

Goniophotometric Test Report

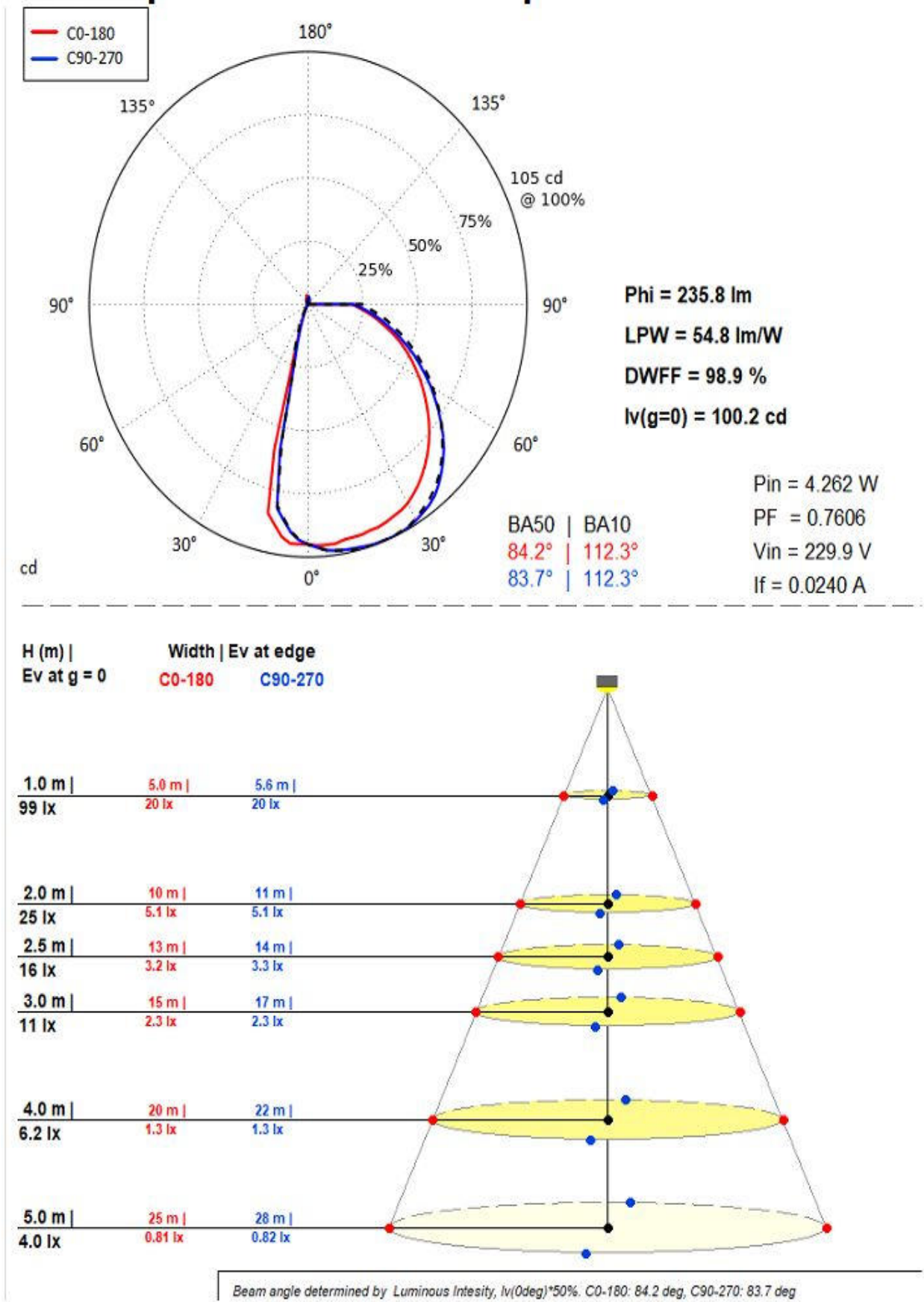


Table. Luminous Intesity (cd) in horizontal (rows) and vertical planes (columns).

	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270	285	300	315	330	345
0.0	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
2.5	100.0	100.0	100.0	100.8	100.4	100.8	100.8	101.1	100.4	100.4	100.2	99.4	99.4	99.0	99.2	98.4	98.2	97.6	97.8	96.5	97.2	97.6	98.4	99.0
5.0	100.0	100.6	101.8	101.8	102.4	102.2	102.3	102.5	101.9	101.5	100.6	97.6	99.4	98.2	97.6	96.0	95.6	94.4	94.8	92.4	94.1	94.9	97.0	98.6
7.5	100.0	100.8	102.0	102.4	103.0	102.8	102.9	103.5	102.7	102.1	100.2	94.1	97.0	95.0	93.6	91.2	90.5	89.3	90.1	88.1	90.4	91.6	94.7	97.8
10.0	99.0	100.6	102.2	102.6	103.7	103.5	103.3	104.2	102.3	101.3	98.0	90.8	92.6	89.4	87.9	85.3	85.1	84.7	85.6	80.0	86.7	89.1	92.8	96.6
12.5	98.8	100.6	102.0	102.8	104.1	104.1	103.5	104.2	101.3	99.6	94.9	75.8	88.6	84.6	77.0	65.0	61.9	57.8	61.9	41.1	71.4	87.7	91.6	95.7
15.0	98.8	100.4	102.2	103.0	104.5	104.3	103.9	104.0	100.2	97.8	93.1	35.4	62.4	49.3	40.9	34.3	30.0	25.7	25.2	9.2	57.7	81.3	90.8	95.1
17.5	98.2	100.4	102.4	102.8	104.3	104.7	104.3	104.0	99.8	96.9	87.7	12.5	22.9	20.7	22.1	25.0	24.5	22.3	16.7	4.0	47.2	72.9	90.2	94.9
20.0	98.2	99.8	101.8	102.8	104.5	104.5	104.3	104.0	99.6	96.7	78.5	7.6	11.3	21.5	22.5	21.0	19.3	16.8	11.4	3.2	40.0	65.9	90.0	94.7
22.5	97.6	99.6	101.4	102.6	103.9	104.5	104.5	104.2	99.8	96.5	67.4	6.2	7.7	16.1	16.6	15.6	14.0	12.2	7.2	2.8	35.2	60.5	89.4	94.7
25.0	96.8	98.8	100.6	101.6	103.3	104.1	104.5	104.6	100.2	96.5	59.2	5.6	5.1	11.7	12.0	11.1	10.0	8.8	4.5	2.8	32.0	56.0	88.1	94.7
27.5	96.2	97.6	99.6	100.6	102.4	103.9	104.1	104.4	100.4	95.7	53.4	5.0	3.3	8.5	8.8	8.3	7.6	6.3	2.9	3.0	29.9	52.7	86.5	94.5
30.0	95.2	96.4	98.2	99.4	101.4	102.6	103.3	104.6	100.0	93.9	48.9	4.8	2.1	6.5	6.3	6.1	5.5	4.7	1.9	3.2	28.3	50.1	84.6	94.3
32.5	93.4	94.8	96.6	98.0	100.0	101.2	102.3	104.2	100.2	91.4	45.2	4.8	1.3	4.7	4.5	4.3	3.9	3.3	1.3	3.2	26.8	47.4	83.0	93.5
35.0	91.6	93.2	95.0	96.0	98.0	100.0	101.2	103.5	99.6	89.1	42.4	4.8	0.9	3.3	3.3	3.3	2.9	2.5	0.7	3.2	25.8	45.5	80.7	92.3
37.5	89.4	91.0	93.0	93.8	96.0	98.0	99.6	102.5	99.2	86.7	40.1	4.8	0.5	2.3	2.3	2.5	2.1	1.7	0.5	3.2	24.8	43.3	77.7	90.2
40.0	87.0	88.6	90.5	91.8	93.6	96.0	97.2	101.1	98.0	84.4	38.1	5.0	0.5	1.9	1.5	1.9	1.5	1.1	0.3	3.2	23.9	41.2	74.4	88.0
42.5	84.4	86.2	87.9	89.2	90.9	93.4	94.3	99.2	96.3	82.1	36.6	5.0	0.5	1.5	1.1	1.3	1.1	0.9	0.1	3.4	23.1	39.2	70.5	85.3
45.0	81.6	83.4	85.5	86.5	88.3	90.3	91.3	96.3	93.7	79.9	35.2	4.8	0.5	1.3	0.9	0.9	0.7	0.5	0.1	3.2	22.1	36.9	67.0	82.3
47.5	78.6	80.6	82.5	83.7	85.3	87.1	88.1	93.0	90.2	76.6	33.9	4.8	0.3	0.7	0.7	0.7	0.5	0.5	0.1	3.2	20.9	34.6	63.3	79.2
50.0	75.4	77.4	79.4	80.5	82.1	83.7	84.2	89.3	86.3	72.7	33.1	4.8	0.3	0.7	0.5	0.3	0.3	0.3	0.1	3.4	20.0	32.6	59.6	75.8
52.5	72.0	74.6	76.4	77.7	78.8	80.2	80.0	85.0	81.3	68.2	31.5	5.0	0.3	0.7	0.5	0.3	0.3	0.3	0.1	3.4	19.2	30.7	56.1	72.3
55.0	68.6	71.4	73.2	74.3	75.6	76.4	75.9	80.9	76.4	63.4	29.4	5.0	0.3	0.7	0.3	0.5	0.3	0.1	0.3	3.4	18.0	28.7	52.2	68.6
57.5	65.2	67.6	69.9	70.9	72.0	72.8	71.6	76.3	71.2	59.1	27.6	4.8	0.3	0.5	0.1	0.5	0.1	0.3	0.1	3.2	16.9	26.8	48.7	64.7
60.0	61.8	64.6	66.5	67.6	68.3	68.7	67.6	71.6	66.1	54.4	25.5	4.8	0.3	0.5	0.1	0.3	0.3	0.1	0.1	3.4	15.5	24.8	45.4	61.1
62.5	58.0	61.2	63.3	64.2	64.9	64.9	63.1	67.1	61.0	50.1	23.5	4.4	0.3	0.5	0.3	0.1	0.1	0.1	0.1	3.4	14.7	22.7	41.9	57.2
65.0	54.6	57.6	59.4	61.0	61.3	61.1	58.9	62.5	56.0	45.3	21.4	4.6	0.3	0.5	0.1	0.1	0.1	0.1	0.1	3.2	13.2	20.9	38.5	53.1
67.5	51.0	54.0	56.2	57.2	57.4	57.0	54.8	57.6	51.1	41.2	19.6	4.2	0.5	0.5	0.1	0.1	0.1	0.1	0.1	3.2	12.2	19.0	35.0	49.4
70.0	47.3	50.3	52.6	53.6	54.0	53.2	50.4	53.0	46.6	37.3	17.5	4.0	0.5	0.5	0.1	0.1	0.3	0.1	0.1	3.0	11.0	17.2	31.9	45.4
72.5	43.5	46.5	48.9	50.0	50.2	49.3	46.3	48.7	41.6	33.2	15.7	3.8	0.5	0.5	0.1	0.3	0.1	0.1	0.1	2.8	10.0	15.3	28.4	41.5
75.0	39.5	42.9	45.3	46.3	46.5	45.3	42.2	44.2	37.3	29.9	14.0	3.6	0.5	0.5	0.1	0.1	0.1	0.1	0.1	2.8	8.7	13.5	25.1	37.4
77.5	35.9	39.5	41.5	42.5	42.7	41.5	38.2	40.3	33.4	26.2	12.2	2.9	0.5	0.3	0.1	0.1	0.1	0.1	0.1	2.6	7.5	11.6	21.8	33.7
80.0	32.7	35.9	38.0	39.3	39.0	38.2	34.7	36.1	29.3	22.9	10.3	2.7	0.3	0.3	0.1	0.1	0.1	0.1	0.1	2.6	6.3	9.8	19.2	30.1
82.5	29.3	32.9	35.0	35.7	35.6	34.6	30.9	32.2	25.2	19.6	8.7	2.5	0.3	0.3	0.1	0.1	0.1	0.1	0.1	2.4	5.0	8.3	16.1	26.4
85.0	26.1	29.7	31.8	32.9	32.6	31.0	27.7	28.5	21.5	16.5	7.3	2.3	0.3	0.5	0.1	0.1	0.1	0.1	0.1	2.1	4.2	6.7	13.6	23.1
87.5	23.5	27.1	29.0	29.8	29.8	28.1	24.6	25.0	18.6	13.9	6.0	1.9	0.5	0.5	0.1	0.1	0.1	0.1	0.1	1.9	3.6	5.4	11.4	20.1
90.0	20.9	24.3	26.7	27.0	27.1	25.5	22.0	21.9	15.5	11.6	4.8	1.7	0.5	0.5	0.1	0.1	0.1	0.1	0.1	1.7	3.2	4.8	11.4	17.8
92.5	0.1	0.5	0.2	0.6	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1
95.0	0.1	0.5	0.7	0.6	0.5	0.3	0.1	0.3	0.3	0.3	0.5	0.3	0.3	0.5	0.2	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.3
97.5	0.1	0.2	0.4	0.6	0.3	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.4	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1
100.0	0.3	0.5	0.4	0.3	0.1	0.3	0.3	0.3	0.3	0.1	0.1	0.3	0.3	0.5	0.2	0.3	0.3	0.1	0.1	0.3	0.1	0.1	0.1	0.1
102.5	0.3	0.5	0.4	0.3	0.3	0.3	0.1	0.3	0.3	0.3	0.1	0.1	0.3	0.2	0.2	0.3	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1
105.0	0.1	0.2	0.2	0.3	0.3	0.1	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.2	0.4	0.1	0.3	0.1	0.3	0.3	0.1	0.1	0.1	0.1
107.5	0.1	0.5	0.4	0.3	0.5	0.1	0.1	0.3	0.1	0.3	0.1	0.3	0.1	0.2	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1
110.0	0.1	0.5	0.2	0.6	0.1	0.3	0.3	0.3	0.1	0.3	0.3	0.1	0.1	0.2	0.4	0.3	0.1	0.3	0.1	0.1	0.1	0.1	0.3	0.1
112.5	0.1	0.2	0.2	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
115.0	0.3	0.5	0.4	0.3	0.1	0.1	0.3	0.1	0.3	0.3	0.3	0.1	0.1	0.1	0.4	0.3	0.3	0.1	0.3	0.1	0.1	0.1	0.1	0.1
117.5	0.1	0.5	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1
120.0	0.1	0.2	0.7	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1
122.5	0.1	0.5	0.4	0.3	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1
125.0	0.1	0.2	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.3	0.1	0.3	0.1	0.1	0.1	0.1
127.5	0.1	0.2	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.4	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1
130.0	0.1	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
132.5	0.1	0.2	0.2	0.3	0.1	0.1	0.3	0.1	0.3	0.1	0.1	0.1	0.3	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
135.0	0.1	0.2	0.1	0.1	0.1	0.3	0.1	0.3	0.1	0.1	0.3	0.1	0.3	0.7	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
137.5	0.1	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.4	0.2	0.3	0.3	0.3	0.7	0.9	0.5	0.3	0.3	0.1	0.1				

	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270	285	300	315	330	345
165.0	1.7	1.7	2.0	1.4	1.5	1.7	2.5	2.7	1.6	1.3	2.1	2.5	2.8	6.0	3.1	2.1	1.9	1.7	1.9	1.6	0.8	0.2	1.0	1.2
167.5	1.7	1.4	1.2	1.2	1.9	2.1	2.8	3.2	2.3	1.8	2.7	3.2	3.4	5.1	3.4	2.3	1.9	1.6	1.7	1.2	0.8	0.6	0.4	1.0
170.0	1.4	2.0	1.2	1.0	1.7	2.5	3.0	3.6	2.8	2.6	3.8	3.6	3.8	4.5	3.9	3.0	2.1	1.7	1.6	1.2	1.2	1.1	0.8	1.2
172.5	1.4	2.3	1.7	1.4	1.7	2.3	3.2	3.6	3.6	3.3	3.8	3.8	3.8	3.8	2.8	2.1	1.9	1.7	1.6	1.4	1.6	1.4	1.2	1.4
175.0	1.6	2.6	2.3	1.6	1.5	2.1	2.8	3.2	3.8	3.5	3.0	3.4	3.4	2.9	2.6	2.1	1.9	1.9	1.6	1.6	1.9	1.6	1.6	1.6
177.5	1.9	2.6	2.3	1.9	1.7	2.3	2.7	2.7	3.4	2.6	2.5	2.3	2.5	2.3	2.3	2.3	2.3	2.1	1.9	1.9	2.3	2.3	1.9	1.6
180.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

Table. Measurement results of the main luminous parameters

Luminous flux	Input power	Luminous efficacy	LOR	DWFF	Luminous intensity (g=0)
235.8 lm	4.3 W	54.8 lm/W	100.0 %	98.9 %	100.2 cd

Table. Electrical parameters during the light measurements.

	Pin	PF	Vin	If
Value	4.262 W	0.7606	229.9 V	0.0240 A
St.dev.	0.14 %	0.18 %	0.04 %	0.00 %

Table. Maximum Luminous Intensity and its direction

Iv	g	C plane
105 cd	17.5°	75.0°

Table. Beam widths at two perpendicular planes

	Beam angle, FWHM, 50% (deg)	Beam angle, 10% (deg)	Effective beam direction from g=0
C0-180	84.2°	112.3°	26.5°
C90-270	83.7°	112.3°	30.4°

Figure. Polar curve of the angular Luminous Intesity distribution at two perpendicular C planes and at C plane with maximum Luminous Intesity.

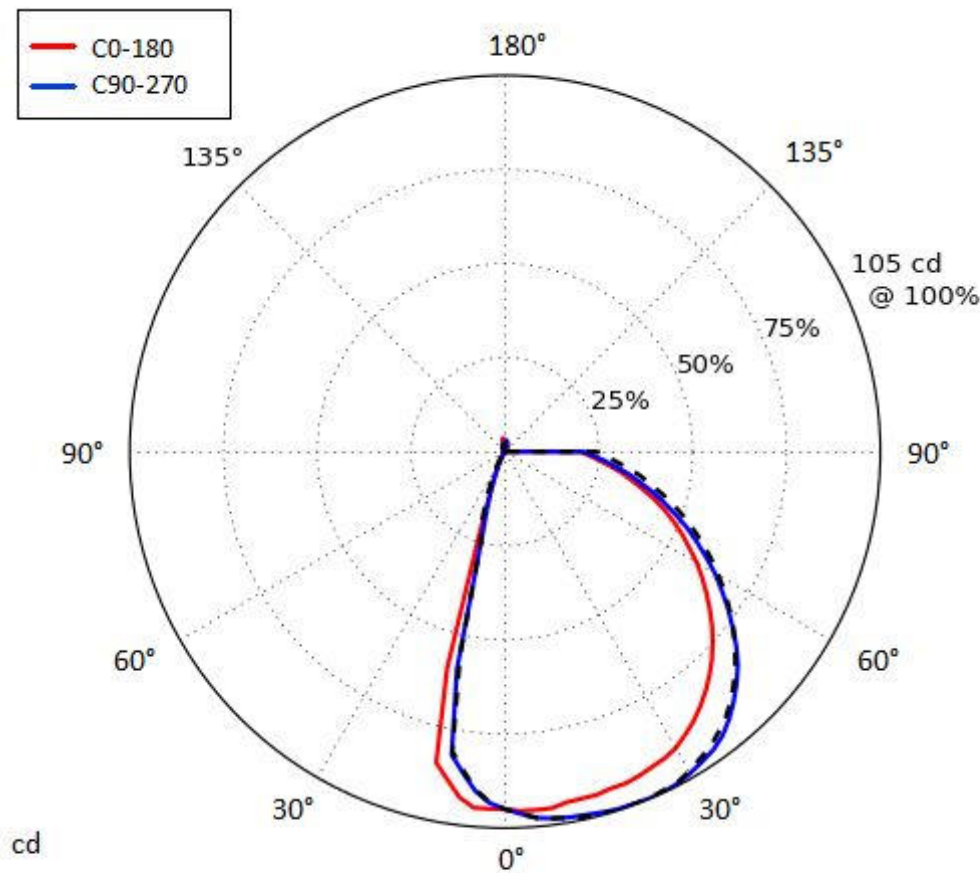
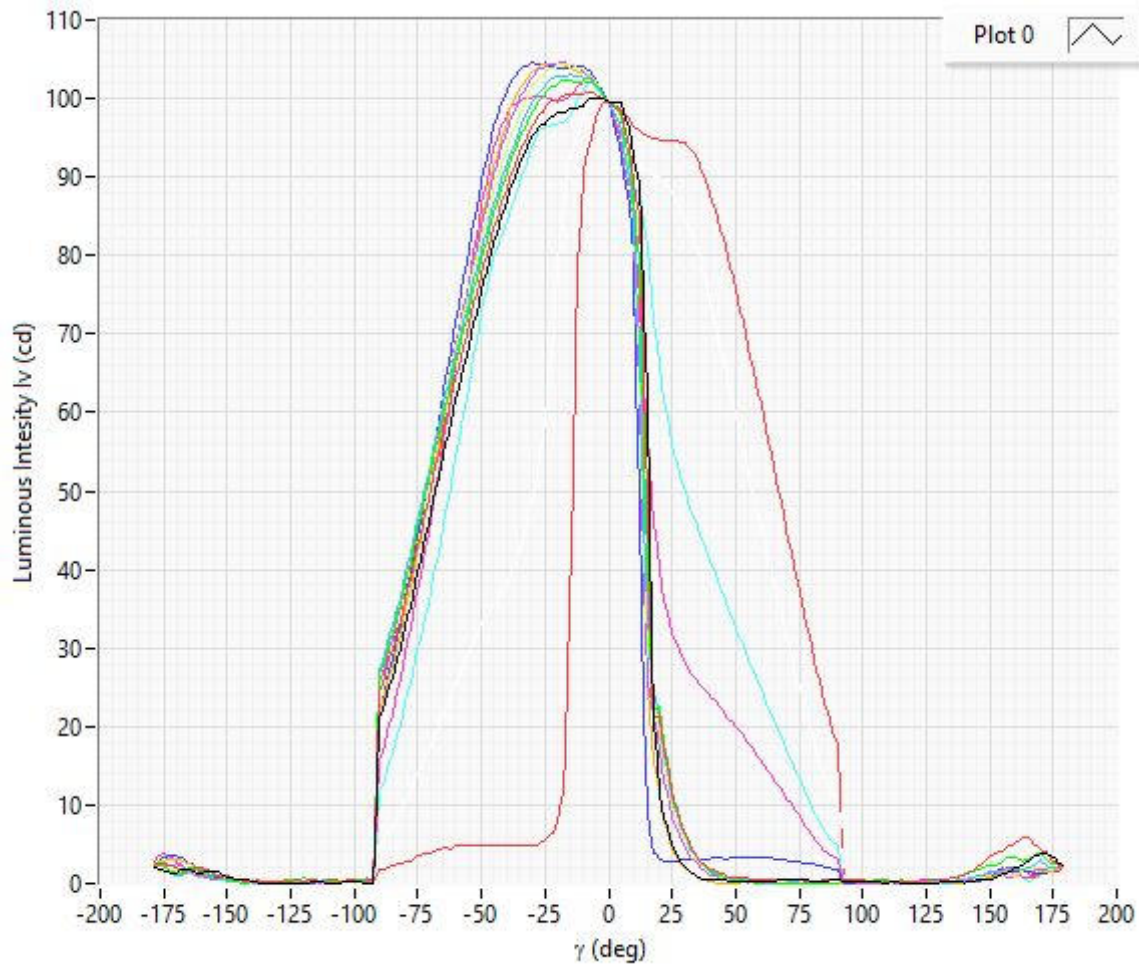


Figure. Luminous Intensity distribution in cartesian diagram at all measured C planes.



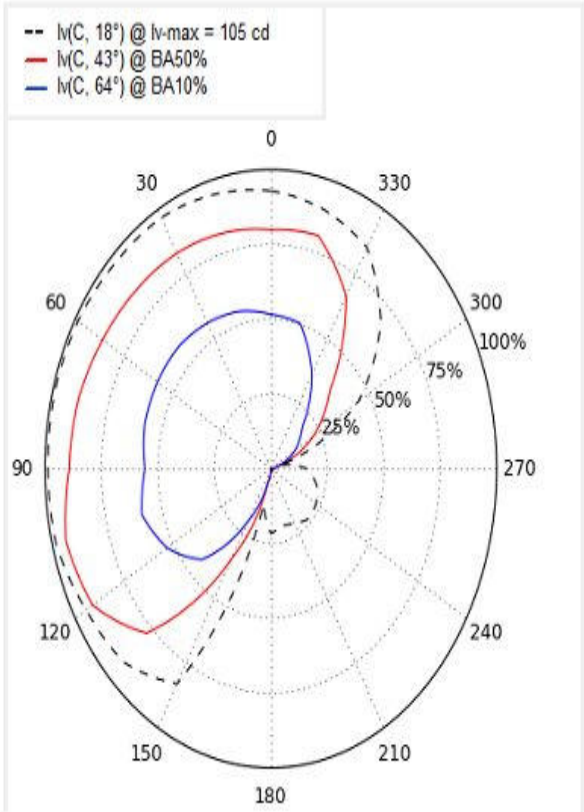


Table. Zonal lumen summary

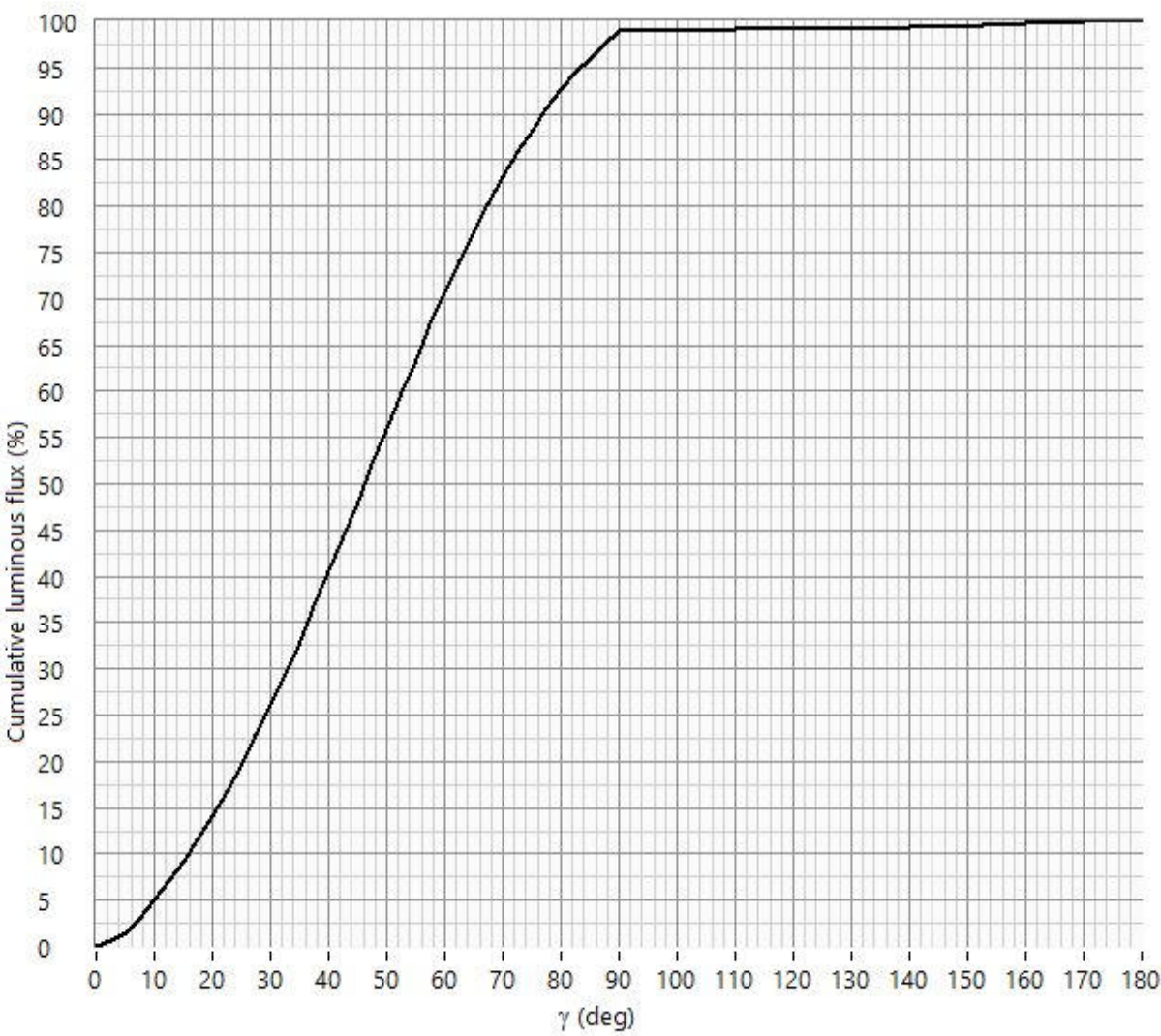
	Lumens	Relative lumens (%)
0-20	33.33	14.13
0-30	61.46	26.06
0-40	95.42	40.47
0-60	166.60	70.65
0-80	218.40	92.62
0-90	233.10	98.85
10-90	221.44	93.91
20-40	62.09	26.33
20-50	98.57	41.80
40-70	100.78	42.74
40-90	137.68	58.39
60-80	51.80	21.97
60-90	66.50	28.20
70-80	22.20	9.41
80-90	14.70	6.23
90-110	0.50	0.21
90-120	0.70	0.30
90-130	0.80	0.34
90-150	1.40	0.59
90-180	2.70	1.15
110-180	2.20	0.93
0-180	235.80	100.00
	11.66	4.94

Table. Cumulative and Zonal luminous flux

gamma (deg)	Zone Flux (lm)	Sum Flux (lm)	Zone Flux (%)	Sum Flux (%)
0	0.1486	0.1486	0.06305	0.06305
2.5	1.188	1.336	0.5037	0.5668
5	2.358	3.694	1	1.567
7.5	3.468	7.162	1.471	3.038
10	4.497	11.66	1.907	4.945
12.5	5.132	16.79	2.177	7.122
15	5.171	21.96	2.194	9.316
17.5	5.432	27.39	2.304	11.62
20	5.938	33.33	2.519	14.14
22.5	6.383	39.72	2.707	16.85
25	6.819	46.53	2.892	19.74
27.5	7.256	53.79	3.078	22.82
30	7.667	61.46	3.252	26.07
32.5	8.036	69.49	3.408	29.48
35	8.379	77.87	3.554	33.03
37.5	8.657	86.53	3.672	36.7
40	8.887	95.42	3.77	40.47
42.5	9.055	104.5	3.841	44.31
45	9.151	113.6	3.881	48.19
47.5	9.17	122.8	3.89	52.08
50	9.122	131.9	3.869	55.95
52.5	9.014	140.9	3.823	59.78
55	8.829	149.8	3.745	63.52
57.5	8.585	158.3	3.641	67.16
60	8.302	166.6	3.521	70.68
62.5	7.971	174.6	3.381	74.06
65	7.595	182.2	3.221	77.29
67.5	7.191	189.4	3.05	80.34
70	6.76	196.2	2.867	83.2
72.5	6.289	202.5	2.667	85.87
75	5.804	208.3	2.462	88.33
77.5	5.3	213.6	2.248	90.58
80	4.819	218.4	2.044	92.62
82.5	4.32	222.7	1.833	94.46
85	3.856	226.5	1.635	96.09
87.5	3.438	230	1.458	97.55

gamma (deg)	Zone Flux (lm)	Sum Flux (lm)	Zone Flux (%)	Sum Flux (%)
90	3.079	233.1	1.306	98.86
92.5	0.07649	233.1	0.03245	98.89
95	0.08322	233.2	0.0353	98.92
97.5	0.06617	233.3	0.02807	98.95
100	0.06614	233.4	0.02805	98.98
102.5	0.06266	233.4	0.02658	99.01
105	0.05408	233.5	0.02294	99.03
107.5	0.05913	233.5	0.02508	99.05
110	0.05784	233.6	0.02453	99.08
112.5	0.04254	233.6	0.01805	99.1
115	0.05594	233.7	0.02373	99.12
117.5	0.04197	233.7	0.0178	99.14
120	0.03825	233.8	0.01622	99.15
122.5	0.03969	233.8	0.01684	99.17
125	0.03293	233.8	0.01397	99.19
127.5	0.03214	233.9	0.01363	99.2
130	0.02868	233.9	0.01216	99.21
132.5	0.03295	233.9	0.01397	99.23
135	0.03416	234	0.01449	99.24
137.5	0.04777	234	0.02026	99.26
140	0.05368	234.1	0.02277	99.28
142.5	0.06545	234.1	0.02776	99.31
145	0.0855	234.2	0.03626	99.35
147.5	0.1	234.3	0.04242	99.39
150	0.127	234.5	0.05387	99.44
152.5	0.14	234.6	0.0594	99.5
155	0.1606	234.8	0.06813	99.57
157.5	0.1635	234.9	0.06936	99.64
160	0.1592	235.1	0.06754	99.71
162.5	0.1487	235.2	0.06308	99.77
165	0.1391	235.4	0.05899	99.83
167.5	0.121	235.5	0.0513	99.88
170	0.1094	235.6	0.04641	99.93
172.5	0.08457	235.7	0.03587	99.96
175	0.05575	235.7	0.02365	99.99
177.5	0.02715	235.8	0.01152	100
180	0.003432	235.8	0.001456	100

Figure. Cumulative luminous flux



Söllner diagram (EN 12464) - Luminance

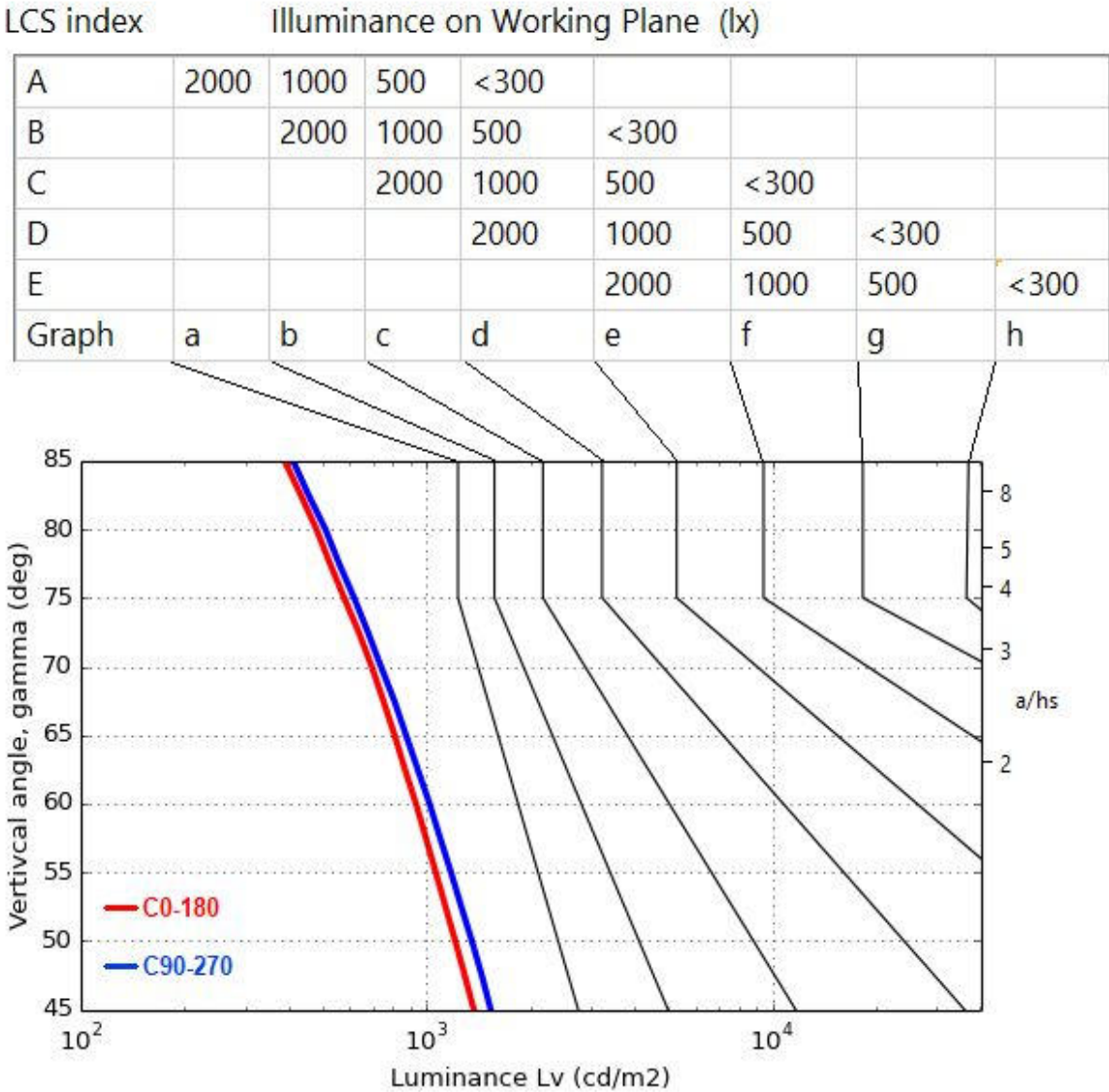


Table. Luminance [Lv] = cd/m2

	C 0	C 45	C 90
γ 0	5455	5455	5455
γ 45	1221	971	1366
γ 55	940	752	1041
γ 65	710	578	766
γ 75	504	425	539
γ 85	337	301	356

UGR table (CIE 190)

Ceiling		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor		20	20	20	20	20	20	20	20	20	20
Room size		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
	X Y										
2H	2H	13.4	15.0	13.8	15.4	15.8	14.0	15.7	14.4	16.0	16.4
	3H	15.2	16.7	15.6	17.1	17.5	15.8	17.3	16.2	17.7	18.1
	4H	15.9	17.4	16.4	17.8	18.2	16.5	17.9	16.9	18.3	18.7
	6H	16.6	18.0	17.0	18.4	18.8	17.1	18.4	17.5	18.8	19.3
	8H	16.9	18.2	17.3	18.6	19.1	17.3	18.6	17.8	19.1	19.5
	12H	17.1	18.4	17.6	18.8	19.3	17.5	18.8	18.0	19.2	19.7
4H	2H	14.0	15.4	14.4	15.8	16.2	14.2	15.6	14.6	16.0	16.5
	3H	16.0	17.3	16.5	17.7	18.2	16.2	17.4	16.6	17.9	18.3
	4H	16.9	18.1	17.4	18.5	19.0	17.0	18.2	17.5	18.6	19.1
	6H	17.7	18.8	18.2	19.2	19.7	17.8	18.9	18.3	19.3	19.8
	8H	18.1	19.0	18.6	19.5	20.0	18.2	19.2	18.7	19.6	20.2
	12H	18.4	19.3	18.9	19.8	20.3	18.5	19.4	19.0	19.9	20.4
8H	4H	17.3	18.3	17.8	18.7	19.3	17.1	18.1	17.6	18.6	19.1
	6H	18.3	19.1	18.8	19.6	20.1	18.1	18.9	18.6	19.4	19.9
	8H	18.7	19.5	19.3	20.0	20.6	18.5	19.2	19.0	19.8	20.3
	12H	19.2	19.9	19.7	20.4	21.0	19.0	19.6	19.5	20.2	20.8
12H	4H	17.4	18.2	17.9	18.8	19.3	17.1	18.0	17.6	18.5	19.0
	6H	18.4	19.2	19.0	19.7	20.2	18.1	18.8	18.6	19.3	19.9
	8H	18.9	19.6	19.5	20.1	20.7	18.6	19.2	19.1	19.7	20.4

Figure. Number of luminaires in different sizes of rectangular spaces.

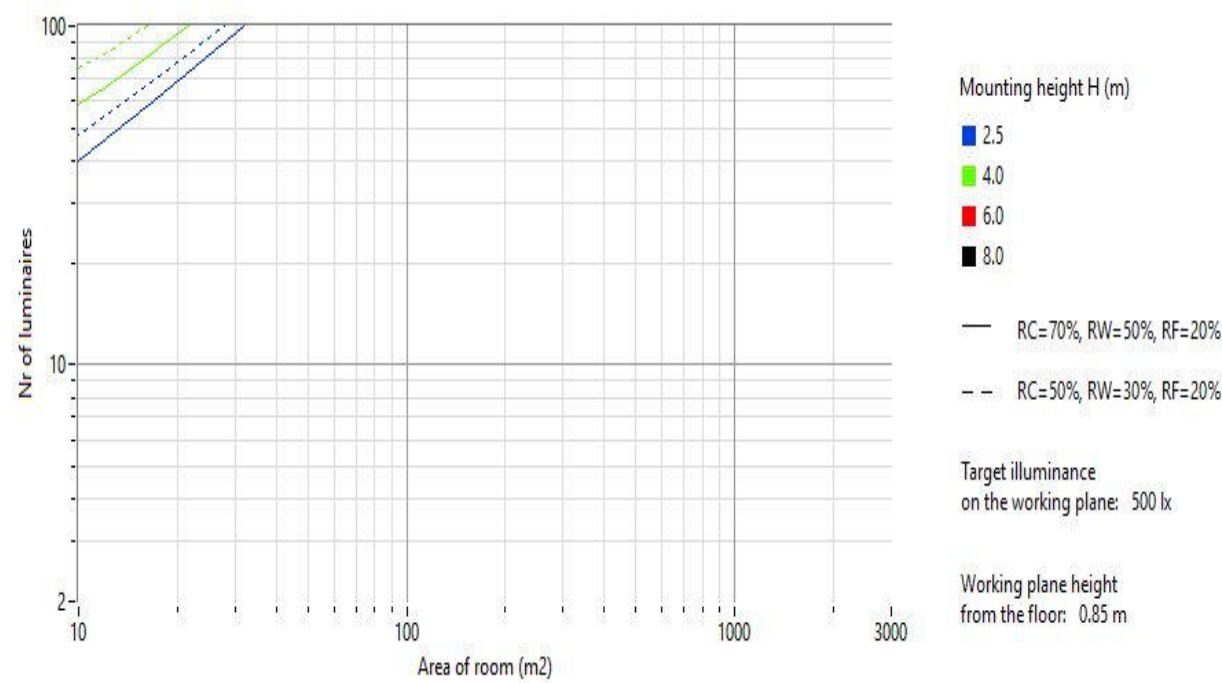


Table. Coefficient of Utilization (CU).

RC	80				70				50			30			10		
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RF / RCR	20				20				20			20			20		
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	101	101	101
1	87	82	77	73	87	83	79	75	85	81	78	86	83	80	88	85	83
2	82	74	67	61	82	74	68	62	75	69	64	75	70	66	76	71	67
3	77	67	59	52	76	67	59	53	66	60	54	66	60	55	66	61	56
4	72	60	52	45	71	60	52	45	59	52	46	59	52	47	58	53	48
5	67	55	46	39	66	54	46	40	54	46	40	53	46	41	52	46	41
6	63	50	41	35	62	50	41	35	49	41	36	48	41	36	47	41	36
7	59	46	37	31	58	45	37	31	45	37	32	44	37	32	43	37	32
8	56	42	34	28	54	42	34	28	41	34	28	40	34	29	40	34	29
9	52	39	31	26	51	39	31	26	38	31	26	37	31	26	37	31	26
10	49	36	29	23	48	36	29	24	35	28	24	35	28	24	34	28	24

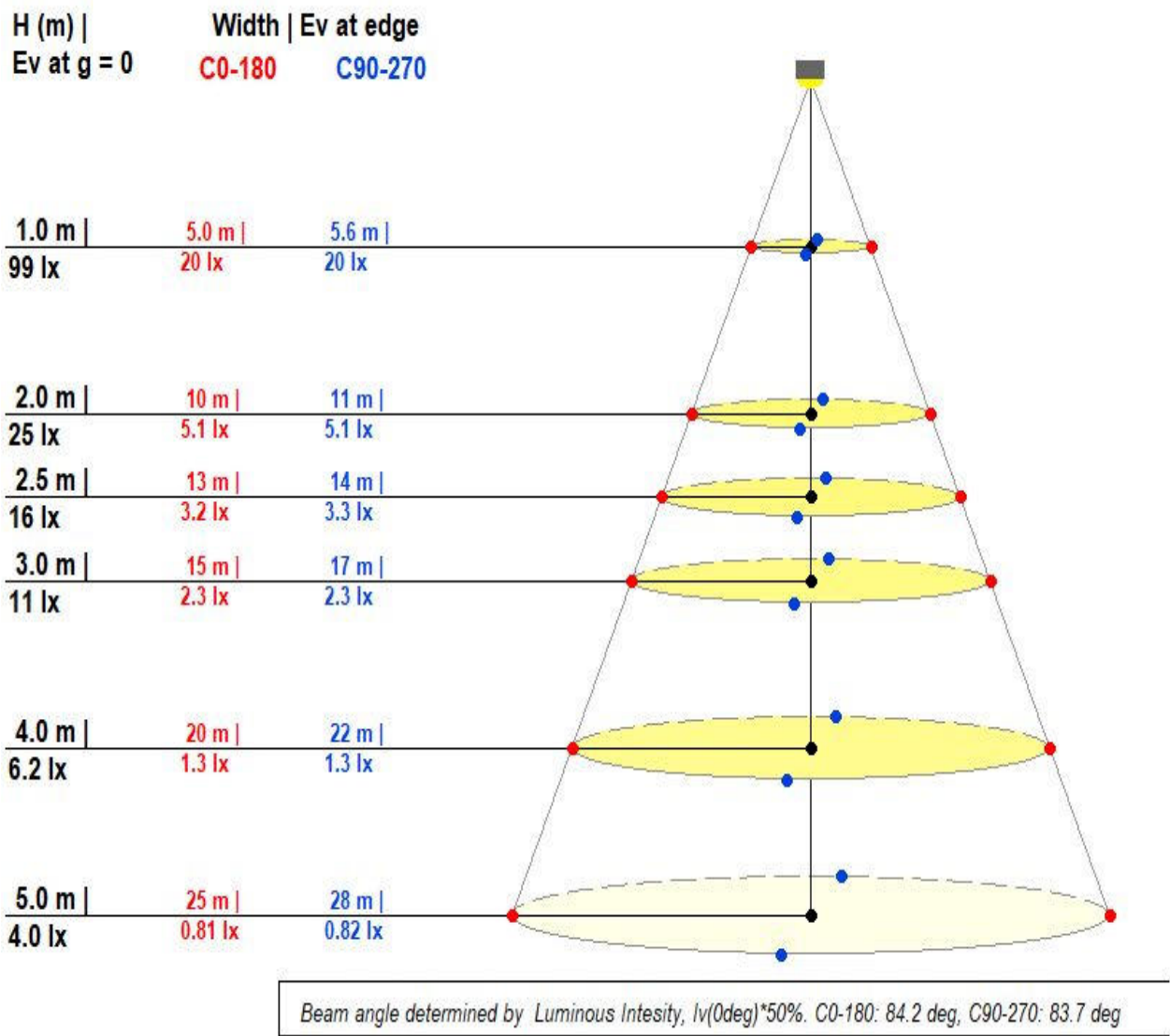
Table. Wall Exitance Coefficients (WEC).

RC	80				70				50			30			10		
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RF / RCR	20				20				20			20			20		
1	55.6	37.6	21.4	6.8	54.3	36.8	21.0	6.7	35.4	20.3	6.5	34.0	19.6	6.3	32.7	19.0	6.1
2	51.1	33.1	18.2	5.6	49.8	32.4	17.9	5.5	31.1	17.3	5.4	29.9	16.8	5.3	28.8	16.3	5.1
3	47.5	29.7	15.8	4.7	46.2	29.1	15.6	4.7	27.9	15.2	4.6	26.8	14.7	4.5	25.8	14.3	4.4
4	44.4	26.9	14.0	4.1	43.1	26.3	13.8	4.1	25.3	13.4	4.0	24.3	13.1	3.9	23.4	12.7	3.9
5	41.6	24.5	12.5	3.6	40.4	24.0	12.4	3.6	23.1	12.1	3.6	22.2	11.7	3.5	21.4	11.4	3.4
6	39.1	22.6	11.4	3.3	38.0	22.1	11.2	3.2	21.3	10.9	3.2	20.5	10.7	3.1	19.7	10.4	3.1
7	36.9	20.9	10.4	3.0	35.8	20.5	10.2	2.9	19.7	10.0	2.9	19.0	9.7	2.8	18.2	9.5	2.8
8	35.0	19.4	9.5	2.7	33.9	19.1	9.4	2.7	18.4	9.2	2.6	17.7	9.0	2.6	17.0	8.7	2.5
9	33.2	18.1	8.8	2.5	32.2	17.8	8.7	2.5	17.2	8.5	2.4	16.5	8.3	2.4	15.9	8.1	2.3
10	31.6	17.0	8.2	2.3	30.7	16.7	8.1	2.3	16.1	8.0	2.3	15.6	7.8	2.2	15.0	7.6	2.2

Table. Ceiling Cavity Exitance Coefficients (CCEC).

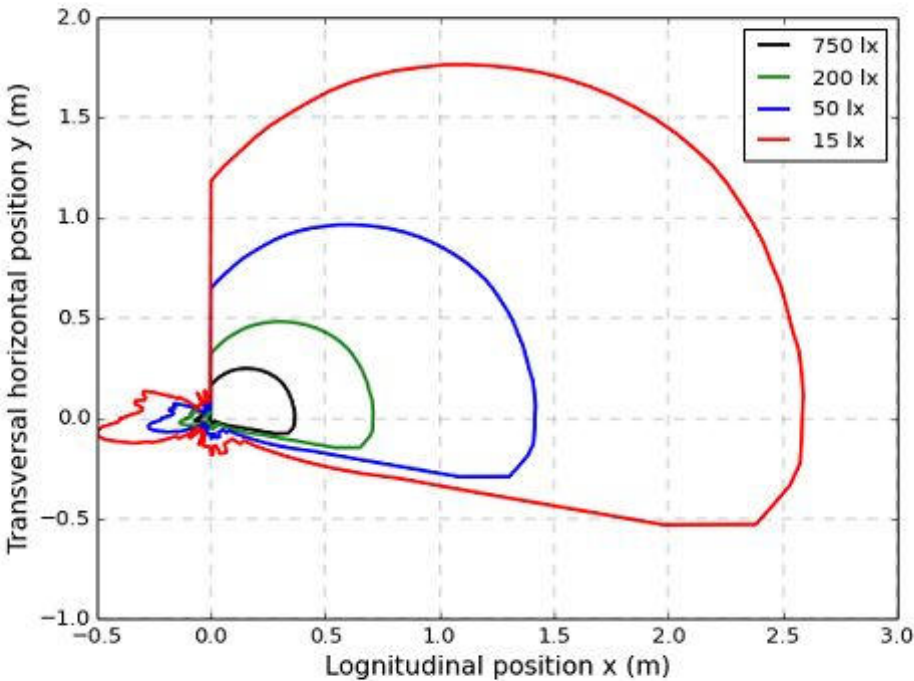
RC	80				70				50			30			10		
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RF / RCR	20				20				20			20			20		
1	32.9	28.9	25.4	22.2	21.9	19.0	16.3	13.9	11.3	9.6	8.1	6.3	5.4	4.6	2.0	1.7	1.5
2	33.9	27.2	21.6	16.9	23.0	18.0	13.8	10.3	10.8	8.2	6.0	6.1	4.6	3.4	1.9	1.5	1.1
3	34.2	25.4	18.6	13.2	23.5	17.0	12.0	7.9	10.3	7.2	4.5	5.8	4.1	2.6	1.9	1.3	0.9
4	33.9	23.7	16.3	10.6	23.5	16.0	10.5	6.2	9.8	6.3	3.6	5.6	3.6	2.1	1.8	1.2	0.7
5	33.2	22.1	14.3	8.5	23.3	15.1	9.3	4.9	9.3	5.7	2.9	5.3	3.3	1.7	1.7	1.1	0.6
6	32.3	20.5	12.6	6.9	22.8	14.1	8.2	3.9	8.8	5.1	2.3	5.0	3.0	1.4	1.6	1.0	0.5
7	31.2	19.0	11.1	5.6	22.2	13.3	7.4	3.2	8.4	4.7	1.9	4.8	2.7	1.2	1.6	0.9	0.4
8	30.1	17.7	9.9	4.5	21.5	12.5	6.6	2.6	7.9	4.3	1.6	4.6	2.5	1.0	1.5	0.8	0.4
9	28.9	16.4	8.8	3.6	20.8	11.7	6.0	2.1	7.5	3.9	1.4	4.3	2.3	0.9	1.4	0.8	0.3
10	27.7	15.3	7.8	2.9	20.1	11.0	5.4	1.7	7.1	3.6	1.2	4.1	2.2	0.8	1.4	0.7	0.3

- CONE DIAGRAM
- Cone is limited by the beam angle at the planes of C0 and C90
 - H = Mounting Height
 - D = Cone diameter
 - Ev Edge = Illuminance at the edge of the cone of the C0/90 plane
 - Ev Center = Illuminance at the center of the cone

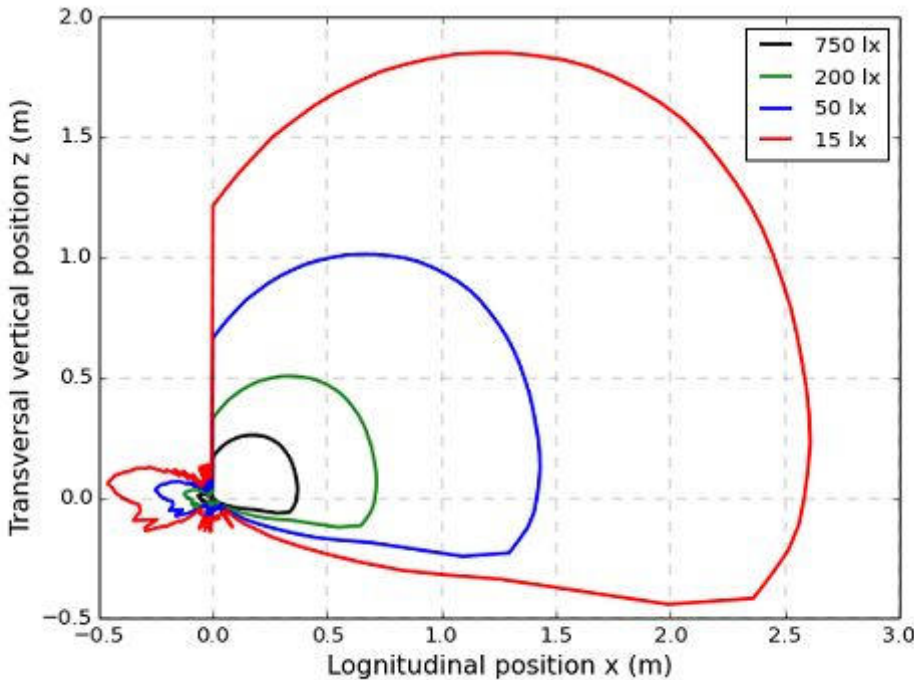


LOGNITUDINAL ISOLUX CURVES

Horizontal



Vertical



Illumination uniformity figures at the perpendicular plane to the lamp axis.
Mounting height of 2.50 m.
Lamp center position $x = 0.0$ m, $y = 0.0$ m.
C rotation of 0.0 deg. Gamma rotation of 0.0 deg.
Maintenance factor = 0.80.
Nr of lamps: X = 1 pcs, Y = 1 pcs.
Distance between lamps: X = 0.00 meters, Y = 0.00 meters.

