



Luminaire Property

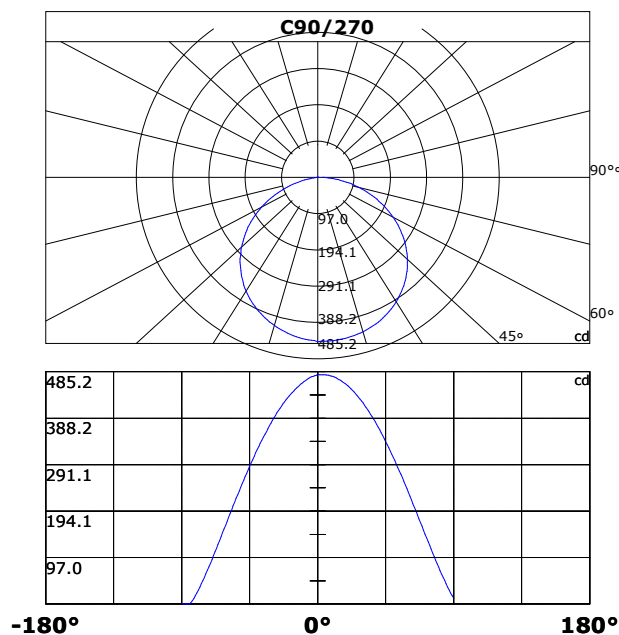
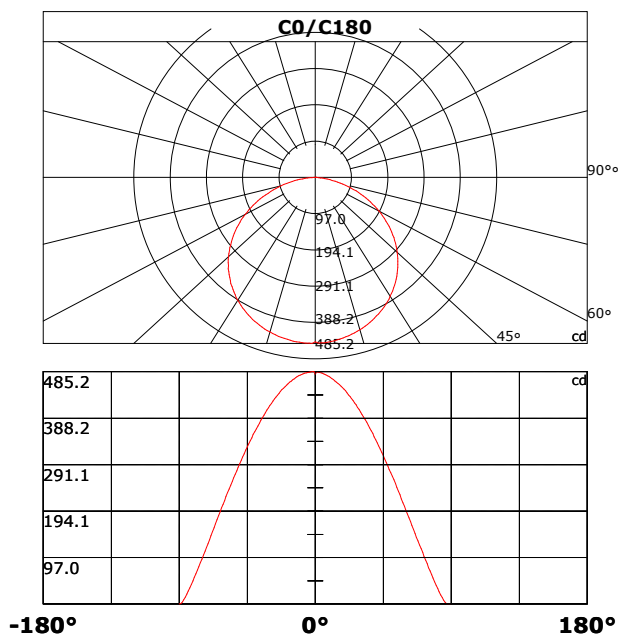
Luminaire Description: B1278-BF
 Luminaire Categorie: DOWNLIGHT ADJUSTABLE 20W
 Lamp Categorie:
 Lamp Description: BLANCO FRIO 6000K
 Number of Lamp: 1
 Lamp Lumens(lm): NA
 Luminous Length(m): 0.228
 Luminous Width(m): 0.228
 Luminous Height(m): 0.005

Voltage: 231.3 V
 Current: 0.158 A
 Power: 20.42 W
 Power Factor: 0.558
 Test Lab: BLED
 Photometric Type: Type C
 Manufactory:

Photometric Results

CIE Class: Direct
 Effective Luminous Flux: 1326.20 lm
 Efficiency: 65.9324 lm/W
 Central Intensity: 480.644cd
 Max. Intensity: 485.161cd
 Field Angle(10%Imax): NA

Max.Intensity Angle: C:180.0 G:1.0
 Beam Angle(50%Imax): L: -55.7 R:55.2
 Luminaire Efficacy Rating(LER) : 100.00%
 Upward Ratio: NA
 Downward Ratio: NA
 Beamwidth(50%Imax): H=116.45V=117.48





Light intensity data Unit[cd]

C\G	G0.0	G1.0	G2.0	G3.0	G4.0	G5.0	G6.0	G7.0	G8.0	G9.0
C0.0	480.6	484.7	484.3	483.9	483.0	481.8	480.4	478.8	477.1	475.2
C45.0	480.6	476.5	476.8	476.9	476.8	476.7	476.4	475.9	475.1	474.3
C90.0	480.6	478.7	479.0	479.1	479.1	478.8	478.4	478.0	477.1	476.1
C135.0	480.6	481.7	481.9	482.0	481.8	481.4	480.9	480.2	479.3	478.2
C180.0	480.6	485.2	485.1	485.0	484.4	483.7	483.1	482.2	481.0	479.6
C225.0	480.6	475.3	474.5	473.5	472.3	471.0	469.5	467.7	465.9	464.0
C270.0	480.6	477.5	476.6	475.7	474.8	473.3	471.4	469.4	467.2	465.0
C315.0	480.6	481.0	480.3	479.4	478.3	477.3	475.9	474.3	472.5	470.9
C360.0	480.6	484.7	484.3	483.9	483.0	481.8	480.4	478.8	477.1	475.2
C\G	G10.0	G11.0	G12.0	G13.0	G14.0	G15.0	G16.0	G17.0	G18.0	G19.0
C0.0	473.2	471.1	468.7	466.4	463.7	461.1	458.3	455.0	451.9	448.5
C45.0	473.3	472.2	470.7	469.3	467.5	465.8	463.8	461.5	459.3	456.9
C90.0	475.3	474.0	472.6	470.9	469.2	467.5	465.5	463.0	460.7	458.1
C135.0	477.1	475.8	474.1	472.5	470.5	468.5	466.5	463.9	461.4	458.8
C180.0	478.1	476.7	474.8	472.7	470.6	468.2	465.7	463.3	460.5	457.4
C225.0	461.8	459.3	456.8	454.3	451.7	448.7	445.5	442.1	438.8	435.3
C270.0	462.5	459.8	457.2	454.3	451.4	448.1	445.0	441.6	438.1	434.0
C315.0	468.9	466.6	464.3	461.8	459.4	456.4	453.4	450.3	447.1	443.7
C360.0	473.2	471.1	468.7	466.4	463.7	461.1	458.3	455.0	451.9	448.5
C\G	G20.0	G21.0	G22.0	G23.0	G24.0	G25.0	G26.0	G27.0	G28.0	G29.0
C0.0	445.1	441.4	437.2	433.5	429.3	425.0	420.5	415.9	411.0	406.6
C45.0	454.1	451.4	448.5	445.4	442.1	438.5	435.1	431.4	427.7	423.5
C90.0	455.6	452.8	449.6	446.4	443.1	439.7	435.7	432.2	428.2	424.1
C135.0	455.9	452.8	449.7	446.6	443.1	439.6	435.6	431.7	427.7	423.3
C180.0	454.3	451.0	447.8	444.3	440.2	436.4	432.4	428.4	423.9	419.0
C225.0	431.6	427.3	423.5	419.5	415.1	410.4	405.8	400.8	396.1	391.4
C270.0	430.4	426.4	422.0	417.8	413.1	408.3	403.9	399.1	394.0	388.9
C315.0	439.8	436.2	432.3	428.5	424.2	419.6	415.2	410.4	405.9	400.7
C360.0	445.1	441.4	437.2	433.5	429.3	425.0	420.5	415.9	411.0	406.6
C\G	G30.0	G31.0	G32.0	G33.0	G34.0	G35.0	G36.0	G37.0	G38.0	G39.0
C0.0	401.0	395.8	390.8	385.1	379.6	373.6	367.8	362.0	356.2	349.3
C45.0	419.2	415.0	410.6	406.0	400.9	396.5	391.4	386.4	381.1	375.1
C90.0	420.1	415.4	410.9	406.2	401.6	396.2	391.5	385.8	380.8	375.5
C135.0	418.8	414.2	409.8	404.8	400.0	394.8	389.4	384.2	378.4	372.3
C180.0	414.5	409.9	405.0	399.5	394.4	389.1	384.0	378.0	371.9	366.2
C225.0	385.6	380.4	374.8	369.1	362.9	357.4	351.7	345.2	338.7	331.1
C270.0	383.4	377.8	372.7	366.2	360.2	354.5	348.5	341.7	335.6	329.2
C315.0	395.7	390.6	385.1	379.6	373.6	368.2	362.3	356.0	348.8	342.1
C360.0	401.0	395.8	390.8	385.1	379.6	373.6	367.8	362.0	356.2	349.3



Light intensity data Unit[cd]

C\G	G40.0	G41.0	G42.0	G43.0	G44.0	G45.0	G46.0	G47.0	G48.0	G49.0
C0.0	343.1	336.8	330.3	323.7	316.5	309.8	302.9	295.7	288.3	281.2
C45.0	369.9	364.3	358.5	352.5	346.2	340.5	334.0	328.0	320.4	314.5
C90.0	369.3	364.0	357.6	352.2	345.2	339.2	333.2	326.4	319.2	312.8
C135.0	367.0	360.8	355.0	349.0	341.8	336.2	329.1	323.1	315.2	308.9
C180.0	360.1	354.5	347.1	341.2	334.7	328.1	321.9	313.8	307.1	300.4
C225.0	324.2	317.0	309.7	301.6	294.0	286.2	278.1	271.2	263.8	256.7
C270.0	322.8	316.2	308.9	302.0	295.2	288.2	281.2	273.2	266.3	259.0
C315.0	335.3	328.3	321.1	313.0	305.5	297.6	289.8	282.4	275.6	268.5
C360.0	343.1	336.8	330.3	323.7	316.5	309.8	302.9	295.7	288.3	281.2
C\G	G50.0	G51.0	G52.0	G53.0	G54.0	G55.0	G56.0	G57.0	G58.0	G59.0
C0.0	274.1	266.9	259.4	251.3	243.9	235.8	228.5	219.7	211.8	204.2
C45.0	307.7	301.2	293.8	286.7	280.2	272.9	266.1	257.8	250.6	243.7
C90.0	306.1	299.7	292.3	285.0	277.8	270.9	263.7	256.2	248.1	240.9
C135.0	301.7	295.0	287.9	279.8	273.0	265.3	258.3	249.8	242.0	234.9
C180.0	293.4	285.9	278.1	271.1	263.9	256.5	248.3	240.5	233.0	224.8
C225.0	249.2	241.4	233.6	226.0	218.3	210.4	203.1	194.9	186.9	178.3
C270.0	251.7	243.6	236.1	228.5	221.1	212.2	204.7	196.5	188.6	180.9
C315.0	261.1	253.3	245.4	237.7	230.0	222.1	214.0	206.7	198.5	189.8
C360.0	274.1	266.9	259.4	251.3	243.9	235.8	228.5	219.7	211.8	204.2
C\G	G60.0	G61.0	G62.0	G63.0	G64.0	G65.0	G66.0	G67.0	G68.0	G69.0
C0.0	196.5	188.4	180.1	172.0	164.1	156.3	147.5	139.6	132.1	123.6
C45.0	235.8	228.1	220.3	213.0	205.7	197.6	189.7	181.5	174.2	165.8
C90.0	233.6	225.6	217.5	209.9	202.2	194.7	185.5	178.1	170.4	162.6
C135.0	226.7	218.6	210.4	202.9	195.3	186.9	178.5	170.0	162.4	153.6
C180.0	216.0	208.2	200.7	192.7	184.8	176.0	167.5	159.7	151.6	142.8
C225.0	171.2	162.9	154.5	146.8	138.7	130.2	122.3	114.8	107.2	98.9
C270.0	172.4	164.3	156.7	148.8	140.8	132.2	124.5	116.7	109.3	101.0
C315.0	182.4	174.1	165.7	157.8	149.8	141.1	133.1	125.6	117.7	109.6
C360.0	196.5	188.4	180.1	172.0	164.1	156.3	147.5	139.6	132.1	123.6
C\G	G70.0	G71.0	G72.0	G73.0	G74.0	G75.0	G76.0	G77.0	G78.0	G79.0
C0.0	116.1	108.0	99.6	91.9	84.2	76.1	69.0	61.2	54.0	46.3
C45.0	158.6	150.7	142.1	134.8	126.8	119.0	111.0	103.1	95.7	88.4
C90.0	154.9	146.0	138.7	130.5	122.6	115.4	106.7	99.5	91.7	84.8
C135.0	145.9	137.7	128.8	121.1	112.9	104.8	97.0	88.5	81.0	73.5
C180.0	134.6	126.0	117.9	110.6	102.2	94.1	86.4	77.9	70.8	63.2
C225.0	91.8	83.8	76.1	68.8	61.4	53.6	47.0	40.3	33.2	26.6
C270.0	93.1	85.4	78.2	70.3	63.0	56.1	49.0	42.4	35.5	29.1
C315.0	101.5	94.2	86.3	79.0	71.6	63.6	56.9	49.5	42.8	35.6
C360.0	116.1	108.0	99.6	91.9	84.2	76.1	69.0	61.2	54.0	46.3



Light intensity data Unit[cd]

C\G	G80.0	G81.0	G82.0	G83.0	G84.0	G85.0	G86.0	G87.0	G88.0	G89.0
C0.0	39.5	32.1	25.4	19.1	13.4	8.2	3.5	0.0	0.0	0.0
C45.0	80.8	73.2	65.8	58.9	51.6	44.7	37.6	30.8	24.2	18.2
C90.0	77.2	69.8	62.6	55.8	49.0	42.1	35.3	29.2	22.9	17.4
C135.0	66.0	58.6	51.7	44.5	37.8	30.9	24.1	18.0	12.6	8.0
C180.0	55.7	48.6	41.4	33.7	27.2	20.9	14.4	8.9	3.9	1.3
C225.0	20.6	14.5	9.4	4.9	1.4	0.0	0.0	0.0	0.0	0.0
C270.0	23.1	17.1	11.8	7.0	2.8	0.0	0.0	0.0	0.0	0.0
C315.0	29.4	23.0	17.0	11.7	7.1	3.2	0.0	0.0	0.0	0.0
C360.0	39.5	32.1	25.4	19.1	13.4	8.2	3.5	0.0	0.0	0.0
C\G	G90.0									
C0.0	0.0									
C45.0	12.7									
C90.0	12.2									
C135.0	4.4									
C180.0	0.0									
C225.0	0.0									
C270.0	0.0									
C315.0	0.0									
C360.0	0.0									



Zonal Luminous Flux Data

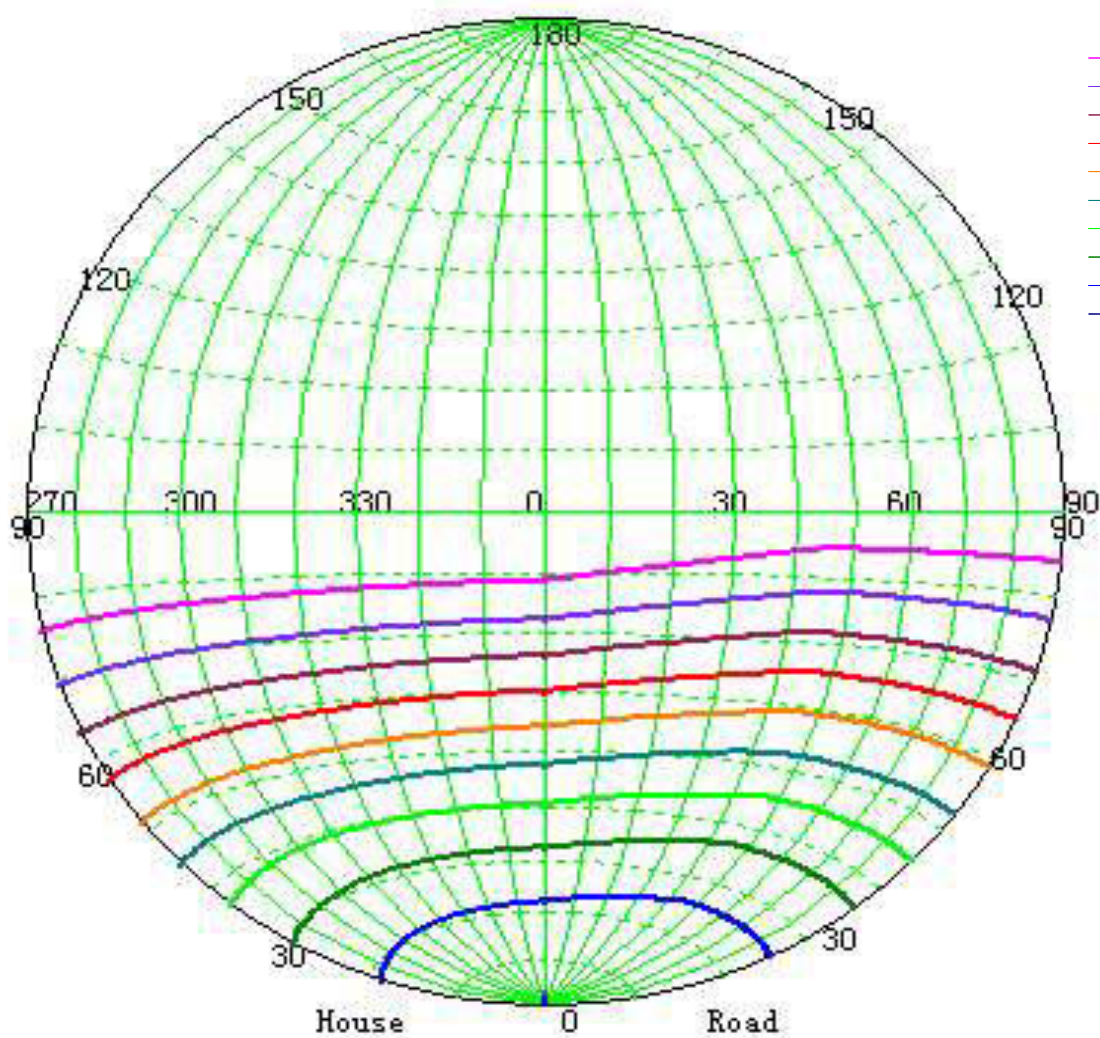
Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Flux [lm]	Zonal Flux [%]	Sum Flux [%]
0.0	480.64	0.00	0.00	0.00	0.00
0.0-1.0	480.07	0.46	0.46	0.03	0.03
1.0-2.0	479.81	1.38	1.84	0.10	0.14
2.0-3.0	479.44	2.29	4.13	0.17	0.31
3.0-4.0	478.80	3.21	7.34	0.24	0.55
4.0-5.0	478.00	4.12	11.46	0.31	0.85
5.0-6.0	477.00	5.02	16.47	0.37	1.22
6.0-7.0	475.81	5.91	22.39	0.44	1.66
7.0-8.0	474.41	6.80	29.19	0.51	2.17
8.0-9.0	472.91	7.68	36.87	0.57	2.74
9.0-10.0	471.27	8.54	45.41	0.63	3.37
10.0-11.0	469.44	9.40	54.81	0.70	4.07
11.0-12.0	467.40	10.24	65.05	0.76	4.83
12.0-13.0	465.28	11.07	76.12	0.82	5.65
13.0-14.0	463.00	11.88	88.00	0.88	6.54
14.0-15.0	460.55	12.68	100.68	0.94	7.48
15.0-16.0	457.95	13.46	114.14	1.00	8.48
16.0-17.0	455.09	14.22	128.36	1.06	9.53
17.0-18.0	452.22	14.96	143.32	1.11	10.64
18.0-19.0	449.07	15.68	159.00	1.16	11.81
19.0-20.0	445.86	16.38	175.38	1.22	13.03
20.0-21.0	442.42	17.06	192.43	1.27	14.29
21.0-22.0	438.82	17.71	210.14	1.32	15.61
22.0-23.0	435.24	18.34	228.48	1.36	16.97
23.0-24.0	431.28	18.95	247.43	1.41	18.38
24.0-25.0	427.20	19.52	266.95	1.45	19.83
25.0-26.0	423.03	20.07	287.02	1.49	21.32
26.0-27.0	418.72	20.59	307.61	1.53	22.85
27.0-28.0	414.31	21.09	328.70	1.57	24.41
28.0-29.0	409.68	21.56	350.26	1.60	26.02
29.0-30.0	404.78	21.99	372.25	1.63	27.65
30.0-31.0	399.88	22.39	394.64	1.66	29.31
31.0-32.0	394.95	22.77	417.41	1.69	31.00
32.0-33.0	389.56	23.11	440.53	1.72	32.72
33.0-34.0	384.16	23.42	463.94	1.74	34.46
34.0-35.0	378.77	23.69	487.63	1.76	36.22
35.0-36.0	373.32	23.95	511.58	1.78	38.00
36.0-37.0	367.40	24.16	535.74	1.79	39.79
37.0-38.0	361.44	24.33	560.07	1.81	41.60
38.0-39.0	355.11	24.46	584.53	1.82	43.42
39.0-40.0	348.97	24.56	609.08	1.82	45.24



Zonal Luminous Flux Data

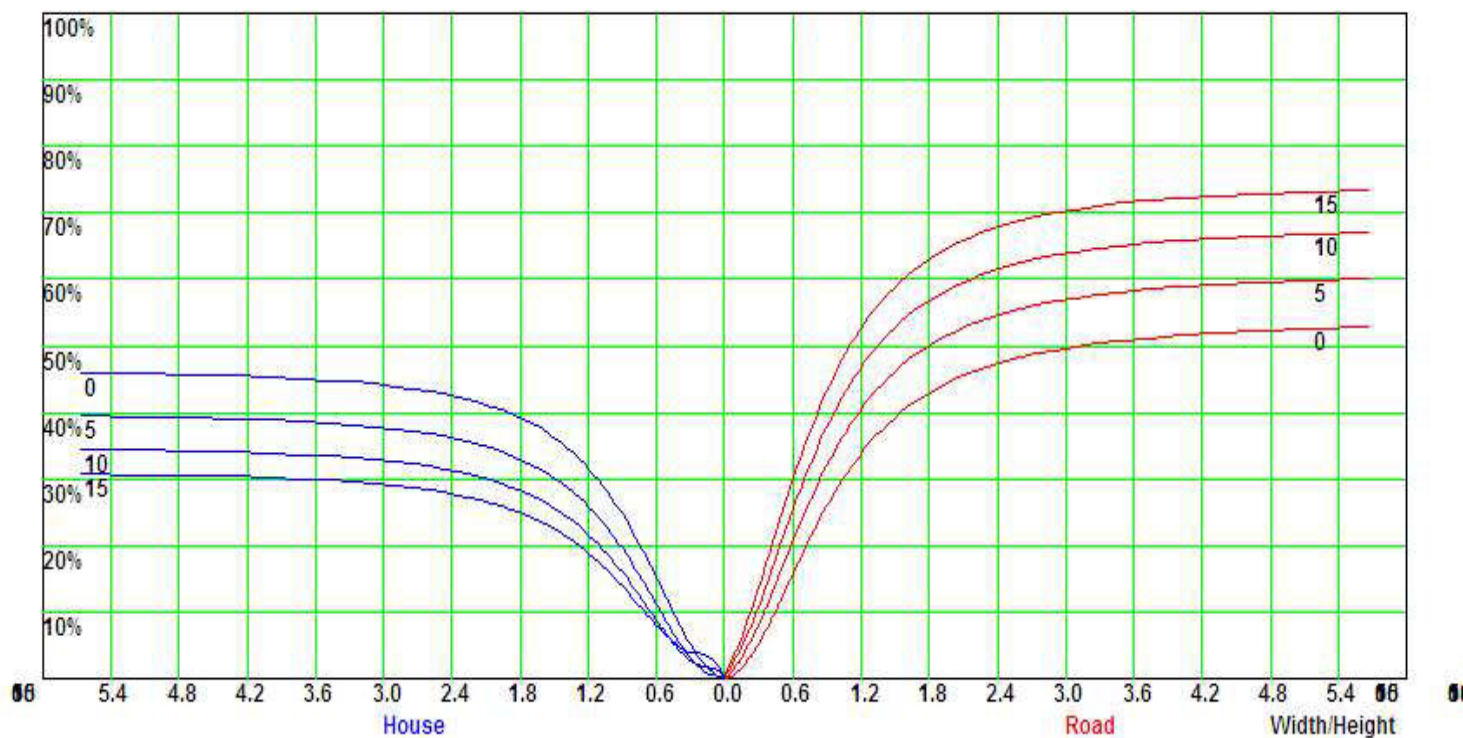
Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Flux [lm]	Zonal Flux [%]	Sum Flux [%]
40.0-41.0	342.74	24.63	633.71	1.83	47.07
41.0-42.0	336.02	24.66	658.37	1.83	48.90
42.0-43.0	329.38	24.65	683.02	1.83	50.73
43.0-44.0	322.37	24.60	707.62	1.83	52.56
44.0-45.0	315.72	24.52	732.14	1.82	54.38
45.0-46.0	308.76	24.42	756.56	1.81	56.19
46.0-47.0	301.73	24.28	780.84	1.80	58.00
47.0-48.0	294.51	24.10	804.95	1.79	59.79
48.0-49.0	287.76	23.91	828.86	1.78	61.56
49.0-50.0	280.61	23.70	852.56	1.76	63.32
50.0-51.0	273.37	23.44	875.99	1.74	65.06
51.0-52.0	265.82	23.14	899.13	1.72	66.78
52.0-53.0	258.27	22.80	921.93	1.69	68.48
53.0-54.0	251.04	22.45	944.38	1.67	70.14
54.0-55.0	243.26	22.07	966.44	1.64	71.78
55.0-56.0	235.83	21.65	988.09	1.61	73.39
56.0-57.0	227.77	21.20	1009.29	1.57	74.97
57.0-58.0	219.92	20.70	1029.99	1.54	76.50
58.0-59.0	212.19	20.20	1050.19	1.50	78.00
59.0-60.0	204.32	19.68	1069.87	1.46	79.47
60.0-61.0	196.28	19.12	1088.99	1.42	80.89
61.0-62.0	188.23	18.53	1107.52	1.38	82.26
62.0-63.0	180.49	17.93	1125.45	1.33	83.59
63.0-64.0	172.66	17.33	1142.78	1.29	84.88
64.0-65.0	164.40	16.68	1159.46	1.24	86.12
65.0-66.0	156.09	15.99	1175.45	1.19	87.31
66.0-67.0	148.23	15.30	1190.75	1.14	88.44
67.0-68.0	140.59	14.63	1205.38	1.09	89.53
68.0-69.0	132.23	13.92	1219.30	1.03	90.56
69.0-70.0	124.55	13.19	1232.49	0.98	91.54
70.0-71.0	116.46	12.46	1244.94	0.93	92.47
71.0-72.0	108.46	11.70	1256.64	0.87	93.34
72.0-73.0	100.88	10.95	1267.59	0.81	94.15
73.0-74.0	93.08	10.20	1277.78	0.76	94.91
74.0-75.0	85.33	9.43	1287.21	0.70	95.61
75.0-76.0	77.87	8.66	1295.87	0.64	96.25
76.0-77.0	70.31	7.90	1303.77	0.59	96.84
77.0-78.0	63.09	7.14	1310.91	0.53	97.37
78.0-79.0	55.95	6.40	1317.31	0.48	97.84
79.0-80.0	49.03	5.66	1322.97	0.42	98.26
80.0-81.0	42.10	4.93	1327.90	0.37	98.63

Iso-Candela [cd]

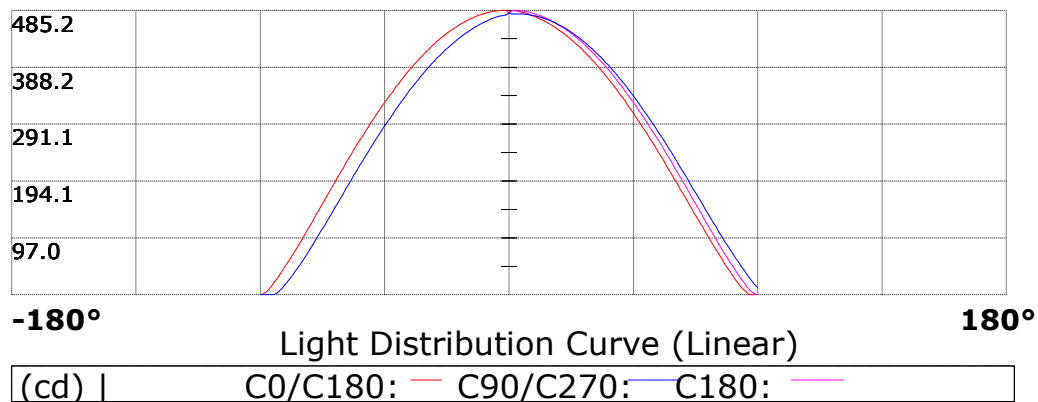
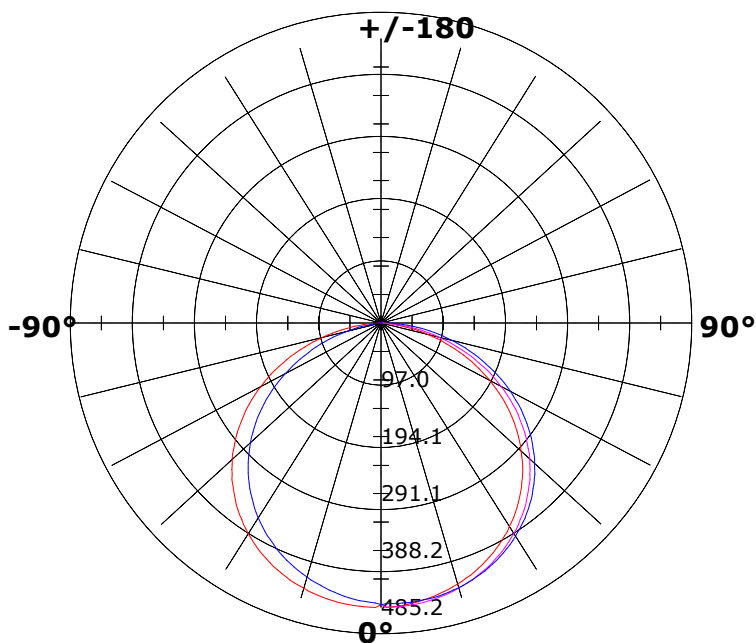


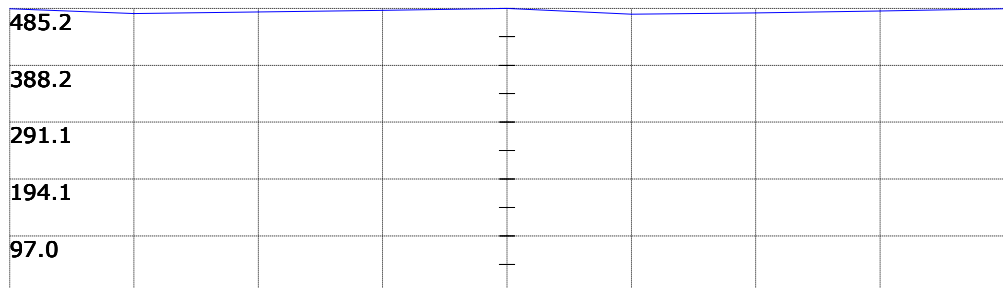
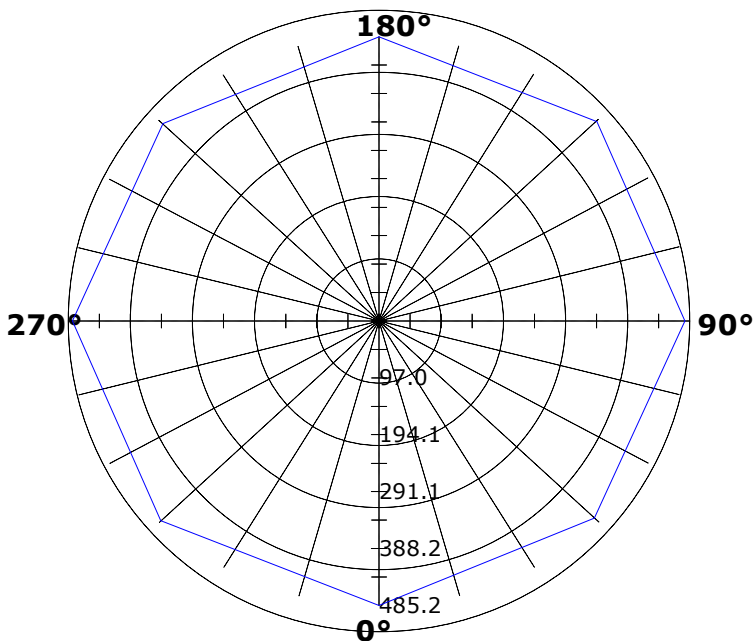
- (10%):-1.215854 cd
- (20%):0 cd
- (30%):0 cd
- (40%):0 cd
- (50%):0 cd
- (60%):0 cd
- (70%):1.323135 cd
- (80%):4.183967 cd
- (90%):9.369225 cd
- (100%):14.76904 cd

Coefficient Utilization Curve



Light Distribution Curve [Unit: cd]

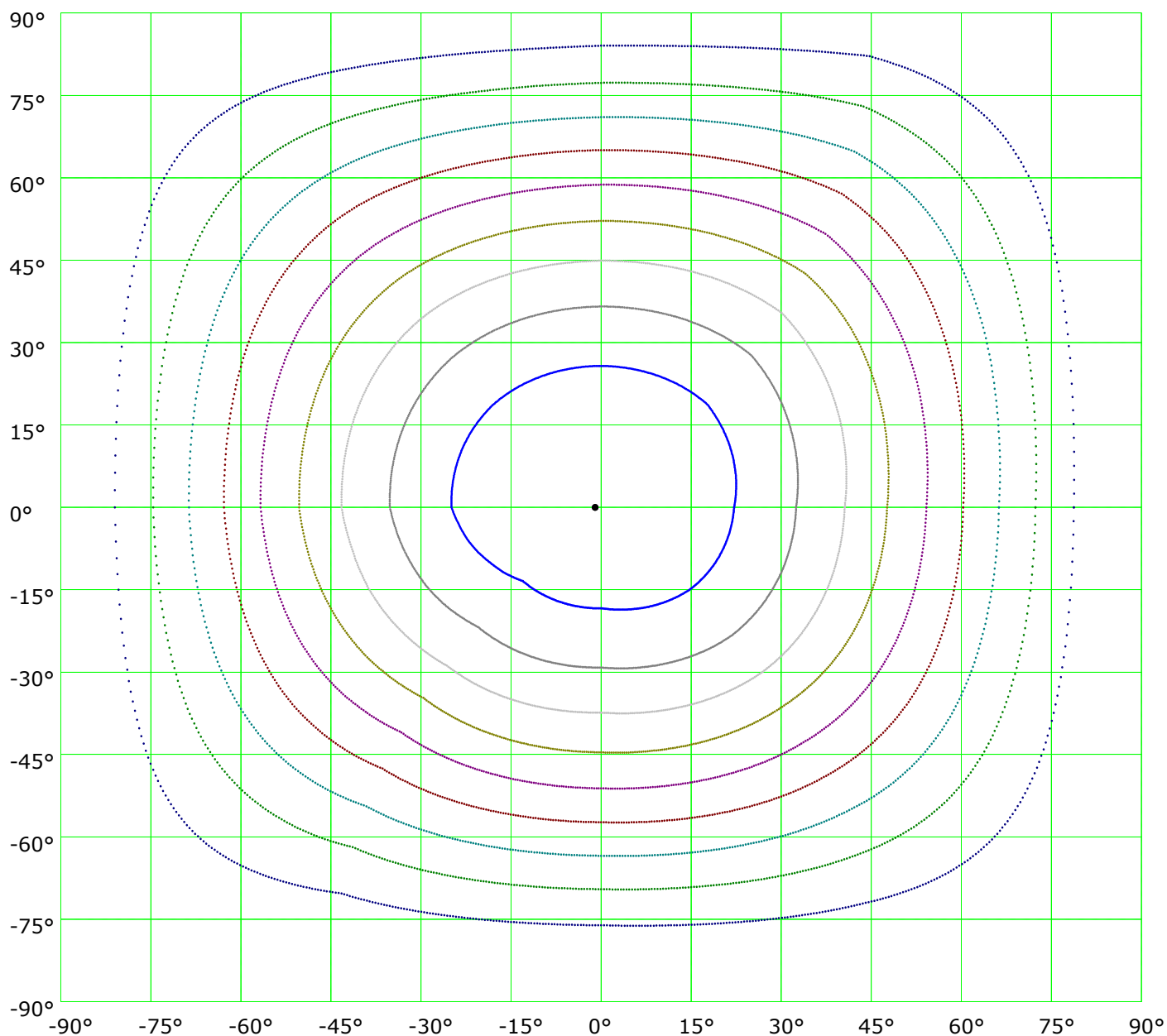




-180° Light Distribution Curve (Linear) **180°**
 (cd) | ?1: —



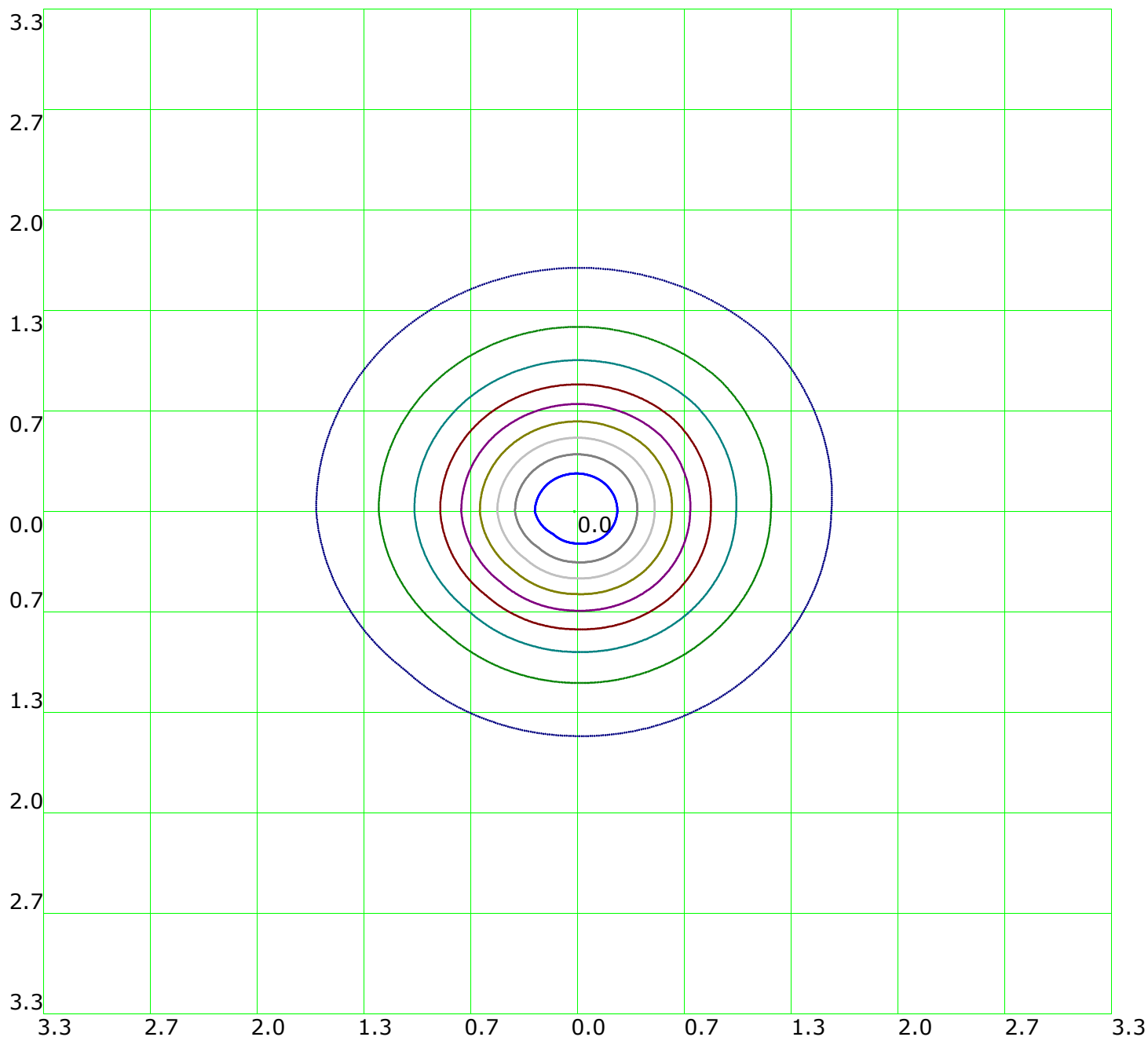
Isocandela(rectangle)



— (10%): 48.5cd	— (20%): 97.cd	— (30%): 145.5cd	— (40%): 194.1cd
— (50%): 242.6cd	— (60%): 291.1cd	— (70%): 339.6cd	— (80%): 388.1cd
— (90%): 436.6cd	— (100%): 485.2cd		



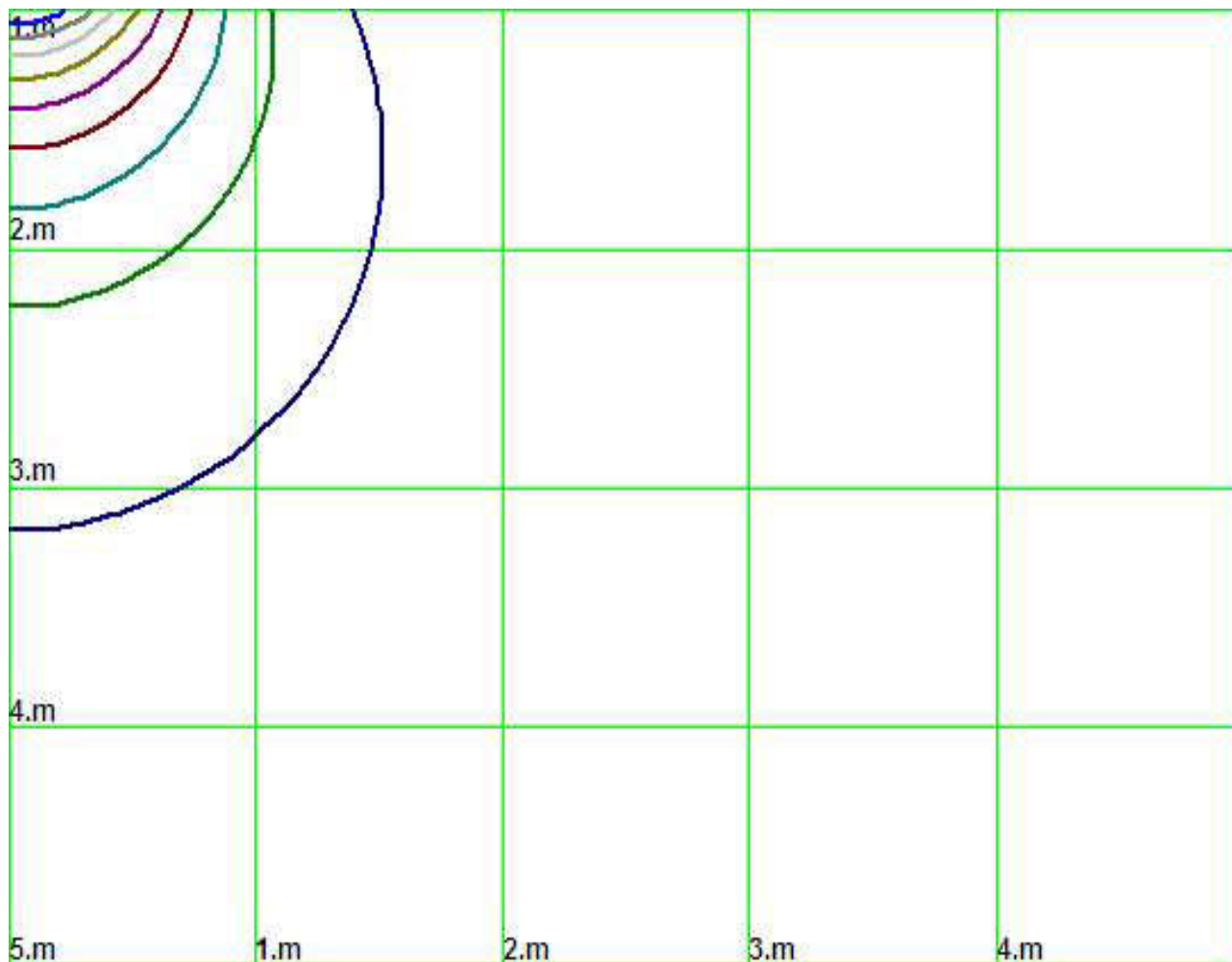
Isolx curve



Height: 1 m

- | | | | |
|------------------|-------------------|------------------|------------------|
| — (10%): 48.5lx | — (20%): 97.1lx | — (30%): 145.6lx | — (40%): 194.1lx |
| — (50%): 242.6lx | — (60%): 291.1lx | — (70%): 339.6lx | — (80%): 388.1lx |
| — (90%): 436.6lx | — (100%): 484.7lx | | |

Space Isolx Curve



— (10%): 48.5lx	— (20%): 97.1lx	— (30%): 145.6lx	— (40%): 194.1lx
— (50%): 242.6lx	— (60%): 291.1lx	— (70%): 339.6lx	— (80%): 388.1lx
— (90%): 436.6lx	— (100%): 484.7lx		



Luminance Limiting Curve

Diameter: 228mm

Length: 228mm

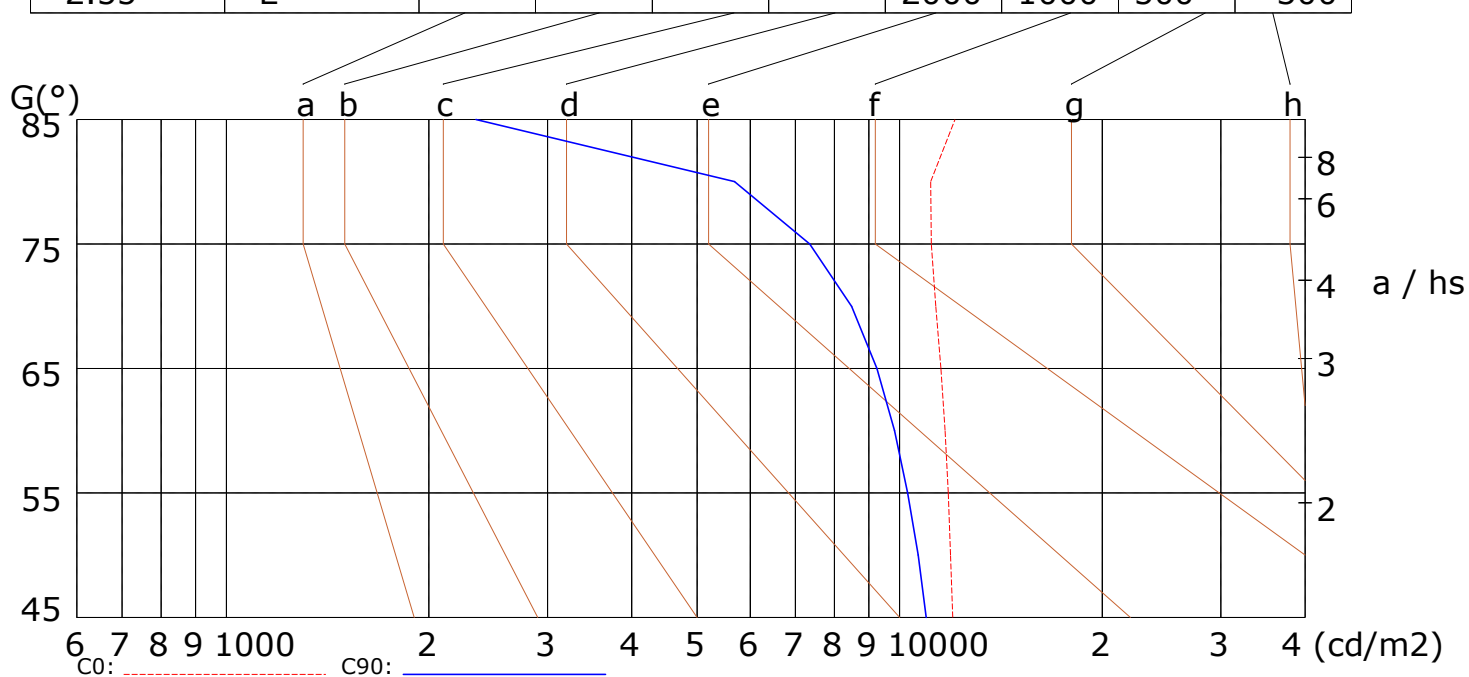
Width: 228mm

Height: 5mm

(cd/m²)

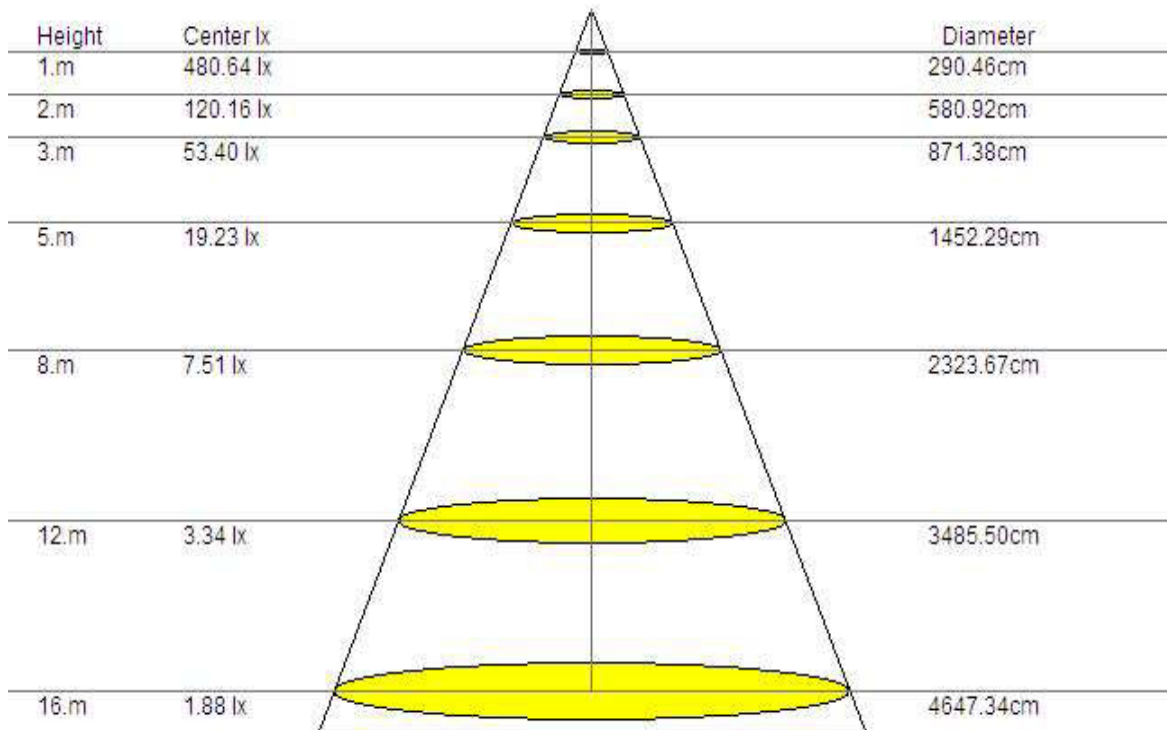
?	45°	50°	55°	60°	65°	70°	75°	80°	85°
C0	11991	11906	11808	11678	11516	11321	11143	11121	12083
C90	10952	10661	10279	9823	9249	8485	7351	5684	2349

Glare	Quality	Service Values Illuminance (lx)							
1.15	A	2000	1000	500	=300				
1.5	B		2000	1000	500	=300			
1.85	C			2000	1000	500	=300		
2.2	D				2000	1000	500	=300	
2.55	E					2000	1000	500	=300



Lum. Limiting Curve (C0/C90)

Lux-Distance Curve



Beam Angle: 110.90°(50%Imax)

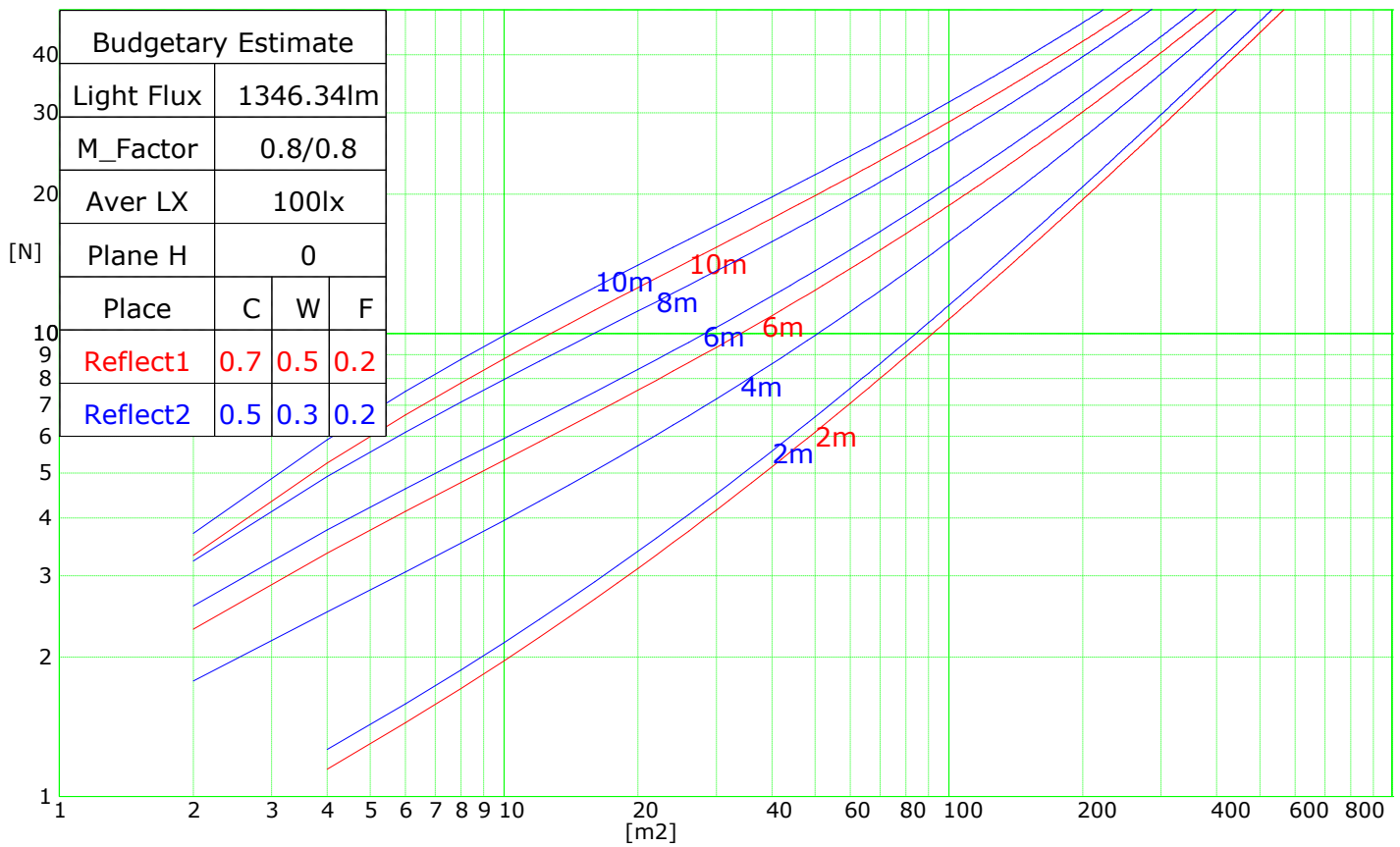


Coefficients of Utilization

RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION FOR RHOFC=20															
0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.05	1.03	1.01	1.03	1.01	0.99	1.00	0.97	0.95	0.95	0.92	0.90	0.88	0.86	0.84	0.79
2	0.89	0.86	0.84	0.88	0.85	0.83	0.86	0.82	0.79	0.83	0.79	0.75	0.78	0.74	0.70	0.66
3	0.76	0.73	0.71	0.76	0.72	0.70	0.75	0.70	0.67	0.72	0.68	0.63	0.69	0.64	0.60	0.55
4	0.65	0.63	0.61	0.66	0.62	0.59	0.66	0.61	0.57	0.64	0.59	0.54	0.62	0.56	0.51	0.47
5	0.57	0.54	0.52	0.58	0.54	0.51	0.58	0.53	0.49	0.57	0.52	0.47	0.56	0.50	0.45	0.41
6	0.50	0.48	0.46	0.51	0.47	0.45	0.52	0.47	0.43	0.52	0.46	0.41	0.51	0.44	0.39	0.36
7	0.45	0.42	0.41	0.46	0.42	0.40	0.47	0.42	0.38	0.47	0.41	0.37	0.47	0.40	0.35	0.32
8	0.40	0.38	0.36	0.41	0.38	0.36	0.42	0.38	0.34	0.43	0.37	0.33	0.43	0.36	0.31	0.28
9	0.36	0.34	0.33	0.37	0.34	0.32	0.39	0.34	0.31	0.40	0.34	0.30	0.40	0.33	0.28	0.25
10	0.33	0.31	0.29	0.34	0.31	0.29	0.36	0.31	0.28	0.37	0.31	0.27	0.37	0.30	0.26	0.23



Indoor Budgetary Estimate Chart





UGR Glare Index

Ceiling	70	70	50	50	30	70	70	50	50	30	
Wall	50	30	50	30	30	50	30	50	30	30	
Floor	20	20	20	20	20	20	20	20	20	20	
Room Size X Y	Weft to light axis direction of observation					Direction of light axis parallel observation					
2H	2H	14.7	16.0	14.9	16.0	16.4	14.6	15.9	14.8	16.1	16.5
	3H	16.3	17.5	16.7	17.8	18.0	16.2	17.4	16.5	17.8	17.9
	4H	17.0	18.0	17.3	18.6	18.8	16.9	17.9	17.2	18.6	18.8
	6H	17.5	18.6	18.0	18.8	19.0	17.4	18.4	17.9	18.9	19.0
	8H	17.9	18.9	18.0	18.9	19.3	17.7	18.7	18.1	19.0	19.3
4H	12H	17.9	18.8	18.2	19.2	19.4	17.8	18.6	18.0	19.2	19.6
	2H	15.8	16.7	15.7	16.9	17.1	15.5	16.5	15.7	16.9	17.1
	3H	17.4	18.3	17.7	18.4	18.9	17.3	18.3	17.7	18.4	18.9
	4H	18.1	19.0	18.5	19.2	19.5	18.1	18.8	18.4	19.2	19.5
	6H	18.8	19.6	19.2	19.8	20.1	18.7	19.5	19.0	19.8	20.1
8H	8H	19.1	19.7	19.5	20.0	20.3	18.9	19.5	19.4	19.9	20.3
	12H	19.2	19.9	19.7	20.0	20.4	19.2	19.7	19.6	20.1	20.4
	4H	18.6	19.1	18.9	19.3	19.9	18.3	19.0	18.7	19.3	19.8
	6H	19.3	19.9	19.8	20.3	20.7	19.2	19.7	19.7	20.2	20.5
	8H	19.7	20.1	20.2	20.5	21.0	19.6	20.0	20.1	20.5	21.0
12H	12H	20.0	20.4	20.5	20.7	21.1	19.8	20.2	20.2	20.8	21.2
	4H	18.6	19.2	18.9	19.5	19.9	18.6	19.0	18.8	19.6	19.8
	6H	19.5	20.1	19.9	20.2	20.7	19.3	19.8	19.7	20.2	20.6
	8H	19.9	20.4	20.4	20.6	21.1	19.7	20.2	20.2	20.7	21.1