bover
barcelona lights

Luminaire		Measurem.		Lamp	
Code	33502300xxU+P801	Code	33502300xx+P801	Code	49885
Name	GAROTA P/02 2x20W CFL white	Name	GAROTA P/02 2x20W CFL white	Number	2
Line	- BOVER	Date	08-01-2016	Position	Universal

Luminaire Flux	601.38 lm	Luminaire Power	40.00 W	Efficacy	15.03 lm/W	Efficiency	25.06%
Lamps Flux	2400.00 lm	Maximum value	50.43 cd/klm	Position	C=0.00 G=180.00	CG	Asymmetrical

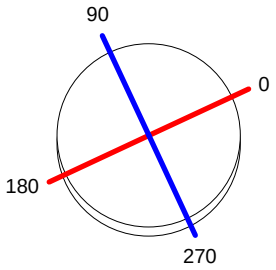
Round Luminaire	Diam. 720 mm		Height 460 mm		
Round Luminous Area	Diam. 720 mm		Height 460 mm		
Horizontal Luminous Area	0.407150 m2		Emitting area on Plane 180°	0.331200 m2	
Emitting area on Plane 0°	0.331200 m2		Emitting area on Plane 270°	0.331200 m2	
Emitting area on Plane 90°	0.331200 m2		Glare area at 76°	0.419861 m2	
Coordinate system	CG		Symmetry Type	Asymmetrical	
Date	08-01-2016		Maximum Gamma Angle	180	
Measurement Distance	6.44		Measurement Flux	2488.00 lm	
Operator	Asselum T2		Source voltage		
Temperature	25.00 °C		Source current		
Humidity	57.00 %		Photocell	Prc	
Notes					

Luminaire Lamps

Line	Code	Name	Flux [lm]	Pow. [W]	Q.ty
- BOVER	49885	FLE20TBX/2/SW/CD	1200.00	20.00	2

C.I.E.	43 67 85 54 25	D DIN 5040	C31
F UTE	0.14 G + 0.12 T	B NBN	BZ 5 / 1.5 / BZ 6

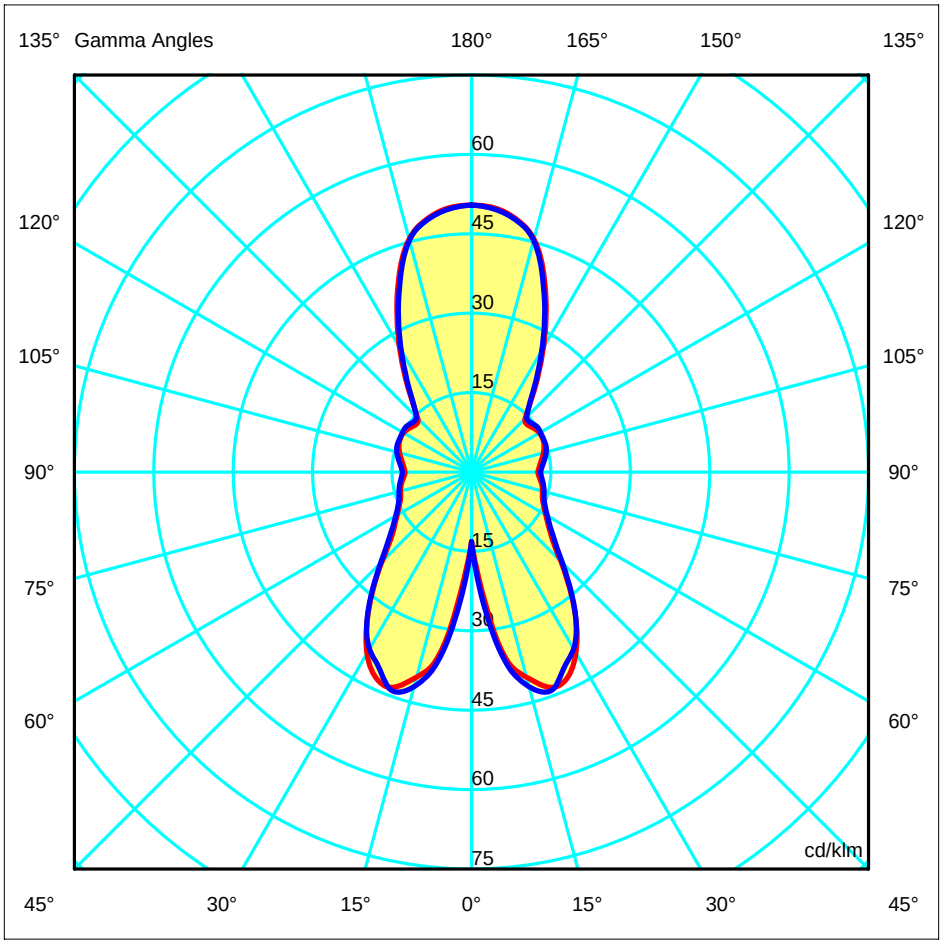
Diam=720mm



C Halfplanes

180.0 — 0.0

270.0 — 90.0



ULOR	11.53 %
DLOR	13.53 %
RN	46.02 %

bover
barcelona lights

Luminaire		Measurem.		Lamp	
Code	33502300xxU+P801	Code	33502300xx+P801	Code	49885
Name	GAROTA P/02 2x20W CFL white	Name	GAROTA P/02 2x20W CFL white	Number	2
Line	- BOVER	Date	08-01-2016	Position	Universal

Luminaire Flux	601.38 lm	Luminaire Power	40.00 W	Efficacy	15.03 lm/W	Efficiency	25.06%
Lamps Flux	2400.00 lm	Maximum value	50.43 cd/klm	Position	C=0.00 G=180.00	CG	Asymmetrical

Luminous Intensity Table cd/klm **Table 1/1**

	C 0.00	C 15.00	C 30.00	C 45.00	C 60.00	C 75.00	C 90.00	C 105.00	C 120.00	C 135.00	C 150.00	C 165.00
G 0.0	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17
G 5.0	22.45	25.87	23.90	24.24	22.19	24.59	24.46	24.59	22.19	24.24	23.90	25.87
G 10.0	35.07	38.25	37.39	36.92	37.72	37.62	36.18	37.62	37.72	36.92	37.39	38.25
G 15.0	40.10	44.32	41.91	45.37	43.84	43.30	41.96	43.30	43.84	45.37	41.91	44.32
G 20.0	43.28	45.54	45.15	47.21	44.44	45.72	43.94	45.72	44.44	47.21	45.15	45.54
G 25.0	42.86	43.36	44.75	44.37	43.12	42.61	41.06	42.61	43.12	44.37	44.75	43.36
G 30.0	39.45	39.85	40.36	40.14	39.49	38.03	38.57	38.03	39.49	40.14	40.36	39.85
G 35.0	34.46	34.76	34.92	34.82	34.36	32.91	34.43	32.91	34.36	34.82	34.92	34.76
G 40.0	28.93	29.15	29.43	29.23	28.91	27.76	29.16	27.76	28.91	29.23	29.43	29.15
G 45.0	23.89	24.09	24.47	24.17	23.87	23.76	24.28	23.76	23.87	24.17	24.47	24.09
G 50.0	19.96	20.11	20.43	20.26	19.95	20.13	20.58	20.13	19.95	20.26	20.43	20.11
G 55.0	17.76	17.87	18.10	18.01	17.76	17.82	18.18	17.82	17.76	18.01	18.10	17.87
G 60.0	16.22	16.34	16.55	16.56	16.30	16.33	16.51	16.33	16.30	16.56	16.55	16.34
G 65.0	15.08	15.09	15.24	15.32	15.21	15.24	15.33	15.24	15.21	15.32	15.24	15.09
G 70.0	14.26	14.27	14.31	14.51	14.51	14.48	14.57	14.48	14.51	14.51	14.31	14.27
G 75.0	13.88	13.91	13.93	14.11	14.17	14.07	14.18	14.07	14.17	14.11	13.93	13.91
G 80.0	13.48	13.48	13.41	13.62	13.66	13.72	13.76	13.72	13.66	13.62	13.41	13.48
G 85.0	12.91	12.95	12.87	13.05	13.08	13.28	13.35	13.28	13.08	13.05	12.87	12.95
G 90.0	12.54	12.66	12.64	12.93	12.85	13.08	13.04	13.08	12.85	12.93	12.64	12.66
G 95.0	12.89	13.00	12.97	13.35	13.33	13.53	13.45	13.53	13.33	13.35	12.97	13.00
G100.0	13.48	13.50	13.52	13.87	13.97	14.07	14.01	14.07	13.97	13.87	13.52	13.50
G105.0	14.07	14.10	14.13	14.46	14.61	14.64	14.64	14.64	14.61	14.46	14.13	14.10
G110.0	14.59	14.56	14.53	14.82	14.90	14.93	14.91	14.93	14.90	14.82	14.53	14.56
G115.0	14.87	14.81	14.77	14.98	15.01	14.99	14.97	14.99	15.01	14.98	14.77	14.81
G120.0	14.80	14.75	14.78	15.00	15.03	15.01	15.02	15.01	15.03	15.00	14.78	14.75
G125.0	14.42	14.42	14.53	14.80	14.92	14.96	15.02	14.96	14.92	14.80	14.53	14.42
G130.0	13.84	13.86	13.96	14.18	14.38	14.47	14.54	14.47	14.38	14.18	13.96	13.86
G135.0	14.35	14.38	14.48	14.64	14.71	14.76	14.75	14.76	14.71	14.64	14.48	14.38
G140.0	17.42	17.37	17.32	17.43	17.33	17.28	17.22	17.28	17.33	17.43	17.32	17.37
G145.0	21.74	21.74	21.63	21.59	21.35	21.26	21.26	21.26	21.35	21.59	21.63	21.74
G150.0	27.19	27.10	26.93	27.03	26.65	26.56	26.57	26.56	26.65	27.03	26.93	27.10
G155.0	33.35	33.28	33.10	33.15	32.82	32.71	32.71	32.71	32.82	33.15	33.10	33.28
G160.0	39.87	39.70	39.62	39.67	39.44	39.41	39.23	39.41	39.44	39.67	39.62	39.70
G165.0	45.56	45.60	45.46	45.54	45.33	45.35	45.33	45.35	45.33	45.54	45.46	45.60
G170.0	48.53	48.38	48.46	48.43	48.36	48.35	48.33	48.35	48.36	48.43	48.46	48.38
G175.0	50.08	49.88	49.97	49.94	49.90	49.86	49.87	49.86	49.90	49.94	49.97	49.88
G180.0	50.43	50.43	50.43	50.43	50.43	50.43	50.43	50.43	50.43	50.43	50.43	50.43

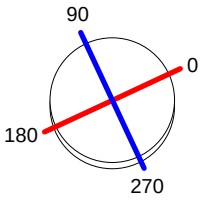
	C 180.00	C 195.00	C 210.00	C 225.00	C 240.00	C 255.00	C 270.00	C 285.00	C 300.00	C 315.00	C 330.00	C 345.00
G 0.0	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17	13.17
G 5.0	22.45	25.87	23.90	24.24	22.19	24.59	24.46	24.59	22.19	24.24	23.90	25.87
G 10.0	35.07	38.25	37.39	36.92	37.72	37.62	36.18	37.62	37.72	36.92	37.39	38.25
G 15.0	40.10	44.32	41.91	45.37	43.84	43.30	41.96	43.30	43.84	45.37	41.91	44.32
G 20.0	43.28	45.54	45.15	47.21	44.44	45.72	43.94	45.72	44.44	47.21	45.15	45.54
G 25.0	42.86	43.36	44.75	44.37	43.12	42.61	41.06	42.61	43.12	44.37	44.75	43.36
G 30.0	39.45	39.85	40.36	40.14	39.49	38.03	38.57	38.03	39.49	40.14	40.36	39.85
G 35.0	34.46	34.76	34.92	34.82	34.36	32.91	34.43	32.91	34.36	34.82	34.92	34.76
G 40.0	28.93	29.15	29.43	29.23	28.91	27.76	29.16	27.76	28.91	29.23	29.43	29.15
G 45.0	23.89	24.09	24.47	24.17	23.87	23.76	24.28	23.76	23.87	24.17	24.47	24.09
G 50.0	19.96	20.11	20.43	20.26	19.95	20.13	20.58	20.13	19.95	20.26	20.43	20.11
G 55.0	17.76	17.87	18.10	18.01	17.76	17.82	18.18	17.82	17.76	18.01	18.10	17.87
G 60.0	16.22	16.34	16.55	16.56	16.30	16.33	16.51	16.33	16.30	16.56	16.55	16.34
G 65.0	15.08	15.09	15.24	15.32	15.21	15.24	15.33	15.24	15.21	15.32	15.24	15.09
G 70.0	14.26	14.27	14.31	14.51	14.51	14.48	14.57	14.48	14.51	14.51	14.31	14.27
G 75.0	13.88	13.91	13.93	14.11	14.17	14.07	14.18	14.07	14.17	14.11	13.93	13.91
G 80.0	13.48	13.48	13.41	13.62	13.66	13.72	13.76	13.72	13.66	13.62	13.41	13.48
G 85.0	12.91	12.95	12.87	13.05	13.08	13.28	13.35	13.28	13.08	13.05	12.87	12.95
G 90.0	12.54	12.66	12.64	12.93	12.85	13.08	13.04	13.08	12.85	12.93	12.64	12.66
G 95.0	12.89	13.00	12.97	13.35	13.33	13.53	13.45	13.53	13.33	13.35	12.97	13.00
G100.0	13.48	13.50	13.52	13.87	13.97	14.07	14.01	14.07	13.97	13.87	13.52	13.50
G105.0	14.07	14.10	14.13	14.46	14.61	14.64	14.64	14.64	14.61	14.46	14.13	14.10
G110.0	14.59	14.56	14.53	14.82	14.90	14.93	14.91	14.93	14.90	14.82	14.53	14.56
G115.0	14.87	14.81	14.77	14.98	15.01	14.99	14.97	14.99	15.01	14.98	14.77	14.81
G120.0	14.80	14.75	14.78	15.00	15.03	15.01	15.02	15.01	15.03	15.00	14.78	14.75
G125.0	14.42	14.42	14.53	14.80	14.92	14.96	15.02	14.96	14.92	14.80	14.53	14.42
G130.0	13.84	13.86	13.96	14.18	14.38	14.47	14.54	14.47	14.38	14.18	13.96	13.86
G135.0	14.35	14.38	14.48	14.64	14.71	14.76	14.75	14.76	14.71	14.64	14.48	14.38
G140.0	17.42	17.37	17.32	17.43	17.33	17.28	17.22	17.28	17.33	17.43	17.32	17.37
G145.0	21.74	21.74	21.63	21.59	21.35	21.26	21.26	21.26	21.35	21.59	21.63	21.74
G150.0	27.19	27.10	26.93	27.03	26.65	26.56	26.57	26.56	26.65	27.03	26.93	27.10
G155.0	33.35	33.28	33.10	33.15	32.82	32.71	32.71	32.71	32.82	33.15	33.10	33.28
G160.0	39.87	39.70	39.62	39.67	39.44	39.41	39.23	39.41	39.44	39.67	39.62	39.70
G165.0	45.56	45.60	45.46	45.54	45.33	45.35	45.33	45.35	45.33	45.54	45.46	45.60
G170.0	48.53	48.38	48.46	48.43	48.36	48.35	48.33	48.35	48.36	48.43	48.46	48.38
G175.0	50.08	49.88	49.97	49.94	49.90	49.86	49.87	49.86	49.90	49.94	49.97	49.88
G180.0	50.43	50.43	50.43	50.43	50.43	50.43	50.43	50.43	50.43	50.43	50.43	50.43

bover
barcelona lights

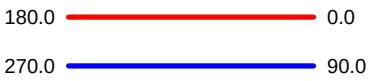
Luminaire		Measurem.		Lamp	
Code	33502300xxU+P801	Code	33502300xx+P801	Code	49885
Name	GAROTA P/02 2x20W CFL white	Name	GAROTA P/02 2x20W CFL white	Number	2
Line	- BOVER	Date	08-01-2016	Position	Universal

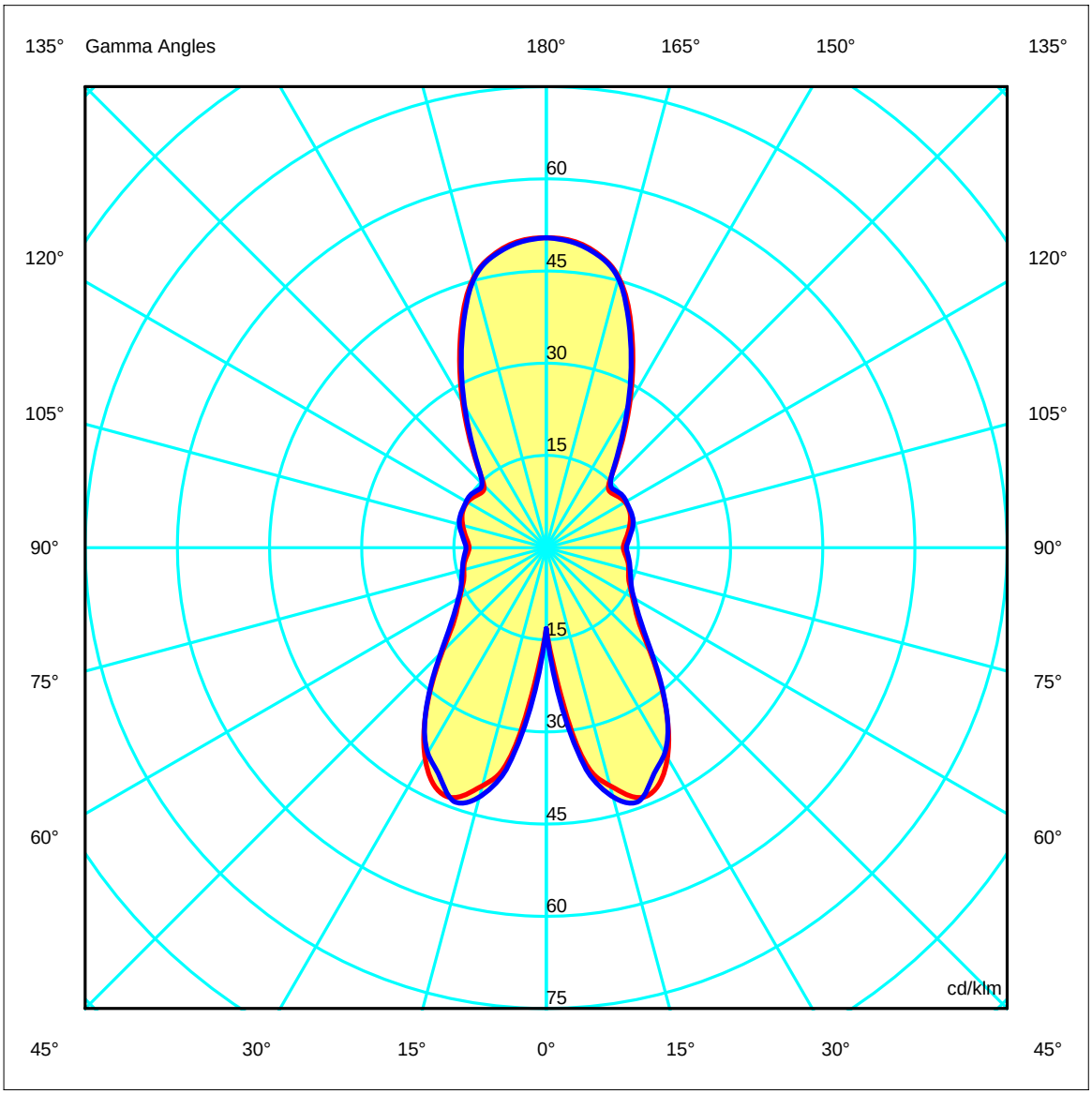
Luminaire Flux	601.38 lm	Luminaire Power	40.00 W	Efficacy	15.03 lm/W	Efficiency	25.06%
Lamps Flux	2400.00 lm	Maximum value	50.43 cd/klm	Position	C=0.00 G=180.00	CG	Asymmetrical

Diam=720mm



C Halfplanes



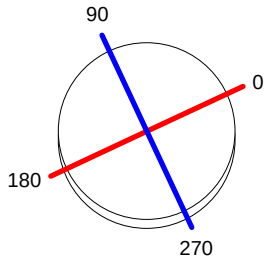


bover
barcelona lights

Luminaire		Measurem.		Lamp	
Code	33502300xxU+P801	Code	33502300xx+P801	Code	49885
Name	GAROTA P/02 2x20W CFL white	Name	GAROTA P/02 2x20W CFL white	Number	2
Line	- BOVER	Date	08-01-2016	Position	Universal

Luminaire Flux	601.38 lm	Luminaire Power	40.00 W	Efficacy	15.03 lm/W	Efficiency	25.06%
Lamps Flux	2400.00 lm	Maximum value	50.43 cd/klm	Position	C=0.00 G=180.00	CG	Asymmetrical

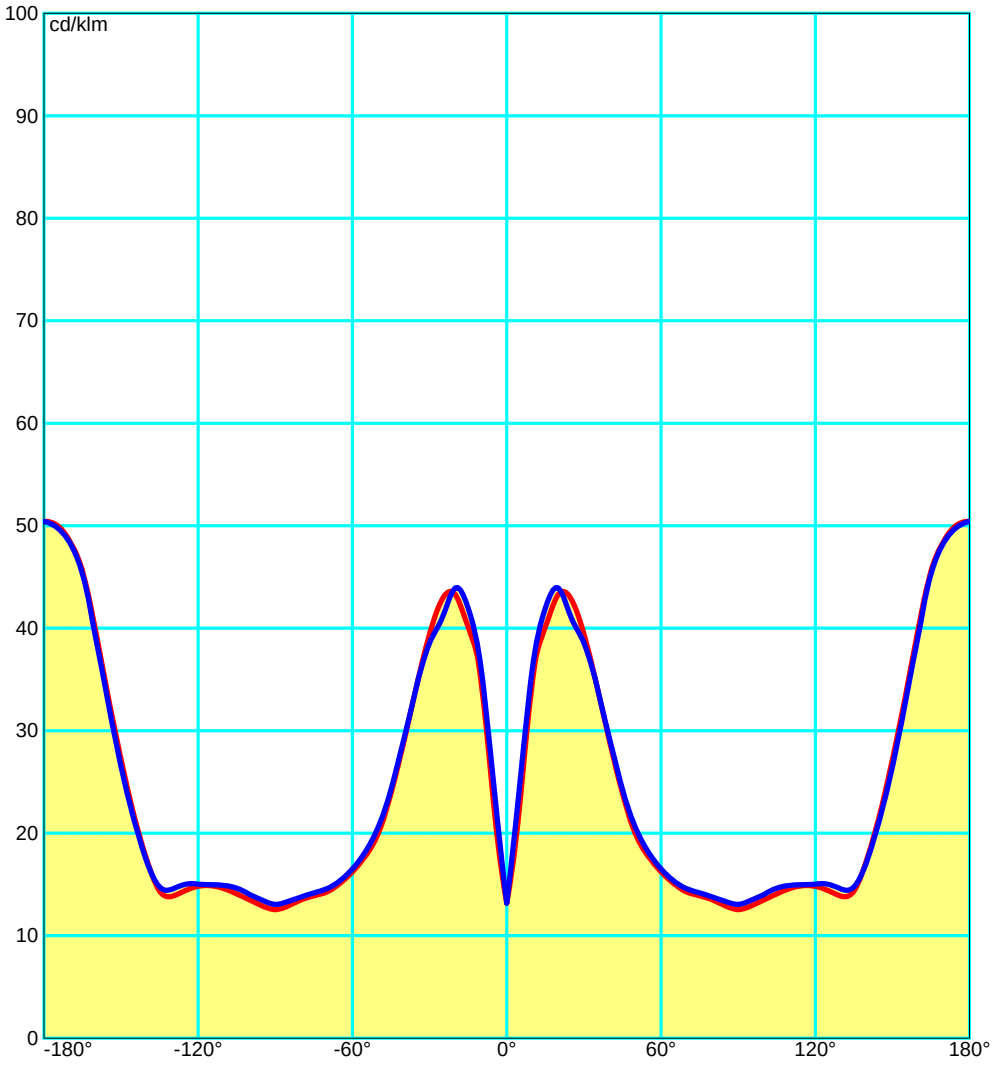
Diam=720mm



C Halfplanes

180.0 0.0

270.0 90.0



bover
barcelona lights

Luminaire		Measurem.		Lamp	
Code	33502300xxU+P801	Code	33502300xx+P801	Code	49885
Name	GAROTA P/02 2x20W CFL white	Name	GAROTA P/02 2x20W CFL white	Number	2
Line	- BOVER	Date	08-01-2016	Position	Universal

Luminaire Flux	601.38 lm	Luminaire Power	40.00 W	Efficacy	15.03 lm/W	Efficiency	25.06%
Lamps Flux	2400.00 lm	Maximum value	50.43 cd/klm	Position	C=0.00 G=180.00	CG	Asymmetrical

Total Flux=2400.00 Luminaire Flux=601.38

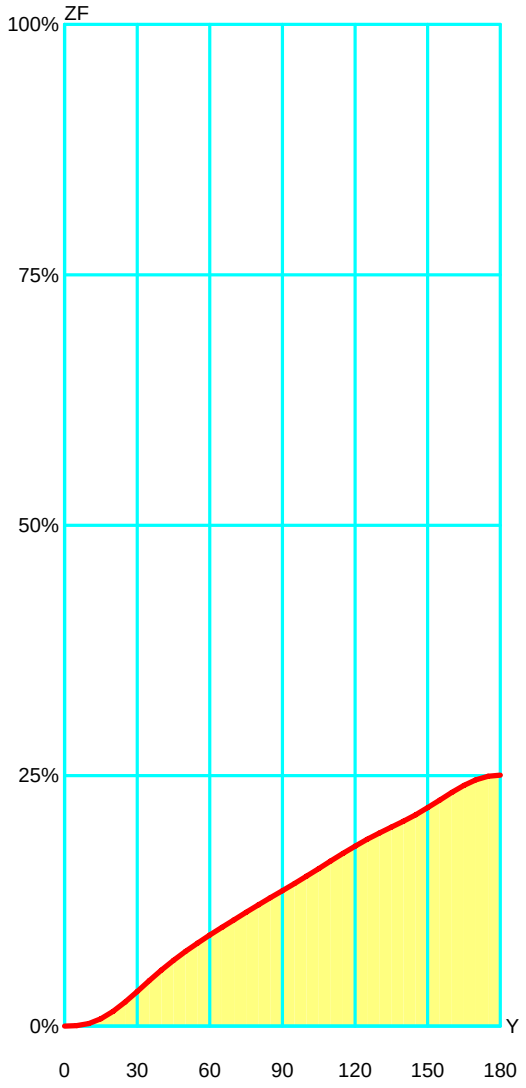
RI	0.60	0.80	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	10.00	20.00
DRR	0.29	0.36	0.42	0.48	0.52	0.60	0.65	0.69	0.75	0.78	0.87	0.92
RC	5	6	6	6	6	7	7	7	7	7	7	7

Zonal Flux per 1000 Lumen

Y°	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
ZF(Y)	3	15	34	56	75	91	106	121	135	150	165	180	193	204	218	233	246	251

CIE Flux Codes
43 67 85 54 25

C.I.E.	5/6/6/6/6/7/7/7/7/7/7/7	LOR	25.05753 %
D DIN 5040	C31	ULOR	11.53210 %
F UTE	0.14 G + 0.12 T	DLOR	13.52543 %
B NBN	BZ 5 / 1.5 / BZ 6	UFF	46.02249 %
RN	46.02249 %	DFF	53.97751 %
BLF	1.0	FFR	85.26235 %



Zonal Flux				
Gamma °	Flux	Sum lm	Flux [%]	Sum [%]
0°	0.00	0.00	0.00%	0.00 %
5°	0.44	0.44	0.18 %	0.18 %
10°	2.19	2.64	0.88 %	1.05 %
15°	4.78	7.42	1.91 %	2.96 %
20°	7.30	14.72	2.91 %	5.87 %
25°	9.30	24.01	3.71 %	9.58 %
30°	10.48	34.50	4.18 %	13.77 %
35°	10.87	45.37	4.34 %	18.11 %
40°	10.56	55.93	4.21 %	22.32 %
45°	9.81	65.74	3.92 %	26.24 %
50°	8.94	74.69	3.57 %	29.81 %
55°	8.29	82.97	3.31 %	33.11 %
60°	7.94	90.91	3.17 %	36.28 %
65°	7.69	98.60	3.07 %	39.35 %
70°	7.50	106.10	2.99 %	42.34 %
75°	7.44	113.54	2.97 %	45.31 %
80°	7.39	120.93	2.95 %	48.26 %
85°	7.24	128.17	2.89 %	51.15 %
90°	7.09	135.25	2.83 %	53.98 %
95°	7.13	142.39	2.85 %	56.82 %
100°	7.34	149.72	2.93 %	59.75 %
105°	7.54	157.26	3.01 %	62.76 %
110°	7.61	164.87	3.04 %	65.80 %
115°	7.51	172.38	3.00 %	68.80 %
120°	7.25	179.63	2.89 %	71.69 %
125°	6.85	186.48	2.73 %	74.42 %
130°	6.28	192.77	2.51 %	76.93 %
135°	5.81	198.58	2.32 %	79.25 %
140°	5.91	204.49	2.36 %	81.61 %
145°	6.48	210.97	2.59 %	84.20 %
150°	7.12	218.10	2.84 %	87.04 %
155°	7.58	225.67	3.02 %	90.06 %
160°	7.61	233.28	3.04 %	93.10 %
165°	7.01	240.29	2.80 %	95.90 %
170°	5.57	245.86	2.22 %	98.12 %
175°	3.52	249.38	1.40 %	99.52 %
180°	1.20	250.58	0.48 %	100.00 %

bover
barcelona lights

Luminaire		Measurem.		Lamp	
Code	33502300xxU+P801	Code	33502300xx+P801	Code	49885
Name	GAROTA P/02 2x20W CFL white	Name	GAROTA P/02 2x20W CFL white	Number	2
Line	- BOVER	Date	08-01-2016	Position	Universal

Luminaire Flux	601.38 lm	Luminaire Power	40.00 W	Efficacy	15.03 lm/W	Efficiency	25.06%
Lamps Flux	2400.00 lm	Maximum value	50.43 cd/klm	Position	C=0.00 G=180.00	CG	Asymmetrical

UGR
S = 0.250

Reflectancies										
Ceiling/Cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
WorkingPlane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
RoomDimensions	ViewedCrosswise					ViewedEndwise				
x=2H y=2H	0.2	1.1	1.0	1.9	3.0	0.2	1.1	1.0	1.9	3.0
x=2H y=3H	2.1	2.8	2.9	3.8	4.9	2.1	2.9	3.0	3.8	4.9
x=2H y=4H	3.1	3.9	4.0	4.7	6.0	3.2	3.9	4.1	4.8	6.0
x=2H y=6H	4.2	4.9	5.1	5.8	7.0	4.3	5.0	5.2	5.9	7.0
x=2H y=8H	4.8	5.5	5.7	6.4	7.7	4.9	5.5	5.8	6.4	7.7
x=2H y=12H	5.3	6.0	6.2	6.9	8.1	5.4	6.1	6.4	7.0	8.1
x=4H y=2H	0.9	1.6	1.8	2.5	3.6	0.9	1.6	1.7	2.5	3.6
x=4H y=3H	2.9	3.5	3.8	4.5	5.7	3.0	3.6	3.9	4.5	5.7
x=4H y=4H	4.2	4.7	5.1	5.7	6.9	4.2	4.8	5.1	5.7	6.9
x=4H y=6H	5.5	6.0	6.4	6.9	8.3	5.5	6.0	6.5	7.0	8.3
x=4H y=8H	6.1	6.6	7.1	7.6	8.9	6.2	6.7	7.2	7.6	8.9
x=4H y=12H	6.8	7.2	7.7	8.2	9.5	6.9	7.3	7.9	8.3	9.5
x=8H y=4H	4.7	5.1	5.6	6.1	7.4	4.7	5.2	5.7	6.2	7.4
x=8H y=6H	6.2	6.6	7.2	7.6	8.9	6.3	6.7	7.3	7.7	8.9
x=8H y=8H	7.0	7.4	8.0	8.4	9.7	7.1	7.5	8.1	8.5	9.7
x=8H y=12H	7.9	8.1	8.9	9.2	10.6	8.0	8.3	9.0	9.3	10.6
x=12H y=4H	4.8	5.2	5.7	6.2	7.5	4.8	5.2	5.8	6.2	7.5
x=12H y=6H	6.4	6.7	7.4	7.8	9.1	6.5	6.8	7.5	7.8	9.1
x=12H y=8H	7.3	7.6	8.3	8.6	10.0	7.4	7.7	8.4	8.7	10.0

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Luminaire		Measurem.		Lamp	
Code	33502300xxU+P801	Code	33502300xx+P801	Code	49885
Name	GAROTA P/02 2x20W CFL white	Name	GAROTA P/02 2x20W CFL white	Number	2
Line	- BOVER	Date	08-01-2016	Position	Universal

Luminaire Flux	601.38 lm	Luminaire Power	40.00 W	Efficacy	15.03 lm/W	Efficiency	25.06%
Lamps Flux	2400.00 lm	Maximum value	50.43 cd/klm	Position	C=0.00 G=180.00	CG	Asymmetrical

Utilizations CIE

Mounting Direct Normalization Normalised Suspension Ratio 0.3 Standard CIE Settings

Ceiling

K	8873	8773	8871	8771	7773	7771	7753	7553	7751	7551	7731	7331	7711	7111	5551	5531	5331	5511	5111	3331	3311	1111	0000
0.60	132	118	123	111	113	106	98	83	94	80	86	65	80	55	75	69	61	65	52	58	55	48	43
0.80	146	134	132	122	127	116	111	97	104	91	95	76	88	65	86	79	71	74	62	68	64	56	51
1.00	156	145	138	129	138	123	121	108	111	100	102	84	94	72	93	87	79	81	69	75	71	63	58
1.25	165	155	142	134	148	129	131	119	117	107	107	91	100	80	100	93	87	88	77	83	78	71	64
1.50	171	162	144	137	155	132	138	127	121	112	112	97	104	86	106	99	93	93	83	88	84	76	69
2.00	179	172	145	141	164	136	149	139	126	119	118	106	110	95	113	106	101	100	91	97	92	85	77
2.50	184	178	146	142	170	138	156	148	129	123	121	111	115	101	117	111	106	106	98	102	98	91	82
3.00	188	183	146	143	174	139	162	154	131	126	124	115	118	106	120	115	111	109	102	106	102	96	86
4.00	192	188	146	144	180	140	169	163	133	129	127	120	122	113	124	119	116	115	109	112	108	103	92
5.00	195	192	146	144	184	141	174	169	135	132	130	124	125	117	127	122	120	118	113	116	112	107	96
10.00	201	199	144	143	191	141	185	182	137	136	134	131	131	127	132	129	127	126	123	124	122	117	105
20.00	203	202	143	142	194	140	191	189	138	137	136	135	135	132	134	132	131	131	129	128	127	123	110

Wall

K	8873	8773	8871	8771	7773	7771	7753	7553	7751	7551	7731	7331	7711	7111	5551	5531	5331	5511	5111	3331	3311	1111	0000
0.60	98	91	87	81	87	77	69	62	62	57	52	44	45	36	53	45	42	39	35	41	35	33	29
0.80	115	107	99	93	102	89	83	76	74	68	63	55	56	46	63	55	52	49	43	49	43	39	35
1.00	127	120	107	102	113	97	94	87	83	76	72	63	64	53	71	62	59	56	50	55	50	45	39
1.25	138	132	115	110	124	104	106	98	91	85	81	72	73	62	78	70	66	63	58	62	56	51	44
1.50	147	141	120	116	132	110	115	108	97	92	88	79	80	69	84	76	73	70	64	67	62	55	48
2.00	160	155	127	124	144	117	128	121	106	102	97	90	90	80	92	85	82	79	74	75	70	62	54
2.50	169	164	132	130	152	122	138	132	113	109	105	98	98	89	98	92	89	86	81	81	76	67	59
3.00	175	171	136	134	159	126	146	140	118	114	110	104	104	95	103	97	94	92	87	85	81	72	62
4.00	186	182	143	141	169	133	158	153	126	123	120	114	114	107	111	105	103	101	97	93	89	79	69
5.00	193	191	148	146	177	139	167	163	132	130	127	122	122	115	117	112	110	108	105	99	96	85	74
10.00	215	213	164	163	198	155	192	189	151	149	147	144	144	140	135	132	131	129	127	118	116	103	91
20.00	233	232	178	178	216	169	212	211	167	166	165	163	163	160	151	149	149	148	146	135	133	120	107

Working Pl.

K	8873	8773	8871	8771	7773	7771	7753	7553	7751	7551	7731	7331	7711	7111	5551	5531	5331	5511	5111	3331	3311	1111	0000
0.60	117	110	110	103	105	99	82	76	79	73	66	58	57	48	69	58	55	51	46	53	46	43	39
0.80	141	133	130	123	126	117	102	94	98	90	84	74	73	62	84	73	69	64	59	65	58	53	48
1.00	160	152	146	139	143	132	119	110	113	105	99	87	88	75	96	85	81	77	70	75	68	62	56
1.25	178	170	161	154	159	146	136	127	128	120	114	102	102	89	109	98	93	89	82	86	79	70	64
1.50	192	184	172	166	172	156	150	140	139	132	125	114	114	100	119	108	104	99	92	94	87	77	71
2.00	213	206	187	182	191	171	171	162	156	149	144	133	133	119	134	124	120	116	108	108	101	89	81
2.50	227	220	198	193	204	181	185	177	168	162	157	146	147	133	144	135	131	127	120	117	111	97	88
3.00	236	231	205	201	213	189	196	188	177	171	166	156	157	144	151	143	140	136	129	124	118	103	94
4.00	250	245	214	211	225	198	211	204	188	183	179	170	171	160	161	155	151	148	142	133	128	111	101
5.00	258	254	220	217	233	204	221	215	195	191	187	180	180	170	168	162	159	156	151	139	135	116	106
10.00	277	274	232	231	251	216	243	240	211	209	206	202	202	196	183	179	177	175	172	154	151	129	117
20.00	287	286	239	239	261	224	257	255	221	220	218	216	215	212	192	190	189	187	186	163	161	137	125

LM53 SHR C0-C180: 2.183 SHR C90-C270: 2.202 SHR Square: 1.280

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Luminaire		Measurem.		Lamp	
Code	33502300xxU+P801	Code	33502300xx+P801	Code	49885
Name	GAROTA P/02 2x20W CFL white	Name	GAROTA P/02 2x20W CFL white	Number	2
Line	- BOVER	Date	08-01-2016	Position	Universal

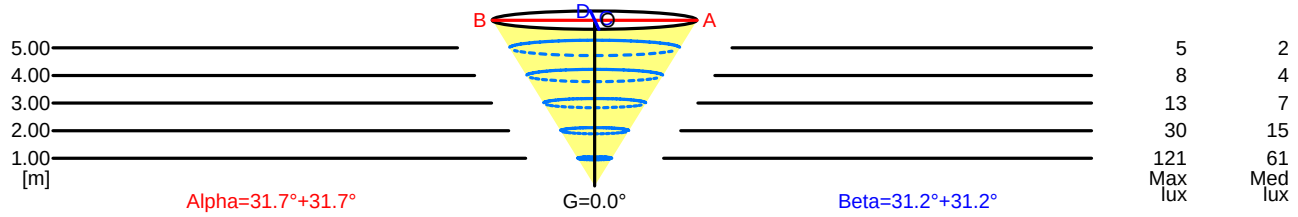
Luminaire Flux	601.38 lm	Luminaire Power	40.00 W	Efficacy	15.03 lm/W	Efficiency	25.06%
Lamps Flux	2400.00 lm	Maximum value	50.43 cd/klm	Position	C=0.00 G=180.00	CG	Asymmetrical

Width at 50.00 % of Max Intensity

H[m]	1.00	2.00	3.00	4.00	5.00	H[m]	1.00	2.00	3.00	4.00	5.00
OA	0.62	1.24	1.85	2.47	3.09	OC	0.61	1.21	1.82	2.42	3.03
OB	0.62	1.24	1.85	2.47	3.09	OD	0.61	1.21	1.82	2.42	3.03

Luminous Intensities [cd/klm]

	0	5	15	25	35	45	55	65	75	85
OA	121.02	120.19	109.35	80.04	52.18	34.44	34.61	35.68	33.78	30.94
OB	121.02	120.19	109.35	80.04	52.18	34.44	34.61	35.68	33.78	30.94
OC	121.02	119.68	108.80	78.50	51.02	35.40	36.05	35.92	35.14	32.28
OD	121.02	119.68	108.80	78.50	51.02	35.40	36.05	35.92	35.14	32.28



5.00	6.18	5	2	
4.00	4.94	8	4	
3.00	3.71	13	7	
2.00	2.47	30	15	
1.00	1.24	121	61	
H[m]	D[m]	Max lux	Med lux	Alpha=31.7°+31.7° G=0.0

5.00	6.05	5	2	
4.00	4.84	8	4	
3.00	3.63	13	7	
2.00	2.42	30	15	
1.00	1.21	121	61	
H[m]	D[m]	Max lux	Med lux	Beta=31.2°+31.2° G=0.0

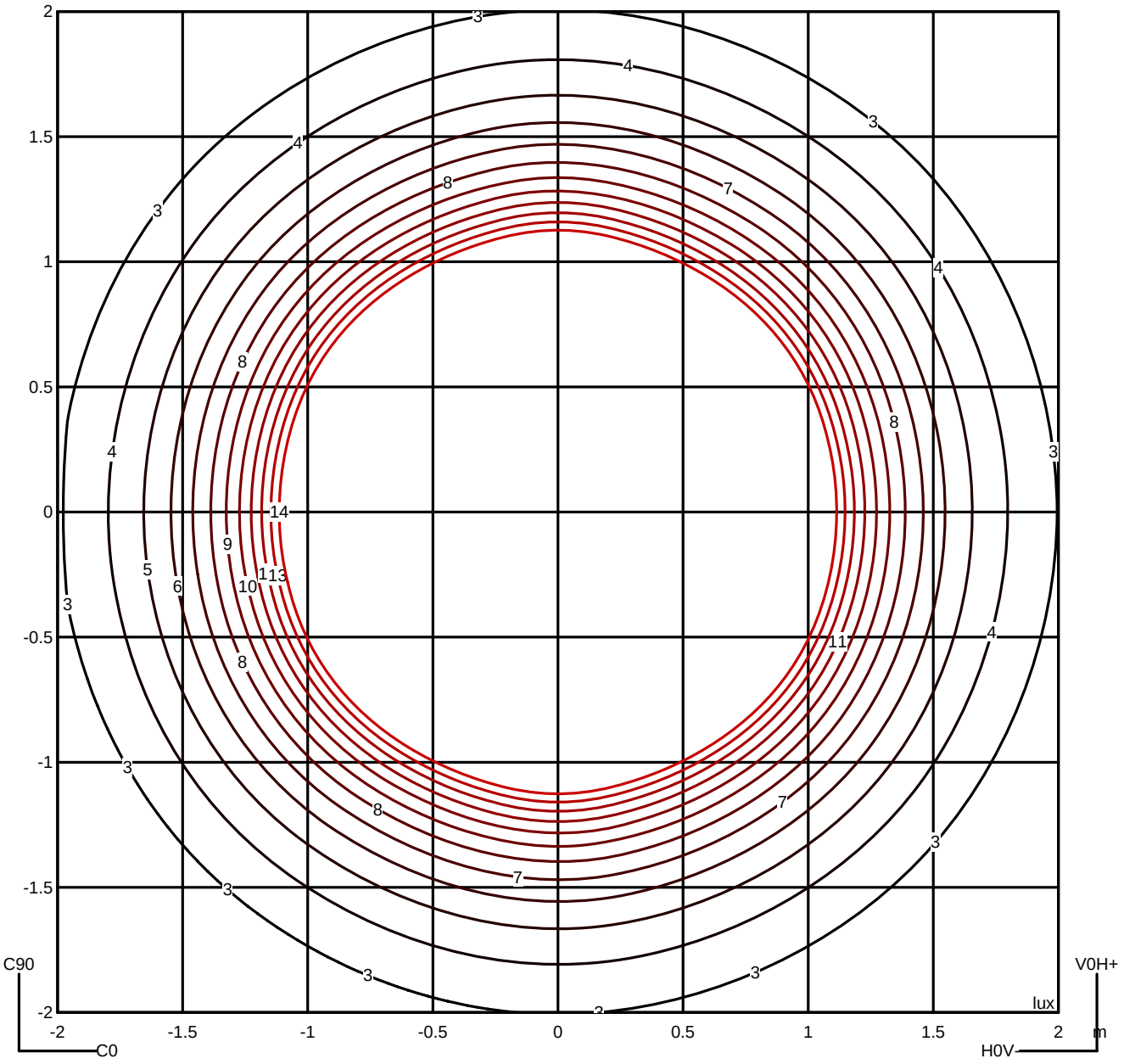
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Luminaire		Measurem.		Lamp	
Code	33502300xxU+P801	Code	33502300xx+P801	Code	49885
Name	GAROTA P/02 2x20W CFL white	Name	GAROTA P/02 2x20W CFL white	Number	2
Line	- BOVER	Date	08-01-2016	Position	Universal

Luminaire Flux	601.38 lm	Luminaire Power	40.00 W	Efficacy	15.03 lm/W	Efficiency	25.06%
Lamps Flux	2400.00 lm	Maximum value	50.43 cd/klm	Position	C=0.00 G=180.00	CG	Asymmetrical

Isolux (Floor)

Luminaire position X=0.00m Y=0.00m Z=0.87m



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Luminaire		Measurem.		Lamp	
Code	33502300xxU+P801	Code	33502300xx+P801	Code	49885
Name	GAROTA P/02 2x20W CFL white	Name	GAROTA P/02 2x20W CFL white	Number	2
Line	- BOVER	Date	08-01-2016	Position	Universal

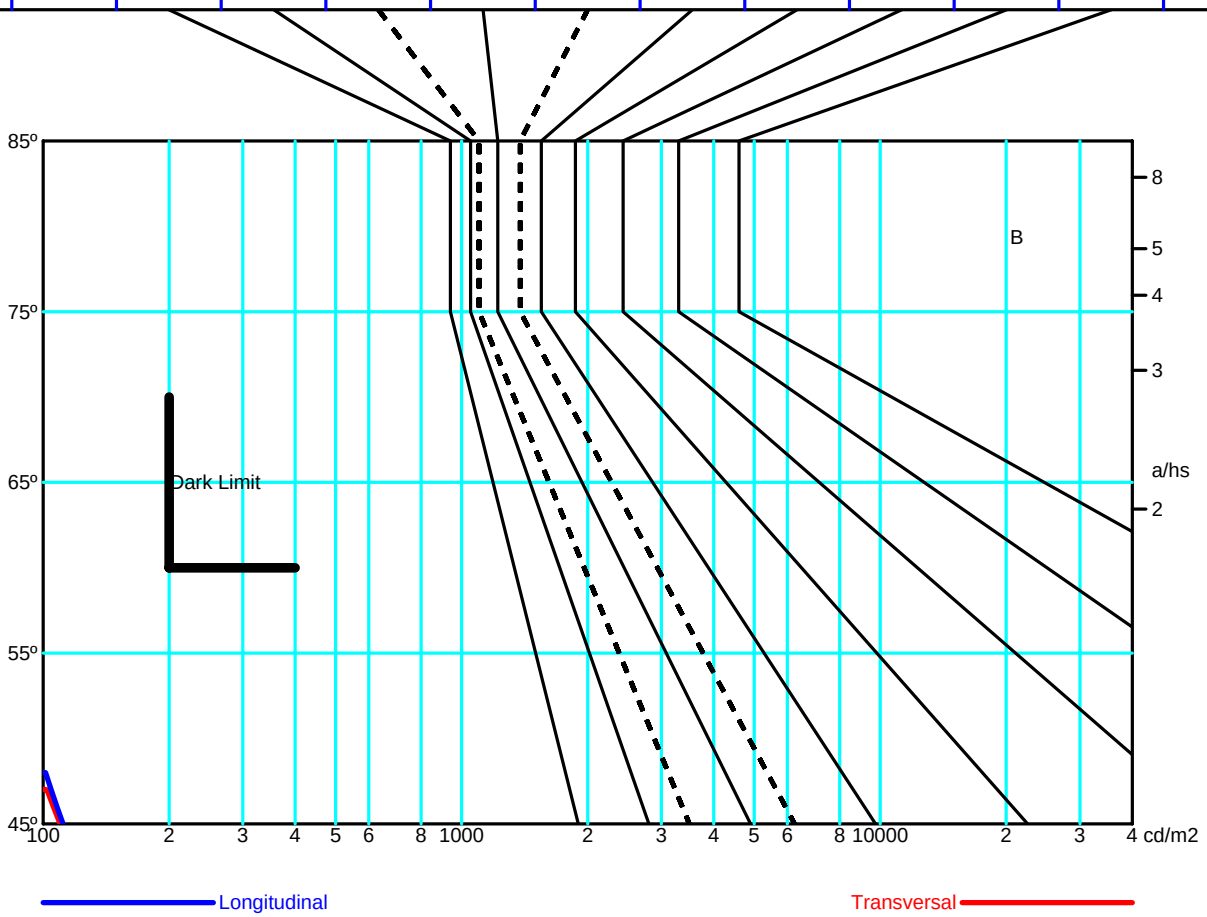
Luminaire Flux	601.38 lm	Luminaire Power	40.00 W	Efficacy	15.03 lm/W	Efficiency	25.06%
Lamps Flux	2400.00 lm	Maximum value	50.43 cd/klm	Position	C=0.00 G=180.00	CG	Asymmetrical

Average Luminance [cd/m²]

	45°	50°	55°	60°	65°	70°	75°	80°	85°	
0.0°	110	93	84	79	77	76	78	82	85	---
90.0°	112	96	86	81	78	78	80	83	88	---

Flush mounted or transveral view

		Illumination(lx)										
A	A	2000	1000	750	500		<300					1.15
B	1		2000	1500	1000	750	500	<300				1.5
C					2000		1000	500	<300			1.85
D	2						2000	1000	500	<300		2.2
E	3							2000	1000	500	<300	2.55

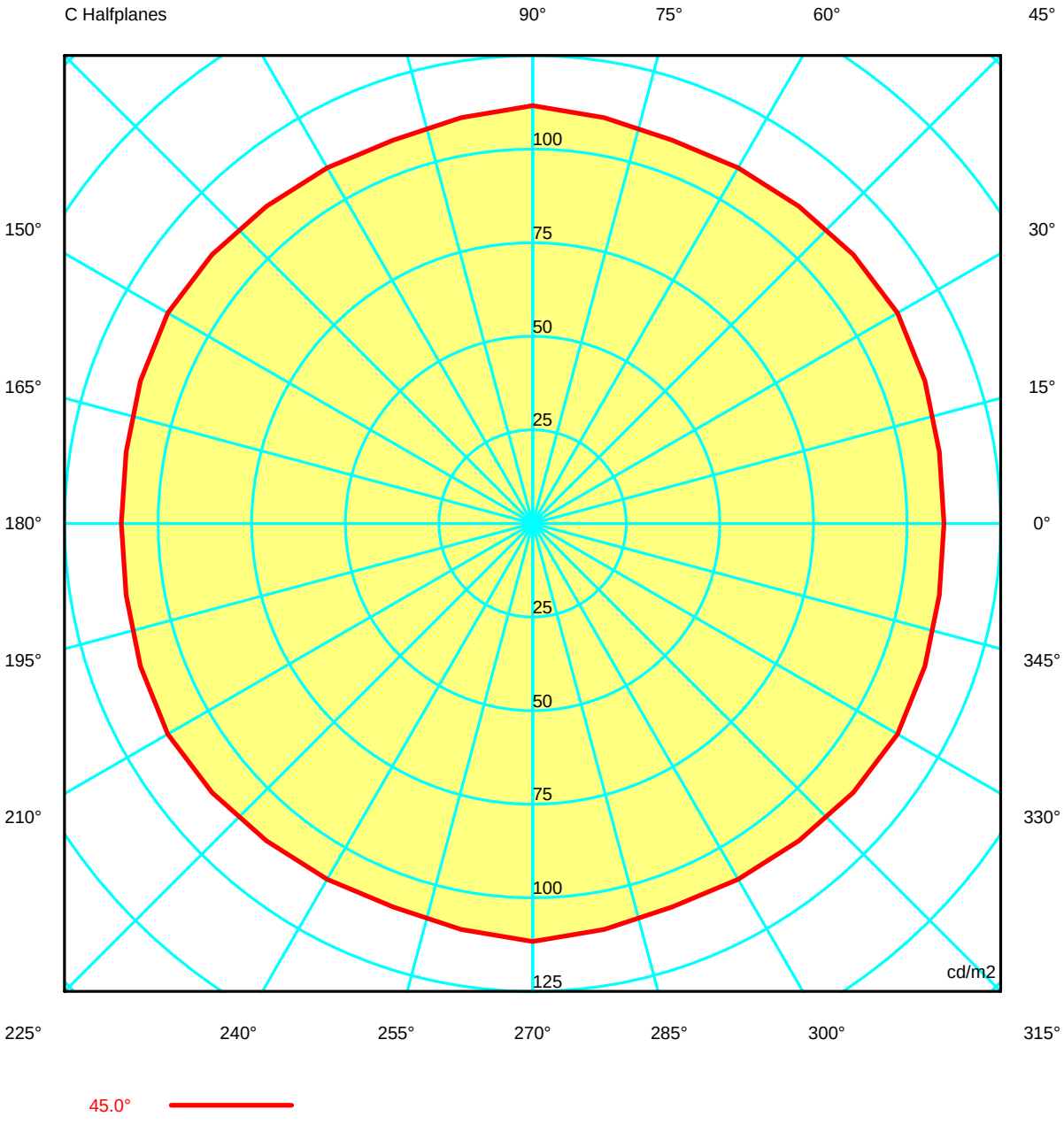


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Luminaire		Measurem.		Lamp	
Code	33502300xxU+P801	Code	33502300xx+P801	Code	49885
Name	GAROTA P/02 2x20W CFL white	Name	GAROTA P/02 2x20W CFL white	Number	2
Line	- BOVER	Date	08-01-2016	Position	Universal

Luminaire Flux	601.38 lm	Luminaire Power	40.00 W	Efficacy	15.03 lm/W	Efficiency	25.06%
Lamps Flux	2400.00 lm	Maximum value	50.43 cd/klm	Position	C=0.00 G=180.00	CG	Asymmetrical

Luminance



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Luminaire		Measurem.		Lamp	
Code	33502300xxU+P801	Code	33502300xx+P801	Code	49885
Name	GAROTA P/02 2x20W CFL white	Name	GAROTA P/02 2x20W CFL white	Number	2
Line	- BOVER	Date	08-01-2016	Position	Universal

Luminaire Flux	601.38 lm	Luminaire Power	40.00 W	Efficacy	15.03 lm/W	Efficiency	25.06%
Lamps Flux	2400.00 lm	Maximum value	50.43 cd/klm	Position	C=0.00 G=180.00	CG	Asymmetrical

Luminance cd/m2 **Table 1/3**

	C 0.00	C 10.00	C 20.00	C 30.00	C 40.00	C 50.00	C 60.00	C 70.00	C 80.00	C 90.00	C 100.00	C 110.00	C 120.00
G 0.0	77.66	77.66	77.66	77.66	77.66	77.66	77.66	77.66	77.66	77.66	77.66	77.66	77.66
G 5.0	124.01	140.04	140.52	132.03	133.90	130.04	122.57	131.07	135.60	135.12	135.60	131.06	122.57
G 10.0	183.58	196.78	200.37	195.74	193.09	194.36	197.45	198.40	193.93	189.40	193.94	198.39	197.45
G 15.0	200.94	219.27	218.47	209.99	221.68	227.32	219.68	217.72	214.47	210.22	214.48	217.70	219.68
G 20.0	209.48	218.56	219.59	218.50	226.85	224.91	215.10	219.46	218.95	212.67	218.96	219.45	215.10
G 25.0	202.11	203.08	206.71	210.99	210.81	207.03	203.31	202.29	198.08	193.62	198.08	202.29	203.31
G 30.0	182.70	183.81	185.51	186.92	186.44	185.36	182.88	177.62	176.55	178.65	176.55	177.62	182.88
G 35.0	157.98	158.94	159.74	160.07	159.75	159.58	157.54	151.81	153.00	157.87	153.00	151.81	157.54
G 40.0	132.30	132.89	133.87	134.57	133.98	133.66	132.20	127.58	128.95	133.35	128.95	127.58	132.20
G 45.0	109.83	110.27	111.45	112.50	111.77	110.61	109.74	108.98	110.11	111.63	110.11	108.98	109.74
G 50.0	92.93	93.26	94.17	95.12	94.82	93.75	92.89	93.11	94.61	95.81	94.61	93.11	92.89
G 55.0	84.45	84.71	85.34	86.02	85.93	85.22	84.44	84.34	85.41	86.42	85.41	84.34	84.44
G 60.0	79.37	79.73	80.32	80.99	81.21	80.65	79.78	79.66	80.28	80.81	80.28	79.66	79.78
G 65.0	76.66	76.67	76.88	77.48	77.87	77.71	77.30	77.30	77.65	77.91	77.65	77.30	77.30
G 70.0	75.95	76.00	76.09	76.21	76.96	77.28	77.29	77.21	77.34	77.64	77.34	77.21	77.29
G 75.0	78.35	78.43	78.51	78.59	79.26	79.88	79.94	79.50	79.60	80.00	79.60	79.50	79.94
G 80.0	81.52	81.51	81.28	81.09	81.93	82.56	82.60	82.79	83.09	83.23	83.09	82.79	82.60
G 85.0	84.79	85.12	84.83	84.51	85.31	85.84	85.92	86.75	87.49	87.65	87.49	86.75	85.92
G 90.0	90.87	91.63	91.69	91.59	93.12	93.60	93.13	94.26	94.71	94.52	94.71	94.26	93.13

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Luminaire		Measurem.		Lamp	
Code	33502300xxU+P801	Code	33502300xx+P801	Code	49885
Name	GAROTA P/02 2x20W CFL white	Name	GAROTA P/02 2x20W CFL white	Number	2
Line	- BOVER	Date	08-01-2016	Position	Universal

Luminaire Flux	601.38 lm	Luminaire Power	40.00 W	Efficacy	15.03 lm/W	Efficiency	25.06%
Lamps Flux	2400.00 lm	Maximum value	50.43 cd/klm	Position	C=0.00 G=180.00	CG	Asymmetrical

Luminance cd/m2 **Table 2/3**

	C 130.00	C 140.00	C 150.00	C 160.00	C 170.00	C 180.00	C 190.00	C 200.00	C 210.00	C 220.00	C 230.00	C 240.00	C 250.00
G 0.0	77.66	77.66	77.66	77.66	77.66	77.66	77.66	77.66	77.66	77.66	77.66	77.66	77.66
G 5.0	130.14	133.67	132.03	139.27	136.84	124.01	136.84	139.27	132.03	133.67	130.14	122.57	131.06
G 10.0	194.44	192.91	195.74	201.37	194.24	183.58	194.24	198.73	195.74	192.91	194.44	197.45	198.39
G 15.0	227.43	221.42	209.99	219.93	215.56	200.94	215.56	219.93	209.99	221.42	227.43	219.68	217.70
G 20.0	224.96	226.72	218.50	220.30	216.76	209.48	216.76	220.30	218.50	226.72	224.96	215.10	219.45
G 25.0	207.03	210.80	210.99	206.74	203.00	202.11	203.00	206.74	210.99	210.80	207.03	203.31	202.29
G 30.0	185.37	186.43	186.92	185.58	183.64	182.70	183.64	185.58	186.92	186.43	185.37	182.88	177.62
G 35.0	159.59	159.74	160.07	159.80	158.77	157.98	158.77	159.80	160.07	159.74	159.59	157.54	151.81
G 40.0	133.66	133.98	134.57	133.90	132.80	132.30	132.80	133.90	134.57	133.98	133.66	132.20	127.58
G 45.0	110.61	111.77	112.50	111.47	110.22	109.83	110.22	111.47	112.50	111.77	110.61	109.74	108.98
G 50.0	93.75	94.82	95.12	94.19	93.22	92.93	93.22	94.19	95.12	94.82	93.75	92.89	93.11
G 55.0	85.22	85.93	86.02	85.36	84.67	84.45	84.67	85.36	86.02	85.93	85.22	84.44	84.34
G 60.0	80.65	81.21	80.99	80.35	79.68	79.37	79.68	80.35	80.99	81.21	80.65	79.78	79.66
G 65.0	77.71	77.87	77.48	76.87	76.67	76.66	76.61	76.87	77.48	77.87	77.71	77.30	77.30
G 70.0	77.41	76.95	76.21	76.09	76.01	75.95	76.01	76.09	76.21	76.95	77.28	77.29	77.21
G 75.0	79.88	79.26	78.59	78.51	78.44	78.35	78.44	78.51	78.59	79.26	79.88	79.94	79.50
G 80.0	82.56	81.92	81.09	81.36	81.51	81.52	81.57	81.29	81.09	81.92	82.56	82.60	82.79
G 85.0	85.84	85.31	84.51	84.86	85.04	84.79	85.04	84.86	84.51	85.31	85.84	85.92	86.75
G 90.0	93.60	93.11	91.59	91.64	91.47	90.87	91.47	91.64	91.59	93.11	93.60	93.13	94.26

bover
barcelona lights

Luminaire		Measurem.		Lamp	
Code	33502300xxU+P801	Code	33502300xx+P801	Code	49885
Name	GAROTA P/02 2x20W CFL white	Name	GAROTA P/02 2x20W CFL white	Number	2
Line	- BOVER	Date	08-01-2016	Position	Universal

Luminaire Flux	601.38 lm	Luminaire Power	40.00 W	Efficacy	15.03 lm/W	Efficiency	25.06%
Lamps Flux	2400.00 lm	Maximum value	50.43 cd/klm	Position	C=0.00 G=180.00	CG	Asymmetrical

Luminance cd/m2 **Table 3/3**

	C 260.00	C 270.00	C 280.00	C 290.00	C 300.00	C 310.00	C 320.00	C 330.00	C 340.00	C 350.00
G 0.0	77.66	77.66	77.66	77.66	77.66	77.66	77.66	77.66	77.66	77.66
G 5.0	135.60	135.12	135.60	131.07	122.57	130.04	133.90	132.03	140.52	140.04
G 10.0	193.94	189.40	193.93	198.40	197.45	194.36	193.09	195.74	200.37	196.78
G 15.0	214.48	210.22	214.47	217.72	219.68	227.32	221.68	209.99	218.47	219.27
G 20.0	218.96	212.67	218.95	219.46	215.10	224.91	226.85	218.50	219.59	218.56
G 25.0	198.08	193.62	198.08	202.29	203.31	207.03	210.81	210.99	206.71	203.08
G 30.0	176.55	178.65	176.55	177.62	182.88	185.36	186.44	186.92	185.51	183.81
G 35.0	153.00	157.87	153.00	151.81	157.54	159.58	159.75	160.07	159.74	158.94
G 40.0	128.95	133.35	128.95	127.58	132.20	133.66	133.98	134.57	133.87	132.89
G 45.0	110.11	111.63	110.11	108.98	109.74	110.61	111.77	112.50	111.45	110.27
G 50.0	94.61	95.81	94.61	93.11	92.89	93.75	94.82	95.12	94.17	93.26
G 55.0	85.41	86.42	85.41	84.34	84.44	85.22	85.93	86.02	85.34	84.71
G 60.0	80.28	80.81	80.28	79.66	79.78	80.65	81.21	80.99	80.32	79.73
G 65.0	77.65	77.91	77.65	77.30	77.30	77.71	77.87	77.48	76.88	76.67
G 70.0	77.34	77.64	77.34	77.21	77.29	77.41	76.96	76.21	76.09	76.00
G 75.0	79.60	80.00	79.60	79.50	79.94	79.88	79.26	78.59	78.51	78.43
G 80.0	83.09	83.23	83.09	82.79	82.60	82.56	81.93	81.09	81.36	81.51
G 85.0	87.49	87.65	87.49	86.75	85.92	85.84	85.31	84.51	84.83	85.12
G 90.0	94.71	94.52	94.71	94.26	93.13	93.60	93.12	91.59	91.69	91.63