

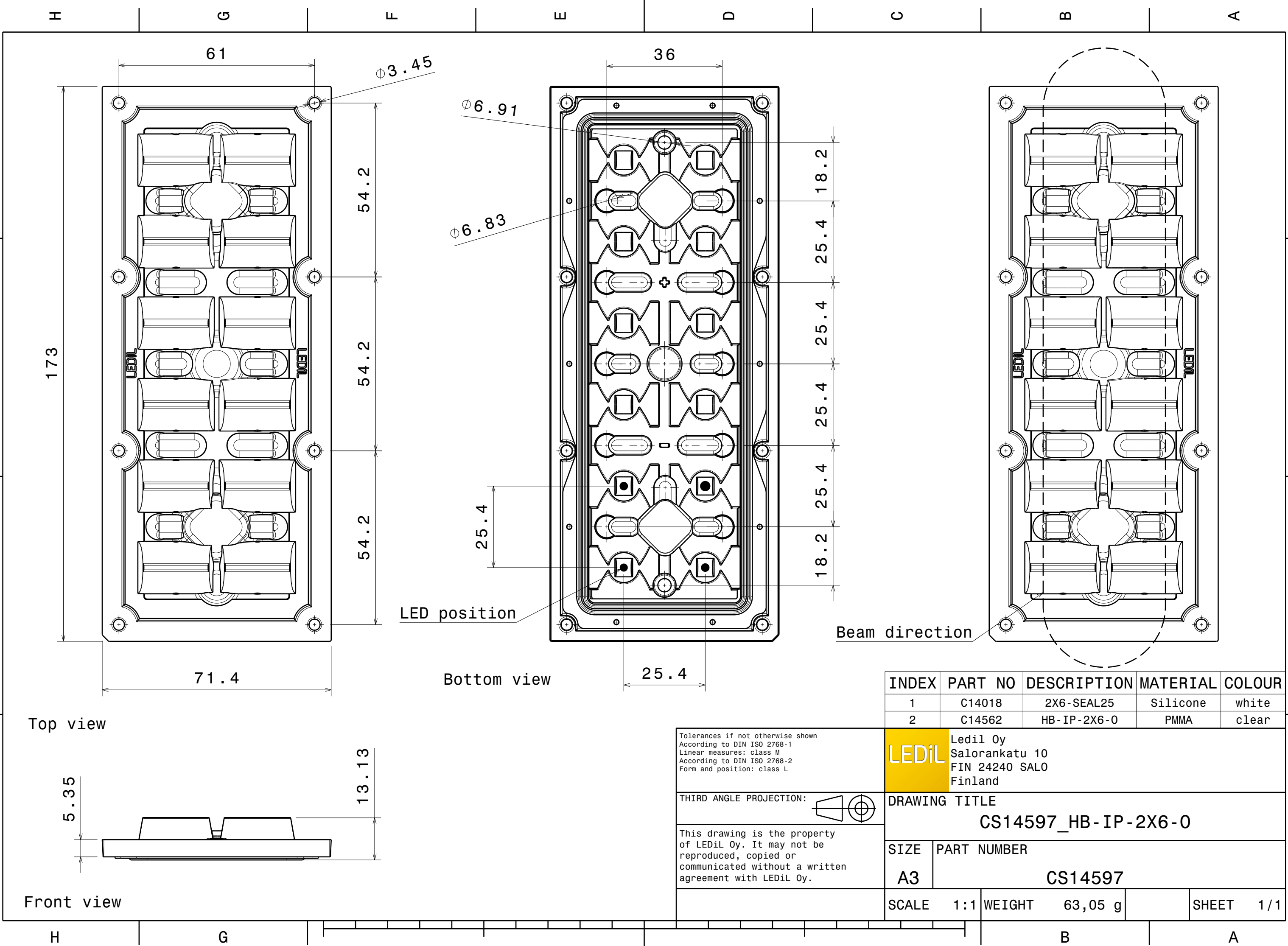
DETAILS

Product Number	CS14597_HB-IP-2X6-O
Family	High Bay
Type	Lens array
Color	clear
Diameter	173x71,4 mm
Height	12,2 mm
Style	rectang
Optic Material	PMMA
Holder Material	
Fastening	
Status	ready
ROHS Comliant	Yes
Date Updated	10/02/2015



OPTICAL PROPERTIES

LED	Viewing	Light	Effi-	cd/lm	Connector
	Angle	Beam	ciency		
LUXEON Z ES	25+108 deg	Asymmetric	90 %	0.790	-
LUXEON Rebel	28+107 deg	Asymmetric	91 %	0.730	-
TL1L4	29+107 deg	Asymmetric	87 %	0.690	-
LH351Z	29+104 deg	Asymmetric	91 %	0.770	-
Z5M1/Z5M2	29+105 deg	Asymmetric	90 %	0.730	-
LUXEON R	30+109 deg	Asymmetric	91 %	0.680	-
Oslon Square PC	30+111 deg	Asymmetric	92 %	0.690	-
Oslon Square EC	30+108 deg	Asymmetric	91 %	0.720	-
LUXEON Rebel ES	30+110 deg	Asymmetric	91 %	0.690	-
LUXEON TX	30+111 deg	Asymmetric	90 %	0.690	-
NVSxx19B/NVSxx19C	31+116 deg	Asymmetric	90 %	0.630	-
XP-G	31+117 deg	Asymmetric	91 %	0.650	-
XT-E	31+119 deg	Asymmetric	92 %	0.630	-
LUXEON T	32+115 deg	Asymmetric	91 %	0.630	-
XP-G2	32+116 deg	Asymmetric	92 %	0.660	-
XP-L	36+115 deg	Asymmetric	91 %	0.600	-
XM-L2	36+108 deg	Asymmetric	91 %	0.630	-
XM-L	36+110 deg	Asymmetric	91 %	0.610	-



4

3

2

1

4

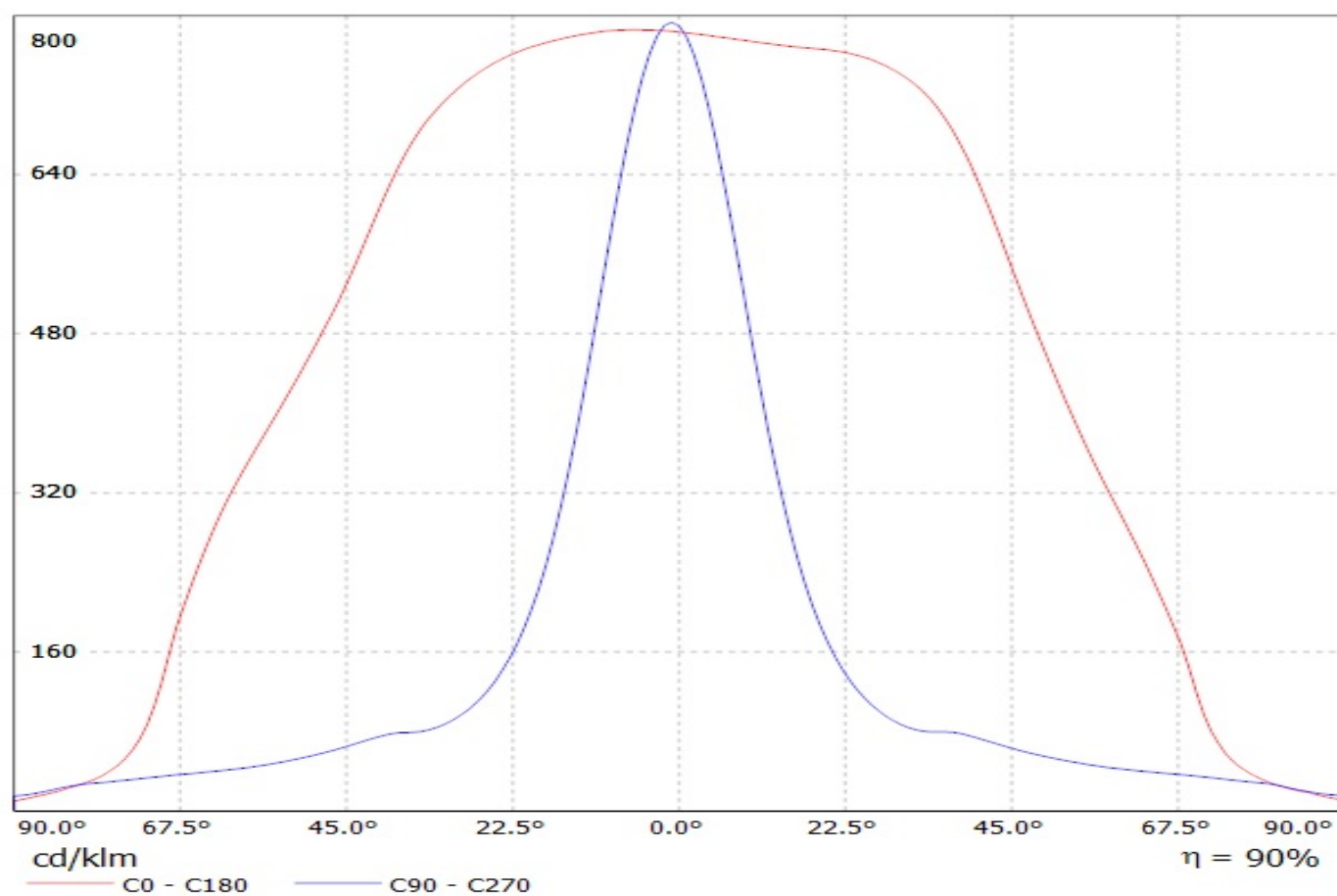
3

2

1

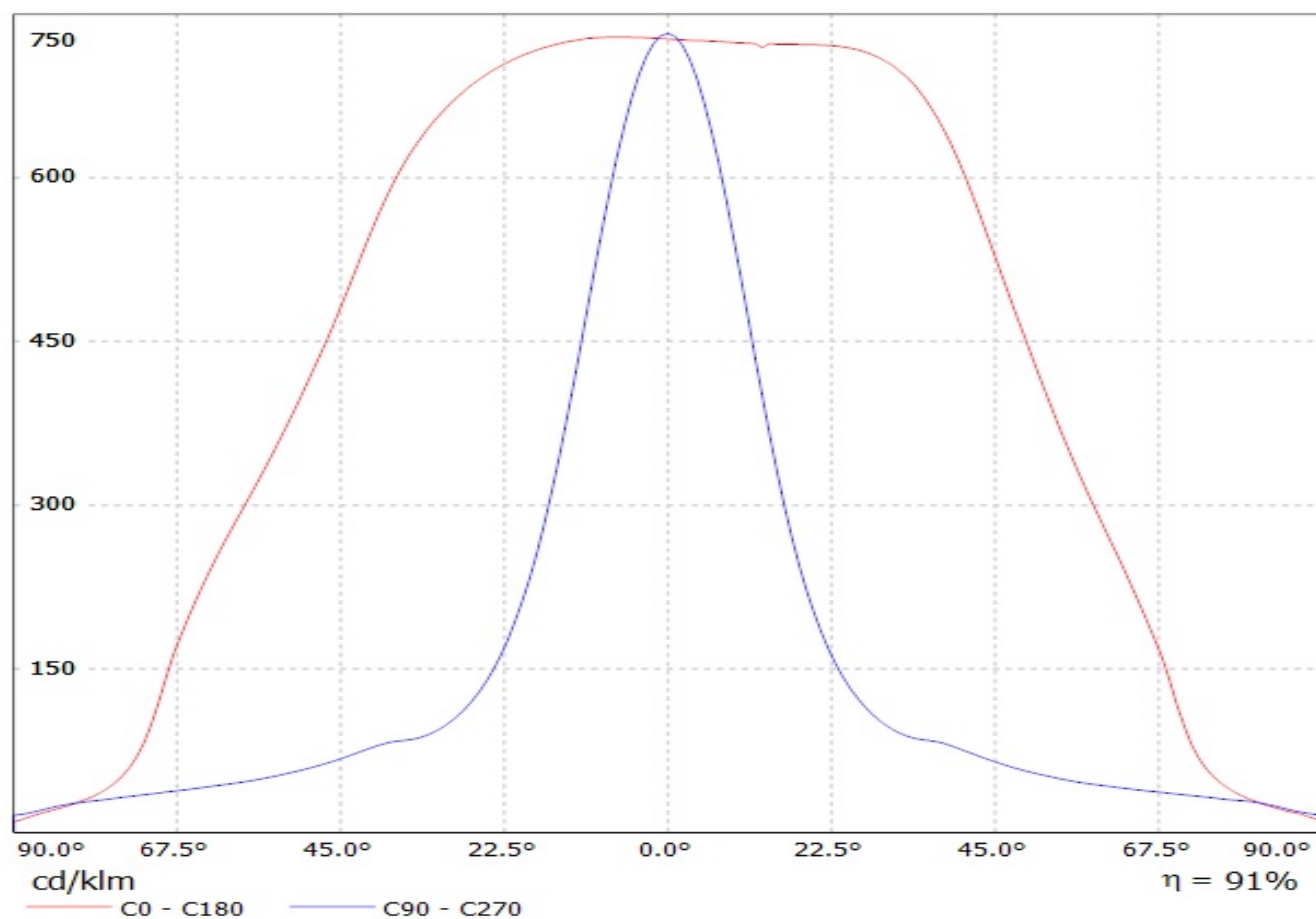
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Luxeon_Z_ES)

Lamps: 1 x Philips_Lumileds_Luxeon_Z_ES_2x6_977.042lm@250mA_P=8.33092W_I=0.2499A



Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Luxeon_Rebel)

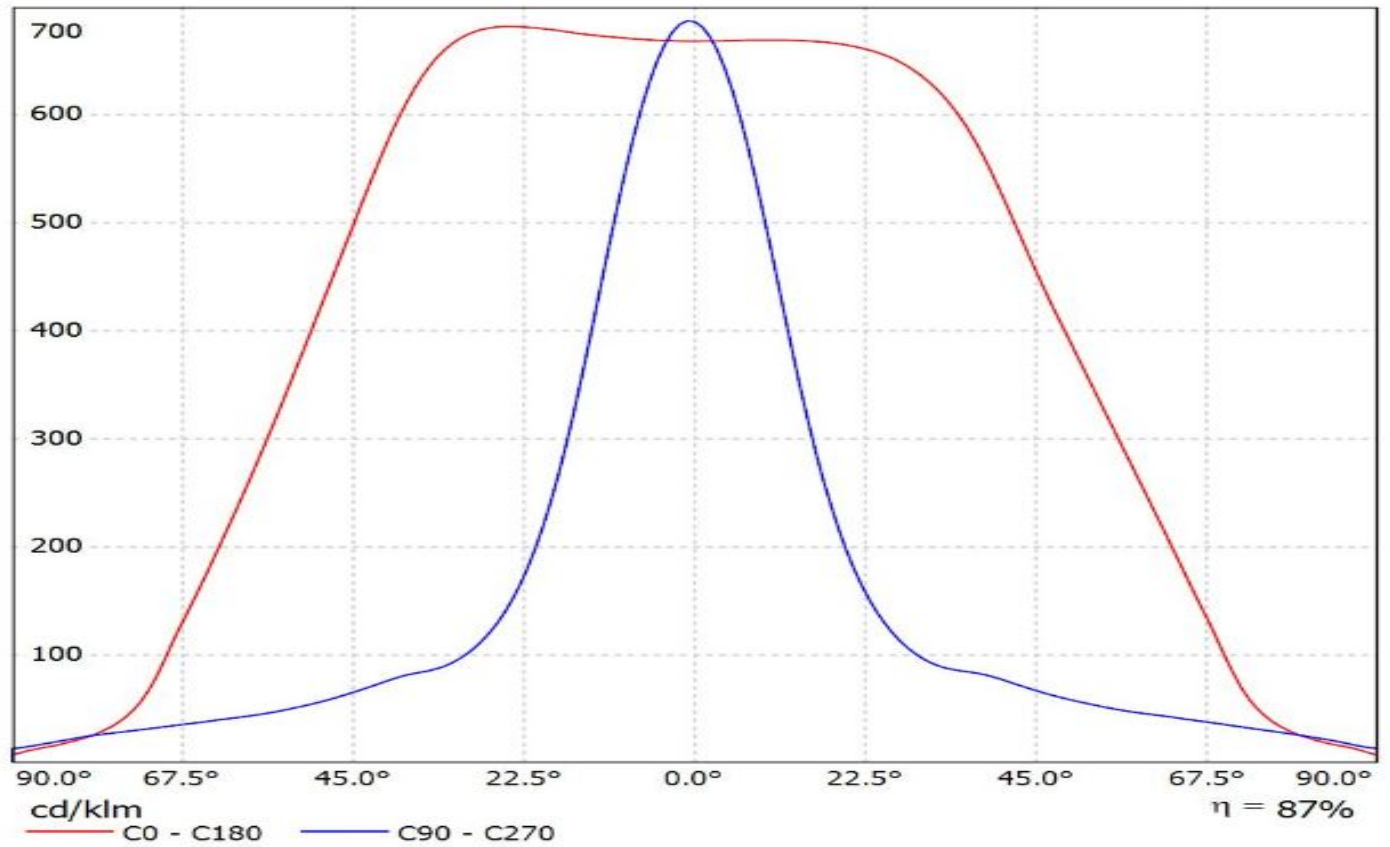
Lamps: 1 x Philips_Lumileds_Luxeon_Rebel_2x6_(LXM8-PW30)_745.574lm@250mA_P=8.36755W_I=0.2498A



Ledil CS14597_HB-IP-2X6-O_(TL1L4) / LDC (Linear)

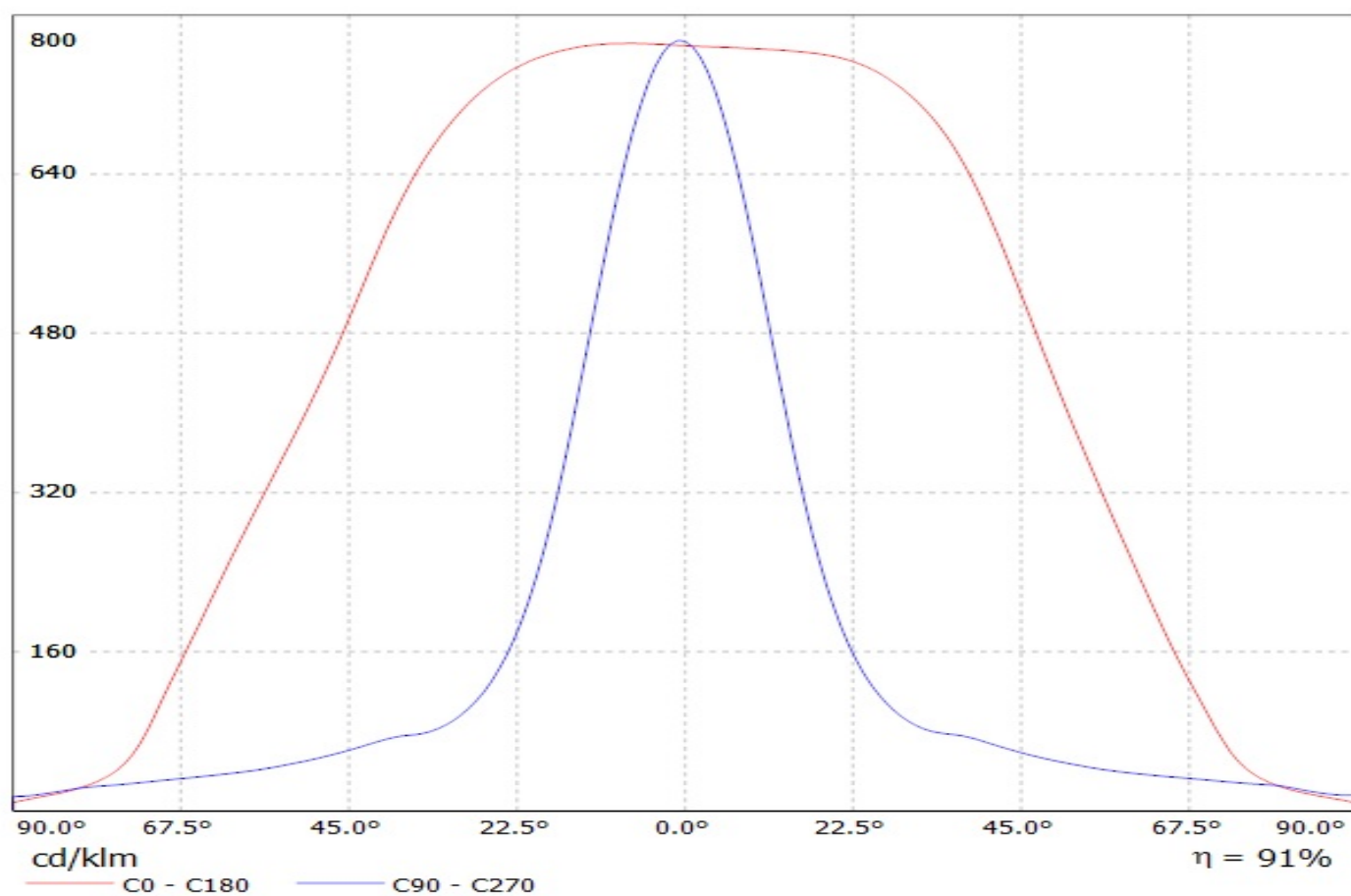
Luminaire: Ledil CS14597_HB-IP-2X6-O_(TL1L4)

Lamps: 1 x Toshiba_TL1L4_2x6_(TL1L4-DW0)_1346.96lm@250mA_CCT=6500K_P=8.5W_I=0.25A



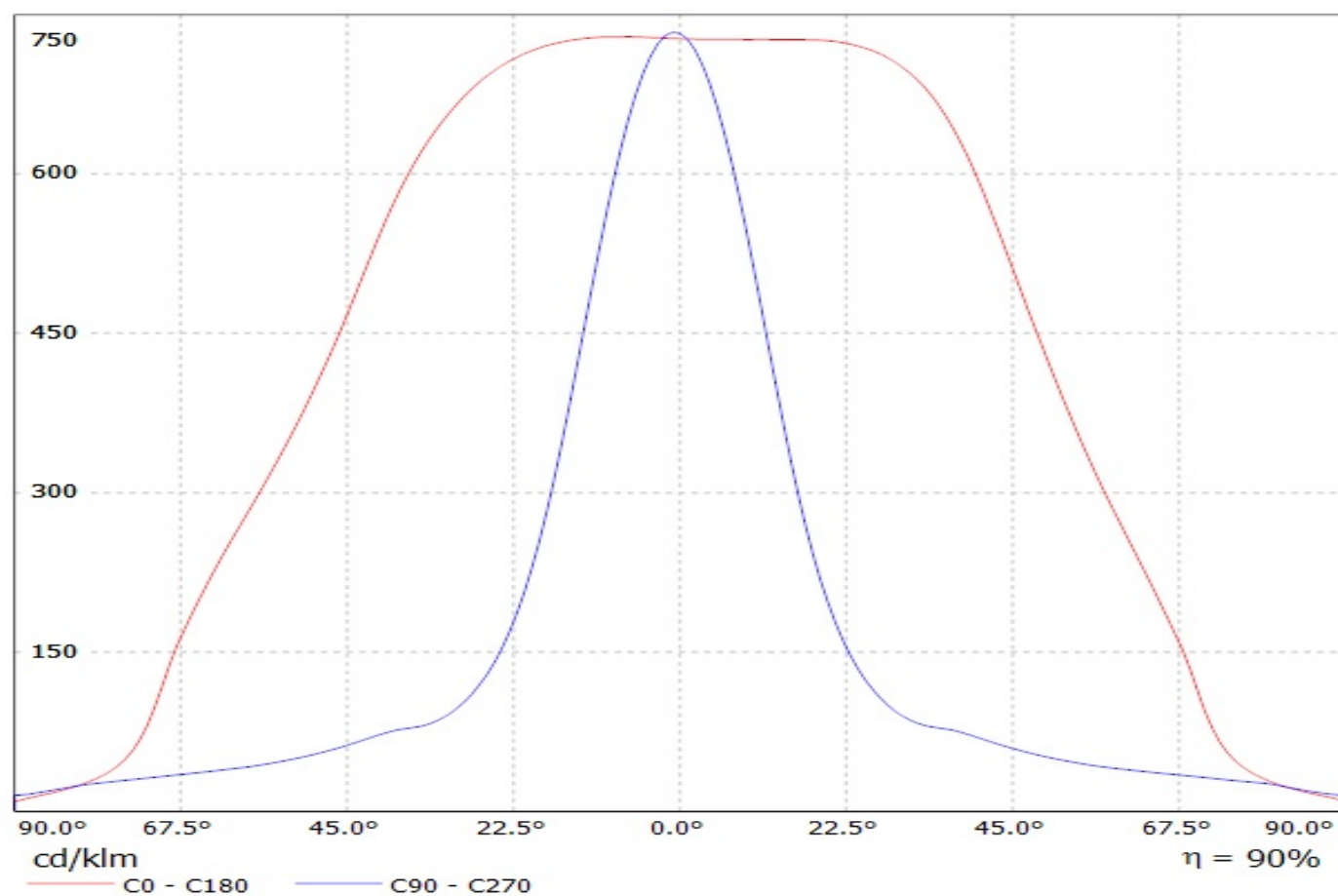
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(LH351Z)

Lamps: 1 x Samsung_LH351Z_(2X6)_951.129lm@250mA_P=8.7495W_I=0.2499A



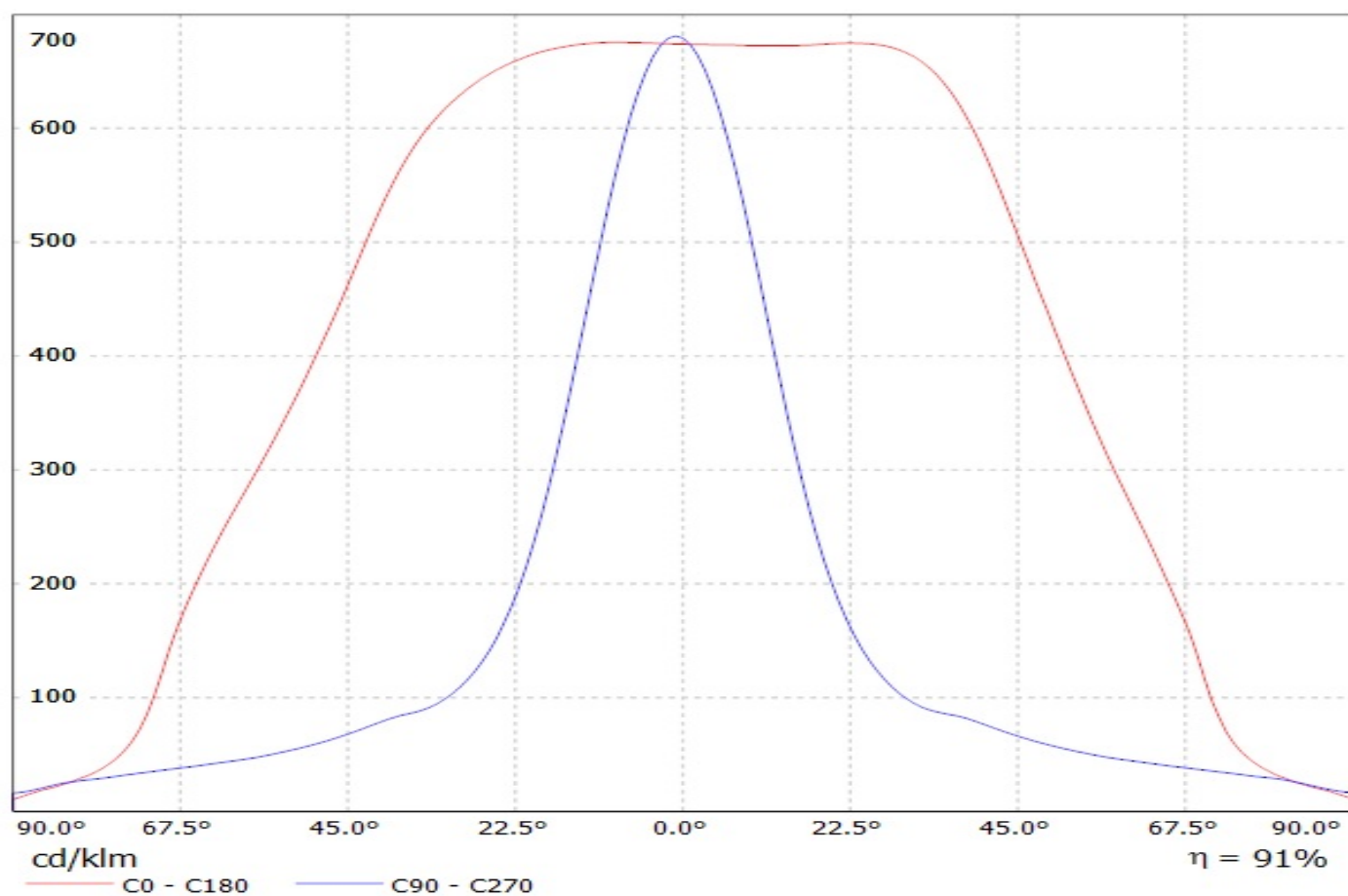
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Z5M1)

Lamps: 1 x Seoul_Z5M1_(2x6)_(SZ5-M1-WW-C8)_1165.11lm@250mA_P=8.58881W_I=0.2499A



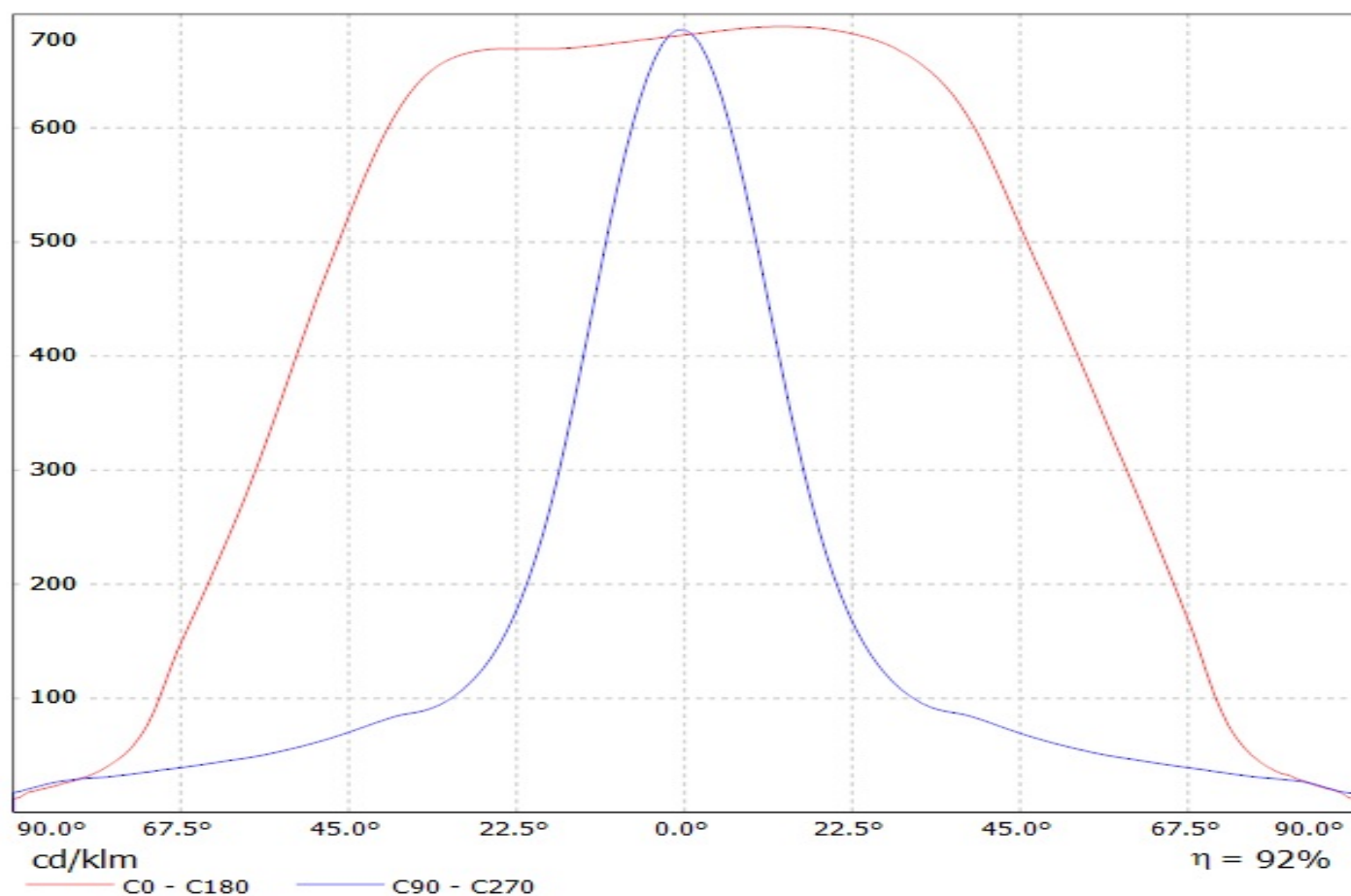
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Luxeon_R)

Lamps: 1 x Philips_Lumileds_Luxeon_R_2x6_848.853lm@250mA_P=9.03352W_I=0.2498A



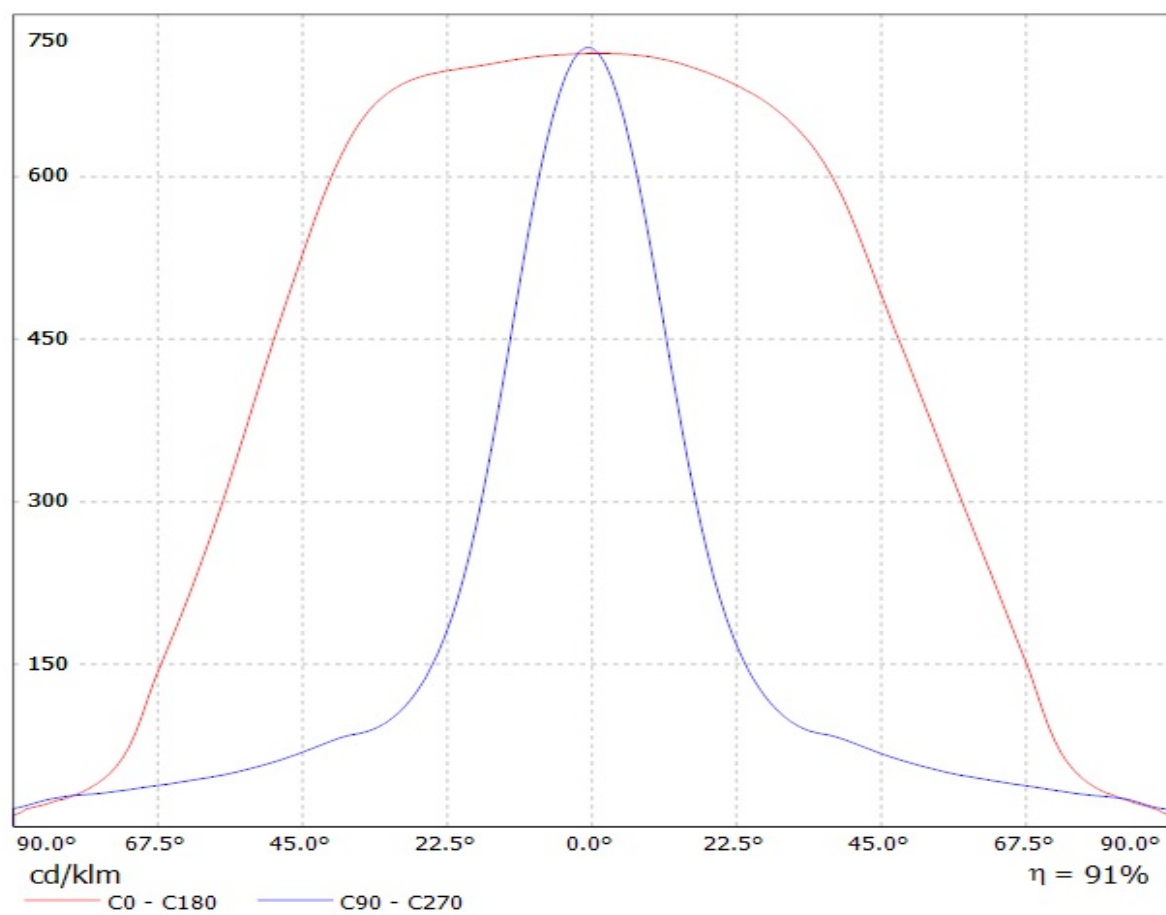
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Oslon_Square_PC)

Lamps: 1 x Osram_Oslon_Square_PC_2x6_1225.05lm@250mA_P=8.80595W_I=0.2498A



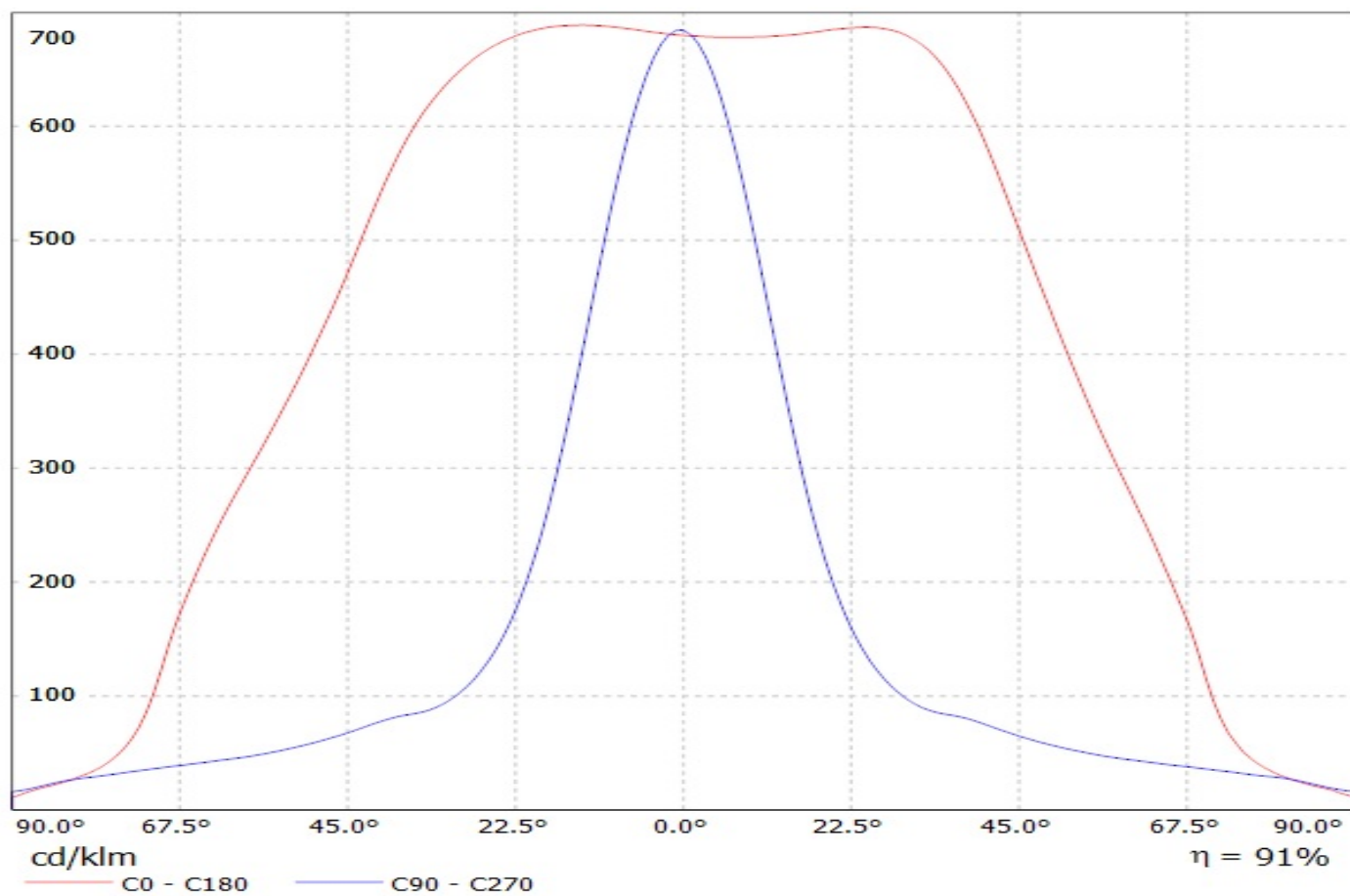
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Oslon_Square_EC)

Lamps: 1 x Osram_Oslon_Square_EC_2x6_(LCW CQAR.EC-MQMS-5R8T-35)_948.673lm@250mA_P=8.85466W_η=0.2498A



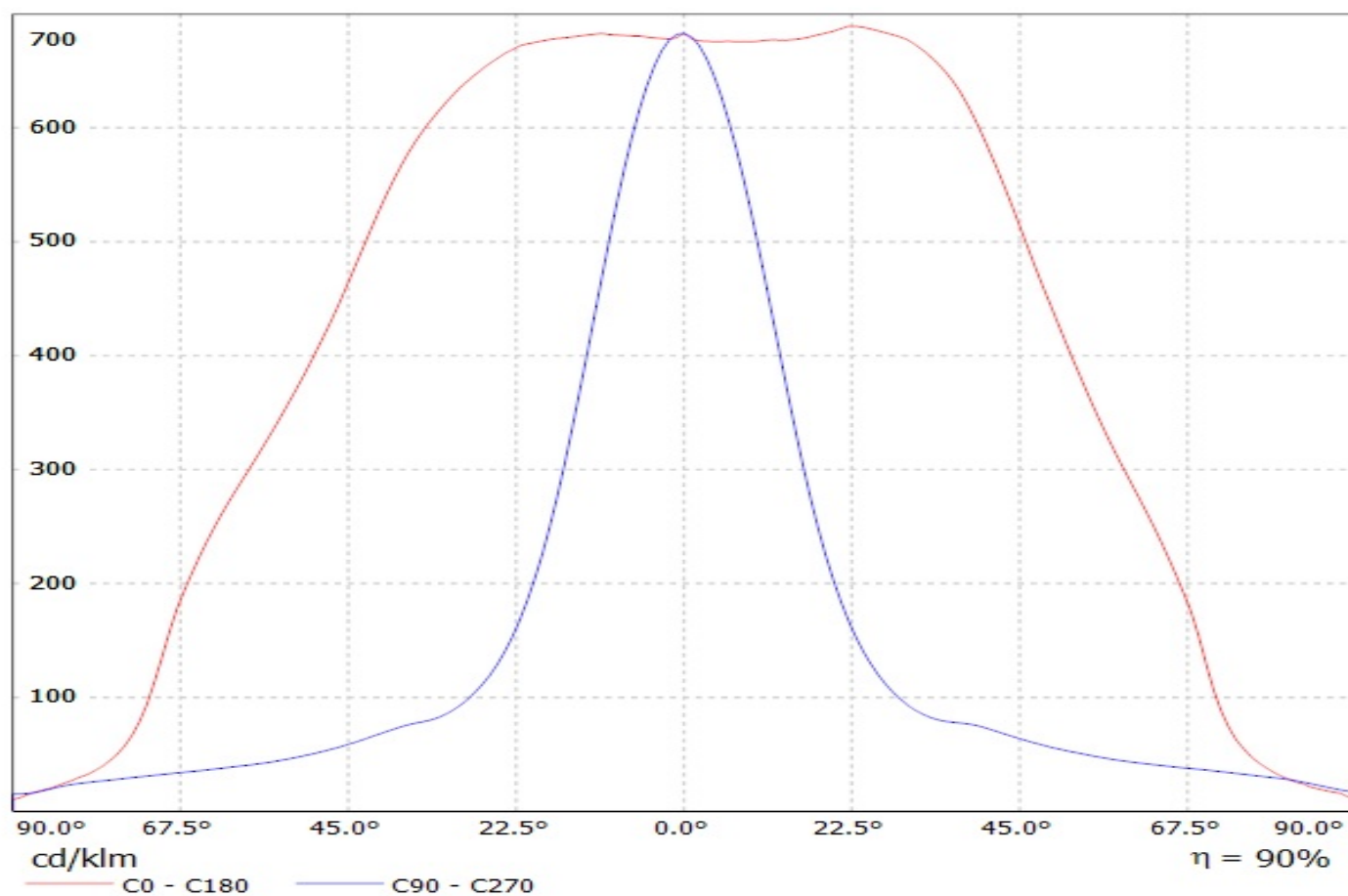
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Luxeon_Rebel_ES)

Lamps: 1 x Philips_Lumileds_Luxeon_Rebel_ES_2x6_1132.87lm@250mA_P=8.30967W_I=0.2499A



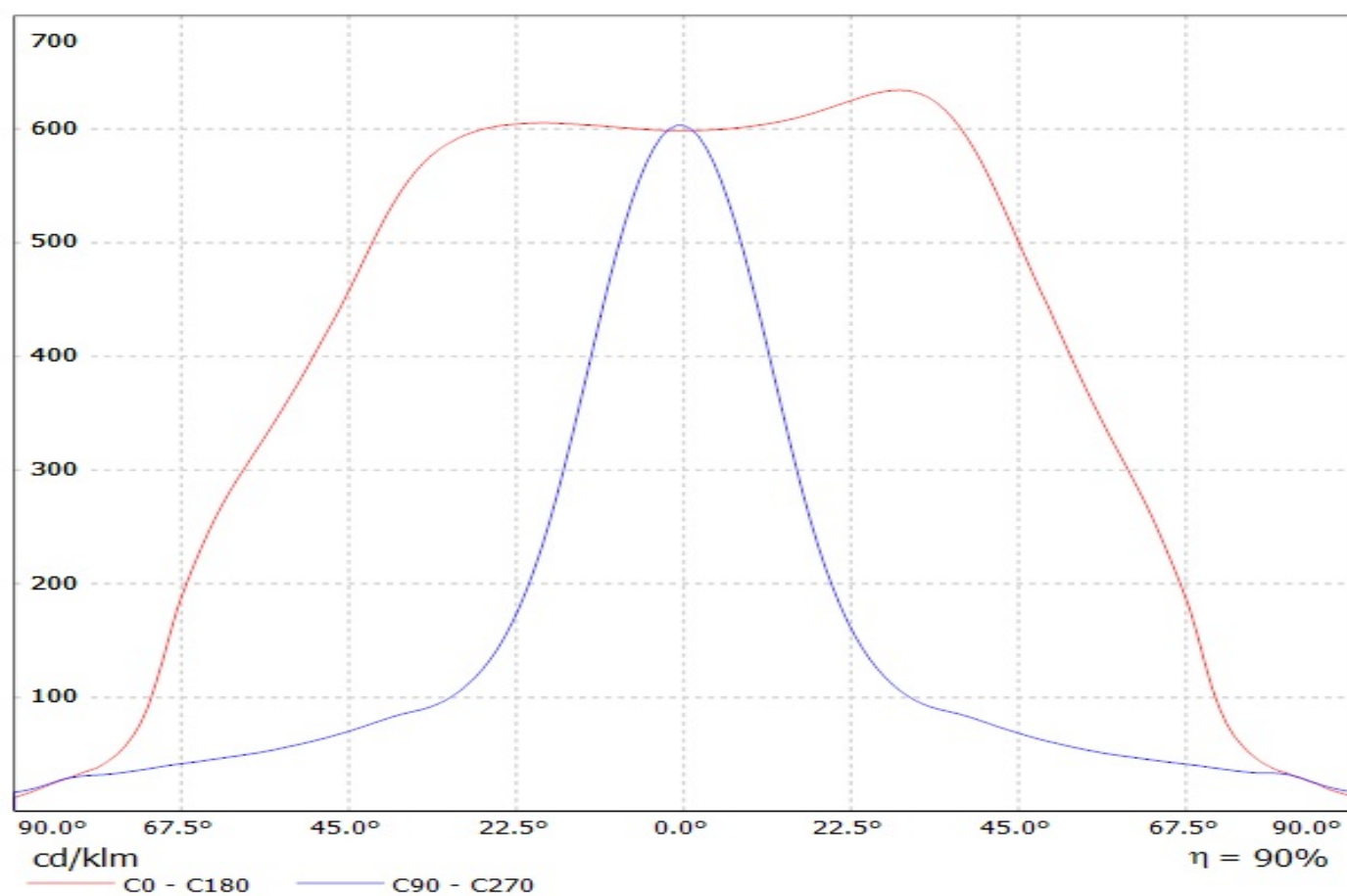
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Luxeon_TX)

Lamps: 1 x Philips_Lumileds_Luxeon_TX_2x6_1294.69lm@250mA_P=8.32967W_I=0.2499A

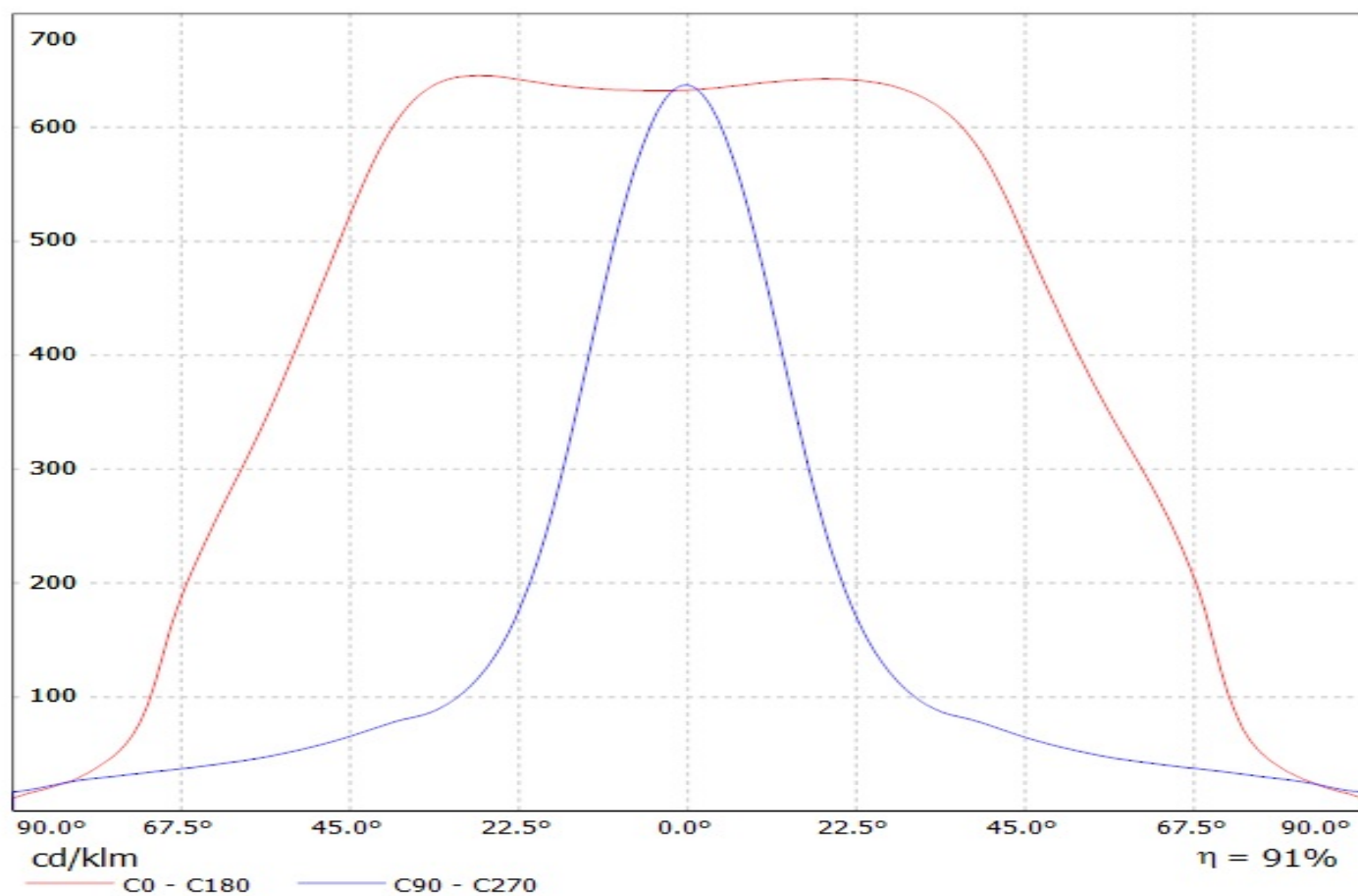


Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(NVSxx19B)

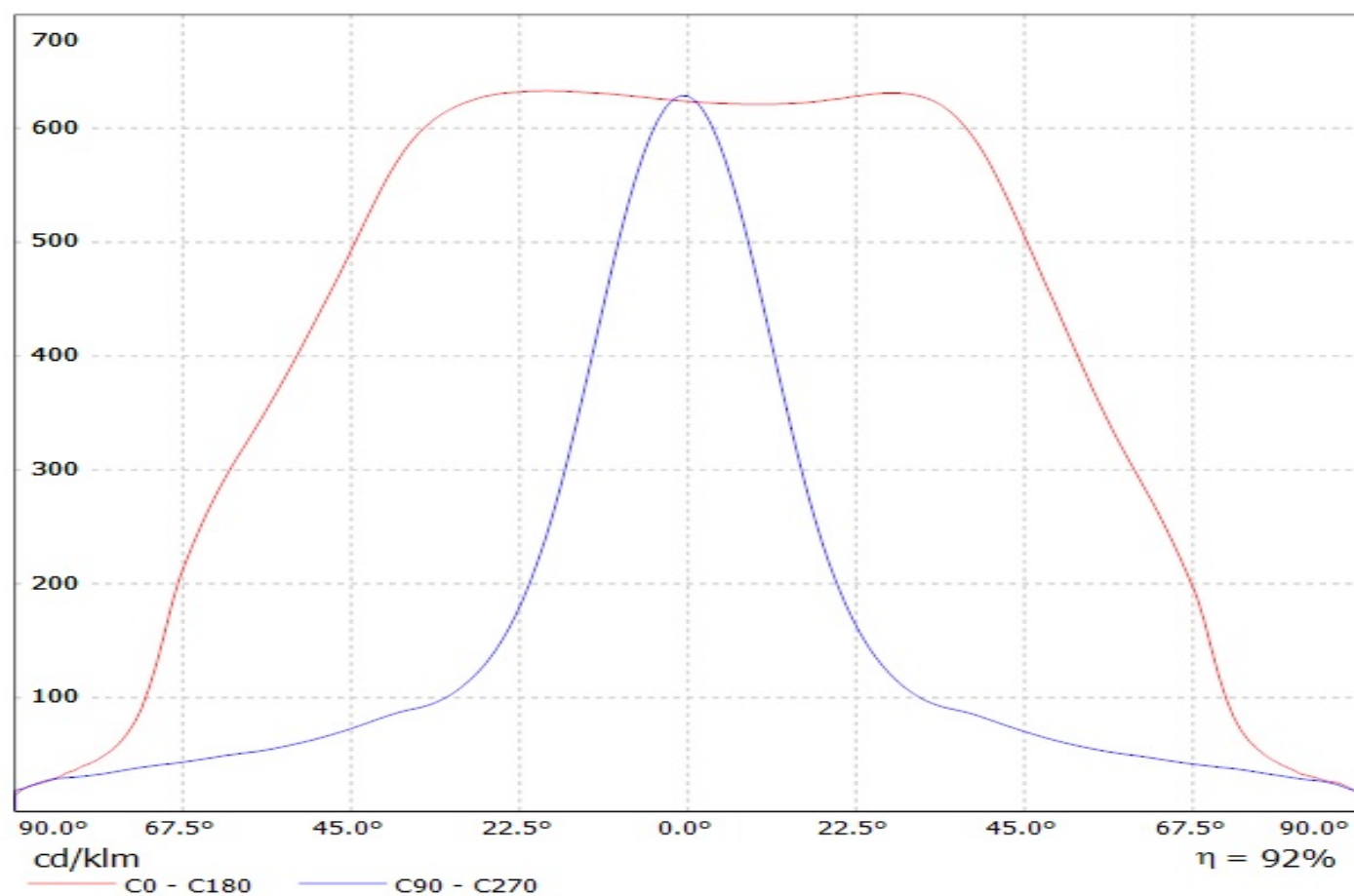
Lamps: 1 x Nichia_NVsxx19B_(NVSL219BT)_2x6_1264.03lm@250mA_P=8.31559W_I=0.2498A



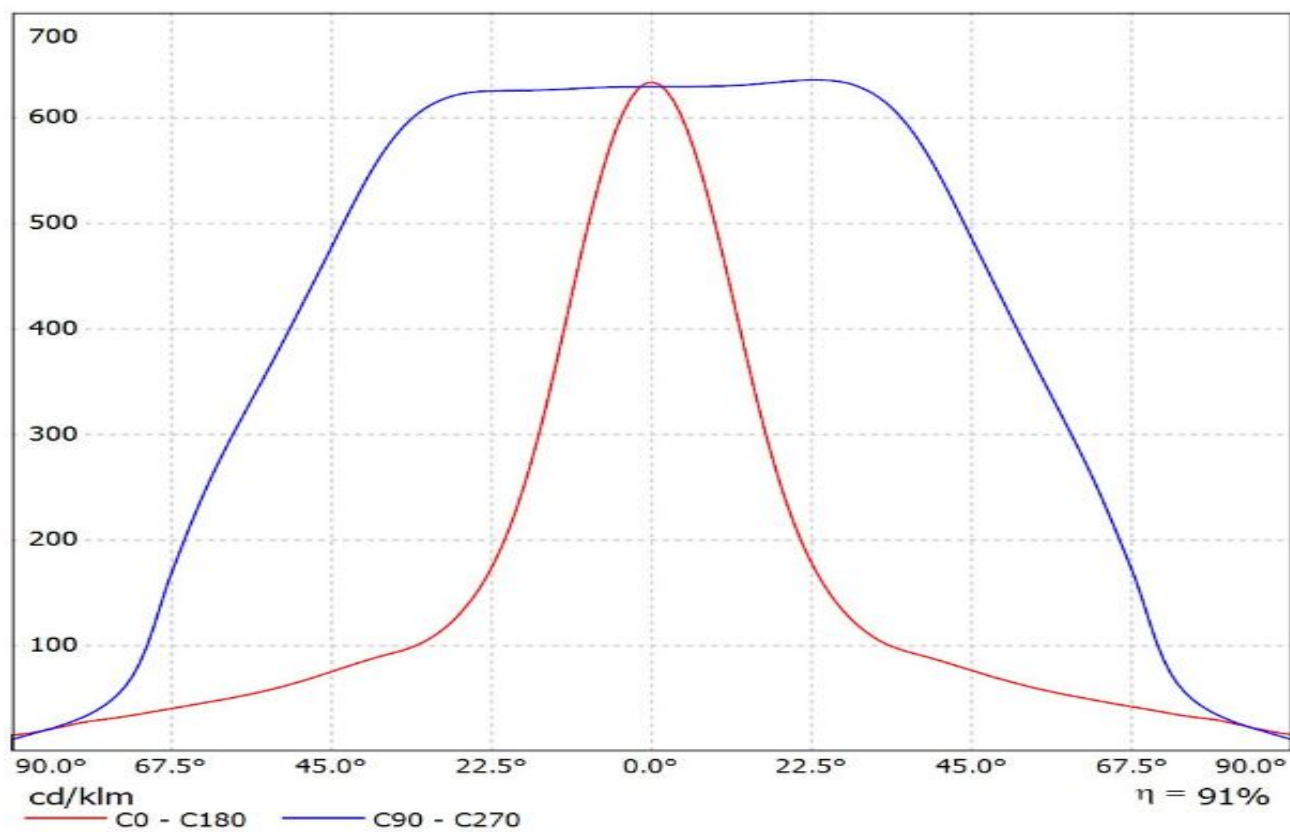
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(XP-G)
Lamps: 1 x Cree_XP-G_2x6_779.527lm@250mA_P=8.54416W_η=0.2498A



Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(XT-E)
Lamps: 1 x Cree_XT-E_2x6_1235.9lm@250mA_P=8.88264W_I=0.2498A

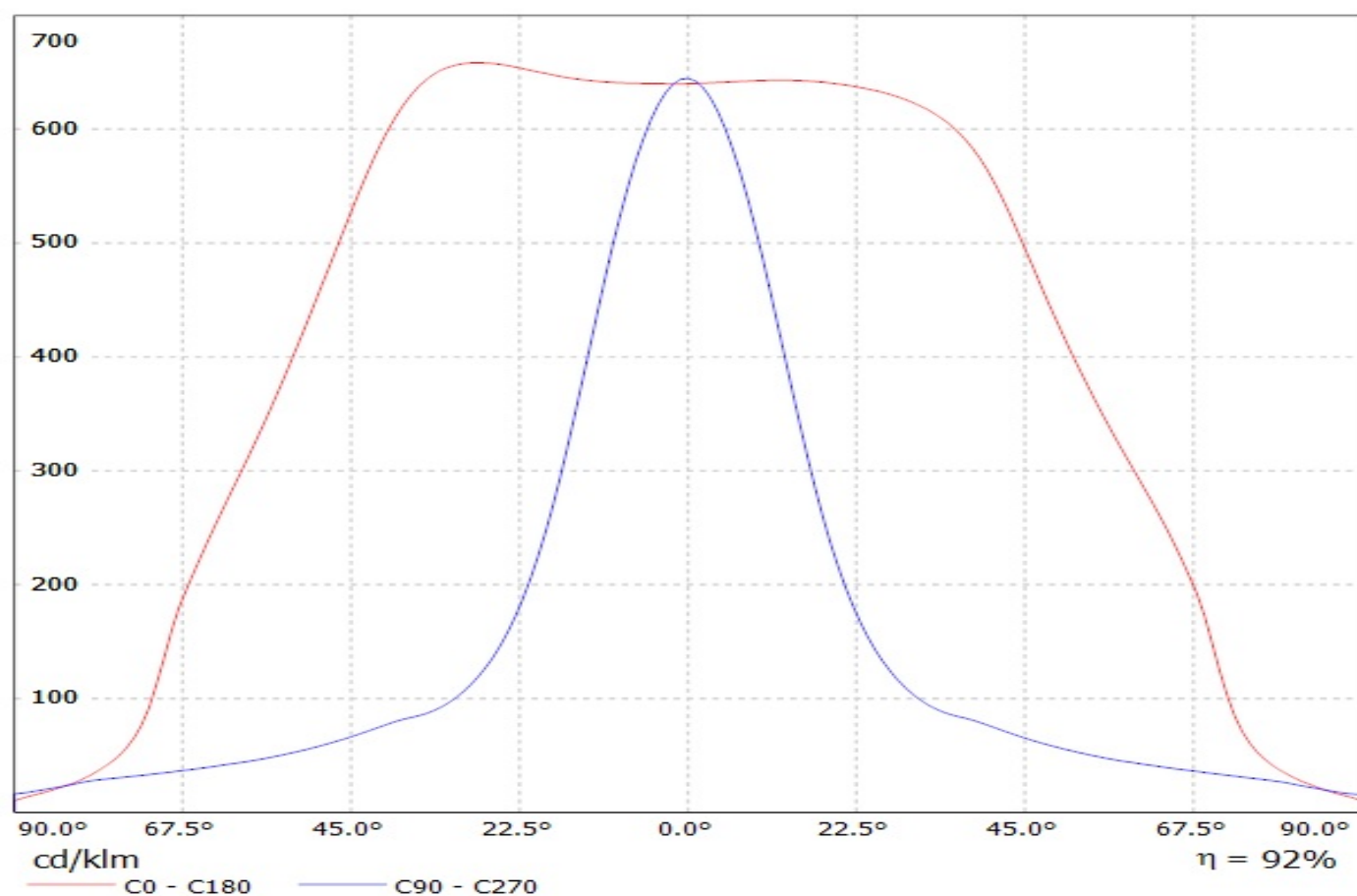


Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Luxeon_T)_2
Lamps: 1 x Luxeon_T_2x6_(LXH8-FW30)_1041.23lm@250mA_P=8.37779W_I=249.8mA

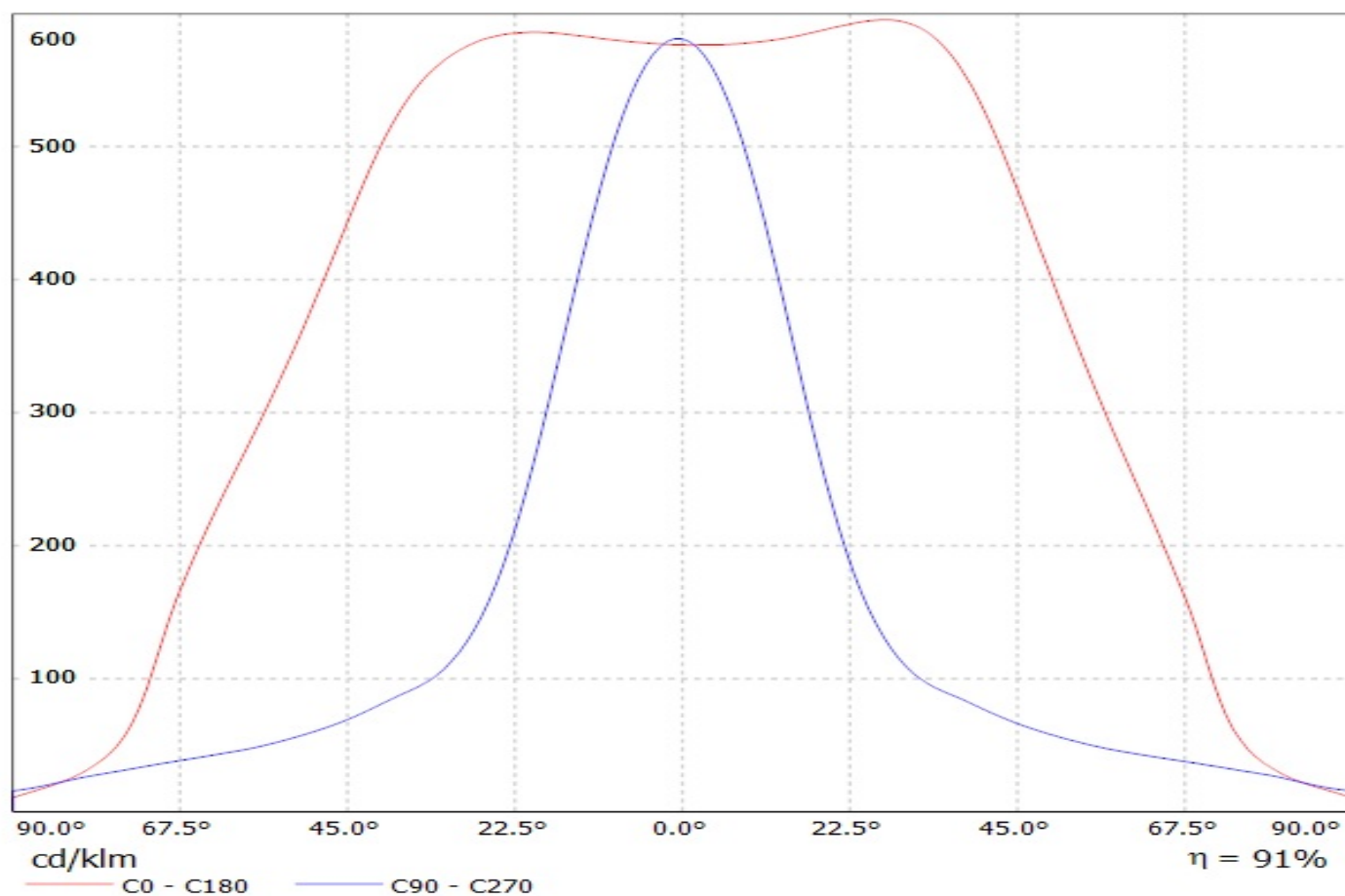


Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(XP-G2)

Lamps: 1 x Cree_XP-G2_2x6_1237.61lm@250mA_P=8.57988W_I=0.2498A

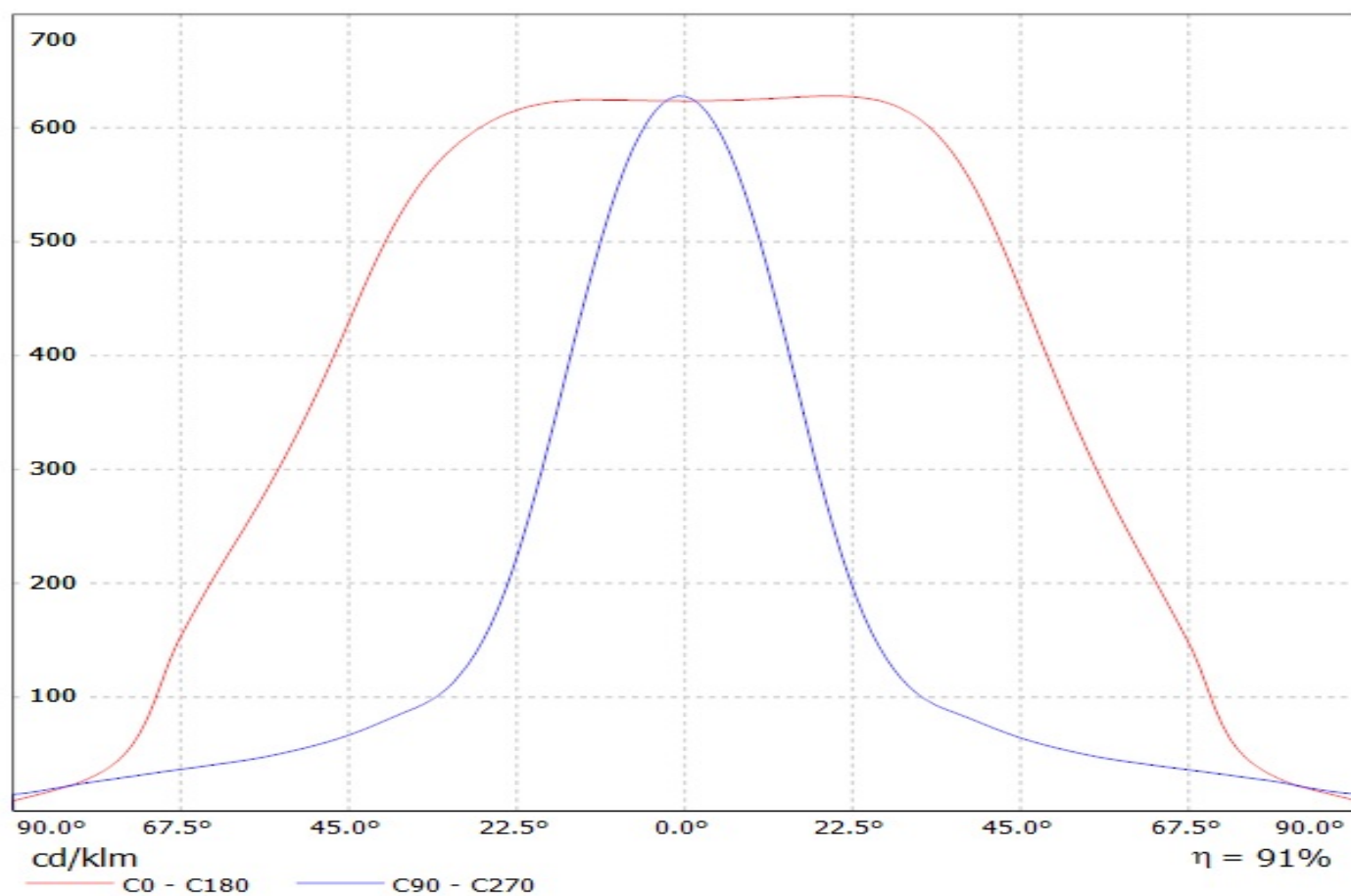


Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(XP-L)
Lamps: 1 x Cree_XP-L_2x6_1243.45lm@250mA_P=8.25764W_I=0.2498A



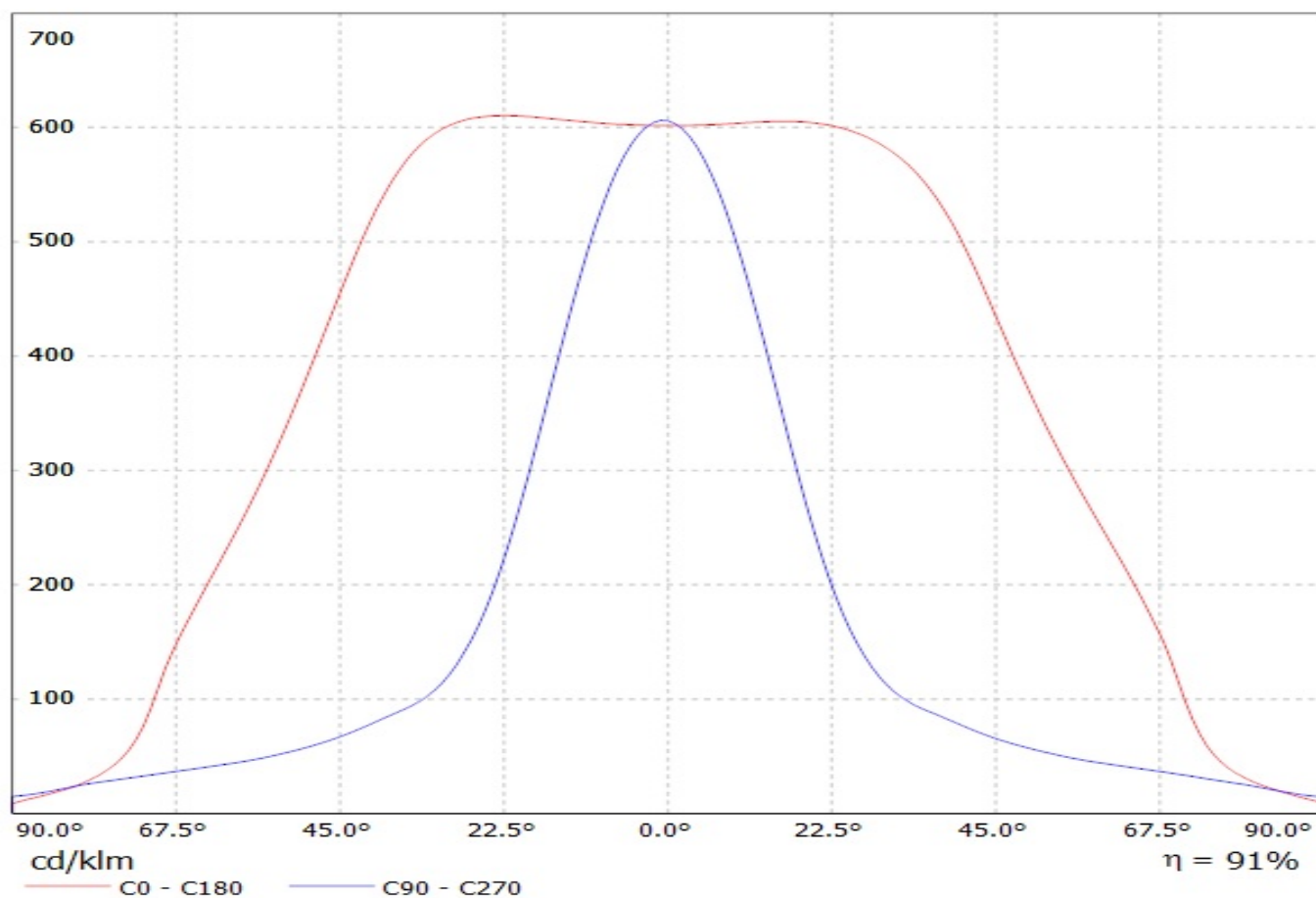
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(XM-L2)

Lamps: 1 x Cree_XM-L2_(XMLBWT-00-0000-000LT30E7)_1173.92lm@250mA_P=8.28212W_I=0.2498A



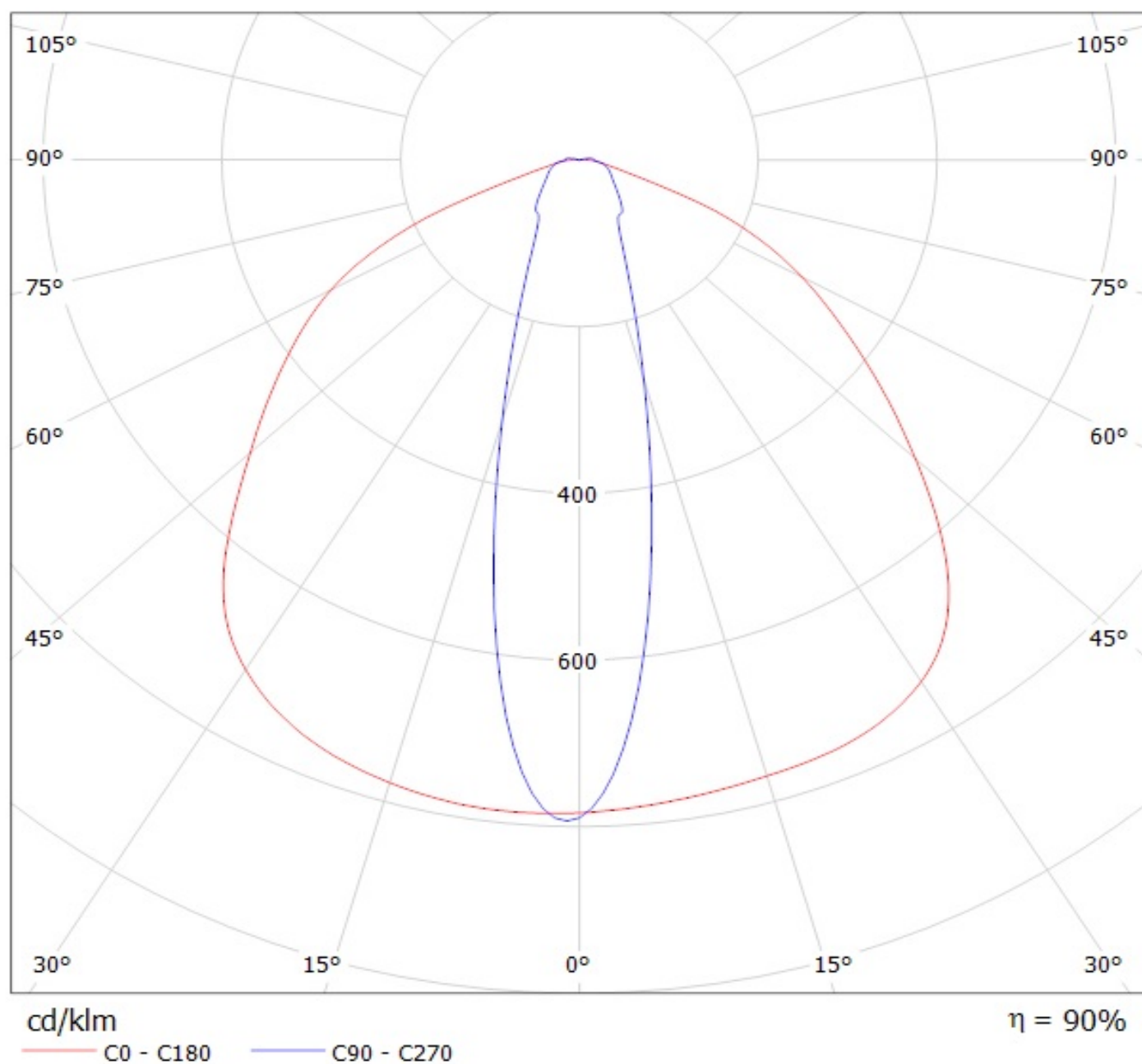
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(XM-L)

Lamps: 1 x Cree_XM_L_2x6_(XMLAWT-00-0000-000LT2OE7)_995.915lm@250mA_P=8.16796W_I=0.2498A



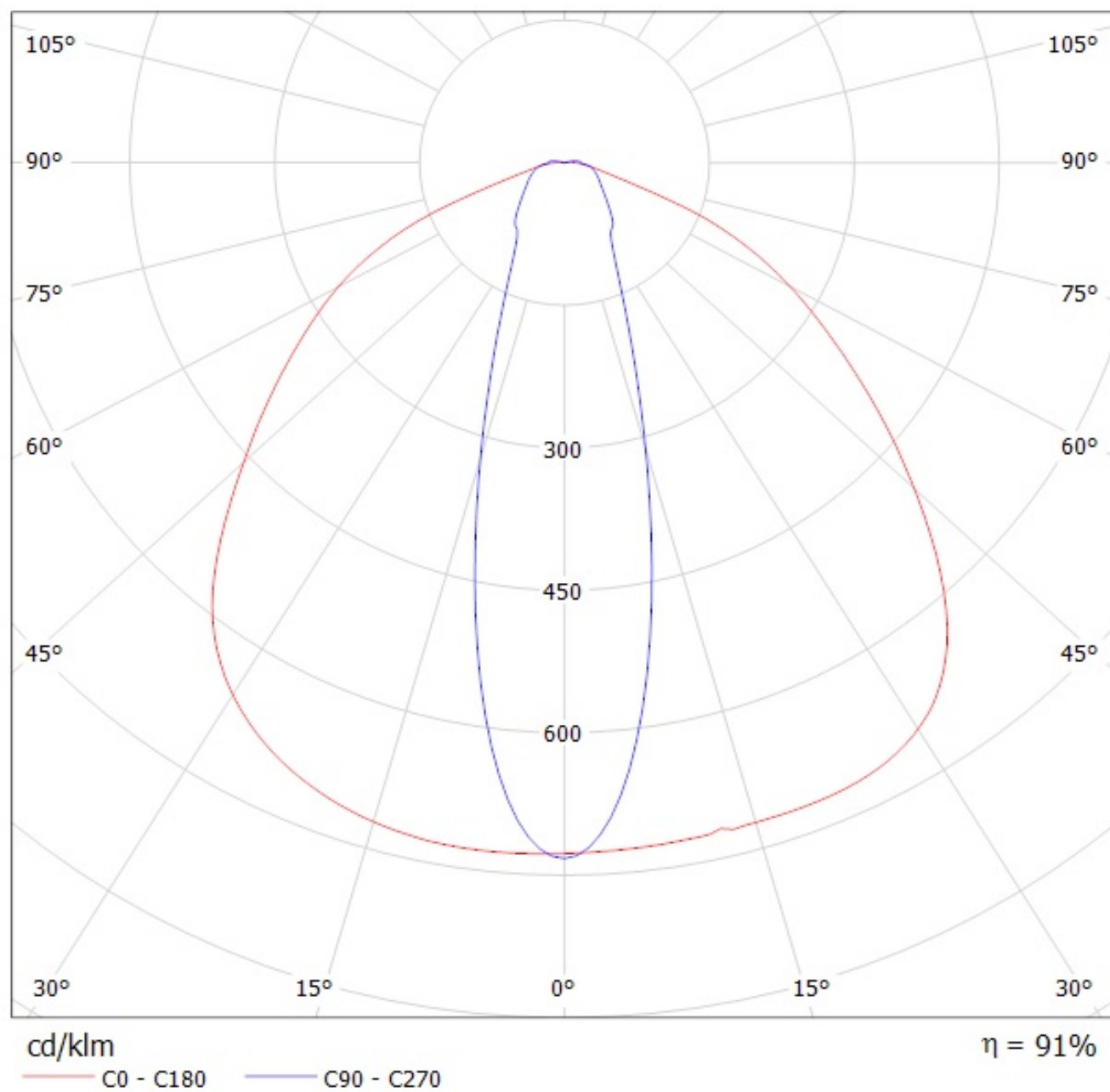
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Luxeon_Z_ES)

Lamps: 1 x Philips_Lumileds_Luxeon_Z_ES_2x6_977.042lm@250mA_P=8.33092W_I=0.2499A



Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Luxeon_Rebel)

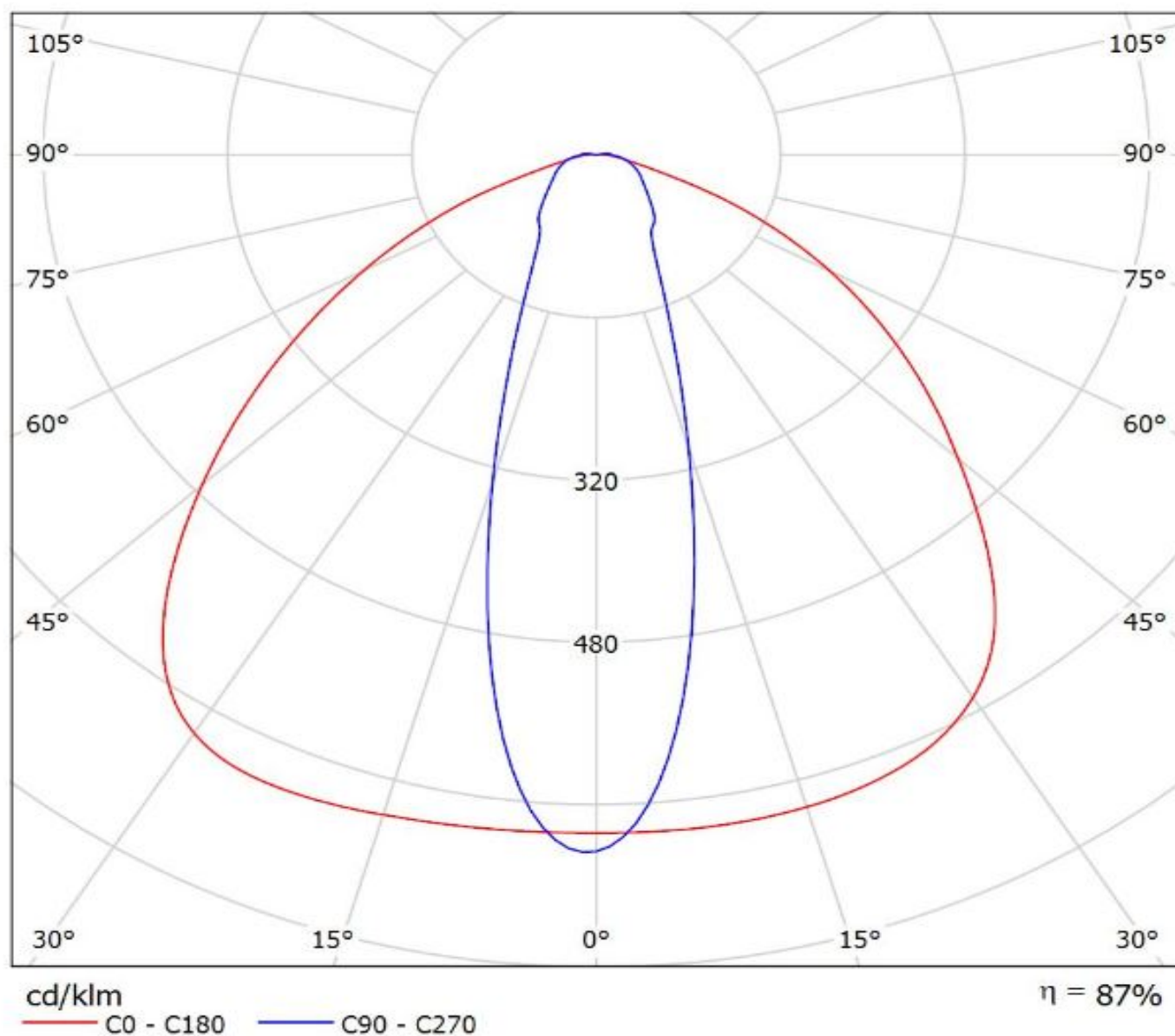
Lamps: 1 x Philips_Lumileds_Luxeon_Rebel_2x6_(LXM8-PW30)_745.574lm@250mA_P=8.36755W_I=0.2498A



Ledil CS14597_HB-IP-2X6-O_(TL1L4) / LDC (Polar)

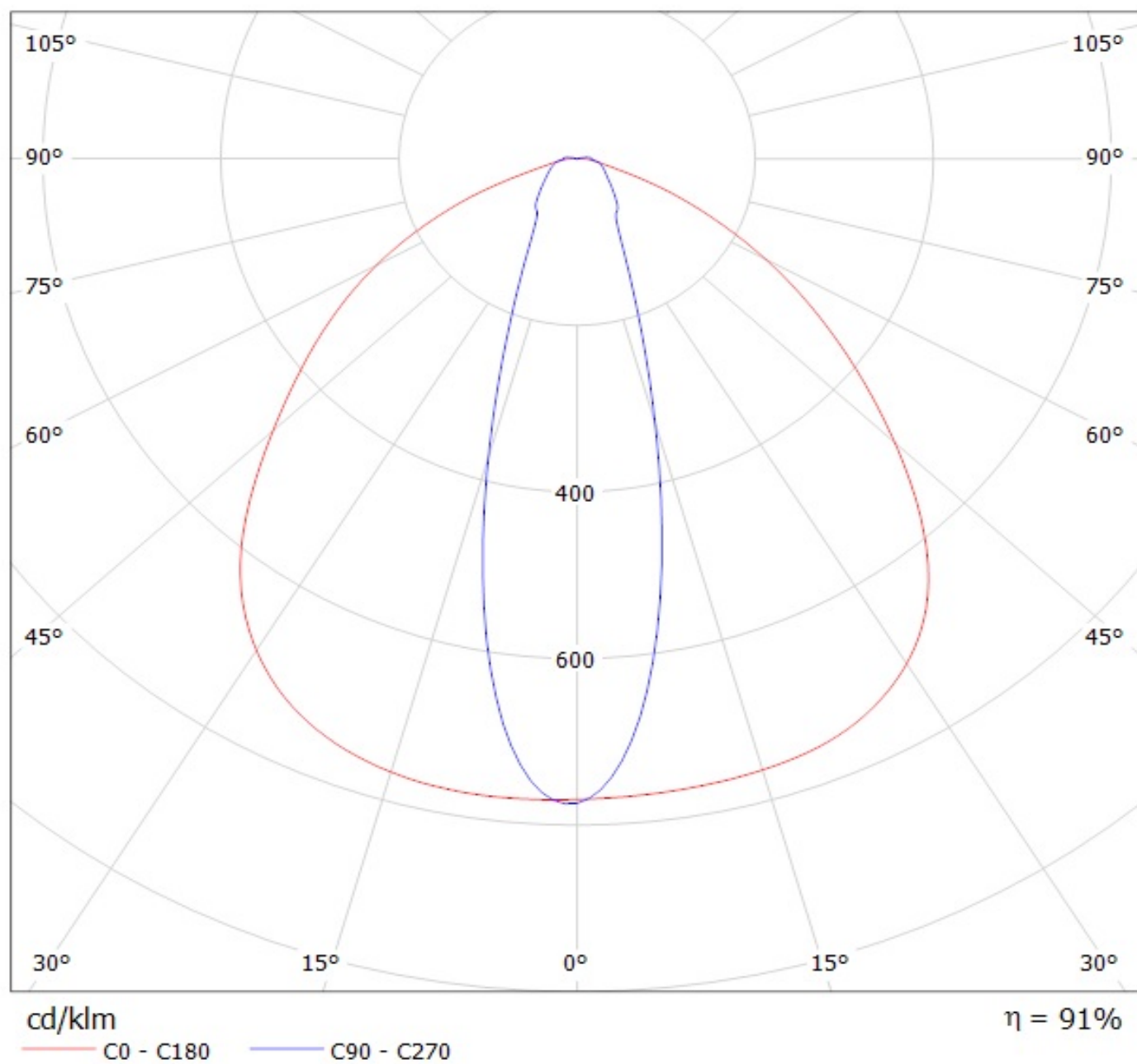
Luminaire: Ledil CS14597_HB-IP-2X6-O_(TL1L4)

Lamps: 1 x Toshiba_TL1L4_2x6_(TL1L4-DW0)_1346.96lm@250mA_CCT=6500K_P=8.5W_I=0.25A



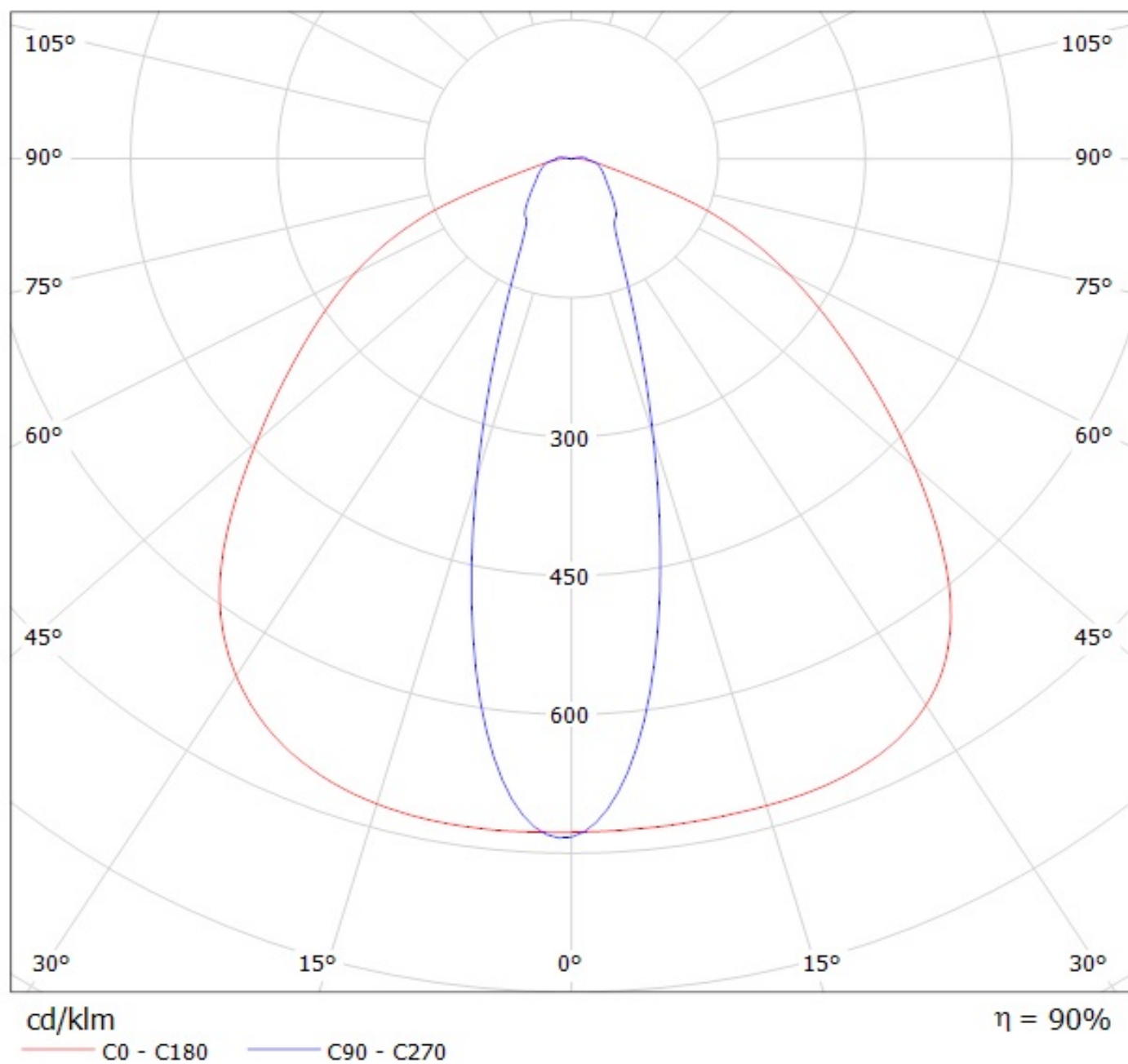
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(LH351Z)

Lamps: 1 x Samsung_LH351Z_(2X6)_951.129lm@250mA_P=8.7495W_I=0.2499A



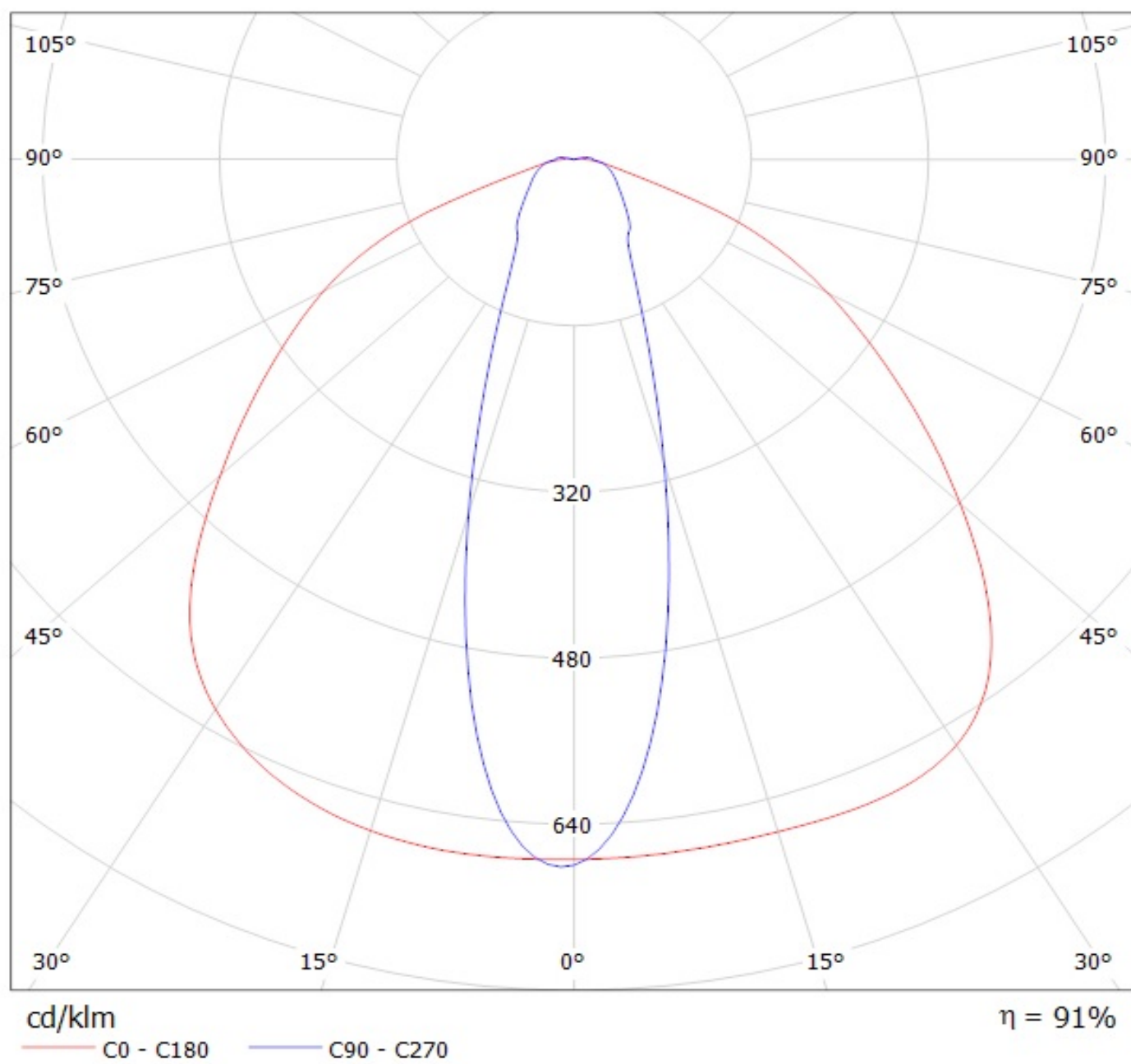
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Z5M1)

Lamps: 1 x Seoul_Z5M1_(2x6)_(SZ5-M1-WW-C8)_1165.11lm@250mA_P=8.58881W_I=0.2499A



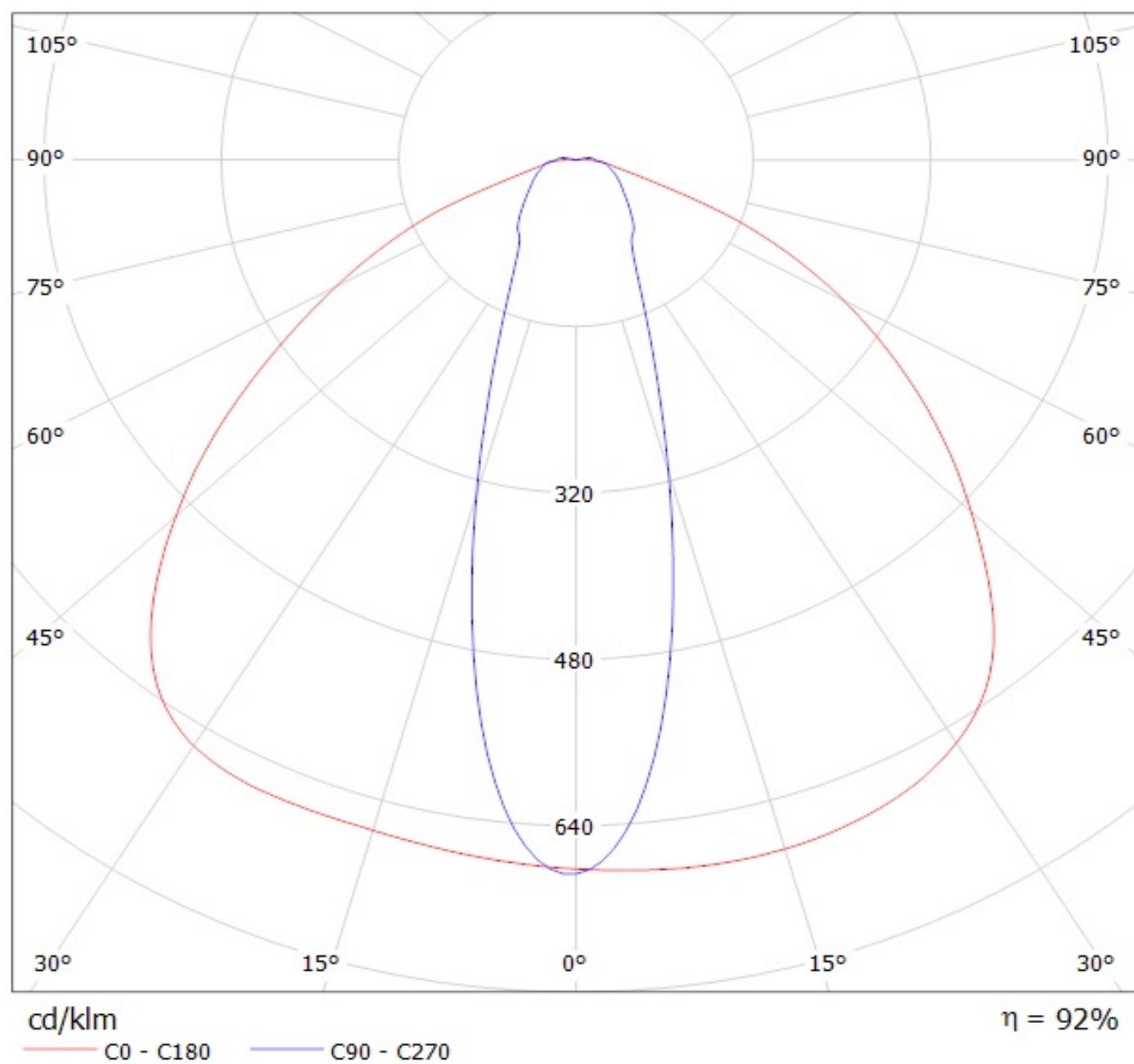
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Luxeon_R)

Lamps: 1 x Philips_Lumileds_Luxeon_R_2x6_848.853lm@250mA_P=9.03352W_I=0.2498A



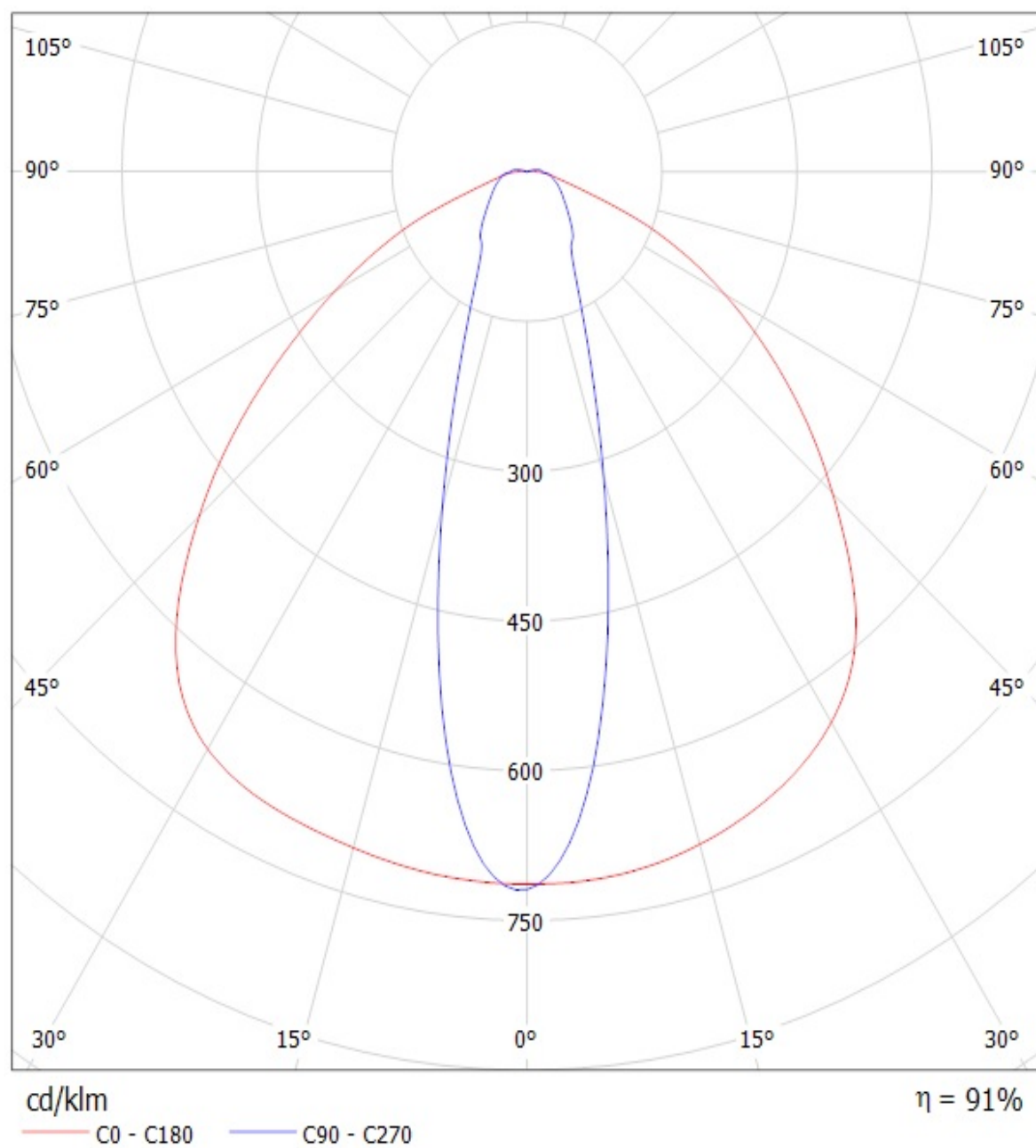
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Oslon_Square_PC)

Lamps: 1 x Osram_Oslon_Square_PC_2x6_1225.05lm@250mA_P=8.80595W_η=0.2498A



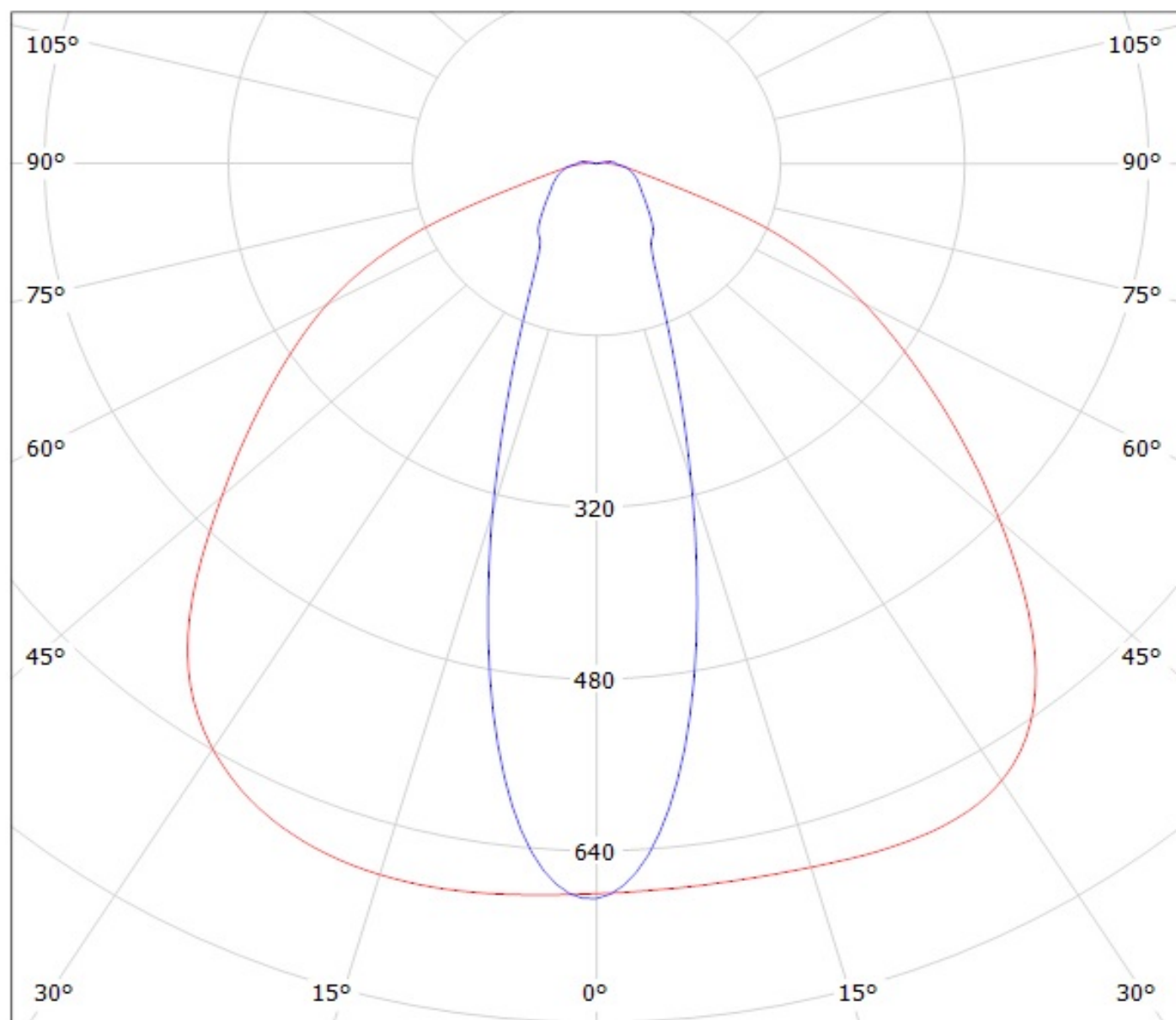
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Oslon_Square_EC)

Lamps: 1 x Osram_Oslon_Square_EC_2x6_(LCW CQAR.EC-MQMS-5R8T-35)_948.673lm@250mA_P=8.85466W_I=0.2498A



Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Luxeon_Rebel_ES)

Lamps: 1 x Philips_Lumileds_Luxeon_Rebel_ES_2x6_1132.87lm@250mA_P=8.30967W_I=0.2499A



cd/klm

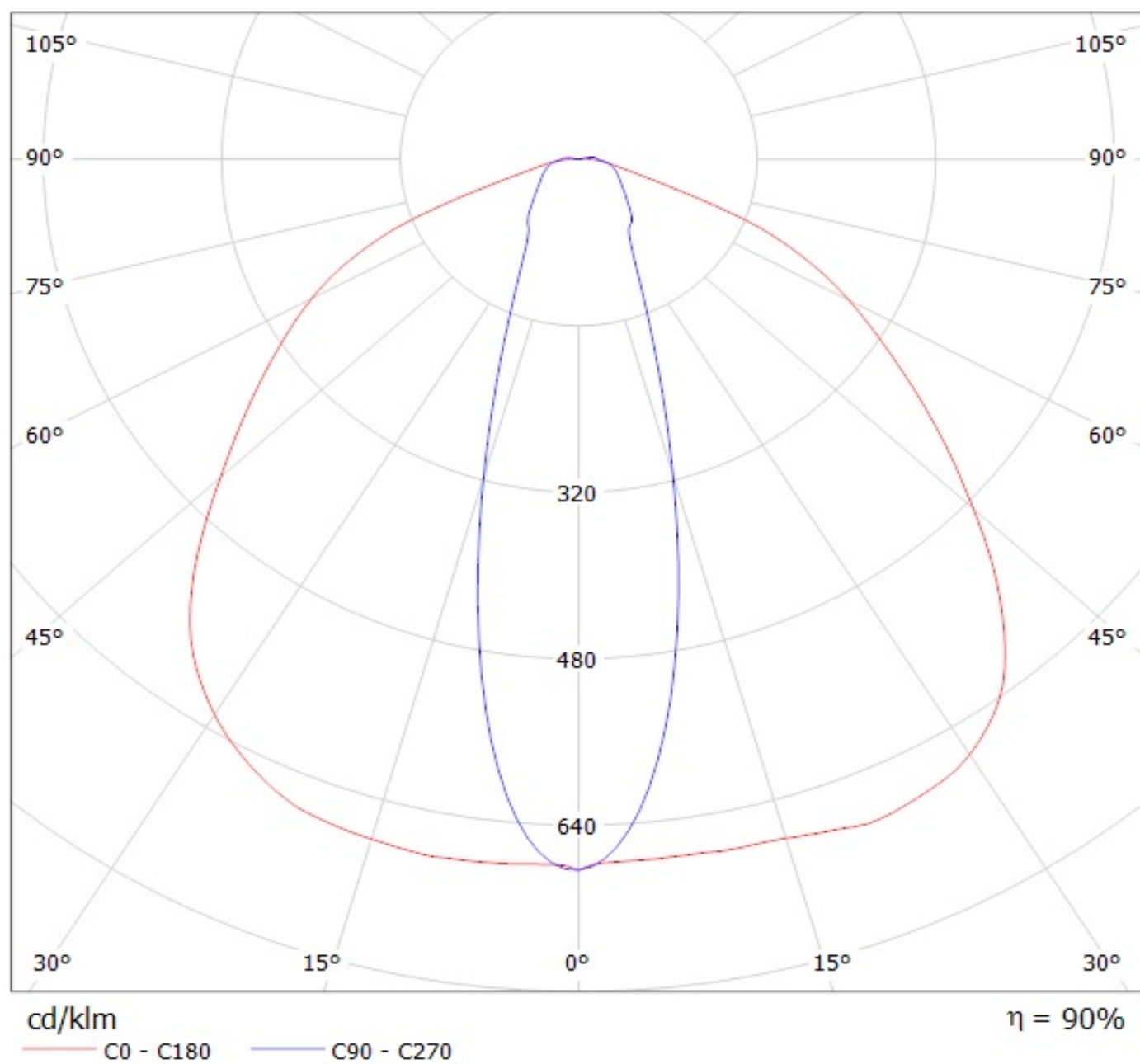
$\eta = 91\%$

— C0 - C180

— C90 - C270

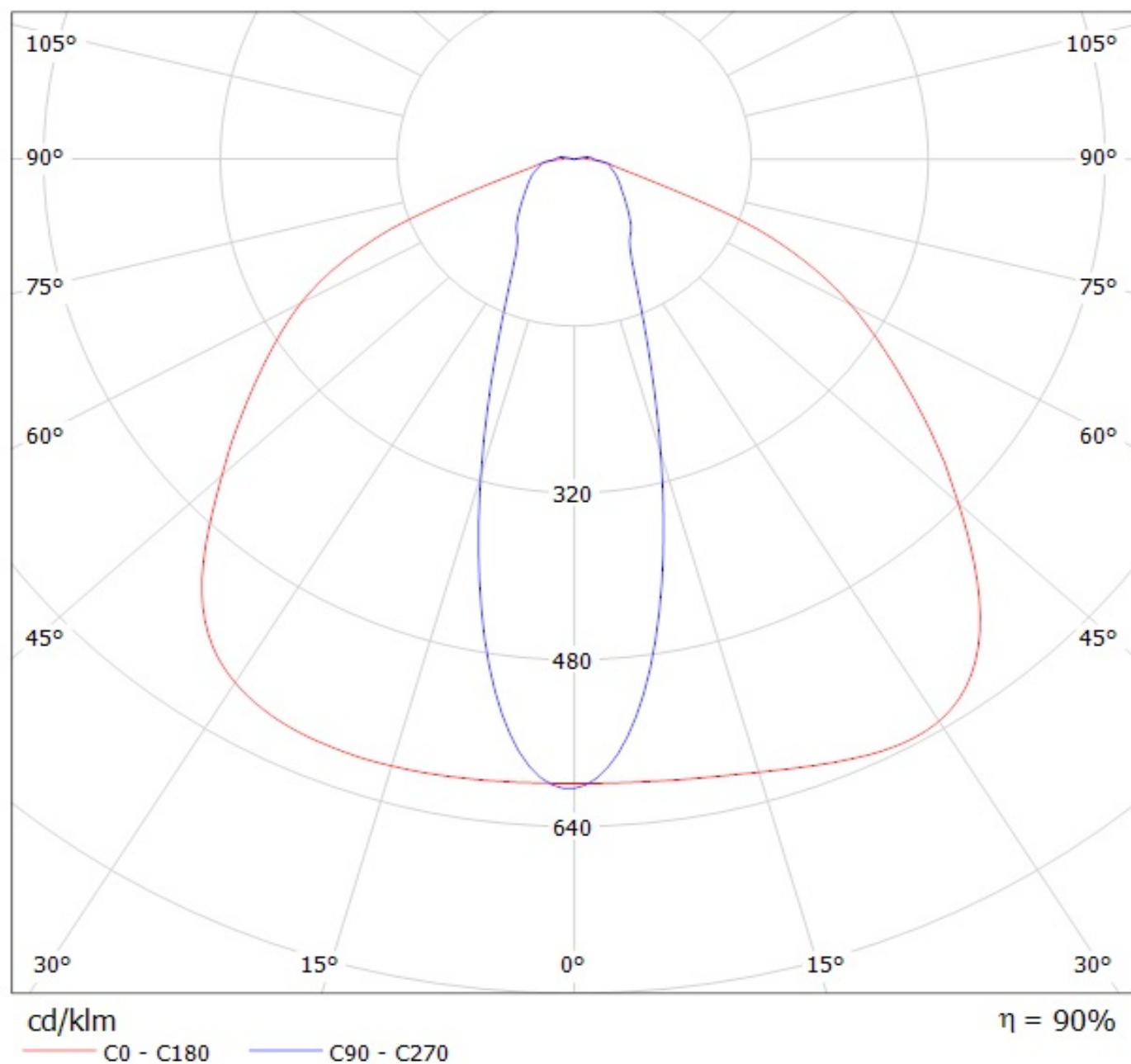
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Luxeon_TX)

Lamps: 1 x Philips_Lumileds_Luxeon_TX_2x6_1294.69lm@250mA_P=8.32967W_I=0.2499A



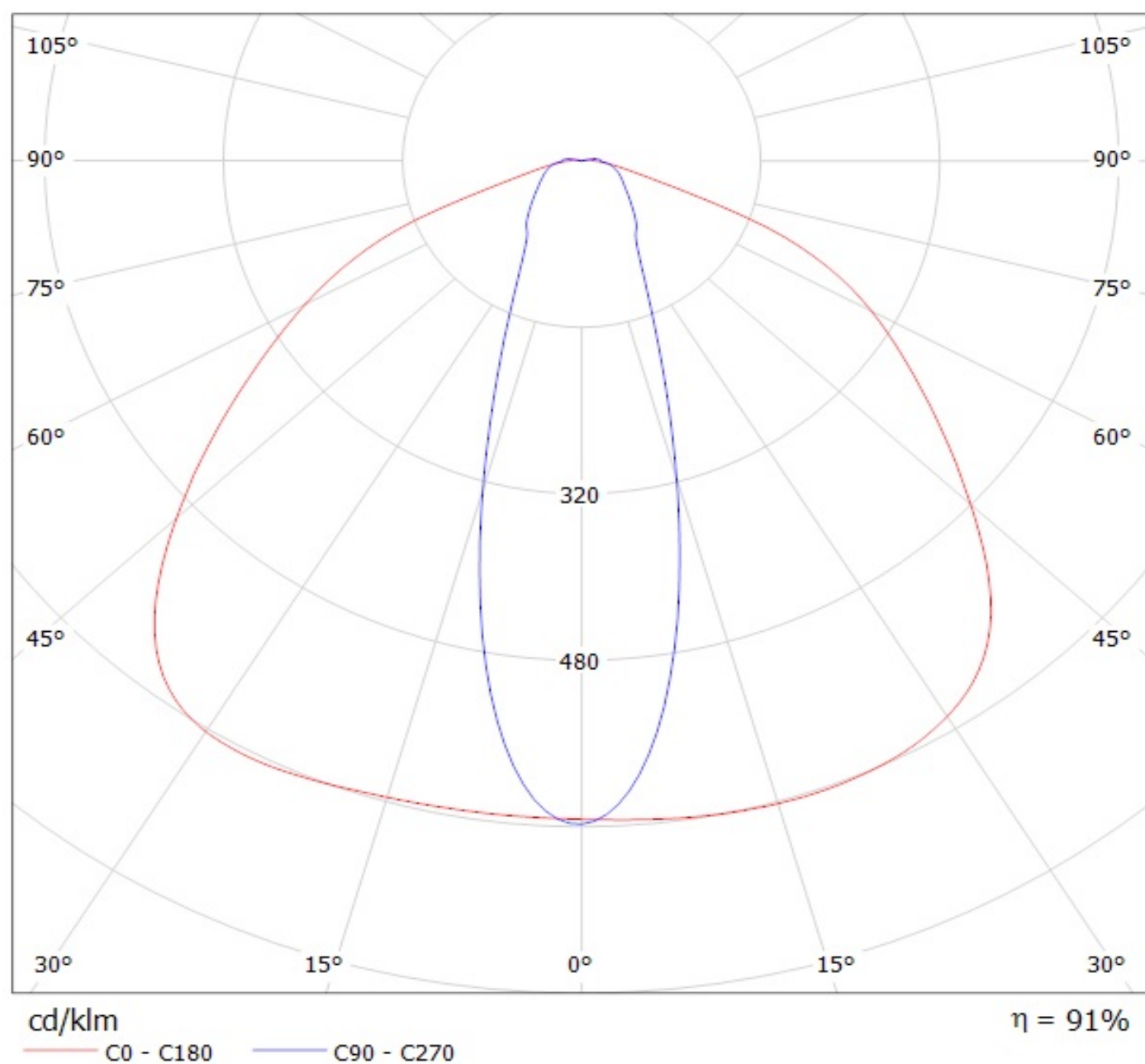
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(NVSxx19B)

Lamps: 1 x Nichia_NVsxx19B_(NVSL219BT)_2x6_1264.03lm@250mA_P=8.31559W_I=0.2498A



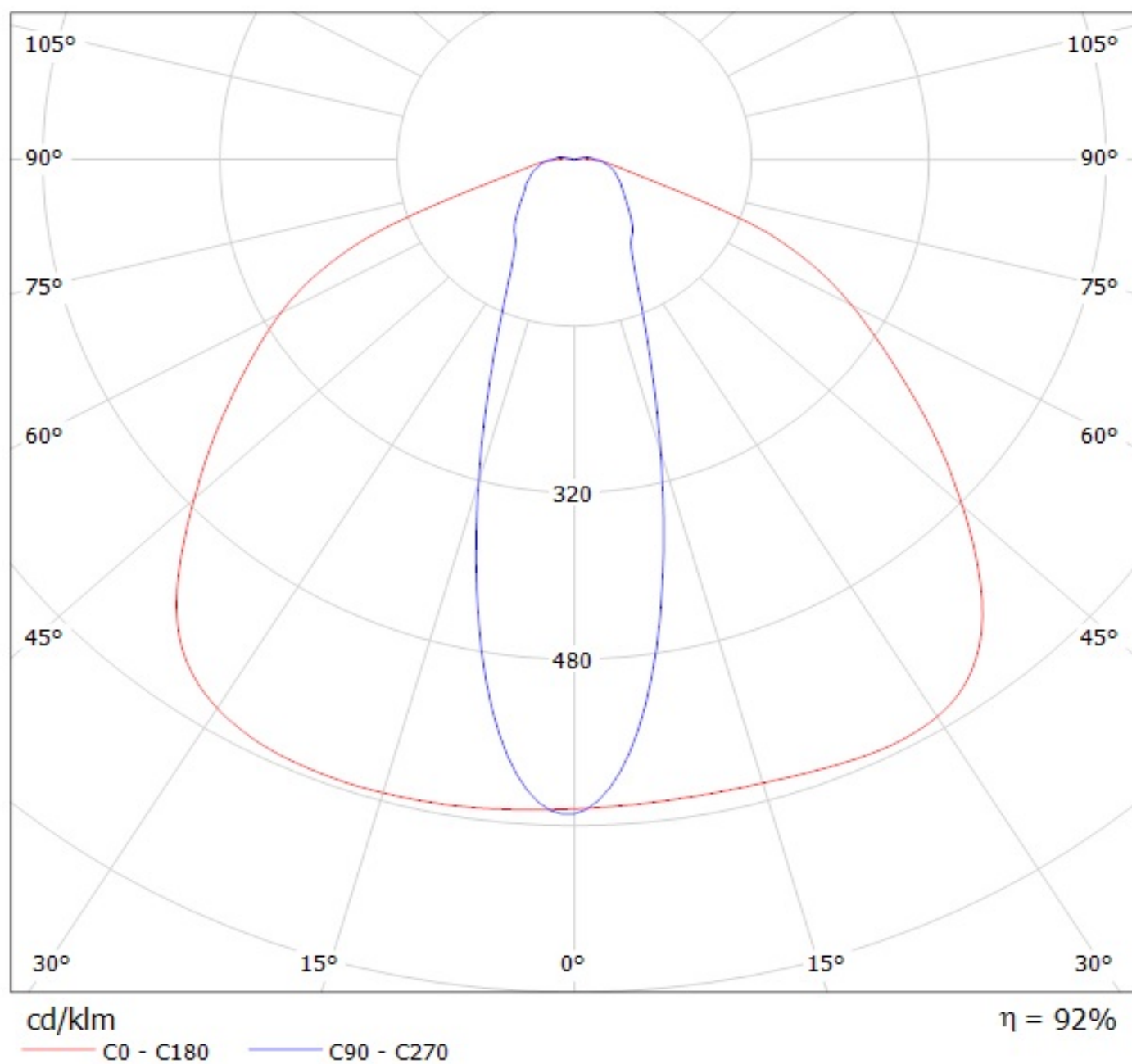
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(XP-G)

Lamps: 1 x Cree_XP-G_2x6_779.527lm@250mA_P=8.54416W_I=0.2498A



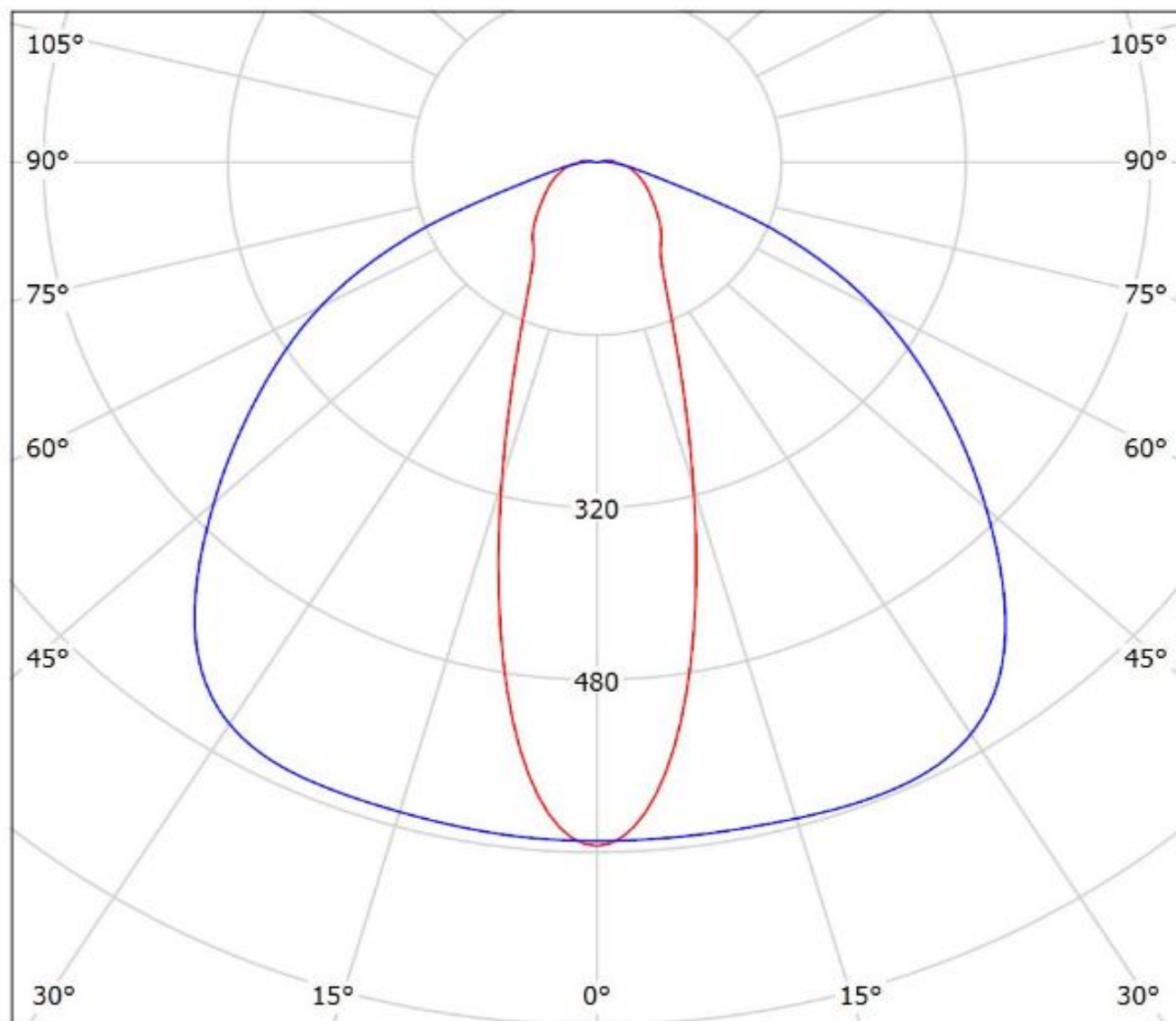
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(XT-E)

Lamps: 1 x Cree_XT-E_2x6_1235.9lm@250mA_P=8.88264W_I=0.2498A



Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(Luxeon_T)_2

Lamps: 1 x Luxeon_T_2x6_(LXH8-FW30)_1041.23lm@250mA_P=8.37779W_I=249.8mA



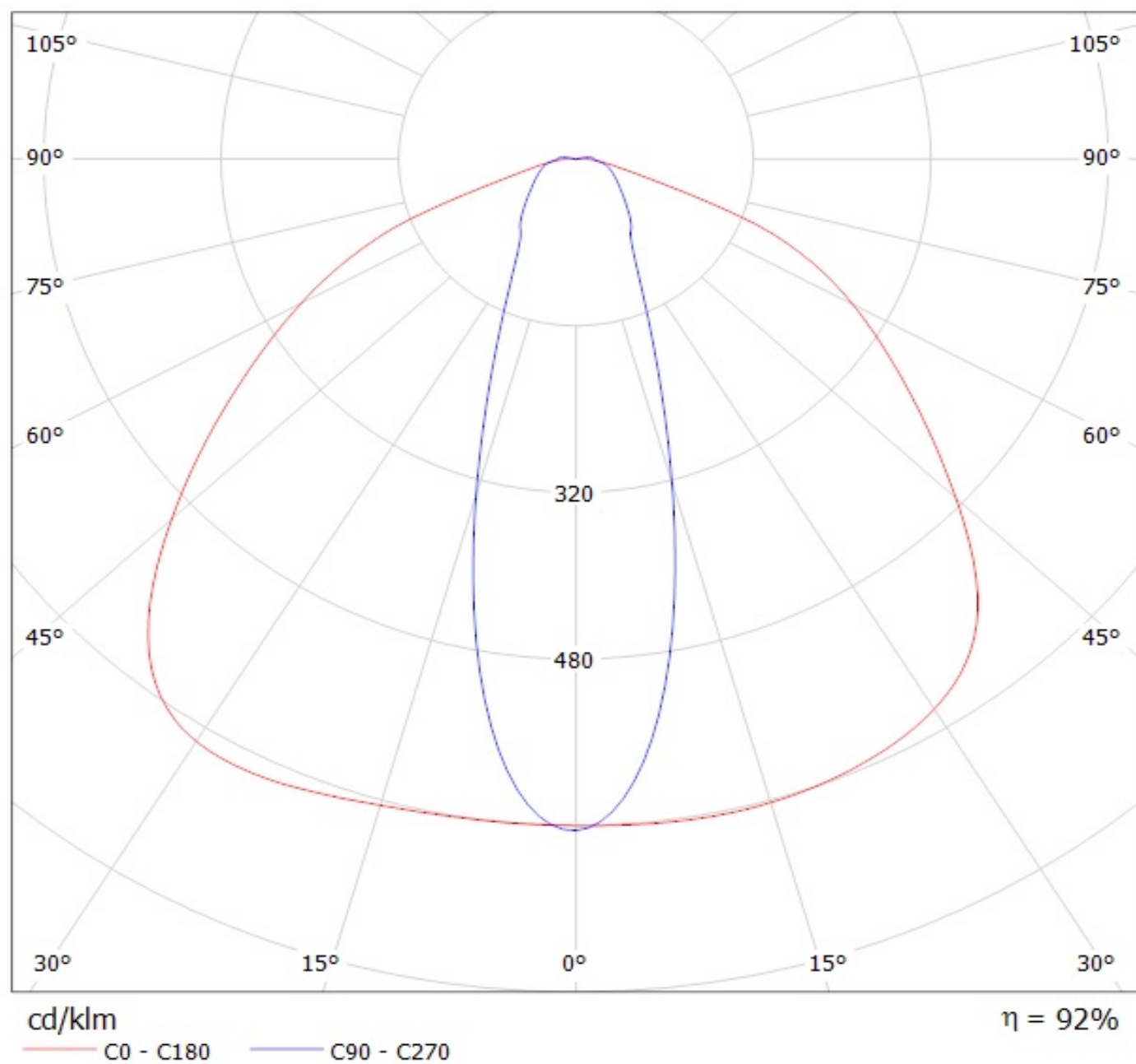
cd/klm

$\eta = 91\%$

— C0 - C180 — C90 - C270

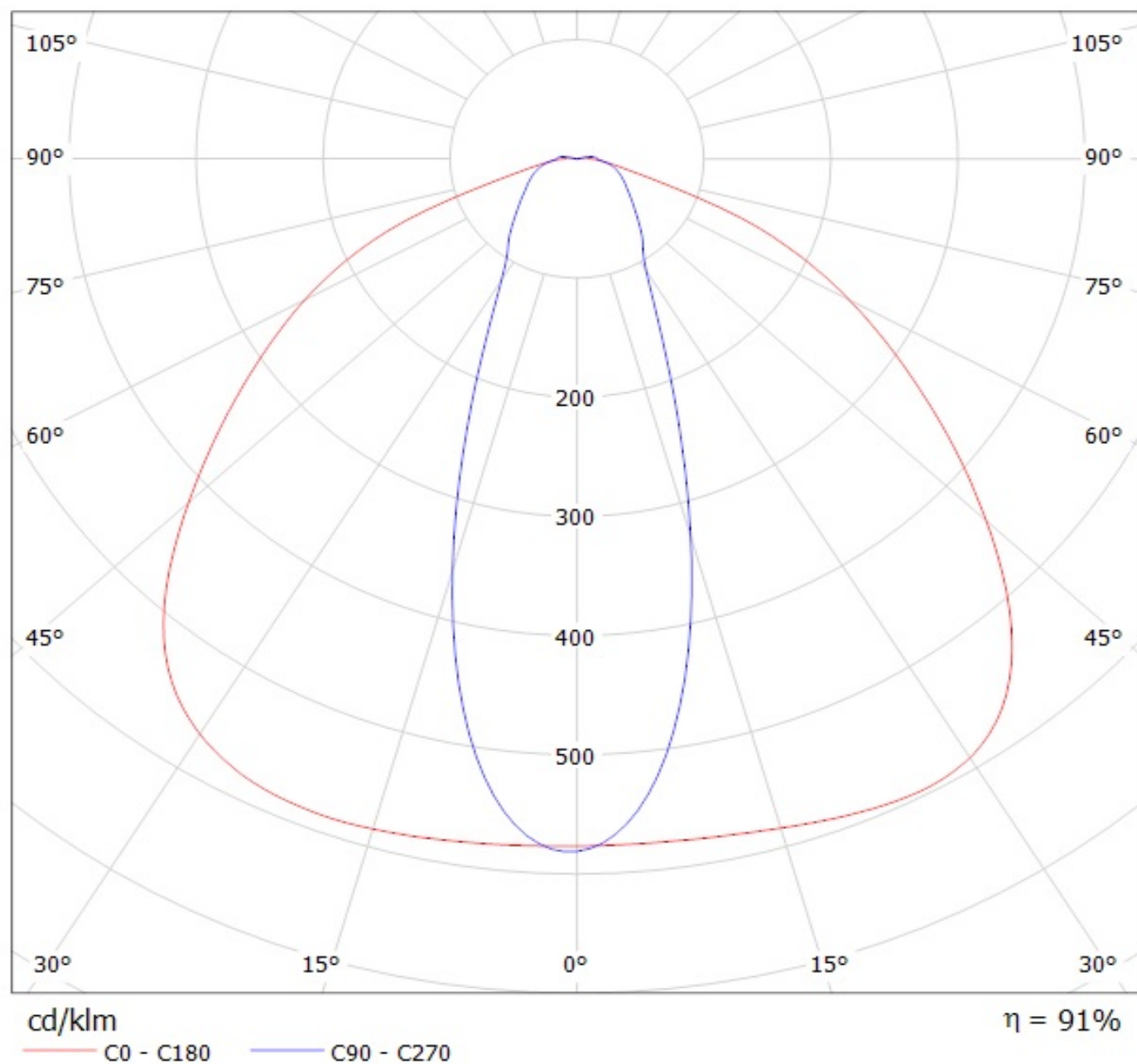
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(XP-G2)

Lamps: 1 x Cree_XP-G2_2x6_1237.61lm@250mA_P=8.57988W_I=0.2498A



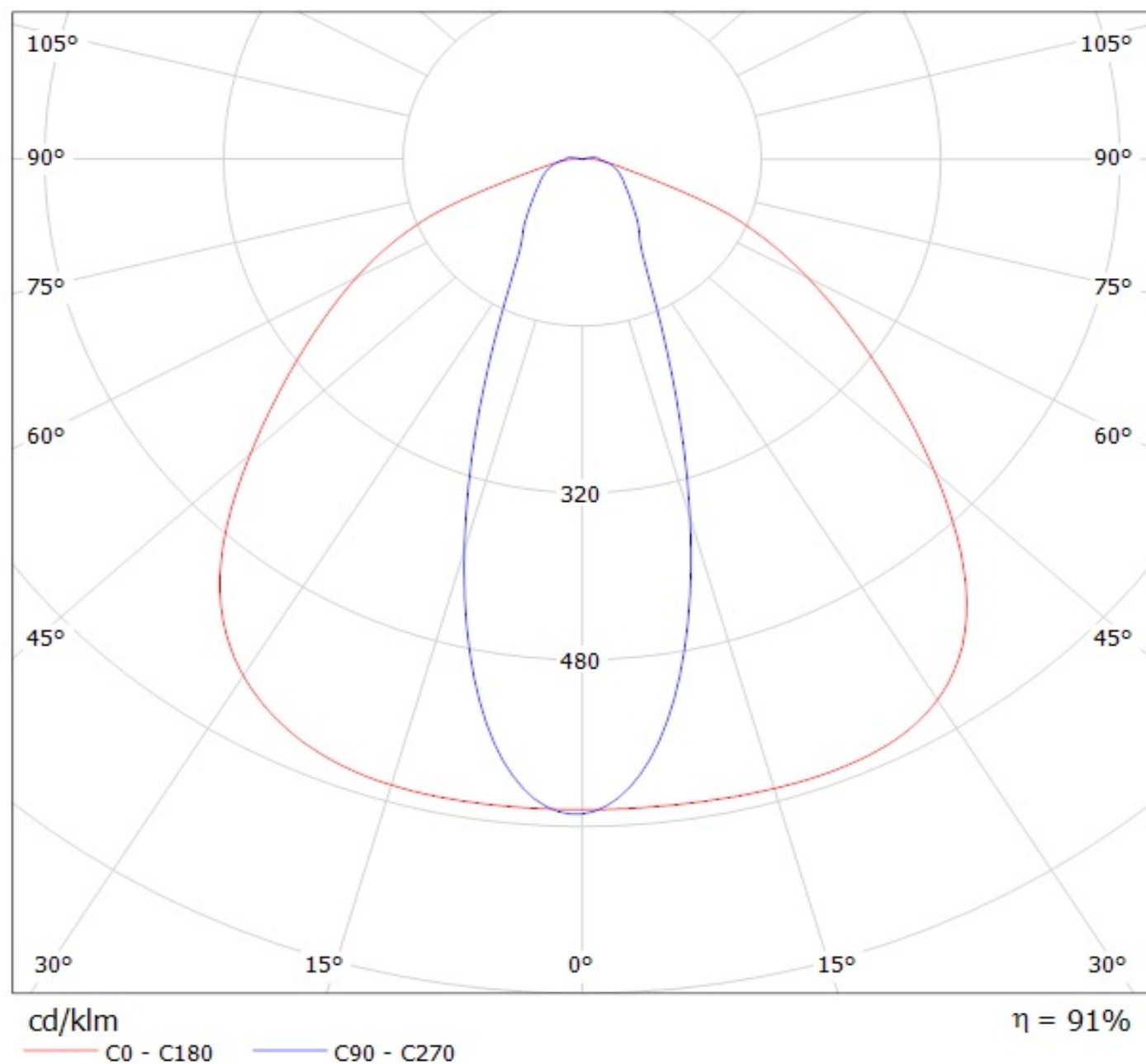
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(XP-L)

Lamps: 1 x Cree_XP-L_2x6_1243.45lm@250mA_P=8.25764W_I=0.2498A



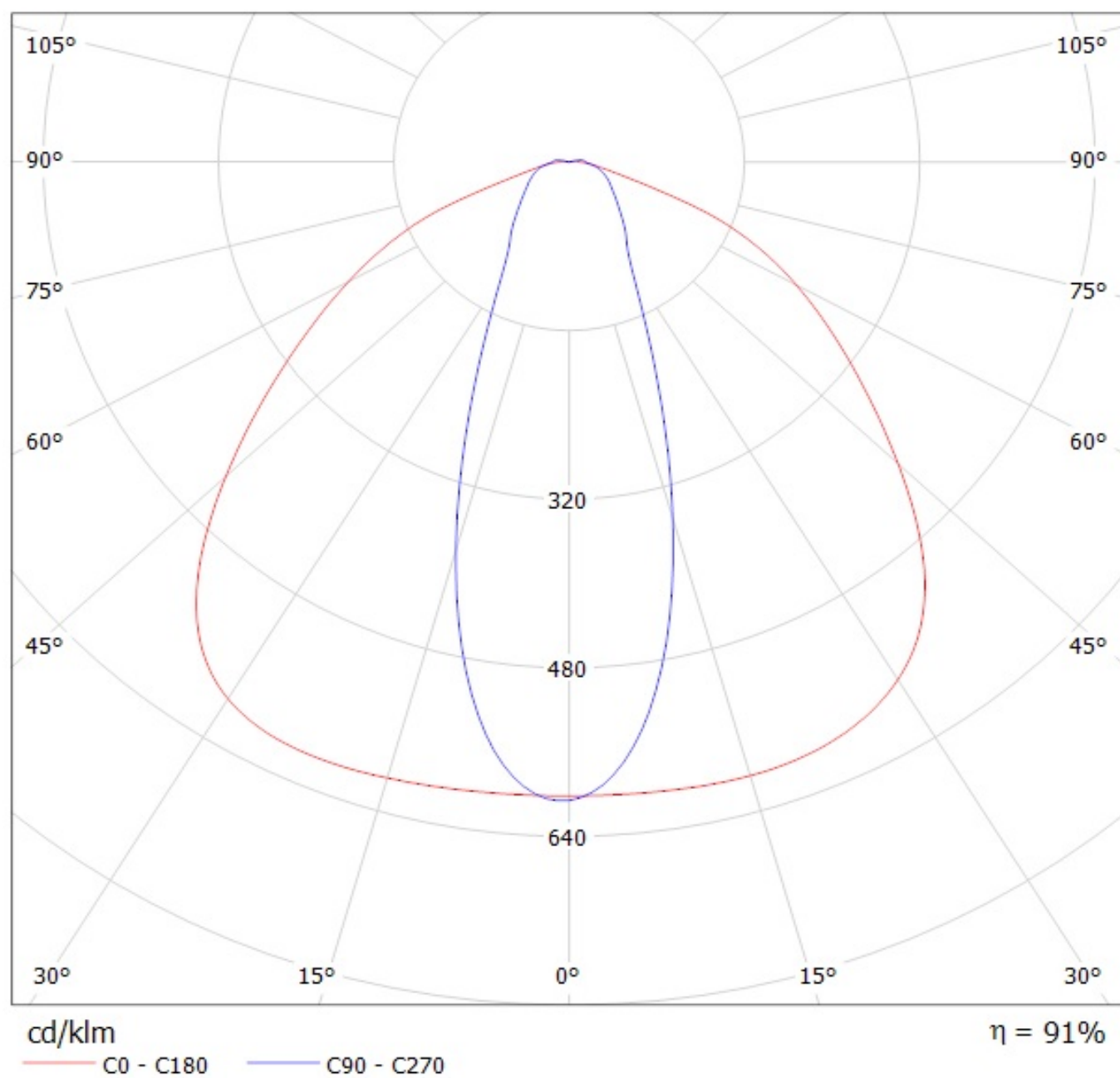
Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(XM-L2)

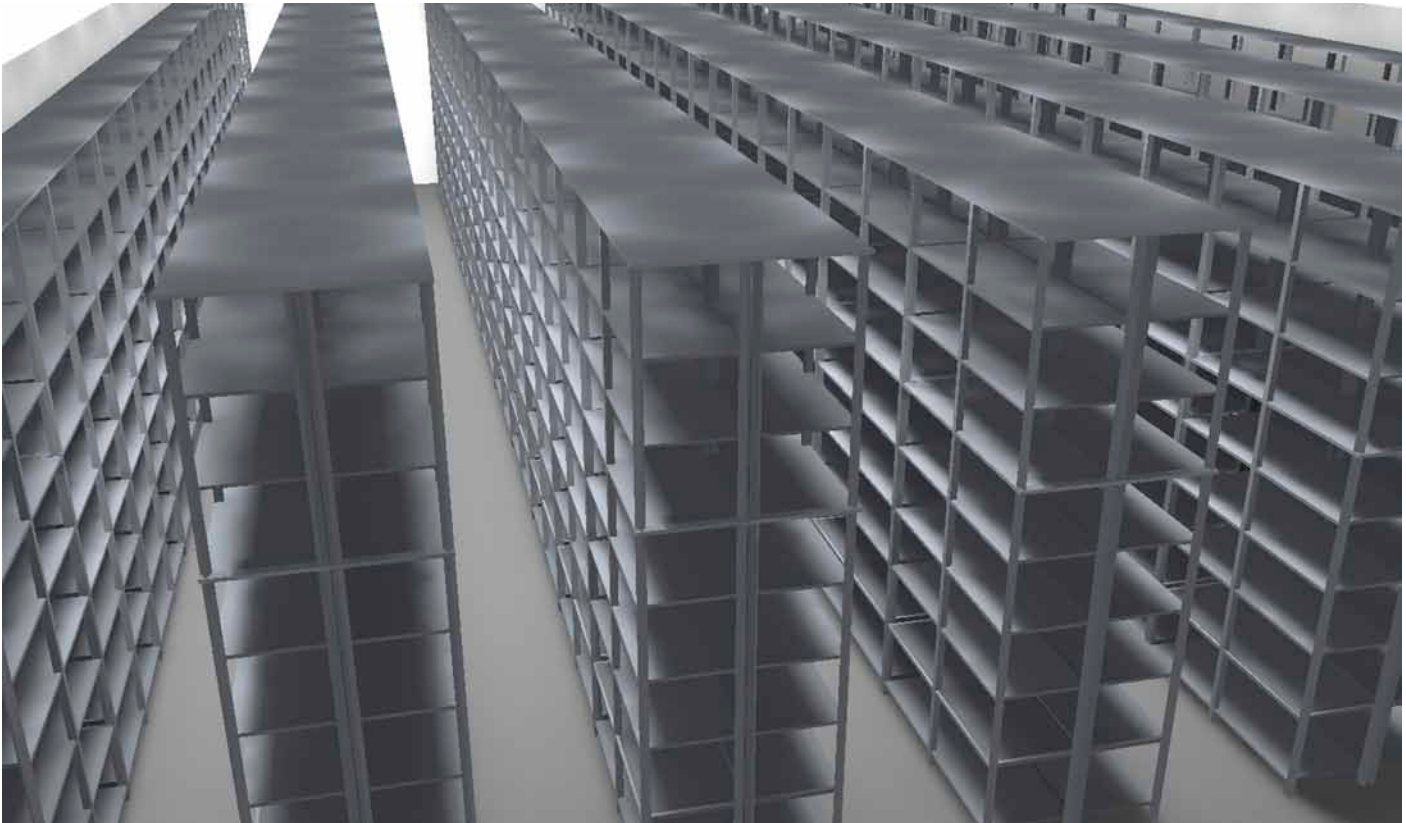
Lamps: 1 x Cree_XM-L2_(XMLBWT-00-0000-000LT30E7)_1173.92lm@250mA_P=8.28212W_I=0.2498A



Luminaire: LEDiL Oy CS14597_HB-IP-2X6-O_(XM-L)

Lamps: 1 x Cree_XM_L_2x6_(XMLAWT-00-0000-000LT2OE7)_995.915lm@250mA_P=8.16796W_I=0.2498A





High Bay Warehouse Lighting

Application requirements

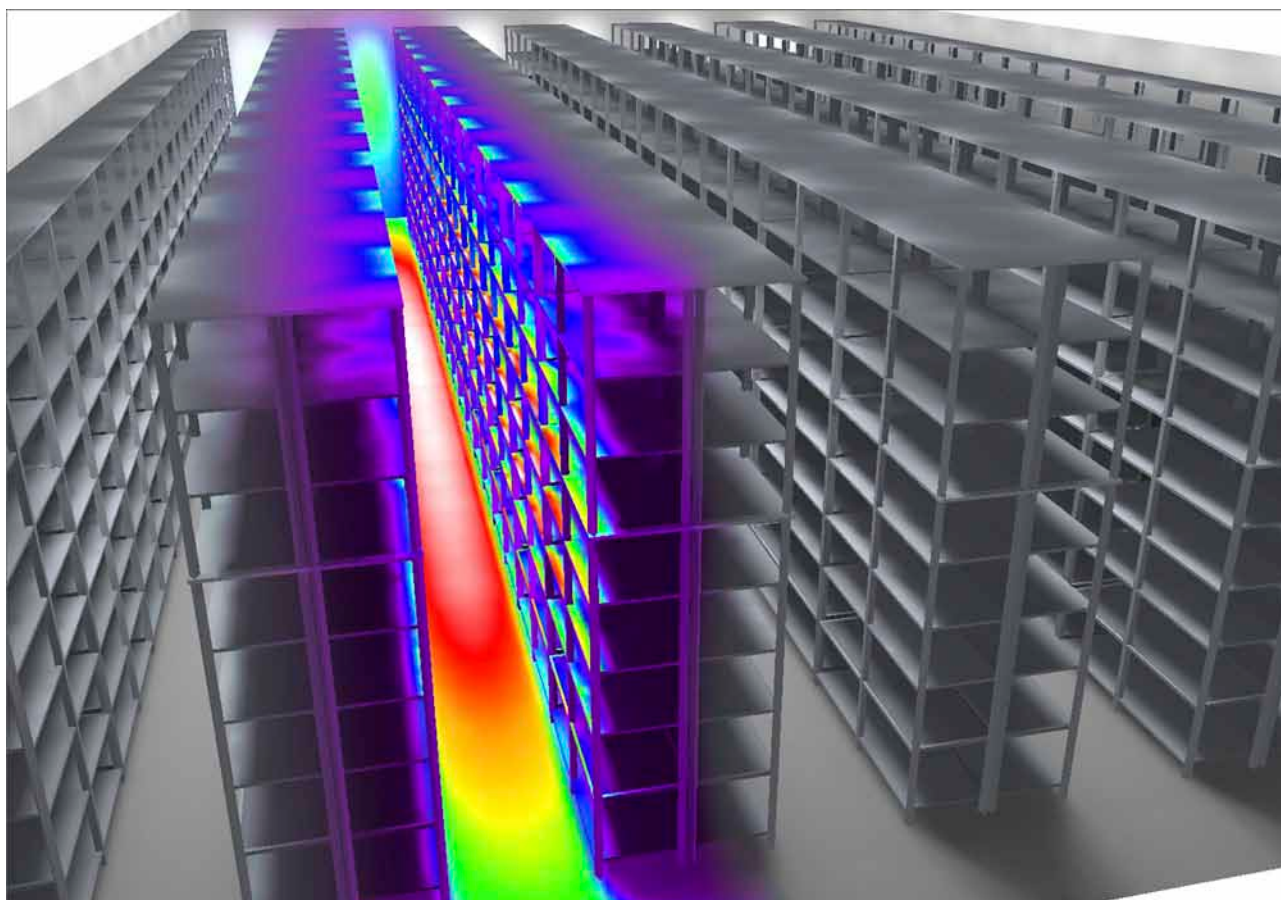
Target application:	High Bay aisle lighting
Ceiling height:	14 meters
Warehouse dimensions:	70 x 47 meters
Shelf height:	13 meters
Aisle width:	3 meters
Design goal:	100 lx at floor level ¹⁾ , equal illumination on shelf frontal faces

Optics used:	CA13057_FLARE-MINI-AD
	• Diameter: 16 mm • Height: 8,6 mm • Viewing angle 100°+20° • Designed for LEDs from Cree, Nichia, Seoul, Osram and Philips Lumileds



CA13057_FLARE-MINI-AD

1) Floor under the shelves is not included in the calculations.



Solution with FLARE-MINI-AD

Luminaire installation height: 14 meters
 Luminaire spacing: 6 meters
 Luminaires are installed on the aisle centerline

Number of luminaires: 66 pcs
 Number of LEDs / luminaire: 25 pcs @ 1000 mA
 Power consumption / luminaire: approx. 70W

Avg. illuminance at floor level: ≈ 100 lx

Illuminance uniformity on
 the shelf vertical face (E_{min}/E_{avg}): better than 0,5

Total power consumption: 4,6 kW ($\approx 1,9$ W/m²)

Approximated energy savings
 when compared to conventional
 fluorescent lighting: $\approx 40\%$

- Luminaire installation height: 14 m
- Installed in the aisle centerline
- Fixture luminous flux 6200 lm
- LED luminous flux 7000 lm

- Illuminance levels:
- | | |
|---|--------|
|  | 130 lx |
|  | 100 lx |
|  | 80 lx |
|  | 60 lx |
|  | 45 lx |
|  | 30 lx |
|  | 15 lx |
|  | 10 lx |