=11.1573W_I=249.8mA



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

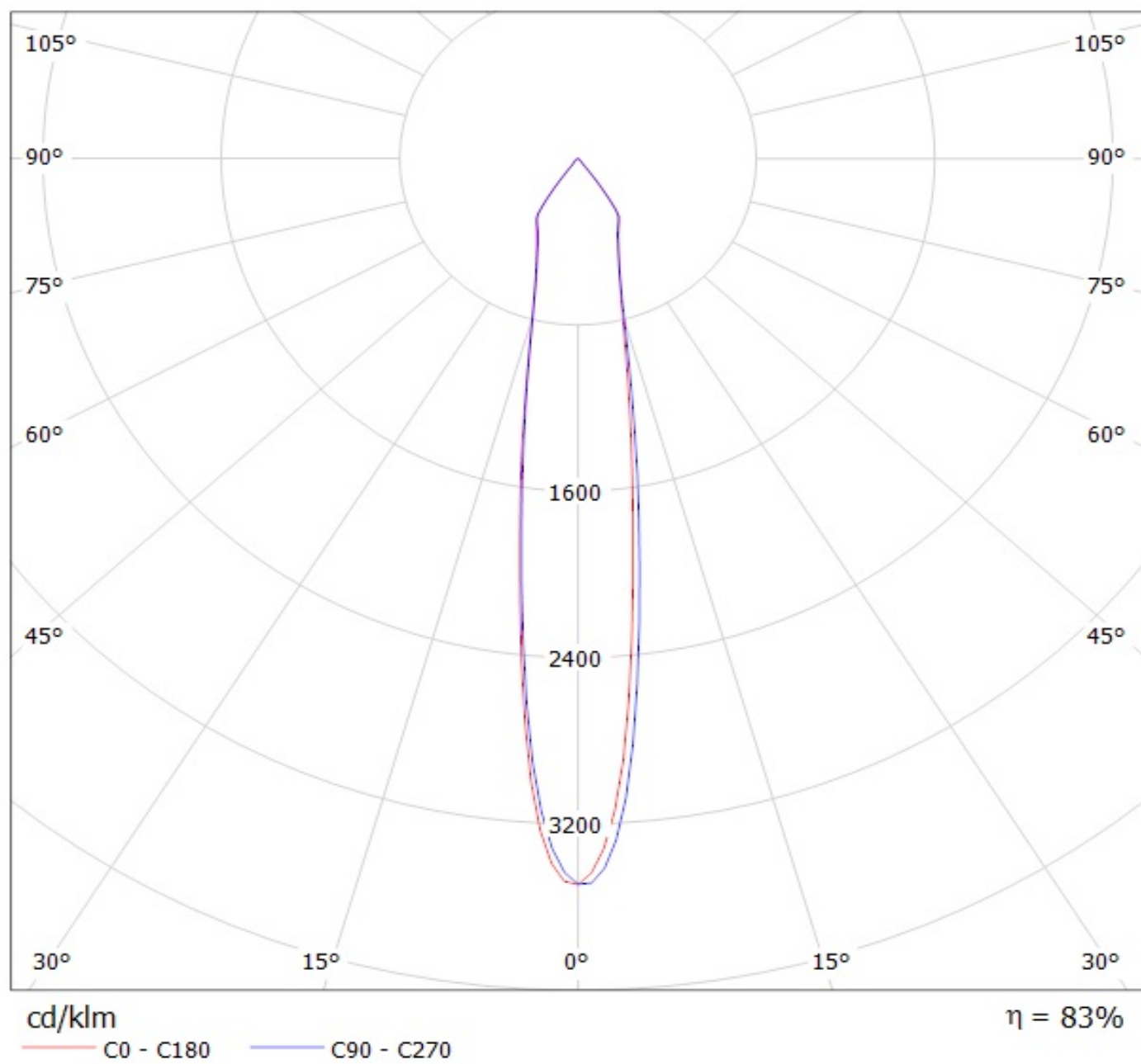


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(K12) Eff.86.5%
Lamps: 1 x Luxeon_K12_933.514lm@250mA_P=8.21721W_I=249.9mA

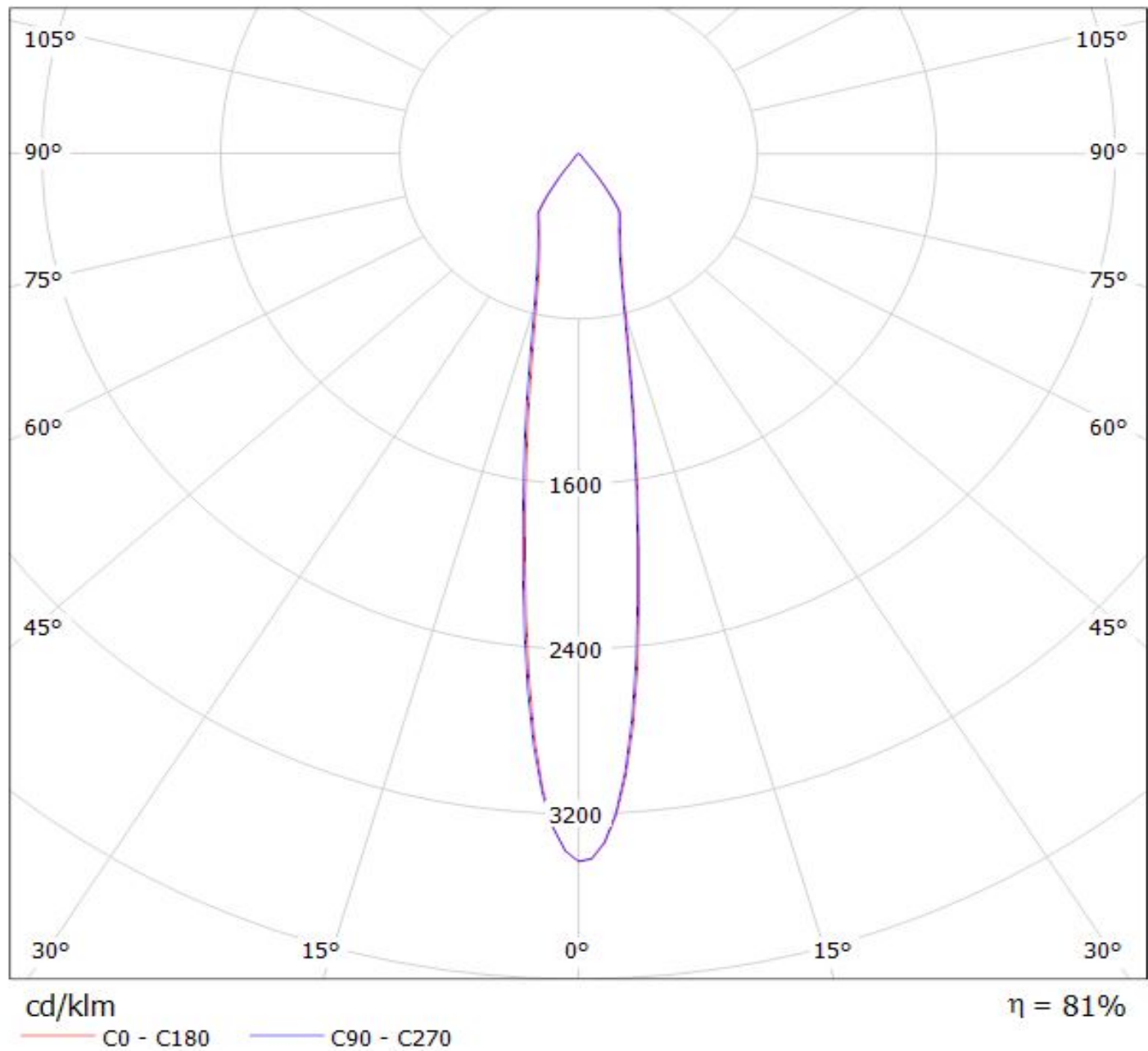


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(Luxeon_CoB_1208)

Lamps: 1 x Luxeon_CoB_1208_1045.92lm@250mA_P=8.25314W_I=249.8mA

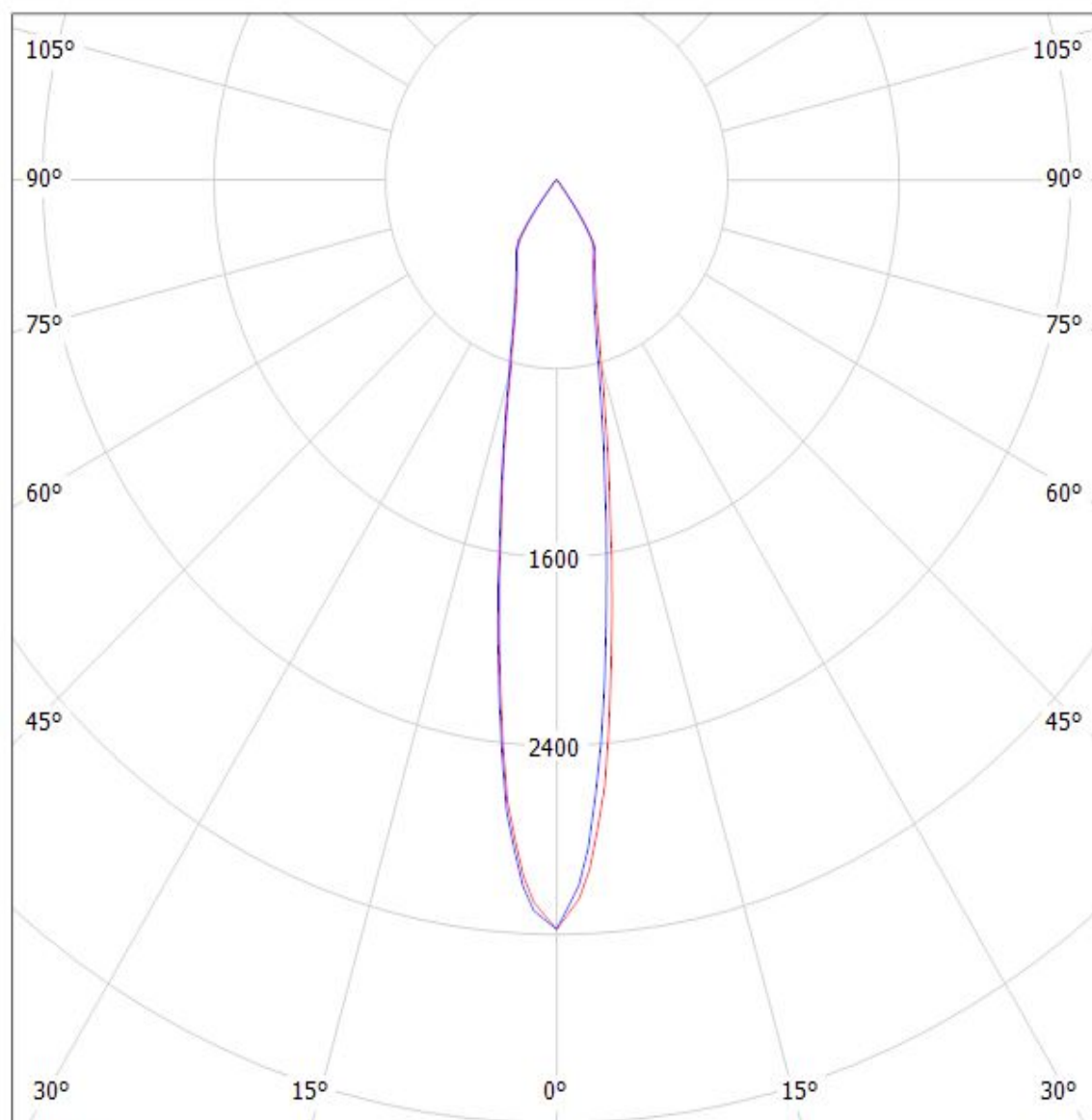


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(SLE GEN4 LES19)
Lamps: 1 x SLE GEN4 LES19_1226.28lm@250mA_P=8.21367W_I=0.2498A



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

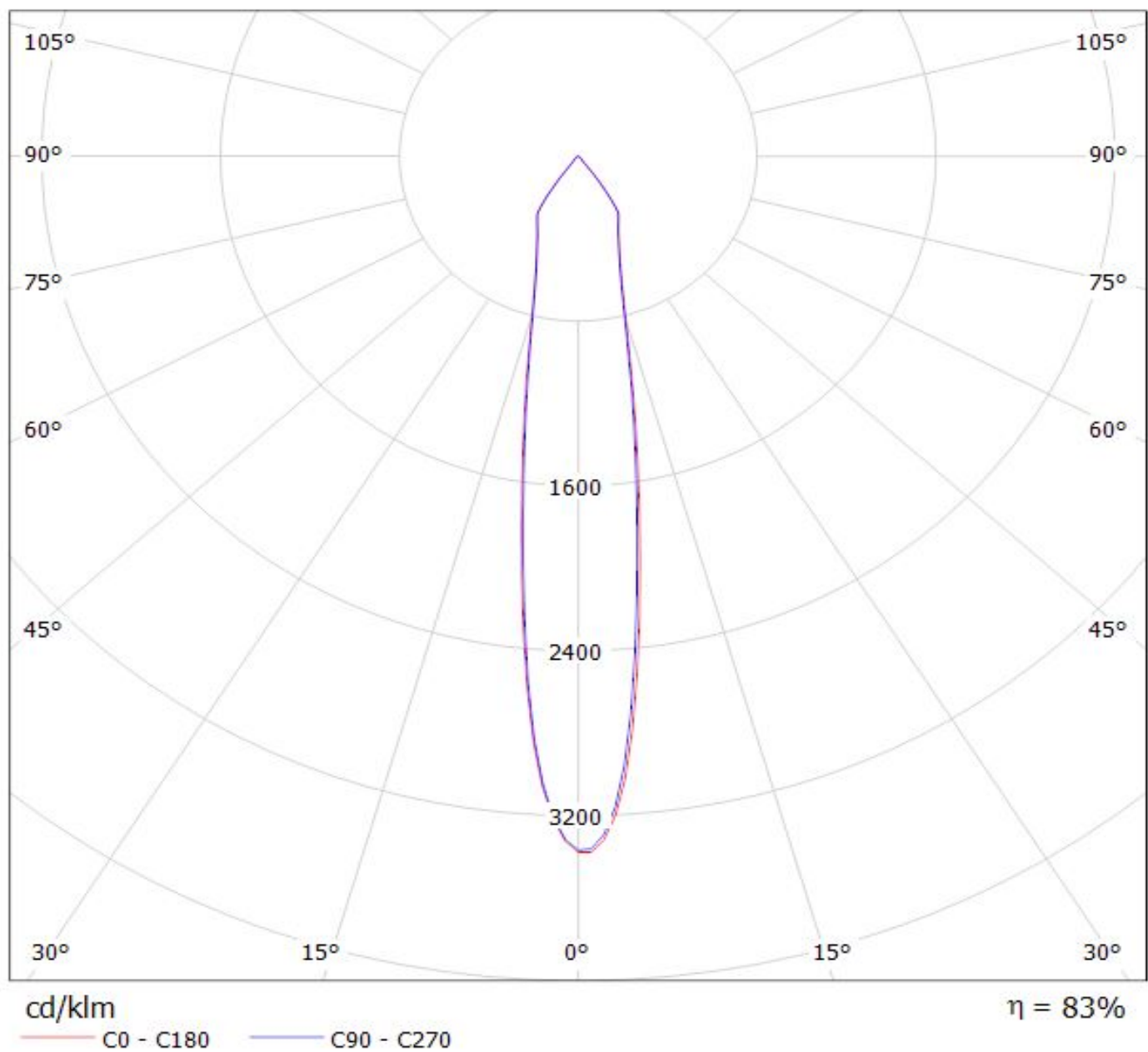


cd/klm

η = 82%

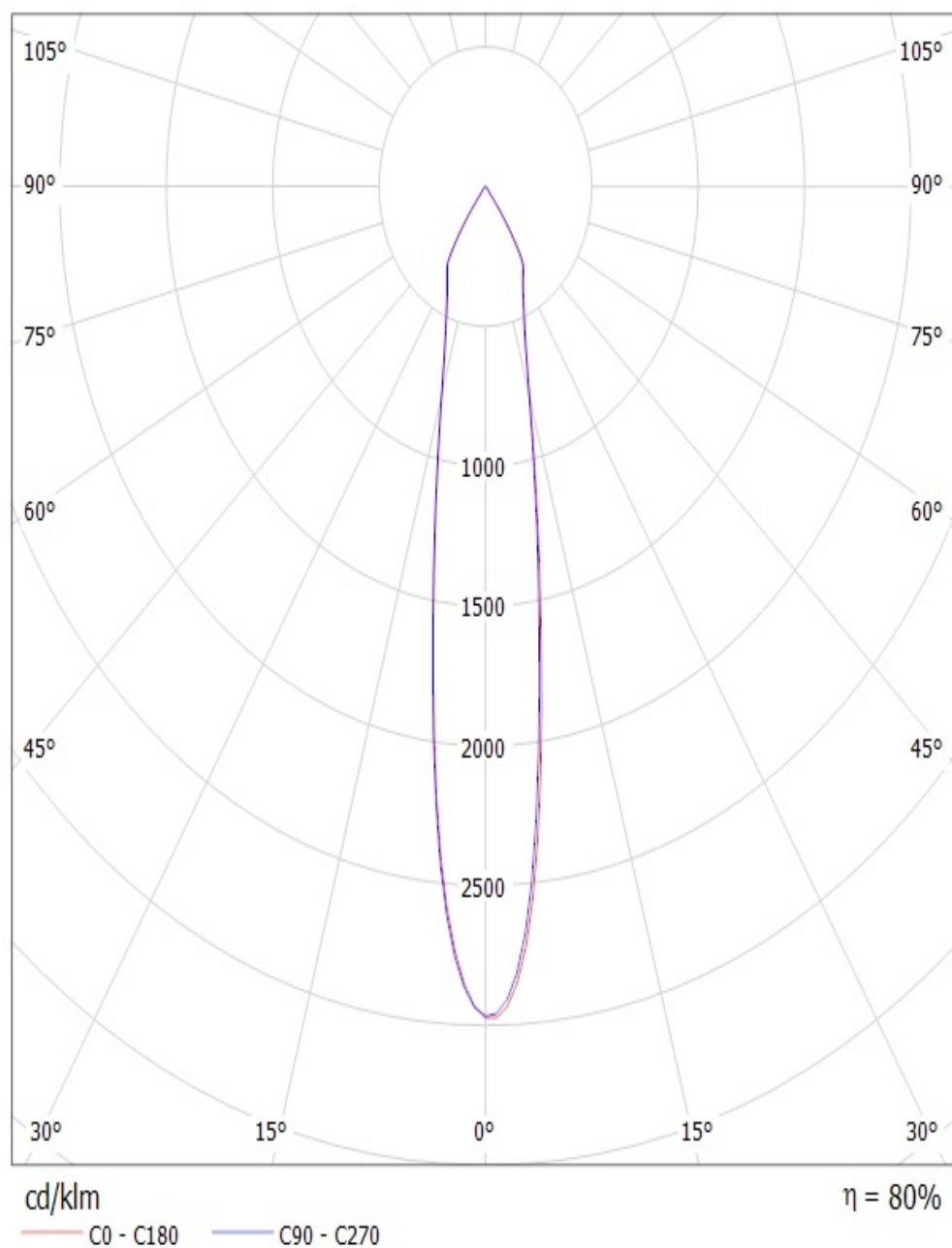
— C0 - C180 — C90 - C270

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

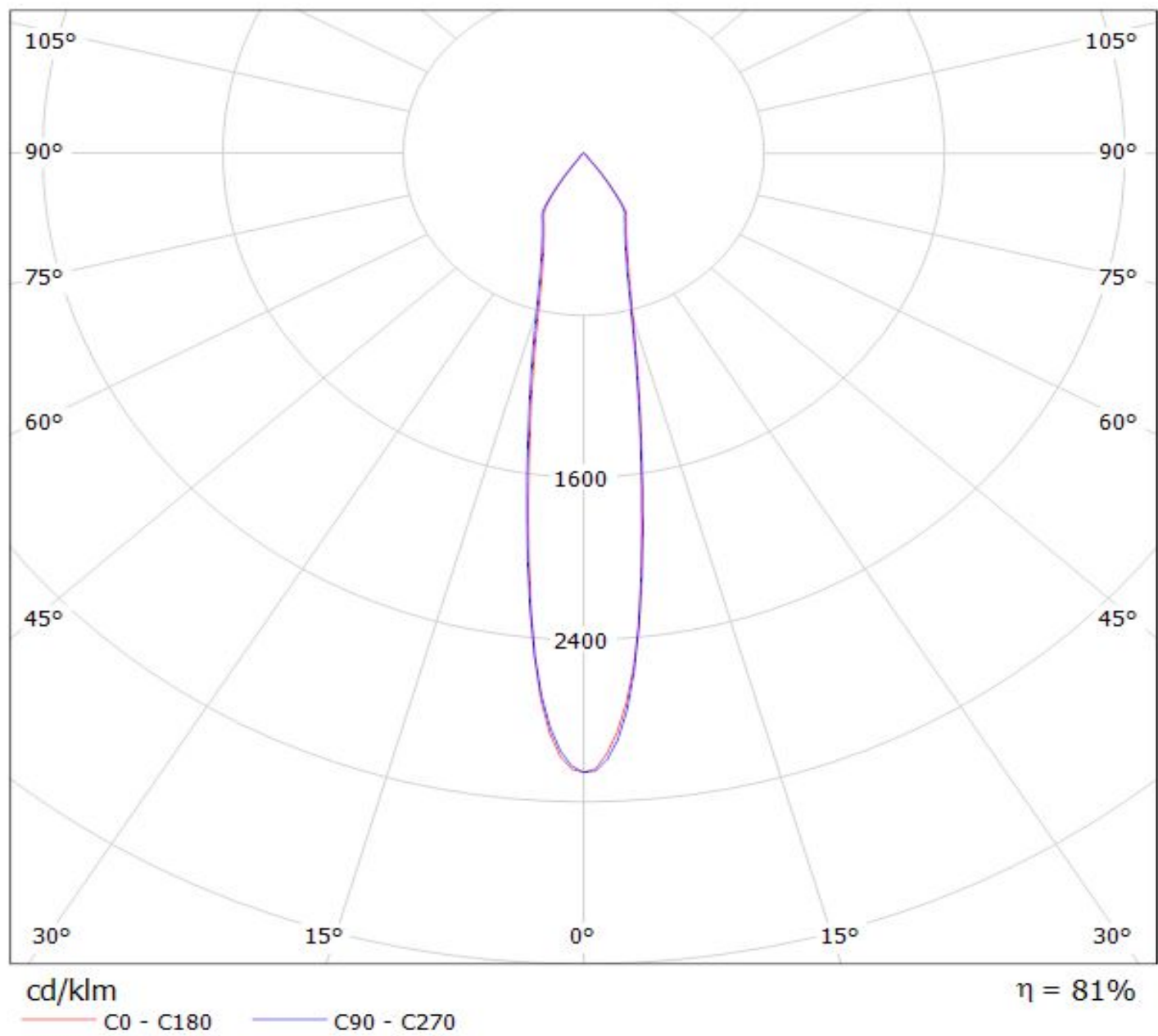


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(Luxeon_CoB_1211)_(BJB2030)

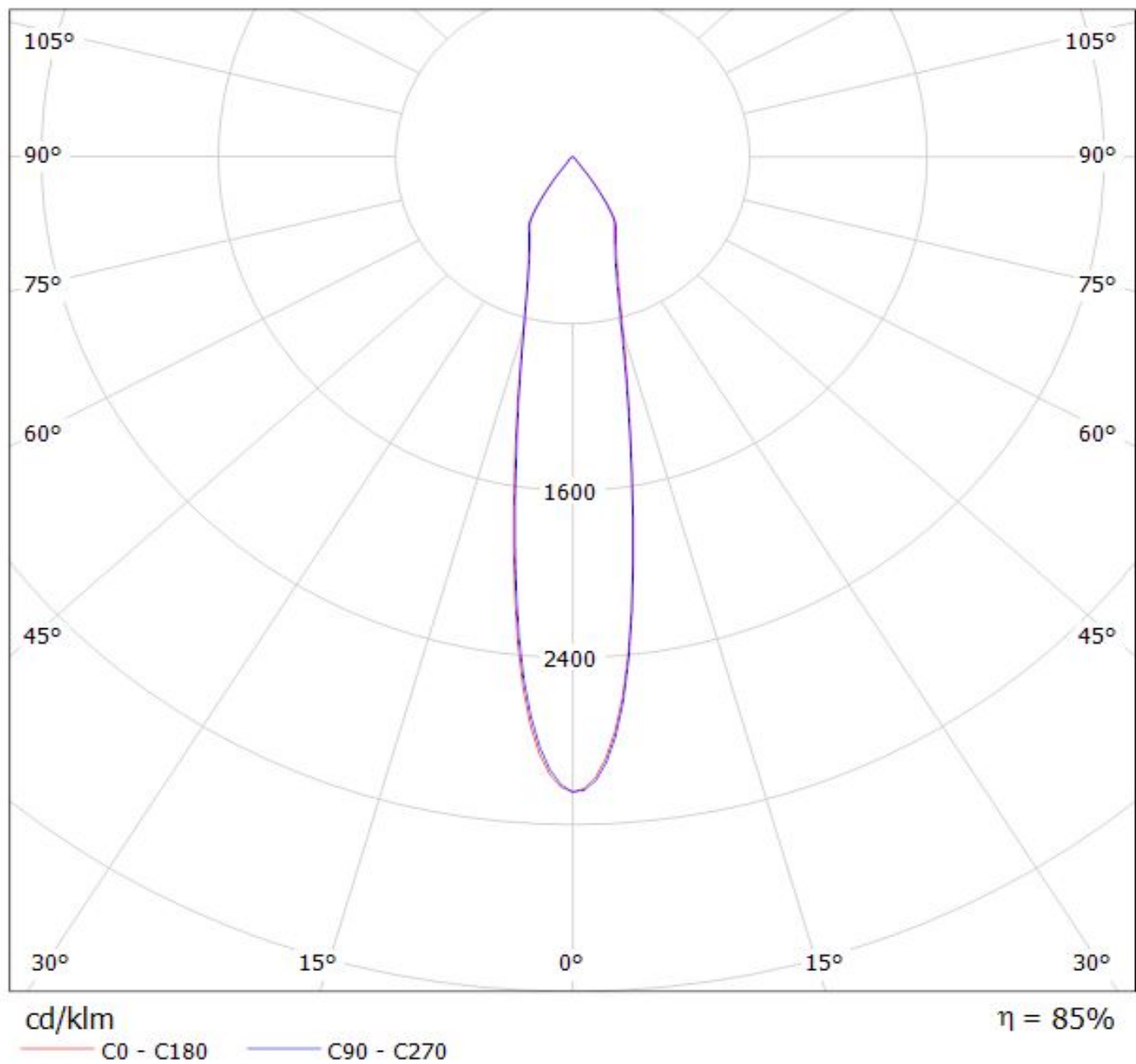
Lamps: 1 x Philips_Lumileds_Luxeon_CoB_1211_(LHC1-5780-1211)_(BJB2030)_1332.46lm@250mA_CCT(approx.)=5700K_P=8.03332W_I=0.2498A



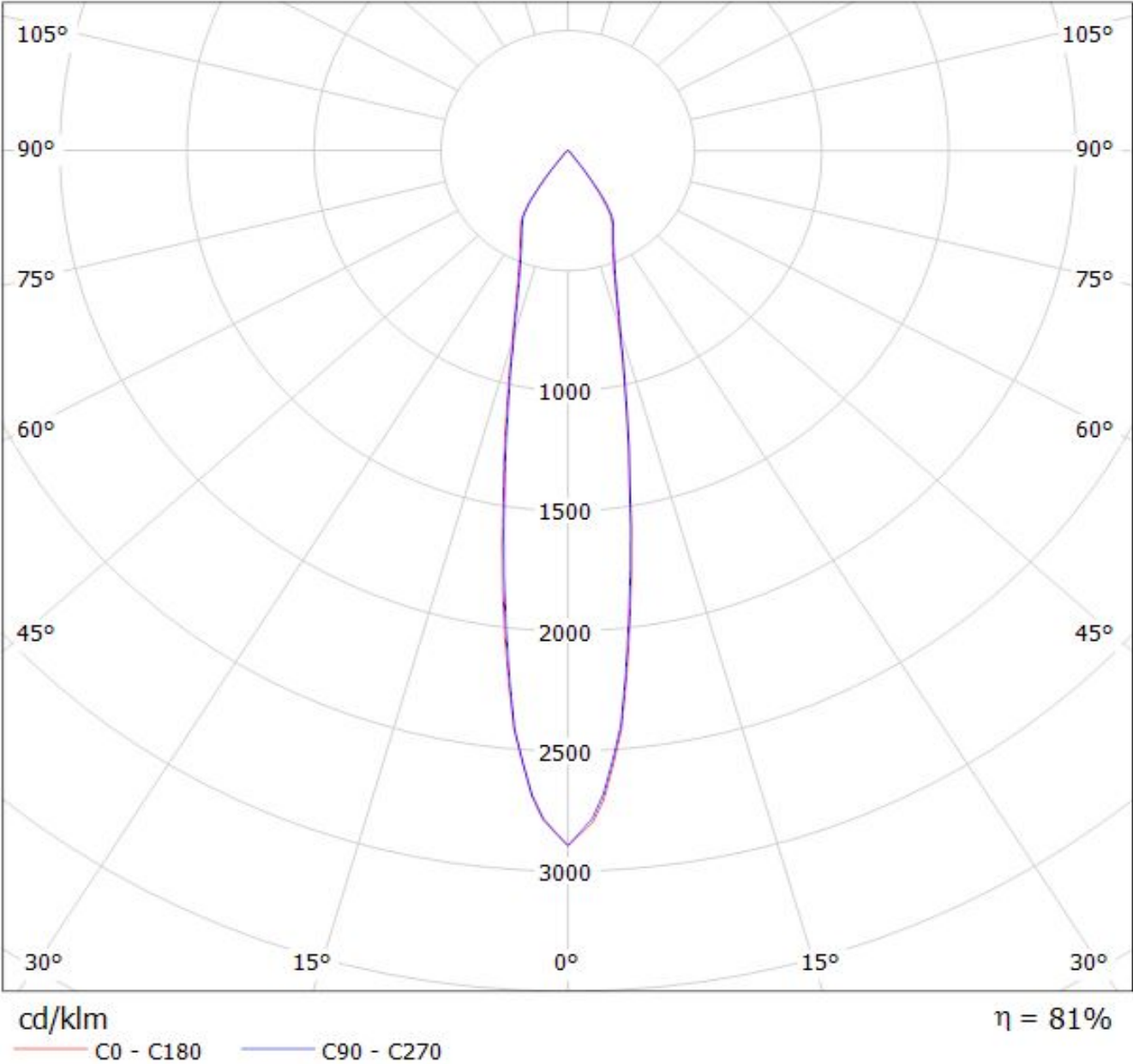
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(Luxeon_CoB_1211)
Lamps: 1 x LUXEON_COB_1211_(LHC1-2790-1211)
_923.583lm@250mA_CCT=2700K_P=8.00909W_I=249.8mA



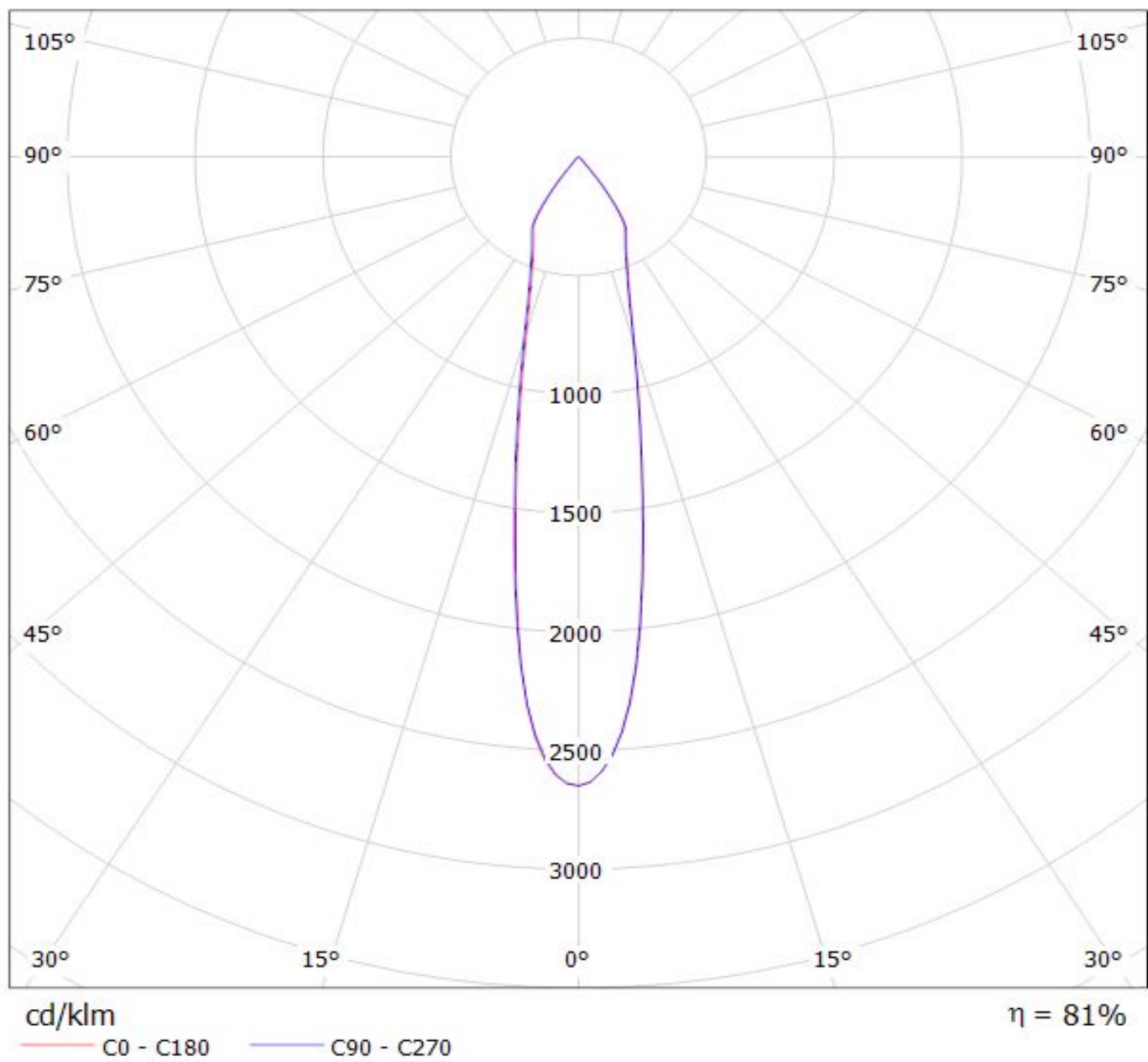
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(SLE_G4_LES23)
Lamps: 1 x Tridonic_SLE_G4_LES23_1354.57lm@250mA_P=8.18744W_I=0.2498A



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

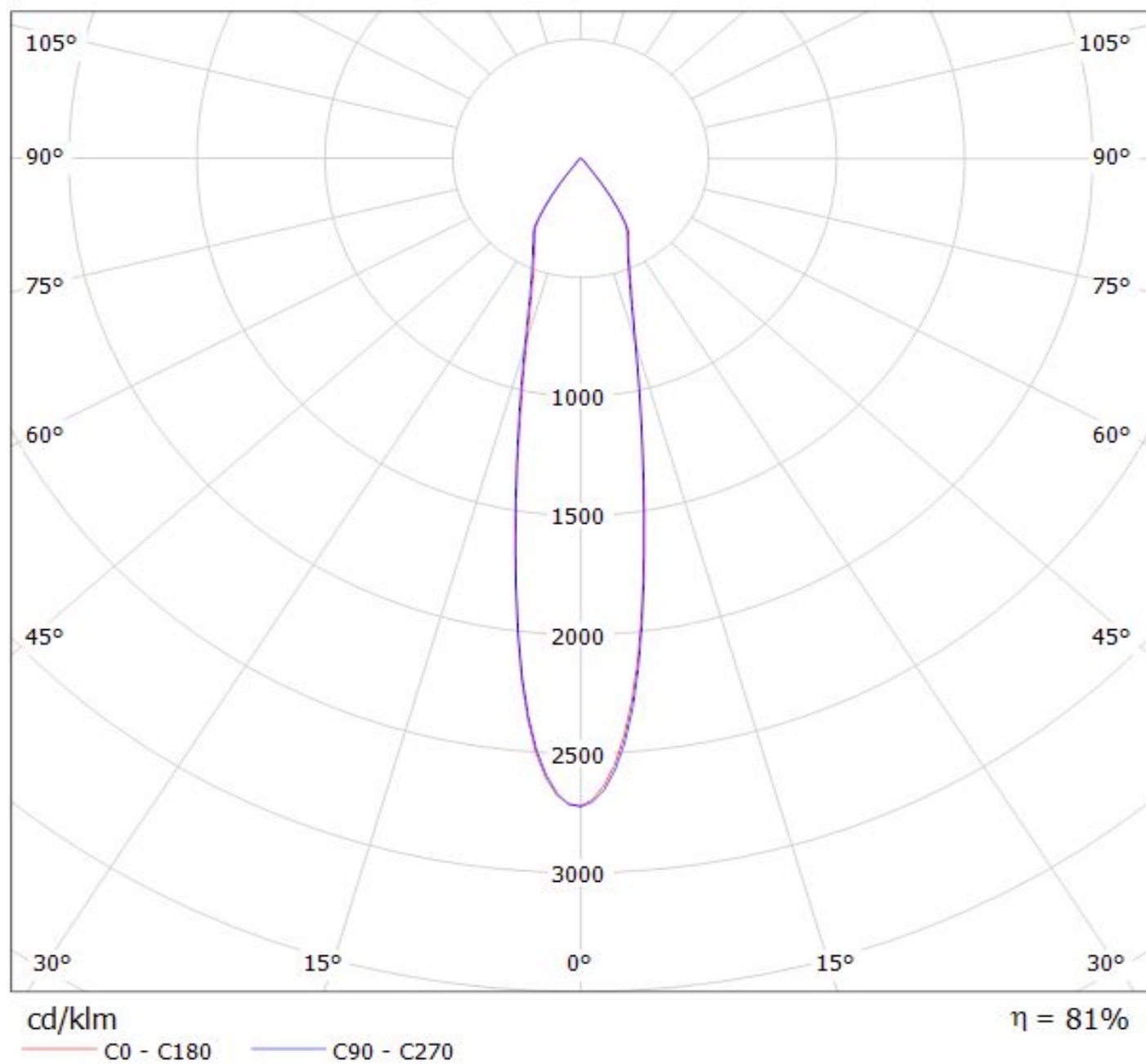


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(CLU044)
Lamps: 1 x Citizen_CLU044_(CLU044-1212B8-303M1A2)_1300.9lm@250mA_P=8.14849W_I=249.9mA



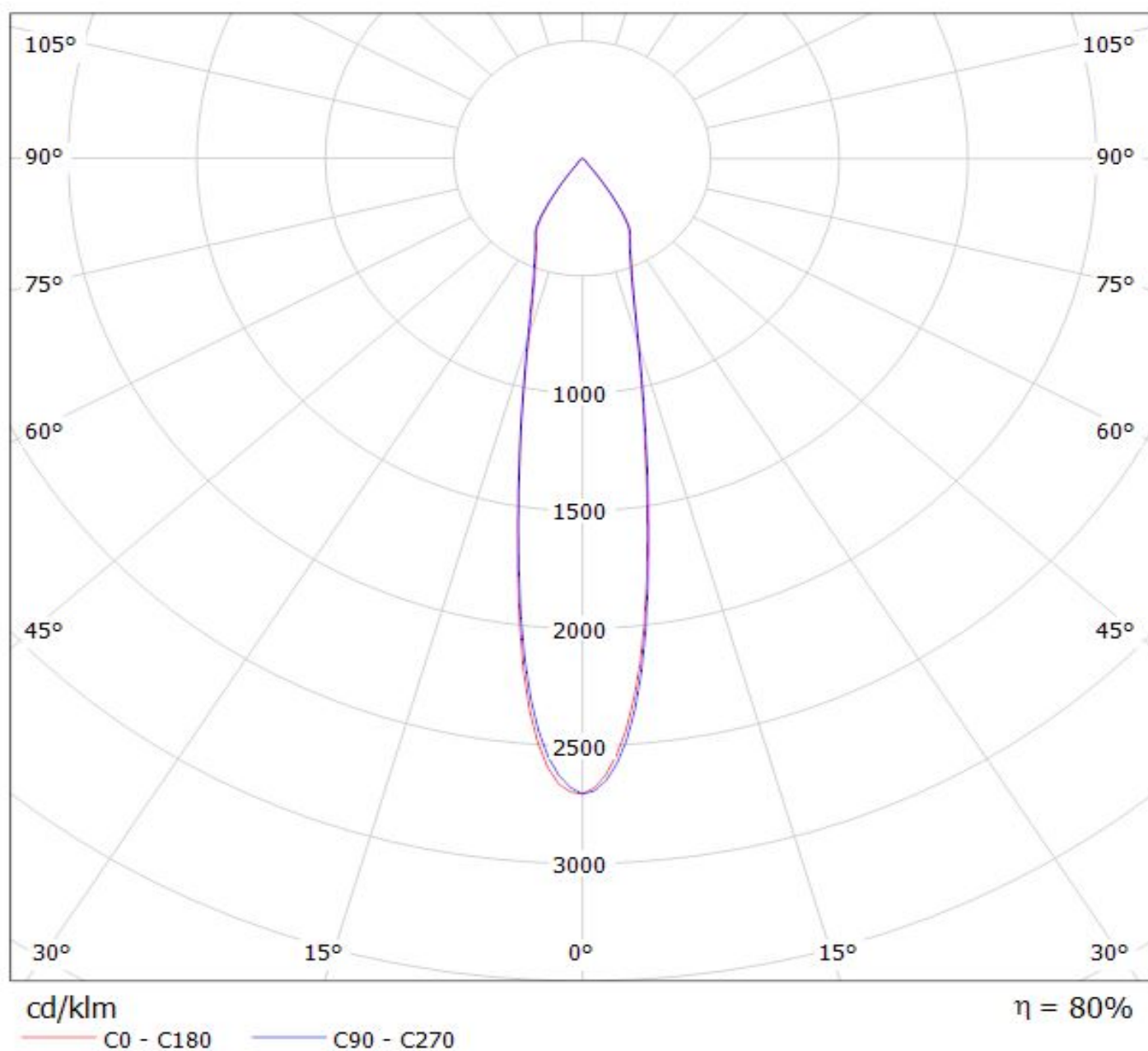
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(ZC40)

Lamps: 1 x SEOUL_ZC40_(SBWW5F1B)_1176.6lm@250mA_P=8.22171W_I=249.9mA

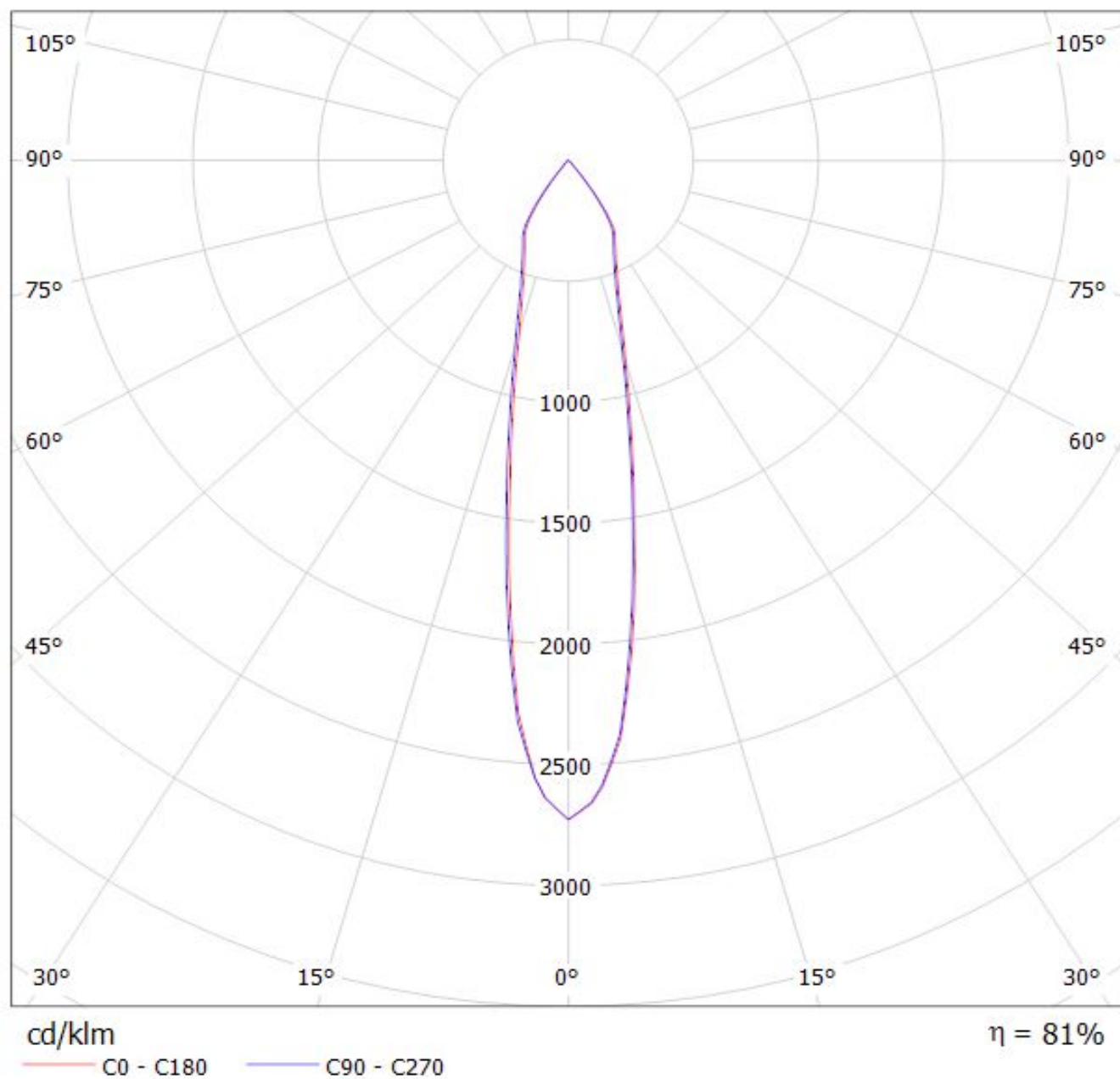


Luminaire: LEDiL Oy F13663_ANGELA-M-B_(CXA30)

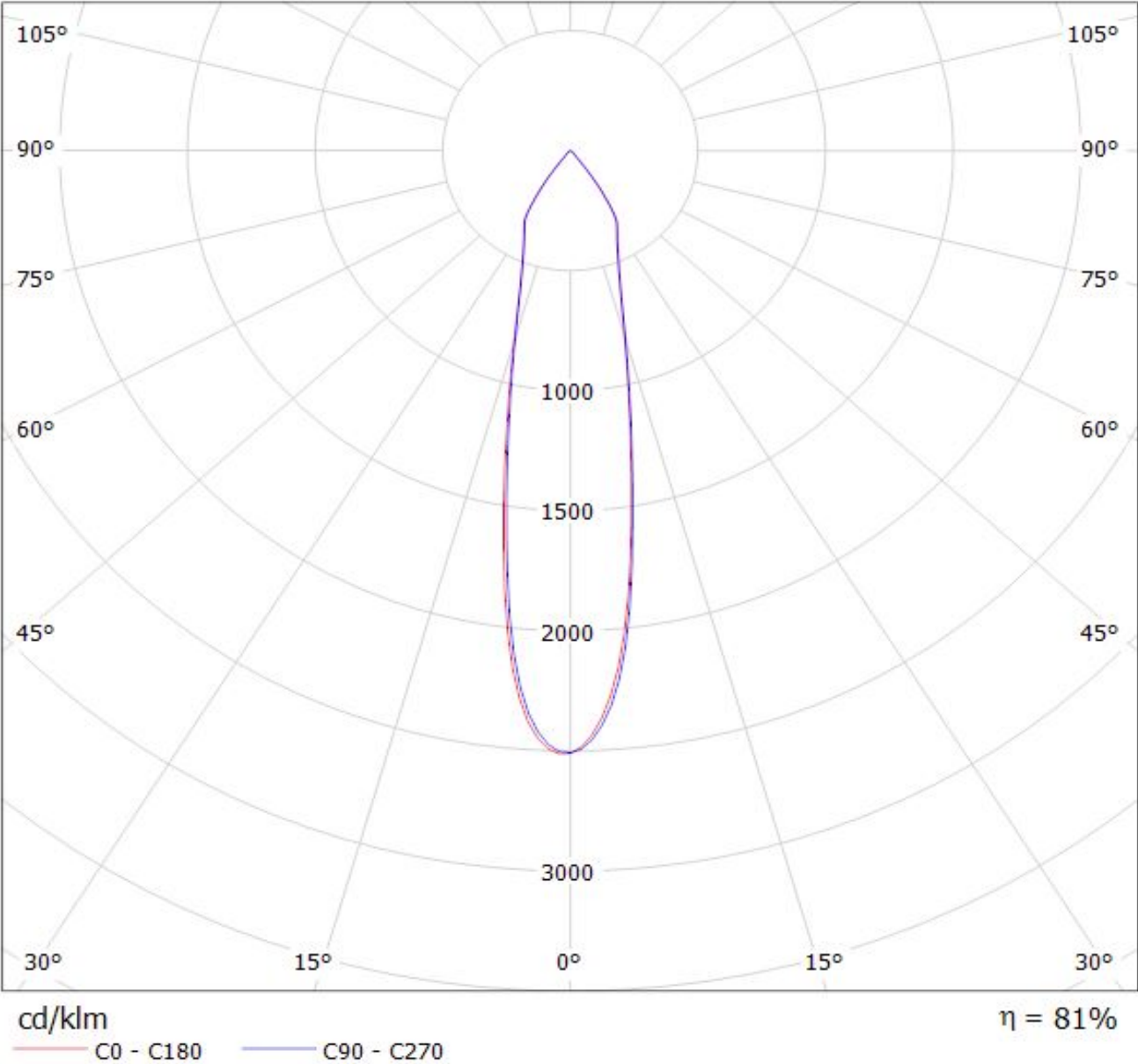
Lamps: 1 x Cree_CXA30_(CXA3050-3C0-Y2-N0H)_1395.36lm@250mA_P=8.20318W_I=249.8mA



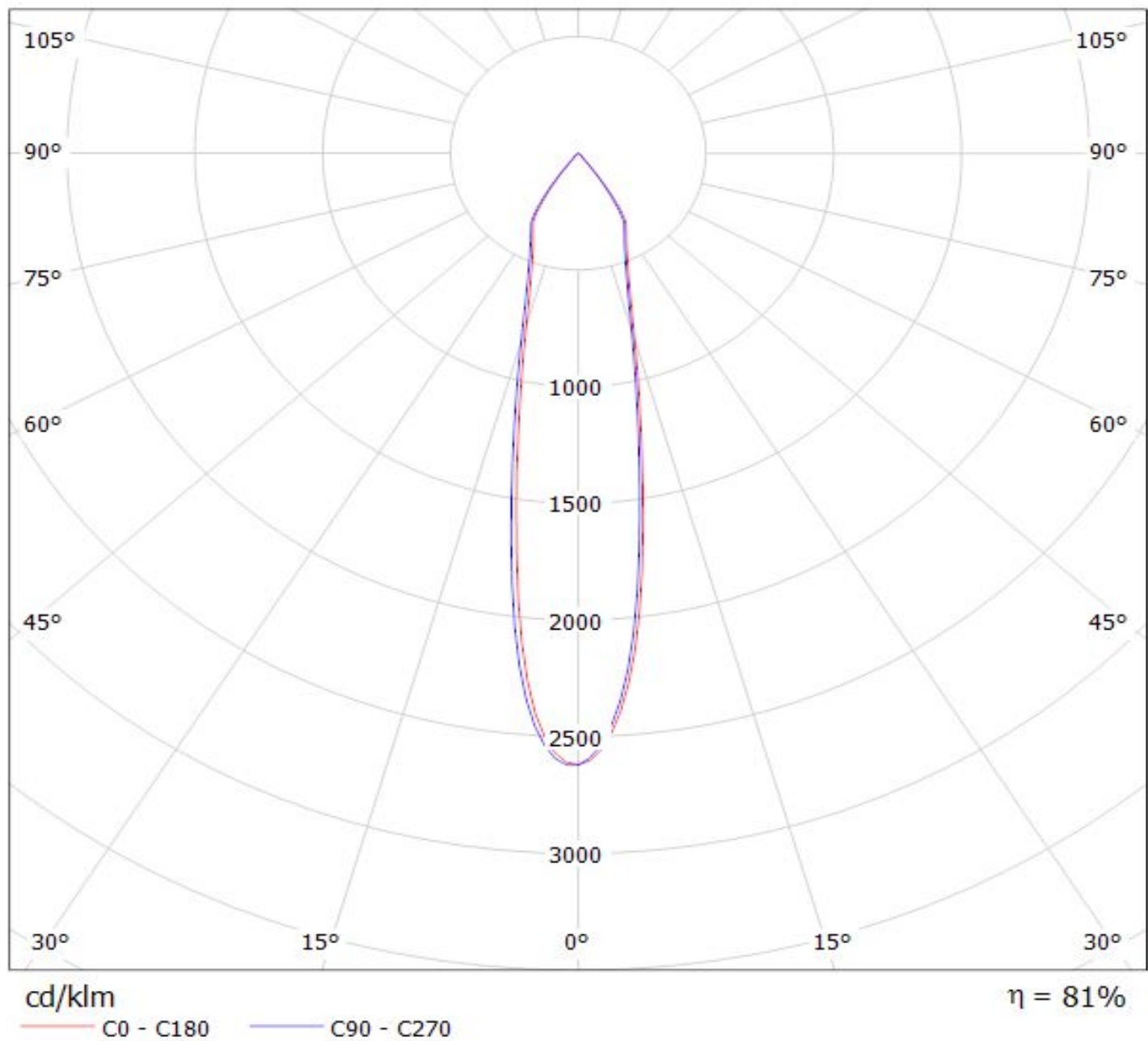
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(CLL040) Eff.81.0%
Lamps: 1 x Citizen_CLL040_1011.32lm@250mA_P=8.24545W_I=249.9mA



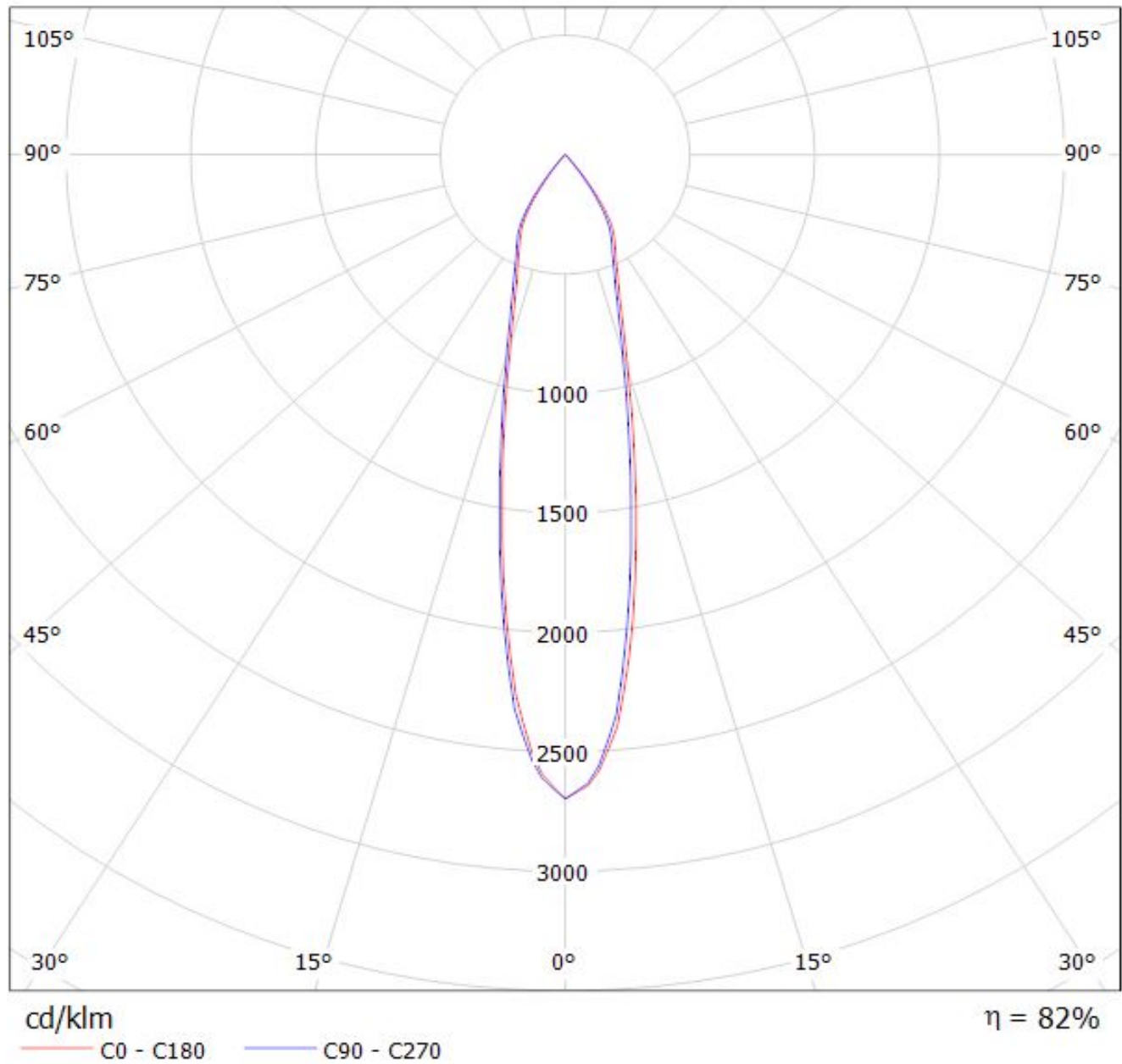
Luminaire: LEDiL Oy F13663_ANGELA-M-B_(CXM-22) Eff.80.7%
Lamps: 1 x LUMINUS_CXM-22_1221.8lm@250mA_P=8.00809W_CCT=3000K_I=249.8mA



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



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.