

Luminaire

Code 19604400014
Name Nut B/90/2L Outdoor

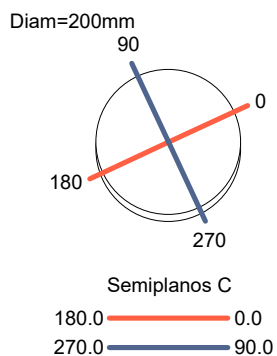
Measurem.

Code CL092A22D028GP
Name Nut B/90/2L Outdoor

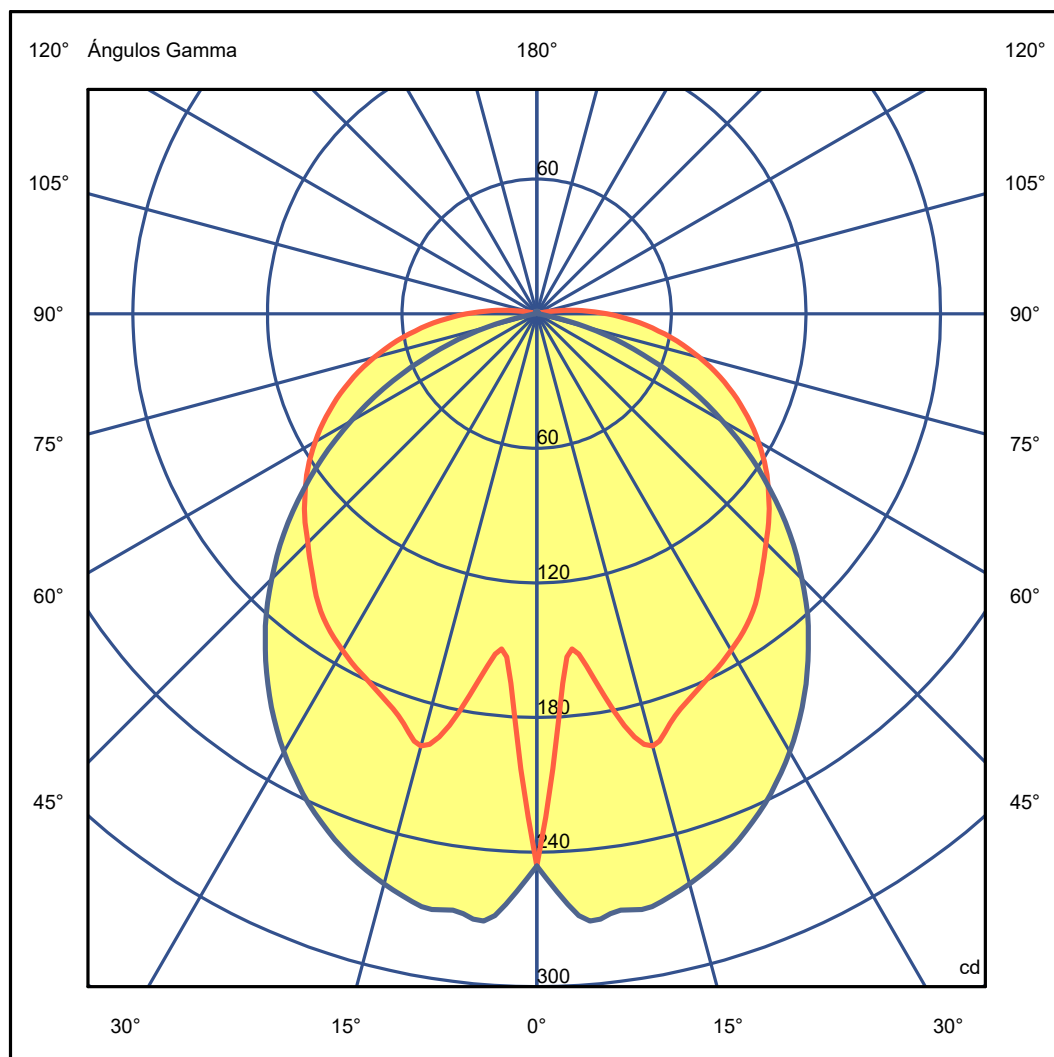
Luminaire Flux	757.29 lm	Luminaire Power	16.13 W	Efficacy	46.94 lm/W	Efficiency	100.00%
Sources Flux	757.29 lm	Maximum value	286.70 cd	Position	C=45.00 G=12.50	CG	Double Symmetrical
Round Luminaire		Diam.	200 mm	Height	240 mm		
Round Luminous Area		Diam.	180 mm	Height	0 mm		
Horizontal Luminous Area		0.025447 m2		Emitting area on Plane 180°		0.000000 m2	
Emitting area on Plane 0°		0.000000 m2		Emitting area on Plane 270°		0.000000 m2	
Emitting area on Plane 90°		0.000000 m2		Glare area at 76°		0.006156 m2	
Coordinate system		CG		Symmetry Type		Double Symmetrical	
Date		30-11-2022		Maximum Gamma Angle		180	
Measurement Distance		6.44		Measurement Flux		757.29 lm	
Operator		Asselum T2		Rated Voltage		230.21 V	
Temperature		25.20 °C		Rated Current		0.07 A	
Humidity		28.50 %		Photocell		Czibula Grundmann	
Notes		RM22110905					

Luminaire Sources

Line	Code	Name	Flux [lm]	Pow. [W]	Q.ty
	2835 BXEN-27G-11M-3C-00	SAMSUNG	757.29	16.13	1
C.I.E.	46 77 93 98 100	D DIN 5040	A31		
F UTE	0.98 E + 0.02 T	B NBN	BZ 5		



ULOR 2.03 %
DLOR 97.97 %
RN 2.03 %



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Measur.

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Luminous Intensity Table cd Table 1/1

	C 0.00	C 15.00	C 30.00	C 45.00	C 60.00	C 75.00	C 90.00
G 0.0	246.18	246.18	246.18	246.18	246.18	246.18	246.18
G 2.5	192.62	242.01	206.83	243.06	242.30	247.76	260.68
G 5.0	153.53	206.32	173.26	237.28	242.29	252.31	271.71
G 7.5	155.45	196.83	183.21	249.18	256.14	260.54	268.70
G 10.0	172.77	216.44	216.77	274.47	264.18	264.48	269.60
G 12.5	190.81	240.15	239.40	286.70	269.45	261.75	267.09
G 15.0	199.36	250.12	243.17	286.52	266.42	257.94	263.03
G 17.5	193.54	246.56	236.08	279.59	262.20	253.38	258.60
G 20.0	187.43	237.62	226.92	271.22	256.79	248.12	253.48
G 22.5	183.28	230.34	218.02	263.12	250.70	242.29	247.32
G 25.0	179.57	224.44	211.13	255.43	243.97	235.93	240.80
G 27.5	176.64	220.04	205.53	247.82	236.58	228.58	233.29
G 30.0	173.14	215.57	199.73	240.14	228.51	220.84	225.44
G 32.5	169.70	210.28	193.27	231.50	220.29	212.73	216.84
G 35.0	165.65	204.35	186.16	222.29	210.96	203.78	207.80
G 37.5	160.78	197.49	178.31	212.49	201.64	194.65	198.26
G 40.0	155.02	190.09	169.66	201.88	191.61	184.76	188.33
G 42.5	149.56	182.05	161.18	190.76	181.42	174.79	178.19
G 45.0	144.38	173.91	151.73	179.34	170.55	164.20	167.11
G 47.5	139.89	166.31	143.08	167.91	159.51	153.34	156.16
G 50.0	135.20	159.50	134.74	156.26	148.07	142.09	144.72
G 52.5	130.17	152.97	127.01	145.10	136.33	130.56	132.70
G 55.0	125.20	146.49	119.65	133.90	124.22	118.80	120.63
G 57.5	119.82	139.80	112.19	122.62	112.15	106.92	108.30
G 60.0	114.05	132.85	104.79	111.46	100.09	94.78	95.56
G 62.5	108.26	125.57	97.61	100.31	87.91	82.72	83.53
G 65.0	101.89	118.28	90.75	89.79	76.10	70.63	70.66
G 67.5	95.60	110.41	84.38	80.39	64.66	58.78	58.26
G 70.0	88.92	102.63	77.61	72.29	54.06	47.22	45.81
G 72.5	82.25	94.51	70.87	64.73	46.00	36.26	34.29
G 75.0	75.05	86.19	63.94	57.34	39.02	27.03	23.05
G 77.5	68.01	77.69	57.00	49.86	32.35	19.26	13.11
G 80.0	60.72	69.13	49.99	42.35	25.87	13.14	5.39
G 82.5	53.29	60.37	42.75	35.06	19.49	8.01	1.83
G 85.0	46.11	51.67	35.85	27.75	13.61	4.23	1.29
G 87.5	38.49	43.06	28.73	20.88	8.26	2.11	0.96
G 90.0	31.43	34.63	22.14	14.50	4.00	1.20	0.79
G 92.5	24.34	26.39	15.74	8.93	1.81	0.99	0.77
G 95.0	17.71	18.86	9.95	5.08	1.33	0.90	0.77
G 97.5	11.75	12.25	5.34	2.74	1.15	0.87	0.77
G100.0	6.72	7.49	2.71	1.70	1.05	0.85	0.77
G102.5	3.81	4.21	1.76	1.46	1.03	0.85	0.77
G105.0	2.08	2.59	1.53	1.35	1.03	0.86	0.77
G107.5	1.75	2.00	1.41	1.31	1.04	0.87	0.79
G110.0	1.60	1.87	1.36	1.27	1.07	0.87	0.79
G112.5	1.53	1.75	1.34	1.27	1.09	0.88	0.79
G115.0	1.46	1.68	1.30	1.24	1.05	0.89	0.81
G117.5	1.39	1.63	1.26	1.23	1.02	0.90	0.83
G120.0	1.32	1.55	1.23	1.23	1.01	0.90	0.83
G122.5	1.23	1.47	1.19	1.20	1.01	0.90	0.83
G125.0	1.18	1.42	1.17	1.19	1.03	0.90	0.84
G127.5	1.12	1.37	1.15	1.18	1.02	0.91	0.86
G130.0	1.08	1.32	1.13	1.19	1.02	0.91	0.88
G132.5	1.04	1.28	1.11	1.19	1.03	0.92	0.88
G135.0	1.03	1.26	1.10	1.19	1.04	0.93	0.90
G137.5	1.01	1.25	1.08	1.19	1.04	0.93	0.91
G140.0	0.99	1.22	1.07	1.18	1.04	0.95	0.92
G142.5	0.97	1.21	1.07	1.19	1.04	0.96	0.92
G145.0	0.95	1.18	1.05	1.18	1.05	0.97	0.94
G147.5	0.95	1.17	1.04	1.19	1.06	0.98	0.94
G150.0	0.95	1.19	1.05	1.19	1.07	0.99	0.96
G152.5	0.93	1.18	1.05	1.19	1.09	1.00	0.98
G155.0	0.96	1.21	1.05	1.19	1.09	1.02	1.02
G157.5	0.97	1.21	1.06	1.19	1.09	1.04	1.05
G160.0	0.99	1.22	1.07	1.19	1.11	1.05	1.09
G162.5	1.03	1.23	1.08	1.21	1.12	1.07	1.09
G165.0	1.03	1.24	1.09	1.21	1.13	1.07	1.09
G167.5	1.01	1.24	1.08	1.21	1.15	1.07	1.11
G170.0	1.00	1.21	1.06	1.19	1.12	1.05	1.09
G172.5	0.93	1.17	1.02	1.11	1.07	1.01	1.05
G175.0	0.90	1.13	0.95	1.06	0.99	0.99	1.01
G177.5	0.90	1.10	0.92	1.03	0.94	0.96	0.96
G180.0	0.95	0.95	0.95	0.95	0.95	0.95	0.95

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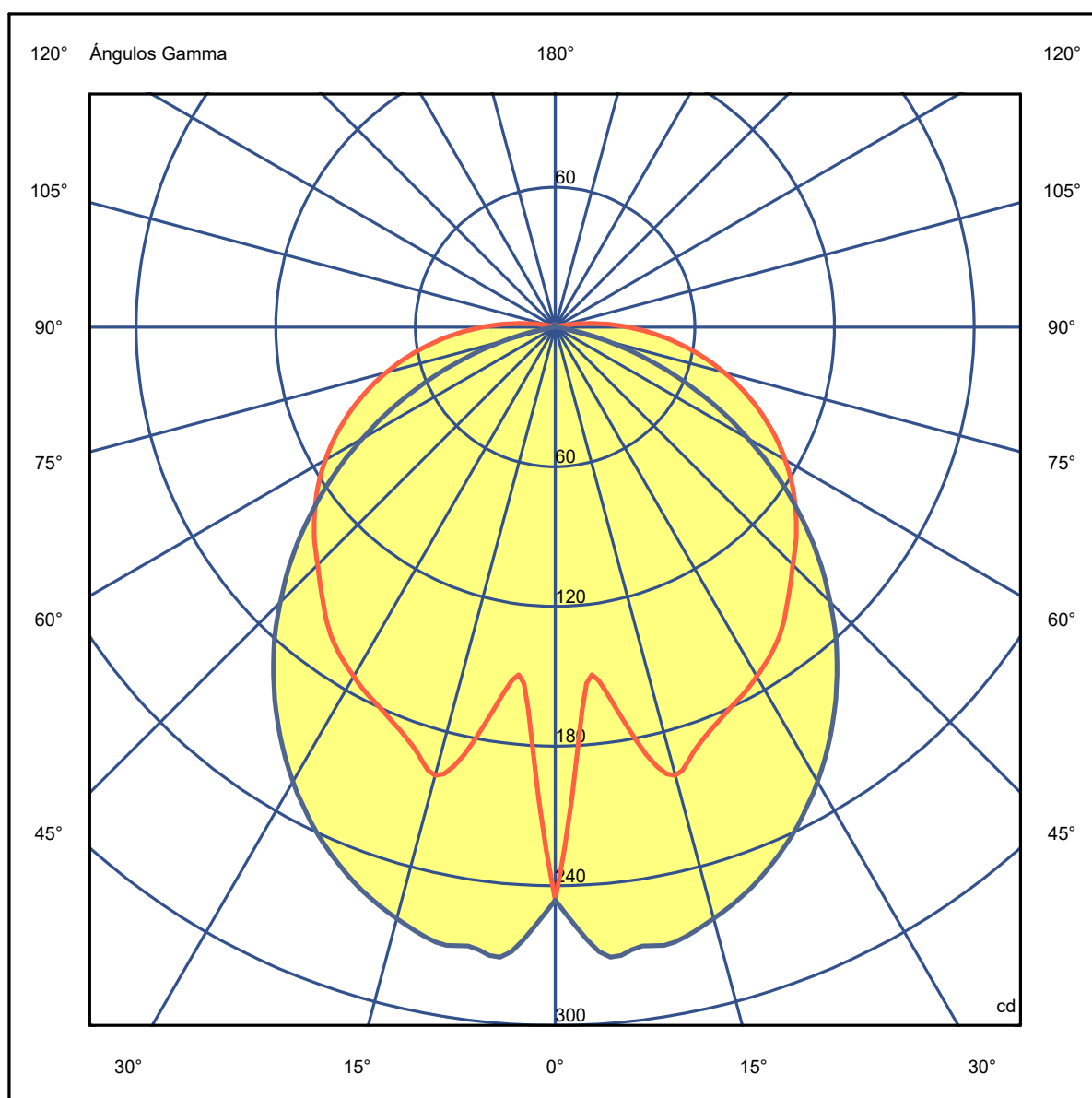
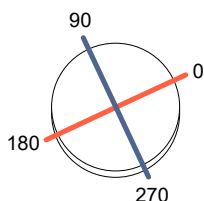
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Diam=200mm

Semiplanos C

180.0 — 0.0
270.0 — 90.0



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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
Working Plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room Dimensions										
	Lateral View					Viewed Endwise				
x=2H y=2H	20.5	21.8	20.8	22.1	22.3	19.5	20.8	19.8	21.1	21.3
x=2H y=3H	22.9	24.0	23.2	24.4	24.7	20.5	21.6	20.8	22.0	22.3
x=2H y=4H	24.0	25.2	24.4	25.5	25.8	20.7	21.8	21.1	22.1	22.5
x=2H y=6H	25.2	26.2	25.6	26.6	26.9	20.7	21.8	21.1	22.1	22.5
x=2H y=8H	25.7	26.7	26.1	27.1	27.5	20.7	21.7	21.1	22.1	22.4
x=2H y=12H	26.3	27.3	26.7	27.6	28.0	20.7	21.6	21.1	22.0	22.4
x=4H y=2H	21.0	22.2	21.4	22.5	22.8	20.2	21.4	20.6	21.7	22.0
x=4H y=3H	23.6	24.5	24.0	24.9	25.3	21.4	22.4	21.8	22.8	23.1
x=4H y=4H	25.0	25.8	25.4	26.2	26.6	21.8	22.6	22.2	23.0	23.4
x=4H y=6H	26.4	27.2	26.8	27.6	28.0	21.9	22.7	22.3	23.1	23.5
x=4H y=8H	27.1	27.8	27.6	28.2	28.7	21.9	22.6	22.3	23.0	23.5
x=4H y=12H	27.8	28.5	28.3	28.9	29.4	21.9	22.5	22.3	23.0	23.4
x=8H y=4H	25.2	25.9	25.6	26.3	26.8	22.4	23.1	22.9	23.6	24.0
x=8H y=6H	26.8	27.4	27.3	27.9	28.4	22.8	23.4	23.3	23.8	24.3
x=8H y=8H	27.7	28.3	28.3	28.7	29.3	22.9	23.4	23.4	23.9	24.4
x=8H y=12H	28.7	29.2	29.3	29.7	30.2	22.8	23.3	23.4	23.8	24.3
x=12H y=4H	25.2	25.9	25.7	26.3	26.8	24.4	25.1	24.9	25.5	26.0
x=12H y=6H	26.9	27.4	27.4	27.9	28.4	24.7	25.2	25.2	25.7	26.3
x=12H y=8H	27.9	28.3	28.4	28.8	29.4	24.8	25.3	25.3	25.8	26.3

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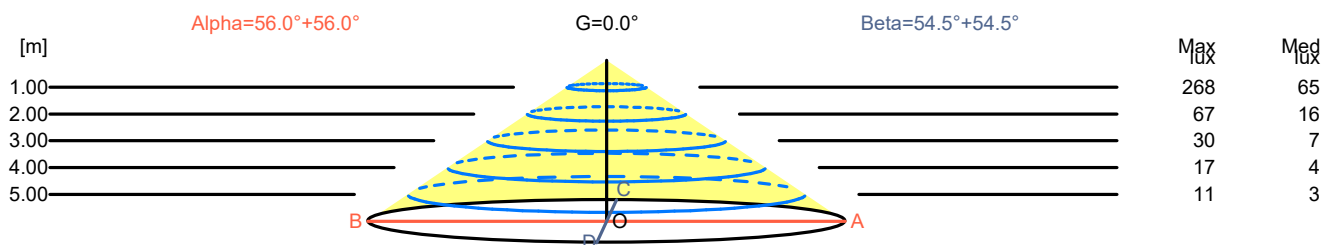
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Width at 50.00 % of Max Intensity

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	1.48	2.97	4.45	5.93	7.42	OC	1.40	2.80	4.20	5.61	7.01
OB	1.48	2.97	4.45	5.93	7.42	OD	1.40	2.80	4.20	5.61	7.01

Luminous Intensities [cd]

	0	5	15	25	35	45	55	65	75	85
OA	246.18	153.53	199.36	179.57	165.65	144.38	125.20	101.89	75.05	46.11
OB	246.18	153.53	199.36	179.57	165.65	144.38	125.20	101.89	75.05	46.11
OC	246.18	271.71	263.03	240.80	207.80	167.11	120.63	70.66	23.05	1.29
OD	246.18	271.71	263.03	240.80	207.80	167.11	120.63	70.66	23.05	1.29



H[m]	D[m]	Max lux	Med lux	Alpha=56.0°+56.0°	G=0.0
1.00	2.97	268	65		
2.00	5.93	67	16		
3.00	8.90	30	7		
4.00	11.87	17	4		
5.00	14.83	11	3		

H[m]	D[m]	Max lux	Med lux	Beta=54.5°+54.5°	G=0.0
1.00	2.80	268	65		
2.00	5.61	67	16		
3.00	8.41	30	7		
4.00	11.21	17	4		
5.00	14.01	11	3		

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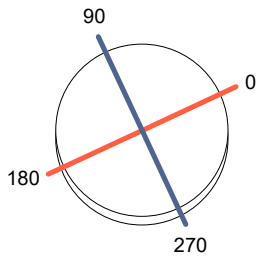
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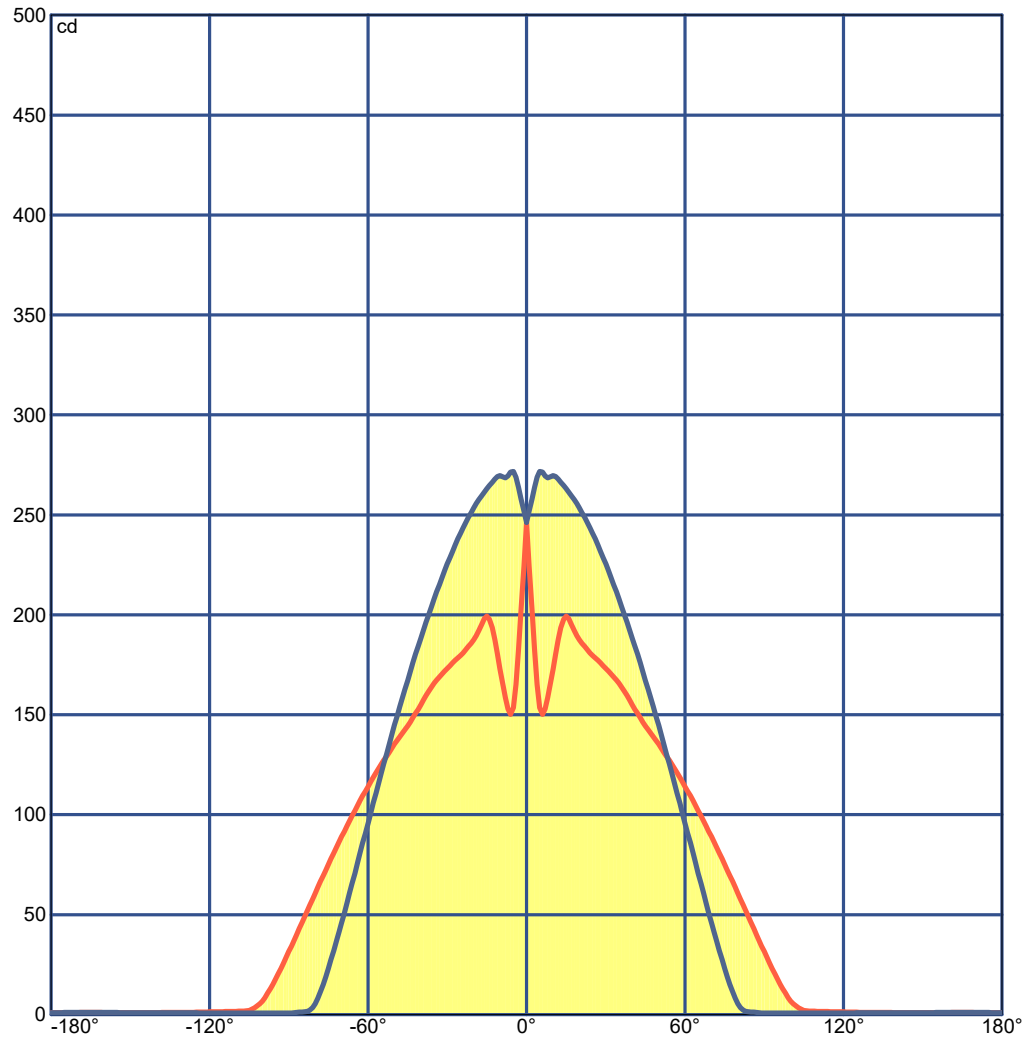
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Diam=200mm



Semiplanos C

180.0 ——— 0.0
270.0 ——— 90.0



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Flujo Total=757.29 Flujo Luminaria=757.29

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	0.30	0.38	0.45	0.52	0.58	0.66	0.72	0.76	0.81	0.84	0.91	0.95
RC	5	5	5	5	5	5	5	5	5	6	6	6

Flujo Zonal por 1000 Lúmenes

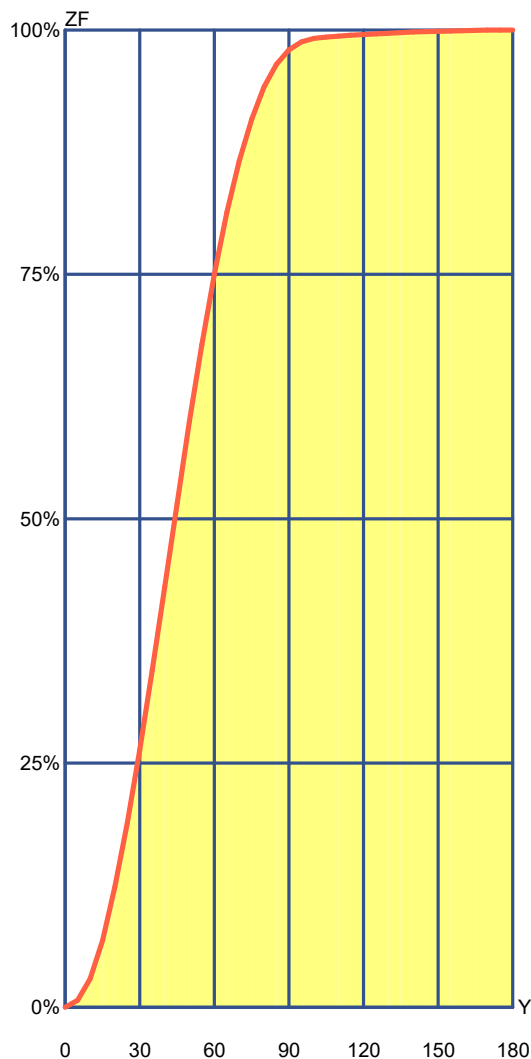
Y°	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
ZF(Y)	29	123	263	430	599	750	866	942	980	991	994	995	997	998	999	999	1000	1000

Códigos de Flujo C.I.E.

46 77 93 98 100

C.I.E. 5/5/5/5/5/5/5/5/6/6/6
D DIN 5040 A31
F UTE 0.98 E + 0.02 T
B NBN BZ 5
RN 2.02767 %
BLF 1.0

LOR 100.00000 %
ULOR 2.02767 %
DLOR 97.97233 %
UFF 2.02767 %
DFF 97.97233 %
FFR 2.06963 %



Flujo Zonal				
Gamma °	Flujo	Suma lm	Flujo [%]	Suma [%]
0°	0.00	0.00	0.00 %	0.00 %
5°	7.29	7.29	0.73 %	0.73 %
10°	21.73	29.02	2.17 %	2.90 %
15°	39.51	68.53	3.95 %	6.85 %
20°	54.41	122.94	5.44 %	12.29 %
25°	65.53	188.46	6.55 %	18.85 %
30°	74.77	263.23	7.48 %	26.32 %
35°	81.64	344.87	8.16 %	34.49 %
40°	85.36	430.22	8.54 %	43.02 %
45°	85.79	516.01	8.58 %	51.60 %
50°	83.39	599.40	8.34 %	59.94 %
55°	78.75	678.15	7.88 %	67.82 %
60°	71.95	750.10	7.19 %	75.01 %
65°	63.11	813.21	6.31 %	81.32 %
70°	53.03	866.24	5.30 %	86.62 %
75°	42.69	908.93	4.27 %	90.89 %
80°	32.66	941.59	3.27 %	94.16 %
85°	23.22	964.81	2.32 %	96.48 %
90°	14.91	979.72	1.49 %	97.97 %
95°	8.16	987.88	0.82 %	98.79 %
100°	3.59	991.48	0.36 %	99.15 %
105°	1.46	992.94	0.15 %	99.29 %
110°	0.93	993.86	0.09 %	99.39 %
115°	0.83	994.70	0.08 %	99.47 %
120°	0.76	995.46	0.08 %	99.55 %
125°	0.70	996.16	0.07 %	99.62 %
130°	0.63	996.79	0.06 %	99.68 %
135°	0.58	997.37	0.06 %	99.74 %
140°	0.53	997.89	0.05 %	99.79 %
145°	0.47	998.36	0.05 %	99.84 %
150°	0.41	998.78	0.04 %	99.88 %
155°	0.36	999.14	0.04 %	99.91 %
160°	0.31	999.45	0.03 %	99.94 %
165°	0.25	999.69	0.02 %	99.97 %
170°	0.18	999.87	0.02 %	99.99 %
175°	0.10	999.97	0.01 %	100.00 %
180°	0.03	1000.00	0.00 %	100.00 %

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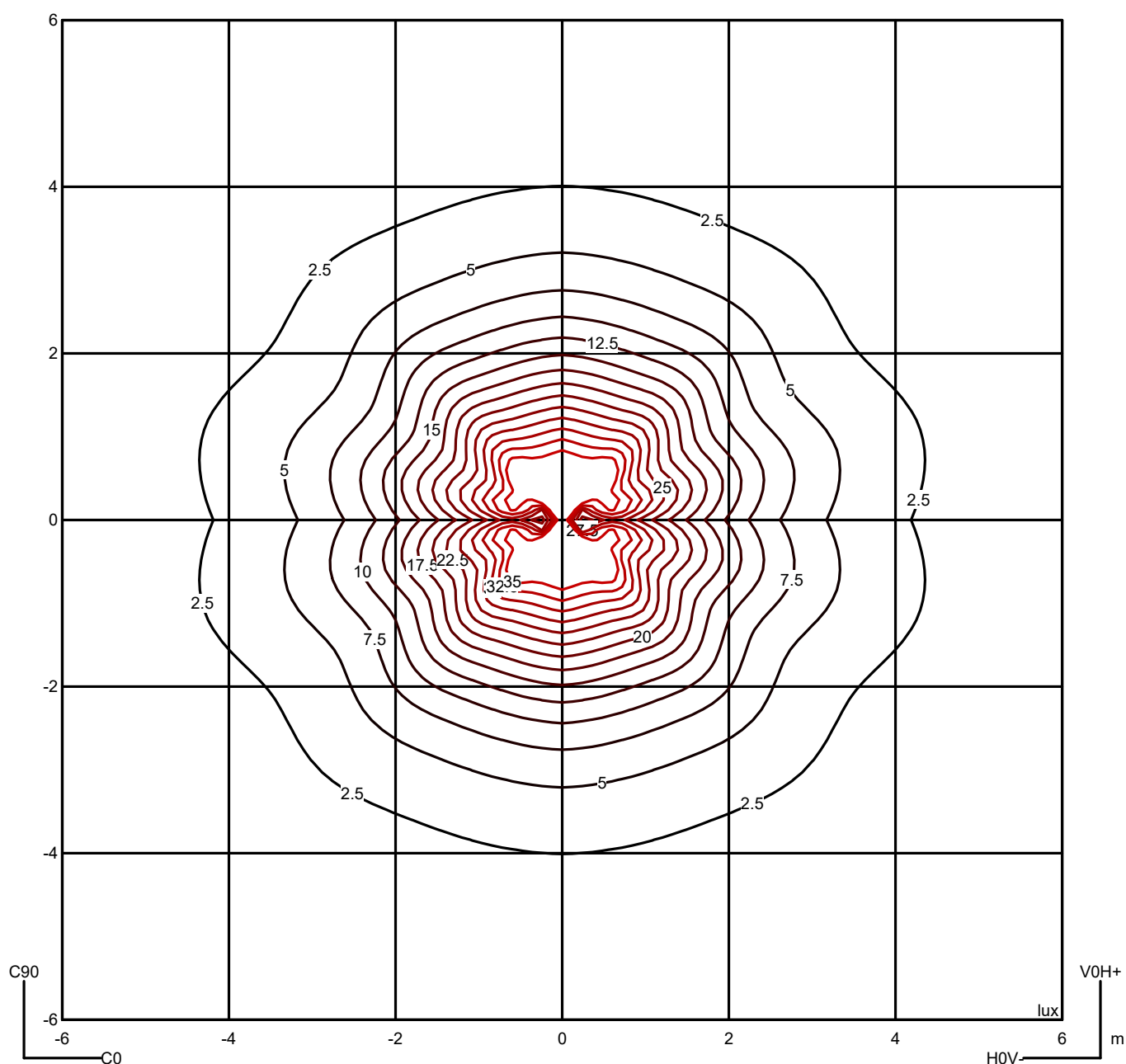
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Isolux (Floor)

Luminaire position X=0.00m Y=0.00m Z=2.50m



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Spectral Data

CIE1931 x=0.464153 y=0.409544
CIE1960 u=0.265753 v=0.351730
CIE1976 u'=0.265753 v'=0.527595
D(u,v) 0.00072

Color rendering index (CRI)
Color Rendering Components

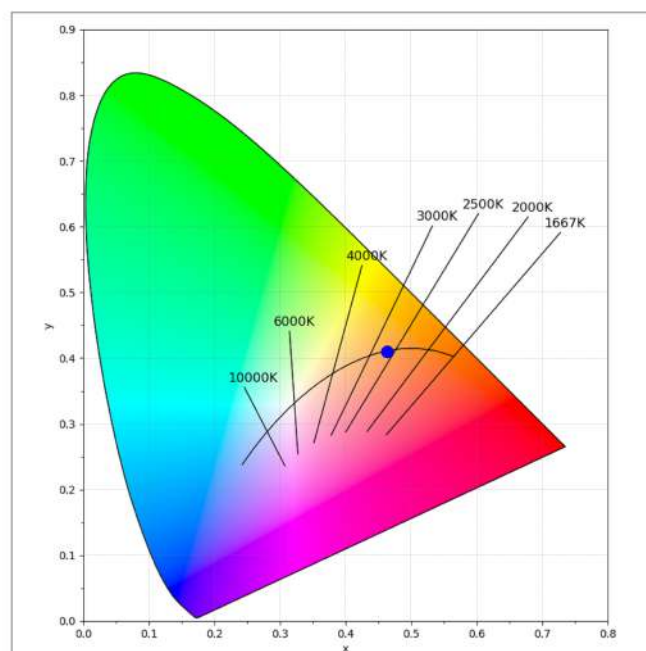
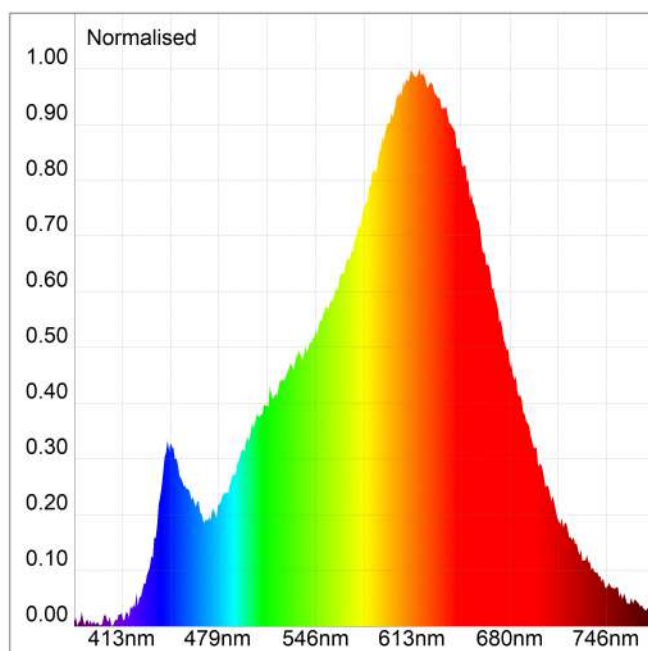
CCT = 2633 K

CRI8(Ra) 93.1 CRI15(Rav) 91.1
R 1: 94.1 R 2: 98.5 R 3: 97.9 R 4: 93.6 R 5: 94.5
R 6: 97.1 R 7: 89.9 R 8: 79.6 R 9: 57.6 R10: 95.7
R11: 95.8 R12: 87.5 R13: 95.6 R14: 99.7 R15: 89.0
M/P Well = 0.48134

Spectral Distribution

l(nm)	Normalised	l(nm)	Normalised	l(nm)	Normalised
380.0	0.007360	386.0	0.025754	392.0	0.003351
398.0	0.005582	404.0	0.001369	410.0	0.010629
416.0	0.006002	422.0	0.010733	428.0	0.030927
434.0	0.053341	440.0	0.104741	446.0	0.216595
452.0	0.332974	458.0	0.300647	464.0	0.251078
470.0	0.223060	476.0	0.189655	482.0	0.205819
488.0	0.223060	494.0	0.253233	500.0	0.296336
506.0	0.339440	512.0	0.379310	518.0	0.396552
524.0	0.411638	530.0	0.442888	536.0	0.465517
542.0	0.484914	548.0	0.509698	554.0	0.539871
560.0	0.567888	566.0	0.607759	572.0	0.645474
578.0	0.687500	584.0	0.750000	590.0	0.810345
596.0	0.855603	602.0	0.904095	608.0	0.949353
614.0	0.977371	620.0	0.985991	626.0	0.981681
632.0	0.956897	638.0	0.931034	644.0	0.896552
650.0	0.840517	656.0	0.765086	662.0	0.726293
668.0	0.649784	674.0	0.580819	680.0	0.504310
686.0	0.441810	692.0	0.384698	698.0	0.331897
704.0	0.289871	710.0	0.238147	716.0	0.189655
722.0	0.173491	728.0	0.148707	734.0	0.117457
740.0	0.098707	746.0	0.086853	752.0	0.068966
758.0	0.059806	764.0	0.039332	770.0	0.040733
776.0	0.033190	782.0	0.021444	788.0	0.021444

Spectrum Graph



Luminaire

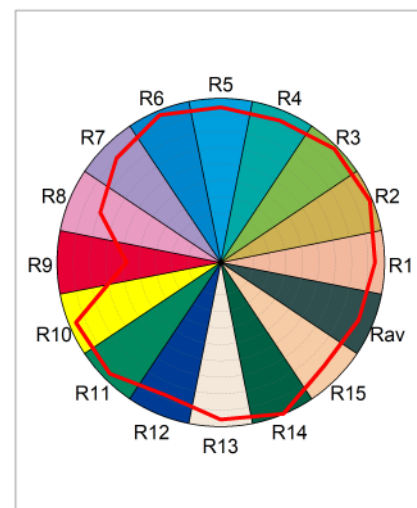
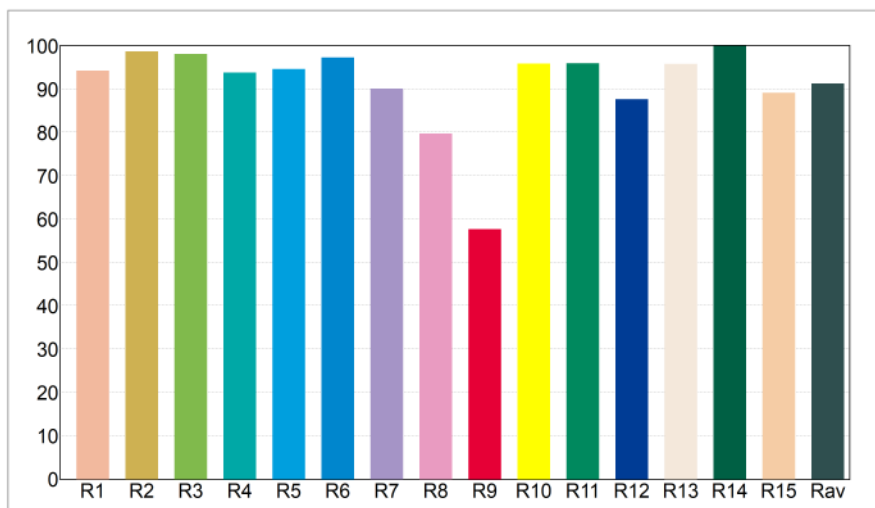
Code 19604400014
Name Nut B/90/2L Outdoor

Measurem.

Code CL092A22D028GP
Name Nut B/90/2L Outdoor

Luminaire Flux	757.29 lm	Luminaire Power	16.13 W	Efficacy	46.94 lm/W	Efficiency	100.00%
Sources Flux	757.29 lm	Maximum value	286.70 cd	Position	C=45.00 G=12.50	CG	Double Symmetrical

CRI Graphs



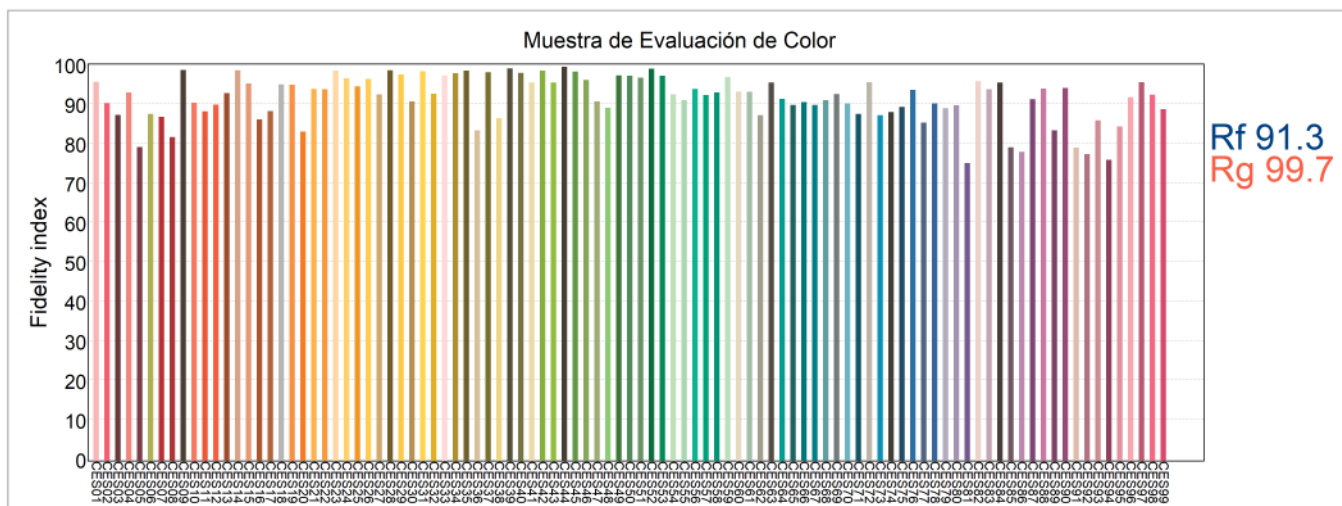
Luminaire

Code 19604400014
Name Nut B/90/2L Outdoor

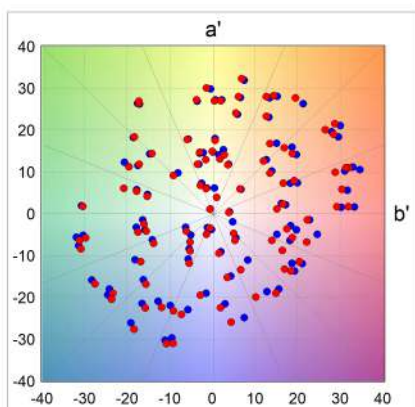
Measurement

Code CL092A22D028GP
Name Nut B/90/2L Outdoor

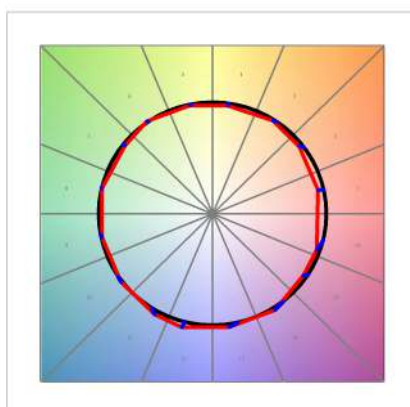
Luminaire Flux	757.29 lm	Luminaire Power	16.13 W	Efficacy	46.94 lm/W	Efficiency	100.00%
Sources Flux	757.29 lm	Maximum value	286.70 cd	Position	C=45.00 G=12.50	CG	Double Symmetrical



Chromatic Coordinates (a', b') 99 CES



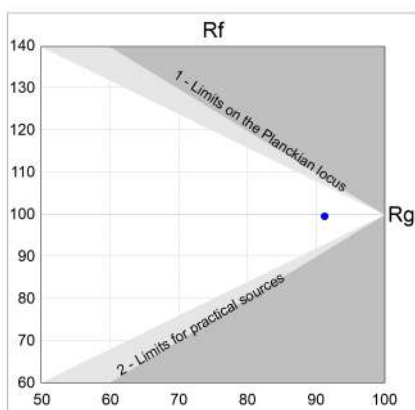
Color Vector Graphic



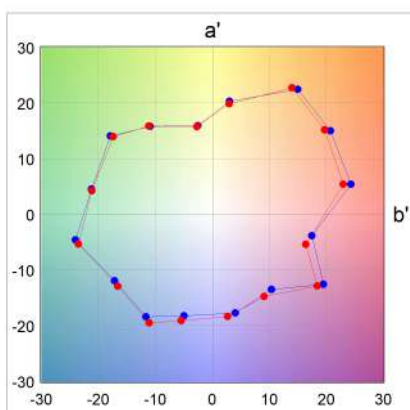
Color Distorsion Graphic



Rg vs Rf Plot



Gamut Polygon



Bin Deviation

