

Luminaire

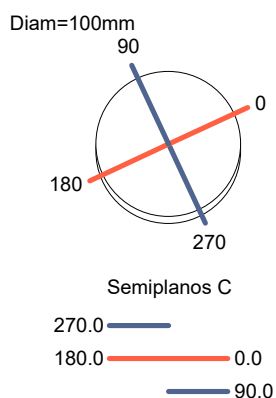
Code 19603400xxx
Name Nut B/90 Outdoor

Measurement

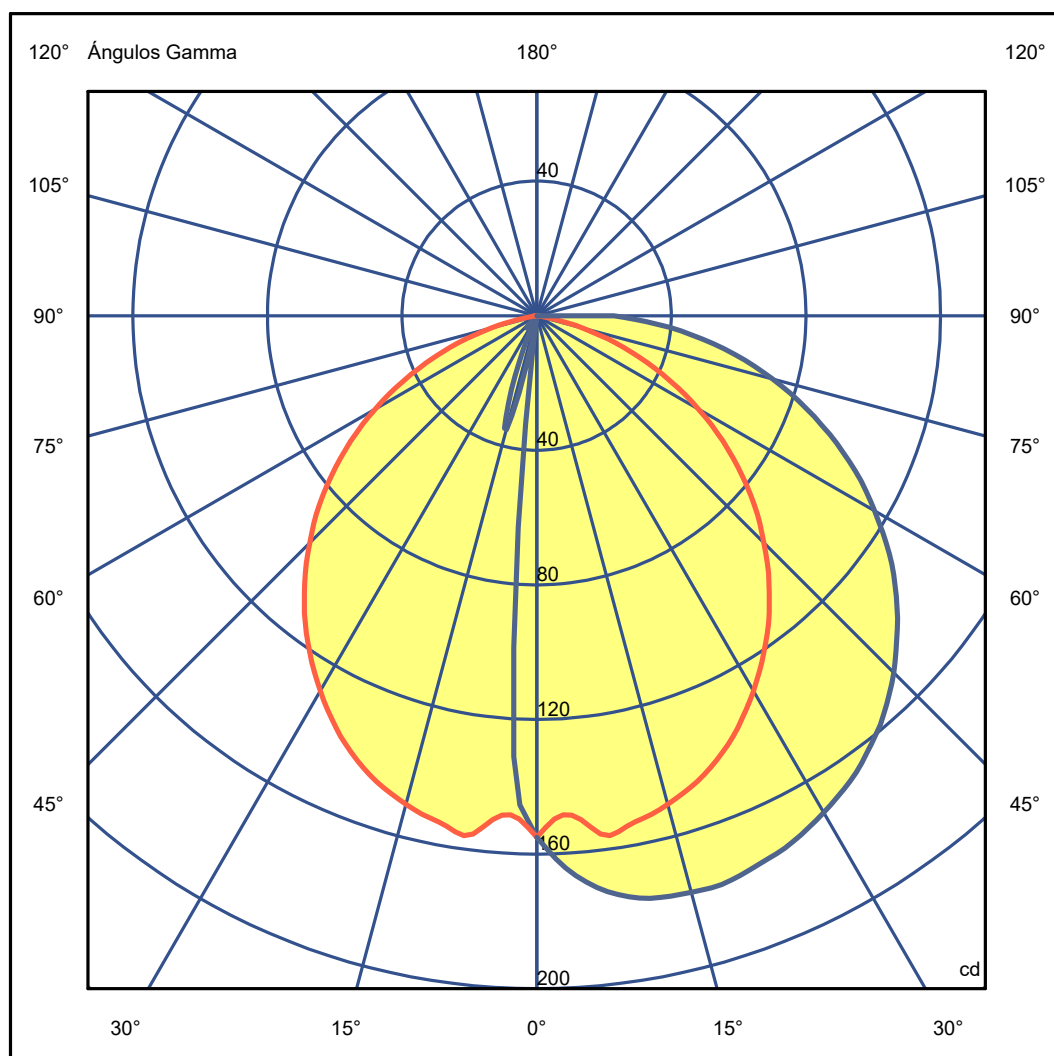
Code CL092A22F031GE1
Name Nut B/90 Outdoor

Luminaire Flux	374.18 lm	Luminaire Power	7.99 W	Efficacy	46.83 lm/W	Efficiency	100.00%
Sources Flux	374.18 lm	Maximum value	177.75 cd	Position	C=90.00 G=17.50	CG	Sym. on planes 270-90
Round Luminaire		Diam.	100 mm	Height	120 mm		
Round Luminous Area		Diam.	90 mm	Height	0 mm		
Horizontal Luminous Area		0.006362 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°		0.001539 m2	
Coordinate system		CG		Symmetry Type		Sym. on planes 270-90	
Date		20-12-2022		Maximum Gamma Angle		90	
Measurement Distance		6.44		Measurement Flux		374.18 lm	
Operator				Rated Voltage		230.21 V	
Temperature		25.20 °C		Rated Current		0.04 A	
Humidity		39.00 %		Photocell		Czibula Grundmann	
Notes		RM22110905					

Luminaire Sources					
Line		Code LED	Name LED	Flux [lm]	Pow. [W]
				374.18	7.99
C.I.E.	48 78 94 100 100		D DIN 5040	A30	
F UTE	1.00 E		B NBN	BZ 4 / 1.5 / BZ 5	



ULOR 0.00 %
DLOR100.00 %
RN 0.00 %



Luminaire

Code 19603400xxx
Name Nut B/90 Outdoor

Measurement

Code CL092A22F031GE1
Name Nut B/90 Outdoor

Luminaire Flux		374.18 lm		Luminaire Power		7.99 W		Efficacy		46.83 lm/W		Efficiency		100.00%	
Sources Flux		374.18 lm		Maximum value		177.75 cd		Position		C=90.00 G=17.50		CG		Sym. on planes 270-90	
Luminous Intensity Table cd														Table 1/1	
C 270.00		C 285.00	C 300.00	C 315.00	C 330.00	C 345.00	C 0.00	C 15.00	C 30.00	C 45.00	C 60.00	C 75.00	C 90.00		
G 0.0	154.94	154.94	154.94	154.94	154.94	154.94	154.94	154.94	154.94	154.94	154.94	154.94	154.94	154.94	154.94
G 2.5	143.03	148.41	140.07	150.30	142.94	152.76	148.90	155.85	158.10	158.83	161.57	161.12	162.88	162.88	162.88
G 5.0	63.01	128.85	96.53	130.61	131.78	142.54	150.27	156.19	160.13	160.08	166.48	164.68	168.93	168.93	168.93
G 7.5	3.60	58.63	74.68	111.74	144.15	142.22	155.81	155.45	160.82	160.78	168.62	166.95	173.08	173.08	173.08
G 10.0	3.63	22.81	86.35	118.21	144.24	148.43	154.07	154.60	160.85	161.12	169.81	167.78	175.69	175.69	175.69
G 12.5	19.55	27.44	108.44	129.51	141.02	146.09	152.32	153.42	160.49	161.22	170.22	168.38	176.89	176.89	176.89
G 15.0	35.01	42.47	106.07	133.43	137.56	143.41	150.27	151.95	159.95	160.85	170.61	168.55	177.33	177.33	177.33
G 17.5	29.22	44.31	91.73	126.90	133.81	140.50	147.94	149.68	159.04	160.43	170.73	168.16	177.75	177.75	177.75
G 20.0	18.98	38.94	75.24	116.98	129.04	137.16	145.18	146.96	157.52	159.07	170.36	167.44	176.95	176.95	176.95
G 22.5	8.83	28.92	58.47	106.59	124.18	133.60	141.77	143.61	155.55	157.32	169.54	166.37	175.63	175.63	175.63
G 25.0	2.96	16.91	45.70	95.56	119.04	129.44	137.90	139.92	152.99	155.02	168.33	164.86	174.51	174.51	174.51
G 27.5	1.70	7.29	35.98	86.07	113.54	125.16	133.41	136.13	150.04	152.47	166.30	162.81	172.61	172.61	172.61
G 30.0	1.47	4.19	31.89	78.99	108.08	120.42	128.73	131.91	146.31	149.43	164.07	160.38	170.49	170.49	170.49
G 32.5	2.06	3.59	29.42	73.79	102.47	115.36	123.77	127.37	142.66	145.73	161.20	157.58	168.06	168.06	168.06
G 35.0	3.01	3.15	27.16	69.13	96.66	110.29	118.60	122.80	138.54	141.94	157.78	154.59	165.56	165.56	165.56
G 37.5	4.15	2.85	24.95	64.69	90.59	104.72	113.26	117.76	134.14	137.76	154.25	150.97	162.14	162.14	162.14
G 40.0	4.67	2.58	22.59	60.01	84.24	99.02	107.45	112.43	129.52	133.10	149.94	147.04	158.72	158.72	158.72
G 42.5	3.52	2.37	20.32	55.01	78.03	93.09	101.67	106.77	124.51	128.28	145.45	142.48	154.42	154.42	154.42
G 45.0	1.78	2.16	18.03	50.21	71.54	87.27	95.42	101.07	119.18	122.99	140.57	137.69	149.99	149.99	149.99
G 47.5	0.74	1.89	15.81	45.28	64.80	80.80	89.41	95.14	113.53	117.64	135.46	132.75	144.88	144.88	144.88
G 50.0	0.62	1.59	13.44	40.33	57.97	74.48	82.92	88.86	107.85	112.14	130.04	127.44	139.90	139.90	139.90
G 52.5	0.58	1.29	11.08	35.31	51.23	67.90	76.29	82.57	101.77	106.17	124.50	121.95	134.39	134.39	134.39
G 55.0	0.58	1.05	8.88	30.14	44.23	61.15	69.45	75.98	95.45	99.97	118.57	115.90	128.75	128.75	128.75
G 57.5	0.58	0.85	6.68	25.21	37.29	54.37	62.62	69.27	89.04	93.75	112.33	109.78	122.47	122.47	122.47
G 60.0	0.58	0.70	4.68	20.21	30.40	47.52	55.50	62.55	82.36	87.28	105.91	103.49	115.83	115.83	115.83
G 62.5	0.58	0.62	2.92	15.38	23.80	40.74	48.51	55.67	75.63	80.40	99.10	96.65	109.46	109.46	109.46
G 65.0	0.54	0.56	1.51	10.94	17.32	33.69	41.26	48.71	68.51	73.52	92.19	90.07	102.45	102.45	102.45
G 67.5	0.54	0.54	0.79	6.67	11.40	27.06	34.35	41.69	61.65	66.58	85.06	82.92	95.22	95.22	95.22
G 70.0	0.54	0.50	0.65	3.24	6.11	20.42	27.33	34.67	54.37	59.30	77.57	75.83	87.72	87.72	87.72
G 72.5	0.54	0.48	0.60	1.19	2.45	14.24	20.64	27.90	47.39	52.34	70.25	68.45	80.27	80.27	80.27
G 75.0	0.49	0.48	0.54	0.73	0.98	8.72	14.27	21.27	40.29	45.18	62.88	61.12	72.49	72.49	72.49
G 77.5	0.49	0.47	0.54	0.59	0.74	4.03	8.59	14.92	32.80	38.06	55.03	53.65	64.70	64.70	64.70
G 80.0	0.49	0.47	0.54	0.53	0.60	1.43	3.72	9.38	25.60	30.75	47.06	45.98	56.48	56.48	56.48
G 82.5	0.53	0.47	0.53	0.50	0.54	0.83	1.19	4.87	18.46	24.48	38.88	39.14	48.05	48.05	48.05
G 85.0	0.49	0.47	0.54	0.50	0.54	0.65	0.87	2.16	11.88	18.02	30.78	31.91	39.63	39.63	39.63
G 87.5	0.54	0.47	0.52	0.50	0.54	0.56	0.67	1.34	6.03	12.33	22.61	25.31	30.78	30.78	30.78
G 90.0	0.52	0.47	0.52	0.50	0.54	0.55	0.57	1.18	2.67	8.34	15.64	20.36	22.95	22.95	22.95

Luminaire

Code 19603400xxx
Name Nut B/90 Outdoor

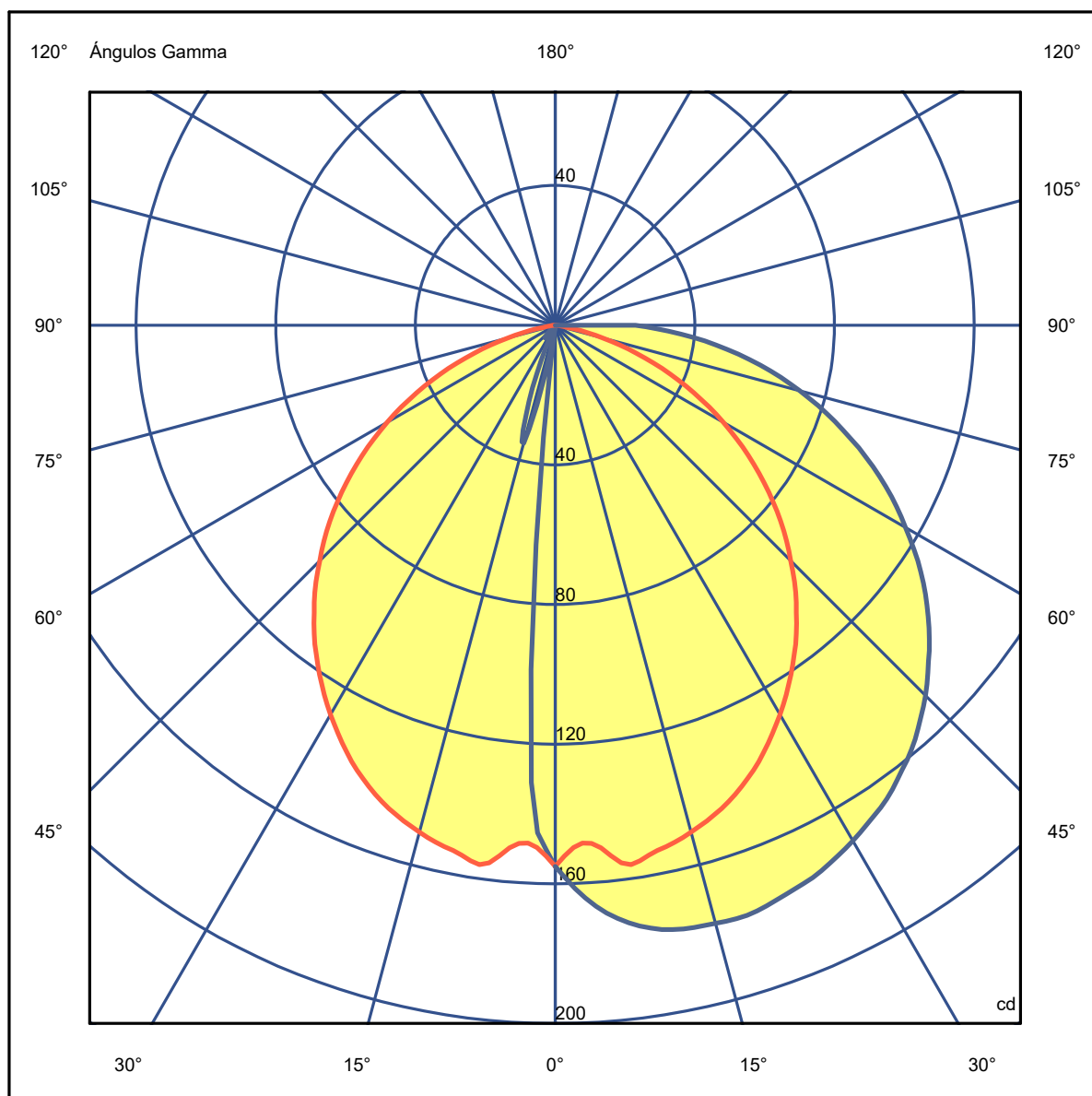
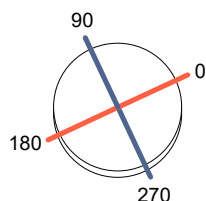
Measurement

Code CL092A22F031GE1
Name Nut B/90 Outdoor

Luminaire Flux	374.18 lm	Luminaire Power	7.99 W	Efficacy	46.83 lm/W	Efficiency	100.00%
Sources Flux	374.18 lm	Maximum value	177.75 cd	Position	C=90.00 G=17.50	CG	Sym. on planes 270-90

Diam=100mm

Semiplanos C



Luminaire

Code 19603400xxx
Name Nut B/90 Outdoor

Measurement

Code CL092A22F031GE1
Name Nut B/90 Outdoor

Luminaire Flux	374.18 lm	Luminaire Power	7.99 W	Efficacy	46.83 lm/W	Efficiency	100.00%
Sources Flux	374.18 lm	Maximum value	177.75 cd	Position	C=90.00 G=17.50	CG Sym. on planes 270-90	

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	23.1	24.4	23.4	24.6	24.9	10.1	11.4	10.4	11.6	11.9
x=2H y=3H	24.1	25.3	24.4	25.6	25.8	9.9	11.1	10.2	11.4	11.6
x=2H y=4H	24.4	25.5	24.7	25.8	26.1	9.8	11.0	10.2	11.3	11.5
x=2H y=6H	24.4	25.4	24.7	25.7	26.0	9.8	10.8	10.1	11.2	11.5
x=2H y=8H	24.3	25.4	24.7	25.7	26.0	9.8	10.8	10.1	11.1	11.4
x=2H y=12H	24.3	25.3	24.7	25.6	26.0	9.8	10.8	10.2	11.1	11.4
x=4H y=2H	23.9	25.1	24.3	25.4	25.6	12.5	13.7	12.9	14.0	14.2
x=4H y=3H	25.3	26.3	25.7	26.6	26.9	12.4	13.4	12.8	13.7	14.0
x=4H y=4H	25.7	26.6	26.1	26.9	27.3	12.3	13.2	12.7	13.5	13.9
x=4H y=6H	25.8	26.6	26.2	26.9	27.4	12.3	13.0	12.7	13.4	13.8
x=4H y=8H	25.8	26.5	26.2	26.9	27.3	12.3	13.0	12.7	13.4	13.8
x=4H y=12H	25.8	26.4	26.2	26.8	27.3	12.3	12.9	12.7	13.3	13.8
x=8H y=4H	26.4	27.1	26.8	27.5	27.9	12.4	13.1	12.9	13.5	13.9
x=8H y=6H	26.8	27.3	27.2	27.8	28.2	12.4	13.0	12.9	13.4	13.9
x=8H y=8H	26.8	27.3	27.3	27.8	28.3	12.4	12.9	12.9	13.4	13.8
x=8H y=12H	26.8	27.3	27.3	27.7	28.2	12.4	12.9	12.9	13.4	13.9
x=12H y=4H	27.8	28.5	28.3	28.9	29.3	12.8	13.5	13.3	13.9	14.3
x=12H y=6H	28.2	28.7	28.6	29.1	29.6	12.8	13.3	13.3	13.8	14.2
x=12H y=8H	28.3	28.7	28.8	29.2	29.7	12.8	13.3	13.3	13.7	14.2

Luminaire

Code 19603400xxx
Name Nut B/90 Outdoor

Measurem.

Code CL092A22F031GE1
Name Nut B/90 Outdoor

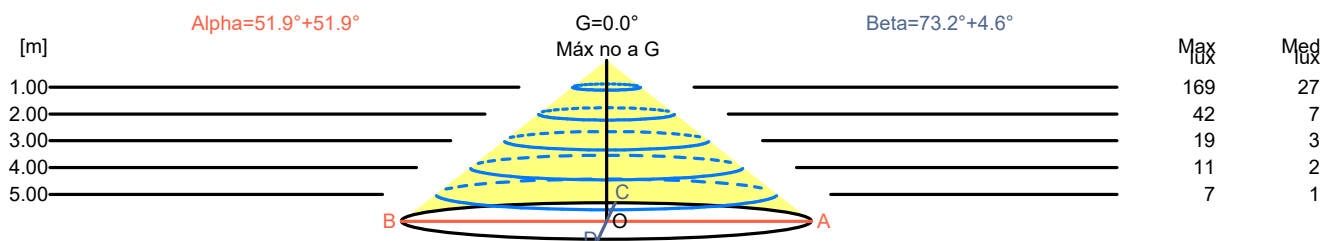
Luminaire Flux	374.18 lm	Luminaire Power	7.99 W	Efficacy	46.83 lm/W	Efficiency	100.00%
Sources Flux	374.18 lm	Maximum value	177.75 cd	Position	C=90.00 G=17.50	CG	Sym. on planes 270-90

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	1.27	2.55	3.82	5.09	6.37	OC	3.32	6.64	9.96	13.28	16.60
OB	1.27	2.55	3.82	5.09	6.37	OD	0.08	0.16	0.24	0.32	0.40

Luminous Intensities [cd]

	0	5	15	25	35	45	55	65	75	85
OA	154.94	150.27	150.27	137.90	118.60	95.42	69.45	41.26	14.27	0.87
OB	154.94	150.27	150.27	137.90	118.60	95.42	69.45	41.26	14.27	0.87
OC	154.94	168.93	177.33	174.51	165.56	149.99	128.75	102.45	72.49	39.63
OD	154.94	63.01	35.01	2.96	3.01	1.78	0.58	0.54	0.49	0.49



H[m]	D[m]	Max lux	Med lux	Alpha=51.9°+51.9°	G=0.0 Máx no a G
1.00	2.55	169	27		
2.00	5.09	42	7		
3.00	7.64	19	3		
4.00	10.19	11	2		
5.00	12.74	7	1		

H[m]	D[m]	Max lux	Med lux	Beta=4.6°+73.2°	G=0.0 Máx no a G
1.00	3.40	169	27		
2.00	6.80	42	7		
3.00	10.20	19	3		
4.00	13.60	11	2		
5.00	17.00	7	1		

Luminaire

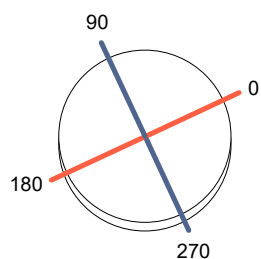
Code 19603400xxx
Name Nut B/90 Outdoor

Measurement

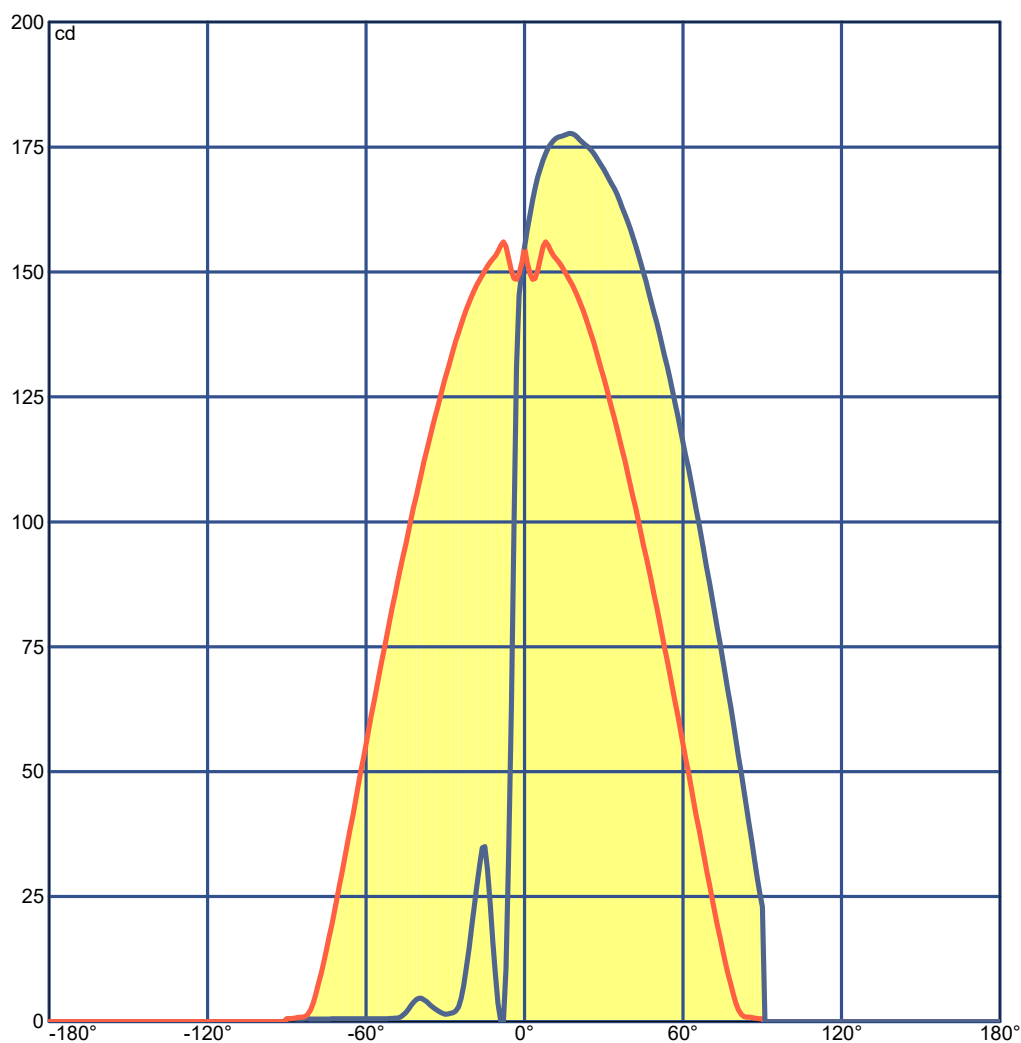
Code CL092A22F031GE1
Name Nut B/90 Outdoor

Luminaire Flux	374.18 lm	Luminaire Power	7.99 W	Efficacy	46.83 lm/W	Efficiency	100.00%
Sources Flux	374.18 lm	Maximum value	177.75 cd	Position	C=90.00 G=17.50	CG	Sym. on planes 270-90

Diam=100mm



Semiplanos C



Luminaire

Code 19603400xxx
Name Nut B/90 Outdoor

Measurement

Code CL092A22F031GE1
Name Nut B/90 Outdoor

Luminaire Flux	374.18 lm	Luminaire Power	7.99 W	Efficacy	46.83 lm/W	Efficiency	100.00%
Sources Flux	374.18 lm	Maximum value	177.75 cd	Position	C=90.00 G=17.50	CG	Sym. on planes 270-90

Flujo Total=374.18 Flujo Luminaria=374.18

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	0.31	0.39	0.47	0.54	0.59	0.68	0.73	0.77	0.82	0.85	0.92	0.96
RC	5	5	5	5	5	5	5	5	5	5	5	5

Flujo Zonal por 1000 Lúmenes

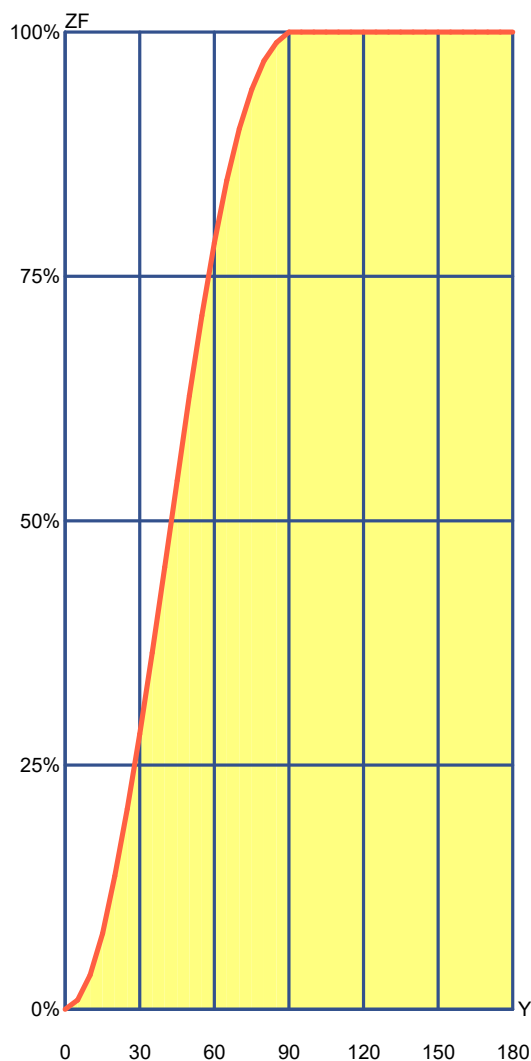
Y°	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
ZF(Y)	35	136	282	452	628	784	901	970	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

Códigos de Flujo C.I.E.

48 78 94 100 100

C.I.E. 5
D DIN 5040 A30
F UTE 1.00 E
B NBN BZ 4 / 1.5 / BZ 5
RN 0.00000 %
BLF 1.0

LOR 100.00000 %
ULOR 0.00000 %
DLOR 100.00000 %
UFF 0.00000 %
DFF 100.00000 %
FFR 0.00000 %



Flujo Zonal				
Gamma °	Flujo	Suma lm	Flujo [%]	Suma [%]
0°	0.00	0.00	0.00%	0.00 %
5°	9.52	9.52	0.95 %	0.95 %
10°	25.64	35.16	2.56 %	3.52 %
15°	42.59	77.75	4.26 %	7.78 %
20°	58.37	136.12	5.84 %	13.61 %
25°	68.97	205.10	6.90 %	20.51 %
30°	76.56	281.66	7.66 %	28.17 %
35°	83.11	364.77	8.31 %	36.48 %
40°	87.51	452.28	8.75 %	45.23 %
45°	88.72	541.00	8.87 %	54.10 %
50°	86.80	627.80	8.68 %	62.78 %
55°	81.98	709.78	8.20 %	70.98 %
60°	74.33	784.11	7.43 %	78.41 %
65°	64.32	848.43	6.43 %	84.84 %
70°	52.61	901.04	5.26 %	90.10 %
75°	40.43	941.47	4.04 %	94.15 %
80°	28.93	970.40	2.89 %	97.04 %
85°	18.79	989.19	1.88 %	98.92 %
90°	10.81	1000.00	1.08 %	100.00 %
95°	0.00	1000.00	0.00 %	100.00 %
100°	0.00	1000.00	0.00 %	100.00 %
105°	0.00	1000.00	0.00 %	100.00 %
110°	0.00	1000.00	0.00 %	100.00 %
115°	0.00	1000.00	0.00 %	100.00 %
120°	0.00	1000.00	0.00 %	100.00 %
125°	0.00	1000.00	0.00 %	100.00 %
130°	0.00	1000.00	0.00 %	100.00 %
135°	0.00	1000.00	0.00 %	100.00 %
140°	0.00	1000.00	0.00 %	100.00 %
145°	0.00	1000.00	0.00 %	100.00 %
150°	0.00	1000.00	0.00 %	100.00 %
155°	0.00	1000.00	0.00 %	100.00 %
160°	0.00	1000.00	0.00 %	100.00 %
165°	0.00	1000.00	0.00 %	100.00 %
170°	0.00	1000.00	0.00 %	100.00 %
175°	0.00	1000.00	0.00 %	100.00 %
180°	0.00	1000.00	0.00 %	100.00 %

Luminaire

Code 19603400xxx
Name Nut B/90 Outdoor

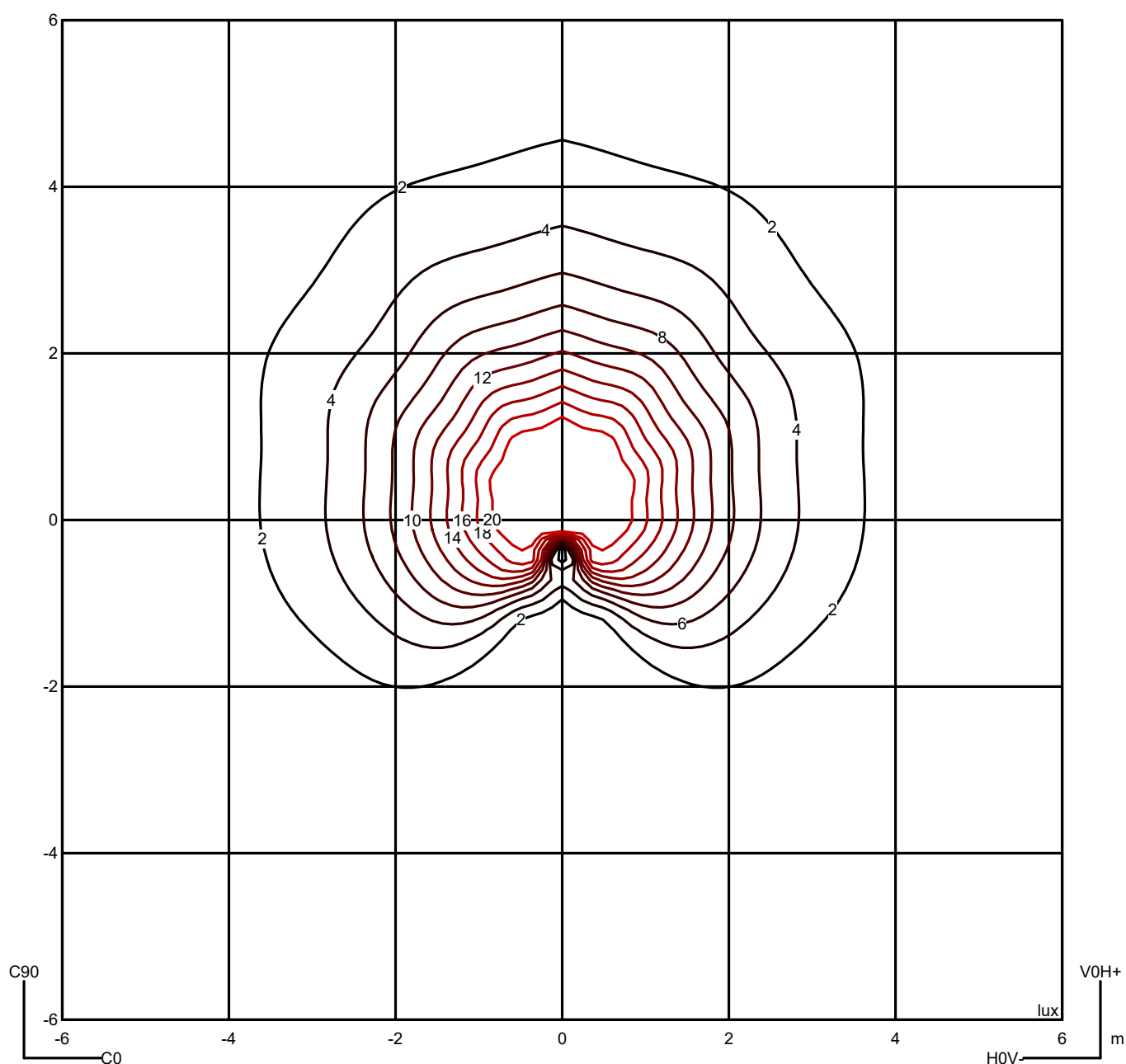
Measurement

Code CL092A22F031GE1
Name Nut B/90 Outdoor

Luminaire Flux	374.18 lm	Luminaire Power	7.99 W	Efficacy	46.83 lm/W	Efficiency	100.00%
Sources Flux	374.18 lm	Maximum value	177.75 cd	Position	C=90.00 G=17.50	CG	Sym. on planes 270-90

Isolux (Floor)

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



Luminaire

Code 19603400xxx
Name Nut B/90 Outdoor

Measurment

Code CL092A22F031GE1
Name Nut B/90 Outdoor

Luminaire Flux	374.18 lm	Luminaire Power	7.99 W	Efficacy	46.83 lm/W	Efficiency	100.00%
Sources Flux	374.18 lm	Maximum value	177.75 cd	Position	C=90.00 G=17.50	CG Sym. on planes	270-90

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

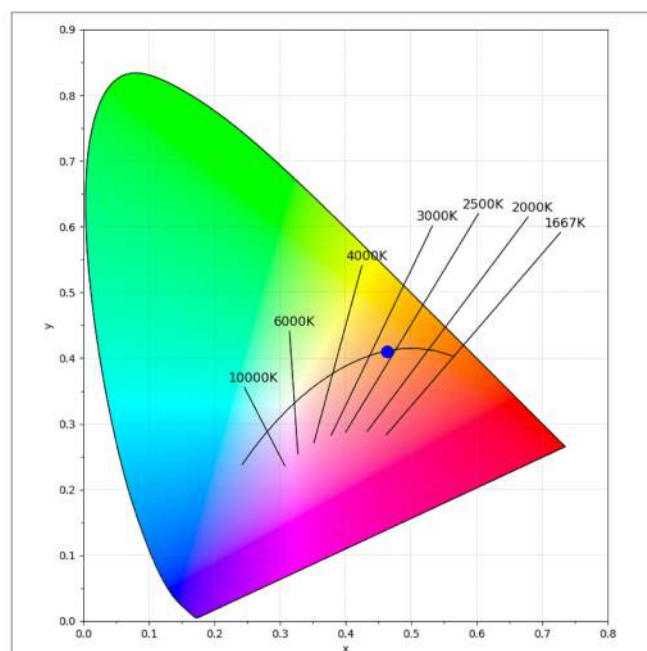
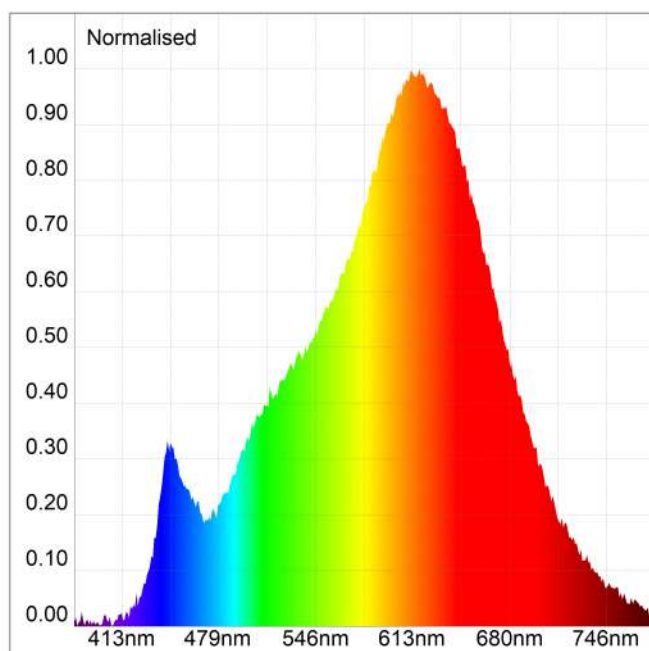
S/P ratio = 1.27574
CCT = 2633 K

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

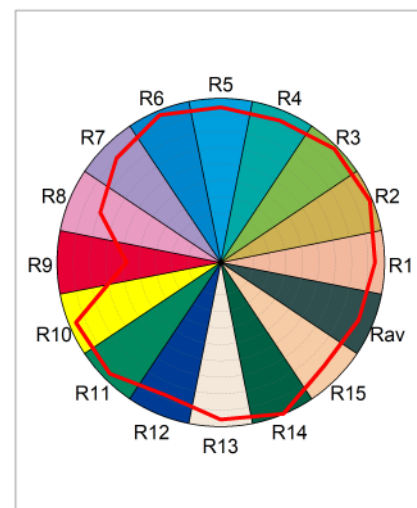
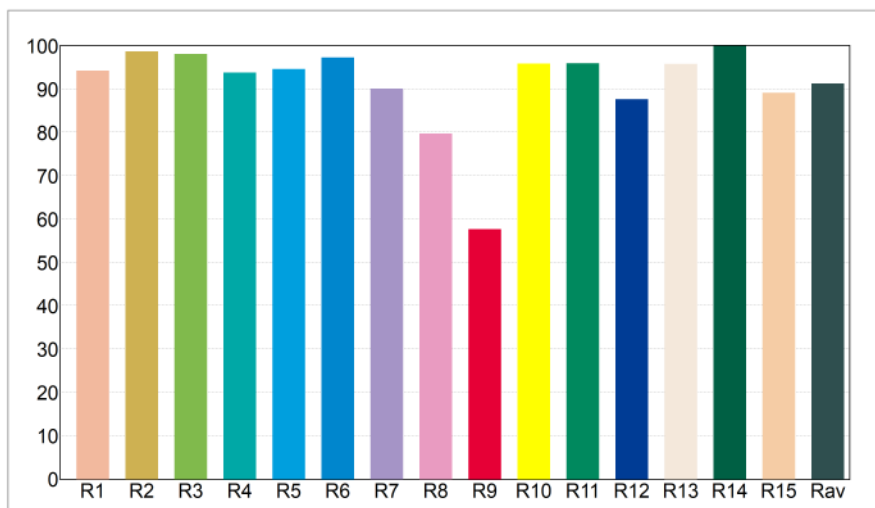
Code 19603400xxx
Name Nut B/90 Outdoor

Measurem.

Code CL092A22F031GE1
Name Nut B/90 Outdoor

Luminaire Flux	374.18 lm	Luminaire Power	7.99 W	Efficacy	46.83 lm/W	Efficiency	100.00%
Sources Flux	374.18 lm	Maximum value	177.75 cd	Position	C=90.00 G=17.50	CG	Sym. on planes 270-90

CRI Graphs



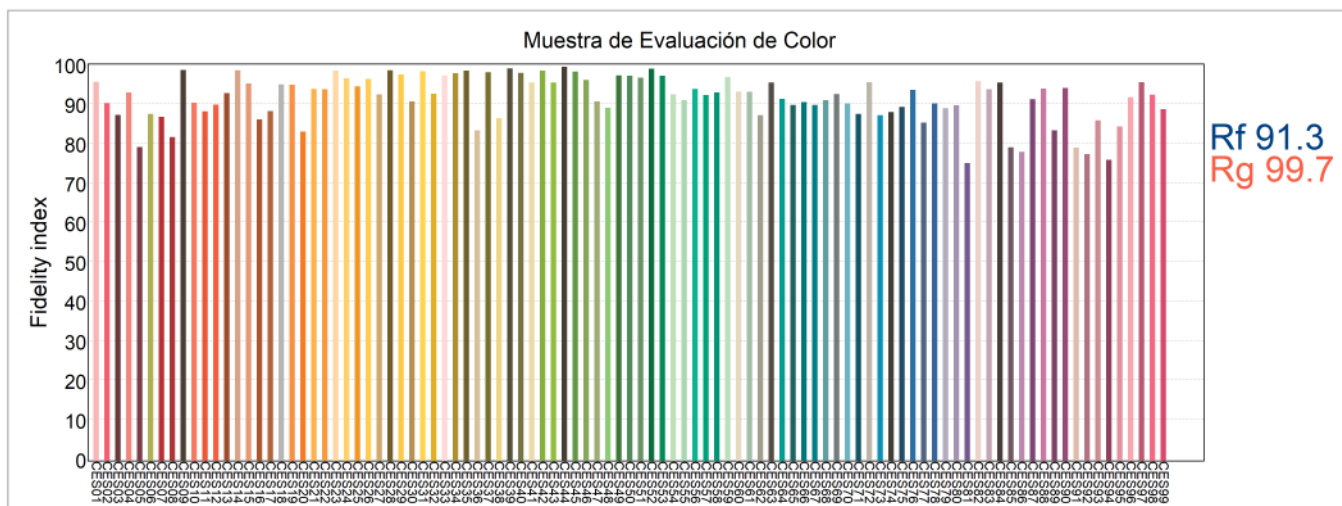
Luminaire

Code 19603400xxx
Name Nut B/90 Outdoor

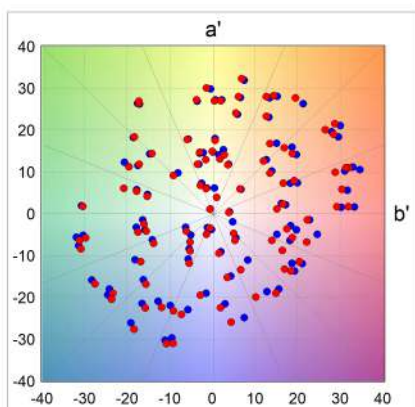
Measurement

Code CL092A22F031GE1
Name Nut B/90 Outdoor

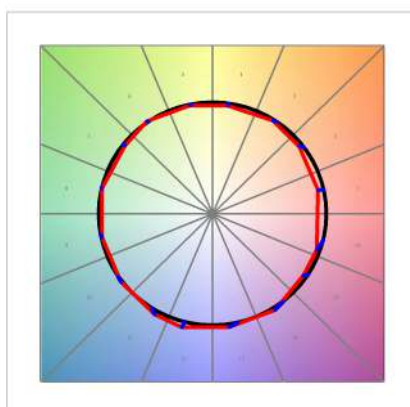
Luminaire Flux	374.18 lm	Luminaire Power	7.99 W	Efficacy	46.83 lm/W	Efficiency	100.00%
Sources Flux	374.18 lm	Maximum value	177.75 cd	Position	C=90.00 G=17.50	CG Sym. on planes	270-90



Chromatic Coordinates (a', b') 99 CES



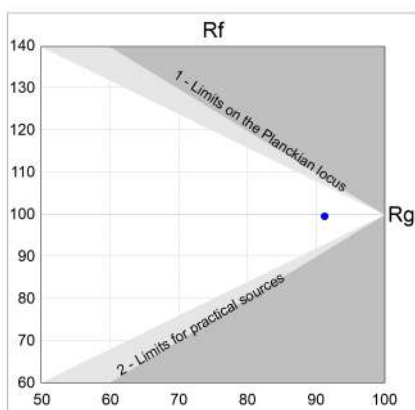
Color Vector Graphic



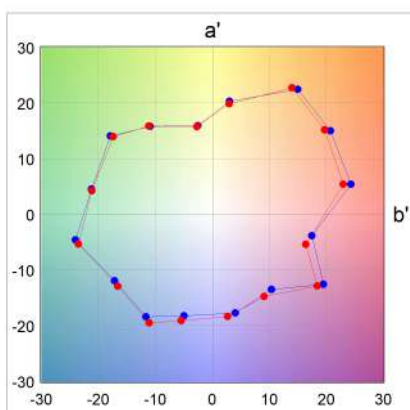
Color Distorsion Graphic



Rg vs Rf Plot



Gamut Polygon



Bin Deviation

