



Luminaire Property

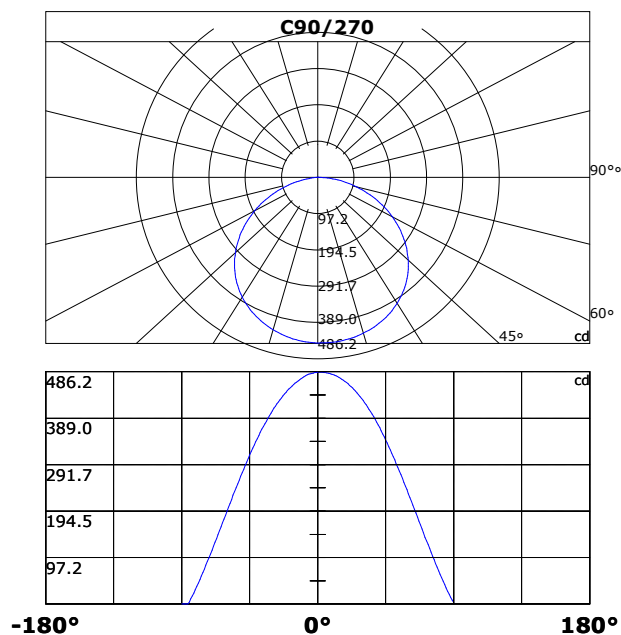
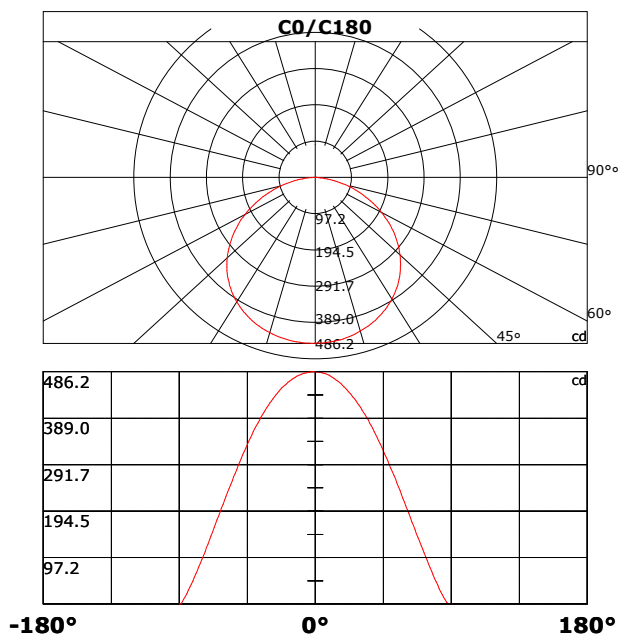
Luminaire Description: B1082-BN
Luminaire Category: DOWNLIGHT 18W
Lamp Category: DOWNLIGHT 18W
Lamp Description: BLANCO NEUTRO 4000K
Number of Lamp: 1
Lamp Lumens(lm): 1391.44
Luminous Length(m): 0.22
Luminous Width(m): 0.22
Luminous Height(m): 0.03

Voltage: 230.3 V
Current: 0.142 A
Power: 18.54 W
Power Factor: 0.566
Test Lab: BLED
Photometric Type: Type C
Manufactory: BLED

Photometric Results

CIE Class: Direct
Luminaire Lumens: 1391.44 lm
Efficiency: 75.0507 lm/W
Central Intensity: 485.504cd
Max. Intensity: 486.174cd
Field Angle(10%Imax): NA

Max.Intensity Angle: C:180.0 G:1.0
Beam Angle(50%Imax): L: -55.9 R:56.3
Luminaire Efficacy Rating(LER) : 92.7627%
Upward Ratio: NA
Downward Ratio: NA
Beamwidth(50%Imax): H=116.66V=117.04





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	485.5	486.1	485.7	485.2	484.4	483.6	482.9	482.0	480.7	479.0
C45.0	485.5	484.9	485.1	485.1	485.0	484.7	484.3	483.8	483.0	482.3
C90.0	485.5	485.2	485.2	485.2	485.0	484.5	484.0	483.3	482.6	481.5
C135.0	485.5	485.8	485.6	485.4	485.2	484.6	483.9	483.3	482.2	481.1
C180.0	485.5	486.2	486.2	486.0	485.5	485.0	484.1	483.4	482.4	481.2
C225.0	485.5	484.1	483.5	482.9	482.0	480.8	479.8	478.3	476.7	475.3
C270.0	485.5	484.7	484.2	483.5	482.7	482.0	480.9	479.4	477.5	475.7
C315.0	485.5	485.5	485.1	484.5	483.9	483.0	482.2	480.9	479.7	478.4
C360.0	485.5	486.1	485.7	485.2	484.4	483.6	482.9	482.0	480.7	479.0
C\G	G10.0	G11.0	G12.0	G13.0	G14.0	G15.0	G16.0	G17.0	G18.0	G19.0
C0.0	477.1	475.3	473.3	471.2	468.5	466.2	463.6	461.0	457.7	454.7
C45.0	481.2	480.2	478.8	477.4	475.8	474.1	472.1	470.2	467.9	465.7
C90.0	480.4	479.0	477.8	476.1	474.5	472.7	470.5	468.4	466.0	463.8
C135.0	479.9	478.7	477.0	475.3	473.5	471.5	469.5	466.9	464.4	462.0
C180.0	479.8	478.4	477.0	475.1	473.2	471.1	468.9	466.8	464.1	461.3
C225.0	473.5	471.4	469.2	467.1	464.8	462.2	459.4	456.6	453.7	450.4
C270.0	473.8	471.7	469.4	467.0	464.7	462.2	459.5	456.4	453.4	450.2
C315.0	476.9	474.9	473.1	471.2	469.2	466.7	464.3	461.7	459.1	456.2
C360.0	477.1	475.3	473.3	471.2	468.5	466.2	463.6	461.0	457.7	454.7
C\G	G20.0	G21.0	G22.0	G23.0	G24.0	G25.0	G26.0	G27.0	G28.0	G29.0
C0.0	451.6	448.4	444.6	440.9	437.4	433.3	429.4	424.9	420.4	416.3
C45.0	463.4	460.7	457.7	455.0	451.9	448.9	445.2	441.7	438.2	434.1
C90.0	460.9	458.1	455.4	452.3	449.1	445.4	441.9	438.3	434.4	430.0
C135.0	459.1	456.3	453.1	450.0	446.5	443.3	439.1	435.2	431.2	427.0
C180.0	458.5	455.4	452.7	448.9	445.5	441.8	438.1	434.4	429.7	425.2
C225.0	446.8	443.4	439.8	436.2	432.0	427.7	423.4	418.9	414.5	409.4
C270.0	447.0	443.2	439.6	435.7	431.9	427.9	423.3	419.1	414.4	409.9
C315.0	452.9	449.8	446.4	443.1	439.0	435.4	431.4	427.1	422.9	418.4
C360.0	451.6	448.4	444.6	440.9	437.4	433.3	429.4	424.9	420.4	416.3
C\G	G30.0	G31.0	G32.0	G33.0	G34.0	G35.0	G36.0	G37.0	G38.0	G39.0
C0.0	411.5	406.0	401.2	396.0	390.3	385.3	379.0	373.4	367.5	361.4
C45.0	430.0	425.8	421.6	417.1	412.6	407.6	402.5	397.6	392.2	386.2
C90.0	426.1	421.6	417.3	412.2	407.5	402.5	397.7	392.0	386.0	380.8
C135.0	422.4	417.9	413.4	408.3	403.4	398.1	392.5	387.2	381.3	374.9
C180.0	421.2	416.5	411.8	406.3	401.5	396.0	391.2	384.6	378.6	373.6
C225.0	404.3	399.3	393.7	388.3	382.3	376.9	371.0	364.5	357.4	350.8
C270.0	404.6	399.3	394.3	388.9	382.7	377.4	371.4	365.6	359.5	352.6
C315.0	413.7	409.0	403.8	398.6	393.1	388.0	382.6	376.2	369.4	363.0
C360.0	411.5	406.0	401.2	396.0	390.3	385.3	379.0	373.4	367.5	361.4



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	354.5	348.2	341.7	335.1	328.4	320.9	314.0	306.8	299.9	291.9
C45.0	380.9	375.2	369.2	363.5	356.4	350.8	343.8	337.8	330.0	323.6
C90.0	374.7	369.4	362.7	356.0	349.9	343.3	337.1	329.2	322.4	315.8
C135.0	369.2	363.0	356.6	350.6	343.0	337.0	329.5	323.0	314.7	308.0
C180.0	367.0	361.0	353.8	347.1	341.0	333.9	326.5	319.3	312.2	305.0
C225.0	344.1	337.1	330.1	322.1	314.6	306.8	298.8	289.7	281.1	272.5
C270.0	346.3	339.8	333.2	326.3	318.9	311.9	304.9	297.4	289.7	282.3
C315.0	356.5	349.8	343.0	335.5	328.4	320.5	313.7	305.1	297.1	289.2
C360.0	354.5	348.2	341.7	335.1	328.4	320.9	314.0	306.8	299.9	291.9
C\G	G50.0	G51.0	G52.0	G53.0	G54.0	G55.0	G56.0	G57.0	G58.0	G59.0
C0.0	284.6	277.2	269.7	262.0	253.6	245.5	238.0	229.8	220.9	213.0
C45.0	316.5	309.6	301.9	294.2	287.4	279.5	272.3	263.8	255.9	248.8
C90.0	308.4	301.7	293.2	286.3	278.5	271.2	262.7	254.7	247.0	239.4
C135.0	300.4	293.4	285.8	277.1	270.0	261.9	254.4	245.6	237.4	230.0
C180.0	296.8	289.7	281.7	274.0	266.7	258.1	250.4	242.3	234.3	225.2
C225.0	265.8	258.0	250.2	242.1	233.3	224.8	216.4	208.0	199.9	191.7
C270.0	275.0	267.5	259.8	251.3	243.7	235.4	227.8	218.8	210.7	202.8
C315.0	282.6	274.8	267.3	259.2	251.0	243.4	234.7	226.8	218.5	210.7
C360.0	284.6	277.2	269.7	262.0	253.6	245.5	238.0	229.8	220.9	213.0
C\G	G60.0	G61.0	G62.0	G63.0	G64.0	G65.0	G66.0	G67.0	G68.0	G69.0
C0.0	205.1	197.0	189.1	180.2	172.1	164.2	155.9	147.1	139.5	131.6
C45.0	240.4	233.1	224.0	216.2	208.5	200.1	191.6	183.2	175.6	166.7
C90.0	230.9	222.6	214.7	207.1	198.8	190.4	181.6	174.1	165.8	156.9
C135.0	221.4	213.9	204.4	196.5	188.7	180.1	171.5	162.8	155.1	146.3
C180.0	217.8	209.0	201.2	193.1	183.9	176.2	167.4	159.8	150.6	142.5
C225.0	182.8	174.6	166.7	158.9	150.1	141.4	133.2	125.4	117.6	109.0
C270.0	194.9	185.8	178.0	169.9	161.7	153.8	144.8	136.7	129.2	120.6
C315.0	202.1	194.0	186.5	178.4	169.8	161.4	153.1	145.4	137.4	129.1
C360.0	205.1	197.0	189.1	180.2	172.1	164.2	155.9	147.1	139.5	131.6
C\G	G70.0	G71.0	G72.0	G73.0	G74.0	G75.0	G76.0	G77.0	G78.0	G79.0
C0.0	123.3	115.1	107.4	99.1	91.3	83.8	76.1	68.8	61.1	53.5
C45.0	159.1	150.9	141.9	134.4	126.7	117.9	110.2	101.6	93.9	86.4
C90.0	149.9	139.9	132.5	124.6	116.5	108.7	100.3	92.6	85.1	77.1
C135.0	138.7	130.4	121.5	114.0	105.7	97.7	90.0	81.7	74.6	66.8
C180.0	134.7	125.3	117.9	109.4	101.4	94.2	85.5	78.2	70.5	63.2
C225.0	100.8	93.5	85.3	77.8	70.5	62.3	55.4	48.4	41.1	33.7
C270.0	113.1	105.0	96.7	89.1	81.4	73.3	66.3	58.5	51.5	43.9
C315.0	120.8	113.3	105.2	97.5	89.8	81.5	74.5	66.7	59.7	52.0
C360.0	123.3	115.1	107.4	99.1	91.3	83.8	76.1	68.8	61.1	53.5



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	46.7	39.6	32.5	25.9	20.0	14.5	9.2	3.8	0.0	0.0
C45.0	78.8	71.0	64.0	56.5	49.5	42.2	35.0	28.2	22.0	16.2
C90.0	69.5	62.4	55.0	47.7	40.7	33.7	26.4	20.2	14.5	8.5
C135.0	59.4	51.9	45.1	37.9	31.2	24.4	18.2	12.6	7.2	1.9
C180.0	55.8	48.5	41.8	34.9	28.3	21.9	15.9	10.2	4.8	0.0
C225.0	27.1	20.8	15.0	9.3	3.8	0.0	0.0	0.0	0.0	0.0
C270.0	37.1	29.7	23.3	17.0	10.7	4.6	0.0	0.0	0.0	0.0
C315.0	45.2	38.0	31.1	24.4	18.5	13.2	7.6	2.2	0.0	0.0
C360.0	46.7	39.6	32.5	25.9	20.0	14.5	9.2	3.8	0.0	0.0
C\G	G90.0									
C0.0	0.0									
C45.0	10.9									
C90.0	2.9									
C135.0	0.0									
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	485.50	0.00	0.00	0.00	0.00
0.0-1.0	485.31	0.46	0.46	0.03	0.03
1.0-2.0	485.08	1.39	1.86	0.09	0.12
2.0-3.0	484.70	2.32	4.18	0.15	0.28
3.0-4.0	484.21	3.24	7.42	0.22	0.49
4.0-5.0	483.54	4.16	11.58	0.28	0.77
5.0-6.0	482.76	5.08	16.66	0.34	1.11
6.0-7.0	481.79	5.99	22.65	0.40	1.51
7.0-8.0	480.61	6.89	29.54	0.46	1.97
8.0-9.0	479.31	7.78	37.32	0.52	2.49
9.0-10.0	477.82	8.66	45.98	0.58	3.07
10.0-11.0	476.20	9.53	55.51	0.64	3.70
11.0-12.0	474.44	10.39	65.90	0.69	4.39
12.0-13.0	472.55	11.24	77.14	0.75	5.14
13.0-14.0	470.53	12.07	89.21	0.80	5.95
14.0-15.0	468.33	12.89	102.10	0.86	6.81
15.0-16.0	465.99	13.69	115.79	0.91	7.72
16.0-17.0	463.50	14.47	130.27	0.96	8.68
17.0-18.0	460.79	15.24	145.51	1.02	9.70
18.0-19.0	458.05	15.99	161.49	1.07	10.77
19.0-20.0	455.02	16.71	178.20	1.11	11.88
20.0-21.0	451.91	17.41	195.62	1.16	13.04
21.0-22.0	448.66	18.10	213.72	1.21	14.25
22.0-23.0	445.26	18.76	232.47	1.25	15.50
23.0-24.0	441.66	19.39	251.86	1.29	16.79
24.0-25.0	437.96	20.00	271.86	1.33	18.12
25.0-26.0	433.97	20.58	292.45	1.37	19.50
26.0-27.0	429.95	21.14	313.58	1.41	20.91
27.0-28.0	425.71	21.66	335.25	1.44	22.35
28.0-29.0	421.29	22.16	357.41	1.48	23.83
29.0-30.0	416.73	22.63	380.03	1.51	25.34
30.0-31.0	411.94	23.06	403.09	1.54	26.87
31.0-32.0	407.16	23.47	426.56	1.56	28.44
32.0-33.0	401.98	23.84	450.40	1.59	30.03
33.0-34.0	396.67	24.17	474.57	1.61	31.64
34.0-35.0	391.48	24.48	499.04	1.63	33.27
35.0-36.0	385.97	24.75	523.80	1.65	34.92
36.0-37.0	380.13	24.99	548.78	1.67	36.59
37.0-38.0	373.98	25.17	573.95	1.68	38.26
38.0-39.0	367.90	25.32	599.28	1.69	39.95
39.0-40.0	361.65	25.44	624.72	1.70	41.65



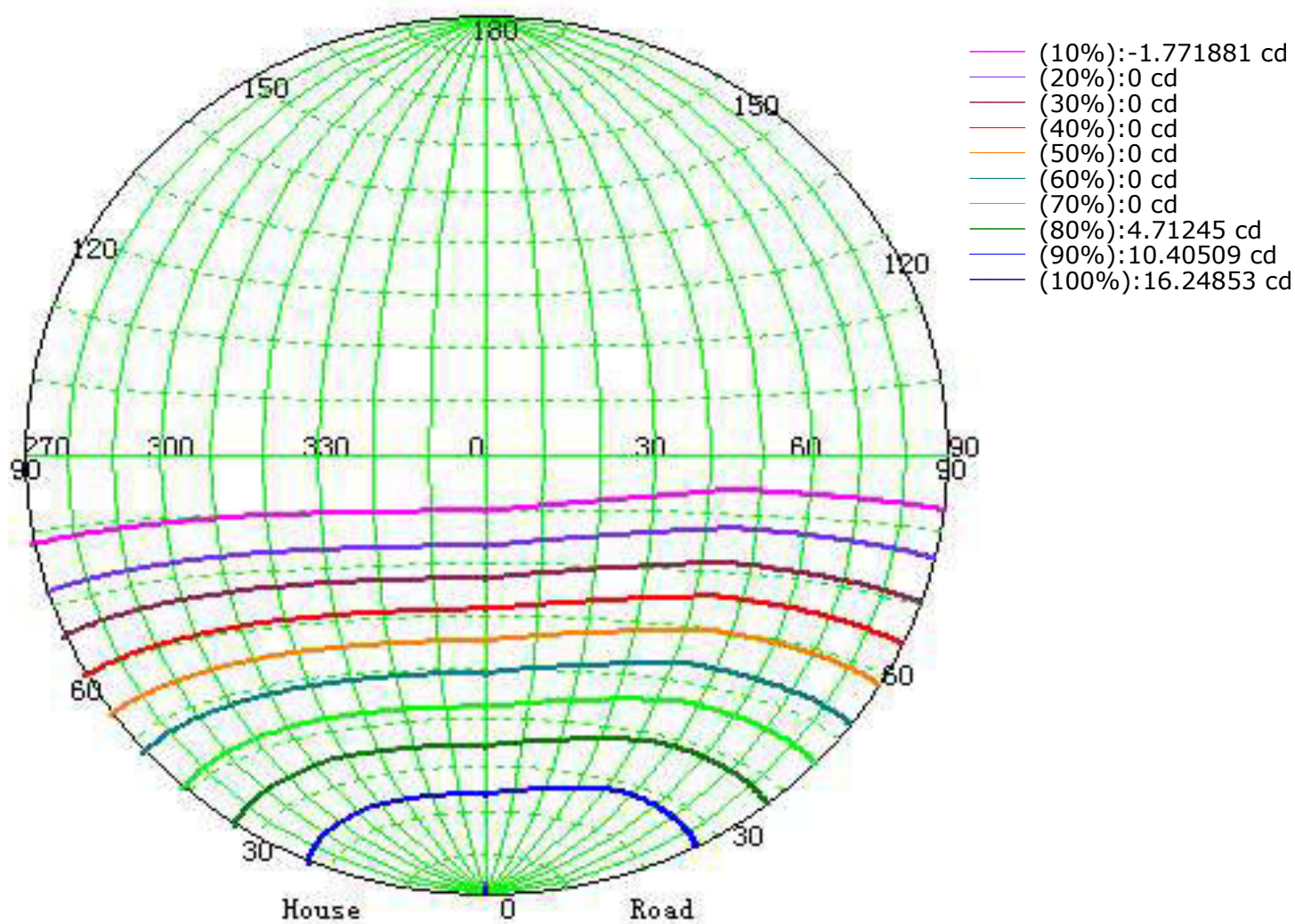
Zonal Luminous Flux Data

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Flux [lm]	Zonal Flux [%]	Sum Flux [%]
40.0-41.0	355.43	25.53	650.26	1.70	43.35
41.0-42.0	348.80	25.59	675.84	1.71	45.06
42.0-43.0	342.04	25.59	701.43	1.71	46.76
43.0-44.0	335.07	25.56	726.99	1.70	48.47
44.0-45.0	328.13	25.49	752.48	1.70	50.17
45.0-46.0	321.05	25.39	777.86	1.69	51.86
46.0-47.0	313.53	25.24	803.10	1.68	53.54
47.0-48.0	305.89	25.04	828.14	1.67	55.21
48.0-49.0	298.53	24.82	852.96	1.65	56.86
49.0-50.0	291.28	24.59	877.55	1.64	58.50
50.0-51.0	283.99	24.34	901.89	1.62	60.13
51.0-52.0	276.20	24.04	925.93	1.60	61.73
52.0-53.0	268.26	23.68	949.61	1.58	63.31
53.0-54.0	260.52	23.31	972.92	1.55	64.86
54.0-55.0	252.49	22.90	995.82	1.53	66.39
55.0-56.0	244.59	22.46	1018.28	1.50	67.89
56.0-57.0	236.22	21.98	1040.27	1.47	69.35
57.0-58.0	228.09	21.47	1061.74	1.43	70.78
58.0-59.0	220.18	20.96	1082.70	1.40	72.18
59.0-60.0	211.96	20.42	1103.11	1.36	73.54
60.0-61.0	203.73	19.84	1122.95	1.32	74.86
61.0-62.0	195.59	19.24	1142.19	1.28	76.15
62.0-63.0	187.56	18.63	1160.83	1.24	77.39
63.0-64.0	179.21	18.00	1178.82	1.20	78.59
64.0-65.0	170.96	17.33	1196.15	1.16	79.74
65.0-66.0	162.40	16.63	1212.78	1.11	80.85
66.0-67.0	154.30	15.92	1228.71	1.06	81.91
67.0-68.0	146.36	15.23	1243.94	1.02	82.93
68.0-69.0	137.83	14.50	1258.44	0.97	83.90
69.0-70.0	130.04	13.76	1272.19	0.92	84.81
70.0-71.0	121.68	13.01	1285.21	0.87	85.68
71.0-72.0	113.57	12.23	1297.44	0.82	86.50
72.0-73.0	105.74	11.47	1308.91	0.76	87.26
73.0-74.0	97.91	10.71	1319.61	0.71	87.97
74.0-75.0	89.94	9.93	1329.54	0.66	88.64
75.0-76.0	82.28	9.14	1338.68	0.61	89.25
76.0-77.0	74.56	8.36	1347.04	0.56	89.80
77.0-78.0	67.20	7.59	1354.63	0.51	90.31
78.0-79.0	59.57	6.81	1361.44	0.45	90.76
79.0-80.0	52.46	6.04	1367.48	0.40	91.17
80.0-81.0	45.25	5.28	1372.77	0.35	91.52

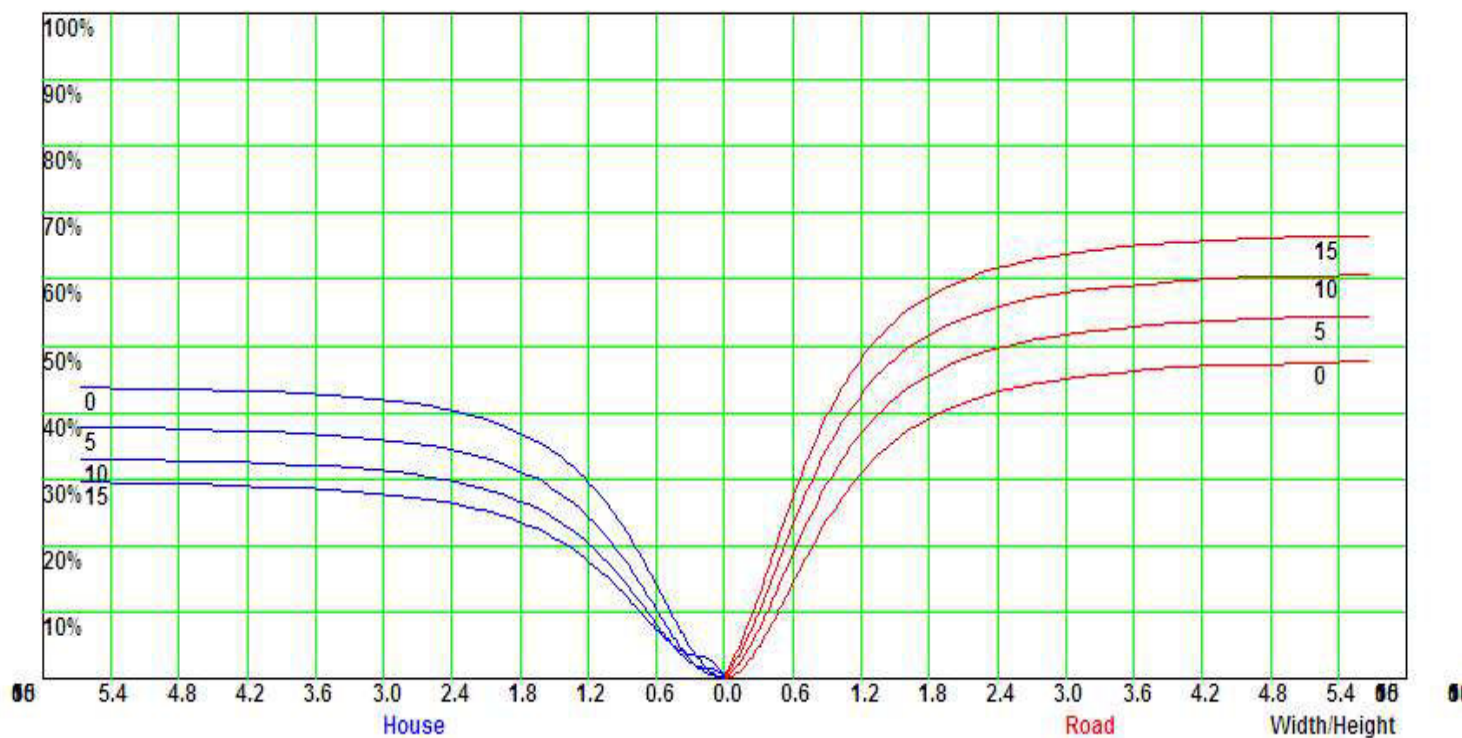


Equipment: CPM-1800
Temperature: 25°C

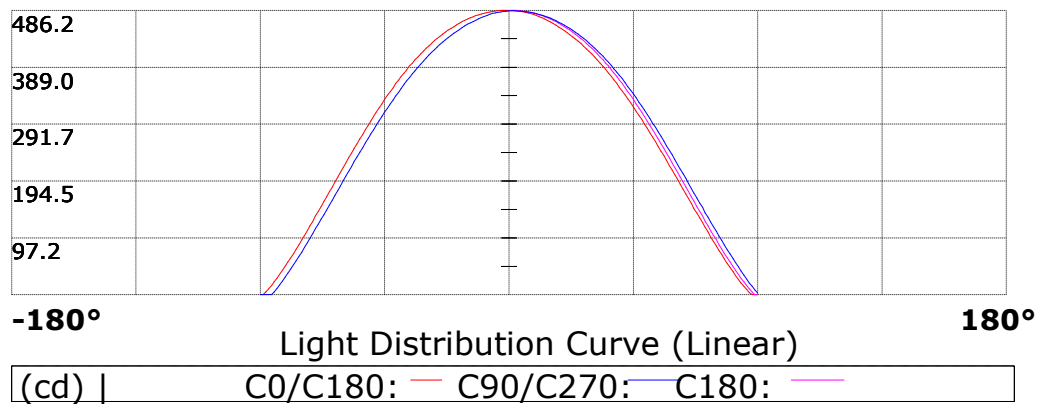
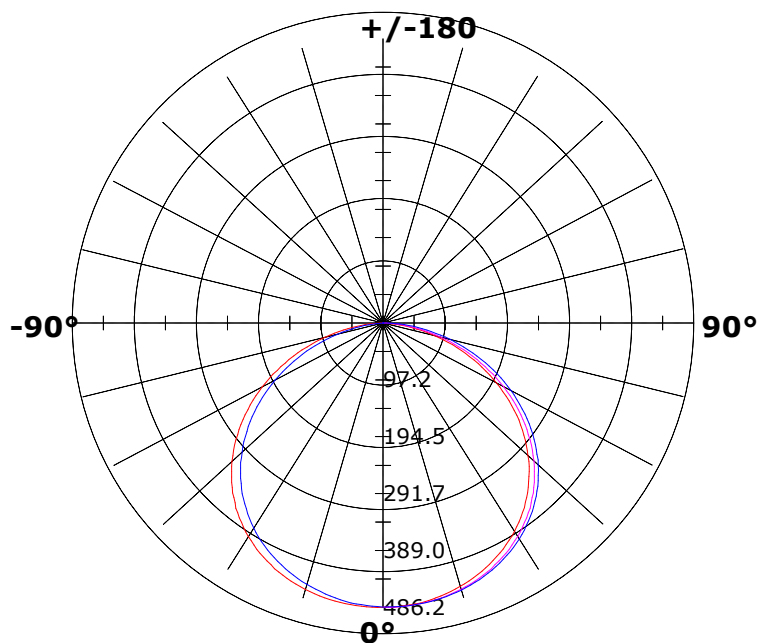
Iso-Candela [cd]

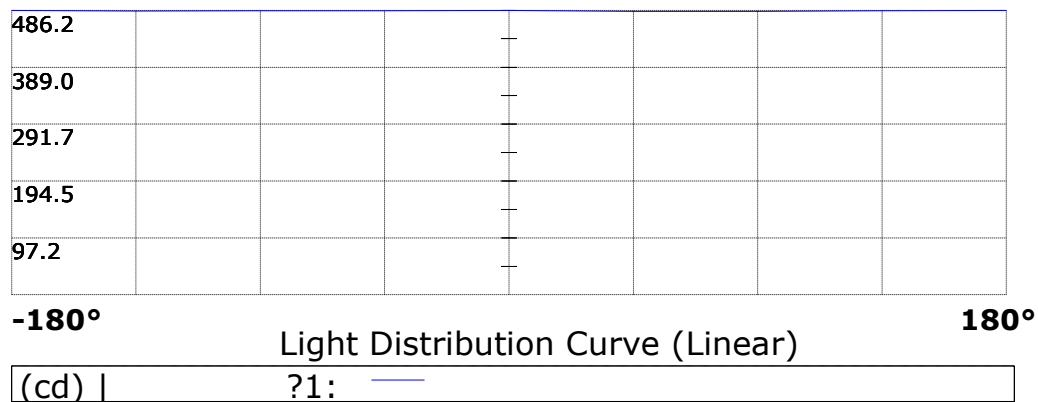
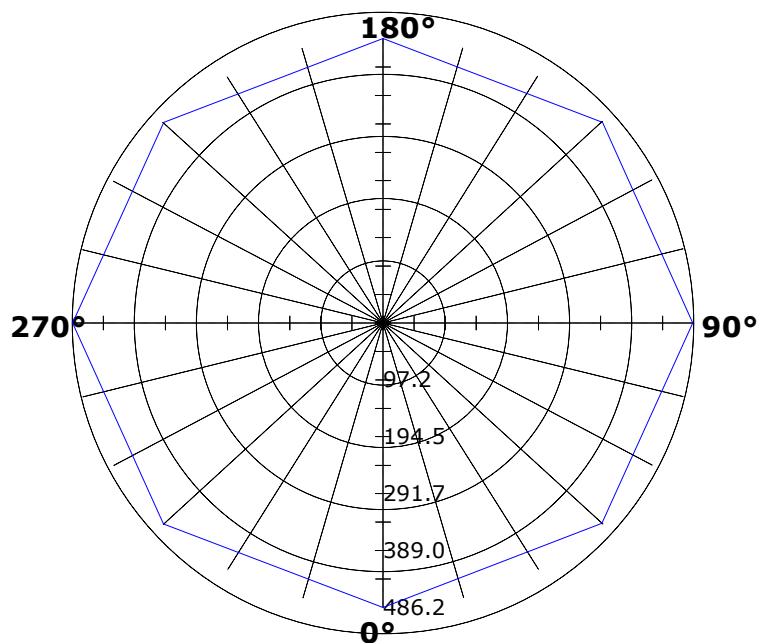


Coefficient Utilization Curve

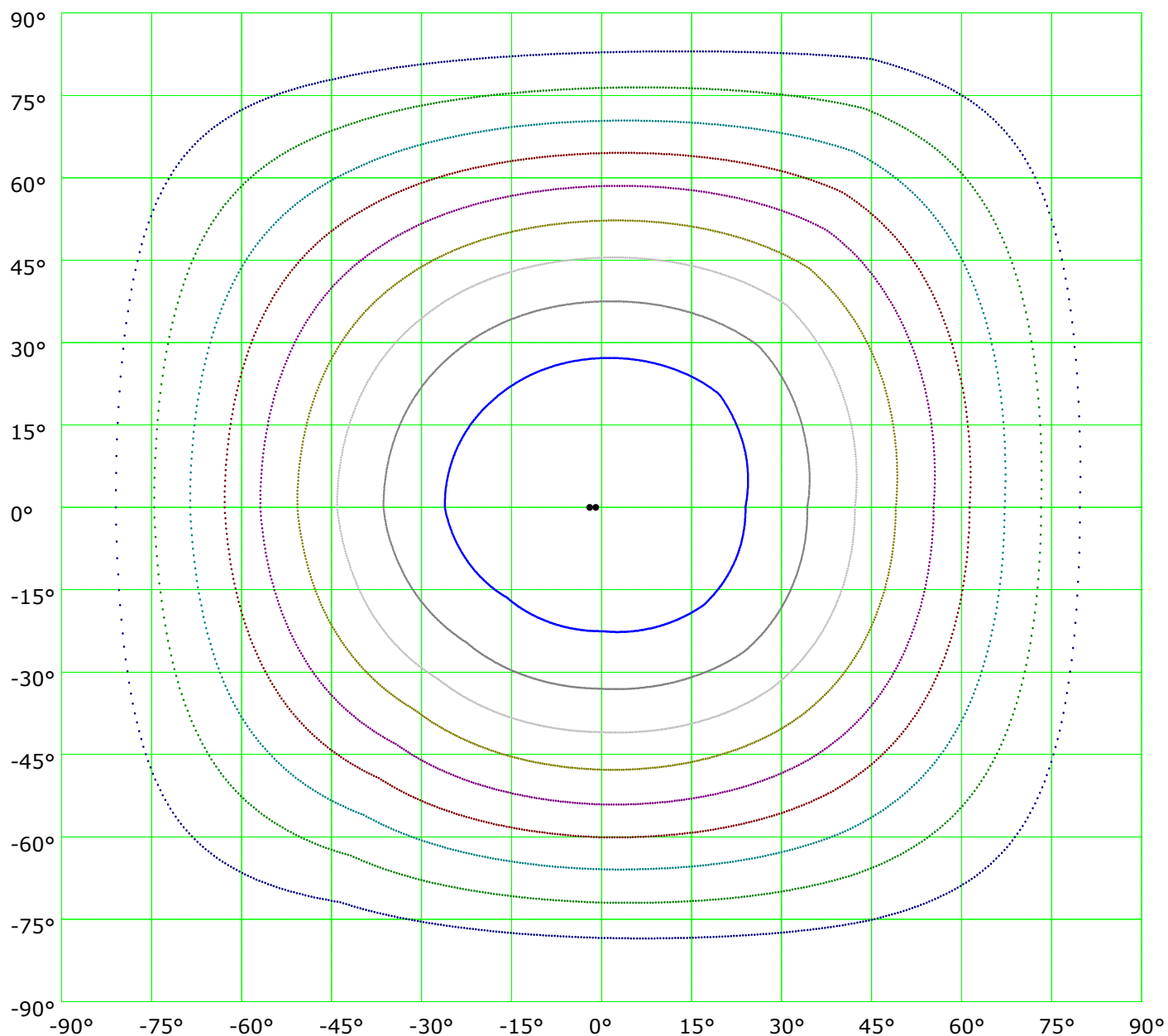


Light Distribution Curve [Unit: cd]



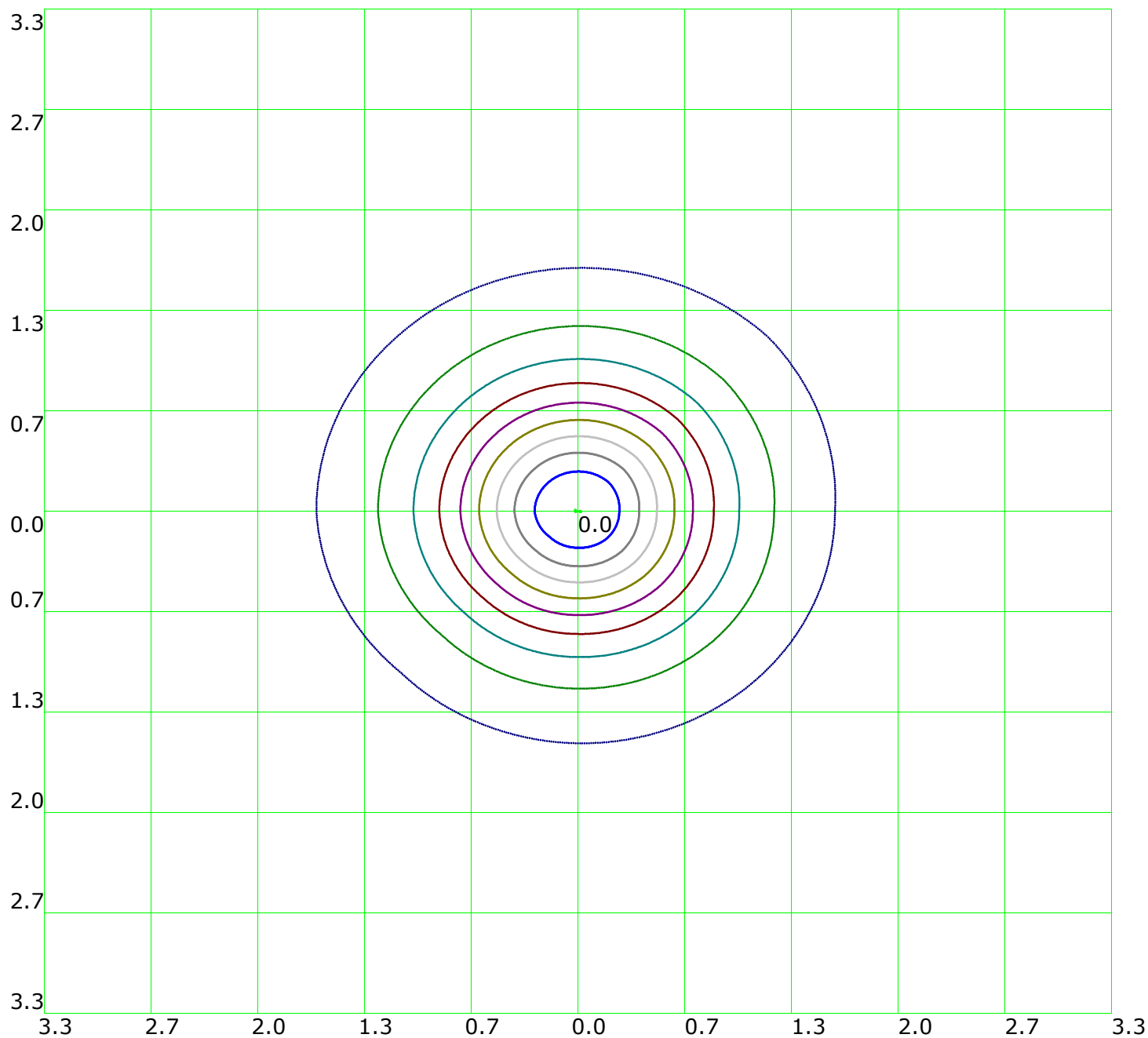


Isocandela(rectangle)



(10%): 48.6cd	(20%): 97.2cd	(30%): 145.9cd	(40%): 194.5cd
(50%): 243.1cd	(60%): 291.7cd	(70%): 340.3cd	(80%): 388.9cd
(90%): 437.6cd	(100%): 486.2cd		

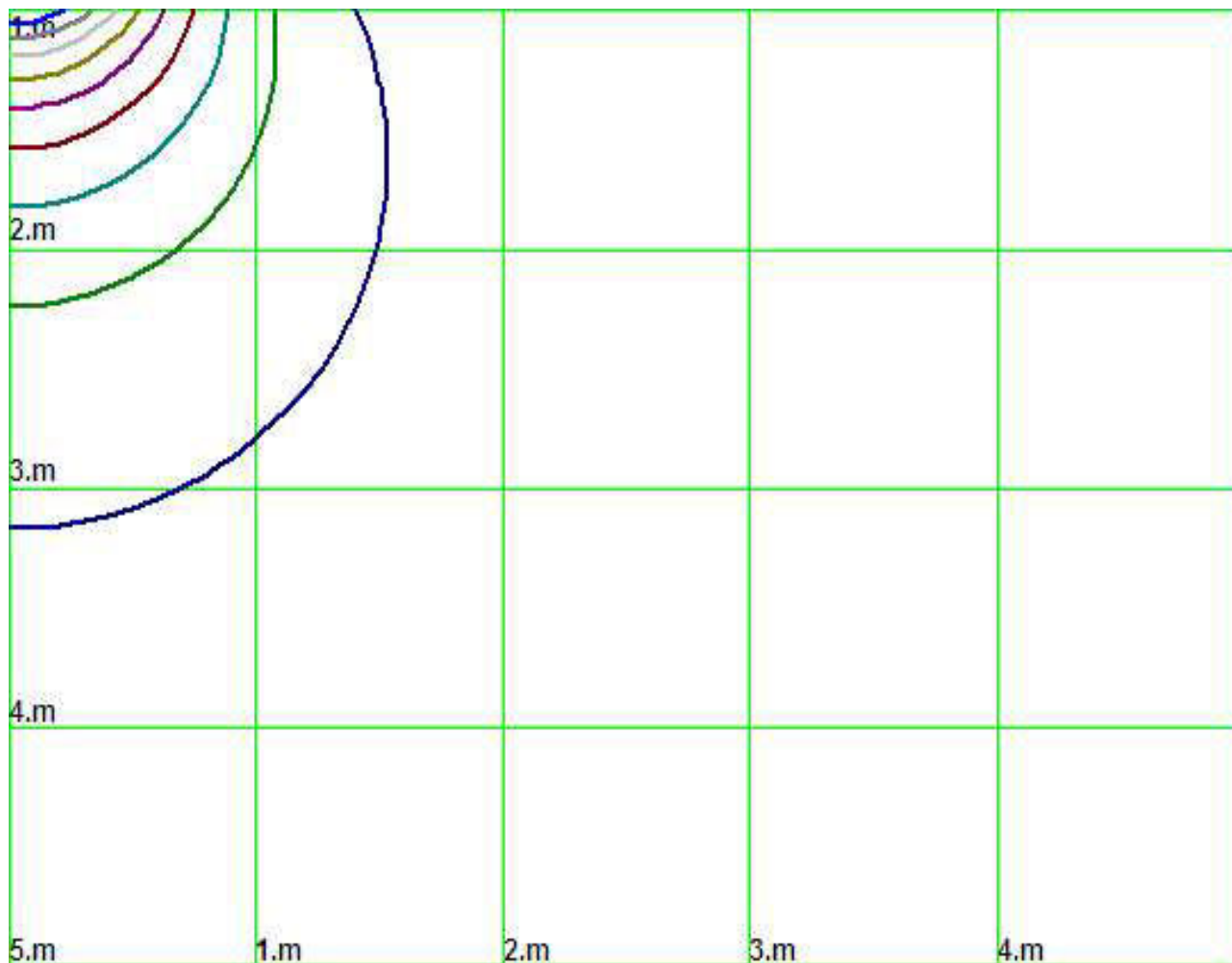
Isolx curve



Height: 1 m

(10%): 48.6lx	(20%): 97.2lx	(30%): 145.9lx	(40%): 194.5lx
(50%): 243.1lx	(60%): 291.7lx	(70%): 340.3lx	(80%): 388.9lx
(90%): 437.6lx	(100%): 485.7lx		

Space Isolx Curve



— (10%): 48.6lx	— (20%): 97.2lx	— (30%): 145.9lx	— (40%): 194.5lx
— (50%): 243.1lx	— (60%): 291.7lx	— (70%): 340.3lx	— (80%): 388.9lx
— (90%): 437.6lx	— (100%): 485.7lx		

Luminance Limiting Curve

Diameter: 220mm

Length: 220mm

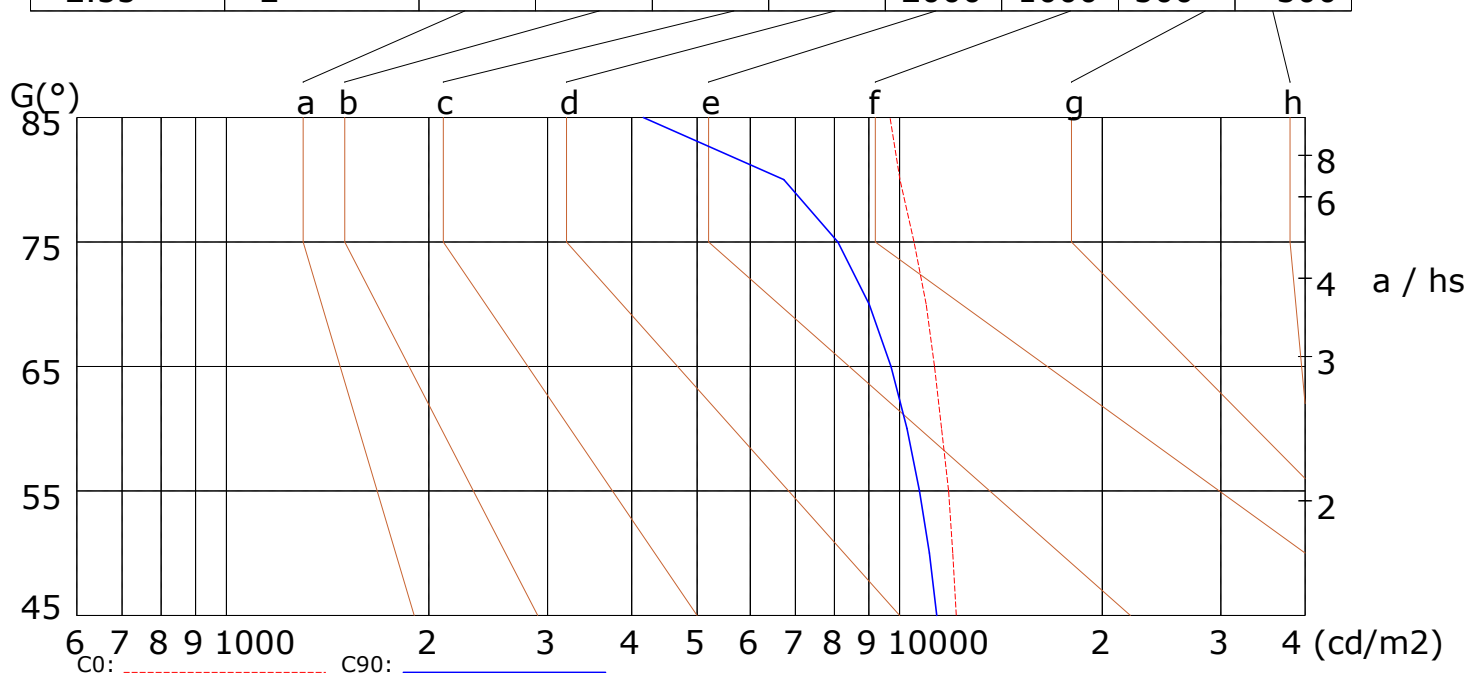
Width: 220mm

Height: 30mm

(cd/m²)

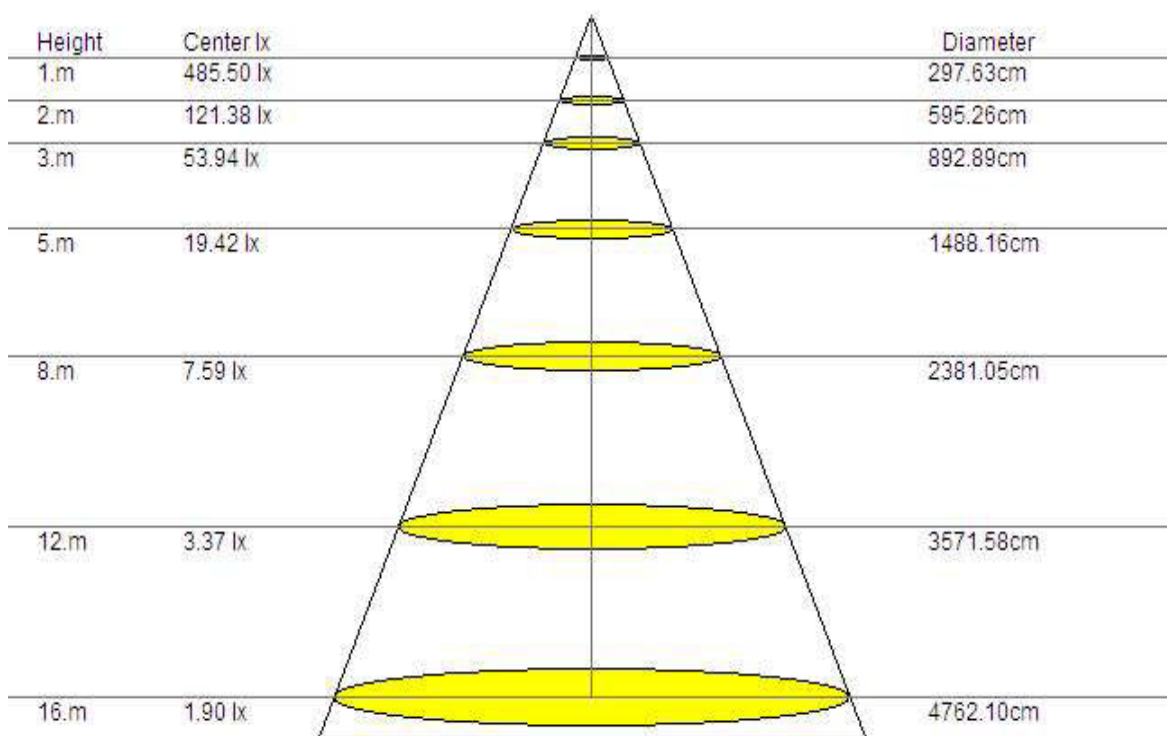
?	45°	50°	55°	60°	65°	70°	75°	80°	85°
C0	12137	11995	11821	11547	11264	10954	10498	10008	9678
C90	11345	11070	10700	10256	9712	9011	8095	6725	4163

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



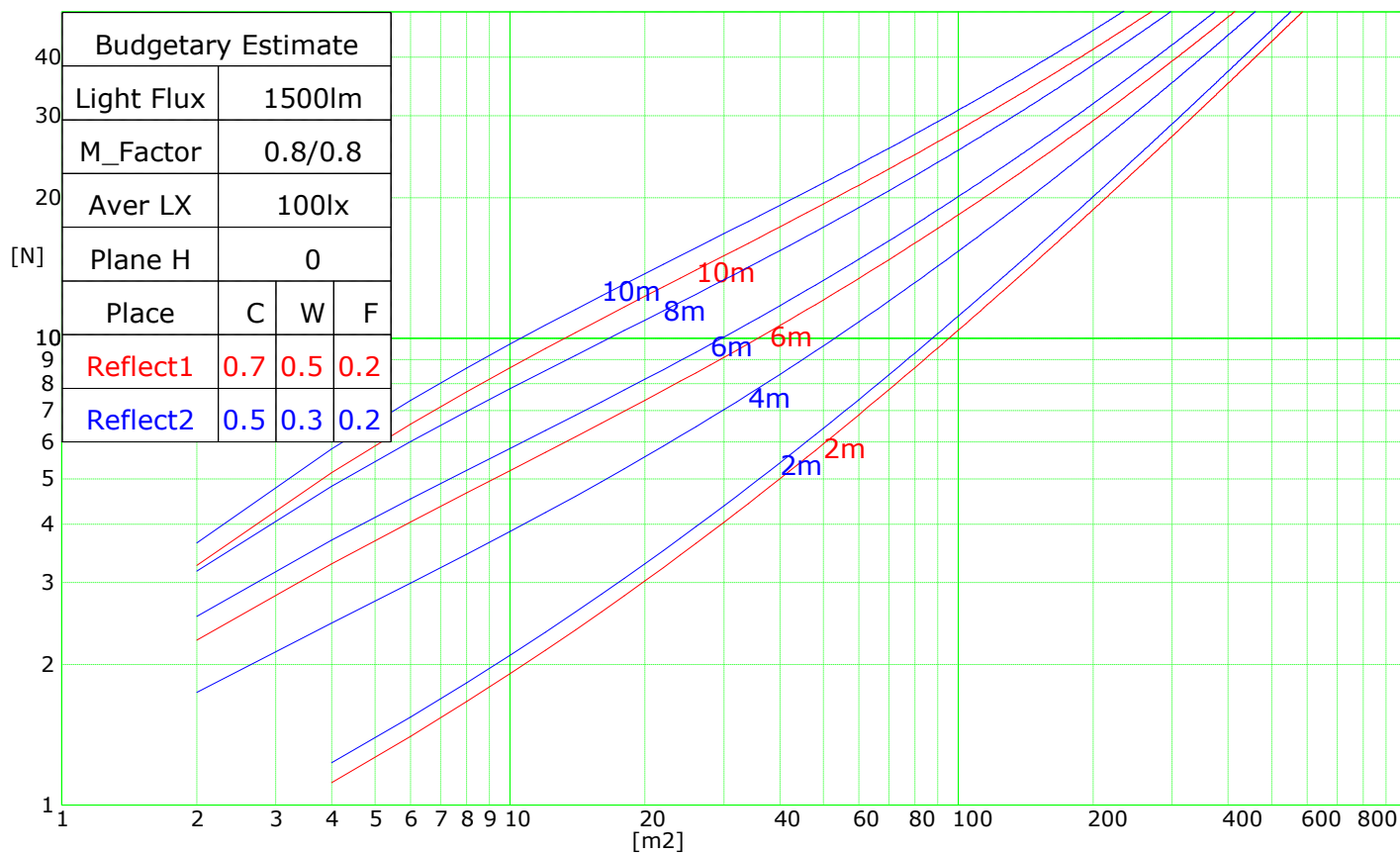
Beam Angle: 112.20°(50%Imax)



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	1.10	1.10	1.10	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	0.97	0.95	0.94	0.96	0.94	0.92	0.92	0.90	0.88	0.88	0.86	0.84	0.82	0.80	0.78	0.73
2	0.82	0.80	0.78	0.82	0.79	0.77	0.80	0.76	0.73	0.76	0.73	0.70	0.72	0.68	0.65	0.61
3	0.70	0.67	0.66	0.70	0.67	0.64	0.69	0.65	0.62	0.67	0.63	0.59	0.64	0.59	0.55	0.51
4	0.61	0.58	0.56	0.61	0.57	0.55	0.61	0.56	0.53	0.59	0.54	0.50	0.58	0.52	0.47	0.44
5	0.53	0.50	0.48	0.53	0.50	0.47	0.54	0.49	0.46	0.53	0.48	0.43	0.52	0.46	0.41	0.38
6	0.47	0.44	0.42	0.47	0.44	0.42	0.48	0.43	0.40	0.48	0.42	0.38	0.47	0.41	0.36	0.33
7	0.41	0.39	0.37	0.42	0.39	0.37	0.43	0.39	0.35	0.44	0.38	0.34	0.43	0.37	0.32	0.29
8	0.37	0.35	0.33	0.38	0.35	0.33	0.39	0.35	0.31	0.40	0.34	0.30	0.40	0.34	0.29	0.26
9	0.34	0.31	0.30	0.34	0.31	0.29	0.36	0.31	0.28	0.37	0.31	0.27	0.37	0.31	0.26	0.23
10	0.31	0.28	0.27	0.31	0.28	0.27	0.33	0.29	0.26	0.34	0.28	0.25	0.34	0.28	0.24	0.21

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		Weft to light axis direction of observation					Direction of light axis parallel observation				
X	Y										
2H	2H	14.8	15.9	15.1	15.9	16.5	14.5	15.9	14.9	16.1	16.4
	3H	16.2	17.5	16.6	17.7	18.1	16.2	17.3	16.5	17.8	18.0
	4H	17.0	18.1	17.3	18.5	18.7	16.9	18.0	17.2	18.6	18.9
	6H	17.6	18.5	18.1	18.9	19.0	17.5	18.4	17.8	19.0	19.0
	8H	17.9	18.8	18.1	19.0	19.3	17.9	18.8	17.9	19.0	19.4
4H	12H	17.8	18.9	18.2	19.1	19.6	17.9	18.6	18.1	19.3	19.4
	2H	15.7	16.6	15.9	16.8	17.0	15.5	16.6	15.7	16.8	17.0
	3H	17.3	18.4	17.7	18.3	18.7	17.4	18.3	17.5	18.4	18.8
	4H	18.2	19.0	18.6	19.1	19.4	18.0	18.9	18.4	19.2	19.5
	6H	18.8	19.5	19.1	19.9	20.1	18.7	19.5	19.0	19.7	20.2
8H	8H	19.1	19.7	19.4	19.9	20.4	19.0	19.6	19.3	19.9	20.2
	12H	19.2	20.0	19.5	20.2	20.4	19.2	19.7	19.5	20.1	20.6
	4H	18.5	19.2	19.0	19.4	19.9	18.4	19.1	18.7	19.4	19.9
	6H	19.4	19.9	19.9	20.2	20.5	19.3	19.8	19.7	20.1	20.6
	8H	19.6	20.2	20.1	20.5	21.0	19.7	20.1	20.0	20.4	21.0
12H	12H	20.0	20.4	20.5	20.8	21.2	19.9	20.3	20.3	20.8	21.2
	4H	18.6	19.2	18.9	19.4	19.8	18.5	19.1	18.8	19.5	19.9
	6H	19.5	20.0	19.9	20.2	20.7	19.5	19.8	19.7	20.2	20.7
	8H	19.8	20.4	20.4	20.5	21.0	19.9	20.1	20.2	20.6	21.0