

DETAILS

Product Number	CA13156_EMERALD-A
Family	EMERALD
Type	Assembly
Color	clear
Diameter	21.6 mm
Height	7,3 mm
Style	round
Optic Material	PMMA
Holder Material	
Fastening	pin, tape
Status	ready
ROHS Compliant	Yes
Date Updated	6/05/2014



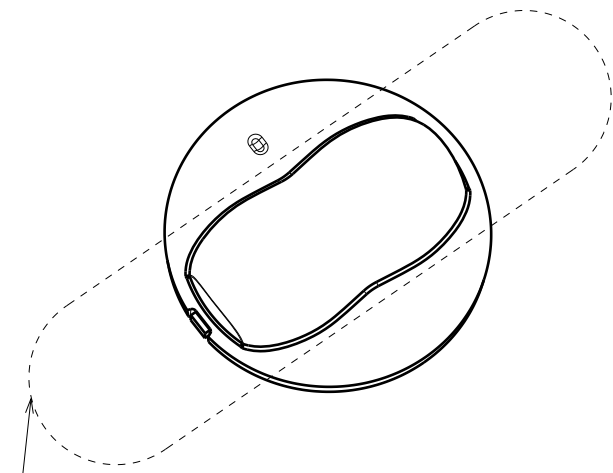
OPTICAL PROPERTIES

LED	Viewing Angle	Light Beam	Efficiency	cd/lm	Connector
Z5	TBA deg	Oval	89 %	sim: 0.000	-
NCSxx19A	145+64 deg	Oval	88 %	2.200	-
LUXEON Rebel	146+64 deg	Oval	88 %	2.900	-
LUXEON R	147+71 deg	Oval	88 %	1.900	-
LUXEON Rebel ES	147+73 deg	Oval	88 %	1.900	-
NVSxx19A	147+70 deg	Oval	87 %	1.850	-
Oslo SSL 80	148+53 deg	Oval	89 %	2.300	-
XB-D	150+63 deg	Oval	88 %	2.300	-
XT-E	150+64 deg	Oval	88 %	2.000	-
Oslo Square EC	150+76 deg	Oval	89 %	1.850	-
Oslo Square PC	150+86 deg	Oval	89 %	2.000	-
NS9x383	150+82 deg	Oval	89 %	1.000	-
LUXEON A	151+73 deg	Oval	89 %	1.750	-
LUXEON T	151+75 deg	Oval	93 %	1.800	-
LUXEON TX	151+71 deg	Oval	92 %	1.850	-
XP-G2	151+75 deg	Oval	91 %	2.040	-
XM-L	152+81 deg	Oval	91 %	1.200	-
Oslo SSL 150	152+99 deg	Oval	92 %	2.900	-
XP-E	152+71 deg	Oval	93 %	2.800	-
XP-G	153+92 deg	Oval	88 %	1.900	-
H35C0 (LEMWA33)	153+68 deg	Oval	90 %	1.600	-
XP-E2	153+70 deg	Oval	93 %	2.900	-
H35B0 (LEMWA32)	153+64 deg	Oval	93 %	2.000	-
XM-L2	167+71 deg	Oval	92 %	1.200	-

INDEX	PART NO	DESCRIPTION	MATERIAL
1	CA13156	EMERALD-A	PMMA + PU FOAM adhesive tape

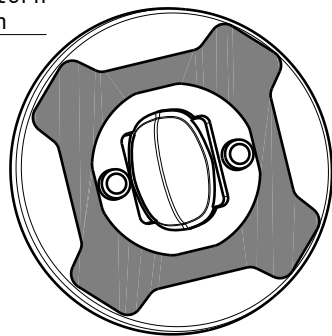
4

Isometric view
Scale: 2:1

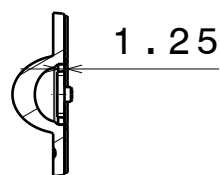


3

Beam pattern direction

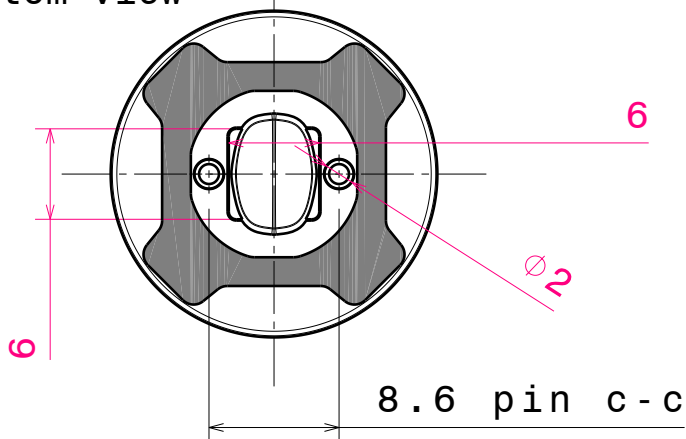


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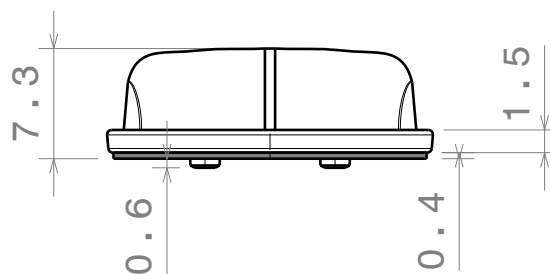


Section view A-A
Scale: 1:1

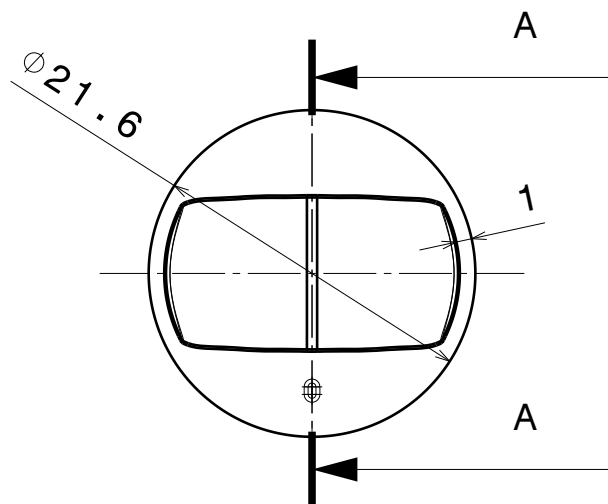
Bottom view



Front view



Top view



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Ledil Oy
Salorankatu 10
FIN 24240 SALO
Finland

DATASHEET TITLE Mechanical Drawing

DRAWN BY
ol
DATE
18.12.2012

CHECKED BY
as
DATE
18.12.2012

DESIGNED BY
ol
DATE
3.10.2012

SIZE A4		PART NUMBER CA13156		REV 001
SCALE 2:1	WEIGHT	SHEET 1/1		

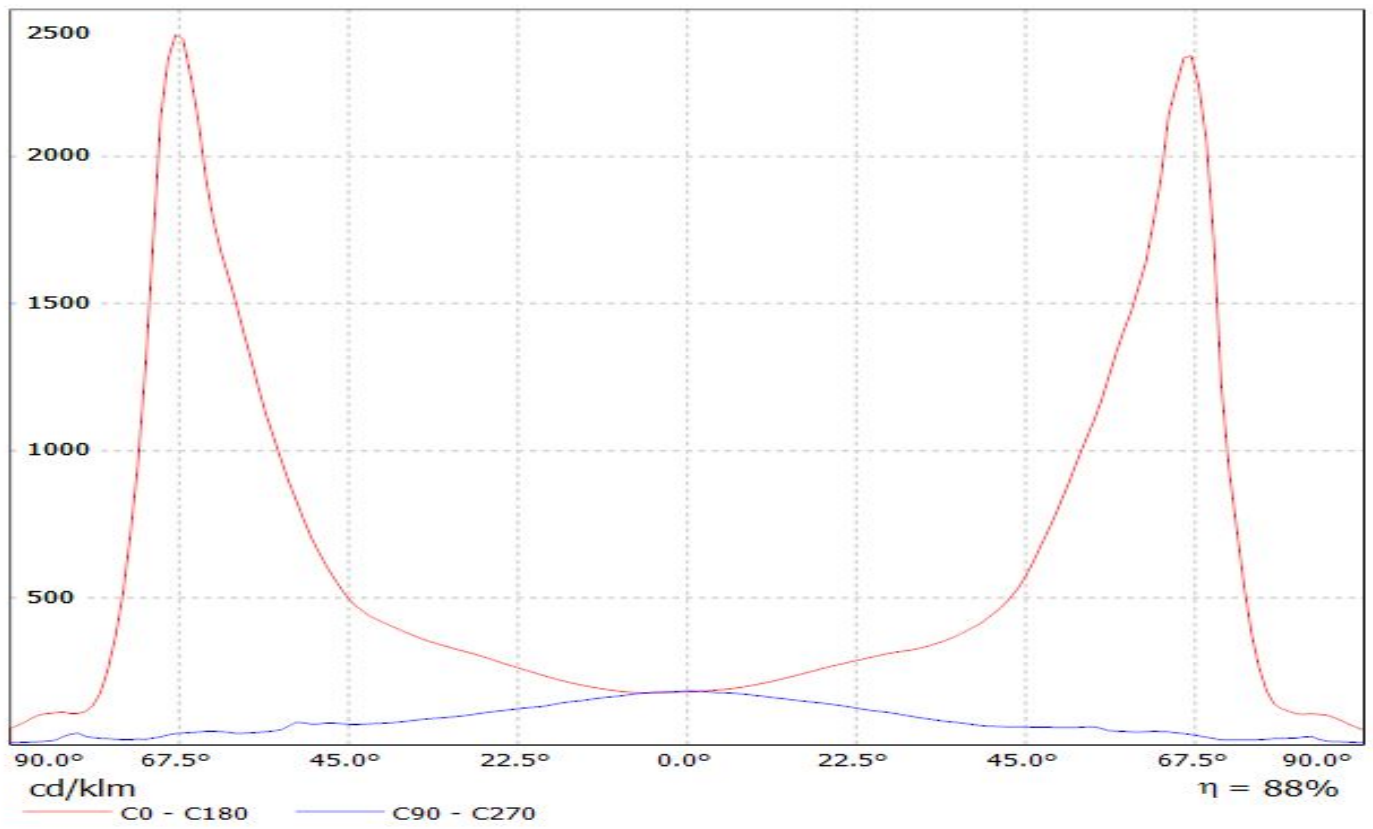
1

D

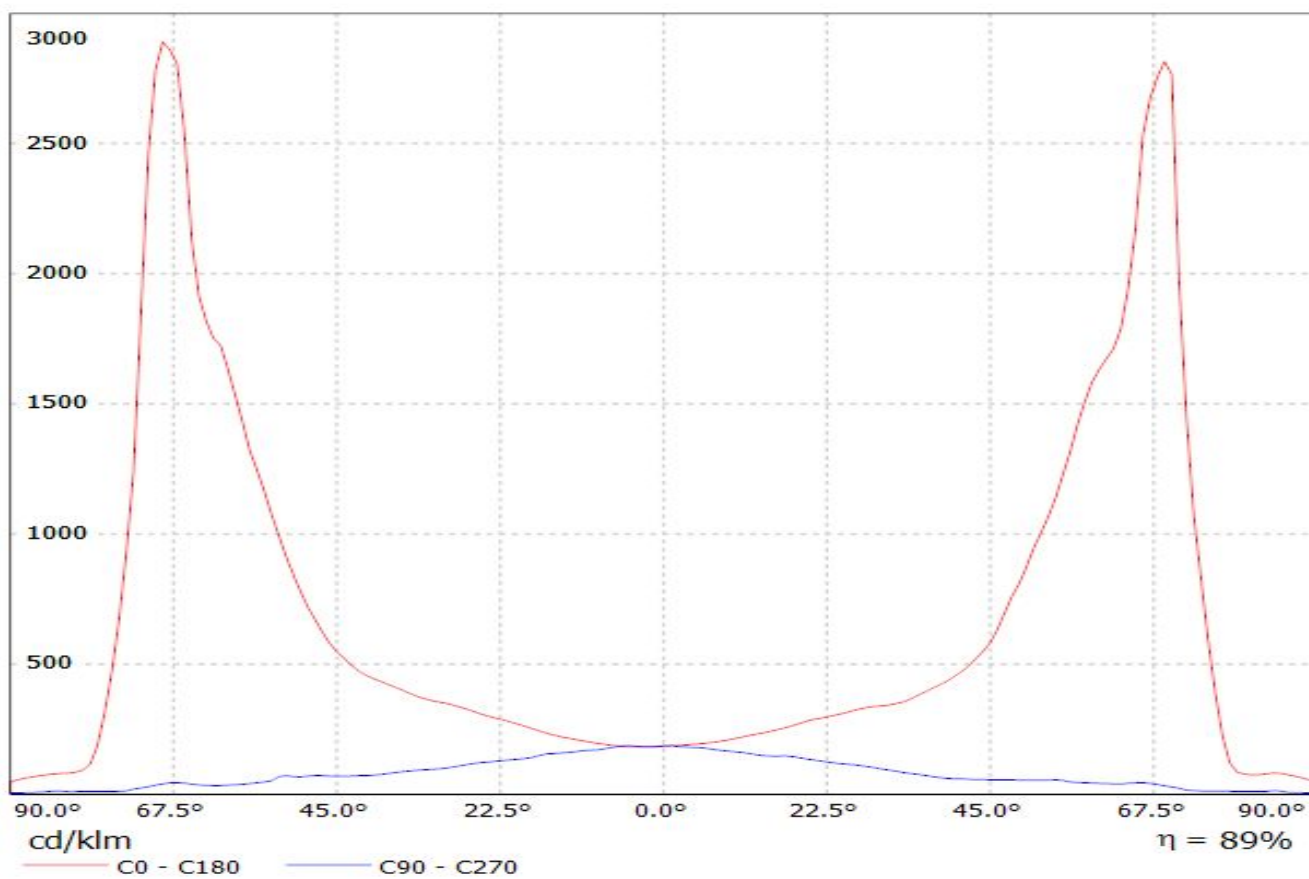
A

LEDiL Oy CA13156_EMERALD-A_(NCS19) Eff.88.1% / LDC (Linear)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(NCS19) Eff.88.1%
Lamps: 1 x NCS19 (89lm@250mA)

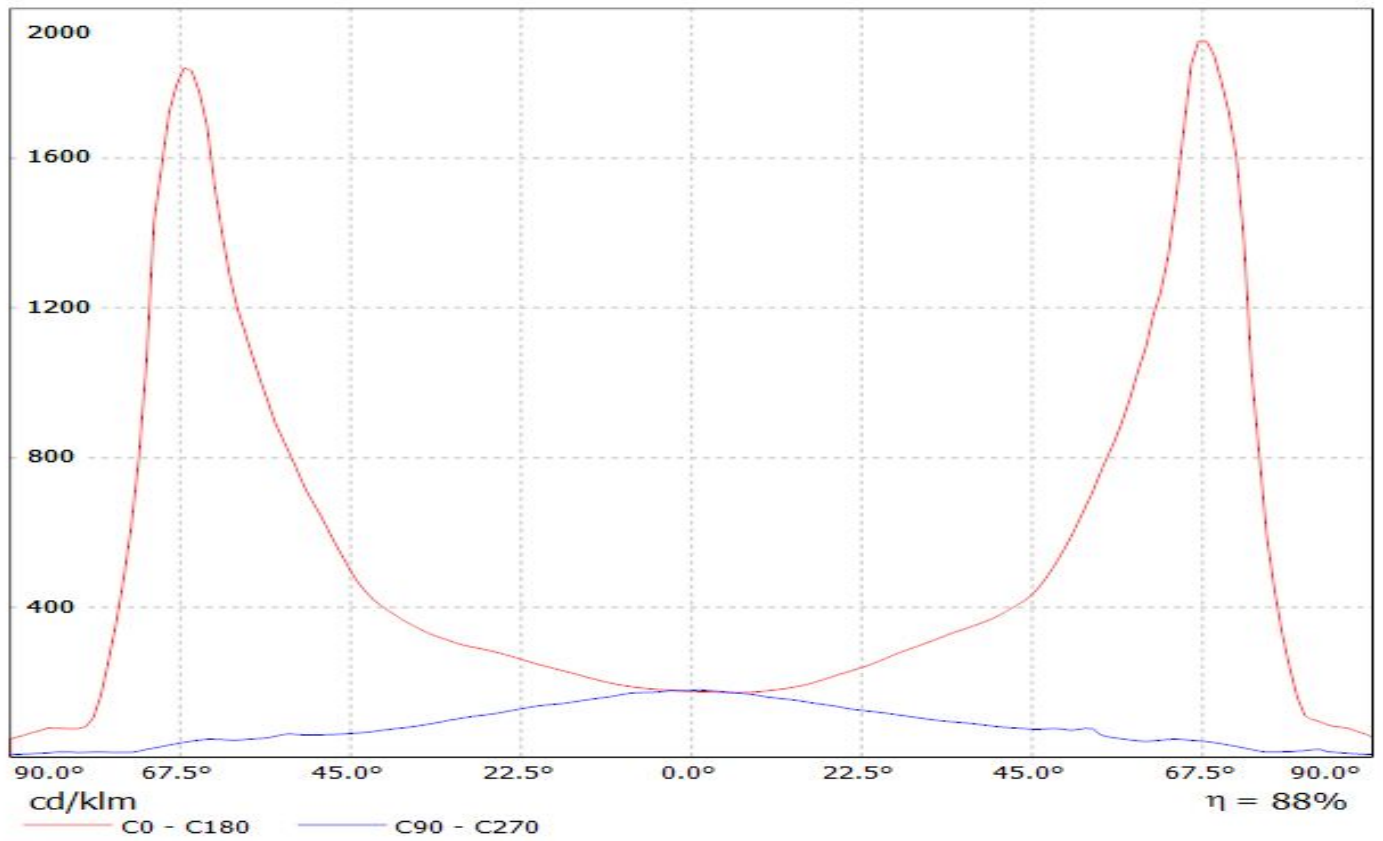


Luminaire: LEDiL Oy CA13156_EMERALD-A_(Rebel) Eff. 88,8%
Lamps: 1 x Luxeon Rebel (82lm@250mA)

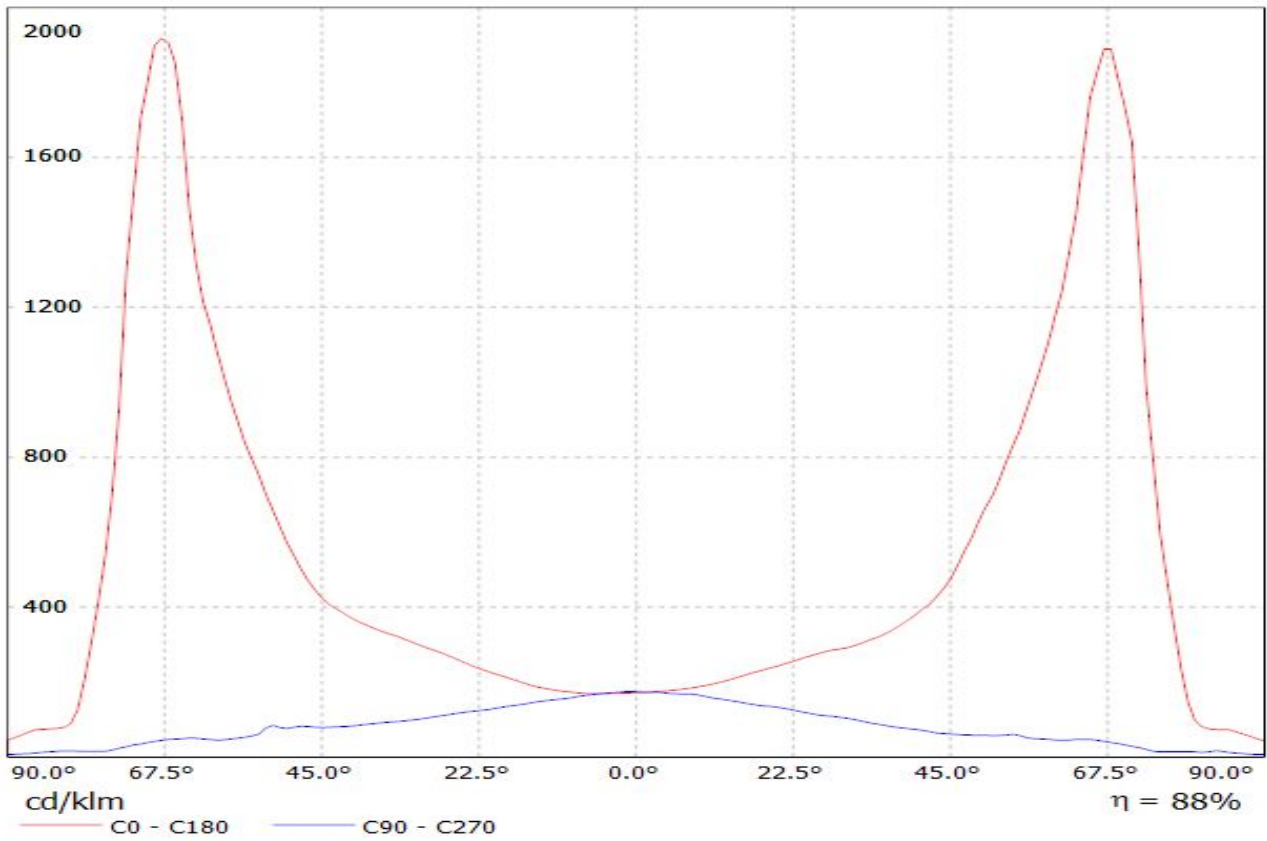


LEDiL Oy CA13156_EMERALD-A_(LUXEON_R) Eff.88.4% / LDC (Linear)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(LUXEON_R) Eff.88.4%
Lamps: 1 x LUXEON_R (85.6lm@250mA)

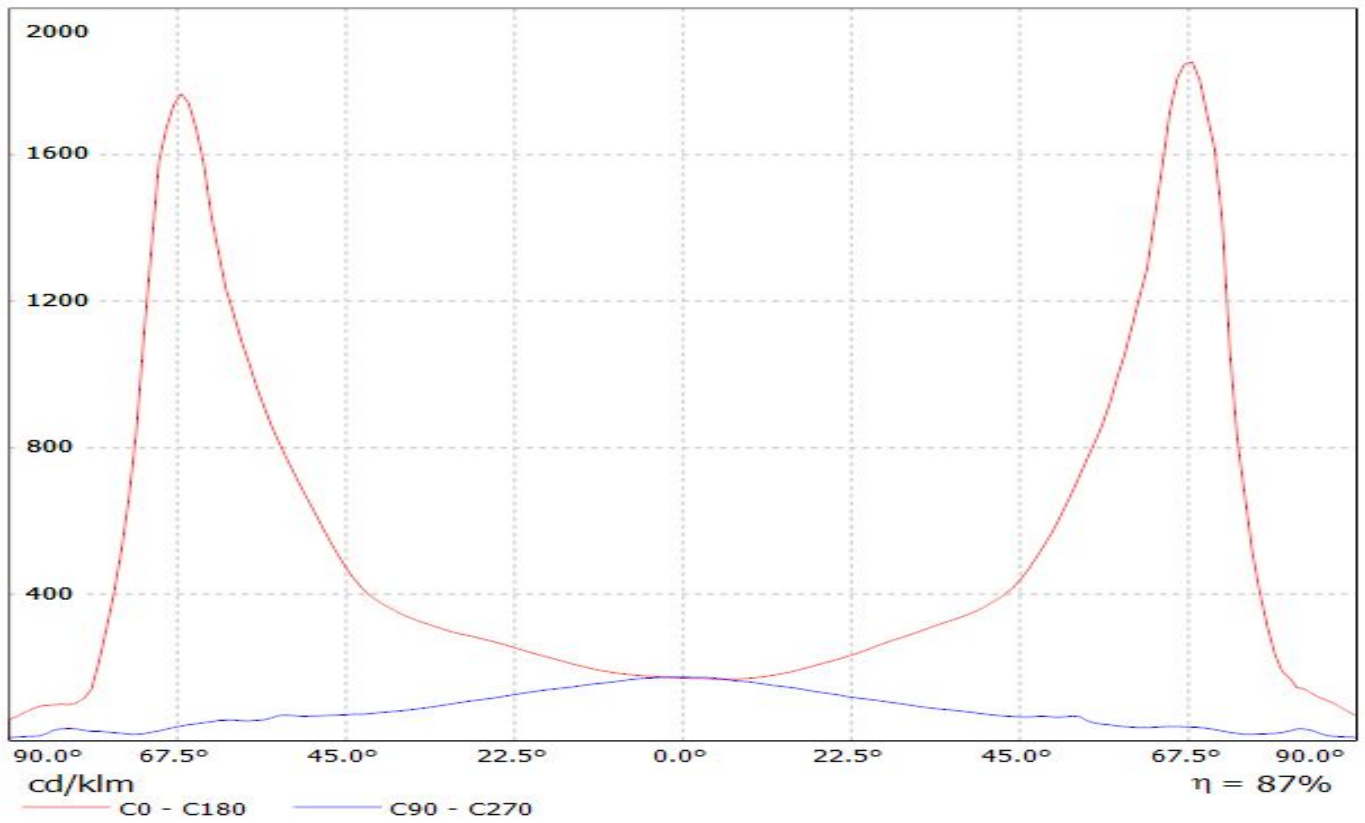


Luminaire: LEDiL Oy CA13156_EMERALD-A_(Rebel-ES) Eff. 88%
Lamps: 1 x Luxeon Rebel-ES (90lm@250mA)



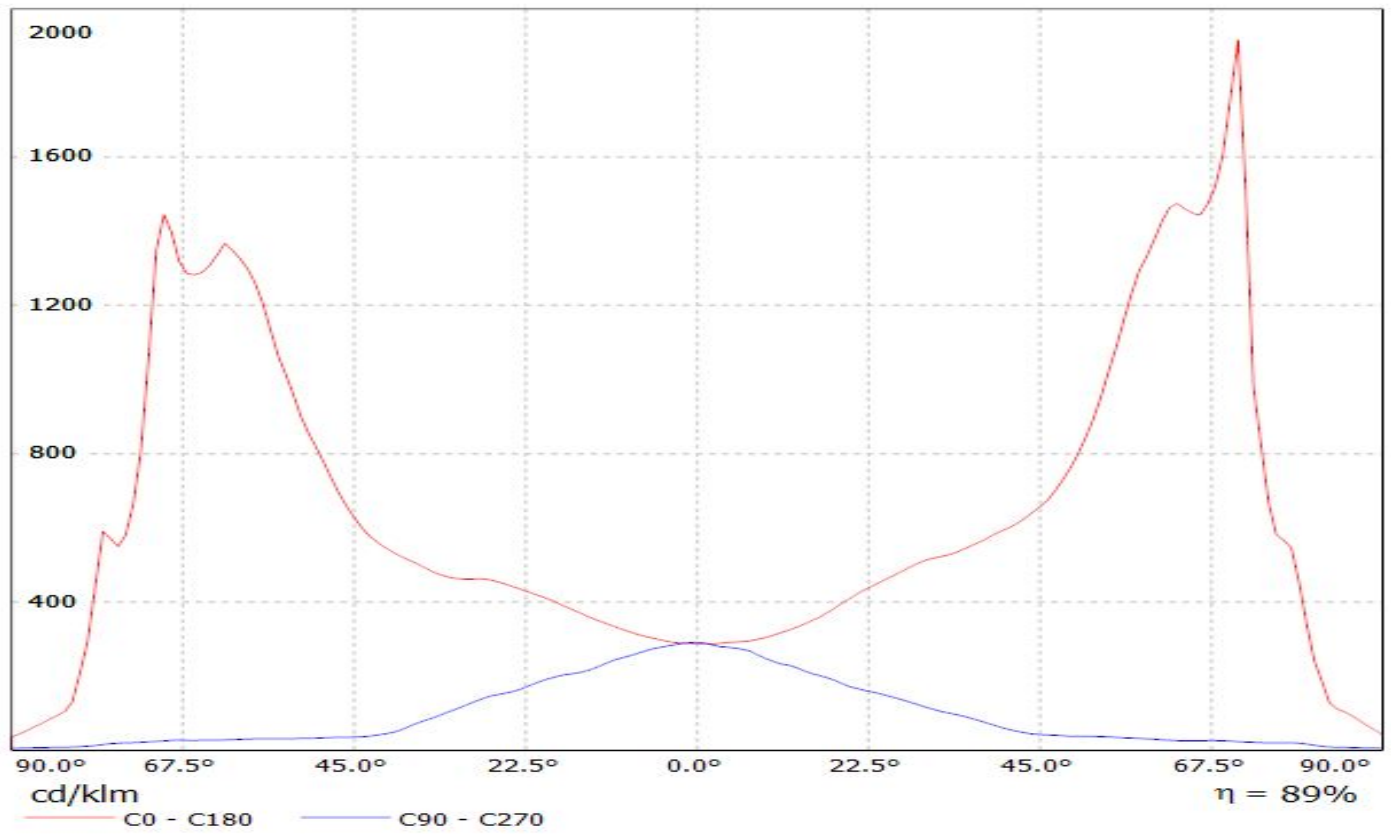
LEDiL Oy CA13156_EMERALD-A_(NVS19) Eff.87.5% / LDC (Linear)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(NVS19) Eff.87.5%
Lamps: 1 x NVS19 (98.3lm@250mA)



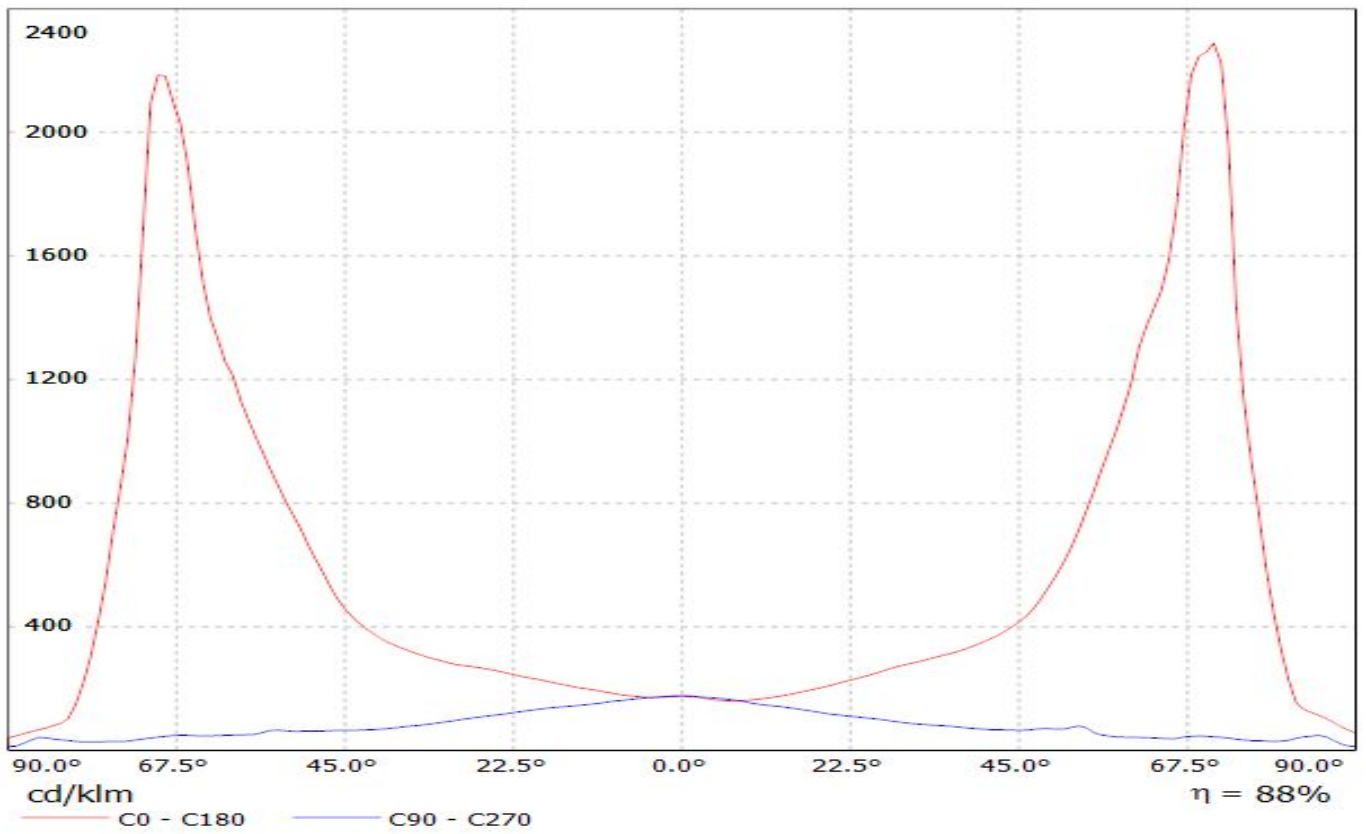
LEDiL Oy C13155_EMERALD-A_(SSL80) Eff.89.4% / LDC (Linear)

Luminaire: LEDiL Oy C13155_EMERALD-A_(SSL80) Eff.89.4%
Lamps: 1 x Oslon SSL (81.3lm@250mA)



LEDiL Oy CA13156_EMERALD-A_(XB-D) Eff.87.8% / LDC (Linear)

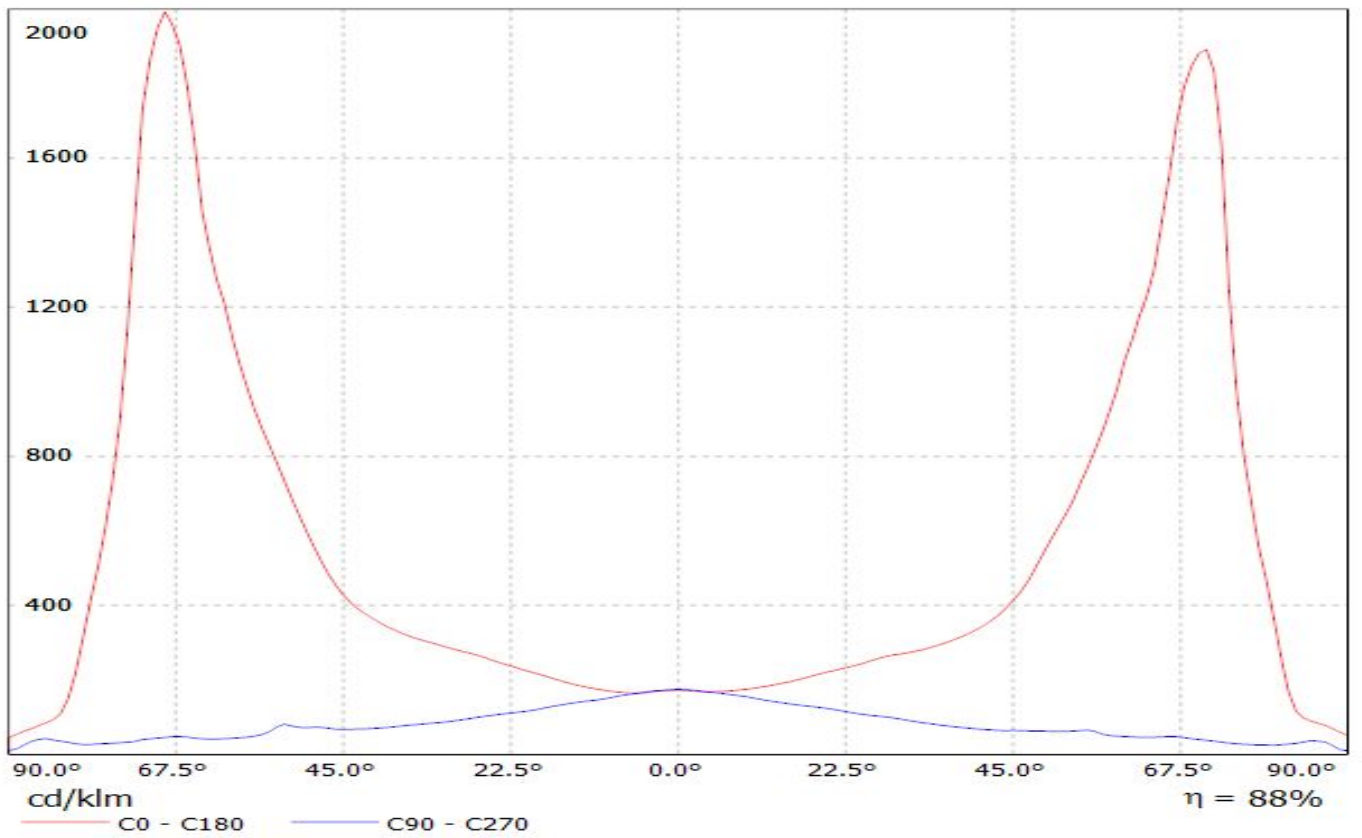
Luminaire: LEDiL Oy CA13156_EMERALD-A_(XB-D) Eff.87.8%
Lamps: 1 x Cree XB-D (95lm@250mA)



LEDiL Oy CA13156_EMERALD-A_(XT-E) Eff.88.2% / LDC (Linear)

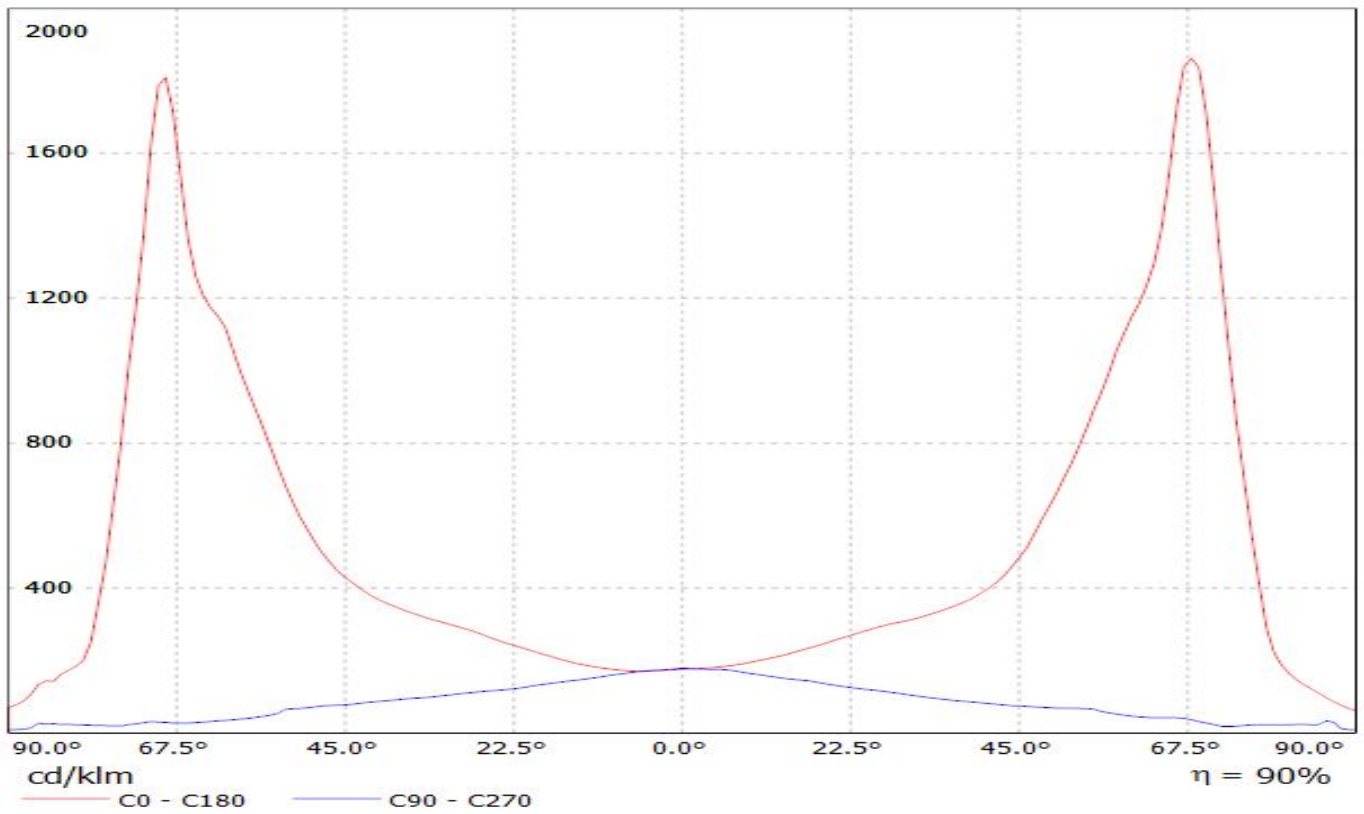
Luminaire: LEDiL Oy CA13156_EMERALD-A_(XT-E) Eff.88.2%

Lamps: 1 x Cree XT-E (102.3lm@250mA)



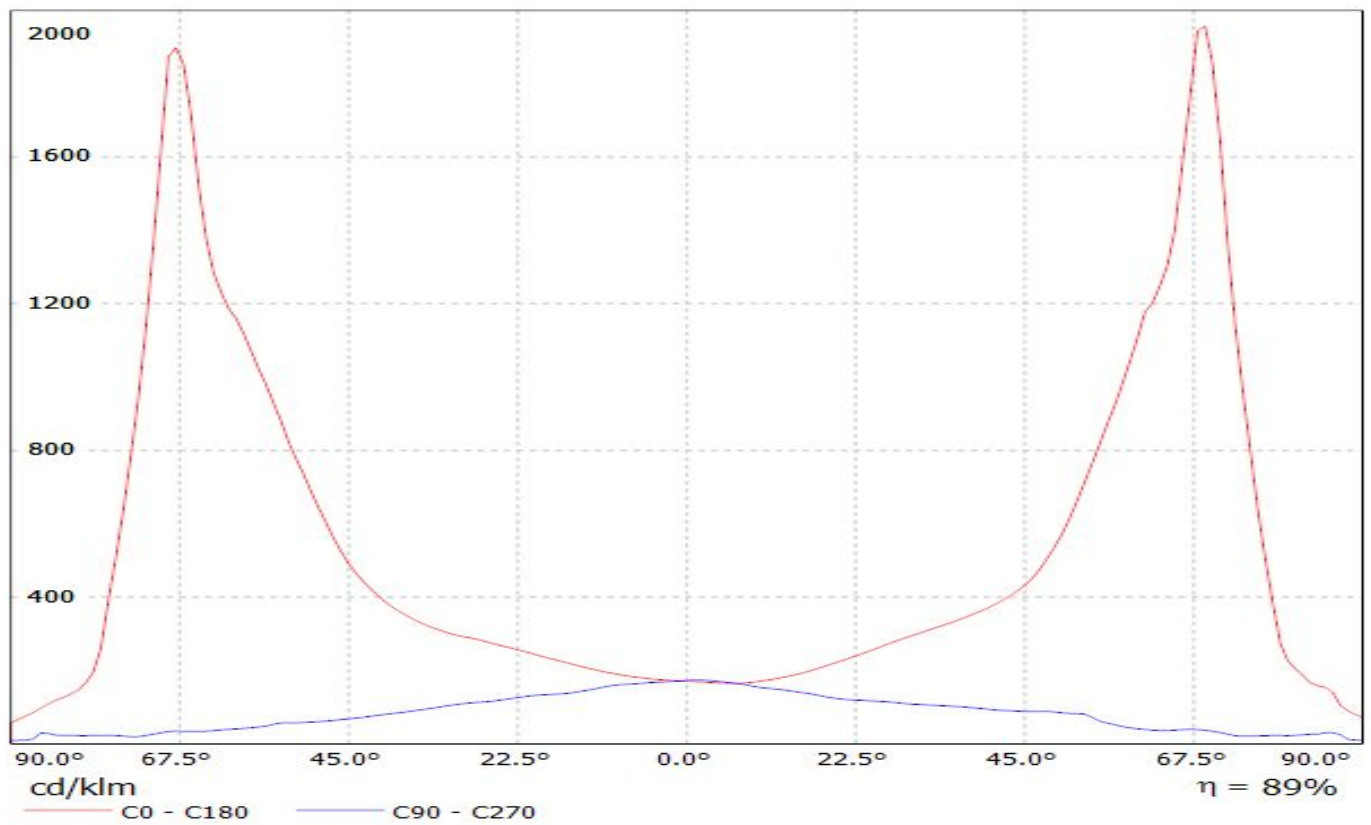
LEDiL Oy CA13156_EMERALD-A_(SQ-EC) Eff.89.6% / LDC (Linear)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(SQ-EC) Eff.89.6%
Lamps: 1 x SQ-EC (64.5908lm@250mA)

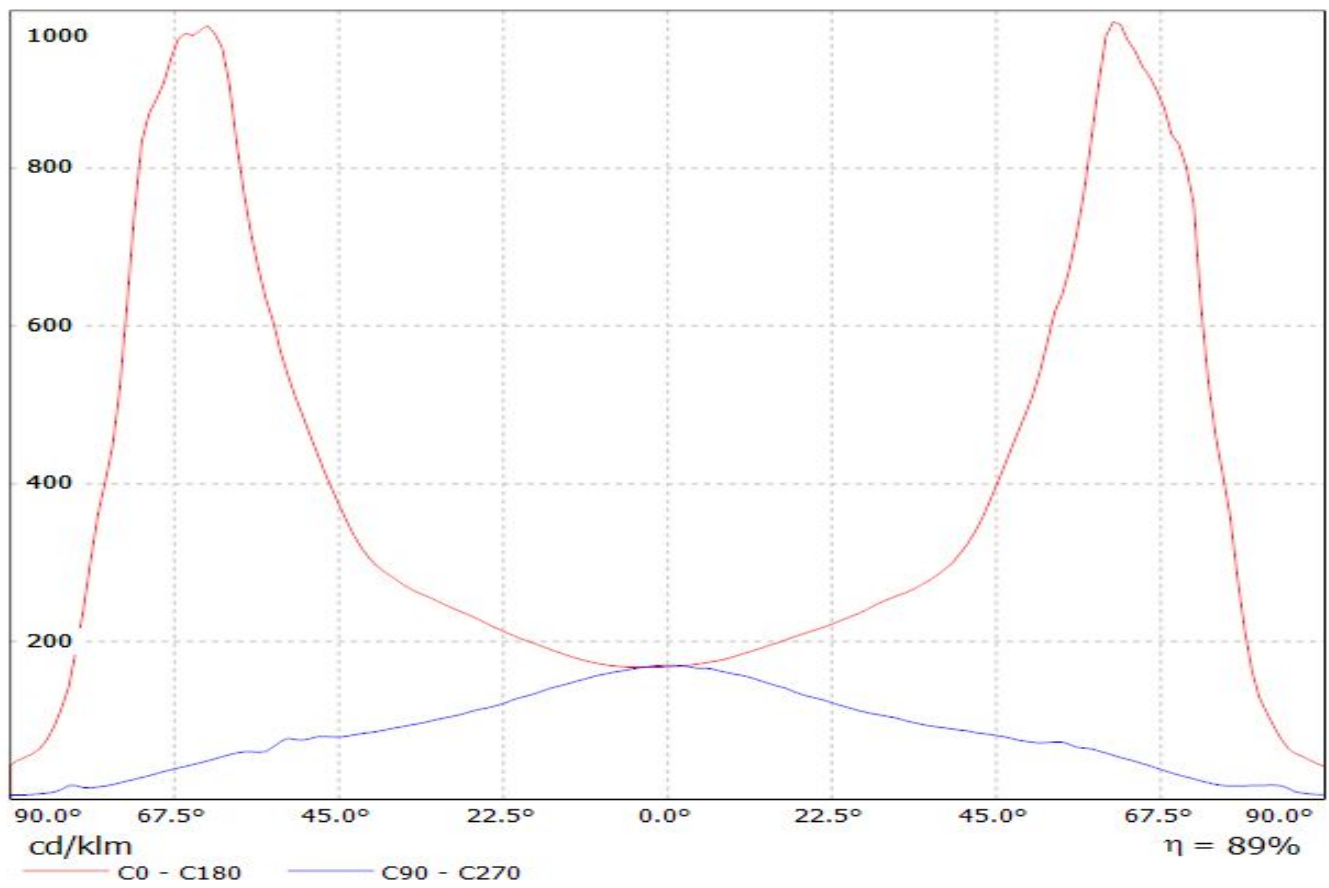


LEDiL Oy CA13156_EMERALD-A_(SQ-PC) Eff.89.1% / LDC (Linear)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(SQ-PC) Eff.89.1%
Lamps: 1 x SQ-PC (79.1971lm@250mA)

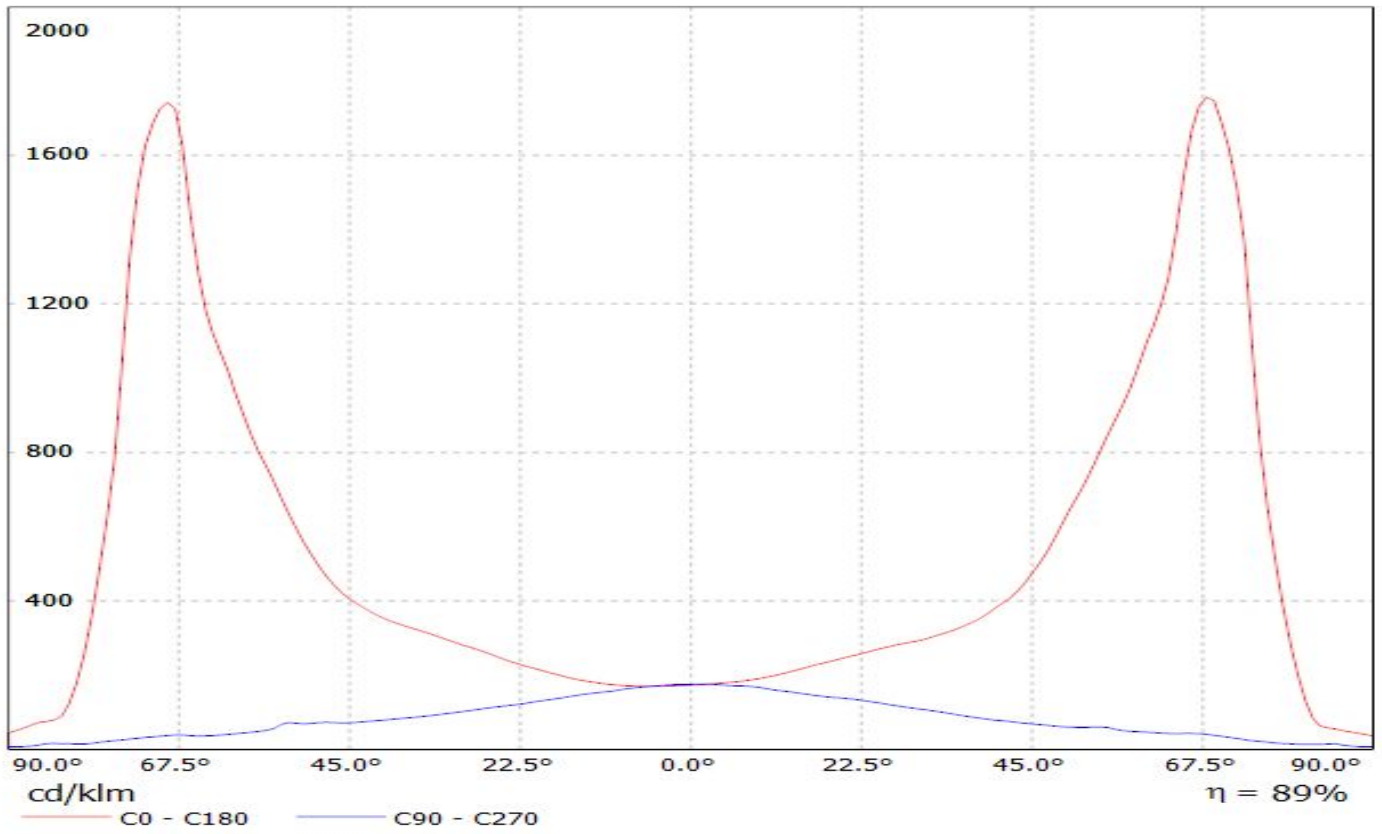


Luminaire: LEDiL Oy CA13156_EMERALD-A_(NS9x383) Eff. 89,2%
Lamps: 1 x Nichia NS9x383 (105lm@250mA)

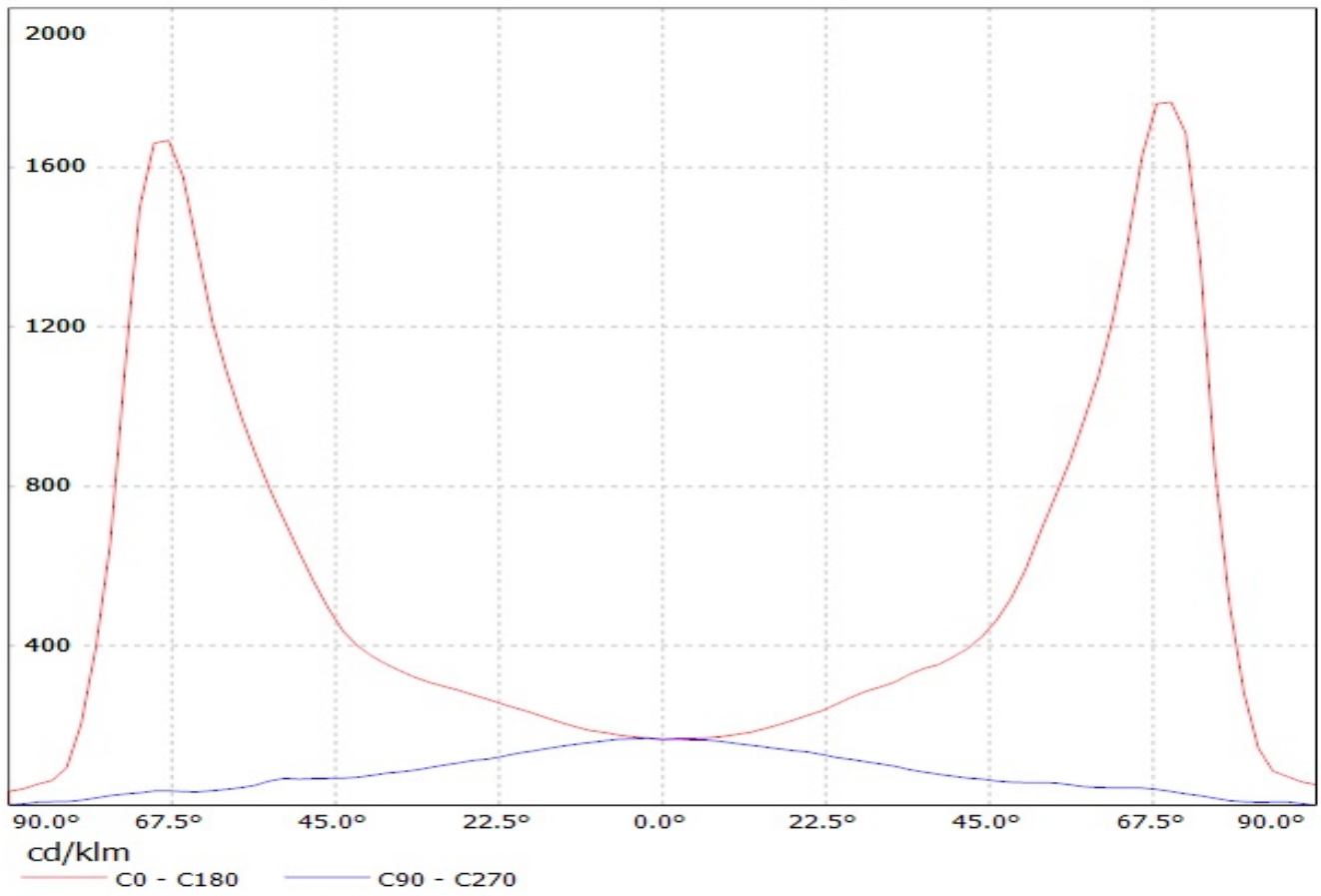


LEDiL Oy CA13156_EMERALD-A_(LUXEON_A) Eff.88.6% / LDC (Linear)

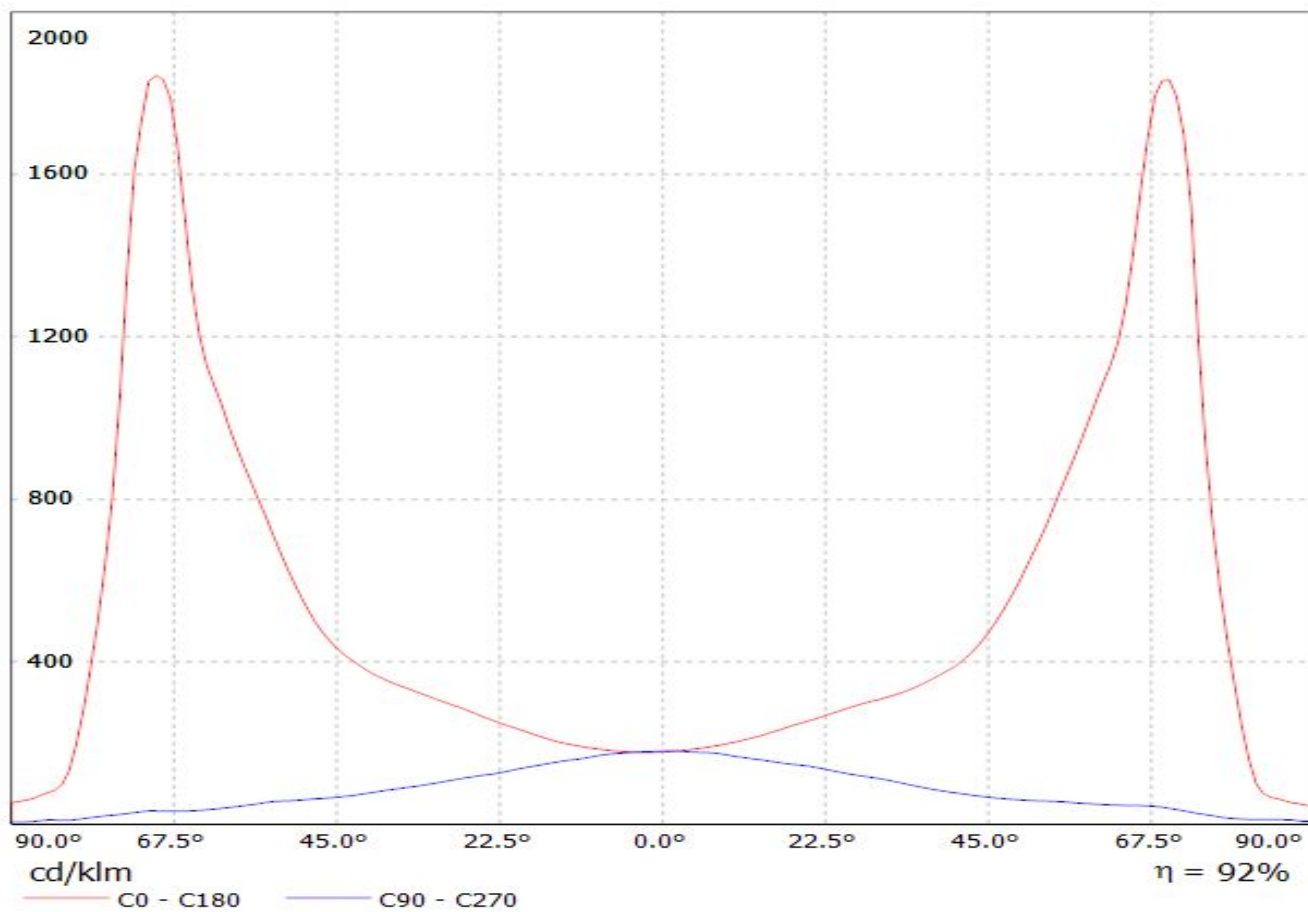
Luminaire: LEDiL Oy CA13156_EMERALD-A_(LUXEON_A) Eff.88.6%
Lamps: 1 x LUXEON_R (67.5lm@250mA)



Luminaire: Ledil Oy CA13156_EMERALD-A (Luxeon T 71lm @ 250mA) Efficiency=93%
Lamps: 1 x Luxeon T 71lm @ 250mA

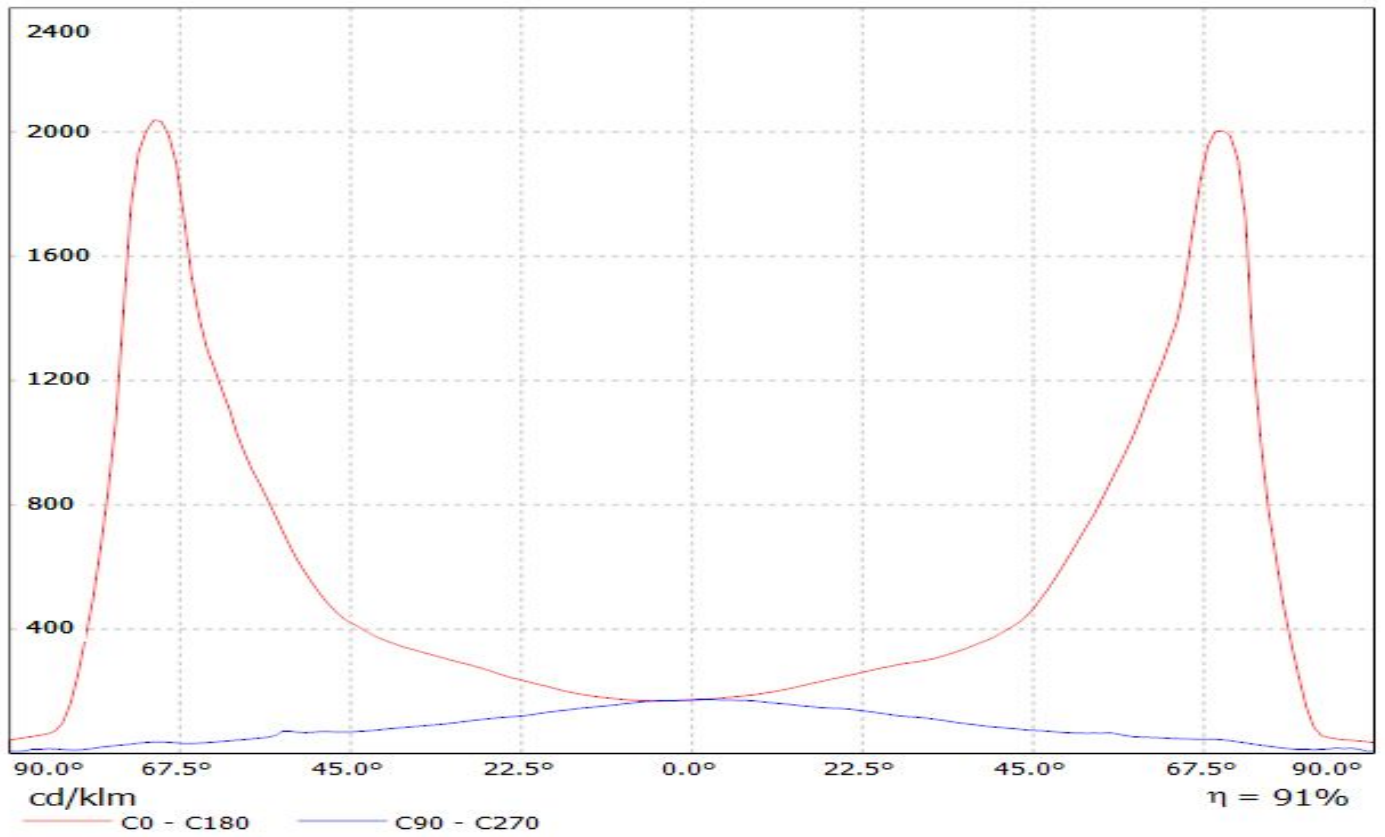


Luminaire: LEDiL Oy CA13156_EMERALD-A (Luxeon_TX) Eff.91.7%
Lamps: 1 x Luxeon_TX (L1T2-3585)_80.1801lm@250mA_CCT=3500K_P=0.731482W_I=249.9mA



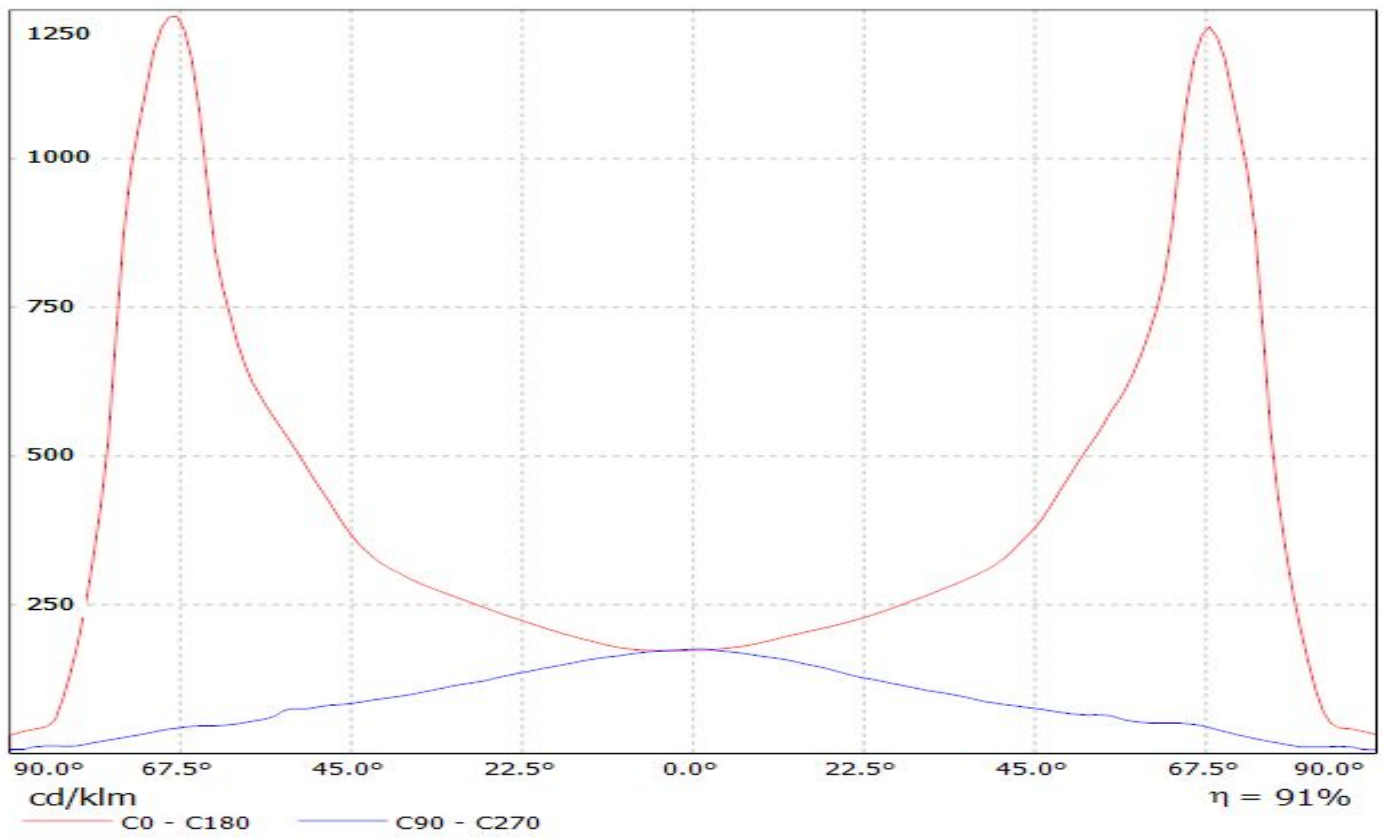
LEDiL Oy CA13156_EMERALD-A_(XP-G2) Eff.91.4% / LDC (Linear)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(XP-G2) Eff.91.4%
Lamps: 1 x CREE XP-G2 (105.7lm@250mA)



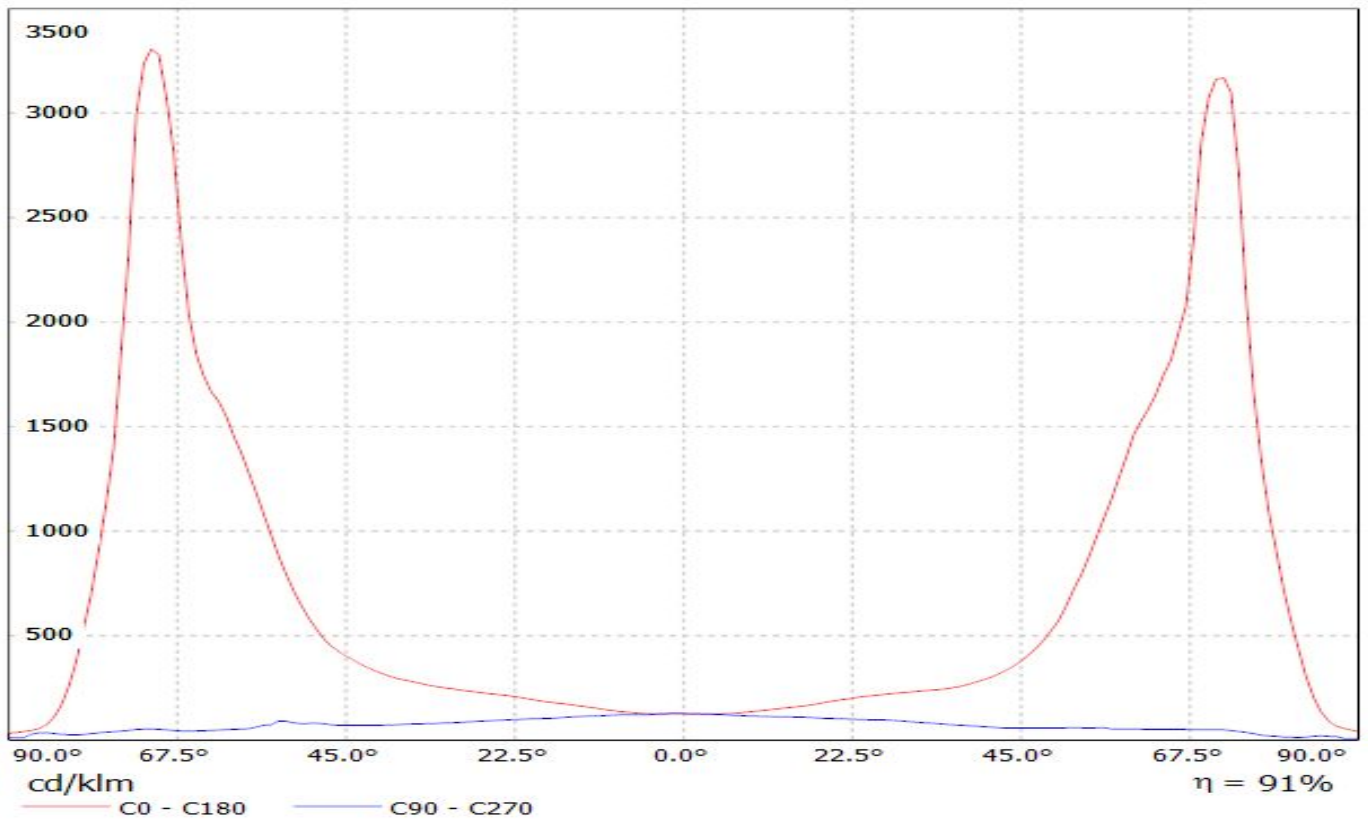
LEDiL Oy CA13156_EMERALD-A_(XM-L) Eff.90.8% / LDC (Linear)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(XM-L) Eff.90.8%
Lamps: 1 x Cree XM-L (91.7822lm@250mA)



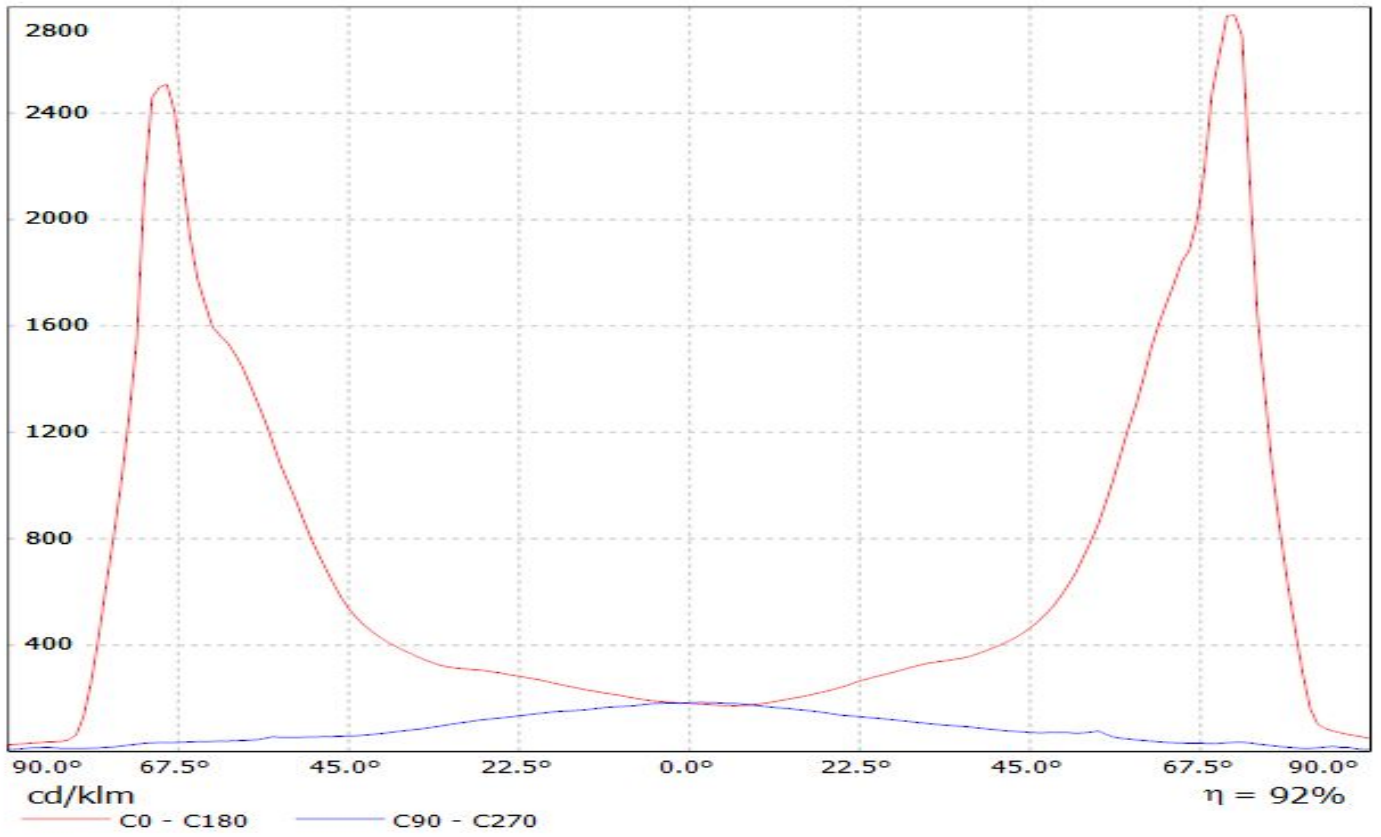
LEDiL Oy CA13156_EMERALD-A_(SSL150) Eff.91.4% / LDC (Linear)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(SSL150) Eff.91.4%
Lamps: 1 x Oslon SSL150 (71.5lm@250mA)



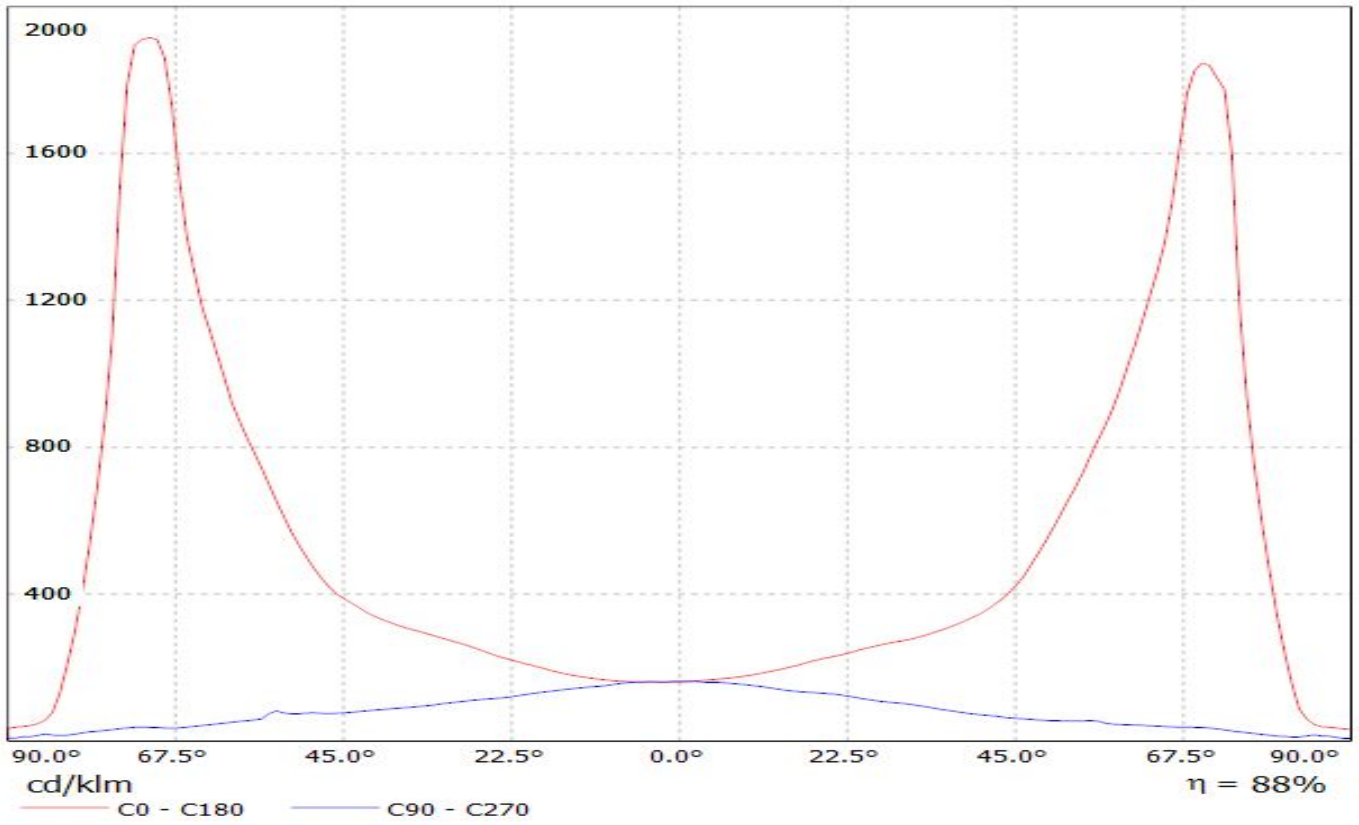
LEDiL Oy CA13156_EMERALD-A_(XP-E) Eff.91.5% / LDC (Linear)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(XP-E) Eff.91.5%
Lamps: 1 x CREE XP-E (51.4197lm@250mA)



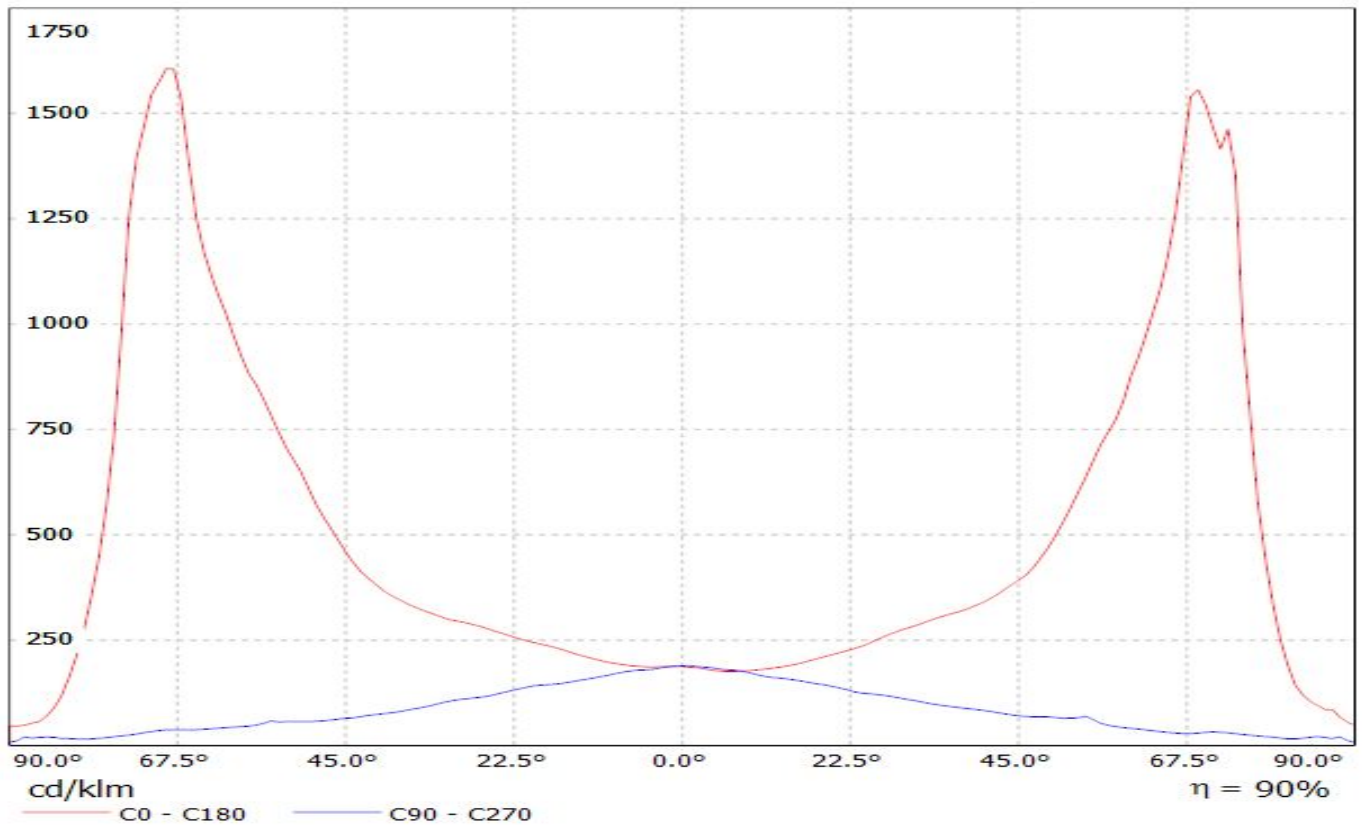
LEDiL Oy CA13156_EMERALD-A_(XP-G) Eff.88.1% / LDC (Linear)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(XP-G) Eff.88.1%
Lamps: 1 x XP-G (70.6lm@250mA)



LEDiL Oy CA13156_EMERALD-A_(LG3535) Eff.89.7% / LDC (Linear)

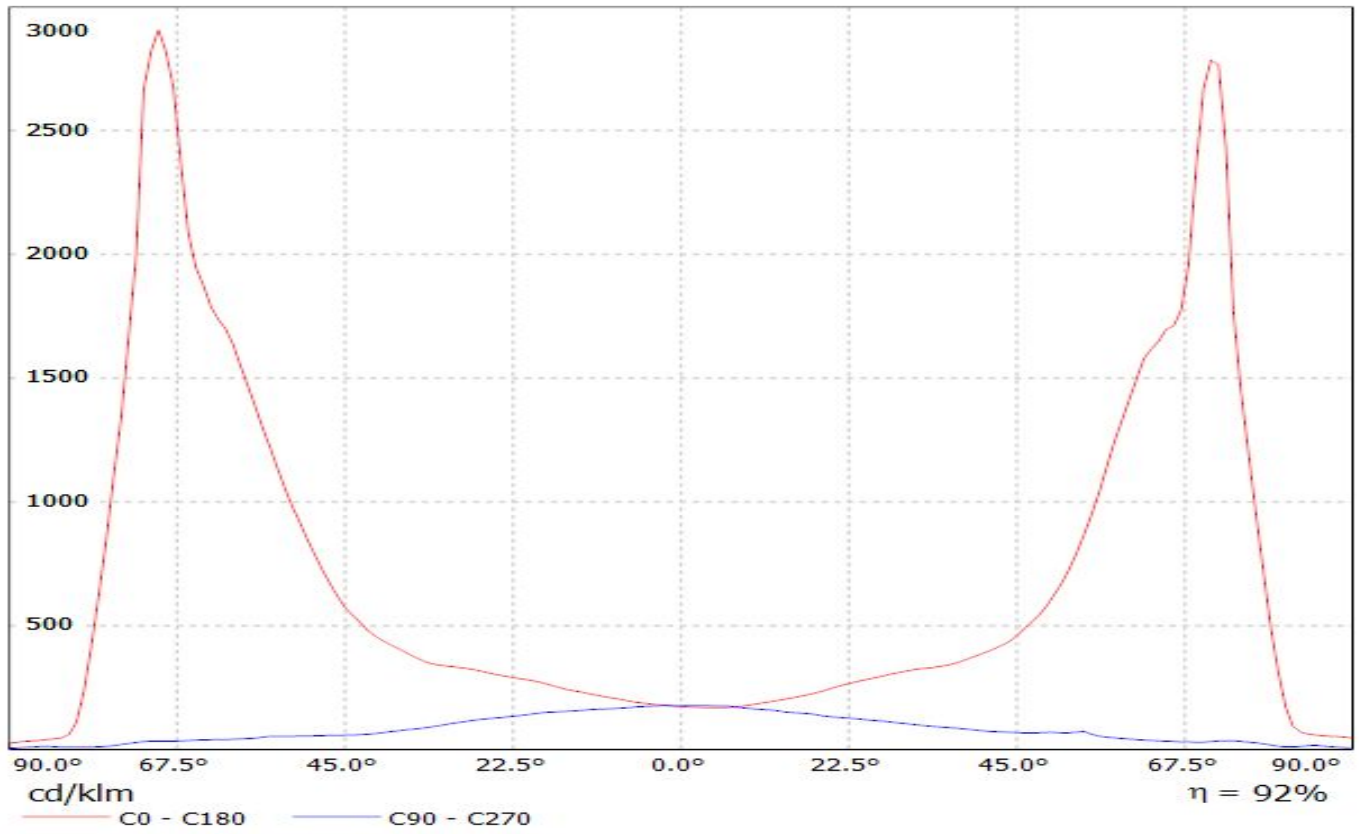
Luminaire: LEDiL Oy CA13156_EMERALD-A_(LG3535) Eff.89.7%
Lamps: 1 x LG 3535 Ceramic (94lm@250mA)



LEDiL Oy CA13156_EMERALD-A_(XP-E2) Eff.91.7% / LDC (Linear)

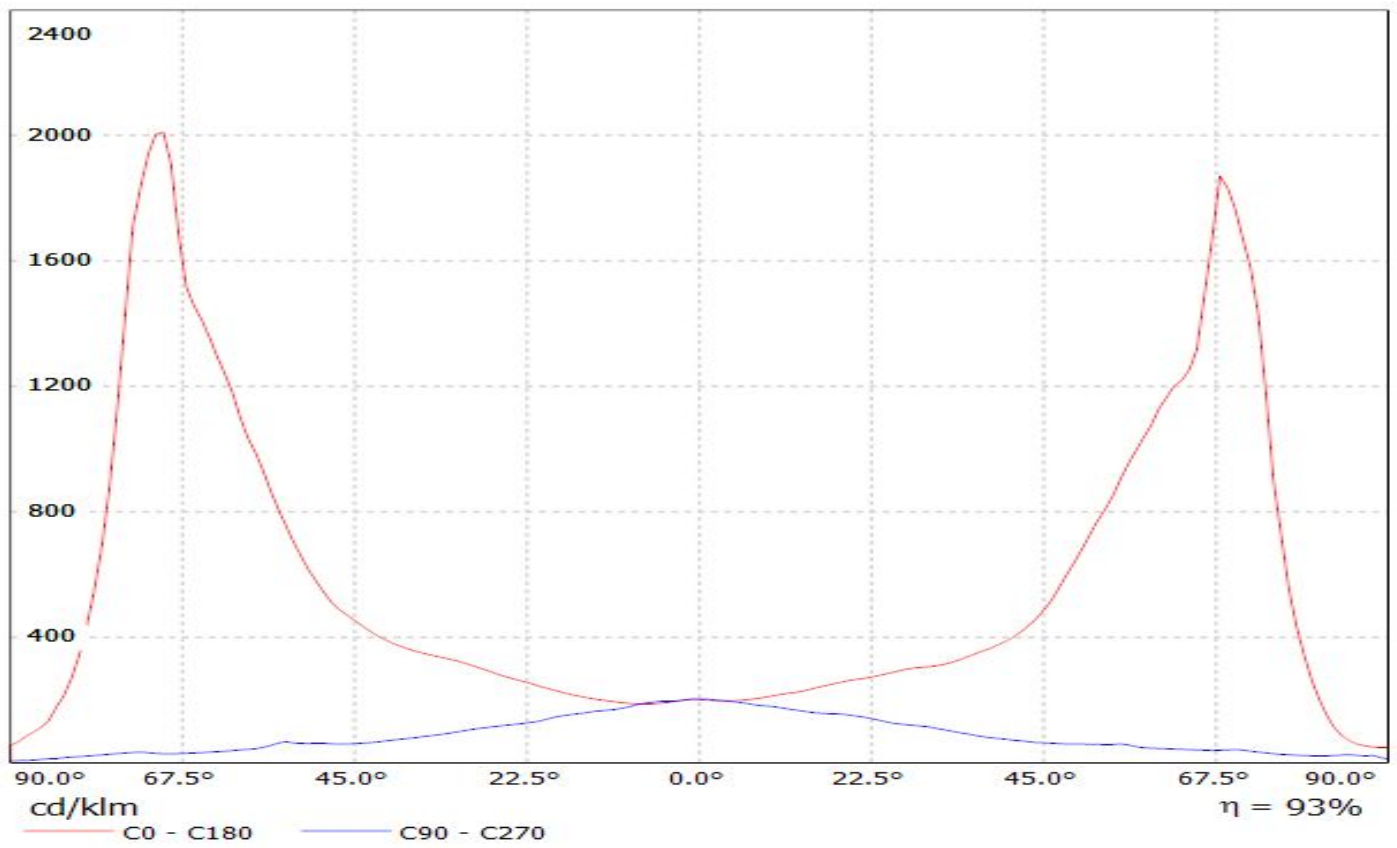
Luminaire: LEDiL Oy CA13156_EMERALD-A_(XP-E2) Eff.91.7%

Lamps: 1 x CREE XP-E2 (93.5lm@250mA)

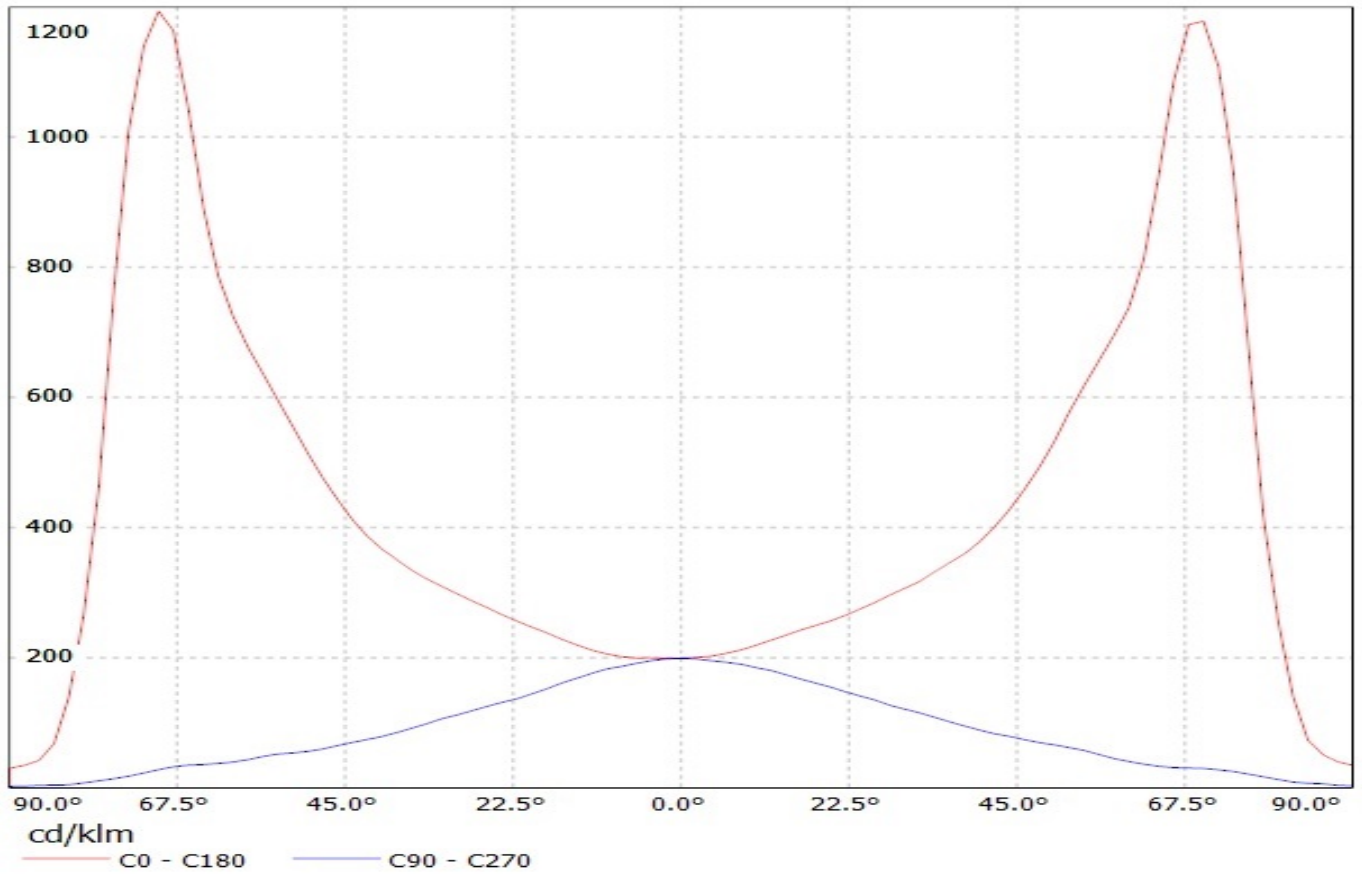


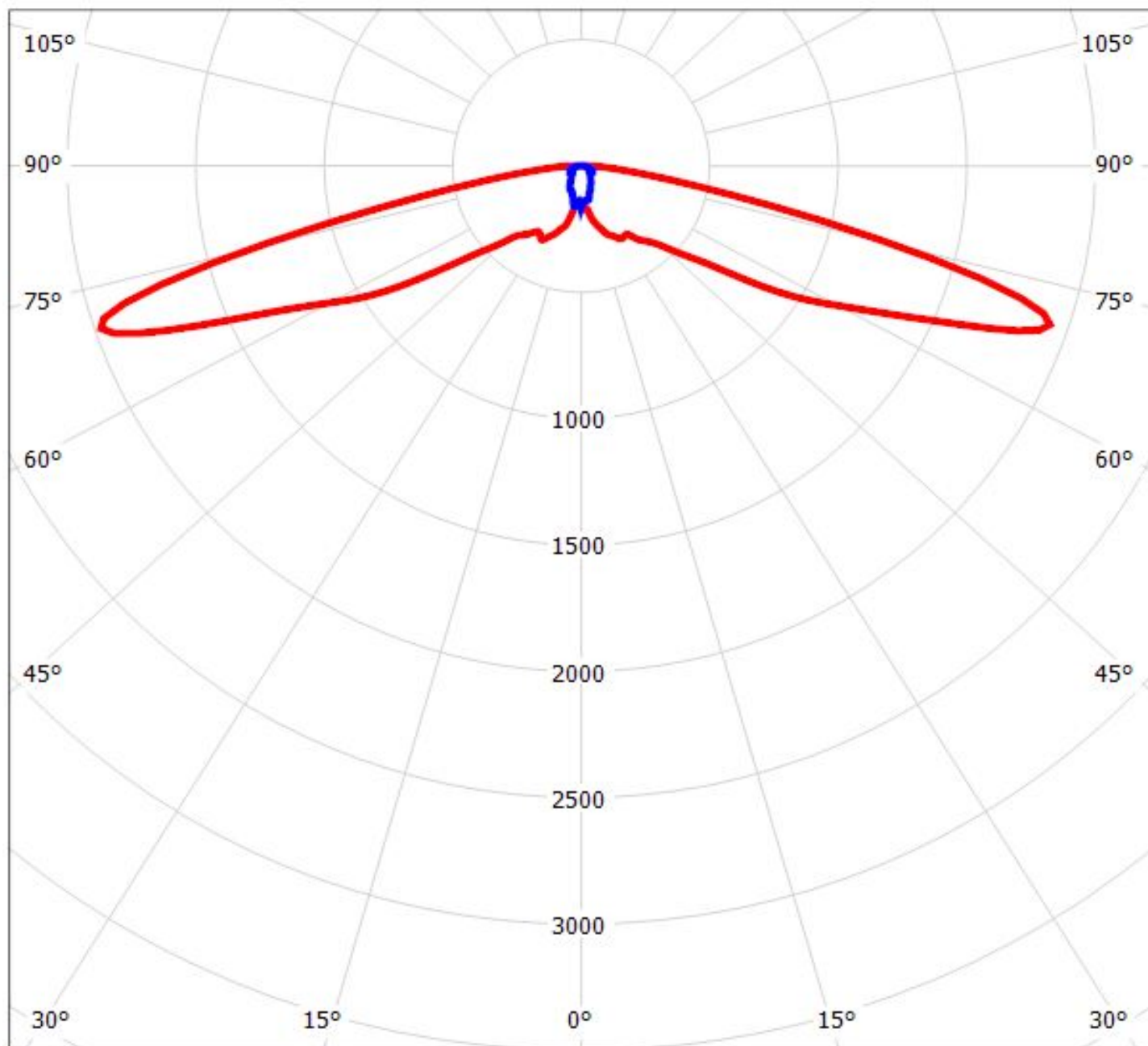
LEDiL Oy CA13156_EMERALD-A_(LG3535_2W) Eff.92.6% / LDC (Linear)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(LG3535_2W) Eff.92.6%
Lamps: 1 x LG3535_2W (97.3629lm@250mA)



Luminaire: LEDil Oy CA13156_EMERALD-A_(XM-L2) Efficiency=92%
Lamps: 1 x Cree XM-L2 (XMLBWT-0-7B4-T30-0L-0001) 91lm @ 250mA CCT=3200K P=0.7W I=250mA





cd/klm

— C0 - C180

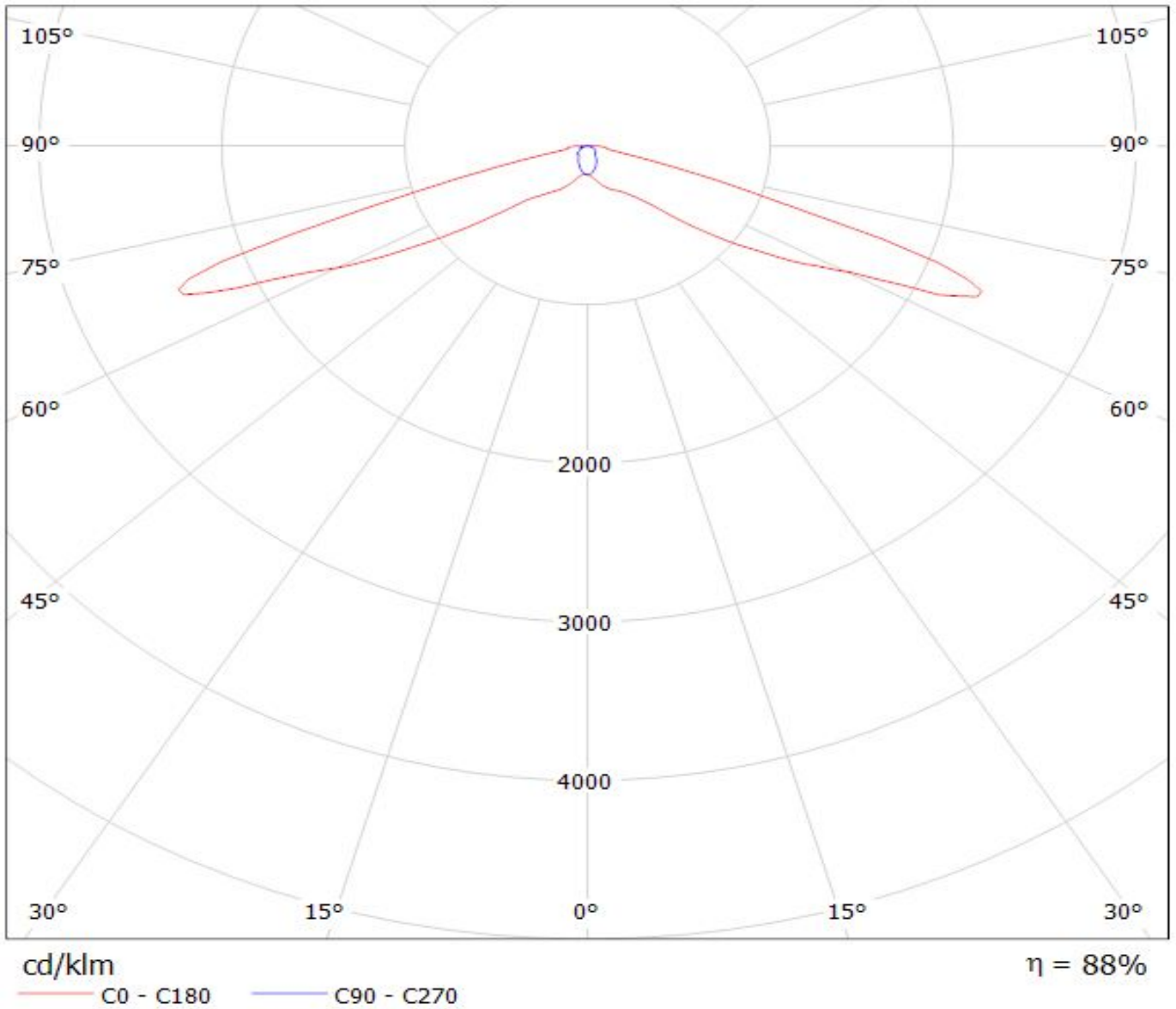
— C90 - C270

$\eta = 89\%$

LEDiL Oy CA13156_EMERALD-A_(NCS19) Eff.88.1% / LDC (Polar)

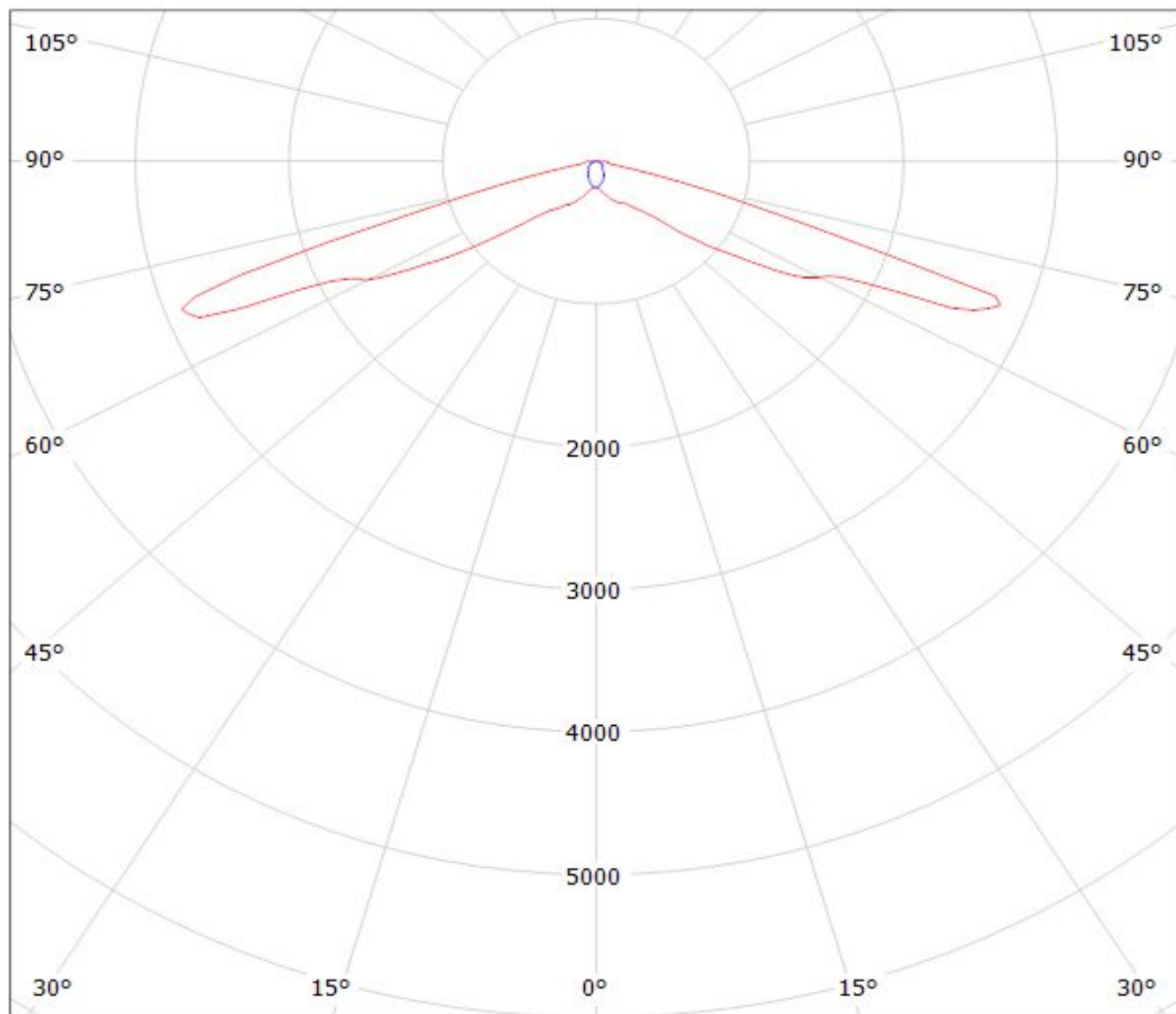
Luminaire: LEDiL Oy CA13156_EMERALD-A_(NCS19) Eff.88.1%

Lamps: 1 x NCS19 (89lm@250mA)



Luminaire: LEDiL Oy CA13156_EMERALD-A_(Rebel) Eff. 88,8%

Lamps: 1 x Luxeon Rebel (82lm@250mA)



cd/klm

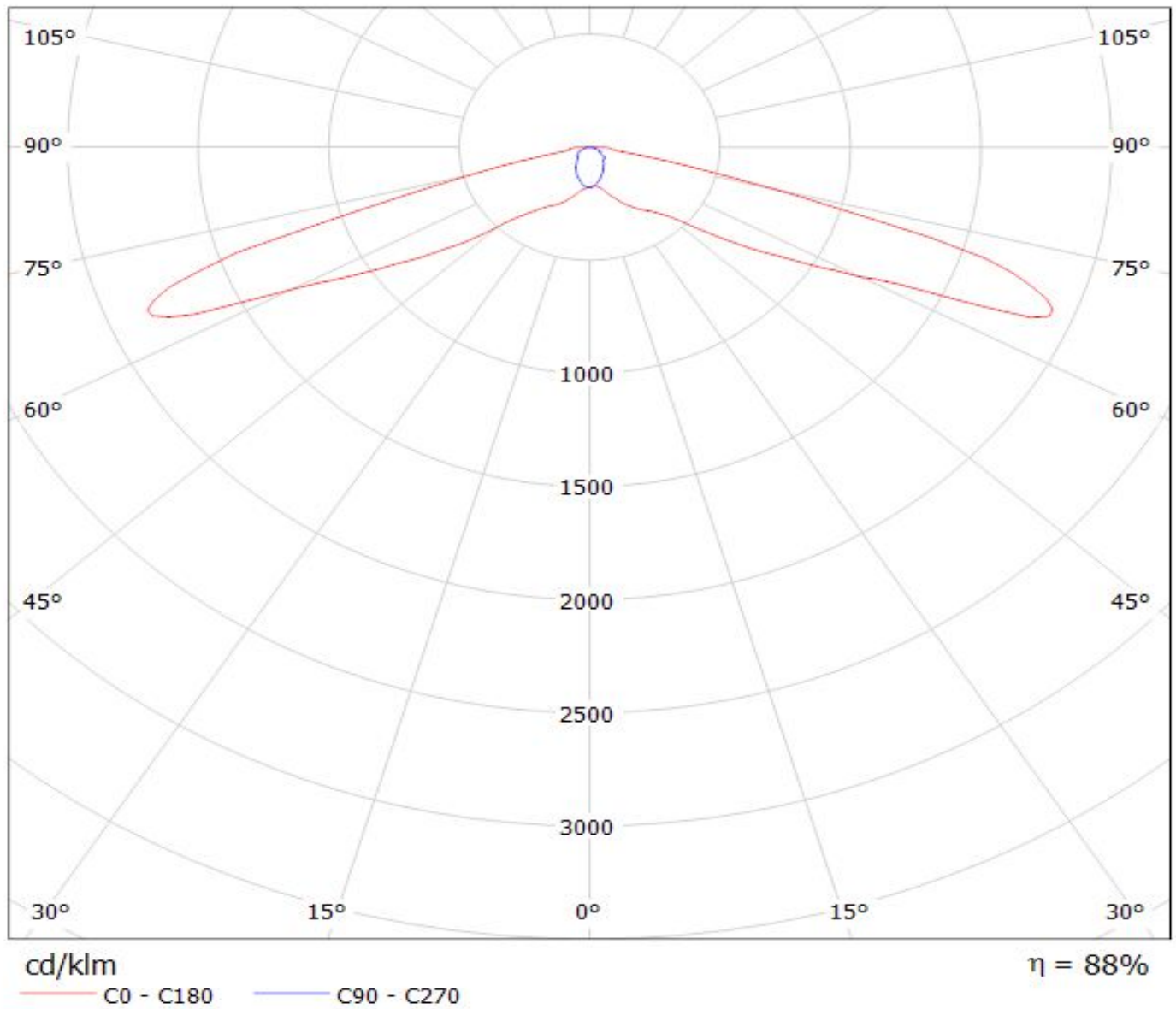
$\eta = 89\%$

— C0 - C180 — C90 - C270

LEDiL Oy CA13156_EMERALD-A_(LUXEON_R) Eff.88.4% / LDC (Polar)

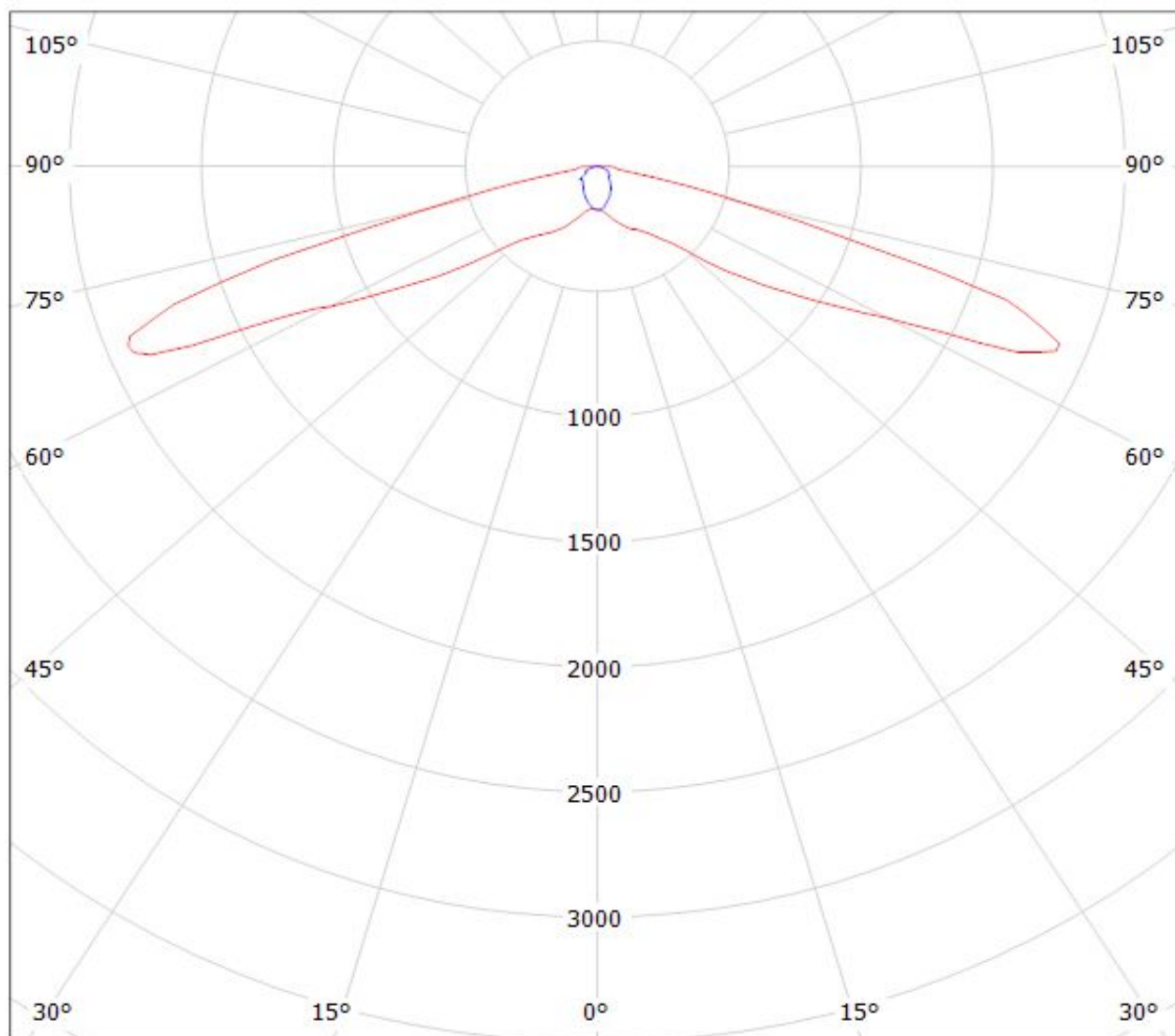
Luminaire: LEDiL Oy CA13156_EMERALD-A_(LUXEON_R) Eff.88.4%

Lamps: 1 x LUXEON_R (85.6lm@250mA)



Luminaire: LEDiL Oy CA13156_EMERALD-A_(Rebel-ES) Eff. 88%

Lamps: 1 x Luxeon Rebel-ES (90lm@250mA)



cd/klm

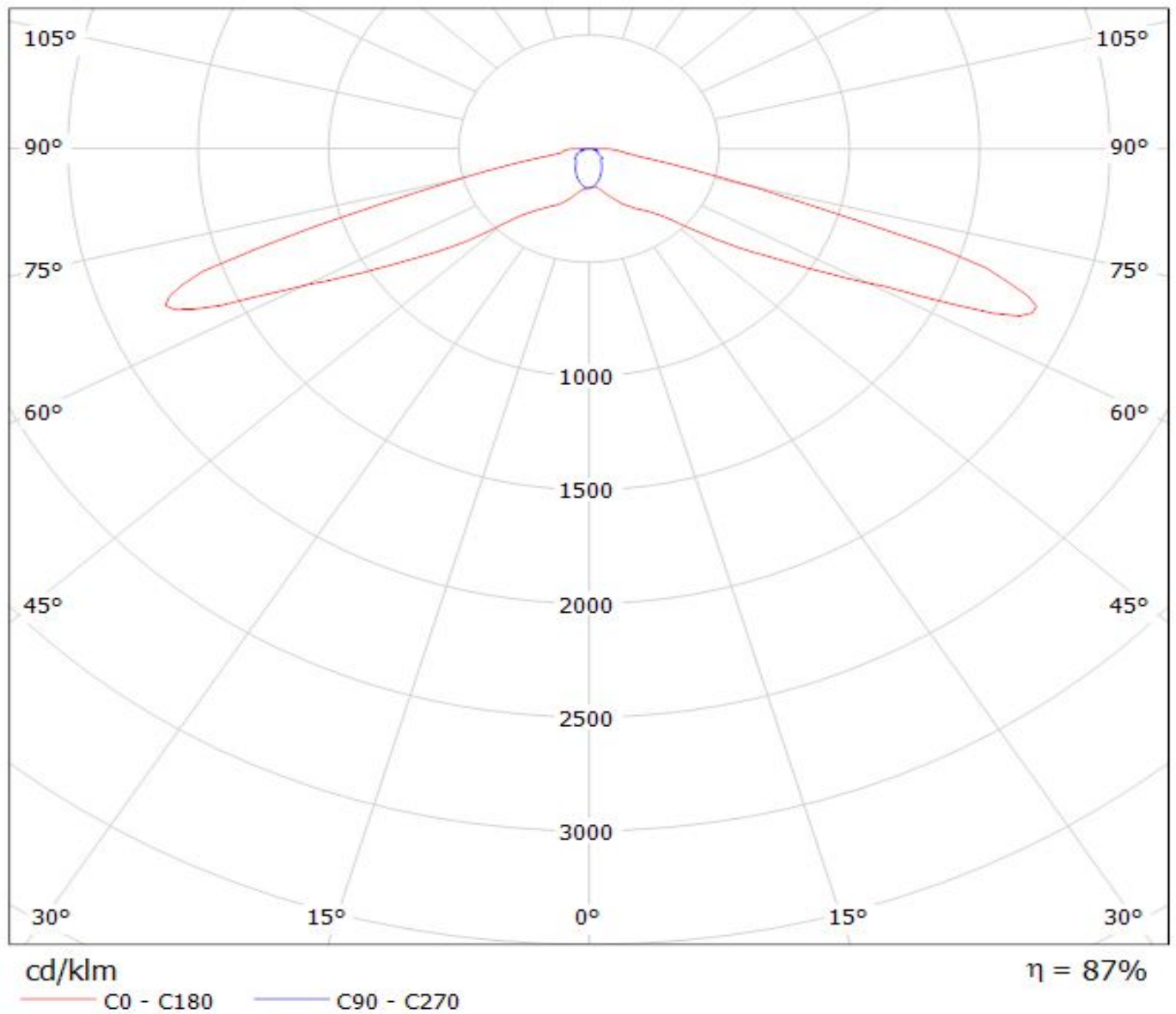
— C0 - C180

— C90 - C270

$\eta = 88\%$

LEDiL Oy CA13156_EMERALD-A_(NVS19) Eff.87.5% / LDC (Polar)

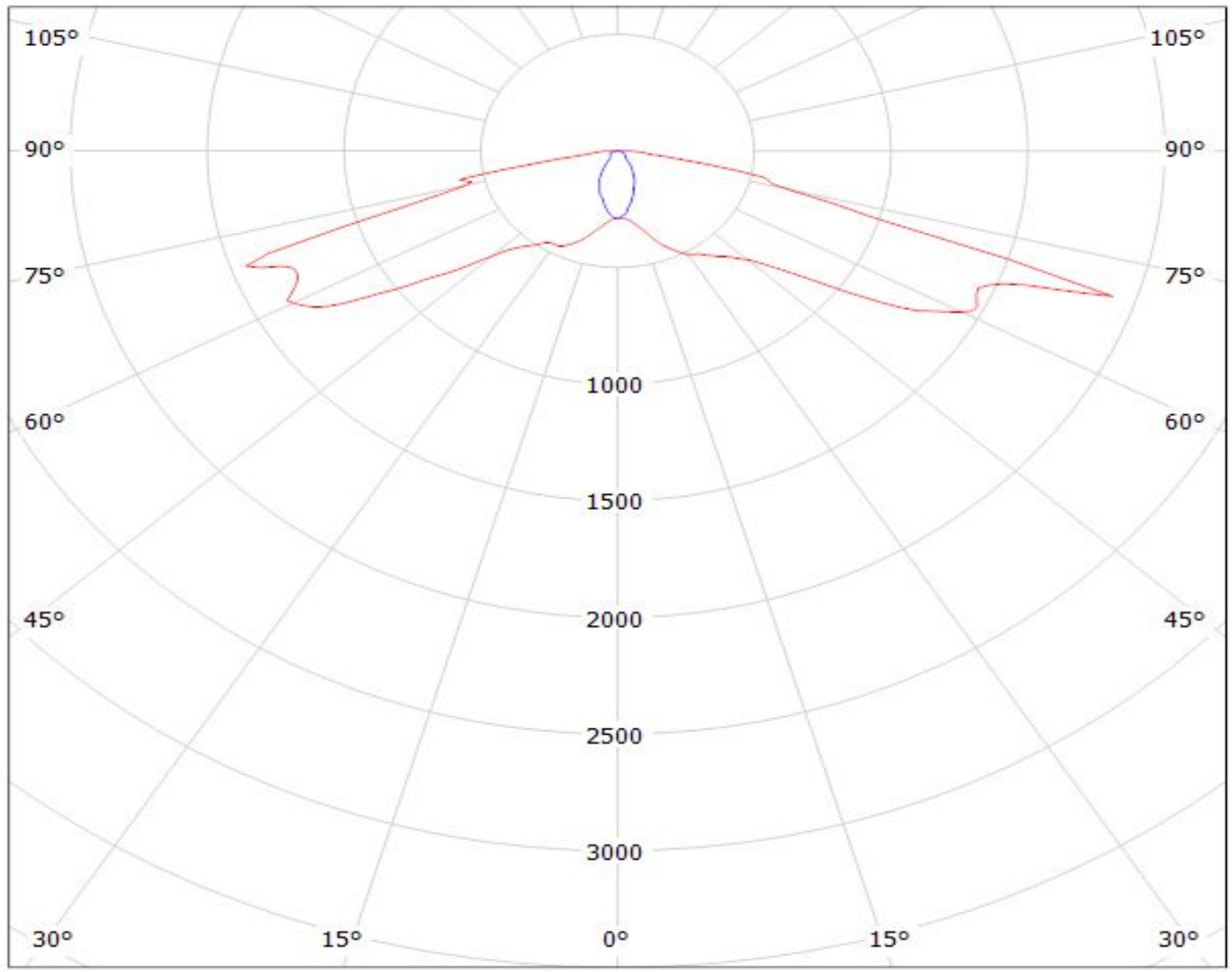
Luminaire: LEDiL Oy CA13156_EMERALD-A_(NVS19) Eff.87.5%
Lamps: 1 x NVS19 (98.3lm@250mA)



LEDiL Oy C13155_EMERALD-A_(SSL80) Eff.89.4% / LDC (Polar)

Luminaire: LEDiL Oy C13155_EMERALD-A_(SSL80) Eff.89.4%

Lamps: 1 x Oslon SSL (81.3lm@250mA)



cd/klm

— C0 - C180

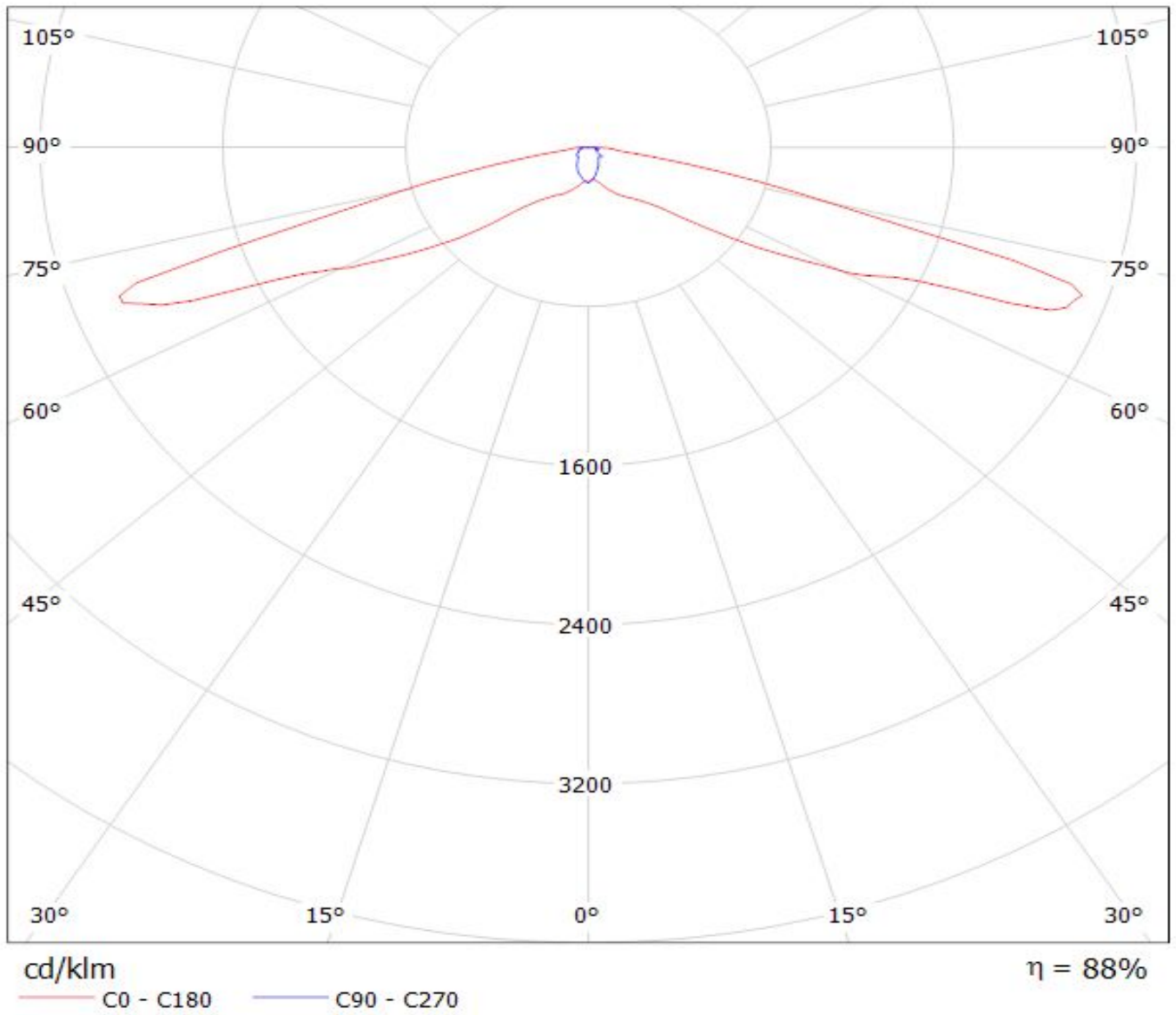
— C90 - C270

$\eta = 89\%$

LEDiL Oy CA13156_EMERALD-A_(XB-D) Eff.87.8% / LDC (Polar)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(XB-D) Eff.87.8%

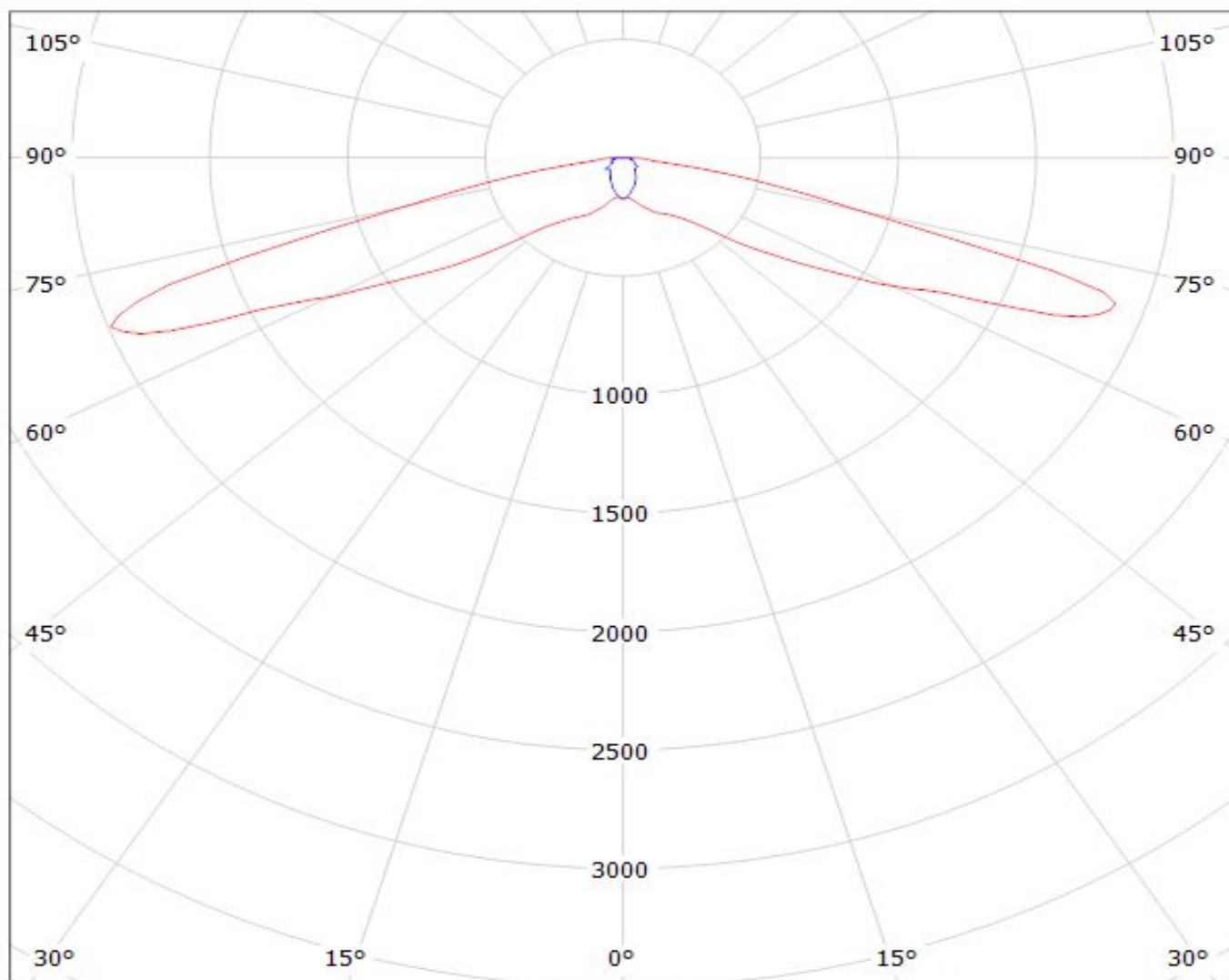
Lamps: 1 x Cree XB-D (95lm@250mA)



LEDiL Oy CA13156_EMERALD-A_(XT-E) Eff.88.2% / LDC (Polar)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(XT-E) Eff.88.2%

Lamps: 1 x Cree XT-E (102.3lm@250mA)



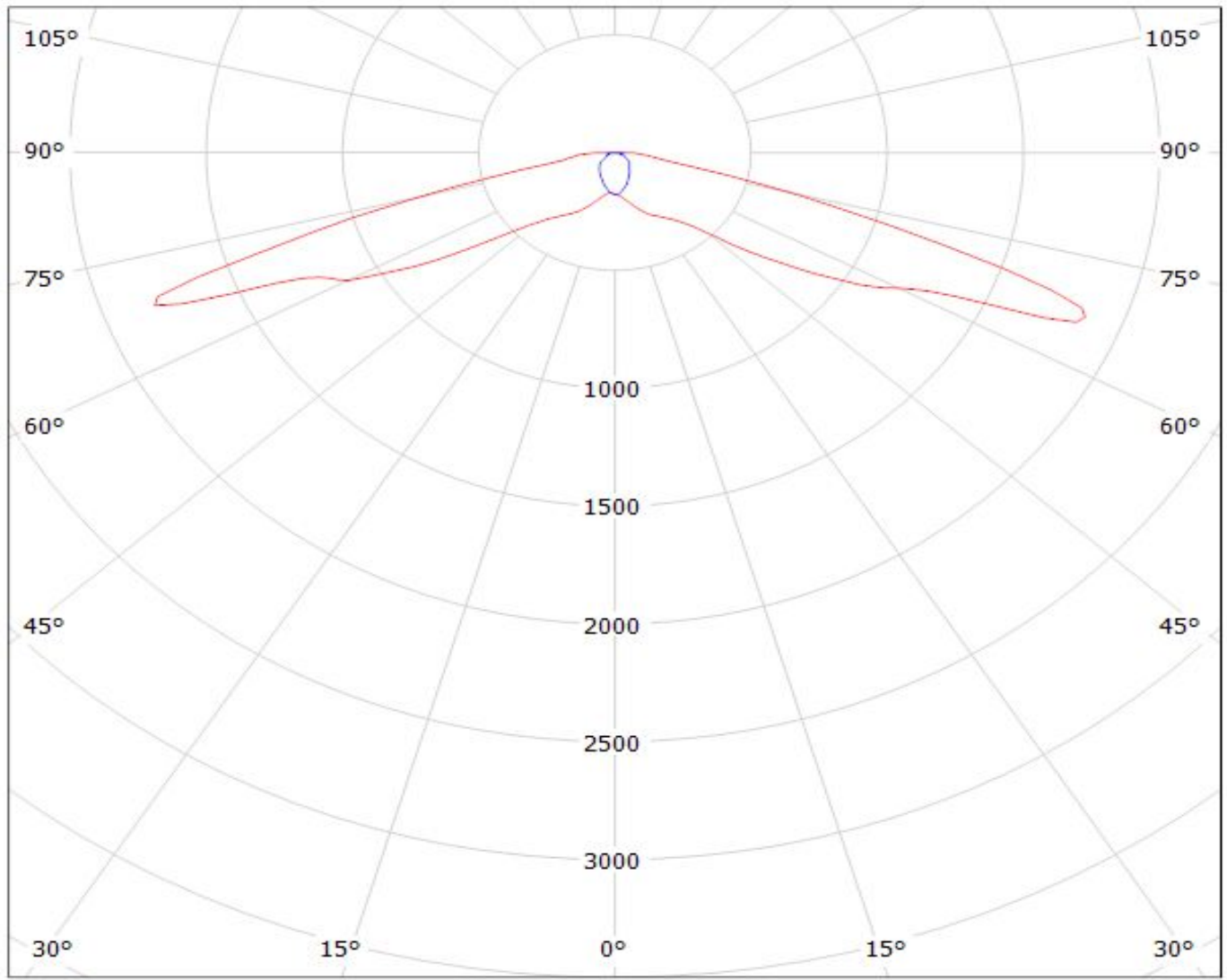
cd/klm

$\eta = 88\%$

— C0 - C180 — C90 - C270

LEDiL Oy CA13156_EMERALD-A_(SQ-EC) Eff.89.6% / LDC (Polar)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(SQ-EC) Eff.89.6%
Lamps: 1 x SQ-EC (64.5908lm@250mA)



cd/klm

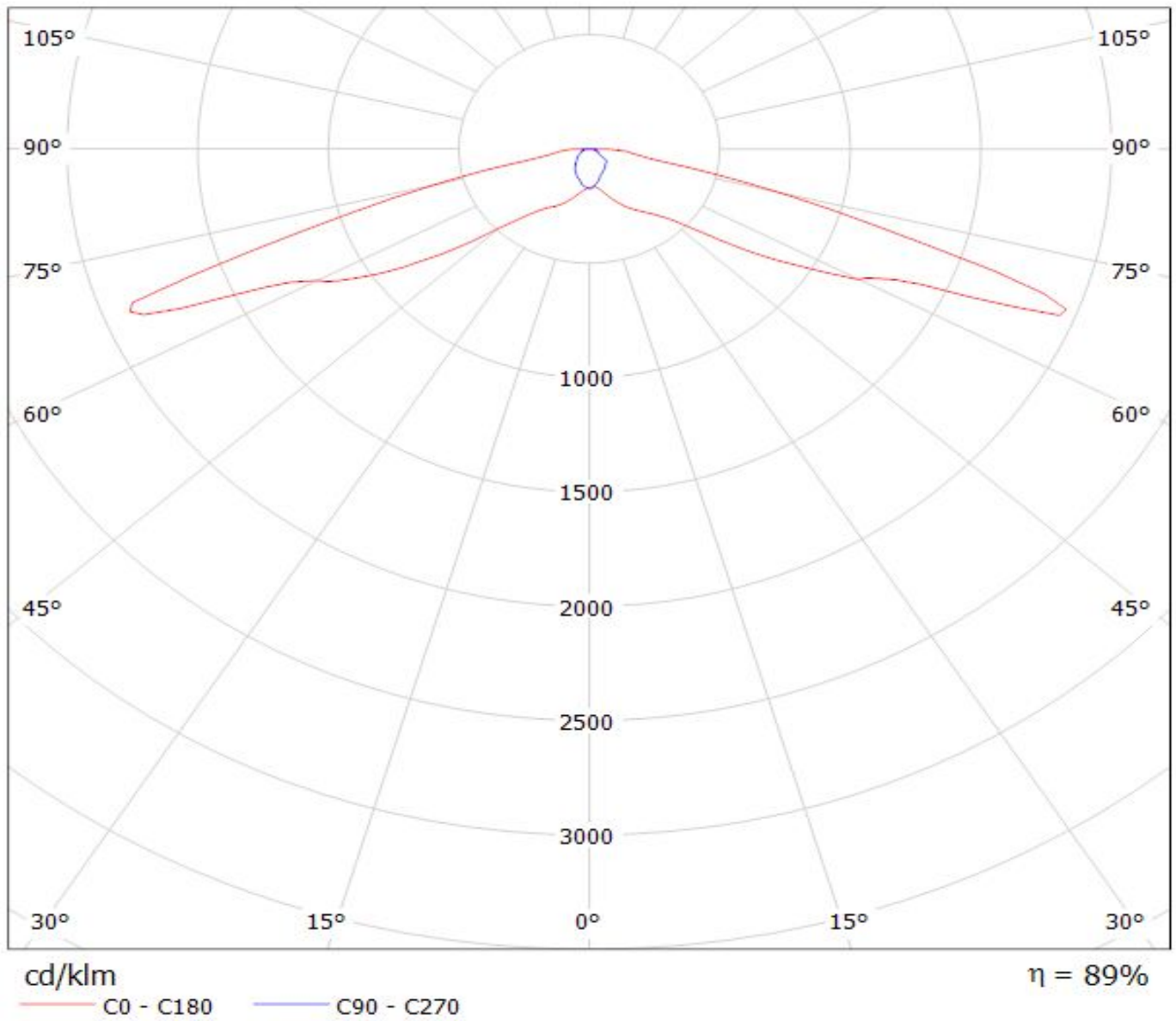
— C0 - C180 — C90 - C270

$\eta = 90\%$

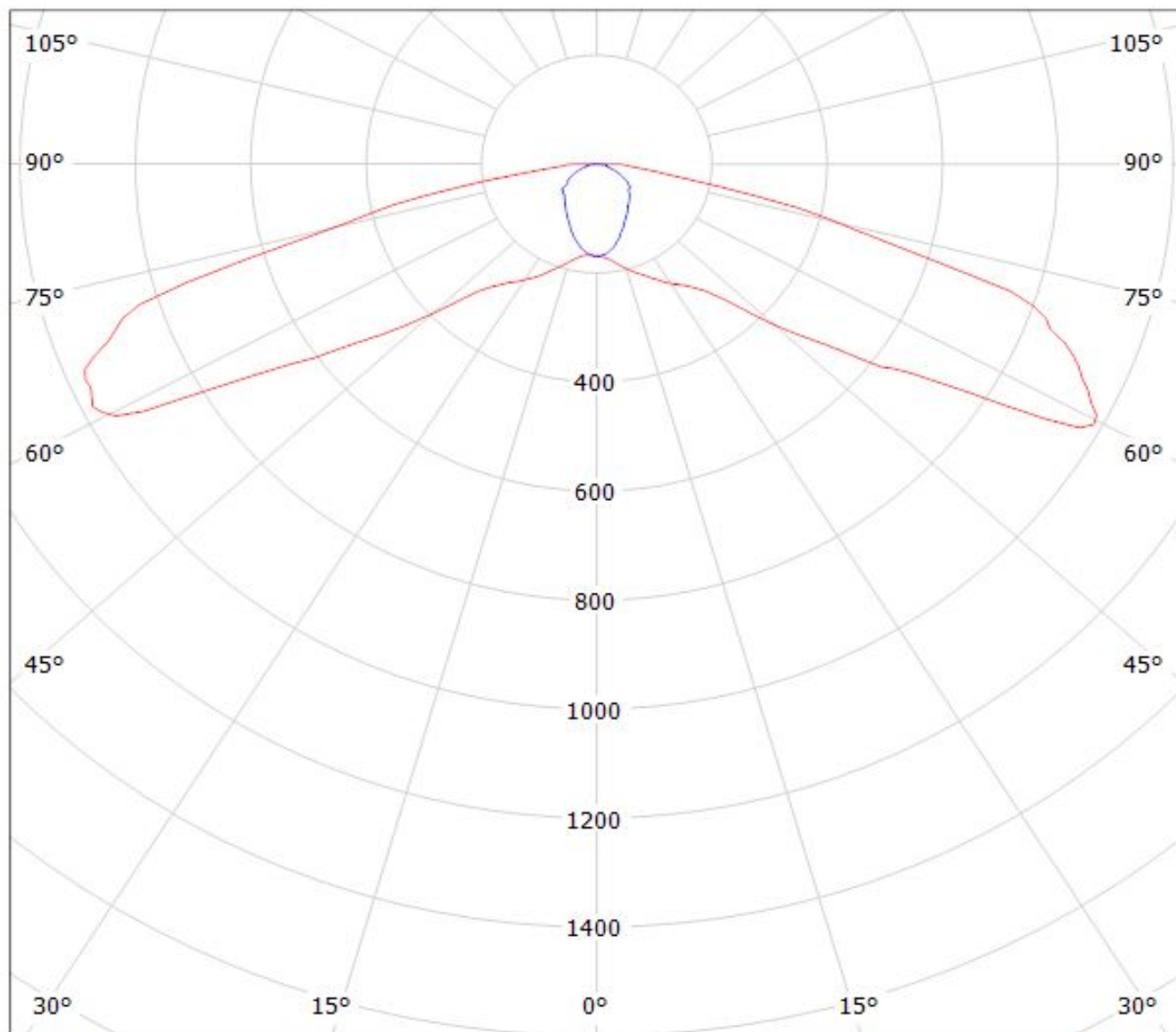
LEDiL Oy CA13156_EMERALD-A_(SQ-PC) Eff.89.1% / LDC (Polar)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(SQ-PC) Eff.89.1%

Lamps: 1 x SQ-PC (79.1971lm@250mA)



Luminaire: LEDiL Oy CA13156_EMERALD-A_(NS9x383) Eff. 89,2%
Lamps: 1 x Nichia NS9x383 (105lm@250mA)



cd/klm

— C0 - C180

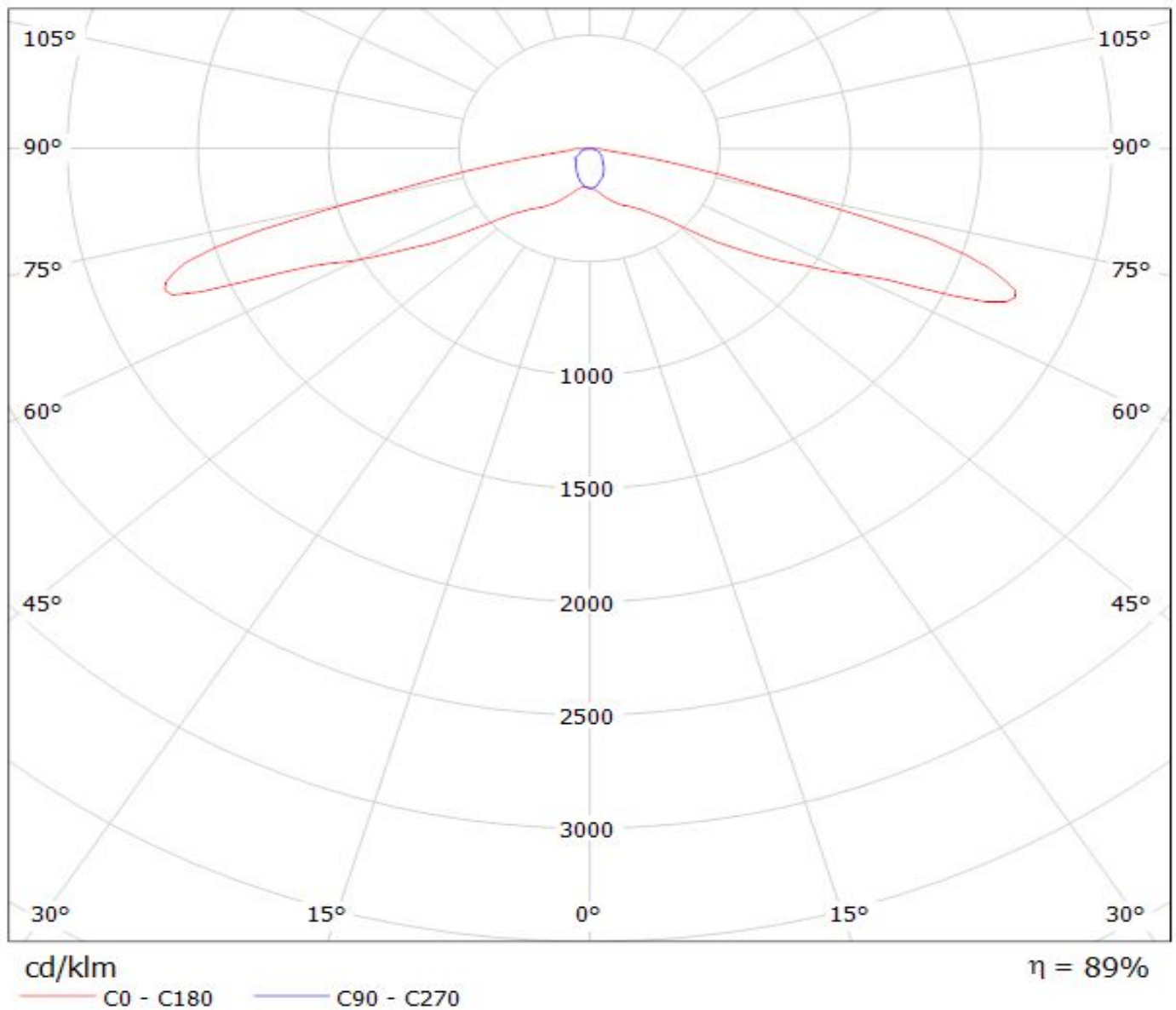
— C90 - C270

$\eta = 89\%$

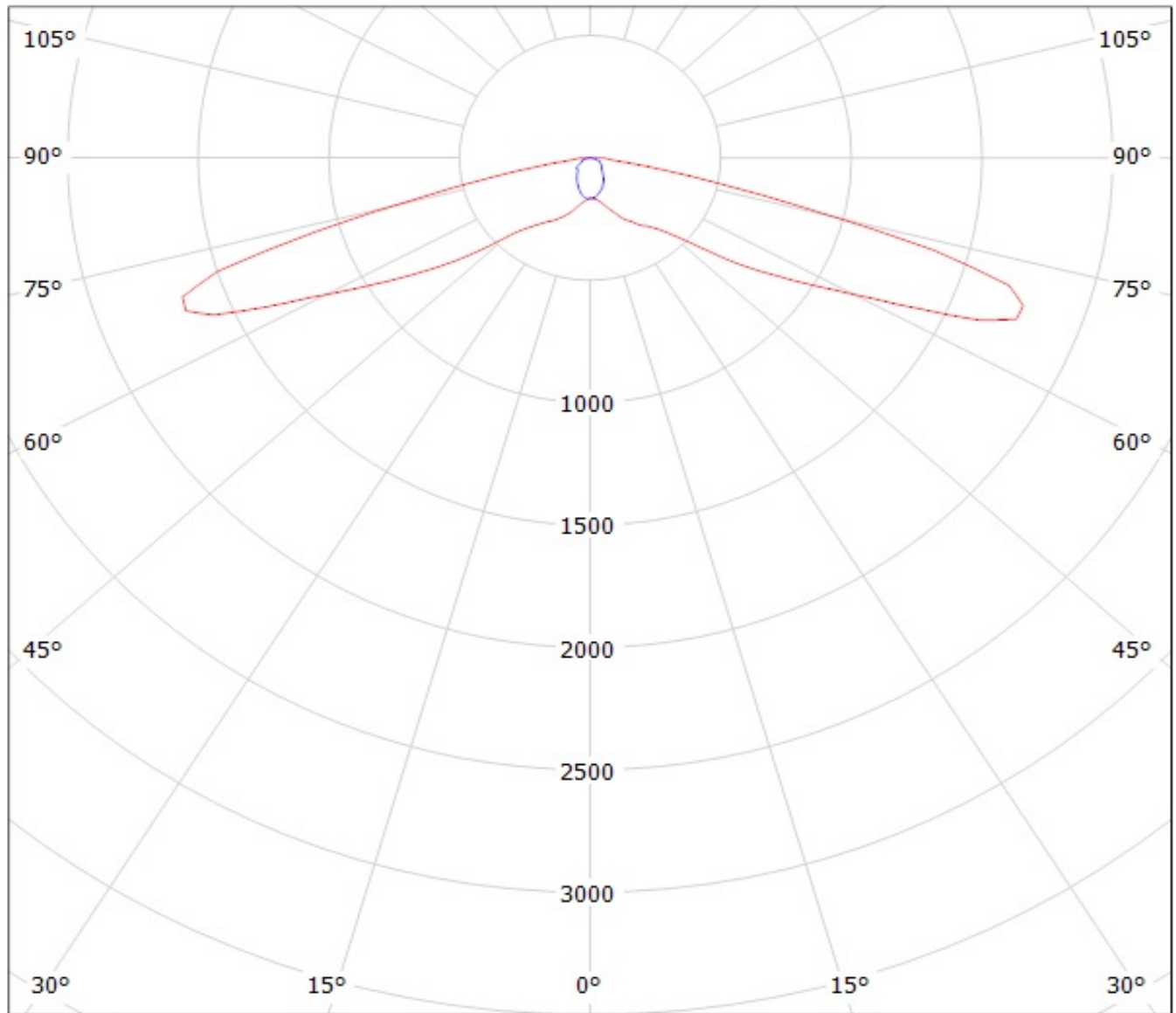
LEDiL Oy CA13156_EMERALD-A_(LUXEON_A) Eff.88.6% / LDC (Polar)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(LUXEON_A) Eff.88.6%

Lamps: 1 x LUXEON_R (67.5lm@250mA)



Luminaire: Ledil Oy CA13156_EMERALD-A (Luxeon T 71lm @ 250mA) Efficiency=93%
Lamps: 1 x Luxeon T 71lm @ 250mA



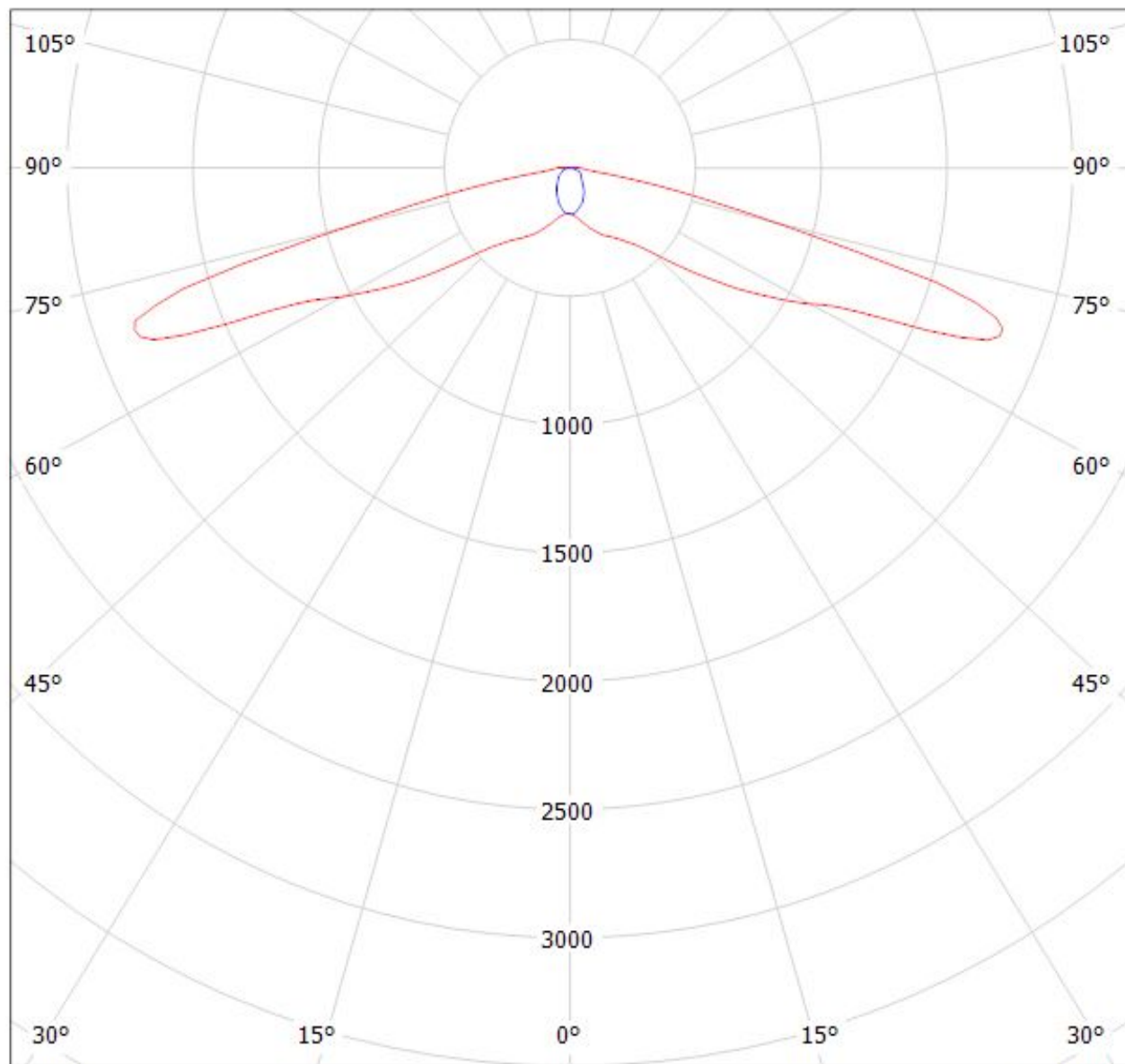
cd/klm

— C0 - C180

— C90 - C270

Luminaire: LEDiL Oy CA13156_EMERALD-A_(Luxeon_TX) Eff.91.7%

Lamps: 1 x Luxeon_TX_(L1T2-3585)_80.1801lm@250mA_CCT=3500K_P=0.731482W_I=249.9mA



cd/klm

— C0 - C180

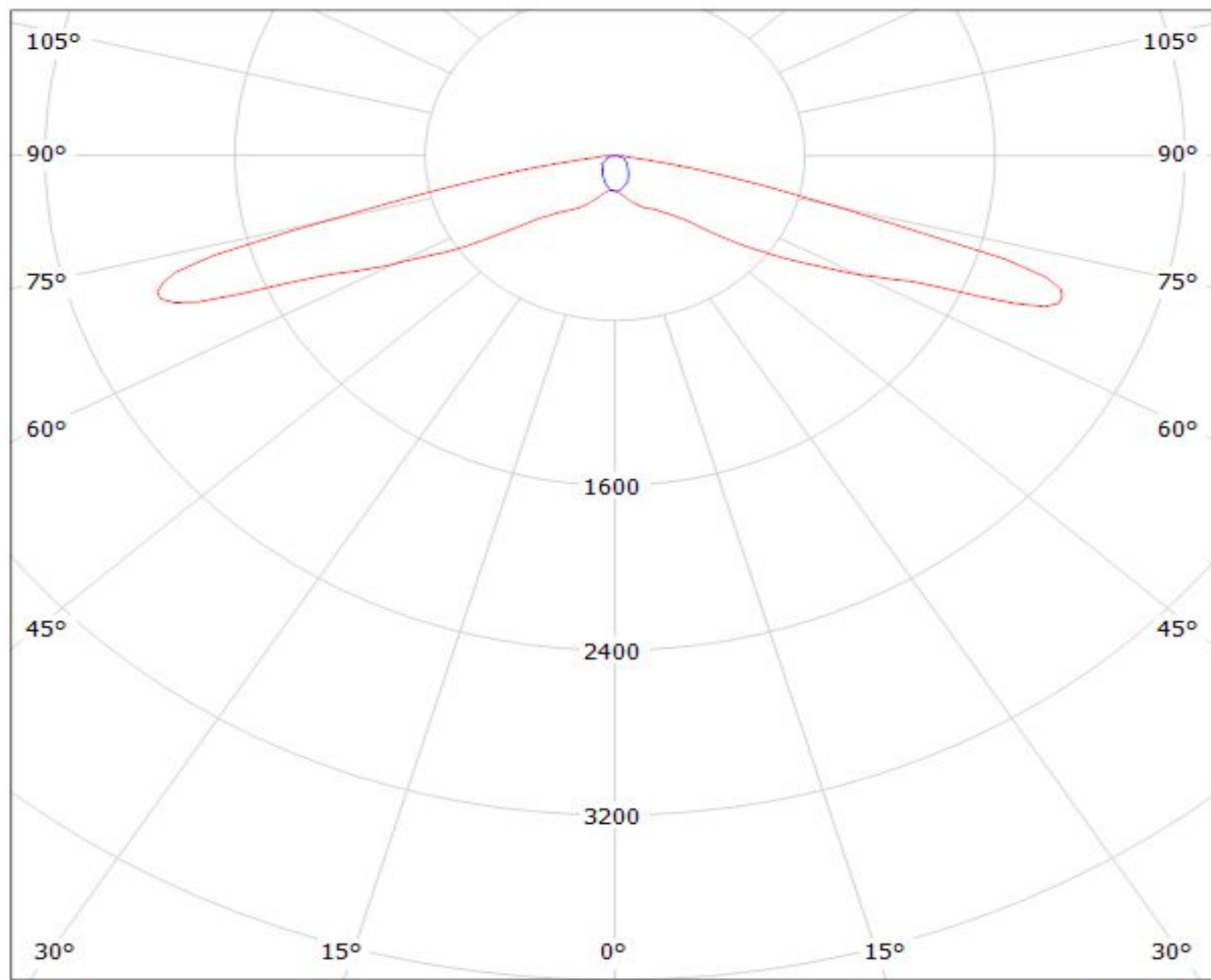
— C90 - C270

η = 92%

LEDiL Oy CA13156_EMERALD-A_(XP-G2) Eff.91.4% / LDC (Polar)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(XP-G2) Eff.91.4%

Lamps: 1 x CREE XP-G2 (105.7lm@250mA)



cd/klm

— C0 - C180

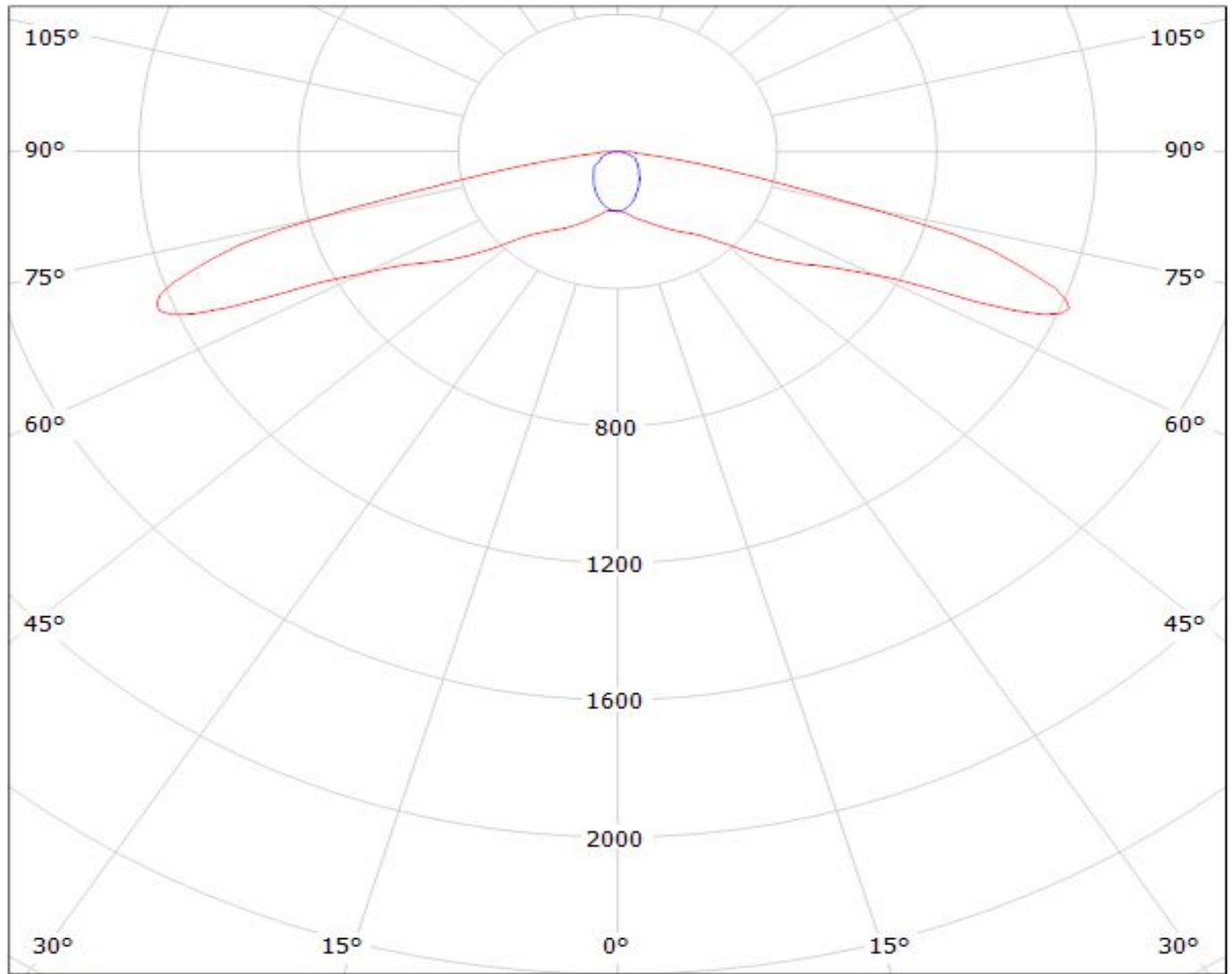
— C90 - C270

$\eta = 91\%$

LEDiL Oy CA13156_EMERALD-A_(XM-L) Eff.90.8% / LDC (Polar)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(XM-L) Eff.90.8%

Lamps: 1 x Cree XM-L (91.7822lm@250mA)



cd/klm

— C0 - C180

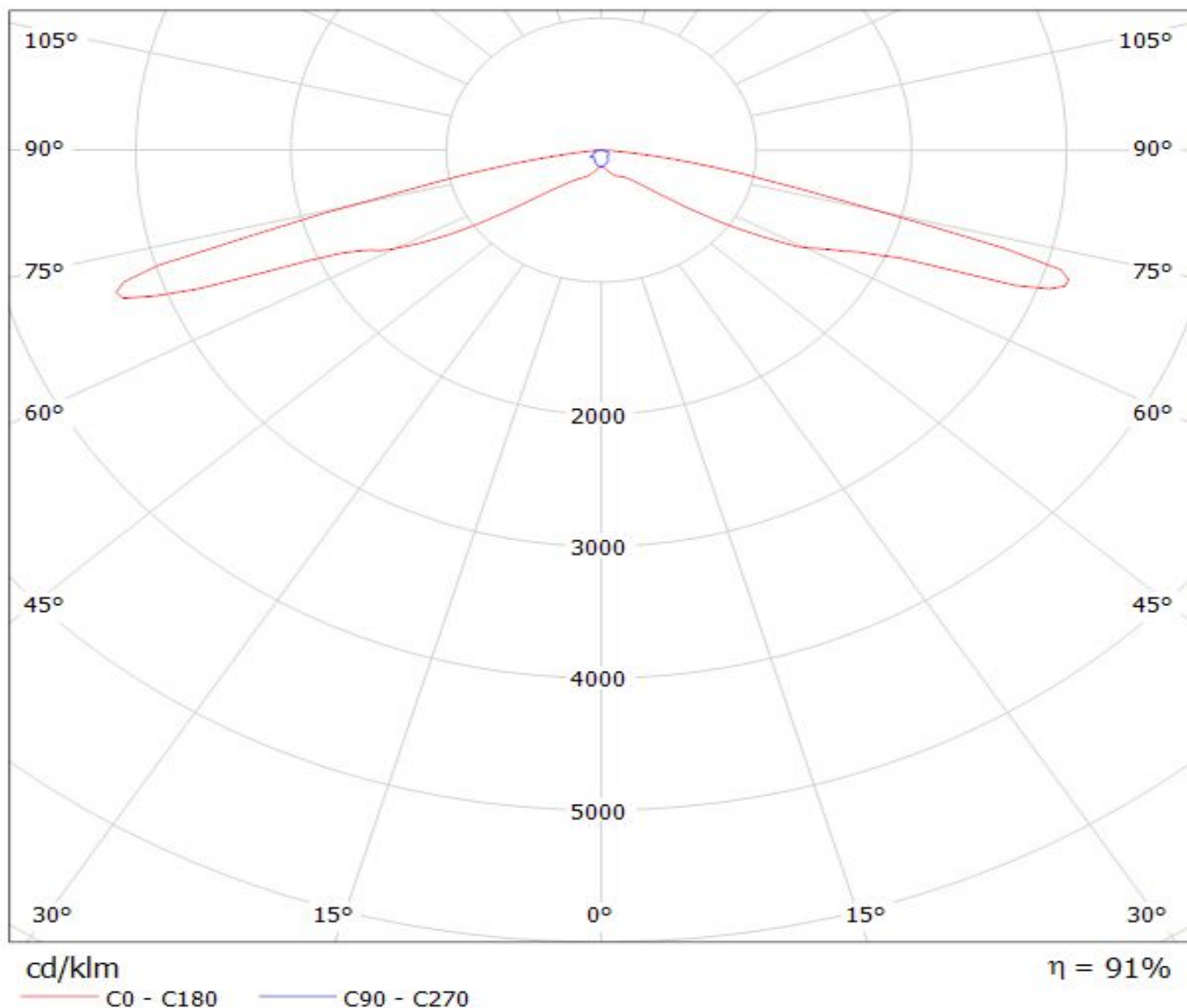
— C90 - C270

$\eta = 91\%$

LEDiL Oy CA13156_EMERALD-A_(SSL150) Eff.91.4% / LDC (Polar)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(SSL150) Eff.91.4%

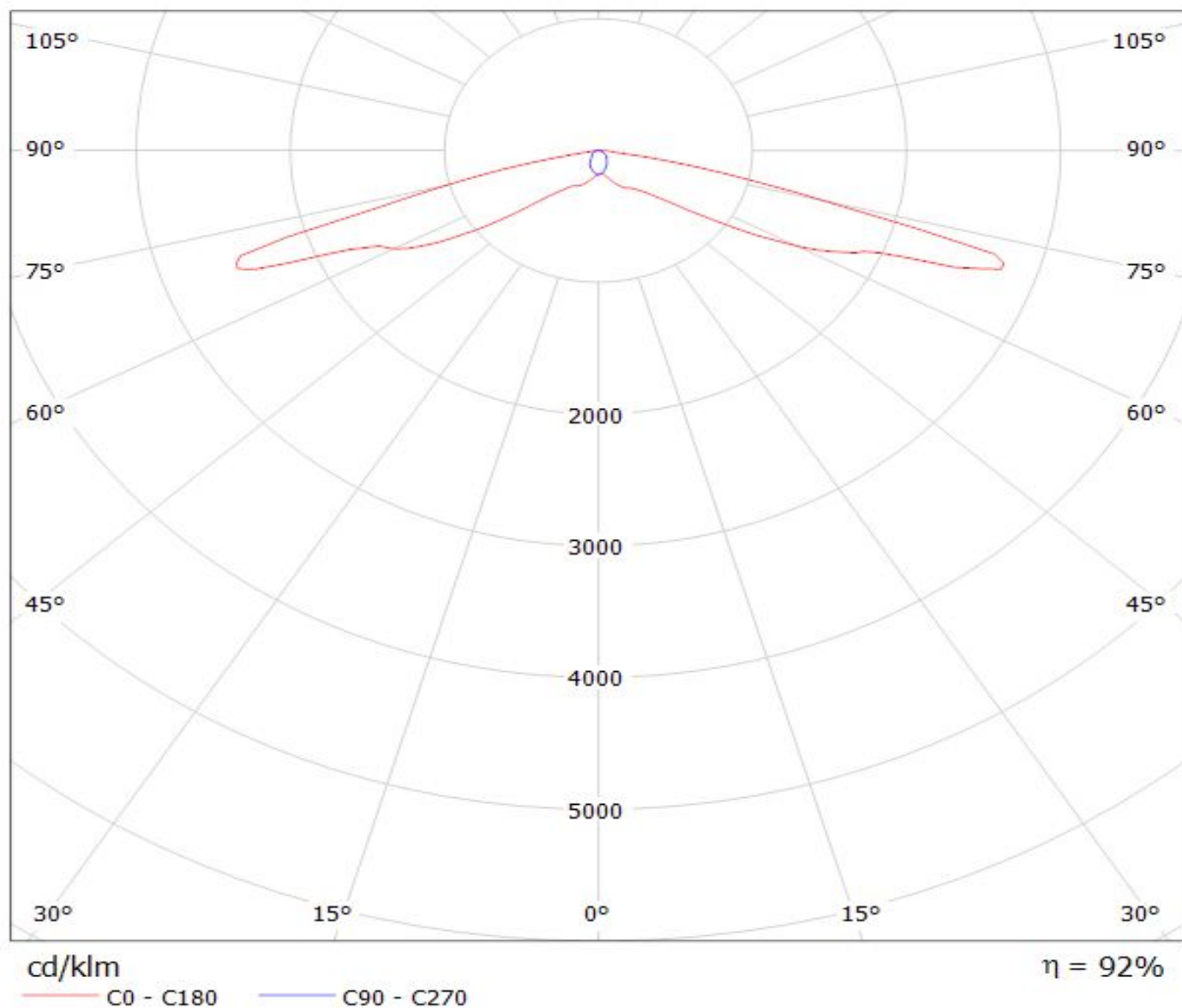
Lamps: 1 x Oslon SSL150 (71.5lm@250mA)



LEDiL Oy CA13156_EMERALD-A_(XP-E) Eff.91.5% / LDC (Polar)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(XP-E) Eff.91.5%

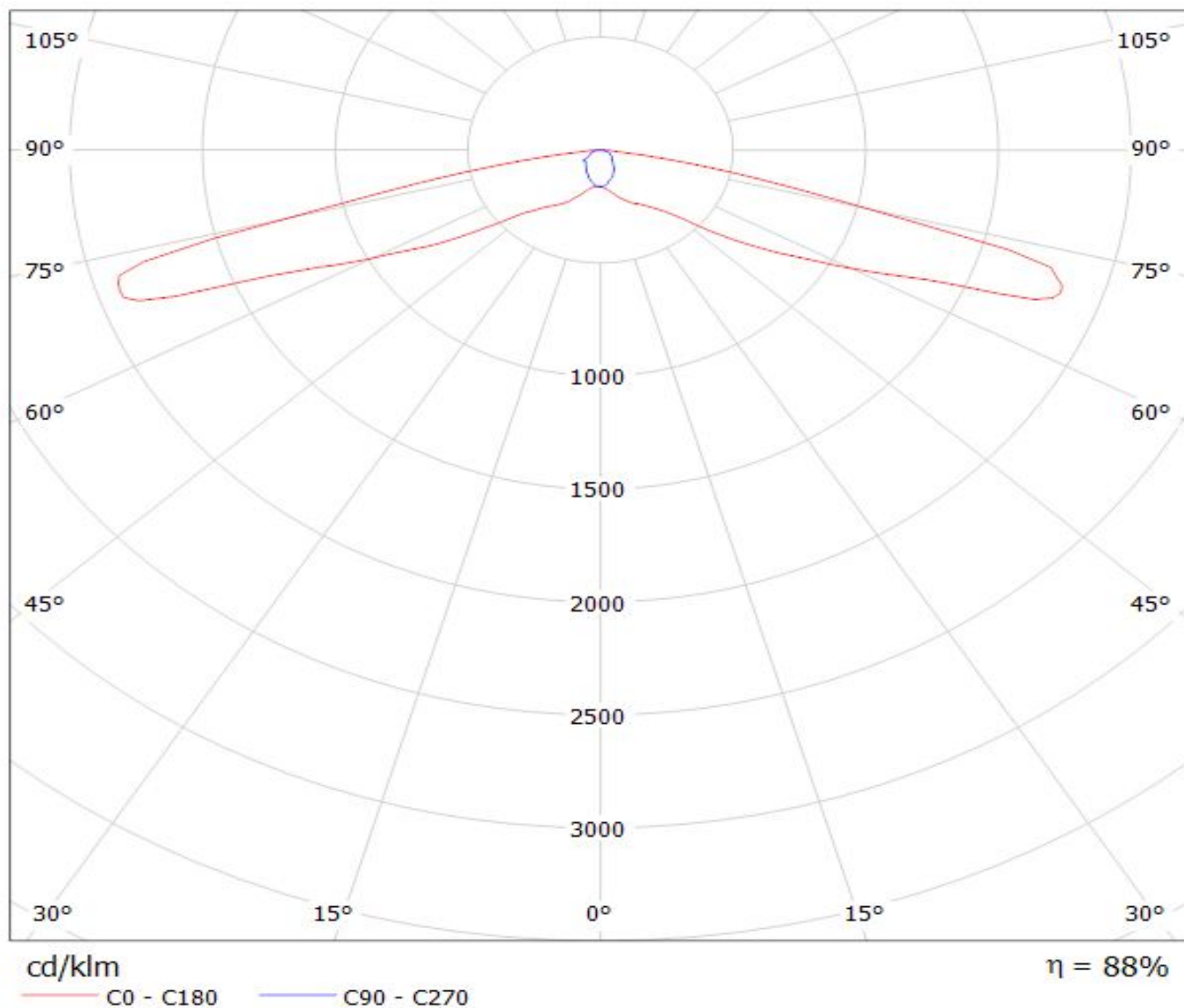
Lamps: 1 x CREE XP-E (51.4197lm@250mA)



LEDiL Oy CA13156_EMERALD-A_(XP-G) Eff.88.1% / LDC (Polar)

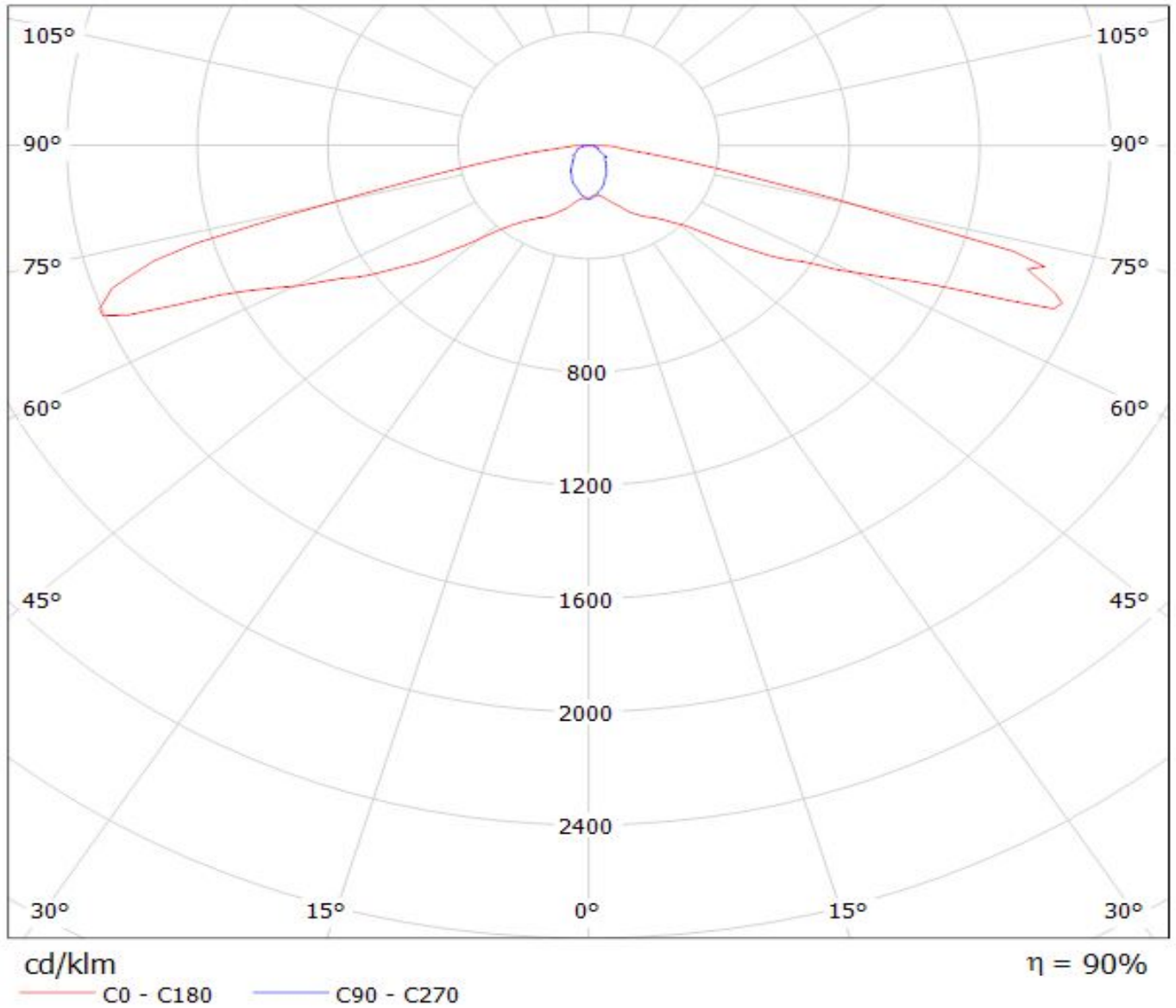
Luminaire: LEDiL Oy CA13156_EMERALD-A_(XP-G) Eff.88.1%

Lamps: 1 x XP-G (70.6lm@250mA)



LEDiL Oy CA13156_EMERALD-A_(LG3535) Eff.89.7% / LDC (Polar)

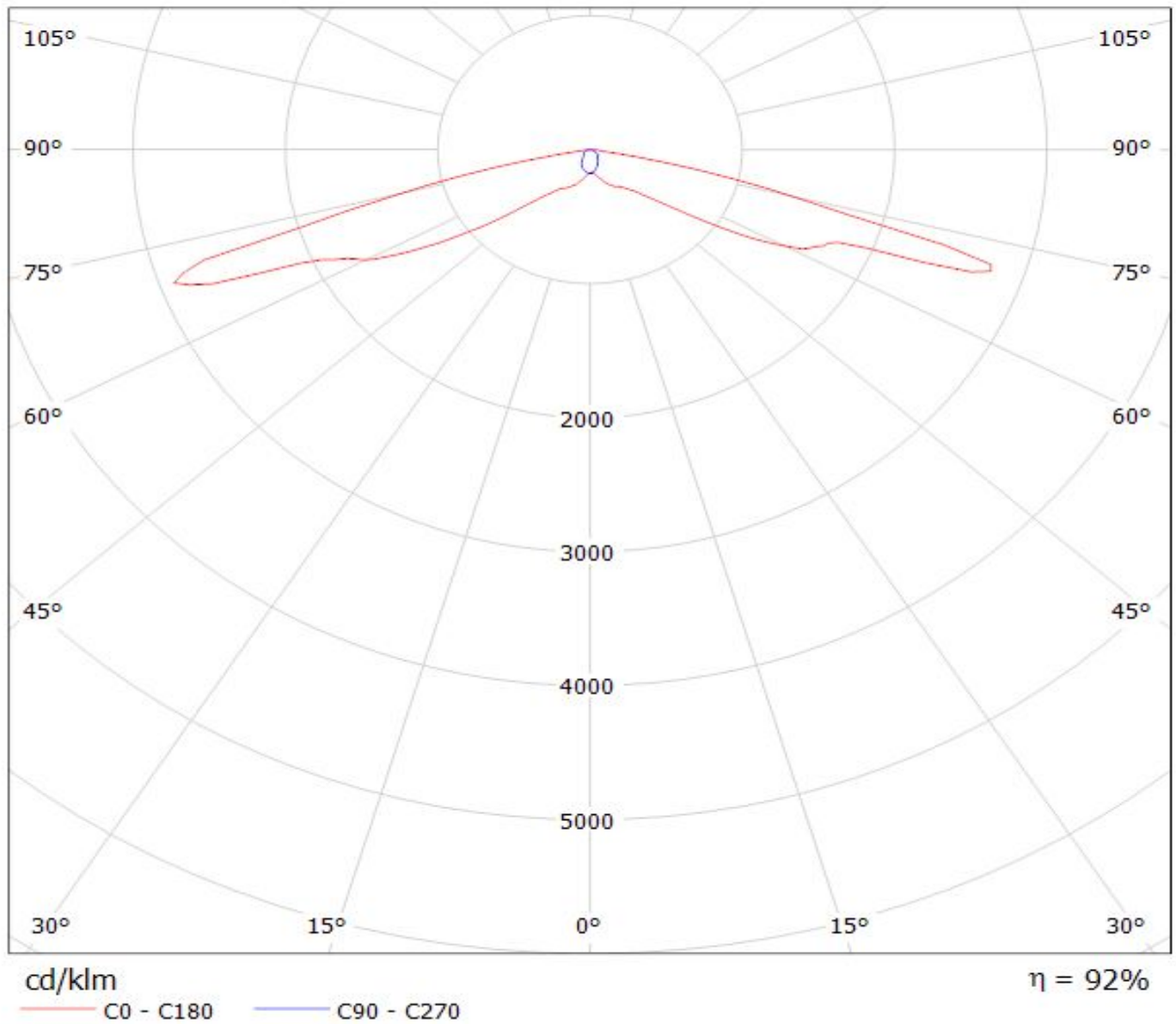
Luminaire: LEDiL Oy CA13156_EMERALD-A_(LG3535) Eff.89.7%
Lamps: 1 x LG 3535 Ceramic (94lm@250mA)



LEDiL Oy CA13156_EMERALD-A_(XP-E2) Eff.91.7% / LDC (Polar)

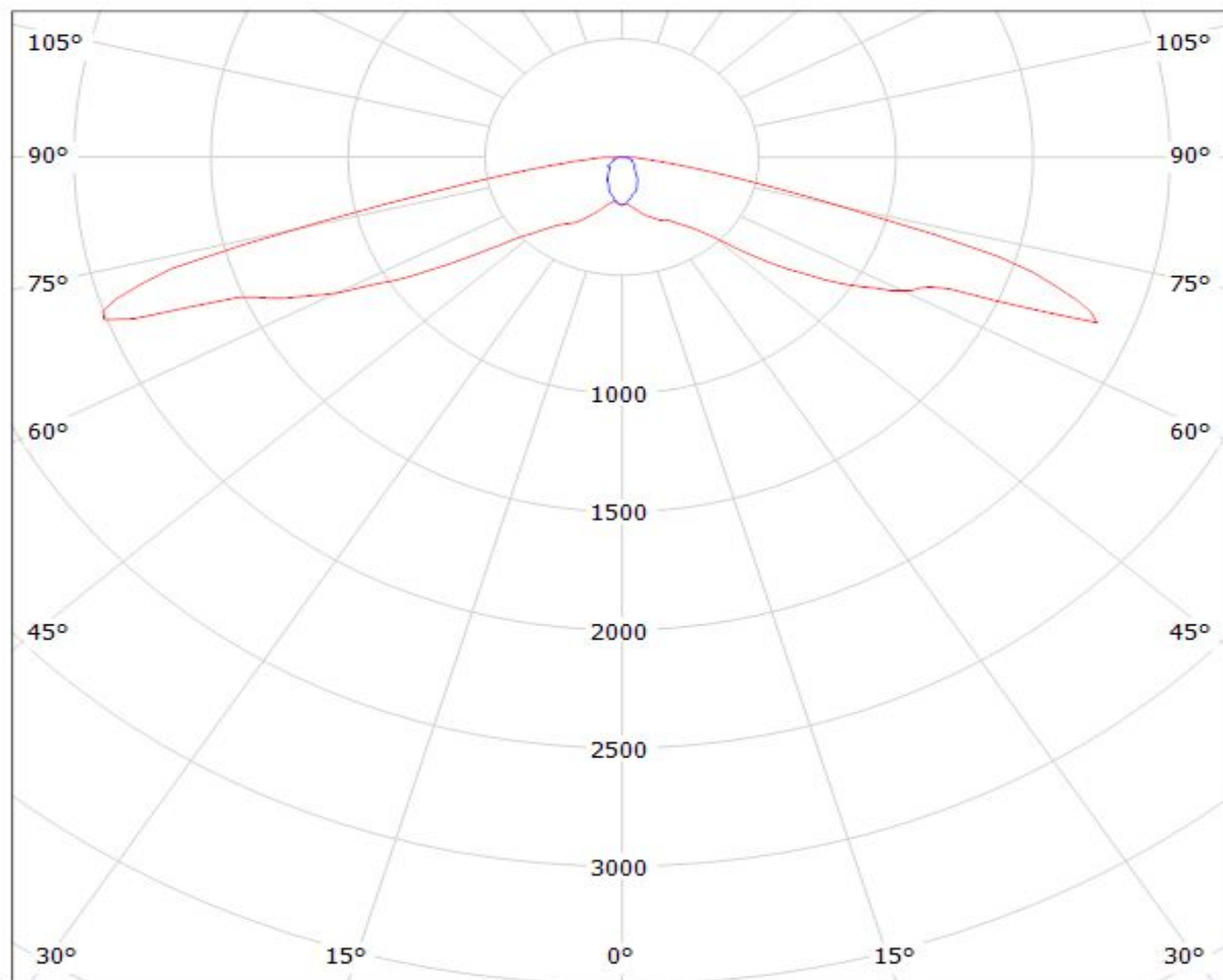
Luminaire: LEDiL Oy CA13156_EMERALD-A_(XP-E2) Eff.91.7%

Lamps: 1 x CREE XP-E2 (93.5lm@250mA)



LEDiL Oy CA13156_EMERALD-A_(LG3535_2W) Eff.92.6% / LDC (Polar)

Luminaire: LEDiL Oy CA13156_EMERALD-A_(LG3535_2W) Eff.92.6%
Lamps: 1 x LG3535_2W (97.3629lm@250mA)



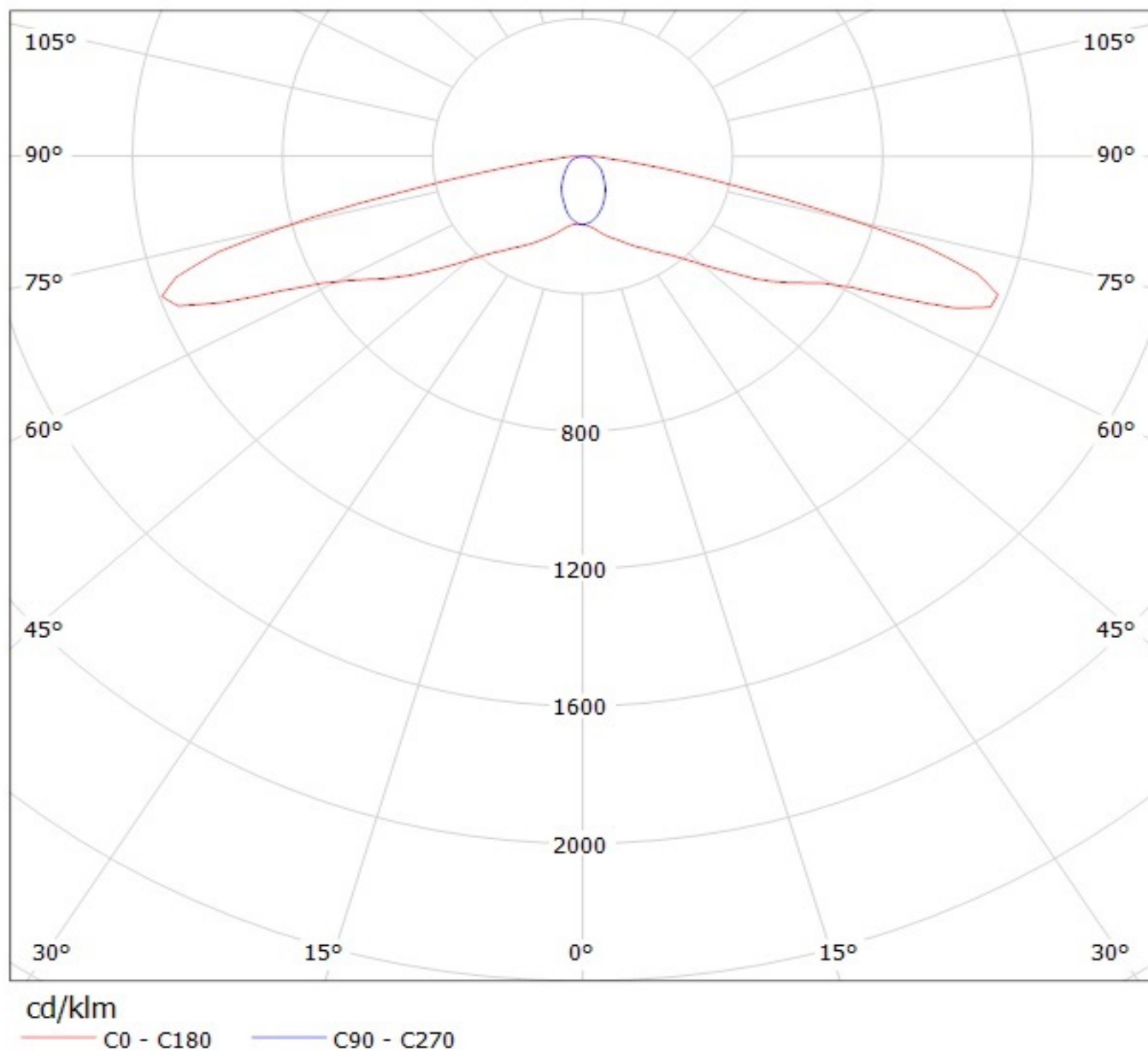
cd/klm

— C0 - C180

— C90 - C270

$\eta = 93\%$

Luminaire: LEDil Oy CA13156 EMERALD-A_(XM-L2) Efficiency=92%
Lamps: 1 x Cree XM-L2 (XMLBWT-0-7B4-T30-0L-0001) 91lm @ 250mA CCT=3200K P=0.7W 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.